STARS EU

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HANDBOOK ON "LEARNING AND TEACHING COMMUNITIES"

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CONTENTS

THE STARS EU ALLIANCE

The STARS EU Alliance aims to implement an integrated long-term joint strategy for education, linking research and innovation, and service to society that contributes to the digital and green transition in our regions. This strategy aims to act as a future STARS European University governance model and ensure the STARS EU sustainability, green impact, gender equality, diversity, and inclusion. It can be better described by the following goals and purposes:

- To prioritise adaptability and pedagogical innovation where cutting-edge research and interdisciplinary collaboration flourish.
- To promote inclusivity and diversity, welcoming students, faculty, and staff from various backgrounds and cultures acts as a rich tapestry of perspectives and ideas, fostering creativity and critical thinking.
- To embrace digital technologies in both teaching methodologies and administrative processes is crucial in a rapidly evolving world.
- To promote sustainability, integrating eco-friendly practices into campus operations, curriculum development, and research endeavours.
- To prioritise lifelong learning and skill development, it is essential to equip students with the tools and knowledge needed to navigate an increasingly complex and interconnected world. This involves fostering entrepreneurial spirit, promoting problem-solving skills, and nurturing a mind-set of continuous growth and adaptation.
- To establish strong partnerships with industry, government, and civil society to address societal challenges and drive meaningful change.

Introduction

This section is divided into two parts. The first outlines the reasons why to use this handbook, while the second part suggests possible ways to use this handbook to develop new Learning and Teaching Communities (LTC) within the STARS EU Alliance or to help improve existing ones.

Why to use this handbook?

Society evolves at an unprecedented pace driven by technological advancements and changing cultural dynamics, as predicted by Beck et al. (2000) and Diddens (2000). Education must adapt to meet the demands of a rapidly changing world, equipping learners with the skills and knowledge necessary to thrive in diverse and evolving environments. In this sense, pedagogical innovation encompasses a wide range of initiatives, including digital tools, experiential learning opportunities, interdisciplinary approaches, collaborative learning environments, and learner-centred teaching methods to optimise the educational experience and empower learners to succeed in an ever-changing world (Bernad-Cavero & Llevot-Calvet, 2018).

A handbook on LTCs is essential for both educators and learners because it provides a structured framework for fostering collaboration, engagement, and shared responsibility in the educational process.

For educators, it offers valuable insights into creating a supportive and inclusive learning environment, where teaching practices are continuously improved through collaboration with colleagues. It encourages a shift from traditional, isolated teaching methods to more dynamic and interactive approaches that better meet the diverse needs of students.

For learners, a LTC handbook promotes active involvement in their own learning. It emphasises the importance of peer-to-peer interactions, co-learning, and mutual respect. It helps students understand their role in the learning process, encouraging them to take ownership of their educational journey and to engage in collaborative problem-solving with their peers. Ultimately, the handbook fosters a sense of belonging and community within the academy, which is key to enhancing motivation, critical thinking, and overall academic success.

The LTC handbook is also crucial for other stakeholders in the educational ecosystem, such as researchers and alumni, as it provides a comprehensive framework for understanding and improving the dynamics of teaching and learning. For researchers, it serves as a valuable resource for exploring evidence-based practices and theories related to collaborative learning environments. It supports research on how different teaching and learning models impact student outcomes, teacher development and institutional success. By understanding the structure and principles of LTC's, researchers can contribute to the ongoing development of pedagogical strategies that promote inclusivity, innovation, and critical thinking. Moreover, it helps bridge the gap between theory and practice, ensuring that academic research translates into tangible improvements in real-world classrooms. For alumni, the handbook offers a means to reflect on their own learning experiences and stay connected to evolving pedagogical approaches. As lifelong learners and professionals, alumni can benefit from understanding how teaching and learning communities can continue to shape their development beyond formal education. It also enables them to engage with current students and educators, fostering a culture of mentorship and collaboration. Also, alumni may contribute their experiences and insights to help enrich these communities, creating a cyclical process of continuous improvement and support.

This LTC's handbook is also valuable to civil society, organizations, and businesses because it helps to create a more interconnected and resilient educational ecosystem, one that produces individuals who are not only skilled but also socially conscious, adaptable, and capable of contributing meaningfully to society and the economy.

In summary, this handbook serves as a tool for pedagogical innovation which refers to the ongoing introduction of new approaches, methods, techniques, and technologies in educational practices. It challenges traditional paradigms by fostering the development and implementation of forward-thinking strategies that enhance the learning experience. Pedagogical innovation encompasses a wide range of initiatives, including the integration of digital tools, experiential learning opportunities, interdisciplinary approaches, collaborative learning environments, and learner-centred teaching methods. Together, these strategies optimize the educational experience and empower learners to succeed in an ever-changing world (Bernad-Cavero & Llevot-Calvet, 2018).

How to use this Handbook?

This handbook should be viewed and used as a tool, serving as part of a pathway to promote and enhance LTCs within the STARS EU Alliance. It's content, particularly the proposed LTC model, is designed to be sufficiently flexible and adaptable, allowing it to accommodate the circumstances and goals of the institutions within the STARS EU Alliance.

In general terms, we anticipate that the use of the handbook can occur through two main approaches. The first approach aims to stimulate the emergence of new LTCs. In this case, we suggest that, either at the Alliance level or within the member institutions, an informal survey of emerging interests in creating new LTCs be conducted. In this context, the handbook can act as a catalyst, helping to define better the model to be adopted according to the objectives and purposes of each specific case.

The second approach complements existing LTCs within the Alliance. Here, the handbook functions as a reflective resource and source of inspiration, facilitating the introduction of functional improvements to these established communities

In both scenarios, we anticipate that the final version of this handbook should be shared and presented to all institutions within the STARS EU Alliance. This can be done, for instance, through workshops, either face-to-face or online, facilitated by the team that developed the handbook. These workshops should be open to all members of the participating institutions, regardless of their current involvement in an LTC.

Additionally, a permanent (online) communication channel should be established between the handbook's production team and the entire STARS EU Alliance community.

A final word to highlight that this handbook can deeply benefit from the suggested moments of reflection, aiming for its continuous update in response to the emerging challenges of nowadays ever-evolving social dynamics.

Methodology

This handbook benefits from different techniques. We started to conduct a literature review on LTC and to consult documents provided by members of the STARS EU Alliance. Following this, an online questionnaire was administered to teachers, researchers, and students within STARS EU members, focusing on training needs and opportunities in pedagogical methods, techniques, tools, workspace and green and digital needs (we received 372 responses; see Appendix A). In the second stage we applied an online survey questioning the objectives, structure, and functioning of the already active LTCs within the STARS EU Alliance (we received 20 responses; see Appendix B). In Appendix C, we provide a brief description of existing LTCs within the STARS EU Alliance. Finally, in the Appendix D we offer a checklist with concrete action steps to build a LTC in Universities.

Regarding the writing and presentation of the contents, they are structured with information from two main sources: the literature review and the primary data gathered from the surveys conducted with the members of the STARS EU Alliance. This last part is highlighted in colour under the title of “The current state within STARS EU Alliance”.

Conceptual model

The literature offers a wide range of terms and concepts related to "Learning & Teaching Communities" (LTCs). The term and concept most widely cited in the literature is Professional Learning Communities (PLCs).

According to Olsson (2019), based on a systematic review of literature including 96 articles, Professional Learning Communities (PLCs) have been used to describe several forms of teacher collaboration, such as: “communities of practice”, “teacher collaborative communities”, “learning teams”, “learning communities”, “professional learning networks”, “problem-solving teams”, “collaborative teacher teams” and “inquiry communities”. They often engage in activities such as workshops, seminars,

online discussions, and collaborative development of educational materials. The central idea is to create a space where education professionals can learn from one another, enhancing their teaching practices, and contributing to pedagogical innovation.

Bertrand et al. (2023), based on a systematic review of the literature including 109 articles, define PLC as an organization initiated by the school administration to improve student success through the professional development of its members. The author adds that the school administration shares its decision-making power and promotes the participation of members in collaborative activities that lead them to share and critically examine their teaching practices in a reflective and ongoing manner. This proposed definition is based on four key characteristics of PLCs identified through our literature review. The first corresponds to the goal of the PLC, which links the improvement of student success with the professional development of the teachers at the school. The second relates to their implementation process, an organisation initiated by the school administration, which is responsible for establishing the PLC and maintaining it over time by investing in its role in the pedagogical dimension of the institution and acting as a promoter of change. The third characteristic pertains to the governance model of the PLC, which is marked by shared leadership, where the school administration shares its decision-making power with members to mobilise and empower them around the established goals. Finally, the last characteristic refers to the way the PLC operates, characterised by members' participation in collaborative activities that stimulate their reflection, exchange of experiences, learning, questioning of their working habits, and ability to innovate.

According to Olsson (2019), PLCs offer several benefits, including enhancing student performance, providing teachers with fresh knowledge and perspectives, assisting them in translating this knowledge into new teaching practices and tending to boost teachers' perception of their efficacy. PLCs also have the potential to inspire change in entire school cultures, shifting them from isolationist to collaborative cultures. Bertrand et al. (2023) suggests that PLC fosters pedagogical innovation, learner-centred teaching, and the adoption of new teaching and assessment standards. It promotes technology integration, positions members as reflective practitioners and researchers, and enhances both personal and collective efficacy. The PLC improves members' job satisfaction, well-being, professionalism, and commitment to students. These influence the student's academic performance positively. By nurturing PLCs, schools can enhance student achievement by making teaching and classroom practices more effective (Blitz, 2013).

To the purpose of this handbook, a LTC is one of the possible forms of a PLC, that serves as a forum for educators, teachers, and students to exchange knowledge, experiences, and teaching and learning practices. These communities can take various forms, ranging from informal groups of teachers within a school to broader networks that span multiple educational institutions intending to foster collaboration among participants and create an environment where they can discuss pedagogical strategies, explore new teaching approaches, and exchange educational resources

(Blankenship & Ruona, 2007; Blitz, 2013). The community aspect refers to the development of a shared identity around a topic or set of challenges, that represents a collective intention – however tacit and distributed – to steward a domain of knowledge and to sustain learning about it (Wenger et al., 2011).

Public and private organisations increasingly understand that by joining forces and co-creating knowledge, they are better able to address these challenges and thereby stay innovative (Schipper et al., 2023). LTCs must be part of a well-defined and assumed institutional strategy. A strategy means the determination of long-term goals and objectives, the adoption of courses of action and the allocation of resources necessary to carry out these goals (Oeij et al., 2021). Our model is inspired by the conceptual framework for Public and Private Learning Communities (Schipper et al., 2023). This model, although its authors take care to warn that it should not be understood as static and sequential, seems too classical and hierarchical (a diagram in the shape of a Greek temple), which we consider inadequate for the idea of sharing and equitable involvement among the different actors within Higher Educational Institutions (HEIs) and their surrounding context. So, we introduce some dynamics to avoid the traditional appearance of the Schipper et al. model. This is crucial if we want to avoid cognitive dissonance when conveying the idea of pedagogical innovation, co-creation approach and sharing with the community. The STARS EU Alliance model is composed of the same core pillars proposed by the previous model (goals and purposes, process, structure, and culture) and, emerging from this core, the output such as the co-creation approach, learning in complexity, knowledge sharing, and innovation & envisioning (Figure 1). In the following sections, we explain all these pillars. Nevertheless, beyond the operational suggestions provided below, it is important to remember that LTCs, like any other social organisation, are human activity systems with their own unique and evolving dynamics. They are not an end in themselves but rather a means, a resource, for fulfilling the mission of HEIs and, in this case, the mission of the STARS EU Alliance. Therefore, it is crucial to maintain governance that ensures these missions are achieved. Given all of this, the suggestions of the model and the following points are merely indicative, subject to revision and improvement, and adaptable to the particular circumstances of the HEIs.

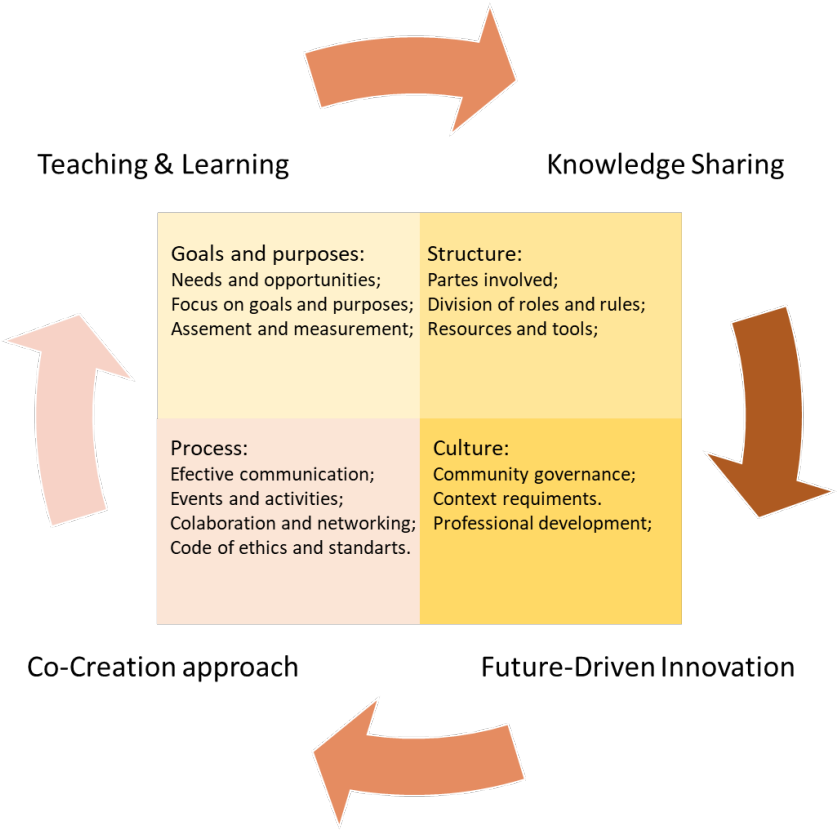

Figure 1 - STARS EU Alliance LTC general concept model

Goals and Purpose

This pillar refers to the needs and opportunities, the corresponding objectives and purposes, and the methods of evaluation and impact measurement.

Needs and opportunities

Defining needs and opportunities within a learning and teaching community is essential to ensure that the community effectively supports both students and educators.

Identifying specific needs and opportunities helps allocate resources where they are most impactful, addressing gaps in knowledge, skills, or resources that may hinder the learning experience. A clear understanding of needs and opportunities facilitates ongoing improvements in curriculum, teaching methods, and learning tools, keeping the community adaptive and relevant. Finally, when participants feel their needs are acknowledged, they are more likely to take an active role in their learning and teaching environment, fostering a sense of ownership and motivation.

Needs and opportunities can be defined using several techniques: 1) Engage with students and educators through structured surveys or interviews to gather feedback on their experiences, challenges, and suggestions; 2) Examine trends in student performance and engagement to identify where learning goals aren't being met or where teaching strategies could be enhanced; 3) Bring together a diverse group of participants (i.e. stakeholders) from the community to discuss their perspectives on what is working well and where improvements are needed; 4) Research best practices from other learning communities to identify potential opportunities that could enhance your own environment; 5) Encourage open communication channels fostering an environment where feedback is continuously welcomed and valued, allowing for real-time adjustments and improvement opportunities to be identified as they arise.

In Appendix A we provide a list of the needs and opportunities identified through a survey conducted with the members of the STARS EU Alliance.

Focus on goals and purposes

Under the STARS EU Alliance scope, present and future LTC must inspire and mobilize students, teachers, researchers, and civil society representatives to work together and combine co-creatively their inputs towards future-driven innovations. In short, LTC aims:

- Facilitating the sharing of best practices, educational resources, and experiences among community members.
- Providing opportunities for educators' professional development, including workshops, seminars, courses, and other forms of continuous learning activities.
- Promoting innovation in teaching and learning by encouraging experimentation with new methodologies, educational technologies, and teaching approaches.
- Facilitating collaboration across different disciplines and areas of expertise, promoting an interdisciplinary approach to teaching and research.
- Providing support to students by offering additional resources, tutoring, academic guidance, and opportunities for personal and professional development.
- Developing assessment and feedback mechanisms to monitor and improve the effectiveness of teaching and learning within the community.
- Creating an inclusive and welcoming environment that celebrates the diversity of experiences, perspectives, and identities within the community.
- Establishing links with the broader community, including parents, local businesses, higher education institutions, and other relevant organisations.

The current state within STARS EU Alliance:

According to our LTC survey under STARS EU Alliance, 90% of the LTCs mentioned having a specific goal, primarily focused on sharing and co-constructing resources and experiences. Innovation in sustainability, healthy living, improving teaching methods, and enhancing student engagement with the real world are at the core of their concerns. Based on data from our survey on needs and opportunities in training, work environment, and green and digital literacy, as discussed in the "needs and opportunities" section, the present and future STARS EU LTCs need to focus their goals and purposes more deeply on green and digital issues. Once again, this dual focus must be achieved "naturally" through the adoption of learning programmes and by creating a work environment that is both suitable and future-oriented.

Assessment and impact measurement

Methods to assess the effectiveness, success indicators, and metrics are either absent or residual. Therefore, it can be a topic to improve upon in the next stages of task 3.7 activities. In Table 1, we listed some quantitative indicators to assess or measure the LTC impact.

Table 1 – Quantitative Indicators to assess or measure the impact of LTC

Quantitative Indicators to assess or measure the impact of LTC
Number of teachers involved;
Number of researchers involved;
Number of students involved;
Number of companies involved;
Number of other organisations involved;
Number of research projects executed;
Number of technical and scientific meetings executed;
Number of educational and training programmes executed;
Number of technical and scientific publications.

In addition, while it is important to define and apply quantitative indicators to measure LTC performance, it is equally crucial to adopt qualitative indicators that are sensitive to the personal and professional transformation of LTC members and target group representatives. To qualitatively evaluate the impact of participation in an LTC at both personnel and professional levels, we propose raising the questions presented in Table 2.

Table 2 – Qualitative questions to assess or measure the impact of LTC

Qualitative questions to assess or measure the impact of LTC

Personnel level:

- How has your participation in this LTC contributed to your personal development or self-awareness?

- Can you describe any changes in your confidence or sense of competence because of being part of this community?

- How has your involvement in this LTC influenced your motivation for personal or professional growth?

- In what ways has participating in the LTC influenced your sense of purpose or meaning in your personal life?

- What new skills or knowledge have you gained through your involvement in this community?

- How has the LTC contributed to your understanding of different perspectives or learning approaches?

- Can you describe any emotional benefits (e.g., sense of belonging, reduced isolation) you have experienced from engaging with the community?

- How has your social network expanded through this community, and how has it influenced your personal life?

- How has participating in this LTC influenced your overall satisfaction and well-being in your personal life?

- In what ways has the LTC provided you with support during personal challenges?

Professional level:

- How has participation in this LTC influenced your professional growth or career development?

- Can you identify any specific professional skills or competencies that you have improved through the community?

- How has being part of this LTC influenced your ability to collaborate with colleagues or peers in your profession?

- Have you adopted any new collaborative methods or practices because of your involvement?

- How has the LTC influenced your teaching or professional practices?

- Can you share any specific examples of changes in your work based on what you have learned from the community?

- How has your participation in the LTC affected your approach to sharing knowledge with others in your field?

- Have you been inspired to implement innovative practices in your teaching or professional role because of your engagement with the community?

- In what ways has the LTC expanded your professional network, and how has this affected your career prospects or opportunities?

- Have you received any new career opportunities or recognition because of your participation?

- How do you see the long-term effects of your participation in this LTC on your professional career?

- In what ways do you anticipate continuing to benefit from this LTC in your professional life?

Process

This pillar includes the approach to effective communication methods, events and activities, collaboration and networking, and codes of ethics and standards.

Effective communication

Clear and effective communication strategies within the community are essential to facilitate regular communication, collaboration, and professional development, as well as to encourage members to provide feedback and suggestions. This can be achieved through open communication channels such as discussion forums, email lists, and social media groups for ongoing interaction and collaboration. Monthly meetings can be held to summarize LTC activities, share announcements, and highlight opportunities for involvement. An annual in-person meeting can serve as an opportunity to reflect on key achievements, milestones, and lessons learned over the past year, gather input from members on their experiences, preferences, and suggestions for improving the LTC activities and communication; and outline goals, priorities, and initiatives for the upcoming year, seeking input and involvement from all members. Effective communication is also crucial to monitoring LTC activity, development and relevance to society.

Events and activities

There is a wide range of events and activities that Learning and Teaching Communities (LTCs) can organise to maintain community engagement and dynamics. These events and activities can help LTCs remain dynamic, ensuring ongoing engagement, knowledge sharing, and a supportive environment for growth and innovation in teaching. Below, we suggest some examples of activities and events that should be proposed and encouraged by all LTC members, not just by its coordinators or facilitators.

- Workshops and training sessions focusing on specific skills, teaching methodologies, or new technologies in education.
- Teaching and best practices demo where members present their teaching materials, methods, or research and receive constructive feedback from peers, fostering idea sharing.
- Invite experienced educators or specialists to speak on relevant topics, sharing their insights and sparking discussions.
- Brainstorming free-flow discussions to generate and develop innovative teaching ideas in a collaborative setting.
- Informal and social events to promote camaraderie through virtual or in-person social gatherings, helping strengthen community bonds.

The current state within STARS EU Alliance:

The STARS EU LTCs currently promote meetings that take place both online and in person, occurring either weekly or monthly (85%). In addition to regular meetings, the

organisation of events, workshops, and activities can also be organised. They were mentioned as a need in our initial survey.

Collaboration and networking

Collaboration and networking are essential for LTC because they foster an environment where teachers, researchers and students can continuously grow, innovate, and respond to changing educational needs. Collaboration and networking allow exchanging ideas, teaching materials, and best practices. When these education actors feel part of a supportive community, they are more motivated to pursue professional development and to adapt to new challenges. Collaborative efforts have a direct impact on students, by improving teaching practices, sharing research, and innovating together, LTCs can better address diverse learning needs and improve overall student outcomes.

The current state within STARS EU Alliance:

In our survey on needs and opportunities, the importance of workshops, online certifications, collaboration with industry experts, and participation in events and conferences was perceived as essential for fostering continuous learning and growth. Additionally, the need for digital collaboration tools, platforms for teamwork and brainstorming, and inter-institutional online environments to facilitate effective communication and collaboration among educators as well as stakeholders was highlighted. The significance of digital collaboration platforms, virtual reality spaces, and cloud-based tools was also underscored for streamlining communication and document management, enabling seamless collaboration among teams and stakeholders.

Code of ethics and standards

By integrating the following deontological aspects into the ethical framework of the LTC, members can promote an essential culture of responsibility, respect, and integrity that supports the holistic development of all individuals involved.

- Respect for rules, policies, and codes of conduct established within the LTC is essential for maintaining order, fairness, and consistency.
- Justice and fairness in all aspects to ensure equal treatment and opportunities for all participants, regardless of factors such as race, gender, socioeconomic status, or ability.
- Respect the autonomy and independence of all participants as moral agents capable of making their own decisions.

- No maleficence and beneficence, which emphasises the obligation to avoid causing harm to others and actively seek to promote the well-being and development of all participants to foster their intellectual, social, and emotional growth.
- Value truthfulness and honesty in academic endeavours, promoting academic integrity and discouraging plagiarism, cheating, or dishonesty in any form.
- Respect the intellectual property rights of others, including authors, researchers, and creators.
- Accountability and responsibility to encourage all participants to take responsibility for their academic performance, behaviour, and contributions to the LTC.
- Professional integrity by upholding ethical standards and avoiding conflicts of interest or actions that may compromise the trust and integrity of all participants in the LTC.

The current state within STARS EU Alliance:

According to our survey, inside STARS EU most LTC had no formal policies (75%). To ensure tolerance and respect between members they relied mainly on communication (14/20) instead of using formal safeguarding roles or procedures (4/20). More than half of LTCs granted full autonomy to their members.

Structure

This pillar refers to the involved parties, the division of roles and rules, resources, and tools.

Parties involved

The key stakeholders involved in a LTC should include: Teachers, who are directly involved in delivering and designing courses; Students and long-life learners because they play a central role by providing feedback, sharing their learning needs, and participating in collaborative activities to improve educational practices. Representatives of academic administration because they can provide support, resources, and guidance, helping align LTC goals with institutional objectives; External partners like companies and civil society representatives can bring new perspectives and real-world insights.

Involving a diverse group of stakeholders enriches the LTCs perspective and enhances its ability to create a collaborative, inclusive, and impactful learning environment. The continuous development of relational ties must be seen as a powerful tool to strengthen the connection between Higher Educational Institutions (HEIs) and society. In this sense, LTCs should remain open systems, both within and outside the HEIs walls. Promoting inclusion and diversity is essential to harness the unique competencies, skills, and cultural perspectives of individuals who wish to be part of the LTC.

Naturally, the stakeholders should be aligned with the main objectives of the LTC. If an LTCs goals are focused on pedagogical practices, then the importance of having external partners is likely lower. Conversely, if the LTCs objectives also emphasise systemic connections with the broader community, it is essential to include representative stakeholders from that community. We delve into this issue in the final section, where two sub-models of LTC are proposed, one internal to the HEI and the other involving the community.

The current state within STARS EU Alliance:

According to our LTC survey, 35% of LTCs have been established for less than 5 years, while 30% have existed for more than 10 years. In terms of size, 40% of LTCs have more than 50 members, and 45% have between 10 and 50 members. Regarding participation, 60% of LTCs involved partners from outside academia in common projects or events. Accessibility for external participants occurs mainly through professional networks. The others (40%) include teachers and researchers, or teachers and students (40%). Only 15% involved other educational staff. More than half of LTCs (55%) involved external participants when setting goals.

Division of roles and rules

Defining roles in LTCs allows each member to focus on specific tasks, leading to a more streamlined teaching and learning experience. Establishing roles helps set expectations for behaviour, participation, and performance, which can reduce misunderstandings and improve engagement. Roles also facilitate collaboration, as members can rely on each other's expertise and focus on their areas of responsibility. This fosters mutual respect and enables a cooperative environment where members feel confident contributing their knowledge and skills. Knowing their roles, members can engage more fully, seeing their individual contributions as essential to the group's goals. The rules, in turn, provide a framework for handling conflicts and disagreements. When issues arise, community members can refer to pre-established guidelines, making it easier to address concerns and resolve disputes fairly and constructively. Finally, roles and rules add structure to the learning process, which can be particularly helpful in large or diverse groups. This structure supports effective resource allocation, helps the community stay on track, and ensures a consistent learning experience for all members. Some specific roles can be defined in advance for instance.

- Coordinators or facilitators can guide discussions, keep conversations on the topic, and ensure that everyone has a chance to contribute. They may also help resolve conflicts and ensure that LTCs guidelines are followed.
- Expert with extensive knowledge of the subject matter, to provide in-depth insights, answer complex questions, and offer authoritative guidance on the topic.
- Others such as: Technical support or IT specialist, feedback provider or reviewer, project or group coordinator, evaluator or assessor.

The current state within STARS EU Alliance:

According to our survey, 75% of LTCs identified the sharing of roles and tasks as the primary mechanism for collaboration. Only 20% of LTCs mentioned the presence of a coordinator or facilitator during their meeting.

Resources and Tools

HEIs should provide LTCs with the necessary resources and tools to pursue their objectives. This includes appropriate meeting spaces, effective communication methods and channels, and, very importantly, adequate human resources—not only in terms of skills and abilities but also in terms of available time to properly address the needs of the LTC tasks. The typical activities of LTCs, regardless of their objectives, are highly time-consuming, and therefore this necessary time should be accounted for in the members' task framework.

The current state within STARS EU Alliance:

Most LTCs benefited from some sort of institutional support (75%), including material resources, administrative assistance, and financial resources with 25% receiving all of these. Additionally, the use of common technologies and platforms was perceived as crucial for supporting learning and teaching, as well as for sharing educational materials.

Culture

This pillar addresses the issue of governance style, the requirements of the context, and the focus on personal and professional development.

Governance

The LTC governance should be organised to promote clear roles, effective communication, and collaborative decision-making. The governance ensures that the LTC operates efficiently, adapts to the community's evolving needs, and aligns with institutional priorities. It also promotes a collaborative and inclusive environment that maximizes the LTC's impact on teaching and learning. The governance also needs to be aware of potential challenges and strategies to overcome them. It is important to emphasise the need to encourage innovation in the teaching and learning process as well as the incorporation of educational research into teaching practice. Future driving vision seems mandatory.

The current state within STARS EU Alliance:

According to our survey, most LTC had no formal policies (75%). To ensure tolerance and respect between members they relied mainly on communication (70%) instead of using formal safeguarding roles or procedures (20%). More than half of LTCs granted

full autonomy to their members. Some of the specific mechanisms are: shared leadership and delegation; mutual agreement; rotational leadership; and clearly defined roles for participation, contributions, and feedback.

Context requirements

Today's society is highly reflective and characterised by great unpredictability. Attention to the context of HEIs and LTCs is essential. According to Schipper et al. (2023), clarifying the contextual elements is mandatory. These elements can be considered at different levels: at the micro-level, including individual motivation, knowledge, and skills; at the meso-level, including learning culture, leadership, and support for continuous learning, and at the macro-level, encompassing societal trends and development such as an aging population, digitalization and artificial intelligence for example. All three levels are related to the governance choices and to the resources and tools discussed earlier.

The current state within STARS EU Alliance:

Our survey on needs and opportunities reveals a deep attention and awareness of the macro-phenomena of today's society, particularly regarding the quality of work environments and adaptation to digital and energy transitions. In contrast, there appears to be some lack of attention to other macro-phenomena, such as demographic transition and green literacy.

Professional Development

LTCs foster personal and professional development by promoting collaborative learning, building professional networks, enhancing skill development, encouraging reflective practice, providing access to shared resources, empowering members, offering support and mentorship, and helping individuals adapt to changes in the educational landscape. This underscores the importance of holistic development to cultivate well-rounded educators capable of meeting diverse challenges.

Both personal and professional development are frequently mentioned in our survey regarding needs and opportunities in pedagogical methods, techniques, and tools, as well as workspace and green and digital needs (see Appendix A).

Outputs

In our proposed model the outputs are represented as a cycle including: Co-creation Approach, Teaching & Learning, Knowledge Sharing, and Future-Driven Innovation. This cycle emerges from the four pillars previously described.

Co-creation approach

Co-creation is about high-quality interactions that enable individuals to co-create unique experiences with companies and organisations, co-constructing service experiences to suit their needs and preferences. It entails joint problem definition and problem-solving (Prahalad & Ramaswamy, 2004). In co-creation, interactions between individuals, organisations or communities can lead to new ideas, products, or services that cannot be predicted or created by any single individual or organisation alone. Co-creation is a joint creation process that actively involves multiple individuals, organisations or communities. In the context of higher education, a co-creation approach can lead to both pedagogical innovation and a strong commitment to community needs and opportunities.

Teaching & Learning

The review of the literature and the assumptions emerging from our online survey show that the pedagogical approach should be liberating and empowering for both educators and learners. In this scope, each individual is the most important resource in the educational process. Following, we propose some active and student-centred learning methodologies commonly used to enhance student engagement and foster a deeper understanding:

- Problem-Based Learning (PBL), students work collaboratively to solve real-world problems. They analyse, research, and devise solutions, often without predetermined answers, promoting critical thinking and teamwork.
- Project-Based Learning (PBL): project-based learning or challenge-based learning, in which students work on a project over a period of time, which involves research, problem-solving, and collaboration. This can culminate in a final product or presentation that reflects their learning journey. (See one example from IPB - “Future Co-creation challenges” in Appendix C).
- Teaching & Learning in Complexity refers to the process of acquiring knowledge and skills in environments or situations that are multifaceted, unpredictable, and interconnected. It involves understanding that problems or systems may not have straightforward solutions, and that learning must adapt to changing circumstances, multiple perspectives, and evolving information. In a complex environment, learning is often non-linear and iterative, requiring critical thinking, flexibility, and the ability to navigate ambiguity. It emphasises problem-solving in real-world contexts, where solutions may involve balancing different, sometimes conflicting, factors. (See as an example the Project ECOLAH www.ecolah.eu).
- Gamification: applying game-design elements in educational contexts, gamification motivates students to engage with the material actively. Techniques like point scoring, competition, and achievements can increase engagement and enjoyment.

Knowledge sharing

Knowledge sharing and knowledge transfer both aim to disseminate information, but sharing is often more advantageous. Knowledge sharing encourages collaboration and dialogue, where individuals exchange insights and build upon each other's ideas. This fosters innovation and a deeper understanding, as people actively engage and learn from diverse perspectives. In contrast, knowledge transfer is more one-directional, with information being passed from one person to another, which can limit interaction and the ability to adapt knowledge to new contexts. By sharing knowledge, organisations create a culture of continuous learning, creativity, and collective growth, rather than just passing on static information.

Knowledge sharing plays a vital role in co-creation processes by enabling participants to build on each other's contributions. Through knowledge sharing, diverse perspectives are integrated, allowing co-creation to thrive as a collective effort rather than an isolated activity. Essentially, knowledge sharing fuels co-creation by breaking down silos, encouraging mutual learning, and unlocking the potential for joint problem-solving and value creation.

In the proposed model, the concept of knowledge sharing is focused on the relationship between HEIs and the community; however, it is equally relevant and should be encouraged in the teaching & learning process as a way to prioritize active and student-centred methodologies.

Future-Driven Innovation

Future-driven innovation is an approach focused on anticipating and shaping future trends, challenges, and opportunities to drive the development of new products, services, and strategies. Instead of responding to current market demands or immediate problems, organisations adopting this approach proactively explore possible future scenarios to innovate in a way that stays ahead. It often involves long-term thinking, strategic foresight, and the use of emerging technologies to address needs.

Future-driven innovation offers several advantages that make it a powerful approach for organisations. By being proactive, it allows organisations to anticipate changes and prepare solutions in advance, reducing the risk of disruption by competitors or market shifts. This focus on long-term trends also fosters sustainable growth, encouraging the development of solutions that can evolve and adapt over time, rather than just addressing immediate needs. Furthermore, it provides a significant competitive advantage, as organisations can seize opportunities early and create breakthrough products or services that set them apart in the market. Additionally, future-driven innovation increases organisational resilience by preparing for multiple potential futures, making businesses more adaptable to unexpected disruptions. Finally, this approach cultivates an innovative mindset, inspiring employees to think beyond the present and continuously explore new possibilities, driving long-term creativity and progress.

Variations of the conceptual model

From the general model, it is possible to define two sub-models of LTC (Learning and Teaching Communities). The division arises from differentiation at the level of objectives, structure, and process. This differentiation primarily stems from the typology of LTCs already existing within the Alliance.

Type 1 Sub-model

This sub-model accommodates LTCs focusing on the teaching & learning and research processes. Depending on the purpose, it involves faculty, researchers, non-teaching staff, and students. Type 1 LTCs may maintain a simplified process of communication, networking, and role and rule differentiation. Coordination may be handled by a coordinator (or facilitator) and a horizontal structure of members. Rotation of coordination roles is possible and desirable. Other members can also take on specific functional areas according to their personal interests and skills. Strategic and operational decision-making must be shared among all LTC members. Regular meetings should occur at least monthly, with the flexibility to adjust the frequency based on the dynamics of the LTC. Regarding communication flow, activities can be in-person, online, or blended, and the communication channel should be comprehensible and accessible to all members. An example of this type of LTC is the We-Future Co-creation Challenges at IPB.

Type 2 Sub-model

This sub-model accommodates LTCs with community relationships, focusing on regional development or sectors such as energy and sustainability, health, and other emerging fields. These LTCs are, somewhat, more demanding in terms of coordination, with functional roles potentially created based on specific needs. It is desirable for these roles to be filled by representatives from both HEIs and the community and stakeholders. Decision-making may require some role differentiation and should balance the interests of the different parties involved. A minimum of one monthly meeting is recommended, open to all members, along with additional meetings involving representatives or coordinators from the parties involved. Meetings can be in-person, online, or blended. The LTC Koudum from Hanze University serves as an example of this type.

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Appendix A - Needs & Opportunities

The needs and opportunities mentioned by teachers, students, lifelong learners and local communities regarding their learning, work environment and digital & green literacy were identified primarily by using an online survey sent to all participants of the consortium. The rate of respond was very unbalanced, and in total, we obtained 372 responses.

Analysis of response towards the importance given to Training, Informal lifelong learning, Work environment, Digital Literacy and Sustainability Literacy is shown in Table 1. Interestingly, regardless of the category, the importance attributed to these diverse areas was always higher than 3 which warrant our interest in them. Overall, students attribute a lower importance to the diverse topics compared to teachers, researchers, lifelong learners, and community members ($p < 0.001$).

Table 1 – Importance attributed to Training, informal lifelong learning, work environment, digital and green literacy.

		Importance attributed to:				
Main profile		**Training**	**Informal lifelong learning**	**Work environment**	**Digital Literacy**	**Green Literacy**
Teacher/Researcher	Median	5,00	4,00	5,00	4,00	4,00
	Mean	4,46	4,09	4,26	4,20	4,14
	sd	0,816	0,944	0,878	0,950	0,955
Teacher	Median	5,00	4,00	5,00	5,00	4,00
	Mean	4,48	4,18	4,38	4,28	3,98
	sd	0,813	0,873	0,904	0,922	1,081

Researcher	Median	5,00	4,50	5,00	5,00	5,00
	Mean	4,67	4,42	4,58	4,33	4,25
	sd	0,651	0,669	0,669	0,985	1,055
Student	Median	4,00	4,00	4,00	3,00	3,00
	Mean	3,93	3,52	3,81	3,38	3,42
	sd	1,044	1,079	1,114	1,191	1,127
Lifelong Learner	Median	5,00	4,00	5,00	3,50	4,00
	Mean	4,50	3,75	4,50	3,50	3,75
	sd	1,000	1,258	1,000	0,577	0,500
Community member	Median	5,00	4,50	5,00	4,00	4,00
	Mean	4,38	4,25	4,63	3,88	3,62
	sd	1,061	1,035	1,061	0,991	0,916
Total	Median	5,00	4,00	4,00	4,00	4,00
	Mean	4,29	3,92	4,15	3,92	3,85
	sd	0,935	1,018	0,996	1,105	1,082

Only 77 respondents (20,7%) already participate in any Community of Practice (Cop) and 201 (54,0%) expressed interest in participating more actively in a Cop or LTC.

We also asked for suggestions (via open-ended questions) about need and opportunities in learning methods, techniques, and tools, work environment, and digital and green literacy. A summary of the responses is presented in the following tables. We realized that the respondents did not clearly differentiate between needs and opportunities. Therefore, we decided to merge in the same table needs and opportunities. The next tables show a clear picture in terms of needs and opportunities priorities. Additionally, we suggest that the readers also consider the Good Practices List of LTC (see appendix B) as opportunities as well.

Concerning training needs and opportunities in learning methods, techniques, and tools (Table 2) we observe a great emphasis in the digital and technological skills around the pedagogical issues. These skills are perceived as fundamental for both personnel and professional development of all the actors involved in the teaching and learning process. A focus on student-centred, active, and collaborative approaches is also seen as essential. However, needs and opportunities related to green issues are almost absent.

Table 2 – Training Needs and opportunities in learning methods, techniques, and tools

Needs in learning methods, techniques, and tools.	Opportunities in learning methods, techniques, and tools.
Digital and Technological Skills (32): Equipping educators with the necessary skills to navigate the digital landscape effectively. This includes digital literacy, leveraging digital tools and emerging technologies, integrating technology into teaching, and addressing specific areas like network security and AI applications.	**Development of Digital and Technological Skills (22):** The importance of digital literacy and the utilisation of emerging technologies in education. It emphasises training in essential digital tools like Microsoft 365 and anti-plagiarism software while also exploring innovative avenues such as Virtual Reality (VR) and interactive simulations.
Enhancement of Teaching and Learning Methods (30): Emphasis the improvement of teaching and learning experiences through diverse methods such as project-based learning, interactive teaching techniques, active learning strategies, and micro learning modules. The emphasis on adaptability and practical application is notable. **Pedagogical Innovation and Adaptability (23):** Focus on the evolving nature of education, emphasizing a shift towards student-centred teaching approaches, innovation, inclusivity, and adaptability. It highlights the need for educators to embrace new methodologies and cater to diverse student needs effectively.	**Student-centred approaches (28)** Methods aligned with student-centred approaches to enhance teaching quality and learning outcomes. Explores avenues such as personalised learning paths, mobile learning apps, and customised virtual reality simulations, reflecting the shift towards learner-centred education. **Collaborative Learning and Communication (19):** Emphasis on techniques to enhance collaborative learning among students, improve teacher-student communication, and develop teamwork skills, recognising the significance of interpersonal interactions in the educational process. **Innovation in Teaching Methods and Tools (18):** Innovative teaching methodologies and tools that enhance engagement and learning outcomes, such as interactive simulations, adaptive learning platforms, and the integration of artificial intelligence and gamification, emphasise the dynamic nature of contemporary education.
Professional and Personal Development (22): Underscore the importance of holistic development for educators. It includes communication, collaboration, and teamwork skills, assessment and feedback methods, academic research skills, leadership, management, and data analysis. This holistic approach aims to cultivate well-rounded educators capable of meeting diverse challenges.	**Professional Development and Collaboration (16):** Emphasises on the importance of workshops, online certifications, collaboration with industry experts, and participation in events and conferences to foster continuous learning and growth.
	Enhancement of Sustainability Skills (1): Focus on the importance of environmental responsibility in education. Training the learners with the knowledge and skills to contribute to sustainable practices,

	reflecting a growing awareness of global challenges and the role of education in addressing them.

Concerning work environment (Table 3), respondents emphasised the importance of an effective digital infrastructure. It includes computers, high-speed internet, advanced tools such as smartboards and digital collaboration platforms, ensuring access to reliable hardware. Comfort, inclusivity, security, and flexible spaces and furniture are also perceived as essential. The responses suggest the emergence of a new conception of ergonomic environments combining both physic and digital requirements. Some respondents related it as part of a marketing strategy for HEI. This new work environment conception appears to be related to professional and personal development. Concerns about sustainable practices (e.g., sustainable campuses) were mentioned but they do not seem to be a priority.

Table 3 – Training Needs and opportunities in Work Environment

Needs in Work Environment (space conditions and digital technologies)	Opportunities in Work Environment (space conditions and digital technologies)
Digital Infrastructure and Equipment (82): Emphasis on the importance of robust digital infrastructure and equipment in the work environment. From basic needs like computers and high-speed internet to advanced tools like smartboards and digital collaboration platforms, ensuring access to reliable hardware and software is crucial for facilitating effective teaching and learning experiences.	**Digital Equipment and Technology (32):** Highlights the potential of digital technologies to enhance learning experiences and operational efficiency. From digital labs to augmented reality integration, the emphasis is on leveraging innovative tools like smartboards and virtual reality for immersive and interactive learning environments.
Workspace and Ergonomics (69): Highlights the need for ergonomic furniture, flexible workspace designs, and collaborative spaces that cater to different teaching methodologies and group dynamics. Providing comfortable and adaptable environments can enhance teacher satisfaction and performance.	**Flexible Workspace and Smart Office Solutions (53):** Emphasises redesigning physical spaces, integrating smart office technologies, and fostering flexible work arrangements, including remote work integration and hybrid models to promote productivity and employee well-being. The focus is on creating a conducive and dynamic work environment that fosters creativity, engagement, and innovation.
Training and Support (29): Emphasis on the importance of ongoing professional development, personalised learning paths, and support systems for teachers to acquire and refine their digital skills. Incorporating innovative approaches like gamification and blended learning can enhance the effectiveness of training programmes.	**Training and Professional Development (24):** To advocate for training programmes, particularly in digital tools and cybersecurity, hybrid learning models, and infrastructure upgrades to support remote work, reflecting the importance of ongoing learning in a rapidly changing landscape.
Research and Development (19): Underscore the significance of research and development in education, advocating for collaboration, access to research databases, and the integration of innovative technologies to drive continuous improvement in teaching and learning practices.	
Collaboration and Communication (23): Highlights the need for digital collaboration tools, platforms for teamwork and brainstorming, and inter-institutional online environments to facilitate effective	**Collaboration and Digital Platforms (22):** Underscore the significance of digital collaboration platforms, virtual reality spaces, and cloud-based tools for streamlined communication and document

communication and collaboration among educators and stakeholders.	management, facilitating seamless collaboration among teams and stakeholders.
Accessibility and Inclusivity (5): Emphasis on the need for accessible resources, language barrier removal, and the adoption of digital technologies that accommodate individuals with impairments, promoting a more inclusive and equitable learning environment. **Safety and Security (4):** Emphasis on the importance of cybersecurity, data protection, and physical and psychological safety measures to safeguard educators and students in digital and physical spaces.	
Environmental Sustainability (3): Advocates for green energy dissemination, reducing administrative work and road traffic, and promoting health awareness initiatives, reflecting a growing emphasis on sustainability and well-being in the work environment.	
	Marketing Digital and Innovation (4): Emphasis on leveraging business intelligence tools, innovation strategies, and digital marketing techniques to enhance marketing efforts and drive innovation within the organisation.

Concerning training needs and opportunities in digital literacy (Table 4), as highlighted by the importance given to the general topic, "Training Needs and Opportunities in Learning Methods, Techniques, and Tools" (Table 2), digital literacy is perceived as a priority. Improving digital skills, critical thinking, and cybersecurity awareness is considered essential, as well as the need for continuous training. Overall, there is an emerging awareness that the digital realm permeates all aspects of life, and we need to be prepared for it.

Table 4 – Training Needs and Opportunities in Digital Literacy

Needs on Digital Literacy	Opportunities on Digital Literacy.
Critical Thinking, Evaluation of Digital Information, and Information Literacy (16): This category underscores the importance of developing critical thinking skills specific to online content evaluation and information literacy. In the digital age, the ability to discern credible information from misinformation is paramount for making informed decisions and avoiding manipulation.	
Basic Digital Skills and Computer Literacy (18): Fundamental digital skills, including computer literacy and proficiency in common software applications, form the backbone of digital literacy. Mastery of basic operations such as file management and software	

navigation are essential for functioning in contemporary digital environments.	
Cybersecurity Awareness and Skills (15): With the proliferation of online threats, cybersecurity awareness is critical for safeguarding personal and organisational information. This category emphasises understanding online security practices, recognising phishing attempts, and adopting measures to ensure data protection and privacy.	
Adaptability to New Technologies (12): The rapid pace of technological innovation necessitates adaptability to new technologies. Individuals must embrace emerging digital tools and platforms while remaining cognizant of the advantages and consequences associated with their use, reflecting a dynamic approach to digital literacy.	**Digital Technology Empowerment (11):** Basic digital skills, cybersecurity awareness, and proficiency in remote work are essential components of digital literacy. Workplace training programmes and digital mentorship initiatives play a pivotal role in equipping individuals with the necessary skills and knowledge to navigate digital environments effectively and contribute meaningfully to the workforce.
Digital Communication and Collaboration Skills (11): Effective digital communication and collaboration skills are essential for navigating virtual work environments and enhancing productivity. Proficiency in collaborative tools and clear, concise communication are integral to fostering seamless virtual collaboration and teamwork.	
Training and Continuous Learning Programmes (7): Continuous training programmes play a pivotal role in enhancing digital literacy and promoting lifelong learning. Strengthening academic training in digital education and providing opportunities for skill development in digital environments is crucial for empowering individuals to thrive in an increasingly digital world.	**Online and Continuous Learning (16):** Online learning platforms offer a flexible and accessible avenue for individuals to enhance their digital literacy skills. Continuous learning and collaboration foster a culture of lifelong learning, empowering individuals to adapt to evolving technological landscapes and acquire new skills to remain competitive in the digital age.

In contrast to digital literacy, concerns about green literacy emerged only when specifically asked (Table 5). The primary concerns are focused on gaining a deep understanding of the environmental and sustainability issues emerging in our society. Consequently, the needs and opportunities identified by respondents are centred on education and training programmes that raise awareness about green technology and innovation, as well as the adoption of good practices such as circular economy principles.

Table 5 – Training Needs and Opportunities in Green Literacy

Needs on Sustainability Literacy	Opportunities on Sustainability Literacy
Understanding Environmental Issues and Solutions (12): This category emphasises the importance of understanding ecological systems, environmental issues, and solutions for fostering environmental stewardship and promoting sustainable lifestyles. It underscores the need for education, training, and advocacy to address environmental challenges and promote equity and justice. **Environmental Education and Training (7):** Understanding sustainability principles and concepts is crucial for educators to integrate sustainability topics into curricula effectively. This category emphasises faculty development, infrastructure enhancement, and experiential learning opportunities to equip individuals with the knowledge and skills needed to address environmental challenges and foster sustainable practices.	**Education and Training Programmes (12):** Education and training programmes play a pivotal role in promoting sustainability literacy. These programmes focus on increasing society's awareness of environmental issues, integrating sustainability into formal education curricula, and providing comprehensive training on sustainable practices, both in academic and corporate settings. **Community Engagement and Advocacy (10):** Engaging local communities in sustainability initiatives is crucial for fostering environmental awareness and promoting sustainable development. Community-based education initiatives, advocacy programmes, and environmental conservation projects empower individuals to take action and contribute to building more sustainable communities. **Integration of Sustainability into Various Fields (2):** Integrating sustainability topics into various fields and educational curricula ensures that sustainability principles are incorporated into diverse disciplines, ranging from accounting to technology. This integration promotes a holistic understanding of sustainability and encourages sustainable practices across different sectors.
Sustainable Practices and Resource Management (9): Promoting awareness of sustainable practices in resource consumption, waste reduction, and energy efficiency is essential for mitigating environmental impact. This category highlights the importance of sustainable consumption, circular economy concepts, and green technology adoption to minimize ecological footprint and promote environmental sustainability.	**Digital and Technological Solutions for Sustainability (4):** Leveraging digital and technological solutions for sustainability offers innovative ways to monitor, manage, and address environmental issues. These solutions include technology-enabled environmental monitoring, digital books, online lectures, and smart campus technologies that promote sustainability and efficiency. **Corporate Social Responsibility (CSR) Initiatives (3):** Corporate sustainability training and CSR initiatives are essential for fostering sustainable practices within organisations. These programmes aim to incorporate green literacy into corporate training, promoting environmentally responsible behaviour among employees and encouraging sustainable business practices. **Green Innovation and Entrepreneurship (2):** Green innovation initiatives and programmes that support green start-ups drive sustainability by fostering innovation and entrepreneurship. These initiatives encourage the development of environmentally friendly technologies and solutions to address pressing environmental challenges. **Others (12):** Various other opportunities, such as environmental initiatives in construction, waste reduction, smart campus initiatives, global collaboration, and partnerships, contribute to

	sustainability efforts. These initiatives encompass a wide range of activities aimed at reducing environmental impact, promoting sustainability, and fostering collaboration on a global scale.
Green Technologies and Innovation (3): Advancing green technologies and innovation is key to addressing environmental challenges and transitioning to a more sustainable future. This category highlights the potential of technologies like artificial intelligence and photovoltaic systems in promoting renewable energy and sustainable agriculture, emphasising the role of innovation in environmental sustainability.	
Green Policy and Organizational Responsibility (2): Integrating sustainability principles into organisational policies and operations is essential for reducing ecological footprints and promoting responsible environmental practices. This category emphasises the importance of green policies and organisational commitment to sustainability across procurement, production, and operational processes. **Circular Economy and Waste Management (2):** Understanding and adopting the principles of a circular economy are crucial for minimising waste and maximising resource efficiency. This category underscores the need for eco-friendly product choices, waste reduction strategies, and circular economy concepts to promote sustainable consumption and waste management practices.	

Appendix B - existing LTC within the STARS EU Alliance

The sample (n=20) of existing LTC presents diverse profiles.

The table 1 illustrates the distribution of LTC across countries, with Albania having the highest representation among the listed countries.

Table 1

Partners	n
Alexandër Moisiu University of Durrës	7
Hanze University of Applied Sciences	4
Polytechnic Institute of Bragança	3
University West	3
Bremen University of Applied Science	1
University of Franche-Comté	1
Other not listed	1

More than one-third of LTC had more than 50 members (Table 2).

Table 2

Size	n
More than 50	8
Between 21 and 50	5
Between 10 and 20	4
Less than 10	3

One-third of LTC started less than 5 years ago, and one-third more than 10 years ago (Table 3).

Table 3

Age	n
<5yo	7
5-10 yo	6
11-15yo	2
>15yo	5

Among respondents, 90% have a specific goal. These mainly involved sharing and co-constructing resources and experiences (Table 4).

Table 4

Goal	n
Sharing Resources	8
Sharing Experiences	7
Co-constructing Resources	4
Getting to Know Each Other	2
NA	2

Most LTC had externals involved when setting the goals. About one-third only involved their members (Table 5).

Table 5

Who sets the goals	n
Collaborative Team	11
Members	6
NA	3

Almost two-thirds of LTCs involved partners external to academia to participate in common projects or events (Table 6).

Table 6

Parties involved	n
External Partners	12
Students & Teachers & staff	3
Students & Teachers	3
Students	1
Teachers	1

Most LTC had shared roles. Only a few LTCs explicitly mention coordinators or facilitators. (Table 7).

Table 7

Roles	n
Shared roles	15
Coordinators	3
Facilitators	1
NA	1

Accessibility was mainly done via the professional network. (Table 8).

Table 8

Accessibility	n
Digital Accessibility	2
No Formal way	6
Physical Accessibility	1
Professional network	11

14 LTCs out of 20 invited a facilitator during their meeting. Most meetings involved both online and in-person settings and occurred either weekly or monthly (Tables 9 & 10).

Table 9

Format	n
Both	17
Online	1
In-person	2

Table 10

Frequency	n
Biannually	1
Monthly	9
Weekly	8
Whenever	1
NA	1

Most LTCs benefitted from some sort of institutional support (75%), in the form of material resources, administrative assistance, financial resources and in 25% of the cases all of these (Table 11).

Table 11

Type of institutional support	n
Material resources (Physical spaces, equipment...)	5
Administrative assistance (support staff, scheduled time ...)	3
Financial resources (budget for learning material, activities or grants...)	2
all of the above	5
No	5

Most LTC had no formal policies (75%). To ensure tolerance and respect between members they relied mainly on communication (14/20) instead of using formal safeguarding roles or procedures (4/20). More than half of LTCs granted full autonomy to their members.

Table 12

Autonomy	n
Full Autonomy	12
Task-Specific Autonomy	6
NA	2

Appendix C - Good Practices List

The STARS EU alliance already have a tradition in LTC

Location	LTC	Description
Hanze University of Applied Science	Koudum, a village in Friesland	This village wants to become more sustainable. Students of a master programme on systems management work together with inhabitants, municipality, energy cooperation and energy providers to come up with solutions that will work for a whole neighbourhood. Dialogue and the valuing of each party's input are crucial as well as a good facilitator to help move the process along and to get to results.
	Industrial Estate Eeserwold	Companies in this industrial park want to become energy self-sufficient by working together in generating and dividing their energy, for instance by using solar power and other sustainable method. Storage of energy in the form of hydrogen will play a part. However, many issues arise regarding legal permits, forms of cooperation between parties and acceptance of a nearby neighbourhood. Students from the Master Energy for Society and researchers from our professorship System Integration, work together with the project group, the local energy provider, the municipality and local energy cooperation to find ways and design a roadmap towards this innovative change.
	Health Hub Roden (Centre of Expertise Healthy Ageing)	This LTC students, researchers and companies/organizations come together to think about big challenges in health care in the Northern Netherlands. Innovative solutions are tried out at the health care partners and evaluated. Best practices are shared so all participants can learn.
	Learning community Dennenoord	A large institution for mental health care needs to make its 100 buildings sustainable. 53 students and 3 researchers work together with professionals from Dennenoord on several subtopics like heat solutions, legal issues regarding permits for solar panels, etc. etc.
Polytechnic Institute of Bragança	We – Working & Envisioning Hub	The We is an innovation and co-creation hub located within the Bragança Polytechnic University - BPU), acting as a nexus for students, teachers, researchers, entrepreneurs, and community leaders to collaborate on innovation projects. The We aims to create a platform that empowers communities and facilitates sustainable societal transitions. By cultivating a vibrant social innovation ecosystem, we aim to harness the collective agency of stakeholders and co-create innovative solutions that promote sustainable development, innovation and healthy living and well-being.
	Future Co-creation challenges	This Community of Practices (CoP) is developed jointly by BPU and IPVC (Polytechnic Institute of Viana do Castelo). It consists of developing co-creation projects based on challenges proposed by companies and other community organisations. Co-creation teams include students from different cultures and disciplinary areas and an element representing the partner. These teams are coordinated by an IPB/IPVC professor with the role of facilitator.
	ARREMANGAR	This Community of Practices (CoP) is developed jointly by IPB and ILocal (no-governmental association) and consists of a vast set of activities involving teachers, students, and local stakeholders from Vilares da Vilariça with the aim of establishing new forms of governance that promote healthy and happy lives for the population.

	Mentoring Academy	The Mentoring Academy aims to contribute to the integration, and academic and personal success of students at the BPU. The programme is divided into Mentoring, which aims at the student's social and academic integration, pedagogical monitoring Tutoring and Pedagogical Training aimed at teachers to increase students' academic success.
	EFE, Ethical food entrepreneurship	The EFE project started in January 2022 and finished in December 2023. The EFE project wanted to empower a new generation of food entrepreneurs to start, grow, and adapt to new ethical food enterprises. Furthermore, the project aimed to contribute to the professional development of food teachers of High Education Institutions (HEI) by increasing their pedagogic skills to develop and teach ethical entrepreneurship topics that consider the planet, people, and profit. To reach the above goals, the EFE aimed to develop unique training and teaching resources (including guides, an entrepreneurship manual, an online training course, and peer-to-peer learning resources) for educators, students, and SMEs in the food sector, enabling them to be drivers of equitable and sustainable growth and provide long-lasting benefits to industry players. All resources can be consulted on: Home - Ethical Food Entrepreneurship (ethical-food.eu). The manuals and the course prepared along the project are available in English, Portuguese, Finish, Turkish, and Danish.
Bremen University of Applied Science	National Teacher Communities	- *DGHD:* The German Association for Higher Education Didactics is the scientific association of higher education didactics experts and people interested in higher education didactics and study reform. It provides a forum for research and development in higher education didactics, promotes the discussion of higher education didactics and takes a stand on important issues of higher education teaching and study. - *DGHD Regional Network Bremen:* The DGHD regional network Bremen aims to connect HEIs in the state of Bremen.
	Teacher Communities (research)	Networking competencies across disciplines and faculties and developing solutions for social challenges with cooperation partners. Researcher clusters: Aerospace; Blue sciences; Region in transition; Digital transformation; Quality of life; Dynamics, Tension and Xtreme Events
	Teacher Communities (pedagogics)	- *New to teaching:* Interdisciplinary offer for teachers at the beginning of their teaching career. - *Day of teaching and learning:* University-wide exchange between teachers, students and colleagues from the central institutions. - *Didactics workshops within the summer and winter breaks* (twice a year): Interdisciplinary offerings for teachers on various topics. - *Curriculum Lab:* The Curriculum Lab is an offer for the redesign and further development of study programs. The aim is to promote structural, didactically-based and holistic degree program development, particularly in the context of (re-)accreditation processes. - *University Didactics Certificate Program:* HSB teachers can obtain a certificate as proof of their own teaching qualifications by attending our workshop program which is based on the guidelines of the DGHD. - *Coffee Lectures:* Short thematic offerings with an interdisciplinary approach, developed jointly with the State and University Library Bremen and University Bremen
	Local/practice Communities (external stakeholders, advisory boards)	- *Advisory boards* from the partner companies (dual study programmes with professional and academic parts). - *Boards of supporters and interested companies and people* (different types of boards, different study programmes). - *International boards from partner universities* (international study programmes).

	Student Communities (guided)	- *Tutorial programme (qualification for students).* - *Moderated student-teacher dialogue.* - *StudiumPlus:* StudiumPlus offers a wide range of interdisciplinary workshops, modules and advice to supplement studies and focus on students' personal interests. With these offers, students can ensure their learning success and design their studies individually. • LernenPlus is a free service for students of all subjects and semesters. It offers individual learning advice, workshops and seminars to help students achieve their study goals. • Workshops • Writing Lab: It provides support with advice, workshops on all kinds of writing-related topics and joint writing sessions. • Future Skills - *Friendship Program:* The Friendship Program aims to promote intercultural exchange between HSB exchange students and Bremen citizens. Families or individuals can take on an informal sponsorship. - *AStA:* The General Students' Committee (AStA) is the cross-faculty representative body for students at Bremen University of Applied Sciences. The members of the AStA regularly take part in meetings of the university committees and work together with other student representatives, such as the student councils.
University West	National Teacher Communities	a. *SWEDNET:* https://www.swednetwork.se/about-us/. *Swedish Network for Educational Development in Higher Education*. The association's purpose is to stimulate educational development in higher education, to promote cooperation and exchange of experience in the field of educational development in higher education, and to strengthen the identity and promote the professional development of individuals involved in development-oriented work in higher education. b. *ITHU:* https://ithu.se/ithu-in-english/. The Swedish Network for *IT in Higher Education* is a professional development network that aims to promote and enhance the pedagogical application of IT in teaching and learning. The network also aims to be a forum for the exchange of experience and knowledge in the field in terms of practice, research, and development. The network consists mostly of pedagogical developers, educational technologists, teachers, librarians, and staff involved in course design. It has representatives in almost all Swedish higher education institutions. c. *UHR:* https://www.uhr.se/en/start/. *Swedish Council for Higher Education***.** The Swedish Council for Higher Education receives tasks from the Government and the Ministry of Education and Research on an ongoing basis. The tasks are: Analysis of admissions statistics, Eurostudent VII, Following up work on minority policies, Gender equality in higher education, Coordinating trials for suitability requirements in admissions to teacher training, Promoting widening participation in higher education and Evaluation of the effects and use of statements as well as Proposal for a lowest value for results of the Swedish Scholastic Aptitude Test. d. *SUHF:* https://suhf.se/in-english/. *The Association of Swedish Higher Education Institutions.* The Association aims to promote sector interests to external actors and strengthen internal cooperation. SUHF provides an arena for the exchange of views and cooperation among its member institutions. For example, competence development for teachers in policies like Recommendations on general learning outcomes for the teaching qualifications required for employment as an academic teacher and on mutual recognition. e. *HPCF: National network for leaders of Higher Education Pedagogy*. HPCF arrange online meetings and one conference for only directors of Teaching & Learning in Higher Education working at one of the 34 universities in Sweden. All participants teach classes in Higher Education Pedagogy: https://hpcf.se/om-hpcf/

		f. *NU-conference* (Swe). https://nu2024.se/. SUHF's national university teaching conference and Sweden's largest meeting place for the development of higher education. NU stands for Network and Education.National conference for accepted papers. University West will be a co-organizer of this biannual conference in Gothenburg 2026. More information about the SUHF organization is above. g. *Högre Utbildning* (national journal). https://hogreutbildning.se/index.php/hu. *Higher Education Journal* is a scholarly electronic journal that is freely available following the principle of Open Access. The journal's overall purpose is to support the development of knowledge relevant to teaching and education at universities and other higher education institutions. The journal also organizes a conference *Research on Higher Education* (Swe): Forskning om högre utbildning at Stockholm Univ. The conference is one of the few arenas where researchers in the field of higher education meet.
	Local Teacher Communities (pedagogics)	a. *Introduction for newly employed teachers at UW,* and teachers at the beginning of their teaching career (one occasion, offered two times/year). Later, they engage in courses in Higher Education Pedagogy. b. *Courses in Higher Education Pedagogy* for all teachers, but mandatory of at least 10 weeks studies. Basic-, Thematical- and Project courses. University West - Courses in higher education pedagogy. English-speaking teachers at University West study their courses at the University of Gothenburg, as collaboration with their unit in Higher Education Pedagogy. Read more here: Courses offered in English | The PIL Unit (gu.se). c. *Akademus-conference for teachers* (one day a year, in August). Besides a keynote speaker, teachers at UW present studies about their teaching, often further developed as course assignments already examined in Higher Education Pedagogy. d. *Didactics seminars* (one day a month): Organized by the pedagogical developers at UW, and the unit of Higher Education Pedagogy e. *Lunch talks*: Short interdisciplinary thematic offerings at lunchtime (regularly) f. *Book circles*: an informal community of teachers who read, discuss and practice educational tools and create learning environments while they study together. Example of subject: Active Learning Classroom. University West - Active Learning Classroom g. *ICT-workshops for teachers* to get support just in time and to adopt digital tools and Learning Management Systems (LMS) in teaching. Canvas is used by all teachers! h. *Small communities* that emerge as internal competence development projects at UW, mandatory for teachers: • WIL-certification project (2019-ongoing) • Sustainable development in teaching (internal course incl. final seminar in 2023) • Computer security (online course in 2023) For every course, smaller and informal communities of teachers engage in terms of the subject they study.
	Local Communities (external	a. *Strategic partners*. Agreement with local/regional companies. Strategiska partnerskap.

	stakeholders, advisory boards)	b. *Co-campus*: Västervik and Dals Ed (online educational programmes organized by University West). c. Boards of supporters and interested companies and people (different types of boards, different study programmes). All educational programmes have advisory boards in which external stakeholders participate, but also students represent. d. International boards from partner universities (international study programmes).
	Student Communities	a. *SFS* (National): https://sfs.se/en/. Studentunion in Swedish. SFS is the unified student voice that pursues common issues concerning students at a national and international level. As the overall student vote, SFS's main task is to represent the interests of the member unions and students. This means influencing issues that are important to students. SFS is a member-run organization that is based on basic democratic principles and is non-partisan and non-religious. b. *SHV* (Local): https://carli.shv.hv.se/en/. Student Union at University West. The Student Union at University West is a member-run organization, which means that it is the members who decide what SHV should work with, and who should work with what. • moderated student-teacher dialogue. For example, programme committees for Higher Education Pedagogy, Work Integrated Learning (WIL)-certification, Educational programmes on all levels and subjects, as well as Centre for Sustainable Development etc. • student committees: Sub-organizations – Studentunion at University West. • International Student Council (ISC) a social community for both international and Swedish students at UW. • tutorial programmes (qualification for students)
Alexandër Moisiu University of Durrës	Teacher communities at a national level	At the national level, a Union of Professors is established. It is aimed at protecting and representing lecturers' rights among public universities and at the same time it serves as a hub of discussions and exchange and proposals to political decision-making institutions on the higher education reforms and developments.
	Local Communities (external stakeholders, advisory boards)	Strong connections between the university and the external stakeholders are established through: • An extensive network of external collaborators pertaining to the private and public sectors; • Bilateral memorandums of Understanding which provide the ground for a structured and formal collaboration between the HEI and the local stakeholders; • Participation as representatives of external stakeholders in the collegial decision-making bodies of the university (the Board of Administration); Examples of cooperation with external stakeholders: • CEMA – Maritime center of excellence in maritime affairs; • BATS International Scientific Conference (biomedical application technology and sensors), October 2024; • The Local Education office of the city of Durres.

	Student Communities	In UAMD, a student-led organisation: the 'Student Council' is the main body representing the students, their needs and interests towards the decision-making bodies of the university. • Membership and leading positions are the result of student general elections in all the faculties of the HEI; • Each faculty holds elections to elect representatives to the Student Council. The Student Council works with the entire student community (undergraduate, taught, and research postgraduate) across all discipline areas and, working closely with various stakeholders in the HEI, engages in the following tasks: - to plan and coordinate the delivery of activities during the graduation periods welcome, design, and deliver a range of in-year community-based activities, facilitate the delivery of community-based activities in academic departments, and be an authoritative source of thinking on issues related to community, belonging, and identity. We have more than 10 clubs and societies bringing UAMD students together – from faith, cultural, and academic societies, to fundraising groups and student media - there's bound to be something for everyone. • Student clubs: ◆ Book Club ◆ Debate Club ◆ Art Club ◆ Multi-Media and Photography Club ◆ Sports Club (Chess, Football, Volleyball, Basketball, Table Tennis) ◆ Film Club ◆ Sustainable Development Goals (SDG) Club ◆ Entrepreneurship Club ◆ Robotics Club ◆ Information Technology Club • Alumni The UAMD alumni community is a group of individuals who have completed a course or programme offered by our educational faculties. The purpose of our alumni community is to connect former students, offer networking opportunities, and provide professional development resources. UAMD Alumni community also provides opportunities for professional development. Many of our alumni host webinars, workshops, and other events that focus on specific industries or skills. These events help our alumni stay current in their field and expand their knowledge and expertise. Moreover, the UAMD alumni community also provides career services such as resume reviews and interview preparation, which can help former students land their dream jobs. UAMD Alumni community also provides a way for former students to stay connected to their alma mater and to each other. Many of them have online forums or social media groups where alumni can share news, ask questions, and engage in discussions. This connection is especially valuable for online connections with their classmates. At the national level, the Union of Student Councils is the organisation responsible for the representation of students nationwide.

Silesian University in Opava	Learning community	The learning community is a group of teachers that forms annually at School of Business Administration. The goal of this group is to share teaching experiences, discuss new and innovative teaching methods, and solve teaching challenges with the aim of engaging students more effectively into the teaching process. Teachers from this community formed for instance the STARS EU BIP in Pedagogical Innovation. The goal of the community in academic year 2024/25 was to innovate specific courses (1-2 courses per teacher).
	Local Teacher Communities (pedagogics)	Academy of Professional and Personal Development - The Academy of Professional and Personal Development offers workshops on various topics, such as didactics, teaching methodology, teaching feedback or couching, as well as interdisciplinary workshops not only for teacher, but for all university employees on the topic of mental health and well-being, IT courses, language courses, etc. The offered workshops are conducted in the form of practical examples and exercises so that the participants can use them in their work and personal lives. Pro Lingua - Methodical, cultural and professional centre for teaching foreign languages. This centre professionally supports teachers, pupils and students of all levels of schools by organizing seminars and lectures by Czech and foreign linguists.
	Student Communities	Student clubs: - Student Union - Change The SU - Inflation - The Talk Club
	Alumni Community	Upon successful completion of their studies, students can register in the SUO Alumni Portal. Alumni can benefit from services and benefits, discounts within the university (accommodation, library, etc.) and within the Alive card (discounts in shops and services). As part of PR on the portal, the university publishes interesting events, invitations to university events (reunions, balls, conferences, etc.). Registered graduates can also use the services of the SUO Career Portal (job offers, internships, temporary jobs, etc.).
	Business Gate	Business Gate is a multifunctional centre in Karviná that supports entrepreneurship and business initiatives. The centre offers through the Academy a semester-long program where students complete assignments for companies. Students gain practical experience while companies receive creative solutions to their tasks.
Cracow University of Technology	Student Community	**FutureLab**: This initiative focuses on interdisciplinary research and collaboration, working with students, researchers, and industry partners to solve real-world challenges, especially in the areas of technology and innovation. FutureLab encourages the integration of theoretical knowledge into practical solutions, which is beneficial in fostering hands-on learning and developing cutting-edge technologies. CUT could showcase **FutureLab's role in driving innovation**, especially through **collaborative research** and **problem-solving projects** involving both academics and external stakeholders like local industries or technology companies. **CTT (Centre for Technology Transfer)**: The CTT facilitates the commercialization of research and technology, aiming to bridge the gap between academic innovation and practical application in industries. It supports researchers in **patenting innovations**, **creating spin-offs**, and **partnering with businesses**. Best practices from CTT could include their **approach to innovation management**, **technology transfer processes**, and **entrepreneurship initiatives**, where they assist in transforming research into market-ready solutions. CUT could use this as an example of fostering **entrepreneurial activities** and **research commercialization**.

	Teacher Community	**e-Education Centre** at Cracow University of Technology is likely an important resource that exemplifies best practices for digital and online learning in higher education. While specific details were not found in the document, we can infer its role in supporting the integration of technology into education. Here are some potential best practices the e-Education Centre could represent: **Digital Literacy Training**: Offering comprehensive training for both students and educators to enhance their digital skills and ensure they can effectively use online learning platforms, tools, and resources. **Innovation in Pedagogy**: Promoting the use of cutting-edge digital technologies (e.g., virtual reality, AI in education, or adaptive learning systems) to enhance teaching and learning experiences. This includes not only tools but also integrating methodologies like blended learning and flipped classrooms. **Continuous Support and Professional Development**: Facilitating ongoing workshops and courses for faculty to keep up with technological advancements and integrate them into their teaching practices. **Collaboration Across Disciplines**: Encouraging the development of interdisciplinary courses and projects that use digital platforms, which could involve the collaboration of various faculties to foster innovation. Including such examples of **technology integration**, **professional development**, and **innovative pedagogies** in your appendix would illustrate how universities, including CUT, are advancing in digital education. **Onboarding program** Communication with the candidate before signing the employment contract Preparation of a job position in an organizational unit and designation guardian Conclusion of the contract and first day at work Mandatory training Support in the first months of employment Evaluation of the onboarding process
	Both SC &TC	**Accessibility Centre** is definitely considered a good practice in higher education institutions. The Accessibility Centre provides support and resources for students and staff with disabilities or specific learning needs, ensuring equal opportunities for participation and success in academic and extracurricular activities. This aligns with the principles of inclusivity and equity in education, which are central to creating diverse, supportive learning environments. Here are several reasons why an Accessibility Centre can be regarded as a best practice: **Ensures Equal Access to Education:** It helps ensure that all students, regardless of their physical, sensory, or cognitive challenges, have equal access to educational materials, facilities, and technologies. This could include providing specialized equipment, assistive technology, or alternative formats for course materials. **Promotes Inclusivity:** An Accessibility Centre fosters a culture of inclusivity, where students with disabilities are not marginalized but supported to reach their full potential. It shows a university's commitment to meeting the diverse needs of its student body. **Support for Faculty:** It also offers training for faculty on how to accommodate students with disabilities in their classrooms, making sure that teaching methods and materials are adaptable to a range of learning needs. **Improves Learning Outcomes:** By offering tailored support, such as tutoring, note-taking services, or quiet spaces for studying, an Accessibility Centre helps students with disabilities achieve academic success on par with their peers.

		Enhances Social Integration: It provides social and academic support that helps students with disabilities integrate more easily into campus life, reducing isolation and promoting a more collaborative learning environment. **Legal and Ethical Responsibility:** In many countries, accessibility for people with disabilities is not only a best practice but also a legal requirement. An Accessibility Centre helps institutions comply with these regulations and support their students' rights to an equitable education. As an example of a good practice, the Accessibility Centre can be integrated into your appendix as an initiative that demonstrates inclusive education and the promotion of equity within the institution. If Cracow University of Technology has an Accessibility Centre or similar service, it could serve as an excellent model for how universities can provide support to all students. **"Centre for Support of the Academic Community of Cracow University of Technology"** (Centrum Wsparcia Społeczności Akademickiej) can be considered a good practice for Learning and Teaching Communities (LTCs). Here's why: **Support for Academic Community:** This center likely plays a critical role in fostering a supportive environment for both students and faculty. In LTCs, support services that enhance the academic experience for all members, including students, teachers, and researchers, are essential. The center's focus on community support aligns well with LTC principles, which emphasize collaboration, inclusivity, and engagement. **Promoting Inclusivity:** If the center provides services related to accessibility, academic counseling, or social integration, it contributes to creating a more inclusive learning environment, which is a key aspect of LTCs. An accessible and inclusive space for all academic community members ensures equal opportunities and fosters diversity. **Professional Development:** The center may also offer workshops, mentorship programs, or other forms of professional development for students and faculty. In the context of LTCs, providing continuous training and professional development for educators and students is crucial to adapt to new pedagogical practices and technological advances. **Fostering Collaboration and Engagement:** An LTC thrives when its members collaborate and engage in knowledge-sharing. A center dedicated to supporting the academic community likely provides opportunities for networking, co-learning, and sharing best practices, which are central to the purpose of LTCs. **Well-Being and Social Support:** If the center focuses on aspects of student well-being, mental health, or social support, it directly contributes to the well-being of all members, promoting a healthy academic culture. Well-being is essential for an engaged and productive learning community, and LTCs benefit greatly from having dedicated support for this. **Conclusion:** Given its focus on supporting the academic community, fostering inclusivity, and enhancing the overall learning and teaching experience, the Centre for Support of the Academic Community would indeed be a valuable best practice to include in an LTC framework. It helps create a collaborative, inclusive, and supportive environment, key elements that are at the heart of any effective LTC.
	Local/practice Communities	**The University Board of Cracow University of Technology (CUT)** can indeed be considered a good practice within the framework of Learning and Teaching Communities (LTCs), and here's why: **Shared Governance:** The University Board typically plays a crucial role in the governance and decision-making processes within the institution. Shared governance is a key element of effective LTCs, where leadership and decision-making are not limited to one group but are distributed across various stakeholders, including students, faculty, and staff. A University Board that promotes shared leadership and includes diverse

		perspectives helps create an environment where all members of the academic community feel involved and valued. **Collaboration Across Stakeholders:** The University Board often includes members from various backgrounds, such as academic leaders, administrative staff, industry representatives, and sometimes even student representatives. This fosters collaboration between different sectors of the institution and the outside world, which is an essential element of LTCs. The cross-functional collaboration encouraged by the board's involvement can be a powerful tool for improving educational practices and promoting innovation. **Strategic Vision for Teaching and Learning:** The University Board is typically involved in shaping the university's strategic direction, particularly in areas like teaching quality, research priorities, and community engagement. If the board is committed to creating and sustaining learning and teaching communities, it can guide the institution towards implementing practices that align with LTC principles, such as student-centered learning, innovation in pedagogy, and interdisciplinary collaboration. **Support for Academic Initiatives:** A board that actively supports educational innovations and community-building initiatives can be a key enabler of LTC practices. If CUT's University Board facilitates the creation of initiatives like learning communities, digital transformation in education, or faculty development programs, it can be viewed as a best practice within the LTC framework. **Inclusive Decision-Making:** If the University Board includes input from a wide range of stakeholders, particularly students and faculty, it ensures that decisions are made with an understanding of the diverse needs of the university community. This aligns with LTC principles, where the focus is on inclusive and collaborative decision-making, ensuring that all voices are heard. **Ethical Leadership and Transparency:** A University Board that upholds ethical standards, transparency, and accountability in its operations can set a positive example for the entire academic community. The way the board manages institutional policies, finances, and educational goals will influence the culture of the institution, which in turn impacts the overall success of LTCs. **Conclusion:** The University Board of CUT, if it supports inclusive governance, fosters collaboration across all sectors of the university, and actively contributes to shaping the university's teaching and learning environment, can indeed be a good practice for LTCs. Their involvement ensures that the institution aligns with best practices in educational leadership, fostering an environment where learning communities can thrive. **University of the Third Age (U3A)** is indeed a good practice for Learning and Teaching Communities (LTCs), and here's why: **Promotes Lifelong Learning:** U3A programs focus on lifelong learning, which is one of the key aspects of modern education systems. LTCs aim to promote continuous learning, not just for students but for all members of the academic community, which includes lifelong learners. U3A supports this idea by offering older adults an opportunity to keep learning throughout their lives. **Inclusivity and Diversity:** U3A fosters an inclusive educational environment by allowing older generations to engage in intellectual and cultural activities. This inclusivity aligns with LTC principles, which value diversity of age, experience, and background within learning communities. It opens doors for older individuals to be active participants in the educational ecosystem, fostering intergenerational dialogue and mutual learning.

		Community Building and Social Engagement: Like LTCs, U3A programs are built around community and social engagement. Older learners become part of a vibrant community of peers, which fosters a sense of belonging and emotional well-being. This collaborative learning approach mirrors the social and relational aspects of LTCs, which encourage interaction and shared knowledge among all members. **Well-Being and Personal Growth:** U3A programs often focus on personal development and well-being, offering not just intellectual growth but also emotional and social enrichment. This holistic approach to education supports the goals of LTCs, which seek to enhance the personal and professional lives of all involved. **Learning Across Generations:** U3A can be a great example of a learning community that allows people from different generations to interact, exchange ideas, and learn together. This aligns with the LTC vision of collaborative and multi-generational learning, which is especially valuable in fostering broader perspectives and creative problem-solving. **Contribution to Local Communities:** U3A programs often engage with the wider community, addressing local issues and contributing to societal development. This is similar to the community-oriented goals of LTCs, which aim to build strong ties between universities and the society around them. **Conclusion:** Including University of the Third Age as a best practice within LTC frameworks can highlight the importance of lifelong learning, inclusivity, and community engagement. It reinforces the idea that learning should be a lifelong journey and that educational institutions have a role in supporting people of all ages in their quest for knowledge and personal growth.
University of La Laguna	Teaching Innovation: DIGITAL TRANSFORMATION	Implementation and experiences of using flipped learning in statistics courses in Psychology Degree Strategies and challenges of flipped learning Incorporation of flipped classroom and gamification in Medicine Gamification and immersive learning in AR/VR virtual learning environments.
	Teaching Innovation: Entrepreneurship and Innovation	Learning Economics through active methodologies Award for Innovation and Educational Transfer 2023.
	Teaching Innovation: Living spaces	A proposal for evaluating training and quality in educational centres through service-learning References: Vega Navarro, A. (2019). De los procesos de cambio al cambio con sentido. Convocatoria de los Proyectos de Innovación y Transferencia Educativa (22-23)
	Teaching Innovation: Artificial Intelligence in Education	Use of generative artificial intelligence for developing critical information analysis skills in healthcare topics. Education 5.0. AI in University Teaching: A process of teaching update and social responsibility. The use of the Design Thinking methodology and AI tools in the Development of projects by first-year students in the Design Degree Use of AI as a search tool in the teaching of the compulsory subject 'Legislation and Ethics' in the Pharmacy Degree.

		Artificial Intelligence as a complementary tool for developing soft skills in business organisation courses. AI-RUBRIC: Co-creation of evaluation rubrics with AI for teaching/learning English as a foreign language (EFL) Application of Generative Artificial Intelligence for learning in business management courses. Improving student motivation through the use of Generative AI. Hybrid and flexible teaching (HyFlex) supported by AI tools Use of Artificial Intelligence to improve the teaching-learning processes of programming Generative AI in the teaching-learning processes of computational thinking and computer programming
	Institutional Projects / Services	Teachers Community: ACOMPAÑA TIC, DOCAPP, UDV, UNIDIGITAL, G9, PITE, PIE Students Community: SIO, POAT, PAED
University of Franche-Comté	Regional educational	Network of pedagogical support practitioners for teachers in higher education. support network
	Women Chapter of FEMTO-ST Institute	Aims to improve the integration and understanding of gender issues in the specific context of the research profession, by proposing concrete actions, exploring best practices, monitoring the situation, supporting women at the Institute and promoting cooperation between genders
	Group of practice SCAPS	Enable teachers to reflect on, exchange ideas on and experiment with teaching approaches based on knowledge gained from cognitive science research, in order to improve the effectiveness of their practices through close collaboration between teachers and researchers

Appendix D - Concrete action steps to build a LTC in Universities

1. Identify the need and objectives

- **Action**: Survey faculty members to understand their professional development needs.
- **Expected outcome**: Identify priority topics (e.g., digital tools, active learning, inclusion).

2. Recruit initial members

- **Action**: Reach out to motivated educators or those already engaged in pedagogical innovation (via seminars, email campaigns, or personal networks).
- **Expected outcome**: A core group of 5–10 interested educators.

3. Define the framework and structure

- **Action**: Host an initial meeting to establish:
  - The objectives (e.g., testing new teaching methods, sharing tools).
  - The frequency of meetings (e.g., monthly).
  - Roles (e.g., a facilitator to guide discussions).
- **Expected outcome**: A shared document outlining the LTC's structure and purpose.

4. Set up communication and sharing tools

- **Action**: Create a digital collaborative space (e.g., Moodle, Teams, or Slack) to share resources and keep the conversation going.
- **Expected outcome**: A centralized hub for discussions and resources.

5. Organize engaging activities

- **Action**: Offer diverse formats for meetings, such as:
  - Hands-on workshops (e.g., designing a flipped classroom lesson).
  - Peer discussions on real-life case studies.
  - Guest speakers or lightning talks.
- **Expected outcome**: Regular and dynamic sessions that attract participants.

6. Integrate outcomes into university practices

- **Action**: Encourage members to share successful experiences with the broader university community (e.g., seminars, newsletters).
- **Expected outcome**: Broader adoption of innovative practices beyond the LTC.

7. Regularly evaluate and adjust the LTC

- **Action**: Collect feedback at the end of each semester through surveys or discussions. Recognize participants through formal acknowledgments (certificates, professional development credits).
- **Expected outcome**: Continuous improvement of the structure and activities.

8. Secure institutional support

- **Action**: Present the benefits of the LTC to university leadership (deans, vice-presidents) to secure financial and logistical backing.
- **Expected outcome**: Funding for events or resource development.

9. Increase the LTC's visibility

- **Action**: Establish regular communication:
  - A newsletter or blog to share key insights.
  - Presentations at teaching days or conferences.
- **Expected outcome**: Growing interest in the LTC and continuous recruitment of members.

10. Foster long-term collaborative culture

- **Action**: Gradually shift from an initiative-driven group to a self-sustaining community where members co-create activities.
- **Expected outcome**: A durable, self-managed LTC.