

Synthesis Paper



Theme 4.

Reforming career services in education and labour to focus on career competencies and successful transitions

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Reforming career services in education and labour to focus on career competencies and successful transitions

A synthesis of the perspectives of countries and international organisations attending the International Centre for Career Development and Public Policy Symposium 2017

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1. Introduction

This paper synthesizes the section of country papers that **addressed reforming career services in education and labour with a focus on career competencies and successful transitions.**

It was based on the 22 country papers of 20 countries (3 papers; England, Scotland, and Wales; are from same country) that covered Theme 4. The following five questions were used to explore the theme:

- What have the Ministries of Education and Ministries of Employment done individually and collectively in your country to ensure that individuals learn how to make successful transitions to and within an uncertain labour market?
- How are career transition competencies (CTC) currently assessed in curricula and in employability frameworks in the education and employment sectors (PES, HR, Employment Training etc.) in your country?
- How is the acquisition of these transition competencies assessed?
- What research if any is undertaken in your country to identify the evolving career learning (knowledge, skills and attitudes, KSA) needs of different groups of the population? How are the results of such research acted on/used and by whom, in order to make career learning relevant?
- What needs to be done in your country so that transition, employability and entrepreneurial skills are integral and essential parts of curricula and programmes in education and labour sectors?

The paper starts with an examination of how career competencies and successful transitions have been addressed in previous symposia.

2. Career Competencies and Successful Transitions as Agenda Item in Earlier International Symposia

The earlier Symposia have focused on career services as an integral part of education, training, employment and social inclusion policies and programmes, including such issues as co-ordination and co-operation, quality and evidence, transforming technology and social return on investment. The role of career education was referenced in the 2006 Symposium Communique as follows: "If career development is to support workforce development in these ways, high quality career development services need to be available to all citizens throughout their active lives, from primary school through to the third age." With implicit references to career education that symposium invited the participating

countries to engage citizens in the design, strategic development and delivery of career development services that enhance user engagement and foster sensitivity to user diversity.

The 2015 Symposium in Des Moines noted that individuals enact their careers across their lifetime. To maximize individuals' potential and address labour market needs, countries need to develop systems and services that support individual choice while emphasizing the development of career management skills and the acquisition of skills in demand in the labour market. The 2015 Communique emphasized that career development policies, systems and services need to support young people to access work-related learning from an early age. Work-related learning should be a core part of the education system for all young people and include learning about entrepreneurship and social enterprise.

Governments need to establish and support the acquisition of a baseline of digital literacy for all citizens. This should include digital career literacy which provides people with the skills they need to build their careers in the digital world.

Over the last decade, career management skills/career transition competencies (CMS/CTC) have received increasing attention in a number of countries. The members of the European Lifelong Guidance Policy Network developed a tool¹ for policy-makers who wish to develop a comprehensive national policy specific competencies into career education in curricula starting in schools and continued in the context of employment services focused on enabling jobseekers to effectively job search and develop their employability. After the 2015 Symposium, the ICCDPP established a thematic working group on Career Management Skills to foster mutual learning among countries and to follow-up on the recommendations of the Symposia.

The Integration of career education as a mainstream strategy in national curricula is essential. Career education refers to a range of structured programs and activities which help students to link their learning to the acquisition of lifelong career management skills and employability skills. The European Lifelong Guidance Policy Network² defines Career management/transition skills (CMS) as a set of competencies (knowledge, skills, attitudes) that enable citizens at any age or stage of development to manage their learning and work life paths. Career learning in this context refers to the knowledge, skills, and attitudes that individuals require to enable them to both understand the worlds of work and learning and the relationships between them and to navigate these worlds successfully. The symposium questionnaire for the country reports defined Career Transition Competencies (CTC) as knowledge, skills and attitudes (KSA) required to make successful transitions.

Examples of personal management include self-knowledge of one's capacities and interests, self-evaluation, social skills, and planning. Examples of learning management include participation and engagement with learning, and understanding the relationship between self, learning and work. Examples of career management include sourcing, evaluating and analyzing information about learning and work opportunities and their requirements, relating this information to one's self-knowledge, making career decisions, and making successful transitions as well as building career resilience in response to a rapid changing world of work. Knowledge, skills and attitudes develop over time with different expectations of competence mastery at different stages of life. Some of these skills are generic across life situations; others are specific to learning and work identity formation and decision-making.

¹ ELGPN [European Lifelong Guidance Policy Network. (2015) *Designing and Implementing Policies Related to Career Management Skills (CMS)*. ELGPN Tools No. 4. Saarijärvi, Finland

² ELGPN [European Lifelong Guidance Policy Network]. (2015). *The Guidelines for Policies and Systems Development for Lifelong Guidance: A Reference Framework for the EU and for the Commission*. ELGPN Tools No. 6. Saarijärvi, Finland.

3. Themes in Relation to CTC Mentioned in Country Papers

The Country Papers revealed themes that illustrate the varying levels of integration of CTC into education and employment systems. The key themes mentioned in country papers in relation to CTC include the policy rationale, definition of career competencies, *policy measures taken*, *role of career competencies in national education and employment strategies*, *role of career education in curriculum*, *content of career education programmes*, *assessment of career/transition competencies*, *teaching of career/transition competencies*, co-operation with service providers, research on the career/transition competencies. The different levels of integration of CTC into education and employment systems can be described as a continuum ranging from initial awareness of career education to a sustainable career education system. This continuum with key themes is described in more detail below (Table 1).

Table 1: Themes and levels of integration of CTC into education and employment systems mentioned in country papers

Themes	Initial awareness of career education	First initiatives in career education	Explicit policy measures to promote career education	Sustainable career education system
Policy rationale for career education	Enhancing transition to further education and prevention of early school leaving	Enhancing transition to labour market	Modernizing of national education system	Reaching key educational and employment policy targets
Definition of CTC	Non-existent	Definition of CTC as targets for career learning	Description of CTC as key career competences	National CTC blueprints for different age groups
Role of CTC in national education & employment strategies	No explicit status of CTC	National thematic initiatives	National guidelines for developing CTC	Statutorily granted role of CTC
Policy measures to promote CTC	No specific policy measures	National initiatives	Nationally established coordination of the services across sectors	Acts and laws on CTC, career education, and guidance
Role of career education in curriculum	Ad hoc sessions	Occasional career fairs/days	CTC are addressed and embedded in the curriculum without specific time allocation	Mandatory time allocation for career education
Content of the programmes	Careers and further education	Future labour market needs, entrepreneurship	Holistic CTC approach	CTC as part of essential lifelong learning and employability skills
Assessment of CTC	No assessment	Ad hoc user satisfaction surveys	National obligation for schools to assess CTC	National CTC assessment framework for evaluation both from individual and institutional perspectives

Themes	Initial awareness of career education	First initiatives in career education	Explicit policy measures to promote career education	Sustainable career education system
Teaching of CTC	No designated teachers	Designated teachers	Designated teachers with special training	Designated task for specially trained experts and all staff members with a whole school approach
Co-operation mechanisms	Co-operation within schools	Co-operation between schools and employers	Co-operation with career centers & employers	National co-ordination practice and policy development across sectors
Research programme on career education and career learning	No specific research programmes	Research programme on placements	Research programme on placements and progress of CTC	Coordinated research programmes led by nationally designated institutes

The initial awareness in career education includes concrete measures to meet the challenges identified in the education system, such as the prevention of early school leaving or transition to secondary school. The role of career education in the curriculum is based on ad hoc sessions to provide information on opportunities in further education or in the labour market. The provision is based on the interest of individual schools and the co-operation measures are mainly within the local school level.

The first initiatives on career education include identification of career education as a measure to promote entrepreneurship and employability skills to support transition to labour market. Some countries define goals for career education with an explicit aim to prevent early school leaving or enhance competencies for making successful transitions to the labour market (Philippines). Career education can be provided as an extra curricula activity (Cambodia) or included in curricula guidelines (Chile). The countries initiate campaigns to raise awareness on CTC and organize career fairs of career days in co-operation with employers to provide information on the skills needed in the labour market. At the school level there are designated teachers to provide support for more individualized learning to support the transition to labour market. The further development of the initiatives is based on client satisfaction surveys, but there is no specific assessment of the development and acquisition of employability skills. The research is based on quantitative follow-up on student placements.

Some countries have implemented **explicit policy measures to promote career education in order to modernize the national education system** (Saudi-Arabia) or in order to improve the efficacy of the education system. The national guidelines or standards define the key career competencies to be addressed and embedded in the curricula within different level of education. Also, the content of career education programmes is defined nationally with a holistic approach covering essential CTC for successful transitions to the labour market (Austria, Luxembourg, Saudi-Arabia). The schools are obliged to evaluate how they are meeting the national targets (e.g. Denmark, Finland) but there is no formal assessment of the development of CTC. The teachers in charge of career education have special training for the task. There are sustainable co-operation mechanisms with employers and external career centers (e.g. Luxembourg). The countries have established national entities (e.g. Norway) to co-

ordinate the development of curricula or national quality frameworks (Saudi-Arabia) and research on the impact of career competencies on successful transitions to the labour market.

Sustainable career education systems describe career education as a measure to reach key educational and employment policy targets. Latest policy measures also include support for migrants and refugees (New Zealand, Norway). Career education aims to reduce the number of NEETs, support apprenticeships or other forms of work-based learning (Wales). Some countries have established national working groups to promote the development of policies in career education (Canada). The CTC are described in curricula (Australia, Denmark, Canada, England, Finland, Ireland, Japan, Korea, Scotland, South Africa, New Zealand, USA) or in national level blueprints for different age groups (e.g. Wales) and there is a statutory granted role for career information and guidance services. The blueprints identify explicit competencies to support successful transitions to the labour market.

The role of CTC is defined legally in acts on career education and guidance or included in legislation in education as a mandatory subject for students (Finland, Korea and Norway). Access to sustainable career education can be described as an individual legal right.

In addition to providing information on labour market and forecasts on skills needed, the content of career education programmes includes measures to help students to acquire career management and transition skills as essential parts of lifelong learning and employability. Learning takes place also in work places. Students are learning how to use online tools in career development (Finland, Korea, Wales). There is a national framework for evaluation of CTC both from individual and institutional perspectives (Canada, Korea, Wales). There is a whole school approach to the delivery of career education programmes in co-operation with specially trained career professionals and all teachers (Finland, Ireland, Korea).

Several countries have established national entities to coordinate service development across different sectors (Korea, Denmark, Norway, Scotland, Wales). The development of guidance practices and policies is supported by national evaluations on career education (Finland), quality frameworks (England, Ireland, Norway) or by national institutes or research groups with designated task forces on research on career education and career learning (Canada, Finland, Korea, New Zealand, Scotland, Wales).

4. Attempts to simplify qualitative data: Career transition competency levels

The Career Transition Competency (CTC) is the important concept in Theme 4 and is a vital resource for reforming career services to prepare in the uncertain and unexpected future. To improve the integration of CTC into the career services for education and labour market sectors, exploration of a current status of CTC level in the education and employment areas would be needed for starting progress.

Therefore, this paper tried to show the each country' CTC state to see how accurately CTC are embedded in education and labour market systems. The 22 country papers' qualitative information text was used for describing it. The existence of a specific CTC concept/assessment in the education and labour sector (related to Q20, Q21, and Q22 in Theme 4) and the presence of the CTC integrated training and curriculum (related to Q19 and Q23 in Theme 4) were checked to summarize the CTC status of each country. And for varying the CTC level, three simple symbols (○, △, X) were used to illustrate the level of CTC of each country by the following criteria. Table 2 below summarizes the results of 20 countries' (including Scotland and Wales separately with England) level of CTC in symbols.

- ✓ ○(sustainable)
 - The country has a CTC concept/assessment in the education and labour market sectors and CTC integrated training program and curriculum.
- ✓ Δ(in progress)
 - The country is in progress to get a CTC concept/assessment and CTC integrated training program and curriculum. OR country has a CTC concept/assessment and CTC integrated training program and curriculum programs, but it is not in national level.
- ✓ X(emerging)
 - The country doesn't have a CTC concept/assessment and CTC integrated training program and curriculum. OR the country just recently aware of it.

Table 2: Career Transition Competency level (in symbols)

Country	CTC with Assessment (Q20+Q21+Q22)		CTC Integrated Training & Curriculum (Q19+Q23)
	CTC Concept	Acquisition of CTC Assessment	
AUS (Australia)	○ • CTC can refer to adaptive capacities by ACCELL	○ • ACCELL has a three-stream program of research	○ • The meta tagging involves 3-dimensional tagging against Australian National Curriculum content areas and Career Competencies from the Australian Blueprint for Career Development
AUT (Austria)	○ • Transition Competencies in Career Management Skill	○ • The schools have a controlling system settled by law	○ • Transition, and employability are integral important parts of curricula and programs
CAN (Canada)	○ • The global competencies identified by CMEC include CTC	○ • Assessment is embedded throughout the process of learning and instruction	○ • The school programs align with labor market demands • Each of the provinces/territories has its own policies to support school-to-work transitions
CHL (Chile)	Δ • CTC is addressed in curricula guidelines only at primary and secondary school levels	X • Not mentioned	X • In the higher education sector employment is regarded as a matter of information more than a matter of education • The term employability is used as synonymous with employment, as a result rather than a process
DNK (Denmark)	Δ • Transition competencies are addressed in school curriculum but not	Δ • The s Schools have an obligation to evaluate, but it is not a formal assessment	Δ • The importance of integrating career learning competency in curricula is

Country	CTC with Assessment (Q20+Q21+Q22)		CTC Integrated Training & Curriculum (Q19+Q23)
	CTC Concept	Acquisition of CTC Assessment	
	mentioned in the employment sector		getting more recognition as important
FIN (Finland)	○ • Career Management Skills (CMS) are an explicit competencies of lifelong learning	○ • The evaluation of career education is based on students' self-assessment • In employment sector, CMS are systematically collected by student feedback mechanisms	○ • Transition skills have been developed in co-operation with local employment and economic offices, companies and local youth services • One-stop-guidance centers, Me&MyCity
GBR (England)	○ • CTC adopted in a school curriculum	△ • Indicators exist but there is no statutory requirement to formally assess • It is more likely included as part of the educational process through reflective activities	○ • Transition competencies have been integrated into the school curriculum
IRL (Ireland)	○ • The current FEF strategy objective 3.3 provides CMS	X • The f Formal assessment doesn't exist	○ • Guidance supports learning transition skills
JPN (Japan)	○ • Basic and General Competencies contain CTC	X • No national guidelines on evaluation (important future tasks)	△ • Competencies have been officially recognized only by Ministry of Education
KHM (Cambodia)	X • Paper does not mention the CTC concept clearly	X • Not mentioned	X • Some programs are implemented, but need inclusion of CTC
KOR (Korea)	○ • The concept of CTC is present in Career Education Act and Ministry of Education policy documents	○ • The national career education survey has been conducted since 2006 by NCDC	○ • CTC is included in career education goals and programs • The Work & Learning Dual System ensures a smoother transition into work life
LKA (Sri Lanka)	X • Paper does not mention the CTC concept clearly	X • Not mentioned	X • Vocational Training Authority of Sri Lanka delivers CTC vocational training programs, not clear if CTC has been integrated.
LUX (Luxembourg)	△ • The course named Vie et Société (Life and Society) exists in school, but does not have certain concepts of CTC	X • Not yet prepared	△ • Entrepreneurship is embedded as a core CTC subject in schools

Country	CTC with Assessment (Q20+Q21+Q22)		CTC Integrated Training & Curriculum (Q19+Q23)
	CTC Concept	Acquisition of CTC Assessment	
NOR (Norway)	△ • CTC are included in different ways in the training programs for practitioners	X • No y quality assured assessment-tools yet developed	○ • The program 'Education Choice' addresses competencies to prepare students for later transitions; Skills Norway includes a CMS-framework
NZL (New Zealand)	○ • CTC is the core dimension in school and tertiary career development benchmarks	X • No publicly available examples of assessing CTC	△ • CTC is clearly embedded in the educational sector but seems to be missing in the labor sector
PHL (Philippines)	△ • Programs for students address 21st-century skills, but not sure these are the same as CTC	X • The employability of graduates is measured through tracer studies but doesn't seem connected to CTC	△ • Following the PQF, a competency-based curriculum is being implemented
SAU (Saudi Arabia)	△ • Career Management and Employability skills framework defines essential competencies but does not mention CTC	X • Ministry of Labor conducted action research, but it is not exactly related to CTC	△ • Career Education and Development (CED) program
Scotland (UK)	○ • CTC is embedded in Skills Development Scotland (SDS)	○ • Self and coaching assessment approaches have been used	○ • The 16+ Learning Choices Planning Model supports young people's transition from school into further learning and training
TUN (Tunisia)	X • School education does not contain CTC yet	X • CTC acquisition not yet assessed	X • The ministries have begun to consider the integration of CTC into the curriculum
USA (United States)	○ • Guidepost for Success describes competencies youth need to prepare for transitioning to adulthood • Career and Technical Education identified 9 transferable skills	△ • WIOA offers a way to measure return on investment by linking future wage earnings to workforce development strategies, but not measure transition competencies directly	○ • Education focuses on helping youth to prepare for successful transitions
Wales (UK)	△ • Several skills are defined by schools and learning providers as transversal skills, but This is not a standard approach	△ • Assessed at program level but not at national level	○ • The Youth Entrepreneurship Strategy (YES)
ZAF	△	X • Not yet assessed	X

Country	CTC with Assessment (Q20+Q21+Q22)		CTC Integrated Training & Curriculum (Q19+Q23)
	CTC Concept	Acquisition of CTC Assessment	
(South Africa)	<ul style="list-style-type: none"> Career curriculum exists but CTC is not included 		<ul style="list-style-type: none"> School curriculum (Life Orientation) and employment services do not emphasize career transitions.

Note: The countries listed in alphabetical order. Each symbol means as follows: ○=sustainable, Δ=in progress, X =emerging.

According to a result of Table 2, the country which has a concept of CTC in the education/employment sector for career service is more likely to have an assessment for evaluating CTC, and CTC integrated training program and curriculum. For example, the countries (e.g. Australia, Austria, Canada, Finland, Korea, Scotland) got the symbol ○ in part of “CTC concept” also got the symbol ○ in the both parts of “Acquisition of CTC Assessment” and “CTC Integrated into Training & Curriculum.” On the contrary to this, the countries (e.g. Cambodia, Sri Lanka, Tunisia) which acquired the symbol X in part of the existence of the CTC frameworks in the education/employment sector either gained the symbol X on the two other parts. Therefore, the containing the CTC concept in education/labour areas could be the first step to support the individuals’ successful transition through career service and policy in education and labour sectors.

Moreover, in order to compare the status of CTC level of each country more clearly, each of 2 dimensions from Table 2; “CTC with Assessment”, and “CTC integrated Training & Curriculum”; are measured into score from 0 to 2.3

To convert the symbols from Table 2 into comparable numbers, each symbol was given the score as follows:4

- ✓ The “CTC with Assessment” dimension: ○(sustainable)=1, Δ(in progress)=0.5, X (emerging)=0 (2 questions, each with a score of 0~1, a total score’s range is 0~2).
- ✓ The “CTC Integrated Training & Curriculum” dimension: ○(sustainable)=2, Δ(in progress)=1, X (emerging)=0 (score’s range is 0~2).

As a result, each country gained two dimensions of the score of “CTC with Assessment” and “CTC Integrated into Training & Curriculum.” Finally, the scores of the two dimensions were added together to calculate the total score of the level of CTC status in countries’ education/employment sector. Table 3 below summarizes the results of 22 countries’ (including Scotland and Wales separately with England) level of CTC in score values.

3 The numerical score that comes from the symbols is just for indicate and compare the CTC status/level in the country’s education and employment sector. Therefore, it carries risks of misinterpretation, and also the readers should be careful in interpretation.

4 As you can see in Table 2, the “CTC with Assessment” part is consist of two symbols and “CTC integrated Training & Curriculum” part has one symbol. To compare the two dimensions at the same level, the highest score in each part was matched to 2. So the symbols’ score does not same in the two parts. For example, ○ is score 1 in the part of “CTC with Assessment”, while it gains 2 in “CTC Integrated Training & Curriculum.”

Table 3: Career Transition Competency level (in symbols)

Country	CTC with Assessment (Q2+Q3)	CTC Integrated Training&Curriculum (Q1+Q5)	CTC level	Group
AUS	2	2	4	1
AUT	2	2	4	
CAN	2	2	4	
FIN	2	2	4	
KOR	2	2	4	
Scotland (UK)	2	2	4	
GBR	1.5	2	3.5	2
USA	1.5	2	3.5	
IRL	1	2	3	3
Wales (UK)	1	2	3	
NOR	0.5	2	2.5	4
DNK	1	1	2	5
JPN	1	1	2	
NZL	1	1	2	
LUX	0.5	1	1.5	6
PHL	0.5	1	1.5	
SAU	0.5	1	1.5	
CHL	0.5	0	0.5	7
ZAF	0.5	0	0.5	
KHM	0	0	0	8
LKA	0	0	0	
TUN	0	0	0	

Note: The countries listed in order of CTC level score

As seen in Table 3, a presence of CTC concept for career service in education and employment sector, and an existence of assessment for CTC training program and curriculum integrated into CTC are strongly related together. It is the same result with Table 2.

In addition, eight groups of countries can be formed from the 22 countries, according to 2 dimensions of CTC level's score. The highest score of CTC level is 4 from Group1, and the lowest score is 0 from Group8. The level of CTC score could be mean the government's consideration on successful transition for individuals. In other words, high score of CTC level represents the government is having an awareness of people's successful transition issue and the career services in education and employment sectors are more focusing on CTC to supporting the individuals' transition. Considering this, the countries which got a low score in the level of CTC such as in Group7 (Chile, South Africa) and Group8 (Cambodia, Sri Lanka, Tunisia) would need strong efforts on reforming career services focusing on career competencies and successful transitions.

5. Emerging Promising Policies and Practices vs. Emerging Challenges

Overall, 22 countries (including Scotland and Wales separately with England) are focusing more on enhancing Career Transition Competencies in national education and labour sectors. Therefore, countries are making efforts on inclusion of transition, employability, and entrepreneurial skills as integral and essential parts of curricula and programs in education and labour sector. However, there are also challenges for improvement and reform.

The success factors and barriers to reforming career services in education and work to focus on career competencies and successful transition were summarized based on Q19 through Q23 as follows in Table 4.

Table 4: Summary of success factors and barriers for reforming career services in education and labour

Country	Success factors	Barriers
AUS	<ul style="list-style-type: none"> The government is trying to increase completion rates of VET and apprenticeship programs 	<ul style="list-style-type: none"> Need to develop a National Career Development Strategy that addresses the transition needs of all cohorts, in order to help develop adaptive capacity, flexibility, and career self- management skills of individuals across the lifespan
AUT	<ul style="list-style-type: none"> Career services (transition and employability are essential parts of curricula and programs) Strong involvement of all stakeholders 	<ul style="list-style-type: none"> Challenge is to improve and to optimize cooperation between the sectors (government, education, labor market, social partners, NGO)
CAN	<ul style="list-style-type: none"> Flexibility to design curricula based on provincial priorities & timelines Recognition of career development as a proactive solution to secure transition, employability, and entrepreneurial skills in education & labor sectors 	<ul style="list-style-type: none"> Fostering inclusive labor market participation will need to include access by all Canadians to labor market opportunities Collaboration and engagement with stakeholder groups will be needed
CHL	<ul style="list-style-type: none"> Concerning the transition from secondary schools to higher education 	<ul style="list-style-type: none"> Lack of a career guidance national policy framework and a lack of a solid network of practitioners and researchers
DNK	<ul style="list-style-type: none"> Growing interest in career learning competencies Growing awareness of integrating career learning in curricula at all levels 	<ul style="list-style-type: none"> Need practitioner’s qualification and competencies Lack of recognition of career learning in compulsory school curricula
FIN	<ul style="list-style-type: none"> Career education is a compulsory element in the school curricula Time allocation for career education is legally defined in national curricula One-stop-guidance center under development 	<ul style="list-style-type: none"> Need to develop better co-ordination Ambiguity (the role & importance of career guidance should be made more explicit in PES)
GBR (UK)	<ul style="list-style-type: none"> There has been much work on supporting schools to help young people to be more careers ready. A recent development has located responsibility for careers predominantly within the Ministry of Education 	<ul style="list-style-type: none"> More needs to be done to ensure all stakeholders (schools, the Careers & Enterprise company, the National Careers Services, and independent careers providers) are working together and not in competition to provide consistent quality services
IRL	<ul style="list-style-type: none"> Government (NCGE) is currently developing a Career Learning and Development framework for schools 	<ul style="list-style-type: none"> Need formal assessment
JPN	<ul style="list-style-type: none"> Promoting school reform in preparation for the next national curriculum guidelines 	<ul style="list-style-type: none"> Weakness in the assessment of CTCs Need active collaboration among schools, communities and business sectors
KHM	<ul style="list-style-type: none"> Government supports the effort 	<ul style="list-style-type: none"> Classroom career guidance sessions need to be included in the national curricula (vocational advice and counseling service are extra-curricular activities)

Country	Success factors	Barriers
		<ul style="list-style-type: none"> • Need policy collaboration between schools and enterprises
LKA	<ul style="list-style-type: none"> • Government's active intervention and assistance 	<ul style="list-style-type: none"> • Mismatch between job aspirations and education system
KOR	<ul style="list-style-type: none"> • Growing concerns about the importance of career education in lifelong learning. • Has legislation (Career Education Act) 	<ul style="list-style-type: none"> • Need for appropriate innovation in teaching and learning methods for activities related to developing CTC • Need cooperative efforts and allocation of responsibilities between relevant institutions.
LUX	<ul style="list-style-type: none"> • The MO (House of Guidance, represented by a coordination service) brings different departments and services together 	<ul style="list-style-type: none"> • Social perception is that blue-collar work is inferior to white-collar work • National strategy for CTC is vulnerable.
NOR	<ul style="list-style-type: none"> • Has national skills strategies and framework (signed by 5 ministries & 8 of the main social partners) 	<ul style="list-style-type: none"> • Need to raise the awareness of the importance of CMS both at policy and practitioner levels • Need inter-sectoral coordination across political sectors
NZL	<ul style="list-style-type: none"> • Government agencies are collaborating for Better Public Services (BPS) • NZ curriculum and key competencies are clearly linked • Whole-of-Government commitment to skills acquisition for successful transitions 	<ul style="list-style-type: none"> • Fragmentation and duplication on collaboration remain challenges • No national agreed system for the provision of career development services to support refugee students at critical transition points • Lack of qualified career development practitioners to get involved in policy discussion
PHL	<ul style="list-style-type: none"> • Career readiness is an important issue in education, labor market, and the public arenas 	<ul style="list-style-type: none"> • Need active collaboration among academic institutions, industry, government
SAU	<ul style="list-style-type: none"> • Carry out an effort to reframe and restructure educational courses and labor market supply and demand dynamics 	<ul style="list-style-type: none"> • Eco-system to connect and collaborate among important players regarding preparation of youth with added value in the labor market is not in place
Scotland (UK)	<ul style="list-style-type: none"> • The Government takes responsibility • Transition planning, employability, and entrepreneurial skills currently recognized as integral and essential parts of curricula and programs • CfE has been developed in partnership with teachers, parents & wider education and the business community. 	<ul style="list-style-type: none"> • Insufficient resources to deliver
TUN	<ul style="list-style-type: none"> • The government is concerned more with career information and guidance in national strategies 	<ul style="list-style-type: none"> • Need cooperation in the provision of career development services
USA	<ul style="list-style-type: none"> • National guidelines for career development exist One-stop career centers have been established by WIOA • Career development programs are being implemented with quality and fidelity 	<ul style="list-style-type: none"> • The challenge is implementation and resource allocation • Assessment strategies are needed to demonstrate the impact of career development on key academic, economic and workforce outcomes
Wales (UK)	<ul style="list-style-type: none"> • Government considers career management competencies to be important 	<ul style="list-style-type: none"> • No national approach to assessing the CTC • Challenge is to make the lifelong learning career strategy more coherent

Country	Success factors	Barriers
ZAF	<ul style="list-style-type: none"> DHET established a National Career Development Service for use by all South African citizens 	<ul style="list-style-type: none"> Need includes self-employment, entrepreneurship, work readiness, and life skills in the life orientation curriculum The employment services of the department of labor should be extended to include CTC

According to Table 4, it was found that the success factors and barriers are the two sides of the same coin. For example, government’s responsibility for career education is a success factor for reforming career services to focus on career competencies and successful transition. Conversely, the absence of government’s responsibility for career education could see as barriers. Overall the contents of Table 4, the following 6 key concepts were identified as preconditions for successful reform of career services in education and labor to focus on career competencies and successful transitions.

- 1) **Social Consensus and Awareness:** Social consensus and awareness regarding CTC.
- 2) **Government’s Active Effort:** The Government is an active and crucial agent for career services reform and CTC.
- 3) **Curriculum & Guideline:** The school curriculum for career education and national career guidance must have CTC embedded.
- 4) **National Accountability:** National accountability by legislation (Must be legislated).
- 5) **Co-operation & Partnership:** Cooperation and collaboration between education and labor sectors are necessary to challenge fragment and duplication.
- 6) **Adaptability & Flexibility:** Education and training systems must be adaptable and flexible in an uncertain environment.

Furthermore, to explore of similarity between the countries grouped by level of CTC in Table 3, identified 6 key concepts combine to 8 group from Table 3. Therefore, Table 5 below shows which keywords were highlighted by each country. As you can see, higher level of CTC score relate to more keywords. For example, 4 or 5 common keywords were related in Group 1, while 1 common keyword was related in Group 8. The table provides insight into lessons to be learned for successful reform, which could promote a well-functioning career development system from a life-long learning perspective.

Table 5: The successful reform keywords identified from country reports

Group	Country	Successful reform keywords					
		Social Consensus & Awareness	Government’s Active Effort	Curriculum & Guideline	National Accountability	Cooperation & Partnership	Adaptability & Flexibility
1	AUS	●	●	●	●		
	AUT	●	●	●	●		
	CAN	●	●	●	●		●
	FIN	●	●	●	●		
	KOR	●	●	●	●		
	Scotland	●	●	●	●		

Group	Country	Successful reform keywords					
		Social Consensus & Awareness	Government's Active Effort	Curriculum & Guideline	National Accountability	Cooperation & Partnership	Adaptability & Flexibility
2	GBR	•	•	•			•
	USA	•	•	•			
3	IRL	•	•	•			
	Wales	•	•	•			
4	NOR	•	•	•	•		
5	DNK	•	•				
	JPN	•	•			•	
	NZL	•	•			•	
6	LUX	•	•			•	
	PHL	•	•				
	SAU	•	•				•
7	CHL	•	•				
	ZAF	•	•				
8	KHM	•					
	LKA	•					
	TUN	•					

Note: The countries listed in the order related in Table 3.

6. Implications for Practice, Research and Policy

There is an extensive research base which indicates that well-functioning career education systems promote success and progress in studies, completion of studies and the effectiveness and impact of the whole education system. The PISA 20125 study provided an opportunity to examine national differences in career development outcomes and to relate these findings to the characteristics of individuals, of their families, and of schools with data from 22 countries, eight of them attending the 2017 Symposia. One of the findings of that study indicates that career education and CTC act as links between the school, community and working life and promote social justice, equity, equality. An explicit mandate and time allocation for career education as a mainstream service provide an opportunity to reflect the future options with the whole age cohort and it is a cost-effective measure in preventing drop-outs and further social exclusion. The knowledge and skills developed in career education contribute to the availability of a skilled labour force and the balance between the demand and supply of skills and competencies in the future labour market. A well-functioning career education and counseling system is an indicator of a well-functioning and efficient national education system.

As a response to industrial change and lack of clarity about skills and employment needs identified in the synthesis for IS2017 Theme 1, countries need to innovate in education and the labour sectors to reinforce the career competencies and successful transitions more than ever before. They should support the development of a national framework that outlines CTC from a lifelong perspective and differentiates CTC expectations and outcomes according to the developmental stage of the citizens. Most of the countries described the acquisition of CTC within the educational setting, but there is a need to pay attention to promotion of CTC also in adult learning, higher education and in the

⁵ Sweet, R., Nissinen, K., & Vuorinen, R. (2014). *An analysis of the career development items in PISA 2012 and their relationship to the characteristics of countries, schools, students and families*. Jyväskylä, Finland: University of Jyväskylä. ELGPN Research Paper, No. 1. Retrieved from <http://www.elgpn.eu/publications/browse-by-language/english/elgpn-research-paper-no.-1-pisa/>

employment sectors. It is necessary to adopt a cross-sector approach, including the collaboration of different stakeholders, which support the continuity of learning of CTC across sectors.

The country papers also highlight the ways in which new technologies are transforming the world of work (Theme 1) and how the increasing importance of technology has led to a growing need for STEM skills. New ICT tools have a potential to widen access and balance self-help and staff assisted services for citizens. They also facilitate communication and collaborative construction of knowledge for CTC-derived from users, using social media and mobile services. The use of ICT in CTC development demands a rethink of institutional contexts and professional competencies and requires a new mentality, a culture based on co-ordination in order to make efficient use of scarce resources. In developing national policies for CTC it is important to reflect ICT as a medium for communication, an interactive working space and an impetus for paradigm change and reform.⁶

In conclusion, for reforming career services in education and labour to focus on career competencies and successful transitions in the education and employment sector, the following recommendations are made for further practice, research and policy development as the indicators of well-functioning career development systems in the life-long learning. At the same time, these recommendations would be the core direction to prepare and respond to the industrial change and lack of clarity about skills and employment needs identified in this synthesis for the overall IS2017 theme.

- ✓ **Strengthening national accountability for CTC and using of ICT in CTC**
- ✓ **Establishing legal foundation for CTC learning through the law**
- ✓ **Including CTC in national education & employment strategies**
- ✓ **Strong coordination and cooperation between education and labour sectors**
- ✓ **Having a resilient, adaptable, and flexible education and training system**
- ✓ **Ensuring career transition skills for all (including disadvantaged people)**
- ✓ **Encouraging CTC in Lifelong Learning Strategies**

⁶ ELGPN [European Lifelong Guidance Policy Network]. (2015). *The Guidelines for Policies and Systems Development for Lifelong Guidance: A Reference Framework for the EU and for the Commission*. ELGPN Tools No. 6. Saarijärvi, Finland. Kettunen, J., Vuorinen, R., & Ruusuvirta, O. (2016). European Lifelong Guidance Policy Network representatives' conceptions of the role of information and communication technologies related to national guidance policies. *International Journal for Educational and Vocational Guidance*, 16 (3), 327-342. doi:10.1007/s10775-015- 9313-7

Appendix: Complied Descriptive Information

Figure 1 to Figure 3 shows the scores of each sector from Table 2. Figure 1 highlights countries' "CTC with Assessment" score; Figure 2 is countries' "CTC Integrated into Training & Curriculum" score, and Figure 3 is the countries' total score of "CTC level."

Figure 1. Distribution for "CTC with Assessment" score by country

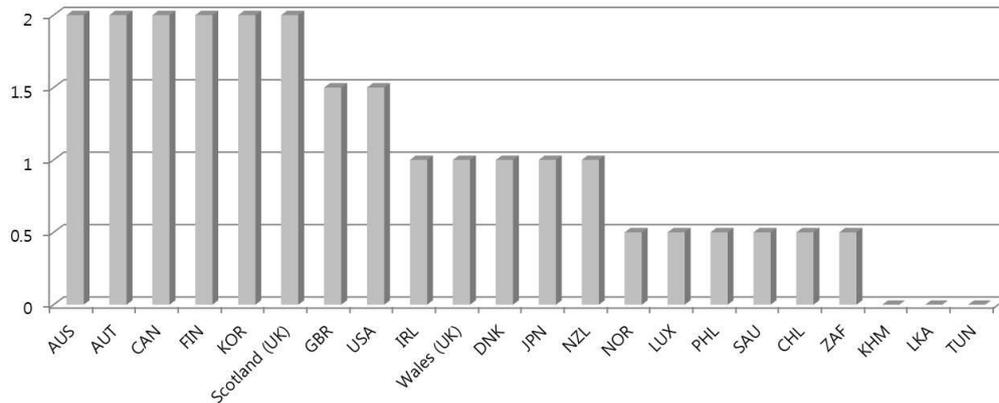


Figure 2. Distribution for "CTC integrated Training & Curriculum" score by country

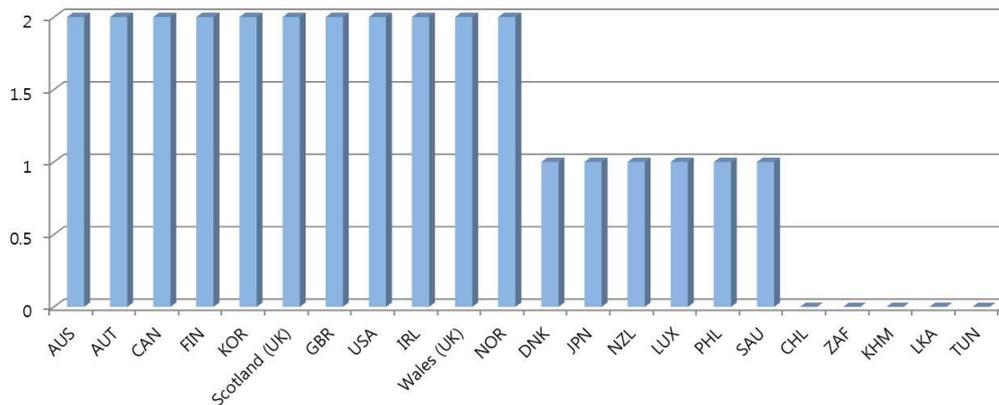


Figure 3. Distribution for CTC level score (a total score of Figure 1 and 2) by country

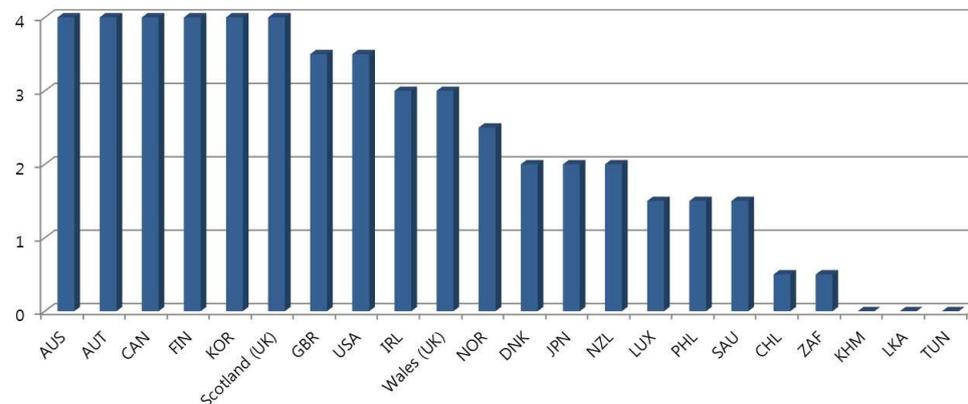


Figure 4 groups countries more clearly. The X-axis represents the “CTC with Assessment” score, and the Y-axis represents the “CTC Integrated into Training & Curriculum” score. If both sectors of the score are high, it will be placed on the upper right side of the quadrant, while the lower score will be in the lower left of the quadrant. Also, it shows with a different color according to each continent.

Figure 4. Grouping by CTC level

