ANÁLISIS TRANSVERSAL DEL ESTUDIO DE CASO KEYCONET

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Organizan: Nodo español Keyconet

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1. Introducción: *variables compartidas* en el estudio de caso múltiple KeyCoNet

El seguimiento de cada una de las diecinueve iniciativas que integran el estudio de caso múltiple promovido durante los años 2013 y 2014 por KeyCoNet, indica que éstas comparten muchas de las variables que las definen y conforman (necesidades que las motivan; momento histórico de su desarrollo; propósitos, prácticas y estrategias; aspectos facilitadores, obstáculos y desafíos para su implementación, etc.). Asimismo se observa la especificidad que cada una de estas iniciativas ha alcanzado a través de la contextualización de las *características que comparte con las demás* y el aporte genuino de sus propuestas. Todos estos aspectos han facilitado el señalamiento de las recomendaciones sobre la implementación de las competencias clave en la educación primaria y secundaria que KeyCoNet aporta en torno a los siguientes ámbitos:

- Factores facilitadores comunes.
- Obstáculos y desafíos comunes.
- Recomendaciones políticas a nivel nacional o regional.
- Recomendaciones políticas a nivel escolar.
- Recomendaciones a nivel europeo

Con el propósito de seguir enriqueciendo estas recomendaciones, nos centramos en la confluencia de las mencionadas vertientes (por un lado, la existencia de una cierta **similitud** entre las iniciativas a expensas de las ***variables compartidas*** y por otro, la expresión de la **diversidad** con que éstas se concretan en los respectivos iniciativas a través de **propuestas específicas y particulares**) con la intención de observar y describir el modo en que unas y otras interaccionan dando forma a **un auténtico entramado que vertebra los distintos casos de este estudio múltiple** y los muestra como parte de un "todo posible" para el desarrollo de los principios del modelo competencial atendiendo a la diversidad de los contextos (sociales, educativos, culturales, etc.) Interesa, evidentemente, describir las **características de este entramado constituido entre *variables compartidas* y concreciones particulares** en tanto esta perspectiva podría contribuir al conjunto de las recomendaciones que aporta KeyCoNet.

Para concretar este propósito, se propone el planteamiento observacional y descriptivo de los **estudios transversales** *(cross-sectional study)* señalando la posibilidad que el mismo ofrece respecto a poder observar y describir muchas variables diferentes en un momento

temporal puntual (Méndez Ramírez, Namihira Guerrero, Moreno Altamirano, Sosa de Martínez, 2001)[1]. En esta circunstancia, las variables que se pretenden observar y describir al mismo tiempo, con la intención de establecer conexiones entre todas ellas para configurar el mencionado entramado, son las siguientes: 1) las variables que se relacionan con los aspectos compartidos, ya sea por un grupo de las iniciativas estudiadas en el caso múltiple o por todas ellas; y 2) las variables que expresan la singularidad de las concreciones de cada iniciativa.

Con el conjunto de este tipo de descripciones se pretende alcanzar "fotos panorámicas" enlazadas entre sí reflejando las características transversales que configuran este estudio y, como si fuera un entramado, señalando su continuidad y unicidad.

En síntesis, se aborda la realización de un estudio transversal, con carácter retrospectivo, de las 19 iniciativas incluidas en el estudio de caso múltiple KeyCoNet, atendiendo a la información que aportan los respectivos informes y considerando las puntualizaciones que los responsables de dichas iniciativas han considerado oportuno indicar. El Informe final da cuenta de este proceso, en el que se interrelacionan producciones parciales con una visión de conjunto del estudio de caso múltiple.

2. Agrupamiento de las iniciativas atendiendo a la particularidad de sus respectivas características

Cada una de las iniciativas incluidas en el estudio de caso múltiple KeyCoNet constituye un fenómeno particular y complejo dentro de un todo unido por un interés común: potenciar la integración de las competencias clave en la educación de los ciudadanos europeos. Su análisis requiere un acercamiento recursivo a los relatos aportados en su momento por los responsables de cada iniciativa pretendiendo con ello, por un lado, interpretar y comprender en contexto sus características más representativas y por otro, reconocer posibles puntos de

[1] Méndez Ramírez, D.; Moreno Altamirano, L. & Sosa de Martínez, C. (2001). Diferentes tipos de estudios. En: I. Méndez Ramírez et al. *El protocolo de investigación.* México: Trillas.

intersección entre unas y otras. Se consideró que estos puntos conducirían a la identificación de *variables compartidas* entre las iniciativas, eje fundamental para el desarrollo de este estudio transversal.

Para que el proceso de identificación de *variables compartidas* resultara operativo, se distribuyeron las diecinueve iniciativas en distintos agrupamientos y, para garantizar una visión global de las mismas en relación con las variables que comparten, se planificó conectar, en un momento avanzado del estudio, las *variables compartidas* registradas en cada uno de los grupos. Por tanto, una vez que se dispuso de un bagaje de conocimiento sobre las distintas iniciativas, se decidió su distribución en torno a cuatro tópicos. Esta organización permitió acceder tanto a la información compartida entre las iniciativas incluidas en cada grupo, así como, a sus aspectos diferenciadores y particulares. La agrupación de las iniciativas siguiendo estos criterios se distribuyó tal como se señala a continuación.

GRUPO y características de las iniciativas incluidas en cada uno	Tópico	Iniciativa (N=19)	Socios	Códigos
El **Grupo A** está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que destacan por la decidida y fuerte colaboración profesional que prestan diferentes ámbitos sociales (culturales, científicos, empresariales, diseño, etc.) a la realización de acciones educativas diversas (programas en el contexto escolar y/o en la formación continua; investigaciones; etc.) cuyo fin último es fomentar el desarrollo de las competencias clave en la población estudiantil.	Cooperación de profesionales de distintos sectores en la realización de acciones educativas, en contexto de aula y/o de formación inicial o continua del profesorado, cuyo fin último es fomentar el desarrollo de las competencias clave en la población estudiantil	***Global Enterprise Project* (GEP)** 11 European countries: Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Romania, Slovakia, Spain, Sweden.	- European Round Table of Industrialists - European Schoolnet Coordinator: *Junior Achievement Young Enterprise* (JA-YE) *Europe*.	**GA-CS 1**
		***Science and Technology for All* (STA)** Sweden	- The Royal Swedish Academy of Science and the Royal Swedish. - Academy of Engineering Science in cooperation with municipalities throughout Sweden.	**GA-CS 2**
		Co-Designing 21st Century Secondary School Natural Science Learning	- Jyväskylä Teacher Training School - University Properties of Finland Ltd.	**GA-CS 3**

		Environments Finland		
		Students' Academy Poland	- International Institute for Molecular and Cell Biology. - Polish-American Freedom Foundation.	**GA-CS 4**
		The Cultural Rucksack Norway	- Ministry of Culture and Ministry of Education and Research.	**GA-CS 5**
		The Entrepreneurial School Europe	- JA-YE Europe - European Schoolnet - The European Round Table of Industrialists (ERT) - University of Warwick [UK] - Junior Achievement Slovakia[SK] - Lappeenranta University of Technology [FI] - Junior Italia [IT] - University College Copenhagen [DK] - Fundacja Mlodziezowej Przedsiebiorczosci (JA Poland) [PL] - Ungt Entreprenorskap (JA-YE Norway) [NO] - Apreender a Empreender (JA Portugal) [PT]	**GA–CS 6**
El **Grupo B** está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que se interesan, desde sus respectivas propuestas, por la integración de las competencias clave en los procesos de evaluación del alumnado entendiendo que esta perspectiva da un adecuado soporte a las necesidades de aprendizaje que en este colectivo suelen presentarse. En todos los casos queda reflejada, de una u otra manera, la relación que se establece entre la perspectiva competencial de la evaluación del alumnado y la integración de las	Integración de las competencias clave en los procesos de evaluación del alumnado dentro del marco de las actuales reformas curriculares y estableciendo conexiones con la revisión de las prácticas de enseñanza: su proyección en el incremento competencial de todo el	***Core Curriculum Programme*** Malta		**GB-CS 7**
		Building a culture of achievement through the ASDAN Certificate of Personal effectiveness (CoPE) England	5,000 schools, colleges and training providers are registered as examination centres with ASDAN across the UK.	**GB-CS 8**
		Competences and self esteem France	The *Rectorat* of Bordeaux and national body in charge of the follow up of innovations and pedagogical pilot projects. Local level project concerning all students, the pedagogical community of the *Collège* and parents.	**GB-CS 9**

competencias clave en las prácticas de enseñanza (y su consecuente formación profesional).	alumnado entendiendo su diversidad	***TRANSversal key competences for lifelong learning: TraIning teachers in competence based education* [TRANSIt]** 6 countries participating, which are Member States of the European Union.	The consortium formed was a "mixed partnership" with partners cut across all sectors of education: it is composed by one university, one private primary and secondary education school, one company, one Ministry of Education and two research centres one affiliated with a university and the second with the Greek Ministry of Education, Life Long Learning and Religious Affairs.	**GB-CS 10**
		Cross-Curricular Final Objectives@2010 Belgium (Flandes)		**GB-CS 11**
El **Grupo C** está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, focalizan el desarrollo de programas que guían y orientan a los equipos docentes en la implementación de los cambios relacionados con la programación y el desarrollo de prácticas de enseñanza que plantea la integración curricular de las competencias clave. En todo caso, se trata de iniciativas que, teniendo como referente la evaluación competencial del alumnado, son organizadas en contextos de formación continua y/o de orientación del profesorado pretendiendo afianzar el desarrollo profesional de los equipos docentes y entendiendo la diversidad de recorridos en	Programas de apoyo a los equipos docentes en el proceso de cambios hacia prácticas de enseñanza que integran las competencias clave incluidas en los lineamientos curriculares actuales: un tránsito de ida y vuelta constante que se proyecta en el desempeño competencial del alumnado y se retroalimenta en los contextos de formación continua del profesorado	***Key Skills of Junior Cycle*** Ireland	The Department of Education and Skills, State Examinations Commission, Teachers' Unions, School Management bodies and other stakeholders in education are supportive of this initiative.	**GC-CS 12**
		Project Maths Ireland	This project constitutes a *united front* and the collaboration between policy stakeholders: – National Council for Curriculum and Assessment (NCCA) – Department of Education and Skills (DES): a. Maths Inspectorate b. Teacher Education Section (TES) (includes the *Project Maths* Development Team) – State Exams Commission (SEC)	**GC-CS 13**
		Curricular Integration of key Competences Programme (COMBAS) Spain	Ministry of Education, Culture and Sports, educational authorities of 15 autonomous communities.	**GC-CS 14**

este campo		***Programme for the Curricular Integration of Key Competences* (PICBA)** Andalusia (Spain)	Department for Education of the Regional Government of Andalusia (Spain)	**GC-CS 15**
El **Grupo D** está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, se centran en el uso pedagógico de las herramientas TICs en contextos de enseñanza, aprendizaje, gestión, formación docente, asesoramiento, etc. Se trata de iniciativas que focalizan, prioritariamente, el papel de estas herramientas en la resolución de tareas que implican, según el caso, a distintos protagonistas afianzando su desarrollo competencial, sean estudiantes o profesionales de la educación (desarrollos que en muchas ocasiones están interconectados aunque las actuaciones pertenezcan prioritariamente a uno u otro colectivo).	Utilización pedagógica de las herramientas TICs en el contexto de distintas prácticas del entorno escolar (enseñanza, aprendizaje, gestión, formación, asesoramiento, etc.), entendiendo que la competencia digital desarrollada por los interesados en estos contextos repercute en la mejora de sus aprendizajes (de los profesionales de la educación y/o de los estudiantes)"	***Mobile Learning Tutors*** Austria	– eLSA – ENIS Austria – eLearning Cluster Austria	**GD-CS 16**
		ICT management and assessment model for schools Estonia	– Schools (administration and ICT departments)	**GD-CS 17**
		Eduscratch Portugal	- Directorate General of Education (DGE) - Ministry of Education and Science - School of Education: Setúbal Polytechnic Institute - Sapo Portal (Portugal Telecom)	**GD-CS 18**
		Teaching Tools Database Poland		**GD-CS 19**

3. Identificación de *variables compartidas* entre las iniciativas incluidas en cada uno de los grupos

Esta etapa del análisis transversal se caracterizó por un abordaje minucioso y detallado de las características que configuran cada una de las iniciativas incluidas en los grupos (A, B, C y D), tal como se recoge en los respectivos Anexos que acompañan este estudio, identificados,

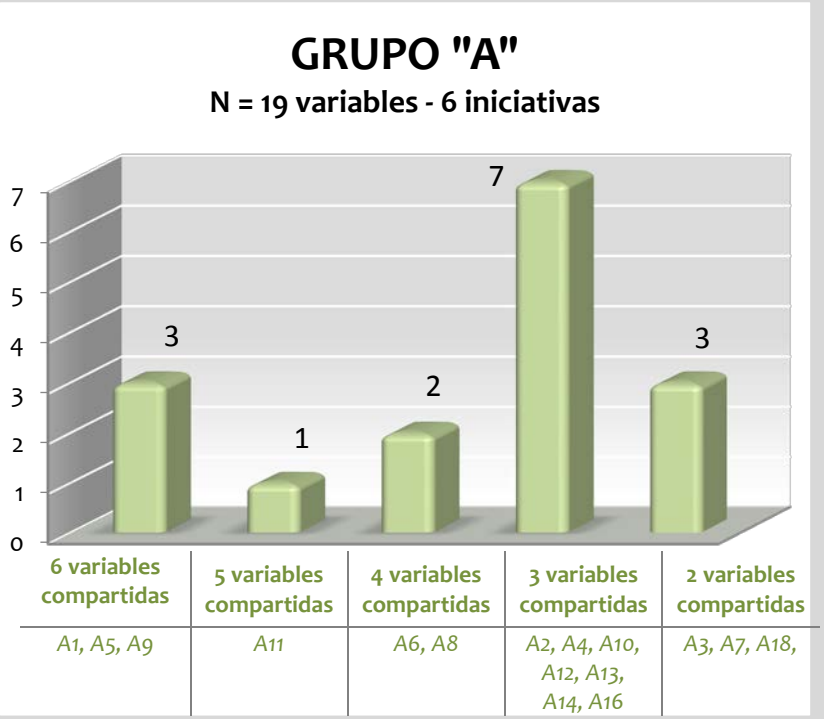
a su vez, con las mismas marcas notacionales. El esquema seguido para registrar esta información, atendiendo a la transparencia que ha pretendido ofrecer este trabajo, siguió el siguiente encadenamiento de actuaciones relacionadas entre sí:

a. Realización de un barrido pormenorizado de cada iniciativa (siendo identificada con su respectivo código) para registrar los aspectos que se consideraron relevantes en cada una de ellas a efectos de este análisis. Recogida de segmentos textuales para ser incluidos bajo un rótulo construido *ad hoc* con la intención de describir el contenido de la variable identificada. Es decir, tal como se señala en cada uno de los Anexos, se adjuntan los segmentos de textos extraídos de las distintas iniciativas que justifican, a juicio de los autores, su inclusión en determinadas variables).

b. Reunión, bajo una misma variable (constructo que describe la información identificada) de tantos segmentos textuales como iniciativas tuvieran características similares. En cada grupo se identificó un número determinado de variables y, en cada una de ellas, se especificó la cantidad de iniciativas que presentan características para considerar su inclusión en la misma (es decir, cantidad de veces que se comparte una misma variable). Se aportan los respectivos textos para justificar el registro de variables compartidos, situación que se resume en los siguientes cuadros:

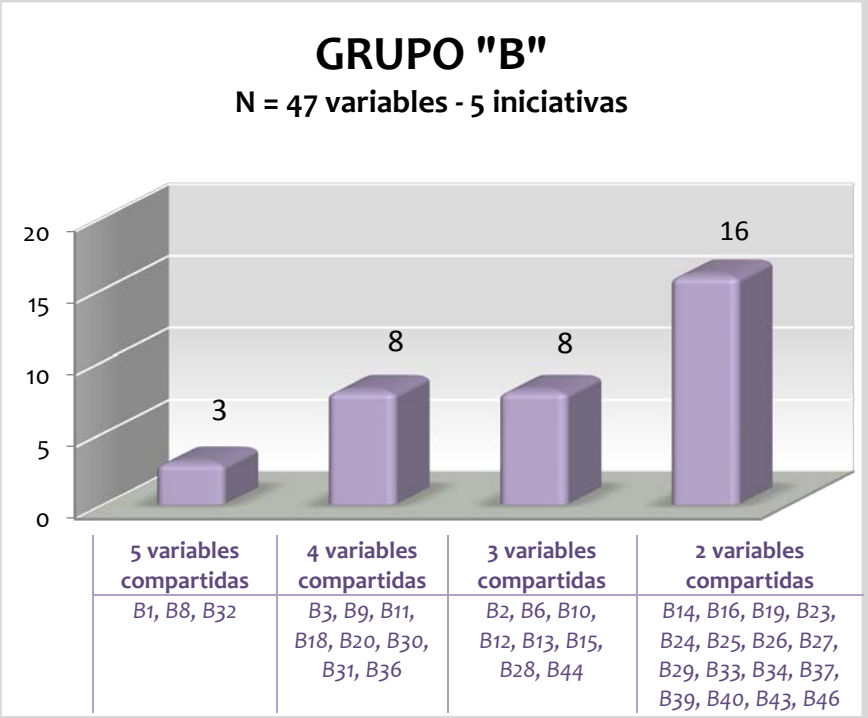
- Grupo A: 19 variables
- Grupo B: 47 variables
- Grupo C: 44 variables
- Grupo D: 38 variables

Anexo A



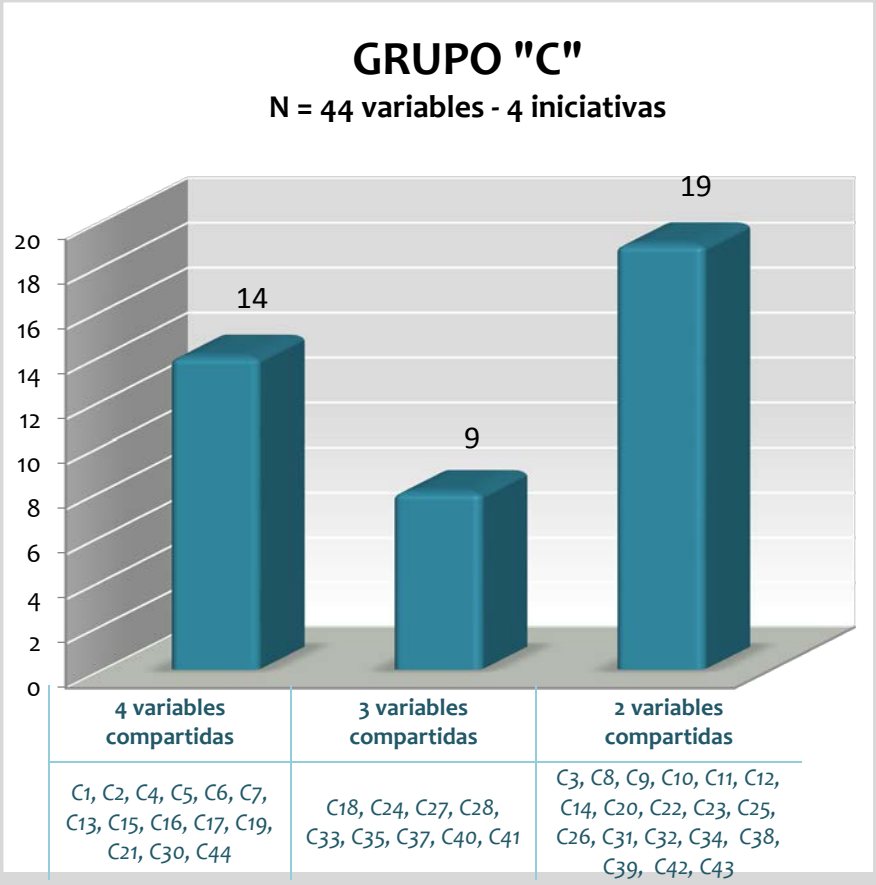
Variables no compartidas (GA): 3
(A15, A17, A19)

Anexo B



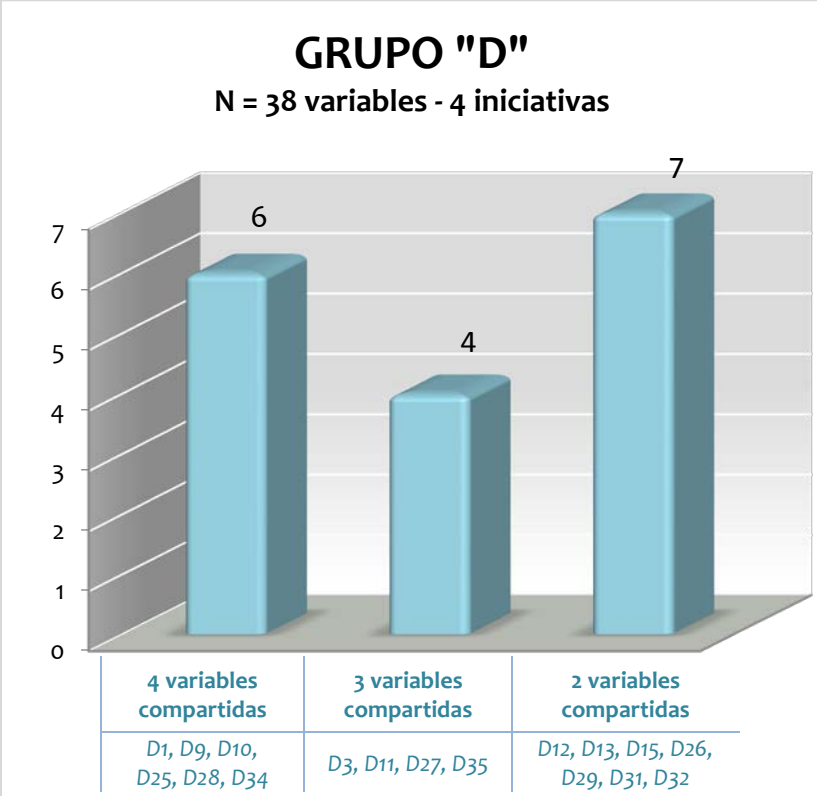
Variables no compartidas (GB): 12
B4, B5, B7, B17, B21, B22, B35, B38, B41, B42, B45, B47

Anexo C



Variables no compartidas (GC): 2
C29, C36

Anexo D



Variables no compartidas (GD): 21
(D2, D4, D5, D6, D7, D8, D14, D16, D17, D18, D19, D20, D21, D22, D23, D24, D30, D33, D36, D37, D38)

Anexo A:

Resumen: variables seleccionadas en el Grupo A: 6 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet (Código de las iniciativas: GA-CS 1; GA-CS 2; GA-CS 3; GA-CS 4; GA-CS 5; GA-CS 6)

GC	Variables identificadas	Nº de veces que se COMPARTE
A1	La iniciativa se asienta en actuaciones realizadas con anterioridad (programas, investigaciones, etc.) y aporta su particularidad respecto a la implementación del modelo competencial asumido por el curriculum/programa oficial.	6
A2	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de etapa secundaria (en distintos contextos: educación formal; informal; formal e informal; etc.).	3
A3	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	2
A4	Transversalidad curricular y competencias clave	3
A5	Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.	6
A6	Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	4
A7	La participación de instituciones universitarias y/o de centros de formación inicial del profesorado en la dinámica y fundamentación de la iniciativa.	2
A8	Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	4
A9	Instituciones de carácter científico, cultural, empresarial, etc. apoyan a los docentes en la tarea de facilitar el desarrollo competencial del alumnado.	6
A10	El equipo docente se constituye en una comunidad de estudio dedicada a analizar metodologías que facilitan el desarrollo de las competencias clave en el alumnado.	3
A11	La relación entre las tareas que resuelve el alumnado y el desarrollo de su perfil competencial.	5
A12	El aprendizaje entre iguales (alumnado)	3
A13	Relaciones entre actividades curriculares y extra curriculares	3
A14	Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	3
A15	Espacios escolares que propician el aprendizaje competencial.	1

A16	La Website como contexto de comunicación y seguimiento de las propuestas.	**3**
A17	Publicación (*online* o impreso) de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a fomentar los aprendizajes y la evaluación competencial.	**1**
A18	Inclusión de las familias en el desarrollo de las actividades del alumnado.	**2**
A19	Herramientas online para la formación del profesorado en relación con el desarrollo de competencias por parte del alumnado.	**1**

Anexo B:

Resumen: variables seleccionadas en el Grupo B (5 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet): Código de las iniciativas: GB-CS 7; GB-CS 8; GB-CS 9; GB-CS 10; GB - CS 11

GB	Variables identificadas	Nº de veces que se COMPARTE
B1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	**5**
B2	Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.	**3**
B3	Propiciar, acorde con la realidad europea actual, una educación que potencie el desarrollo competencial de todos los estudiantes, poniendo un especial énfasis en el alumnado vulnerable (inclusión educativa).	**4**
B4	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**1**
B5	Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).	**1**
B6	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**3**
B7	Informe sobre el impacto en distintos países europeos del modelo competencial en términos de efectividad y eficiencia del proceso de formación.	**1**
B8	La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**5**

B9	Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	**4**
B10	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: ¿cómo relacionar el enfoque competencial -su terminología, dimensión y alcance- con las propias prácticas de enseñanza y de evaluación del aprendizaje del alumnado?	**3**
B11	El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**4**
B12	Dificultades para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.	**3**
B13	El arraigo de la cultura de la evaluación del rendimiento lentifica el cambio hacia la evaluación competencial.	**3**
B14	La continuación de la doble evaluación del alumnado (evaluación del desempeño, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.	**2**
B15	Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**3**
B16	Necesidad de coordinación fluida y cooperativa: conectar servicios pedagógicos, experiencias, conocimientos, líneas de trabajo, recursos, etc.	**2**
B17	El rol del tutor (mentor) para el desarrollo competencial del alumnado con dificultades de aprendizaje.	**1**
B18	El cambio hacia la evaluación competencial analizado desde la perspectiva del alumnado	**4**
B19	La enseñanza parcelada por asignaturas/departamentos incide negativamente en la implementación de la evaluación competencial.	**2**
B20	La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**4**
B21	Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de evaluación que integra objetivos y competencias.	**1**
B22	Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.	**1**
B23	La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**2**
B24	Participación de los docentes en la elaboración de materiales.	**2**
B25	El "portafolio" como estrategia para el seguimiento del desarrollo de las habilidades fundamentales (genéricas y transversal al curriculum).	**2**
B26	Herramientas digitales para el seguimiento del desarrollo competencial del alumnado.	**2**
B27	Certificar el desarrollo de las habilidades fundamentales que alcanza el alumnado.	**2**
B28	Propuestas de evaluación que ofrecen alternativas de aprendizaje al alumnado con bajos niveles de logro (diversidad e inclusión)	**3**

B29	Los estudiantes y sus familias reflejan su apreciación respecto a la coherencia entre las actividades realizadas en el aula y el proceso de evaluación del alumnado.	**2**
B30	Los docentes consideran un problema la demanda de tiempo que requiere la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje.	**4**
B31	La cultura de la colaboración en el contexto del equipo docente (departamentos, ciclos, etc.) propicia la implementación del cambio que propone el modelo competencial.	**4**
B32	El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	**5**
B33	Programar las prácticas de enseñanza integrando las competencias clave, desarrolla estrategias profesionales para coordinar y orientar el proceso de enseñanza y evaluación del alumnado.	**2**
B34	Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado	**2**
B35	La integración curricular de las competencias requiere una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	**1**
B36	Transversalidad curricular y competencias clave	**4**
B37	Servicio de consulta/orientación educativa destinado a las escuelas.	**2**
B38	Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	**1**
B39	Colaboración entre las escuelas y los servicios externos con el objeto de responder a las necesidades competencias del alumnado	**2**
B40	La implicación del equipo directivo de la escuela es importante para el desarrollo de la iniciativa.	**2**
B41	Trabajo colaborativo entre las escuelas y la supervisión educativa.	**1**
B42	Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**1**
B43	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**2**
B44	La Website como contexto de comunicación y seguimiento de las propuestas.	**3**
B45	Poner a disposición de las familias materiales sobre el desarrollo competencial.	**1**
B46	La participación de las universidades y/o instituciones de formación inicial del profesorado en la dinámica y justificación de la iniciativa.	**2**
B47	Relaciones entre actividades curriculares y extra-curriculares.	**1**

Anexo C:

Resumen: variables seleccionadas en el Grupo C (4 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet)
Código de las iniciativas: GC-CS 12; GC-CS 13 GC-CS 14; GC-CS 15

GC	Variables identificadas	Nº de veces que se COMPARTE
C1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	4
C2	La iniciativa se apoya en experiencias y recursos aportados por programas realizados con anterioridad sobre la integración de las competencias clave en la enseñanza y el aprendizaje: ¿qué funciona en las aulas?	4
C3	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	2
C4	Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	4
C5	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: de un cuerpo de conocimiento organizado y evaluado linealmente a otro centrado en la resolución de problemas.	4
C6	La administración educativa reflexiona acerca de cómo acompañar a los docentes a interpretar la reforma curricular en sus prácticas de enseñanza y en la evaluación de los aprendizajes del alumnado.	4
C7	La iniciativa constituye un programa oficial diseñado ad hoc para fomentar la integración de las competencias clave en las prácticas de enseñanza y evaluación del aprendizaje.	4
C8	Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.	2
C9	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	2
C10	Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).	2
C11	Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	2
C12	Proporcionar a la cultura escolar un marco referencial que permita conectar el curriculum oficial con la realidad del aula: niveles de integración curricular de las competencias clave en los procesos de programación y desarrollo de las prácticas de enseñanza.	2

C13	La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	4
C14	Coordinación entre administraciones educativas de distinto ámbito gubernamental (nacional/regional; regional/provincial/municipal)	2
C15	Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	4
C16	El equipo docente se constituye en una comunidad de estudio dedicada a analizar la integración curricular de las competencias clave.	4
C17	Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.	4
C18	La cultura de la colaboración en el "día a día" escolar (departamentos, ciclos, etc.) ayuda a comprender la integración de las competencias en la enseñanza, el aprendizaje y la evaluación.	3
C19	El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	4
C20	La integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado requiere que los docentes sean competentes en la disciplina de la asignatura y en temas pedagógicos.	2
C21	Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.	4
C22	El equipo directivo de la escuela ejerce un papel decisivo en los procesos de cambio que implica la integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	2
C23	Trabajo colaborativo entre las escuelas y la supervisión educativa.	2
C24	La Website como centro de recursos y contexto de comunicación.	3
C25	Herramienta online que apoya al docente en la tarea de integrar las competencias clave en la enseñanza y en la evaluación de los aprendizajes del alumnado.	2
C26	La resolución de tareas en la formación del profesorado: desarrollo profesional.	2
C27	La integración curricular de las competencias requiere hacer una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	3
C28	El docente opina que la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje exige demasiado tiempo.	3
C29	Los libros de texto escolar: necesidad de que sean compatibles con el modelo competencial.	1
C30	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	4

C31	Inclusión de las familias en el desarrollo de la iniciativa.	2
C32	Certificar el desarrollo de las competencias fundamentales que alcanza el alumnado.	2
C33	El alumnado tiene que estar activamente implicado en su aprendizaje competencial.	3
C34	Dificultades de los docentes para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.	2
C35	El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	3
C36	La continuación de la doble evaluación del alumnado (evaluación del rendimiento, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.	1
C37	El arraigo de la cultura de la evaluación por rendimiento lentifica el cambio hacia la evaluación competencial.	3
C38	Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de evaluación que integra objetivos y competencias.	2
C39	Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.	2
C40	La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	3
C41	La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	3
C42	Es necesario "Evaluar la evaluación competencial" focalizando los logros del alumnado y la forma de armonizarla con los objetivos curriculares.	2
C43	La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes.	2
C44	Las competencias clave y la investigación (universidades, centros de investigación, etc.)	4

Anexo D:

Resumen: variables seleccionadas en el Grupo D (4 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet): Código de las iniciativas: GD-CS 16; GD-CS 17 GD-CS 18; GD-CS 19

GD	Variables identificadas	Nº de veces que se COMPARTE
D1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con el uso pedagógico de las herramientas TICs y el consecuente desarrollo competencial que el mismo propicia.	4

D2	La iniciativa constituye un programa oficial diseñado ad hoc con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**1**
D3	La iniciativa constituye un programa diseñado ad hoc entre distintos socios (de ámbito público y/o privado) con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**3**
D4	La iniciativa se genera a partir de una colaboración entre distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas.	**1**
D5	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación secundaria.	**1**
D6	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación básica.	**1**
D7	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**1**
D8	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial de los estudiantes.	**1**
D9	Las TICs como herramienta principal para alcanzar propósitos pedagógicos, formativos, consultivos, de gestión escolar, etc.	**4**
D10	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado y de la gestión escolar en su conjunto: de las TICs como objeto al uso pedagógico de las TICs como herramientas pedagógicas.	**4**
D11	Despliegue de la iniciativa a partir de una propuesta formativa inicial centrada en el desarrollo de la competencia digital.	**3**
D12	Transversalidad curricular y competencias clave	**2**
D13	Coordinar las acciones desde una organización central dando protagonismo a la red de participantes.	**2**
D14	Organizar una red de formadores de docentes.	**1**
D15	Integrar al plan de formación docente la perspectiva que aportan expertos en diversas disciplinas (enfoque multidisciplinar).	**2**
D16	Conveniencia de que los integrantes del equipo profesional compartan entre ellos los temas y la fundamentación del conocimiento que cada uno de ellos aporta a la formación (enfoque transdisciplinar).	**1**
D17	Sesiones de formación dirigidas a los gestores escolares.	**1**
D18	Grupos de expertos evalúan el uso de las TICs en la gestión escolar y emiten informe orientador	**1**
D19	Auto-evaluación del equipo escolar	**1**
D20	Recursos para el docente: tareas y buenas prácticas que fomentan el desarrollo competencial del alumnado.	**1**
D21	La necesidad de reflexionar acerca de las características de las tareas que propician el desarrollo de las competencias clave.	**1**
D22	Relaciones entre las tareas y las competencias específicas que su resolución permite desarrollar.	**1**
D23	Participación de los docentes en la elaboración de materiales que la iniciativa incluye en su propuesta.	**1**
D24	Los libros de texto escolar: la necesidad de que sean compatibles con el modelo competencial	**1**

D25	El equipo docente se constituye en una comunidad de estudio dedicada a analizar el uso pedagógico y/o en la gestión escolar de los entornos de las TICs.	**4**
D26	El equipo directivo ejerce un papel decisivo en el desarrollo de la iniciativa en ámbito escolar.	**2**
D27	Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**3**
D28	El intercambio de experiencias, estrategias, consultas, etc. entre los equipos docentes favorece el desarrollo profesional de los docentes.	**4**
D29	La cultura de la colaboración propicia que todos los participantes (alumnado, profesorado, formadores, equipo directivo, etc.) logren mejores niveles competenciales.	**2**
D30	Coordinación fluida y cooperativa para gestionar la conexión de experiencias, conocimientos, líneas de trabajo, recursos, etc.	**1**
D31	El profesorado recibe certificación de la formación continua que recibe en el contexto de la iniciativa.	**1**
D32	La escuela asume un compromiso con la iniciativa.	**2**
D33	La escuela tiene que disponer de infraestructura TICs para desarrollar la iniciativa.	**2**
D34	Responsabilidad del alumnado en relación con el uso de las TICs.	**1**
D35	La Website como contexto de comunicación y seguimiento de las propuestas.	**4**
D36	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**3**
D37	Participación familiar	**1**
D38	La participación de las instituciones académicas (universidades, centros de investigación o centros de formación inicial del profesorado) en la dinámica y/o investigación de la iniciativa.	**1**
D39	La importancia de informar/difundir/promocionar en el ámbito docente las posibilidades que ofrecen los recursos virtuales sobre prácticas de enseñanza y evaluación, y competencias.	**1**

4. Análisis de las *variables compartidas* entre las iniciativas incluidas en cada uno de los grupos

El panorama que aportan las variables compartidas de cada grupo ofrece la posibilidad de vislumbrar la variedad de abordajes que, sobre similares temáticas y/o propuestas, presentan las distintas iniciativas. Este es el motivo por el cual la lectura transversal de los distintos textos incluidos en cada *variable compartida* resulta de una gran riqueza a los efectos del análisis transversal. De ahí el valor de consultar los Anexos para establecer interesantes micro-análisis. Ahora bien, el sentido de este estudio transversal requiere que, además de este aspecto, se realice una lectura integradora y sistémica de las *variables compartidas* que se han identificado en todos los grupos. Para alcanzar este objetivo, se ha organizado un proceso de análisis relacional, tal como se detalla a continuación:

a. Identificación de las *variables compartidas* que relativamente tienen alta presencia en cada grupo respecto a la cantidad de iniciativas incluidas en el mismo.
b. Identificación de las *variables compartidas* en cada grupo que, aunque no tuviesen una presencia relativamente alta en su grupo respecto a la cantidad de iniciativas incluidas en el mismo, obtienen relevancia uniéndose con las de otros grupos con las que mantiene lazos de similitud.
c. Asociación de las variables compartidas identificadas según se indica en los puntos 4.1 y 4.2. en torno a ejes temáticos que, generalizando el contenido de dichas variables y observando la interrelación entre ellas, le den una marco significativo.

Los ejes temáticos seleccionados para ofrecer un marco referencial a este análisis integrador sirven, a su vez, como estructura para la realización del comentario interpretativo que plantea este informe. En el contexto de una FICHA-RESUMEN, cual si fuese una foto panorámica, se refleja la integración de variables *compartidas* en torno a un contexto, es decir, cada eje temático ofrece una foto acerca de cómo se interpreta la interrelación de las *variables compartidas* con mayor presencia en los distintos grupos.

Se identificaron seis ejes- temáticos, dando lugar a la misma cantidad de fichas-resumen:

- Ficha - resumen N.1: **La iniciativa retoma actuaciones anteriores y las continúa dándole su particularidad**
- Ficha - resumen N.2: **El equipo docente se convierte en una comunidad de estudio**
- Ficha - resumen N.3: **La iniciativa se desarrolla en cooperación con distintos sectores sociales**
- Ficha - resumen N.4: **El enfoque competencial propone un cambio de mentalidad que implica a toda la comunidad**
- Ficha - resumen N.5: **Iniciativas en las que la administración educativa trabaja mancomunadamente con las prácticas escolares**
- Ficha - resumen N.6: **Evaluación y tareas: la visión desde distintos ámbitos**

La estructura de cada una de la ficha -resume tiene en cuenta los siguientes datos:

- *Variables compartidas* provenientes de distintos grupos.
- Valor absoluto y valor relativo de las *variables compartidas* que se relacionan en el contexto de cada Ficha - Resumen.
- Cantidad de iniciativas que integran el grupo de procedencia de cada variable compartida (A, B, C y D).

FICHA - RESUMEN Nº 1

***Variables compartidas* en conexión con:**

La iniciativa retoma actuaciones anteriores y las continúa dándole su particularidad

VARIABLE	GRUPO	Iniciativas incluidas en el GRUPO	Valor absoluto de la variable compartida (en cada grupo)	Valor relativo de la variable compartida (en cada grupo)
La iniciativa se asienta en actuaciones realizadas con anterioridad (programas, investigaciones, etc.) y aporta su particularidad respecto a la implementación del modelo competencial asumido por el curriculum/programa oficial.	**A**	6	6	**100%**
La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	**B**	5	5	**100%**
La iniciativa se apoya en experiencias y recursos aportados por programas realizados con anterioridad sobre la integración de las competencias clave en la enseñanza y el aprendizaje: ¿qué funciona en las aulas?	**C**	4	4	**100%**
La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	**C**	4	4	**100%**
La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con el uso pedagógico de las herramientas TICs y el consecuente desarrollo competencial que el mismo propicia	**D**	4	4	**100%**
N=5	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN N°1:

La *variable compartida* **"La iniciativa se asienta en actuaciones realizadas con anterioridad (programas, investigaciones, etc.) y aporta su particularidad respecto a la implementación del modelo competencial asumido por el curriculum/programa oficial."** tiene una alta presencia en todas las iniciativas, si bien en los distintos grupos se relaciona con los contenidos que, respectivamente, son prioritarios en cada uno de ellos. Evidentemente, resulta significativo el valor otorgado a la experiencia que aporta "lo que se ha realizado" para abordar una revisión y/o continuidad atendiendo al proceso de integración de las competencias clave en la enseñanza y en la evaluación del alumnado. De ahí el nombre del eje que las aglutina: **"La iniciativa retoma actuaciones anteriores y las continúa dándole su particularidad".** En todo caso, cada una de las iniciativas aporta su particularidad en relación con las propuestas, los participantes, el contexto de concreción (ámbito formal y/o informal; actividades escolares y/o extraescolares; etc.), etc. Asimismo, cabe señalar que las *variables compartidas* de este eje se conectan con otras que están presentes en todos los grupos en relación con la etapa educativa a la que va dirigida cada iniciativa: tal como se puede observar en los respectivos resúmenes de grupos, se percibe un énfasis en las iniciativas dirigidas al alumnado de educación secundaria, si bien hay presencia de otras que abarcan toda la etapa obligatoria y hasta etapas posteriores. También se registra, en los grupos B y C, la variable compartida **"Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria)"** Esta variable compartida hace referencia a la posibilidad de establecer puentes entre todas las etapas educativas a través del desarrollo competencial y, por supuesto, a actuar desde un plano más sólido en este sentido desde edades tempranas.

FICHA - RESUMEN Nº 2

***Variables compartidas* en conexión con:**

El equipo docente se convierte en una comunidad de estudio

VARIABLE	GRUPO	Iniciativas incluidas en el GRUPO	Valor absoluto de la variable compartida (en cada grupo)	Valor relativo de la variable compartida (en cada grupo)
El equipo docente se constituye en una comunidad de estudio dedicada a analizar metodologías que facilitan el desarrollo de las competencias clave en el alumnado.	**A**	**6**	3	**50%**
Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo,	**A**	**6**	4	**80%**

recursos, etc.				
Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	**A**	**6**	3	**50%**
La Website como contexto de comunicación y seguimiento de las propuestas.	**A**	**6**	3	**50%**
La Website como contexto de comunicación y seguimiento de las propuestas.	**B**	**5**	3	**60%**
El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	**B**	**5**	5	**100%**
La cultura de la colaboración en el contexto del equipo docente (departamentos, ciclos, etc.) propicia la implementación del cambio que propone el modelo competencial.	**B**	**5**	4	**80%**
Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**B**	**5**	3	**60%**
Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**C**	**4**	2	**50%**
Proporcionar a la cultura escolar un marco referencial que permita conectar el curriculum oficial con la realidad del aula: niveles de integración curricular de las competencias clave en los procesos de programación y desarrollo de las prácticas de enseñanza.	**C**	**4**	2	**50%**
La Website como contexto de comunicación y seguimiento de las propuestas.	**C**	**4**	3	**75%**
El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	**C**	**4**	4	**100%**
Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.	**C**	**4**	4	**100%**
Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.	**C**	**4**	4	**100%**
Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**C**	**4**	4	**100%**
El equipo directivo de la escuela ejerce un papel decisivo en los procesos de cambio que implica la integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**C**	**4**	2	**50%**
La cultura de la colaboración en el “día a día” escolar (departamentos, ciclos, etc.) ayuda a comprender la integración de las competencias en la enseñanza, el aprendizaje y la	**C**	**4**	3	**75%**

evaluación.				
Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.	**C**	**4**	4	**100%**
Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**C**	**4**	4	**100%**
La cultura de la colaboración propicia que todos los participantes (alumnado, profesorado, formadores, equipo directivo, etc.) logren mejores niveles competenciales.	**D**	**4**	2	**50%**
El equipo docente se constituye en una comunidad de estudio dedicada a analizar el uso pedagógico y/o en la gestión escolar de los entornos de las TICs.	**D**	**4**	4	**100%**
Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**D**	**4**	3	**75%**
El intercambio de experiencias, estrategias, consultas, etc. entre los equipos docentes favorece el desarrollo profesional de los docentes.	**D**	**4**	4	**100%**
Las TICs como herramienta principal para alcanzar propósitos pedagógicos, formativos, consultivos, de gestión escolar, etc.	**D**	**4**	4	**100%**
N= 24	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN Nª2:

El eje **El equipo docente se convierte en una comunidad de estudio** aglutina un conjunto de *variables compartidas* que, con amplia presencia en los distintos grupos, se refieren, por una lado, a la posibilidad de que los equipos docentes funcionen en sus respectivas escuelas como una comunidad de aprendizaje a efectos de abordar la integración curricular de las competencias clave en los procesos de enseñanza y en la evaluación del alumnado, y por otro, a las condiciones que facilitan el funcionamiento de una comunidad dedicada a este tipo de estudio (coordinación, colaboración, intercambios de información, generación de ideas en conjunto, etc.). Es decir, este eje aporta una "imagen" que transmite el sentido de un conjunto de *variables compartidas* que, interrelacionadas, han sido viables para alcanzar sus objetivos a un amplio conjunto de iniciativas.

FICHA - RESUMEN Nº 3

Variables compartidas **en conexión con:**

La iniciativa se desarrolla en cooperación con distintos sectores sociales

VARIABLE	GRUPO	Iniciativas incluidas en el GRUPO	Valor absoluto de la variable compartida (en cada grupo)	Valor relativo de la variable compartida (en cada grupo)
Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.	**A**	**6**	4	**66,66%**
Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	**A**	**6**	4	**66,66%**
Instituciones de carácter científico, cultural, empresarial, etc. apoyan a los docentes en la tarea de facilitar el desarrollo competencial del alumnado.	**A**	**6**	6	**100%**
Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**A**	**6**	4	**67%**
Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	**A**	**6**	3	**50%**
La Website como contexto de comunicación y seguimiento de las propuestas.	**A**	**6**	3	**50%**
Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**B**	**5**	3	**60%**
La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**B**	**5**	5	**100%**
Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	**B**	**5**	4	**80%**
La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: ¿cómo relacionar el enfoque competencial -su terminología, dimensión y alcance- con las propias prácticas de enseñanza y de evaluación del aprendizaje del alumnado?	**B**	**5**	3	**60%**

La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**B**	**5**	4	**80%**
Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado	**B**	**5**	4	**80%**
Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.	**C**	**4**	4	**100%**
El equipo directivo de la escuela ejerce un papel decisivo en los procesos de cambio que implica la integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**C**	**4**	2	**50%**
La resolución de tareas en la formación del profesorado: desarrollo profesional.	**C**	**4**	2	**50%**
La iniciativa constituye un programa diseñado ad hoc entre distintos socios (de ámbito público y/o privado) con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**D**	**4**	4	**100%**
Integrar al plan de formación docente la perspectiva que aportan expertos en diversas disciplinas (enfoque multidisciplinar).	**D**	**4**	2	**50%**
Coordinar las acciones desde una organización central dando protagonismo a la red de participantes.	**D**	**4**	2	**50%**
N= **18**	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN Nª3:

El eje **La iniciativa se lleva a cabo en cooperación con diferentes sectores sociales** se construye estableciendo conexiones entre las *variables compartidas* que, teniendo una alta presencia en los grupos, describen, por un lado situaciones de colaboración entre el ámbito educativo y demás sectores sociales a efectos del desarrollo de una iniciativa y, por otro, condiciones predisponentes a la concreción de dicha colaboración. Es decir, este eje temático, en tanto constructo, ofrece un marco para poner en relación un conjunto de *variables compartidas* con marcada presencia en las distintas iniciativas y que, por sus características, cobran sentido al interconectarse.

FICHA - RESUMEN Nº 4

Variables compartidas **en conexión con:**

El enfoque competencial propone un cambio de mentalidad que implica a toda la comunidad

VARIABLE	GRUPO	Iniciativas incluidas en el GRUPO	Valor absoluto de la variable compartida (en cada grupo)	Valor relativo de la variable compartida (en cada grupo)
Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.	A	6	6	100%
Instituciones de carácter científico, cultural, empresarial, etc. apoyan a los docentes en la tarea de facilitar el desarrollo competencial del alumnado.	A	6	6	100%
Relaciones entre actividades curriculares y extra curriculares	A	6	6	50%
Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	B	5	4	80%
Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	B	5	3	60%
La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: ¿cómo relacionar el enfoque competencial -su terminología, dimensión y alcance- con las propias prácticas de enseñanza y de evaluación del aprendizaje del alumnado?	B	5	3	60%
Los docentes consideran un problema la demanda de tiempo que requiere la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje.	B	5	4	80%
Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.	C	4	2	50%
Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.) en torno al modelo de evaluación que integra objetivos y competencias.	C	4	2	50%
La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: de un cuerpo de conocimiento organizado y evaluado linealmente a otro centrado en la resolución de problemas.	C	4	4	100%
Proporcionar a la cultura escolar un marco referencial que permita conectar el curriculum	C	4	2	50%

oficial con la realidad del aula: niveles de integración curricular de las competencias clave en los procesos de programación y desarrollo de las prácticas de enseñanza.				
Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**C**	**4**	2	**50%**
La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**C**	**4**	3	**75%**
La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**C**	**4**	3	**75%**
Inclusión de las familias en el desarrollo de la iniciativa.	**C**	**4**	2	**50%**
La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes.	**C**	**4**	2	**50%**
Las competencias clave y la investigación (universidades, centros de investigación, etc.)	**C**	**4**	4	**100%**
El arraigo de la cultura de la evaluación por rendimiento lentifica el cambio hacia la evaluación competencial.	**C**	**4**	2	**50%**
El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**C**	**4**	3	**75%**
La integración curricular de las competencias requiere hacer una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	**C**	**4**	3	**75%**
La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**C**	**4**	3	**75%**
Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**D**	**4**	3	**75%**
La Website como contexto de comunicación y seguimiento de las propuestas.	**D**	**4**	4	**100%**
El intercambio de experiencias, estrategias, consultas, etc. entre los equipos docentes favorece el desarrollo profesional de los docentes.	**D**	**4**	4	**100%**
Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**D**	**4**	3	**75%**

El equipo docente se constituye en una comunidad de estudio dedicada a analizar el uso pedagógico y/o en la gestión escolar de los entornos de las TICs.	**D**	**4**	4	**100%**
N= 26	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN Nª4:

Hoy se asume que la educación formal está ante el desafío de interpretar y redefinir su papel como institución formadora de las generaciones jóvenes. Esto implica un cambio de mentalidad en quienes enseñan, aprenden y valoran lo aprendido. Es decir, de parte de todos los que, de una u otra manera, están relacionados con el quehacer educativo (profesorado, directivos, alumnado, familiares, administración, etc.). Ahora bien, la educación formal y su entorno constituyen tan sólo una parte del amplio entramado social que incide en esta formación, por tanto el cambio de mentalidad es una exigencia de la comunidad en su conjunto. Esta situación queda reflejada en distintas variables que comparten muchas de las iniciativas del estudio de caso múltiple KeyCoNet. Para reflejar este panorama se recurre al eje **El enfoque competencial propone un cambio de mentalidad que implica a toda la comunidad** contando con que el mismo permite visualizar el panorama que conforman un conjunto de estas *variables compartidas* indicando la necesidad de continuar trabajando para transitar este cambio de mentalidad.

FICHA - RESUMEN Nº 5

***Variables compartidas* en conexión con:**

Iniciativas en las que la administración educativa trabaja mancomunadamente con las prácticas escolares

VARIABLE	GRUPO	Iniciativas incluidas en el GRUPO	Valor absoluto de la variable compartida (en cada grupo)	Valor relativo de la variable compartida (en cada grupo)
Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.	**A**	**6**	6	**100%**
Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**A**	**6**	4	**67%**
La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**B**	**5**	5	**100%**

Propiciar, acorde con la realidad europea actual, una educación que potencie el desarrollo competencial de todos los estudiantes, poniendo un especial énfasis en el alumnado vulnerable (inclusión educativa).	**B**	**5**	4	**80%**
Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**B**	**5**	3	**60%**
La administración educativa reflexiona acerca de cómo acompañar a los docentes a interpretar la reforma curricular en sus prácticas de enseñanza y en la evaluación de los aprendizajes del alumnado.	**C**	**4**	4	**100%**
Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**C**	**4**	2	**50%**
La iniciativa constituye un programa oficial diseñado ad hoc para fomentar la integración de las competencias clave en las prácticas de enseñanza y evaluación del aprendizaje.	**C**	**4**	4	**100%**
La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**C**	**4**	4	**100%**
Coordinación entre administraciones educativas de distinto ámbito gubernamental (nacional/regional; regional/provincial/municipal)	**C**	**4**	2	**50%**
Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.	**C**	**4**	4	**100%**
Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**C**	**4**	4	**100%**
La iniciativa constituye un programa diseñado ad hoc entre distintos socios (de ámbito público y/o privado) con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**D**	**4**	3	**75%**
N=13	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN N° 5

Un conjunto de *variables compartidas* hace referencia a las relaciones estructurales que se han establecido entre las administraciones educativas y las prácticas de enseñanza y de evaluación en las escuelas con la intención de acompañar a los equipos docentes en el proceso de integración de las

competencias clave. La necesidad de que esta relación sea estrecha, colaborativa y diversificada queda reflejada en un número considerable de las *variables compartidas* que se registran a través de los distintos grupos. En consecuencia, se ha optado por reconstruir este panorama a través de un constructo, el eje

Iniciativas en las que la administración educativa trabaja mancomunadamente con las prácticas escolares

FICHA - RESUMEN Nº6

***Variables compartidas* en conexión con:**

Evaluación y tareas: la visión desde distintos ámbitos

VARIABLE	GROUP	Initiatives included in the GROUP	Absolute value of the shared variable (in each group)	Relative value of the shared variable (in each group)
La relación entre las tareas que resuelve el alumnado y el desarrollo de su perfil competencial.	A	6	5	83%
El aprendizaje entre iguales (alumnado)	A	6	3	50%
Relaciones entre actividades curriculares y extra curriculares.	A	6	3	50%
Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	A	6	3	50%
La Website como contexto de comunicación y seguimiento de las propuestas.	A	6	3	50%
Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	A	6	4	67%
Transversalidad curricular y competencias clave	A	6	3	50%
Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	A	6	3	50%
La integración curricular de las competencias requiere hacer una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	B	5	3	60%
Propuestas de evaluación que ofrecen alternativas de aprendizaje al alumnado con bajos	B	5	3	60%

niveles de logro (diversidad e inclusión)				
Transversalidad curricular y competencias clave	**B**	**5**	4	**80%**
El cambio hacia la evaluación competencial analizado desde la perspectiva del alumnado	**B**	**5**	4	**80%**
La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**B**	**5**	4	**80%**
El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**C**	**4**	3	**75%**
Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**C**	**4**	2	**50%**
La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**C**	**4**	3	**75%**
El alumnado tiene que estar activamente implicado en su aprendizaje competencial.	**C**	**4**	3	**75%**
Certificar el desarrollo de las competencias fundamentales que alcanza el alumnado.	**C**	**4**	2	**50%**
Inclusión de las familias en el desarrollo de la iniciativa.	**C**	**4**	2	**50%**
La resolución de tareas en la formación del profesorado: desarrollo profesional.	**C**	**4**	2	**50%**
El docente opina que la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje exige demasiado tiempo.	**C**	**4**	3	**75%**
Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.	**C**	**4**	4	**100%**
La integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado requiere que los docentes sean competentes en la disciplina de la asignatura y en temas pedagógicos.	**C**	**4**	2	**50%**
El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**C**	**4**	2	**50%**
Es necesario “Evaluar la evaluación competencial” focalizando los logros del alumnado y la forma de armonizarla con los objetivos curriculares.	**C**	**4**	2	**50%**
La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes.	**C**	**4**	2	**50%**

Las TICs como herramienta para alcanzar propósitos pedagógicos, formativos, consultivos, de gestión escolar, etc.	**D**	**4**	4	**100%**
La cultura de la colaboración propicia que todos los participantes (alumnado, profesorado, formadores, equipo directivo, etc.) logren mejores niveles competenciales.	**D**	**4**	2	**50%**
N=28	**N=4**	**N=19**		

COMENTARIOS relacionados con la FICHA-RESUMEN N°6:

El estudio transversal de las distintas iniciativas del caso múltiple KeyCoNet ha permitido registrar un amplio repertorio de *variables compartidas* en torno al círculo, constantemente retroalimentado, entre las situaciones de aprendizaje y las posibilidades de desarrollar un repertorio de competencias útiles para el estudio, la resolución de distintas iniciativas y, en general, para la consecución de un proyecto de vida que evoluciona hacia concreciones cada vez más complejas. Este repertorio de variables con presencia en iniciativas incluidas dentro de un mismo grupo, así como en varios de ellos, permite focalizar un panorama complementario, y a su vez diversificado, en el que se expresa la cultura escolar con sus prácticas de enseñanza; los modos de evaluar con su arraigo al modelo centrado en la repetición de contenidos; la perspectiva del alumnado y su familia; etc. Con la intención de focalizar esta interrelación de variables a modo de fotografía transversal, se recurre al constructo del eje **Evaluación y tareas: la visión desde distintos ámbitos.**

5. Interpretación del panorama relacional que aportan las *variables compartidas*

Teniendo en cuenta que el objetivo del análisis transversal de las diecinueve iniciativas del estudio de caso múltiple KeyCoNet se centra en aportar información que resulte de utilidad al proceso de elaboración de las recomendaciones KeyCoNet, relacionadas con la integración de las competencias clave en los procesos educativos, este Informe pone disposición el tratamiento de la información alcanzada a través de dos niveles de análisis, tal como se detalla a continuación:

a) **Análisis profundo de la información registrada:** Contacto con la variedad de contextos, estrategias y características que ofrecen las distintas iniciativas a través del eje transversal de las *variables compartidas* identificadas.

b) **Análisis integrador y contextualizado de las *variables compartidas* con mayor presencia en el conjunto de las iniciativas**: Interrelación de las *variables compartidas* que muestran mayor presencia en la dinámica de todas las iniciativas, contextualizándolas en marcos de interpretación.

Como paso previo a especificar estos dos ámbitos de análisis, se señala que, tal como se detalla en el punto 2 de este Informe, las iniciativas quedaron agrupadas en torno a 4 grupos y, en un momento posterior del proceso, se establecieron relaciones entre las *variables compartidas* registradas en iniciativas incluidas en distintos grupos:

El "Grupo A" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que destacan por la decidida y fuerte colaboración profesional que prestan diferentes ámbitos sociales (culturales, científicos, empresariales, diseño, etc.) a la realización de acciones educativas diversas (programas en el contexto escolar y/o en la formación continua; investigaciones; etc.) cuyo fin último es fomentar el desarrollo de las competencias clave en la población estudiantil..

El "Grupo B" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que se interesan, desde sus respectivas propuestas, por la integración de las competencias clave en los procesos de evaluación del alumnado entendiendo que esta perspectiva da un adecuado soporte a las necesidades de aprendizaje que en este colectivo suelen presentarse. En todos los casos queda

reflejada, de una u otra manera, la relación que se establece entre la perspectiva competencial de la evaluación del alumnado y la integración de las competencias clave en las prácticas de enseñanza (y su consecuente formación profesional).

El "Grupo C" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, focalizan el desarrollo de programas que guían y orientan a los equipos docentes en la implementación de los cambios relacionados con la programación y el desarrollo de prácticas de enseñanza que plantea la integración curricular de las competencias clave. En todo caso, se trata de iniciativas que, teniendo como referente la evaluación competencial del alumnado, son organizadas en contextos de formación continua y/o de orientación del profesorado pretendiendo afianzar el desarrollo profesional de los equipos docentes y entendiendo la diversidad de recorridos en este campo

El "Grupo D" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, se centran en el uso pedagógico de las herramientas TICs en contextos de enseñanza, aprendizaje, gestión, formación docente, asesoramiento, etc. Se trata de iniciativas que focalizan, prioritariamente, el papel de estas herramientas en la resolución de tareas que implican, según el caso, a distintos protagonistas afianzando su desarrollo competencial, sean estudiantes o profesionales de la educación (desarrollos que en muchas ocasiones están interconectados aunque las actuaciones pertenezcan prioritariamente a uno u otro colectivo).

En relación con la presentación de la información, se señalan los siguientes recorridos, en consonancia con el nivel de análisis realizado en cada tipo de análisis:

a) **Análisis profundo de la información aportada por cada iniciativa:** Contacto con la variedad de contextos, estrategias y características que ofrecen las distintas iniciativas a través de la visión transversal que ofrecen las *variables compartidas* por distintas iniciativas. Este proceso ofrece la siguiente información:

   - ✓ Detalle de las características (*variable*s) identificadas en cada una de las iniciativas incluidas, respectivamente, en los 4 grupos y, en caso de que las variables fuesen compartidas por dos o más iniciativas del mismo Grupo, se aporta información respecto a los distintos contextos, situaciones, etc. en que las mismas se expresan (selección de segmentos de textos originales en los que se explicitan estas características). Información disponible en los ANEXOS A, B C y D (corresponden, respectivamente, a la identificación de los cuatro grupos).

- ✓ Listado de las *variables* que se han identificado en las iniciativas de cada uno de los 4 grupos, con su correspondiente resumen respecto a la cantidad de iniciativas que las comparten, si ha lugar (véanse los puntos 2 y 3 del presente Informe).

- ✓ Dado que algunas de las *variables compartidas* por las iniciativas pertenecientes a un determinado grupo, se registran también en las iniciativas incluidas en otros grupos, se amplía la variedad de ejemplos de contextos, estrategias, etc. de una misma *variable compartida*.

- ✓ En todo caso, cada *variable* está identificada en términos descriptivos -de una estrategia, principio, situación, etc., por ejemplo, *La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes* (en grupos B y C). Para alcanzar mayor concreción en la descripción de estrategias, principios, contextos, etc. identificados como variables, se optó por señalar, en la medida de lo posible, sus aspectos muy concretos (por ejemplo**, "***Aprendizaje entre iguales (alumnado)"; "Relaciones entre actividades curriculares y extra-curriculares"**)* pretendiendo de ese modo, evitar enunciados que presentaran una generalización que hiciera perder el alcance descriptivo que aportan los datos concretos.

b) **Análisis integrador y contextualizado de las *variables compartidas* por distintas iniciativas:** Interrelación de las *variables compartidas* que están presentes en distintas iniciativas contextualizando el análisis en distintos marcos de interpretación. Este proceso se configura en los siguientes términos:

Una vez que se realizara el abordaje analítico y profundo señalado en el apartado anterior (reflejado en los Anexos A, B, C, D), y se observara el peso relativo de cada *variable compartida* en su grupo de referencia así como su presencia en distintos grupos, estaban sentadas las bases para abordar un análisis de corte interrelacional entre distintas *variables compartidas*. Este tipo de abordaje requería, evidentemente, un marco referencial en el que contextualizarse e inscribirse. Para ello se recurrió a grandes marcos o ejes que están presentes en la mayoría de las iniciativas, tanto buscando respuestas y soluciones como señalando dificultades, etc. ante el desafío de la integración de las competencias clave en las prácticas de enseñanza y de evaluación. Se escogieron los siguientes ejes y sobre cada uno de ellos se interrelacionaron *variables compartidas* que, provenientes de los distintos grupos, cuentan con un nivel de representatividad en sus respectivos grupos. Es decir, se conectaron *variables compartidas* por distintas iniciativas atendiendo a los lazos que se podrían, según la

interpretación realizada por el equipo de trabajo, unir o enlazar en el contexto de distintos ejes temáticos que, a su vez, se interrelacionan entre ellos (véase el proceso realizado en el punto 4 de este Informe):

1. **La iniciativa retoma actuaciones anteriores y las continúa dándole su particularidad**

   Este eje temático señala la necesidad de rentabilizar esfuerzos generando propuestas que se enlacen entre sí; de hecho la gran mayoría de las iniciativas, tal como se analiza en la Ficha Resumen 1-punto 4-, se enlazan en un proceso que viene del pasado y aportan su particularidad en el desarrollo de la iniciativa.

2. **El equipo docente se convierte en una comunidad de estudio**

   Muchas son las iniciativas que hacen referencia a la capacidad de aprendizaje que aporta la interacción grupal generada por el equipo docente cuando se constituye en una comunidad de estudio (dentro de una amplia variedad de dinámicas y, de ser posible, con apoyo dado desde equipos externos). La implicación del enfoque competencial en las prácticas de enseñanza y de evaluación está más garantizada, incluso contando con la diversidad de ritmos y la diversidad de perspectivas, que cuando se inicia en solitario el proceso de re-aprendizaje acerca de cómo enseñar.

3. **La iniciativa se desarrolla en cooperación con distintos sectores sociales**

   Este eje temático fue seleccionado para incluir en él las relaciones entre *variables compartidas* que reflejan la necesidad de apertura que tiene el sistema educativo de integrar en su cotidianeidad a otros sectores sociales (culturales, científicos, empresariales, etc.) con el propósito de ampliar la mirada del alumnado hacia el mundo real.

4. **El enfoque competencial propone un cambio de mentalidad que implica a toda la comunidad**

   La selección de este eje temático para establecer relaciones entre *variables compartidas* está presenta en la base de todo cambio educativo y de la comunidad en su conjunto, en tanto se reconoce que hoy la escuela ya no es la única institución que incide directamente en la educación del ciudadano (tampoco en su instrucción, si se focaliza solamente este ámbito). Hoy es relevante el papel de las redes sociales, la familia, las distintas instancias sociales, etc. en la educación actual de las generaciones más jóvenes).

5. **Iniciativas en las que la administración educativa trabaja mancomunadamente con las prácticas escolares**

Este eje-temático está latente en una gran mayoría de iniciativas y, en muchas otras, muy activo y generando modelos: la relación de la administración educativa trabajando junto con las prácticas escolares. Evidentemente, se requiere mucho esfuerzo y apoyo desde distintos sectores (también de voluntades) para concretar estas conexiones.

6. Evaluación y tareas: la visión desde distintos ámbitos

Bien podría decirse que este eje temático ejerce una fuerza de enlace entre todo el conjunto de ejes seleccionados. Evidentemente, la relación entre la evaluación y la resolución de tareas constituye el punto de cruce de toda acción educativa y, por tanto, está presente, de una u otra manera, en todas las iniciativas. Se destaca la incidencia de las competencias en su conjunto en el desarrollo de la autonomía del alumnado y del profesorado, punto de fuerza para resolver sus respectivos procesos de aprendizaje –los primeros, en relación con la resolución de situaciones problemáticas tanto en los estudios como en la vida en general y los segundos, con la enseñanza y la evolución del alumnado en ese sentido. Muy relacionados con estos apartados han estado presentes, si bien con menor intensidad pero no por ello con menor importancia, las *variables compartidas* relacionadas con la necesidad de revisar, por un lado, las características de los espacios de aprendizaje acorde con la conceptualizaciones actuales sobre cómo y para qué se aprende incluyendo, obviamente, el uso activo de las TICs y por otro, la necesidad de formar a los nuevos docentes para que, ene l futuro, sean capaces de enseñar acorde con los principios del enfoque competencial.

En síntesis, el trabajo relacional entre *variables compartidas* que se ha realizado en el contexto de estos ejes temáticos (tal como se señala en el punto 4), convoca a continuar identificando conexiones que den luz a la inclusión de las competencias clave en los distintos contextos del "día a día" del alumnado de distintas etapas educativas, y del profesorado y la sociedad en general en relación con sus competencias para guiar estos procesos. Probablemente, la lectura del material que aportan los Anexos A, B, C y D continúe inspirando conexiones y proyecciones en este sentido.

6. Conexiones entre el panorama relacional que aporta el presente estudio y los aportes de la revisión bibliográfica

En primer lugar, con el progresivo desarrollo en Europa (Eurydice, 2012), las competencias clave se han ido convirtiendo en una tendencia supranacional (Valle y Manso, 2013; Voogt & Pareja, 2012) en la sociedad del conocimiento (Reynolds & Turcsányi-Szabó, 2010) y en el aprendizaje a lo largo de la vida (Zadra, 2014). A su vez, ante la crisis económica y, en particular, el desempleo de los jóvenes, la Comisión Europea ha señalado que Europa necesita replantearse de forma radical cómo los sistemas de educación y formación pueden proporcionar las capacidades que necesita el mercado de trabajo. Aquí juega un papel de primer orden un enfoque por competencias transversales y capacidades básicas a todos los niveles (OECD, 2012; European Comission, 2012b). De modo similar, la UNESCO (2012) en su "Education for All Global Monitoring Report", ha puesto manifiesto la falta de competencias de los jóvenes en el mundo, que impide su inserción en el mercado laboral e impide el desarrollo de sus respectivos países. Desde el punto de vista filosófico, Martha Nussbaum (2011), a partir de las teorías de la justicia de Amartya Sen, ha propuesto el "Capabilities Approach" para el progreso humano y la dignidad humana. Sin las competencias clave las personas no pueden tener una vida plena y libre.

A partir de la revisión de la literatura (Literature Review, KeyCoNet, 2013), de las referencias que se adjuntan y, particularmente, atendiendo a los aportes del presente análisis transversal de las iniciativas KeyCoNet, se pueden extraer un conjunto de principios comunes, que recogemos a continuación, divididos en los cuatro grupos que sirven de base al presente Análisis Transversal.

[1] GRUPO A

La mejora de la enseñanza, en un currículum centrado en las competencias, se ve potenciada cuando el equipo de profesores trabaja en torno a un *proyecto común*, máxime cuando dicho proyecto tiene su foco de incidencia en lo que se hace en el aula. El capital profesional de cada docente se ve potenciado por el de los propios colegas, transformando la enseñanza (Hargreaves & Fullan, 2012). El trabajo en colaboración, como una comunidad profesional de aprendizaje (Dufour et al., 2008), hace que las competencias clave se conviertan en una tarea colectiva, posibilitando el intercambio de experiencias y convirtiendo la adquisición de las competencias clave en una responsabilidad colectiva compartida. Hacer de la escuela *un proyecto* de trabajo vertebrado en torno a las competencias con que queremos capacitar al alumnado (Louis, 2012). En el marco del Proyecto Educativo es preciso ponerse de acuerdo en el modo *(metodología común*) como se va a trabajar el currículo para promover el desarrollo de las competencias transversales del alumnado. Todo esto, como se ha señalado, a condición de resaltar la dimensión del Proyecto educativo como un *proceso dinámico* en construcción, en lugar de un documento acabado y burocrático.

Como política educativa se ha de fortalecer la *coordinación del profesorado* —imprescindible para el trabajo en competencias básicas— apoyando desde la Administración y desde la dirección del centro la innovación educativa y el trabajo en equipo, y realizar la evaluación de los

resultados y de los procesos (McLaughling & Talbert, 2006; Lavié, 2006). Se deberá fomentar igualmente la participación en redes de centros con proyectos conjuntos o comunes orientados a la adquisición y desarrollo de las competencias básicas para la vida (Kruse & Louis, 2009).

[2] GRUPO B

El enfoque de competencias clave requiere, paralelamente, una nueva *cultura de la evaluación***,** centrada en la valoración del nivel de competencia, reflejado en los correspondientes Indicadores de logro, que alcanzan los estudiantes en situaciones prácticas —reales o simuladas— en las que han de aplicar sus conocimientos y recursos. Al respecto, por ejemplo, el empleo de las rúbricas es aconsejable (Arter & McTighe, 2001; Arter, & Chappuis, 2007; Reddy & Andrade, 2010). Las modalidades de evaluación han de ser *coherentes con los otros componentes* del currículum. En particular, no limitarse a la evaluación de los recursos dominados por los estudiantes, sino a su efectiva movilización en la resolución de problemas o tareas.

El desarrollo de las competencias se juega a nivel de metodología didáctica de trabajo. Una concepción "situada" del aprendizaje (Lave & Wenger, 1991) conduce a diseñar el currículo desde una perspectiva de las situaciones, buscando, a continuación, qué acciones (procedimientos) y recursos (conocimientos) se precisan para resolverlas. La cuestión es, pues, qué precisa una persona para actuar de modo competente para resolver una situación problema (Silva, 2008).

Las competencias más transversales se trabajarán fundamentalmente a través de *planteamientos metodológicos integrados*. La integración, no va por los contenidos, sino por la *forma misma de trabajar los contenidos habituales.* Esto indica que habrá que cuidar en grado sumo las *orientaciones metodológicas*, de modo que puedan contribuir a una formación del profesorado (Zavala & Arnau, 2014; Pueyo, 2014).
El desarrollo de las competencias acontece confrontando a los alumnos con *situaciones-problema* variadas y con creciente grado de complejidad, que impliquen la movilización de lo adquirido. Por eso, el profesor tiene un papel de preparar y organizar situaciones didácticas y actividades que permitan al alumno, al resolverlas, construir conocimientos a partir de la movilización.

En el enfoque que la escuela belga llama una *pedagogía de la integración* (Roegiers, 2000, 2003), las competencias se sitúan, no como aditamento al currículum, sino en el núcleo de la acción educativa, lo que exige la integración de las distintas enseñanzas para resolver situaciones complejas que permitan utilizar lo aprendido. Desde la "pedagogía de la integración" ni los saberes disciplinares ni las capacidades proporcionan, por sí solos, una base adecuada para la integración. Son las *situaciones-problema*, que vinculan contenidos y capacidades, los que configuran la competencia, la base en que se ha de buscar la integración (Roegiers, 2004).

[3] GRUPO C

Acompañar, asesorar y a apoyar a los equipos docentes de una escuela debe conducir a promover un diseño y desarrollo curricular basado en la escuela, al tiempo que construir en equipo los cambios a través de la reflexión y revisión conjunta sobre la propia práctica, de

acuerdo con las revisiones recientes (Muijs et al., 2014). Esta línea comporta una determinada concepción de los profesores como profesionales reflexivos que investigan y comparten conocimientos en sus contextos naturales de trabajo, y exige ir configurando el centro (con los recursos y apoyos necesarios) como comunidad de aprendizaje para los alumnos, los profesores y la propia escuela como institución (Darling-Hammond & Bransford, 2005; Timperley, 2008).

Es relevante la *coherencia entre las metodologías didácticas* a emplear con el desarrollo de las competencias y de los recursos movilizables a utilizar. No hay un enfoque metodológico único para el desarrollo de las competencias. Aún cuando unas sean más favorables que otras, con distintas metodologías se puede conseguir el desarrollo en los estudiantes de competencias. Por eso la cuestión es: de acuerdo con lo que se pretende, cuáles son las situaciones de aprendizaje más propicias para favorecer el desarrollo de las competencias. Hay diversas estrategias para favorecer dicho desarrollo (resolución de problemas, estudios de caso, método de proyectos, prácticas situadas en escenarios reales, trabajo cooperativo, aprendizaje en servicio, etc.). En general, se considera que son estrategias más pertinentes aquellas que se orientan a la resolución de problemas, a favorecer la actividad del estudiante y a la aplicación del conocimiento.

[4] GRUPO D

Las TIC proporcionan una "**nueva ecología del aprendizaje" y, como tales, deben ser integradas en la enseñanza y aprendizaje de las competencias básicas (Selwyn, 2011). Estos** nuevos contextos de actividad ofrecen oportunidades, recursos y herramientas para acceder y manejar la información, así como nuevas y poderosas formas de difusión, comunicación y colaboración (Anderson, 2010). Además del contexto formal de la escuela, se amplían considerablemente las oportunidades para aprender. Particularmente importa cómo promover usos innovadores de las TIC en la enseñanza, que no se limitan a reproducir, de otro modo, las prácticas existentes, como denunció Cuban (2001).

En el OECD/CERI project on New Millennium Learners la competencia digital adquiere una prioridad (Ananiadou & Claro, 2010, OECD, 2010) y en el aprendizaje a lo largo de la vida (Ala-Mutka et al. 2008). La competencia en información y digital debe trabajarse integrada en todas las áreas curriculares, lo que no excluye que pueda haber un tiempo y espacio curricular a enseñar determinados procesos necesarios y previos a su empleo en las áreas (Area & Guarro, 2012). El problema actual ya no tanto es incorporar la tecnología al aula, cada vez más generalizada y – sobre todo– en las vidas cotidianas de los alumnos y alumnas, cuanto la metodología de enseñanza a emplear con estos "aprendices del nuevo milenio" (Pedró, 2011). La alfabetización es el dominio flexible y sostenible de *distintas prácticas,* aplicadas a textos tradicionales y nuevas tecnologías de la comunicación a través del lenguaje hablado, impreso y los multialfabetismos (Hepplestone et al., 2011). El currículum escolar y las actividades en el aula deben hacer un tratamiento integrado.

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THE TRANSVERSAL KeyCoNet CASE STUDIES ANALYSIS

VARIABLES COMPARTIDAS

GRUPO A

Tópico: "Cooperación de profesionales de distintos sectores en la realización de acciones educativas, en contexto de aula y/o de formación inicial o continua del profesorado, cuyo fin último es fomentar el desarrollo de las competencias clave en la población estudiantil"

Características de las iniciativas incluidas en el Grupo A:

El "Grupo A" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que destacan por la decidida y fuerte colaboración profesional que prestan diferentes ámbitos sociales (culturales, científicos, empresariales, diseño, etc.) a la realización de acciones educativas diversas (programas en el contexto escolar y/o en la formación continua; investigaciones; etc.) cuyo fin último es fomentar el desarrollo de las competencias clave en la población estudiantil.

Las iniciativas que se incluyen en el Grupo A son las siguientes:

a) **GA-CS 1** The *Global Enterprise Project* (GEP) initiative involves students and professionals from different industries into schools. One of the focus areas of the working group was the transition from education to the world of work for young Europeans. The *European Round Table of Industrialists* (ERT) is one of the key partners: it is an informal forum bringing together around 45 major multinational European companies covering a wide range of industrial and technological sectors. ERT's working group on Societal Changes has explored the need to further involve European businesses in educational activities through an initiative that would promote entrepreneurship and raise awareness on globalisation and skills for the future.

b) **GA-CS 2** The *Science and Technology for All* (STA) initiative has a cooperation agreement with Science and Technology for Children (STC) and it is from STC that STA buys its new themes. Other STA cooperation partners are the National Centre for Mathematics (NCM), technology resource centres, schools and universities such as: Linköping University, The Swedish National Agency for Education, the business community and local cooperation partners. In Sigtuna for example, the local STA organisation works in close cooperation with the "Start an Experiment" programme,

which is another initiative that aims to increase interest in the natural sciences and technology amongst children and teenagers. Via STA, schools and the business community obtain better conditions for collaboration -for example through things like a technology day, where both pupils and the business community display projects they have undertaken.

c) **GA-CS 3** The *Co-Designing Learning Environments* initiative is a theoretical and practical model of the 21st century learning environment. It s part of Work Package 4 (the projects related to the Work Package 4 aim to contribute to the internationally recognised need to update learning environments in order to better support 21st century teaching and learning).

d) **GA-CS 4** Cooperation universities/research units on the creation of a school science movement: the partnership *Centre for Education Development* (CEO) supervises the project implementation as an intermediate body. However, the guidelines, approach and solutions developed in the implementation process help the introduction of the Ministry's new core curriculum and of the necessary changes in school practice. In addition, the CEO has two other partners that are directly involved in the project implementation: a) The International Institute of Molecular and Cell Biology1 y b). The Polish-American Freedom Foundation.

e) **GA-CS 5** The *Cultural Rucksack* initiative puts an emphasis on the practical involvement of students in cultural activities with professionals. This will then improve the cultural awareness of all students, both in school and in everyday life (professionals within performing arts, visual arts, music, film, literature and cultural heritage are creating initiatives and offering collaborations with schools). It targets specific areas in the national curriculum and pupils at all levels of education have the opportunity to experience activities of cultural expression.

f) **GA-CS 6.** *The Entrepreneurial School.* Creating trans-European models for teachers to support the development of their skills and methods in applying entrepreneurial learning to different teaching subjects and to different contexts.

Iniciativa	Socios	Código
***Global Enterprise Project* (GEP)** 11 European countries: Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Romania, Slovakia, Spain, Sweden.	- European Round Table of Industrialists - European Schoolnet Coordinator: *Junior Achievement Young Enterprise* (JA-YE) *Europe*.	**GA-CS 1**
***Science and Technology for All* (STA)** Sweden	- The Royal Swedish Academy of Science and the Royal Swedish. - Academy of Engineering Science in cooperation with municipalities throughout Sweden.	**GA-CS 2**
Co-Designing 21st Century Secondary School Natural Science Learning Environments Finland	- Jyväskylä Teacher Training School - University Properties of Finland Ltd.	**GA-CS 3**
Students' Academy	- International Institute for Molecular and Cell	**GA-CS 4**

Poland	Biology. - Polish-American Freedom Foundation.	
The Cultural Rucksack Norway	- Ministry of Culture and Ministry of Education and Research.	**GA-CS 5**
The Entrepreneurial School Europe	- JA-YE Europe - European Schoolnet - The European Round Table of Industrialists (ERT) - University of Warwick [UK] - Junior Achievement Slovakia[SK] - Lappeenranta University of Technology [FI] - Junior Italia [IT] - University College Copenhagen [DK] - Fundacja Mlodziezowej Przedsiebiorczosci (JA Poland) [PL] - Ungt Entreprenorskap (JA-YE Norway) [NO] - Apreender a Empreender (JA Portugal) [PT]	**GA–CS 6**

Alcance de las iniciativas incluidas en GRUPO A	
Iniciativa	**Código**
Global Enterprise Project (GEP) European project: Learning-by-doing in a school entrepreneurship educational programme, with practical hands-on activities led by a volunteer business consultant for secondary school students (15-18 years old).	**GA-CS 1**
Science and Technology for All (STA) The initiative has real impact on a systemic level on a national scale. Even though the initiative is a top-down strategy, the main bulk of the work is done at a local and regional level. In this way experience and competence are built from below, rather than as a top-down initiative.	**GA-CS 2**
Co-Designing 21st Century Secondary School Natural Science Learning Environments Theoretical and practical project at regional level.	**GA-CS 3**
Students' Academy Following the introduction of the new national core curriculum, the project aims to improve the development of achievement standards, teaching programmes and additional modules for optional extra-curricular activities.	**GA-CS 4**
The Cultural Rucksack The objective was to combine different regional initiatives into a national initiative targeting the key competence of cultural awareness and expression. (…) The programme is intended to be a unique, but at the same time self-evident, supplement to school activities. A further principle of the initiative is that there should be room for local and regional action, which will ensure local enthusiasm, activity and involvement.	**GA-CS 5**
The Entrepreneurial School Creating trans-European models for teachers to support the development of their skills and methods in applying entrepreneurial learning to different teaching subjects and to different contexts	**GA-C6**

A1. La iniciativa se asienta en actuaciones realizadas con anterioridad (programas, investigaciones, etc.) y aporta su particularidad respecto a la implementación del modelo competencial asumido por el curriculum/programa oficial.

A. The *Global Enterprise Project* (GEP) initiative has been based on the experience gained during a previous programming period. [*Junior Achievement Young Enterprise* (JA-YE) *Europe* is coordinating this project. JA-YE *Europe* and its members involved in this project have a long standing experience in working with teachers in primary and secondary education around the theme of entrepreneurship, skills for employability and financial literacy] **GA-CS 1**

B. The *Royal Swedish Academy of Sciences* (RSAS) and the *Academy of Engineering Sciences* (AES) are important cooperation partners. It was these two bodies that introduced the *Science and Technology for All* (STA) concept to Sweden and which developed the original Swedish model. The initiative runs by the Royal Swedish Academy of Science and the Royal Swedish Academy of Engineering Science, was established in 1997. The positive assessment of a pilot scheme (*Science and Technology for Children*) at a local level allowed the beginning of STA as a significant development concept for the teaching of the natural sciences and technology in schools. That means that STC idea was adapted to the Swedish school system. **GA-CS 2**

C. The Finnish national *Indoor Environments* programme and its Work Package 4: *Environments for Learning and Creation of New Knowledge* led by University Properties of Finland Ltd. The main project partners of the *Co-Designing Learning Environments* subproject are the University of Jyväskylä (Agora Center), University Properties of Finland Ltd. and the University of Jyväskylä Teacher Training School. The theoretical framework and research methods employed are based on previous research on ideal learning environments. Learning environments are considered to be multilevel ecosystems that shape the conditions for learning in a specific time and space. The development of all dimensions of space, including physical, virtual, social and personal interrelated and interconnected space, is considered relevant. **GA-CS 3**

D. The *Student's Academy* initiative is based on experience of the *Centre for Citizenship Education* (CEO) in implementing projects, especially the ESF-funded *School of Dreams* project **GA-CS 4**

E. The *Cultural Rucksack* initiative is part of a national programme established in 2001 by the Ministry of Culture in which the cultural and educational sectors cooperate to provide school pupils with the opportunity to become acquainted with, understand and enjoy all forms of artistic and cultural expression at a professional level. There are several challenges in improving this as a key competence area within curricula and school focus areas, and to overcome the risk of the *Cultural Rucksack* becoming just an extra-curricular activity. **GA-CS 5**

F. TES won co-funding from the European Commission's Competitiveness and Innovation Programme (CIP), which aims to promote projects with a high-added value at the European level in education for entrepreneurship. In March 2014, 130 teachers participated in a Workshop for National Trainers. They will train over 4000 teachers in the next 3 years across 22 countries. The full list of the countries is: Italy, Norway, Poland, Slovakia, Denmark, UK Finland and Portugal (in EU Grant) + Belgium, Bulgaria, Cyprus, Germany, Greece, Hungary, Latvia, Romania, Russia, Serbia,

Slovenia, Spain. (…) TES is currently co-financed by the EU through a CIP grant by DG Enterprise through a call concerning models for primary and secondary school teachers to support the development of their skills in applying entrepreneurial learning to different subjects and contexts. (…) DG Enterprise has of course always been concerned by the economic outcomes of entrepreneurship education as much as the enablers and drivers within the ecosystem. In the past years DG Enterprise and DG Education have teamed up on entrepreneurship education policy making—looking hard at the learning outcomes and the indicators. Entrepreneurship is a key competence but it must also be understood from a wider perspective beyond economic outcomes, also from young people's overall competitiveness in the labor market. The timing of this grant was just at the same time as some major policy communications on education and of course just on the cusp of a new cycle within the European Commission where we are seeing entrepreneurship education has moved up to top priority in virtually every policy area. **GA-CS 6**

A2. Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de etapa secundaria (en distintos contextos: educación formal; informal; formal e informal; etc.).

A. Secondary school students (all type of secondary schools including vocational education institutions). The first part of the programme is delivered in schools during school hours while the second is delivered after school as an informal education activity. **GA-CS 1**

B. Upper secondary school: the project is in line with the on-going development of the basic education and upper secondary school curricula in Finland. **GA-CS 3**

C. Formal education: Lower secondary school (students aged 13-16). **GA-CS 4**

A3. Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.

A. The STA programme has been adapted to suit Swedish preschool up to the last (9th) year of primary school (7 to 16 yrs). That is, from pre-school to the end of compulsory education. **GA-CS 2**

B. The *Cultural Rucksack* initiative has been important in creating a national development of 'cultural awareness and expression' among children and youth throughout their schooling. As of 2007, the initiative covers the whole of school education in Norway, from primary to upper secondary schools (formal and non-formal education). **GA-CS 5**

A4. Transversalidad curricular y competencias clave

A. The model for the school's curriculum development is first and foremost directed towards biology, physics, chemistry, technology and mathematics but experience has demonstrated a spread effect to other subjects and key skills and competences.
GA-CS 2

B. The *Co-Designing Learning Environments* initiative is a cross-curricular project (visual arts, physics, chemistry, mathematics, ICT, mother tongue and literature, English and Spanish) but is conducted mainly as a part of the visual arts course. **GA-CS 3**

C. [An challenge was] how to combine subject- based teaching practices with the development of cross curricular key competences such as scientific reasoning, problem solving, and team work. The project aims at introducing new elements from the core curriculum into schoool practices: these elements are based on key competences, primarily competences in science and technology, mathematical competence and learning to learn. The project focuses on biology, chemistry, physics, and mathematics. **GA-CS 4**

A5. Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.

A. The three main partners worked together, under the lead of JA-YE, to define the main activities of the project. There are four components to the GEP programme: Website and Quiz (online); GEP Classroom Visit (in school); Mini-Companies (in school); Challenge (outside school at national and European Level). GA-CS 1

B. Close liasion between schools, municipalities, the business community and high schools/university. (…) A well grounded foundation is an aspect of the organisation's structure that has made a highly positive contribution. A successful launch to STA work in any area requires a firmly grounded anchorage for all the parties involved – from politicians to teachers/pedagogues. (…) Very usuful factor in the promotion and development of the STA initiative has been the STA's own organization: STA Enterprise Partnership for the Development of the School Curriculum, which advices and supports schools on working methods and materials; the members' local STA-organizations; and a science committee staffed by the RSAS and AES. (…) In each region there is a committee that evaluates the requests from different artists to participate in the *Cultural Rucksack*; in particular, the committee assesses the quality and relevance of their descriptions and background.**GA-CS 2**

C. In this initiative there has been a mix of bottom-up and top-down approaches internal and external stakeholders along with the main users and the administration were invited to join the participatory, democratic and user-centered design process. (…) The educational researcher participating in the project stated that working in a multidisciplinary team [different internal stakeholders -administration, teachers, student teachers and students- and external stakeholders -researchers, University Properties of Finland Ltd., constructor, designers, companies, etc.- in the design and development of new spaces.] that aims to take into account the needs of profoundly different user-groups and to create a holistic view of 21st century learning spaces has made it relatively difficult to define the main approaches, contents and objectives of this project. Frequent, open and democratic discussions have been needed to overcome these difficulties. **GA-CS 3**

D. The Project has different partners at different levels of management, for example, scientists working at the International Institute of Molecular and Cell Biology provide activities for the teacher training courses, propose sample experiments and problems to be solved, help to identify examples of good practice, and asses the work of students presented at Sciences Fairs. **GA-CS 4**

E. A great majority of cultural institutions and a number of related institutions are involved in the content of the programme. The partnerships are organised by regional administration officers that are responsible for schools. There is a national network of people working in regional offices related to the *Cultural Rucksack* initiative and each region has a network for its municipalities. Over the years these networks have increasingly established better working approaches as well as definitions of the quality and substance of activities. These networks have played an important role in the development of the initiative over time and they also create a very strong feeling of ownership of the initiative at the local level. Everybody feels that they have a vested interest in the initiative, and this sense of ownership is often expressed in the media coverage of different activities. (…) The main obstacles to the implementation of the initiative are related to connecting the cultural and educational sectors at the local level; this is something that varies greatly in different municipalities. (…) Many of the decisions are made on local level and not on the national level. In many ways the national secretariat does serve as an advisory and coordination unit. **GA-CS 5**

F. The consortium is composed of stakeholders who already had a role in entrepreneurship education and European wide networks that could work as a multiplier effect. JA-YE Europe and its members involved in this project (JA-YE Norway, JA Italy, JA Poland, JA Portugal and JA Slovakia) have a long standing experience in working with teachers in primary and secondary education around the theme of entrepreneurship, skills for employability and financial literacy. The Centre for Education and Industry of *Warwick University* has expertise in assessing and supporting schools in their entrepreneurship courses through their CEI35 and CEI10 Quality Frameworks designed to assist schools through a developmental process. *Lappeenranta University* has developed a *Measurement Tool for Enterprise Education* is a self-assessment for teachers in primary, secondary and vocational school and had given teachers the possibility to evaluate and develop one's own entrepreneurship/enterprise education and that of the school community. *University College Copenhagen* has a strong expertise in primary school education. European Schoolnet had a long standing experience in supporting teachers on ICT in schools and a wide network of Ministries of Education across Europe. (…) The other major contextual enabler is the participation of employers: there has been a real desire from employers to foster the entrepreneurial skills of their employees liked to the fact that they are shifting more and more their CSR activities into education to give back something to society but also to invest in education to prepare a better workforce for tomorrow. Several business sector partners are involved in the consortium: the *European Roundtable of Industrialists* and the two co-financing partners: *Accenture* and *Intel.* **GA-CS 6**

A6. Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.

A. The coordinator plays a central role within the STA. The coordinator acts as the mutual contact point for teachers/pedagogues within the organisation. He or she is also the link between the local development group and daily operational tasks. The coordinator also acts as the link between regional and national branches of the organization. **GA-CS 2**

B. The coordinators' work was also seen as crucial in keeping the project manageable. The stakeholders interviewed thought that the roles and division of tasks were clear, that cooperation was fluent and effective, and that it was relatively easy to reach consensus between partners. **GA-CS 3**

C. Regional cultural and education departments are responsible for coordinating the programme in their own regions, and individual programmes are also designed by the municipalities. This assignment of responsibility to local authorities promotes enthusiasm and a sense of ownership among all parties involved and provides room for local variation. **GA-CS 5**

D. National Focus Groups: participants of the National Focus Groups consist of people with a connection to national work on entrepreneurship education and who have an interest in pan-European developments in this field. They also have links with a wide range of stakeholders. The 8 high quality National Focus Groups help in the search for existing good practice at the national level and beyond, evaluate it against a set of agreed criteria and their national curricula, pilot the Virtual Guide for Entrepreneurial Learning and finally assist in rolling it out to teachers in the field. The groups provided the first inputs to the Guide identifying 80 Entrepreneurial Schools and collecting tools and methods at national level. **GA-CS 6**

A7. La participación de instituciones universitarias y/o de centros de formación inicial del profesorado en la dinámica y fundamentación de la iniciativa.

A. After the co-design and redevelopment of the space, support will be offered to teachers and students for the implementation of new practices. The evaluation of the impact will be mainly based on qualitative data (e.g. user perception, user experiences and video ethnography). (…) the focus has been on designing spaces with the school administration, teachers and student teachers, while further design work is being carried out by design professionals. **GA-CS 3**

B. (…) awareness of the initiative in teacher training colleges needs to be improved. **GA-CS 5**

A8. Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.

A. The classroom visit brings professionals from different industries (ERT Member Companies) into schools, where students can interact with them directly. These employee volunteers are not just role models, but also provide expertise in their chosen fields. The volunteers lead a 1-2 hour learning activity and discussion around the global issues that businesses are faced with every day. (…) This [students create and manage their own real enterprises, develop enterprise ventures with peers in other countries, strengthen their entrepreneurial know-how and apply their academic skills in new ways] is achieved with the support of teachers working closely with business professionals who will share their experience, expertise and raise awareness of the variety of career opportunities that exist in today's global environment. **GA-CS 1**

B. The material carries a basic and continuous thread, which encourages confidence in the teaching process, engages the pupils and arouses their interest for natural science subjects Having both the material and guidelines delivered makes things much simpler and saves time for the teachers/pedagogues. **GA-CS 2**

C. The diversity of the program is both a strength and a challenge, since the core substance is so varied. One consequence of this variation is that some municipalities become more systematic in their approach to integrate the project, connecting schools and cultural organisations to each other, while other municipalities have not managed to do this. By approaching the initiative in a more systematic way, municipalities can ensure that all pupils at a certain level are involved in such activities (e.g. visiting a library or watching a play in a theatre). The point of the initiative is that it is not established or developed by the teachers or the school, but is a service provided to the school by the cultural sector; furthermore, this service is provided for everybody and is not dependent on one teacher. **GA-CS 5**

D. Marketing: there needs to be a proper marketing strategy and campaign that would go beyond the 4,000 trainers. This is not just for teachers. This tool could be used by different stakeholders. For examples students' services in universities would for sure use them, employers should be aware of the guide and could use several of the tools and methods in training employees and there are several other possible uses that is worth exploring. **GA-CS 6**

A9. Instituciones de carácter científico, cultural, empresarial, etc. apoyan a los docentes en la tarea de facilitar el desarrollo competencial del alumnado.

A. GEP initiative aims to teach teachers how to use innovative and entrepreneurial processes in the classroom. To help educators shift from the role of traditional teacher to facilitator/coach and project-based learning. **GA-CS 1**

B. *Science and Technology for All* (STA) offers conceptual courses to school principals for the development of the school's curriculum. The model for the school's curriculum development is first and foremost directed towards biology, physics, chemistry, technology and mathematics, but experience has demonstrated a "spread effect" to other subjects and key skills and competences. All those working with STA are obliged to participate in its training course. **GA-CS 2**

C. The changes are designed in harmony with the school's vision and mission, and social practices and the new infrastructure are simultaneously co-designed and co-developed with internal and external stakeholders. Changes have been designed based on the shared, recent understanding of 21st century teaching and learning, but the aim is to build upon existing curricula and good practices, without fully abandoning tradition. Due to the specific function of this school, the dimension of teacher-training has been naturally included in the project. **GA-CS 3**

D. The *Students' Academy* is based on the assumption that to introduce any change to schools it is necessary to have adequately prepared teaching staff; as such the online courses for teachers make up an important part of the project: a) Experimenting and Peer Learning; y b) Educational Projects of the Students' Academy. **(…)** Every teacher taking part in the project will attend two courses offered entirely on a online platform that can provide interactive communication (2 semesters). They can share and exchange their experiences, comment on works of other teachers, ask questions, explain and communicate with their mentors. **GA-CS 4**

E. "The *Cultural Rucksack* is one of the largest programmes in the world that aims to bring professional arts and culture to children. It has been very successful at reaching all parts of the country, despite the obvious geographic and climatic challenges. (…) Children as cultural consumers and audiences is a concept that is taken very seriously in Norway, and artists who work with children are often of a high standard." (information from External Evaluation Report). **GA-CS 5**

F. Prior to this call [CIP grant by DG Enterprise] the European Commission issued several reports talking about obstacles to a successful implementation of entrepreneurship education. In those reports teachers training and the issue of addressing teachers was top of the list among the things that needed to be fixed to improve activities in this area. Then in 2011 they organised a conference in Budapest focused on teachers: initial teacher training as well as in-service training for teachers. Right after the conference the Commission issued another report entitled Entrepreneurship Education: Enabling Teachers as a Critical Success Factor. The report refers to research which says that core skills and values linked to entrepreneurship education are seldom a priority in initial teacher education programs and approximately 90% of in-service teachers say that they would like to receive some further training on creativity. **GA-CS 6**

A10. El equipo docente se constituye en una comunidad de estudio dedicada a analizar metodologías que facilitan el desarrollo de las competencias clave en el alumnado.

A. STA is firmly anchored within the teaching community. The majority of teachers/pedagogues working with STA believe that it plays a positive and entertaining role. Also, apart from the fact that it is fun to work with, teachers/ pedagogues find that working with STA is a great time saver. They receive notes on working methods and material delivered to themand also continuous help in assessing what the pupils have learned. **GA-CS 2**

B. (…) Spaces have traditionally been designed for one purpose only and the space intuitively directs people towards specific behaviours. (…) [Currently it is required] spaces that are designed to support 21st century ways of working instead of fostering traditional patterns of behaviour. (…) The project aimed to diminish possible resistance to change as well as the possible gap between official goals and the goals as understood by teachers or students. She also stated that the integration of co-design activities in the curriculum and ordinar schoolwork was an excellent way of conducting the sessions as participants did not perceive co-designing as an extra burden, but as an opportunity to influence their own working environment. (…)There has been constant informal formative self-evaluation, internal peer-to-peer evaluation (students, teachers, student teachers and administration) and also feedback from external experts **GA-CS 3**

C. An individual module programmes helps to build teachers' confidence, enabling them to gradually hand over more and more tasks and responsibilities to their students. **(…)** A cooperative network of teachers who know each other and respect each other's accomplishments, and who are linked and united by the conviction that student activity is a prerequisite and source of success, and not a source of trouble. **GA-CS 4**

A11. La relación entre las tareas que resuelve el alumnado y el desarrollo de su perfil competencial.

A. In GEP, secondary school students between the ages of 15 and 18 from several European countries learn about various industries in the context of the global economy, create and manage their own real enterprises, develop enterprise ventures with peers in other countries, strengthen their entrepreneurial know-how and apply their academic skills in new ways. This is achieved with the support of teachers working closely with business professionals who will share their experience, expertise and raise awareness of the variety of career opportunities that exist in today's global environment.(…) All students are required to take an online quiz about globalization prior to the classroom activities. The quiz gives an overview of important aspects of globalisation: the economy, the environment, demographics, labour markets and skills, and technology. GA-CS 1

B. The STA model is designed so that pupils at all times can perceive the problem they are working with. These problems have to be contextually grounded in activities that can be easily grasped by the pupils. It is from this overall context that certain elementary scientific generalisations and concepts can be subsequently drawn. (…) But perhaps the biggest reason for STA's continued development and growth is what happens in the classroom, when the enthusiasm of the pupils becomes apparent – this creates a very positive atmosphere in class. The pupils are given very thoroughly researched material and encounter the natural sciences and technology at a professional level. Natural science is linked in a very clear way to the pupils' own reality, so that it feels real and recognisable. The key point is that experiments are linked to facts in a light handed way. Both teacher and pupil gain from this. **GA-CS 2**

C. (…) The pedagogical head of the upper secondary school explains how the use of ICT in classrooms has already increased participation, communication, involvement and peer-to-peer learning in classes in comparison to traditional natural science classes, where often about 5 students out of 25 tend to participate actively while 'the rest just nod their heads'. **GA-CS 3**

D. Three successive classes of students will take part in the programme and will be engaged in its implementation throughout their three years of education in the *gimnazjum*. (…) The activity scenarios and teaching materials are grouped into four sections: experiments; projects; peer learning; and cross-curricular activities. (…) Students go out of school, make observations, explore phenomena and use various sources of knowledge. **GA-CS 4**

E. The *Guide* is a very flexible tool that can be used in different contexts and in different situations. Individual teachers can decide to use a tool or apply a method in their classroom as well as teachers' trainers can decide to use it in their initial or in-service trainings. **GA-CS 6**

A12. El aprendizaje entre iguales (alumnado)

A. [GEP initiative includes among its objectives cultivating] entrepreneurial and intercultural skills as key competences, through developing students' business and enterprise acumen, building projects with peers in other countries and coaching them about work in a globalised workplace. The Global Enterprise Challenge is a one-day innovation workshop focused on fostering young people's problem-solving, idea-creation and presentation skills. Students are given a challenge to solve together in a

team, and the topic of the challenge is designed and presented by industry experts. Employee volunteers are involved as facilitators for the teams.(…) **GA-CS 1**

B. Some of the key factors behind the successful collaboration were identified as the clear definition of the roles of each stakeholder from the beginning of the project, as well as the mutual trust in each partners' expertise in their field. Pre-existing relations between different stakeholders have also helped in establishing fluent collaboration between the different partners. In any case, there is a need for frequent and regular meetings with different stakeholders.**GA-CS 3**

C. In the *School Science Club*s [the students] work in small groups with minimal intervention from teachers. (…) **GA-CS 4**

A13. Relaciones entre actividades curriculares y extra curriculares

A. The international activities for the GEP mini-companies are crucial. Several actions have been and will be put in place to find solutions to this problem:

a. Schools will be peered at the beginning of the year and students will work with a peer GEP school in another country from the very beginning of the school year; they will develop their ideas, products, production and marketing strategy in a joint venture approach together with their teachers and cross-border volunteers.
b. Language teachers will be asked to help with the international activities.
c. The platform will be fully revised and the teaching materials made more user-friendly for students. **GA-CS 1**

B. In order to link the knowledge acquired through these courses to school practice, teachers supervise extracurricular activities –*School Science Club*s– while still involved in the training process and apply the methods they have learned during their 'normal' classes. (…)This exemplifies an important principle of the way in which the Students' Academy works: methods and approaches experimented in the extra-curricular *School Science Club* activities are transferred to 'normal' classes. In this way, scientific research methods are disseminated and all students carry out (and not only watch) experiments and work in teams on their own projects. **(…)**.**GA-CS 4**

C. There is not a common European Entrepreneurship Education system and the European Union does not have legislative power on this topic. It will therefore be up to national governments to define how to embed entrepreneurship education into national curriculum. (…)The main advantage of all the tools provided in TES is their flexibility. They easily can be used in individual schools by individual teachers or be embedded in the curriculum if there is the willingness to do that. At this stage of the project it is still too early to see if this tool has the systemic capacity to be included in teachers training (initial and in service) or in students' curricula. **GA-CS 6**

A14. Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.

A. GEP relies on the voluntary activities of the sponsoring companies. Business volunteers from partner companies deliver the class activities, act as advisors in the classroom and mentor students throughout the programme. **GA-CS 1**

B. There has been constant informal formative self-evaluation, internal peer-to-peer evaluation (students, teachers, student teachers and administration) and also feedback from external experts **GA-CS 3**

C. Every participant receives individual assistance from a mentor (an experienced teacher trained beforehand by the project) (…) In exchange, the CEO provided teachers with remuneration for conducting additional classes, access to online courses, individual mentorship, and participation in traditional courses **GA-CS 4**

A15. Espacios escolares que propician el aprendizaje competencial.

A. Learning environments are considered to be multilevel ecosystems that shape the conditions for learning in a specific time and space. The development of all dimensions of space, including physical, virtual, social and personal interrelated and interconnected space, is considered relevant. (…) The main objectives of co-designing the secondary school natural science classroom and hallway at the University of Jyväskylä Teacher Training School are 1) to transform the natural science classroom and its closely connected hallway into a space that enables diversified learning and the adaption of all key competences, and 2) to involve members of the school community in the design of the space through user-centred co-design and development. From a research perspective, the first objective is related to developing substantial design principles regarding the optimal 21st century learning spaces, while the second objective is related to developing procedural design principles for user-centred co-design projects.**GA-CS 3**

A16. La *Website* como contexto de comunicación y seguimiento de las propuestas.

A. The *Global Enterprise* online platform is the virtual home of the project. It is a lively community where participants can meet, collaborate and receive training. **GA-CS 1**

B. The project's website plays a key role; it is divided into the following two sections: a) a section only accessible to project participants; b) a section that is open to the public. The site is also a place for teachers to consult their mentors and a forum for broader discussion and sharing of experience. (…) Every teacher taking part in the project will attend two courses offered entirely on a online platform that can provide interactive communication. **GA-CS 4**

C. The *Virtual Guide* is a practical and useful tool for teachers in primary, secondary and vocational schools that want to mainstream entrepreneurial education in teaching methods and learning processes they set up in classroom every day. (…) The *Guide* is a very flexible tool that can be used in different contexts and in different situations. Individual teachers can decide to use a tool or apply a method in their classroom as well as teachers' trainers can decide to use it in their initial or in-service trainings. **GA-CS 6**

A17. Publicación (*online* o de forma impresa) de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a fomentar los aprendizajes y la evaluación competencial.

A. The objective of The *Entrepreneurial School* (TES) project is to make it easy for teachers to apply entrepreneurial learning in any subject area and for any age group. Schools will have access to a quality framework and assessment tool that helps educators set milestones and assess progress. Schools will have access to a quality framework and assessment tool that helps educators set milestones and assess progress. In addition, the project has collected good practices from several countries. These good practices are meant to plan how to implement and to improve entrepreneurial learning in schools **(…)** A forth area is a collection of the most recent European policy documents on entrepreneurial learning, together with strategy and research documents published by national governments and other institutions. **GA-CS 6**

A18. Inclusión de las familias en el desarrollo de las actividades del alumnado.

A. *School Science Club*: students and parents participate at school meeting to present successful experiments, developed posters, teaching aids. **GA-CS 4**

B. There is still a challenge in making people more aware of the initiative and its aims, particularly parents who know little about what the initiative really implies. Furthermore, awareness of the initiative in teacher training colleges needs to be improved. **GA-CS 5**

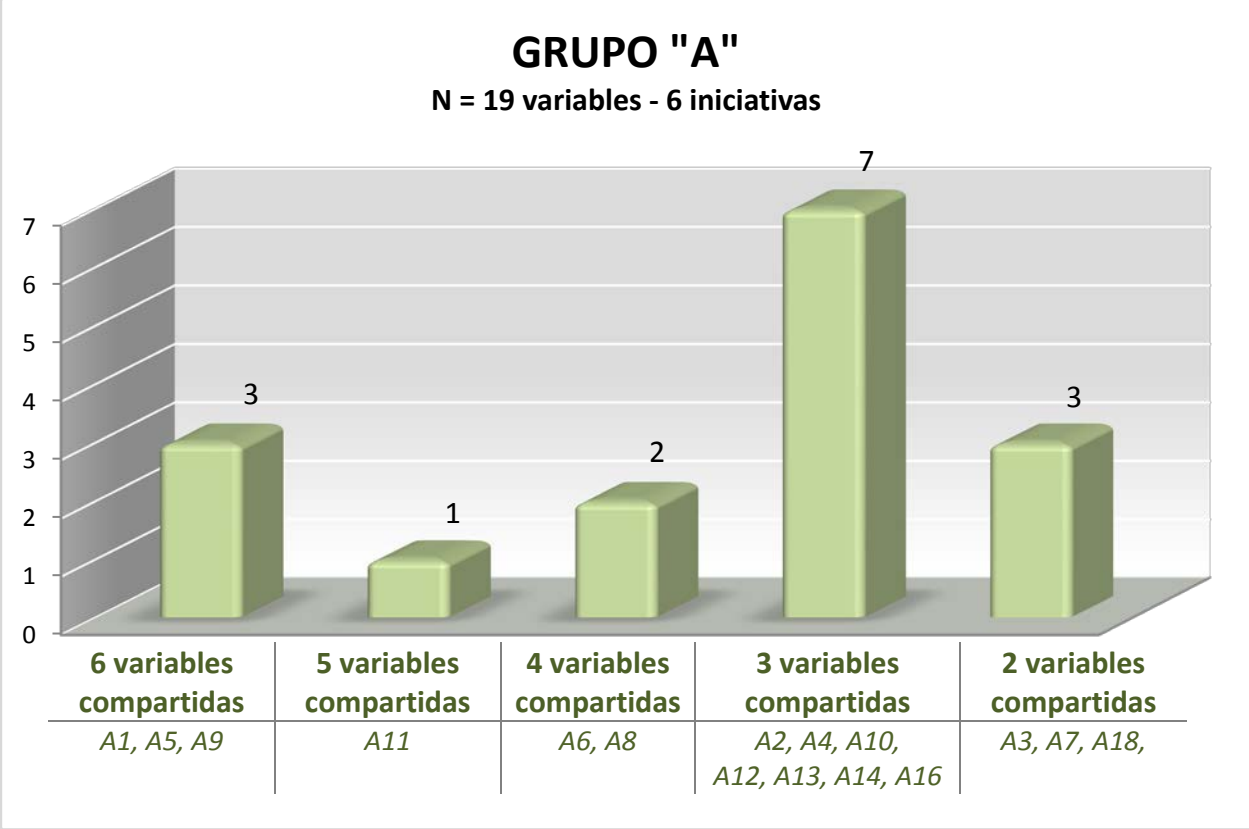
A19. Herramientas *online* para la formación del profesorado en relación con el desarrollo de competencias por parte del alumnado

A. The *Entrepreneurial School* (TES) project will produce a *Virtual Guide* to Entrepreneurial Learning as well as self-assessment tools for teachers and schools. The guide will include 75-100 entrepreneurial tools and methods. (…) The guide contains more than 100 tools and methods to support entrepreneurial teaching and learning, good practices and framework documents from 85 different schools in 10 countries. It also includes self-assessment and review tools for teachers and schools who want to assess how much entrepreneurial their learning process are and to review their progress on a regular basis. **GA-CS 6**

Resumen: variables seleccionadas en el Grupo A: 6 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet (Código de las iniciativas: GA-CS 1; GA-CS 2; GA-CS 3; GA-CS 4; GA-CS 5; GA-CS 6)

GC	Variables identificadas	Nº de veces que se COMPARTE
A1	La iniciativa se asienta en actuaciones realizadas con anterioridad (programas, investigaciones, etc.) y aporta su particularidad respecto a la implementación del modelo competencial asumido por el curriculum/programa oficial.	**6**
A2	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de etapa secundaria (en distintos contextos: educación formal; informal; formal e informal; etc.).	**3**
A3	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**2**
A4	Transversalidad curricular y competencias clave	**3**
A5	Organización participativa de la iniciativa contando con la cooperación de instituciones de distintos ámbitos profesionales.	**6**
A6	Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**4**
A7	La participación de instituciones universitarias y/o de centros de formación inicial del profesorado en la dinámica y fundamentación de la iniciativa.	**2**
A8	Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	**4**
A9	Instituciones de carácter científico, cultural, empresarial, etc. apoyan a los docentes en la tarea de facilitar el desarrollo competencial del alumnado.	**6**
A10	El equipo docente se constituye en una comunidad de estudio dedicada a analizar metodologías que facilitan el desarrollo de las	**3**

	competencias clave en el alumnado.	
A11	La relación entre las tareas que resuelve el alumnado y el desarrollo de su perfil competencial.	**5**
A12	El aprendizaje entre iguales (alumnado)	**3**
A13	Relaciones entre actividades curriculares y extra curriculares	**3**
A14	Proyecto de tutoría diseñado para facilitar el aprendizaje a estudiantes, profesorado y/o demás involucrados en la iniciativa.	**3**
A15	Espacios escolares que propician el aprendizaje competencial.	**1**
A16	La Website como contexto de comunicación y seguimiento de las propuestas.	**3**
A17	Publicación (*online* o impreso) de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a fomentar los aprendizajes y la evaluación competencial.	**1**
A18	Inclusión de las familias en el desarrollo de las actividades del alumnado.	**2**
A19	Herramientas online para la formación del profesorado en relación con el desarrollo de competencias por parte del alumnado.	**1**



Variables no compartidas: 3

(A15, A17, A19)

THE TRANSVERSAL KeyCoNet CASE STUDIES ANALYSIS

VARIABLES COMPARTIDAS

GRUPO D

Tópico: "Utilización pedagógica de las herramientas TICs en el contexto de distintas prácticas del entorno escolar (enseñanza, aprendizaje, gestión, formación, asesoramiento, etc.), entendiendo que la competencia digital desarrollada por los interesados en estos contextos repercute en la mejora de sus aprendizajes (de los profesionales de la educación y/o de los estudiantes)"

Características de las iniciativas incluidas en el Grupo D:

El "Grupo D" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, se centran en el uso pedagógico de las herramientas TICs en contextos de enseñanza, aprendizaje, gestión, formación docente, asesoramiento, etc. Se trata de iniciativas que focalizan, prioritariamente, el papel de estas herramientas en la resolución de tareas que implican, según el caso, a distintos protagonistas afianzando su desarrollo competencial, sean estudiantes o profesionales de la educación (desarrollos que en muchas ocasiones están interconectados aunque las actuaciones pertenezcan prioritariamente a uno u otro colectivo).

Las iniciativas que se informan en el Grupo D son las siguientes:

1. **GD-CS 16** *Mobile Learning Tutors*
   The project *Mobile Lernbegleiter* is a network of schools coordinated by the *Federal Ministry for Education and Women's Affairs* (former name: *Federal Ministry for Education, the Arts and Culture*). The underlying objective is to enable innovative teaching and learning by using mobile devices in class on a regular basis and to develop students' digital competences, but also their media literacy, social competence, ability to respond positively to criticim and self-organisational skills.

2. **GD-CS 17** *ICT management and assessment model for schools*
   The Estonian ICT management and assessment model described in this case study was developed to ensure that schools use their limited ICT resources intelligently, develop the digital competence of their staff, as well as use ICT optimally for teaching and

learning purposes. The main competence developed through the project is digital competence, with school administrations establishing and working towards the achievement of new ICT goals for their schools in order to support learning; the project also helps to develop a sense of initiative, and problem solving, risk assessment, decision taking and school management skills.

3. **GD-CS 18** *EduScratch*
The Portuguese case is a national initiative devoted to developing digital competence, and more specifically computational thinking skills, through training teachers to use the programming tool *Scratch* as a teaching and learning tool for their students.

4. **GD-CS 19** *Teaching Tools Database*
The *Teaching Tools Database* is shaped in a way to help teachers understand how the tasks for students should be prepared in order to get them involved in reasoning and searching for best solutions to problems. In addition to being a "store" of ready-to-use materials, the database is supposed to serve as a learning platform for teachers aimed at stimulating them to create their own materials and sharing the idea of incorporating key competences into their teaching practice.

Iniciativa	Socios	Código
Mobile Learning Tutors **Austria**	– eLSA – ENIS Austria – eLearning Cluster Austria	**GD-CS 16**
ICT management and assessment model for schools **Estonia**	– Schools (administration and ICT departments)	**GD-CS 17**
Eduscratch **Portugal**	- Directorate General of Education (DGE) - Ministry of Education and Science - School of Education: Setúbal Polytechnic Institute - Sapo Portal (Portugal Telecom)	**GD-CS 18**
Teaching Tools Database **Poland**		**GD-CS 19**

Alcance de las iniciativas incluidas en GRUPO D	
Iniciativa	**Código**
Mobile Learning Tutors	**GD-CS 16**
ICT management and assessment model for schools	**GD-CS 17**
Eduscratch	**GD-CS 18**
Teaching Tools Database	**GD-CS 19**

1. La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con el uso pedagógico de las herramientas TICs y el consecuente desarrollo competencial que el mismo propicia.

A. The *Mobile Lernbegleiter* project started in 2009/2010 and is renewed on a yearly basis (with a break during the school year 2013/14). (…) [It] was the first one in Austria to include several school types and school levels in an e-learning project, which called for a consideration of different pedagogical cultures and management issues, depending on the different administrative responsibilities for each school type. (…) 1:1 initiatives in the US and Germany but also national experience with notebook classes at secondary level since 1998 (in the framework of future *Learning and eFit21*) served as an inspiration. Moreover, with mobile devices becoming more and more affordable, the project aimed to improve school lessons by making them more competence oriented. (…) The initiative is embedded in a general framework *Building Blocks of Pedagogy 2005-2018 competence oriented teaching* aimed at making teaching in Austrian schools more competence oriented. The starting point for this framework was setting educational standards in 2005 (…), based on the competence model developed by Anderson/Gratwohl; Weinert. Currently, the Austrian curriculum is being revised regarding key competences for several school types. **GD-CS 16**

B. In the national curricula for secondary schools and high schools adopted in 2010, it is stated that teachers must use up-to-date study materials and tools that are based on information and communication technologies (ICT). This requires the schools to be informed on the field of ICT, on teaching and learning with ICT tools and also on supervising and managing ICT resources. (…) There is a great deal of information on the field of ICT and many ICT management models, but these do not fit directly into the school context. For this reason school managers need a more adapted approach; schools need an approach that is in Estonian and that is adapted especially for them. In 2011, the *Tiger Leap Foundation* launched a programme on managing the field of technology and self-evaluation in schools. This programme consolidates the understanding of what is happening in the field of ICT management, helps schools to understand their actual level and to use their restricted resources in an effective way and provides schools with examples of best practice from the field of ICT management. **GD-CS 17**

C. Work on this initiative coincides with curriculum reforms in the Portuguese education system introduced in August 2012. The new curriculum requires the existence of an ICT subject in grades 7 and 8 that includes a target dedicated to the exploration of computational environments. Work carried out within the *EduScratch* initiative also counts towards corresponding to these new curriculum demands. (…) One of the most important enablers for the introduction of *EduScratch* has been the official recognition of digital competences in the curriculum, and also the official inclusion of Scratch as a recommended language for the development of this competence. **GD-CS 18**

D. Experience and research show that supporting students and teachers while introducing changes into the education system is crucial for the benefit of education (…) The new curriculum reform of 2008 in Poland underlined the concept of critical thinking and problem solving in teaching at all school levels. (…) The new Core Curriculum was introduced in lower secondary schools in Poland in 2009. The Curriculum underlines the importance of higher order skills and key competences in teaching and learning. With the change of approach in the Curriculum itself, new kinds of tasks and tests had to be created. In 2012, a new format of lower secondary school leaving exam was implemented. (…) As a consequence, tasks that could assess skills not just pure

knowledge were demanded. As the *Educational Research Institute* started its EU co-funded project "*Education Enthusiasts*" in 2009 the decision was made at the Institute to create a database with new kinds of tasks. It was supposed to be aimed mainly at teachers but available to the general public. (…) The *Educational Research Institute* developed a tool for teachers representing primary, lower secondary and upper secondary schools aimed at supporting their preparation for work with students.(…). The *Teaching Tools Database* is a living initiative – in December 2013. It was incorporated into a bigger entity called the *Good Practices Database*, and is constantly being developed. The updated website contains not only tasks directed at teaching and developing key competences in education, but also examples of good practices identified during the Institute's research. Those good practices also evolve around key competences and higher order skills and are real-life examples. **GD-CS 19**

2. La iniciativa constituye un programa oficial diseñado *ad hoc* con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.

A. The *Ministry of Education and Research´*s aim is to encourage and spread the use of different ICT tools in the teaching and learning process. (…) The Ministry was interested in the use of small size, energy efficient mobile devices in class to foster new forms of teaching and pedagogical settings in schools. (…) The *Federal Ministery for Education and Women's Affairs* coordinates the project. Participation in the project is open to all schools in Austria, provided that participating classes are equipped with mobile devices. (…) The project is implemented on a yearly basis, which allows for a certain flexibility to integrate new questions/topics in the project and to develop some hypothesis further. According to the project coordinator, it is nonetheless important to online requirements as regards, pedagogy, technological and organisational issues of the project, also to enable a comprehensive and continuous evaluation of the project **GD-CS 16**

3. La iniciativa constituye un programa diseñado *ad hoc* entre distintos socios (de ámbito público y/o privado) con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.

A. This initiative is a ICT management model in order to enable schools to develop their capability, knowledge and skills. It is needed to support schools in using limited ICT resources in a well-planned way, to show the schools methods of self-development and to provide them with examples of best practice in ICT management. (…) The **ICT** management model was created in cooperation with ICT auditors, ICT managers and school representatives. The model focuses on the technology management field and is based on six criteria: leadership, strategy and planning, employees, resources and safety, processes and services, and results. In 2012, the ICT management model and programme successfully passed the piloting phase, in which 12 schools across Estonia participated. On 1 May 2013 the *Tiger Leap Foundation*, which originally managed and ran the piloting of the ICT management programme, was merged with two other organizations which, all together, now form the *Information Technology Foundation for Education*. The ICT management model is now being developed by the *Estonian Association for Quality* (*Eesti Kvaliteediühing*). **GD-CS 17**

B. The *EduScratch* initiative was implemented by the *Directorate General for Education* in partnership with the *Portuguese Ministry of Education and Science* and one of its *ICT Competence Centres*. (…) The main partner for the development of this project has been the *Ministry of Education*, through the official support of *EduScratch* in the form of human resources (one of the project coordinators is provided and paid by the Ministry) and also technical support for the project's online portal. The partnership formed with the private internet service provider *SAPO* has been important for the development of the project's online presence, through resource-sharing via the SAPO web portal, and more recently with the *MEO cable TV* (Channel 151232). Finally, the establishment of partnerships with other *ICT Competence Centres* has also been a decisive factor for the network development and coverage of the project, which is currently present throughout Portugal. **GD-CS 18**

C. The *Teaching Tools Database* was created by the *Educational Research Institute*, whose main objective is to carry out research in the field of education. The employers and experts of the Institute felt there was a need to create such a database but it never was supposed to become an initiative that would be used by all teachers or a project that would be implemented in every school. It is meant rather as a source of inspiration targeted at a specific group of people, not as a venture where a high number of recipients is the most important and ultimate goal. However, the idea is to reach as many teachers and as many schools as possible. **GD-CS 19**

4. La iniciativa se genera a partir de una colaboración entre distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas.

A. While the national Ministry is responsible for higher general secondary schools, the provinces are responsible for schools at primary and lower secondary level ('Volksschule'/'Hauptschule') (…) Of the 45 schools participating in school year 2012/2013, 15 schools were also eLSA schools and 12 schools were part of the ENIS network. Several project schools were also part of the eLearning Cluster Austria which already exists for 11 years. The fact that this project is partly embedded in existing networks enables synergies between the different networks, e.g. some schools also take advantage of support offered within the ENIS network and synergies exist in terms of dissemination activities. **GD-CS 16**

5. Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación secundaria.

A. The *Database* is still addressed mainly to lower secondary school teachers and most tasks are designed for this educational level. It is difficult now to create a similar volume of tasks for the second and fourth level and to pilot them in schools, mainly due to the lack of time. Also, research efforts concentrated mostly on the third educational level as the most problematic one, so plenty of material for this educational level was developed. **GD-CS 19**

6. Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación básica.

A. It has been successfully implemented in grades K-12, with a naturally increasing level of complexity. Moreover, it contributes to the curricular integration of ICT, as well as giving context to the implementation of ICT curricular goals in grades 7 and 8. **GD-CS 18**

7. Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.

A. It is open to all Schools in Austria at all school levels. The secondary school level was the starting point of the project, as these schools are usually better equipped and parents are more willing to invest money in their children's education. Different school types at primary and secondary level are involved in the project. One difficulty with fostering the collaboration between different school types is that their school culture, administration, pedagogical concepts, way of working and budget possibilities can differ. (…) To connect different school types is a more innovative approach but also more complex. **GD-CS 16**

8. Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial de los estudiantes.

A. It is also counted as an enabler that today, ICT is the main supporting structure in all organisations and is depended on by all of the main and supporting processes in all organisations, including schools. The main goal of schools is to support learning and the learning process now depends on ICT. Examples of supporting processes that depend on ICT include providing schools with tools and planning school work. If the ICT in the main and supporting processes functions correctly, then the school's main and supporting processes also function well. **GD-CS 17**

9. Las TICs como herramienta principal para alcanzar propósitos pedagógicos, formativos, consultivos, de gestión escolar, etc.

A. The underlying objective is to enable innovative teaching and learning by using mobile devices in class on a regular basis and to develop students' digital competences, but also their media literacy, social competence, ability to respond positively to criticism and self-organisational skills. (…) The participating schools experiment with 1:1 pedagogy using different mobile devices e.g. netbooks, smartphones, tablets. (…) (…) There could be a stronger focus on content (ebooks, MOOCs) and context questions (e.g. forms of intervention in the lessons). Other topics considered for the future of the project is using the flipped classroom concept to support media literacy and to engage in an exchange on an international level. **GD-CS 16**

B. The goal of the ICT management and assessment model for schools is to develop the ICT competences of school personnel, especially the schools' administration and management (head teachers, head of ICT etc.) as well as teachers. Through educating the teachers we are also educating the students. (…) [An] enabler of the programme is a need to support schools in using limited ICT resources in a well-planned way, to show the schools methods of self-development and to provide them with examples of best practice in ICT management. Participating in the programme enables schools to understand their level of ICT management and to improve their level through training, self-evaluation and feedback from consultants. **GD-CS 17**

C. *EduScratch* is an initiative aimed at promoting the educational use of a programming language – Scratch – by supporting, training and sharing good practices among the Portuguese educational community. (…) This tool allows the development of computational thinking and has proven to have huge potential in developing different types of skills (digital and subject-relate) in students. **GD-CS 18**

D. The *Teaching Tools Database* is shaped in a way to help teachers understand how the tasks for students should be prepared in order to get them involved in reasoning and searching for best solutions to problems. In addition to being a "store" of ready-to-use materials, the database is supposed to serve as a learning platform for teachers aimed at stimulating them to create their own materials and sharing the idea of incorporating key competences into their teaching practice. **GD-CS 19**

10. La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado y de la gestión escolar en su conjunto: de las TICs como objeto al uso pedagógico de las TICs como herramientas pedagógicas.

A. General possible obstacles in schools are the lack of digital competence and resistance from both teachers and students. (…) The project fosters in particular the development of students' digital competence. The definition of the ICT use in school currently used in the project was only developed in 2013 (…). A clear definition of the term became necessary because for some schools the difference between "ICT as a subject" and "e-learning" was unclear; a clear distinction between both terms was missing. The developed definition focuses on three dimensions (Pedaogy, Didactics/ Learning theory, Technical didactics) and five different levels of use of ICT in school. It is an outcome of the work of this project since 2010 and earlier notebook projects. The definition is based on a previous overview developed by the project coordinator Christian Schrack in 2006. **GD-CS 16**

B. For the school teams, the most difficult aspect was understanding the main concepts of ICT management, such as "processes" and "services". Since school management in Estonia is still very traditional, it was difficult for the school teams to comprehend which are the processes that occur at school (e.g., printing is a process that can be optimised), and which are the services that a school offers, should offer and is able to offer. School heads do not fully understand their role in technology management. They presume that ICT is the responsibility of ICT consultants or ICT teachers and underestimate their own role in this area. They also underestimate the importance of their position as the school's leader and as a role model for teachers; this affects the other members of the school – not just teachers but also students. (…) The fact that school heads and school personnel in the ICT management team could, using the knowledge they gained, explain their info-technological needs (including hardware) to

school administrators (local municipalities) was also seen as an important added value. **GD-CS 17**

C. The main official focus of this initiative is the development of digital competence, present at various levels throughout the curriculum. Activities have therefore been developed to work with teachers and students from grades K-12. In particular, the main efforts to spread this initiative have been targeted at the development of in-service training for teachers at all levels and in all subject areas. **GD-CS 18**

D. [An] objective was to encourage teachers to ask questions and give comments about the database and the tasks (…). In the first months of the *Database*'s existence many questions appeared, not only about the content of tasks themselves but also about how the tasks are constructed to measure competences. The authors are always very happy to receive these kinds of questions as they mean that teachers are trying to write tasks themselves and one of the general goals of the database is to inspire and train teachers. At present, the strategy is to publish news tasks regularly. **GD-CS 19**

11. Despliegue de la iniciativa a partir de una propuesta formativa inicial centrada en el desarrollo de la competencia digital.

A. The project has been divided in three phases, starting with a small number of pilot schools. In 2009/2010, 7 pioneer schools already experienced with e-learning tested the use of netbooks with regard to the possibilities for new teaching and learning methods. (…) Second phase: Pilot phase**:** In 2010/2011, further pilot schools started using netbooks, with the support of the experienced schools and experts within the network. In total, 25 schools participated. These pilot schools had, in contrast to the pioneer schools, only an average level of infrastructure and limited experience with e-Learning. (…) Upon completion of this phase, again a strategic decision was taken concerning the next phase of the project. Third phase: Regular implementation: Since the school year 2011/2012, the possibility to test the developed model is open to all Austrian schools, provided that the participating classes are equipped with mobile devices. The project supports the schools in their dissemination activities. That school year, 27 schools participated. Since 2012, the project recommends the use of the "BYOD" concept which allowed for a major enlargement of the network. For the school year 2012/2013, 45 schools participated. (…) The project design and organisation is currently designed for a rather small group of innovative project schools. (…) If the number of participating schools continues to rise, the project design would have to be adapted. New forms of exchange, other forms of moderating the exchange and a higher number of meetings could be envisaged. **GD-CS 16**

B. In the spring of 2011, an expert group of 15 members was created. (…) In March 2012, the search for schools willing to participate in the pilot project began. Twenty schools across Estonia originally registered, with 12 schools completing the pilot year. Two one-day training sessions were organised for the ICT management experts from the private sector and the external consultants. For the ICT management experts it was compulsory to attend at least one training session (the other was optional), while both training session were compulsory for the external consultants. (…) It was originally planned that the ICT management model would be offered to all interested schools in 2013 but, due to budget constraints, this was not possible. **GD-CS 17**

C. Since its introduction, the popularity of *EduScratch* has grown steadily. In 2009-10, the initiative began with in-service training workshops across the country. This approach

has developed a network of certified trainers in other *ICT Competence Centres*, contributing to a growing impact of the initiative. From an initial development based in the *Setubal ICT Competence Centre*, there are now four centres (Minho, Coimbra, Santarem and Évora) that are actively engaged in dissemination and training activities. However, the impact at classroom level has not yet been clearly quantified. Project leaders have developed an implicit notion of the impact of the initiative through levels of participation in national conferences and in *EduScratch Day* (2010, 2011, 2012, 2013) where students presented their projects (with an exponential growth in the number of participants), and also from the growing number of student projects shared via the *EduScratch* online portal. **GD-CS 18**

12. Transversalidad curricular y competencias clave

A. The underlying objective is to enable innovative teaching and learning by using mobile devices in class on a regular basis and to develop students‘ digital competences, but also their media literacy, social competence, ability to respond positively to criticim and self-organisational skills. (…) The evaluation report 2010/11 recommends to embed the project in the general school development strategy: cross-subject projects including several classes, teacher visiting their colleagues’ classes, organisational development and evaluation are recommended. **GD-CS 16**

B. Even though its natural focus is on ICT competences, *EduScratch* has also had a diverse impact on a variety of other key competences, depending on the different implementation context. For example, when implemented within the context of mathematics classes it has clearly contributed to the development of mathematics competences; when used in the context of foreign language classes it has had an impact on the development of competences in this area. Furthermore, given the innovative nature of *EduScratch* projects, the initiative has also brought about a clear development of other key competences: e.g. communication skills when participants are required to share, discuss, clarify and present their projects; learning to learn competences due to the highly student-centred approach; and also initiative and entrepreneurship, since students are encouraged to adapt and customise their own projects. Therefore, although the main focus of *EduScratch* is on the development of digital competences, we have found that all other key competences have also been supported, to varying degrees, depending on the contextual factors of implementation. **GD-CS 18**

13. Coordinar las acciones desde una organización central dando protagonismo a la red de participantes.

A. The project *Mobile Lernbegleiter* is a network of schools. (…) The project origins are “bottom up” and stem from the coordinator Christian Schrack who developed the idea for the project. (…) Successful elements of this project such as developing the project by establishing a focus group at the school and the idea of a “gradual didactical transformation” inspired the current project *Mobile Lernbegleiter*, which was then initiated by the Ministry. (…) The concept of one organisation providing central support, inspiration and guidelines to the schools while leaving flexibility to each school on how to implement its own project, proved to be an efficient approach welcomed by the schools. (…) Each year, the project coordinator organises two meetings for all participating schools. (…) During the school year, each school

implements its own project. (…) The project coordinators published 10 step guidelines for the implementation at school level. **GD-CS 16**

B. The reduced size of the official team coordinating the project inhibits its possible outreach and support to a larger network of participating teachers. This obstacle has been partially overcome through the development of the capabilities of the ICT Competence Centres to support *EduScratch*-related activities throughout the country. **GD-CS 18**

14. Organizar una red de formadores de docentes.

A. [The initiative has designed] teacher training and the development of a network of teacher trainers to support *Edu-Scratch* activities. (…).This training has taken a variety of formats, ranging from two- to three-hour dissemination presentations, to 15-hour officially-certified workshops. These longer workshops have been the main format adopted and are where the greatest efforts have been channelled. The workshops have adopted an extremely interactive model in which, after a short presentation of the Scratch software, participating teachers are prompted to actively engage with the programme in order to develop their competences. Moreover, participating teachers are required to develop classroom projects with their students that are supported and discussed throughout the workshop, and then to present their projects and student products in the final workshop sessions. Furthermore, there has also been an effort to customize the in-service training workshops for different grade levels and subject areas whenever possible. **GD-CS 18**

15. Integrar al plan de formación docente la perspectiva que aportan expertos en diversas disciplinas (enfoque multidisciplinar).

A. The [expert] group included ICT management experts from the private sector, school representatives and representatives of the *Tiger Leap Foundation*. The experts developed an ICT management model, a self-evaluation test, a booklet on **ICT** management and a training programme on ICT management for schools. A system of external experts/consultants was also developed within the expert group, with a training programme allowing the expert group to understand the school context, how to assess schools, what are the needs of schools, etc., and a more thorough self-evaluation form for schools and an external evaluation form for the experts that were sent to schools were drawn up by the expert group. **GD-CS 17**

B. (…) Already in 2009 and 2010 Institute [*Educational Research Institute*] experts were preparing the new format tasks for their research studies and most of those tasks were being piloted in schools. The tasks in the database are of a very good quality, with the best psychometric parameters (…) Tasks in the *Database* undergo a few stages of verification – they are reviewed, piloted, checked statistically and also need to be approved by heads of research subject teams at the Institute before they are published in the *Database*. (…) The tasks and good practices included in the database are prepared by subject experts at the Institute. The *Subject Teaching Unit* is responsible for the content of the TTD. The *Unit* consists of a Polish team, maths team, science team, history team and foreign languages team, each led by a leader, usually a renowned expert in the subject matter. **GD-CS 19**

16. Conveniencia de que los integrantes del equipo profesional compartan entre ellos los temas y la fundamentación del conocimiento que cada uno de ellos aporta a la formación (enfoque transdisciplinar).

A. The most problematic part of ICT management and assessment model was related to trainings. According to the feedback, in the future more emphasis should be placed on training all three parties (school teams, school ICT consultants and ICT management experts) and the training sessions should focus on explaining the basics of the topic, so that the knowledge and understanding of all parties would be based on the same foundation. Creating common basic knowledge enables participants to move forward in the programme at the same pace and ensures that evaluation results are comparable. **GD-CS 17**

17. Sesiones de formación dirigidas a los gestores escolares.

A. The training sessions focused mainly on introducing the specifics of ICT management in schools, presenting the ICT management model, establishing the external evaluation process and explaining the evaluation according to the model. (…) The most important aspect for partners in the ICT management and assessment initiative is that all the partners (school teams, school ICT consultants and ICT management experts, mostly from private sector) have some common basic knowledge about ICT management and school context. The importance of understanding how schools work, what are their needs and goals is important to create an initiative that works well and is focused on the real needs of schools. **GD-CS 17**

18. Grupos de expertos evalúan el uso de las TICs en la gestión escolar y emiten informe orientador

A. A school visit by a three-person group consisting of external evaluators and consultants also took place. This group was made up of one ICT management expert (from the private sector) and two ICT consultants from other schools. The external evaluators came to the school, studied the school's self-evaluation form and discussed issues of **ICT** management together with the school team. After the visit, the external consultants filled in the external evaluation form and the schools received oral and written feedback on their technology management. The feedback indicated what was done well in the school, what could be done better and also suggested some concrete steps that the school could implement in order to ensure that their ICT management was more systematic and would better fulfill the needs of the school. After attending the training session, the schools were asked to carry out a comprehensive self-evaluation on technology management, for which they could also use a form on the programme's website. **GD-CS 17**

19. Auto-evaluación del equipo escolar

A. Schools taking part in the pilot project had to put together a team in their school that would implement the ICT management project. After putting their team together,

schools had to carry out the self-evaluation, for which there was a web tool on the ICT management and assessment model for schools website. The first self-evaluation test consisted of about twenty questions that gave the school an initial overview of what ICT management is all about, how it fits into the school context and the ICT management level in their school. For school teams not familiar with ICT management concept, the self-evaluation test tended to be superficial. (…) For schools, the most important aspect of the programme was learning to evaluate themselves accurately without over- or underestimating their capacities (…). Schools stated that they would have liked more in-depth feedback, including more specific guidelines and examples, following the visit from the external evaluators. The feedback they received from the evaluators consisted mostly of numbers, but the schools did not know how to interpret these numbers in order to plan their next steps and to improve the situation within the school. Since the evaluators were not well acquainted with the context of the schools, the school teams would have liked more contact with them, in order to analyse the process and results of the evaluation in greater depth. **GD-CS 17**

20. Recursos para el docente: tareas y buenas prácticas que fomentan el desarrollo competencial del alumnado.

A. The tasks included in the *Teaching Tools Database* measure and assess scientific reasoning, critical thinking, concluding, interpretation, argumentation, experiment design etc. They focus on shaping skills not just testing pure knowledge. The tasks are accompanied by real-life texts, examples, maps, tables and graphs. (…) At present, it comprises approximately 700 tasks and 30 examples of good practices accessible on-line. The specific subjects concerned are history, Polish language, mathematics and science. (…) Students interviewed pointed out that the tasks are unique, different than in textbooks and revision books. They measure student's reasoning and it is fairly easy to make a mistake. The analyses of results and explanations came in handy as well. The students stated that standard materials just gave the right and wrong answers without any comments about what to do to improve. (…) What brings the biggest value is the work of practising (professionally active) teachers as they have the insight and knowledge about what is easy for students, what is difficult, what works better in the classroom, etc. **GD-CS 19**

21. La necesidad de reflexionar acerca de las características de las tareas que propician el desarrollo de las competencias clave.

A. Consistency among subject tasks was the biggest issue. The tasks can be found according to Core Curriculum requirements or according to subjects. Each school subject has its characteristic features, a slightly different approach to content matter, and focuses more on different aspects of teaching and learning. The authors wanted all tasks, no matter what subjects they refer to, to be constructed in the same way and in a similar format. The key issue at the beginning was to come to an agreement how to make the tasks consistent, especially given that the authors of the tasks come from different teaching and subject traditions and from different regions of Poland and have varied backgrounds. An attempt was to be made to find a consensus not only about the way of thinking about the tasks and the way of presenting them but also about simple matters like task descriptions and what should be included in comments for each task. **GD-CS 19**

22. Relaciones entre las tareas y las competencias específicas que su resolución permite desarrollar.

A. The intention of the authors was to create high quality tasks and shows diverse tasks formats rather than present just a high volume of tasks. The goal was to inspire teachers rather than bombard them with just another source of ready-to-use materials. That is why carefulness about the commentaries for all tasks was expressed – attention was paid to the description of the purpose of the task, the competences and skills covered and the task structure. Statistics on right and wrong answers are provided in order to make teachers aware what they should pay attention to in their further work with students. **GD-CS 19**

23. Participación de los docentes en la elaboración de materiales que la iniciativa incluye en su propuesta.

A. The teachers play a vital role in testing the solutions used in the TTD. Their comments are invaluable. All tasks are first tested by practising teachers and then standardised on a large number of students. If it happens that a task does not achieve high statistical parameters, it is not uploaded onto the *Database*. **GD-CS 19**

24. Los libros de texto escolar: la necesidad de que sean compatibles con el modelo competencial

A. It was not only teachers who took advantage of the *Database* but also publishing houses preparing new textbooks and the authors of exam tasks. Some forms of tasks that first appeared in the *Database* were later used in textbooks, some for regional student competitions and even for final exams. **GD-CS 19**

25. El equipo docente se constituye en una comunidad de estudio dedicada a analizar el uso pedagógico y/o en la gestión escolar de los entornos de las TICs.

A. The focus is on the integration of mobile devices in the lessons in order to make them more competence oriented and improve the quality of the lesson. The particularity of the project is that schools have a lot of flexibility on how to implement the project based on these principles [establishing a focus group at the school and the idea of a “gradual didactical transformation”]. The peer exchange between schools is a core aspect of the project which schools appreciate. Schools also actively shaping the focus of the project, e.g. the future focus on tablets reflects the schools interest in the topic. (…) the project benefits from the ideas coming from the schools themselves, which is encouraged at central level. (...) [An] enabler is to build a “focus group” of teachers which initiates and implements the project at school level. This group has to receive training. (…) All evaluation reports highlighted the need for more training and professional development opportunities for teachers. Teachers expressed the wish for more training on the use of mobile devices in general and adequate software in particular. **GD-CS 16**

B. For the schools taking part in the pilot project, the start of the process meant that they had to put together a team in their school that would implement the ICT management project. The team had to have up to five members, including the principal, head teacher and the head of ICT (ICT manager, ICT consultant etc.). In addition, having a teacher in the team was considered as an added value as this gave the team's work a pedagogical perspective. **GD-CS 17**

C. The *EduScratch* initiative aims to contribute to the creation and development of a teachers' community of practice on the educational use of an intuitive programming tool. (…) This initiative aims to promote the educational use of the programming language Scratch by supporting, teaching and sharing good practice among members of the Portuguese educational community.(…) **GD-CS 18**

D. The *Teaching Tools Database* was intended to show the new Core Curriculum guidelines in a practical way. Sometimes, as research shows, the guidelines are complicated and not very practical for teachers; teachers do not know how to make use of them in the classroom. So it was decided to show them how to teach and assess the key competences that the new Core Curriculum focuses on. In the *Database* there is always a reference to a specific requirement/point in the Core Curriculum (general and detailed), so this ways teachers know that the curriculum is a document that can be practically implemented in their everyday work. In this respect, there is a systemic change behind the *Database*: promoting the new Core Curriculum among teachers and making it easier for them to understand. Going a little bit further, there was an intention to promote the content of the curriculum, especially the general requirements that consist mainly of key competences. The idea was also to show teachers how those key competences can be taught and assessed by multiple-choice tasks in a friendly way. **GD-CS 19**

26. El equipo directivo ejerce un papel decisivo en el desarrollo de la iniciativa en ámbito escolar.

A. Without the support of the school management and the head master it is not possible to run such a project. (…) The project has not been designed as a systemic one from the starting point. The project, however, recognises the importance of factors like the school organisation and management, training and evaluation. **GD-CS 16**

B. As ICT management is strongly connected with the topic of management, the principal [School head] had to be involved in all phases. The principal, together with the head of ICT, was required to critically evaluate the school's situation in terms of ICT management and introduce the changes needed. (…)As the ICT management programme focused mainly on management issues, participating in the programme had a remarkable effect on the work of the principals, who began to understand the influence of their actions on the schools' operation, teaching and learning. (…) Since participation in the programme developed their perception of the field of technology, school heads also began to understand the importance of regular training.**GD-CS 17**

27. Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.

A. The aims of the project were to develop the pedagogical use of mobile devices in class and to foster the cooperation between different school types. (…) Peer Exchange between schools is an important element of the project. Each year, a certain percentage of "new" schools is taken on board which can take advance of the experience of the "old" schools. The ratio of "old" schools/ "new" schools being around 60:40 has proven to favor an effective transfer of knowledge and experience. (…) In 2011/12, the project started a particular type of collaboration between schools: so-called "vertical collaboration". The project supports the forming of local and regional school clusters, with one secondary school exchanging with their feeder schools in the region on the use of mobile devices in class. Each of the clusters selected its activities itself and activities were very different in each cluster. (…) In the school year 2012/13, 13 of these clusters were in place, compared to 9 the year before. (…) In general, the initiative has been perceived as quite successful. In particular, fostering the peer exchange between schools has worked well. **GD-CS 16**

B. For the participating schools, the most valuable lesson was learning to perceive ICT management as a whole and to understand its supporting role in the everyday work of the school. Having the chance to learn from the experience of other schools was also seen as important, since this is something outside the norm of regular school work. Schools and principals work separately and do not exchange their knowledge and experience with each other. (…) After the self-evaluation, team members were required to read through the booklet on ICT management before taking part in a two-day ICT management training session. This practical training session presented different practices from various schools, gave participants the chance to discuss questions from the self-evaluation test and placed a great deal of emphasis on the work of school teams. **GD-CS 17**

C. There has also been an effort to provide direct support to schools (teachers and students), not only through an active community of practice for Scratch users, but also through the projects developed at the schools, in order to showcase successful experiences and to promote students supporting other students and teachers. (…) Concerns for the project's sustainability focus on assuring an on-going investment in teacher training, with the aim of enabling the project's community of practitioners to become more autonomous and self-driven, with the establishment of medium- and long-term goals. Also crucial for this will be an increase in the number of staff involved in the implementation of the project and a more active engagement of the *ICT Competence Centres*. **GD-CS 18**

28. El intercambio de experiencias, estrategias, consultas, etc. entre los equipos docentes favorece el desarrollo profesional de los docentes.

A. One key aspect of the project is to enable face-to face peer exchange between teachers. Both the big project meetings for all schools and the cluster activities have been very well received. The main benefits are the possibility to exchange, getting to know new problem solving strategies and learning from each other. The exchange encourages schools to try new things. It is also helpful for the schools to know that other schools face the same problems. Visiting each other is also a recognition of the school's work from outside which is perceived as motivating. Schools also found it positive that

working together with other schools on a project put a higher pressure on them to actually complete it. **GD-CS 16**

B. All ICT personnel who have participated in the initial training will then have the chance to become an external consultant for another school, giving them an opportunity to discover best practices in ICT management from other schools and to gain a better insight into ICT management in general. **GD-CS 17**

C. There has also been an effort to provide direct support to schools (teachers and students), not only through an active community of practice for Scratch users, but also through the projects developed at the schools, in order to showcase successful experiences and to promote students supporting other students and teachers. **GD-CS 18**

D. Meetings with teachers while promoting the *Database* proved to be most effective. Although the *Database* is really an online tool and there is no need to meet face-to-face with the initiative's target groups, the Institute organises meetings with teachers just to present the *Database*. Special meetings with teachers and parents were held especially when it was first launched. Those meetings were very productive as they gave the teachers' perspective and they in turn received the researchers' perspective and the philosophy of the tool. Even sceptical teachers usually left meetings convinced that the Database is worth having a look at. Teachers (…) appreciate the statistical data that is published under tasks and references to Core Curriculum guidelines. They underlined that the Database is very useful for exam preparations and extra classes. What they also liked was the idea of including the TTD in the *Good Practices Database* and showing a wider context of tasks and other materials being put together in one place. It seems to be a practical solution as they have easy access to a wider range of materials and they do not need to waste time looking for interesting ideas on different websites. **GD-CS 19**

29. La *cultura de la colaboración* propicia que todos los participantes (alumnado, profesorado, formadores, equipo directivo, etc.) logren mejores niveles competenciales.

A. The design of the initiative, being renewed on a yearly basis, allows for a certain flexibility to take on board new upcoming issues. The focus topics only became apparent, as the project developed and the participating schools were very active in defining a new focus/areas of interest. The project started as a netbook initiative. Therefore, netbooks and the question whether these new devices could play a role for mainstreaming were at the focus of the school year 2010/11. Vertical collaboration between secondary schools and their feeder schools was in the focus of the work of the two following school years. Since 2012/13, the project does not focus on a particular device anymore and promotes the "BYOD" concept. In the future, tablets could be increasingly in the focus of the project, as this is also a topic of interest for the schools. (…) Typical activities were projects on specific topics allowing for the exchange between students, exchange of knowledge and experience, further trainings together and school visits. Examples for project topics schools collaborated on are e-safety, preparation for the job market, healthy nutrition, and the use of mobile devices in science subjects and language classes. **GD-CS 16**

B. The focus on in-service teacher training has been an active investment to empower a large number of teachers in order to reach many student classrooms. (…) [The two decisive factors supporting the development of this project were, on the one hand,] the

development of a large community of practice of teachers who support each other (online and face-to-face) and who help their colleagues with the implementation of Scratch projects and resources [and on other hand] the emergence of a number of highly-skilled volunteers (mostly retirees) who offer their time and expertise to support teachers and students throughout their Scratch projects (both online and in the classrooms). **GD-CS 18**

30. El profesorado recibe certificación de la formación continua que recibe en el contexto de la iniciativa.

A. This training has taken a variety of formats, ranging from two- to three-hour dissemination presentations, to 15-hour officially-certified workshops (…) This approach [service training workshops across the country] has developed a network of certified trainers in other *ICT Competence Centres*, contributing to a growing impact of the initiative. (…) The teachers in Portugal need to complete a minimum number of in-service training hours per year, the programme developed certified workshops so that they could be counted towards teachers' required training hours. **GD-CS 18**

31. La escuela asume un compromiso con la iniciativa.

A. (…) the free choice of devices for the school is seen as an enabling factor, as it raises the acceptance of the project both by students and their parents. (…) Each participating school has to ensure that the participating classes have mobile devices. In the past, the project coordinator helped to organise netbook offers for the schools; in recent years schools make increasingly use of the *Bring Your Own* device "BYOD" concept. (…) The funding of the mobile devices is an issue to be tackled by the schools and raises the question of social equity, incase parents ca not buy the device. The schools interested in the project are responsible for ensuring that each participating class is equipped with devices. **GD-CS 16**

B. Participating in the programme enables schools to understand their level of ICT management and to improve their level through training, self-evaluation and feedback from consultants. (…) Every school that takes part in the project completes an online self-assessment regarding its ICT management, following which members of the school administration and ICT department are offered ICT management training and all participants receive a best practices in ICT management handbook. Following this training schools undergo a deeper process of self-assessment regarding their ICT management and are provided with an external ICT management consultant who provides feedback and advice according to the results of the self-assessment. External consultants help to identify the gaps between schools' self-assessment and external assessment. **GD-CS 17**

32. La escuela tiene que disponer de infraestructura TICs para desarrollar la iniciativa.

A. For the schools new to the project (in particular primary and upper secondary level), technology and equipment were still an issue: the infrastructure at the school and a reliable internet connection had to be put in place. At school level, there should be rules

in place regarding the maintenance of the infrastructure; one person at the school should be responsible. In particular, at primary schools, these structures still had to be put in place. Even when a school opts for the "BYOD" concept, it still has to ensure that it has a certain infrastructure in place. The concept brings even new challenges for the school infrastructure and the lesson delivery in terms of compatibility of different devices. When introducing mobile devices in class, an orientation phase is necessary in the beginning both for teachers and students, especially if they have no prior experience of working with the devices. For the "old" project schools, technology and infrastructure has not been an issue anymore. **GD-CS 16**

B. The diversity in the levels of school and student resources is often an obstacle to ICT-related projects in general, and to *EduScratch* in particular. In fact, while some schools are already very well equipped, most schools do not have enough functioning resources. (…) One particular obstacle in this area has been the erratic functioning of the *Edu Scratch* portal, crucial for the maintenance of the community of practitioners, and which has recently been targeted by spam attacks that led the ministry systems administration to temporarily reduce the portal's interactive resources. **GD-CS 18**

33. Responsabilidad del alumnado en relación con el uso de las TICs.

A. [An] element that worked well was to give students responsibility for their own device and to allow for the use both at home and school (for educational and non-educational purposes). (…) The project coordinator recommends participating schools to conclude an agreement with each student on the use of the mobile device. (…) One issue the project devoted particular attention to was the potential of mobile devices to distract the students' attention. (…) The majority of teachers does not seem to see this risk of distraction as a fundamental problem to the use of mobile devices. **GD-CS 16**

34. La *Website* como contexto de comunicación y seguimiento de las propuestas.

A. Online collaboration is the basis of the cluster activities, but can not replace the personal contact. The step from "meeting virtually to meeting face-to-face" has been seen as an important enabler for the project work between schools. Therefore, the schools being located close to one another can be beneficial to the project. In the school year 2012/2013, so-called "Buddy-systems" were often developed and tested: older students taught younger students from other schools. This concept has proven to be a win-win situation for all students involved. (…) During the cluster projects several achievements of the project became apparent: students digital competences and media literacy improved as well as their subject knowledge. Further, social competences were fostered, e.g. empathic skills, collaboration skills, project management and pedagogical skills. The project work also improved the relationship between students and their teacher. Finally, the project fostered teachers' professional development and motivation. **GD-CS 16**

B. Schools taking part in the pilot project had to put together a team in their school that would implement the ICT management project. After putting their team together, schools had to carry out the self-evaluation, for which there was a web tool on the ICT management and assessment model for schools website. **GD-CS 17**

C. The partnership formed with the private internet service provider *SAPO* has been important for the development of the project's online presence, through resource-sharing via the SAPO web portal, and more recently with the *MEO cable TV* (Channel 151232) the use of EduScratch (...) the impact is clear from the presented student projects (both in traditional conferences and on the online portal), and from teachers' reports on students' accomplishments and increased motivation in a variety of areas (even outside of school). **GD-CS 18**

D. A special website was constructed and is open for everybody wishing to participate. Although mainly addressed to teachers, students and parents can also benefit from it. What is worth mentioning is the fact that teachers and other website users can exchange their views on the tasks included in the database as well as provide administrators with useful comments. Opinions collected via Internet show that the database is well evaluated by teachers as a helpful instrument that supports them in their everyday work with students.(…) The updated website contains not only tasks directed at teaching and developing key competences in education, but also examples of good practices identified during the Institute's research. Those good practices also evolve around key competences and higher order skills and are real-life examples. **GD-CS 19**

35. Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.

A. The project coordinators published 10 step guidelines for the implementation at school level. The first steps are to define the motivation to use mobile devices in class, identify a target class and convince parents. Then each school should develop a pedagogical concept for the school, conclude agreements with each student on the use of the mobile device and check whether infrastructural /technical requirements are in place. As a next step, the pedagogical concept should be implemented together with several teachers (including the visits of each other lessons). Finally, there should be an exchange with other schools and a strategy for the sustainability of the project. The evaluation report 2010/11 showed that most of the schools had implemented the 10 steps programme entirely or partly by the end of the school year. **GD-CS 16**

B. The ICT management programme ensured that the schools ICT documentation (guidelines etc.) was reviewed. It was also concluded that this documentation should be renewed on a regular basis, since the field of information and communication technology is a rapidly developing one. (…) In June 2013 a new and improved version of the ICT management booklet was published, where examples of best practice from the pilot schools were added. In addition, examples of documents were added to the booklet for other schools to use and adapt to their own needs. **GD-CS 17**

C. The Institute publishes a newsletter that is sent to subscribers and people interested are informed about new materials that are ready and waiting for them online (of course, there is always an option of just printing the tasks). **GD-CS 19**

36. Participación familiar

A. Parents need to be informed in advance about the advantages of working with a mobile device in school. Since 2011/12, the project recommends schools that students can bring and use several devices "BYOD". In that setting, parents' consent is even more crucial. It proved to be helpful to show parents what happened in the classroom and explain to them that mobile devices enable new forms of innovative pedagogy. Another enabling element seems to be a quick start of the project after the decision on using 1:1 devices in a specific class has been taken, to avoid frustration on the side of parents and students. **GD-CS 16**

37. La participación de las instituciones académicas (universidades, centros de investigación o centros de formación inicial del profesorado) en la dinámica y/o investigación de la iniciativa.

A. The programme coordinators point out the necessity for more applied research into the development and transference of key competences into traditional curricular areas through the use of *EduScratch*. Even though the impact is clear from the presented student projects (both in traditional conferences and on the online portal), and from teachers' reports on students' accomplishments and increased motivation in a variety of areas (even outside of school), there is a recognition for the need for formal research in the area in order to more clearly explore this intended result. **GD-CS 18**

38. La importancia de informar/difundir/promocionar en el ámbito docente las posibilidades que ofrecen los recursos virtuales sobre prácticas de enseñanza y evaluación, y competencias.

A. Another pending issue is the promotion of the *Database* among teachers. The Institute realises that its website is not the typical place where teachers would look for materials that they could use in their everyday work. They would rather search special websites and portals that are dedicated especially for this purpose. Various attempts to promote the *Database* were made, also with the help of a professional PR agency. An example of an activity that was designed to make the *Database* known to the general public is the Good Practice in History lessons competition. It was designed for teachers to come up with good practices in real school situations. Simultaneously, the *Database* was promoted on the radio and in national newspapers. The authors of the tasks wrote articles for educational newspapers, always with examples of tasks in the *Database*, we also published comments to the exam tasks and always took the opportunity to direct people to the *Database*. However, it cannot be said that the Institute is a hundred percent satisfied with the results of these promotional activities. It is aware that there are many teachers who do not know about the existence of the *Teaching Tools Database* and there is still some work to be done. **GD-CS 19**

Resumen: variables seleccionadas en el Grupo D (4 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet): Código de las iniciativas: GD-CS 16; GD-CS 17 GD-CS 18; GD-CS 19

GD	Variables identificadas	Nº de veces que se COMPARTE
D1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con el uso pedagógico de las herramientas TICs y el consecuente desarrollo competencial que el mismo propicia.	**4**
D2	La iniciativa constituye un programa oficial diseñado ad hoc con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**1**
D3	La iniciativa constituye un programa diseñado ad hoc entre distintos socios (de ámbito público y/o privado) con la intención de facilitar a los equipos escolares y al alumnado el desarrollo de la competencia digital a través del uso pedagógico de las TICs.	**3**
D4	La iniciativa se genera a partir de una colaboración entre distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas.	**1**
D5	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación secundaria.	**1**
D6	Iniciativa centrada prioritariamente en el desarrollo competencial del alumnado de educación básica.	**1**
D7	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**1**
D8	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial de los estudiantes.	**1**
D9	Las TICs como herramienta principal para alcanzar propósitos pedagógicos, formativos, consultivos, de gestión escolar, etc.	**4**

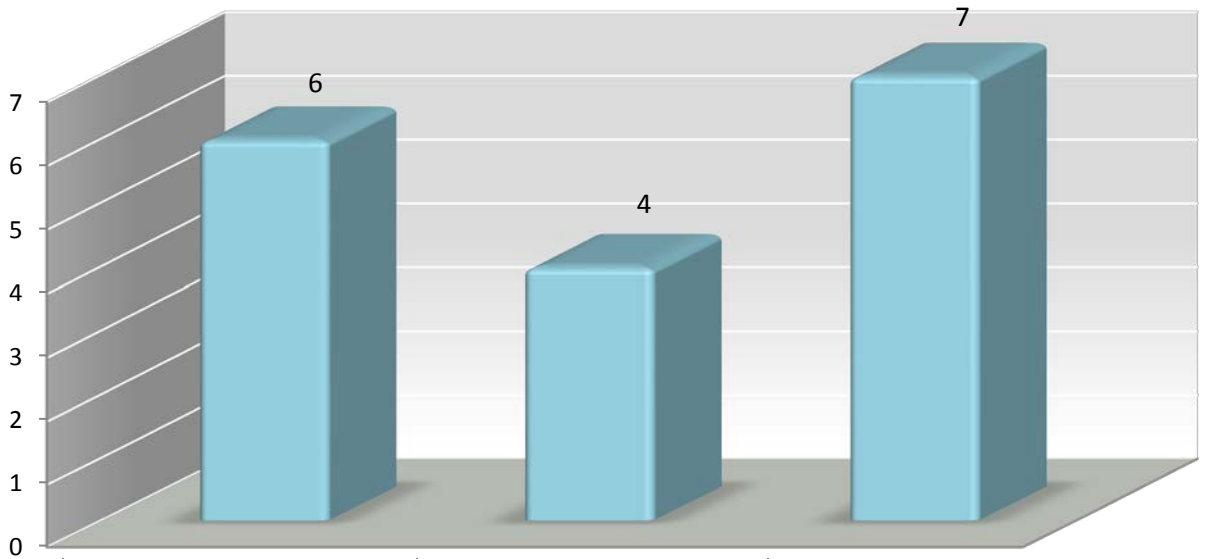
D10	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado y de la gestión escolar en su conjunto: de las TICs como objeto al uso pedagógico de las TICs como herramientas pedagógicas.	**4**
D11	Despliegue de la iniciativa a partir de una propuesta formativa inicial centrada en el desarrollo de la competencia digital.	**3**
D12	Transversalidad curricular y competencias clave	**2**
D13	Coordinar las acciones desde una organización central dando protagonismo a la red de participantes.	**2**
D14	Organizar una red de formadores de docentes.	**1**
D15	Integrar al plan de formación docente la perspectiva que aportan expertos en diversas disciplinas (enfoque multidisciplinar).	**2**
D16	Conveniencia de que los integrantes del equipo profesional compartan entre ellos los temas y la fundamentación del conocimiento que cada uno de ellos aporta a la formación (enfoque transdisciplinar).	**1**
D17	Sesiones de formación dirigidas a los gestores escolares.	**1**
D18	Grupos de expertos evalúan el uso de las TICs en la gestión escolar y emiten informe orientador	**1**
D19	Auto-evaluación del equipo escolar	**1**
D20	Recursos para el docente: tareas y buenas prácticas que fomentan el desarrollo competencial del alumnado.	**1**
D21	La necesidad de reflexionar acerca de las características de las tareas que propician el desarrollo de las competencias clave.	**1**
D22	Relaciones entre las tareas y las competencias específicas que su resolución permite desarrollar.	**1**

D23	Participación de los docentes en la elaboración de materiales que la iniciativa incluye en su propuesta.	**1**
D24	Los libros de texto escolar: la necesidad de que sean compatibles con el modelo competencial	**1**
D25	El equipo docente se constituye en una comunidad de estudio dedicada a analizar el uso pedagógico y/o en la gestión escolar de los entornos de las TICs.	**4**
D26	El equipo directivo ejerce un papel decisivo en el desarrollo de la iniciativa en ámbito escolar.	**2**
D27	Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**3**
D28	El intercambio de experiencias, estrategias, consultas, etc. entre los equipos docentes favorece el desarrollo profesional de los docentes.	**4**
D29	La cultura de la colaboración propicia que todos los participantes (alumnado, profesorado, formadores, equipo directivo, etc.) logren mejores niveles competenciales.	**2**
D30	Coordinación fluida y cooperativa para gestionar la conexión de experiencias, conocimientos, líneas de trabajo, recursos, etc.	**1**
D31	El profesorado recibe certificación de la formación continua que recibe en el contexto de la iniciativa.	**1**
D32	La escuela asume un compromiso con la iniciativa.	**2**
D33	La escuela tiene que disponer de infraestructura TICs para desarrollar la iniciativa.	**2**
D34	Responsabilidad del alumnado en relación con el uso de las TICs.	**1**
D35	La Website como contexto de comunicación y seguimiento de las propuestas.	**4**
D36	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación	**3**

	continua del equipo escolar.	
D37	Participación familiar	**1**
D38	La participación de las instituciones académicas (universidades, centros de investigación o centros de formación inicial del profesorado) en la dinámica y/o investigación de la iniciativa.	**1**
D39	La importancia de informar/difundir/promocionar en el ámbito docente las posibilidades que ofrecen los recursos virtuales sobre prácticas de enseñanza y evaluación, y competencias. .	**1**

GROUP "D"

N = 39 variables - 4 iniciativas



4 variables compartidas	3 variables compartidas	2 variables compartidas
D1, D9, D10, D25, D28, D35	*D3, D11, D27, D36*	*D12, D13, D15, D26, D29, D32, D33*

Variables no compartidas (GD): 22

(D2, D4, D5, D6, D7, D8, D14, D16, D17, D18, D19, D20, D21, D22, D23, D24, D30, D31, D34, D37, D38, D39)

THE TRANSVERSAL KeyCoNet CASE STUDIES ANALYSIS

VARIABLES COMPARTIDAS

GRUPO B

Tópico: "Integración de las competencias clave en los procesos de evaluación del alumnado dentro del marco de las actuales reformas curriculares y estableciendo conexiones con la revisión de las prácticas de enseñanza: su proyección en el incremento competencial de todo el alumnado entendiendo su diversidad"

Características de las iniciativas incluidas en el Grupo B:

El "Grupo B" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que se interesan, desde sus respectivas propuestas, por la integración de las competencias clave en los procesos de evaluación del alumnado entendiendo que esta perspectiva da un adecuado soporte a las necesidades de aprendizaje que en este colectivo suelen presentarse. En todos los casos queda reflejada, de una u otra manera, la relación que se establece entre la perspectiva competencial de la evaluación del alumnado y la integración de las competencias clave en las prácticas de enseñanza (y su consecuente formación profesional).

Las iniciativas que se informan en el Grupo B son las siguientes:

1. **GB-CS 7** *Core Curriculum Programme*
   This programme was a curriculum initiative to support Basic Skills learners (low ability learners) during the last three years of the secondary cycle. The continuum of achievement outlined in the *National Curriculum Framework* (NCF) 2012 states that the curriculum will meet the needs of learners according to their stage of development. It is envisaged to be a seamless process in order to ensure continuity in the educational pathways followed by learners. Moreover, the NCF endorses learner-centred learning, which requires the development of knowledge, skills and attitudes that promote self-directed and lifelong learning.

2. **GB-CS 8** *Building a culture of achievement through the ASDAN Certificate of Personal effectiveness* (CoPE)
   The UK system of awarding bodies, particularly in England, has made it possible for Awarding Organisations such as ASDAN to develop a qualification such as the

Certificate of Personal Effectiveness (CoPE) within a national framework for qualifications. The CoPE is designed to widen access to further and higher education by developing generic, crosscurricular "effectiveness skills".

3. **GB-CS 9** *Competences and self esteem*
   The pilot project at the *collège* in Vérac was organised within the more general framework of the implementation of the common base of knowledge and skills (*socle commun de compétences et de connaissances*, framework act 2005). (…) The initiative was designed in a systemic manner at school level as it took into account the objectives in terms of education, assessment and the application of dedicated tools, while also including elements of teacher training.

4. **GB-CS 10** *TRANSversal key competences for lifelong learning: TraIning teachers in competence based education* [TRANSIt]
   The aim of the TRANSIt is to have a positive impact on the development of students' key competencies through building teachers capacity on competence oriented education. To achieve this, a pilot teacher training methodology will be developed on the didactics and e-assessment of key transversal competences, which could be adopted by interested stakeholders promoting educational change.

5. **GB-CS 11.** ***Cross-Curricular Final Objectives@2010***

Alcance de las iniciativas incluidas en GRUPO B **Iniciativa**	**Código**
National initiative *Core Curriculum Programme*	**GB-CS 7**
National initiative *Building a culture of achievement through the ASDAN Certificate of Personal effectiveness* (CoPE)	**GB-CS 8**
Local initiative *Competences and self esteem*	**GB-CS 9**
Local/regional/national/European/international initiative *TRANSversal key competences for lifelong learning: TraIning teachers in competence based education* [TRANSIt]	**GB-CS 10**
Cross-Curricular Final Objectives@2010	**GB-CS 11**

Inicitaiva	**Socios**	**Código**
Core Curriculum Programme Malta		**GB-CS 7**
Building a culture of achievement through the ASDAN Certificate of Personal effectiveness (CoPE) England	5,000 schools, colleges and training providers are registered as examination centres with ASDAN across the UK.	**GB-CS 8**
Competences and self esteem		**GB-CS 9**

France	The *Rectorat* of Bordeaux and national body in charge of the follow up of innovations and pedagogical pilot projects. Local level project concerning all students, the pedagogical community of the *Collège* and parents.	
***TRANSversal key competences for lifelong learning: TraIning teachers in competence based education* [TRANSIt]** 6 countries participating, which are Member States of the European Union.	The consortium formed was a "mixed partnership" with partners cut across all sectors of education: it is composed by one university, one private primary and secondary education school, one company, one Ministry of Education and two research centres one affiliated with a university and the second with the Greek Ministry of Education, Life Long Learning and Religious Affairs.	**GB-CS 10**
GB-CS 11. *Cross-Curricular Final Objectives@2010* Belgium (Flandes)		**GB-CS 11**

B1. La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.

A. (…) Notwithstanding the fact that the teaching process now was trying to address the different abilities of all the students, there still remained a number of them that lacked the basic skills, such as reading and writing and basic arithmetic after the first 2 years of secondary education. In 2011, the Office of the permanent secretary of the *Ministry for Education and Employment* issued a consultation document indicating that there were a number of vulnerable students that left school early without having the necessary skills for employment. Moreover, the Pisa study also uncovered weaknesses on a national level that needed to be addressed immediately. Thus, the need to address the reality of a small proportion of low ability learners who, for a variety of reasons, reach the end of Form 2 without the core competences to be able to undertake a learning journey up to SEC level with profit was felt. Up to now these learners were largely invisible, or else were provided with programmes that did not lead to further progression. With the National Curriculum Framework (NCF) issued in 2012 by the *Ministry of Education and Employmen*t the principles of Entitlement, Diversity, Continuum of Achievement, Learner Centred learning and Quality Assurance provided the context for an initiative such as the Core Curriculum Programme. (…) **GB-CS 7**

B. ASDAN (the *Award Scheme Development and Accreditation Network*) operates in most secondary and special schools in the UK. (…) Among many curriculum programmes that ASDAN has developed, the *Certificate of Personal Effectiveness* (CoPE) has been particularly successful. It was introduced in 2003-2004 with the aim of widening access to further and higher education. (…) A recent study found that the CoPE could markedly improve students' attainment in the major national English language qualification. (…) The *Certificate* is easily adaptable to different levels of skills, which means that it can be taken by all students (…). **GB-CS 8**

C. This initiative [the team have developed an IT tool that permits the follow up of all students' progress], launched in 2009, has already resulted in a change in students'

attitude towards their studies, has had a positive influence on students' achievement, on the involvement of students and their families and on the image of the school. (…) In general, the school team observed that the situation of students with weak to very weak academic results was transformed hugely due to a change in their attitude; (…) These students now have slightly better results and have fewer schooling problems.(…) [They and their parents] identified more with the school, which has gained a very positive reputation in recent years…(…) The original aims of the project were not modified but the project was adapted to its environment and evolved whenever the team saw necessary changes or adaptations, particularly those linked to the VERAC tool.
GB-CS 9

D. The key competence acquisition (KCA) by every young person is one of the long term objectives of the updated strategic framework for European cooperation. Most of the EU Member States are formulating and at least beginning to implement policies that move their school systems from being predominantly input led and subject-oriented towards curricula which include competences, cross-curricular activities, active and individual learning, as well as a focus on learning outcomes. (…) New policies and practices must be therefore researched, developed and implemented to meet changing EU needs. The TRANSIt approach is in accordance with the above mentioned European Union and national policies and aims at pointing out the significance of their implementation firstly in partner countries and in a second level Europe wide.
GB-CS 10

E. The *Cross-Curricular Final Objectives* (VOET) are minimum targets in terms of knowledge, insight, skills and attitudes that are not specific to one subject, but that are pursued in secondary education through several subjects, educational projects and other activities. (…) The new VOET@2010 consists of objectives that are structured in a common trunk, seven contexts (physical health and safety, mental health, socio-relational development, environment and sustainable development, political-legal society, socio-economic society and socio-cultural society), learning to learn, ICT and technical-technological education. (…) The VOET@2010 covers all European key competences and safeguards a broad and harmonious basic training that includes essential knowledge, skills and attitudes. (…) [IT] is not a pilot project: it has been implemented at all schools over the last few years. **GB-CS 11**

B2. Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.

A. ASDAN programmes and qualifications support both formal and informal learning contexts: secondary schools and post-16 colleges of further education. (...) The CoPE initially targeted students approaching the end of lower secondary education due to their specific characteristics. At this stage of education, high non-completion rates are recorded. Also, engagement is difficult to achieve. Therefore, there was a need to target this particular age group and to offer them a way to re-engage in learning. Next, upper secondary students were targeted. This was done in response to higher education institutions' requirements for school leavers. It was possible to focus on this group inter alia thanks to the support from a national programme that aimed to widen participation in higher education (HE). Finally, students beginning secondary education were targeted. **GB -CS 8**

B. The L. Drouyn Collège in Vérac has been implementing a pedagogical project on competence based teaching and evaluation. (…) It was carried out at all levels of lower secondary school, Students from *Sixième* [first year of *Collège*, age 11-12] to *Troisième*

[final year of *Collège*, age 14-15] (…) The pedagogical team has carried out an analysis of competences to implement and certify the acquisition of the core curriculum of knowledge and competences. (…) **GB-CS 9**

C. Secondary (lower and upper): Pupils from grade 1 (12 years old) to 6 (18 years old) of secondary education (also teachers, curriculum designers, Flemish Educational Council, Government bodies, Educational Network). (…) Schools are allowed to decide for themselves when and how the implementation [of the VOET] will take place. The developers/inspectors indicated that it takes effort to move from the VOET to concrete actions. The choices made by schools in this regard can, for example, differ depending on the student population (for example primarily privileged or underprivileged students) and different schools therefore handle this in very different ways. **GB-CS 11**

B3. Propiciar, acorde con la realidad europea actual, una educación que potencie el desarrollo competencial de todos los estudiantes, poniendo un especial énfasis en el alumnado vulnerable (inclusión educativa).

A. The National Curriculum Framework (NCF, 2012) defines the curricular entitlement for each and every learner till the age of compulsory education which is sixteen. (…) The Core Curriculum Programme in Malta is based on the three aims of the National Curriculum Framework (NCF p.6), which seeks to prepare all children to become lifelong learners who are confident, successful, creative, connected and engaged in the community and the world around them, and able to secure social justice (Ministry of Education and Employment, 2012).

This programme of learning that targets the needs of lower-level learners is characterised by a constructivist approach and three main theoretical understandings upon which this approach is based:

- ✓ The Assessment for Learning pedagogy;
- ✓ The theories of the Zone of Proximal Development and Scaffolding as proposed by Lev Vygotsky, Ausubel and Bruner;
- ✓ Inquiry-Based Learning.

The programme will give a core entitlement to learners, which covers the subject. (…) The programme will give a core entitlement to learners, which covers the subject-specific key competences including Maltese, English, Mathematics, Science with Design and Technology and ICT as well as PE, Religion, Social Studies, History and Geography. The learners will also opt to study any one of the following: PE Certificate (Level 1), Music, Art, Home Economics, Textile Studies, Design and Technology or Graphical Communication. (..) Learners following the Core Curriculum Programme will carry out projects that enhance their 'soft competences'. Evidence through different methods of assessment will be collected in a portfolio, which will be used to instil learning to learn skills. (…) The schools are given the opportunity to modify the programme according to the needs of the students as perceived by the school. Moreover, this is seen as an evolving experience that will be strengthened with input from different stakeholders as we learn and gain more experiences over time. **GB-CS 7**

B. When the CoPE was first introduced, the government was very much interested in the concept of widening participation, responding to the needs of all learners, and raising students' achievement. They were interested in making education more open and more accessible. This provided the political context for the introduction of a qualification that was not purely academic, but one that focused on a set of skills that were more generic in nature and also more directly transferable between education and employment. (…) ASDAN coordinators report that the CoPE has been very beneficial to their students'

attainment. It helps the students develop: confidence to do presentations, organization skills, transferable skills, ability to work independently, sense of achievement, more holistic view on learning. (…) Further investigations are, however, necessary to explore the causality of the improved levels of achievement. **GB-CS 8**

C. The initiative was integrated into the first point of the school's mission statement: "*Restore students' self-confidence, particularly the most vulnerable, by developing a positive assessment of acquired skills and knowledge.*" [These are its aims:]

- ✓ Restore students' self-confidence, particularly the most vulnerable, by developing a positive assessment of acquired skills and knowledge.
- ✓ Strengthen long-term self-esteem.
- ✓ Enable each student to acquire a maximum level of knowledge and skills.
- ✓ Motivate students by providing them with specific and realistic objectives that underline their strengths and take their progress into consideration.
- ✓ Better target the difficulties of each student in order to plan a more rapid, adapted and effective solution, while also highlighting students' strengths in order to offer better individual support.
- ✓ Develop students' autonomy and academic ambition.

(…) The team had to adapt assessment strategies to the different competences in a way that would enable the assessment of students in terms of real competences (particularly within complex situations) and, since the aim of the project is also to help students build their confidence in the learning process and during assessments, which would also help them in the progressive acquisition of these competences. **GB-CS 9**

D. The curricular reform introduces the *Cross-Curricular Final Objectives* (VOET) related to knowledge, skills and attitudes, which are to be pursued by all secondary level students in Flanders. (…) Between 1997 and 2002 the first generation of the objectives was introduced. (…) The 'first generation' of cross-curricular final objectives was introduced by the *Ministry of Education and Training* in 2001, shifting the emphasis from a subject-oriented logic to a more integrated education. These final objectives describe a basic package of themes that the school is accountable for implementing over the six years of secondary education. Schools are free to determine their own way of implementing the cross-curricular themes within different subjects, projects, activities, etc. and while schools are not under obligation to achieve the final objectives, they are obliged to make the highest possible effort to achieve them as far as possible. (…) These objectives were reviewed and updated in 2010, a process which led to the creation of VOET@2010 (*Cross-curricular final objectives*@2010). (…) **GB-CS 11**

B4. Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.

A. COMENIUS Multilateral project aiming at training teachers so that they can design cross-curricular activities that support the key competence development of their students. (…) Teachers (in-service, pre-service), students (indirectly), teacher trainers, educational policy makers. Primary, lower secondary, upper secondary. **GB-CS 10**

B5. Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).

A. It was believed that early introduction to the effectiveness skills could benefit further development of the skills at other levels/other stages. (…) It was believed that early introduction to the effectiveness skills could benefit further development of the skills at other levels/other stages. (…) The teachers who were interviewed also saw the CoPE as an enabler of students' transitions through lower secondary education**. GB -CS 8**

B6. Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.

A. They [students lack the basic skills necessary for life such as reading, reading the time, or prioritise] are extremely vulnerable. And when one thinks that in a few years' time these students will be adults and will have to shoulder responsibilities as mature citizens, one asks how they will be able to do it if they lack the basics of key competences? So educators feel the need to improve this situation. (…) **GB-CS 7**

B. [One of the significant enablers] to the implementation of the certificate at the beginning of the new millennium, was the regular reporting from employers, parents, higher education institutions and employers' organisations that school leavers lack necessary 'skills' for employment and/or for pursuing further education.(…). Skills that were often referred to included: team working, working without external supervision, problem solving, self-management, and oral communication skills. This shared view of school leavers lacking important skills clearly supported the early work on the CoPE and led to a continuing consultation process with industry. ASDAN set up an Employers' Skills Forum to consult employers on their skills needs and to reflect these needs in the CoPE. **GB-CS 8**

C. In the context of the Agenda for New Skills and Jobs [A European contribution towards full employment] recent forecasts of future skills' needs anticipate an increase in jobs requiring high- or medium-level qualifications. However, such qualifications need to be accompanied by key competences that equip young people to work in intercultural, multilingual and rapidly changing circumstances and to contribute to creativity and innovation. (…) The development of key competences should include both subject-based and transversal competences that will motivate and equip students for further learning. **GB-CS 10**

B7. Informe sobre el impacto en distintos países europeos del modelo competencial en términos de efectividad y eficiencia del proceso de formación.

A. The project will develop a systematic evaluation methodology in order to identify the impact of the proposed approach in terms of the effectiveness and efficiency of the training process. The key to effective professional development (PD) is finding a way to organize qualified teachers so they can collaborate with their colleagues, therefore the TRANSIt will develop a community of practice that will facilitate the sustainability of the project and its results. Moreover, a common set of guidelines and recommendations that the professional development providers can use to identify, develop or evaluate learning content or teacher training programs in the didactics and assessment of competence driven education will be constituted. **GB-CS 10**

B8. La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.

A. The Core Curriculum Programme was designed for all students in the third year of secondary education who were still lacking the basic skills in the key competences. The programme's aim was to impart these key competences at MQF Level 1 before they would finish compulsory education. Though the programme was developed centrally by the *Maltese Curriculum Department* within the *Directorate of Quality and Standards in Education*, schools were given the opportunity to modify the programme according to the needs of the students they were catering for. (…) The CCP targets low ability students who are starting their third year of secondary schooling. The programme was offered to all State secondary schools right from the beginning. Moreover, schools were also offered the possibility to modify it and make it more accessible to their students. The Directorate had to ensure that all the students were given their entitlement as defined by the National Curriculum Framework. **GB-CS 7**

B. ASDAN's list of partners and collaborators is exhaustive. It includes schools, local authorities, national organisations, education providers, volunteering organisations, and organisations providing enrichment for education.(…) Local governments that were identifying schools in which sufficient progress was not being made let ASDAN intervene by introducing the CoPE at those schools. **GB-CS 8**

C. [One of the significant enablers] to the implementation of the certificate at the beginning of the new millennium, was the regular reporting from employers, parents, higher education institutions and employers' organisations that school leavers lack necessary 'skills' for employment and/or for pursuing further education.(…) **GB-CS 9**

D. Communities of key stakeholders (teachers, teacher trainers, school leaders, educational policy makers) have been mobilised to support this process. **GB-CS 10**

E. The government developed the VOET together with teachers, school administration, educational guidance supervisors, teacher trainers, and experts from colleges/universities. This increased the engagement and support from all stakeholders. Following the VOET development process, a response group including stakeholders from the different fields was formed to provide a written feedback on the process. (...) This feedback enabled a broader and less formal review of the material developed, leading to extra input and increased support. (…) The basic principles of the VOET state that the new planning framework for the VOET requires the school to develop its policy autonomously in terms of accountability and policy-making capacity. The expertise of the administration and teachers, cooperation, consultation and school planning offer plenty of guarantees to do justice to the principle of subsidiarity. This means that many decisions regarding the implementation of the cross-curricular final attainment levels can be made at school level rather than at a higher level. (…) The steering committee was suspended after the reorganisation of the governmental curriculum department. During the first generation VOET, this steering committee had closely supervised the implementation. There is now therefore less supervision of the implementation, although the inspectorate and the PBD still remain in contact regarding support for and evaluation of the VOET.**GB-CS 11**

B9. Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.

A. The NCF aims to develop the learners' capacity to nurture values and learn key skills and competences that they require to establish their long-term quality of life as persons and as citizens –and in doing so educators are to regard learners as individuals with diverse capacities that must be supported to develop into lifelong learners equipped with employability-related attitudes and skills. (…) The ultimate goal of the NCF is to enable individuals to become lifelong learners. This implies an effort by all to give learners the knowledge, skills, competences, attitudes and values necessary to be attracted to further and higher education, to re-skilling and up-skilling during the working years and to active participation in the civic and social life of our country. **GB-CS 7**

B. CoPE focuses on transferable skills and it recognises skills that students gain while being engaged in additional activities at school, such as charity work, sports days, part-time work; these are skills which otherwise would not be acknowledged. This level of success is attributed not only to the work of ASDAN, teachers and students but also to a number of contextual factors that acted as enablers during the implementation of the initiative. **GB-CS 8**

C. In the French context, a local pilot project is not intended to be extended to other structures either at a local or a national level; however, information on the initiative must be made available to other establishments so that it can potentially be adapted to other educational contexts. An academic system and a national system (i.e. websites for sharing information) allow the different local initiatives to be shared and to be made known to the entire pedagogical community. Meetings between delegations from the collège in Vérac and from other schools allowed the schools to exchange of practices and enabled participants to outline areas of consideration for teams who would like to be involved in such a project. **GB-CS 9**

D. The proposed approach aims to support teachers at bridging the gap between policy and practice on a wide scale. (…) it was important to investigate at first the status in each country about competence based learning (CBL) so as to inform the training framework design. The first action was to identify the teachers' needs in partners' country, so as to design the proper training framework. **GB-CS 10**

B10. La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: ¿cómo relacionar el enfoque competencial -su terminología, dimensión y alcance- con las propias prácticas de enseñanza y de evaluación del aprendizaje del alumnado?

A. (…) At the end of the first scholastic year of its implementation the Ministry has engaged an Education Officer from the Curriculum Department to evaluate the CCP. A number of interviews were conducted with all stakeholders, schools were visited and lessons were observed. This evaluation revolved around four main themes: learning outcomes, methods/pedagogies, resources, assessment. The evaluation revealed that Assessment for Learning strategies need to be embedded in the pedagogy used. The strategies need to include techniques that reveal each student's prior knowledge in order to be in an informed position and start from where the learner stands in his/her learning. With regards to resources, the evaluation suggests the use of Assistive technology as part of the resource package needed by this group of students (…) **GB-CS 7**

B. The ‘learning to learn’ methodology is crucial and therefore features more strongly. Also, the terminology that is being used to describe the key competences has changed slightly. The term metacognition is now commonly used to refer to essentially the same concept as ‘learning to learn’. (…) Teachers of those subjects are familiar with the content and requirements of their own areas. They use subject-specific language within each department. On the other hand, the CoPE approach is cross-curricular and cross-departmental. In consequence, language that is specific to skills is not understood / interpreted consistently, e.g. Level 2 Problem Solving competence may not be easily comprehensible and may have different meaning for different teachers. Therefore, it was difficult for teachers to engage in a conversation with ASDAN about the skills. **GB-CS 8**

C. The main difficulty for teachers is the integration of the different aspects of the project within their teaching; this is particularly true for new teachers at the school who must carry out all aspects at the same time without knowing what the real priorities are. Some teachers have difficulties or do not want to be involved at the different levels of action of the initiative and remain focused only on assessment. [The teacher also believe that] the most complex task was to identify which competence should be evaluated in their teaching and how to implement this assessment. [It is considered appropriate that the teachers become aware] that everyone is involved in various areas of the project. [To achieve that, the initiative proposes to develop] a cognitive map accompanied by a short film and slideshow to show the coherence between various concurrent actions, all of which improve students’ self-esteem. **GB-CS 9**

B11. El profesorado se muestra inseguro ante la enseñanza y la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.

A. While the programme was well thought and had a sound theoretical background based both on research and on feedback from teachers and school administrators, the professional people who had to implement it had little time to adapt themselves for the required change. They were all aware of the difficulties encountered by these low achieving students and in fact a number of schools were ready to develop their own programme of learning targeting the needs of these learners. Thus, the Core Curriculum Programme issued in May 2013, and launched in September 2013 was envisaged as an answer for these requirements but all stakeholders needed to acquaint themselves with their new role and responsibilities that come with this new role. Without good networking between the people involved at school level, the programme was not going to work and this required time. **GB-CS 7**

B. ASDAN has identified two major difficulties in the evaluation process. First of all, the effectiveness skills are difficult to report. They do not fit well into a data set. They cannot be easily converted into a numeric value that is easily comparable across other skills. Second, the organisation has found it troublesome to persuade schools to participate in the evaluation process. Most school are not willing to cooperate/participate due to time-constraints and a fear of ‘failing to succeed’. **GB-CS 8**

C. The assessments [from teachers in working effectively on competences] remain traditional with a simple conversion to the new system of reference without fully adopting a new approach to assessment. (…) **GB-CS 9**

D. *Complexity*: the VOET are fairly complicated for teachers. (…) *Too many changes*: for some teachers the introduction of the VOET felt like yet another change. (…) *Infrastructure of the school*: compared to larger schools (e.g. schools with large playgrounds) the teacher in small schools is more likely to be 'obliged' to go outside the school premises, this may constitute an obstacle to the implementation of the VOET. (…) *Increased burden of planning*: teachers had to register which VOET they had worked on. (…) *Resistance towards innovation*: teachers reason from the perspective of their own subject, taking only their own curriculum into consideration rather than the VOET. **GB-CS 11**

B12. Dificultades para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.

A. At the end of the first scholastic year of its implementation the Ministry has engaged an Education Officer from the Curriculum Department to evaluate the CCP. (…) . With regards to resources, the evaluation suggests the use of Assistive technology as part of the resource package needed by this group of students. When it comes to Assessment practices, more workshops are necessary where teachers can discuss the assessment criteria in so that standardisation is ensured. (…) **GB-CS 7**

B. This was the first time that competence-based teaching and assessment had been implemented in the school for all subjects; this required teachers to carry out work on identifying what exactly is covered by the competences that they wish to teach and evaluate. Teachers therefore first identify the micro-competences (basic knowledge and procedures) that are involved (one teacher counted up to 80 micro-competences for one section of a mathematics programme). Teachers then work towards reconstructing what it is that defines the target competence before being able to evaluate it within a complex task for example. This is a long and complicated process, but one teacher observed that being involved in this process had been hugely beneficial in terms of professional development. **GB-CS 9**

C. The developers/inspectors said that a school should pay attention to what it does with regard to the VOET, warning that their work must be effective. However, there is no obligation for the schools to perform to a certain standard (and no obligation to produce a certain result); it is therefore only possible to evaluate the effort and not the result. The developers/inspectors indicated that there is no obligation for schools to evaluate the VOET among their students, but that they can of course evaluate the VOET if they want to. The schools indicated that it is not always simple to evaluate the VOET. One school stated that the reason they do not evaluate the VOET is that currently there are no proper tools and teachers do not have time because they are required to teach a great many different classes. The school that evaluated the VOET 'learning to learn' during the exam did so at every exam, which meant that after a while the students found the questions repetitious**. GB-CS11**

B13. El arraigo de la cultura de la evaluación del rendimiento lentifica el cambio hacia la evaluación competencial.

A. [One of the obstacles] facing the initiative is a wider socio-cultural trend, namely the 'data-driven culture'. That is to say, modern society is very much focused on outcomes that can be measured in terms of numbers. School assessment is subject-based. Students' performance at school is captured in scores, percentages and exam marks. The

Department for Education in England and Wales has redefined those achievements that count in headline measures of school performance to include, from 2013-14, only those with a significant body of subject knowledge assessed through an external examination. (…) The CoPE, with its intrapersonal and interpersonal skills, metacognitive skills, and a continuous portfolio-style assessment, does not fit comfortably with this focus. Furthermore, since the development of skills is difficult to quantify, they are difficult to promote. (…) **GB-CS 8**

B. The main difficulty for teachers is the integration of the different aspects of the project within their teaching; this is particularly true for new teachers at the school who must carry out all aspects at the same time without knowing what the real priorities are. Some teachers have difficulties or do not want to be involved at the different levels of action of the initiative and remain focused only on assessment. **GB-CS 9**

C. [Achieving objectives speaks that:] Reminder (1 school): a way for teachers to take the complete education of the student into consideration and not only subject related issues: The school indicated that it depends strongly on the colleagues' interests, that it is very personal, with some teachers paying pay more attention to the full education of students than others.(…) According to two schools this is achieved with the help of the VOET. Teachers are also learning to look beyond their own field. **GB-CS 11**

B14. La continuación de la doble evaluación del alumnado (evaluación del desempeño, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.

A. In 1994, a government-commissioned report advocated a curriculum which prescribed only 80% of timetabled time, so that the other 20% would be free, i.e. devoted to the activities chosen by individual schools, teachers and students. ASDAN's CoPE was used as an example of a syllabus that could well fit into this 'free' planning. Furthermore, when the CoPE was first introduced, the government was very much interested in the concept of widening participation, responding to the needs of all learners, and raising students' achievement. (…) Examinations regulator approval of the CoPE as a full qualification within the Qualification Framework (NQF). (…) ASDAN is only one of many awarding organisations in the UK and therefore it is difficult for it to exert major impact on the national framework for teacher education. (…) It is difficult for the initiative to influence the government decision making process since ASDAN is seen as one of many relatively small qualification awarding organisations in the UK. **GB-CS 8**

B. The *diplôme national du brevet* (DNB – national assessment at the end of compulsory education for the vast majority of students) requires students in *3ème* to be given grades. Not only does this constitute a constraint for teachers, despite the support provided by the VERAC software that converts assessments by colour into grades, but it also brings problems of comprehension, both for parents and students, regarding the overall rationale behind the assessment system. (…) The initiative proposes refining the double assessment (by level and grade) in order to reconcile the results of competence-based assessment with grades. **GB-CS 9**

B15. Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.

A. The teachers felt empowered to adapt the subject matter and reinforce the skills inherent in the subject making them more accessible for the students. They had a framework to guide them but one which did not stifle them. Many subject teachers are working together on projects and this collegiality is very congenial to teaching and learning – based on skills, student potential and interests. This has also led to job satisfaction in the teachers and a sense of achievement in the students. **GB-CS 7**

B. Setting up a network of teachers and introducing *Cluster Leaders* have also been recognised by ASDAN as effective strategic decisions. Networks include regular face to face meetings/events with teachers and practitioners, during which common problems are dealt with and good practice is identified and shared. Cluster Leaders are well-trained teachers who are members of the national ASDAN training, support and quality assurance network. They offer practical advice based on their extensive professional expertise with ASDAN methodology. **GB-CS 8**

C. As teachers already had to carry out competence-based teaching and assessment within their teaching practice, these factors [the team decided to launch a pilot project] facilitated the work of the teams as the project allowed teachers to go further and experiment with new practices in assessment such as, for example, removing marks or signing a "contract of trust" with the students. (…) The team had to draw up a new assessment framework, with the aim of identifying as accurately as possible the competences that have been acquired by students. (…) Now that the team has acquired its own experience, it can help to train other pedagogical teams on the subject of competence assessment, particularly in lower secondary schools in the surrounding area. **GB-CS 9**

B16. Necesidad de coordinación fluida y cooperativa: conectar servicios pedagógicos, experiencias, conocimientos, líneas de trabajo, recursos, etc.

A. The CCP Mentor Guidelines (Grima, 2014) envisages a professional person capable of collaborating with Senior Management Team, Education Officers, other teachers, Learning Support Assistants and all those who provide a service to the students and of course, the students themselves and the parents. This person needs to have a co-ordinating role and thus much depends on the right choice of this mentor for the success of the programme as many ideas and initiatives originate from the intimate knowledge of the students and their needs. This person will then be capable of creating the right atmosphere for this network of people to collaborate and develop the potential of these students who have capabilities but have also a large number of needs. **GB-CS 7**

B. According to one school the VOET policy is sometimes more difficult to implement in smaller schools. Due to the small scale of the school there is no separate VOET coordinator, which therefore means less support. The developers/inspectors observed that the practical application of the VOET can sometimes be difficult. They stated that if they were to redevelop the VOET now, they would also include 'learning to learn' in subjects (rather than as a cross-curricular feature), since many teachers lack sufficient

knowledge of educational psychologyor have difficulty applying this concept in practice. **GB-CS 11**

B17. El rol del tutor (mentor) para el desarrollo competencial del alumnado con dificultades de aprendizaje.

A. The majority of learning difficulties stemmed out of a problem of social inequality. A network of professional people and support services including guidance teachers, career advisors, learning zone teachers, CCP mentors, Inclusion co-ordinators and the CCP subject teachers work together to try to provide what would contribute to the well-being of these students. Well-being is a pre requisite for learning to take place and it is extremely difficult to provide for the various needs of these students especially if they originate from family related issues. Envisaging such a scenario, the CCP created a role (CCP Mentor) whose main responsibility is to care for the well-being of the learner. Mentors who do not have mentoring sessions slotted in their time table are actually at a disadvantage from mentors who have four forty minute session per week with these students. Mentoring is an on-going process and the teaching load makes a difference because it affects the availability of the teacher and the tasks that have to be prepared. This is a question of availability of human resources and on how many teachers are available in a school. **GB-CS 7**

B18. El cambio hacia la evaluación competencial analizado desde la perspectiva del alumnado.

A. A main challenge/aim was to raise the students' self-esteem and self-confidence. Having always considered themselves failures, for the first time, they were tasting achievement. This was very evident when the students received the results for half-yearly assessments which consisted also of adapted papers. Schools agreed that another enabler was the fact that teachers had the support of the Learning Support Assistants and therefore students were given timely feedback and there was also the possibility to verify that the feedback was taken up. 8…) Integrating these students with the mainstream for activities organised for the whole year group aided inclusion and integration. This was viewed as being an enlightening opportunity for all students. **GB-CS 7**

B. (…) Students have freedom to select the modules they wish to work on (the structure of the modules deliberately prevents learners from choosing too narrow a curriculum) and provide evidence of their progress in the form of a portfolio. The personalisation of the curriculum in this way means that individuals who complete the CoPE have shared skill levels but not necessarily shared knowledge about the same set of topics. It therefore becomes difficult to compare all aspects of those learners' outcomes against one another. **GB-CS 8**

C. While this transition [from graded assessment to gradeless assessment] is not seen as a problem a priori by the different interviewees [students, teachers, parents], some do find its application unsettling. One student interviewee made a particularly pertinent observation: "it is clear to us that the colours chosen (…) are grades translated into colour, and afterwards we reconvert them into grades; this is not logical." This observation reveals the problems faced by certain teachers in working effectively on competences; their assessments remain traditional with a simple conversion to the new system of reference without fully adopting a new approach to assessment. **GB-CS 9**

D. [Achieving objectives speaks that:]
Guaranteeing a complete education (all schools + developers/ inspectors): the VOET ensure that schools offer a full education to their students, also called a broad basic education in which students 'learn for life'. The VOET list the socially required content that ensure that students will have necessary skills required throughout their life: According to all schools the VOET contribute to the full education of the students, but the following elements can hinder their achievement (each item mentioned by at least one school): [a] The VOET include an obligation to make reasonable efforts and not an obligation to produce a certain result. This approach is supported by the idea that it is anyway not possible to achieve all VOET; some are developed throughout our lives.[b] Sometimes the application of the objectives is difficult as students have different convictions, e.g. with regard to sexual orientation. A school can steer students towards the goals, but cannot achieve all goals.[c] The VOET are an additional task on top of everything else that needs to be done. It would be better if the VOET formed an entirety together with all the other content. It is possible to overlook matters due to an overload of information.
Safeguarding the school's capacities (developers/inspectors): the VOET are a kind of social contract. It clarifies the duties of the school regarding the general education of students. **GB-CS 11**

B19. La enseñanza parcelada por asignaturas/departamentos incide negativamente en la implementación de la evaluación competencial.

A. The study [national pilot, 20013-2014] explored (…) the Key Skills (…), i.e. Communication, Information and Communication Technology (ICT), Application of Number, Working with Others, Improving Own Learning Performance, and Problem Solving. The first three skills were easily definable and measurable in terms of outcomes; however the three latter skills presented a more significant problem for assessment. For this reason, ASDAN decided to focus on this problem and included them in the CoPE. (…) The organisation encountered many contextual factors considered to be obstacles to the implementation of the *Certificate of Personal Effectiveness*. One of the main obstacles was that schools are organised according to subjects. Furthermore, the internal structure of schools at secondary level is strictly departmental. There are separate departments for mathematics, English and so on.
GB-CS 8

B. The organisation of the school was, in general, changed very little by this initiative, which was mainly concerned with teaching in the classroom. However, the initiative did allow for the establishment of multidisciplinary projects firstly in 6ème during the second hour of individual support and, from the beginning of the 2013 school year, during one class period in 4ème. **GB-CS 9**

B20. La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).

A. It was crucial for the organisation to first of all define the skills and to 'translate' them into clear language. This helped to make the initiative more understandable to a wider

audience, including school leaders and employers. ASDAN's learning to learn methodology (…) has been applied to a wide range of curriculum contexts. (…) ASDAN offers also Short Courses that focus on the development of specific subject-based curricula that incorporates the effectiveness skills. In addition, the organization provides 'maps' that cross-reference the key competences to different subject areas. Finally, the organisation plans to create a scale of smaller steps that can be used as a guide to monitor students' progress as and when the students achieve each skill. **GB-CS 8**

B. It is not always clear to students and their families how this [the chance to be re-evaluated] practice functions. It would therefore be useful to explain to parents the development in the system by showing them that students are given greater responsibility regarding their re-assessment requests with the aim of instilling in them a greater sense of responsibility for their learning. **GB-CS 9**

C. TRANSIt (…) organises workshops, summer and winter schools and other activities (e.g. contests) in order to inform the educational community about the proposed approach and the relative outcomes. The networking of teachers is also promoted through online web 2.0 tools supporting the TRANSIt teachers' community in searching and exchanging competence based scenarios and practices. **GB-CS 10**

D. The government communicated the VOET in different ways:

- ✓ [It] produced a VOET@2010 brochure, which lists the updated objectives and also offers all necessary information about the update (what, how and why). A hard copy of this brochure was sent by post to all schools.
- ✓ [It] drafted basic principles[6] including the focus of the update, further explanations of the trunk, the contexts and learning to learn and also providing details of the coherence between the trunk and the contexts. These basic principles, together with a list of FAQs, was published on the *www.akov.be* website.
- ✓ The magazines Klasse voor Ouders (Parents' Class), Klasse voor leerkrachten (Teachers' Class) and Klasse voor leerlingen (Students' Class) communicated the new VOET to the general public.
- ✓ Many organisations approached the government with a request for further explanation of the VOET, upon which the government provided information sessions.

(…) At one school the step-by-step plan was adhered to more strictly. This was, to a large extent, due to a negative inspection report and we observed that the VOET again faded into the background after the school received a positive evaluation. (…) [Among other activities,] parents were informed by letter about every extracurricular activity. This included an explanation of why the school was organising this activity and how it was linked to the VOET. These activities were also listed in the students' school agenda, on the website and in the school magazine. **GB - CS11**

B21. Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de evaluación que integra objetivos y competencias.

A. (…) That this double grading system is also of great reassurance for parents, for whom it ensures that the transition to the grading system in upper secondary will take place without any negative impact on their children. However, it should also be mentioned that this continuation of the assessment of students' competences alongside graded

exams of the DNB is a concern for many groups at national level as they feel that it compromises an effective implementation of the common base of knowledge and skills. We also observed that the nature of assessment and the separation of competence assessment from performance assessment still remain subjects of discussion for the different stakeholders. **GB-CS 9**

B22. Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.

A. Educational change is often seen, especially by the media, as negative. **GB-CS 8**

B23. La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.

A. Defining the effectiveness skills and communicating them to a wider audience has been one of the most difficult substance related issues to address. The selected skills (Problem Solving, Improving Own Learning and Performance, Working with Others, Research Skills, Discussions Skills, and Oral Presentation) are rather broadly understood. To make those skills communicable, they had to be defined in a way that would meet the quality standards criteria of the government's national examinations regulation institution13, would follow the government formats, and also could be understood by all stakeholders, i.e. classroom teachers, students, parents, and employers. In a time-consuming process, ASDAN developed precise terminology that describes each effectiveness skill at three levels, i.e. Level 1, 2 and 3 of the CoPE. (…) The dissemination of research findings and the recognition of employers and higher education institutions have been crucial in encouraging students to choose to work towards the CoPE. **GB-CS 8**

B. The parents particularly liked the VERAC tool as it is accessible online, allowing them not only to easily follow the progress of their children but also to understand the logic of the competences that are being worked on. (…) The creation of this tool, which all users found appropriate and easy to use (…), also contributed to the team's reflection on competences because it was the teachers themselves that selected the details of competences that are registered in the VERAC too.[On the other hand, two strategies (the sharing and harmonisation of practices and the use of assessments from other disciplines to support students' progress)] have proved to be most problematic due the lack of consultation. **GB-CS 9**

B24. Participación de los docentes en la elaboración de materiales.

A. Teachers' feedback helped ASDAN refine the 'learning to learn' methodology, the portfolio-style assessment, and the student-focused approach to learning. **GB-CS 8**

B. (...) the freedom of education in Flanders[8], where the responsibility for implementation lies with the schools and the PBDs. Dutch-speaking Belgium has a very strong autonomy in education. (…) One school establishes a different priority each year, for example equal educational educational opportunities, student

supervision, VOET, internal quality assurance, language policy, etc. This does not mean that other objectives are not covered, but they are often not recorded. **GB-CS 11**

B25. El "portafolio" como estrategia para el seguimiento del desarrollo de las habilidades fundamentales (genéricas y transversal al curriculum).

A. (…) During this first scholastic year students have already provided evidence of outcomes achievement. Most of this evidence was observed and also recorded in their portfolios. The sense of efficacy and their self-esteem were enhanced immensely when the students perceived that given the right instructions they could prove that they were able to learn. One cannot yet confirm that the initiative's aims have been achieved as this can be verifies in 2 years' time but the evidence that is being collected along the way demonstrates that teachers teaching this group are slowly undergoing a mind shift, they are learning to explore alternative assessment methods, they are matching pedagogy with the learner's needs and also using learning to choose the right assessment tool according to the purpose it intends to serve. **GB-CS 7**

B. The development of these skills [problem solving, improving own learning and performance, working with other] is based on a methodology involving experiential learning by way of personal challenges which permit the incremental development and recognition of skills through formative assessment and on "learning to learn" through a process summarized as "PLAN>DO>REVIEW". Portfolio assessment facilitates this methodology, enabling learners to document their progress with the help of their teachers. **GB-CS 8**

B26. Herramientas digitales para el seguimiento del desarrollo competencial del alumnado.

A. The pedagogical team has carried out an analysis of competences to implement and certify the acquisition of the core curriculum of knowledge and competences. They have developed an IT tool adjusted to the evaluation of disciplinary or cross-curricular competences; a tool that permits the follow up of all students' progress. In parallel they have also introduced non-numerical evaluations to reinforce students' selfesteem and involvement in their studies. (…) The school's website and the site dedicated to the VERAC programme provide a direct link to the pilot project in order to inform parents in the best possible way about its contents. (…) The creation of this tool, which all users found appropriate and easy to use (and which was also enhanced with new functions according to the needs that arose from the pilot project), also contributed to the team's reflection on competences because it was the teachers themselves that selected the details of competences that are registered in the VERAC tool. **GB-CS 9**

B. In order to register the VOET, schools use digital registration systems, such as Smartschool. This can help to make work on the VOET easier to evaluate and is also a starting point to verify which VOET are already being worked on. **(…)** The developers/inspectors indicated that the digital screening tools that are being developed may lead to merely becoming a checklist rather than something that will be incorporated into practice. They stated that it is important for the school to use the VOET as a starting point from which to build upon. (…) One school indicated that an evaluation of VOET policy might be useful but that a proper tool is indispensable. When lacking a

proper tool, evaluating can become mere registering and is often done subjectively. **GB-CS 11**

B27. Certificar el desarrollo de las habilidades fundamentales que alcanza el alumnado.

A. Secondary schools are offered the option to take on board a programme that has the following key elements: it ensures exposure and appropriate mastery of all the core components of the curriculum; it ensures that the learners involved are not completely segregated from the rest of the learning community; it provides learning programmes that have a strong element of continuous assessment whilst leading to an MQF Level 1 certification as described in the Referencing Report of the NCFHE (2012), with the possibility of progression therefrom.(…) Interviewed members of the senior management teams of schools appreciated the fact that the subjects taught were pegged at MQF Level 1 and therefore students will finish the secondary cycle with a certification that outlines the outcomes mastered during the programme. Moreover, the needs of the students are addressed and the outcomes that describe the various subjects are tackled at their level. It is evident that students can perceive that they are learning and that they are achievement through the tasks performed in class and the portfolios being developed. Learning is more hands on and much less content based. **GB-CS 7**

B. ASDAN applied for, and gained, national accreditation for the CoPE. This means that students are eligible for public funding, their outcomes are currently recognised in national performance league tables and the qualification can contribute to eligibility for further and higher education. As a result, schools have incentives to offer the qualification and students have incentives to choose the relevant courses. Also, ASDAN developed a portfolio-style assessment, which requires students to document their progress as and when they complete the modules. Students plan their work, they complete challenges (do) and engage in a review process to form a Portfolio of Evidence that reflects on their acquisition of the effectiveness skills. During the process of planning, recording, and reviewing each challenge, students are encouraged to ask questions along the way; questions that ASDAN presented in an easy diagram (…). The assessment of students' learning and portfolios is first of all moderated internally, before it goes through external moderation. **GB-CS 8**

B28. Propuestas de evaluación que ofrecen alternativas de aprendizaje al alumnado con bajos niveles de logro (diversidad e inclusión).

A. Assessment is mostly continuous based on tasks done throughout the year. Summative assessment is only a very small part of the whole procedure. Altogether they produce evidence both to the teacher and to themselves that the outcomes have been mastered. (…) It was appreciated that the CCP was flexible enough as to allow for changes that could accommodate for the particular needs of the students in that school.(…) Malta students choose two subjects as options at the end of their second year in secondary education. These subjects will then be studied during the final three years of secondary education. CCP students are given one option subject and mentoring sessions during which the soft key competences are explored and developed through a project-based learning approach. Due to the academic needs of the learners, a particular school provided Home Economics and Textile Studies adapted programmes as options. These two options have proven to be a success. Entrepreneurship projects were merged with the outcomes of lessons of these options. This resulted in the students gaining both basic

entrepreneurial competences and skills from the other subject. Moreover, such projects resulted in an enhancement of self-efficacy and higher self-esteem as the learners started to believe more in their capabilities when they saw the final product. **GB-CS 7**

B. The team also offers students the chance to be re-evaluated, enabling students (particularly those in the youngest age groups) to develop at their own speed and to play an active role in their education by requesting a re-assessment. The opportunity to be re-evaluated leaves students time for learning and for trial and error, which avoids discouragement and allows them to rediscover the satisfaction to be gained from hard work. However, it appears that these re-assessments are mainly carried out at 6ème level (first year of lower secondary) as time for re-assessments is given during students' individual support hours. In higher levels teachers still propose re-assessments but these are only carried out during class time and students are required to be more autonomous in their requests for re-assessment. **GB-CS 9**

C. At [one of the] school the VOET are evaluated to a limited extent. [a] During the first level (12-14 years) one low-achieving class carried out a self-evaluation during the school year 2011-2012 in which the students indicated which VOET they had or had not fully covered. The results of this self-evaluation also appeared on the students' report cards. This self-evaluation has not been carried out this year but the school administration is considering re-introducing it. The school also evaluated the VOET 'learning to learn' during exams, when students had to answer questions such as 'how did you prepare your exam?'[b] During a survey, the skills of obtaining and processing information were tested. A section of the VOET, learning to learn, was tested by the government. (…) This survey is a large-scale examination among a representative sample of schools and students that looks at a specific aspect of Flemish education. Assessments investigate to what extent students have achieved certain final attainment levels or developmental objectives**. GB-CS 11**

B29. Los estudiantes y sus familias reflejan su apreciación respecto a la coherencia entre las actividades realizadas en el aula y el proceso de evaluación del alumnado.

A. Some parents perceived a certain heterogeneity within the pedagogical team regarding the acquisition of competences; although this was not a great concern, they highlighted the fact that this could pose a problem for students in terms of consistency, particularly when they move on to the next level of schooling. (…) The extension of the pilot project to all levels and all classes in the school raises problems of heterogeneity within the practices of teachers, which can mean that students are put in a situation where the teaching or assessment of competences is different; this risks creating confusion among students in terms of understanding what is really expected of them. **GB-CS 9**

B. [Achieving objectives speaks that:]
Equal opportunities (developers/inspectors): both students that are not provided with certain content at home as well as students who are less able to obtain this content on their own have more equal opportunities thanks to the VOET. (…) This is achieved with the VOET according to the developers/ inspectors. **GB-CS 11**

B30. Los docentes consideran un problema la demanda de tiempo que requiere la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje.

A. A major difficulty is to plan for a common free lesson during which CCP teachers can meet to discuss the on-going programme. Though interaction between teachers happens continuously in an informal manner, it is important that there are meetings with pre planned agendas during which challenges and enables are discussed. The programme of work needs to be continuously evaluated and particular interventions have to be assessed in order to evaluate whether such a procedure is being fruitful or not and then take action accordingly. **GB-CS 7**

B. (…) Continuous professional development is a key aspect to success and during the first year of implementation it was never enough. Stakeholders needed different sessions catering for the different roles. Teachers required meetings to discuss challenges, enablers, the resources they were using and the projects they were developing. However, it demonstrated to be a challenge in itself to get all the teachers together and discuss these issues especially since it had to be done during school hours. **GB-CS 8**

C. ASDAN has identified two major difficulties in the evaluation process. [One of these difficulties is that] the organisation has found it troublesome to persuade schools to participate in the evaluation process. Most school are not willing to cooperate/participate due to time-constraints and a fear of 'failing to succeed' Nonetheless, ASDAN considers the evaluation process to be beneficial. It has helped to improve and modify the functioning of the organisation and it has helped ASDAN to describe the impact of the initiative. In addition, it has helped to develop a better structure for the CoPE through identification of gaps and potential problems. Most importantly, it has informed the initiative with 'what works'. (…) The simultaneous evaluation process has only been part of the smaller scale projects i.e. projects run together with the Local Authorities and the Aimhigher project. The evaluation was set up in a form of action research (…). **GB-CS 8**

D. Lack of time: two schools cited a lack of time to dedicate to the VOET. There is also not enough time to elaborate a proper vision concerning the VOET within a school team (…) *Uncertainty*: the switch from the old to the new VOET was fairly rapid. Furthermore, the educational guidance service (PBD) 4 was not sure of the best way for the abstract goals to be translated into practice. It was also unclear how the school needed to account for the way they worked on the VOET. It therefore took quite some time before the school found the right direction. (…) The schools interviewed for this case study did draw up a step-by step implementation plan, however, these plans were not carried out at two out of the three schools due to lack of time. (…) [It was generally perceived] the obstacles, namely different priorities and lack of time, are of a structural nature and have therefore not been overcome.**GB-CS 11**

B31. La *cultura de la colaboración* en el contexto dé cada equipo docente (departamentos, ciclos, etc.) propicia la implementación del cambio que propone el modelo competencial.

A. The teachers felt empowered to adapt the subject matter and reinforce the skills inherent in the subject making them more accessible for the students. They had a framework to guide them but one which did not stifle them. Many subject teachers are working together on projects and this collegiality is very congenial to teaching and

learning –based on skills, student potential and interests. This has also led to job satisfaction in the teachers and a sense of achievement in the students. (…) The teachers felt empowered to adapt the subject matter and reinforce the skills inherent in the subject making them more accessible for the students. They had a framework to guide them but one which did not stifle them. Many subject teachers are working together on projects and this collegiality is very congenial to teaching and learning –based on skills, student potential and interests. This has also led to job satisfaction in the teachers and a sense of achievement in the students**. GB-CS 7**

B. Collaboration among teachers was reported as being an enabler to adopting the new approaches recommended by the syllabus. This was observed as a regular practice in the phase one schools. Teachers cited this collaboration as being extremely valuable and as something that developed as a direct result of being a phase one school. This kind of support and discussion was identified (…) as being one of the major differences between the working practices of the phase one schools and those involved in the national roll-out (non-phase one schools).**GB-CS 8**

C. Some of the new teachers wanted to join the school particularly because they were interested in the project. These new colleagues are supported by those who have been at the school for a longer time (for example with a voluntary system (SOS VERAC), which helps to train them on the main issues of the software and to help them learn about the tool). The new teachers appreciate the support given but they would like it to be expanded, particularly through more consultation periods for the whole of the team involved.(…) **GB-CS 9**

D. The developers/inspectors stated that cooperation at system level is not self-evident due to the autonomy of education suppliers, teacher trainer colleges etc. (…) It is the responsibility of the individual school and its teachers to decide how, when, where, by whom and in which subjects or projects efforts are made to achieve these final attainment levels. Furthermore, the school's education project, the expertise and professional development of teaching staff, the students, the school environment and current events are all contributing factors. **(…)** At one school the step-by-step plan was adhered to more strictly. This was, to a large extent, due to a negative inspection report and we observed that the VOET again faded into the background after the school received a positive evaluation. (…)The school that executed the step-by-step plan indicated the support of the PBD as an enabling factor. (…) The school in which the step-by-step plan was executed will work with a new registration system from 2013-2014 onwards. In the event of any changes at the school, these will always be discussed during staff meetings
GB-CS 11

B32. El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.

A. At the end of the first scholastic year of its implementation the Ministry has engaged an Education Officer from the Curriculum Department to evaluate the CCP. A number of interviews were conducted with all stakeholders, schools were visited and lessons were observed. This evaluation revolved around four main themes: learning outcomes, methods/pedagogies, resources, assessment. (…) When it comes to Assessment practices, more workshops are necessary where teachers can discuss the assessment criteria in so that standardisation is ensured. At school level, the Head of School or the Assistant Head of School (depending on who is the co-ordinating person at school)

together with the CCP mentor and teachers and Inclusion Coordinator, try to organise meetings to discuss issues concerning the programme. **GB-CS 7**

B. ASDAN agreed that the model that would have worked best, had a systemic approach not been introduced, would have been an 'area by area' approach i.e. targeting schools regionally. However, this type of approach would require the right level of coordination within and between the local areas and therefore additional resources. **GB-CS 8**

C. The internal dynamic of the school and the support of the administrative team were determining factors in the implementation of the various aspects of the initiative, and also in the construction of the VERAC software for helping teachers with their objectives in terms of teaching and assessment. (…)The team underlined the fact that the lack of continuous in-service training slows down the development of their dynamic; this includes a lack of in-house training within the school, which would allow for strengthened dialogue within the project. The team would also like to benefit from an outside perspective, which would allow them to better analyse and evaluate their organisational choices. **GB-CS 9**

D. In terms of the change management strategies that the participants decided to adopt (…), most of them focused mainly on strengthening peer-to-peer support within and among schools, by organising seminars for sharing good practices, knowledge and support. **GB-CS 10**

E. (…) During the first generation VOET a steering committee provided support for the implementation process. This steering committee included members of the governmental curriculum department, school inspectors, experts (scientists, academics) and sometimes also representatives of the PBD (also responsible for supervising the implementation of the VOET, see below). Cross-curricular work was very new at the time and needed a lot of support. Furthermore, the steering committee collected information on the implementation process, leading to the decision to revise the first generation VOET. The creation of the second generation VOET was also in part supervised by the steering committee, creating a broader basis for the updating process. In 2009 the government's curriculum department was reorganised and the steering committee was suspended. **GB-CS 11**

B33. Programar las prácticas de enseñanza integrando las competencias clave, desarrolla estrategias profesionales para coordinar y orientar el proceso de enseñanza y de evaluación del alumnado.

A. Issues [that drive the team] linked to the application of competences within the framework of the implementation of the common base of knowledge and skills, which requires the learning outcomes according to subject to be determined. (…) Certain choices [from teachers] helped schools in terms of how to identify the role of each person regarding the competences that are to be taught and evaluated. This is the case for the decision to have a school report card with three clear sections on competences:

- ✓ One section for transversal non-disciplinary competences (in reference to the European framework: social and civic competences, initiative and autonomy).
- ✓ One section on multidisciplinary transversal competences (language skills, science and humanities).
- ✓ One section on subject-based competences.

This structure facilitates the work of each teacher, as they must identify the elements to which they will apply a certain assessment or part of an assessment. (…) Now that the

team has acquired its own experience, it can help to train other pedagogical teams on the subject of competence assessment. (…) **GB-CS 9**

B. The government expects every stage at every school to make a reasonable effort towards achieving the VOET as a whole. The Education Mirror 2012 indicates that the administration at all the interviewed schools and 90% of the teachers are aware of the new VOET concept (statistics for the 2010-2011 school year, at the start of the VOET@2010). Furthermore it emerged that the (stage) coordinators at most schools are assigned an important task regarding the implementation of the VOET, often working with a VOET study group. A considerable number of schools work on the VOET within several separate study groups, without coordinating the whole. (…) Of the schools interviewed in this case study, one worked with a VOET coordinator, one worked with working groups and the third school does not have a VOET policy. Education Mirror 2012: It is interesting to note that schools have tended to organise the execution of the new VOET through projects rather than subjects. It would appear that it is easier to adapt and register projects to the VOET process, and it is also not necessary to give every individual team member a share of the responsibility in a project-based approach. (…) The Education Mirror 2012 showed that more than half of schools reported the existence of a plan for the implementation of the VOET. However, questions regarding how this plan was elaborated (school years, stages, types of education) were barely answered. These questions about a concrete plan were presumably not yet relevant, given that most schools are still in an exploratory phase (school year 2010-2011). However, most schools did indicate the points of particular interest that they are including in their plan. The main points of interest for schools were adapting the current VOET policy to the new VOET and the intention to increase staff support. Some schools aimed to pursue a process-type approach (listing, evaluating, adjusting and executing). **GB-CS 11**

B34. Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.

A. Dealing with these learners entails the use of diversified pedagogical skills and a teaching methodology that embraces more the learning through authentic situations and experiential learning. This new methodology challenged a number of teachers in that they had to undergo a paradigm shift from one of exposition and practice to a more project/task-based approach. Teachers had little training about dealing with such situations. Some persisted in their usual ways, but there were others who embraced this opportunity to teach with a methodology that they believed would be more effective and efficient with these learners, but which they never had the possibility of using since these learners always formed part of a group that was going to be assessed yearly by standardised centrally prepared examinations, whereas now the CCP group had a totally different kind of assessment that was based mainly on the continuous aspect. **GB-CS 7**

B. The quality of the PBD proves to be greatly dependant on the individual, and can offer good but also mediocre support. One school explained that the PBD did not know how to do everything and that as a result it was necessary for the school to go out and investigate for themselves. One school claimed that the PBD regards the completion of the ‘own curricula’ and subject-based attainment targets as its core business. The school stated that 90% of the work carried out by schools was towards their own curricula and subject-based attainment targets, while only 10% was towards the VOET. **GB-CS 11**

B35. La integración curricular de las competencias requiere una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.

A. [One of the] difficulty perceived at school level was when it came to integrating these students [low achieving students] in school activities. Since this was the first year of implementation, all stakeholders were testing grounds. It was understandable that at first a number of teachers found it hard to include the CCP students when organising an activity for a particular year group since these students are harder to handle and furthermore, they have special requirements that need to be planned for. (…) Funds are always an issue. The CCP aims to cater both for the well-being as well as for the curricular entitlement of the students. The resources needed for this small group are different from what is needed by the rest of the school cohort. Consequently, the resources are more particular and specific and therefore schools are expecting the Directorate to address this issue with the necessary funding. A shift in pedagogy that demands hands-on activities is much more costly than an explanation and practice approach. The structure and furniture required to furnish a classroom that will host the CCP students has to be different since it needs to convey a sense of belonging.
GB-CS 7

B36. Transversalidad curricular y competencias clave

A. The National Curriculum Framework (NCF, 2012) defines the curricular entitlement for each and every learner till the age of compulsory education which is sixteen. The curricular entitlement includes eight learning areas being, Languages; Mathematics; Science and Technology; Health and Physical Education; Religious and Ethics Education; Humanities, Education for Democracy; and Visual and Performing Arts and six cross curricular themes being, Literacy, Digital Literacy; Learning to Learn and Co-operative Learning; Education for Sustainable Development; Education for Entrepreneurship, Creativity and Innovation and Education for Diversity. **GB-CS 7**

B. The CoPE approach is cross-curricular and cross-departmental. (…) An IT tool adjusted to the evaluation of disciplinary or cross-curricular competences permits the follow up of all students' progress. (…) The CoPE is designed to widen access to further and higher education by developing generic, cross curricular "effectiveness skills". These comprise skills that are nationally recognised as "Wider Key Skills" (problem solving, improving own learning and performance, working with other) and additional skills identified by ASDAN as important through consultation with employers and higher education institutions (research skills, discussion skills and oral performance and presentation skills).**GB-CS 8**

C. COMENIUS Multilateral project aiming at training teachers so that they can design cross-curricular activities that support the key competence development of their students. **GB-CS 10**

D. The *Cross-Curricular Final Objectives* (VOET) are minimum targets in terms of knowledge, insight, skills and attitudes that are not specific to one subject, but that are pursued in secondary education through several subjects, educational projects and other activities. (…). The new VOET@2010 consists of objectives that are structured in a common trunk, seven contexts (physical health and safety, mental health, socio-relational development, environment and sustainable development, political-legal society, socio-economic society and socio- cultural society), learning to learn, ICT and technical-technological education. The VOET@2010 covers all European key

competences and safeguards a broad and harmonious basic training that includes essential knowledge, skills and attitudes. (…) Some goals of the new VOET@2010 that are mentioned by educational stakeholders also apply to the previous generation cross-curricular final attainment levels. (...) Before the implementation of the first generation of the VOET some schools already worked with cross-curricular projects and others did not. As a result some students were offered more content than others. **GB-CS 11**

B37. Servicio de consulta/orientación educativa destinado a las escuelas

A. Schools are regarded as customers and the good customer care that the organisation provides has been perceived as an effective strategy. Telephone queries are responded to by a person not by an automated service. Most email enquiries are dealt with in a very efficient way within twenty-four hours. **GB-CS 8**

B. All schools indicated that the educational guidance service (PBD) offered a great deal of support during the implementation of the VOET: The *Education Mirror* 2012 shows that 81% of schools have called on their PBD for support with regard to the VOET. More than half of these schools expressed a need for support in 'integration and coherence'. Schools were unsure how to tackle this aspect and did not know how they could gain an insight into the VOET, both as a whole and with all the possible combinations of different VOET. A third of the schools requested support regarding the common trunk and the contexts, in which there is great need for examples of best practice. For 'learning to learn', schools requested support for implementing a cross-curricular approach. learn', schools requested support for implementing a cross-curricular approach. (...) The Education Mirror 2012 reported that almost half of the schools called upon the PBD for help with professional development regarding the VOET.(…) The PBD also helps with the VOET registration were addressed in most of their 'own curricula' . If a school was working on certain 'own curricula', they therefore automatically worked on those VOET. One school mentioned that the PBD also offered suggestions for how to work on the VOET and two schools talked about the support they received in preparation for the visit to their school by the inspectorate. **GB-CS 11**

B38. Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.

A. (…) As part of the VOET, schools collaborate with many different organisations. Some examples of these are health organisations, drug prevention organisations, environmental organisations, cultural centres, schools in the Walloon province, libraries, colleges (with regard to learning how to make college/university choices), local police, NGOs such as *Broederlijk Delen* (Fraternal Sharing) or the *Red Cross*, employers' organisations such as *Unizo* (with regard to entrepreneurship), unions, health insurance companies, churches and mosques, etc. These organisations often set up projects outside of the classroom and offer a complete programme (preparation, project, post-processing). (…) the following criteria can also play a role in the choice of partner organisations (mentioned by at least one school): preference for a local organisation; a positive evaluation from a previous collaboration (i.e. quality of the organisation).**GB-CS 11**

B39. Colaboración entre las escuelas y los servicios externos con el objeto de responder a las necesidades competenciales del alumnado.

A. Most of the CCP students are socially deprived and lack those pre-requisites for learning that would give them a sense of well-being. Sometimes, the needs are so big that the school finds it extremely difficult to cater for all of them. Besides, there are seem to be unsurmountable issues that are impossible to tackle at school level and thus other social services are called in to give their input. (…) the staff working with the CCP students works closely with providers of other student services such as the anti-bullying unit with whom they were developing a programme aimed at boosting self-esteem and positive behaviour; they were also collaborating with personnel in charge of the Social, Emotional and Behavioural Difficulties unit, and with the Learning Support Zone teacher and the national Learning Centre that provides help to students with behavioural problems. The school is also in contact with NGOs and social workers who provide advice on how to deal with individual students and also on the general lines to follow with these students, many of whom come from socially deprived environments. The Inclusion Co-ordinator (INCO) is another partner in this programme. This person is the reference point for students with a statement report. It is the INCO who guides the Learning Support Assistants in their role in the class. The College Career Advisor is another collaborator who advises students about jobs and careers. It is envisaged that this will be linked with the entrepreneurship project/co-operative which will be held during the next scholastic year (September 2014). (…) Partnership is also created with the Education Officers with whom there is continuous contact in order to provide feedback and support. **GB-CS 7**

B. Schools also call on their educational guidance service (PBD) for support in implementing the VOET. The PBD can, for example, come to the school to offer further explanations on the vision behind the VOET, produce a learning pathway (when to introduce each VOET), provide help in finding the best registration system for the school, etc. The developers/inspectors indicated that schools often work with a 'VOET study group'. These generally consist of members of the school staff: the school administration, heads of the different subjects and all other persons involved (for example a teacher who has a lot of expertise on a specific theme). The school's policy regarding the VOET is elaborated within this study group. **(…)** Two of the interviewed schools in this case study stated opposing needs in terms of support: [a] According to one school, it would be better if, from the very beginning, it was clearly indicated how they should work on the VOET and how they should register and evaluate the VOET. This school felt that the government should supply tools to support this from the beginning. [b] The second school did not require a great deal of support since work was already being carried out on cultural and global education as part of the school's education project. The school also felt that schools should have the pedagogical freedom to determine their own focus. **GB-CS 11**

B40. La implicación del equipo directivo de la escuela es importante para el desarrollo de la iniciativa.

A. The senior management team at school level and the teachers imply that the timetable needs to be less loaded for those who teach a CCP group and especially for those who have a mentoring role in this programme. Networking between teachers, creating teacher learning communities, planning using a transdisciplinary approach requires time and energy. (...) The senior management team has to face another problem –the choice

of teachers. CCP teachers need to be creative, be capable of preparing student centred tasks, be ready to take initiative, be willing to prepare tasks with different levels of difficulty and most of all still believe that these students need to be challenged in order to continue their scaffolding process of learning. So, within a school, even in a large one, choice is at times limited. **GB-CS 7**

B. The arrival of a new head teacher at the school enabled working meetings to be held in order to review the current situation and to propose solutions to any problems. It was in this way that the team decided to launch a pilot project according to the difficulties faced by students, both in terms of their successful learning and of their interest in their own education. **GB-CS 9**

B41. Trabajo colaborativo entre las escuelas y la supervisión educativa.

A. School Inspections: in the run-up to an investigation schools will pay extra attention to their VOET policy as they want to receive a positive report from the inspectorate. (…) According to the developers/inspectors it is difficult for a government to be a 'supportive factor', considering the freedom of education in Flanders8, where the responsibility for implementation lies with the schools and the PBDs. Dutch-speaking Belgium has a very strong autonomy in education; the government, PBDs, teacher training colleges and schools all work independently and as a result cooperation is not self-evident. **(…)** The inspectorate is currently developing an examination tool with which the inspectorate will check how the implementation of the VOET@2010 is taking place. This tool was tested at a number of schools during the 2012-2013 school year.(…) At one of the schools interviewed in this case study, the educational guidance supervisor supported the staff meetings by passing on agenda items regarding to the VOET. To achieve better results in the 2010 inspection the supervisor also helped the school to develop a plan to achieve better results **GB-CS 11**

B42. Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.

A. Research by the Education Mirror 2012 shows that about half of schools communicated with other schools regarding the VOET. This communication aimed at exchanging expertise and, in the long term, creating a common approach between schools and increasing support. **GB-CS 11**

B43. Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.

A. To implement CoPE programmes, ASDAN has developed materials, held workshops and created a network to help teachers develop the methodology. Some initial teacher training providers have incorporated the methodology into their programmes but this is restricted by existing teacher training requirements. **GB-CS 8**

B. Institutional requests such as requests for articles for the dossier de rentrée (brochure/magazine providing educational news and insights of best initiatives within

the region) of the regional educational authority for Bordeaux or for the review of the Rouen education authority help to spread information about these initiatives. **GB-CS 9**

B44. La *Website* como contexto de comunicación y seguimiento de las propuestas.

A. ASDAN supports teachers to become trainers with training and resources. A free online resource bank is available, including worksheets (both in paper and electronic format), ideas for lessons, cross-curricular mapping, and mapping to assessment units. Additionally trainers can purchase the CoPE Schemes of Work and the CoPE Resource Pack to assist in planning and implementing the CoPE curriculum. **GB-CS 8**

B. The school's website and the site dedicated to the VERAC programme provide a direct link to the pilot project in order to inform parents in the best possible way about its contents. (…) The creation of this tool, which all users found appropriate and easy to use (and which was also enhanced with new functions according to the needs that arose from the pilot project), also contributed to the team's reflection on competences because it was the teachers themselves that selected the details of competences that are registered in the VERAC tool. **GB-CS 9**

C. These basic principles [the focus of the update, further explanations of the trunk, the contexts and learning to learn and also providing details of the coherence between the trunk and the contexts], together with a list of FAQs, was published on the www.akov.be website. (…) In [one school] every project is evaluated via the electronic platform smartschool in the 'evaluation' section. However, interpretation of this system differs from teacher to teacher and some teachers establish evaluation criteria for projects in advance, while others do not. **GB-CS 11**

B45. Poner a disposición de las familias materiales sobre el desarrollo competencial.

A. As the report cards [a school report card with three clear sections on competences] are given to the parents in person at the end of each term, teachers can explain the competences that have been developed to parents and to students, thus creating a culture of competence-based assessment amongst all stakeholders in the school. (…) Parents, did not speak of any reticence or difficulties in terms of accepting competence-based and gradeless assessment (…); this is notably due to the fact that the head teacher and the project team presented the pilot project to them when they registered their children with the school. **GB-CS 9**

B46. La participación de las universidades y/o instituciones de formación inicial del profesorado en la dinámica y justificación de la iniciativa.

A. ASDAN has focused on in-service teacher education but also has had a small degree of engagement with initial teacher education in a few universities in the UK, where they conducted a series of seminars on the impact of competences based assessment during an educational conference. **GB-CS 8**

B. (…) A teacher from the school, also a trainer at the IUFM (Institut Universitaire de Formation des Maîtres –Teacher Training Institution) held pedagogical meetings to refresh the concepts of assessment and to define the concept of competences. (…) This group of teachers attended a conference by André Antibi on "The Macabre Constant". **GB-CS 9**

B47. Relaciones entre actividades curriculares y extra-curriculares.

A. Infrastructure of the school: in a small school the teacher is sometimes required to organise extracurricular activities; this has the possible effect of making teachers think more creatively about cross-curricular activities. **GB-CS 11**

Resumen: variables seleccionadas en el Grupo B (5 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet): Código de las iniciativas: GB-CS 7; GB-CS 8; GB-CS 9; GB-CS 10; GB - CS 11

GB	Variables identificadas	Nº de veces que se COMPARTE
B1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	**5**
B2	Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.	**3**
B3	Propiciar, acorde con la realidad europea actual, una educación que potencie el desarrollo competencial de todos los estudiantes, poniendo un especial énfasis en el alumnado vulnerable (inclusión educativa).	**4**
B4	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**1**
B5	Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).	**1**
B6	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**3**
B7	Informe sobre el impacto en distintos países europeos del modelo competencial en términos de efectividad y eficiencia del proceso de formación.	**1**
B8	La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**5**
B9	Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	**4**

B10	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: ¿cómo relacionar el enfoque competencial -su terminología, dimensión y alcance- con las propias prácticas de enseñanza y de evaluación del aprendizaje del alumnado?	**3**
B11	El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**4**
B12	Dificultades para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.	**3**
B13	El arraigo de la cultura de la evaluación del rendimiento lentifica el cambio hacia la evaluación competencial.	**3**
B14	La continuación de la doble evaluación del alumnado (evaluación del desempeño, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.	**2**
B15	Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**3**
B16	Necesidad de coordinación fluida y cooperativa: conectar servicios pedagógicos, experiencias, conocimientos, líneas de trabajo, recursos, etc.	**2**
B17	El rol del tutor (mentor) para el desarrollo competencial del alumnado con dificultades de aprendizaje.	**1**
B18	El cambio hacia la evaluación competencial analizado desde la perspectiva del alumnado	**4**
B19	La enseñanza parcelada por asignaturas/departamentos incide negativamente en la implementación de la evaluación competencial.	**2**
B20	La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**4**
B21	Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de	**1**

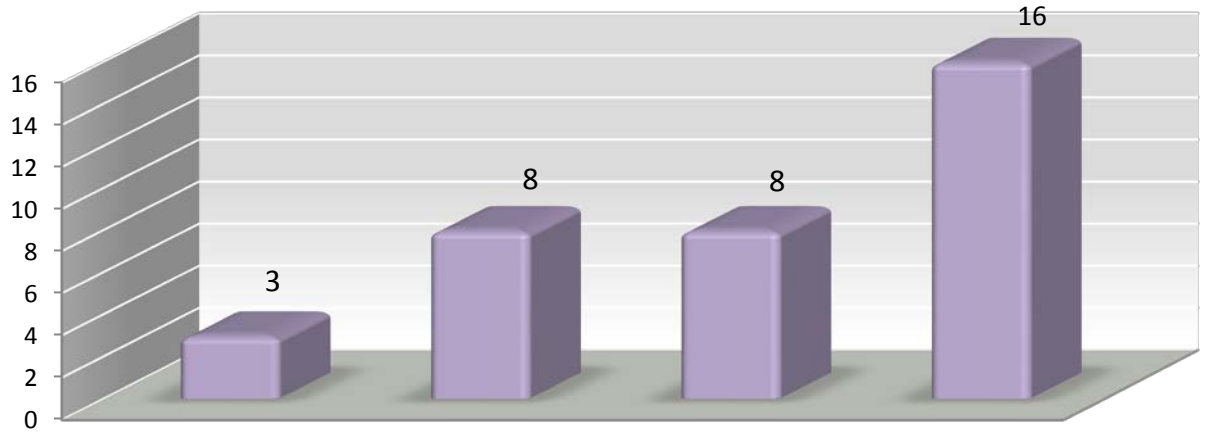
	evaluación que integra objetivos y competencias.	
B22	Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.	**1**
B23	La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**2**
B24	Participación de los docentes en la elaboración de materiales.	**2**
B25	El "portafolio" como estrategia para el seguimiento del desarrollo de las habilidades fundamentales (genéricas y transversal al curriculum).	**2**
B26	Herramientas digitales para el seguimiento del desarrollo competencial del alumnado.	**2**
B27	Certificar el desarrollo de las habilidades fundamentales que alcanza el alumnado.	**2**
B28	Propuestas de evaluación que ofrecen alternativas de aprendizaje al alumnado con bajos niveles de logro (diversidad e inclusión)	**3**
B29	Los estudiantes y sus familias reflejan su apreciación respecto a la coherencia entre las actividades realizadas en el aula y el proceso de evaluación del alumnado.	**2**
B30	Los docentes consideran un problema la demanda de tiempo que requiere la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje.	**4**
B31	La cultura de la colaboración en el contexto del equipo docente (departamentos, ciclos, etc.) propicia la implementación del cambio que propone el modelo competencial.	**4**
B32	El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	**5**

B33	Programar las prácticas de enseñanza integrando las competencias clave, desarrolla estrategias profesionales para coordinar y orientar el proceso de enseñanza y evaluación del alumnado.	**2**
B34	Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado	**2**
B35	La integración curricular de las competencias requiere una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	**1**
B36	Transversalidad curricular y competencias clave	**4**
B37	Servicio de consulta/orientación educativa destinado a las escuelas.	**2**
B38	Instituciones externas al sistema educativo (de carácter científico, cultural, empresarial, etc.) realizan actividades con el alumnado.	**1**
B39	Colaboración entre las escuelas y los servicios externos con el objeto de responder a las necesidades competencias del alumnado	**2**
B40	La implicación del equipo directivo de la escuela es importante para el desarrollo de la iniciativa.	**2**
B41	Trabajo colaborativo entre las escuelas y la supervisión educativa.	**1**
B42	Generar sinergia entre las escuelas: redes que intercambian conocimientos, experiencias, recursos, etc.	**1**
B43	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**2**
B44	La Website como contexto de comunicación y seguimiento de las propuestas.	**3**
B45	Poner a disposición de las familias materiales sobre el desarrollo competencial.	**1**

B46	La participación de las universidades y/o instituciones de formación inicial del profesorado en la dinámica y justificación de la iniciativa.	**2**
B47	Relaciones entre actividades curriculares y extra-curriculares.	**1**

GRUPO "B"

N = 47 variables - 5 iniciativas



5 variables compartidas	4 variables compartidas	3 variables compartidas	2 variables compartidas
B1, B8, B32	*B3, B9, B11, B18, B20, B30, B31, B36*	*B2, B6, B10, B12, B13, B15, B28, B44*	*B14, B16, B19, B23, B24, B25, B26, B27, B29, B33, B34, B37, B39, B40, B43, B46*

Variables no compartidas: 12

B4, B5, B7, B17, B21, B22, B35, B38, B41, B42, B45, B47

THE TRANSVERSAL KeyCoNet CASE STUDIES ANALYSIS

VARIABLES COMPARTIDAS

GRUPO C

Tópico: "Programas de apoyo a los equipos docentes en el proceso de cambios hacia prácticas de enseñanza que integran las competencias clave incluidas en los lineamientos curriculares actuales: un tránsito de ida y vuelta constante que se proyecta en el desempeño competencial del alumnado y se retroalimenta en los contextos de formación continua del profesorado"

Características de las iniciativas incluidas en el Grupo C:

El "Grupo C" está integrado por un conjunto de iniciativas pertenecientes al estudio de caso múltiple KeyCoNet que, desde sus respectivas propuestas, focalizan el desarrollo de programas que guían y orientan a los equipos docentes en la implementación de los cambios relacionados con la programación y el desarrollo de prácticas de enseñanza que plantea la integración curricular de las competencias clave. En todo caso, se trata de iniciativas que, teniendo como referente la evaluación competencial del alumnado, son organizadas en contextos de formación continua y/o de orientación del profesorado pretendiendo afianzar el desarrollo profesional de los equipos docentes y entendiendo la diversidad de recorridos en este campo.

Las iniciativas que se informan en el Grupo C son las siguientes:

1. **GC-CS 12** *Key Skills of Junior Cycle*
   This is a system-wide initiative aimed at embedding key skills within the curriculum and all teaching and learning in the context of introducing a new junior cycle programme for 12-15 year old students in all schools in Ireland in 2014. This is a national initiative that will impact upon all teachers and students at lower secondary level over time.

2. **GC-CS 13** *Project Maths*
   Mathematical proficiency and the five key skills of the National Council for Curriculum and Assessment (NCCA). Framework of Key Skills (senior cycle) are also embedded in the curriculum. These are: information processing, communicating, being personally effective, working with others, and critical and creative thinking.

3. **GC-CS 14** *Curricular Integration of key Competences Programme* (COMBAS)
   The focus of the Spanish case study is Spain's national project, ComBas: *Proyecto de consolidación de las competencias básicas como elemento esencial del*

currículo – project for the consolidation of key competences as an essential element of the curriculum.

4. **GC-CS 15** *Programme for the Curricular Integration of Key Competences* (PICBA)
   The *PICBA Programme* is special in that it has a holistic focus, distinguishing it from other Andalusian and national educational initiatives, giving it its own identity.

Alcance de las iniciativas incluidas en GRUPO C	
Iniciativa	**Código**
National initiative *Key Skills of Junior Cycle*	**GC-CS 12**
National initiative *Project Maths*	**GC-CS 13**
***Curricular Integration of key Competences Programme* (COMBAS)** Spain	**GC-CS 14**
***Programme for the Curricular Integration of Key Competences* (PICBA)** Andalusia (Spain)	**GC-CS 15**

Iniciativa	Socios	Código
Key Skills of Junior Cycle Ireland	The Department of Education and Skills, State Examinations Commission, Teachers' Unions, School Management bodies and other stakeholders in education are supportive of this initiative.	**GC-CS 12**
Project Maths Ireland	This project constitutes a *united front* and the collaboration between policy stakeholders: – National Council for Curriculum and Assessment (NCCA) – Department of Education and Skills (DES): a. Maths Inspectorate b. Teacher Education Section (TES) (includes the *Project Maths* Development Team) – State Exams Commission (SEC)	**GC-CS 13**
Curricular Integration of key Competences Programme (COMBAS) Spain	Ministry of Education, Culture and Sports, educational authorities of 15 autonomous communities.	**GC-CS 14**
***Programme for the Curricular Integration of Key Competences* (PICBA)** Andalusia (Spain)	-Department for Education of the Regional Government of Andalusia (Spain)	**GC-CS 15**

1. La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.

A. The key skills are based on the competences set out in the European Framework for Key Competences for Lifelong Learning, but are adapted to suit the Irish context. (…) The implementation of key skills in junior cycle has been part of the systemic review of junior cycle from the outset. (…) All levels of school education in Ireland are at various stages of curriculum reform and the development and embedding of dispositions and competences are viewed as central to these reforms. (…) The *National Council for Curriculum and Assessment* (NCCA) [-agency of the *Department of Education and Skills* (DES) in Ireland-] advises the *Minister for Education and Skills* on curriculum and assessment in early childhood, primary and post-primary education. (…) The *Key Skills of Junior Cycle* framework is influenced by international research and by the NCCA's work with a network of schools that focused on the development of five key skills within senior cycle education (2006-2011). (…) The new junior cycle is the most significant reform of the formal curriculum in Irish education for decades and key skills is a major part of that. The embedding of key skills within a new junior cycle programme is a very ambitious project. A range of supports are currently being developed to enable teachers to begin exploring how they can develop these key skills within their classrooms. **GC-CS 12**

B. Following a review of post-primary mathematics education in 2007, the National Council for Curriculum and Assessment (NCCA) prepared a strategy, *Project Maths*, for the phased implementation of syllabus change in mathematics over a four-year period from September 2008. This change involved the review of mathematics syllabuses at both junior cycle and senior cycle and a complete change in the approach to the teaching and assessment of mathematics. The focus has been on the development of mathematical competence, while the five key skills (communicating, working with others, critical and creative thinking and information processing and being personally effective) have also been embedded in the curriculum. (…) *Project Maths* was planned as *a system-wide reform of mathematics education in* post-primary schools. It involved all maths teachers and the changes were introduced at both junior cycle and senior cycle. (…) The heart of the initiative is helping students develop mathematical proficiency (all students of mathematics in secondary schools) (…) [On the other hand,] explicitly addressing the transition from primary school to post-primary school with a *Bridging Framework* which connected syllabus areas in upper primary with the new strands, and a *Common Introductory Course* for all first year students were identified by the majority of interviewees as an effective strategy. **GC-CS 13**

C. By including key competences in the compulsory curriculum in Spain through the Organic Law of Education (LOE) in 2006, a need was created to make this curricular change a reality in educational practices within compulsory education in a decentralised country with 17 autonomous communities. In view of this challenge, the *Atlántida Innovation Group*, a non-profit organisation that has been working in the field of educational innovation in Spain since 1998, has searched for possible answers at a regional level, generating a working model1, and creating collaborative spaces between curricular integration proposals put forward by experts and practice in a group of schools. The achievements of this model in various regions led to the *Ministry of Education* accepting it as the official approach in 2010/11, developing a pilot model in collaboration with autonomous communities. This was how the *Curricular Integration of Key Competences Programme* (COMBAS) came about, focused on teacher training and evaluation in schools. (…) Five thousand teachers from 150 primary and secondary schools participated in its first edition, within a national collaboration frame between

the central administration and the educational authorities of 15 autonomous communities. (…). The programme continued during the following school years, and currently similar initiatives are being developed also at a regional level by many autonomous communities. (…) The commitment of the various political parties to follow European recommendations has not faded regarding the need to promote the integration of key competences into the curriculum. This commitment has been encouraged by the recommendations of the *European Commission*, by the impact of national and international competence tests, by the importance of internal and external evaluation, by the international profile of COMBAS and by the passionate defence of continuity made by the responsible politicians from the various autonomous communities. **GC-CS 14**

D. Once Organic Law 2/2006 on Education incorporated key competences into educational curriculums, defining them as an integral part of the curriculum, the *Department for Education of the Regional Government of Andalusia* decided upon a holistic approach of partnership (human resources and curriculum elements) between all the educational agents of the government. The competences were also established as a reference for the evaluation of students at the relevant times for the promotion and recognition of key competences through qualifications after their integration into the relevant curriculums in compulsory education. Diagnostic evaluation tests for the 4th year of primary education and the 2nd year of secondary education (in which Andalusia is a pioneer in Spain by applying them across the region since the 2006-2007 academic year) were also used as a measuring instrument, as well as the ANDALUSIA SCALE test, which is used in the *Autonomous Community* in the 2nd year of primary education. (….) Therefore it became necessary to carry out initiatives aimed at schools for the consolidation of key competences and consequently, help teachers with the task of transforming the teaching and learning dynamic by helping them overcome possible problems. With this objective, the Department for Education of the *Regional Government of Andalusia* decided to participate, with 25 Andalusian and a further 125 schools from other regions in Spain, in the *Programme for the Curricular Integration of Key Competences, COMBAS,* organised by the Ministry of Education within the framework of the Regional Cooperation Programme with autonomous communities. At the same time, the *General Educational Planning and Evaluation Department of Andalusia*, through the *Evaluation Service*, set up, by virtue of the duties assigned to it, the *Programme for the Curricular Integration of Key Competences, PICBA,* in Andalusia, based on the *COMBAS Programme*, although it soon gained its own identity, becoming an ambitious, innovative holistic initiative dealing with curriculum organisation, evaluation, supervision/inspection, training, respect for diversity, family participation, curriculum materials etc., in which around 4,000 teachers have participated. **GC-CS 15**

2. La iniciativa se apoya en experiencias y recursos aportados por programas realizados con anterioridad sobre la integración de las competencias clave en la enseñanza y el aprendizaje: ¿qué funciona en las aulas?

A. Previous work in senior cycle was another enabler for the introduction of key skills in junior cycle. The NCCA launched an initiative with a network of schools in 2006 to explore how key skills could be embedded in teaching and learning across a range of subjects in senior cycle. This initiative helped to build up a body of professional practitioner-based knowledge of 'what works' in the embedding of key skills. While the initiative was initially designed to support curriculum development work at senior cycle, it also greatly influenced policy, curriculum and assessment in the review of

junior cycle. Teachers from the initiative had direct input into the development of the set of key skills for junior cycle. Reports from the initiative helped shape how the key skills are presented and how their implementation is supported. Probably the most powerful output was the resources developed with and by teachers, and particularly video footage of teachers in classrooms showing what the key skills are all about and demonstrating the benefits for students. The findings and outputs from the initiative were shared and made public. This helped to build an awareness of the key skills and an understanding of how they might be embedded in the curriculum and become an important part of teaching and learning in the classroom. (…) The pilot project provided convincing evidence of the value of embedding key skills within teaching and learning, and demonstrated the benefits both for teachers and students. (…) The implementation of key skills in junior cycle has been part of the systemic review of junior cycle from the outset. (…) More recently, an extensive consultation on the future of junior cycle education took place (2010- 2011) and participants affirmed the importance of developing these key skills. **GC-CS 12**

B. Recognition by all stakeholders that something needed to be done to raise the mathematics standards in Ireland was seen as an enabler to the *Project Maths* initiative. This recognition was brought about by a series of reports and studies that highlighted undisputed problem areas in mathematics education in Ireland. **(**Lyons, M., Lynch, K., Close, S., Sheeran, E., and Boland, P. (2003) *Inside Classrooms: a Study of Teaching and Learning*. Dublin: Institute of Public Administration). **GC-CS 13**

C. COMBAS programme did not implement a pre-designed model of educational intervention, but rather generated one based on continuous interactions between schools and experts. (…) Working procedures focused on the interrelation between various teams: this guaranteed the continuous review and improvement of materials produced. (…) The theoretical framework regarding the curricular integration of key competences provided by the *Atlántida Innovation Group* was prepared in close relationship to various educational practices carried out in schools: based on these practices, the theoretical framework was re-designed and, as the practical experience was analysed, this re-design was progressively improved. This methodology for the construction of knowledge, although complex for taking general decisions, continued to be developed during the COMBAS pilot project in order to make the individual adjustments that the high diversity of participating regions and schools required. (…) Several contextual factors supported its implementation, among them "Experience related to the inclusion of COMBAS coordinators in the dynamic of each school": with advice from the *Atlántida Innovation Group*, they contributed their experience to the implementation of COMBAS: a network of 30 schools based around a permanent teacher training centre in Alzira, in the *Autonomous Community of Valencia* (2009); various networks coordinated by the regional authorities of the Canary Islands, Zaragoza, Huelva and Extremadura, reaching a total of 250 schools (from 2007); a network of 23 *La Compañía de María* schools, a private educational organisation (2008); and a local network in *El Hierro* (the Canary Islands) with the participation of all the schools on the island, family associations and the civil community as a whole (2009). **GC-CS14**

D. The PICBA programme encourages various processes of reflection and action that facilitate decisions regarding the curricular integration of key competences within the regulatory framework. This has been successfully achieved using the general approach of the COMBAS programme for developing proposals and investigating new possibilities in the educational context of Andalusia. From the collaborative synthesis between the two programs, the following actions have arisen:

- ✓ Development of *professional competence* through training in which school coordinators are the common thread between the proposals received in class training sessions and the dynamics of school teaching teams.

- ✓ *Coordinated participation of all sectors* of education involved in the integration of key competences in curricular development: the *core team and PICBA provincial teams, schools, Andalusian Agency for Educational Evaluation* (AGAEVE), *and educational inspectors.*
- ✓ *Criteria evaluation model* that responds to official indications: weighting process for each of the evaluation criteria, as well as disaggregated indicators in the areas of knowledge and/or key competences for student qualifications.
- ✓ Consultation and feedback from *various integrated teaching units* (ITUs) produced by teaching teams: a) *curricular development* (definition of educational objectives through objectives for areas of knowledge, content, and evaluation criteria); b) *teaching conversion* (conversion of academic knowledge to teaching knowledge through tasks and activities in various scenarios or contexts during a set period); and c) *learning evaluation* using evaluation indicators and technical and evaluation/information tools.
- ✓ *Computer s with databases* so that each teacher can, in conjunction with the teaching team, prepare useful curriculum maps, integrated teaching units, and track student progress.
- ✓ *Collaborative work between families and schools* in strengthening the development of key competences *(comprehensive curriculum).* GC-**CS 15**

3. Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.

A. All levels of school education in Ireland are at various stages of curriculum reform and the development and embedding of dispositions and competences are viewed as central to these reforms. (…) there was a general conversation among employers, parents and the general public about what is important in education and about the different kinds of skills that young people need in today's world. Discussions surrounding all of this research continually reverted to the same theme: the need to improve teaching and learning at junior cycle in order to improve student engagement and to develop the skills students need to learn, to live and to work. **GC-CS 12**

B. The new syllabus was focusing on more than the mastery of content and the examinations were assessing key competences in maths. (…). In the years leading up to the development of *Project Maths* there was a strong recognition from all parts of the system that reform was needed. (…) The heart of the initiative is helping students develop mathematical proficiency. **GC-CS 13**

4. Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.

A. The NCCA is a partnership council, on which parents, teachers, higher education, school management bodies, business interests, Irish language interests, the State Examinations Commission and the Department of Education and Skills are all represented. Many of these organisations and others were consulted during the development process. In addition, teachers and school leaders who worked with the NCCA on the development of key skills commented on the importance of the partnership approach between the national agency (NCCA) and schools. They felt that this was important in terms of building trust in the process of incorporating key skills

into classroom practice and confidence in the evidence base of the key skills. **GC-CS 12**

B. This new model required a reconceptualization of mathematics, teaching and learning by all the stakeholders in mathematics education: teachers, students, parents, inspectors, examiners, text-book authors.(…) These [the reform was needed] included third level colleges, industry, politicians, employers' groups and various other educational institutes. (…) **GC-CS 13**

C. (…) The lack of a culture of collaborative innovation within the Spanish education system (both in private and public schools, and universities) could be considered to have hindered, to some degree, the wider implementation of the first year of COMBAS in view of the fact that: the presence of different theoretical-practical approaches hindered the understanding of the COMBAS approach, and the legacy of the various educational reforms that have taken place in the last two decades have struggled to differentiate themselves from each other rather than find shared points of view that would facilitate the educational consensus demanded by Spanish society. **GC-CS 14**

D. The lack of experience in education in addressing holistic curriculum development required coordination and collaboration between all the professionals involved in curriculum management and evaluation, supervision and inspection, teacher training, family involvement, the organisation of teaching materials and resources, etc. (...) Several factors contributed to the PICBA initiative achieving over the last three years a widespread in the field of teacher training and demonstrating that the development of key competences is the responsibility of the community (given that the process is enhanced by integrating formal and informal learning situations, and resolving tasks in various contexts). (…). **GC-CS 15**

5. La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: de un cuerpo de conocimiento organizado y evaluado linealmente a otro centrado en la resolución de problemas.

A. [It is also considered effective] the embedding of the key skills into the curriculum and into assessment. In the initial work with schools on the senior cycle initiative, teachers were working with subjects that did not have key skills embedded into the curriculum and which were tested in the traditional high stakes examination. While teachers still found the use of the key skills in their classrooms to be very effective in improving learner engagement and teaching and learning generally, some teachers did find it difficult to marry the key skills with the requirements of the curriculum and its assessment. While the embedding of the key skills in the junior cycle curriculum is only under development at the moment, the expectation that subject specifications will be different and that there will be a completely new approach to assessment has already created a sense that key skills are a necessary part of these changes. **GC-CS 12**

B. A change in mind-set was required, from a view that mathematics education is a teacher-centred endeavour with teachers covering a fixed body of knowledge in a linear way with their students, to a view that it is about challenging students and engaging them with an interconnected body of ideas and reasoning processes collaboratively with their teacher and peers. (…) It was strongly argued by teachers that the new assessment model, with its perceived unpredictability, that assessed concepts and skills as well as contexts and s did not support the development of the desired competences. The

structure of certain questions was criticised and it was noted that students *could get the wrong answer* despite the fact that they knew the mathematics. **GC-CS 13**

C. (…) Integration requires a change in teachers' mentality. As this is difficult to achieve because the institutional framework prevents transformations in educational practices, it was understood that it could be achieved through cooperation between schools and experts, jointly reflecting in order to enable teachers to prepare their own innovative procedures. (…) COMBAS programme was clearly committed to promoting a change in mentality, taking great care to negotiate resistance from teachers. Clearly, any change in mentality is very slow and, due to its unpredictable nature, very difficult to measure. The replies of the interviewed teachers made it possible to identify three phases in this change among participants: (1) of resistance to change (defining key competences as bureaucratic aspects that would hinder teaching), (2) of growing awareness of the link between competence-based elements of the curriculum and current teaching, and (3) of appropriation of the theory of key competences to support practice. **GC-CS 14**

D. In accordance with the framework that supports the COMBAS program, PICBA assumes that the development of a competency model requires collaboration between schools and other institutions in the educational community (especially the family) to generate a *comprehensive curriculum*. This collaboration took place in some schools spontaneously during the early stages of PICBA, and this experience was the basis for designing a new plan for the curricular integration of key competences. The plan counts on the support of families and associations that represent families. **(…)** It was needed to implement educational processes that include key competences in the development of curricula, as well as generating materials to accompany this process. **GC-CS15**

6. La administración educativa reflexiona acerca de cómo acompañar a los docentes a interpretar la reforma curricular en sus prácticas de enseñanza y en la evaluación de los aprendizajes del alumnado.

A. While curriculum and assessment reforms are centrally led, schools are encouraged to develop competences in ways that work best for them and the NCCA has worked closely with schools and teachers in the development of the key skills frameworks. (…) Many of these organisations and others were consulted during the development process. (…) The NCCA, Department of Education and Skills, *State Examinations Commission*, teachers' unions, school management bodies and other stakeholders in education are involved in this reform, and work in the area of key skills has drawn particular support. (…) The NCCA is a partnership council, on which parents, teachers, higher education, school management bodies, business interests, Irish language interests, the *State Examinations Commission* and the *Department of Education and Skills* are all represented. (…) **GC-CS 12**

B. The unified responses from the system to the needs of teachers were particularly lauded. (…) The change in role of the NCCA, from being mainly advisory to a much more hands on role, as a significant enabler to implementation. Visits to third level colleges by NCCA personnel, direct contact with both the initial schools and those in the national roll-out through phone calls and emails were seen as being particularly helpful in supporting the system to change. (…) [The initiative organized was *Project Maths*. It] was unique in Ireland in that it placed teachers at the centre of the curriculum development process. Teachers' experiences and feedback informed refinements and subsequent revisions as the new curriculum was being rolled out. This initiative has now been mainstreamed in all Irish schools. (…) **GC-CS 13**

C. In order to make legislation a reality, teacher training actions were required and that, in order for these to work, it was essential to improve leadership in schools and promote collaborative networks around them. **(…)** The legal framework of regional cooperation concerning education between the central government and autonomous communities enabled the implementation of COMBAS. (…) Connecting general actions was a very difficult challenge, because despite the fact that there is a legal framework to help reach regional cooperation agreements, educational competences are very decentralized. (...) Coordinated work between teams from different educational organisations (the *Ministry of Education*, regional educational authorities and schools) facilitated shared responsibility in order to achieve COMBAS objectives. **GC-CS 14**

D. [The earlier generations PICBA programme] is being successfully implemented. (…) This is reflected in the various processes of evaluation incorporated in the programme, including the external evaluation that took place after the first two versions of the programme (including 130 schools with about 4,000 teachers) that was conducted jointly by the *University of Seville*, the *Andalusian Agency for Educational Evaluation*, and the school inspection service. The evaluation concluded: "The PICBA programme is recognised in general as a suitable instrument for facilitating processes linked to teacher training with respect to including key competences in the curriculum as required in the current regulations." (…). **GC-CS 15**

7. La iniciativa constituye un programa oficial diseñado *ad hoc* para fomentar la integración de las competencias clave en las prácticas de enseñanza y evaluación del aprendizaje.

A. A range of supports are currently being developed to enable teachers to begin exploring how they can develop these key skills within their classrooms. (…). An integrated approach is taken to these skills, with the competences embedded into the learning outcomes of the formal curriculum and assessment. Emphasis is placed on their role in teaching and learning approaches employed in the classroom. A broad consultation with teachers, parents and other stakeholders on the junior cycle emphasised the importance of basic and key skills and drew particular attention to learning to learn, developing confidence and effective communication. **GC-CS 12**

B. While the overarching brief of *Project Maths* was to change the syllabus, assessment and teaching and learning of maths, the more specific aims can be summarised as:

- ✓ changing the culture of the classroom, shifting the emphasis from drill and practice to problem-solving, reasoning and sense-making;
- ✓ making maths more relevant to the lives of young people improving students' attitudes to maths; and
- ✓ developing teacher competency in relation to mathematical content knowledge and pedagogy. (…) **GC-CS 13**

C. The first year of COMBAS programme became meaningful in view of the situation that, despite the fact that key competences were included in the *Organic Law of Education* some years earlier, there were still no curriculum guidelines for their development in classrooms. Therefore, it was able to provide solutions to this absence and, to some degree, to a certain culture of complaining and conservative criticism that characterized educational reforms in Spain. (…) The main COMBAS programme strategies are:

- ✓ *A model for the integration of the curriculum under constant review based on the vision provided by the work in and with schools*. Priority was given to integration arising from the monitoring, by experts, of processes and products generated in the participating schools to obtain approaches.

- ✓ *Training focused on the collective solving of tasks***.** Based on training meetings, the interaction between members of the same group and between representatives of different groups led to the production of materials. This process fed back into the programme actions and justified student groups as the object of learning.
- ✓ *Top-down training, including the role of a COMBAS coordinator in each school*. **GC-CS 14**

D. The PICBA organisation does not precisely determine the conditions that schools should satisfy in terms of competence training in order to join one of the three training phases (initial, advanced, or in-depth). Therefore, each school chooses its formative phase in light of the resources available, as well as its knowledge and experience. This situation causes difficulties in monitoring the training and work developed by schools. From now onwards, the starting characteristics required for each phase will be defined more precisely.

8. Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.

A. This is a system-wide initiative aimed at embedding key skills within the curriculum and all teaching and learning in the context of introducing a new junior cycle programme for 12-15 year old students in all schools in Ireland. **GC-CS 12**

B. *Project Maths* was planned as *a system-wide reform of mathematics education in* post-primary schools. It involved all maths teachers and the changes were introduced at both junior cycle and senior cycle. (…) The heart of the initiative is helping students develop mathematical proficiency (all students of mathematics in secondary schools) (…) [On the other hand,] explicitly addressing the transition from primary school to post-primary school with a *Bridging Framework* which connected syllabus areas in upper primary with the new strands, and a *Common Introductory Course* for all first year students were identified by the majority of interviewees as an effective strategy. **GC-CS 13**

9. Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.

A. COMBAS initiative is focused on the first year of the aforementioned programme, in which 150 primary and secondary schools have participated. **(…)** Of the 150 participating schools, 87% were state schools (45% nursery and primary, and 42% secondary) and 13% were subsidised private schools (including nursery, primary and secondary schools). **GC-CS 14**

B. Nursery, primary and secondary (students between 3 and 16 years old).
GC-CS 15

10. Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).

A. The key competences are referred to as key skills, and frameworks for key skills have been developed for lower and upper secondary education. (…) There are arguments for and against introducing key skills at any particular phase of education: primary, junior cycle or senior cycle. Due to the integrated approach of embedding the key skills in the curriculum and in assessment, they needed to be introduced as part of the curriculum reform. Some time was spent developing key skills for senior cycle, but as reform of the curriculum at this level was slow, their impact has so far been limited. However, a major reform of junior cycle provided the opportunity to introduce skills at that level. Hence, the approach in Ireland has been to seize the opportunity where there is a move to reform the curriculum and assessment at a particular level and then to integrate key skills development with that reform initiative. **GC-CS 12**

B. Explicitly adressing the transition from primary school to post-primary school with a *Bridging Framework* which connected syllabus areas in upper primary with the new strands, and a *Common Introductory Course* for all first year students were identified by the majority of interviewees as an effective strategy. **GC-CS 13**

11. Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.

A. The key pillars of the Framework for Junior Cycle are: [a] The Principles for Junior Cycle Education; [b] Statements of Learning; [y c] Literacy, Numeracy and Key Skills. (…) Following consultation, engagement with schools and research, five key skills were identified: information processing, being personally effective, communicating, critical and creative thinking and working with others. (…) The identification of the six key skills was also influenced by the schools that participated in the work at senior cycle. (…) The process of identifying the skills and communicating the rationale for introducing them was supported by the experience of the work with senior cycle schools. Stakeholders are now familiar with the language of key skills and have a commitment to them. **GC-CS 12**

B. One of the most significant aspects of the design of the initiative was the alignment of the assessment to the aims of the syllabus. It was seen as essential that the final assessment examined key competences in maths, that students would be required to problem-solve, to deal with real world s and to show conceptual understanding in mathematics. This was achieved by all parts of the system working very closely together. **GC-CS 13**

12. Proporcionar a la cultura escolar un marco referencial que permita conectar el curriculum oficial con la realidad del aula: niveles de integración curricular de las competencias clave en los procesos de programación y desarrollo de las prácticas de enseñanza.

A. In view of the distance between the official curriculum and the reality in classrooms regarding the competence model, COMBAS proposed generating alternatives that would make it possible to turn legislation into reality in classrooms. The substance of the model consisted of five levels of curricular integration of key competences:

- ✓ in real classroom situations, such as the completion of tasks;
- ✓ in curriculum elements like curriculum specification;
- ✓ in methodologies;

- ✓ in evaluation;
- ✓ in formal, informal and non-formal education. **GC-CS 14**

B. In official documents relating to curriculum development there are few indications of the relationships to be established between the elements (objectives, content, competences, evaluation criteria, etc.); and few methodological guidelines for creating and applying comprehensive curricula. Therefore, it was necessary to organise specific counselling sessions for teaching teams to analyse the curricula proposed by the programme. **GC-CS 15**

13. La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.

A. While curriculum and assessment reforms are centrally led, schools are encouraged to develop competences in ways that work best for them and the NCCA has worked closely with schools and teachers in the development of the key skills frameworks. (…) Many of these organisations and others were consulted during the development process. (…) The NCCA, Department of Education and Skills, State Examinations Commission, teachers' unions, school management bodies and other stakeholders in education are involved in this reform, and work in the area of key skills has drawn particular support. (…) The NCCA is a partnership council, on which parents, teachers, higher education, school management bodies, business interests, Irish language interests, the State Examinations Commission and the Department of Education and Skills are all represented. (…) A national network of 48 schools (representing all school types) has been established to work directly with the NCCA. In addition, other school networks are being established by our education partners. These 'beacon' schools are generating classroom activities and examples (including videos) which will be shared with teachers within the wider system. (…) The NCCA is also working with other networks that have been established by partner organisations. Providers of pre-service and in-service professional development for teachers are also targeted. **GC-CS 12**

B. This [to deal with real world s and to show conceptual understanding in mathematics] was achieved by all parts of the system working very closely together. (…) The united front and the collaboration between policy stakeholders played a significant enabling role (NCCA; DES y TES; y SEC). Traditionally these various bodies have worked relatively independently, with a linear progression: NCCA prepares the syllabus, DES implements, and SEC examines. This linear progression and limited coherence in policy development was cited as a possible obstacle to previous reform initiatives. (…) Beginning with an initial 24 (phase one) schools, the *Project Maths* (…) placed teachers at the centre of the curriculum development process. Teachers' experiences and feedback informed refinements and subsequent revisions as the new curriculum was being rolled out. This initiative has now been mainstreamed in all Irish schools. (…) Schools applied to become involved in the initiative and a sample of 24, which was representative of all schools in Ireland, was chosen. The new syllabus was introduced in three phases to this group. While the work in the initial schools was developmental, many aspects of the model were replicated to the wider system. (…) The intention of the strategy [beginning the initiative with an initial group of schools] was that teachers in the phase one schools (24 schools) would receive intensive support and their experiences and refined materials would then be available to provide more effective professional development for teachers in the other, non-phase one schools. (…) Learning from the experiences of the teachers in the initial schools and the availability of resources developed for these schools were viewed as positive factors in the up-

scaling of the project**.(…)** Initial schools had a direct contact person from the professional development team and received in-school training which was relevant to the school context. (…)The allocation of a *Regional Development Officer* (RDO) to the phase one schools meant they received intensive support over five years. (…) This kind of intense support was seen as being an enabler to the effective implementation of the initiative with the phase one schools, but would have been difficult, and very expensive, to replicate on a system-wide basis. **GC-CS 13**

C. The core of the programme was collaborative action between various administrations and an innovative educational movement based on the continuous review of training approaches, depending on the results obtained by schools. (…) COMBAS programme provides (…) teacher training through a *top-down* process between national evaluation, in situ monitoring and adaptation at a regional and local level and the *horizontal* coordination of teachers for the fulfillment and delivery of the proposed tasks. (…) The strategy of the initiative consisted in the training of one coordinator per participating school, who received instruction in a monthly meeting in Madrid and afterwards acted as school coordinator, facilitating his or her colleagues' learning and organizing their group activities. This *cascade* approach with *horizontal* expansion at school level was perceived as very helpful to support teachers in the incorporation of key competences in their teaching. **GC-CS 14**

D. An annual call by the Andalusian educational authority for participation in the PICBA programme enables schools to indicate their intention to participate with the support of teachers (a basic condition as the training programme requires that teachers work in integrated teams). Once a school is accepted, a PICBA coordinator is chosen to specify the *cascaded training sessions*. All school coordinators receive classroom training (including specific advice, information, proposed tasks, materials, and an activities schedule), and this information is then shared with the teaching teams in each school (horizontal expansion). This process implies that each coordinator is responsible for monitoring the actions and practices performed by the school team and then relaying local achievements to the PICBA training team (for subsequent feedback as part of the training process). A teaching team training in their respective schools. **GC-CS 15**

14. Coordinación entre administraciones educativas de distinto ámbito gubernamental (nacional/regional; regional/provincial/municipal)

A. Coordinated work between teams from different educational organisations (the Ministry of Education, regional educational authorities and schools) facilitated shared responsibility in order to achieve COMBAS programme objectives. (…) The first participation level included, with the coordination of the Ministry of Education, a management team (management and coordination between the Ministry and autonomous communities and cities), a consultancy team (face-to-face advice and online support, through the participation of training coordinators and representatives of regional teams), and a team of experts (with training support duties). **GC-CS 14**

B. A *core team* for the PICBA programme is formed by a group of departments and services responsible for aspects of the regional government education authority programme and its delegations in the eight Andalusian provinces. This team is responsible for analysing the various actions undertaken within the programme and making decisions with respect to: a) *Curricular planning and organisation of schools*; b) *Evaluation of teaching material*; c) *Supervision of schools (educational inspection*); d) *Preparation of curricular material and textbooks* (state administration and educational book publishers); e) *Teacher training* (training network); f) *Family*

participation; and g) *Attention to diversity.* (…) Achieving a collaborative, systematic, and continuous performance by the administrative bodies involved in the development of PICBA was a complex task. An initial lack of awareness of the aims and objectives of this initiative and a lack of experience in collaborative work between various bodies could be among the causes of this difficulty because more efficient support was obtained from all services as the programme progressed. **GC-CS 15**

15. Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.

A. NCCA personnel working with school staff to support them in taking an approach that worked best for their own school [was a particularly effective strategie for the implementation of key skills]. This combined approach of teachers taking the centrally-designed key skills framework and making it their own in their own classrooms, with the support of the national agency, was seen as very powerful. **GC-CS 12**

B. It was noted that the developments under way at junior cycle with its emphasis on learning and key skills development and a move away from high stakes testing in all subject areas will help teachers greatly with their reconceptualization of mathematics teaching and learning. *Changes at junior cycle assessment will have a huge beneficial effect they [teachers] can spend time in 1st year and 2nd year teaching through a different lens Changes at junior cycle assessment will have a huge beneficial effect they [teachers] can spend time in 1st year and 2nd year teaching through a different lens…* [DES inspector comment]. **GC-CS 13**

C. The second level of participation was composed of regional technical and educational coordinators and their respective support teams. This included those responsible for political decisions regarding the regional structure of the programme, its monitoring and the institutional support regarding its legal, practical and financial aspects. The regional coordinators connected this network with the central administration and then with the respective school networks. Its role (just like that of school coordinators) could be conceptualised using the metaphor of a knot: the coordinators acted as knots between the different levels of networks and the strength of these knots depended on political, organisational and personal factors. (…) The diversity of figures in regional coordination**:** although the effectiveness of this coordination depended on strong personal commitment, the sources stated that, when coordination was assumed by an executive from local educational authorities or inspectors, there were greater advantages for COMBAS because of the power of these positions, and when it was assumed by directors of in-service teacher training centres, there were advantages in terms of teacher training support. **GC-CS 14**

D. Standing committee on PICBA training: this commission is responsible for developing, selecting, and organising materials for the programme. This committee includes teachers and training advisors with experience in the development of COMBAS and PICBA programmes and is advised by a group of specialists. (…)This [top-down training] was key in order to drive the programme: coordinators attended the monthly training meetings to receive explanations about the proposed learning tasks and the materials that accompanied them (texts, activities, examples etc.), analysed the information received and shared it with the management team, identifying the best proposal for the training process being followed in their schools. They organized the monthly schedule for the carrying out of the relevant tasks and coordinated and facilitated their execution through face-to-face and on-line meetings and were responsible for sending the products of the tasks executed by all teachers to the general

coordination of the programme for them to be evaluated and returned with relevant comments. **GC-CS 15**

16. El equipo docente se constituye en una comunidad de estudio dedicada a analizar la integración curricular de las competencias clave.

A. A national network of 48 schools (representing all school types) has been established to work directly with the NCCA. In addition, other school networks are being established by our education partners. These 'beacon' schools are generating classroom activities and examples (including videos) which will be shared with teachers within the wider system. (…) The NCCA is also working with other networks that have been established by partner organisations. Providers of pre-service and in-service professional development for teachers are also targeted. (…) The key skills of junior cycle will be mainstreamed to all schools from September 2014 as part of the reform of junior cycle. The systemised approach will help to ensure that key skills are a feature of the curriculum in all subjects in all schools. However, there are likely to be challenges in this mainstreaming process. **GC-CS 13**

B. The new syllabus was introduced in three phases to this group. While the work in the initial schools was developmental, many aspects of the model were replicated to the wider system. (…) The intention of the strategy [beginning the initiative with an initial group of schools] was that teachers in the phase one schools (24 schools) would receive intensive support and their experiences and refined materials would then be available to provide more effective professional development for teachers in the other, non-phase one schools. (…) Initial schools had a direct contact person from the professional development team and received in-school training which was relevant to the school context. (…) The teaching and learning resources which were produced were used more effectively in the initial schools. This was attributed to the fact that the one-to-one link with a *Regional Development Officer* (RDO) ensured the resources were used as they were intended, whereas in the national roll-out these resources were either not used at all or not to their full potential. (…) The DES inspector observed that the level of professional dialogue around mathematical education is significantly higher in the initial schools. Research carried out by the *Educational Research Centre* in to the experiences of teachers who participated in PISA 2012 revealed that those involved in the pilot group were using ICT to greater effect, employing collaborative group strategies and perceived improvements in their students understanding of maths to a greater level than those in the other schools. **GC-CS 13**

C. (…) The programme demanded that each school have the support of the majority of teachers (although active participation was limited to only some of them). **(…)** Regarding the motivation that led these teachers to agree to participate in the programme, we have the following data: the majority of teachers participated due to intrinsic motivation (belief in the relevance of the key competence work or interest in innovation) and 37% because of extrinsic motivation (because teaching through competences was considered as compulsory in the official curriculum, because the school administration had decided that all teachers from the school should participate, or to obtain a certificate). **GC-CS 14**

D. The presence of an individualistic culture in schools required teaching teams to be offered help in converting personal initiatives into shared projects. (…) The adoption of a training model that operates in vertical and horizontal dimensions has enabled the direct training of a large number of teachers: the training standing committee

coordinates meetings of school training coordinators (vertical) and these coordinators, in turn, offer training in their respective schools (horizontal). (…)A large number of schools began making independent decisions and went on to develop (in a contextualised manner) curricular maps showing the programming of the school, departments, years, and classes; as well as the profile of the competences and areas – and the interrelation between them. **GC-CS 15**

17. Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.

A. In each school there is a person who serves as the liaison between the school and the NCCA, keeping the school in touch with what is happening on a national level and in other schools. This liaison is also responsible for motivating other staff members to incorporate the key skills and to reflect on and share their practice. (…) It will be important for the professional development process to support teachers and school managers to build competence and confidence in working with the key skills. Schools will need to be encouraged to develop leaders within the school who will drive the process. Replicating this model on a national level may be challenging, particularly at a time when financial resources are scarce. **GC-CS 12**

B. (…) Initial schools had a direct contact person from the professional development team and received in-school training which was relevant to the school context. (…) Teachers in these schools engaged in a higher level of debate about mathematics, teaching and learning. (…) It has been recognised by all stakeholders that more teacher support is required if the aims of the initiative to be fully realized. (…) Teachers interviewed reported that their ability to help students achieve the syllabus aims, has improved with time and experience. **GC-CS 13**

C. The third level of participation [organized by COMBAS programme] was focused on the teachers' network established in each school, led by the management team and, through delegation, by the individual teachers that accepted responsibility for the coordination of the programme in schools. (…).The proposal could be conceptualized as a *cascade training with horizontal expansion* at school level, as it was organized around two interrelated axes: one, focused on the figure of school coordinators, who functioned as a "transmitting chain" about the training they received in training meetings, and another focused on horizontal analysis and production that each school contextualized, with the help of the coordinators. Both fed back into the process and closed a training circle with the support of the various documentary and communicative resources offered by COMBAS, both in hard copies and on-line. **GC-CS 14**

D. Consideration of school coordinators as cornerstones in the PICBA formation model and, consequently, development of their ability to lead with creativity and innovation in the task of training the teaching team.(…) School coordinators study the materials and resources provided in the formative phase; and adapt, reorganise, modify, and redesign the material according to the needs and possibilities of the teaching teams. (…) Certification of teacher participants in PICBA for 30 hours of training per year, and 50 hours per year for school coordinators. These merits are to be taken into account in the awarding of salary incentives and certifications. **GC-CS 15**

18. La *cultura de la colaboración* en el "día a día" escolar (departamentos, ciclos, etc.) ayuda a comprender la integración de las competencias en la enseñanza, el aprendizaje y la evaluación.

A. The role of the maths department in schools changed as a result of the initiative. (…) This did move their business away from purely administration issues to sharing ideas and experiences. (…) Collaboration among teachers was reported as being an enabler to adopting the new approaches recommended by the syllabus. This was observed as a regular practice in the phase one schools. Teachers cited this collaboration as being extremely valuable and as something that developed as a direct result of being a phase one school. This kind of support and discussion was identified by the Inspector as being one of the major differences between the working practices of the phase one schools and those involved in the national roll-out (non-phase one schools). [DES Inspector comment: *The initial schools have reached a much higher level of debate about mathematics and what constitutes a good mathematics lesson*]. **GC-CS 13**

B. The initiative enabled, based on training meetings, interaction processes, the communication and production of materials between the members of the same group and between representatives of different groups and always providing support from various networks. These, in addition to feeding back into the actions of the programme, also justified using groups as the objects of learning: learning to solve tasks that would enable the exchange of different points of view and approaches to educational work.. **(…)** The initiative improved interaction with various support teams in the central administration and autonomous communities to ensure the circulation of information between its members through the various strategies. It therefore promoted the role of schools, through approaches aimed at enabling teachers to assume a central role in the organisation of their own learning based on the use of their organisational capabilities. **GC-CS 14**

C. PICBA programme provided some teachers with better organisation in their lesson plans and a different perspective of the national curriculum, better coordination with other teachers, and a more objective assessment. For those teachers with more experience in problem-solving or project-based teaching, it provided a structure that made it possible to channel their prior curricular advances and to self-evaluate their methodological advances. **GC-CS 15**

19. El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.

A. In many schools the work was started through a core group of teachers in each school who implemented the key skills in their planning and classroom practice. These teachers then shared their experience with the rest of the school staff. This strategy of teachers providing professional development for their colleagues, based on their own experience in their own classrooms, worked very well. The support of a designated external facilitator (from the NCCA) was seen as essential to this process in order to build confidence, help provide ideas on strategies and tactics, establish the research background, motivate the core group when there was a sense of falling back to old ways and support teachers in providing professional development for their colleagues. **GC-CS 12**

B. Teachers in these schools [initial goup] engaged in a higher level of debate about mathematics, teaching and learning. (…) It has been recognised by all stakeholders that more teacher support is required if the aims of the initiative to be fully realized. (…) Teachers interviewed reported that their ability to help students achieve the syllabus

aims, has improved with time and experience (…) Evidence suggests that teachers in the phase one schools have made more progress on the continuum of teacher competence needed for the implementation of the new approach to mathematics than in the non-phase one schools. **GC-CS 13**

C. One of the most important factors in the development of ongoing teacher training programmes is connected to the continuity of innovation experience and to the profitability of these joint efforts carried out by institutions, schools and teachers. (…) COMBAS programme improved interaction with various support teams in the central administration and autonomous communities to ensure the circulation of information between its members through the various strategies. It therefore promoted the role of schools, through approaches aimed at enabling teachers to assume a central role in the organisation of their own learning based on the use of their organisational capabilities. **GC-CS 14**

D. Reflection by teacher teams on the various issues related to the competence model; stimulation of the search for solutions to problems and activities that accept differentiated responses that may suppose restructuring; and the incorporation of various approaches in the central axis of programme development. (…) Recommendation that school coordinators study the materials and resources provided in the formative phase; and adapt, reorganise, modify, and redesign the material according to the needs and possibilities of the teaching teams. **GC-CS 15**

20. La integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado requiere que los docentes sean competentes en la disciplina de la asignatura yen temas pedagógicos.

A. There is sometimes a perception that key skills are soft skills and that working with them can result in a 'dumbing down' of subject knowledge. Experience with the school networks has shown that this is not the case; moving to a key skills approach means that teachers need to be very competent in their subject discipline and comfortable with the issues that students may raise. Teachers will therefore need support for content knowledge in their subjects as well as for pedagogy (…). In response to requests from teachers for additional support in content knowledge, a series of workshops focusing on content were designed, these workshops were complemented by a range of optional evening courses, run in local Education Centres, which dealt mainly with mathematics topics (content) and/or with using ICT in the teaching and learning of mathematics. (…) Teachers were critical of the workshop model and reported that in the translation of the syllabus ideas to the teachers on the ground there was something missing. They reported that the workshop model meant that isolated topics were exemplified which was fine but there were many other sections that weren't. **GC-CS 12**

B. The research recommended that, in order for real change to happen, the syllabus, assessment and the teaching and learning of maths had to change in tandem. A number of enablers (…) include teacher professional development and support from third level, a more hands-on role for the NCCA, joined up thinking within the system, in particular the alignment of the assessment with the syllabus and the link between the new syllabus and the primary maths curriculum. (…) All stakeholders identified the provision of professional development for teachers in the area of mathematical content knowledge and maths methodology as a crucial lever in bringing about the proposed changes. It became apparent that extra courses were needed to help teachers improve their content

knowledge and as a result modular evening courses, provided by local facilitators were held throughout the *Education Centres*. **GC-CS 13**

21. Los docentes atraviesen con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.

A. (…) teachers feel somewhat overwhelmed by the extent of the changes that they are expected to implement. Not only do they need to make the move to key competences, they will also be faced with changes to the curriculum, assessment, school planning, organisation and more. While some schools have already had some experience of key skills through working with NCCA school networks, others are starting from the beginning. **GC-CS 12**

B. While teachers still found the use of the key skills in their classrooms to be very effective in improving learner engagement and teaching and learning generally, some teachers did find it difficult to marry the key skills with the requirements of the curriculum and its assessment. While the embedding of the key skills in the junior cycle curriculum is only under development at the moment, the expectation that subject specifications will be different and that there will be a completely new approach to assessment has already created a sense that key skills are a necessary part of these changes. **GC-CS 13**

C. It was difficult to organise, with a degree of harmony, a response to the curricular integration of key competences that could be used by a group of very different schools (because of their respective experiences in the field, internal organisation, approach to educational innovation etc.). (…)The transfer of knowledge within each school has not proved to be as effective as desired, in contrast to what was achieved at group level by regional and school coordinators. In addition to resistance to change, the transfer depended on the leadership capabilities of each coordinator, understanding the prior ideas and educational skills of their schools in order to support their learning by establishing relationships between theory and practice, and by promoting methodological changes without hurting professional pride. **GC-CS 14**

D. The objectives that guided the PICBA programme from the beginning have been kept in sight throughout the process, although not all the participating schools have reached the same level at the same speed. **GC-CS 15**

22. El equipo directivo de la escuela ejerce un papel decisivo en los procesos de cambio que implica la integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.

A. Partnership between the school principal and the mathematics department was seen as a key enabler. Teachers reported that sympathetic principals would find ways to help them with their immediate challenges which was hugely supportive. **GC-CS 13**

B. The presence of an individualistic culture in schools required teaching teams to be offered help in converting personal initiatives into shared projects. In this sense, the figure of the school management team becomes important point. **GC-CS 15**

23. Trabajo colaborativo entre las escuelas y la supervisión educativa.

A. An important partnership that needs to be formed is a positive relationship between the Inspectorate and the schools. Schools need to become comfortable inviting inspectors to their classroom and engaging in dialogue with them around issues of teaching and learning. Thus seeing the inspectors' role in the system as *supporting* teaching and learning rather than simply *evaluating* it. **GC-CS 13**

B. The PICBA key practices directly reach teaching staff through teacher-coordinators of the programme. Their work is essential to disseminate PICBA approaches by overcoming theoretical boundaries in order to reach real classroom situations through the educational projects of schools. To carry out this work, they have the support of the educational administration in the figure of the *Inspection Agency*, of training consultants and coordinators and, to a greater degree, of the managers of the programme in the Evaluation Service, which is the central hub between the sectors involved. **GC-CS 15**

24. La *Website* como centro de recursos y contexto de comunicación.

A. Online materials are under development by the NCCA and are being made available to teachers in all schools, providing them with continuous professional development materials, practical ideas for their classroom and examples of what other teachers have found successful. (…) While web-based platforms providing background information, video materials and online social networking platforms for teachers to share practice were seen as important and supportive, they are not a replacement for the personal contact with an 'expert facilitator'. It is noted however, that while this strategy has worked very well for the relatively small number of schools in the school networks, there will be significant challenges in replicating this model when the initiative is rolled out to all schools. (…) There is some evidence that teachers are reluctant to engage with the virtual environment, particularly the online social networking platform, in order to access and share information around the key skills. However, this aspect will be important to the strategy over time, as it enables teachers to support each other and share resources. **GC-CS 12**

B. COMBAS programme provides a platform including: a document database with bibliographic analysis by teams of experts; and a digital portal for the exchange of documents, materials, proposals and tasks and to raise the visibility of good practices and useful initiatives. (…) This provided an information bank (information about the programme, texts, activities, PowerPoint presentations, examples of good practices, a "press magazine" and technical information) and a communication tool (internal e-mail, forums, chat room), a self-evaluation tool (self-evaluation questionnaires for each activity and for the end of the training action), an evaluation tool (administration of "satisfaction" questionnaires) and an expansion tool (with links to a bibliography on key competences and to blogs by various schools). **(…)** The large number of participating teachers hindered all the teachers from being able to enter the COMBAS portal where all the working and reference materials were, with only the school coordinators being able to enter. The interviewed respondents agreed by indicating that this situation represented an obstacle for the dissemination work of materials to teachers, as it made it necessary to use different technological resources, including the design of a specific portal for each school. **GC-CS 14**

C. Organisation and maintenance of digital platforms for communication and interaction regarding the PICBA programme. (...)the PICBA *core team* organises external support (training consultants, platforms and forums, etc.) to help synthesise the supporting material so that it is more easily and quickly understood. **GC-CS 15**

25. Herramienta *online* que apoya al docente en la tarea de integrar las competencias clave en la enseñanza y en la evaluación de los aprendizajes del alumnado.

A. Currently, the publication of a COMBAS guide and different digital tools are providing educational material to facilitate the theoretical-practical debate about the COMBAS model and its contextualisation. **GC-CS 14**

A. There is a computer program specifically designed to prepare integrated teaching units and evaluate key competences, following the approach of the COMBAS digital tool and putting it into the context of Andalusia, as has been done with other materials produced by COMBAS. This new, innovative tool helps nursery, primary and secondary teachers with the tasks of integration, evaluation and marking of key competences in line with the guidelines proposed by COMBAS/PICBA. **GC-CS 15**

26. La resolución de tareas en la formación del profesorado: desarrollo profesional.

A. The initiative was founded on the interaction of groups of teachers resolving pedagogical tasks: identifying shared principles in schools and understanding that teaching decisions do not belong to the individual but mean a responsibility that cannot be reduced to personal efforts and that requires collective work in keeping with the principles of an educational project. It was planned that the search for materials and document modules would culminate in the production of educational resources "by the school for the school". It was planned that the products provided by the participating schools as a product of their own training process, related to the activities proposed by the programme, would be characterized by informing, explaining, describing, defining, re-designing and illustrating to other schools about their own experience regarding possible alternative approaches to integrating key competences into the curriculum. **GC-CS 14**

B. It is necessary to carry out initiatives aimed at schools for the consolidation of key competences and consequently, help teachers with the task of transforming the teaching and learning dynamic by helping them overcome possible problems. (…) Facilitation of the process for accepting and tracking tasks resolved by the school teaching teams and assessment of the involvement of coordinators. (...) **GC-CS 15**

27. La integración curricular de las competencias requiere hacer una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.

A. In order to implement the key skills effectively, schools will need to make changes to how they structure the school day and in some cases to the structure of their physical classrooms. Most schools operate on a 35-40 minute class period. Teachers and school managers have reported that it is very difficult to engage in creative and collaborative methodologies in that time. Likewise, tradition traditional classrooms may need to be

reorganised to allow for collaboration and different ways of conducting research and presenting work. **GC-CS 12**

B. **GC-CS14** [It was effective] understanding that the development of student competences does not require one sole methodology, but requires a combination of a set of methodologies was difficult for the participating teachers. **(…)** COMBAS approach (…) fosters the lesson planning and improvement plans of schools. The changes in lesson planning proved to be easier for teachers with more teaching experience in problem solving and projects, than for those who based their teaching on textbooks. Regarding the improvement plans, there were four representative approaches for curriculum change:

- ✓ Temporary: lesson planning based on competences would be introduced for a limited time, making the most of occasions such as cultural or similar weeks when teachers are used to taking a break from their normal way of lesson planning.
- ✓ Progressive: school teachers would plan their lessons based on competences, which would then be used by other teachers in the following years instead of textbooks, becoming more or less a permanent part of the repertoire of the school.
- ✓ Defined by areas: replacement of textbooks only in certain subjects.
- ✓ Defined by academic years: as an experiment for certain groups or levels.

C. In schools: departmental structuring by areas of knowledge, in which a model of individualistic work focused on learning content still predominates. (…) In the educational environment in general: the lack of specific training for teachers and the scarcity of reference models for developing models for teaching competence. **GC-CS15**

28. El docente opina que la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje exige demasiado tiempo.

A. Any discussion about making changes in schools inevitably reverts to the lack of time to engage with the changes. Lack of time for planning, for reflecting, for changing direction and for building up new resources have all been cited as issues. Schools feel pressured and find it difficult to build in time for practices that they value, such as reflective practice, team planning and moderation. **GC-CS 12**

B. Spanish schools organizational schemes that provided teachers with time for curriculum coordination facilitated teamwork for the fulfilment of COMBAS tasks. However, some teachers say that there is no time to harmonise all the works. **GC-CS 14**

C. A reflection on the different teaching paradigms that guide teaching practice was not addressed by all the teams and some teachers reported not having time to do tasks requiring deep analysis. **GC-CS 15**

29. Los libros de texto escolar: necesidad de que sean compatibles con el modelo competencial.

A. Published textbooks do not usually present learning situations based on the resolution of projects, tasks, etc., that facilitate the development of competences. On the contrary, published textbooks usually encourage the simple absorption of contents. Consequently, contacts have been initiated with publishers to encourage the publication of books and other materials that facilitate the implementation of the competence model in the

classroom. **GC-CS 15**

30. Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.

A. A framework has been developed for the six key skills, which sets out the elements and learning outcomes for each skill. The skills are embedded into the curriculum and assessment as each subject is being revised and as new courses are developed. Support materials (including toolkits, videos, etc.) have been made available online for schools and teachers. Key skills are included in the continuous professional development provided for teachers to support the implementation of the new junior cycle reform. Because the key skills will be embedded in the curriculum they will also be evident in both formative and summative assessment. (…) Other school networks are being established by our education partners. These 'beacon' schools are generating classroom activities and examples (including videos) which will be shared with teachers within the wider system. **GC-CS 12**

B. In an effort to ameliorate this negative media interest [in curricular reform], the NCCA published a paper *Project Maths*: Responding to Current Debate and embarked on a series of information sessions in 3rd level institutions nationally to provide accurate information and to address the criticisms. **GC-CS 13**

C. **GC-CS 14** COMBAS programme was based on the evaluation of teacher training within schools themselves, in order to facilitate the preparation of materials that would offer experience in order to convert the nominal incorporation of key competences into the official curriculum.

COMBAS *Guide* published by the Ministry of Education, CNIIE, in cooperation with the 15 regional governments. It provides material for the development of a valid alternative curriculum that integrates competences (modules) as practical experiences in schools.

[Previously that COMBAS Guide was published, a training materials was available but its use] did not reach the desired standards in some schools, because of their scope and a lack of time for teachers. (…) the coordination of the programme dealt with this situation by organising a guide, including activities that, by being related to the five levels of curricular integration analysed in the provided educational material and in turn, being compared with practice in pioneering schools, facilitated the theoretical-practical debate about the COMBAS model and its contextualization.

D'Angelo,E. y Rusinek, G. (2013): *Informe de Evaluación Externa - Proyecto COMBAS (Competencias Básicas)-2010-2011*. Instituto de Formación del Profesorado, Investigación e Innovación Educativa (IFIIE), Ministerio de Educación.

D. **GC-CS 15:** The PICBA programme in interaction with the COMBAS programme has produced a set of materials and resources for the curricular integration of key competences, as well as producing validated and reliable reference models of innovative teaching practices that encourage the development of competence. These resources have facilitated the transfer of experiences to other educational contexts:

- *"Guide to good practices for the integration of key competences in the curriculum' Andalusian Regional Government*

- Report on a pilot PICBA computer being developed with the participation of 150 schools (including some 1700 teachers, 350 consultants from the teacher training network, and 50 school inspectors).
- Methodological strategy for the development of Integrated Teaching Units (ITUs), as well as the computerised evaluation of their development.
- Final report on the most recent leavers in schools participating in the PICBA programme (year 2012-2013).

31. Inclusión de las familias en el desarrollo de la iniciativa.

A. Three groups have been identified as requiring further attention as partners in the development of the curriculum generally and in the integration of key skills, [among them parents]. They need to be communicated with through a number of different channels, as they can be quite apprehensive about what the changes mean for their children and concerned that they might be in some way disadvantaged by the new approach. Parents understand the status quo and need regular information on what the change entails so that they can support their children and schools in this different approach to learning **GC-CS 12**.

B. Sharing with families and other community institutions the activities and tasks that foster competence development. (…) There are several Andalusian PICBA/COMBAS schools that have given priority to the participation of families during the implementation of these programmes through the relevant organisations: the school council and the parents' associations (AMPAS). This access has not been limited to sharing experiences at an informative level, but in some cases has led to active participation in the educational programme, by attending training meetings and collaborating in the setting up of some of the activities carried out. In short, it is about promoting the involvement of families for the development of learning also outside of the educational context. Associations for primary and secondary education managers, parents' associations and schools that, although they may not have participated in this programme, have taken innovative actions for the integration of key competences into the curriculum, have all been part of the key practices, the achievements and advances made in the integration of key competences attained through the PICBA/COMBAS Programme. **GC-CS 15**

32. Certificar el desarrollo de las competencias fundamentales que alcanza el alumnado.

A. The decision to introduce bonus Central s Office (CAO) points (for entry to higher education) for A-D grades for Higher level *Leaving Certificate* maths was effective.(…) These points are awarded to students based on their achievements in the *Leaving Certificate* examination. (…) This incentive attracted many students who wouldn't normally have considered engaging with higher level mathematics. **GC-CS 13**

B. The *National Education Act* (LOE, 2006) describes the basic curriculum for compulsory education in Spain and this legislation raised the need for new curriculum guidelines and methods for applying this model. The regional legislative of the LOE was the *Andalusian Education Act* 17/2007, which states that the education system must facilitate as a priority: 'conditions enabling students to reach the key competencies established for compulsory education.' The *Andalusian Education Act* introduced key competences in the curriculum and determined that the promotion and certification of

students should take into account the level of competence displayed by each student. **GC-CS 15**

33. El alumnado tiene que estar activamente implicado en su aprendizaje competencial.

A. It is important that students are actively involved in their learning through key skills. For this reason the key skills of junior cycle have been written in a language that learners of this age can engage with. (…) Evaluation of the earlier initiative on key skills in senior cycle showed us that the key skills and the language used to communicate them should be accessible to students as well as teachers. This resulted in a rethink of how to present the skills in a way that is easily understood. **(…)** Students are probably the most challenging group to inform, particularly in advance of the change. (...) Schools can certainly play a role in this communication, but appropriate materials should be made available to support them in stimulating discussion with students about what is happening. **GC-CS 12**

B. External evaluations validate this concern [Director of Curriculum and Assessment said: (…) *we don't see the evidence in the classrooms and the classroom practice that would have been intended at the outset.*], highlighting that while students report being involved in activities which are in line with the revised syllabus, traditional teaching approaches are still widespread. Likewise, the processes promoted by the revised syllabus aren't yet evident in the students' work, suggesting that at the moment teachers are focusing on the new content to a greater extent than the mathematical processes. **GC-CS 13**

C. Meanwhile, the various sources consulted during this study agree that those teachers who made most progress in contextualising the curriculum while addressing the priority needs of their students achieved higher levels of performance and motivation in their students – as well as achieving greater levels of professional development and improved internal cohesion in the school. **GC-CS 15**

34. Dificultades de los docentes para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.

A. Teachers in the phase one schools viewed their involvement in syllabus development as a positive aspect of the reform. However, these teachers also reported that the real-time changes to the syllabus caused confusion as to the required learning outcomes for different cohorts of students. It is worth noting that teachers in the non-phase one schools may not have the same sense of inclusion in the curriculum development process. This indicates that significant teacher buy-in can be gained by adopting a developmental approach to curriculum development, which is informed by the experiences of the classroom. (…) The focus on the last PD workshop was on making connections across the strands. Now that all the strands are being implemented in all schools teachers are beginning to see the connections across the strands but find it difficult to exploit these links in their teaching. **GC-CS 13**

B. Self-evaluation of teachers and the development of techniques for evaluating the competence development of students required an effort from all involved. However, the training offered for designing and using procedures, techniques, and competence evaluation instruments is insufficient and it is believed that substantial change will require more work and time. **GB-CS 15**

35. El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.

A. The six key skills of junior cycle form a key pillar for these reforms, and the skills will be embedded in the curriculum and assessment specifications of all subjects for all schools over a timeframe that will extend from 2014 to 2020. (…) There were a number of points of concern with the current junior cycle, including the dominating effect of the *Junior Certificate* examination on teaching and learning practice and on school organisation and structures, as well as a sense that the curriculum was overcrowded and inflexible and that the approach to assessment was very narrow. **GC-CS 12**

B. Teacher readiness for change and maths teachers' qualifications were seen as obstacles to the mainstreaming of the initiative. (…) The high stakes nature of the exam and the fact that the assessment was now supporting teaching approaches which focused on competency development meant that new approaches had to be adopted. (…) The perception of the syllabus through the lens of the exam paper was problematic and teaching to develop mathematical competences as well as procedural fluency and computational accuracy was perceived as a huge challenge. The reconceptualization of what maths teaching and learning should involve was perhaps easier to espouse than to adopt in the classroom. (…) [It is important to note that the reluctance to change is one of the main] obstacles to the successful implementation of the initiative. **GC-CS 13**

C. The process of weighing the various indicators for each learning area/subject or competence, and producing evaluations based on the corresponding headings for competence evaluation, presented difficulties as this process requires teaching staff to share a relational framework and common minimums for each indicator, and this was an objective that was not always easy to reach. **GC-CS 15**

36. La continuación de la doble evaluación del alumnado (evaluación del rendimiento, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.

A. This [the pervasive emphasis placed on the high stakes *Leaving Certificate* examination] was probably the biggest obstacle constraining reform efforts. The pervasive nature of the final examination and the link to college entry were identified as key barriers to change. Major changes to the final assessment in maths were a contributing factor to the aversion to the reform at school level. Research carried out by the NCCA with teachers in the initial schools highlighted that teachers were reluctant to change as they felt outside of their comfort zone. **GC-CS 13**

37. El arraigo de la cultura de la evaluación por rendimiento lentifica el cambio hacia la evaluación competencial.

A. Changing the focus from a strong attachment to the Junior Certificate examination to a focus on quality teaching and learning will take time. There is a sense that the way in which the education system, and society in general, has defined and rewarded the 'good teacher' to date has not helped the journey towards quality teaching and learning. Good teaching has been defined as getting students to perform well in an examination that

was quite narrow in scope. Letting go of this system and redefining the role of the teacher is seen as a big challenge for teachers, and indeed for the general public. The model of continuous professional development to support the changes will be crucial to helping teachers make these changes. **GC-CS 12**

B. The move from a perceived predictable high-stakes exam to one which assessed problem-solving and was cited in the interviews as a huge factor in the resistance to change. Many teachers felt outside of their comfort zone, lacked self-efficacy and some reported gaps in content knowledge. (…) Although the emphasis of the initiative was on the development of mathematical proficiency, teachers were having difficulty seeing beyond *getting the students through the exam* and they perceived mathematical proficiency as procedural fluency. (…) Teaching reasoning and problem-solving skills significantly challenges teachers used to preparing students for what they feel is a predictable examination. It puts additional time pressure on those who feel they need to cover all eventualities and teachers lack confidence in their students' ability to solve problems that they have not covered in class. (…) Teachers view the [reform] syllabus through the lens of the previous examination and find it vague and unhelpful. (…) [It is important to note that the reluctance to change and the new assessment instruments are some of the main] obstacles to the successful implementation of the initiative.
GC-CS 13

C. The regulations governing the evaluation focus on content, and this focus has caused problems in designing a framework consistent with the competence evaluation proposed by PICBA (systematic observation of work in process, registration protocols, portfolios, peer evaluation to facilitate learning from reflection, and self-evaluation of difficulties, etc.). **GC-CS 15**

38. Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de evaluación que integra objetivos y competencias.

A. While these stakeholders [those involved in the design and implementation of the syllabus] recognised that the aims of implementing a revised syllabus and assessment on a phased basis and the provision of continual professional development has been achieved, there were questions asked as to whether the aim which is at the heart of the initiative—helping students develop mathematical proficiency—has yet been realised. (…) Seeing their role [the teachers] in this way, as that of exam coach, places mathematical authority with the exam looming in the future rather with teachers themselves. Positive aspects of the reform such as the closer alignment of the assessment with the syllabus aims are viewed negatively by teachers. **GC-CS 13**

B. [Between the future actions of the PICBA programme are the following:] a) regulate student evaluation in an appropriate framework that follows the competence model approach; and b) widen the participation of families, and associations that represent families, in the framework of a school-based plan that enhances the development of competence skills in children and adolescents from the perspective of a comprehensive curriculum (formal and non-formal learning) and the new assessment approach. It is understood that this plan meets the needs of families regarding information and training on how to participate in the educational change proposed by the competence model. It is also intended to produce a assessment guide that reflects experiences that can serve as a reference for the community. **GC-CS15**

39. Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.

A. As with any initiative for change, special interests can be over-represented through national media and create uncertainty and fear within the system. Those responsible for the changes need to ensure that clear information and key messages are being consistently communicated through a number of channels. **GC-CS 12**

B. Often these groups [‘grind schools’, textbook authors and publishers] were very vocal in the media, especially in the run up to state examinations and they campaigned tirelessly to block the initiative. The counter argument was often not heard by the general public. [Moreover, it is important to note that the vocalism of those with vested interest in preserving the old system is one of the main] obstacles to the successful implementation of the initiative. **GC-CS 13**

40. La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).

A. There is a sense among partners that the key messages of the reform and of the key skills need to be well communicated to all stakeholders, and particularly to teachers, students and parents. As with any initiative for change, special interests can be over-represented through national media and create uncertainty and fear within the system. Those responsible for the changes need to ensure that clear information and key messages are being consistently communicated through a number of channels. (…). Three groups have been identified as requiring further attention as partners in the development of the curriculum generally and in the integration of key skills: [a] Parents (…) [b] Students (…)[and c] Higher education. **GC-CS 12**

B. The impact of *Project Maths* on student achievement, learning and motivation in both the phase one and non-phase one schools was independently evaluated by the National Foundation for Educational Research, on behalf DES and the NCCA. Other evaluations included teachers’ assessment of the professional development, research carried out by the NCCA on the experiences of teachers in the 24 schools and the Report on the Trialling of Leaving Certificate Sample Papers for Phase 1 of *Project Maths* in the twenty-four initial schools, carried out by the *State Examinations Commission*. The purpose of the trialling process was to measure the effectiveness of the draft sample papers and the marking schemes. Feedback from the trialling exercise informed the curriculum development and the teaching and learning approaches that should be adopted. **GC -CS13**

C. The PICBA programme has taken on an evaluation model in which responsibility is shared between the sectors and organisations involved in its development – as described below.The *core team* prepares the outline of the *research and evaluation plan* (objectives, actions, completion times, and evaluation tools) so that the various sectors and evaluation and research bodies (*base team, provincial teams, schools, Andalusian Agency for Educational Evaluation, and school inspectors*) can develop their own evaluation designs for application during and after the PICBA training process:

- ✓ **The initial evaluations** made by the *provincial technical teams* identify the most appropriate PICBA training modality (initial, advanced, or in-depth) and evaluate the starting points (willingness to participate, support for the management and

teacher representatives).

- ✓ **PICBA evaluation processes** by the *core team, provincial teams, and schools (self-evaluation)* enable a reorientation of activities and scheduled processes and are based on results. For example, the portfolio used in schools facilitates collective reflection and offers teachers an interrelated vision of the processes followed during the school year.
- ✓ **Final evaluation** by the *Andalusian Agency for Educational Evaluation (AGAEVE)* and *school inspectors* analyses the results of the PICBA curricular integration in key competences and measures the level of impact on lesson design and classroom practice, as well as the influence on academic performance.
- ✓ **An evaluation/research process** made by the *University of Seville* analysed the evaluation culture of schools, the most common difficulties in evaluation practice, and the conditions that must be met in schools for the evaluation of curriculum and evaluation practices of teachers.

The various evaluation reports are analysed by the *core team* with the aim of identifying proposals and improvements that should be introduced in subsequent phases and PICBA training calls. In addition to these adjustments, a Final Day is organised in which the participating schools, educational services, and educational authority managers are presented with evaluation reports that offer the most relevant conclusions, proposals, and recommendations for improvements in the PICBA programme.**GC-CS 15**

41. La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.

A. The one aspect that has been identified as needing more attention is that of communication. There is a sense that, while the key skills have attracted significant attention and are generally viewed favourably, the message has not been communicated clearly enough to all stakeholders, particularly parents, students and teachers. In addition, as curriculum initiatives move from the design phase to the implementation phase there is a danger that the message of what is important can become somewhat diluted. **GC-CS 12**

B. While partnership was a significant feature of the initiative and the curriculum committee developing the syllabus had representatives from all the stakeholder bodies involved in Irish education, including four teacher representatives and representatives from 3rd level, there was still an impression that there was a lack of information in the system and evidence that the key messages of the initiative were not being heard. Teachers reported being at sea and not knowing what was on or off and third level personnel criticised the lack of consultation. The learning from this experience was that the lead-in time to implementation of the initiative was too short. More time was needed to gear up the system in advance of the initiative. (…) [Moreover, it is important to note that the communication with the system is one of the main] obstacles to the successful implementation of the initiative. **GC-CS 13**

C. Between the next actions within the programme are going to be extend the participation of families, and associations that represent families, in the framework of a school-based plan that enhances the development of competence skills in children and adolescents from the perspective of a comprehensive curriculum (formal and non-formal learning). It is understood that this plan meets the needs of families regarding information and training on how to participate in the educational change proposed by the competence model. It is also intended to produce a guide that reflects experiences that can serve as a

reference for the community. **GC-CS 14**

42. Es necesario "Evaluar la evaluación competencial" focalizando los logros del alumnado y la forma de armonizarla con los objetivos curriculares.

A. There was a general consensus among all stakeholders interviewed that it is too early to judge the impact of the initiative and a further evaluation is needed. This should focus on students who have met the complete new syllabus from first year. (…) Teachers in the focus groups identified a number of issues with the assessment of the syllabus, in particular that the marking schemes are having a backwash effect on teaching and learning, that the language is overly complicated and that questions don't adequately assess the broad range of skills promoted by the syllabus. (…) They suggest that an evaluation of the assessment, in particular how it is aligned with the aims of the syllabus is also required. **GC-CS 13**

B. PICBA also generates various processes of coordinated evaluation, assessment and analysis of the results from a comprehensive perspective; and includes teachers and training consultants with experience in programme development in the training commission. All of this is achieved in a context that maintains the COMBAS programme (nationally) and the PICBA programme (at a regional level). **GC-CS 15**

43. La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes.

A. Initial teacher education providers also have a role to play in this. New teachers entering the system have mixed experiences and their level of preparedness to handle this new approach varies greatly. It is the experience of some schools that new teachers bring lots of new ideas to the school and are well prepared to introduce key skills to their classrooms. Other schools have had the experience of new teachers coming with little understanding of key competences. **GC-CS 12**

B. [*University of Seville* research highlighted that]"those teachers who made most progress in contextualising the curriculum while addressing the priority needs of their students achieved higher levels of performance and motivation in their students – as well as achieving greater levels of professional development and improved internal cohesion in the school" **GC-CS 15**

44. Las competencias clave y la investigación (universidades, centros de investigación, etc.)

A. Three groups have been identified as requiring further attention as partners in the development of the curriculum generally and in the integration of key skills, [among them, higher education]. (...) for stronger ties between curriculum developers and researchers, with a view to improving the research base and the relationship between curriculum design, research and practitioners. Opportunities for research partnerships might be explored to address this issue. (…) An enabler was the discussions surrounding various pieces of research that point to the need to improve teaching and learning in this phase of secondary education. An extensive longitudinal study by the

Education and Social Research Institute (ESRI, 2004-2007) pointed towards the influence on teaching and learning of the externally-assessed final examination; over the three years the focus of teaching narrows, becoming centred on preparation for the examination. It also raised issues of student disengagement mid-cycle and highlighted the importance of supporting schools to better facilitate student engagement in learning. (…) [It was referred] the need for stronger ties between curriculum developers and researchers, with a view to improving the research base and the relationship between curriculum design, research and practitioners. **GC-CS 12**

B. Research carried out by the *University of Limerick* identified a low level of mathematical knowledge and skills shown by some students proceeding to further [than third level colleges, industry, politicians, employers' groups and various other educational institutes] and higher education, and an inability to cope with basic concepts and skill requirements in the mathematical aspects of their courses.(…). Similarly, research carried out by the NCCA echoed these concerns from the system. (…) The system responded [faced with the verification that a significant number of teachers did not have the necessary qualifications and consequently adopting the proposed methodologies and teaching for understanding posed a problem] by putting in place a state-funded Post-Graduate Diploma for "out of field" teachers. This is viewed as one of the important enablers in the implementation of the initiative. **GC-CS 13**

C. Coordinating the COMBAS approach with the innovation initiatives regarding key competences generated by other school and university groups. Aware that COMBAS is just one way of responding to the challenge of helping teachers to develop their students' key competences, the COMBAS team reports that some contacts were initiated with other programmes in order to exchange and disseminate different ways of dealing with key competences in compulsory education.At the end of the first year, COMBAS had not been able to advance in this regard. **GC-CS 14**

D. Inquiries about the needs of Andalusian teachers conducted by the educational authority of the regional government in collaboration with the *University of Seville*, highlighted the need for training and evaluation for the development of key competences in obligatory education. In response to these results, the Andalusian government prepared a plan for addressing key competences that would strengthen the implementation of the PICBA programme. **GC-CS 15**

Resumen: variables seleccionadas en el Grupo C (4 iniciativas pertenecientes al Estudio de Caso Múltiple KeyCoNet)
Código de las iniciativas: GC-CS 12; GC-CS 13 GC-CS 14; GC-CS 15

GC	Variables identificadas	Nº de veces que se COMPARTE
C1	La iniciativa se inserta en la red de actuaciones europeas y/o nacionales relacionadas con la evaluación competencial del alumnado y su conexión con las prácticas de enseñanza.	**4**
C2	La iniciativa se apoya en experiencias y recursos aportados por programas realizados con anterioridad sobre la integración de las competencias clave en la enseñanza y el aprendizaje: ¿qué funciona en las aulas?	**4**
C3	Informes acerca de las exigencias sociales y profesionales a las que se enfrenta el ciudadano europeo facilitan la implementación de iniciativas que potencian el desarrollo competencial en los estudiantes.	**2**
C4	Necesidad de que distintos sectores reconceptualicen la enseñanza y el aprendizaje atendiendo al planteamiento competencial.	**4**
C5	La implementación del modelo competencial a nivel escolar requiere un cambio de mentalidad en el profesorado: de un cuerpo de conocimiento organizado y evaluado linealmente a otro centrado en la resolución de problemas.	**4**
C6	La administración educativa reflexiona acerca de cómo acompañar a los docentes a interpretar la reforma curricular en sus prácticas de enseñanza y en la evaluación de los aprendizajes del alumnado.	**4**
C7	La iniciativa constituye un programa oficial diseñado ad hoc para fomentar la integración de las competencias clave en las prácticas de enseñanza y evaluación del aprendizaje.	**4**
C8	Iniciativa dirigida prioritariamente al desarrollo competencial del alumnado de educación secundaria.	**2**
C9	Iniciativa centrada en el desarrollo competencial del alumnado de distintas etapas educativas.	**2**

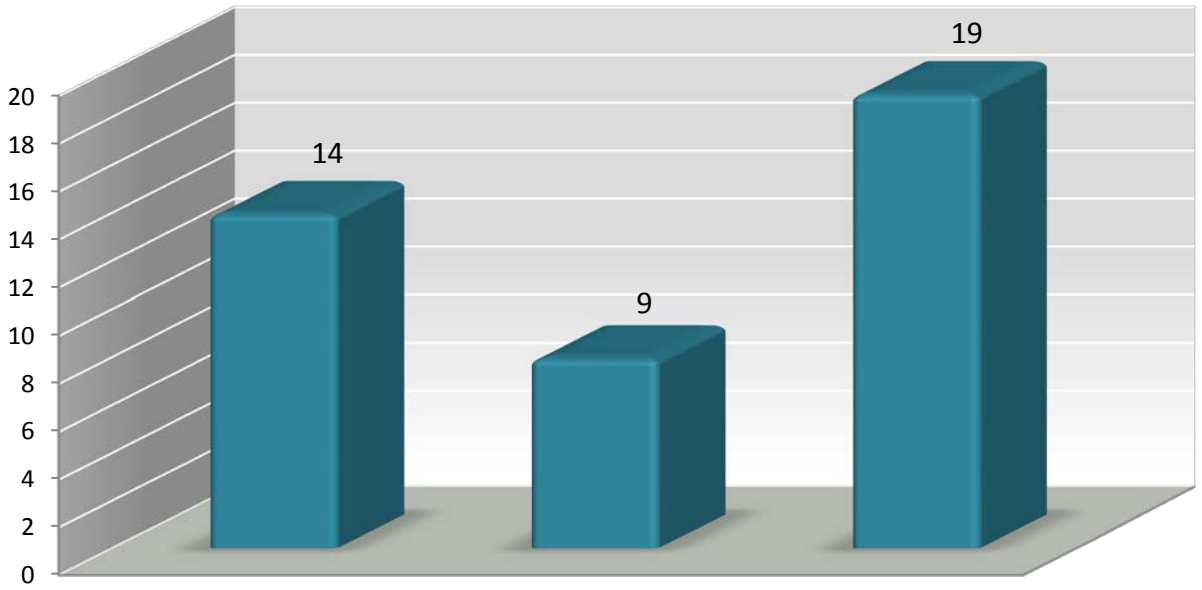
C10	Conveniencia de iniciar con anterioridad a la etapa de educación secundaria los programas de apoyo externo a los equipos docentes (conexiones entre primaria y secundaria).	**2**
C11	Proporcionar a la cultura escolar un marco referencial que permita conectar la evaluación con los planteamientos competenciales que asume la reforma curricular.	**2**
C12	Proporcionar a la cultura escolar un marco referencial que permita conectar el curriculum oficial con la realidad del aula: niveles de integración curricular de las competencias clave en los procesos de programación y desarrollo de las prácticas de enseñanza.	**2**
C13	La colaboración entre los distintos organismos de la administración educativa y, a su vez, entre éstos y las escuelas, propicia el logro de los objetivos de la iniciativa.	**4**
C14	Coordinación entre administraciones educativas de distinto ámbito gubernamental (nacional/regional; regional/provincial/municipal)	**2**
C15	Coordinación fluida y cooperativa: conectar experiencias, conocimientos, líneas de trabajo, recursos, etc.	**4**
C16	El equipo docente se constituye en una comunidad de estudio dedicada a analizar la integración curricular de las competencias clave.	**4**
C17	Coordinación pedagógica en cada escuela: importante nexo entre la escuela y las propuestas formativas aportadas por los equipos externos.	**4**
C18	La cultura de la colaboración en el "día a día" escolar (departamentos, ciclos, etc.) ayuda a comprender la integración de las competencias en la enseñanza, el aprendizaje y la evaluación.	**3**
C19	El apoyo sostenido a los equipos docentes de parte de un equipo externo incentiva el aprendizaje colaborativo y potencia el desarrollo profesional.	**4**
C20	La integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado requiere que los docentes	**2**

	sean competentes en la disciplina de la asignatura y en temas pedagógicos.	
C21	Los docentes atraviesan con distintos ritmos y planteamientos el proceso de integración de las competencias clave a sus prácticas de enseñanza y/o de evaluación del alumnado.	**4**
C22	El equipo directivo de la escuela ejerce un papel decisivo en los procesos de cambio que implica la integración de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**2**
C23	Trabajo colaborativo entre las escuelas y la supervisión educativa.	**2**
C24	La Website como centro de recursos y contexto de comunicación.	**3**
C25	Herramienta online que apoya al docente en la tarea de integrar las competencias clave en la enseñanza y en la evaluación de los aprendizajes del alumnado.	**2**
C26	La resolución de tareas en la formación del profesorado: desarrollo profesional.	**2**
C27	La integración curricular de las competencias requiere hacer una revisión de los tiempos de clase, las metodologías y los espacios de aprendizaje.	**3**
C28	El docente opina que la integración de las competencias clave en la enseñanza y/o en la evaluación del aprendizaje exige demasiado tiempo.	**3**
C29	Los libros de texto escolar: necesidad de que sean compatibles con el modelo competencial.	**1**
C30	Publicación de materiales, guías, vídeos, ejemplos y demás documentos de apoyo destinados a acompañar los procesos de formación continua del equipo escolar.	**4**
C31	Inclusión de las familias en el desarrollo de la iniciativa.	**2**

C32	Certificar el desarrollo de las competencias fundamentales que alcanza el alumnado.	**2**
C33	El alumnado tiene que estar activamente implicado en su aprendizaje competencial.	**3**
C34	Dificultades de los docentes para relacionar los cambios curriculares con la evaluación de los resultados del alumnado.	**2**
C35	El profesorado se muestra inseguro ante la evaluación competencial: necesidad de afianzar su desarrollo profesional en este campo.	**3**
C36	La continuación de la doble evaluación del alumnado (evaluación del rendimiento, por un lado y evaluación por competencias, por otro) lentifica la adopción de un modelo de evaluación integrado.	**1**
C37	El arraigo de la cultura de la evaluación por rendimiento lentifica el cambio hacia la evaluación competencial.	**3**
C38	Discusiones en distintos ámbitos sociales (estudiantes, familiares, maestros, gestores administrativos, etc.). en torno al modelo de evaluación que integra objetivos y competencias.	**2**
C39	Distintos sectores sociales observan una amenaza en las reformas centradas en el modelo competencial.	**2**
C40	La importancia de informar con lenguaje claro y accesible para los distintos miembros de la comunidad educativa las características del modelo competencial (fundamentalmente sobre las prácticas de enseñanza y la evaluación del alumnado).	**3**
C41	La información/comunicación a distintos colectivos (a través de diferentes canales) evita incertidumbre y temores acerca de la inclusión de las competencias clave en las prácticas de enseñanza y en la evaluación del alumnado.	**3**
C42	Es necesario “Evaluar la evaluación competencial” focalizando los logros del alumnado y la forma de armonizarla con los objetivos curriculares.	**2**
C43	La necesidad de incluir el modelo competencial en la formación inicial de los futuros docentes.	**2**
C44	Las competencias clave y la investigación (universidades, centros de investigación, etc.)	**4**

GRUPO "C"

N = 44 variables- 4 iniciativas



4 variables compartidas	3 variables compartidas	2 variables compartidas
C1,C2, C4, C5, C6, C7, C13, C15, C16, C17, C19, C21, C30, C44	*C18, C24, C27, C28, C33, C35, C37, C40, C41*	*C3, C8, C9, C10, C11, C12, C14, C20, C22, C23, C25, C26, C31, C32, C34,, C38, C39, C42, C43*

Variables no compartidas (GC): 2

C29, C36