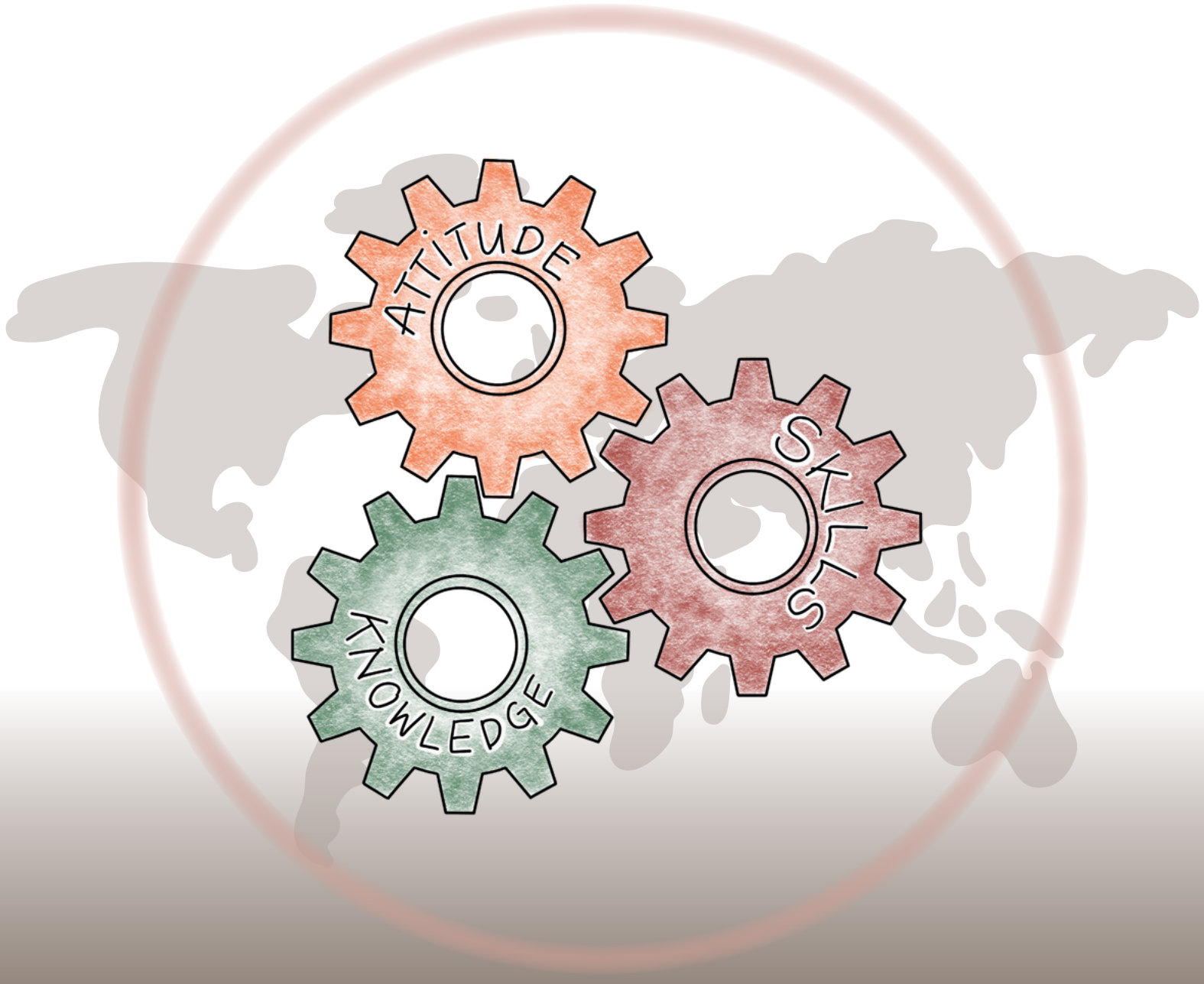
Future trends and competencies for the Swiss international cooperation sector



cinfo
The Swiss Centre of Competence for International Cooperation

ETH zürich
NADEL
Center for Development and Cooperation

Impressum

REDACTION
Nadel:
Kimon Schneider
and Jasmine Neve

cinfo:
Irenka Krone-Germann
and Loraine Ding

GRAPHIC
cinfo:
Anita Langenegger

www.cinfo.ch

October 2022

Contents

List of tables and figures

Acknowledgements

We have been supported by numerous people in this joint study with cinfo. Thanks go to the 212 NADEL alumni who contributed through the survey. And special thanks go to our key informants who in addition to the survey took part in a reflective discussion and validation inspiring us with their questions and comments. Key informants include: Barbara Hintermann from Terre des hommes (Tdh Lausanne), Cheikh Gueye from the Lichtenstein Development Service (LED), Faye Ekong from Ravel Works Africa, Fritz Brugger from NADEL, Graziella Rizza from the European Commission (EC), Hilda Liswani from We Bloom, Jan Artem Henriksson from the Inner Development Goals (IDG) Initiative, Jessica Gauch from foraus, Matthias Boss from Swisspeace, Melchior Lengsfeld from Helvetas Swiss Intercooperation (HIS), Michael Emery from the International Organisation for Migration (IOM), Nicole Ruder from the Federal Department of Foreign Affairs (FDFA), Nicoletta Lumaldo from Tero Solutions, Nuru Ayiemba from Ravel Works Africa, Rupa Mukerji from Helvetas Swiss Intercooperation (HIS), Santosh Mehrotra from the Center for Development Studies at the University of Bath, Shruti Patel from NADEL, Stefan Germann from Botnar Foundation, Jessica Gauch from Foraus, and Thierry Buchs from the Federal Department of Foreign Affairs (FDFA).

Executive summary

The International Cooperation (IC) sector is dynamic, and challenges both new and experienced professionals in terms of lifelong learning. Like all of society, the IC sector is experiencing change, and the required competencies for practitioners are shifting as a result. Subject-specific competencies are not enough to work in an increasingly complex world. Integrating and fostering method-specific, social and personal competencies into development professionals' learning journeys (work, further education) can help them acquire and deploy their subject-specific competencies at their very best at work and in society

The objective of this study is to analyse which competencies will be important to respond to the needs of the IC sector of the future, with a focus on the year 2030, and the Swiss context. To achieve this, the study first explores emerging trends specific to the IC sector; secondly, in light of these trends, which competencies will be needed; and finally looks into how such competencies can be developed, including challenges to develop competencies, and recommendations for how training institutions, employers and professionals should respond. The findings of this study are based on literature, a survey of 230 predominantly Swiss IC professional, and 19 key informants. This study makes use of a competencies framework that embraces the integration of skills, knowledge and attitudes.

On the most part, there was broad consistency between survey respondents, key informants, and literature regarding the most important trends for IC for the year 2030. **Climate change, human displacement and migration, water scarcity, nexus (peace, humanitarian and development), increasing inequalities, fragility**, and digitalisation and technological change were considered among the most important trends for the IC sector by survey respondents and key informants. Collaboration with the private sector, and localisation/decolonisation, or a fundamental shift in the relationship between the Global North and Global South were points of difference. They were rated among the most important trends for key informants, but were not ranked highly by survey respondents. Some of the highly rated trends related to specific thematic issues that the sector will need to adjust to, such as climate change, digitalisation or water scarcity, while others pointed to a fundamental shift in the relationship between actors and the foundations of the sector to date. Literature, as well as interviews with key informants highlighted the systemic and interrelated nature of many of these trends, and the nuances in the way these trends will manifest. These findings support trends that are reflected in literature. Several of these trends will have implications for competencies.

In light of these trends, the competencies that were considered the most important for 2030 were **collaboration, cooperation and teamwork, adaptability and flexibility, systems thinking, and critical thinking**. Collaboration, cooperation and teamwork were linked to the proliferation of new actors, including private sector actors, as well as localisation of the IC sector. Adaptability and flexibility were linked to trends including nexus-based approaches based on growing interlinkages between development, humanitarian and peace work. Systems thinking was linked to (geo-)political considerations and the systemic issues of climate change, water scarcity, migration and conflict. Critical thinking incorporates attitudes that key informants saw as related to the trend of localisation of the IC sector, and the broader perceived need to reflect on approaches more critically. While these links provide meaningful connections between emerging trends and future competencies, any work requires multiple competencies, and these links are not exhaustive or exclusive.

Acquiring or developing competencies implies the integration of knowledge, skills and attitudes. Mechanisms to acquire or foster knowledge, skills and attitudes include mentoring, peer to peer learning and coaching; formal training; practice-oriented placement/experiential learning; leadership/organisational learning; and self-learning. These mechanisms tend to focus more often on knowledge and skills. Certain mechanisms offer more, others less opportunities necessary to acquire relevant attitudes.

Challenges to develop the identified competencies include structural issues with the sector that inhibit flexibility or promote short-termism, which in turn limits the focus on long term competency development; organisational challenges including a lack of a systematic approach and structure to enable competency development, or organisational cultures that prohibit openness or do not value the 'right' competencies; personal mindsets that resist or fear change; lack of suitable options; and societal barriers including discrimination.

Overarching recommendations that cross-cut these highly rated competencies, and apply to training institutes, organisations and professionals alike include:

- Provide/seek opportunities for high and transformative integration learning processes, such as reflecting while doing, and self-critical reflection in action (meta-cognition), in order that a learner's mental models can be challenged and revised.
- Connect learning to reality (including complex realities) and provide/seek opportunities for active learning. This can be achieved through experiential learning (including learning on the job), mentoring, and integration of practitioners in training approaches.
- Allow time for collaboration and teamwork, in particular interdisciplinary teamwork, discussion, and reflect on these processes.

- Create/seek a safe space and environment in which competency development is valued and enabled, where people can openly reflect, question and challenge ideas, mental models and assumptions.
- Adopt an intentional competency development approach that focuses on the definition and fostering of knowledge, skills and attitudes. The highly rated competencies in this study could act as a starting point.

The top three recommendations for IC organisations, as prioritised by key informants, are:

1. Foster an organisational culture that enables competency development at all levels, including the leadership level. This was viewed as a longer-term strategy.
2. Enable experiential learning and peer to peer learning (mentoring, group work, coaching). This was viewed as a shorter-term (immediately implementable) action that could contribute to longer term organisational change.
3. Adopt explicit competency-based procedures that incorporate knowledge, skills and attitudes, and include time for competency development. This was viewed as a short to medium-term strategy that could contribute to longer-term organisational change.

The top three recommendations for training institutes, as prioritised by key informants, are:

1. Integrate on the job assignments, field exposure or internships within or alongside formal study programmes. This will help students to embed their learning in complex realities.
2. Adjust curricula flexibly to include new topics and new competencies.
3. Explicitly integrate competencies in teaching, including knowledge, skills and attitudes and include self-reflection.

The concluding chapter provides some recommendations for further research, including how to create the 'organisations' needed for the future of IC sector to enable effective deployment of competencies.

1. Introduction

The IC sector is dynamic, and challenges both new and experienced professionals in terms of lifelong learning. Like all of society, the IC sector is experiencing change, and the required competencies for practitioners are shifting as a result.

Research on global megatrends, or trends that affect society as a whole has been around for some time. According to Deloitte (2017), a leading scenario planning and trends analysis organisation, there are at least 35 key drivers of change, feeding into about ten mega-trends, which according to their definition, impact all sectors, and therefore also the IC sector. Global trends that are often cited in institutional and academic literature include climate change and resource scarcity, urbanisation and demographic change, digitalisation and technological change, and growing inequalities (Deloitte, 2017; PwC, 2015; Szmigiera, 2021). Research on 21st century or future 'skills' has emerged relatively recently, for instance, through the World Economic Forum (2020), or the OECD (2018), and deals with the question of which competencies will be needed for the future workforce. Research on how to effectively develop such competencies is still nascent and, in some cases, inconclusive. Few studies have looked at future trends and competencies comprehensively from the perspective of IC or the United Nations Agenda 2030 for Sustainable Development.

This study aims to address this research gap, with a primary focus on the Swiss IC sector. The objective of this study is to analyse which competencies (skills, knowledge, and attitudes) will be important to respond to the needs of the IC sector of the future, with a focus on the year 2030. To achieve this, the study first explores emerging trends specific to the IC sector; secondly, in light of these trends, which competencies will be needed; and finally looks into how such competencies can be developed, including challenges to develop competencies, and recommendations for how training institutions, employers and professionals should respond.

This study was carried out by cinfo – the Swiss Center of Competence for International Cooperation, and the NADEL Center for Development and Cooperation at the Swiss Federal Institute of Technology, ETH Zurich.

1.1 Research questions

The following research questions guide this study. Each question builds upon the previous:

- Which trends (including fields of activity, types of interventions or working methods) will become more important for IC by the year 2030?
- In light of the identified trends, which competencies will be needed to work in IC by the year 2030?
- How can such competencies be developed for new and experienced professionals in IC?
- What are the key challenges to develop these competencies?
- How should training institutions, employers and professionals respond?

1.2 Methodology and limitations

The study uses a mixed methods approach, including a literature review, key informant interviews, and a semi-structured online survey comprising NADEL alumni. The main purpose of using three methods was to triangulate findings.

Literature review

A short literature review of was conducted addressing all research questions, including trends and competencies in IC. The literature sources included academic literature from a range of disciplines, organisational reports, and in some cases blogs or non-peer reviewed articles. Key search terms included: megatrends, trends, future skills, 21st century competencies, and employability. References of the selected literature sources were checked for further relevant articles. A list of trends and competencies were identified through the literature review, these were then reviewed, complemented, and shortlisted by the ETH NADEL team based on those deemed to be relevant to the IC sector. The shortlists of 24 predefined trends and 24 pre-defined competencies are included in Annex 1: List of predefined trends based on a literature review (see p. 35) and Annex 2: List of predefined competencies based on the literature review respectively (see p. 36).

Semi-structured survey

A semi-structured online survey was sent to 776 NADEL alumni who have completed or are pursuing a Certificate of Advanced Studies (CAS), Masters of Advanced Studied (MAS) in Development and Cooperation, or single courses between 1994 and 2020. The return rate was 27% (212 respondents). NADEL alumni work in a broad range of IC organisational types, with different functions, levels, and at head and field offices. 85% of survey respondents stated that they work in an organisation or job related to IC. NADEL alumni work primarily in development cooperation (as defined below), however, many also work in humanitarian aid, a smaller number in peacebuilding, and at the intersection of humanitarian aid, development cooperation and peacebuilding. The survey collected data related to research questions 1 and 2 above. The survey questionnaire is provided in Annex 3: Semi-structured survey (see p. 37).

Key Informant Interviews

In-depth interviews were carried out with 18 key informants who know the IC sector very well, and represent multiple perspectives. These interviews addressed all research questions. A purposive sample of participants was selected to achieve mixed representation across the following criteria: type and thematic focus of organisations in which the person had worked (multi-/ and bilateral, private sector, research, think tank, consultants, NGO); age; gender; international/national background and experience; domains (humanitarian, development and peace); present and previous functions or roles (management, thematic advisor and human resources); institutional levels (headquarters and abroad / "field"). The final list of key informants included 9 men and 10 women; representing 5 prominent Swiss based NGOs, 4 IC focussed research organisations, 3 private sector organisations including an impact investment firm, 1 private philanthropy, 1 think tank, 2 multilateral IC focused organisations, 1 bilateral IC organisation, and 2 classified as other. The key informant interview questionnaire is provided in Annex 4: Key informant interview questionnaire (see p. 44).

Methodological limitations of the study include:

- Due to time and budget limitations, the scope of the study was limited. There are hundreds of publications related to future skills, 21 century competencies and competency development. A comprehensive in-depth literature review was beyond the scope of this research due to time constraints. This limitation was partly coped with by sharing resources between cinfo and NADEL, partly by referring to further literature, where appropriate, and partly by building on existing approaches and concepts such as ETH's competencies framework. How attitudes are acquired is a detailed area of cognitive and behavioural research. This study looks at some literature on this topic, however a detailed review on this topic is beyond the scope of this research.
- For pragmatic reasons, the survey sample was taken from NADEL alumni. The sample includes professionals from a broad range of IC organisational types, functions, levels, head office and field staff. 85% of survey respondents stated that they work in an organisation or job related to IC. The survey is not statistically representative of the Swiss IC population as a whole. Nonetheless, the survey data provides a good indication of perceived trends and competencies in Switzerland's IC sector.
- The number of key informant interviews was limited due to time constrains, and the list of purposive sample criteria for the key informant interviews was

non-exhaustive and hence excludes some considerations.

- Due to the scope limitations, the study has a focus on western literature and concepts of competencies and trends. Through the key informant interviews and the survey, an attempt was made to capture different views where possible.

1.3 Definitions and terms

Trends

In the English language, a trend is defined as "a general direction in which a situation is changing or developing" (Oxford University Press, 2022), or "a general development or change in a situation or in the way that people are behaving" (Cambridge University Press, 2022).

In IC there is no agreed understanding and use of the word 'trend'. IC practice and literature (e.g. complexity thinking and scenario work) use different terms for similar phenomena, often interchangeably. For example, climate change, urbanisation, resource scarcity, private finance, South-South cooperation, and decolonisation are referenced in different instances as trends, drivers (of change), major trends, overall trends, megatrends or global trends. There are also different views on the time span or time horizon of a trend, ranging from one year to ten years (Deloitte, 2017; United Nations, 2020) Green 2021; PWC 2016; The New Humanitarian 2022; UN Economic and Social Council 2020. There is also broad acknowledgment of the systemic and interrelated nature of many trends, which often simultaneously act as a trend, as well as a driver of other trends (see for example (Deloitte, 2017)).

The purpose of assessing trends in this study was to determine how they may impact on competencies in the near future. Hence, this study employs a purposefully broad working definition of 'trends' as "a general direction in which the IC sector is changing or developing", or "a general direction in which a situation is changing or developing and will have implications directly or indirectly for the daily work of practitioners in the IC sector". This may include ways in which the sector itself is changing from the inside (trends in IC), or ways in which external factors are changing the sector (trends affecting IC). Some may be both simultaneously. This includes fields of activity, types of interventions or working methods that relate to the IC sector. Some of the trends are broad and affecting society as a whole, including the IC sector (such as climate change), and others are more unique to the sector (such as nexus (peace, humanitarian, development) approaches.

Competencies

Literature is broad regarding definitions of the term competencies. Different authors and sectors (education, academia, work psychology, management) use different terminology, concepts and measurement approaches (OECD, 2018). Despite these differences, literature shows that while knowledge and skills are usually part of the discourse on competencies, attitudes are all too often overlooked. However, with a view to changing competency profiles in the course of observed trends, attitudes are likely to be of central importance (National Research Council, 2012; OECD, 2015; Seidl et al., 2018).

There is growing recognition that knowledge and skills (abilities) alone are not sufficient for successful job performance, and a trend towards competence-based models that integrate knowledge, skills and attitudes (Baartman & De Bruijn, 2011; Binkley et al., 2012; Škrinjarić, 2022) "[Competencies are...] more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilising psychosocial resources (including [...] attitudes) in a particular context" (OECD, 2005). Hence, competence, as defined here, comprises "[...] integrated pieces of knowledge, skills and attitudes, and is assumed to be prerequisite for adequate functioning on the job" (Baartman & De Bruijn, 2011).

Knowledge, skills and attitudes

Broadly speaking, knowledge reflects thematic expertise (what we know), skills reflect "abilities" or "capabilities" (how we use what we know), and attitudes refer to predispositions or personality traits (how we engage in the world), which matter in terms of whether a person will effectively put their knowledge and skills into practice. More specifically:

- Literature from cognitive psychology differentiates between different kinds of **knowledge**, mainly declarative and procedural knowledge. The former is the factual information that a person knows and can report on. The latter is the use and connection of pieces of declarative knowledge.
- **Skills** are interwoven with knowledge and refer to doing or acting in practice, involving motor skills as well as cognitive skills. Knowledge and skills can be integrated into a certain field of competence through interaction with the social world and personal internalisation.
- The definition of the term **attitude** is disputed (Albarracin et al., 2005; Ehlers, 2020) In this study, we define attitudes as "[...] learned tendency to evaluate things [and people] in a certain way" (Cherry, 2021). Entailing interlinked cognitive, emotional and behavioural components, attitudes can be implicit (unconscious, earlier acquired, stable) and explicit (conscious, recently acquired, context-specific). Attitudes are viewed as the result of a socialisation process, partly determined by the (social) environment and partly by the learner's individual characteristics, limiting the horizons for action.

Literature also indicates that while attitudes are enduring, they can also change (Baartman & De Bruijn, 2011). However, the extent to which **attitudes can be learnt and taught** is limited compared to knowledge and skills. Learning processes towards the integration of knowledge, skills and attitudes largely remain a black box (Baartman & De Bruijn, 2011; National Research Council, 2012; Seidl et al., 2018). This has important implications for mechanisms for acquiring and fostering competencies, which are discussed further below.

Competencies framework

This study makes use of a **competencies framework** that embraces the integration of skills, knowledge and attitudes. The model has been largely adopted from the ETH Competencies for teaching staff | ETH Zurich, and adjusted to suit the IC sector. Several competency frameworks from the IC sector or related fields (such as public administration), as well as reports related to future skills were compared, and competencies deemed by the authors to be potentially relevant to the IC sector in 2030 were added to or adjusted in the ETH Framework. Frameworks or reports that were cross referenced include (CHS Alliance, 2017; Fadel et al., 2015; Jordan et al., 2021; OECD, 2017; Swiss Federal Administration, 2013; Victorian Public Sector Commission, 2022; World Economic Forum, 2020). The competencies framework comprises four overarching complementary areas: subject-specific, method-specific, personal, and social competencies.

- **Subject-specific competencies** (such as concepts and theories) concern knowledge of theories, concepts, and techniques as well as its application to specific fields.
- **Method-specific competencies** (such as complex problem solving) concern knowledge and application of methods to make sense of, and operate in, any context.
- **Social competencies** (such as collaboration, cooperation and teamwork) concern self-management in the context of own work.
- **Personal competencies** (such as adaptability and flexibility) concern competencies applied in the interaction with others.

The four competency areas comprise **24 different competencies**. Each of the 24 specific competencies is further sub-divided into different forms of knowledge, skills and attitudes. A snippet of an example of the competency "critical thinking" is provided below. An overview of the competency framework is included in Annex 5: Adapted competency framework. (The full-fledged original competency framework can be viewed upon request at ETH) (see p. 46)

International cooperation

International cooperation (IC) comprises humanitarian aid (HA) and development cooperation (DC). HA seeks to protect people facing life-threatening situations in humanitarian emergencies and enable them to become self-sufficient again. Reconstruction of infrastructure in affected areas is generally considered to be part of HA. DC aims to reduce global differences in socio-economic development and general living conditions in a sustainable way. It strives for a close partnership and cooperation between donors and recipients. As peace and respect for human rights are important prerequisites for sustainable development, activities in the areas of (civilian) peace promotion and support for human rights are included in DC.

Table 1: Example competency description for critical thinking

Critical Thinking: Ability to analyse and evaluate situations, identify the strengths and weaknesses of alternative solutions, and derive conclusions or approaches to problems
Knowledge: ■ Knowledge of techniques to describe the structure of an argument ■ Knowledge of how to formulate an argument ■ ...
Skills: ■ Ability to identify key problems ■ Ability to adopt systems thinking ■ ...
Attitudes: ■ Acknowledge limitations of own knowledge with modesty while staying motivated to learn more ■ ...

2 Emerging trends

Which trends (including fields of activity, types of interventions or working methods) will become more important for IC by the year 2030?

Summary
On the most part, there was broad consistency between survey respondents, key informants, and literature regarding the most important trends for IC for the year 2030. **Climate change, human displacement and migration, water scarcity, nexus (peace, humanitarian and development), increasing inequalities, fragility, localisation/decolonisation** and **digitalisation and technological change** were considered among the most important trends by both groups. **Collaboration with the private sector**, and **localisation/decolonisation**, or a fundamental shift in North-South power dynamics were points of difference. They were among the most important trends for key informants, but not rated highly by survey respondents.

Some of the trends related to specific thematic issues that the sector will need to adjust to, such as climate change, digitalisation or water scarcity, while others pointed to a fundamental shift in the relationship between actors and the foundations of the sector to date. Literature, as well as interviews with key informants highlighted the systemic and interrelated nature of many of these trends, and the nuances in the way these trends will manifest. These findings support both the specific trends that are reflected in literature, as well as the overarching trend towards a world that is increasingly interconnected and increasingly complex, as well as uncertain, ambiguous and volatile.[1] Several of these trends will have implications for competencies which are discussed in the following chapter.

Prioritised trends – findings

Various literature sources refer to several broad trends or megatrends that are affecting society as a whole. These include climate change and resource scarcity, technological change and digital transformation, demographic change, urbanisation, migration, inequality and shifting global power dynamics (see for example (BlackRock, 2022; Project Management Insitute, 2022; PwC, 2015; Szmigiera, 2021). Many of these megatrends are made up of several more detailed trends. Deloitte (2017) list 35 'drivers of change', that feed into approximately ten megatrends, which according to their definition impact all sectors, and therefore also IC. As Baiden et al., (2022, p. 13) point out in their recent study on the future of INGOs "everything is interconnected, and INGOs do not operate in isolation... NGOs are on the same conveyor belt as everyone else."

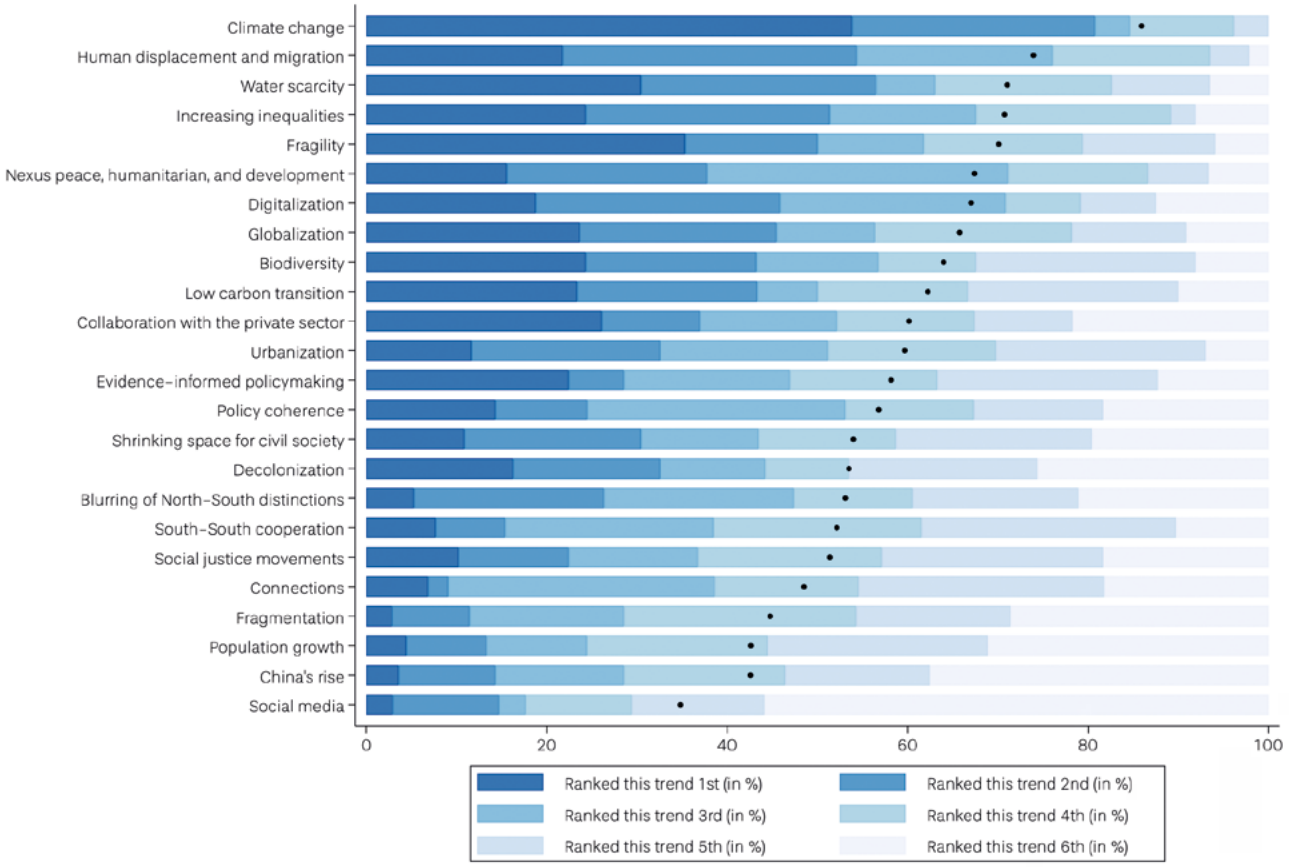
Trends from various sources were shortlisted based on those determined to be important for IC. They were then ranked by survey respondents and prioritised and discussed with key informants. A full list of predefined trends is included in Annex 1: List of predefined trends based on a literature review (see p. 35). Both groups also had the opportunity to suggest additional trends. Outlined below are trends that were ranked among the most important for the IC sector by survey respondents and key informants, as well as a brief discussion of how these trends will affect the sector. Some of the trends are broad and impact society as a whole, including the IC sector (such as climate change), and others are more unique to the sector (such as nexus (peace, humanitarian, development) approaches. The degree of overlap between survey respondents and key informants is indicated in brackets after the discussion of each trend (for example, significant overlap, partial overlap, little/no overlap).

Figure 1: Trends in IC for the year 2030, as ranked by survey respondents, shows the average ranking of 24 pre-defined trends in IC by survey respondents. Respondents received a random selection of 6 trends and were asked to rank them in order from 1 (most important) to 6 (least important) for the year 2030. Figure 1 presents the trends in order based on their average ranking. Climate change was the highest ranked trend, followed by human displacement and migration, water scarcity, increasing inequalities, fragility, and nexus peace humanitarian and development approaches.

Figure 2: Most important trends in IC, as rated by key informants, shows the frequency with various trends were mentioned by key informants. Key informants were asked what they see as the most important for the sector for the year 2030, and asked to prioritise 3 or 4. The most frequently cited trends are larger. The colours are random. Climate change was the most frequently cited, followed by private sector engagement, human displacement and migration, nexus approaches (development, humanitarian, peace), decolonisation (also often referenced as localisation), and digitalisation.

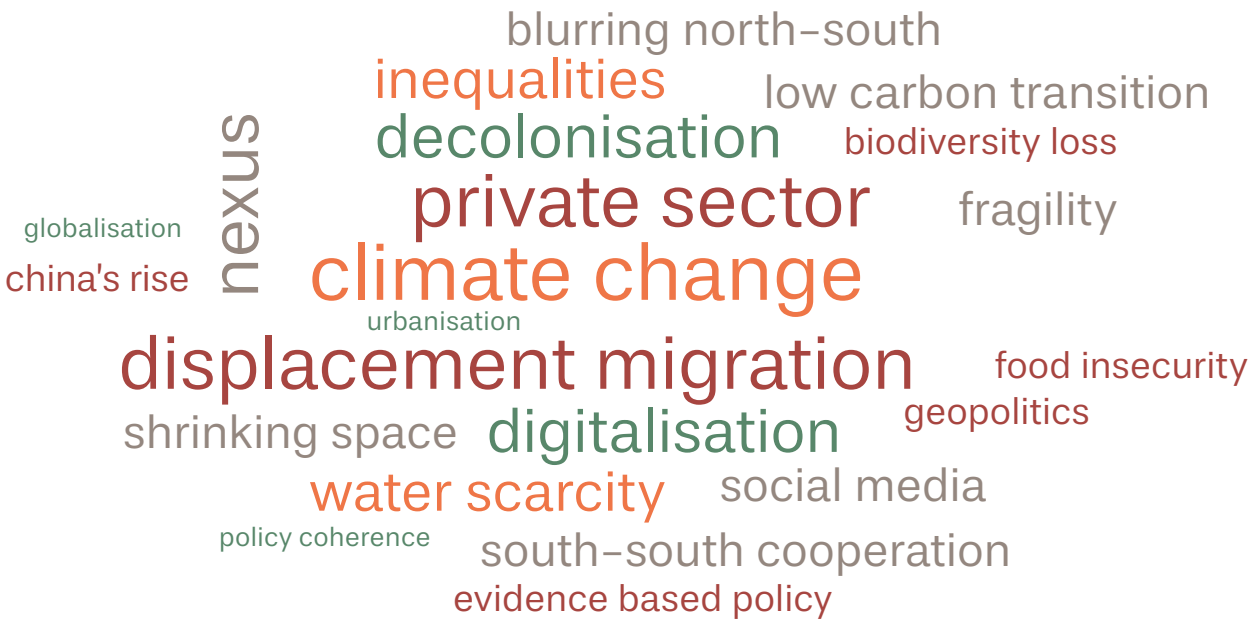
1 While it is accepted that the world is increasingly interconnected and hence complex, it is disputed whether the world is 'more' volatile, uncertain and ambiguous that ever before (Kraaijenbrink, 2019). None-the less, literature and key informant interviews point to a world that is currently volatile, uncertain and ambiguous, regardless of whether that has always been the case or not.

Figure 1: Trends in international development cooperation



Notes: Trends sorted by the mean rank
Points on bar represents mean rank (in %)
Trends in IC for the year 2030, as ranked by survey respondents

Figure 2: Most important trends in IC, as rated by key informants



Prioritised trends – discussion and implications for IC

There is significant overlap between the survey results and key informants for the top two trends – climate change, and human displacement and migration. There was also substantial overlap for nexus approaches, digitalisation and low carbon transition. There was some overlap for between the two groups for water scarcity, increasing inequalities and fragility, and there were substantial differences between the two groups for collaboration with the private sector and decolonisation/localisation.

Climate change was the top ranked trend (1) by survey respondents and was also the top citied trends for the IC sector by key informants (referenced in 12 out of 19 instances). Climate change was seen by key informants as a trend in its own right – putting additional pressure on societies, with catastrophic impacts for lower income countries – as well a driver of other trends and impacts such as disasters, biodiversity loss, water scarcity, food insecurity, migration, conflict, and changing living conditions. "**Climate change will have domino effects and systemic cascades. It needs to be part of the mainstream**". Key informants also referred to several broader implications of climate change, such as changing priorities for IC actors as funding is shifted to climate change programmes, new circular economic models that are increase integrated into IC projects, and the blurring line between nations in particular the Global North and Global South. Respondents highlighted the systemic nature of climate change impacts and the domino and cascade effects on food systems for example. It is well documented that the impacts of climate change (such as more frequent or intense heatwaves, drought, floods, fire weather and storms) are already affecting every region around the globe, but will have disproportionate impacts in lower income countries (IPCC, 2022). (Significant overlap).

Human displacement and migration was the second (2) highest ranked trend by survey respondents, and was also the equal second most frequently mentioned trend for the IC sector by key informants (referenced in 9 out of 19 instances). Several key informants mentioned migration linked to or as a result of climate change. Human displacement and migration in low and middle income countries, including as a direct or indirect result of climate change is also well documented in literature as a trend that is expected to continue into the future (IPCC, 2022; Szmigiera, 2021). One key informant also mentioned that South to North migration has political dimensions that shape IC priorities in high income countries. (Significant overlap)

Water scarcity was ranked as the third (3) highest trend by survey respondents and was also referenced as a priority trend by key informants (4 instances, in 2 cases mentioned as part of climate change rather than a stand-alone trend). Growing water stress, in particular in the Global South is well documented in literature. According to the United Nations Environment Programme, demand for water is expected to exceed supply by 40 percent, and almost half of the world's population is expected to suffer from water stress by the year 2030, with severe implications for development (United Nations Environment Programme, 2015). (Partial overlap)

Nexus peace, humanitarian and development was ranked sixth (6) by survey respondents, and referenced as priority trends by 7 of 19 key informants. Triple nexus refers to interlinking humanitarian, development and peace-building efforts for a more efficient response to natural disasters and conflict. Key informants linked the increasing frequency of hazard events (partly as a result of climate change) to the growing trend of IC practitioners needing to often switch modes of engaging from humanitarian work to longer term thinking and back again. **"We will need be able to switch modes of engagement from humanitarian to longer term thinking (e.g. on climate change and development) and back again".** One key informant mentioned the risks associated with the growing focus on the nexus approach: **"Nexus will come to the fore. However, with it comes a risk that more focus will go to humanitarian work at the expense of systems change".** (Significant overlap)

Increasing inequalities, was ranked fourth (4) by survey respondents, and was mentioned as a top trend by 4 of 19 key informants. The absolute number of people living in extreme poverty has been declining, but the gap between the richest and poorest is widening. Key informants mentioned the urgent need for a targeted and intentional focus on the most vulnerable and poorest. **"Increase in hazards events globally (such as floods, heatwaves, war etc) in high income countries may distract media attention from the poorest. This will become more and more common".** (Partial overlap)

Digitalisation was ranked seventh (7) by survey respondents, and also mentioned as a top trend by 5 of 19 key informants. Digitalisation and digital technologies including artificial intelligence (AI) were seen as both an opportunity, presenting tools and content, as well as a challenge for the IC sector. While such technologies can provide opportunities (for example, faster and cheaper remittance payments), they can also act as an amplifier or reinforcer of existing power dynamics, inequalities, or dependencies (for example, social media being used to manipulate opinions for political gains), **"Technologies come with opportunities, but also with a set of limitations that are not well understood by the IC sector. Many people believe that technology in itself will have a revolutionary effect, but that is not the case. Technology also needs an analogue component (regulations) to make sure everyone**

benefits". Another key informant stated: **"Artificial intelligence is an existential risk. Digitalisation will widen the divide between rich and poor."** (Significant overlap)

Collaboration with the private sector was the equal second most frequently mentioned trend by key informants (referenced by 9 of 19 key informants) but was the eleventh (11) ranked trend by survey respondents. Views on the implications of private sector engagement among key informants were varied. Some saw it as positive, as private sector approaches can be demand driven, less bureaucratic and more efficient than traditional IC approaches. One referenced the proliferation of small companies in Africa that are demand driven, making use of private sector funding, delivering results quickly, with less bureaucracy than IC organisations. However, three stated that the current DC approach to engaging with the private sector is overrated, oversimplified, or needs to fundamentally shift. **"The current millions to trillions narrative has been shown to be false, and private sector approaches to deliver sanitation services, for example, have been shown to fail... The IC community needs to fundamentally rethink when it makes sense to engage with the private sector, and when it does not... This will also impact the question of how services are delivered, and goes hand in hand with the role of the State."** Evolving international taxation arrangements, trade agreements, and regulations of the private sector are also part of this trend. The discrepancy between the findings from the survey and the key informant interviews may be related to the fact that key informants had more opportunity to provide a rationale for their responses. (Small/no overlap)

Fragility, the share of the global poor living in fragile states, was ranked fifth (5) by survey respondents and was mentioned as a top trend by 3 of 19 key informants. Key informants linked fragility to climate change, conflict and human displacement and migration, and also mentioned the political drivers of the current focus of high-income countries on fragile contexts. (Partial overlap)

Low carbon transition, the global shift towards a low/no emissions economy, was ranked ninth (9) by survey respondents and was mentioned as priority trends by 3 key informants, although often linked to the broader issue of climate change. (Significant overlap, but lower priority)

Localisation or decolonisation of the IC sector was a key point of difference between key informants and survey respondents. Localisation or decolonisation of the IC sector was one of the most prominent issues raised by key informants. Decolonisation is defined as the movement to transform institutions addressing racist and discriminatory structures and norms. Decolonisation or localisation was mentioned by 5 of 19 key informants, although sometimes phrased as equitable partnerships, shifting power relations, or a fundamental shift in the relationship between the Global North and the Global South. **"(For 2030), I see an overall transformation of the sector, and a lot more focus on equitable partnerships. For now, it's largely still on paper, and is still very heavily one sided and skewed to the Global North."**

Some key informants mentioned the erosion of democracy and questioning of the west as a role model as related to the topic of localisation. **"Developing countries are becoming more sceptical of the West as a 'role model', and questioning democracy as a goal they should endeavour to reach. The development model that countries want to follow is much more under question".** In some cases, localisation was linked to South-South relations and the proliferation of new actors and new funding sources which is giving more agency to actors in the Global South. **"The multiplication of funding sources gives greater leverage to low-income countries, as they can to choose with whom they want to work. This is a good thing as it reduces developing countries dependency on traditional western donors."** Key informants foresee that this fundamental shift in IC will have significant implications for practitioners and organisations.

However, localisation or decolonisation of the IC sector received a low rank from survey respondents (16 based on mean rank). One key informant raised the issue of language which could suggest a reason for the discrepancy: **"There are different definitions around, but in fact it is essentially the same. People want to be in charge of their own development. Earlier, we did not question what we do, and whether the things we do are right. This is changing now."** Other key informants raised a possible explanation that those who work in the sector are not adequately aware of or prepared for this trend. **"I'm not sure how ready the sector is for what will hit in the next 15 or 20 years." "Some topics trigger discomfort, people just want to avoid them."** (Small/no overlap)

This discussion is not intended to discard other trends, as all trends were rated as important by some respondents, and many are interrelated. These trends will have several implications for competencies for IC practitioners which are discussed below.

3 Emerging competencies

What are the major developments in terms of competencies needed to work in the selected directions of IC?

Summary
In light of the trends discussed above, the following section outlines the required competencies in view of 2030.

Collaboration, cooperation and teamwork, adaptability and flexibility, critical thinking, and systems thinking were ranked by survey respondents and key informants amongst the most important competencies. Collaboration, cooperation and teamwork were linked to the proliferation of new actors, including private sector actors, and more complex programmes, including advocacy alliances, as well as localisation of the IC sector. Adaptability and flexibility were linked to trends including for instance nexus based approaching in light of growing interlinkages between the development, humanitarian and peace approaches. Critical thinking was linked to trends including digitalisation, private sector engagement, and localisation of the IC sector. Systems thinking was linked to seeing the 'bigger picture', considering (geo-)politics and systemic trends such as climate change, water scarcity, migration, conflict, and digitalisation, and technological change.

While these links provide meaningful connections between emerging trends and emerging/future competencies, any work requires multiple competencies, and these links are not exhaustive or exclusive. Survey findings are complemented with insights from key informant interviews and literature, and critically discussed. A shortlist of 24 competencies that were determined to be relevant to IC practitioners is included in Annex 1: List of predefined trends based on a literature review (see p. 35). These were prioritised by respondents and key informants. The degree of overlap between survey respondents and key informants is indicated in brackets after the discussion of each competency (for example, significant overlap, partial overlap, little/no overlap).

Prioritised competencies – findings
Broadly speaking, the competencies that were required by employers in most sectors up until the 1970s (e.g. knowledge, numeracy, problem-solving and analytical skills, communication skills, and self-discipline) were over the decades supplemented by "newer" competencies, mainly in response to broad technological, organisational, economic and political changes. These "newer" competencies include, for instance, information and communication technology literacy, cooperation and teamwork, flexibility and adaptability, systems thinking, critical thinking, strategic thinking, complex problem-solving, diversity inclusiveness, and lifelong learning (Ehlers, 2020; Harvey, 2000; Joynes et al., 2019).

Emerging literature on 21st century or 'future skills' varies, but commonly includes, foundational 'traditional' literacies (literacy, numeracy), foundational modern literacies (information communication technology/ digital literacy, entrepreneurship), critical thinking and problem solving, creativity and innovation, communication, collaboration, curiosity, initiative, persistence, adaptability, leadership, social and cultural awareness (Fadel et al., 2015; van Laar et al., 2020). Interestingly, a recent critical analysis found that this literature is often based on a "concentrated set of sources, strong use of grey literature and high rates of self-citation" suggesting that consensus around 21st century skills is less epistemic than is often thought (White et al., 2022, p. 18).

We live in an increasingly interconnected and complex world. Accordingly, practitioners need to prepare for jobs that do not yet exist, for technologies that have not yet been invented, and for solutions to social issues hardly anyone foresees. "The world does not reward people anymore for their knowledge but for what they use it for, how they act in the world and how flexibly they can adapt." (A. Schleicher, Director for the Directorate of Education and Skills (OECD)).

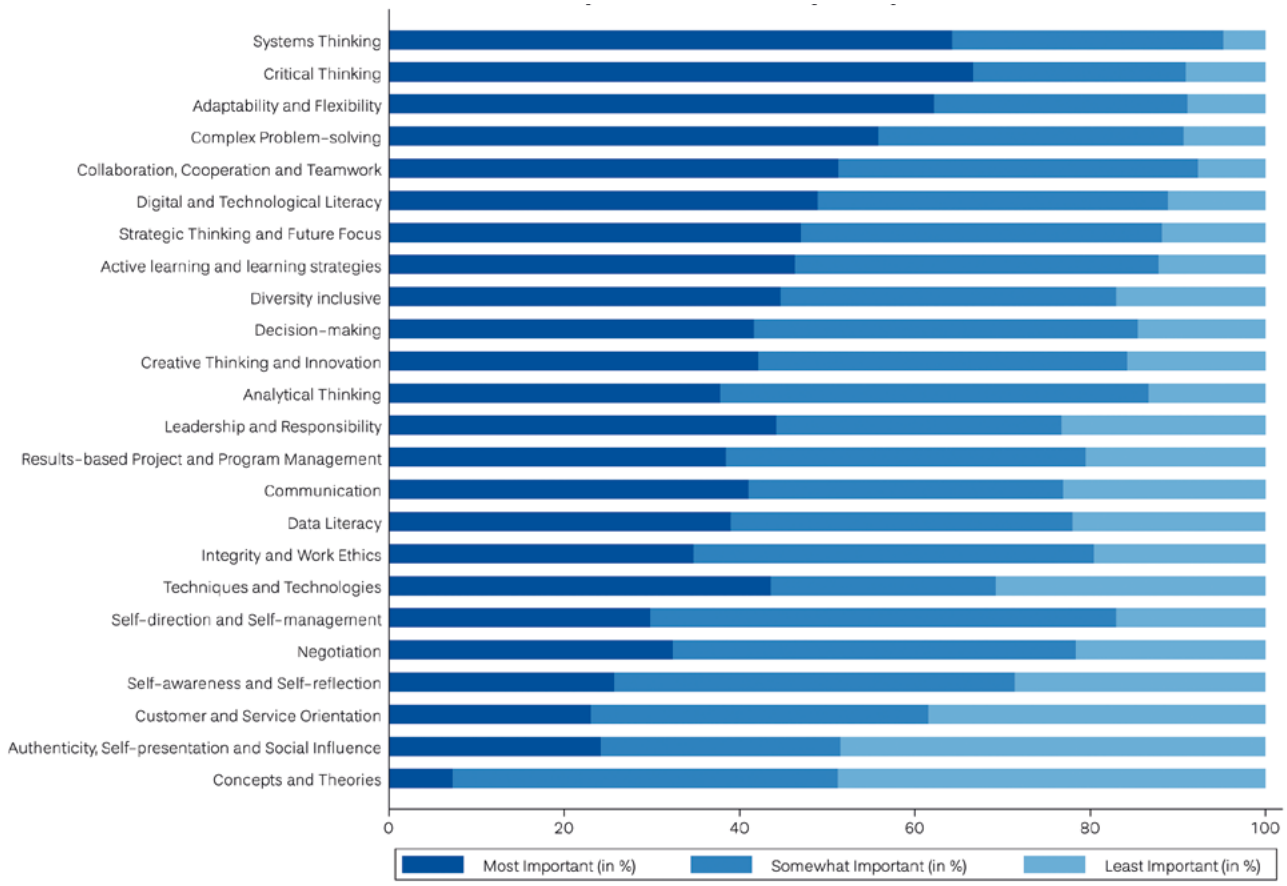
This trend towards these "newer" competencies in the wake of increasing uncertainty and complexity is also reflected by our survey findings. Figure 3: Competencies for IC professionals for the year 2030, as rated by survey respondents shows how 24 pre-defined competencies were rated by survey respondents. Survey respondents received a random selection of 6 competencies, from which they could rate two as 'most important for 2030', two as 'least important for 2030' and two as middle importance. The competencies are ordered based on average rank.

In addition, Figure 4 (see p.16) shows the anticipated changes in these competencies between 2021-2030 as rated by survey respondents. The competencies are ordered based on the mean rank.

Figure 5 (see p.16) shows the frequency of various competencies mentioned by key informants. Key informants were asked what they see as the most important competencies for the IC sector for the year 2030 and asked to prioritise. The most frequently cited competencies are larger. The colours are random.

Collaboration, cooperation and teamwork, adaptability and flexibility, and systems thinking were the most frequently cited competencies, followed by critical thinking, creative thinking, and self-awareness and self-reflection. At the fringes of these competencies are strategic thinking and future focus, data literacy, and complex problem-solving.

Figure 3: Competencies for IC professionals for the year 2030



Note: Competencies sorted by mean rank
Competencies for IC professionals for the year 2030, as rated by survey respondents

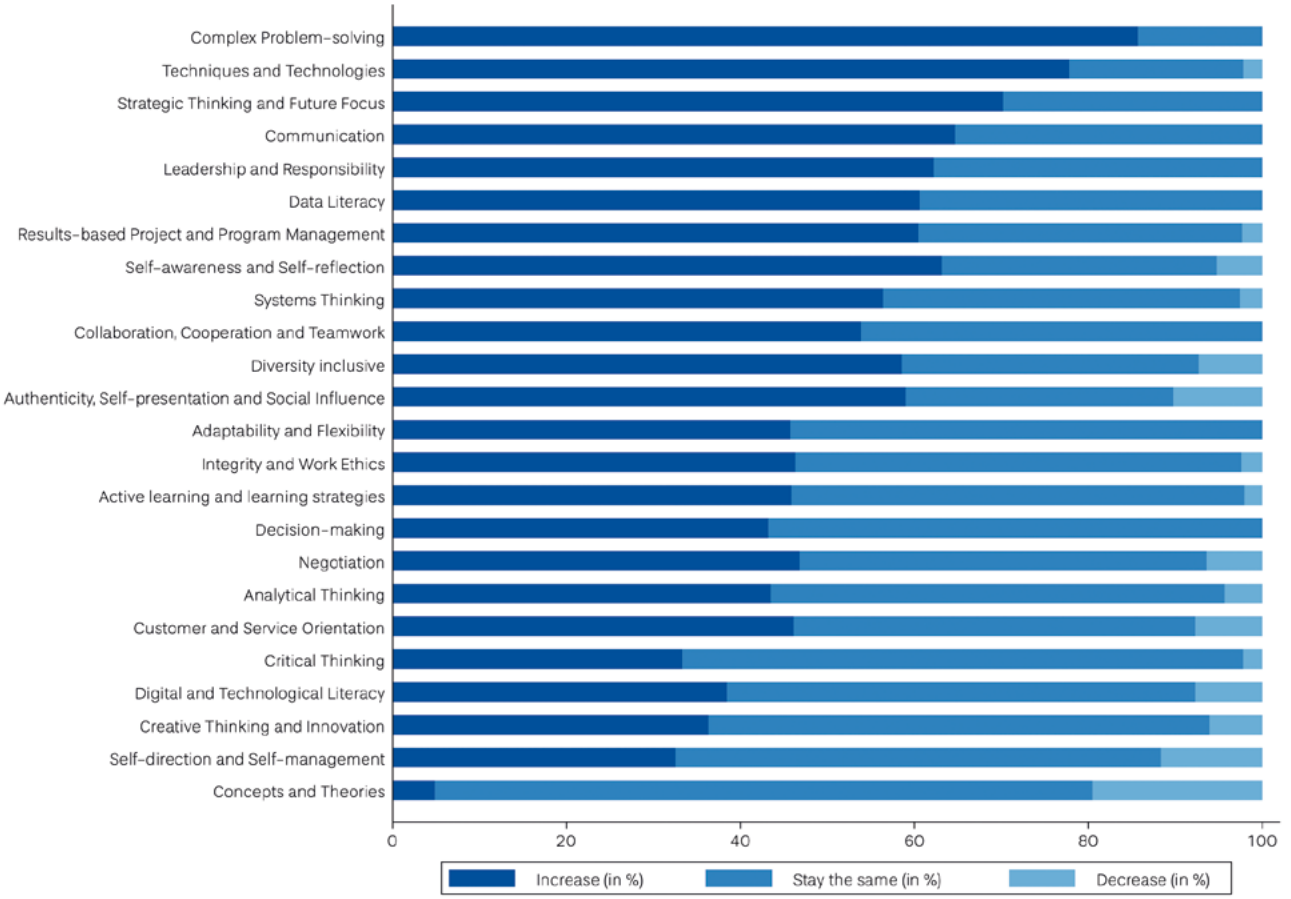
Prioritised competencies – discussion and implications for IC

Overall, there is significant overlap of the highly prioritised competencies from survey respondents and key informant interviews. This holds for collaboration, cooperation and teamwork, adaptability and flexibility, systems thinking, and critical thinking. There is also a large overlap regarding active learning and learning strategies, however, this competency has been prioritised lower. Further, there is partial overlap regarding complex problem-solving, strategic thinking and future focus, data literacy, digital and technological literacy, technology and techniques, and concepts and theories. There is little or no overlap concerning creative thinking and innovation, and self-awareness and self-reflection. The following section proceeds from those competencies with the biggest overlap to those with less.

Collaboration, Cooperation and Teamwork, the ability to build relationships with others to pursue common goals and achieve results in a constructive atmosphere, was ranked among the five most important competencies for the year 2030 by survey respondents. In addition, it was anticipated to increase in importance somewhat by 2030. Key informants clearly underline the competency's importance, partly due to their inevitability for solving today's global challenges given the blurring lines between Global South and North.

Especially collaboration and cooperation are expected to become more intercultural, interdisciplinary, intersectoral, and inter-organisational. Hence, the ability to understand how people work together, what drives and hampers partnerships, especially taking into account (geo-)political considerations (-> systems thinking, and thinking and working politically), will be decisive in order to be able to effectively connect people, and build and manage complex partnerships (-> adaptability and flexibility). **"What happens in the North can't be separated from what happens in the South. We will have to adopt more of a 'sector as a whole' approach by focusing on what we have to do as a sector instead of what we have to do as an organisation. This means seeking alternatives to the classical project approach such as policy changes through influencing, activism, and people movements."** Several

Figure 4: Competencies for development professionals in 2021-2030



Note: Competencies sorted by mean rank
Perceived change in importance of competencies for IC practitioners between 2021 and 2030, as rated by survey respondents

Figure 5: Most important competencies in IC, as rated by key informants

additional interlinked features were reflected, including the ability to listen to partners, to know their roles and interests, and to be willing to work together: **"Being able to identify strong partnership bringing the most added value to the table is a key competency, including facilitation competencies of multilateral partnerships, and negotiation and listening".**

Key informants also mentioned collaboration, cooperating and partnerships in the context of the trend towards 'private sector collaboration', the proliferation of new actors, and interventions: **"Shifting away from the classical project approach towards alternatives includes also private sector engagement for instance through social enterprises and impact investing. The private sector approach is interesting because it is more efficient, based on incentives".** The ability to connect and collaborate with different actors is all the more important when taking into account that **"We are missing business skills among IC practitioners. The private sector is seen by many as a solution. But only few practitioners have a clear understanding about business plans".** (Significant overlap)

Systems thinking, the ability to consider the wider context, break complex topics or situations into smaller parts to gain better insights and inform actions required was ranked in the survey as the top competency in 2030. In addition, it was anticipated to increase in importance until 2030. Key informants often referred to systems thinking related to the systemic and cascading nature of emerging trends and challenges for the sector, such as climate change, disasters, water scarcity, food security, migration and conflict, which are all interconnected in a systemic way. Moreover, insights from key informant interviews underline the importance of being able to see the bigger picture and understanding how a given "system" works (-> strategic thinking and future focus).

Several key informants referenced the importance of power/geopolitics and the consequent need to "think and work politically", this includes how and why decisions are taken, and by whom. The ability to think and work politically is needed to understand and contribute to setting the development agenda in terms of topics, funding and strategy. Accordingly, one key informant observes that thinking and working politically is about **"being able to understand the dynamics, including hidden political factors in any context. It is the ability to promote, push, and lobby for a topic. However, this is not so much a technical quality, rather a political one. In a way it's always been there, but in the last years we have learnt it's super important if you want to influence change. We now start to acknowledge that we need to apply this. In fact, we could learn such competencies from the politicians in the "Wandelhalle" in Bern, because in DC we are sometimes a bit naïve in terms of how important decisions are taken or not".** (Significant overlap)

Adaptability and flexibility, the ability to adjust effectively to a changing environment and deal well with changes and uncertainty, was ranked by survey respondents as the third most important competency by 2030. In addition, it was anticipated to increase in importance somewhat until 2030. Key informant interviews support these findings strongly. Adaptability and flexibility were discussed at different levels.

At a conceptual level, it was about practitioners' ability to quickly adopt relevant changes in working approaches and instruments: **"Project management and budgeting today look quite different from 20 years ago".** Accordingly, there have been calls for instance for **"more flexibility in terms of submitting less detailed logframes and budgets, due to fragility".** Given there is no ready-made solution in the IC sector, another key informant refers to the importance of being **"able to test new ideas and approaches, including learning from other sectors like the private sector. Testing new ideas and approaches essentially requires adaptability and flexibility".**

At a practical and personal level, it was discussed in light of being able to manage stress and work-life balance in the wake of increasing uncertainty and complexity: **"We are in a period of life where everything is very fast. Flexibility helps to work independently".** Another key informant refers to the growing requirement for young professionals to be **"open and flexible in terms of striking a balance between career, work and life".**

At an operational or programmatic level, adaptability and flexibility were reflected in terms of the necessary ability to build, facilitate and manage complex partnerships: **"The trend is towards larger programmes, including evidence-based advocacy alliances. Hence, we must develop the capacity to connect with a lot of partners, including unusual ones and be flexible when coordinating such complex programmes".** (-> Collaboration, cooperation and teamwork) Adaptability and flexibility were also linked to the trend of triple nexus-based approaches, and the **"need for IC practitioners to switch modes of working from short-term crises to longer term development projects, frequently".** Further, they were linked to the trend of localisation. Increasingly, IC organisations' country offices are managed by local practitioners: **"Expats will more and more have only a coordinating and facilitating role, not a 'teaching role'. Local knowledge, i.e. local staff will be the key drivers in the implementation of projects".** (Significant overlap)

Critical thinking, the ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems, was ranked in the survey as the second most important competency for 2030. It was anticipated to increase somewhat in importance by 2030. These findings are also reflected by key informant interviews. Several key informants mentioned the IC sector's focus on some trends such as digitalisation and private sector engagement was in some cases oversimplified, that risks were being overlooked or were not well understood and mentioned the need for critical perspective on such issues, as indicated by the following two statements: **"We need more digital literacy, yes, but not in the sense of being able to use digital systems, but how to assess them". "Engaging for instance with the private sector is important but needs a new approach and is currently oversimplified".**

Critical thinking also refers to meta-cognitive ability, i.e. being able to not only know (have knowledge on certain subjects), but especially to know what to know, when and why. **"We often fall victim to trends and flavours, buzzwords. People are interested in methods and approaches, but they don't think of the big picture in order to be able to reflect on and analyse the data gained from these methods and approaches. People need to think more about why what they are learning or becoming aware of is important."**

Critical thinking and the associated attitudes were also strongly linked to localisation or decolonisation of the IC sector in the sense of being able to "think and do things differently in development", self-critically perceive power imbalances, and to let go of control for instance in North-South partnerships. An attitude linked to critical thinking in the competency framework is the "acknowledgement of limitations of one's own knowledge with modesty while staying motivated to learn more". This critical self-reflection and understanding of the perspectives of others was considered critical by key informants in relation to the emerging trend of 'shifting relationships, localisation and decolonisation'. **"There is an urgent call for being very critical about IC. We must ask ourselves whether we do the right things, rather than doing things right."** However, in this regard a few key informants questioned whether critical thinking is actually enough to bring about real change. This issue is further discussed below under the competency 'self-awareness and self-reflection'. (Significant overlap)

Strategic thinking and future focus, the ability to develop a broad, big-picture and long-term view and link it to daily work, and the ability to bring together relevant trends, emerging technology, and future opportunities, was rated by survey respondents as the seventh most important competency. In addition, it was anticipated to increase significantly in importance by 2030. This was also mentioned by many key informants, referring to the growing importance of geo-political considerations, the ability to think and work politically (-> systems thinking), the changing landscape of the sector and systemic challenges such as climate change. **"In the wake of globalisation and increasing blurring lines between Global North and South it is important to have global and holistic views in order to be able to understand the complexity of the system we work in, and how it works, and how do deal with it."** Another key informant puts it as follows: **"Strategic foresight, future literacy is about being able to look ahead 15 years or longer and think of what we need to do or change now. That is often missing, we usually see and think in 3 years cycles. We need to be thinking longer term and build that in from the start of everything we do in organisations, networks, programmes, etc."** (Partial overlap)

Complex Problem-solving, the ability to define a complex problem and navigate solutions for it, was ranked by survey respondents as the fourth most important competency by 2030. In addition, it was anticipated to increase in importance most significantly until 2030. Pinpointing to the fast-growing importance of being able to deal with complexity and handle uncertainty, this was also supported by key informants, but with a comparatively much lower weighting. **"What happens in one part of the world affects some other part far away, due to interdependency and interconnection. This becomes more and more recognised and is reflected for instance by the increasing number of hybrid interventions / activities, with only very few contexts being purely development or humanitarian, due to conflicts and natural disasters. The fact that there are more and more actors involved in these interventions, adds to the complexity."** In a similar vein, complex problem-solving was linked to nexus-based approaches, and systemic and cascading challenges such as climate change. Reference was also made to the decisiveness of forging alliances, coalitions, and multi-stakeholder partnerships in order to be able to tackle complex problems. (Partial overlap)

Active learning and learning strategies, the ability to understand the implications of new information for both current and future problem-solving and decision-making, and to select and use training/instructional methods and procedures appropriate for the situation when learning or teaching new things, was ranked by survey respondents as the eighth most important competency for the year 2030. In addition, it was anticipated to significantly increase in importance by 2030. This was also supported by several key informants, pinpointing to the fast-growing relevance of lifelong learning in relation to IC's growing complexity in general, and the increasing opportunities in terms of data and evidence availability more particularly. The IC sector is challenged by the lack of organisations' ability to

learn, i.e. to manage knowledge and develop institutional memory, accessible to all employees: **"Hence, many IC practitioners, especially young professionals, are inclined to reinvent the wheel, assuming trends are 'new', whereas in reality many are not" (K 11, 2022)."** Examples include evidence-based policy making and decolonisation. It also relates to the important fact that by definition all competencies have to be acquired through different types of learning processes, as discussed in chapter 4. Another recurring learning challenge the sector faces is that "**people tend to say learning is crucial, but in reality, it is not valued or given priority, often due to pressure to deliver and corresponding lack of time, and the lack of reflecting on how people actually learn."** (Significant overlap, but lower priority).

Digital and technological literacy, the ability to integrate digital and technological developments in the design and delivery of relevant policies, programmes and services, was ranked in the survey as the sixth most important competency for the year 2030. Though, it was anticipated to increase only somewhat in importance until 2030. This relates to the growing trends of digitalisation and technological change which, as mentioned above, present both opportunities and risks. Key informants, however, did not mention digital and technological literacy as an important competency. Instead, reference was made to relevant data literacy. (Partial overlap)

Data literacy, the ability to utilise diverse data sources to improve the speed and quality of programming and decision-making processes, was ranked in the survey at the lower end of importance for the year 2030, but it was anticipated to increase considerably in importance until 2030. This relates to the growing trends of digitalisation and technological change, particularly data availability. Many key informants, however, consider data literacy an important competency by 2030, indicated for instance by the ability to use **"Big data for evidence-based interventions"**, and the ability to **"understand what the data say."** In addition, data literacy is considered vital for lifelong learning, and in this sense acquiring any competency: **"Given the unprecedented availability of information, younger generations have started to learn differently, i.e. in a more needs based, bite size, and ad hoc manner. Hence, it is crucial especially for young professionals to be data literate in order to be able to navigate their careers and learn the competencies they need."** (Partial overlap)

There were mixed views on the role of the competency **'techniques and technologies'**, the ability to understand and apply techniques and technologies in use within a specific scientific subject or field. This competency was rated relatively low by survey respondents in terms of its importance by 2030, but as relatively high in terms of increasing in importance until 2030. Some key informants see it as decreasing in importance for instance for actors in the Global North (as they can be sourced locally), others consider it increasing in technical fields such as climate change, again others see it increasing in the sense that digital and technological literacy implies data literacy, i.e. knowing how to "read" or "interpret" the data (-> digital and technological literacy, and digital literacy). (Partial overlap)

An interesting finding from our analysis concerns the competency **'concepts and theories'**, the ability to understand and apply the basic concepts and definitions that are relevant for a specific thematic subject or a field. There are diverging views between literature, key informant interviews and the survey. According to the survey, it is ranks as the least important competency by 2030, and was the only competency considered to be decreasing in importance between 2021 and 2030. Literature has a similar stance in that it indicates a tendency away from content knowledge to process knowledge in learning and education curricula (Ehlers, 2020). A few key informants however perceive this competency as vital, referring to the challenge that many practitioners do not know enough about key development topics and trends, especially more recent topics such as climate change and blended finance. Other key informants also referenced it as a prerequisite to effective communication or openness to and capacity for dialogue 'Dialogfähigkeit', as indicated by the following statement of one key informant: **"Technical competencies like concepts and theories stay important, i.e. tendentially they decrease slowly in the sense that the competency itself loses its importance, but being able to know something about all concepts and theories and know which one being offered is the best and most suitable one, becomes more important."** Other key informants also referenced the competency as a prerequisite to critically reflect on one's own work and knowledge framework, i.e. mental models, a crucial meta-cognitive ability highly needed in IC work. Some of these topics are also covered in critical thinking. (Partial overlap)

The discrepancy between the findings from the survey and the key informant interviews may be related to the fact that survey respondents had less information about definitional aspects of competencies. Another possible explanation is that key informant interviews offered more time to differentiate different aspects of the competency concepts and theories.

Self-awareness and self-reflection, the ability to understand own strengths and weaknesses and enhance self-development, was ranked by survey respondents as one of the least important competencies by 2030. It is however anticipated to increase in importance between 2021 and 2030. This finding was clearly not supported by key informants, pinpointing to the relevance of localisation. For corresponding power shifts to take place, critical thinking attitudes like modesty and lear-

ning motivation are not enough. Rather, a combination of additional attitudes associated with other personal and social competencies are needed.

This includes valuing honesty and transparency and applying them in relationships and own work (integrity and work ethics), and being open-minded and willing to build trust, and share control and responsibility with others (collaboration and cooperation). It essentially also includes critically reflecting on one's own experience, as indicated by one key informant: **"We have to learn to be able to deal with inequity, i.e. to deal with structural racism, including knowing about one's own racism and bias; this goes way beyond cultural sensitivity. It's no problem to "see colour", but it's crucial to understand how this impacts our work."** Concerning the competency of being self-aware and self-reflected, another key informant puts it at follows: **"We need to go back to the fundamentals. All we know is that we know very little. We need to relativise, as individuals we need to be introspective. We need to recognise our vulnerability, because many of the things we think are true may turn out not to be true."** (Small/no overlap)

The discrepancy between the findings from the survey and the key informant interviews may be related to the fact that survey respondents had less information about definitional aspects of competencies. Another possible explanation is that key informant interviews offered more time to differentiate different aspects of the competency self-reflection and self-awareness.

Creative thinking and innovation, the ability to apply alternative thinking to develop and implement new, original ideas and answers, was ranked low by survey respondents both in terms of its importance by 2030, and until 2030. The findings from the key informant interviews, however, show a different picture: creative thinking and innovation is considered a vital competency. **"Creativity is truly key and will continue to be."** This relates to trends such as increasing complexity and uncertainty in general, and more particularly the blurring boundaries between Global North and South, localisation/decolonisation, and fragility: **"There is less reason as well as appetite for classical project approaches and more for innovative alternatives such as social movements, advocacy alliances, and private sector engagement through impact investing and social entrepreneurship."** It also relates to trends like urbanisation and human displacement and migration: **"Currently, the human capacity of migrants (internal and international) is heavily underutilised. This will increase massively."** Other key informants link it to the fact that many competencies are interconnected, as indicated by the following observation: **"To be competent in strategic thinking and having future focus one also needs to be a creative and innovative."** Another key informant links it to trends in digitalisation and technology: **"blockchain and other technologies will completely replace many of the things we do manually today, and it will become easier to share knowledge. To be able to navigate in this changing environment, new skills like creativity and innovation will be crucial."** (Small/no overlap)

Key informant interviews were furthermore revealing in that **attitudes** were often directly explicitly linked to one or more of the aforementioned competencies. The discussions expressed the view that many attitudes are still being taken for granted or underestimated in the IC sector, hence not systematically fostered. The view is that attitudes are inevitably getting more important, and hence it is only a matter of time until they will be overtly discussed and addressed by IC organisations and practitioners. Some of the mentioned attitudes include: empathy; emotional intelligence; introspection, including awareness of power imbalances and humility, i.e. not knowing it all; feeling comfortable with oneself; letting go of control; interpersonal / cultural skills; genuine interest/curiosity in different views (without looking down on others); generative listening; having connections and discussions with people on eye level; being courageous (e.g. to address controversial topics or chose courage over comfort); feeling inter-connected; patience; perseverance; frugality; joy; and presence and kindness. Many of these attitudes are linked to the competencies needed to 'create the world we want', and enable 'decolonisation' and/or a shift in Global North-South relations, hence critical thinking, and self-awareness and self-reflection, for instance.

Overview of prioritised competencies by survey respondents

Our analysis shows that IC organisations, employers, further education institutes, and practitioners increasingly recognise the relevance of these "newer" competencies, including social or personal competencies.

Figure 6: Diagram of perceived change and relative importance of competencies, as rated by survey respondents, shows all pre-defined competencies plotted based on their average survey rank of relative importance (as rated by survey respondents) (y axis), and the average anticipated change rating between decreasing, staying the same or increasing in importance by 2030 relative to 2021 (x axis). Referring to the location in the diagram suggests which competencies should be prioritised in what way. It should be taken into account that this does not reflect the findings from the key informant interviews, which consider creative thinking and innovation, and self-awareness and self-reflection also highly important competencies, as outlined further above.

Competencies in the upper right section, such as systems thinking are considered to be most important (relative to others) in 2030, and also as increase in impor-

Figure 6: Diagram of perceived change and relative importance of competencies

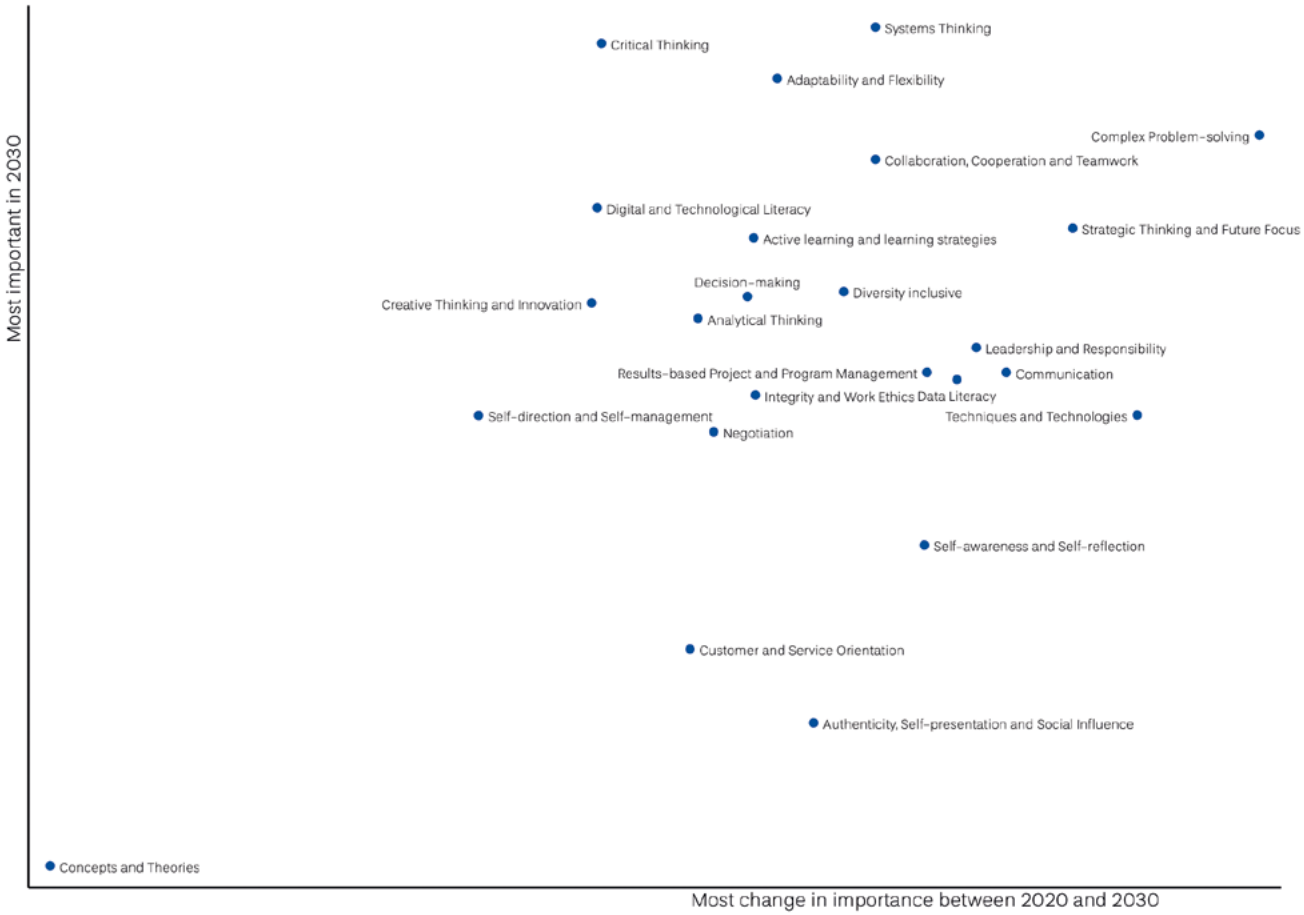


Diagram of perceived change and relative importance of competencies, as rated by survey respondents

tance by a significant share of respondents. Competencies in the upper left section, such as critical thinking, are rated as highly relevant in 2030, but with less of an increase in importance from today. Competencies in the lower left section, such as concepts and theories were considered less relevant and are considered (on average) as becoming less important, or increasing in importance only somewhat. Competencies which were rated as increasing in importance, by the greatest share of respondents, but as less important relative to others in 2030, including for instance authenticity, self-presentation and social influence, are in the lower right section of the diagram.

These four sections give an indication of which competencies could be prioritised by investing corresponding resources (e.g. human, capital, time), and which should be improved upon significancy (those in the upper right section), or maintained at the similar lever, or improved upon only somewhat (upper left section).

Table 2 provides a partial insight into the details of the competencies considered highly important in 2030 by both survey respondents and key informants. Investing in or promoting a competency is not straightforward as each competency involves various integrated knowledge levels, skills and attitudes. In addition, due to the interconnected nature of competencies, certain competencies' knowledge, skills and attitudes overlap to some extent with those from other competencies. For instance, systems thinking is also reflected in critical thinking

As an example, Table 3 partly breaks down and links the knowledge, skills and attitudes associated with the competency 'complex problem-solving' to the specific context of IC day-to-day practice. The example revolves around a programme planner/manager responsible for implementing complex interventions.

Given the growing focus on methodological, social and personal competencies, especially the growing acknowledgement of the role of attitudes the key question is how to bring about not just the required knowledge and skills for each competency, but also the desired attitudes. Taking for instance critical thinking, how does one foster the "acknowledgment of limitations of own knowledge with modesty while staying

Table 2: Example competency descriptions for competencies

Critical thinking	Systems thinking	Collaboration, cooperation, teamwork	Adaptability and flexibility
Knowledge: ■ Knowledge of techniques to describe the structure of an argument ...	**Knowledge:** ■ Knowledge of basic systems thinking principles ...	**Knowledge:** ■ Knowledge of group dynamics and processes for empowering effective collaboration and positive team atmosphere	**Knowledge:** ■ Knowledge of sources of ambiguity and change and their impact on different environments and contexts
Skills / Ability to: ■ Identify key problems ... ■ Provide sound recommendations	**Skills / Ability to:** ■ Differentiate and quantify systems elements ... ■ Use mental modelling and abstraction	**Skills / Ability to:** ■ Build networks and collaborative relationships and trust with others ... ■ Empower positive team environment and effective collaboration	**Skills / Ability to:** ■ Ability to adapt to different roles, responsibilities, and contexts ...
Attitudes: ■ Aspire to be an informed citizen ...	**Attitudes:** ■ Be willing to learn about systems ■ Be explorative when approaching systemic problems, including multiple perspectives ...	**Attitudes:** ■ See potential in working with others ■ Be flexible in taking on different roles within a team ...	**Attitudes:** ■ Be open to criticism and setbacks ...

Example competency descriptions for competencies rated most important by survey respondents and key informants

Table 3: Example detailed description of the required knowledge, skills and attitudes for complex problem-solving in IC

Complex problem-solving	Knowledge, skills and attitudes reflected in IC day-to-day practice
Knowledge: ■ Knowledge of techniques and processes to tackle complex problems ■ Knowledge of elements of ill- and well-defined problems ...	■ Knowledge of techniques e.g. scenario planning, social network analysis, causal loop diagram, and probing-sensing-responding cycles ■ Knowledge of processes e.g. adaptive management (governance, contracting) ■ Ill-defined: e.g. high levels of social disagreement and technical uncertainty in context; cause-effect relations not (well) understood ■ Well-defined: e.g. high levels of social agreement and technical certainty in context; cause-effect relations are (well) understood ...
Skills / Ability to: ■ Adopt systems thinking ■ Define a complex problem ■ Understand the implications of new information for both current and future problem-solving (active learning) ...	■ Programme planner/manger applies a holistic view in any context assessment considering systems concepts (e.g. relationships, boundaries, perspectives) ■ Based on findings from context analysis, programme planner/manager defines the problem by using complexity concepts (e.g. unlike in simple and complicated problems, in a complex problem the cause-effect relations are understandable only in hindsight, and they do not repeat) ■ This means the programme planner/manager should invest in probing, sensing and responding activities in short iteration cycles ...
Attitudes: ■ Be comfortable with solving non-familiar problems ...	■ Programme planner/manager has researcher or tinkerer mindset, feels inspired and motivated when problem at hand is complex, unorthodox. ...

motivated to learn more"? Or with regard to collaboration, cooperation and teamwork how does one nurture the "willingness to share control and responsibility with others in the delivery of team work and outcomes"? Or in terms of Complex problem-solving, how to strengthen "Be comfortable with solving non-familiar problems"?

The question of how the integration process of knowledge, skills and attitudes takes place is discussed in the next chapter.

4 Mechanisms to develop competencies

How can such competencies be acquired or further fostered?

Several mechanisms for acquiring and fostering competencies are discussed below. These mechanisms include formal education and training and practice-oriented initiatives like coaching and mentoring. Many of these methods focus primarily on knowledge and skills. An interesting insight from key informant interviews is that many practitioners proceeded from the assumption that 'attitudes' can be learnt. It is an ongoing debate how the learning processes revolving around developing integrated knowledge, skills, and attitudes takes place. However, a growing body of literature indicates attitudes are not only a product of childhood and long-term socialisation, they can also be learnt through exposure to specific contexts (Albarracin et al., 2005).

Depending on the research tradition, literature differentiates between several levels or steps of competency learning processes using different terminology and approaches. According to (Baartman & De Bruijn, (2011) for instance, the integration of knowledge, skills and attitudes can be structured according to low integration, high integration and transformative integration processes.

For **knowledge and skills**, low integration is about automatic performance and practice. It takes place when the knowledge required to solve a new task gets automatically triggered and applied as the task resembles previous tasks. High integration is about reflecting while doing, as available knowledge and skills cannot simply be unwound in a new task, hence additional knowledge and skills are developed during the task, and existing mental models (e.g. internalised views, processes) are updated. Transformative integration goes a step further, it is about self-critical reflection in action, when a learner's mental models are largely challenged and revised. This may lead to significant change in perspective. Translating this integration approach to the development of attitudes, the following should be noted:

"In their (low integration) automatic activation phase, attitudes are automatically and unconsciously activated from long-term memory. These attitudes are developed during frequent experiences with an object and stronger attitudes are more easily retrieved. In the (high integration) deliberation phase, a learner consciously searches for information to form a (contextual) attitude. This only occurs if the learner has the opportunity (awareness, time, and cognitive resources) and motivation to do so. For example, the context may trigger motivation by highlighting the positive consequences of an action or the costliness of a judgmental error, resulting in the need to deliberate on one's choices and actions." (Baartman & De Bruijn, 2011, p. 131f).

In this sense, concerning **attitudes**, in low integration processes, attitudes such as being on time or being polite are integrated with knowledge and skills, as they represent the most basic attitudes needed for a practitioner to act professionally. They develop and integrate by means of regular practice. In high integration, the learner needs to understand why particular attitudes matter in given contexts. The attitude of being willing and able to act critically regarding one's work is decisive. For example, practitioners have to seek and embrace feedback on their work. In transformative integration, the attitude of being introspective is essential. Adding new knowledge and skills is not enough, it is about the willingness to decisively change one's work practices. Here, the focus is not only on reflecting on one's work, but on being willing to reflect on one's own functioning as an employee or practitioner. This process rarely leads to immediate action, considering it takes time for the learner to change their mental models. Transformative integration goes beyond cognition, entailing social and emotional changes by transforming what we do and who we are.

A concrete example for high integration would be a NADEL student/practitioner integrating knowledge on different planning tools (e.g. log-frame, theory of change, budget) for designing a water project in a complex situation with the practical skills of translating it into the project's adaptive work plans, and with an attitude of being willing to address ill-defined problems and showing respect for the international country team with which they are working. Transformative integration would set in the moment the student was challenged to radically change their approach, including for instance fully letting go of 'Western' logic and complexity thinking, and instead embracing indigenous knowledge systems (e.g. storytelling, spirituality).

Through key informant interviews, **different mechanisms** were identified, also reflected in literature (Harvey, 2000; OECD 2011; Cherry, 2021). As shown in Table 4, examples include mentoring, peer to peer learning and coaching; formal training; practice-oriented placement; leadership/organisational practices; and self-learning initiatives. Unless indicated otherwise, the described mechanisms hold similarly for new and experienced professionals. Depending on several factors such as context, the learner's motivation and existing competencies, available time, etc. all of these mechanisms can contribute to the development of all listed competencies to varying degrees. This is supported by literature (Dunn et al., 2021; Inner Development Goals, 2022; Joynes et al., 2019), and there was consensus amongst key informants that a combination of mechanisms is needed for competency development: certain mechanisms offer more, others less opportunities necessary to acquire relevant competencies.

Key informants underline two cross-cutting factors for effectively acquiring attitudes through high and transformative integration: mechanisms facilitating individualised acquisition of attitudes and combining different mechanisms as much as possible. In fact, more holistic approaches offering different acquisition options or formats to different audiences and combining formal training with practice-orientation and exposure, are more promising. They nurture attitudes more specifically and regularly, and/or through longer-term accompaniment of students / practitioners in their professional (and personal) transformation into their roles in work. However, there are challenges, which will be dealt with in the next chapter.

5 Challenges to develop competencies

What are the most important challenges to acquire these competencies for potential employees in the IC who have only a limited experience in this sector. How are they different from challenges to those knowing the sector?

A range of challenges to develop competencies were identified through key informant interviews and literature. These challenges discussed below are specific to the IC sector. Unless stated otherwise, they apply to new and experienced professionals alike.

Structural issues with the sector: Key informants mentioned the systems, structures, and procedures within the IC sector more broadly that can prohibit competency development. The tendency towards outsourcing or the tendering/commercial approach was identified as a barrier to learning by two key informants. It was linked to short termism and knowledge loss within IC organisations. **"The current tendering process has a strong focus on good CVs that can win tenders. This is not conductive to long term training and building competencies of staff within institutions."** This issue was also linked to a lack of time for learning, caused by competition between organisations within the IC sector. The procedural workload and time pressures associated with the IC funding systems was also identified as a barrier. **"We are constantly under pressure and overwhelmed (with procedural work) in order to quantify and make measurable, which limits time for learning."**

Lack of organisational enabling environment: Several key informants also mentioned organisational barriers, which in many cases were linked to the above-mentioned IC sector structural issues. This varied from a lack of time and internal systems and procedures to enable learning, to organisational cultures that value the wrong competencies or don't enable employees to challenge ideas and assumptions or effectively deploy competencies.

Several key informants mentioned the lack of resources (including financial and human resources), space and time to enable learning. **"Many organisations still do not invest sufficient resources into promoting**

Table 4: Mechanisms to develop competencies

Mentoring, peer to peer learning, coaching in organisations:	Formal training, offered in house and by institutes:	Practical and on-the-job training and assignments:	Leadership / organisational:	Self-learning / self-initiative
Instead of limiting mentoring programmes to methodologies and techniques, they can be structured openly leaving space for creative thinking and reflection on attitudes and philosophical discussions. Senior international and local staff for instance can act as mentors for younger staff, which promotes intercultural and interpersonal exchange and competencies.	Trainings that integrate interdisciplinarity, creativity, critical thinking, systems thinking into courses (e.g. DTF- dialectical thought form framework; methods for collaborating on complex issues such as open space; future workshops; strategic choice approach, deep democracy etc.)	Can be offered at head office or abroad, taking up to several months to a year (e.g. NADEL JPO assignment)	Supportive leadership fosters an enabling culture indicated by trust among staff, psychological safety, space for exploration and learning from mistakes (pilots, testing new ideas), cross-fertilisation (between departments) and interdisciplinarity (different ways of thinking and working).	Practitioners take responsibility / motivate themselves to take competencies more seriously, including attitudes. Practitioners identify own competencies, i.e. attitudes, and the lack thereof and ways of improving or closing the gap.
Two-way mentoring between experienced and less experienced can foster mutual learning (more experienced practitioners keep up with new topics and trends like digital literacy and climate literacy, and younger practitioners get new insights from lived experience).	Trainings provided by partners and institutes from / in Global South; also more partnership with training providers from private sector facilitating business orientation / mindset.	Can be done in combination with structured/formal learning opportunities (e.g. NADEL JPO assignment).	Organisations who develop competencies frameworks recruit talent more effectively, and foster awareness on the importance of attitudes, and a culture of appreciation of their added value for job performance. Attitudes become more tangible.	Develop consciousness that learning / acquiring competencies is a highly individual process; younger practitioners hence should strive for finding out as early as possible in their careers what they want to do and focus on, what competencies they have, and which ones they need.
For the more experienced practitioners, coaches can be assigned.	Trainings that are not purely practical to also keep focus on the bigger picture of things and interdisciplinary mindset	Can be combined with trainings on intercultural competency, compassion, and moral imagination - the symbiosis meditation, and trainings on immunity to change (ITC) process, on listening and pausing; radical collaboration, and nonviolent communication (NVC). (Inner Development Goals, 2022)	By testing / investing in new approaches such as holacracy (fluid set-up as opposed to rigid hierarchy), organisations promote competencies like adaptability and flexibility, strategic thinking, systems thinking, and complex problem-solving among staff and management	Mindfulness practices (mindful breathing, pausing, responding, observing of one's thoughts and emotions, ...) (Inner Development Goals, 2022)
Circles to address specific challenges. Mentoring with a person you trust to develop more challenging competencies.	Trainings provided by competencies mobilisers, and/or younger generation consultants specialised in promoting inner development goals / attitudes via progressive pedagogy and practices (e.g. ITC- immunity to change process; listen and pause; radical collaboration; compassion training; NVC- nonviolent communication). (Inner Development Goals, 2022).	Organisations' induction processes provide for intense experiential learning, at head office or abroad, for instance through "inducting by fire, dropping people in the deep end".	Organisations can promote leadership competency among its staff by systematically investing in coaching practice.	As parents, practitioners can nurture inner development goals (IDGs) and corresponding attitudes / skills in their children, knowing that attitudes are also largely defined by long-term socialisation starting during childhood.
360-degree feedbacks soliciting feedback on employee behaviour from multiple viewpoints (i.e. subordinate, lateral, supervisory).	Formal trainings in parallel with practical forms of learning.			Young professionals pro-actively seek mentors, take up volunteering assignments, establish network.

their staff to develop their skills." This was linked to 'pressure to deliver' which in turn leads to a low priority and low perceived value placed on learning and competency development. One key informant mentioned the rotation systems that some IC organisations that can inhibit long term organisational learning. **"Organisations with a rotation policy struggle to build institutional memory, and this leads to many professionals reinventing the wheel instead of using existing knowledge."**

Several key informants also mentioned the prevalence of organisational cultures that undervalue and underrecognise the importance of learning. **"The lacking culture of recognition of one's performance is an issue: recognition is free and easy to give, but it's been forgotten and is undervalued."** In addition, certain organisational cultures value the 'wrong' competencies: **"Competencies like emotional intelligence, future focus and navigating complexity and systems are underdeveloped in this sector. Currently, the sector highly values technical expertise. But this doesn't help if it's not coupled with other skills."**

The issues of adaptability and flexibility mentioned above were also linked to organisations, specifically in terms of being learning organisations, for instance by having the necessary adaptive governance, programming and delivery systems in place, or by being willing and able to decentralise decision-making power in order to localise. **"We talk about adaptability (for IC professionals), but our institutions are not adaptable or flexible. They are often more difficult to change than individuals."** Regarding localisation: **"To foster the types of competencies discussed – attitudinal and mindset changes, you need an enabling organisational culture: colleagues pushing and challenging each other, learning from failure. In many organisations this hits a blockage when it interacts with existing power structures."**

Lacking competence-based approaches: Linked to the above, several key informants mentioned a lack of suitable structures, frameworks, or systematic approach to competency development within organisations. This is also reflected in literature (Škrinjarić, 2022). For many organisations, the purpose and meaning of competencies lacks focus, one of the indications being that competencies are defined vaguely, not differentiating between knowledge, skills and attitudes. **"We don't talk enough about competencies. They have to be taken more seriously. What is still missing is an explicit link between a competency and a beneficial outcome."** In a similar vein: **"It is often assumed that people, including people in leadership roles learn competencies by osmosis. Especially attitudes are so difficult to learn."** Hence, the search for new talent and the promotion of staff competencies is often unsystematic. Skills are simplistically considered as competencies. Job advertisements, job descriptions, terms of references and staff performance appraisal lack orientation towards specific competencies and their development, which, in turn, hampers organisational effectiveness. In a similar vein, many universities and training institutes do not work with qualification profiles (analogous to organisations' competencies frameworks) and as a result, their curricula are not designed specifically enough to spur the required competencies matching learning objectives (constructive alignment). As a consequence, students, trainees, and learners are not optimally equipped with competencies required when applying for and working in new positions in the IC sector. This may be linked to the lack of empirical evidence linking competency development to individual and organisational performance and outcomes.

Lack of suitable or accessible learning options: Key informants and literature (Baartman & De Bruijn, 2011; Harvey, 2000; Joynes et al., 2019) cite the lack of opportunities at universities and formal training institutes to effectively teach/learn attitudes associated with competencies such as critical thinking or the lack of integration of such competencies with associated attitudes. **"Attitudes cannot be learnt well in formal settings, as they require exposure to a learning-by-doing or on-the-job training environment. But education institutes usually provide little such practical opportunities."** According to literature, there is a general "(mis)match between employers' requirements and workers' acquisition of needed competencies" (Škrinjarić, 2022). Regarding the IC sector, there is some indication the competency mismatch may be growing (cinfo & BASS, 2020; Devex et al., 2018; Joynes et al., 2019). The traditional frontal class-based knowledge transfer paradigm of many institutions should be systematically complemented by interactive, more agile, and practice-oriented teaching/learning models. However, in practice this shift is taking place slowly, despite being taken up in many curricula. One reason for this is the uncertainty of the teaching/training staff: Who should teach how future competencies are taught and which methods can be used for the assessment (Ehlers, 2020). This study also shows the many of the competencies required for the challenges described in the IC sector are increasingly competencies that require "high" and "transformative" integration of new knowledge, skills and attitudes, which are difficult to promote and acquire. They require increasing investments on the part of everyone involved. Related to self-learning options, one key informant mentioned **"there is oversupply of unfiltered opportunities such as massive open online courses (MOOC). What is needed is blended, guided, and accompanied learning options."**

Personal mindset and willingness to learn: Many key informants also referred to personal mindsets, willingness to change oneself, and self-awareness related

to 'the need to learn' as a major challenge (however, it should be noted that mindset was not always explicitly or clearly differentiated from attitudes, as defined in this study).

"People do not always want to develop. It can be painful." "Many development professionals are not up to scratch, because many do not grasp the need for learning... We have too many unaware "development tourists." Other issues mentioned include the lack of individual recognition that one needs the identified skills, resistance or fear of change, fear of losing importance and fear of not being able to learn, or staying in expat bubbles. **"The thing is, expats tend to speak to expats and locals to locals, even when the working atmosphere is excellent."** Mindset challenges were also linked to some of the structural issues mentioned above – the focus on results based approached has led practitioners to **"think we can deliver results through procedures, rather than through creating shared values. This is to a large extent self-created and prevents learning."**

Acquiring attitudes is a challenge: As outlined in this study, it is generally more difficult to acquire attitudes compared to knowledge and skills. The mechanisms promoting attitudes, especially attitudes associated with personal and social competencies are more resource intensive (time, money, ...) for both competency trainers and learners. Many key informants referred to the importance of acquiring especially the "hard to learn" or "transformative" attitudes (empathy, humbleness, courage, mindfulness, etc.), because these attitudes – and the corresponding knowledge and skills – allow IC practitioners to deal competently with the challenges in their work, which is complex and uncertain (at times chaotic) by nature. **"The challenge is that complexity in IC is growing. The more you look at it, the more you find new and interdependent elements such as environmental, political, ethical, etc. It can be very challenging to understand this complexity. This makes it difficult especially for young professionals to know 'in what area do I need to learn more?'"**

Societal barriers: Key informants also raised societal barriers or societal taboos (including related to race and gender) which limit individuals' opportunity to learn, or to learn by doing. **"We are not tuned in to respecting, or harnessing the full potential of some individuals, such as women or migrant communities, or providing opportunities that can lead to further learning."** Societal norms or taboos related to expressing emotions can prohibit the development of certain competencies.

Challenges for new professionals

Key informants also identified some challenges that were viewed as specific to young professionals, such as lack of financial means, competition, and limited experience and hence exposure to 'field' realities, or complex environments that can foster the development of competencies such as systems thinking and complex problem-solving through direct experience of complexity. Key informants also referenced limited networks as a barrier to competency development for younger professionals, which can limit learning opportunities though formal or informal mentoring, coaching and peer to peer learning. This was viewed as particularly true for the generation of professionals who started their career during the Covid-19 related university and workplace closures.

Challenges for experienced professionals

Key informants identified some challenges that were viewed as unique to experienced professionals. These included the lack of incentives to continue learning once professionals reach more senior positions (if one has already reached their career goals for example), expectations from themselves or others that as a more senior staff members they should already know. Existing knowledge and experience were seen by some as a potential barrier to being able to 'see things differently'. Other challenges that were perceived as being more common amongst more experienced professionals, such as a lack of thematic subject matter knowledge on newer topics (such as climate change) or new technologies (digital literacy), and in some cases, fear of change or becoming less important as a result of change.

6 Implications/recommendations for training institutions, employers and professionals

How should training institutions and employers cope with the corresponding implications/challenges? What about employees or future applicants?

6.1 General

The analysis above provides an overview of the trends and competencies considered most important for the IC sector for the year 2030. Several methods for fostering competencies were discussed above. Below includes an analysis of how training institutions, employers or organisations, and professionals (employees or future applicants) could respond to opportunities and challenges. These recommendations are non-exhaustive, and are based on key informant interviews and select literature. How to effectively integrate knowledge, skills and attitudes for each competency is an ongoing debate.

Overarching recommendations that apply to these highly rated competencies, and apply to training institutes, organisations and professionals alike include:

- Provide / seek opportunities for high and transformative integration learning such as reflecting in/on action, and self-critical reflection or meta-cognition, in order that a learner's mental models can be challenged and revised. This is relevant to many competencies, including critical thinking, creative thinking and innovation, self-awareness and self-reflection; and for trends such as localisation / decolonisation.
- Connect learning to reality (including complex realities) and provide/seek opportunities for active learning. This can be achieved through experiential learning (including learning on the job or volunteering), mentoring, and integration of practitioners in training approaches. This is particularly relevant for systems thinking and complex problem solving, adaptability and flexibility, and strategic thinking and future focus; and for trends that are systemic in nature, such as climate change, human displacement and migration, nexus approaches and fragility.
- Allow time for collaboration and team-work, in particular interdisciplinary team work, discussion, and reflection on these processes. This is particularly relevant for collaboration, cooperation and teamwork, as well as adaptability and flexibility; and for trends such as engagement with the private sector, and localisation / decolonisation.
- Create / seek a safe space and environment in which competency development is valued and enabled, where people can openly reflect, question and challenge ideas, mental models and assumptions. This is relevant for all competencies, but in particular for critical thinking, creative thinking and innovation, and self-awareness and self-reflection.
- Focus on knowledge, skills and attitudes in competency development approaches. This is relevant for all competencies. (Bialik et al., 2015; Dunn et al., 2021; Lehner, 2021).

6.2 Training institutions

Below are potential ways that training institutions could respond to the opportunities and challenges listed above:

Integrate on the job assignments, field exposure or internships within or alongside formal study programmes: Many key informants mentioned experiential learning, internships, on the job training as recommendations for training institutions with the stated aim of providing exposure to complexity, different perspectives, local knowledge, and to connect what is being learnt to reality. Key informants also suggested considering dual education systems in the IC sector, which integrate learning while working, and specific programmes where formal training is phased intermittently with work, through Certificate of Advanced Studies programmes that can be completed while working, for example.

Offer mentoring and exchange with practitioners as part of training programmes: Key informants also suggested providing peer to peer learning opportunities with practitioners, and working with a network of partners/other training institutes from around the world, including the Global South. This will offer new perspectives and help to localise formal training practices in the IC sector. This also contributes to connecting teaching with the reality of the students, and brings new perspectives that may help to challenge assumptions / mental models.

Promote meta-cognition, the possibility for students to reflect: Key informants and literature referred to the need for students to reflect on what they learnt and how they learnt (Ferreras et al., 2022; Lehner, 2021). "Metacognition [an awareness and understanding of one's own thought process] helps form autonomous students, increasing consciousness about their own cognitive processes and their self-regulation so that they can regulate their own learning and transfer it to any area

of their lives"(Ferreras et al., 2022). Promoting reflection may also imply maintaining a balance between closeness and distance to practice in order to ensure that what is taught is not purely pragmatic, but also provides students with the context and freedom to challenge practice.

Explicitly integrate competencies in teaching, including knowledge, skills and attitudes: Some key informants suggested providing training specifically targeted at emerging competencies such as radical collaboration. Literature on the topic suggests that competencies are better taught as part of the subject domains in which they are used: "It is not always helpful to separate these competencies from the subject domains where students use them; they cannot be seen as standalones in any profound way" (Acedo & Hughes, 2014). Key informant interviews and literature suggest that it can be important to explicitly identify the competencies that are being addressed, and acknowledge the role and purpose of competencies so that they are taken more seriously. Literature refers to two broad views in the ongoing discussion about how 'attitudes' can best be taught: one is that attitudes should be taught together with subject-specific course content knowledge, thereby taking into consideration that the attitudes to be trained have to be relevant to the corresponding discipline context; another view is to set up specific disciplines related to attitudes, i.e. taught independently in separate courses having their own formats. A number of proponents in literature advocate for the adoption of a double approach (Albarracin et al., 2005; Ehlers, 2020; Joynes et al., 2019): embedding attitudes in the curriculum and providing additional (e.g. employability) programmes and/or workshops. This could also include a stronger link to specific tools to promote personal growth, such as those outlined by the Inner Development Goals toolkit (ref). Training on specific competencies could also be made relevant by structuring it around examples related to emerging and relevant trends in IC.

Adapt didactic approaches and address structural issues within training institutions: Key informant interviews and literature also point towards the need to experiment with different didactics such as games and exercises where course participants can test what applying 'inner development' skills feels like. The traditional frontal class-based knowledge transfer paradigm is to be systematically complemented by interactive and agile teaching/learning models including active learning (Ehlers, 2020; Fadel et al., 2015). For example, critical thinking can be promoted through reflection "What is my personal opinion? Where does it come from? Which behaviours result from this opinion? How does an exchange with others impact my opinion?", or through social learning such as learning based on experience, social learning and in particular interdisciplinary learning can be very helpful. Cooperation and collaboration can be taught through interdisciplinary and intercultural teamwork, and regular reflection on the teamwork process. Both should be coupled with an environment with psychological safety, and both imply a greater focus on process, rather than content (Bialik et al., 2015). **"Training institutes should also reflect and discuss more about 'why' we do certain things in the IC sector, instead of 'what' we do and 'how' we do. Because 'we' don't 'do' very much, rather our partners in the Global South do. This framing would help future IC practitioners to slot in more easily and identify their roles in IC more clearly."** Coupled with this, there should be a change in assessment modes to better fit the competencies we are looking for. Key informants also suggested the need to address **structural issues** within training institutes, decolonise teaching curricula and pedagogy, reconsider who is admitted to courses and why, and reassess whose papers and articles are studied and why.

Adjust curricula flexibly to new topic and competencies: Key informants suggested that training institutes should aim to flexible address the current mis-match between training and employer needs by providing courses on relevant and upcoming topics (such as private sector engagement or climate change or system thinking) and tailor this training to specific groups (such as senior staff or executives) based on their needs. Changes in labour markets often lead to adjustments in training and education curricula in order to fit competencies with employability requirements (Ehlers, 2020).

6.3 Employers and organisations

Below are potential ways that employers and organisations could respond to the opportunities and challenges listed above:

Adopt competence-based procedures that incorporate knowledge, skills and attitudes: Many key informants mentioned the need for organisational structures and procedures to enable competency development, such as competency frameworks or strategies, dedicated teams who can facilitate competency development, more resources, and time dedicated to competency development. **"Organisations should be explicit in linking competency and outcome, i.e. what competencies are needed to be able to do or be this or that."** Furthermore, employers, like training institutes, should **"reflect more about 'why' we do certain things in the IC sector, instead of 'what' we do and 'how' we do it. Because we don't 'do' very much, rather our partners in the Global South do. In this sense, employers should define their job descriptions better, considering that 'we' mainly fund, advise, and support, and work together with partners. This helps making the roles clearer for future IC practitioners, manages their expecta-**

tions, and allows them to slot in more easily in IC." Some larger organisations have in place competency frameworks that are systematically integrated into professional development and performance assessment processes (see for example, (Victorian Public Sector Commission, 2022). Such dedicated structures can help to unfold competencies' respective sub-elements for instance in terms of knowledge, skills and attitudes, and on this basis build tailor-made mechanisms to promote the required competencies.

Most key informants proceeded from the assumption that "attitudes" can be taught and learnt, with an inclination towards practice-orientation including individualised mechanisms promoting experiential learning (e.g. long-term on-the-job assignments, and mentorship programmes). In fact, in spite of disputed learning processes revolving around attitudes, there is increasing recognition that attitudes can be acquired, especially if opportunities (particularly time, combined with the right mechanisms) are provided to deal with complex tasks. This holds similarly for younger and more experienced practitioners. For organisations that don't have a competency framework, a pragmatic starting point could be to adopt the top five to six identified competencies in this study, and corresponding pre-defined knowledge, skills and attitudes, and develop specific measures to promote them. For organisations that have competency frameworks, they could consider how to improve systematic integration of this framework, which may include addressing culture and leadership issues, which are discussed below.

Foster enabling organisational culture and leadership: Linked to the above, many key informants stated that competency development or change has to be supported by leadership. Many key informants saw the lack of organisational enabling environments as a key challenge. This related for instance to enabling structures, as observed by one key informant: **"Flexibility, decision-making, and trust building can be fostered effectively by applying more fluid management models like holacracy: younger professionals get the opportunity to speak up and take decisions, and more experienced staff get the opportunity to learn to be more flexible or to enjoy more flexibility."** It also related to an enabling culture that values competencies (including knowledge, skills and attitudes) per se, and the right competencies given the changing environment, and encourages staff to challenge themselves and each other. **"Leadership is responsible for making sure that employees are aware of the relevance of competencies and corresponding attitudes and values. This implies an organisation might have to get rid of employees who resist the needed change to foster the 'right' attitudes and values. If someone does not change, there should be consequences."** This was seen by many key informants as a longer term endeavour. However, two examples of how this change could take place is UN agencies using metrics for humility and self awareness to recruit more humble leaders, or people in leadership positions demonstrating self-reflection. **"You can't build culture of self-reflection if you're not demonstrating and living that."**

Along with professionals, organisations also need to evolve, adapt and 'learn', for instance by having the necessary adaptive governance, programming and delivery systems in place, or by being willing and able to decentralise decision-making power in order to localise. **"Along with future competencies, we need to think about the future organisations we need. Otherwise, competencies cannot be deployed in a meaningful way."**

Enable experiential learning: Workplaces can also enable experiential learning and learning by doing by acknowledging opportunities with intentional learning goals, and encouraging reflection on practice. It was seen by many key informants as highly valuable to gain experience in different countries and different organisations. This is supported by literature (Triandis, 1994): employers and organisations should provide for intercultural and interpersonal contact opportunities by allowing staffs to increase their knowledge about residents in the countries where projects are implemented, to take local residents' perspectives (be open to different points of view), and to build emotional connections with them (i.e., empathy). Formal rotation systems, however, may need to be applied with caution. A recent study suggests that the forced rotation system in large IO's such as the World Bank can have negative implications for organisational performance, potentially by limiting the accumulation of country expertise among staff (Heinzel, 2022). Lack of experiential learning was a key barrier for newer professionals. Key informants suggested that organisations could offer more junior positions. **"As a sector we should have and promote about 50 additional JPO or young professional positions in order for them to get the opportunity to learn on the go. This should be about gaining experience as well as contributing to the sector in order to eventually get hold of a few very suitable candidates who are able to work in this tough field. The more we send out to the field, the higher the chance we end up with a few good ones."**

Enable peer to peer learning: Many key informants suggested social peer to peer learning, mentoring, coaching and groupwork. Mentoring can be two way – with the newer professionals mentoring more experienced professionals and vice versa, given that newer and more experienced professionals often face challenges with different competencies. Another peer to peer learning option is to mingle team members with different cultural background: **"We should create tandems between locals and expats, because the thing is, expats talk**

to expats and locals to locals." Organisations could enable structured and unstructured opportunities for peer-to-peer learning, mentoring and exchange, with self-learning, reflection and discussion processes integrated. Specific opportunities can be tailored to specific groups, such as **"leadership circles where senior staff can reflect, discuss and exchange on specific challenges."**

Offer formal training opportunities: As mentioned above, organisations can also support formal learning opportunities by allowing staff time or supporting them financially to complete formal courses or programmes. Organisations can also arrange in house training on core cross cutting competencies. **"Big organisations with corporate character can and should provide inhouse trainings. For matters like negotiation skills, writing skills, and leadership specialised training institutes are needed."** While these opportunities are often made available for subject specific or method based competencies, many key informants felt that these training opportunities should also be made available for social and personal competencies – such as collaboration cooperation and teamwork, adaptability and flexibility, or creative thinking or specific attitudes (presence, humility).

6.4 Professionals (employees / future applicants)

Below are potential ways that professionals could respond to the opportunities and challenges listed above:

Experienced professionals should address the lack of incentives to continue learning, be open to new ideas, and 'see things differently', for instance, by acknowledging making the most of **"transferability of experience in/exposure to different contexts, as it triggers interest to learn from these experiences."** According to key informants, a way to address the expectations from themselves or others that as a more senior staff members they should already know, is to improve self-management by **"not only delegating tasks, but keeping their own responsibility, and acting as mentors to younger professionals."** Further, experienced professionals should consider combining further education with work in order to address the perceived lack of thematic subject matter knowledge on newer topics. In order to optimise their learning needs, they should also keep reflecting on their own qualities/attitudes: **"To be able to do so and to be motivated to do so, the role and purpose of competencies have to be taken more seriously."** A way to address the fear of change or becoming less important as a result of change, key informants suggested experienced practitioners should pro-actively develop within their respective organisations, for instance, by using opportunities – where available – such as **"in-house trainings, short duration coaching, paid further education / external training, peer to peer learning (self-learning, then come together, learn from each other and discuss etc.), as well as systematic mentoring (across countries)."**

When it comes to newer professionals, research shows that graduates not only need to develop skills, but also attitudes such as the willingness to apply them in practice (Ehlers, 2020). Younger professionals can seek ways to challenge themselves, seek to network purposefully, and seek a mentor as early as possible. Younger professionals should also strive for experiential learning: **"do not take only classroom learning but rather seize opportunities of learning by doing, on the job training."** New professionals can seek practical experience including through volunteering, joining social movements, approaching NGO, seeking intercultural exchange, travel, and trying to work in different roles and settings early in their career. Further, young professionals need to embrace the importance of competencies, and differentiate between knowledge, skills and attitudes. When applying for new jobs **"In the application process, one should know the organisation really well and make the application highly relevant to it. It is important to highlight the aspects that match and provide many tangible examples. Many CVs are often too theoretical. It is bad practice to keep one generic CV."** However, key informants also indicated that more openness and flexibility would help young professionals improve matching work life balance and career development: **"the later you start the more difficult it gets adjusting."**

For both experienced and newer professionals, considering the blurring lines between Global North and South, the localisation of IC, and the proliferation of new actors such as the private sector, **"IC practitioners will have to prepare for shifting their skills from working in the Global South to working in the Global North for instance by changing policy making through advocacy work."** In a similar vein, several key informants referred to the increasing importance of inner development and sustainability and their interplay (Jordan et al., 2021), including for example critical thinking, humility, and self-awareness: **"If you take the SDGs seriously you cannot not work on yourself as individual on a daily basis in the sense of inner development goals (IDGs)."** This is linked to key informants mentioning how essential it is to continuously reflect on one's purpose of engaging in IC, i.e., by asking **"about your why; be clear on this: some want to do good, some want the good pay. You got to be self-reflective."** Or put differently, practitioners should regularly ask themselves: why do I do, what I do? Such self-reflective approach contributes to expectations management, and it helps apprehend which competencies are needed for one's personal and professional deve-

lopment. In this sense, it facilitates identifying existing and lacking competencies, and seeking specific ways to address them. Self-awareness was seen as critical for all professionals including for competency development. **"Self-awareness is important. One first needs to recognise that they need these skills."**

In order to stay and/or become competent, it can be helpful that during their career paths young and experienced professionals seek exposure to different contexts (countries, cultures, organisations, etc.): **"It is helpful when people have worked in different roles and settings, as it makes people more aware of different perspectives, in that sense more open-minded. People sometimes live in their own world and sector."** While this may seem more obvious for the younger than for the more experienced professionals (because the latter often already have spent time in different contexts), its relevance for lifelong learning is supported by literature (Triandis, 1994).

7 Conclusions and further research

This study identifies the top ranked **trends and competencies** for IC practitioners for the year 2030, as prioritised by a sample of 230+ practitioners working in the Swiss IC sector. The identified trends and competencies echo literature on the topic. They reflect the fact that the IC sector is part of an interconnected, complex and uncertain world with many moving parts. This holds especially for trends such as climate change, water scarcity, human displacement and migration, inequality, and fragility which are systemically interlinked. The study also highlights that key informants anticipate that the sector will undergo a fundamental shift in the relationship between actors in the near future.

Our study, like many other studies, indicates that the emerging trends for the sector require revised or even new mental models and approaches, and a "new set" of competencies, including not only knowledge and skills, but also specific attitudes at the level of reflection on action, meta-cognition, critical self-reflection, or introspection. Many of the top ranked competencies also echo literature on '21st century skills' or 'future skills', such as critical thinking, systems thinking, adaptability and flexibility, collaboration and cooperation, creative thinking and innovation, self-awareness and self-reflection, and complex problem-solving which are seen as competencies needed to deal with volatility, uncertainty, complexity and ambiguity (Bialik et al., 2015), which are highly accentuated in the IC sector.

In terms of developing competencies, there seems to be a mind shift in the understanding of competencies. The key informant interviews indicate that the "traditional" and simplistic concept of defining competencies as skills is being replaced with a more comprehensive view. In addition to knowledge and skills, most key informants see "attitudes" (often referred to in terms like mindset, personality characteristic or traits, and values) as becoming more decisive in order to cope with the identified trends, and to be considered a competent practitioner. Interestingly, most key informants proceeded from the assumption that "attitudes" could be taught and learnt, with an inclination towards practice-orientation including individualised mechanisms promoting experiential learning (e.g. long-term on-the-job assignments, and mentorship programmes). While this is still debated, there is increasing recognition that attitudes can be acquired, especially if opportunities particularly time, combined with the right mechanisms are provided to deal with complex tasks. This holds similarly for younger and more experienced practitioners.

Despite this growing recognition, barriers remain. This study offers interesting findings concerning key challenges to develop the presented competencies, and how training institutions, employers and practitioners could respond. Many of the perceived key challenges and responses revolve around the way competencies are thought of, talked about, valued and approached in theory and practice. Key barriers include organisational cultures that inhibit or undervalue learning, the unsystematic approach to fostering competencies, the lack of time or resources, lack of relevant practice-oriented learning opportunities provided by training institutes and employers, and the lack of time to seize the few existing learning opportunities. Chapter 6. Implications for training institutions, employers and professionals provides an overview of what different actor can do to overcome these barriers and support competency development.

Throughout this study, several topics warranting further research emerged. We recommend further IC sector specific research on the following topics:

- The future organisations needed for the IC sector. Organisational barriers were identified as one of the key inhibitors to competency development and deployment by key informants. Further specific research into organisational structures, procedures and cultures that actively enable professionals to develop and deploy competencies would be valuable.

- How to specifically develop attitudes for the competencies identified in different settings, beyond the mechanisms mentioned in this study. More research is needed to fully understand how these mechanisms help individuals to develop attitudes.
- How competencies (including associated attitudes) contribute to both individual outcomes and performance, and organisational outcomes and performance in the IC sector. There is little research into how some of the "newer" competencies identified in this study, including personal and social competencies and associated attitudes, contribute to individual or organisational performance outcomes in the IC sector.

Bibliography

Acedo, C., & Hughes, C. (2014). Principles for learning and competencies in the 21st-century curriculum. PROSPECTS, 44, 503–525. https://doi.org/10.1007/s11125-014-9330-1

Albarracin, D., Johnson, B. T., Zanna, M. P., & Kumkale, G. T. (2005). Attitudes: Introduction and scope. In In D. Albarracin, B. T. Johnson, & B. T. Zanna (Eds.), The handbook of attitudes (pp. 3–21).

Baartman, L. K., & De Bruijn, E. (2011). Integrating knowledge, skills and attitudes: Conceptualizing learning processes towards vocational competency. Educational Research Review, 6(2), 125–134. Educational Research Review, 6 (2), 125–134. https://doi.org/10.1016/j.edurev.2011.03.001

Baiden, M., Book, M., Leedham, S., & Thompson, A. (2022). INGOs & the Long Humanitarian Century: LEADERSHIP SURVEY REPORT. https://www.nuffield.ox.ac.uk/media/5189/ingos_leadership_report_final_single-pages.pdf

Bialik, M., Fadel, C., Trilling, B., Nilsson, P., & Groff, J. (2015). 21st Century Skills: What should students learn? Center for Curriculum Redesign, May. https://curriculumredesign.org/wp-content/uploads/CCR-Skills_FINAL_June2015.pdf

Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining Twenty-First Century Skills. In P. Griffin, B. McGaw, & E. Care (Eds.), Assessment and Teaching of 21st Century Skills (pp. 17–66). Springer Netherlands. https://doi.org/10.1007/978-94-007-2324-5_2

BlackRock. (2022). Megatrends entdecken. https://www.blackrock.com/ch/privatanleger/de/themen/thematisch-anlegen?siteEntryPassthrough=true&cid=ppc:blk_CH:thematics:Google:generic:de&gclid=CjwKCAjwrNmWBhA4EiwAHbjEQBthEwxOsPaX0M4f5Mf2U1O5hAmSvOVp25J-iK-NOewGUghTKSx8qEhoCy-IQAvD_BwE&gclsrc=aw.ds

Cambridge University Press. (2022). Cambridge Dictionary. https://dictionary.cambridge.org/dictionary/english/trend

Cherry, K. (2021). Attitudes and Behaviour in Psychology. Very Well Mind.

CHS Alliance. (2017). Core Humanitarian Competency Framework. https://www.chsalliance.org/files/files/CHCF - Framework.pdf

cinfo, & BASS, C. for L. and S. P. S. B. A. (2020). International Cooperation Key Observations on the Swiss Labour Market 2010 – 2018: Final report.

Deloitte. (2017). Beyond the Noise The Megatrends of Tomorrow's World. https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/public-sector/deloitte-nl-ps-megatrends-2ndedition.pdf

Devex, USAID, & DAI. (2018). Next Generation Professional.

Dunn, K., Fortier, E., Taylor, R., Weiss, J., Holohan, W., Bialik, M., & Fadel, C. (2021). Embedding competencies within disciplines.

Ehlers, U.-D. (2020). "Future Skills – Future Learning, Future Higher Education." https://doi.org/10.1007/978-3-658-29297-3

Fadel, C., Bialik, M., & Trilling, B. (2015). Four-Dimensional Education: The Competencies Learners Need to Succeed. https://curriculumredesign.org/our-work/four-dimensional-21st-century-education-learning-competencies-future-2030/

Ferreras, A. P., Bernardo, A. B., Rivas, S. F., Saiz, C., & Ossa, C. (2022). Metacognitive Strategies and Development of Critical Thinking in Higher Education. Frontiers in Psychology | www.Frontiersin.Org, 1, 913219. https://doi.org/10.3389/fpsyg.2022.913219

Harvey, L. (2000). New realities: The relationship between higher education and employment. Tertiary Education & Management, 6(1), 3–17.

Heinzel, M. (2022). International Bureaucrats and Organizational Performance. Country-Specific Knowledge and Sectoral Knowledge in World Bank Projects. International Studies Quarterly, 66(2), sqac013. https://doi.org/10.1093/isq/sqac013

Inner Development Goals. (2022). IDG tools: Inner Development Toolkit.

IPCC. (2022). Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (B. R. (eds. . H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Aleg (ed.)).

Jordan, T., Reams, J., Stålne, K., Greca, S., Henriksson, J. A., Björkman, T., & Dawson, T. (2021). Inner Development Goals: Background, method and the IDG framework.

Joynes, C., Rossignoli, S., & Amonoo-Kuofi, E. F. (2019). 21st Century Skills: evidence of issues in definition, demand and delivery for development contexts. Connected Learning Alliance, Digital Media and Learning Research Hub. Irvine, CA. August, 1–75.

Kraaijenbrink, J. (2019). Is The World Really More VUCA Than Ever? Forbes. https://www.forbes.com/sites/jeroenkraaijenbrink/2019/01/04/is-the-world-really-more-vuca-than-ever/?sh=502d69931a64

Lehner, M. (2021). 21st century skills gezielt fördern.

Liedtka, J. M. (1998). Strategic thinking: Can it be taught? Long Range Planning, 31(1), 120–129. https://doi.org/10.1016/S0024-6301(97)00098-8

National Research Council. (2012). Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century.

OECD. (2005). The definition and selection of key competencies.

OECD. (2015). Adults, Computers and Problem Solving: What's the Problem?

OECD. (2017). Skills for a High Performing Civil Service, OECD Public Governance Reviews. https://doi.org/10.1787/9789264280724-en

OECD. (2018). Skills for the 21st century: findings and policy lessons from the OECD survey of adult skills.

Oxford University Press. (2022). Oxford Learner's Dictionaries.

Project Management Insitute, I. (2022). Global megatrends. https://doi.org/10.1071/9781486301416

PwC. (2015). Megatrends: 5 global shifts changing the way we live and do business. https://www.pwc.co.uk/issues/megatrends.html

Seidl, T., Baumgartner, P., Brei, C., Lohse, A., Kuhn, S., Michel, A., Pohlenz, P., Quade, S., & Spinath, B. (2018). (Wert-)Haltung als wichtiger Bestandteil der Entwicklung von 21st Century Skills an Hochschulen (AG Curriculum 4.0). Diskussionspapier Nr. 3. https://doi.org/10.5281/zenodo.2634975

Škrinjarić, B. (2022). Competence-based approaches in organizational and individual context. Humanities and Social Sciences Communications, 9(1), 28. https://doi.org/10.1057/s41599-022-01047-1

Swiss Federal Administration. (2013). Competency Model of the Swiss Federal Administration. 11.

Szmigiera, M. (2021). Global megatrends - Statistics & Facts. https://www.statista.com/topics/3512/global-megatrends/

Triandis, H. C. (1994). Culture and Social Behavior.

United Nations. (2020). Report of the UN economist network for the UN 75th anniversary; Shaping the trends of our time. Shaping the Trends of Our Time, 1–206. https://www.un.org/development/desa/publications/wp-content/uploads/sites/10/2020/09/20-124-UNEN-75Report-1.pdf

United Nations Environment Programme, I. R. P. (2015). Options for Decoupling Economic Growth from Water Use and Water Pollution: A Report of the Water Working Group of the International Resource Panel - Summary for Policy Makers. https://wedocs.unep.org/20.500.11822/7539

van Laar, E., van Deursen, A. J. A. M., van Dijk, J. A. G. M., & de Haan, J. (2020). Determinants of 21st-Century Skills and 21st-Century Digital Skills for Workers: A Systematic Literature Review. SAGE Open, 10(1), 2158244019900176. https://doi.org/10.1177/2158244019900176

Victorian Public Sector Commission. (2022). Victorian Public Service Capability Framework. https://vpsc.vic.gov.au/resources/vps-capability-framework/

White, L. A., Saleem, S., Dhuey, E., Perlman, M., White, L. A., Saleem, S., Dhuey, E., & Perlman, M. (2022). Review of International Political Economy A critical analysis of international organizations' and global management consulting firms' consensus around twenty-first century skills. Review of International Political Economy, 0(0), 1–26. https://doi.org/10.1080/09692290.2022.2097289

World Economic Forum. (2020). The future of jobs report 2020. In The Future of Jobs Report (Issue October). https://www.weforum.org/reports/the-future-of-jobs-report-2020/digest

Annexes

Annex 1: List of predefined trends based on a literature review

Biodiversity: Loss of biodiversity is projected to continue with huge impacts on many industries that rely on nature.

Blurring of North-South distinctions: Challenges in 'developing' countries increasingly resemble those in 'developed' (e.g. environmental management, migration, equity, pandemic, climate change).

China's rise: China's 'big push' on global development has shifts in global economic and political powers.

Climate change: Physical impacts of climate change (such as more intense or frequent floods, droughts and storms) and adaptation of ecological, social and economic systems to those impacts.

Collaboration with the private sector: Connecting with private sector on sustainable development (e.g. public private partnerships, blended finance, impact investing, sustainable supply chains).

Connections: Narrowing distance between people around the world through new ways to connect (e.g. crowdfunding, direct cash transfers).

Decolonisation: Movement to transform institutions addressing racist and discriminatory structures and norms.

Digitalisation: Digital technologies and data science will be deployed bringing both progress and new risks.

Evidence-informed policymaking: Use of evidence in policy-making is increasing.

Fragility: Most of the global poor will be living in fragile states.

Fragmentation: Increasing number of actors in global development cooperation.

Globalisation: Increasing number of challenges that transcend borders and cannot be solved nationally.

Human displacement and migration: Voluntary or involuntary movement of people within or across national borders.

Increasing inequalities: Extreme poverty has been declining, but the gap between the richest and poorest is widening globally and nationally.

Low carbon transition: The global transition to low emissions economies.

Nexus peace, humanitarian, and development: Interlinking humanitarian, development and peace-building efforts.

Policy coherence: Pressure to align domestic policies (e.g. agriculture, tax, migration) with development policies will increase.

Population growth: Rapid population growth in many African countries until 2030.

Shrinking space for civil society: including repression for citizens and social movements showing resistance against the status quo.

Social media: Increasing use of social media for information and communication around the world.

Social justice movements: Social justice movements of marginalised groups are gaining power.

South-South cooperation: Cooperation between countries from the Global South will become the new normal.

Urbanisation: Fast urbanisation around the globe and in particular in Africa and Asia.

Water scarcity: It is estimated that in 2030, global water demand will exceed current supplies by 40%.

Annex 2: List of predefined competencies based on the literature review

Active learning and learning strategies: Ability to understand the implications of new information for decision-making. And ability to use training/instructional methods appropriate for the situation when learning or teaching new things

Adaptability and Flexibility: Ability to adjust effectively to a changing environment and deal well with changes and uncertainty

Analytical Thinking: Ability to break down processes and systems into parts while understanding their interaction

Authenticity, Self-presentation and Social Influence: Ability to present an authentic and professional image of self to others and motivate others to the adoption of a specific behaviour

Collaboration, Cooperation and Teamwork: Ability to build relationships with others to pursue common goals and achieve results in a constructive atmosphere

Communication: Ability to communicate with others in different contexts and forms

Complex Problem-solving: Ability to define a complex problem and navigate solutions for it

Concepts and Theories: Ability to understand and apply the basic concepts and definitions that are relevant for a specific thematic subject or a field

Creative Thinking and Innovation: Ability to apply alternative thinking to develop and implement new, original ideas and answers

Critical Thinking: Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems

Customer and Service Orientation: Ability to approach relationships with others and society in terms of what you have to offer rather than what you need or want

Data Literacy: Ability to utilise diverse data sources to improve the speed and quality of programming and decision-making processes

Decision-making: Ability to define a situationally appropriate decision and a set of alternative actions from which to choose

Digital and Technological Literacy: Ability to integrate digital and technological developments in the design and delivery of relevant policies, programmes and services

Diversity inclusive: Diversity inclusive: Ability to recognise differences among people, embrace and draw on insights from diverse perspectives including international and interdisciplinary experiences to inform and take required actions

Integrity and Work Ethics: Adherence to moral and ethical principles in the conduct of own work and in the relationship with others

Leadership and Responsibility (people management): Ability to motivate and inspire others and support others' achievements

Negotiation: Ability to advocate positions with an open mind and try to synthesize ideas from all viewpoints best

Results-based Project and Programme Management: Ability to manage projects and programmes and produce results

Self-awareness and Self-reflection: Ability to understand own strengths and weaknesses, and the (changing) roles one acts in, and enhance self-development

Self-direction and Self-management: Ability to motivate oneself, deal with ambiguity, stay resilient, and organise own work in order to achieve results

Strategic Thinking and Future Focus: Ability to develop a broad, big-picture and long term view and link it to daily work. Ability to bring together relevant trends, emerging technology and future opportunities.

Systems Thinking: Ability to consider the wider context, break complex topics or situations into smaller parts to gain better insights and inform actions required

Techniques and Technologies: Ability to understand and apply techniques and technologies in use within a specific thematic subject or field

Annex 3: Semi-structured survey

This survey has been edited as the data collection related to several studies. Content not related to this study has been removed for brevity.

Start of Block: Intro

Welcome We thank you very much for your kind participation in this survey!
Your answers will support the NADEL team to improve its teaching activities.

The survey has 35 questions and will take about 15 minutes of your time. It is completely anonymous. You can end the survey at any time or return to where you stopped.

For every completed survey, we will donate 5 CHF=1 vaccine to https://gogiveone.org/. The money raised goes to the Gavi COVAX AMC, which funds COVID-19 vaccines for low-income countries.

For any questions related to the survey, please contact: kimon.schneider@nadel.ethz.ch

Thank you very much for your participation.
Your NADEL team.

End of Block: Intro

Start of Block: Part A - NADEL Background

X→

A1 What programme/courses do/did you follow at NADEL?

I completed a CAS in Development and Cooperation (1)

I am currently enrolled in a CAS in Development and Cooperation (2)

I took CAS courses as part of the MAS in Development and Cooperation (3)

I have so far only taken single courses at NADEL (4)

Page Break

X→

A3 Which year did you take your first course at NADEL?

▼ 2005 (1) ... Can't remember (19)

X→

A4 Which year did you take your last course at NADEL (can be the same year as the first course)?

▼ 2005 (1) ... Can't remember (19)

A6 What was your status while you attended courses at NADEL (please select all that apply).

Unemployed (1)

Sabbatical (2)

Student (3)

Employed with an NGO (4)

Employed with industry / private sector (5)

Employed with a private foundation (6)

Employed with multilateral development organisation (e.g. UN, WB, IMF) (7)

Employed with bilateral development organisation (e.g. SDC, SECO, GIZ, DFID) (8)

Employed with a university (9)

Other (10) _____

X→

A7 How many years had you been working in international cooperation (or related) when you took your first course at NADEL?

▼ 0 years (1) ... Can't remember (11)

X→

A8 Are you currently working in a job related to development and cooperation?

Yes, working for an organisation engaged in global development cooperation (1)

Yes, working for an organisation NOT engaged in global development cooperation, but my job is linked to global development (3)

No (2)

Display This Question:

If Are you currently working in a job related to development and cooperation? = No

X→

A9.1 Why not?

Because... (1) _____

Prefer not to say (2)

Don't know (3)

Display This Question:

If Are you currently working in a job related to development and cooperation? = Yes, working for an organisation engaged in global development cooperation

X→

A9.2 What is the name of your employer?

My current employer is... (1) _____

Prefer not to say (2)

Start of Block: PART D – Future directions and competencies

D1 NADEL is interested in **trends (Stossrichtungen)** which will be **important for international development cooperation** in the near future (2030). Please prioritise the following 6 trends from the most important to the least important for the work of international development organisations. Even if you consider all of the trends as important, please try to rank them nevertheless. You can click on the trends and move them up or down.

_____ **Evidence-informed policymaking:** Use of evidence in policy-making is increasing. (1)

_____ **Collaboration with the private sector:** Connecting with private sector on sustainable development (e.g. public private partnerships, blended finance, impact investing, sustainable supply chains). (2)

_____ **Nexus peace, humanitarian, and development:** Interlinking humanitarian, development and peace-building efforts. (4)

_____ **Fragmentation:** Increasing number of actors in global development cooperation. (41)

_____ **Shrinking space for civil society:** including repression for citizens and social movements showing resistance against the status quo. (64)

_____ **Decolonisation:** Movement to transform institutions addressing racist and discriminatory structures and norms. (6)

_____ **Digitalisation:** Digital technologies and data science will be deployed bringing both progress and new risks. (8)

_____ **Connections:** Narrowing distance between people around the world through new ways to connect (e.g. crowdfunding, direct cash transfers). (14)

_____ **Blurring of North-South distinctions:** Challenges in 'developing' countries increasingly resemble those in 'developed' (e.g. environmental management, migration, equity, pandemic, climate change). (9)

_____ **Policy coherence:** Pressure to align domestic policies (e.g. agriculture, tax, migration) with development policies will increase. (11)

_____ **Climate change:** Physical impacts of climate change (such as more intense or frequent floods, droughts and storms) and adaptation of ecological, social and economic systems to those impacts. (15)

_____ **Human displacement and migration:** Voluntary or involuntary movement of people within or across national borders. (35)

_____ **South-South cooperation:** Cooperation between countries from the Global South will become the new normal. (16)

_____ **Urbanisation:** Fast urbanisation around the globe and in particular in Africa and Asia. (31)

_____ **Increasing inequalities:** Extreme poverty has been declining, but the gap between the richest and poorest is widening globally and nationally. (33)

_____ **China's rise:** China's 'big push' on global development has shifts in global economic and political powers. (36)

_____ **Low carbon transition:** The global transition to low emissions economies. (66)

_____ **Social justice movements:** Social justice movements of marginalised groups are gaining power. (67)

_____ **Population growth:** Rapid population growth in many African countries until 2030. (68)

_____ **Water scarcity:** It is estimated that in 2030, global water demand will exceed current supplies by 40%. (69)

_____ **Biodiversity:** Loss of biodiversity is projected to continue with huge impacts on many industries that rely on nature. (70)

_____ **Fragility:** Most of the global poor will be living in fragile states. (71)

_____ **Globalisation:** Increasing number of challenges that transcend borders and cannot be solved nationally. (72)

_____ **Social media:** Increasing use of social media for information and communication around the world. (73)

D2 Which additional trends do you consider relevant for development professionals in the near future 2025–2030 (if any)?

Suggestion 1 (1)_____

Suggestion 2 (2) _____

Suggestion 3 (3) _____

D3 D3 NADEL is interested in the required competencies for development professionals in the near future (2030). Competence consists of integrated pieces of knowledge, skills, and attitudes, and is a prerequisite for adequate functioning on the job. Please indicate whether you think each of the following 6 competencies' relevance will increase, stay the same or decrease over the next 10 years relative to its relevance today. In a second step, we would like you to prioritise among the 6 competencies. According to your opinion, please choose the 2 most important, 2 somewhat important and the 2 least important competencies in 2030. Even if you consider all 6 competencies as important, please sort them into the three groups.

	Relevance of competencies in 2030			**Relevance of this competency from 2021 to 2030 will**		
	Most important (1)	**Somewhat important (2)**	**Least important (3)**	**Increase (1)**	**Stay the same (2)**	**Decrease (3)**
Concepts and Theories: Ability to understand and apply the basic concepts and definitions that are relevant for a specific thematic subject or a field (1)						
Techniques and Technologies: Ability to understand and apply techniques and technologies in use within a specific thematic subject or field (2)						
Analytical Thinking: Ability to break down processes and systems into parts while understanding their interaction (3)						
Systems Thinking: Ability to consider the wider context, break complex topics or situations into smaller parts to gain better insights and inform actions required (20)						
Strategic Thinking and Future Focus: Ability to develop a broad, big-picture and long term view and link it to daily work. Ability to bring together relevant trends, emerging technology and future opportunities. (26)						

	Relevance of competencies in 2030			Relevance of this competency from 2021 to 2030 will		
	Most important (1)	Somewhat important (2)	Least important (3)	Increase (1)	Stay the same (2)	Decrease (3)
Data Literacy: Ability to utilise diverse data sources to improve the speed and quality of programming and decision-making processes (4)						
Decision-making: Ability to define a situationally appropriate decision and a set of alternative actions from which to choose (5)						
Digital and Technological Literacy: Ability to integrate digital and technological developments in the design and delivery of relevant policies, programmes and services (7)						
Complex Problem-solving: Ability to define a complex problem and navigate solutions for it (8)						
Results-based Project and Programme Management: Ability to manage projects and programmes and produce results (9)						
Communication: Ability to communicate with others in different contexts and forms (11)						
Collaboration, Cooperation and Teamwork: Ability to build relationships with others to pursue common goals and achieve results in a constructive atmosphere (12)						
Customer and Service Orientation: Ability to approach relationships with others and society in terms of what you have to offer rather than what you need or want (13)						
Leadership and Responsibility (people management): Ability to motivate and inspire others and support others' achievements (14)						

	Relevance of competencies in 2030			Relevance of this competency from 2021 to 2030 will		
	Most important (1)	Somewhat important (2)	Least important (3)	Increase (1)	Stay the same (2)	Decrease (3)
Authenticity, Self-presentation and Social Influence: Ability to present an authentic and professional image of self to others and motivate others to the adoption of a specific behaviour (15)						
Diversity inclusive: Diversity inclusive: Ability to recognise differences among people, embrace and draw on insights from diverse perspectives including international and interdisciplinary experiences to inform and take required actions (16)						
Negotiation: Ability to advocate positions with an open mind and try to synthesize ideas from all viewpoints best (17)						
Adaptability and Flexibility: Ability to adjust effectively to a changing environment and deal well with changes and uncertainty (18)						
Creative Thinking and Innovation: Ability to apply alternative thinking to develop and implement new, original ideas and answers (19)						
Critical Thinking: Ability to use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems (21)						
Integrity and Work Ethics: Adherence to moral and ethical principles in the conduct of own work and in the relationship with others (22)						
Self-awareness and Self-reflection: Ability to understand own strengths and weaknesses, and the (changing) roles one acts in, and enhance self-development (23)						

	Relevance of competencies in 2030			Relevance of this competency from 2021 to 2030 will		
	Most important (1)	Somewhat important (2)	Least important (3)	Increase (1)	Stay the same (2)	Decrease (3)
Active learning and learning strategies: Ability to understand the implications of new information for decision-making. And ability to use training/instructional methods appropriate for the situation when learning or teaching new things (24)						
Self-direction and Self-management: Ability to motivate oneself, deal with ambiguity, stay resilient, and organise own work in order to achieve results (25)						

End of Block: PART D – Future directions and competencies

Start of Block: Part E – Personal information and social media

X→

E1 Please select as applicable.

Female (1)

Male (2)

Non-binary / third gender (3)

Prefer not to say (4)

E4 Please enter your current country of residence.

_____

E7 Any last feedback or ideas you would like to give the NADEL team on its course offerings and programmes?

_____

Page Break

Annex 4: Key informant interview questionnaire

1. Which fields of activity, which types of interventions or working methods will become more important in IC (new directions / trends of development / Stossrichtungen)?
   - Most significant trends in DC

     Q1: What do you see as the trends in DC with the biggest / most significant implications for practitioners' work today and in the near future (2030)?
   - Q1.1: if needed: respondent shall describe the implication
   - Cross-check with trends from survey Q1.2: Showing PPT, take 2 minutes and prioritise 3-4 key trends.
   - Q1.2.1: When you look at the PPT slide with the 4 most and 4 least important trends from survey, is there any surprise or is all as expected?
2. Taking into account the definition of competencies integrating the notions of skills, knowledge and attitude what are the major developments in terms of competencies needed to work in the selected directions of the IC (Stossrichtungen)?
   - Competencies today

     Q2: Given the above discussed trends in DC, which competencies do you think are the most important for DC practitioners today?
   - Today's competencies in future

     Q2.1: And (given the above discussed trends in DC) which competencies do you think will until 2030 become:

     (ii) more important?

     (iii) less important?

     (iv) stay the same?
   - New competencies in future

     Q2.2: Are there any entirely new competencies that you believe will emerge?
   - Cross-check with competencies from survey

     Q2.3: Showing PPT, take 2 minutes and prioritise 3-4 competencies.

     Q2.3.1: When you look at the PPT slide with the 4 most and 4 least important competencies from survey, is there any surprise or is all as expected?

3. How can such competencies be acquired or further fostered? What has been the experience so far?
   - Mechanisms of developing (i.e. acquiring & fostering) competencies

     Q3: How can such competencies be acquired or further fostered? What has been your experience so far?
   - Young vs experienced professionals

     Q3.1: In your view, is this different for people with limited experience in IC compared to those who know the sector well?

4. What are the most important challenges to acquire these competencies for potential employees in the IC who have only a limited experience in this sector. How are they different from challenges to those knowing the sector.
   - Development (acquisition and fostering) challenges for young professionals

     Q4: What do you think are the most important challenges to acquire these competencies for potential employees in the IC who have only a limited experience in this sector?
   - Development (acquisition and fostering) challenges for experienced professionals

     Q4.1: How are they different from challenges to those knowing the sector?

5. How should training institutions and employers cope with the corresponding implications / challenges? What about employees or future applicants?
   - Training institutions' measures

     Q5.1: How should training institutions cope with the corresponding implications / challenges (associated with the changing or new competency needs/requirements discussed)?
   - Employers' measures

Q5.2: How should employers cope with the corresponding implications/challenges (associated with the changing or new competency needs/requirements discussed)?

- Employees'/future applicants' measures

  Q5.3: What about employees or future applicants?

Concluding questions:

- Which 2–3 attitudes do you find most essential (considering the above discussion)?

  2. What are 1–2 effective ways to facilitate the acquisition / fostering of these attitudes?
- What is your personal take-away from this interview?

Annex 5: Adapted competencies framework

SUBJECT-SPECIFIC COMPETENCIES – Knowledge of theories, concepts, and techniques and its application to specific fields							
Concepts and Theories: Ability to understand and apply the basic concepts and definitions that are relevant for a scientific subject or a field				**Techniques and Technologies:** Ability to understand and apply techniques and technologies in use within a specific scientific subject or field			
METHOD-SPECIFIC COMPETENCIES – Knowledge and application of methods to make sense of, and operate in, any context							
Analytical Thinking: Ability to break down processes and systems into parts while understanding their interaction	**Systems thinking:** Ability to consider the wider context, break complex topics or situations into smaller parts to gain better insights and inform actions required **(adopted from Arnold and Wade 2017, and adjusted to ETH framework)** (ref. -> A10, A12, G12, C24)	**Strategic thinking and future focus:** Ability to develop a broad, big-picture and long-range view and link it to daily work. Ability to bring together competitive advantage and threats, relevant trends, emerging technology, market opportunities, stakeholder focus. **(adopted from (Liedtka, 1998)**, and adjusted to ETH framework) (ref. -> B10, E10-13, G10-13, B16-19, B22-25)	**Data Literacy:** Ability to utilise diverse data sources to improve the speed and quality of programming and decision-making processes **(adjusted to ETH framework)** (ref. -> A11, A12, E12)	**Decision-making:** Ability to define a decision and a set of alternative actions from which to choose	**Digital and Technological Literacy:** Ability to integrate digital and technological developments in the design and delivery of relevant policies, programmes and services **(adjusted to ETH framework)**	**Complex Problem-solving:** Ability to define a complex problem and find solutions for it	**Results-based Project and Program Management:** Ability to manage projects and programmes and produce results
SOCIAL COMPETENCIES – Competencies applied in the interaction with others							
Communication: Ability to communicate with others in different contexts and forms	**Collaboration, Cooperation and Teamwork:** Ability to build relationships with others to pursue common goals and achieve results in a constructive atmosphere	**Customer Orientation and Service Orientation:** Ability to approach relationships with others and society in terms of what you have to offer rather than what you need or want	**Leadership and Responsibility (people management):** Ability to motivate and inspire others and support others' achievements	**Self-presentation and Social Influence:** Ability to present an authentic and professional image of self to others and motivate others to the adoption of a specific behaviour	**Embrace Diversity:** Ability to recognise differences among people and work with them, and be open and motivated to embrace international or interdisciplinary experience	**Negotiation:** Ability to advocate positions with an open mind and try to synthesise ideas from all viewpoints best	
Adaptability and Flexibility: Ability to adjust effectively to a changing environment and deal well with changes	**Creative Thinking and Innovation:** Ability to apply alternative thinking to develop and implement new, original ideas and answers.	**Critical Thinking:** Ability to analyse and evaluate situations, identify the strengths and weaknesses of alternative solutions, and derive conclusions or approaches to problems	**Integrity and Work Ethics:** Adherence to moral and ethical principles in the conduct of own work and in the relationship with others	**Self-awareness and Self-reflection:** Ability to understand own strengths and weaknesses and enhance self-development	**Active learning and learning strategies:** Ability to understand the implications of new information for both current and future problem-solving and decision-making, and to select and use training/instructional methods and procedures appropriate for the situation when learning or teaching new things. **(adjusted to ETH framework)** (ref. ->E12, G12, H13, E23, E24, A25, C25, E25)	**Self-direction and Self-management:** Ability to motivate oneself, stay resilient, and organise own work in order to achieve results	

cinfo

Rue Centrale 115
2503 Bienne
+41 (0)32 365 80 02
info@cinfo.ch
www.cinfo.ch

Job Portal and Recruitment
HR-Marketing
HR and Career Development
Networking
Monitoring

On behalf of the Swiss Confederation and in collaboration with the main organisations in the sector.