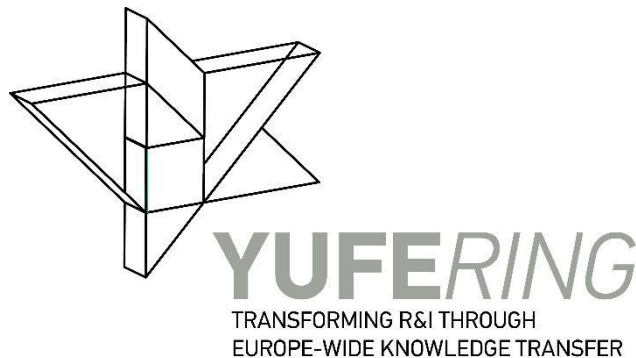


YUFERING Project

YUFE TRANSFORMING R&I THROUGH EUROPE-WIDE KNOWLEDGE TRANSFER



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List of Abbreviations and Definitions

CERI	Community-engaged research and innovation
COM	Communication from the European Commission (communiqué)
EC	European Commission
EHEA	European Higher Education Area
EU	European Union
GA	Grant Agreement
HEI	Higher Education Institution
R&I	Research and Innovation
RRI	Responsible Research and Innovation
SPSS	Statistical Package for the Social Sciences
SwafS	Science with and for Society
WP	Work Package
YUFE	Young Universities for the Future of Europe

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Report of YUFE community-engagement based research best practices

Introduction

The present document is a deliverable related to YUFERING Work Package 2 (WP2) 'The YUFE model towards a community engagement-based research & innovation agenda, Task 2.1 'Map best practices of community engagement-based research at YUFE universities'.

During the process of setting up both the conceptual framework and the definition of community engagement-based research & innovation, the WP2 working group reached a consensus on further using the term 'community-engaged research & innovation' instead of the community engagement-based research & innovation. The rationale for such a decision can be primarily found in the relevant literature (relevant literature in the field covers two dominant terms - community-engaged and/or community-based research); secondary in the fact that one of the YUFE universities (Maastricht University) has The Platform for Community-Engaged Research; and thirdly, this change was suggested due to linguistic reasons as well. Therefore, in this document and onwards, within the WP2 as well as related working packages, the term 'community-engaged research & innovation' will be used.

This document has multiple purpose(s): (I) to report on the concept of community-engaged research & innovation (CERI) offering its 'YUFE definition' and a larger (conceptual and practical) framework for its more coherent understanding and conducting; (II) to offer description(s) of the selected CERI practices within YUFE universities that might serve as an exemplary ones; (III) to report on, and bring attention on the success factors, challenges, and tools within these CERI selected (best) practices. In addition to the reporting as such, this document has a purpose to promote the CERI approach within the frameworks of Responsible Research and Innovation (RRI) of the European Commission, as well as within The Science with and for Society 2020 programme in the Horizon 2020 (SwafS).



Following this multi-layered purpose, this document is structured as followed:

Section 1
CERI in EU POLICY

This section offers revision of the relevant background information about CERI (as an approach) in the EU Research Policy, the Legal Framework under the HORIZON 2020 and the specifications included in the Grant Agreement (GA)

Section 2
CERI in a YUFE context

- 2.1. CERI - Conceptual Framework
- 2.2. CERI - Definition
- 2.3. CERI - Core principles
- 2.4. CERI - Main challenges

Section 3
CERI in YUFE
Best Practices

This section is twofold: it offers (I) descriptions of 5 CERI exemplary practices at YUFE universities, done by structured mapping, as well as (II) main lessons learned from CERI YUFE exemplary practices. This part of the section discusses success factors, challenges, and tools detected within these CERI selected (best) practices, as those have a potential not only for better understanding the contextuality of such practices, but to point to some of the parameters and patterns that might be micro (individual), meso (institutional), or macro (discipline) related.

- 3.1. CERI YUFE best practices
- 3.2. CERI YUFE success factors and challenges

Section 4
CERI Conclusions

This section presents the conclusions and objectives of YUFERING concerning CERI.



Section 1 - CERI within the EU Policy Framework

What has driven the longevity of the European universities (they have existed continuously since the 11th century) has been the fact that they have been inextricably intertwined with, responsive to and beneficial for societies, and have retained that position against a long-term backdrop of wider social upheavals in Europe. As McIlrath (2014, p. 39) says, “the theory and practice of university-community engagement is as rich and diverse as the historical, political, social, civic and cultural roots that have given rise to regions, nations and continents, and the formation and universities and systems globally”.

In the context of contemporary universities that are increasingly managed through the use of visions, strategies, targets, ‘key performance indicators’ and benchmarks - community engagement has become invisible in universities’ strategic priorities, and therefore has become a peripheral activity in higher education given a vertical segmentation of missions with research as the most prestigious one, followed by teaching. Indeed, as a consequence of this vertical segmentation, it has become less important or at least less visible in what might be considered as the elite stratum of universities who retain a disproportionate influence (mediated through technologies such as league tables) on what is seen ‘good’ university behaviour (cf. Seeber, Barberio, Huisman, & Mampaey, 2017).

It is undoubtedly true that the engagement mission of higher education has become increasingly important to universities because of a recognition that the massification of higher education in the last two decades has intensified the duties faced by universities to actively demonstrate their wider contribution to society beyond the immediate benefits to educated individuals (McMahon, 2009). As a consequence of this, universities have found themselves working with many different kinds of stakeholders, all of whom signal in various ways to universities that their services are potentially of value for them and legitimate universities to provide those new kinds of services (Jongbloed, Enders, & Salerno, 2007). There is, therefore, an expectation that these communities will become stakeholders for the universities and steer them to engage and thus make a contribution to these communities’ socioeconomic development. However, recent emphasis on working with external stakeholders has been primarily oriented towards one particular class of societal partner, often commercial partners who are primarily profit-motivated, and that can have the effect of undermining the contributions that universities make more generally to positive societal development processes.



Community engagement has emerged clearly as a priority in 2017 as part of the European Commission's *Renewed Agenda for Higher Education*. While actions that link the university with the broader society are not a novelty, community engagement in higher education is a new way of articulating and structuring how higher education interacts with the wider world. This renewed emphasis on engagement goes beyond the now widely-accepted need for universities to ensure that they contribute to economic growth. Indeed, the Commission's *Renewed Agenda* emphasises that higher education 'must play its part in facing up to Europe's social and democratic challenges' and 'should engage by integrating local, regional and societal issues into curricula, involving the local community in teaching and research projects, providing adult learning and communicating and building links with local communities' (p.7).

Besides the Agenda mentioned, there are several key EU policies related to the concept of CERI in a broader context, and are presented in Table 1. While the CERI is not explicitly mentioned in following policy documents, we do find them relevant for this concept and are therefore including them in this report and presenting them following the timeline of their publishing, including some of the most important excerpts. Some of these selected policies are more oriented towards the role of European HEIs in the contemporary knowledge-based society, while some are more oriented towards the expected contributions and impact of HEIs in the context of preparing students for their future careers and for life as active citizens. The rationale behind our decision to include these policy documents in the report is anchored in our consensus on research and innovation (in this particular case the CERI) being an important 'tool' in fulfilling the expectations put in front of the European HEIs.

Table 1. - CERI in EU policies

<p>London Communiqué Towards the European Higher Education Area: responding to challenges in a globalised world May 18 2007</p>	<p>"The main task of higher education should be to address the need to prepare students for life as active citizens in a democratic society, and to prepare students for their future careers and personal development, to create and maintain existing foundations of advanced knowledge and to encourage research and innovations."</p> <p>"Higher education should play a strong role in fostering social cohesion, reducing inequalities and raising the level of knowledge, skills and competences in society."</p>
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<p>Yerevan Ministerial Communiqué EHEA Ministerial Conference 2015</p>	<p>“We will support higher education institutions in enhancing their efforts to promote intercultural understanding, critical thinking, political and religious tolerance, gender equality, and democratic and civic values, in order to strengthen European and global citizenship and lay the foundations for inclusive societies.”</p> <p>“Higher education is contributing effectively to build inclusive societies, founded on democratic values and human rights ... educational opportunities provide the competences and skills required for European citizenship, innovation and employment.”</p> <p>“We will encourage and support higher education institutions and staff in promoting pedagogical innovation in student-centred learning environments.”</p> <p>“Study programmes should enable students to develop the competences that can best satisfy personal aspirations and societal needs, through effective learning activities.”</p>
<p>Opinion of the European Economic and Social Committee on Engaged Universities Shaping Europe Dec 9 2015</p>	<p>“1.10. At a time of deep social and economic change, transforming universities is a long-term and laborious process. Universities need to develop an open attitude to society's needs, and must include outreach to other stakeholders.”</p> <p>“1.11. The EESC welcomes the concept of the civic university and the "triple helix" and "quadruple helix" model. The focus is on opening up HE, on broadening access, on the regional context, on integrating ideas from all (potential) stakeholders into programmes, and on a smart, up-to-date relationship between research and education.”</p> <p>“4.7. Alongside the "triple helix" model – which involves cooperation between universities, the private sector, government – is the "quadruple helix" model, which also engages local communities and civil society. It has a strong sense of place and a sense of purpose and is transparent and accountable to its stakeholders and the wider public. This presents a new opportunity for civil society to get involved.”</p>



<p>Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions on a renewed EU agenda for higher education,</p> <p>COM (2017) 247 final May 30 2017</p>	<p>“Developing the profile of HEIs as ‘civic universities’ by integrating local, regional and societal issues into curricula, involving the local community in teaching and research projects, providing adult learning and communicating and building links with local communities.”</p> <p>“Well-organised voluntary and community work can be a particularly effective way to help students develop their wider practical experience and skills.”</p> <p>“HEIs should be engaged in the development of their cities and regions, whether through contributing to development strategies, cooperation with businesses, the public and voluntary sectors or supporting public dialogue about societal issues.”</p> <p>“Outreach beyond the academic community in local languages should be incentivised and rewarded, including as part of career development.”</p> <p>“HEIs are not ivory towers, but civic-minded learning communities connected to their communities.”</p> <p>“Breaking down barriers between higher education and the rest of society can help students develop their social and civic competences.”</p>
<p>Rome Ministerial Communiqué EHEA Ministerial Conference 2020, Nov 19 2020</p>	<p>“We are determined to enable our higher education institutions to engage with our societies to address the multiple threats to global peace, democratic values, freedom of information, health and wellbeing – not least those created or exacerbated by the pandemic.”</p> <p>“We support our higher education institutions in intensifying their search for solutions to the challenges our societies face.”</p> <p>“The social, human and creative sciences and arts must continue to play their vital role, giving depth to our lives and enabling us to understand and act in a changing world.”</p>

	<p>“Our higher education institutions must engage with their communities to undertake mutually beneficial and socially responsible joint activities.”</p> <p>“We adopt the definition of academic freedom as freedom of academic staff and students to engage in research, teaching, learning and communication in and with society without interference nor fear of reprisal.”</p>
<p>In addition to the Rome Ministerial Communique 2020 there is an Annex II to it that explicitly focuses on higher education institutions and community engagement, titled “Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA”. Principle No. 9 is - <i>Higher education institutions should ensure that community engagement in higher education promotes diversity, equity and inclusion, with the following guidelines highlighted:</i></p> <p>“Community engagement should be considered as a process whereby higher education institutions engage with external community stakeholders to undertake joint activities that can be mutually beneficial. Like social dimension policies, community engagement should be embedded in core missions of higher education. It should engage with teaching and learning, research, service and knowledge exchange, students and staff and management of higher education institutions. Such engagement provides a holistic basis on which universities can address a broad range of societal needs, including those of vulnerable, disadvantaged and underrepresented groups, while enriching their teaching, research and other core functions.”</p> <p>“Community stakeholders (e.g. local authorities, cultural organisations, non-governmental organisations, businesses, citizens) should be able to meaningfully engage with higher education actors through open dialogue. This will enable genuine university-community partnerships, which can effectively address social and democratic challenges.”</p>	

And last, but certainly not the least, the CERl approach is aligned with the concept RRI of the European Commission, that defines the RRI as an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation. RRI is used in the Horizon 2020 program to group transversal concepts of societal aspects of science and innovation within the SwafS objectives.



Section 2 - CERI in a YUFE Context

The sub-task of creating and delivering CERI definition within the YUFE framework was led by the University of Rijeka, but in a highly participatory fashion. In fact, all partnering HEIs were engaged throughout the whole process by participating in (online) fruitful discussions on the concept, its various features, contextuality, challenges, and above all - on its phenomenological substance - with the idea to create a definition that will be welcomed by the YUFE Alliance and on a broader scale.

At the meeting in July 2021, UNIRi leader of the task gave a short introduction of the community - engaged research to the whole WP2 group to highlight the most important principles of the community-based / community-engaged research. At the same time, discussion was led with the YUFERING WP3 “YUFE as a catalyst for flipped knowledge transfer and deployment in society” colleagues to agree on the working synergy between two WPs. The agreement was that in both WPs the bottom line is the collaboration of the academia with the external communities - quadruple helix, but through different actions and approaches. Internally, within WP2 working team, discussions were led on three parallel platforms - (I) within the smaller subtask group during two separate meetings via MSTeams, (II) within the larger WP2 task group during regular monthly meetings, and (III) directly on the document itself, uploaded on the MSTeams. Such a parallel engagement on three different ‘tracks’ offered to all WP2 partnering institutions a platform to participate and feed in the process with their own comments and proposals, and at their own convenience. All comments and suggestions were given thorough consideration. Via the resulting coordinated co-creation effort comprising an iterative exchange of expert opinion as well as a comprehensive literature review, the proposals for CERI conceptual framework as well as for CERI definition are as follows in 1.1. and 1.2 paragraphs.

1.1. CERI as an approach - Conceptual Framework

Community-engaged research and innovation (CERI) is a collaborative approach designed to establish and ensure structures for the participation of members of the communities affected by the issue being studied in all aspects of the research process. The CERI approach acknowledges that the inclusion of both academic and non-academic perspectives is essential for addressing complex societal problems that are resistant to one-dimensional solutions. This is why the CERI approach calls for academic and non-academic partners to share responsibility in providing a transparent and interactive process of research and innovation strategies. This



includes the application of innovative outcomes to improve the well-being of community members by taking actions that stem from the research.

The CERI approach is anchored in the Quintuple Helix model of knowledge creation and innovation as a framework for transdisciplinary and interdisciplinary collaborations that is focused on the social (societal) exchange of knowledge and innovations, inside the subsystems of a specific state or nation-state, while it takes into consideration the natural environment. The most important constituent element of the Quintuple Helix - apart from the active 'human agents' - is the resource of 'knowledge', which, through a circulation (i.e., circulation of knowledge) between social (societal) subsystems, changes to innovation and know-how in a society and for the economy (Barth 2011a, p. 6). The Quintuple Helix, thereby, visualises the collective interaction and exchange of knowledge in a state (nation-state) by means of the following five subsystems (i.e. helices): (1) education system, (2) economic system, (3) natural environment, (4) media-based and culture-based public (also civil society), and (5) and the political system (Carayannis and Campbell, 2010, p. 62).

1.2. CERI definition

Community-engaged research and innovation (CERI) is an approach where scientists and various societal and/or business actors (e.g. industry, government, public and social organizations, underserved and underrepresented communities, lay citizens) work together at local/ regional/ national /international level in an iterative process to co-create new knowledge and/or products/services and/or understanding in response to community's needs coupled with feedback loops and social/market linkages (innovation). The new knowledge and/or products/services and/or understanding should later be used to attain positive (social) change in the community.

Community-engaged research and innovation is a participatory form of R&I that has following attributes:

- Intends to have a social impact by deploying strategic research and its innovative outcomes to better understand, address and contribute to resolving societal challenges
- Actively involves affected community partners (non-academic communities) in one or more phases of the research and innovation process in a way that is mutually beneficial



- Facilitates efforts to encourage the implementation of the research outcomes and innovative solutions with the relevant communities
- Intends to build trusting bi-directional relationships between researchers and community partners that take into consideration all partners' perspectives in defining research foci and the innovation strategies

1.3. CERi core principles

Community-engaged research refers to a participatory form of research¹ that is performed with, by and/or for community members and that benefits communities involved, either through direct intervention (innovation) or by translating research findings into solutions for positive (social) change. Issues, concerns and topics of a study should arise from the community itself as it has determined those as important, interesting, relevant or timely. Therefore, such research should be question driven, rather than method driven, but still with an extensive range of research approaches and methods at its disposal.

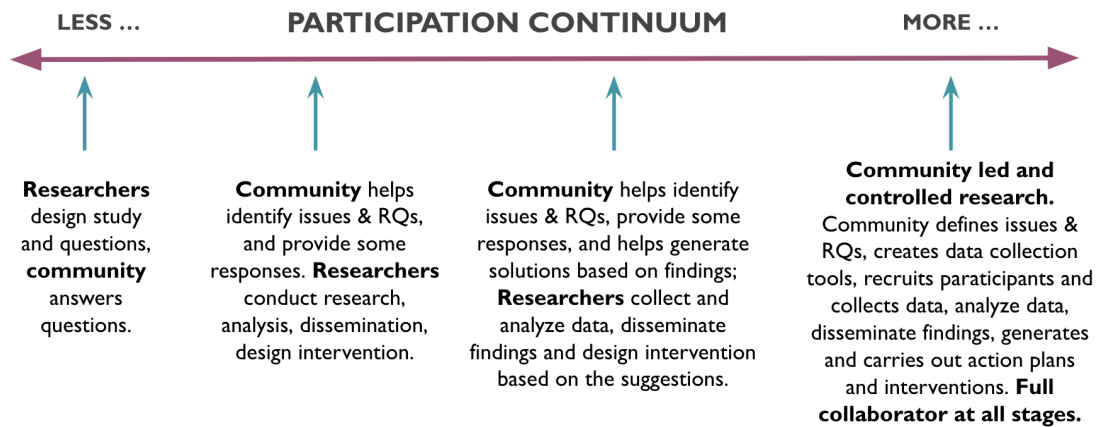
The intricate and multilayered contexts of such research projects often demand a broad repertoire of tools and methods and thus benefit from methodological pluralism. However, while methods are important and instrumental to the execution of such research, it is the how of their implementation - in reciprocal and mutually beneficial partnership and co-learning - that truly characterises community-engaged research. It is defined by a set of values, objectives and practices that emphasise active participation of the communities directly affected by research inquiry in co-constructing knowledge and innovations with the purpose of affecting changes in community members' well-being.

Through the process of their inclusion (leaning on the various participatory levels presented in the Figure 1), research findings can have greater relevance to the concerned communities, while meaningful engagement in the research process can help to increase the likelihood that research findings will be used and will be useful for the communities they involve. This is achieved by contributing with evidence-based innovations to improve (public) policies, programmes, practices, and resource mobilisation to resolve societal challenges.

¹ School of approaches that share a core philosophy of participation, collaboration, inclusivity, power and knowledge sharing, and of recognising the value of engaging in the research process those who are intended to be the beneficiaries, users, and stakeholders of the research, rather than including them only as subjects of the research.



Figure 1. Community stakeholders' participation continuum in CERI



Adopted and revised from Burns et.al. (2011).

Literature synthesis done within this assignment points to additional CERI principles:

- a collaborative enterprise between researchers, community members and representatives of relevant stakeholders
- validates multiple sources of knowledge and promotes the use of multiple methods of discovery and dissemination of the knowledge produced
- recognises community as a unit of identity
- builds on strengths and resources within the community
- facilitates collaborative, equitable partnerships in all research phases and involves an empowering and power-sharing process that attend to social inequalities
- promotes co-learning and capacity building among all partners in the (whole) process
- integrates and achieves a balance between research and action for the mutual benefit of all partners
- emphasises public problems of local relevance and also ecological perspectives that recognise and attend to the multiple determinants of well-being
- involves (sub)system development through a cyclical and iterative process
- disseminates findings and knowledge gained to all partners and involves all partners in the dissemination process as well as designing innovative solutions



- shared decision-making power
- mutual ownership of the process and products of the research enterprise
- requires a long-term process and commitment to sustainability

"... outcome of good research is not just books and academic papers, but it is also the creative action of people to address matters that are important to them ... it is concerned too with revisioning how we understand our world as well as transforming practice within it."

(Heron and Reason, 2008)

1.4. CERI Challenges

In the co-creation process of the CERI definition and core principles, the following challenges have been identified:

- ***Building an effective partnership.*** Working with a diverse range of stakeholders, also brings challenges due to their different requirements, approaches, and ways of communicating (Kontić and Kontić, 2018). This refers to how individuals within partnerships interact with and regard one another and are trust; mutual respect; openness and transparency; recognition of one another's pressures, priorities, and world views; the ability to embrace cultural differences; awareness and attention to power differentials; and recognizing, responding to, and resolving conflict (Build et al., 2020).
- Selecting who to ***include in partnership*** to ensure a representation.
- ***Having real engagement and involvement of all stakeholders*** (e.g. wider community). Sometimes "engagement" in CERI processes may not reflect the true form of public participation in science (Rodríguez, 2011). Stakeholders need to participate in the whole process (collaboration in problem definition, data collection and analysis). The different intensities of stakeholders' engagement are well illustrated in Table 1 that follows.



Table 2. The different intensities of engagement (Russo et al., 2018)

Engagement Categories	Discussing	Consulting	Involving	Collaborating	Supporting	Empowering
Definition	Sharing information about research & innovation and opening up channels for discussion and interactive communication.	Requesting visions on research and innovation processes, and facilitating contributions and structured discussions.	Creating opportunities for contributions to deliberations and research activities or contributing to research execution as more than a subject in the project.	Working together on research initiation and/or execution, so there is co-ownership of the project.	Societal actors are in the lead in the research initiation and most of the execution. They are supported by researchers or institutions.	The whole process is lead by direct decision of the non-experts. At times the researchers can be consulted, but not mandatory.

- *Development of university-community partnership/ commitment and lack of value attributed to CERi for institution advancement.* (Hazelkorn, 2009).
- ***Evaluating and monitoring the process.*** Find appropriate indicators to measure, assess and reward community engagement, creativity and innovation in order to incentivize the academy and other professionals, assuage the partners' confidence and inform the public (Hazelkorn, 2009; Kontić and Kontić, 2018). Define conditions/indicators for success before starting the process. Sometimes the indicators are directed towards more integral evaluation practices (instead of partial performed so far, for example isolated evaluation of the training workshops, communication activities, publications, completed projects, students engaged, etc.), while a community sees the success through their active involvement and empowerment which brings concrete improvements and changes in their community.
- ***Training - new thinking and effective boundary-crossing organisations*** (Hazelkorn, 2009). Long-term partnerships among stakeholders suffer from misunderstandings of the issues/needs to be solved, unstable political support, lack of systematic, continuous education and knowledge transfer from academia to low power citizens (Pearce et al., 2012). This requires people who can think outside of the box (Hazelkorn, 2009).



- **Matching research requests with current resources** (e.g. volunteers with the right knowledge and motivation to fulfil certain research requests, researchers in some disciplines, different timescales). Project management and communication with different stakeholders, and flexibility are needed (Kontić and Kontić, 2018).
- **Taking advantage of new technologies/resources** (e.g. communication technologies) to document, study, and effect change; communities can work together on higher levels (e.g. regional, national) on efforts to improve the societal issues identified.
- **Addressing ethical challenges.** Partnership, collaboration and power; community rights, conflict and representation; ownership and dissemination of data, findings and publications; anonymity, privacy and confidentiality; institutional ethical review processes; and blurred boundaries between researchers and those being researched, academics and activists.
- **Unidirectional flows of knowledge.** This approach should be interactive in which community-based knowledge flows to and from those who deliver interventions.
- **Other.** lack of value attributed to CERI for institution advancement; disciplinary biases (e.g. between researchers and how to integrate disciplinary approaches); personality issues.

Section 3 - CERI YUFE Practices and Lessons Learned

The process of mapping (best) CERI practices at YUFE partnering institutions started in November 2021, after the consensus on the CERI conceptual framework and definition was reached. University of Rijeka was leading that task and therefore created a template for the data collection on CERI practices (Template is attached to this report as a Document 1). The template consists of four sections: (I) brief description of the chosen CERI practice, (II) brief description on the supportive instruments for the CERI practice, (III) contact details for selected CERI practice, and (IV) additional comments.

The first section targets collecting data on the practice itself, so following sub questions are included: host university/faculty/department; webpage/online resource for additional information; modalities of communities' participation/engagement in this CERI practice; 3 main reasons for selecting the chosen CERI practice; greatest challenges faced within the chosen CERI practice and how were



they mitigated; and the last one is a question on any particular methods, techniques and/or tools used within the selected CERI.

The second section targets collecting data related to various supportive instruments given to the CERI practice by the university itself (e.g. providing facilities, funding, administrative support, promotion, recognition, etc.), collaborators/partners from the community, as well as from other peers at the university (university/management staff and students).

The third section targets collecting contact data (only email address) of the person responsible for the chosen CERI practice. The purpose of this is to have an email contact for further analysis of the practice (e.g. setting up a follow-up interview for additional data collection and analysis). We might not approach all of the contacts collected in such a manner, but having email addresses might open up a space for additional/follow-up data collection.

The fourth and the last section of the template is an open question that offers respondents an opportunity to add some extra information about the selected CERI practice that were not tackled by the previous questions.

The process of mapping practices is divided into three parts. The first one engaged the WP2 team from all partnering institutions as they contributed by selecting just one CERI practice per institution before the deliverable due (Nov 2021). The second phase is still an open process in the context of continuing mapping of CERI practices at partnering YUFE institutions until the end of the year 2021. The third part/phase is related with additional/follow-up interviews with some of the people responsible for certain CERI practices. Following this timeline, within this deliverable report we are able to present 5 CERI practices coming from different YUFE universities, followed by the subsequent conclusions, but the process of collecting data/mapping and organising follow-up interviews will continue in the following weeks, and this deliverable report will be updated regularly.



3.1. CERI YUFE best practices

During the first phase of mapping CERI practices across the YUFE alliance, five (5) CERI practices coming from five universities were selected as cases and units of (further) analysis. Brief description of practices² is presented in Table 3. that follows.

Table 3 - Short description of selected CERI practices at YUFE universities

University / Practice	Short Description of CERI
University of Eastern Finland, Faculty of Social Sciences and Business Studies, Department of Geographical and Historical Studies <i>All Youth Want To Rule Their World Research Project 2018–2023</i>	ALL-YOUTH – <i>All youth want to rule their world</i> is a multidisciplinary research project which explores the capacities of young people (aged between 16 and 25) and the obstacles that hamper their engagement with society. Besides, the visions of youth regarding sustainable future, growth and well-being are explored as well. The main goal of the project is to create possibilities and to enable young people to participate in making their own communities and the society a better place. Key ideas for sustainable growth are responsive governance and rule of law, digital innovation and sustainable development interventions.
University of Essex, Psychology <i>Outdoor recreational activity experiences improve psychological wellbeing of military veterans with post-traumatic stress disorder</i>	This project takes veterans with PTSD on fishing trips and evaluates improvements to mental health. Starting with a single piece of research this has developed into a Community Interest Company that collaborates with veterans, charities, angling companies, the Environment Agency (government body) and the Angling Trust (the national body for the sport). Study results show that veterans experience a significant reduction in PTSD symptoms.
Center for Academic Entrepreneurship and Technology Transfer NCU (Nicolaus Copernicus University) <i>Building bridges between science and society</i>	The main goal of actions consistent with CERI and undertaken by the NCU is the two-way transfer of knowledge and technology between the University and the social-economic environment. Therefore, it is possible to build harmonious cooperation of modern and innovative society, on the one hand, and, on the other, a University that will solve the most pressing problems and challenges of the 21st century. One of the most important

² Descriptions were provided by contact persons from different YUFE universities via online CERI mapping form.





	<p>activities in this field undertaken by the NCU is membership in the Bydgoszcz Industrial Cluster. As part of this membership, NCU innovation brokers actively participate in all cluster initiatives - R&D initiatives, industry fairs, cyclical business meetings, business and scientific projects, etc. Thanks to the Cluster, NCU has the opportunity to cooperate with the most dynamic companies in the region in the plastics, recycling, and tool industries. As a result of this cooperation, these companies gain scientific support in R&D, new solutions, and technologies, and the University has the opportunity to direct its activities towards specific challenges of the local industry and business.</p>
<p>University of Cyprus <i>CYENS</i></p>	<p>The Research and Innovation Centre on Interactive Media, Smart System and Emerging Technologies – CYENS Centre of Excellence (previously known as RISE), empowers knowledge and technology transfer in the region of Nicosia. Its operations started in 2018. It is a consortium consisting of three public universities (the University of Cyprus, the Cyprus University of Technology and the Open University of Cyprus), one municipality as the project coordinator (the Municipality of Nicosia), two advanced partners from abroad (the Max Planck Institute for Informatics (MPI) and University College London (UCL)), and three strategic partners (PwC, Cyta, and Eurobank). It further receives support and collaborates with other national, regional, and European organisations, such as Cyprus Republic Ministries, Public and Semi-Public Bodies, Universities and Research Centres, Business and Professional Representative Institutions / Associations, and Local and Regional Authorities Organisations.</p>
<p>University of Rijeka Faculty of Humanities and Social Sciences Department of Education <i>Evaluation Research</i></p>	<p>One (pro bono) evaluation research per year in collaboration with the City of Rijeka - Department of Education and Schooling, engaging academics and students; it has been going for more than a decade now. The City of Rijeka (education & schooling department) representatives are collaborators throughout the whole research process - from putting a certain issue on the agenda as a research question, co-designing the research design, and particularly disseminating results and conclusions/ recommendations; City representatives</p>



	<p>present the final research results, conclusions and recommendations at the City Mayor Council, and academics get invited to present and discuss research results as well. City Council usually follows recommendations that came out of such a collaboration. One example - evaluation research of the Civic education piloting programme in elementary schools in Rijeka - city council followed the evidence-based recommendations (e.g. increased number of hours allocated for civic education; additional educational workshops for teachers engaged in civic education).</p>
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Presented CERI practices showcase the diversity and contextuality - some are project-based, some framed within courses, and some integral to university/institutional frameworks (e.g. centres). As for the relevant stakeholders/actors/collaborators included, there's another layer of diversity - some are based on partnering with business stakeholders, some with local authorities and public sector actors, while some with certain cohorts/groups (e.g. young people, veterans). Similarly, topics and issues addressed are diverse as well, synergising community needs with opportunities and resources available at the university.

3.1.1. Modalities of communities' participation/engagement in this CERI practices

Various modalities of communities' participation/engagement in selected CERI practices showcase the diversity, thus proving that each point on the participation continuum has its own place in a research reality. All of the selected CERI practices dominantly lean on their collaborators being true partners within the whole process, while there are some contexts in which certain groups of collaborators participate less (more as research participants and beneficiaries). Depending on the practice, collaborators get engaged in multiple ways and in various phases of the CERI - in the process of planning and implementation; to inform ongoing development and dissemination of the project; to invite more people to join the project; as (external) experts and experts in the field, and as co-researchers. As reported in one of the CERI practices:

“Research settings and questions have been planned together with young co-researchers and they have collected and analyzed data with us. They have also been writing with us and reporting and discussing the results on various public arenas. We see that this kind of knowledge co-creation is essential for understanding



young people's interests and values and for including these in decision-making processes. The co-researchers gained experiences of acting as influencers within their own communities and larger in the society. Co-research is not merely a data collection methodology, but it also may serve as a capacity-building and empowerment process for those participating."

3.1.2 Main reasons / rationales for selecting the chosen CERI practice

There are multiple reasons behind decisions of choosing/selecting certain CERI practice as the exemplary one at YUFE universities and they all lean on the CERI principles presented in this report. However diverse, they can still be grouped in several categories: (I) research process co-design, knowledge sharing and co-production, (II) continuity, structure, cyclical approach and impact, (III) multiplying effects of working together in a trusting relationship, (IV) learning, growing and changing together by introducing innovative services/programmes.

Research process co-design, knowledge sharing and co-production is highly valued and was detected as a reason for selecting most of the practices in this first mapping phase, regardless of the variety of the (non-academic) stakeholders engaged. Principles seem to hold the same value for young people, veterans, business partners and/or those from public institutions and local authorities. Continuity of the CERI practice, its structure, cyclical approach and the impact are also highly valued as reasons behind the selection. Continuity of the practice(s) contributes not only to building long-term trusting relationships, but to widening the network of potential participants and/or collaborators as well. Multiplying effects of academics and non-academics working together in a trusting relationship is another relevant reason for selecting/choosing CERI practices. As reported, what seems to be important is the transfer of the scientific method into a community research setting, allowing others to learn, to contribute and to impact and make changes at the same time. Such a scenario offers various collaborators to be visible, to be heard, to go through their own experiential learning of the whole CERI process, and by such a contribution, to step into a role of being change agents.

Beside highlighting these several reasons that were shared in most of the practices, some other reasons for selecting certain CERI practices were:

- research work informing relevant stakeholders in research-related issue(s) and assisting in their decision-making process;



- engaging students, thus offering them a research platform to learn and contribute to certain innovations (educational interventions) and changes
- making scientific and artistic collaboration with various project partners and groups of young people visible and impacting
- nationwide and international application of various innovative models created as part of the CERI
- involving multiple non-academic partners and continuously growing such a network
- wide dissemination as it can potentially have greater impact
- continuous possibility to present current trends and solutions proposed by the university
- the revival of the traditional city centre by engaging the local community into an R&I engagement process enhancing flipped knowledge transfer practices at the same time
- offering tailored solutions in partnering engagements

3.1.3. Particular methods, techniques and/or tools used within selected CERI practices

Selected CERI practices showcase a variety of methods/techniques and tools used in different phases of the process and with multiple purposes. Some of the methods explained are related to the format of the research itself - e.g. co-research, peer-research, and action research. For some practices the particular methods and techniques for data collection were presented - e.g. questionnaires, interviews and focus groups. In some of the examples, some techniques for recruiting more collaborators were presented (e.g. recruitment of potential collaborators via third parties, like already known partners/collaborators, charities in the city that are well known). In some of the examples plethora of different kind of analytical and creative (participatory) approaches were mentioned, like Business model Canvas, Lean Canvas, Innovation Readiness Level, Brainstorming, Design Thinking, SWOT analysis, due diligence, TRIZ, technological audit and scouting, patent research and analysis, intellectual property valuation, Circular Knowledge model. Some of the examples point to the relevance of using SPSS and softwares for qualitative data



analysis (e.g. Dedoose). In some of the examples particular methods and/or tools were aligned with the process of dissemination and 'boosting' the research impact, e.g. presenting and disseminating results at the City Mayor Council.

All of these research models, methods, techniques and/or tools used within selected CERI practices presented in this report will be additionally analysed in the second phase of the mapping via follow-up interview sessions with contact persons.

3.1.4. University supporting CERI practices

As in the previous matters, the question related to universities supporting current CERI practices reveals diverse approaches as well as resources available and intended to support such research practices. Some of the selected CERI practices seem to have their continuity and are quite successful even in such circumstances where university support is missing. On the other side there is a plethora of different supportive modalities - from offering free use of certain university facilities, over being supportive in providing media coverage and boosting the CERI visibility, up to establishing necessary infrastructure, and sponsoring (academic) staff to engage in such a research.

- no particular support for the CERI practice
- university welcomes this kind of practices (e.g. sharing info on web page, rector promoting this kind of practices in public speeches and interviews)
- administrative support, facilities and media visibility
- the university providing media coverage, via the podcast
- sponsoring PhD students to continue the research
- establishing necessary infrastructure, like the Center for Academic Entrepreneurship and Technology Transfer (budget, facilities, and staff)
- university having own representatives in collaborators' Boards

All of these examples of variety in supporting CERI practices at YUFE universities will be additionally analysed in the second phase of the mapping via follow-up interview sessions with contact persons.



3.1.5. Partners / collaborators supporting CERI practices

Mapping CERI practices during this first phase has not resulted in many examples of realities in which partners/collaborators support CERI practices, so additional analysis that will seek for more in-depth specificities is needed. Selected CERI practices point to certain supportive modalities - partners/collaborators being engaged in the whole process by providing necessary (human and financial) support in the process of data collection; partners/collaborators sharing knowledge in different project settings; partners/collaborators creating / giving awards, and partners/collaborators being present and immersed in a continuous collaboration.

3.1.6. Peers, management staff and students supporting CERI practices

Insight into selected CERI practices during this first mapping phase reveals mostly positive, but still quite “vague” notions of support coming from academic colleagues and students, so additional analysis during the second phase is needed. Some of the examples of such supportive behaviour are as follows:

- students having mixed feelings in different kind of phases of the process, but ultimately, being very satisfied with the possibility to be engaged in such a process that always ends up with certain decisions carried out at the level of the City Council
- the peers being eager to learn about our experiences on the participatory approaches
- the students valuing the new course which is composed according to the clinical learning method, as they are gaining working life skills during the course
- examples of CERI practices being used for research showcases
- as a result of the awareness and promotional campaign (website, social media, catalogs, thematic meetings, training), the university community is more aware of the importance of cooperation with the external environment and supports it
- scientists appreciate this way of cooperation with the external environment due to the possibility of directing their research to influence the challenges of the modern community



3.2. CERI YUFE success factors and challenges

Success factors detected within the selected CERI practices are multiple and can be, to a certain extent, derived from all of the aspects and attributes of the chosen CERI practices presented in this report. Deriving from the data collected, CERI practices seem to be successful, continuous, sustainable and impactful in both scenarios - with and without university support. Mapping practices within this first phase has not provided the rich data to assist us in providing solid explanation for this particular finding, so additional analysis is needed as it is very important to detect what are the success factors at different levels - micro (individual level of academics), meso (institutional level/university) and macro level (discipline/disciplinary differences). Engaging in additional follow-up interviews with relevant contacts for each of the CERI practices in the second mapping phase is needed to explore more this particular issue as to be able to offer a more coherent framework for discussing different supportive attributes at different levels that contribute to the successfulness of chosen CERI practices.

Rationales for selecting these CERI practices might provide some of the answers related to success factors as well. Selected practices seem to have continuity that resulted in a long-term, stable and trusting relationships with partners/collaborators. In such a setting, partners/collaborators seem to be engaged in all (most of) the process phases thus contributing not only to the research co-design, knowledge sharing and co-production, but to the multiplying effects of the CERI itself.

Challenges detected within the selected CERI practices are, without any surprise, multifaceted as well, and can be grouped into several categories:

- (I) logistic-related,
- (II) partners/collaborators-related, and
- (III) CERI principles-related challenges.

The first group of challenges reveals issues in delivering CERI related to various resources like time, funding, the use of facilities and equipment, including transport as well. The second category of challenges discloses those issues related with collaboration with various stakeholders/actors in the community - from finding appropriate partners/collaborators, over mitigating mutual (both academics and business) mistrust at the beginning, up to navigating through the research ethics. The third category reveals challenges in delivering CERI on the basis of main principles as academics are usually engaged in many different activities and in some of the cases the resource of time itself that needs to be devoted to such CERI



platforms is very limited, which influences very much the research design and possible strategies, as well as the scope of the research itself.

Section 4 - Conclusion

The first phase of mapping CERI practices at YUFE universities ended with analysing five (5) selected practices, which certainly limits the scope of conclusions and recommendations at this point. The process of mapping CERI practices at YUFE universities will continue in following weeks and additionally, the second phase of the mapping will include follow-up interviews with contact persons to provide data for more in-depth analysis. Such an analysis is intended to provide the framework for discussing various supportive models and factors that contribute to the successful delivery of CERI on three different levels - micro, meso and macro, including the framework of partners/collaborators' support as well.

Selected CERI practices prove contextual, institutional, partnering, and methodological diversity. Some of the CERI practices are delivered within courses and regularly engage students, while some are delivered as research projects and engage academics only. Community relevant issues addressed are also diverse, and prove the importance of CERI being sensitive to community 'voices'. Universities collaborate with a range of community stakeholders/actors, and from just these five CERI practices we can witness the engagement of young people, veterans, representatives from the public and business sector, as well as representatives from local authorities. As for methodological diversity, a plethora of research models and approaches has been reported in relation to research design (co-design), data collection techniques, data analysis, and research results dissemination.

Insight into these practices reveals that CERI practices can be (are) successful even without institutional support, which seems to point at the importance of academics' personal/individual involvement and dedication, as well as those from partners/collaborators. However successful CERI practices are, academics point to a series of challenges and further analysis is needed to detect different ways in mitigating those challenges, especially in those institutional contexts where particular university support is missing. Following what's being said, we will continue with mapping CERI practices and conducting follow-up interviews in order to provide a more in-depth analysis in the upcoming weeks.



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