

Sub-Project 2 – Individual Competence Portfolio

Motivation

The competence portfolio creates a common understanding of key competences for all parties involved. The enhanced transparency improves information, communication, and reflection processes:

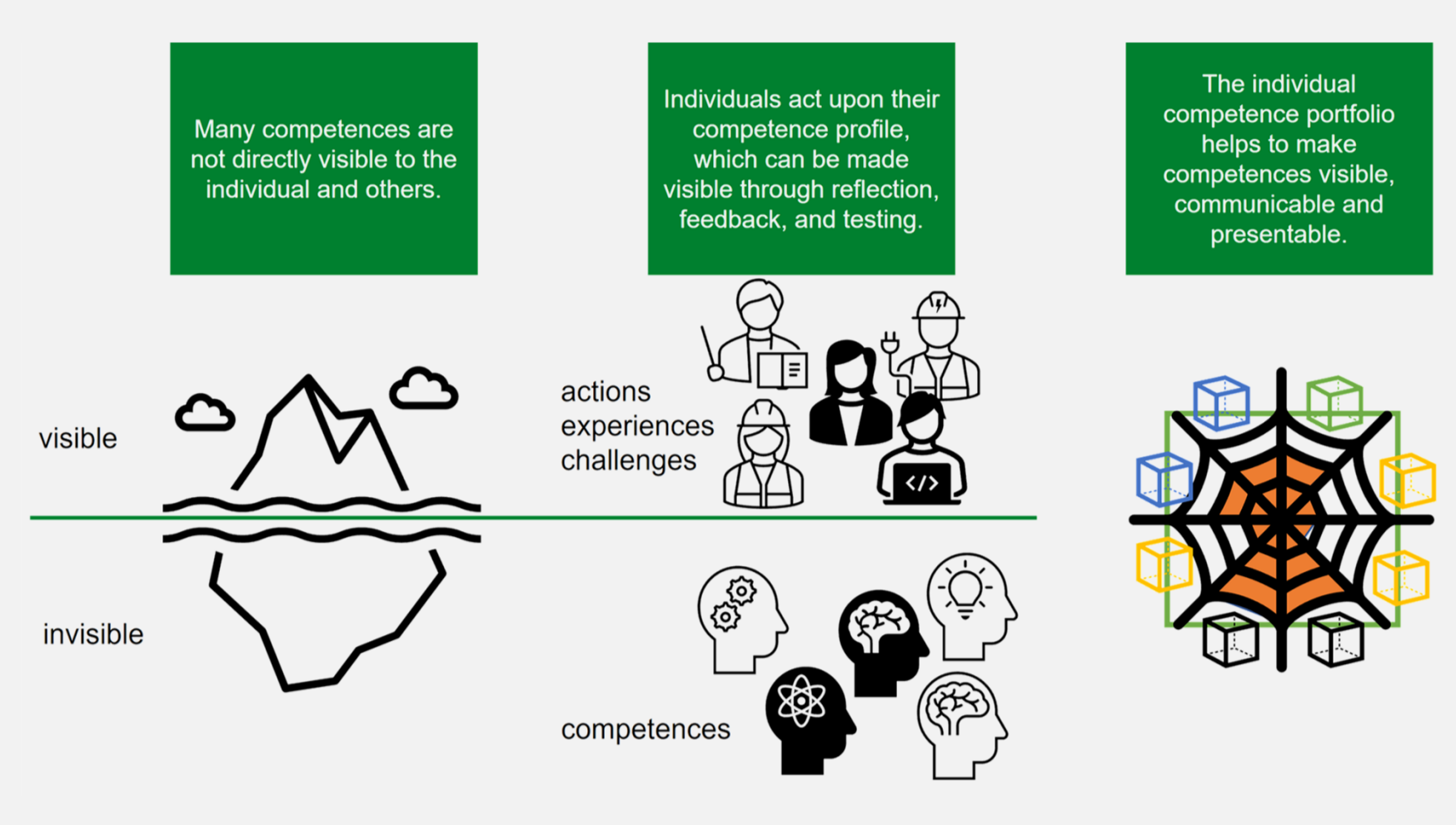
Individual learners can comprehensively document their competences. From a pedagogical perspective, the portfolio leads to a higher learning motivation since increased transparency supports self-efficacy in the individual competence management. Moreover, by enabling to link informal and formal learning, more agency is given to the individuals, improving self-reflection and self-management. A structured analysis of one's own level of competence forms the basis for reflections about and decisions on further training. Such support is essential for lifelong learning.

Companies benefit from the portfolios as a complement to internal competence management efforts. More transparent information on potential applicants can be assessed, which helps to better judge on the fit within recruiting processes. In addition, individual portfolios can be used to identify internal competence gaps and, based on this, to further develop employees in a targeted manner.

Education providers can use the portfolios as an answer to heterogeneity problems. For one thing, portfolios provide an overview of their – increasingly diverse – learners' prior knowledge and prior experiences. In addition, learning content is being applied in increasingly varying contexts. Through competence portfolios, the flow of information of different job profiles is enhanced.

Goal and Applicability

The overall goal is to generate a common understanding of competences and to enhance transparency, comparability and communicability thereof. This goal will be achieved by designing a basic competence framework and complementary industry-specific grids. The portfolio structure is key for smart professional education in the future: It informs and engages individuals, and is the starting point for recommendations and coaching. After successful completion of the flagship project, the portfolio structure can be adapted to further sectors / associations.



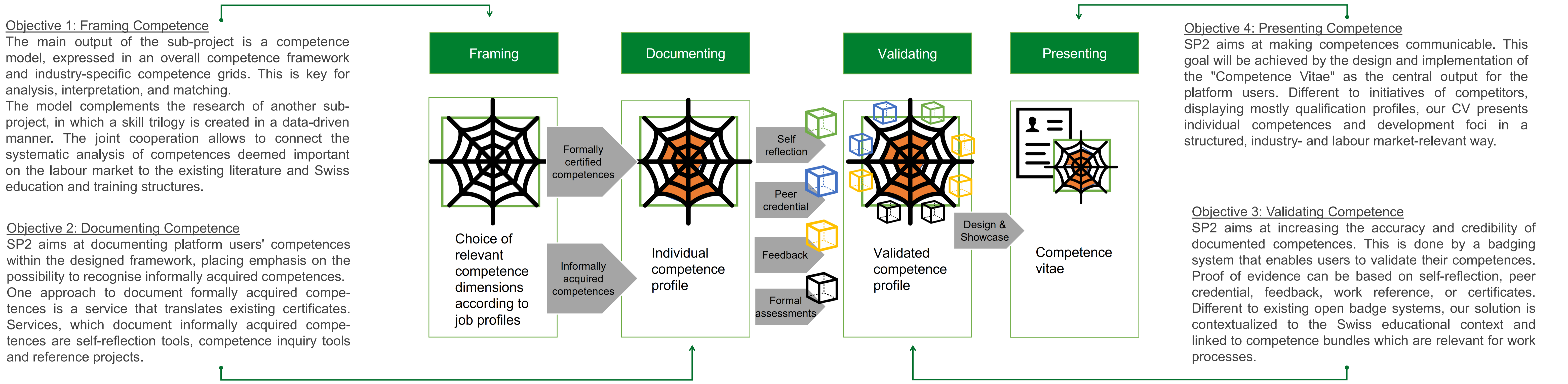
Added Value

Competence Biographies
The sub-project combines competence recognition with digital credentials and the further development process. As such, an important contribution lies in advancing competence orientation on the credential site. The implementation of an easy to share *Competence Vitae* is an important step towards a socially shared, self-regulated competence orientation, away from segmented further education and predetermined career paths, towards creating one's own competence profiles.

Competence-oriented assessments
Upon the recent research on the use of e-portfolios we develop the approach further, not only designing an interface for the individual to present own competences, but to integrate competence development with competence certification. On the flagship level, the competence portfolio is key to scaffold the whole learning cycle.

Integrating education in a seamless manner
Based on the research on Seamless Learning we design an integrative competence portfolio, within which different approaches and settings to develop competence find one nexus. The competence portfolio is open to multiple educational approaches, integrating formal, non-formal and informal learning. The design of the competence portfolio is using the whole potential of digital technology as digital zone, instrument, interaction, and self-regulated learning tool.

Sub-Project Overview



Preliminary Working Results

Classification of Competence Models

As part of a literature review on competence models, a comparative framework was generated, shown in the table below. The classification helps categorise relevant reference models. As a morphological box, the table provides a starting point for the development of new competence models.

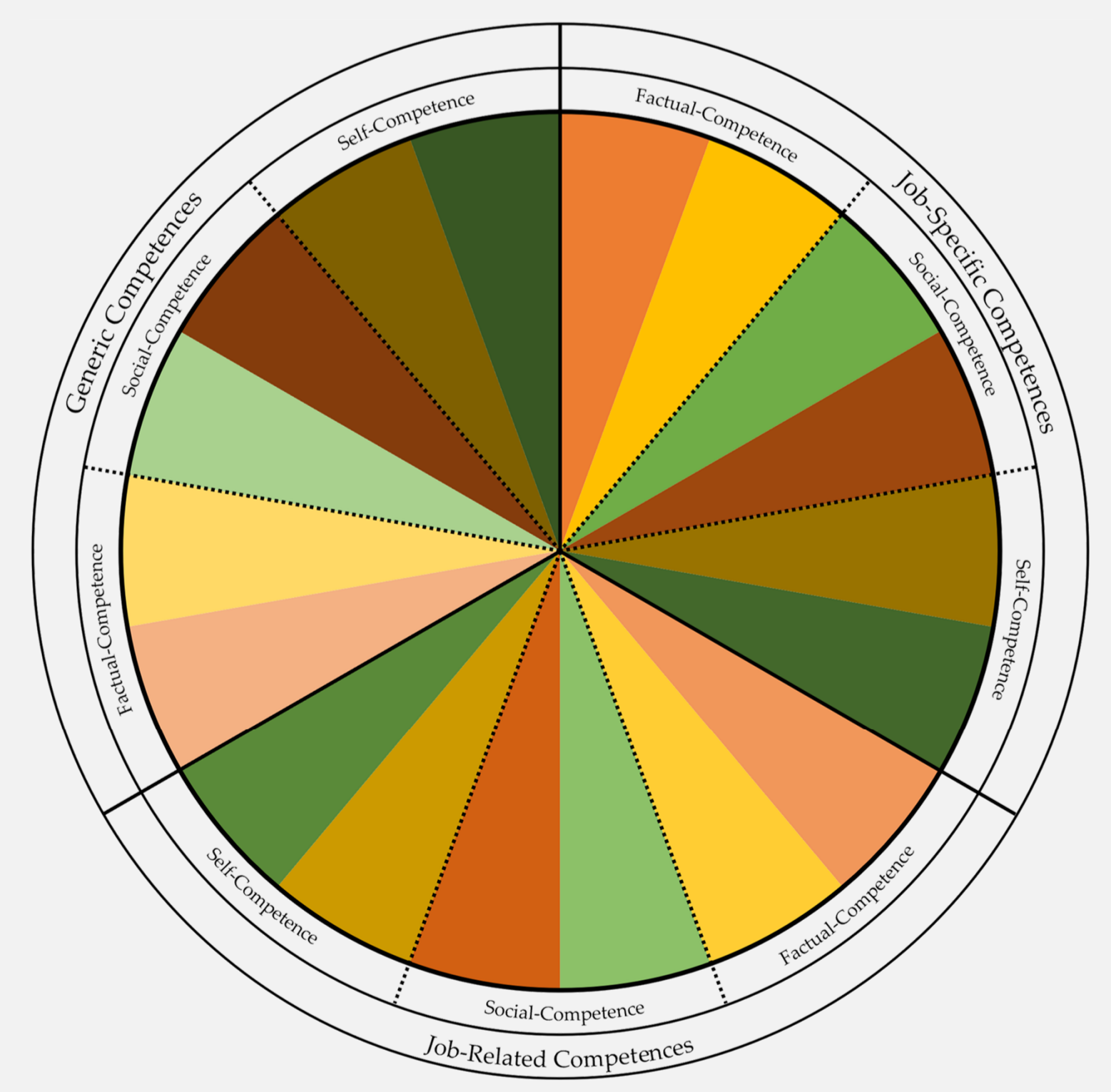
The function of a model answers the question *why* competences are modelled. The dimensions of the competence concept and the level of abstraction (factual reference) provide information about *what* is modelled. An answer to the question *for whom* competences are modelled can be derived from the people and time reference. Finally, the dimensions of order logic and rigidity specify *how* competences are modelled. This also includes the dimensions of level and assessment format, which are exclusively applicable to competence level models.

Parameters	Manifestation			
Why?	Function	Translation	Orientation	Determination
What? (factual reference)	Competence Concept	Cognitive	Multiplicative	Personality
	Level of Abstraction	Fields of Competences		Aspects of Competences
For whom?	People Reference	Overarching	Occupational Fields	Professions
	Time Reference	Present	Hybrid	Future
How?	Logic	Arranging	Defining	Explaining
	Rigidity	Fixed	Adaptive	Data-Based
	Level	None	Action-Based	Disposition-Based
	Assessment Format	Self-Assessment	External-Assessment	Test-Assessment

Prototype I: Circular Competence Model

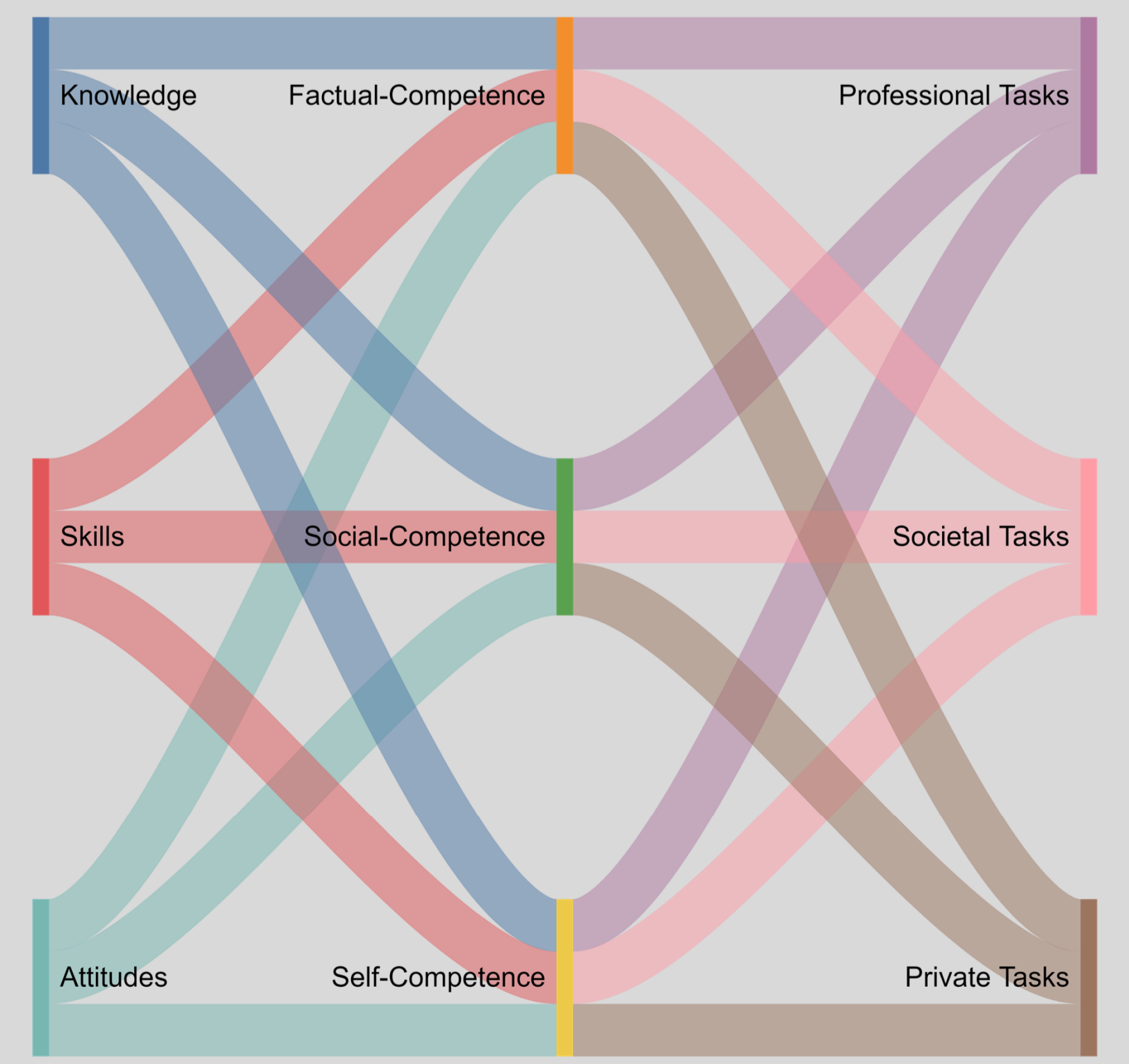
Our literature research on competence models shows that workplace approaches tend to focus on contexts (especially occupations and / or activities), while educational approaches focus rather on dispositions (competence dimensions and components). In order to build an underlying, common competence structure that is compatible with both the business and education system, we consider it necessary to link these aspects.

A first result of this consideration is a competence model in the form of a circle diagram. Structurally, the outer path reflects the contextual conditions imposed on individuals. On the inside of the circle diagram the specifics of individual competence characteristics are considered. Analytically, there is no subdivision of the competences into the components of the descriptors.



Prototype II: Sankey Competence Model

A second prototype was developed, illustrating a competence model in the form of a Sankey diagram. Connections between descriptors, competences and tasks are intended to reveal the relationships and contributions between individual elements. The flows illustrate the relationships, the thickness of the flows the respective proportions. This form of display prevents individual descriptors, competences or tasks from being listed more than once, as could happen in the layout of a pie chart. Further, such a model provides a better way to display badges according to their origin.



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Source: Aside from the preliminary results, the content of the poster is taken from the research proposal submitted to Innosuisse on 13 August 2021, jointly written by the parties involved in the project.