12 Countries Contributing to DeSeCo – A Summary Report

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Introduction

On 21 December 2000, the OECD (DEELSA) and the Swiss Federal Statistical Office (SFSO) invited the OECD Member countries to participate in the phase of DeSeCo: Country Contribution Process, (CCP) introducing national views to the process of defining and selecting competencies. The main objectives of this phase were described as follows:

- To provide information on national efforts to define key or core competencies
- To identify, in the national context, the competencies that are considered most relevant to success in important areas of life (e.g. business and the labor market, political and civic spheres and family life).
- To understand how key competencies are embedded in national skill development and evaluation strategies and how these are negotiated among the different stakeholders
- To obtain national views on the relevance of the DeSeCo project and its interim conclusions
- To provide views on the assessment of core competencies, nationally and internationally.

18 countries expressed their initial interest in participating in the CCP phase. A comprehensive background note[1] on CCP's objectives, procedures and tasks, guiding questions, expected products and time schedule was sent to the interested countries. Some countries were unable to proceed, the tight time schedule being the main reason for most of them.

Twelve countries (Austria, Belgium [Flanders], Denmark, Finland, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland and the United States) participated in the CCP and submitted country reports.[2]

The ways and means by which the countries collected the information required differed from country to country (for details see Annex p. 57). In eight countries special workshops, seminars or symposia were organized. Key players were drawn in through addressed by interviews or surveys, or were asked to provide statements; in two countries special DeSeCo National Work Groups were created, and documentation was reviewed. As might be expected the length, scope, structure and focus on different topics in the Country Reports vary considerably. Some reports were organized around the 'Guiding Questions' submitted with the Background Note and some were not, other structures being preferred. But all provided valuable information to be referred to in this summary.

Basically this summary report is structured in five chapters on the basis of the sets of 'Guiding Questions' which introduce each chapter: (1) Identifying key competencies; (2) Assessment, indicators and benchmarking; (3) Public Debate: negotiating and

[1] For the integral text of Background Note see:
http://www.statistik.admin.ch/stat_ch/ber15/deseco/deseco_country.htm

[2] France submitted workshop minutes.

legitimating; (4) Key competencies and education; and (5) Assessing and developing DeSeCo.[3] It concludes by highlighting some essential findings.

Identifying Key Competencies

- Which competencies (or sets of competencies) have been identified or discussed as being necessary for individuals to cope with important demands and challenges in particular social arenas (such as the political and civic spheres, business and labor or family) or for a successful life in general? Please focus on developments in the sector you work in.
- Are some of the key competencies identified/discussed specifically related to different periods in life and age groups or are they universally applicable? Which ones? Please explain.
- To what extent do the identified/discussed key competencies correspond to DeSeCo's three generic key competencies?

This section will deal with: (1) Inputs from different sectors on competence-setting and key competencies; (2) Research-based projects not associated with one particular sector; (3) Similarities and differences between countries: identifying and aggregating key competencies (4) Relating to DeSeCo's generic key competencies (5) Analytical remarks and issues. For the sources for 'identifying key competencies[4]' in Country Reports - see Annex 2.

Inputs from different sectors on competence-setting and key competencies

Education

Education and schools have a long tradition in defining educational goals and learning objectives. In the last 30 years curriculum development shifted away from merely dealing with subject-driven knowledge and began to be more and more interested in transversal/transferable/cross-curricular competencies – long before the term 'competence' became fashionable. Curriculum development involving key competencies obviously took different forms in the different countries contributing to the CCP, and cannot be presented here. Reforms tended to fall into three main categories. In some countries curriculum development remained mainly a pedagogical strategy to improve schools[5]; in others it was embedded in broad national efforts of societal renewal[6]; in yet others the triggering motive was to maintain or improve the national competitiveness in an increasingly global economy.

[3] These chapters are preceded by the 'Guiding Questions' as proposed in the CCP Background Paper.
[4] The term key competencies will be used here meaning 'essential competencies in demand in individual, social, political, economic and cultural contexts'. In the Country Reports – and the underlying documentation – many terms such as: essential or core knowledge, skills, learning or attainment goals, qualifications, etc. are used. The fact that these are mentioned and listed as relevant for DeSeCo signals their relevance for defining and selecting competencies. For practical reasons in this section there is no differentiation possible between these terms. A conceptual discussion on 'Competence' and 'Key Competence' – as far as this was an issue in Country Reports – will be reflected in Section 6: 'Assessing and Developing DeSeCo'.
[5] Germany, Austria, Switzerland.
[6] Scandinavian countries, New Zealand.

Examples of the first category include countries like Germany and Switzerland, where curriculum reform at the end of the1960s was rooted in a mixture of a sense of political urgency to improve schools quality (and equality) and as a response to research findings.[7] In this context 'overarching goals' were seen as functionally necessary to integrate curricula. In the second category: Scandinavian countries and New Zealand. Here the reform impulse was broader, looking for a visionary renewal of education. The focus on overall goals for education implicitly also arouses the debate on: educating for what? – and this debate implies the search for 'key competencies'. Third category: in the US there was an acute feeling that schools were not producing what was needed to be nationally at the forefront of international competitiveness. The politically driven debate on national goals[8] for education led naturally to a debate on standards and key competencies in education. Whatever the reasons, in the 1980s and 1990s comprehensive documents on curriculum reform were produced in most of the reporting countries, some covering all levels of education, but mostly treating primary, secondary, vocational and adult education separately[9].

It could be said that over time transversal educational objectives have come to play an increasingly important role when developing the curriculum. In the early days they might have been found woven into programs of study; some years later they would appear in the form of explicitly defined overarching goals; and finally – particularly in the last decade – the discussion as to which competencies matter most has intensified and some curriculum documents have begun to introduce this terminology in their texts[10]. (for a broader discussion see Section 5).

Some examples of competency areas and lists of relevant competencies as documented in the Country Reports[11] will be presented below. Of course this cannot be a comprehensive survey covering every country and the whole existing body of information. We ask our readers to indulge our choices. Our aim is to demonstrate the wide variety that exists.

May we begin with the venerable German 'Abitur'[12] (certifying the successful conclusion of higher secondary education). It builds on old academic pedagogical traditions in Central Europe, which push subject-based knowledge to the fore. In recent revisions (1995/2000), besides the main learning objectives in German language, foreign languages and the competent use of mathematical symbols and models, emphasis was put also on:

- understanding the structure of knowledge
- self-directed learning
- reflecting on one's own learning

[7] Robinsohn, S. B. (1969) Bildungsreformals Revision des Curriculums. Berlin: Luchterhand (Reform of Education as a Revision of the Curriculum); Deutscher Bildungsrat (German Council of Education (1971, 1974).

[8] National Education Goals agreed to by President Bush and the Governors (1989).

[9] Strangely enough tertiary education (Universities) seems to feel exempted from this endeavor.

[10] Mainly in the area of vocational education.

[11] Reporting procedures providing information on curricula related to key competencies varied considerably from country to country. In some cases it was quite broad in others almost absent. There is also the special situation of countries with federal authorities, where there are no national curricula.

[12] In France 'Baccalauréat', in Switzerland 'Maturität'.

- thinking, judging and acting
- metacognitive evaluation of one's own capacities
- cognitive flexibility and creativity
- concentration, precision and perseverance
- understanding basic social, economical, political and technological perspectives
- ability to apply knowledge in different contexts
- communicative competence
- ability to cooperate in teams
- ability to take decisions.

In the discussions around the elaboration of this list of competencies – which we may easily also see as 'key' – the relevant Committee[13] decided to avoid the notion of 'key competencies' as being too vague.

In Switzerland the corresponding definition of 'trans disciplinary goals' at the end of secondary education (1995)[14] states these goals as follows:

- competence for lifelong learning
- holistic personal development: integrating knowledge, intention, and feeling
- integrated thinking: logical, analytical, intuitive and symbolic
- open-mindedness, displaying curiosity, and the ability to search and find new knowledge
- capacity for research work
- orientation in the natural, social and cultural environment
- ability to make autonomous judgements
- sensitivity to ethical and aesthetic issues
- ability to master complex social tasks, willingness to take responsibility for oneself, others, society and the environment
- ability to communicate: to express oneself precisely and sensitively; language competence in the mother tongue, in another national language and in other languages
- ability to work alone and in groups
- development of physical capabilities, relating to one's own body

Some countries report impressive nation-wide initiatives to develop curriculum frameworks covering all educational levels. A New Zealand National Curriculum Statement (1988) stated that all learners should:

- gain the knowledge, skills and attitudes that enable them to go on learning in a changing world
- develop the knowledge, skills and attitudes they need to participate fully in everyday life
- develop an awareness of their cultural identity and traditions

[13] Working on behalf of the German Conference of Ministers for Culture and Education (KMK).
[14] Regulative for the Certification completing higher secondary education (giving entrance to Universities).

- develop an understanding of and respect for themselves and others, and the knowledge, skills and attitudes they need to live and work well with other people.

In 1993 a 'New Zealand Curriculum Framework' was published. It comprised the following set of skills:

- communication skills
- numeracy skills
- information skills
- problem-solving skills
- self-management and competitive skills
- social and co-operative skills
- physical skills
- work and study skills

Norway produced in 1997 a beautifully edited comprehensive 'Core Curriculum for Primary, Secondary and Adult Education'.[15] It draws on Education Acts governing education in Norway and is organized around chapters covering the following headings:

The spiritual human being:

- familiarity with Christian and humanistic values; awareness of cultural heritage, identity and local traditions; the ability to meet other cultures openly; respect and knowledge for other religions and faiths;

The creative human being**:**

- development of creative abilities and a critical sense; the ability to find new solutions to problems; the ability to use scientific thinking and methods: the ability to wonder, to pose new questions, to invent possible explanations and to test one's explanations;

The working human being:

- learning and work habits; learning to learn; the ability to take responsibility for one's own learning; the ability to plan and organize one's own work and learning process;

The liberally-educated human being**:**

- a sound foundation of knowledge and broad frames of reference; the ability to organize knowledge; methodological skills; respect for facts and sound argument; familiarity in using information technology; an understanding of internationalization and an appreciation of tradition; the ability to acquire and attain new knowledge; entrepreneurial skills;

The social human being**:**

- trust in one's own abilities; communication skills; the ability to solve conflicts; social responsibility; concern for others; knowledge of rights and duties; the

[15] The Royal Ministry of Education, Research and Church Affairs (1997) Core Curriculum for primary, secondary and adult education in Norway, National Centre for Educational Resources: http://www.nls.no

ability to take responsibility; the development of an independent and autonomous personality;

The environmentally aware human being**:**

- the ability to experience joy in nature and physical activity; an awareness of nature; an awareness of the natural environment and conflicts of interest.

In a Swedish Government report[16] (1992) discussing learning objectives in schools three perspectives were underlined:

- the constructive aspect of knowledge: knowledge is not a mirror of the world but a way of making the world understandable;
- the contextual aspect of knowledge: knowledge is dependent on context;
- the functional aspect of knowledge: knowledge as a tool

In 1999 the Swedish National Agency for Education considered the following competency areas as being particularly appropriate to be developed and assessed in schools:

- to see connections and be able to find one's way in the outside world
- to make conscious ethical decisions
- to understand and apply democracy
- creative ability and communicative skills

Austria developed in 1999 a reformed curriculum which aimed at enhancing 'personality driven' competencies and reinforcing a 'real-life orientation' without giving up the already existing science orientation. The 1999 curriculum defined five educational areas with the aim of constituting a framework which would encourage a closer interrelation between the subjects of teaching as well as a basis for cross-disciplinary and interdisciplinary co-operation. The five areas are:

- language and communication
- mankind and society
- nature and technology
- creativity and design
- health and physical ability.

In 1999 Finland produced a framework for evaluating educational outcomes.[17] It defines three key competencies that 'cannot be achieved through any particular subject alone': learning-to-learn, communication competencies and lifelong learning. The main elements of these competencies are[18]:

- learning to learn: the ability to assess how new tasks can be tackled; the capacity to transfer skills and capabilities to a new situation; internal acceptance of a given task, internalization of motivation; autonomy and self-control; willingness and readiness to engage in task-oriented activity;
- communication competence: social and interactive skills: cooperation and negotiation; verbal and nonverbal perception and expression; metacognitive communication skills; IT and media competence;

[16] Swedish Government Official Report 1992: 94.
[17] National Board of Education (1999) Framework for evaluating educational outcomes in Finland.
[18] Summary in keywords is by this author, not a quotation.

- lifelong learning: internalization of a sustainable motivation to learn; assessing and analyzing one's own skills and learning processes and outcomes; mastering IT; seeing culture as having an intrinsic value; openness to internationalization.

To end this 'tour d'horizon' we offer a few concrete examples of lists of competencies considered essential when setting educational goals. We refer to a German initiative of special interest because it already draws on DeSeCo work – on Weinert's expert paper 'Concepts of Competence'.[19] 'Forum Bildung', a joint initiative of the Federal and the Länder (provinces) based Ministers of Education proposed the following six fundamental competency areas for general and vocational education[20]:

- intelligent knowledge[21]: transfer and linkage to lifelong learning; 'deep' understanding and problem solving; mostly acquired in domain-specific settings but also facilitating transfer across domains;
- applicable knowledge: emphasizing authentic experience in real situations; project based learning and horizontal transfer; developing flexible schemata of planning, behavior and self-control;
- learning competency: conscious expertise on one's own learning processes; 'lateral transfer': the integration of vertical and horizontal transfer in variable situations and contexts; both conscious and highly routinized learning strategies;
- method-related/instrumental key competencies[22]: multiple, flexible, variable, and highly routinized applications: (mother tongue, foreign language, mathematics, media and information technology);
- social competencies: social comprehension, skills and responsibility; the ability to resolve conflicts; reflection on social experiences;
- value orientation: norm-based patterns of action, social, democratic and individual values[23]; they comprise not only universal moral norms but also individual competencies such as: acting autonomously, reliably and responsibly; tolerance; socially acceptable behavior, cultural engagement).

Some issues related to the definition and selection of competencies in and by the education sector will be raised here briefly – to be discussed in a more general context in section 5.

The issue of aggregation of competencies to competency areas: The problem is that the aggregations of competencies in some cases mean hierarchical orders, in others they are an attempt at classification and in still others they simply serve the pragmatic aim of

[19] WEINERT F. E. (1999): Concepts of Competence. DeSeCo Expert Report. Neuchâtel: Swiss Federal Statistical Office. The German report mentions explicitly that the Categorization chosen for the 'Competency Areas' (p. 11) was based on Weinert's proposals.

[20] 'Bildung' the German term has no translation into English – it combines the notions of education and culture.

[21] Some keywords characterizing each competency area are given here. They are not quotations from the original texts.

[22] The author makes the following remark: "It may be noted that the term 'key competency' is used explicitly only in this category which is justified by the obvious linkage to any future learning."

[23] It is stated explicitly that these competencies are only acquired through the experience of living in a community with shared values and a functioning democratic environment.

grouping nearer and farer competencies inductively[24]. Here these aggregations were developed in the education field[25] - but they could come also from other fields. This creates a difficulty when looking for instance at the relation of such competency sets or areas to generic competencies as proposed by DeSeCo.

General versus domain-specific: In some cases domain-specific competencies considered especially important are included when listing essential competencies; in others not. This is not merely a technical issue; it reflects traditions of education systems. Their fear is that too much 'general' or 'transversal' may be detrimental to the learning of specific (subject) knowledge. The more recent curriculum documents are the more they give explicitly place to overarching (transversal) goals or competencies.[26]

Individual or group competencies: New Zealand makes the case – relating not only to schools – that clear criteria must be established in order to value both individual and group competencies and that the importance given to one or the other has to do much with cultural and societal traditions. (see also p. 32).

Are key competencies in demand in general education similar to those in vocational education?: The overall answer is: yes. The shift towards integrating general and vocational education was very pronounced in the last decade. This fact is reflected in the overarching educational goals which are now found also in vocational education – while in general education such broad goals had already become commonplace over the last 30 years. In some vocational training curricula we may identify some additional technical competencies[27]. Obviously some variation exists between countries. (see also the next Subsection 'Economy' p. 14).

Variation among countries as to how often competencies are mentioned, and the importance given to them, in curriculum documents: Although inter-country variation will be discussed for all sectors in part 4 of this section, some specific information related to education will be mentioned here. We can identify three categories[28]: competency areas which appear in all country reports with generally high priority, competencies mentioned by all countries but with different weighting, and competencies mentioned only in some country reports. The following table permits an overview.[29]

Table I: Inter-Country Variation of Frequency and Weighting of Mentions of Key Competencies in Curriculum Documents

ALL	**ALL / DIFFERENTLY**	**SOME YES, SOME**

[24] In Germany and Switzerland for instance the trio of competency areas: Self-competence, Social Competence and Factual Competence (Selbst- Sozial- Sachkompetenz) was and is a frequently used classification model, sometimes broadened by methodical competence. This classification has a clear connotation with DeSeCo's generic competencies but other aggregations have not.

[25] Not being explicitly projects to develop the definition, selection and assessment of competencies.

[26] This has nothing to do with two related issues: the impossibility of learning which is devoid of content, and the constructivist approach which links learning to context.

[27] For instance in Germany and Switzerland, 'methodical competence' is added to the Competence Areas self-, social, and Fact- Competence, Finland mentions the need to internalize the phases of a work process and occupational ethics, manual skills, the ability to apply information in practical situations and commitment to work. Entrepreneurial skills are mentioned in describing vocational curriculum competencies in some countries.

[28] The table is based on all entries, not only those included in the above examples.

[29] For practical reasons we deal here only with broad categories of competencies and don't get into an qualitative analysis of the Inter-Country-Differences.

	WEIGHTED	**NOT**
Learning / Lifelong learning	Autonomy / Self-management / Action orientation / Taking decisions	Creativity / Expression / Aesthetic competencies
Mother tongue literacy	Value education / Ethics	Foreign languages / Internationalization
Communication competencies		Cultural identity and tradition / Intercultural competencies
Social competencies / Co-operation / Teamwork		Religion
Information / Problem solving / IT-media competencies		Political competencies/ Democracy
Numeracy / Mathematical literacy		Ecological awareness / Valuing nature
		Physical ability / Health

Particularly interesting is the very different weight given to competency areas related to the self, and the autonomous action of learners by different countries. Some see this ability as the core competence[30] par excellence supporting all other competencies, while others warn that we should ask ourselves how much individualism is needed and desirable[31]; a third group argues that the concepts of inner-direction and self-confidence are middle and upper-class virtues.[32]

The Economy

Two generations ago (or even one), it would have been difficult to detect initiatives coming from the economic sector which conceptualized the demands of businesses in terms of the competencies required, either for their own functioning or as desired educational outcomes. Education and the economy were seen as separate spheres. As we know, this began to change fundamentally in the 1970s with accelerating economic growth and technological change, increasing international competitiveness and global interdependency.[33] The enormous mass of theoretical and empirical research and development work on concepts such as Human Capital and later (and to a lesser degree) on Social Capital is evidence that educational outcomes are more and more seen as

[30] This is the case for instance for Switzerland in an analysis of all Curricula of Primary, Secondary and Vocational Education in the years 1980–2000, done by Grob and Maag-Merki (University of Zurich), 'Handlungskompetenz' (Competence for Action) – seen as an individual Competence of autonomous actors – emerged as the most frequently found Educational Goal-dimension.

[31] New Zealand for instance makes the point that "in Mäori culture and philosophy individual behaviors spring from, reflect upon, and are supported by the collective community." (See discussion also on p. 27).

[32] Netherlands draws our attention to the risk that over emphasizing 'self steering' at schools may privilege middle and upper class learners, thus increasing inequity.

[33] This report is not the place to elaborate on these amply discussed developments.

economic assets. Thus the economic sector today has a say[34] when discussing which competencies are most important as educational outcomes.[35]

So it comes as no surprise that in practically all Country Reports, competency demands from the economic sector take a prominent place. Demands are documented from employer associations, trade unions, education-business partnerships, labor-market agencies and accountability bodies. (see p. 5). As before, we must restrict the presentation to some salient examples:

We begin by quoting the Swedish Country Report[36]: "For the Swedish Metal Workers' Union, a competence is a combination of what one knows, what one can do, what one wants, and what one dares to do.[37] 'Know' means theoretical knowledge, 'can' implies practical knowledge and informal knowledge, 'want' deals with ambition, attitude, goals and outlook, and 'dare' reflects self-confidence and self-esteem." Coinciding with this dynamic approach of 'becoming competent,' the Swedish Trade Union Conference 2001 focuses on establishing the 'learning workplace' in businesses considering life-long learning as a matter of 'individually related competence development' and of 'organizationally related competence development'.

In the same report it is stated that the following personal characteristics are stressed by employers:

- 'secondary virtues' such as: punctuality, accuracy, 'a feeling of service', the ability to adapt
- The ability to take the initiative
- self-confidence
- creativity
- the ability to solve problems
- the ability to communicate[38]
- the ability to cooperate
- flexibility and the ability to adapt to change
- the ability to look after one's health

The Swiss Association of Employers of the Machine, Electrical, and Metal Industry considers the following key competencies as essential:[39]

- learning competence
- working competence based on process- and methodological knowledge
- ability to assess risks
- awareness of ecological and environmental problems
- autonomy and self-control

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[34] Not useless to remember that this is a relatively new development. Education was before largely an inside-guided system controlled by the educationalists themselves and politics.

[35] For a broad discussion see: Resnick, L.B., & Wirt, J.G. (Eds). (1996) Linking school and work. Roles for standards and assessment. San Francisco: Jossey Bass Publishers.

[36] The Swedish Summary Report on the DeSeCo Country Contribution Process. (2001) The National Agency of Education, p. 13.

[37] In this author's view, this is one of the nicest synergetic approaches into grasping 'Competence'.

[38] For instance to be able to appear and talk in front of others.

[39] See http://www.swissmem-berufsbildung.ch. Core competencies were selected when developing a model for professional continuous education (1998).

- ability to assess impacts and effectiveness
- ability and willingness to work in teams
- creativity
- flexibility
- ability to cope with innovation (to accept, promote and implement change)

We may compare the above catalogue with another one, which aims at defining standards for professional education in Germany[40]:

- vocational action competence
- problem solving
- co-operation capabilities
- knowledge about work process in different businesses contexts
- participation in shaping the workplace
- self-directed learning
- life-long learning
- international linguistic and vocational cultural competence

In the US a most influential input into the process of defining 'workplace know-how' was the 1992 published SCANS Report (by a commission appointed by the Department of Labor). It was one of the first big efforts to define the required competencies based on job analysis.[41] The report determined the demands as being made up of five 'competency areas' and three sets of 'skills and personal qualities[42]' as follows:

- resources: allocate time, money, materials, space and staff;
- interpersonal skills: work on teams, lead, negotiate and work with people from culturally diverse backgrounds;
- information: acquire and evaluate data, interpret and communicate, use computers to process information;
- systems: understand social, organizational and technological systems, monitor and correct performance, design and improve systems;
- technology: select equipment and tools, apply technology to specific tasks, maintain and troubleshoot equipment.
- basic skills: reading, writing, arithmetic and mathematics, speaking, and listening
- thinking skills: ability to learn, to reason, to think creatively, to make decisions and to solve problems
- personal qualities: individual responsibility, self-esteem, self-management, sociability and integrity.

Analysis of job advertisements can be a valuable source of up-to-date and realistic information on which competencies are in demand in the economy.[43] The German report provides two examples of such investigations[44]

[40] Hans Büchler Stiftung (Foundation) Sachverständigenrat Bildung (Expert Council Education).
[41] The analysis was based on 50 jobs and 900 specific tasks. See footnote 10.
[42] Today this differentiation would probably be dropped.
[43] With the proviso that these analyses have no programmatic ambition and the aggregation and categorization in different investigations is heterogeneous.

In the investigation presented in Table One in the report, a sub-sample was drawn[45] related to 'new qualifications'. More key competencies[46] were asked for in the subsample 'new qualifications' than in the overall sample. In Table Two, more key competencies were in demand in advertisements for academics[47] than for non-academics. The results of the two tables cannot be precisely compared because of the heterogeneity of the categories, in particular of their combinations. But insofar as comparison is possible the most valued qualifications seem to be achievement or performance and communicative capacities. Cognitive competencies appear as important, but in the middle range.

The last of the examples from inputs coming from the economic sector draws on the Danish 'National Competency Account 2000'[48] The account builds on a foundation of three basic values – creativity, competitiveness and cohesiveness – that are considered essential for Denmark in the 'knowledge society'. Key competencies are presented under the following headings:

- learning competency: indexes for professionalism, organizational learning and cross-cultural learning
- change competency: indexes for innovation and mobility
- relationship competency: indexes for networking, communication and responsibility
- meaning competency: index for focus & identity

A total of 127 indicators drawn from very different sources are integrated in comparative country profiles to benchmark the standing of Denmark against six other countries[49] in becoming competent in the 'knowledge society'. Remarkable are the harsh self-critical conclusions coming from this national comparative effort[50] taking 'competencies' as the basic analytical unit: "Denmark fails to nurture all and invests too little in developing the elite."… "Institutional thinking blocks the sharing of knowledge."…"Denmark suffers from an innovation trauma."

Below are listed some issues which are becoming evident in the economic sector when identifying key competencies:

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[44] One investigation was carried out in the year 2000 by the 'Bundesinstitut für Berufsbildung' (BIBB) (Federal Institute for Professional Training) on about 24000 advertisements, the other in the year 1999 on about 4000 advertisements by Dietzen.

[45] About 3500 advertisements.

[46] The percentages show the number of advertisements in which the key competencies (by categories) were in demand.

[47] One should bear in mind that these differences simply reflect what writers of advertisements think should be made explicit.

[48] The National Council for Competency (2000) The National Competency Account (see footnote 18). This 'account' is the product of an orchestrated national effort where the economy may be the strongest stakeholder - The Danish Economic Council and 53 affiliated companies. But there are also other stakeholders: public authorities and educational institutions are represented. The 'Account' is part of the Danish national strategy for industrial development. As this product is labeled 'Account', comparing Denmark to six OECD countries, it seems reasonable to present it in this subsection 'Economy'.

[49] The countries included in the comparative analysis of Competency Profiles were: Denmark, Sweden, Finland, Netherlands, USA, Japan and UK.

[50] Comparable only to the US 'A Nation at Risk' Report.

The aggregation issue: even more than in the education sector (see p 12) the wildly heterogeneous levels of abstraction and criteria of categorization which are being applied in attempting to grasp and list competency areas and competencies pose serious problems, when trying to compare and synthesize them. In the economic sphere, the fact that some competencies are defined as external task-related and others as internal dispositions becomes particularly apparent.

Individual or organizational/institutional competencies: many of the competencies in demand are quite clearly as much the competencies of the individual members of an organization (or business) as of the organization itself. In some reports the fact that developing competencies is as much an institutional as an individual affair – organizing the working place, creating a learning environment – is explicitly emphasized.

Implications of enhancing personal qualities: from the point of view of the economy (not only of the economy!), personal traits and personality qualities such as honesty, integrity, responsibility, loyalty and sociability are highly valued. When examining these personal traits, the developmental perspective is particularly important. It can be assumed that such competencies are not usually formally learned; they are acquired through socialization, experience, maturity, life itself. This poses the problem how far such competencies are the business of education, and more specifically the question of where they are acquired. (family, peer group, sports activities or cultural environment and so on.)[51]

Competencies demanded by whom and for whom?: this question may be posed inside and outside the economic sector. In the economy we see clearly[52] that it makes a difference if the demand is intended to cover competencies acquired by the whole population or only by persons working in 'new' professions or academics. This is an important issue because it signals that the circulating lists of desirable competencies may be inspired by innovative sub-sectors of the economy for advanced workers but may overlook competencies still in need and in use for a sizeable proportion of the workforce.

What is not wanted?: Sweden tried to find out also 'which competencies are not considered specially important' by the employers. Asking this question suggests how DeSeCo methodologies could be enriched in the future! Sweden found out that 'foreign languages other than English' are not a competence that is prioritized by employers. This shows that there are some discrepancies between the views (and needs) of the economy and general aims of educational policies – and the same is true for other European countries.

Contextualization of competencies in the workplace: trade unions in Scandinavian Countries[53] particularly emphasize the importance of relating competencies to specific

[51] This fundamental question mentioned in some Country Reports cannot be discussed at length in the framework of this Summary but will be obviously been taken up further by DeSeCo.

[52] Austria reports for instance that Chambers of Commerce (representing traditional trades) have a much more 'traditional' approach in their competency preferences than do industrial companies. The first underline traditional virtues while the second enhance competencies as teamwork, entrepreneurship, understanding economic processes, etc. See also the table on advertisements drawn from the German report (p. 16).

[53] Denmark, Finland, Sweden.

workplaces. It is proposed that the discussion on competencies should be focused, in a developmental perspective, on constructing 'learning workplaces'.

Variation of frequency and weighting of mentions of competencies as viewed by stakeholders from the economic sector: due to the already mentioned extreme heterogeneity of the inputs, it is not possible to assemble here a set of figures on inter-country variation – analogous to Table 1 which was presented for the education sector. The overall impression is that the variety of different inputs - coming from stakeholders in the economy within countries - is wider than in the educational sector. This can be explained by the homogenizing effect of institutionalized school and curriculum development traditions within countries (and regionally also between countries.)

Other Sectors

Stakeholders coming from politics, civic society, youth development and cultural organizations were in some cases invited to DeSeCo Workshops but their specific inputs cannot be identified sufficiently well through the Country Reports to be presented here under special headings. From politics, the few CCP inputs point to a deficit of political awareness and competencies for political participation.[54] [55] But this will have to be checked against the findings of the IEA Civic-Education Study which is more optimistic.[56] Representatives of civic society emphasize the importance of having the overall societal balance (equity, security, social networks) in mind when discussing competency issues. Youth Development Projects underline the importance of family and community support in the development of key competencies (family and school rules, neighborhood boundaries, adult and peer role influences), and emphasize value orientation (in some cases also related to spirituality and religion.)[57]

To summarize some key findings from the two sectors presented above: education and the economy:

1. The convergence between inputs from the two sectors is larger than the divergence
2. The meanings of the words used, and the categorizations employed when labeling and discussing 'key competencies,' differ widely. Stakeholders' contributions (specially outside education and research) are not concerned with the semantic and conceptual subtleties differentiating between terms like core knowledge and skills, core qualifications, standards, essential competencies or key competencies. All these are in use as synonyms
3. In education, 'key competencies' are mostly not addressed explicitly as such, but are enunciated as 'overarching educational goals'. Over time, however, there has been an increasing tendency to consider transversal competencies as an issue to be dealt with in curriculum development. However, when competency demands come from

[54] See US Report: The National Commission on Civic Renewal (1997): A Nation of Spectators, how civic disengagement weakens America and what we can do about it. (University of Michigan: http://www.puaf.umd.edu/civic renewal.

[55] Report Switzerland: Statement Klöti (University of Zürich). Also see: Oser, F. & Reichenbach, R. (2000) Politische Bildung in der Schweiz (Political (Civic) Education in Switzerland); Berne: Swiss Conference of Ministers of Education.

[56] Torney-Purta, J., Amadeo, J-A., & Lehmann Rainer (2001) Civic Knowledge and Engagement at Age 14 in 28 countries, Results from the IEA Civic Education Study. Amsterdam: IEA.

[57] See for instance US Report: Search Institute: http://www.search-institute.org and the 4-H Youth Development Program (US Department of Education).

the economy, a discourse including the term 'key competencies' seems to have become widespread.

4. The variation of different inputs within countries is at least as large as the variation between countries.

The following table gives a rough picture of some differences in competencies as identified by the world of education and by the economic sphere:

Table II: Key Competencies Emphasized by the Education and Economic Sectors

BOTH EDUCATION AND ECONOMY	**HIGHER WEIGHTING IN EDUCATION**[58]	**HIGHER WEIGHTING IN ECONOMY**[59]
Self-management in general	Autonomous learning, meta-cognitive competencies	Action orientation, responsibility, taking decisions and risks
		Resource management, planning, shaping the workplace, management of time, assessing the impact and effectiveness of action, flexibility
Communicative competencies in general	Linguistic competencies, foreign languages, cultural identity, intercultural competencies, media competence	IT competencies, presentation capabilities, internationalization
Learning competencies in general	Learning in domain-specific settings, mastering of learning strategies, meta-learning and reflection, evaluative skills	Lifelong learning, motivation to learn, methodological skills, applying knowledge, putting learning into context in the workplace
Social competencies in general / Team-working / Co-operation	Social comprehension, Positive social attitude,	Interpersonal competencies, Working in teams, Co-operating and negotiating, resolving conflicts
Value orientation	Ethics, Social and democratic values, tolerance, awareness of human rights[60]	Personal virtues: integrity, reliability, loyalty, honesty
Creativity (medium weight in both sectors)	Aesthetic education, expression (medium weighting)	Innovation and change, entrepreneurship,
Health, physical skills, attitude to body (medium weighting)	Physical education	Risk behavior, resilience
Ecological orientation	Attitudes to natural	Ecological responsibility at the

[58] When a 'higher weighting' is assigned to one of the sectors this doesn't mean that this competence is not mentioned at all in projects and by stakeholders in the other sector.

[59] See footnote 71 above

[60] Youth Development Councils, Programs and Projects (US, Sweden) that couldn't be reported here, put an special emphasis on value orientation and ethics: respect and care for others, tolerance, spirituality, civility and so on.

(medium weighting)	environment	work place

Inter-sector inputs / Research-based Projects

Research related implicitly or explicitly to competencies and key competencies may range back over a period of 20 to 30 years, and has already been partially addressed in earlier work by DeSeCo[61]. In a few Country Reports[62] we find extensive reference to competence-related research that is highly relevant but cannot be summarized here.[63] One track of research work important for DeSeCo was and is being carried out within the framework of large international comparative studies (IEA and INES/OECD).[64] This work – particularly specially the national analytical follow-up studies on methodologies and results – are highly relevant, but this information will be made available through other channels.[65]

Here we will present only[66] two research-based projects of national scope whose central aim was the construction of comprehensive systems of competencies (key competencies) and related indicators. These projects are particularly important for DeSeCo because they had to deal explicitly with some of the same theoretical and methodological problems with which DeSeCo is confronted.

The first project to be briefly described is the 'Young Adult Survey' (YAS)[67] aimed at assessing and measuring key competencies of 18–20 year olds in Switzerland.[68] The project developed a system of constructs and empirically validated scales based on a comprehensive analysis of overarching educational goal dimensions in all existing Swiss school curricula for primary, secondary and vocational education.[69] The 15 constructs[70] are:

- self-esteem
- effective self-management
- autonomy (relative)
- the ability to be self-reflective
- the capacity to perceive one's own emotions

[61] see Rychen, D.S., & Salganik, L.H.(Ed.), (2001) Defining and selecting key Competencies; Seattle, Toronto, Bern, Göttingen: Hogrefe & Huber Publishers.
[62] Finland, Germany, Netherlands.
[63] One of the reasons – besides the technical impossibility of summarizing this information in the present report – is that this research of course is widely international and not country-specific.
[64] see Salganik, L.H., Rychen, S.D., Moser, U., & Konstant, J.W. (1999) Projects on Competencies in the OECD Context, Neuchâtel (Switzerland): Swiss Federal Statistical Office.
[65] The DeSeCo related research and development work in international comparative studies will be object of a special report to be submitted by Albert Tuijnman to the DeSeCo-Symposium, February 2002.
[66] On the basis of materials provided by Country Reports (incl. Documentation).
[67] See: www.research-projects.unizh.ch/phil/unit62100/area240 / Grob, U. & Maag-Merki, K. Pedagogical Institute, University of Zurich. See footnote 11. The project is described in the Swiss Country Report.
[68] The project is currently being implemented. Results – based on a sample of 20,000 – can be expected in spring 2002.
[69] Each of the 15 constructs (encompassing 0-8 sub-constructs) is precisely defined, related to the goal-dimensions of the curriculum analysis, discussed theoretically and measured through empirically tested and validated scales.
[70] Sub-constructs in brackets.

- the ability to deal with stressful emotions
- creativity
- responsibility for health (risk behavior, somatic indicators)
- social competencies: co-operation (ability to act autonomously and to co-operate, learning by co-operative action)
- continuous learning: willingness, motivation
- motivation to perform well
- strategic competencies: learning and working, planning, transfer of skills, elaboration, monitoring, perseverance, evaluation skills)
- ecological knowledge and attitude
- social responsibility (responsibility for other individuals, societal responsibility, attitude to gender issues and migrants)
- political competence (interest, knowledge, engagement, sense of legitimacy)

The Swiss project outlined above was initially based on an analysis of pedagogical goals – a not untypical approach amongst European countries. But the most ambitious project so far undertaken in the assessment of key competencies: 'Equipped for the Future: What Adults need to know and be able to do in the 21st Century' (EFF)[71] was built on a painstaking and comprehensive analysis of the real life activities of adults in the United States – in their roles as citizens, family members and workers.[72] This pragmatic inductive method – asking 'which competencies really matter?' in concrete contexts and in relation to actual activities – is typical of other US research and developmental work on competencies and standards.

The EFF project summarized its findings in its final report[73] in the form of a two-fold listing of (a) 13 common activities related to the roles: citizen, family member and worker, and of (b) 16 generative skills christened: 'The 16 EFF Standards':

The 'common activities' for the three roles (citizen, family member, worker) are:

- gathering, analyzing, and using information;
- managing resources;
- working within the 'big picture';
- working together;
- providing leadership;
- guiding and supporting others;
- seeking guidance and support from others;
- developing and expressing a sense of self;
- respecting others and valuing diversity;
- exercising rights and responsibilities;
- creating and pursuing vision and goals;
- using technology and other tools to accomplish goals;

[71] See footnote 11: http://www.nifl.gov.

[72] The project is executed by the US National Institute for Literacy (NIFL). Initiated in 1993, it involved 114 focus groups, expert panels of major stakeholders and researchers in a multilevel process to develop 'role-maps' (looking for frequent activities in each role), and further searching role-overlapping activities and core competencies in performing these activities.

[73] Stein, S. (2000) Equipped for the Future, Content Standards, Washington DC: NIFL.

- keeping pace with change.

EFF identifies four major dimensions of human behavior and action which are reflected in these activities: 'access', 'voice', 'independent action' and 'bridge to the future'

The 16 EFF standards labeled 'generative skills' were defined as "integrated skill processes that are durable over time in the face of change in technology, work processes and societal demands."[74] In addition to inductively reviewing the competence-needs which surfaced in the listing of activities, research assumptions coming from the social sciences went into the selection and definition of these 'generative skills'. They were directly related to the 'common activities' as being necessary for successful action:

- communication skills: read with understanding; convey ideas in writing; speak so others can understand, listen actively, observe critically;
- decision-making skills: use mathematics to solve problems and communicate, solve problems and make decisions, plan;
- interpersonal skills: cooperate with others, advocate and influence, resolve conflict and negotiate, guide others;
- lifelong learning skills: take responsibility for learning, reflect and evaluate, learn through research and use Information and Communication Technology.

It is worth noting the very different approaches of the two competence projects[75] presented here. One is grounded in overarching educational goals, and constructs its categories iteratively by integrating theoretical thinking rooted in the social sciences with technical considerations related to the construction of scales. The other defines roles, searches for activities typical of these roles, and then defines the core skills necessary to carry out the roles. Besides the content aspect – the well-founded lists of 'key competencies' produced as a result – we may learn from this that the methodological approach and the process of identifying key competencies affects profoundly both the categories and the form in which the competencies are aggregated to construct 'key competencies'.

Similarities and Differences among Countries: Identifying and Aggregating key competencies

When trying to identify 'national' profiles in relation to areas of competence, key competencies or competencies, we have a problem which results from the nature of our information base. Every Country Report contains multifaceted information on a wide array of governmental or private initiatives and projects and other developments related to our theme. This information is highly heterogeneous and our collection of data related to what (we would think) 'matters' for each of the twelve countries involved in the CCP cannot avoid being impressionistic. We want to avoid drawing more definite-seeming comparisons than the information would warrant. Four of the countries – Austria, Germany, New Zealand and Sweden – have explicitly contributed with a consolidated list of prioritized key competencies in their papers. Belgium (Flanders) proposed a

[74] Merrifield, J. (2000) Equipped for the Future, Research Report, Washington DC: NIFL.

[75] For lack of space other research-based, specifically competency-focused projects mentioned in Country Reports – many are referred to, but few are described – are not presented. Some come from youth development projects (see Footnote 21) some linked to adult education (see Footnote 20)

'provisional list for discussion'. So far as Switzerland and the US are concerned, summaries in the reports offer hints. In discussing some of the other countries, we may refer back to some of the most important sources documented in their reports.[76]

To begin with: similarities are much more significant than disparities. The overall impression when going through the Country Reports is that the same competency areas and competencies are addressed – often with different wording choices and levels of categorization but bearing an almost identical content. Some differences show up when countries give more or less weight to the one or another competence, or give them a different flavor by wording them differently. In some cases, the absence of an explicit mention of a competency area may be significant.

Aggregating competencies as reflected by the Country Reports into key competencies remains a hazardous and somewhat arbitrary business. Our listing below is no exception to the rule. First the big issues, always prominently present in different versions:

Social competencies / Co-operation: this domain comprises all 'interpersonal skills' such as co-operating with others, advocating and influencing, resolving conflict and negotiating. In a narrower sense, it addresses: working together, guiding and supporting others, and seeking guidance and support from others. One crucial dimension is: the understanding of and cooperation with people from culturally heterogeneous backgrounds. In some cases, 'communication' and 'social competencies' are combined into one category; in others, communication may appear as a subcategory of social competencies – or vice versa. Usually they are separate.

But even though 'social competencies' are seen by all countries as essential, stepping down one level and looking what 'understanding of and cooperation with people from culturally heterogeneous backgrounds' means that in different countries we may assume that significant differences exist – according to their populations and social conditions[77]. A selection from the New Zealand report illustrates this vividly:

At the level of community and social development, New Zealand's unique history and cultural mix calls for:

- competencies based on self-knowledge, tolerance and respect, to enable New Zealanders to accommodate the diverse range of views, philosophies, traditions, backgrounds and cultures and through this build a socially cohesive nation;
- competencies, determined by Mäori, related to Mäori language, culture, values, protocols and practices;
- competencies, determined by Pacific peoples in New Zealand, related to Pacific languages, cultures, values, protocols and practices.'

Literacies[78] / Intelligent and applicable knowledge: this domain is multilevel. It comprises the classical notion of 'literacy' linked to language processing and the basic skills: the ability to read, write, speak, listen and understand (including numeracy). On a

[76] For instance Norway: Core Curriculum, Finland: 'Learning to Learn' Project.

[77] But we will not find much information on these cultural differences in the reports; this was mostly beyond the possibilities of the CCP.

[78] It seems preferable to use not the singular but the plural form. IT literacy is such included as one literacy form. The New Zealand Country Report explicitly demands: *'a range of literacies covering traditional technologies (such as print) and new technologies.'* This is also in line with PISA's literacy theoretical frameworks for Reading, Mathematics and Science.

'deeper' level it is linked to the use of mathematics, highly complex information processing, problem solving, critical thinking, meta-cognition and reflexivity. It may include also IT information processing competencies – although some countries prefer to list IT competencies separately. The same applies to 'meta-cognition and meta-knowledge' (reflecting on knowledge, having criteria for the structure of knowledge, assessing the validity of knowledge and so on) which could be seen as a specific competence.[79] One observable difference between countries is the degree of emphasis put on the closeness of the link between domain and subject-specific and transversal learning and knowing. Another difference appears in the weight given explicitly to 'critical thinking'.

Learning competence / Lifelong learning[80]: this competency area implies technical / methodological, strategic and motivational dimensions. It requires 'conscious expertise in relation to one's own learning processes.'[81] This expertise may be partially internalized as routine, and it partly means being able to plan and assess own learning processes, so enabling 'autonomous learning'. Crucial is recognizing links, and applying transfer from one learning situation to another and from relatively simple problems to more complex ones. Some countries emphasize the cognitive and meta-cognitive aspects of learning to learn, while others stress the motivational element.[82] Curiosity as a driving motor is frequently mentioned. Some countries value resilience and perseverance more than others. To sum up 'motivation to learn and when learning' in a more attractive way, let's quote the report of Belgium (Flanders):

- Having the courage to explore and being eager to learn!

Communication competencies: As reported above, some countries subsume this competency area under social competence. But beyond this classification dilemma, all countries address it in one way or another. One obvious element in this competence is the command of languages. While mastering the native language is obviously seen as a basic competence by all countries, often categorized as literacy, there are substantial differences in how far foreign languages are seen as being an essential ingredient of communicative competencies. And an additional controversial issue is which languages should be taught, how much of them, and at which age and level.[83]

On the other side, communication stands as an integral part of interpersonal competencies, being able to understand, to participate in dialogue, 'to defend a personal opinion'[84], to interact in discussion and to negotiate controversial positions and so on. It is made clear in some reports that 'communication' has a cognitive / instrumental /

[79] Some countries, for instance New Zealand, put an accent on the fact that knowledge and its assessment are not value-free: 'Knowledge includes not only empirical facts, but also belief, experience, values and attitudes which inform the nature and applicability of it as a 'tool'."

[80] Some countries (e.g. Finland) differentiate between 'Learning Competencies' and 'Lifelong Learning', see footnote 94 below.

[81] See German Country Report p. 19.

[82] Finland's Country Report extensively elaborates on the relevance of learning and life-long learning competencies. See particularly the Project 'Learning to learn' by a Finish research group led by Jarkho Hautamäki (University of Finland). See footnote 20.

[83] We will not further expand here on this issue which as known has been amply discussed in policy areas in the European Union, in Switzerland, etc.

[84] Quotation from Country Report Belgium (Flanders).

technical aspect – being able to maintain discourses – and an emotional aspect, closer to attitudes and deeper personality treats, conducive to 'empathy'.[85] But whatever the specific flavor given to this competency area by different countries may be, it still holds its central position for all.

The following sets of competencies are not so unanimously and broadly reflected in all Country Reports:

Value orientation: Regarding the inputs of most reports, the following broad definition of this area as given in the German Country Report could probably be taken as valid: *'norm-based patterns of action, social, democratic, and individual values; they are acquired through the experience of living in a community with shared values and a functioning democratic environment (especially in educational institutions). They are enhanced by "unspecific transfer", i.e., usage, insight, experience, reflection. It should be noted that they comprise not only universal moral norms, but also individual values and competencies (e.g., the ability and motivation to act autonomously, reliably, responsibly), social values (e.g., tolerance), and cultural values (socially acceptable behavior, cultural engagement)*

The disparities between countries are partly related simply to preferences for certain categories applied to aggregations of competencies. Political and civic competencies, for example, could be addressed separately; similarly cultural (and intercultural) competencies. More importantly, there are considerable differences in relating (or not) to a value orientation.

First – in many countries 'value orientation' seems not to be front stage. This may be for two reasons: (1) not seeing value education as an issue for schooling. Many stakeholders when discussing competencies are implicitly discussing the demands on formal education; (2) seeing value orientation not as a competence in itself, but as a necessary general foundation for becoming competent.

Secondly, mentions of this competence are very heterogeneous: some relate to attitudes and personal virtues such as integrity, responsibility, a caring attitude, honesty; some relate to the acceptance of universal ethical norms; and a few make specific reference to spirituality and religion.[86] More general is the mention of the political dimension of 'value orientation'. We will come back to this under a separate heading below.

Self-Competence / self-management: this competency domain may be defined on the action level: 'acting independently as parents, citizen and workers' or on the level of subjective awareness: 'developing and expressing a sense of self'. The first level is nearer to constructs like self-management and self-efficacy, and the second nearer to developing a positive identity: personal power, self-esteem, and sense of purpose and positive view of personal future. Connected are also competencies related to 'lifelong learning skills' such as taking responsibility for learning, reflecting and evaluating. The way in which these competencies converge is in selecting goals for oneself, planning and implementing self-defined goals, coping with obstacles and redefining one's goals.

[85] Quotation from Austrian Report.
[86] See for instance the Norwegian Core Curriculum, where the 'spiritual human being' is invoked (See p. 7).

Implicitly, but not under this particular heading, many of the competencies subsumed in this competency area are addressed in most of the Country Reports. But it makes some difference how explicitly this is the case.[87] It may be of considerable importance at the workplace: 'what one knows, what one can do, what one wants, and what one dares to do',[88] no less obviously, it has to do with the mastery of learning: 'self-organized learning, flexibility, adaptability to changing requirements, curiosity, self-assessment, perception of trends…the ability to reflect and to criticize, coping abilities, sense of meaning, sense of wonder.'[89]

Motivation, being at the core of 'self-competence,' is seen as a specific competence in some reports[90], but in others motivation it is viewed as an integral part of most competencies. The Swedish report refers to motivation in a comprehensive way, seeing it as a: 'competence to develop competence: having the ambition and the motivation to develop oneself and one's interests.'

One very relevant objection in stressing 'self-competence' without considering also collective competencies is made in the New Zealand report, which highlights the assertion that the discourse on the self as an 'autonomous actor' is largely a traditional Western paradigm. Referring to the Maöri culture and philosophy, it is emphasized that: 'individual behaviors spring from, reflect upon and are supported by the collective community'. And going one step farther, the report argues that although autonomous and reflective behavior may be legitimated, the assertion of individual rights and the behavior of individuals should be positioned within the context of the individual's collective responsibility.

In my view we shouldn't be too quick to respond that in the western perspective we also of course see the individual as part of collective contexts and communities, the 'autonomous actor' being reflective in relation to his or her societal environment. There are significant cultural differences (both within countries and between countries)[91] when considering the role of collective identities and collective actors. This issue will be addressed further when discussing DeSeCo's generic competencies.

Political competence / Democracy: this domain implies competencies that reinforce the democratic civic life on all levels of society from the neighborhood to the nation[92]. They imply not only individual competencies which enable democratic participation, but also the collective creation of environments – including educational institutions – that enhance the democratic co-operation of citizens. Relevant dimensions are: being aware of and exercising political rights and responsibilities, valuing social justice, and the achievement of peaceful conflict resolution. In the 'Equipped for the Future' (EFF) the

[87] In Switzerland and Austria (partially Germany) the explicit mention of self-competence may have to do with the tradition (going back to Roth and the German Bildungsrat (1971) of establishing a Triangle of Competency Areas: Self- Social and Facts- (Sach-) Competence.

[88] To remind: quotation from Sweden p. 15.

[89] Quotation of some elements of the Austrian Summary Report on results of a national DeSeCo Workshop.

[90] This is the case for instance for Germany where its increasing importance in developments in vocational education is addressed.

[91] Not so much visible in the CCP because of the relative cultural homogeneity of the participating countries.

[92] As quoted the role of the citizen defined by EFF was: "Effective citizens and community Members take informed action to make a positive difference in their lives, communities and world."

US Project mentioned above (see p 22) the role of the citizen is defined broadly as follows: 'effective citizens and community members take informed action to make a difference in their lives, communities and world'.

This broad interpretation of political competence as social participation: 'living in a community with shared values and a functioning democratic environment'[93] or (a quotation from another source): 'active citizenship in a democratic and multicultural society and in the international community'[94] is expressed in many Country Reports. On the other hand, some countries don't mention explicitly political competencies. In some countries, it seems that the civic and political agenda is more or less absent from the school curriculum. In some others exactly the opposite is the case. The Danish report, for example, stating that there are 'normative objectives for the formation of citizens as social individuals who are bearers of democratic and humanistic values,' quotes the official educational targets for the Danish 'Folkeskole' (primary and lower secondary education) as follows: 'School prepares pupils for participation, sharing responsibility, rights and obligations in a free democratic society. The school's teaching and the entire daily routine must therefore be based upon intellectual liberty, equality and democracy.'

This understanding of education for democracy is much in line with international findings by the IEA Civic Education Study[95] which states that civic competencies relate (1) to ways in which individuals become increasingly closely connected to communities at the personal, local and national (and international) level; and (2) to processes of civic learning that involve the growth of meaning, practice, relation to the community, and the formation of identity. On the systemic level this means, 'first consolidating and revitalizing democratic systems and, second, creating communities that accommodate and/or foster diverse identities and modes of engagement among their members'.[96]

We may bear in mind that for this area of competency it is particularly true that having competencies or not is not merely an individual but an institutional and a societal matter.

Ecological competence, relationship to Nature: This competency area has a knowledge, an attitude and an action-orientation dimension – both on the individual and on the collective level. Although some references to the area can be found in most Country Reports, the weighting given to it differs considerably from country to country. In the curricula of some countries such as Switzerland and Norway, environmental education occupies a prominent position. Austria and the Netherlands note that the need to think and act while remaining mindful of the balance between technological change and nature (sustainable development) is present in newer curricula.[97] While ecological competence is mostly invoked in relation to educational goals, there are a few mentions of it in those inputs coming from the business community. On one hand, 'environmental management' ensuring ecological organizational conditions in businesses is emphasized; on the other, an individual's personal responsibility for ecologically sound behavior in

[93] Quotation German Country Report.
[94] Quotation Netherlands Report.
[95] See: Torney-Purta, J., Lehmann, R., Oswald, H. & Schulz W. (2001) Citizenship and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen, IEA (International Association for the Evaluation of Educational Achievement. http://www.wam.umd.edu/~iea.
[96] US Country Report, Statement Judith Torney-Purta (University of Maryland).
[97] Austria: 1999 Curriculum, Netherlands: 1993 Curriculum for Secondary Schools.

the workplace is stressed.[98] New Zealand points to another interesting application of this competency area supporting economic development in the specific conditions of this country: 'to build on natural advantages promoting biological developments to enhance animal, plant and human health'.[99]

Finally we come to areas of competence that are only weakly supported by Country Reports:

Cultural competencies (Aesthetic, Creativity, Intercultural, Media): Overall it is remarkable how weakly this very heterogeneous area of competencies is represented in the reports and in projects related to key competencies.[100] For the CCP this may have to do with the fact that stakeholders coming from the cultural realm were mostly absent from the process. But also when looking at curricula and projects across the board, the marginal position of aesthetic competencies – with few exceptions[101] – is very noticeable. This is not the place to reflect on this astonishing phenomenon – astonishing when we consider the central role that cultural activities (playing, dancing, movies, TV, music and so on) play in our lives – and particularly in the lives of young adults. (Should we perhaps assume that there is no need for or demand for competencies in this area?…) This is without doubt a DeSeCo issue, and worth further reflection.

'Creativity' is relatively frequently mentioned. But mostly it is linked to thinking processes, rather than to aesthetic expression. (How far it is legitimate to subsume this category under 'cultural competencies' could be another matter for discussion.) In this cognitively oriented understanding, 'creativity' means divergent and lateral thinking, maintaining and processing dialectic tensions between deconstruction and construction, tolerance of ambivalence, the acceptance of different options, working with play strategies, openness and flexibility.[102] Creative abilities and imagination are frequently mentioned by the economic sector in the sense of being instrumental in the improvement of planning and production processes.

'Intercultural competencies' are also scored in some reports as being essential and as candidates for being key competencies. Intercultural competence demands may be based

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[98] New Zealand: see footnote 109 below, Switzerland: SWISSMEM-Project see footnote 7.

[99] New Zealand. Full text Country Report*: 'Biggest gains will come from turning the full power of knowledge, creativity and innovation to adding value and applying new technologies to those areas in which we have traditionally excelled. Examples have included: producing food and textiles; developing niche products and markets that build on natural advantages; biological developments to enhance animal, plant and human health.'*

[100] The German report makes allusion to this fact: 'cultural competencies' is not a member of commonly known sets of key Competencies announcing that a Project of the BLK (Conference of the Federal and Länder Ministers of Education) dealing with Cultural Competencies could be 'a particular German Contribution to DeSeCo.'

[101] The Norway Core Curriculum is one of these exceptions. There under the heading 'The creative human being' a broad canvas is unfold. Describing traditions that should be integrated in education we find texts as the following: "Education must therefore build on our cultural traditions, mediated by body and mind, embedded in arts and crafts, in language and literature, in theatre, song, music, dance and athletics. This tradition unites emphatic ability and expressive force."

[102] Typical for this cognitive orientation is for instance the wording in the New Zealand Report describing 'creativity' in a list of generalized competencies: Creativity: including the ability to identify and define a problem, and apply existing knowledge and understanding to its solution; the ability to think laterally, to take risks, to make new connections between old ideas.

on different needs: (1) the needs of multicultural and multilingual countries, (2) needs having to do with communicating and living together with migrant populations (partially aiming to integrate them), and (3) needs evolving from globalization processes, mainly in the economy but existing also in other sectors. The needs described at (2) and (3) exist in all countries involved in the CCP. However, the emphasis placed on enhancing 'intercultural competencies' from differs substantially from country to country. Multilingual Switzerland, for instance, mentions intercultural competencies, but not very prominently, and mostly in relation to communication and languages. In New Zealand they are defined as being indispensable for its social development.[103] Also Belgium (Flanders) views 'participating actively in society with respect for its multicultural dimension' as a core social competence. But the overall picture is that intercultural competencies are referred to less than might be expected.

The same is true for 'media competence'. Quoting one report[104]: 'Distinctions are necessary between reality and virtuality, between relevant and irrelevant information, and between authentic and less credible information.' But there are surprisingly few references to this much-needed competence. One reason could be that most countries consider it as part of more general competencies – but this could be worth discussing.

Last and least: aesthetic competencies. They are almost absent from Country Reports. One possible technical reason for this has been already mentioned. Another reason may be easily assumed: the position of aesthetic education in most school curricula. The arts are viewed positively, but as not essential. Their functional position may be exemplified by quoting from the summary of findings of the Austrian DeSeCo Workshop: 'The question arose as to what specific contribution the fine arts subjects could make to the development of competencies.'

Health, Sports, Physical Competence: Exaggerating somewhat but not too much: reading through Country Reports you could forget that humans are corporal beings. Even considering that the discussion forums, workshops and documentation and reporting procedures in the CPP may have unwittingly discriminated against voices coming from realms linked to these domains, it is not easy to understand why competencies related to health care, relationship to one's body, physical fitness, and competence in sporting activities remain ignored when countries are asked to identify key competencies. It is difficult to judge if this is a result of some misunderstanding of DeSeCo intentions[105], associated with the idea that you don't need international comparative studies for assessing sport, or perhaps to do with other reasons. But all this wouldn't hold for health awareness, health-care attitudes and capabilities, competently relating to one's body, or integrating one's physical corporal within a holistic development of one's identity.

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[103] New Zealand summarizes these intercultural competencies as essential for its development as follows:
'Competencies based on self-knowledge, tolerance and respect, to enable New Zealanders to accommodate the diverse range of views, philosophies, traditions, backgrounds and cultures. Competencies, determined by Mäori, related to Mäori language, culture, values, protocols and practices competencies, determined by Pacific peoples in New Zealand, related to Pacific languages, cultures, values, protocols and practices.

[104] Country Report Germany.

[105] Thinking that it is narrowly linked to Indicator Development in the INES tradition.

Not surprisingly, it is mainly in youth development programs[106] that these demands are taken into account; some are mentioned in few Country Reports. In the Austrian 1999 Curriculum, 'Health and Physical Ability' is mentioned as one of five broad areas in which cross- and interdisciplinary co-operation is required. 'Health' is also present in the Swiss constructs used for building an indicator system for a Youth Adult Survey.[107] But across all the reports, mentions of health are scarce.[108] And even where indicators related to this area of competencies exists, health competencies are not integrated into consolidated lists of desirable key competencies.

We close this review of key competency areas as documented in the Country Reports by mentioning that there are some competency areas which are identified only in one report. This does not mean, of course, that these areas should not be discussed seriously. One example is 'economic competencies' in the German report, which is justified by a thorough argumentation. Another would be 'system orientation' which appears in the US report: 'competencies aimed to understand social, organizational and technological systems'. So, to summarize in a table:

[106] One of these programs mentioned in the US Country Report is the so called '4FYD'Skills Program, 4FYD for 'Four Fold Youth Development Model', where of the four dimensions is 'Health' in a broad understanding. (Purdue University, U.S.).

[107] See footnote 14. But also the constructors of this Swiss Indicator System to assess the Overarching Competencies of Young Adults mention that health is not very frequently put forward as an educational goal in Swiss curricula.

[108] All the same, the Swedish Report mentions that employers asked in interviews considered 'Health' most important.

Table III: Frequency of Mentions of Key Competency Areas in Country Reports

HIGH	**MEDIUM**	**LOW**
Social competencies /Co-operation	Value orientation	Cultural competencies (aesthetic, creative, intercultural, media)
Literacies / Intelligent and applicable knowledge	Self -competence /Self-management	Health / Sports /Physical Competence
Learning competencies / Life-long learning	Political competence /Democracy	
Communication competencies	Ecological competence Relation to Nature	

Relating to DeSeCo's Generic Key Competencies

There exist two very different perspectives when relating key competencies derived from the country reports to DeSeCo's generic competencies. One perspective considers if a match or correspondence may be found between the set of key competencies presented by the country, and the generic competencies presented by DeSeCo; the other perspective analyses theoretically the concept and the criteria proposed by DeSeCo for (generic) key competencies. In this section we will briefly address the first perspective. The second will be discussed under Section 6: 'Assessing and Developing DeSeCo.'

The Country Reports rarely offer explicit statements on the convergence or divergence between the many competencies considered under different headings in their texts and DeSeCo's generic competencies. But there are a few exceptions. Here, we consider these inputs and make some additional inferences.

Austria, Germany, Sweden and Switzerland point out the parallels between categories of overarching goals described in their school curricula and in the generic competencies[109].

The German report reflects more extensively on the general congruence between the catalogue of key competencies it proposes,[110] and the generic competencies. It considers particularly the concept of 'tool',' using knowledge as a tool' and 'doing things with knowledge' very relevant. The DeSeCo thinking 'that this generic competence implies not only using the tool and being able to use it effectively but also understanding how the tool affects the way one interacts with the environment' is emphasized as being essential by underlining the relevance of knowledge about knowledge (meta-knowledge). Some other countries explicitly support this comprehensive interpretation of 'tools'. Generally speaking, the generic competence 'Tools' is so broad that no big problems exist in putting many of the key competencies identified by CCP under this umbrella.

Similarly, there are no problems with the generic key competence: 'joining and functioning in socially heterogeneous groups'. The prominence of social and

[109] For the German-speaking countries namely the categories Self-, Social- and Fact (Tool) Competence.

[110] This catalogue lists the following competencies: Intelligent and applicable knowledge, Learning C's, Instrumental C's, Social C's, Value orientations, Thinking in networks, Meta-knowledge, Communicative-, Media-, Economic-, Cultural- and Intercultural Competencies and Motivation.

communicative competencies, which considered highly important, is evident among all participating countries. Many of these competencies of course are not restricted to heterogeneous groups. Even where that is the case, some countries consider that stressing 'heterogeneous groups' makes sense both socially and politically.[111]

More controversial are attitudes to the generic key competence which states that 'Competent actors are able to act autonomously and reflectively'. Even if we assume that acting autonomously and reflectively is (also without saying) an underlying assumption linked to the idea of being competent in all participating countries it was noticeable (see pp 25,26) that 'self-competence' as such was not explicitly mentioned as key competence in many reports; and in our 'Frequency Table' it occupies only the Medium Range.

One issue related to 'autonomy' is raised in the Austrian Country Report under the heading 'dialectics between freedom and control'. How should we define the limits of autonomy? What if 'autonomy' merely meant people doing what they were expected to do, but doing it 'self-steered' i.e. by themselves?

The dilemma facing New Zealand has already been touched on briefly when discussing 'Self-Competence'. The arguments brought forward considering its Maöri community are of considerable weight. The individual autonomous actor is seen as a traditional western paradigm grounded on competitiveness. We are invited to reflect on the relationship between the three elements in this generic competence: individual, autonomous and reflective. Reflectiveness may not necessarily be conductive to the assertion of individual action. Individual behaviors and actions may be rooted and/or legitimated by the collective community striving for consensual solutions. There may be collective actors. Autonomy may be desirable, but limited by the collective community.

We may argue, of course, that DeSeCo is working in the OECD context of 'western societies' but we should bear in mind that – when looking at cultures that are fundamentally different from ours – the universal validity of our assertions should at least be problematized.

Going back to considerations on all three generic competencies, we can see that the problem of universalism is not often raised in other Country Reports considering generic key competencies as such, but rather key competencies in relation to changing learning and working contexts. 'Competencies are nor static nor universal' states the Swedish Country Report. Another criticism appearing in some reports refers to the (too) high level of abstraction in formulating the generic competencies[112]. But as far as this can be assessed, most countries take a positive position.

Our last remark on this topic refers to the catalogue of key competencies as assembled in Table III (Page 31)[113]: These competencies could be partially related to DeSeCo's generic competencies:

- Self competence, self-management, learning competencies and lifelong learning and, to some degree, value-based competencies in fields such as politics,

[111] That is for instance the German position.
[112] The Austrian report mentions that stakeholders in the discussions expressed the view that discourses rising to such heights of abstraction may become irrelevant for practical purposes.
[113] And described in detail on pp. 22-29.

ecology, culture and health could be related to 'competent actors are able to act autonomously and reflectively'.

- Social competencies, communication competencies, and value orientation are related to 'join and function in multiple heterogeneous social groups'. And these competencies are applicable to competency areas such as sport, intercultural contexts, democratic participation and so on.
- Literacies / intelligent and applicable knowledge are obviously 'tools in particular language, knowledge, laws, technology'. And the definition of this generic competency points to the fact that the tools are functional and specific to areas where competencies are applied (in our list: communication, politics, culture, nature and health.)

Analytical Remarks and Issues

Key competencies: are they prerequisites for competent action, or fields of competence?:

We are only signaling the problem here. (See the discussion under Section 6 related to the conceptualization of 'competence'). We note here that Table III shows clearly the two types of key competencies. No list of competencies delivered through the Country Reports could conceptualize competencies only as internal dispositions or only as external tasks, though the action orientation could be stronger or weaker.

Should sectoral or inter-sectoral strategies be the main focus when identifying and selecting key competencies?:

The DeSeCo philosophy strives to cover all arenas. As mentioned already, many Country Reports put a strong emphasis on context. The question has both a fundamental and a methodical dimension:

As to the fundamental dimension: some countries express doubts as to how far it is possible to define competencies not related closely to concrete knowledge and skills in circumscribed societal fields. Belgium (Flanders), for instance, contests the feasibility of a 'common project' both in terms of the labor market and personal development: 'the only thing that may be left is a fairly "grey" list of key competencies that are formulated in an extremely generic way and establish no more than a vague frame of reference.'

As to the methodological dimension, the problem of how to proceed may be alleviated by using a multilevel strategy: first defining 'roles', fields of activity and prototypical activities in these fields, and then searching for competencies based on overlapping activities and roles. This strategy is suggested implicitly in some Country Reports and it was adopted effectively in US projects.[114]

Role-specific or role-transcendent key competencies?:

Methodologically this strategy (of first mapping role-specific activities and then look for role-overlapping activities to identify key competencies) seems to make sense. But the underlying supposition is that by definition competencies are 'key' because they cover various social fields. Now there is a problem here if we assume that when defining roles the differential profile could matter at least as much as the overlap between the

[114] Namely the EFF-Project see pp. 22-23.

roles. That for example when living in a family or partnership the decisive (key) competencies would not be the overlapping ones with other roles[115]. In this interpretation 'key' means 'specially suited to best performing a specific role', or role-category. This issue is not simply *redundant* with the call for context. The difference is that roles have already a high degree of abstraction and are context-free. Some countries have defined thus competencies related to roles.[116]

Convergence or divergence between key competencies postulated by sectors?:[117]

This issue, though being related to the one above, deals not with strategies and categorization but with content. The Swedish report boldly points to possible divergences: critical thinking (as learned in school) may strike back in the working life. And, also quoting Sweden: 'Working life must be able to lean towards and accept the kind of competencies offered or produced by schools.' This is a remarkable statement because it is not drawn from the usual discourse in describing power relations between the economy and education. Mostly, schools are criticized by business for not delivering what is in demand. But the Swedish quotation may serve as a stimulus to reflect on the balance between 'emancipation' and 'human capital' oriented key competencies[118]. While – at least on the surface – the convergence in the Country Reports between demands coming from the economic and the educational sector is high, more hidden divergences may remain.

Developmental perspective when defining and identifying key competencies?:

Where addressed in Country Reports[119] the necessity of such a perspective was, in principle, supported. But this was more in the sense of assuming that the acquisition of competencies has an inherent developmental dimension than in the belief that there are specific key competencies appropriate for different age groups.[120] Several Country Reports stated explicitly that we always should bear in mind that key competencies are only partially (and maybe not even largely) acquired in schools and formal education but are learned throughout life, through experience in one's family, interaction with peers and the community, and in other contexts.[121]

Key competencies: of whom, for whom and at what level[122]?

The question of whether key competencies should focus on individual, collective or societal competencies is raised in some texts. (We include this here briefly as it is an

[115] For instance: Kegan relies heavily on Roles when analyzing 'the mental demands on modern life: Kegan, R., (1997) In over our heads – the mental demands of modern life. Cambridge, Massachusetts: Harvard University Press.
[116] Namely Finland and U.S.
[117] Describing key competencies in the Education and Economic Sector this issue was already taken up. Here we come back to it on a more generalized level.
[118] The German Country Report also describes possible tensions between an economical versus pedagogical rationality. And the Finish Country Report points to possible polarizations between 'functional' and 'social' key competencies and to the unique position of human rights.
[119] See for instance German and Swiss Country Reports: constructivist paradigm. The constructivist approach is also endorsed in the Swedish Country Report.
[120] But this question was not taken up in most Country Reports.
[121] See e.g. German, New Zealand, US Country Reports.
[122] This issue has been briefly mentioned already in the commentary on inputs from the education sector.

important issue in relation to 'Identifying key competencies,' but it will taken up in detail in the conceptual discussion under Section 6). Implicitly you may sense the criticism that DeSeCo is focusing too much on the individual – which is not entirely justified, since DeSeCo is also interested in group competencies and focuses as well on assessing the demand for societal competencies.[123] But the criticism is mainly aimed at the problem of *possible collective and institutional actors*. In the contribution from France, the importance of taking into account the competencies of organizations is stressed. Another aspect is 'network competence'[124]. This represents at least as much the network's collective competence, as it is the competence of individuals participating in the network. Still another aspect of this issue is highlighted when communities are not only postulated as desirable bearers of responsible action, but when they actually fulfil this role. The case of the Mäori society, in which collective actors may prevail on individual actor, has already been mentioned.

Should basic skills and literacy be included in catalogues of key competencies?:

Most countries do include them. But some ask if this is pertinent. In what sense could basic skills be described as being 'transversal'? The question is posed, but the position of the majority is more in line with the DeSeCo position seeing literacies as 'tools'. Also, carrying on this line of argument – related to inclusion and aggregation – there is the question as to whether IT competencies should be listed separately or not in catalogues of key competencies. Most countries emphasize the importance of these competencies, but opt to include them as a subcategory of literacy.

Assessment, Indicators and Benchmarking

- When measuring educational and training outcomes and evaluating the meaning of learning outcome indicators in your country, are overarching key competencies considered important? If yes, which ones?
- Could you relate qualification standards and assessment practices in the business world (e.g., hiring and evaluating employees) and other social fields to key competencies? If so, which ones? How?
- When participating in international comparative studies on student outcomes and life skills, are there indications in your country of an increased interest in key competencies by policymakers? Are there competency areas in which it would seem especially important for your country to be benchmarked against others

The above questions request specific information on assessment, indicators and benchmarking related to the DeSeCo thematic 'key competencies'. Nevertheless, most reporting countries take rather an unspecific stance and offer a broader picture covering general issues of assessment in the education system and in the economy. Evidently this broader framework is relevant and would add to our comprehension of the narrower focus dealing with key competencies. But the scope of this report forces us to restrict ourselves to the latter.

[123] Sweden also points out the interdependence between individual and societal competencies: 'What is the point of having competence on the individual level it society does not know how to use it?'

[124] Advocated for instance in the German and Swedish Country Reports.

It is helpful to bear in mind that the subjects and objects of assessment may be individuals (micro-level), institutions and organizations such as schools or businesses (meso-level), or systems (education, the economy, other sectors, nations). Discussions in the Country Report may refer to all or to specific key competencies. Countries discuss existing projects as well as the desirability and feasibility of future ones.[125]

We may begin with evaluation, assessments and indicators within the education system, then go to the economic sector and finally come to the national level.

Education

Generally speaking, there are virtually no existing assessment systems in education which are explicitly directed at measuring key competencies. 'Literacies and knowledge' (which are related to the generic key competence 'tools') are obviously assessed, since they represent a substantial part of the school curriculum, but these are mostly classic subject-bound assessments. There are some exceptions:

- Finland reports on building up a framework for evaluating educational outcomes (1999) where the assessment of effectiveness of education is based on 'learning-to-learn' skills, communication skills and the skills needed for lifelong learning. The methodology is not attempting to measure these skills directly but is assessing factors, both at the learner's level and in schools, which demonstrate the presence and impact of the acquisition of those key competencies[126].
- New Zealand is implementing a 'Curriculum Stock-take' (2000-2002) to evaluate the impact of its curriculum reforms of the 1990's. As its curriculum framework (1993) builds on sets of competencies which are completely in line with key competency areas (see page 11) it can be expected that the results will throw some light on these.
- Also relevant for DeSeCo is the increasing introduction of systems of certification for achievements and competencies.[127] In 1991, France initiated at the national level a 'balance of competencies'[128] to assess personal and professional competencies, attitudes and motivation through interviews, portfolios and autobiographical journals and so on.[129] A second example is provided by the Swedish government, which set up a special committee (2000, 2001) to propose ways of certificating proficiency and competence within and outside the formal education system. Even when these certification modules are not targeted directly at assessing key competencies, it is clear that by explicitly addressing competency problems, they are potentially an important source of information when inquiring into what key competencies mean in adult lives.

[125] Obviously this is not the case for all Country Reports; we are confronted with the same problem of heterogeneous information as in the previous chapter.

[126] Learning competencies for instance should be assessed by relating cognitive performance to attitudes and beliefs. How are new (given) tasks accepted? How are new tasks solved with existing skills – looking at the capacity to transfer skills and abilities to new situations? How may we identify a willingness to explore, to assess situations, to set goals and to direct oneself towards tasks, etc? It is assumed that by systematic observation of these factors inferences on socialization and internalization processes relating to the 'self image of the learner', etc. are possible.

[127] This is reported by Finland, France and Sweden but developed also in most other countries.

[128] 'Bilan des Compétences', law December 31, 1991.

[129] By this instrument behaviors such as participation in the civil society (associations, trade unions, etc.) are registered as proxies for the existence of competencies.

As to the desirability of developing evaluation instruments or/and indicators targeted to assess key competencies in education and particularly in schools, the opinions expressed differ substantially from country to country. Some countries indicate some interest in principle in developing such instruments; others are strictly against it, fearing standardization and negative side effects[130]. Sweden, for instance, taking a critical position as to indicators related to key competencies at the micro-level (individuals), supports the development of organizational indicators to assess conditions in schools favorable to the development of key competencies (school climate, curriculum).[131] Other countries (such as France and the Netherlands[132]) also consider meso-level indicators (schools, organizations) as an option to be considered – and preferred over the micro-level.

The problem of the feasibility of developing key competency-oriented assessment instruments in education is an issue in some reports, mainly referring to difficulties involved when looking at competency areas such as social competencies, value orientation and even learning competence. On the other hand there are countries such as Germany[133] and U.S.[134] which point to research, studies and surveys which represent progress in this area. It is also worth mentioning that there are particular domains such as foreign language learning (Council of Europe, European Union)[135], and value orientation (as present in youth surveys) where measurement instruments, scales and standard criteria have already been devised.[136]

The Economy

In the economic sector it is the norm to work with qualification schemes which are closely related (at least in the labels employed) to key competencies. Categories such as co-operating in groups, communicative competencies, initiative and ability to cope with change are widespread[137]. The information available through the CPP does not offer much detail of actual practice in the business sector. Probably, it is largely pragmatic; but if we were to survey this area, we might well find research-based measurement instruments, scales and even indicators.[138]

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[130] Netherlands, for example, points to the possible effect of: 'negative labeling and classification of groups at risk'.

[131] The Swedish report considers the possibility of developing such systemic institutional indicators on the basis of curriculum, school-climate and classroom information targeted to assess topics such as: desire and power to learn, participation in heterogeneous groups, time availability for discussions, working environment (psycho-social, physical, aesthetical), and conditions enhancing creativity.

[132] Netherlands: '*it would be very useful to develop the sets of competencies and the indicators on the macro and intermediate level. The legal and psychological implications on the individual micro, however, are presently very unclear, so development of practice at this level is not suggested.'*

[133] The German report provides comprehensive information on research (in Germany) covering: intelligent (domain specific) knowledge, applicable knowledge, learning competency, method-related key competencies, social competencies and value orientation.

[134] See e.g. the Research Program 'SEARCH' (see footnote 19).

[135] The Finish report mentions 'DIALANG' a diagnostic language test featuring 14 languages developed by the Council of Europe that will be operational at the end of 2001. (Foreign) language standards are being also developed in the European Community.

[136] Reference to the International Comparative Studies below.

[137] This fact is commonly known. It could be further verified by interviews with stakeholders from businesses, lists of qualifications in use, etc.

[138] A few hints as to such developments are given in Country Reports: e.g. Belgium (Flanders) points to the development, in businesses contexts, of special assessment techniques e.g. for social &

In many countries (such as New Zealand) registers of standards[139] have been developed in a national framework and/or by industries, labor-market departments and organizations and so on.[140] These lists of standards are partially categorized in a similar fashion to catalogues of key competencies. So the way is open for studies which would, for example, document by inference the extent of provision or demands related to sets of competencies (that may be aggregated to key competencies) in relation to the labor market.[141]

National Framework

Many Country Reports include information on countries' participation in International Comparative Studies (IEA-Reading-Literacy, TIMSS (TIMSS R), IALS (SIALS), IEA-Civics, PISA and ALL). The fact that these studies are mentioned (and in some reports also commented on) is evidence that these studies are for most of the countries participating in the CPP a powerful developmental lever – not only in 'benchmarking' but perhaps even more to gain an overview which would afford a deeper insight into educational outcomes within their national framework. A special DeSeCo-Report will be available on this topic so we will not go into details here.
Three points may be touched on:

- (1) Studies as IALS, Civics, PISA and ALL already cover – implicitly or explicitly – DeSeCo-relevant elements by showing specific (key) competencies (e.g. in civics) or by including transversal perspectives in the development of measurement instruments (e.g. defining 'literacy' as understanding information on different levels of complexity in IALS, PISA and ALL).
- (2) In many countries considerable research effort has been invested in analyzing results, expanding the scope and further developing aspects of these comparative studies. In other cases the studies have triggered research aimed at developing instruments linked to transversal dimensions (e.g. problem solving)[142]. The enormous amount of data accumulated in recent international comparative studies – if enriched by analytical research – would be for DeSeCo and its follow-up activities an invaluable source of knowledge on possible directions in developing assessment instruments and indicators related to key competencies. Some of the reporting countries have such possible developments in mind.

communicative competencies: the simulation of group-problem-solution exercises, systematically observed by assessors.

[139] Labeled also essential skills and knowledge, core qualifications, etc.

[140] New Zealand report: 'Register of standards forming the National Qualifications Framework'. US Department of Labor (see footnote 13).

[141] One way is analyzing job advertisements – see example p. 16 – but there are many other ways e.g. entering data banks of organizations operating in the labor market, etc.

[142] The German Country Report gives impressive examples of such research e.g.: *'Given that TIMSS has shown that mathematical competencies can be arranged meaningfully on a continuum ranging from basic arithmetic skills across routine procedural knowledge to complex problem solving, the respective metrics can adequately map vertical transfer – or the lack thereof. (Baumert, J., Klieme, E., & Watermann, R,. (1998) Analysis of differential functions of items based on results of IEA-TIMSS (translation from German title).*

- The participation of countries in international comparative studies may be (in most cases) a useful proxy for establishing their interest in being benchmarked internationally[143].

Particularly interesting for DeSeCo is the route chosen by Denmark to assess fundamental dimensions of societal competence in its 'National Competency Account'. As already described: 127 indicators taken from very different sources are assembled to provide a Danish profile of competencies benchmarked against six countries. What is challenging is the fact that this 'Account' is not constructed simply around criteria of economic effectiveness but based on an encompassing concept of key competencies (compare p. 16).

As described above (see pp. 21-22) a few projects have been developed at the national level specifically to assess key competencies (for example, Switzerland and U.S). Clearly, these are highly relevant – and should be taken into account – in any further development of indicator systems related to key competencies.

Benchmarking

Finally: do countries want to be benchmarked against others on key competencies or not? The answer – some yes, some not – may not be sufficient.

Some countries state simply that the political pressure to do so – at least in practice – is low. Others put forward arguments against such as development. Sweden for example – a country which traditionally scores highly in international comparative studies – takes, as mentioned above (see p. 37), a strongly critical attitude to the development of indicators, whether nationally or internationally, based on measurements at the individual level, and related to key competencies. The Swedish message is: don't measure individuals on key competencies; 'stick to measuring the prerequisites of learning (e.g., characteristics of schools, rights of employees with regard to further education, infrastructure for adult learning) …Otherwise there is a risk that the solution (measuring competencies) will become the problem itself, i.e. the measurement of competence will block the way of developing competence!' Belgium (Flanders), which expresses a general interest in developing indicators related to key competencies, nevertheless has doubts as to the feasibility and desirability of benchmarking in international comparisons related to key competencies. Instead, Belgium favors a network-approach, proposing that: 'Countries select themselves the key competencies they want to study whilst taking into account their own context'.

Some countries did not specifically address the benchmarking question. The positive position taken by Germany, Switzerland and the US may best be expressed by the following simple argument: benchmarking between countries on students' and adults' knowledge and skills (and, implicitly, competencies e.g. literacies or civics) is a fact of considerable weight in today's educational policies and it is difficult to imagine that this development is reversible. As far as possible (and somewhat limited by difficulties in developing adequate valid instruments) it would make sense to enrich the indicator

[143] Two caveats: 1. Benchmarking is not the only and often not the strongest motive to participate in these studies. Countries profit from the possibility of assessing their own situation nationally and regionally. 2. Some countries participate in these studies but have considerable reservations as to the 'benchmarking' philosophy.

systems which already exist, and are being developed for international comparative studies (benchmarking being one of its ingredients) by adding instruments which would assess transversal (key) competencies. But care should be taken – as is already the case when actually constructing indicator systems – to make sure that cultural and other biases are taken into account.

Summary:

1. With few exceptions in education no assessment systems related to key competencies are reported. Systems of certification could serve as a valuable sources of information for DeSeCo developments. Issues surrounding the desirability and feasibility of developing measurement instruments on key competencies in the education domain are controversial.

2. 'Key competencies' (in various configurations, catalogues and aggregations) are used frequently in qualification systems in the economic sphere. But mostly the approach is pragmatic; no sophisticated instruments have been developed.

3. The research and development work directly or indirectly connected to large international comparative studies in national frameworks is highly relevant for DeSeCo. It is also encompassing research and development on key competencies.

A few large projects at the national level aimed explicitly at assessing key competencies will be an important foundation for further developments of scales and indicator systems.

4. There are clear-cut arguments for and against 'benchmarking' on key competencies put forward by countries

Public Debate – Negotiating and Legitimating

- In the last decade, has there been a public and/or professional debate in your country on key competencies in different arenas and social fields (politics, civil society, economics, business, labor, mass media and communication, education)? What are the main topics being addressed? What is the relationship between education and key competencies? Has the debate spanned different arenas and social fields?
- In the field you are coming from, do you perceive relatively consensual or controversial positions regarding the definition and selection of key competencies? Could you describe the most influential positions? Who are the main actors and stakeholders?
- Are there mechanisms in place to define, negotiate, and select 'what really matters' in terms of key competencies? Are these negotiating procedures and decision-making processes on the agenda of educational, social, or economic policies?

We may begin with a plain but significant statement: in all reporting countries a public debate related to key competencies has taken place, but on very different levels and in very different formats and styles.

There is an example of nationwide public debate in the US – where 'National Educational Goals'[144] were proclaimed. This led to extensive political and development work around desirable and needed competencies, partly carried out by governmental committees, panels and partly through research. Or consider the case of the Danish 'National Competency Account 2000' (mentioned above see p. 17) which, with its very critical judgment of Denmark's overall competences, doubtless provoked public debates[145]. Or, a third example, there is the initiative of the President of Germany in creating a 'Forum Bildung (education)' – an expert panel convened to elaborate on crucial educational goals (see above p. 11).

But most of these reported debates are fairly low key. Usually the debate is not explicitly about key competencies – but implicitly so. It tends to arise – many countries reported this – when educational programs and curricula are being planned, conceptualized and developed, especially, it seems, in vocational education. Occasionally, the debate is led by initiatives based on economic development policies, though the demands of the economy are obviously in the forefront when discussing key competencies.

We may distinguish also between an open political debate – most probably controversial – and an insider debate taking place during consultative procedures and/or in committees – which is more likely to be consensual (often bringing in opinions from government, businesses, trade unions, teacher associations, educational institutions, political parties and research). The latter case is reported much more frequently than the first.

Debate in the Education Arena

Most often, key competencies are discussed as overarching educational goals when educational reform is envisaged, and a process of developing school programs and curricula has been initiated. In many countries today this is no longer an insider affair restricted to educationalists. Stakeholders in all the relevant sectors are involved.

The following issues are mentioned by countries:

- 'Key competencies' as a term is becoming an important buzzword in the debates on educational change, without ever being specified or defined. The call for 'key competencies' is used as a lever to energize criticism on 'what schools don't deliver'.[146]

[144] 1989 by President Bush and the governors fixing goals related to 'Student achievement and citizenship', 'Adult literacy and life-long learning': National Education Goals Panel (1999) The National Education Goals Report: Building up a nation of learners, Washington DC: US Governing Office. http://www.negp.gov/reports.

[145] Also the Austrian Summary of the DeSeCo Workshop mentions that the DeSeCo discourse is embedded in a broad debate on a national framework: *The question as to which competencies are required at the point of transfer from school to working life is currently being addressed nation wide, at working group level and in studies with particular emphasis on the trade of between the generality and the vocational specificity of competencies.*

[146] Austrian report.

- Key competencies are invoked when conceptualizing (new)[147] economic and social requirements and subsequent demands on schools; they appear not merely as vague terms but more directly related to specific key competencies.
- The process of giving meaning and content to 'key competencies' when discussing new curricula and programs. What does it mean in a school context to stimulate social participation, educating for citizenship in a democratic society? How should social and cognitive development be linked?[148] An intense dialogue on key competencies when constructing new curricula in general education could lead to a better understanding and convergent priorities.[149]
- A debate between supporters of transversal versus subject-specific knowledge and skills being promoted in (new) school curricula. In this debate: *'key competencies sometimes seem to be understood as substitution of knowledge or even "antagonist" against knowledge'.*[150] This debate may be highly controversial (and emotional!).[151] But in most cases – as reported – even antagonists find ways of understanding that key competencies are in demand as a way of enlarging domain-specific qualifications, and not as a substitute for them.
- Related to this is an debate (mostly in education circles) on the acceptance and feasibility of assessing key competencies as 'soft' versus the 'hard' tradition of assessing knowledge.[152]
- In many countries, an opportunity for widespread debates on key competencies seems to have been the introduction of new modules, programs and curricula in vocational training in many countries. One obvious reason for this is that here the interface between education and the economy is particularly extensive. Projects reflected in Country Reports demonstrate that the overarching goals are defined very similarly to key competency catalogues. But we also find some 'classical' topics opened up to discussion: how important are 'personal' competencies as opposed to job-related? how much should flexibility and transversal learning be emphasized versus skills related to professional life? and so on.[153] But overall the reports signal more consensus than disagreement on this topic.
- Similarly to the stimulus offered by developments in vocational education, dealing with adult education leads to dialogues and debates on the required competencies[154]. France is currently engaged in constructing an inventory of competencies for adult education comprising literacies, numeracy and so on. One of the issues is identifying which skills, knowledge and competencies should be taught and learned on which level. What attainments should be taken for granted for, for instance, at the end of schooling?

[147] Often the requirements and demands are in fact not so new, but invoking them as 'new' seems to strengthen the argument.
[148] Report Netherlands.
[149] Report New Zealand
[150] Quote; German report.
[151] The German report gives the example of the president of the German Teacher Association publishing a criticism against key competencies, which he describes as 'a destruction of educational content'.
[152] e.g. New Zealand report, but mentioned also in others.
[153] In the Netherlands this debate was linked also to newly legislating Vocational and Adult Education.
[154] Reported also by Sweden.

Debate in the Economic Arena / the Economy and Education

No much public debate is reported on key competencies from within the economic sector[155]. Denmark, when shaping its industrial development policy, looked for areas of competence related to innovation. Topics discussed were: the use of IT, the ability to acquire new knowledge, vision of life-long learning, entrepreneurship. Sweden reports a pilot study (1997)[156] stating that: *'One important result of the study was that employers very often had an unclear picture of young people's competence. On the other hand employers could often give a concrete description of the knowledge and skills they believed were important to have.'* This is – without too much irony – quite consistent with the fact that in the political realm employers freely refer to 'key competencies' when identifying the needs of the economy related to technological change.

Many reports discuss the general issue: is the public debate on key competencies characterized by convergence or divergence between the economy and education?[157]. The general conclusion is that there is a large and increasing convergence, especially in the last decade. Nevertheless some reservations are also expressed, as exemplified by a pointed comment in the German report: *'much rhetorical but little substantial overlap (in Germany) between lists of skills, qualifications, attitudes and values presumably required by the economic sector and the articulation of educational objectives in the pedagogical field.'* [158]

The above quotation, of course, opens the door to a question still to be answered: what happens beyond discourses, declarations, debates and programs? This is a question perhaps better left to follow-up activities in DeSeCo and elsewhere. But the reports also point to the other side of the coin. Even though the discourses, dialogues, and debates between the economic sector and education may not always reach the desired degree of consistency and concreteness, this discourse not only uses the term 'key competency', but is in need of precise ideas as to what key competencies are. Without such precise ideas there is no way in which the worlds of education and the economy can really discuss the demands and expectations of both sectors[159].

Concluding and Summarizing

To conclude this section: stakeholders from some important social fields and arenas are almost absent from reports on the public debate. Some examples of these absentees are: parents' associations, political, religious and cultural representatives, groups or organizations, representatives of civil society such as NGOs[160]. (This of course is partly to do with the rather narrow scope and tight timetable of the CCP process.) But to some

[155] This being probably an artifact of the methodology of the CCP

[156] Sweden: The National Agency for Education, Study to assess Educational Needs in Upper Secondary Education.

[157] This being part of a more general debate on essential knowledge, skills and competencies.

[158] But Germany also states that a process is at work increasing the *'coincidence of pedagogical and economical rationality'.*

[159] So it may be not accidental that – as mentioned in the German report – the 'inventor' – 1974 – (for German speaking countries) of the term 'Schlüsselkompetenzen' (literally 'key competences') was an economist: Mertens, the former director of the German Institute for Employment Research.

[160] Representatives of these sectors were present in some workshops. And there are also some relatively infrequent references to be found in the Country Reports to position statements from these perspectives. What is given here is the reporter's overall impression.

degree these absences may also offer evidence as to who has the most influence when discussing key competencies: education and the economy.

The main issue being debated when all sectors are involved is the optimum balance between personal, societal and job-related competencies. This debate is still controversial. Austria for instance sees a continuing tension – albeit diminishing – in the debate, related to the value placed on different sets of competencies: economic value and employability versus broader social, societal, political and individual assets. The relative weight assigned to the demands (and the corresponding competencies) from different sectors of society remains a highly political matter which will never be finally decided.

Summary:

1. A public debate on key competencies takes place in all reporting countries
2. In some countries this debate has a national scale, but in most countries it develops in and between sectors without becoming a mainstream political issue. Sometimes this debate is explicitly public and political, but often it takes place through consultative procedures, in committees and so on.
3. Education is the sector most involved in debating key competencies. Developments in vocational and adult education are particularly likely to stimulate debate on competencies and key competencies.
4. From within the economic sector not much actual debate on key competencies is reported. key competencies tend to be integrated into qualification systems without much debate.
5. Countries mostly report convergence rather than divergence between the economy and education in the discourse on key competencies.
6. When all sectors are involved, the balance between personal, societal and job-related competencies is still a controversial issue.

Key Competencies and Education

- Is the definition and selection of key competencies an issue in your country when discussing, for example, goal setting and the curriculum of the educational system, training in the workplace, or lifelong learning strategies? What prospects are envisaged? What are the expectations?
- Which institutions and/or agencies are responsible for the training of key competencies, within and outside the formal education system? What role(s) do schools play in the teaching of key competencies?
- How could overall policy-making in different sectors, including but not limited to the education sector, promote the teaching and learning of key competencies?

The preceding chapters present quite extensive information already available on issues related to the heading of this section. However, this information could be extended by addressing some additional topics highlighted in Country Reports:

Should key competencies have been an explicit issue when conceptualizing and defining school curricula? It has been mentioned already that in the last 30 years overarching educational goals were increasingly integrated in the development of

curricula – in practically all CCP-participating countries. The similarity of such overarching goals in curricula (and education at large) to key competencies became very clear. But in the same time, and particularly in the last decade, the discourse on key competencies intensified and the question is how directly and explicitly this discourse has already – as well as could and should in the future – been an element in curriculum development. The reported experiences, practices and positions of countries are diverse. The Netherlands, for instance, introduced in its new 1993 curriculum for lower secondary schools six 'general attainment targets' that could easily qualify as candidates for a catalogue of (explicit) key competencies.[161] As already demonstrated, many countries also discussed key competencies explicitly when developing new curricula for vocational and adult education. But some reservations also emerged. How could constructs like 'communication' 'critical thinking', or 'political participation' be integrated concretely and explicitly into curriculum development? However, the overall answer by countries to the question posed at the top of this paragraph is yes, rather than no.

Would the introduction of learning objectives in schools oriented toward key competencies pose 'didactic' problems? The Austrian report characterizes possible barriers coming from traditional teaching (and teachers) very tellingly: *'the teacher steps into the classroom, closes the door and teaches physics. He/She teaches physics and not the pupils'.* This may be seen as a conservative position, a professional failure, a barrier to be overcome, or as a fundamental dilemma. The German report also points out possible risks when discussing key competencies in the context of school: *'The terminology of key competencies is rather easy to be used and there is, indeed, a danger of being drifted to irresponsibility by overemphasizing key competencies and neglecting their close connections to a knowledge kernel.'* The Austrian and German reporters and contributors from other countries take the position, of course, that those who favor key competencies don't intend the destruction of well structured content. At the same time the challenge involved for teacher education is obvious, and is signaled by several countries.[162]

Systemic structural reform as a motor for discussing key competencies: the Country Reports document that systemic structural reform in education often provides an opportunity to engage in debates and development work related to key competencies. This may apply to changes: (1) in the overall structure of the education system e.g. introducing Technical Universities;[163] (2) in specific sectors of the system e.g. teacher education or adult education;[164] (3) in new organizational forms such as networks of

[161] These are: Working on Cross-disciplinary themes, Learning to do, Learning to learn, Learning to communicate, Learning to reflect upon the learning process and Learning to reflect upon the future.

[162] The German report discussing Teacher Education clarifies that teaching in the 'knowledge society' cannot be conceptualized without strong connections to the idea of 'producing knowledge' and without 'authentic experiences' in relevant fields of life. The implication is that teachers should be involved at some stage themselves in research and in professional experiences such as business, health or others forms of work.

[163] In Switzerland the creation of 'Fachhochschulen' (Technical or Professional Universities) had far-reaching consequences for the whole structure of vocational-technical education and triggered broad discussions on which competencies should be taught and learned.

[164] Sweden reports on its 'Adult Education Initiative' 'which is the largest investment ever in Adult Education in Sweden'…'it is mainly aimed at unemployed adults who, either totally or partially, lack three-year upper secondary school'. …One of the goals is that ''by means of increased

(relatively) autonomous schools developing their own educational profile or (4) in new concepts of partnership, linking education to communities[165] and so on. The logic is that where the system is changing, its flexibility increases, allowing the emergence of new synergic concepts such as linking goal-setting to a reflection on key competencies. The Swedish report points out one crucial element in this structural change, which has also relevance for the discourse on key competencies: the disappearing dividing-line between formal and informal education.

The *valuing* of key competencies (in educational institutions) should support context- and development-oriented education and learning: It should be emphasized that key competencies do not exist once and for all. Their dynamic nature should be one of the most relevant aspects to be considered in educational institutions.[166] *'People acquire competencies each time they try something new.'*[167] This has implications for educational institutions: they should optimize the opportunity for developing competencies that can grow and change. In this dynamic process, considering the context is imperative – not least because focussing on context may also uncover latent conflicts. Home and school may foster very different values: the home may encourage adaptation and obedience; the school, autonomy and critical thinking; the reverse is also possible.[168] Other possible discrepancies between different contexts – peers, families, schools, vocational schools, the workplace, the private sphere and so on – should inform the educational options when discussing key competencies.

The political impact of international comparative studies on research and development in education – a chance for DeSeCo: Studies like IEA-TIMSS, mentioned in some reports (Germany, Switzerland), are one of the main factors triggering research work on transversal competencies – as well as the relation of those competencies to subject-bound knowledge and skills[169]. What is especially important in this process is that politicians are highly interested in results on 'student outcomes' such as those provided by TIMSS. As a consequence an unusual interest exists for issues related to these studies; this is leading to an intensive dialogue between research and the political sphere. Key competencies are becoming a central theme in this dialogue. But inspecting the reports, it is apparent that this is not the case in all countries. The significance of international comparative studies – in the discourse on key competencies in education – differs significantly from country to country.

Summary:

1. In the last decade, key competencies are increasingly discussed explicitly when developing school curricula, especially in vocational and adult education
2. Assigning more weight in teaching and learning processes to transversal competencies poses problems in relation to teachers' attitudes and capacities. Both are challenges should be addressed in teacher training.

competence and better self confidence these people can attain a stronger position on the labor market.'

[165] New Zealand aims to develop schools as hubs of the community.

[166] The Danish report emphasizes this perspective.

[167] Quote from the Danish report.

[168] The report of the Netherlands mentions this possible discrepancy. The writer of this report could also imagine the inverse discrepancy existing in other countries.

[169] As mentioned above a special report will be available on these large international surveys and studies and their relevance to DeSeCo.

3. Structural reforms in education increase the overall flexibility in education systems and subsystems, thus offering opportunities to reflect on the place of key competencies in curriculum development, learning and instructional practices, and the modulation of different levels of education.
4. Key competencies in education should be conceptualized as dynamic entities which take into account differing and changing contexts (home, peers, leisure activities, neighborhoods, jobs and so on) outside the formal education system.
5. The considerable political impact of international comparative studies on educational outcomes may also catalyze the dialogue between politicians and researchers on key competencies.

Assessing and Developing DeSeCo

- What, in your view, are the highlights and critical issues in the main findings of DeSeCo so far? Do you consider these findings relevant within your national context? How? In any specific contexts?
- How would you relate the DeSeCo Program and, theoretically, its expected results to your own academic, social, economic, or political context?
- Does your country have any proposals for contributions to advance the work in this area?

The following section will summarize countries' statements in relation to: (1) Concept(s) of key competency (as discussed in DeSeCo); (2) DeSeCo's generic competencies (conceptual considerations); (3) The country's likely involvement in future DeSeCo-related initiatives and activities.

Concepts of Key Competency

Countries express both approval and criticism of the conceptual work presented so far by DeSeCo[170]. Some countries[171] have elaborated extensively on the concept of competence.

Beginning with some general criticism:

- Most countries see difficulties in differentiating conceptually the term 'competence' from 'key competence,' and use both indistinctly. As the DeSeCo discussion focuses on key competencies, some find original ways to bypass the semantic problem, for instance by putting key in brackets, thus: (key) competencies.
- Some countries saw 'key competencies' as a woolly term, and reported no scientific or practical consensus as to what 'key competencies' are or could be. The level of abstraction was considered (by some stakeholders) so high that at the end there is nothing to grasp. So a key question would be: on what level should key competencies be defined to make them meaningful and operational?

[170] The best source of information actually available is: Rychen, D. & Salganik, L. (2001) Key Competencies, Hogrefe & Huber, Publishers. (Most of the information contained was available to CCP on Internet and/or in provisory reports.

[171] Belgium (Flanders), Germany.

- What is more: countries report that participants in workshops were not particularly interested in terminological discussions on the difference between terms such as 'essential skills and knowledge', 'basic qualifications', 'standards' and 'competencies' – but this didn't hinder substantial down-to-earth debate on what competencies are needed.

On a more specific level the following critical issues were raised:

- Is DeSeCo dealing with educational goals, outcomes to be achieved, and the assessment of already-acquired competencies in action (performances), or rather engaged in reflection on the meaning and impact of competencies?[172]
- Countries expressed doubts as to whether 'universal' key competencies – to be assessed, for instance, in international comparative studies – could in fact be found at all, due to factors such as cultural differences and differences in economic development.[173] The French contribution states for instance: 'General competencies can only be defined as values being narrowly related to socio-political contexts and therefore to social organizations and concrete work conditions.'[174] In the Norway report we may read: *'DeSeCo deals with relational matters but focuses on the individual level. It defines human beings independently from historic and cultural contexts.'*
- Similar doubts: what kind of weight should be given to (varying) contexts?[175] Competencies may be observed only in concrete situations and contexts. What are the theoretical and conceptual implications of this fact? Is it possible and pertinent to attempt to define context-free competencies?
- Related to the above: when assessing competencies, is it justifiable to focus on the competencies of the individual actor? Or will DeSeCo thinking also be directed towards collective actors such as families, communities, organizations and institutions?[176]
- When bundling and aggregating competencies to key competencies and key competencies to sets of key competencies, is DeSeCo aiming at consistent constructs analyzing the weight, interdependence, cohesion, and potentially invariance of competencies over time or is it simply assembling lists or catalogues?[177] [178] A related methodological problem is taken up in the German report. As an alternative to arranging constructs of competencies based on normative thinking, the report notes that: *'it has to be considered if key competencies shouldn't be thought as internal structure investigated by*

[172] The DeSeCo answer would probably be: it is dealing with all of them. But the criticism shows that DeSeCo should probably make more explicit when and how it is dealing with which level.
[173] The universalism dilemma has been mentioned already above (Section 3.5) related to the selection of key competencies
[174] Although the skeptical position as to 'universalism' is quoted here, there are also contra-arguments taken up for instance in the German report, reminding the traditions going back to Kant, the taxonomy of Kohlberg, etc.
[175] This problem has already been addressed above.
[176] This issue has already been taken up in Section 4 (Assessment).
[177] The latter – assembling a catalogue - is obviously, for pragmatic reasons, the option taken in the present summary report, but this doesn't mean that it is the optimal option – supposing that the research capabilities are available.
[178] Report Belgium (Flanders).

psychological measurement and constructed a posteriori as a result of, for instance, multidimensional classification, factor analysis or the like'.

- Linked to this last point: the Swiss report refers to the problem of the interdependence between 'competencies' and the 'measurement of competencies'. When developing scales and indicators, it becomes evident that the instrument chosen to measure 'competence' determines the underlying construct at least as much as the construct determines the measurement instrument.[179]

But these critical issues having been raised, all countries involved considered the DeSeCo framework useful for engaging in the conceptual debate, and many explicitly *had a positive reaction to DeSeCo's role in developing theoretical and conceptual foundations for key competencies.*

Two Country Reports in particular (Belgium (Flanders) and Germany) reflect much thinking on the theme of conceptualization. Here is not the place to go into their arguments at length, but some highlights are worth emphasizing[180].

Flanders has established[181] its own criteria to define (key) competence, always relating them to and differentiating them from DeSeCo proposals. Three examples for this differentiation follow:

- multidimensionality: Flanders interprets 'multidimensionality' in a different way from DeSeCo. In Flanders multidimensionality refers to the combination of knowledge, skills and attitudes, whereas to DeSeCo it is a combination of different mental processes. The argument is that key competencies with regard to their mental processes, can be considered according to DeSeCo as being composed of five dimensions (coping with complexity, perception, normative, co-operative and narrative dimension).
- mental capacity of a higher order?: Flanders considers this characteristic as too restrictive. This restriction would in fact exclude certain populations from having (key) competencies! Key competencies could instead have 'simple' and 'complex' levels. They should reflect the requirements of tasks (researcher, manager, manual worker and so on). *'Some mentally disabled people also have to and can solve problems at their level that are "complex" to them.'*
- transferable versus transversal: 'Transversal' in the DeSeCo understanding – applying to various areas such as schools, professional life, and family life – is considered by Flanders as being too general to be a criterion for defining key competencies. 'Transferable' is preferred: *'a competence which was acquired in a specific context, can be transferred to other situations, that differ in varying degrees from the original learning environment.'*

The above criterion-oriented discussion uncovers a more general question present also in other contributions: are the characteristics and dimensions suggested by DeSeCo to be seen as binding attributes of key competencies – meaning that if these attributes are not present we should not speak of key competencies? Or are they 'only' elements of

[179] The empirical work in the Young Adult Survey (YAS) has put this forward in evidence.
[180] In the German report 14 pages are dedicated to the theoretical discussion.
[181] Flanders (Education Department) has formed a group of 40 persons (participating in a survey and a workshop) initiating a broad debate. The report draws on it.

key competencies which to a certain degree would probably be found in most key competencies? As DeSeCo's task is to define competencies there should be no ambiguity on that, and the question remains open to further discussion.

The German report places much emphasis on clarifying the fact that definitions generally[182] obey a logic of being: 'or defined by enumerating sets of entities referred to – extensional definition – or by explicating sets of properties with specific relevance for certain problems – intentional definition.' The reporters[183] express the convincing view that in DeSeCo both approaches are necessary. This being the case, it is very relevant to bear in mind that in the conceptual discussion on competencies we should be aware at every juncture of which of the two methods of defining is being used. When discussing competencies as external demands and classes of tasks we are defining extensionally;[184] when dealing with internal (mental) dispositions we model intentionally.[185]

But beyond this necessity for formal transparence, the problem for DeSeCo still is and will be – as stated also by the German report – how to define key competencies using both types of definition. The problem, as described already by Franz Weinert,[186] is difficult to solve.[187] The optimistic assumption put forward is: 'that there are some internal structures (or features of structures) that enable us to cope with varieties of different tasks and demands. The metaphor of the key represents this hopeful hypothesis.' Commenting on this hope, it may be observed – a little sarcastically – that the findings of this report demonstrate how difficult it will be to fulfil it. Regarding the catalogue of identified key competencies (see Section 2) it is obvious that they can be clearly classified as belonging to the category of prerequisites to do things (potentials, dispositions, internal structures); or to fields where things are done (action- or competence fields).

Another issue discussed in the German report is the relation between complexity, taxonomy and hierarchic order when looking at key competencies[188]. The authors consider that, if DeSeCo is serious when saying that key competencies should 'refer to a higher level of mental complexity', it would be necessary to test key competencies by a taxonomy to be defined. Bloom's famous 'Taxonomy of Educational Objectives' (TEO; 1956) is considered insufficient for this purpose. One basis could be the classification of knowledge into: factual, conceptual, procedural, and meta-cognitive knowledge. Taking into account the developmental perspective in conceptualizing key competencies we

[182] In the philosophy of science.
[183] Ralf Witt (Technical University, Dresden) and Rainer Lehmann (Humboldt University, Berlin)
[184] This extensional quality of a definition also doesn't change (say doesn't become 'internal') by saying that a competence is the 'ability' to do this or that – as explained in the German report.
[185] From the point of view of the writer of this Summary I may say that considerable confusion is created all the time in DeSeCo discourses by not differentiating these two definition formats.
[186] See Weinert, F.E.: 'Concept of Competence: A Conceptual Clarification' in Rychen, D.S & Salganik, L.H. (2001) Defining and Selecting Key Competencies. Hogrefe & Huber Publishers (p. 45-66)
[187] One of the difficulties resides in the fact that on the one hand given tasks require combinations of knowledge, motivation, experience and so on, but on the other hand given knowledge, motivation, and attitudes can contribute towards solving a variety of problems and to cope with different tasks! (German report).
[188] The French contribution also addresses this issue stating that is seems doubtful that key competencies could be defined on one dimension following an hierarchic order.

could also refer to the levels of complexity proposed by Kegan[189]. Going one step further it is proposed that taxonomies (taxonomy tables) could be read 'inversely': 'Not first selecting content and then assigning operations but first selecting an operation (say 'explaining') and then reflecting on its structure with the intention of creating new content on a higher level.'

Among the many additional aspects discussed in the conceptual part of the German report, one point remains to be mentioned: the new relevance of knowledge in the 'knowledge society'. Knowledge is not only a prerequisite for doing good work, but becomes part of the work.[190] And being a fundamental qualification for all, it becomes 'part of the worker'. But in a still broader context: 'knowledge (in particular scientific knowledge) is the abstract generative power underlying and creating new conditions of life.' Here the relevant conceptual issue when selecting key competencies is that: they (key competencies) are demanded for doing things with knowledge and for understanding the knowledge underlying things and conditions around.'[191] Seeing knowledge in this way – as meta-knowledge – is not only relevant in selecting competencies, but also when defining them. You do not only need knowledge to become competent; knowledge itself becomes a competence[192].

Generic competencies (conceptual considerations)

In section 3.5 the question of how key competencies, as selected through the CPP, relate to DeSeCo-Generic competencies, was discussed. Here we address briefly a few countries' inputs to the definition of generic competencies as proposed by DeSeCo.

Basically, three positions are represented in the reports: (1) Generic competencies are so 'ambitious', general and aggregated to such a high level of abstraction that they become useless for practical purposes in defining and selecting competencies[193]; (2) Generic competencies are a good start for reflecting on key competencies and for further debate; (3) Generic competencies are a well-founded solid basis for conceptualizing key competencies. Without precise enumeration, the proportion adhering to each position is about one third; some countries put forward both critical and supporting arguments.

The 'negative' assessment argues that the definition of generic competencies is generally too ambitious. When breaking down generic competencies into key competencies, it remains unclear if generic competencies are a general framework for the classification of key competencies, dimensions of all key competencies, or supra-key competencies themselves. Many of the critical arguments go more specifically to the content level in discussing the relationship between generic competencies – e.g. the

[189] See Kegan, R. 'Competencies as working epistemologies: Ways we want adults to know'. In Rychen, D.S. & Salganik, L.H. (Ed.) (2001) Defining and selecting key competencies. Hogrefe & Huber Publishers. p. 192-204.

[190] So knowledge – as was always the case in research work – becomes a basic qualification for both workers and employees.

[191] It is stated that in philosophy such knowledge is called meta-knowledge. It is not identical with meta-cognition which is restricted to the knowledge on one's own cognitive processes and cognition.

[192] This is relatively consistent also with defining a key competence area as done in this paper as: 'Literacies / Intelligent and Applicable Knowledge'.

[193] This position is endorsed for instance by the French contribution

'autonomous actor' – and concrete key competencies. (These arguments are to be found under 3.5.)

The 'neutral' assessment says that generic competencies may serve as an orientation framework which is useful in initiating a more concrete debate on key competencies. It is pointed out that the three dimensions: individual, social, and functional/instrumental (tools) – analogous to the three generic competencies – were, in the history of education, often considered as a possible classification scheme.

The 'supporting' assessment endorses the 'in process' perspective which DeSeCo itself envisages when proposing generic competencies. The fact that these generic competencies are explicitly defined allows a detailed conceptual discussion. This theoretical and empirical discussion could clarify problems such as the interdependence between the generic competencies, as well as the interdependence between these and (catalogues of) key competencies[194] – a work of clarification that is also considered necessary by DeSeCo itself.

Countries' Involvement in future DeSeCo-related Initiatives and Activities

By participating in the CCP the 12 participating countries have already demonstrated their interest in DeSeCo. In different ways, many countries envisage being associated with activities related to the 'key competencies' in the future; nevertheless most will be cautious.

Options were presented in country reports as follows:

- For some countries DeSeCo provided an opportunity to engage in a public debate on key competencies, a debate to be followed up in the future[195]. The Austrian DeSeCo Steering Group, for instance, wants to widen the scope of the public discourse from representatives of the educational system and employer/employee organizations to involve religious and political lobbies more closely and thus diversify the range of interest groups involved[196]. An event designed to have a major public impact is planned.
- Other countries that are interested in continuing the work in this field but at a national level - possibly co-operating or networking with other countries – than being engaged internationally. New Zealand for example takes the position that: *'Unless key competencies are integrated into learning and assessment programs in schools and are encompassed within national expectations of the education system, it is premature to incorporate them into sets of indicators'.* Belgium (Flanders) proposes that, in an national context, countries should choose which key competencies they want to work on, and then network with other countries interested in this approach[197].
- Several countries consider the ongoing and future DeSeCo-related research – in individual countries, and in co-operation between countries – as the critical factor for future progress in this field. The Netherlands suggests as a concrete

[194] A matter of discussion also in the German report.
[195] Belgium (Flanders) and Austria make specific reference to this.
[196] Austria also plans a Delphi Study among Austrian Opinion Leaders.
[197] Norway points to national projects e.g. identifying non-formal competencies for adult education. 'Folkehogsole'. (Adult University, 'Ny kompetanse' (New Competencies) and 'Kompetansereforment' (Reform of Competencies).

follow-up activity: *'Establish concrete projects in identifying dimensions that have highest priorities and develop instruments to measure these appropriately. New areas in these CCC's should be included, such as care for other persons and/or attitudes related to environmental issues'.* Germany[198] and Switzerland[199] put much emphasis on this future research, which should interweave theoretical foundations with empirical work.

- An enormous potential for following up DeSeCo's work lies in research and development activities, both nationally and internationally, connected with major international comparative studies (such as TIMSS, IEA-Civics, PISA, ALL). Many countries refer to these possibilities, mentioning and/or explicitly proposing research work that should be aimed at improving the theoretical and empirical basis that could underpin the future development of scales and indicators in relation to key competencies.[200]

Summary :

1. Some general criticism is expressed in relation to the concept of 'key competencies': (a) the difficulty of differentiating 'key competencies' from 'competencies'; (b) an overall lack of focus of the concept; (c) the low level of interest in terminological discussion.

2. Specific conceptual issues are: (a) the problem of 'universal' key competencies; (b) the problem of context; (c) the question: only individual actors? (d) the option: are key competencies aggregated lists or a set of coherently structured concepts? (e) the interdependency between constructs and measurement instruments.

3. Countries contribute their own conceptual inputs related: (a) to the criteria defining key competencies; (b) to theoretical considerations such as the dimensions of competencies, the relations between complexity and taxonomy, relating key competencies to knowledge and meta-knowledge.

4. The assessment of DeSeCo's generic competencies by countries goes from 'useless for practical purposes' to 'excellent foundation for further theoretical and empiric work.'

5. Most countries are interested in further work related to DeSeCo and key competencies on different levels: nationally, networking between countries or/and working internationally.

[198] The German reports considers that on the programmatic DeSeCo level there are clear research needs – *cf.* the rather loose connection between the philosophically developed "five dimensions" (CANTO-SPERBER & DUPUY 1999) and "dimensions of human ability" as defined by (educational) psychologists – this would be a major goal for future activities.

[199] In Switzerland the Youth Adult Survey (YAS) working specifically on key competencies-related scales and indicators could serve as a platform for international research co-operation in this area.

[200] As mentioned above these perspectives will be on the agenda of the DeSeCo, February 2002 Symposium on the basis of a special report.

Conclusion: An Open Agenda

These concluding remarks – though connected to issues present in the preceding text – aim to serve as an incentive to further reflection on the work and dialogue within DeSeCo. Without strictly following this order we will proceed from more process-related to more content-related topics[201]:

Identifying and measuring key competencies: How can the dialogue and interaction between politics and research be improved? By introducing large international comparative studies on educational outcomes in the OECD countries, mainly in the last decade, the overall weight of research in educational assessments has increased significantly. DeSeCo exists within this tradition. But, as demonstrated in this report, politics play – and have to play – their role. When considering DeSeCo, the question as to how key competencies should and could be defined, assessed and measured is obviously both political and scientific.

The impression given by the Country Reports is that the interaction between both sectors on problems related to DeSeCo is not always very strong or clear, and maybe there is a deficit in the political debate. More difficult still is the question of how to build a constructive dialogue between politicians and researchers on the precise questions that DeSeCo (or its follow-up activities) will face when making decisions, based on the results of the DeSeCo Project, as to which key competencies are nationally and/or internationally the most relevant to be assessed? A strategic issue well worth discussing.

How could the definition, selection, and measurement of key competencies be developed by (better) linking theoretical assumptions to empirical validation? The reader of this report will have noted the large number of question marks. At the moment we are still witnessing a marked parallelism between theoretical and methodical/empirical discourses. This will have to change if we aim to make serious progress in this terrain. To give examples: many of the issues and problems already formulated by Weinert[202] and being discussed in some Country Reports – such as the relation between key competencies conceptualized as 'classes of tasks' and as prerequisites (*internal structures*) – can only be clarified by theoretical / empirical interrelated research. The same applies when discussing, for example, the consistency of certain constructs being considered as key competencies – e.g. the dimensions of self-competence. There is not much sense in continuing a 'theoretical' discussion of those issues without converting them into research questions to be looked at. Here the strategic question would be: how might we do this, which experiences do we have already, how could we better exploit knowledge already existing or suggest a research agenda?

Specifying in the DeSeCo process purposes and levels of analysis. DeSeCo aims to meet a broad array of ambitious objectives.[203] One of the problems which surfaced in

[201] All the questions and issues are of course related to key competencies – without this being repeated in each heading.

[202] See Weinert's contribution in 'Defining and Selecting Key Competencies' (Rychen & Salganik Ed.) (2001) Hogrefe & Huber Publisher, Concluding Remarks pp. 62-63).

[203] Pro Memoria: as stated in the Background Paper to the CPP these are: Advance theoretical underpinning of key competencies, provide a reference frame for indicator development, propose a

the CPP was that these different purposes frequently obey different logics and demand different lines of argument. At the beginning of the DeSeCo work, this broad scope was necessary and productive and it will be necessary also at the end. But during the process – for instance when discussing these issues in and between countries – it may be helpful to clarify at each moment what is in debate on key competencies: are we involved in a general philosophical / scientific and/or political discourse? are we discussing foundations for social and/or educational policies? are we looking at educational assessment (and/or self-assessment)? are we discussing quality standards in or within sectors? or are we talking about scales and indicators for intra- or international comparison studies? Doing all of this at once becomes laborious and may be counter-productive. The strategic issue for further DeSeCo work – and any follow-up – is maintaining open and different tracks without forgetting that ultimately there will be a need to bring them together in the OECD/INES context which aims to develop indicators for international assessment of education.

To which unit of analysis should key competencies refer: individual, collective, institutional or societal? In most of the reports this was a critical matter and in some a matter of criticism. The disapproval was not so much conceptual – saying that the unit of analysis was not clear enough – but criticizing DeSeCo for focusing too exclusively on individual competencies[204]. For further debate and work in DeSeCo it would be helpful to make still clearer the fact that individuals, partnerships and families, groups, institutions (such as schools, community groups and other organizations) and entire societies may be both actors (individual and collective subjects possessing competencies) and the object or field where those competencies are activated. This means that individual competencies may apply to individuals, partnerships and groups. Collective competencies may have effects on individuals, groups, the community itself and societies. This shouldn't be a matter of controversy, but of clarification. It is of course appropriate for DeSeCo to reflect mainly on individual competencies, as well as on competencies of families, groups and communities. But in any further work we should possibly differentiate more. It could be rewarding to think about how (and how differently) catalogues of key competencies would be conceptualized, defined and selected when thinking not of individual actors only but of partnerships/families, groups or communities as possessors of competence.

The old story: universal versus culture and context-specific: Reading through the reports we are regularly confronted with differences of opinion for and against a 'universal' approach. But to a large degree this seems to be a mock battle. Nobody who supports the idea of universal key competencies is suggesting that these competencies could not or should not be related to concrete social and cultural contexts. And almost nobody who believes that competencies cannot be sensibly discussed without relating them to specific contexts and socio-political conditions will deny the existence of universal values. It seems that this issue cannot be decided 'in principle' without specifying which are the competencies being debated and without invoking the reality of contexts and cultures.

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basis for interpretation of empirical results, encourage an iterative process between theoretical and empirical work, provide feedback for education policy.

[204] DeSeCo stated explicitly also its interest in group competencies but this seems not to have been accentuated enough.

Cultural differences are obvious. People live according to differing rules, communicate differently, develop differing formal and informal conventions and so on. But even so, it could be postulated that key competencies may be defined – as is the case for instance in this paper and in many proposals in the Country Reports – in a generalized way, though the actualized form that these key competencies will take when applied to specific contexts will differ from context to context. A practical proposal for making progress in this debate might be: Why not discuss more precisely – having in mind a particular key competency – as to what the socio-cultural differences between OECD countries really consist of that would not permit a particular to competence to be validly assessed. Should or could this competence be redefined, changed for another, or dropped entirely?

Where is the 'good life'? The famous Delors Report[205] says that education is built on four pillars: to learn to know, to learn to do, to learn to live together and live with others, and to learn to be. To learn to be: one of the questions posed by DeSeCo when defining the Project's objectives was to ascertain if 'a set of competencies of prime importance for a successful life and effective participation in different fields of life – including economic, political, social, and family domains, public and private interpersonal relations, and individual personal development – could be identified.'[206] 'Competencies for the Good Life and the Good Society' was the title of a philosophical contribution by Canto-Sperber and Dupuy to the 1999 DeSeCo Symposium.[207] The intention of DeSeCo was to avoid a merely functional approach when defining and identifying competencies; 'successful life' was conceived as a rich, rewarding life. When reviewing the whole DeSeCo debate – including what was described in this summary report – it is not hard to see that what might be called the 'To be' competencies' have some difficulty holding their own against the 'To do' and the 'To know' competencies.' The imbalance is very apparent. This is not the place to analyze the reasons, which have more to do with the condition of our societies than with DeSeCo itself. 'Joy of life' may seem like a rather indefinite quality. But at the end of a text on key competencies the question: 'what is it all about?' is not irrelevant. To reflect further on this question would be challenging and exciting.

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[205] UNESCO. (1996). Learning: The treasure within. Report to UNESCO for the International Commission on Education for the Twenty-first Century. Paris: UNESCO.

[206] Quote: Rychen, D.S. Introduction in. Rychen D.S. & Salganik L.H (Ed.)., (2001) Defining and Selecting Key Competencies. Hogrefe & Huber Editors, p. 2)

[207] Canto-Sperber, M., Dupuy, P. published in 'Defining and Selecting Key Competencies' (2001), see footnote above. pp. 67-92.

Annex 1 - CCP Methods / Summary Report

COUNTRY **CCP-Coordinator**	**RESPONSIBLE GOVERNMENT DEPARTMENT / AGENCY**	**MANDATED INSTITUTION / PERSON(S)**	**METHOD(S) TO OBTAIN REPORT DATA**	**FORM OF REPORTING**	**AUTHOR(S) OF REPORT**
AUSTRIA Erich Svenic	Ministry for Education, Science and Culture / Center for School-development II (ZSE)[208]	ZSE HSI ('Employment, Qualification, Innovation')	Creation of a national DeSeCo Working Group / Workshop / Interviews with selected Experts / Analysis of documents	Summary Report, 7 Pages) Expert report, 44 Pages)	Erich Svenic Lorenz Lassnigg / Kurt Mayer
BELGIUM /FLANDERS Rita Dunon	Education Department	CCP Coordinator	Creation of a working group / Written survey / Workshop	Summary Report	Rita Dunon
DENMARK Peter Vogelius	Danish National Competence Account (NCA)	NCA Secretariat	NCA's Analysis of Ongoing Competence related processes and initiatives Documentation	Memorandum (Report) & 10 Annexes	Group of Authors (NCA)
FINLAND Ritva Jakku-Sihvonen	National Board of Education	National Board of Education (mandated persons)	National Seminar (Experts) on key competencies / Analysis of documents and literature	Report	Aulikki Etelälahti & Annika Sahi
FRANCE Pierre Vrignaud	Ministry of Education Department of Planning and Development[209]		Workshop	Workshop Minutes	
GERMANY	Federal Ministry of Education and Research	Technical University Dresden (Prof. Ralf	Analysis of ongoing projects, initiatives documents and	Report & extensive	Ralf Witt & Rainer Lehmann

[208] Bundesministerium für Bildung, Wissenschaft und Kultur, Zentrum für Schulentwicklung, Abteilung II
[209] Ministère de l'Education Nationale, Direction de la programmation et du développement

Hermann Müller-Solger		Witt) & Humboldt University Berlin (Prof. Rainer Lehmann)	literature (Expert-paper)	bibliography	
NETHERLANDS Jules L. Peschar	Ministry of Education, Culture and Science	University of Gronigen Department of Sociology / ICS	Workshop & Written statements	Summary Report	Jules L. Peschar & Marieke van der Wal
NEW ZEALAND Marion Norris Frances Kelly	Ministry of Education	Ministry of Education (mandated persons)	Semi-structured interviews with key-players / Document analysis	Report	Frances Kelly
NORWAY Alf H. Westrheim	Ministry of Education Research and Church Affairs	University of Oslo Department of Teacher Education and School Development & Norwegian Institute for Studies in Research and Higher Education	Call for written statements of representatives of key institutions and organizations Analysis of curricula and other documents	Report	Erik Knain
SWEDEN Jenny Soukkan	National Agency for Education	Director National Agency for Education	Workshop / Study based on documents and literature	Report	Group of authors
SWITZERLAND Uri Peter Trier	Swiss Federal Office of Statistics (SFOS)	Personal Mandate: Uri Peter Trier in collaboration with the DeSeCo Program Manager: Dominique Rychen	Symposium organized by the SFOS / Interviews with Representatives and Experts / Analysis of documents and literature	Report	Uri Peter Trier
U.S. David Miller	U.S. National Center for Education Statistics	American Institutes for Research: Education Statistical Services Institute	Workshop / Workshop Minutes / Written statements / Documentation on DeSeCo-related Projects	Report	Uri Peter Trier

Annex 2 - The Sources for 'Identifying Key Competencies' in Country Reports

There is a wide array of sources from which mentions and lists of competencies and key competencies are drawn in the Country Reports. Some are more frequent and have more weight than others[210], but this may partly be an artifact of the methodology used. An overview of these sources follows, organized by domains.

Education:

- School curricula and/or analysis of curriculum documents, national or regional curriculum frameworks. These are some of the most important sources of information. Relevant competencies may appear implicitly in curricula as overarching educational goals or learning objectives, or explicitly as structural elements in designing curricula.[211] A curriculum may cover in some cases the whole of the education system[212] but generally applies only to one sector: primary, secondary or (very rarely) tertiary education.
- Curricula and programs in vocational education[213], particularly curriculum developments and the development of special programs for initial and continuous professional education which in the last decade have addressed key competencies. These initiatives are often developed jointly by representatives from the educational and economic sector.
- Initiatives and programs related to adult education. Most of these include explicit thinking related to transversal competencies.
- Educational programs and goal setting by national (or in some cases regional) committees, councils, panels and organizations. Such committees frequently address essential competencies and may be influential in national education policies.[214]

The Economy

- Programmatic position papers on essential qualifications, skills and competencies from stakeholders in the economic sector such as employer organizations and trade unions. Such programs may be also based on joint initiatives from representatives from the economy and educators, relating demands in the economy to desired educational outcomes.[215] [216]

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[210] For each category of information some salient examples from the Country Reports will be mentioned in footnotes.

[211] See Norway: Core Curriculum for Primary, Secondary and Adult education in Norway (1997), National Centre for Educational Resources: http://www.nls.no ; New Zealand: The New Zealand Curriculum Framework (NZCF) (1993); curriculum@minedu.govt.nz

[212] This is the case of both examples of Norway and New Zealand above.

[213] Switzerland: SWISSMEM (Employers of the Machines, Electro and Metal Industry): Global Competencies for the Vocational Training. http://www.swissmem-berufsbildung.ch

[214] See: U.S.A.: National Education Goals Panel (1999) The National Educational Goals Report: Building a nation of learners (US Governing Printing Office); Germany: Forum Bildung: Preliminary Guidelines (2001) a joint Forum of the Federal Ministers of Education and Research and the Federal Ministry of Education: http://www.forum-bildung.de

[215] See Austria: Volkswirtschaftliche Gesellschaft / Industriellenvereinigung (1997) 'Qualifikation 2012'. (Organization of Industrial Employers: Qualification 2012: The demands for a changing professional world'; Sweden: The Swedish Trade Union Conference: 'The learning working place',

- Curricula and programs for businesses-based continuous education.
- Qualification schemes developed and used in businesses when selecting, qualifying and promoting employees (only few mentions)
- Qualification lists related to standards of quality control. Such lists are quoted in some reports, but not exploited for further information on key competencies.[217]
- Qualification and skill lists developed by governmental and non-governmental agencies responsible for managing and monitoring human resources (employment) in the labor market, inter alia providing vocational and professional orientation and guidance.[218] [219]
- Analysis of desired qualifications in job advertisements[220]
- Assessment and certification of professional (and educational) formal and informal assets[221] (including portfolios, biographic and autobiographic information and so on). Potentially, developments going in this direction could provide very enriching insights for DeSeCo. In the Country Reports some initiatives are referred to, but they are mostly not exploited for specific information on key competencies.
- Reports from national accountability bodies.[222] The few examples in Country Reports which describe national efforts to construct a system of accountability utilizing a broad array of competence-related indicators suggest that DeSeCo could gain a wide range of relevant insights from this area.

Research and Development (R&D)

- National R&D projects aimed specifically at defining and selecting key competencies and developing indicator systems. Although not numerous, those project are highly relevant sources because they directly address the main concerns of DeSeCo.[223]

US: SCANS (1992) Learning a Living: a blueprint for High Performance, US Government Printing Office.

[216] See B-HEF (1999) Spanning the chasm: A Blueprint For Action, Washington DC: Published by B-HEF and B-HEF (1997) Spanning the Chasm: Corporate and Academic Cooperation to Improve Work-Force Preparation

[217] See for instance ISO certification systems or DIN Standards by the German Institute for Standardization.

[218] See U.S.A. US Department of Labor: O*Net Online: 'Beyond Information: Intelligence – a comprehensive package of Skills. http://www.online.onetcenter.org

[219] In the German report the following mention: the German Institute for Standardization (DIN) published a catalogue of criteria for assessing the achievement of key qualifications (GRANDKE, SCHMITT, EMMERICH & HENTSCHEL 1998).

[220] See Germany: Bundesinstitut für Berufsbildung (Federal Institute for Professional Training) (1999): Demands for cross-professional qualifications and competencies in job advertisements. http://www.bibb.de/beruf/qou/infoqua/biste993.htm

[221] See France: Bilan de compétences (Competency balance) a development based on an article de law of December 31, 1991

[222] See Denmark: The National Competency Account 2000. House of Mandag Morgen, Strategic Forum. http://www.mm.dk

[223] See Switzerland: Youth Adult Survey: Grob, U.& Maag-Merki K. (2001) Überfachliche Kompetenzen, Theoretische Grundlegung und empirische Erprobung eines Indikatorensystems (Tranversal Competencies, theoretical foundation and empirical validation of an Indicator System), Berne: Peter Lang: ugrob@rzu.unizh.ch; U.S.A: Equipped for the Future / Content Standards: What Adults need to know and be able to do in the 21st Century, (EFF Project) National Institute for Literacy (NIFL): http://www.nifl.gov

- Findings related to secondary analysis, at the national level, of international comparative studies such as IEA-Literacy, IALS & SIALS, TIMSS & TIMSS R, and IEA Civics.[224] In some countries extensive national studies related to international comparative studies have been carried out. These have triggered reflection on issues related to competence in and beyond the international studies themselves.[225]
- Research findings and research panels aimed at developing reference frameworks for specific sets of competencies and key competencies.[226]
- Research-based youth development programs. Youth development programs monitored mostly by national or regional boards, NGO's or foundations could of course also be listed under 'Education'. The reason for listing them here is that they are generally embedded in extensive research activities, many of them dealing expressly with the identification of core competencies and assets.[227]
- Expert panels and reports, scholarly essays and other literature. As may be expected by the process proposed in the CPP Background Paper these sources are not frequently used in the Country Reports – but there are exceptions.[228]

DeSeCo CCP Workshops and Activities

- Minutes and analysis of contributions at CCP workshops
- Invited statements by stakeholders of the different sectors to the CCP process
- Results and analysis of interviews with key-holders
- Answers to surveys

According to the intentions of CCP process as suggested in the CCP Background Note this information was at the core of the Country Reports, insofar as the above activities took place. But in all reports it was complemented and considerably enriched by the sources of information listed above.

Listing the many sources from which information was drawn when countries engaged in the CPP process has the merit of putting forward clear evidence that the focus of attention went far beyond specifically identifying and selecting key competencies for DeSeCo. The reflection on competencies is enriched by looking at mainstream national efforts to develop and improve education and training

[224] In some Country Reports also thoughts related to the conceptual work in PISA and ALLS are mentioned, especially those connected with CCC developments.

[225] See: Germany: Baumert, J., Bos, W. & Lehmann, R.H. (Ed. (2000) TIMSS/III – Dritte Internationale Mathematik- und Naturwissenschaftsstudie. – Mathematische und naturwissenschaftliche Bildung am Ende der Schullaufbahn (2 books) Opladen: Leske + Budrich (TIMSS/III – Education in Maths and Science at the End of Schooling.)

[226] See Finland: 'Learning to Learn – adaptation to changes and unanticipated tasks in maintaining the cognitive and affective self-regulation *in-and-of* learning action. University of Helsinki, Group lead by Jarkko Hautamäki (see Hautamäki, J., Arinen, P., Eronen, S., Hautamäki, A., Kupiainen, S., Lindholm, B., Niemivirta, M., Pakaslahti, L., Rantanen, P., Scheinin, P. (2001) Measuring Learning-to-Learn: Competencies and Beliefs- a Framework for Educational Assessments.

[227] See U.S.A. 'Developmental Assets, 40 critical factors for young people's growth and development' (1997) SEARCH-Institute: http://www.search-institute.org

[228] Germany for instance annexed a bibliography of 237 entries mostly quoted in the German report.

Summary :

1. In the Country Reports we are confronted with an impressive variety of sources of information.
2. The most important sources emerge from curriculum development, programs for initial and continuous professional training, programs for adult education, youth development programs, qualification schemes coming from the economic sphere, and research-based projects focussed on competency assessment and indicator development.
3. Competencies and key competencies were often only implicitly and not explicitly addressed in the original documentation reported – for instance in curricula.