STARS EU

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Needs for skills and competences in partner regions

Feedback from regional stakeholders

Milestone

Milestone number 2 – List of needs for skills and competences MS2

Work package 2 – Regional transition accelerator

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Introduction

Context

The MS2 *Needs for skills and competences in partner regions – Feedback from regional stakeholders* report aims to list and describe the skills and competences needed in the partner regions as they are expressed by regional stakeholders.

This report is an important step in task T2.1, consisting in the deepening of the RIS3 analysis of each region and in confirming the complementarities and synergies within the STARS EU Priority Areas. Following the first step of task T2.1, which was the assessment of the partners' RIS3 involvement and the identification of needs for knowledge development and innovation in the regions, this report tackles the second step of the task which is the identification of the fields of competences and skills needed by the regional ecosystems.

Task T2.1 is crucial for the work done for Work Package 2 – Regional Transition Accelerator (RTA), as assessing the needs in competences and skills of stakeholders will allow the Regional Transition Accelerator to be deeply and substantially embedded in the regional ecosystems of partners.

This step is not only important for WP2 but also for the entire STARS EU project, as its findings will also feed Work Package 3 – Curriculum lab, in the perspective of the joint development of new course units, Blended Intensive Programmes, microcredentials and degrees. Task T3.1 aims to develop the STARS EU Future Competencies Observatory, and in this context, it has developed the STARS EU Competence catalogue, which corresponds to Deliverable D3.1. The Competence catalogue serves as a foundation for the identification, cataloging, and dissemination of core and specific thematic competences that are essential for students and learners. The present report thus aims to provide feedback from regional stakeholders on the Competence catalogue and to pinpoint deficiencies that can subsequently enrich it.

Methodology

As mentioned earlier, the methodology of this step needs to be coherent with the methodology used in task T3.1 in which the Competence catalogue was developed. Before tackling the methodology of T2.1 and MS2 in particular, it is thus essential to explain the methodology of T3.1 and D3.1.

The Competence catalogue is divided per STARS EU Priority Area and also has a Core competences section. The work on this catalogue was done collaboratively and each HEI leading a Thematic Interest Group was responsible for the corresponding section of the catalogue. All sections were then compiled into a catalogue which serves as an important

resource for educators and curriculum designers. The Competence catalogue aims to align the educational ambitions of the STARS EU alliance with the practical demands of the STARS EU Priority areas.

The objective of the present report is to check to which extent the competences listed in the Competence catalogue align with labor market needs in each STARS EU Priority area. In order to do so, each partner organized two meetings with regional stakeholders in two STARS EU Priority areas or more.

Two questions were to be tackled during these meetings with regional stakeholders:

1. Which part of the catalogue corresponds to your needed skills and training?
2. What are the lacking skills and competences that you need?

For easier cross-referencing of the input provided by stakeholders during the meetings, a condensed version of the Competence catalogue was created and was sent to the participants before the meetings. The condensed Competence catalogue is a compilation of first two columns of each section of the Competence catalogue, thus the name of the competence and its description, without however giving the declension of each competence into learning outcomes. Partners could send the entire catalogue and all or some of its sections, or the condensed catalogue and all or some of its sections.

The present report is thus based on the input provided to each partner institution by their regional stakeholders on their needed skills and competences.

Limits

During the process of creating this report and developing its methodology, certain limitations were encountered.

As a multi- and transdisciplinary alliance composed of nine different partner institutions across different European regions, STARS EU possesses seven Priority areas with their corresponding Thematic Interest Groups (TIGs), and two additional TIGs that are important for regional development. Two new TIGs have been added to the alliance during the spring, and therefore, these areas are missing from the competence catalog, which currently includes seven Priority areas. T For the areas Sustainable Industry and Inclusion and social justice the methodology, therefore needed to be different from the seven priority areas within the competence catalogue.

Given the wide range of Priority areas and the quick timeframe allocated to this report, each partner university thus chose at least two Priority areas to address with corresponding stakeholders.

The limited number of stakeholders involved in these consultations makes it challenging to achieve a comprehensive comparative analysis representing the entire regional ecosystem's needs regarding skills and competences.

Aware of these limits, this reports still positions itself as an efficient and valuable means of taking regional needs on skills and competences into account.

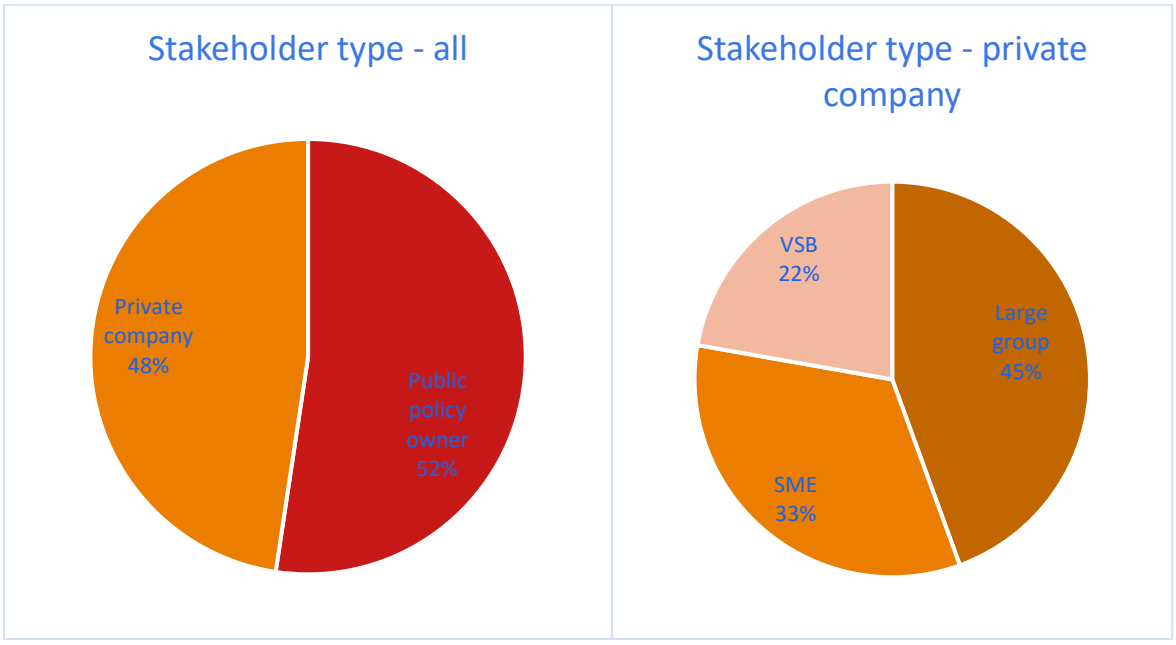
Stakeholder information

The objective of this report is to identify the fields of competences and skills needed by the regional ecosystems. It was therefore important for each partner university to contact relevant stakeholders in their regional and to question them in this context.

Regional stakeholders are any type of actor embedded in the regional ecosystem. Such actors can be private or public, academic or corporate. This report covers the needs in skills and competences of stakeholders that are external to the partner institutions.

A total of 21 stakeholders were interviewed across six regions. Of these stakeholders, 11 are public policy makers. The remaining 10 stakeholders are private companies, and they have different profiles: four of them are large groups, three of them are Small to Medium Enterprises (SME), and three of them are Very Small Business (VSB).

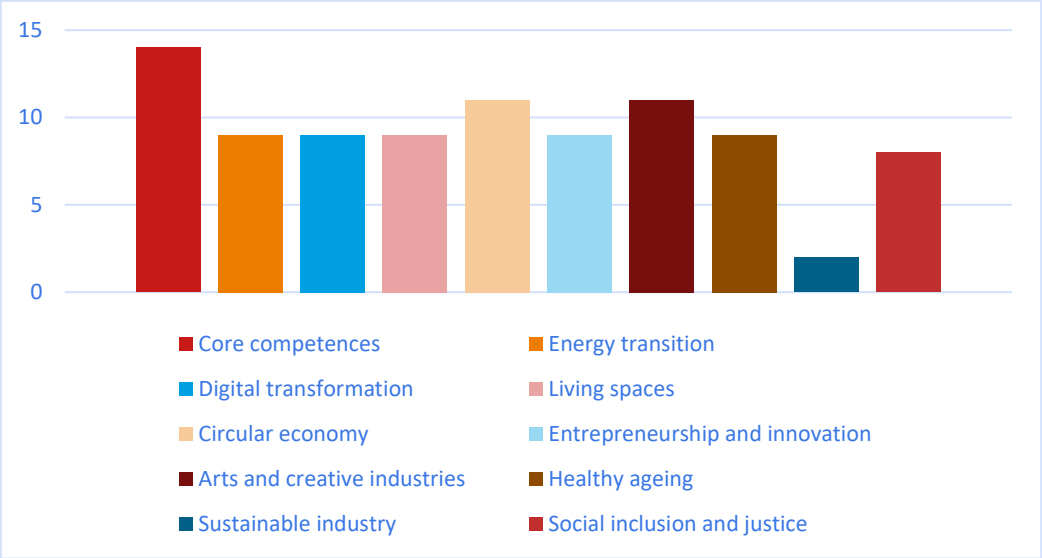
Figure 1 - Percentage of stakeholders by type with zoom on private companies



Meetings with regional stakeholders allowed partner universities to cover the needs for skills and competences in all the already established STARS EU Priority Areas: Energy transition, Entrepreneurship and innovation, Arts and creative industries, Digital transformation, Circular economy, Healthy ageing and Living spaces. Moreover, the two newly established areas addressed by Thematic Interest Groups were also covered by the partner universities leading them: University West presented Sustainable industry to a stakeholder and Université de Franche-Comté presented Inclusion and social justice to stakeholders. As was previously mentioned, the Competence catalogue possesses a section on Core competences, which

represent a base to be acquired by students and learners. Core competences were thus an additional area covered during stakeholder interviews.

Figure 2 - Number of stakeholders discussing each section of the Competence catalogue



The list of stakeholders met or interviewed by partner institutions in the context of T2.1, with the corresponding Competence catalogue section they were questioned on, is available in the first Annex (Annex I). In the rest of this document, stakeholders will not be referred to namely, but rather as “the regional stakeholder” of the corresponding partner institution.

Regional needs in competences and skills

General feedback on competence catalogue

The University of Franche-Comté held a meeting with its public policy regional stakeholders during which the Competence catalogue was discussed at length. The complete version of the Catalogue including all of its sections was sent before the meeting, which allowed some stakeholders to give feedback applicable to all sections of the catalogue.

For instance, stakeholders insisted that the social science dimension was missing from all Priority areas of the Competence catalogue but the Core competences. They argued that the societal impact of every Priority area should consist in a competence to be acquired by students and learners, so they can better address societal expectations regarding public policies surrounding their field during their training, and later on while working.

In another feedback, the Competence catalogue is commended for having competences that are large and broad. However, the sections are deemed as not being complete enough as they do not cover all the competences that can be envisaged in each theme. Thus, according to this feedback, the competences in each Priority area do not constitute a base to be acquired by all students, but should be “mixed and matched” to correspond to each student and learner training.

Apart from these two remarks, the stakeholders from all partner universities’ regions agree on the relevance of the competences listed in the STARS EU Competence catalogue in the context of the needs in skills and competences of the regional ecosystem.

Thematic feedback on competence catalogue

Core competences

Figure 3 - Condensed Core competences section of the Competence catalogue

Core competences	General digital competences	Communication and collaboration in a digital world
		Enhancing the value of digital information (information and data literacy)
		Digital content creation
		Digital safety
		Commanding and overseeing AI systems
	Life competences	Self-agency (self-regulation, flexibility, wellbeing)
		Decision competence
		Leadership and strategic vision
		Interactivity with the world
		Lifelong learning
		Multi-literateness
	Research competences	Research design
		Literature review
		Data collection and analysis
		Critical thinking and information literacy
		Problem solving and adaptability
		Ethical conduct and integrity
		Collaboration and research project management
		Communication and dissemination
	Sustainable future design competences = STARS EU competences	Transdisciplinary/interdisciplinary collaboration
		Regional and Interregional Community Development / Stakeholder /Community Engagement and Co-Creation
		Global Awareness and Regional Understanding
		Strategic Planning and Visioning
		Systems-thinking
		Sustainability Competence / Ethical and Sustainable Thinking
		Interregional Policy Literacy and Governance Development

The Core competences section is a part of the Competence catalogue, which is itself composed of four different categories of competences: the general digital competences, the life competences, the research competences and then STARS EU competences for a sustainable future. Each category is then completed with corresponding competences which are detailed in the table above for the reader's information.

According to received feedback, the Core competences section of the catalogue is appreciated by regional stakeholders from HSB, UFC, IPB and HV's regions, who rate it with a great degree of relevancy.

In the next pages of this report, competences from the Core competences section will be assessed individually when commented on by a stakeholder, accompanied by a table detailed the name of the competence and its description.

Figure 4 - Core competences, General digital competences, Competence on Digital safety

Competence name	Description
Digital safety	Involves understanding and implementing measures to protect oneself and others from online threats and risks. It encompasses practices such as safeguarding personal information, recognizing phishing attempts, and navigating digital platforms securely.

Digital safety is one of the general digital competences in the Core competences section of the catalogue. This competence is unanimously regarded as a highly important one by all stakeholders who encountered it. HSB's regional stakeholder highlights the importance of digital safety in combination with competences of self-agency, global awareness and regional understanding, which prevents societal naivety in students and learners. HV's regional stakeholder underlines the importance of digital safety from the energy thematic standpoint. The stakeholder explains that the energy system is vulnerable due to changing security situations and threats, thus making digital safety of energy systems a highly needed competence. The stakeholders from UFC and IPB's regions also agree on the high relevance of digital safety in the competence portfolio of students and learners.

Figure 5 - Core Competences, Life competences, Competences on Self agency and Leadership and Strategic vision

Competence name	Description
Self-agency (self-regulation, flexibility, wellbeing)	Involves the ability to autonomously regulate thoughts, emotions, and behaviors to achieve personal and professional goals. It encompasses self-awareness, adaptability, and prioritizing wellbeing through reflective practices.
Leadership and Strategic vision	Entails the ability to inspire, guide, and empower individuals or teams toward a shared vision, while strategically navigating challenges and opportunities. It involves fostering innovation, building cohesive teams, and setting clear objectives aligned with organizational goals.

Self-agency is one of the life competences. This competence is regarded by both HSB and HV's regional stakeholder as being the essence of the Life competences, as it trains students to have the courage to take decisions for oneself and for others in a team, thus preparing them to self- and group leadership. Self-agency is therefore closely linked to the Leadership and Strategic

vision competence, which, according to UFC's regional stakeholders, could highlight managerial competences more. IPB's regional stakeholders, on the other hand, remark that this competence is highly relevant to groups and not only to individuals.

Figure 6 - Core Competences, Life competences, Competence on Lifelong learning

Competence name	Description
Lifelong learning	Involves the ongoing pursuit of knowledge, skills, and personal development throughout one's life. It encompasses curiosity, adaptability, and a commitment to continuous improvement in diverse areas.

Lifelong learning is another Life competence ranking from relevant to highly relevant among stakeholders from HSB, UFC, IPB and HV's regions. HV's regional stakeholder insists on the importance of lifelong learning in creating environments for people to learn and educate themselves in professional contexts and not necessarily in an academic context. UFC's regional stakeholders, on the other hand, underline the role of lifelong learning in skilling, reskilling and upskilling learners and students after the completion of their training.

During UFC's meeting with its regional public policy owners, the stakeholders recommended adding a competence on Science for society. They argued that citizens partaking in debates in the public sphere must be able to refer to science in their daily life discourse in order to avoid misinformation, and to steer debates in a factually correct way. This competence would also allow citizens to participate in the elaboration of public policies.

Figure 7 - Core Competences, Research competences, Competences on Critical thinking and information literacy, Problem solving and adaptability, and Ethical conduct and integrity

Competence name	Description
Critical thinking and information literacy	"Critical Thinking and Information Literacy" involves analyzing, evaluating, and synthesizing information to make informed decisions and solve problems effectively. It encompasses questioning assumptions, discerning biases, and assessing credibility in sources.
Problem solving and adaptability	"Problem Solving and Adaptability" involves identifying challenges, analyzing root causes, and devising effective solutions in dynamic environments. It encompasses creativity, resilience, and flexibility to navigate uncertainty and change
Ethical conduct and integrity	"Ethical Conduct and Integrity" entails upholding moral principles and acting with honesty, fairness, and transparency in all endeavors. It encompasses ethical decision-making, accountability, and maintaining professional integrity in diverse contexts.

These Research competences are regarded by HSB's regional stakeholder as being the "core of the core competences" as they are a characteristic main dimension of a student or learner and

of their fundamental habitus and mindset. UFC, IPB and HV's regional stakeholders agree on the relevancy of these competences in the catalogue.

UFC's regional public policy stakeholders recommend adding a research competence on Modeling, citing it as a transversal competence allowing the conception and use of models in all Priority areas, and thus the furthering of research skills of students and learners.

The STARS EU competences for a sustainable future design were regarded as highly relevant by all stakeholders who came across them. These competences efficiently highlight the alliance's values and goals in a way that is aligned with learners and students' training.

Figure 8 - Core Competences, STARS EU Competences, Transdisciplinary/interdisciplinary collaboration

Competence name	Description
Transdisciplinary/ interdisciplinary collaboration	Involves integrating knowledge and methodologies from multiple disciplines to address complex problems and generate innovative solutions. Encompasses collaboration, creativity, and an understanding of diverse perspectives to bridge disciplinary boundaries effectively.

According to UFC's regional stakeholders, the Transdisciplinary/interdisciplinary collaboration competence lacks the dimension of skills transferability, in a context where professional environments are ever evolving. Students and learners have to acquire competences that also apply to "jobs of the future", which may not exist as of today, but which will exist in the coming years.

Figure 9 - Core Competences, STARS EU Competences, Regional and interregional community development, stakeholder/community engagement and co-creation

Competence name	Description
Regional and Interregional Community Development/ Stakeholder /Community Engagement and Co-Creation	Involves fostering sustainable development through collaboration with diverse stakeholders and communities. Encompasses building partnerships, empowering local voices, and co-creating solutions to address regional challenges.

HV's regional stakeholder stresses on need for collaboration competences. UFC's regional stakeholders on the other hand underline two missing dimensions in this competence: interculturality, which allows partners in the alliance to benchmark their practices and pick up best practices, and citizen participation, which allows students and learners to partake in public debates and implement changes in public policies.

Figure 10 - Core Competences, STARS EU Competences, Global awareness and regional understanding, and Interregional policy literacy and governance development competences

Competence name	Description
Global awareness and regional understanding	Involves cultivating knowledge and empathy for diverse global and regional contexts. Encompasses understanding geopolitical dynamics, cultural differences, and global interdependencies to navigate interconnected challenges effectively.
Interregional policy literacy and governance development	Involves understanding policy frameworks and governance structures across regions. Encompasses analyzing policy impacts, promoting collaboration, and fostering effective governance for regional development.

HSB and IPB's regional stakeholders rate the above-mentioned competences as very important. According to HSB's regional stakeholder's feedback, the first competence Bringing together global and future trends and a deep understanding of the needs, but also of the actors and the rules of one's own region, the ability to think from the particular to the universal and vice versa, is the key to successful regional transformation. The second competence, the stakeholder argues, is the basis for setting a process of transformation in motion.

While the STARS EU competences are deemed as very complete overall, UFC's regional stakeholders recommend adding a STARS EU competence on the interactivity with the world beyond the alliance, as it will broaden the professional horizons of the students and learners.

The UFC regional stakeholders also expressed the need for a competence on Future prospective and planning, in order to anticipate the changes in society and in the job market, and to better prepare students and learners to face them. This competence would fit in the STARS EU competences of the Core competences, as they aim to design a sustainable future.

Energy transition

The listed competences within the Energy transition Priority area are, according to the stakeholders, relevant and cover essential areas. However, the stakeholders from HV, UFC and ULL regions proposed some additional competences to meet their needs.

HV's regional stakeholder suggests adding a competence related to nuclear energy, as the government plans to build new nuclear power plants, which requires expertise to build which is subject to a perceived lack of expertise.

UFC's regional stakeholder suggests adding a competence on Energy sobriety and decarbonization, arguing that such competences are not highlighted enough in the catalogue and should be more present in the context of energy transition and for the making of future society of skilled workers.

ULL's regional stakeholders express the need for higher technical knowledge in recent devices and deplores the lack of commercial knowledge of students and learners on recent energy devices.

Digital transformation

The regional stakeholder met by UFC in the context of the Digital transformation section of the catalogue gave extensive feedback on the already existing competences and expressed needs lacking in the catalogue.

Figure 11 - Digital transformation competences, Digital law competence

Competence name	Description
Digital law	Knowing the legal principles, regulations and considerations governing digital activities.

UFC's regional stakeholder highlights the need of the labour market for Digital law competences, which according to them should be put forward more in university trainings, as it is a competence that is complementary to the technical aspects of digital transformation. Students and learners must master the notion of user consent and of data exploitation, while being familiar with digital law surrounding AI uses.

Figure 12 - Digital transformation competences, Software development competence

Competence name	Description
Software development	Having the capacity to create, modify, and maintain software applications, systems or platforms.

Moreover, the stakeholder underlines a missing dimension in the Software development competence, arguing that students and learners are lacking in this competence nowadays because they rely on AI during technical applications, instead of consolidating their knowledge.

The same stakeholder expressed a need for a competence on Digital sovereignty and the usage of open-source software. The stakeholder argues that this competence is a European challenge: students and learners must not limit themselves to using a set of software from one given company. Using open-source software promotes digital sovereignty and allows for a real digital transformation which is respectful of users' rights and of their data.

On another hand, one of UFC's public policy stakeholders expressed the need for a competence on the environmental impacts of digital transformation, arguing that students and learners must be aware of the environmental consequences of an ever-growing digitalized world.

Living spaces

HSB's regional stakeholder gave extensive feedback about Living spaces section of catalogue. The overall section is mostly rated as relevant to highly relevant by the stakeholder.

Figure 13 - Living spaces competences, Reflective and Decision competences

Competence name	Description
Reflective competence	Showing the willingness and ability to question oneself and others for constructive development; recognizing the underlying systems of behavior, thought, and values and assessing their impact on actions and decisions
Decision competence	Being able to make decisions confidently and assess various alternatives thoroughly before arriving at a final choice; taking responsibility for the decisions made.

Both these competences are deemed as very relevant to the stakeholder, who argues that these are the two most important competences for the future of civil engineering, architecture and urban development. The stakeholder comments that engineers and architects should be able to reflect on their own personal definition of social constructs anchored in the field, in order to successfully moderate and realize urban or private development projects with acceptance.

Figure 14 - Living spaces competences, Innovation competence

Competence name	Description
Innovation competence	Being committed to advancing innovation as an essential element across organizational objectives, topics, and processes; actively contributing to the organization's innovation ecosystem, fostering an environment where new ideas thrive and drive progress.

The Innovation competence is deemed as slightly relevant by the stakeholder as they consider "innovation" as a social construct and therefore as subjective. The stakeholder insists that what should be trained is the ability to reflect one's own definition of these social constructs in their field.

Circular economy

The IPB and UFC regional stakeholders rated the Circular economy section as relevant overall.

Figure 15 - Circular economy competences, Promote circular user engagement and Implement circular economy collaboration competences

Competence name	Description
Promote circular user engagement	Engaging users in the use and the (end-of-use) return of products.

Implement circular economy collaboration	Identifying, mapping, facilitating, and managing the collaboration between external stakeholders in operationalizing a circular business model.

IPB's regional stakeholders pinpointed these two competences as essential in the training of students and learners in the field of Circular economy.

Some competences were found lacking by stakeholders from both regions. IPB's regional stakeholders argue that a collaboration competence is needed in order to promote group work and to convince individuals to join in on circular economy practices. UFC's regional public policy stakeholders, on the other hand, argue for a transdisciplinary competence: Circular economy is a broad Priority area and students and learners must be able to recall and use other professional competences in this field, such as law, for example.

Entrepreneurship and innovation

The SUO regional stakeholder found the Entrepreneurship and innovation section of the Competence catalogue relevant to the needs of the region. They explained that the catalogue covers essential areas like valuing ideas, financial and economic literacy, planning and management, coping with uncertainty, working with others, innovation management, and innovation strategies and processes.

While the catalogue covers the basics well, SUO's regional stakeholder is seeing a growing need for Entrepreneurship and innovation competences in digital transformation and in sustainable business practices. Entrepreneurs need to leverage digital technologies and adopt sustainable models to stay competitive and align with global trends. Additionally, the stakeholder expresses the need for support of entrepreneurship in creative industries.

Arts and creative industries

IPB's regional stakeholders rated the Arts and creative industries section of the Competence catalogue as relevant to highly relevant, pinpointing Art-based thinking as the essential competence in this section.

Figure 16 - Arts and creative industries competences, Innovative entrepreneurial and business collaborative creative community ideas competence

Competence name	Description
Innovative entrepreneurial and business collaborative creative community ideas	Understanding co-strategic planning, enabling financial management and fundraising, emphasizing sustainable innovative replication strategies.

The stakeholders from IPB's region express the need for entrepreneurship and organizational collaboration of creative ideas for the community, which directly corresponds to the Innovative entrepreneurial and business collaborative creative community ideas Competence.

Healthy ageing

For both UFC and SUO's regional stakeholders, the competences listed in the Healthy ageing section of the catalogue are highly relevant. SUO's regional stakeholder explains that all the listed competencies are part of the requirements of a healthcare worker and nurses programmes. The stakeholder, however, expresses the need for a competence on legal issues of providing care.

Competence name	Description
Having client centered perspective	Prioritizing the client's specific situation, subjective experience and self-directed growth, aiming to foster a therapeutic relationship characterized by trust, empathy, and collaboration.

The UFC regional stakeholder on the other hand, expresses concern surrounding the name of the Having client centered perspective competence. The Healthy ageing thematic group is anchored in medical and healthcare practices and referring to the target groups as "clients" and not "patients" puts forward the economic importance of the subject and not the social aspect of the Priority area.

Sustainable industry

The Thematic Interest Group Sustainable Industry was established recently and therefore is not yet included in the Competence catalogue. This TIG aims challenges which affect competitiveness and opportunities for transformation and renewable in today's industry. The following challenges will be address by this Priority area:

- Digitization and productivity
- Technological transformation
- Climate change
- Value chains and services
- Demographics and gender equality

Considering this, the discussions with stakeholders were conducted through a more open dialogue regarding areas and competences needed.

University West (HV) discussed the priority area with stakeholders, which led to a concise list of competences that could be a base for future work. The discussion was about both general competences and more specific industrial competences.

General industrial competences expressed by the stakeholders were digital and social skills, competences for a more circular economy and business models and skills to become an adaptive coworker and be employable. Knowledge of old technologies as well as new and up-coming technologies were highlighted as important to manage the industrial transitions.

The stakeholders also expressed the needs for more specific industrial competences with data engineering, automation, powder bed, additive manufacturing and methods and technology for materials.

Inclusion and social justice

The Inclusion and social justice TIG is newly established, and for this reason, it is not a section of the Competence catalogue yet. This idem aims to address significant societal challenges by promoting equity and accessibility across various domains. The following key areas will be addressed by this Priority area:

- Access to legal assistance
- Educational equity
- Social inclusion
- Community engagement
- Professional development

The Inclusion and social justice TIG was presented to the public policy stakeholders of the Bourgogne-Franche-Comté territories during a meeting with UFC. The involved stakeholders found the Priority area highly relevant and underlined that it will help put the social science dimension back in the Competence catalogue. The stakeholders also highlighted the need for competences on accompanying vulnerable populations in territories, on social acceptance and living-togetherness.

Synthesis

Core competences appear as the basis of all competences in the catalogue and should be acquired by students and learners in all Priority areas. In fact, some stakeholders expressed some general or transversal needs in certain Priority areas that are already present in the Competence catalogue, but in the Core competence section and not in each Priority area section. The thematic Priority area competences appear as useful and relevant to highly relevant to the stakeholders in the context of their regional needs in skills and competences.

Stakeholders pinpointed at time a missing dimension in a pre-existing competence of the catalogue, or expressed the need for a wholly new competence. These needs are compiled in the table below and classified per catalogue section. The need in skill or competence was given a name in the second column of the table and a short description in the third column.

Figure 17 - List of needs in skills and competences of the regional ecosystem

Competence catalogue section	Competence name	Comment or description
Core competences – Life competences	Science for society	Citizens partaking in debates in the public sphere must be able to refer to science in their daily life discourse in order to avoid misinformation, to steer debates in a factually correct way, and to be able to participate in the elaboration of public policies.
Core competences – Research competences	Modeling	Modeling is a competence mentioned in the Digital transformation theme, but it is a transversal competence which allows the conception and use of a model in all disciplines.
Core competences – STARS EU competences	Transdisciplinary/ interdisciplinary collaboration	Already existing competence. Lacks the dimension of skills transferability, in a context where professional environments are ever evolving. Students and learners have to acquire competences that also apply to “jobs of the future”, which may not exist as of today, but which will exist in the coming years.
Core competences – STARS EU competences	Regional and Interregional Community Development/ Stakeholder /Community Engagement and Co-Creation	Already existing competence. Lacks two dimensions: interculturality, which allows partners in the alliance to benchmark their practices and pick up best practices, and citizen participation, which allows students and learners to partake in public debates and implement changes in public policies.
Core competences – STARS EU competences	Interactivity with the world beyond the alliance	The competence "interactivity with the world" is present in the Life competences category but should also be present in the STARS EU competence as we

		need to work together as an alliance in order to work together with the rest of the world.
Core competences – STARS EU competences	Future prospective and planning	Anticipate the changes in society and in the job market, and better prepare students and learners to face it.
Energy transition	Nuclear energy	In the political energy debate, there is a push to build new nuclear power plants in Sweden. It has been several decades since any were constructed in the country, so a crucial prerequisite for achieving the political ambitions and constructing new nuclear power lies in having expertise in this field. Currently, there is a perceived lack of such expertise in Sweden
Energy transition	Energy sobriety and decarbonization	Competences on energy sobriety and decarbonization missing or not highlighted enough in the catalogue and should be more present in the context of energy transition and for the making of future society of skilled workers.
Energy transition	Societal impact of energy transition	The competences mentioned for this theme are on point and align with current challenges, but the competences on the social framework of energy transition are missing.
Energy transition	Technical and commercial knowledge on recent energy devices	Students and learners need to acquire technical and commercial knowledge on recent energy devices in the field of energy transition
Digital transformation	Digital law	Already existing competence. It should highlight notions of user consent, data exploitation and AI uses.
Digital transformation	Software development	Already existing competence. Students and learners are lacking in this competence more and more because they use AI instead of consolidating their knowledge. The dangers of using AI to do their work for them must be highlighted during their training.
Digital transformation	Digital sovereignty and the usage of open-source software	This competence is a European challenge: students and learners must not limit themselves to using a set of software from one given company. Using open-source software promotes digital sovereignty and allows for a real digital transformation which is respectful of users rights and of their data.
Digital transformation	Environmental impact of digital transformation	Students and learners should be competent on the environmental impact of digital transformation
Digital transformation	Societal impact of digital transformation	The competences mentioned for this theme are on point and align with current challenges, but the competences on the social framework of digital transformation are missing.

Circular economy	Collaboration competence	A collaboration competence is needed in order to promote group work and to convince individuals to join in on circular economy practices.
Circular economy	Transdisciplinary competence	Circular economy is a broad priority and students/learner must be able to recall and use other professional competences in this priority, such as law, for example
Circular economy	Societal impact of circular economy	The competences mentioned for this theme are on point and align with current challenges, but the competences on the social framework of circular economy are missing.
Entrepreneurship and innovation	Digital entrepreneurship and innovations	Students and learners need to acquire competences related to digital transformation in the field of entrepreneurship and innovation.
Entrepreneurship and innovation	Sustainable business practices	Students and learners need to acquire competences related to sustainable business practices.
Healthy ageing	Legal issues of providing care	Students and learners need to acquire competences related to the legal issues of caregiving in the Healthy ageing priority.
Sustainable industry	General industrial competences	Knowledge for both old and new/up-coming technologies is necessary skills; Digital and social skills; Competences for a more circular economy and business; Skills and knowledge to become an adaptive coworker and be employable…
Sustainable industry	Technical skills for sustainable industry	Competences for data engineering; automation; materials, methods and technology; power bed; additive manufacturing…
Inclusion and social justice	Accompanying vulnerable populations	Knowing who is vulnerable and knowing how to better assist them in today's society
Social inclusion and justice	Social acceptance and living together	Being aware of and sensitive to social differences while preaching tolerance and acceptation in society

Table of illustrations

Annex

Annex I: List of stakeholders met by partner institutions with corresponding Competence catalogue section they were asked about

Stakeholder name	Partner institution	Competence catalogue section
State Ministry for Economic Affairs, Ports and Transformation of the Free Hanseatic City of Bremen	HSB	Core competences Living spaces
GKN Aerospace	HV	Sustainable industry
Innovatum	HV	
Vattenfall	HV	Core competences Energy transition
iLocal	IPB	Core competences Arts and creative industries Circular economy
Morais	IPB	
Cut Out	IPB	
Resíduos Nordeste	IPB	
Moravian Silesian Innovation Center	SUO	Entrepreneurship and innovation
Silesian Hospital in Opava	SUO	Healthy ageing
Trinaps SAS	UFC	Core competences Digital transformation
Grand Besançon Métropole	UFC	All catalogue Inclusion and social justice
Communauté d'agglomération Grand Dole	UFC	
Communauté de communes Val de Morteau	UFC	
Pôle métropolitain Centre-Franche-Comté	UFC	
Communauté d'agglomération Grand Belfort	UFC	
Pays de Montbéliard Agglomération	UFC	
Pôle métropolitain Nord-Franche-Comté	UFC	
Cn Holistica	ULL	Healthy ageing
Grupo DAC	ULL	Energy transition
Autosolar	ULL	Energy transition