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DELIVERABLE D1.1 - EDUC long-term research agenda

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Abstract	This deliverable describes the evolution and results of the process for establishing an EDUC-Alliance long-term research agenda and for the identification of research priorities, as well as the steps for its implementation.
Keywords	Research; agenda; cooperations

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Index

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Introduction

The purpose of this Deliverable is to describe the evolution and results of the process for establishing an EDUC-Alliance long-term research agenda and for the identification of research priorities. Development of the research agenda and identification of the priorities was an iterative process and involved inputs from multiple stakeholders, including Vice Presidents/Vice-Rectors for Research of the EDUC Alliance Partners, researchers themselves, citizens and local ecosystems.
Starting from a wide diversity in terms of approach and topics across the EDUC Alliance members, the research agenda serves to strategically focus on specific research areas/topics and foster collaborations among researchers. The long-term research agenda will support the institutional transformation in the EDUC universities' research and innovation dimension with an open science approach.

1. Methodology to develop the EDUC long-term research agenda

The Alliance, in line with the European Research Area (ERA) Policy Agenda and with an open science approach, shares the following objectives:

- **Direct involvement of the Alliance researchers** through the development/reinforcement of multi-/ inter-disciplinary collaborations in basic and applied research and innovation (i.e. joint publications, Master and PhD students exchange/supervision, joint applications of EDUC members to European calls favoured);
- **Support of researchers' projects/activities/careers** through the sharing of the Alliance Research Infrastructures and dedicated training;
- **Development of converging HR policies for researchers** through the implementation of the HRS4R process in line with the EU Charter & Code principles in all the partner universities;
- **Sharing common recommendations** on ethics and gender equality principles in research;
- **Showcasing research activities and collecting expectations on societal needs** and challenges from public and private stakeholders from the respective regional ecosystems, as well as from citizenship.

Already in the EDUC pilot Erasmus+ project, the Alliance **connected the education to the research missions** of the partners through a synergistic approach to spread the research & innovation (R&I) culture at all levels, starting from the youngest students of the bachelor cycle with dedicated courses on „Initiation to Research and Critical Thinking". Other activities in this respect have been related to

fostering the entrepreneurial skills and mindset among students through dedicated training, and to the support of research internships at the Alliance laboratories.

Building on the previous objectives and activities the long-term research agenda was developed by actively onboarding the Vice-Rectors/Vice Presidents for Research of all the EDUC universities, including those of the new partners. Taking into account the regional R&I smart specialisation strategies (RIS3) of the partners, the Alliance identified seven strategic research areas on which to focus the activities, which were then confirmed and extended through the direct involvement of the researchers, as detailed in section 3, and supported through the different initiatives described in the document.

The research agenda will be a living document and will be updated whenever new topics may emerge.

2. Universities Governance endorsement

The commitment of the Alliance Universities is demonstrated by the collaboration of the Governance at Vice-Rectors/Vice Presidents for Research level, promoting an efficient consultation to engage the respective research communities and serve as key contact points for them. Several meetings online and in presence have been organized with their participation to share Institutional research strategies and identify common priorities on which to invest within the Alliance, as detailed in the table below.

Meetings involving the EDUC Vice-Rectors/Vice Presidents for Research

Date	Venue	Main topics discussed & decisions taken
February 2020	Cagliari	Identification of 7 priority research areas
June 2022	Online	Sharing of the most important priorities at each University in the enlarged Alliance in the long term
November 2022	Paris	Focus on transversal priorities (including, but not limited to: digital transition, sustainability-SDGs, societal challenges, interdisciplinarity and gender equality); follow a bottom-up approach by running a survey addressed to the Alliance Researchers
July 2023	Online	Presentation of the main results from the research areas survey, the events already planned and cooperations emerged; organization of the sub-clustering events with the involvement of local ecosystems. Inputs for the EDUC long-term Research and Innovation Agenda. Connections with EDUC 2 activities
December 2023	Online	Final inputs on the long-term EDUC research agenda

Also, the Alliance Rectors had the opportunity to discuss the priorities to be pursued in the research strategy.

Finally, the periodic EDUC-SHARE/EDUC Steering Committee meetings, involving the Vice-Rectors/Vice Presidents for internationalisation or similar, also contributed to the creation of the agenda, even if indirectly, by discussing the activities carried out and providing direction.

3. Main Topics identification

In early 2020, the Alliance identified seven common research areas through a top-down approach, starting from those considered more strategic for the 6 partner universities. They were closely connected to the Regional Innovation Strategies for Smart Specialization (RIS3) of each member. These topics represent a good balance between "hard" sciences, social sciences and the humanities: **Cyber Security and Artificial Intelligence, Sustainable Changes: Climate and Resources, Culture and Heritage, European Union Studies, Justice, Inequality and Inclusion, Lifelong Health and Wellbeing, and Mobility/Smart Cities**. In those areas several online & physical research seminars were organized (during 2021 and 2022), aimed at fostering and strengthening cooperation among researchers.
Meanwhile, several scientific cooperations emerged from other EDUC activities and an analysis of the many co-publications over the period 2018-22 (> 450) in which two or more EDUC members are partners. The objective of the Alliance is to broaden bilateral scientific cooperation in identified research themes into collaborations involving as many members of the Alliance as possible, as well as to develop new opportunities for research cooperation for common challenges that all universities face with the active involvement of local ecosystems.
Furthermore, with the enlargement of the EDUC Alliance to the two new Partners (USN and UJI), additional opportunities for cooperation in research and innovation are offered.
Vice-Presidents/Rectors for Research of the eight EDUC universities expressed then their wish to adopt a bottom-up approach to involve EDUC Alliance researchers. Transversal priorities (including, but not limited to: digital transition, sustainability-SDGs, societal challenges, interdisciplinarity, and gender equality) were assumed to be at the basis of all the collaborations to be implemented.
To follow such a bottom-up approach, in 2023, within EDUC-SHARE a further analysis of common topics has been carried out through a survey addressed to researchers of the enlarged EDUC Alliance. The aim of the survey was to ask for their interest in some research areas/topics derived from an analysis of joint publications, plus others proposed by the VPs/VRs for Research, in addition to the seven EDUC strategic areas. The seven main areas were confirmed and, in addition, 4 new common thematics emerged: **Biochemistry and Molecular Biology; Behavioural/Neuroscience studies; Economics & Business; Material sciences** (See Annex 1 Survey on research areas/topics, sub-topics and expression of interest in cooperating within the EDUC Alliance – Results analysis).

The relevance of the identified research areas is also confirmed by the selection of research infrastructures by the Alliance researchers and by the training activities on specific research techniques which were organized as reported in section 5.1.

4. Support to continuous research cooperation

4.1 Sub-clustering events

Within EDUC-SHARE a series of additional sub-clustering events, limited to a reduced number of researchers, has been organized within the common areas identified. Public and private regional stakeholders have been involved to better align outcomes with the values, needs and expectations of the society, in line with Responsible Research and Innovation (RRI). Researchers were asked to contribute to the agenda development in terms of the identification of common goals and project ideas, while dedicated support was provided by the respective research assistance services in identifying funding opportunities.
The topics identified by each university, following the cooperations that emerged through the survey, are:

- **Romance languages** (within Culture & Heritage, follow-up of a previous seminar), by MU.
- **Cybersecurity**: events planned within WP4 (Knowledge and technology transfer) and WP2 RI and Open Science, at MU.
- **Disabilities and abilities framed by context** (within Behavioral Sciences, also in Medical Science), by UPECS.
- **The future of science: scientific archives and new research,** by UPN.
- **"Just transition" in urban sustainability policy design** (within Justice, inequalities and Inclusion, also connected to Mobility/Smart Cities), by UNICA.
- **The Modern European Urban Novel**, by UP.

Interesting perspectives of collaboration emerged in: i) interdisciplinary research on sustainability policies, projects and actions at suburban and neighbourhood levels including the dimensions of equity and inclusion; ii) the promotion of inclusion and equity related to disabilities (with a cross-national approach and to produce shared documents, guidelines, etc.); iii) the reuse of scientific archives related to the Opening of Research Data, domain by domain; iv) international literary studies; v) cybersecurity, and others.

Other „satellite" events/research connections involving EDUC researchers have taken place fostering further cooperation within the topics of Sustainable Changes: Climate and Resources (Geoscience,

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Ecosystem services in wetlands and floodplains), and European Union Studies (The European Union's Reactions to the War in Ukraine through the Lens of European Values).

4.2 Individual or small group mobilities to favour cooperations

Another action that was carried out by some of the universities, usually by taking advantage of the top-up national fundings, was that of offering researchers the opportunity of a brief mobility to personally meet a colleague or a group of colleagues in one of the EDUC Universities to proceed with the already active cooperation or to discuss on new cooperation opportunities such as: submitting joint research projects or publications, co-supervising Master/PhD Thesis, etc.
The opportunity has to be considered successful in terms of concrete results. The success of the initiative is also confirmed by the fact that almost all researchers who benefited from the opportunity continued the cooperation as stated in the report they delivered after the mobility.

4.3 Digital networking tool

To allow researchers (and others) to network and identify possibilities for collaboration, the Alliance developed a digital tool to establish a networking platform which has been continuously adapted to meet the Alliance's needs. Having considered different options, the Alliance has chosen the OpenUp platform (https://educ.openup.education/feed), developed by the University of Pécs, to provide and facilitate the environment for researchers to network. It allows researchers to set up their research profiles and link to their respective fields of expertise, it is capable of handling interaction, setting up thematic groups and displaying research projects, technologies and research facilities.
This interactive platform represents the technology transfer and innovation tool available to EDUC researchers, especially early-stage researchers, to engage in a dynamic research environment of the partner universities, also allowing connections and extending the discussion to other researchers and additional stakeholders, inside and outside the Alliance.

4.4 Bilateral cooperation initiatives strenghened by EDUC-SHARE and EDUC

Bilateral cooperations benefit from the EDUC-SHARE actions as well as from the EDUC Alliance organisation. They constitute a solid background on which other similar and enlarged initiatives can build on. A good example of synergies within EDUC Alliance as a bilateral cooperation is the successful application of the Universities of Rennes and Potsdam to a call from the „French-German University" for funding a „Research Chair Professorship". The successful application benefited of the support of the EDUC network and the scientific domain of the Chair is connected to Earth System & Environmental Sciences, one of the thematic priorities of the EDUC Alliance.

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4.5 Common Projects strenghened by the EDUC Alliance

Collaborations generated within the identified research areas already produced joint applications to European calls. One major outcome has been the success obtained by the application to the Horizon Europe CALL - HORIZON-WIDERA-2023-ACCESS-03 - European Excellence Initiative (EEI), with the proposal EDUC-WIDE „EmpoWering EDUC for Inclusive Development of the ERA“, involving all the EDUC Alliance partners plus one of the EDUC associated partners from Ukraine, which will guarantee a continuation of the joint activities and the implementation of the research agenda after the closure of the EDUC-SHARE project.

5. EDUC-SHARE initiatives developed to favour an open science approach to research and innovation agenda

EDUC has developed the Alliance Open Science Strategic Framework 2022-2026 (D2.1 of EDUC-SHARE - Common Open Science Strategy of EDUC), consisting of a total of 21 objectives, to ensure that the principles of Open Science are supported in becoming a part of the research process and allow the Alliance to improve the quality of scientific research and develop an advanced form of science support services, coherent to the European Research Area policy.
The goal of the Strategic Framework is to foster the implementation of this systemic change of scientific practices into the institutional processes of EDUC Alliance members, with the ultimate aim of helping our academic communities adopt these activities.
A series of dedicated workshops contributing to the spread of the Open Science culture has been organized at each EDUC partner university. All workshops were also open to the participation of researchers and staff from other EDUC members.

5.1 Sharing research infrastructures within the EDUC Alliance

Strong support in the development of the EDUC Alliance research and innovation agenda has been further established within the activities carried out in the EDUC-SHARE work package 2, dedicated to research infrastructures (RIs)[1], stimulating the building of a joint research environment and strengthening of human capital at the Alliance level.
EDUC-SHARE members have been engaged first in a mapping activity of the RIs at the Alliance level resulting in the creation of the RIs online EDUC catalogue. The catalogue shows that there is high diversity in the size, scope, structure, management, and cost of institutional research infrastructures involved at the Alliance level. The RIs catalogue with 116 RIs has been published on the online OpenUp platform, to foster collaborations between researchers of the Alliance. Based on the catalogue

[1] See Deliverable 2.2 Report on EDUC activities to unlock access to research infrastructures

information on RIs, researchers of the Alliance have been involved in a pilot project of open access to research infrastructures within the EDUC Alliance to empower the use of the available facilities to support their research projects. Training activities on specific research techniques in line with the selected topics of EDUC Alliance have been also offered to researchers through international training workshops. The pilot call has supported not only the use of the research facilities but also the mobility costs, especially for early-career researchers. The pilot call also generated a series of webinars to present the research infrastructures to the Alliance researchers in order to promote the call. Sharing research infrastructures is an effective way to encourage research collaboration, provide access to excellence, generate training opportunities and create new knowledge to strengthen human capital within the Alliance.

The results of the pilot access to RIs and the implementation of the OS Strategic Framework will be further developed by the Alliance in the project EDUC-WIDE (Open Science WP1 Analysis and Recommendations and WP2 Scaling-up Awareness and Competence as well as Research & Innovation WP7 Cross-linking the Alliance and WP8 Building Sustainable Partnerships) under the European Excellence Initiative (EEI).

Furthermore, within EDUC II, the open-access strategies of the 8 partners are being shared and common practices are going to be mapped (Task 2.2 Open EDUC infrastructures and data for education).

5.2 Citizen science

With the objective of finding effective ways to engage citizens in science[2], a series of events have been dedicated to the involvement of citizens in the showcasing of the university research, such as the Researcher's Night SHARPER event in Cagliari, the Campus Festival and the Europe Day Festival in Potsdam, and the event 'EDUCation meets Research' in Rennes.

During those events, open questions were submitted to citizens on research areas considered as the most important for the society within those identified by the EDUC Alliance or even outside. The main outcomes show that the topics that have obtained the highest attention are Sustainable Changes: Climate and resources and Lifelong Health and well-being, practically equivalent in the preferences.

6. Strengthening human capital at the Alliance level

For a successful implementation of the Research Agenda it is also important that the academic careers and their R&I dimension are attractive and diversified in terms of internationalisation, interdisciplinarity and intersectorality, as well as that strong policies on R&I ethics and integrity are in place.

[2] See Deliverable 3.2 Report on citizen science strategic concept

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Taking advantage of the experiences of EDUC partners more advanced in some transformation modules, such as the 'HR Excellence in Research' award, all EDUC members within the activities of EDUC-SHARE WP5 have entered the Human Resources Strategy for Researchers (HRS4R) process implementing action plans towards an open science approach to research and innovation.

Within the same WP also "Common Recommendations of EDUC Members on Ethics and Parity/Equality Principles" (Deliverable 5.2) have been developed, following a mapping of the state of the art of ethics and gender equality policies and activities at the institutional level, and sharing and exchanging of best practices. The aims of the recommendations are to:

a) increase the awareness of ethical and gender equality dimensions in research and education at the level of the Alliance;

b) evaluate how internal regulations, biases, and stereotypes influence career gender imbalances and leadership at the level of the higher education institutions. Work has also been done to develop a Roadmap for the creation of a network of doctoral schools/programmes at the EDUC scale, with shared services and educational resources, to facilitate mobility and improve the professional integration of young researchers.

In this framework, an agreement between the universities of the enlarged EDUC Alliance for cooperation in doctoral studies has been finalized to establish and develop scientific cooperation that in particular promotes PhD candidates' mobility in the form of Double/Multiple PhD degrees (co-tutelle) and international joint-supervisions[3].

[3] See D5.3 Roadmap for the creation of a network of doctoral schools at the EDUC scale

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35 000 Rennes
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7. Action plan to further support the implementation of the research activities in the long-term perspective

Within the Erasmus+ EDUC II activities, several tasks are carried out to further develop the actions related to the R&I agenda, specifically:

- Open EDUC infrastructures and data for education;
- Develop a long-term strategy for steadily linking R&I to education;
- Benchmark and develop partners' knowledge transfer eco-systems;
- Run a series of EDUC R&I Meet Education Activities;
- Set up the EDUC Doctoral Schools and Postdoc network;
- Define the EDUC Societal Outreach Action Plan;
- Organise challenge-based team learning for a (social) entrepreneurial mindset;
- Explore and pilot a joint programme for young researchers;
- Enhance key competencies of researchers.

The implementation of the research agenda in the long term will be also pursued through the following actions:

- Proceed with the shared access to research infrastructures of all the Alliance members. Improve the EDUC RIs' visibility by strengthening the use of OpenUp as a showcase, after their better organization into research areas. Organize regularly dedicated workshops and training sessions. Work to support the usage costs by the Alliance researchers (e.g. by applying the same fees of the home users; creating a dedicated fund, etc.).
- Support for "EDUC visiting scientist" aiming at building up networks for applying to European programmes (e.g. Horizon Europe MSCA Doctoral Networks, …).
- Support for PhD/post-doctoral fellowship mobilities among EDUC partners that should strengthen potential applications to the MSCA Postdoctoral Fellowships programme. EDUC II will provide funding for cooperation/exchanges at the post-doctoral level. It could also be seen as a way of identifying good candidates.
- Universities could dedicate full or partial PhD scholarships for supporting collaborations on the EDUC topics or use synergies with national/local PhD/Postdoctoral funding programmes (e.g. MSCA COFUND).
- Promotion of short intensive programmes such as research summer schools.
- Build upon the experience done within EDUC-SHARE to continue and further develop the network among the research technical assistance services of the Alliance universities. Share

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information on funding opportunities/calls to be provided to the researchers on the common research topics.

- An application to the MSCA COFUND Postdoctoral at the EDUC scale is foreseen in the framework of EDUC II.

As highlighted during the preparatory work and based on the common recommendations on ethics, parity and equity, further research collaborations should also take into account transversal priorities such as research integrity, digital transition, sustainability-SDGs, societal challenges, interdisciplinarity and gender equality.

A further boost to the implementation of the common long-term research and Innovation Agenda will be given by the new Horizon Europe project EDUC-WIDE (EEI), whose main aims are:

Open Science - Ensure that the principles of Open Science (OS) are supported in becoming a part of the research process and infrastructure of EDUC Universities and also outside the Alliance (Alliance as an example for others). Implement EDUC Alliance Open Science Strategic Framework 2022–2026 which outlines defined steps towards this objective.

Research assessment - Introduce responsible research assessment as standard practice in EDUC. Support implementation of actions to reform research assessment at EDUC universities by sharing tools, methods, and experience. Reach out to policymakers, funders and other stakeholders to make institutional and national environments supportive of and coherent with reformed research assessment (all the EDUC Universities signed the agreement of the Coalition for Advancing Research Assessment – COARA).

Diverse career tracks outside of academia and Gender equality plans - Prepare EDUC researchers for diverse career tracks outside of academia. Develop a systemic approach towards interdisciplinary, intersectoral, and international mobility, collaboration, and exposure within EDUC. Promote the development and implementation of Gender Equality Plans in Widening countries.

R&I collaboration of EDUC Universities and their local ecosystems - Initiate, foster and scale up R&I collaboration of EDUC Universities and their local ecosystems that will contribute to tackling major European and global challenges: the Green and Digital Transition, EU Missions, and Sustainable Development Goals of the UN.

Particularly the last item will assume great importance in funding “seed“ research collaborating projects within the Alliance, to promote the reinforcement of cooperation and application to other, more relevant, funding sources.
The EDUC Alliance is fully aware that a comparison with the other Alliances on research issues such as the role of researchers, and the support of research management roles undertaken by other professionals (e.g. research managers, research support staff etc.) is essential to continue with the implementation of ERA policies (also through continuous participation in FOREU working groups).

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France

8. Conclusions

The work done to develop the common EDUC R&I agenda was successful since we succeeded in involving the institutional level by bringing together the VPs/VRs for Research of 6 + 2 partner universities with different research strategies and cooperation goals.
Also the involvement of the researchers at all stages of their career, together with the related activities taking place in EDUC II and foreseen in EDUC-WIDE, set the ground for the successful implementation and evolution of this agenda.
The actions undertaken within the Alliance towards a common R&I agenda already supported several success stories, as mentioned in chapter 4, the most important being the funding of the EDUC-WIDE „EmpoWering EDUC for Inclusive Development of the ERA“ project within the call HORIZON-WIDERA-2023-ACCESS-03 - European Excellence Initiative (EEI).
The reciprocal knowledge and confidence gained guarantee a common effort to overcome together possible difficulties through a continuous exchange of good practices. Difficulties can derive from a limited involvement of researchers, who also ask for funds for their common research, from language barriers which sometimes limit the objective of a higher coordination of the Research Technical Assistance Services at the partner universities, and from a too high administrative burden on researchers.
Also, links and collaborations with the local ecosystems will be improved, as well as the reinforcement of synergies between R&I and education, which have been demonstrated to be a possible seed of further research collaborations.
As a whole, the implementation of the EDUC R&I agenda will contribute to tackle global challenges with a multidisciplinary approach in view of the benefit of the society. In this respect, more efforts will be devoted to increase public involvement to identify needs and priorities.
As said, this is a living document that will be periodically updated as an outcome of the actions undertaken and related results and progress.

Annex

Annex 1. Survey on research areas/topics, sub-topics and expression of interest in cooperating within the EDUC Alliance – Results analysis.

European Digital UniverCity

EDUC-SHARE

TASK 1.1 DEVELOPMENT OF THE EDUC LONG-TERM RESEARCH AGENDA

Survey on research areas/topics, sub-topics and expression of interest in cooperating within the EDUC Alliance – Results analysis

1. EDUC-SHARE survey on research areas/topics, sub-topics and expression of interest in cooperating within the EDUC Alliance

Scope of the Survey

Within the EDUC Alliance there are several bilateral scientific cooperations, as shown also by the many co-publications (> 450) identified in which two or more EDUC members are partners. The objective of the Alliance is to broaden bilateral scientific cooperation in a few identified research themes into collaborations involving as many members of the alliance as possible, as well as to develop new opportunities of research cooperation for common challenges that are faced by all universities. In addition, within the H2020 funded EDUC-SHARE project, the EDUC Alliance is defining its own long-term Research Agenda with the active involvement of local ecosystems.
Early 2020, the Alliance identified seven strategic research areas (**Cyber Security and Artificial Intelligence, Sustainable Changes: climate and resources, Culture and heritage, European Union Studies, Justice, Inequality and Inclusion, Lifelong Health and Wellbeing, and Mobility/Smart cities**) on which several online & physical research seminars were organized, aimed at fostering and strengthening cooperation among researchers.
However, while in some areas a critical mass is likely to be reached, in some other topics, cooperations are just waiting to take off. Furthermore, with the enlargement of the EDUC Alliance to the two new Partners (University of Jaume I – Castellon, Spain, and University of South-Eastern Norway), new opportunities for cooperation in research and innovation are offered.
Vice-Presidents/Rectors for Research of the eight EDUC universities already met twice and expressed their wish to adopt a bottom-up approach to involve EDUC Alliance researchers. Transversal priorities (including, but not limited to: digital transition, sustainability-SDGs, societal challenges, interdisciplinarity, gender equality) will be at the basis of all the collaborations to be implemented.

Survey structure

1) Name

2) Surname

3) University (**please choose**) **only one can be selected**
- University of Cagliari
- University of Jaume I
- University of Masaryk
- University of Paris Nanterre
- University of Rennes
- University of Pécs
- University of Potsdam
- University of South-Eastern Norway

4) Role:
   a. R2: Recognised Researcher (PhD holders or equivalent who are not yet fully independent),

b. R3: Established Researcher (researchers who have developed a level of independence),
c. R4: Leading Researcher (researchers leading their research area or field).

5) Research Area/Topic (in alphabetical order within the 3 ERC Panels, please flag only the main Research Areas/Topics you are working on) **(an open text box will open in which the researcher can add details on his/her research sub-topic)**

Panel 1. Physical Sciences and Engineering

1. Astronomy & Astrophysics
2. Circular economy, resources, recycling
3. Computer/Digital Science including Cyber Security and Artificial Intelligence
4. Environmental risks
5. Geochemistry & Geophysics
6. Green energy/Digital solutions for energy management
7. Materials Science
8. Mathematics
9. Mobility / Smart cities
10. Physical Geography; Geology; Paleontology
11. Physics
12. Sustainable Changes: climate and resources

Panel 2. Life Sciences

1. Behavioral Sciences; Neurosciences & Neurology
2. Biochemistry & Molecular Biology
3. Bioinformatics/Genomics/Data Science
4. Biotechnology & Applied Microbiology
5. Chemistry
6. Environmental chemistry and toxicology
7. Lifelong Health and Wellbeing (including Digital health)
8. Medical Sciences (Emergency Medicine; Surgery; Oncology; Rheumatology; others)
9. Physiology & Sport Science
10. Plant Sciences, Environmental Sciences & Ecology, Oceanography

Panel 3. Social Sciences and Humanities

1. Business & Economics
2. Criminology & Penology
3. Culture and heritage
4. Digital humanities and digital competence in education
5. European Union Studies
6. Justice, inequality and inclusion (including Social inclusion)
7. Languages (Multilingualism) and Linguistics
8. Psychology

Please provide details on research sub-topic/s also underlying multidisciplinary synergies required (max n. 600 characters)

6) Are you already cooperating in your specific research topic/sub-topic with colleagues from the EDUC Alliance partners? YES/NO

7) If YES please specify:
   a. University/ies (*list of the 8 EDUC Universities that can all be flagged*)
   b. Name/Surname of the colleague/s (open text box)
   c. Type of cooperation (open text box with suggestions: research collaboration, co-publications; research project writing or implementation; organisation of events etc….)
   d. Since when (**open text box**)

8) If NO: would you be interested in cooperating with colleagues from the EDUC Alliance? YES/NO

9) (*If there is a positive answer on the previous questions: are you already cooperating or would you be interested in cooperating with colleagues from the EDUC Alliance, the following question should appear*) Are you cooperating with your local ecosystem (companies, public/private institutions, etc)? YES/NO

10) If YES, please do specify with whom, and whenever possible the role of the ecosystem partner/s (open text box)

☑ Companies	
☐ Public/private institutions	
☐ NGOs	
☐ others	(please specify)

11) In the last 5 years, have you obtained one or more external funding for research projects? YES/NO

12) If the answer is YES, the next one should appear: On which Programme? (the 3 options can all be flagged and per each an open box for details should open)
   a. European YES/NO

(if YES please specify the name of the funding Programme/Authority)

   b. National Programme

(if YES please specify the name of the funding Programme/Authority)

c. Regional

(if YES please specify the name of the funding Programme/Authority)

13) What was your role in the project?

a. Lead Beneficiary
b. Partner
c. Subcontractor
d. Associated Partner
e. Other

(please specify)

Survey submission procedure

The survey was drafted by the Task 1.1 Leading partner in cooperation with the Vice Presidents for international affairs of the University of Rennes and was then revised and finally approved by VPs for Research of all EDUC partners. It was submitted to researchers of 7 out of the 8 EDUC Alliance partners since the University of Paris Nanterre had already scheduled a similar survey to be submitted to its own researchers and didn't want to duplicate the activity, through UNICA Lyme-survey system to all partners but Paris Nanterre since they were already submitting another survey to their researchers and did not want to overload them.

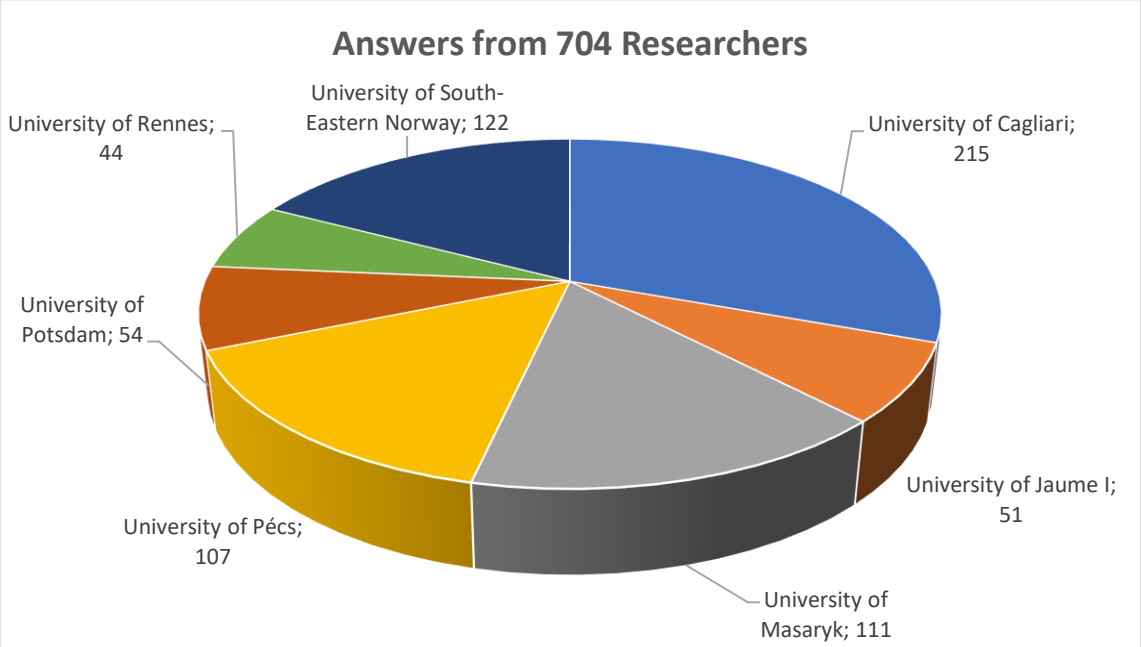
Specifically, the target groups were composed as detailed below:

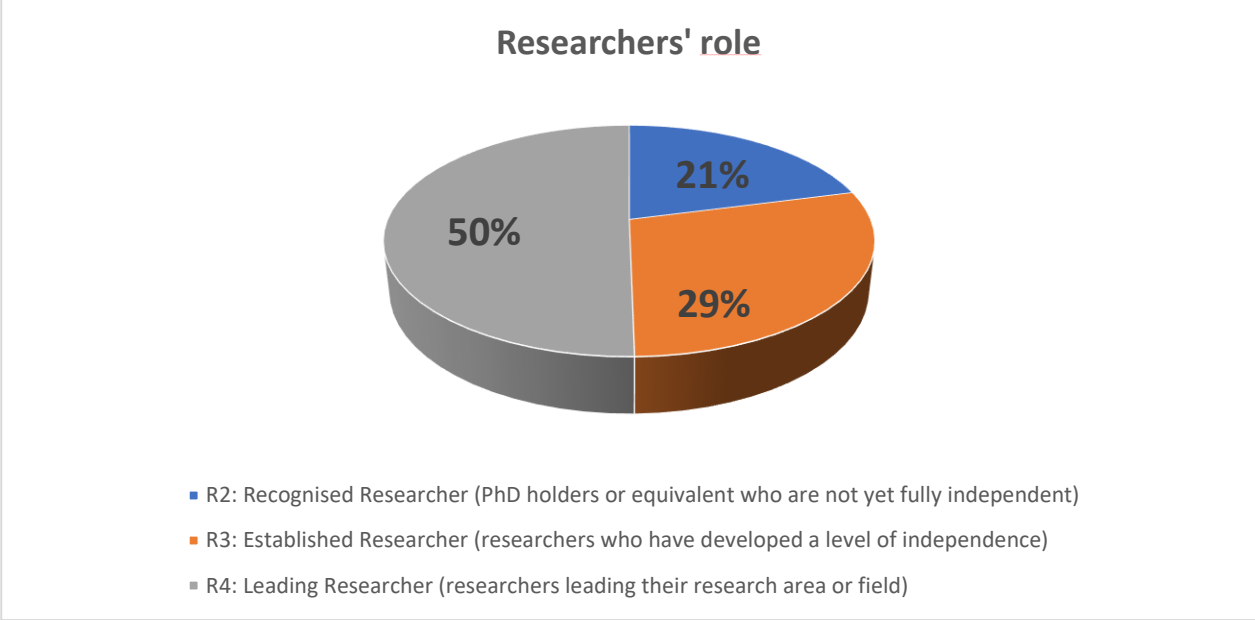
EDUC Partner	N. of target researchers
University of Cagliari	1229
University of Jaume I	674
University of Masaryk	
University of Pécs	1291
University of Potsdam	1435
University of Rennes	
University of South-Eastern Norway	1280

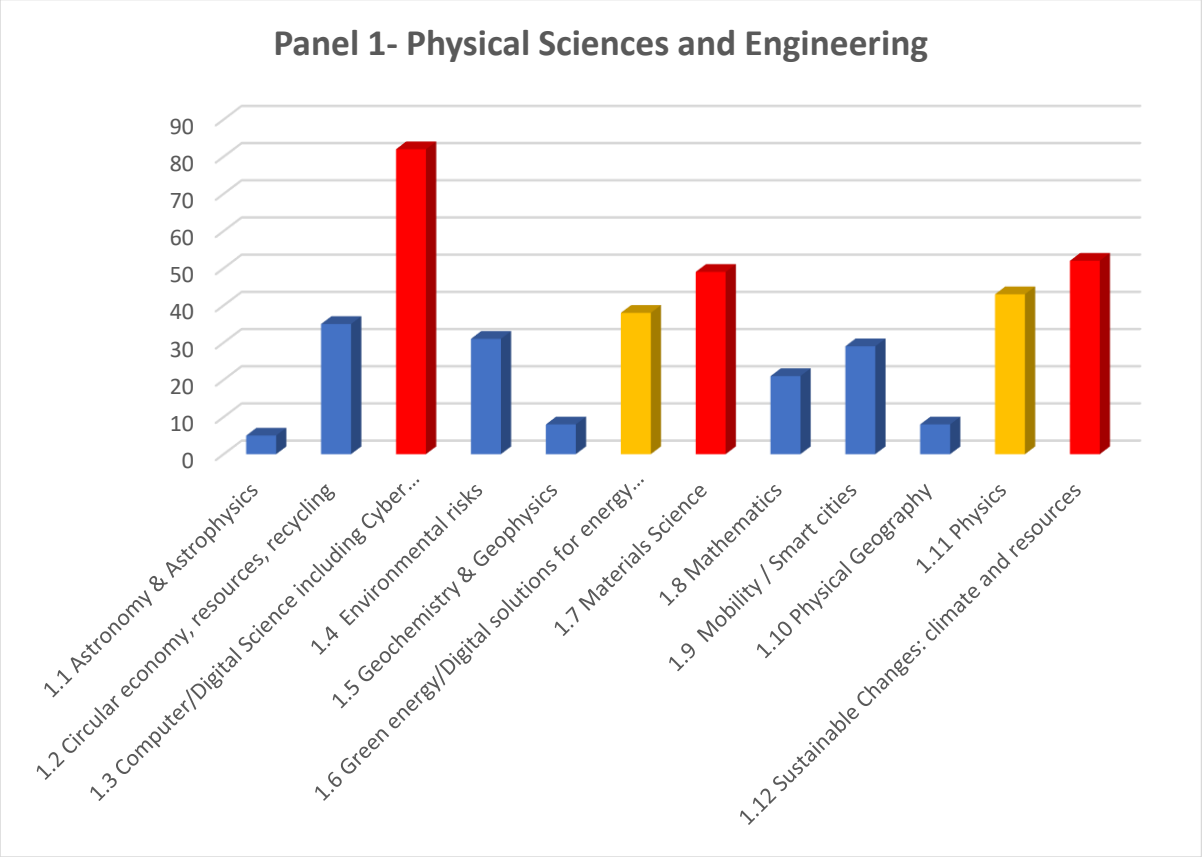
Survey results: data analysis procedure

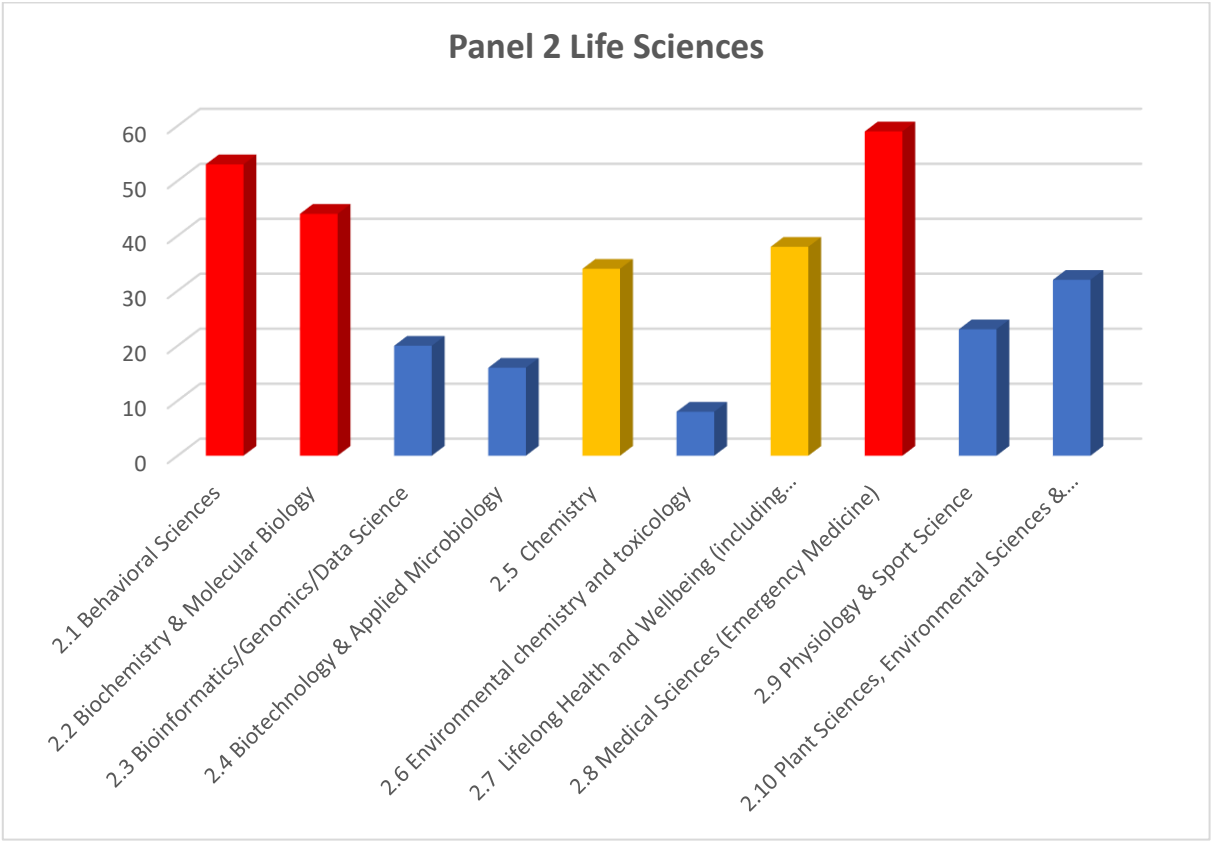
The analysis of quantitative data was performed using Excel, ensuring precise calculations and accurate percentage computations. For the analysis of the research activities describer by researchers in the open-answer field of the survey (*Please provide details on research sub-topic/s also underlying multidisciplinary synergies required (max n. 600 characters*), advanced AI techniques were employed to automatically extract information while fully respecting the data provided by the survey participants.

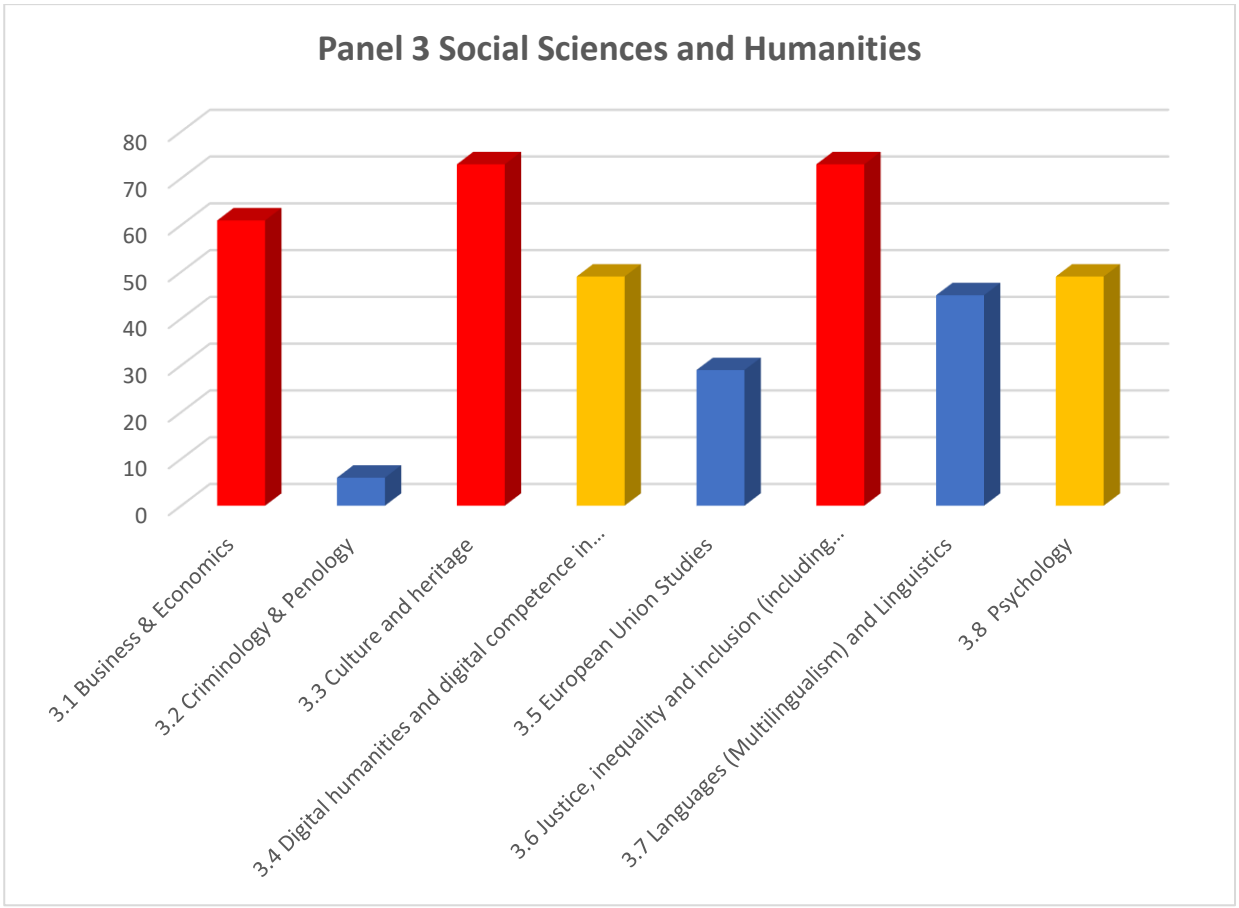
2. Macro data analysis

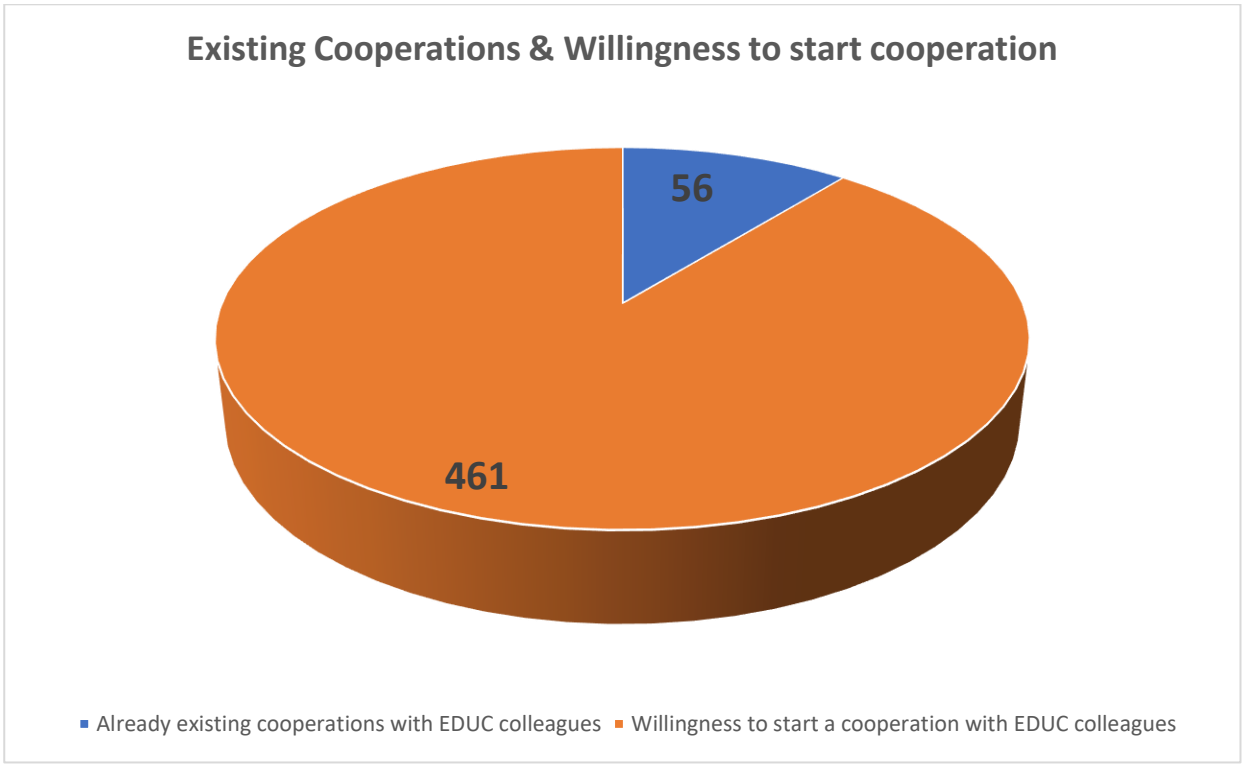


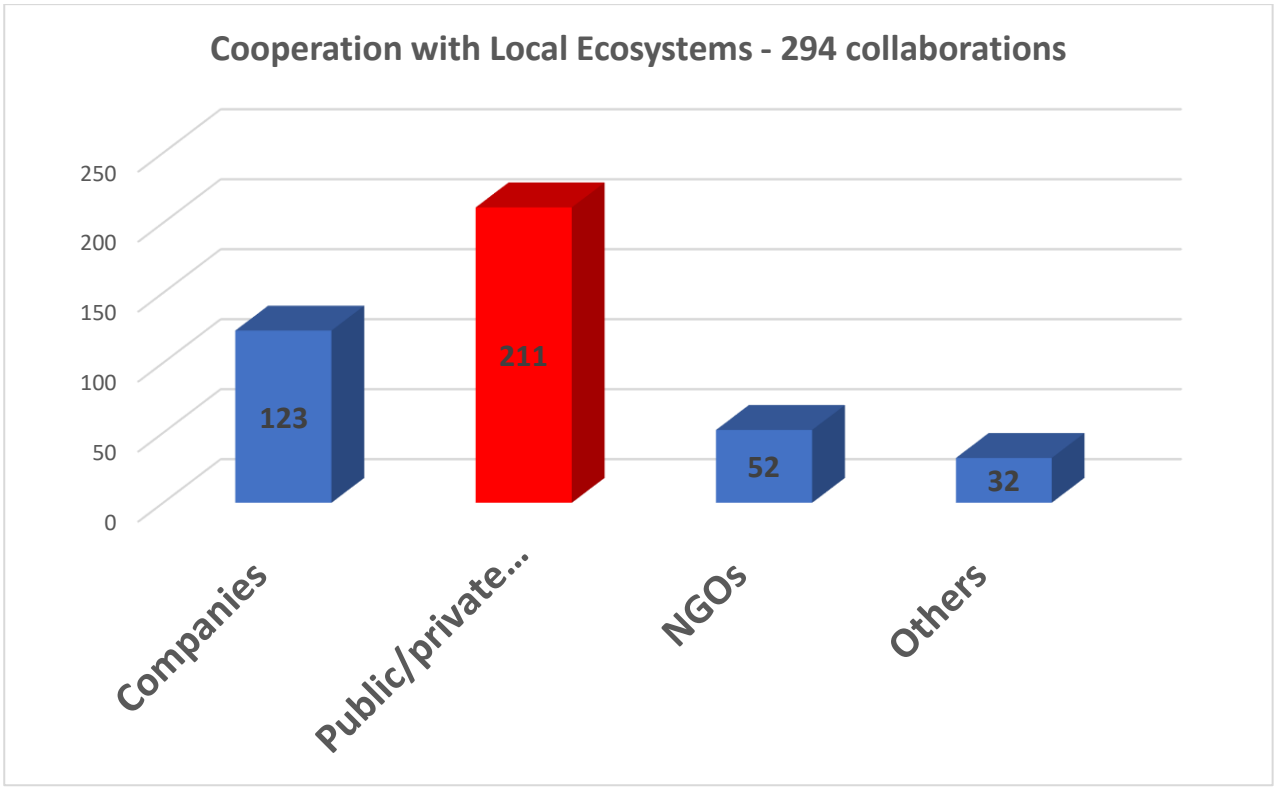



Panel 1- Physical Sciences and Engineering
90
80
70
60
50
40
30
20
10
0
1.1 Astronomy & Astrophysics
1.2 Circular economy, resources, recycling
1.3 Computer/Digital Science including Cyber...
1.4 Environmental risks
1.5 Geochemistry & Geophysics
1.6 Green energy/Digital solutions for energy...
1.7 Materials Science
1.8 Mathematics
1.9 Mobility / Smart cities
1.10 Physical Geography
1.11 Physics
1.12 Sustainable Changes: climate and resources

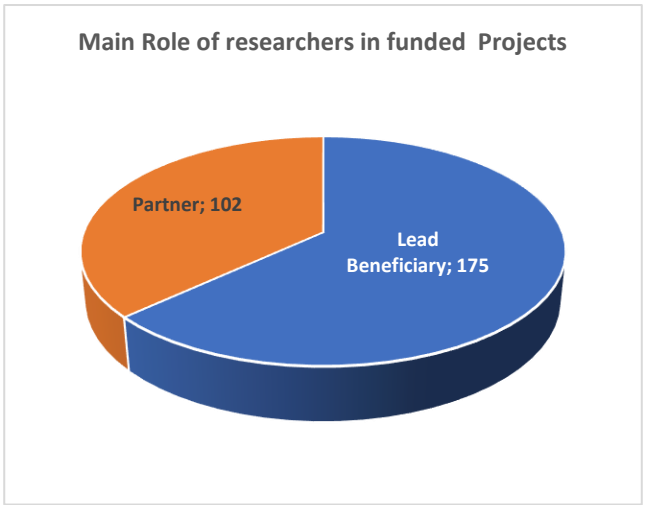

Panel 2 Life Sciences
60
50
40
30
20
10
0
2.1 Behavioral Sciences
2.2 Biochemistry & Molecular Biology
2.3 Bioinformatics/Genomics/Data Science
2.4 Biotechnology & Applied Microbiology
2.5 Chemistry
2.6 Environmental chemistry and toxicology
2.7 Lifelong Health and Wellbeing (including...
2.8 Medical Sciences (Emergency Medicine)
2.9 Physiology & Sport Science
2.10 Plant Sciences, Environmental Sciences &...


Panel 3 Social Sciences and Humanities
80
70
60
50
40
30
20
10
0
3.1 Business & Economics
3.2 Criminology & Penology
3.3 Culture and heritage
3.4 Digital humanities and digital competence in...
3.5 European Union Studies
3.6 Justice, inequality and inclusion (including...
3.7 Languages (Multilingualism) and Linguistics
3.8 Psychology


Existing Cooperations & Willingness to start cooperation
56
461
Already existing cooperations with EDUC colleagues
Willingness to start a cooperation with EDUC colleagues

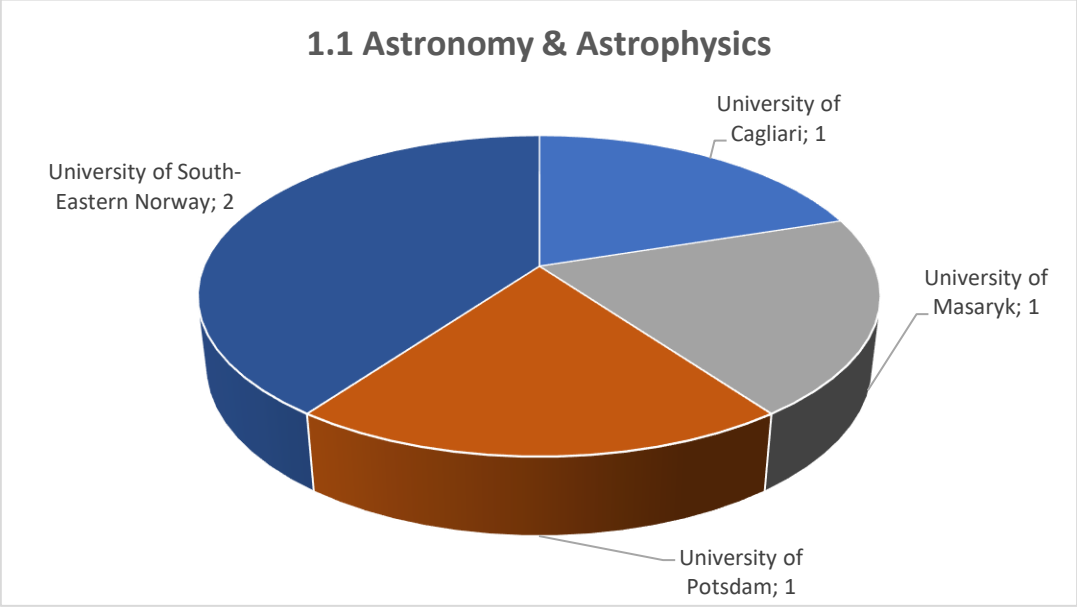

Cooperation with Local Ecosystems - 294 collaborations
250
200
150
100
50
0
123
211
52
32
Companies
Public/private...
NGOs
Others


External funding for research projects in the last 5 years - 326
Regional Programmes; 120
European Programmes; 127
National Programmes; 237


Main Role of researchers in funded Projects
Partner; 102
Lead Beneficiary; 175

3. Micro data analysis Panel 1 - Physical Sciences and Engineering

Topic 1.1 Astronomy & Astrophysics



5 Researchers

R2	3
R3	1
R4	1

Already existing cooperations with EDUC colleagues	**0**
Willingness to start a cooperation with EDUC colleagues	**3**
Cooperations with local ecosystems	0
External funding for research projects in the last 5 years	0

Correlated topic/research areas (as indicated by the researchers of this topic):

- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**2 researchers**)
- 2.1 Behavioral Sciences (**2 researchers**)

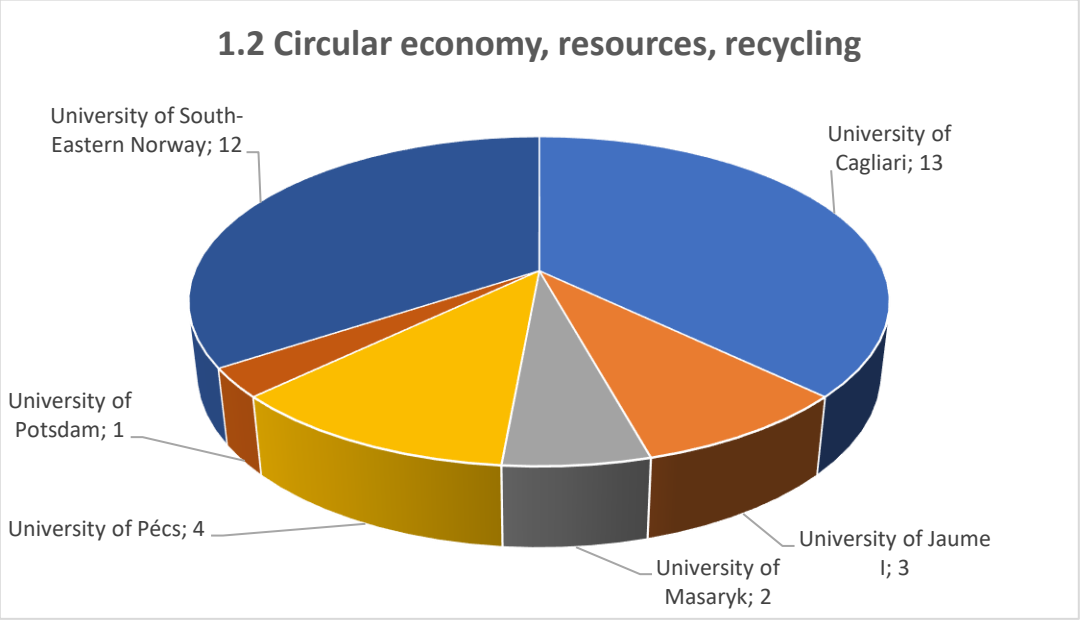
List of emerged sub-topics *(analysis supported by AI)*

1. Space Sciences
2. General relativity

Topic details:

Space Sciences, General relativity.

Topic 1.2 Circular economy, resources, recycling



35 Researchers

R2	7
R3	9
R4	19

Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**29**

Cooperations with local ecosystems	**24**
Companies	11
Public/private Institutions	17
NGOs	5
Others	5

External funding for research projects in the last 5 years	**22**
European Programmes	10
National Programme	12
Regional Programmes	11

Role in the Projects	
Lead Beneficiary	**11**
Partner	8

Correlated research areas (as indicated by the researchers of this topic):

- 1.12 Sustainable Changes: climate and resources (**14 researchers**)
- 3.1 Business & Economics (**11 researchers**)
- 1.6 Green energy/Digital solutions for energy management (**10 researchers**)
-

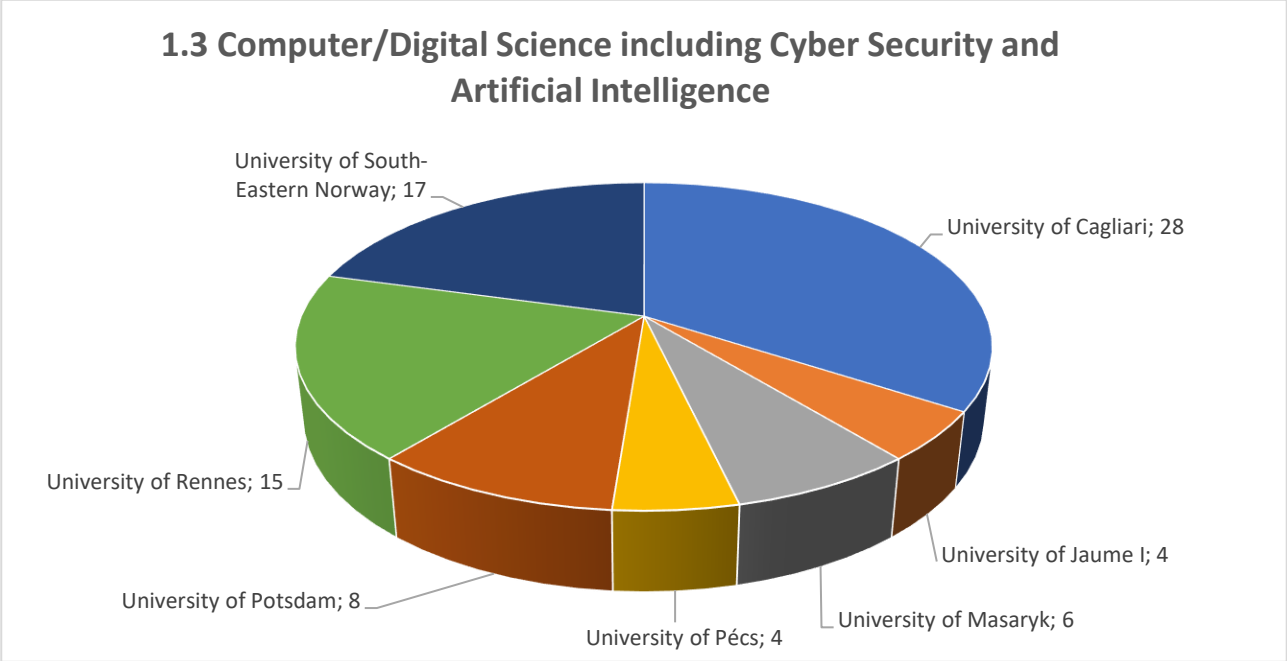
List of emerged sub-topics (analysis supported by AI)

1. Sustainable Materials and Recycling
2. Green Chemistry and Catalysis
3. Energy and Decarbonization
4. Sustainable Tourism and Social Sustainability
5. Circular Economy and Waste Management
6. Environmental Studies and Climate Change
7. Digital Technologies and Sustainable Supply Chains
8. Sustainable Economics and Social Development
9. Water/Wastewater Treatment and Resource Recovery
10. Planning and Sustainable Urban Spaces

Topic details:

Solid state recycling of light alloy, Polymers from industrial waste, Valorization of organic waste, Recycling of agro-food industry by-products, Chemical processes with low environmental impact, Synthesis and characterization of catalysts, Heterogeneous catalytic processes, Chemical recycling of CO2, Energy technologies and greenhouse gas emissions reduction, Renewable energy sources and microgrids, Energy management and efficiency, Hydrogen and alternative energy sources, Equestrian tourism and heritage, Social sustainability of tourism, Sustainable supply chain management, Social sustainability of aquaculture and rural business ecosystems, Circular bioeconomy and biowaste valorization, Valorization of residues and by-products, Integrated biochemical processes for waste valorization, Resource management and life cycle analysis, Climate change impacts and adaptation, Cultural and natural heritage preservation, Sustainability management and innovation, Climate-related effects on decision making, Integration of digital technologies in supply chains, Redesigning mobility and logistics business models, Role of new energy sources in transportation, Sustainable practices in maritime supply chains, Sustainable economic growth and environmental degradation, Islamic economics and social justice, Social-moral aspects in sustainability research, Entrepreneurship, innovation, and business development, Biological and bio electrochemical processes for water treatment, Recovery of valuable resources from wastewater and waste, Treatment of specific waste materials (sediments, metallurgical waste), Integrated processes for energy and material recovery, Urban and regional planning, Landscape planning and heritage preservation, Sustainable changes in behavior and interaction, Social sustainability in urban communities.

Topic 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence



82 Researchers	
R2	**12**
R3	**24**
R4	**46**
Already existing cooperations with EDUC colleagues	**5**
Willingness to start a cooperation with EDUC colleagues	**67**
Cooperations with local ecosystems	**46**
Companies	31
Public/private Institutions	33
NGOs	7
Others	0
External funding for research projects in the last 5 years	**49**
European Programmes	21
National Programme	36
Regional Programmes	19
Role in the Projects	
Lead Beneficiary	**26**
Partner	14

Correlated research areas (as indicated by the researchers of this topic):

- 1.6 Green energy/Digital solutions for energy management (**12 researchers**)
- 1.9 Mobility / Smart cities (**12 researchers**)
- 1.12 Sustainable Changes: climate and resources (**10 researchers**)

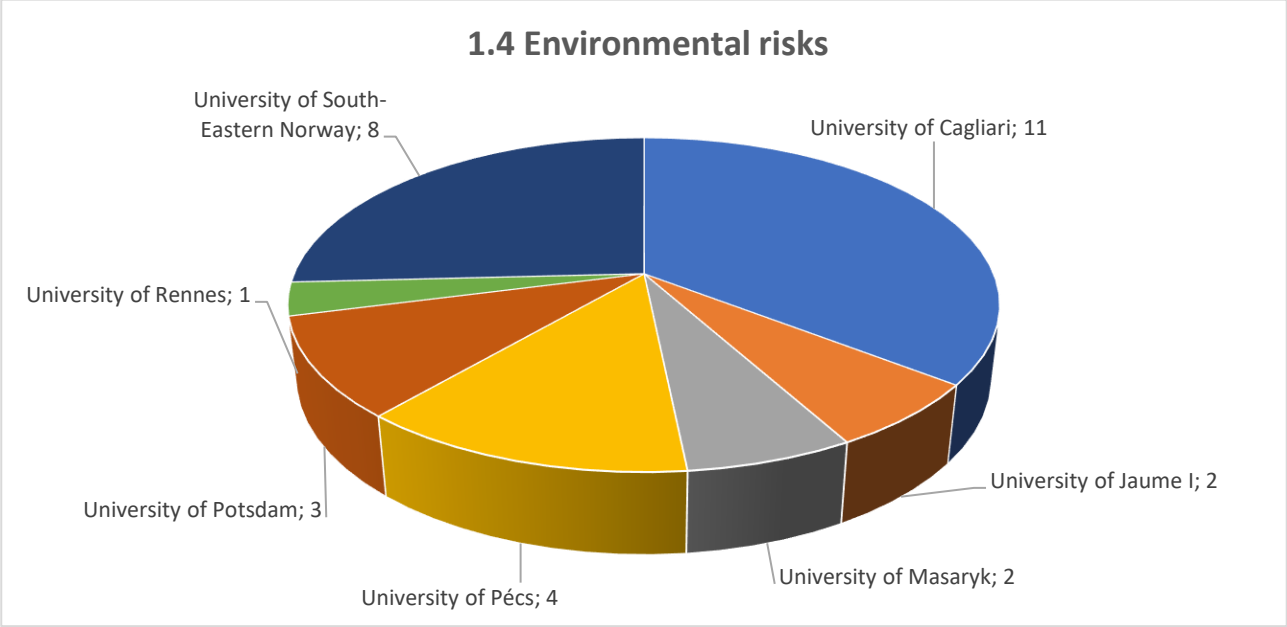
List of emerged sub-topics *(analysis supported by AI)*

1. Information Technology and Computer Science
2. Electronics and Communication
3. Cybersecurity and Network Security
4. Artificial Intelligence and Machine Learning
5. Data Science and Big Data Analytics
6. Software Engineering and Development
7. Biotechnology and Bioinformatics
8. Energy and Environmental Engineering
9. Healthcare and Medical Research

Topic details:

Formal methods for software safety, Theoretical computer science, Distributed systems and algorithms, Computational linguistics, Natural language processing, Spoken dialogue systems, Computational methods in medicine and biology, Computational neuroscience, Computer vision, Image processing, Hardware security, Embedded systems, Energy efficiency, Reconfigurable digital processing, Signal processing, Wireless communication, Antennas, Microwave circuits, RFID antennas, Printed log-periodic dipole antennas, Laser fault injection, Laser thermal stimulation, Threat detection, Malware analysis, Security/robustness of machine learning in adversarial environments, Cryptography protocols, Intrusion detection, Incident response, Cyber situational awareness, NLP, Media analytics, AI applied to nuclear fusion energy production, AI applied to telecare, Explainable AI, Quantum machine learning, AI and ambient assisted living/welfare technology, AI and telecare, Working on big data management with applications in cybersecurity, smart cities, etc., Statistics: Natural Language Processing, Classification (Labeled & Unlabeled data), Sentiment Analysis, Big Data, Word Embeddings, and Explainable AI, Multivariate data analysis, Process online monitoring and fault detection, Statistical learning methods in shape analysis, medical imaging, and remote sensing, Computational methods in social sciences, Data management and AI, Software quality in science, FAIR software, Computational workflows, Software engineering for computational science, Software design for Virtual/Augmented/Mixed Reality experiences, Explainable Artificial Intelligence, Software engineering for digital phenotyping, Software engineering for electronic evidence, Software engineering for multimedia services, Research software engineering, Biomarker analysis, Permeability of lipid membranes and protein channels to drugs, Structure-to-function relationship of bioactive peptides, Bioinformatics, Computational methods in genetics, Genetic risk factor analysis, Computational methods in biomedicine, Computational methods in biophysics, Computational methods in biochemistry, Computational methods in drug discovery, Energy efficiency improvement in existing buildings, Renewable energy communities and blockchain technology, CO2 capture technologies, Sustainable energy systems, Sustainable mobility, Energy harvesting for IoT nodes, Smart grid monitoring, Power quality monitoring, Energy modeling and optimization, Sustainable network protocols and architectures, Medical imaging, particularly MRI for brain and spine, Diffusion MRI and tissue microstructure analysis, Neuroimaging, Image processing for medical applications, Biometric recognition, Vulnerabilities in biometric systems, Anomalous events in crowded environments, Infection control in healthcare and public settings, Digital phenotyping in diagnosis and monitoring, Health interfaces and personal health services.

Topic 1.4 Environmental risks



31 Researchers	
R2	4
R3	9
R4	18
Already existing cooperations with EDUC colleagues	**3**
Willingness to start a cooperation with EDUC colleagues	**23**
Cooperations with local ecosystems	**15**
Companies	9
Public/private Institutions	11
NGOs	2
Others	1
External funding for research projects in the last 5 years	**18**
European Programmes	6
National Programme	13
Regional Programmes	8
Role in the Projects	
Lead Beneficiary	**1**
Partner	1

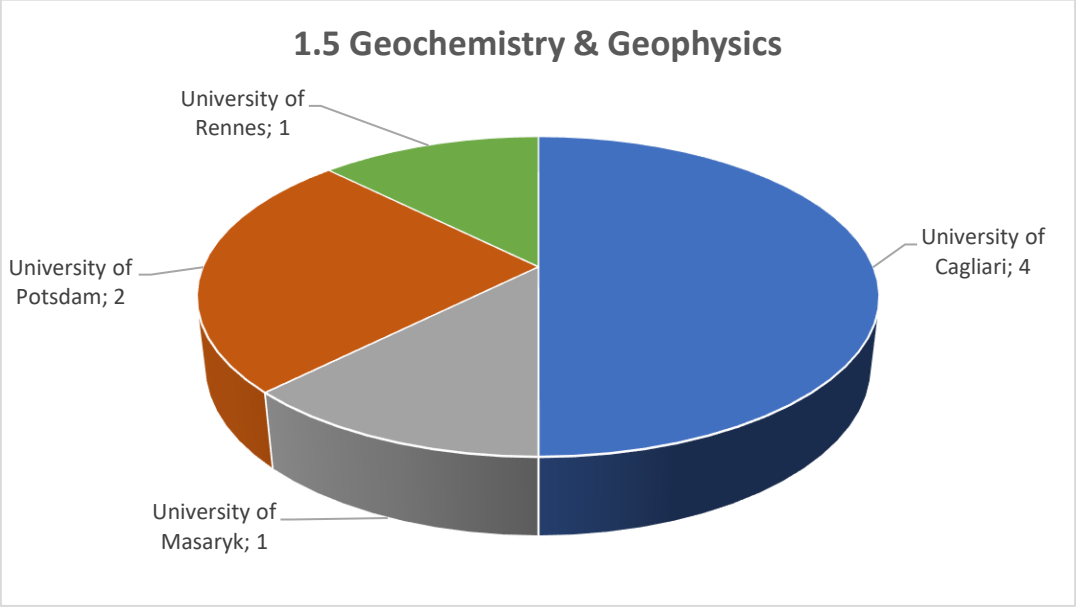
Correlated research areas (as indicated by the researchers of this topic):

- 1.12 Sustainable Changes: climate and resources (**13 researchers**)
- 2.5 Chemistry (**7 researchers**)
- 1.7 Materials Science (**7 researchers**)

List of emerged sub-topics *(analysis supported by AI)*
1. Environmental Sciences and Ecology
2. Nanotechnology and Materials Science
3. Atmospheric and Climate Sciences
4. Infection Prevention and Control
5. Biotechnology and Agricultural Sciences
6. Social Sciences and Welfare
7. Finance and Sustainability
8. Health Sciences and Epidemiology
9. Water Resources and Hydrology
10. Systems Engineering and Technology Transfer

Topic details:
Dynamics of endoreic ecosystems, Hydrology, Earth sciences, Geodesy, Remote sensing, Vegetation development, Soil science and remediation, Remote sensing of polar regions, Nanostructure-based chemiresistors, Electronic noses, Molecular chemosensors, Supramolecular architectures, Materials for environmental applications, Materials for energy applications, Valorization of organic waste, Porous materials, Numerical simulation of precipitation formation, Chemical and physical processes in droplets, Wash out of atmospheric pollution, Accuracy improvement in numerical weather forecast, Remote sensing of climate change impacts, Carbon cycle and environmental pollution risks, Administrative, engineering, and personal protective equipment controls, Building design for infection control, Epidemiology and surveillance, Microbiology and immunology, Healthcare-associated infections and antimicrobial resistance, Vaccinology and immunization programs, Personal protective equipment and hygiene practices, Environmental and engineering controls, Health behavior and communication, Health policy and economics, Biological control of agricultural pests, Citrus agro system and trophic interactions, Molecular taxonomy for invasive species detection, Plant-arthropod-microbiome interactions, Next-generation sequencing for metagenomics, Differential gene expression using RNAseq, Valorization of biowaste, Metabarcoding and metagenomics in soil and health, Child welfare and social work, Quality of life in chronic diseases, Local territorial development processes, Regeneration processes in urban peripheries, Social quality of places, Urban planning and public spaces, Gender inequalities and family dynamics, Welfare models and redistribution of resources, ESG (Environmental, Social, Governance) finance, International ESG practices and performance measurement, ESG measurement in the SME sector, Financial aspects of ESG, Impact on financial and non-financial performance, Socio-economic determinants of well-being, Impact of environmental factors on health, Social, economic, and environmental sustainability, Evaluation of social quality, Social inequalities and citizenship asymmetries, Gender inequalities in academia and higher education, Regional climate issues, Water resources availability and management, Integrated biochemical processes for biowaste valorization, Wastewater treatment and water remediation, Ion transport and membranes, Micropollutants and water purification, Technology transfer in environmental issues, Energy technologies and greenhouse gas emissions, Marine and offshore structures, Renewable energies, Wind and wave energy devices, Floating solar panels, Systems engineering in health sciences, Circular bioeconomy and biowaste valorization.

Topic 1.5 Geochemistry & Geophysics



8 Researchers	
R2	2
R3	2
R4	4
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**6**
Cooperations with local ecosystems	**4**
Companies	0
Public/private Institutions	3
NGOs	0
Others	0
External funding for research projects in the last 5 years	**5**
European Programmes	1
National Programme	5
Regional Programmes	0
Role in the Projects	
Lead Beneficiary	**4**
Partner	0

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.4 Environmental risks (**2 researchers**)

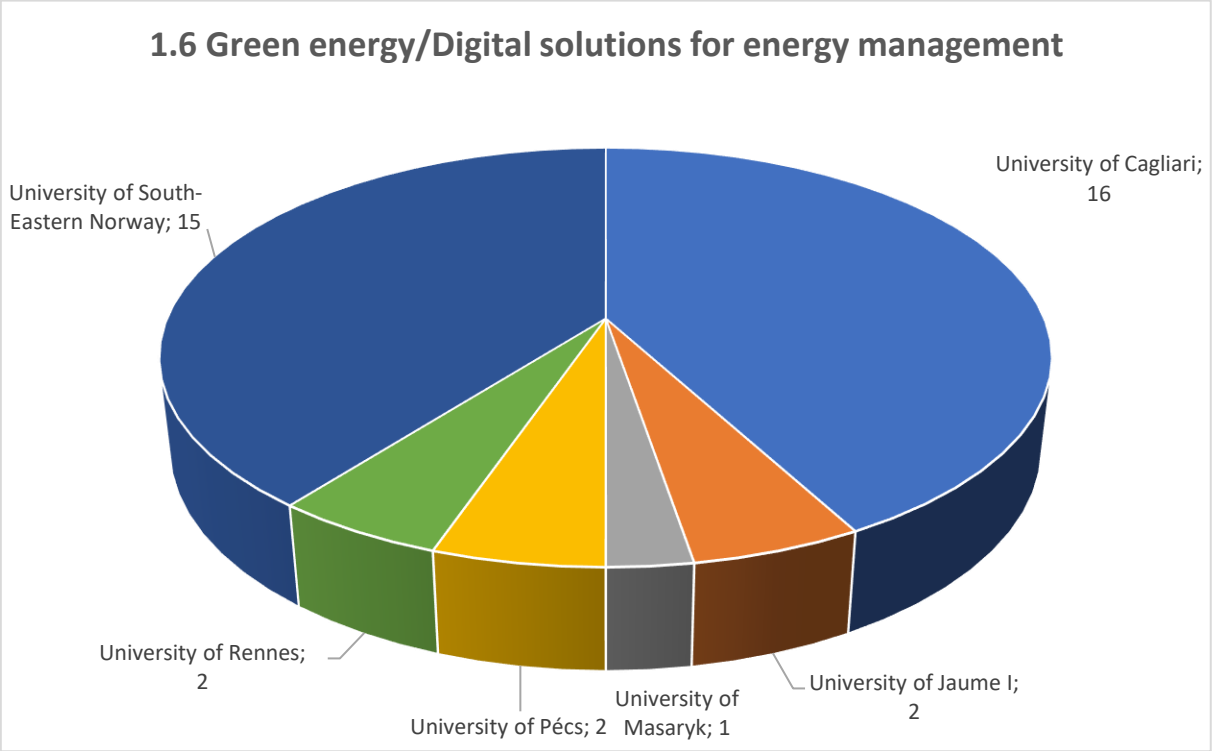
List of emerged sub-topics *(analysis supported by AI)*

1. Geology
2. Earth's System and Fluids
3. Environmental Geochemistry and Mineralogy
4. Natural Hazards and Early Warning
5. Remote Sensing and Climate Change
6. Physical Volcanology

Topic details:

Metamorphic Petrology, Structural Geology, Tectonics, Geochronology, Role of Fluids in Earth's System, Metamorphism, Ore Deposits Exploration and Exploitation, Water Pollution and Mining Activities, Bio-geochemical Barriers, Sorption Processes (Natural and Synthetic Minerals), Hydrologic Tracer, Isotopic and Statistical Approaches in Water Pollution and Remediation, Earthquakes, Volcanoes, Remote Sensing of Polar Regions, Permafrost Landscapes, Carbon Cycle and Climate Change Impacts, Environmental Pollution Risks, Study of Volcanic Processes and Phenomena.

Topic 1.6 Green energy/Digital solutions for energy management



38 Researchers

R2	6
R3	10
R4	22

Already existing cooperations with EDUC colleagues	**0**
Willingness to start a cooperation with EDUC colleagues	**10**
Cooperations with local ecosystems	**9**
Companies	6
Public/private Institutions	6
NGOs	0
Others	0
External funding for research projects in the last 5 years	**6**
European Programmes	2
National Programme	4
Regional Programmes	2
Role in the Projects	
Lead Beneficiary	**3**
Partner	1

Correlated research areas (as indicated by the researchers of this topic):

- 1.11 Physics (**12 researchers**)
- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**11 researchers**)
- 1.2 Circular economy, resources, recycling (**9 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

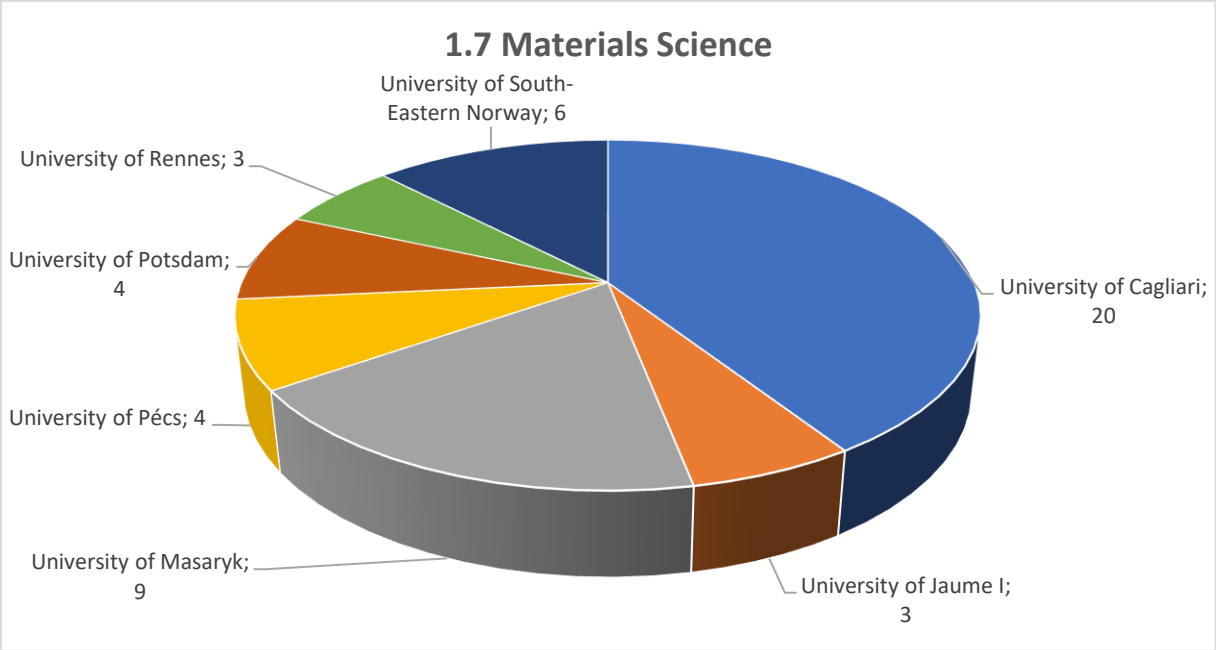
1. Fluid Interfaces and Hydrogen Production
2. Energy Management and Renewable Integration
3. Artificial Intelligence and Nuclear Fusion Energy
4. Industrial Chemistry and Sustainable Processes
5. Environmental Issues and Energy Technologies
6. Advanced Materials, Decarbonization, and 3D Printing
7. Advanced Measuring Instruments for Electric Smart Grids
8. Control and Optimization of Energy Systems
9. Machine Learning, Energy Efficiency, and Modeling
10. Artificial Intelligence and Machine Learning in Engineering and Medicine
11. Measurements, Monitoring, and Sensors for Smart Grids
12. Waste Valorization and Biorefinery Processes
13. Electrochemical Energy Storage and Conversion
14. Mechanical Engineering, Energy Transition, and Optimization

Topic details:

Creation, Transport, and Stability of Fluid-Fluid Interfaces, Efficient and Low-Carbon Production of H2 via Electrolysis, Optimal Multi-Level Anticipating Control for Energy Management and Renewable Integration, Synthesis and Characterization of Catalysts, Heterogeneous Catalytic Processes, CO2 Chemical Recycle, Glycerol Conversion, Selective/Reactive Adsorption Processes, Technology Transfer to Industry in Environmental Issues, Atmospheric Pollution and Occupational Exposure, Greenhouse Gas Emissions Reduction, Decarbonization of Industrial Processes, 3D Printing, Advanced Materials, Hydrogen Generation/Storage, Digitalization, Continuous-Flow Synthesis, Green Chemistry, Development and Implementation of Advanced Measuring Instruments and Systems, Power Systems, Communications, Data Analytics, Control, Estimation, Fault Diagnosis, and Optimization of Energy Systems, Robust Control of

Dynamical Systems, Multi-Agents Framework, Dynamics of Energy Production and Integration of New Energy Sources, Industrial Machine Learning and Artificial Intelligence, Welfare Technology Solutions for Older People, Modeling and Simulation, Hydro Power Dynamics and Control, Oil Drilling and Petroleum Production, Fertilizer Production, Diagnostics and Control of Thermonuclear Fusion, Energy Systems Management, Risk Factor Evaluation in Medicine, Measurements for Smart Grids, Synchronization in Distributed Systems, Power Quality Monitoring, Phasor Measurement Units (PMU), Collaboration with Terna and Other Universities, Valorization of Organic Waste, Recovery of Energy and Materials, Waste-Biorefinery Process Schemes, Residues from Production Activities, Commercialization of Goods with Material Recovery, Electrochemical Energy Storage (Li-, Na-Batteries, Supercapacitors), Electrochemical Energy Conversion (Green H2 Production, CO2 Electrolysis), Micro- and Nano-Scale Inorganic Functional Materials, Entrepreneurship and Innovation, RD&D Project Management and Business Development, Energy Transition and Sustainable Development, Mechanical Design and Optimization, Energy Efficiency and System Integration, Renewable/Clean Energy Technologies, Energy Management, Smart Cities/Buildings, Energy Hub, Gas Technology (Natural, Bio, Hydrogen), Techno-Economic and Social Integration Evaluation.

Topic 1.7 Materials Science



49 Researchers

R2	10
R3	13
R4	26

Already existing cooperations with EDUC colleagues	**5**
Willingness to start a cooperation with EDUC colleagues	**33**
Cooperations with local ecosystems	**23**
Companies	12

Public/private Institutions	14
NGOs	4
Others	3
External funding for research projects in the last 5 years	**26**
European Programmes	9
National Programme	18
Regional Programmes	7
Role in the Projects	
Lead Beneficiary	**15**
Partner	8

Correlated research areas (as indicated by the researchers of this topic):

- 1.11 Physics (**19 researchers**)
- 2.5 Chemistry (**18 researchers**)
- 1.6 Green energy/Digital solutions for energy management (**8 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

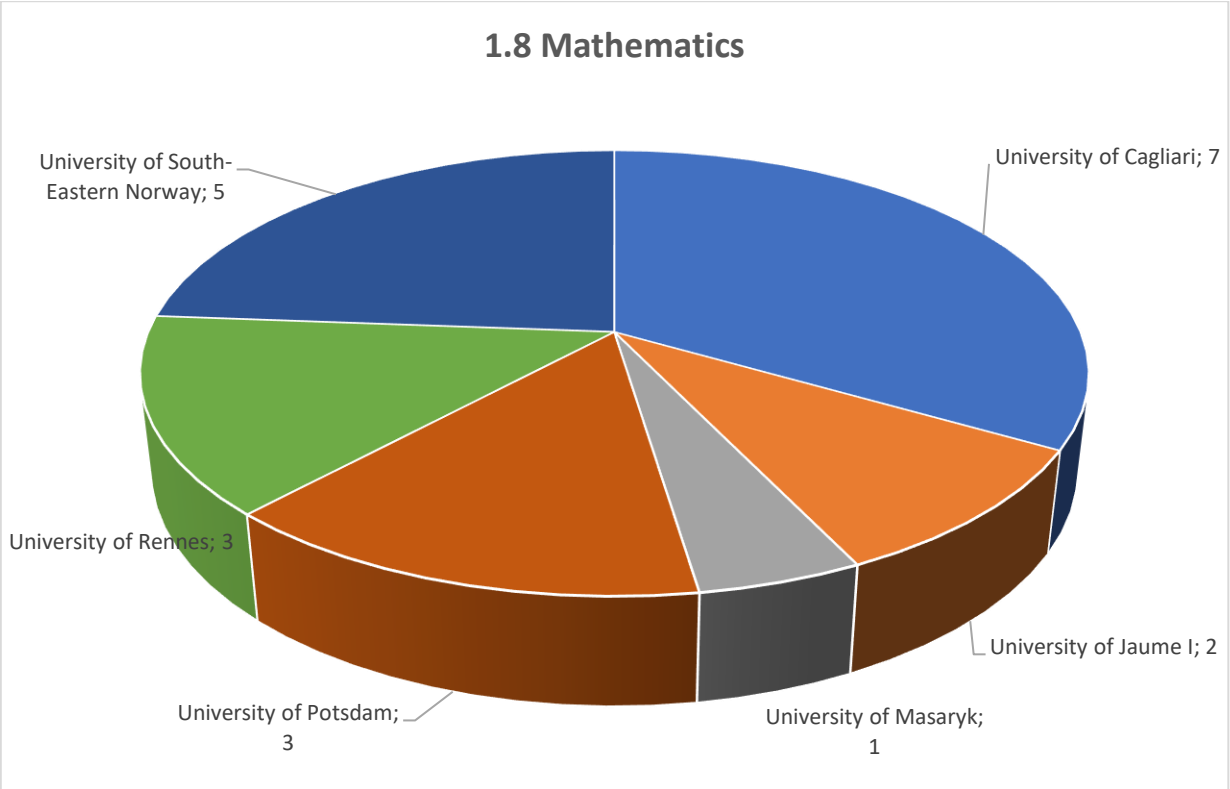
1. Interfacial Phenomena and Fluid Dynamics
2. Sustainable Hydrogen Production
3. Advanced Materials for Microwave Devices and Antennas
4. Electrical Engineering and Electronics
5. Nanostructures for Sensing Applications
6. Fluids in Earth's System
7. Molecular Chemosensors for Environmental Analysis
8. Nanostructured Magnetic Materials
9. Designing Biologically Active Molecules
10. Recycling of Light Alloys
11. Nanomedicine and Drug Delivery
12. Environmentally Friendly Chemical Processes and Materials
13. Semiconductor Dynamics for Sustainable Applications
14. Nanostructured Materials for Pollution Control and Drug Delivery
15. Electrolytes in Chemistry and Biochemistry
16. Catalyst Synthesis and Catalytic Processes
17. Innovative Materials for Advanced Technologies
18. Management and Preservation of Historical Sites and Landscape
19. 3D Printing, Advanced Materials, and Green Chemistry

Topic details:

Fluid dynamics, Interfacial phenomena, Electrochemistry, Hydrogen production, Green energy, Materials science, Microwave engineering, Antenna technology, Electronics, Signal processing, Microwaves, Electromagnetic waves, Embedded systems, Nanotechnology, Materials for electronics, Control engineering, Chemical sensors, Electronic noses, Earth science, Metamorphism, Ore deposits exploration, Supramolecular chemistry, Environmental sensing, Remediation, Nanomaterials, Magnetic materials, Micromagnetic modeling, Organic synthesis, Medicinal chemistry, Pollution analysis, Recycling, Alloy processing, Nanomedicine, Drug delivery, Biopharmaceuticals, Green chemistry, Photoinduced processes, Organocatalysis, Fluorescent probes, Sustainable energy, Photovoltaics, Photocatalysis, Broadband light emission, Polarization-controlled light emission, Pollutant removal, Electrolyte chemistry, Protein stability,

Enzyme catalysis, Catalyst synthesis, Catalytic processes, Adsorption processes, Spintronics, Spin-orbitronics, Spin-caloritronics, Cultural heritage, Historic preservation, Landscape architecture, Climate adaptation, 3D printing.

Topic 1.8 Mathematics



21 Researchers	
R2	4
R3	6
R4	11
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**16**
Cooperations with local ecosystems	**7**
Companies	2
Public/private Institutions	4
NGOs	0
Others	2
External funding for research projects in the last 5 years	**8**
European Programmes	1
National Programme	7
Regional Programmes	2

Role in the Projects	
Lead Beneficiary	**5**
Partner	1

Correlated research areas (as indicated by the researchers of this topic):

- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**6 researchers**)
- 1.11 Physics (**5 researchers**)
- 1.6 Green energy/Digital solutions for energy management (**4 researchers**)
- 2.3 Bioinformatics/Genomics/Data Science (**4 researchers**)

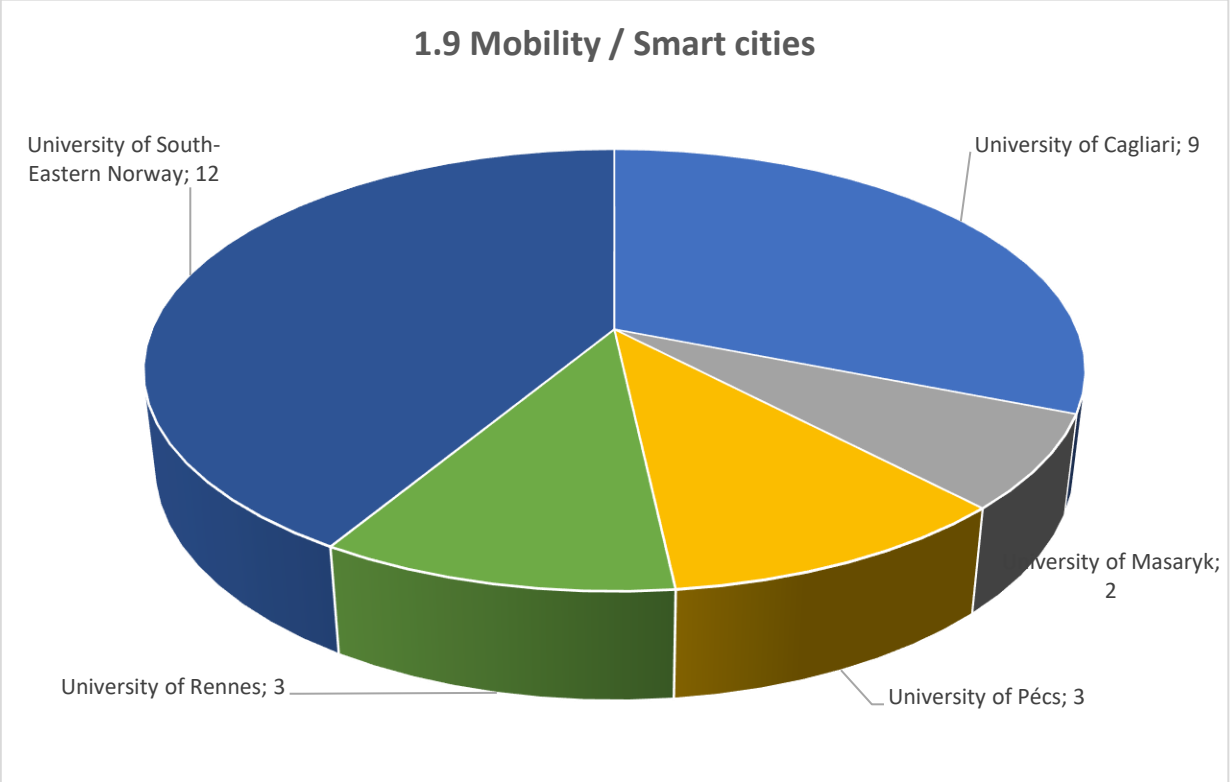
List of emerged sub-topics *(analysis supported by AI)*

1. Numerical methods for plasma physics
2. Applied Mathematics and Mechanics
3. Analysis of partial differential equations with applications to mathematical biology
4. Blockchain technology and distributed ledger technology applied to renewable energy communities
5. Analysis of partial differential equations and harmonic analysis
6. Statistical learning methods in shape analysis, medical imaging, and remote sensing
7. Control engineering, modeling, and design for control systems
8. Computational statistics, data mining, and statistical learning
9. Topological groups, general topology, and functional analysis
10. Inverse problems, data assimilation, and numerical linear algebra
11. Mathematics education
12. Environmental impact of manufacturing technologies in electronics
13. Game studies
14. Marine and offshore structures, renewable energies, wind and wave energy devices, floating solar panels
15. Translation of works in the history and philosophy of mathematics
16. Inverse problems and mathematical analysis
17. Mathematics education and teacher education
18. General relativity
19. Probability theory

Topic details:

Computational physics, Plasma physics, Numerical simulations, Robotics, Probability theory, Infinite dimensional analysis, Mathematical biology, Blockchain technology, Distributed ledger technology, Renewable energy communities, Natural language processing (NLP), Harmonic analysis, Statistical learning, Shape analysis, Medical imaging, Remote sensing, Modeling and simulation, Control system design, Sustainable energy systems, Circular economy, Computational statistics, Data mining, Big data analytics, Topological groups, General topology, Functional analysis, Inverse problems, Data assimilation, Numerical linear algebra, Interdisciplinarity in mathematics teaching, Mathematical modeling and inquiry, Critical mathematics education, Ethical aspects of teaching mathematics, Mathematics teacher educators' development, Sustainable electronics, Printed electronics, Environmental sustainability, Analysis of games, Game theory, Marine engineering, Offshore structures, Renewable energy systems, Wind and wave energy, History of mathematics, Philosophy of mathematics, General relativity, Probability theory.

Topic 1.9 Mobility / Smart cities



29 Researchers	
R2	4
R3	7
R4	18
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**24**
Cooperations with local ecosystems	**23**
Companies	19
Public/private Institutions	20
NGOs	5
Others	1
External funding for research projects in the last 5 years	**22**
European Programmes	8
National Programme	20
Regional Programmes	13
Role in the Projects	
Lead Beneficiary	**11**
Partner	7

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.12 Sustainable Changes: climate and resources (**13 researchers**)
- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**12 researchers**)
- 1.6 Green energy/Digital solutions for energy management (**9 researchers**)

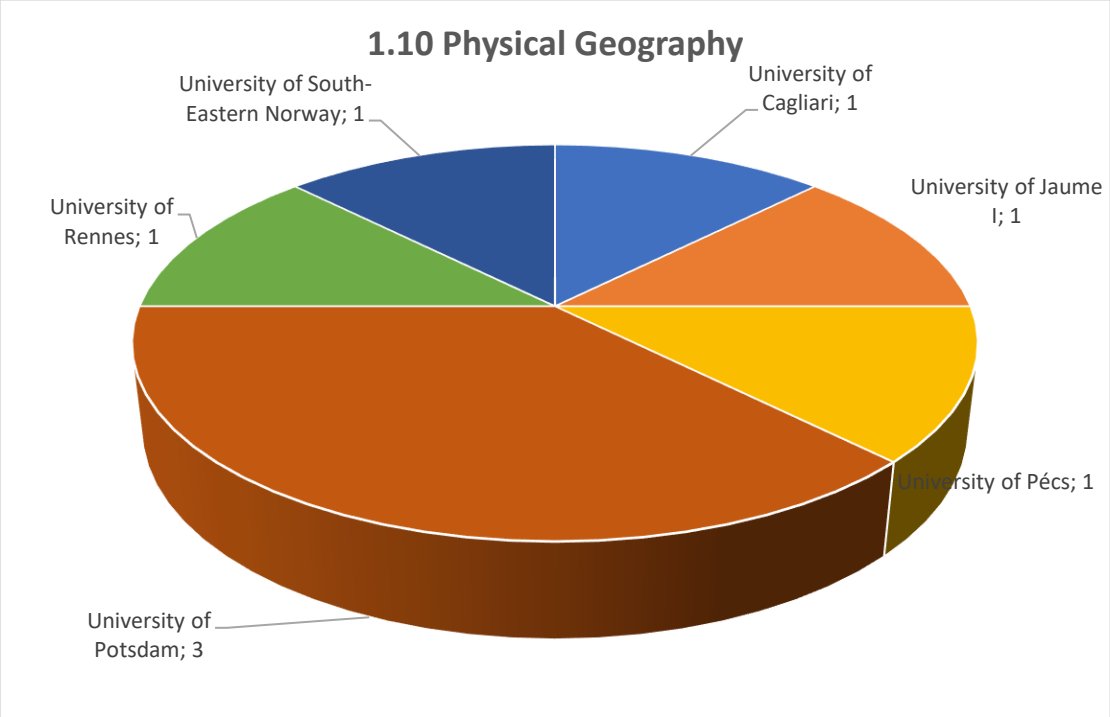
List of emerged sub-topics *(analysis supported by AI)*

1. Social research methods, evaluation, and decision support in sustainable urban mobility policies.
2. Tourism and regional development.
3. Optimization, signal processing, and machine learning for communication systems.
4. Urban design, collective living, and contemporary learning spaces.
5. IoT technologies for transport service monitoring and multimedia quality evaluation.
6. Infection control in buildings and transportation systems.
7. Industrial machine learning, energy efficiency, welfare technology, and modeling.
8. Green energy, smart cities, and sustainability.
9. Quality of Experience (QoE) evaluation in multimedia sessions and sustainable changes.
10. Microwave, antennas, satellite communications, xG.
11. Elections, electoral systems, and electoral behavior.
12. Measurements, monitoring, sensors, and applications in various fields.
13. Instrumentation, smart grid, power quality, urban and regional planning, landscape planning.
14. Maritime domain/industry, operations, and logistics.
15. Entrepreneurship, energy transition, mechanical design, renewable energy technologies, energy management.
16. Regional innovation, technology change, digital servitization, path dependence.
17. Smart systems in the health sector for sustainability.
18. Multidisciplinary infection prevention science.
19. Architectural lighting design, light pollution, healthy aging, universal design, daylighting.

Topic details:

Social research methods, Evaluation and decision support, Sustainable urban mobility, Mimetic theory of behavior, Smart tourism and smart destinations, Tourism geography, Tourism product development, Cross-border tourism, Optimization, Signal processing, Machine learning, Sustainable communication systems, Urban design, Collective living, Contemporary learning spaces, Internet of Things (IoT) technologies, Transport service monitoring, Multimedia service quality evaluation, User experience (UX), Infection control practices, Engineering controls, Building design for infection control, Public health and safety, Industrial machine learning, Energy efficiency improvement, Welfare technology solutions, Modeling and simulation, Green energy, Smart cities, Sustainability, User/citizen involvement, Digital humanities, Quality of Experience (QoE) evaluation, Multimedia sessions, Sustainable mobility, Carbon dioxide footprint reduction, Microwave technology, Antennas, Satellite communications, Next-generation wireless networks (xG), Elections, Electoral systems, Electoral behavior, Exit poll surveys, Local politics, Measurements and monitoring, Sensors, Applications in different fields, Instrumentation and measurement, Smart grid, Power quality, Urban and regional planning, Landscape planning, Maritime domain/industry, Operations and logistics, Entrepreneurship and innovation, Energy transition, Mechanical design and optimization, Renewable energy technologies, Energy management, Techno-economy evaluation, Regional innovation studies, Technology change studies, Digital servitization studies, Path dependence studies, Smart systems, Sustainability in the health sector, Epidemiology and surveillance, Microbiology and immunology, Healthcare-associated infections and antimicrobial resistance, Vaccinology and immunization programs, Personal protective equipment and hygiene practices, Environmental and engineering controls, Health behavior and communication, Health policy and economics, Architectural lighting design, Light pollution, Healthy aging, Universal design, Daylighting.

Topic 1.10 Physical Geography



8 Researchers

R2	2
R3	0
R4	6

Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**4**

Cooperations with local ecosystems	**2**
Companies	1
Public/private Institutions	2
NGOs	1
Others	1

External funding for research projects in the last 5 years	**5**
European Programmes	2
National Programme	3
Regional Programmes	2

Role in the Projects	
Lead Beneficiary	**3**
Partner	2

Correlated research topics/areas (as indicated by the researchers of this topic):

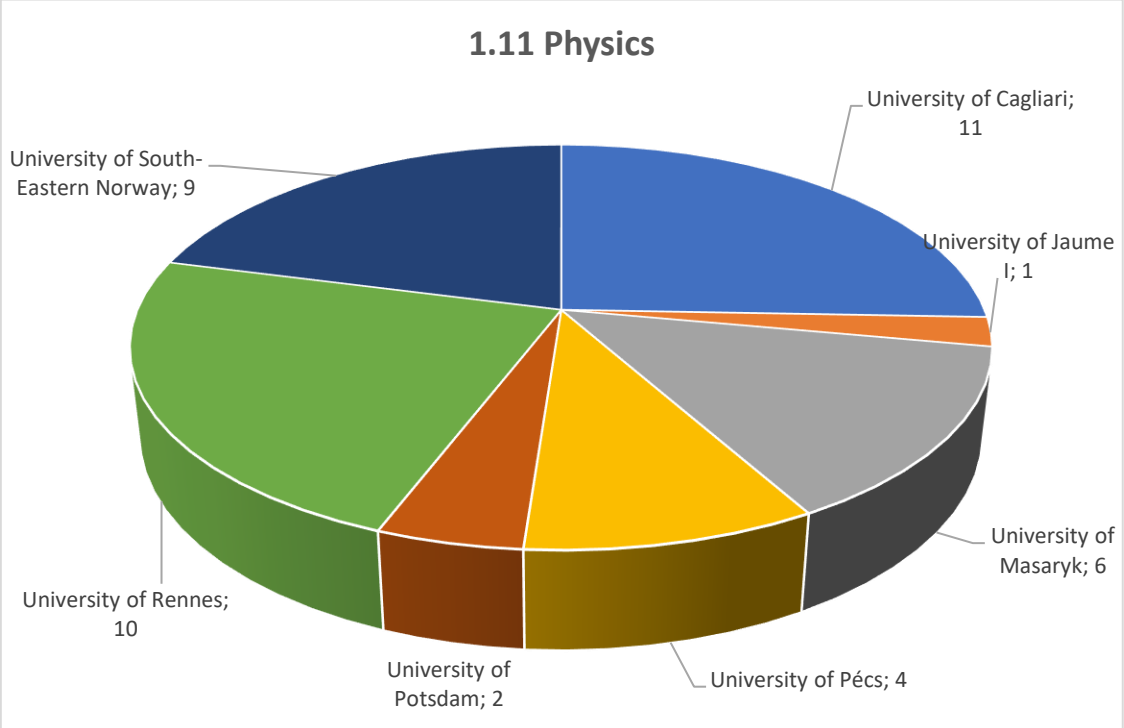
- 1.12 Sustainable Changes: climate and resources (**4 researchers**)

- 1.4 Environmental risks (**3 researchers**)

List of emerged sub-topics *(analysis supported by AI)*
1. Geomorphology, hydrology, sediment transport, river restoration.
2. Climate change, urban effect, geography, GIS, R.
3. Interdisciplinary and multidisciplinary research on the effects of climate change.
4. Remote sensing of polar regions, permafrost landscapes, climate change impacts.
5. Hydrology, regional climate issues, water resources management, environmental sciences.

Topic details:
Geomorphology, hydrology, sediment transport, river restoration, climate change, urban effect, geography, Geographic Information Systems (GIS), R programming language, interdisciplinary research, multidisciplinary research, remote sensing, polar regions, permafrost landscapes, climate change impacts, carbon cycle, environmental pollution risks, natural hazards, water resources availability, environmental sciences.

Topic 1.11 Physics



43 Researchers

R2	8
R3	8
R4	27

Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**33**
Cooperations with local ecosystems	**22**

Companies	12
Public/private Institutions	16
NGOs	1
Others	
External funding for research projects in the last 5 years	**24**
European Programmes	14
National Programme	18
Regional Programmes	12
Role in the Projects	
Lead Beneficiary	**6**
Partner	10

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.7 Materials Science (**19 researchers**)
- 1.6 Green energy/Digital solutions for energy management (**7 researchers**)
- 1.12 Sustainable Changes: climate and resources (**7 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

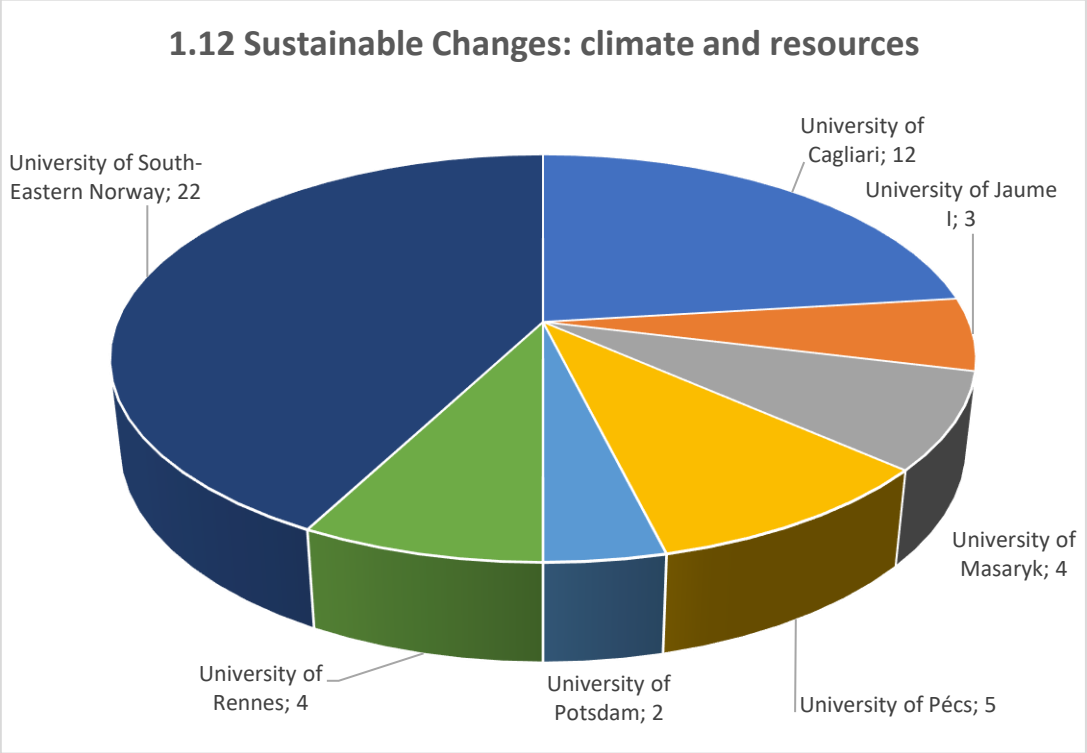
1. Molecular astrophysics
2. Creation, transport, and stability of fluid-fluid interfaces
3. Efficient and low-carbon production of H2 via electrolysis
4. Numerical methods for plasma physics
5. Soft matter, granular media
6. Optoelectronics, photonics for metrology and sensors
7. Microwave electronics, electromagnetic waves, antennas, propagation, and radars
8. Applied Mathematics and Mechanics, Robotics
9. Nanostructured magnetic materials
10. Photonics, Information Technology, Instrumentation
11. Study of charge carriers dynamics in novel semiconductors for sustainability applications
12. Study of innovative materials for spintronic, spin-orbitronic, spin-caloritronic, and photovoltaic technologies
13. Numerical simulation of precipitation formation in clouds
14. Regulation of the actin cytoskeleton
15. Applied fluorescence spectroscopy
16. Theoretical particle physics
17. Experimental particle physics and high-energy nuclear physics
18. Digital holography and diffractive optics
19. Infection control program in public buildings and transportation systems
20. Control engineering and modeling
21. Computational condensed matter/materials physics
22. Theory and phenomenology of high-energy physics and fundamental interactions
23. Microwave technology, antennas, and satellite communications

Topic details:

Quantum dynamics, fluid-fluid interface dynamics, hydrogen production, electrolysis techniques, computational plasma physics, soft matter physics, granular media dynamics, dynamic processes of soft matter in optoelectronics, metrology and sensor applications, microwave electronics, electromagnetic wave

propagation, antenna design and analysis, radar systems, applied mathematics in robotics, mechanics and dynamics in robotics, design and synthesis of nanostructures, structural and magneto-electric characterization, micromagnetic modeling, photonics applications, information technology and photonics, instrumentation techniques, dynamics of charge carriers in semiconductors, sustainability applications in photovoltaics and photocatalysis, broadband light emission and polarization-controlled light emission, theoretical/computational approach to innovative materials, spintronic, spin-orbitronic, and spin-caloritronic materials, materials for photovoltaic applications, cloud physics and precipitation formation, chemical and physical processes in liquid droplets, improvement of numerical weather forecast accuracy, actin cytoskeleton dynamics and regulation, cell-membrane structure analysis using fluorescence spectroscopy, luminescence properties of quantum dots, aflatoxin infection detection using fluorescence spectroscopy, theoretical studies in particle physics, ALICE experiment at CERN-LHC for studying nuclear matter, phase transition from hadronic matter to quark-gluon plasma, development of large-area silicon pixel sensors for particle detection, computational imaging techniques with structured light, single-pixel detection and ghost imaging, biomedical applications of digital holography, infection control hierarchy and strategies, engineering controls and building design for infection control, innovative solutions for infection prevention, control system design and modeling, dynamic and simulation tools for control, circular economy control challenges, control systems for sustainable energy and microgrids, molecular dynamics simulations and electronic structure calculations, predicting physical properties of novel materials, applications in information technology, energy conversion, and biomedical fields, theory and phenomenology of high-energy physics and fundamental interactions, microwave technology.

Topic 1.12 Sustainable Changes: climate and resources



52 Researchers	
R2	12
R3	15
R4	25
Already existing cooperations with EDUC colleagues	**2**
Willingness to start a cooperation with EDUC colleagues	**40**
Cooperations with local ecosystems	**30**
Companies	14
Public/private Institutions	24
NGOs	7
Others	5
External funding for research projects in the last 5 years	**26**
European Programmes	13
National Programme	19
Regional Programmes	9
Role in the Projects	
Lead Beneficiary	**12**
Partner	11

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.6 Green energy/Digital solutions for energy management (**15 researchers**)
- 1.2 Circular economy, resources, recycling (**14 researchers**)
- 1.4 Environmental risks (**13 researchers**)
- 1.9 Mobility / Smart cities (**13 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

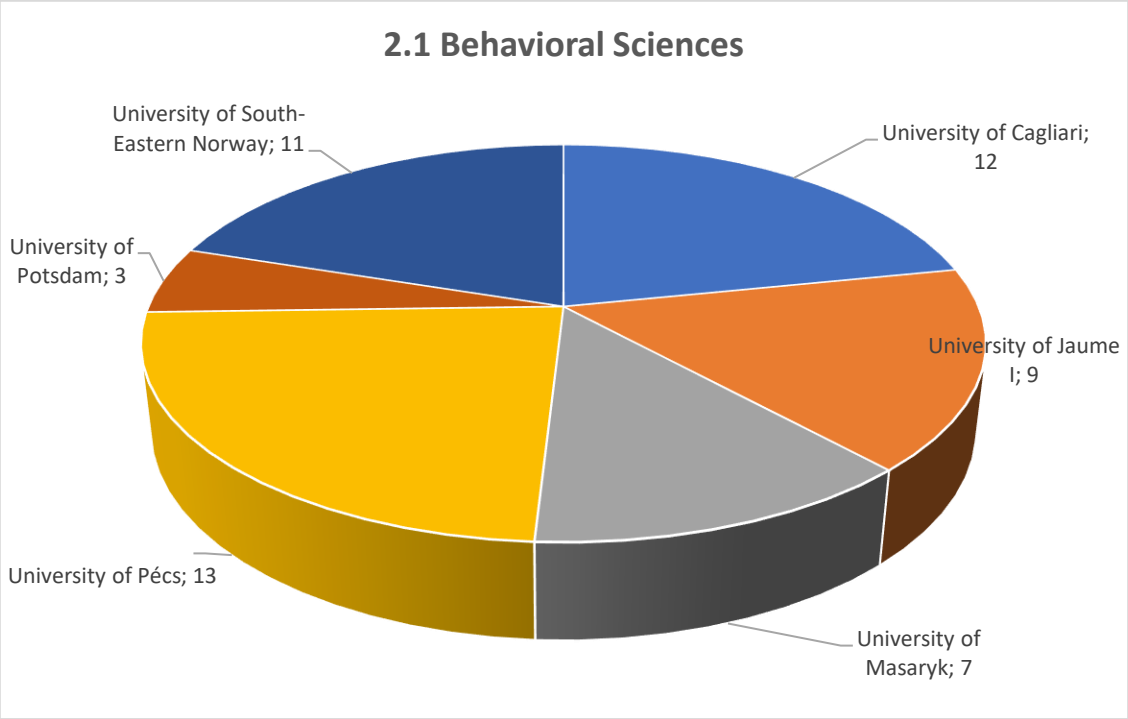
1. Dynamics of Endoreic Ecosystems
2. Fluid-Fluid Interfaces
3. Efficient and Low-carbon H2 Production via Electrolysis
4. Electrical Engineering
5. Plant Adaptation to Rapid Climate Change
6. Jet Engines Aerodynamics
7. Sustainable Management of Natural Resources
8. Marine Geomorphology
9. Management of Historical Cities
10. Climate, Urban Effect, Geography, GIS, R
11. 3D Printing
12. Infection Control in Various Settings
13. Chemometrics
14. Equestrian Tourism/Events and Equestrian Heritage
15. Green Energy, Smart Cities, and Sustainability
16. Quality of Experience (QoE) in Multimedia Sessions

Topic details:

Hydrology, Earth sciences, Geodesy, Remote sensing, Vegetation development, Creation, transport, and stability of fluid-fluid interfaces, Efficient and low-carbon H2 production via electrolysis, Electronics, Signal processing, Microwaves, Electromagnetic waves, Propagation and radars, Embedded systems, Embedded electronics, Micro/nanotechnologies & materials for electronics, Control engineering, Endemic subantarctic plants, Cold buffered climate in islands in a cold ocean, Long-term evolution in the southern hemisphere around Antarctica, Plant as a holobiont with its microorganism communities, Plant variability across local climatic gradients, Study at multiple biological levels: plant phenotype, metabolome, transcriptome, microbiome, Evolutionary histories of endemic plant species in the subantarctic Kerguelen province, Impact of human practices and behavior on natural ecosystems, Multidisciplinary topic involving multiple partners with different expertise, Vernacular architecture, Historical materials and landscape, Adaptation to climate and user requirements, GIS, R, Cultural theory and applied communication studies, Linguistics (theoretical, computational, and cognitive linguistics), Developmental aspects of pragmatic competence, Cognitive linguistics, Social cognition and idiomaticity in language acquisition, Experimental pragmatics, Neurolinguistics, Cognitive science and psycholinguistics, Advanced materials, Decarbonization, Hydrogen generation/storage, Digitalization, Continuous-flow synthesis, Green chemistry, Administrative, engineering, and personal protective equipment (PPE) controls, Building design for infection control in different settings, Development of efficient infection control practices, Impact on public health and safety, CO2 capture technologies, Multivariate data analysis, Process online monitoring and fault detection, Social sustainability of tourism, Sustainable supply chain management, Social sustainability of aquaculture, Rural business ecosystems, User/citizen involvement in smart city initiatives, User adoption/user acceptance of smart energy solutions, Development of decision support systems for sustainable forest management, Digital humanities and political communication, Evaluation of QoE during different multimedia sessions, Application of QoE to sustainable mobility, Reducing carbon dioxide footprint of video streaming.

4. Micro data analysis Panel 2 – Life Sciences

Topic 2.1 Behavioral Sciences



55 Researchers	
R2	15
R3	16
R4	24
Already existing cooperations with EDUC colleagues	**6**
Willingness to start a cooperation with EDUC colleagues	**40**
Cooperations with local ecosystems	**25**
Companies	8
Public/private Institutions	18
NGOs	6
Others	3
External funding for research projects in the last 5 years	**30**
European Programmes	13
National Programme	23
Regional Programmes	10
Role in the Projects	
Lead Beneficiary	**21**
Partner	5

Correlated research topics/areas (as indicated by the researchers of this topic):

- 3.8 Psychology (**27 researchers**)
- 2.7 Lifelong Health and Wellbeing (including Digital health) (**13 researchers**)
- 3.4 Digital humanities and digital competence in education (**11 researchers**)

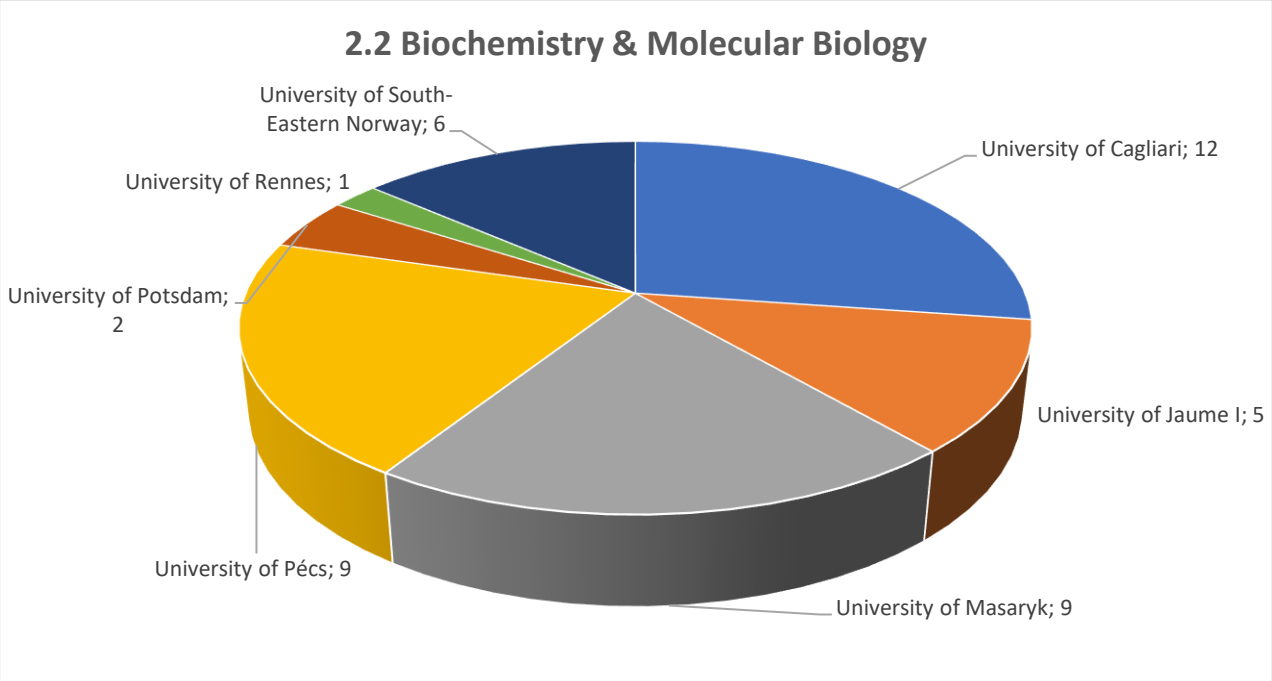
List of emerged sub-topics *(analysis supported by AI)*

1. Occupational health and well-being in the workplace: Occupational health, Job burnout, Work-related stress
2. Psychological and educational well-being: Individual well-being, Psychological area, Educational area
3. Biological factors in neuropsychiatric disorders: Neuropsychiatric disorders, Biological underpinnings
4. Digital health and psychology research: Digital health, Experimental psychology
5. Behavioral economics and social norms: Behavioral economics, Experimental economics, Social norms, Social capital, Other-regarding preferences
6. Neuroscience, stress regulation, and mental disorders: Neuroscience, Stress regulation, Posttraumatic stress disorder, Alzheimer's disorder, Autism, In vivo behavioral pharmacology
7. Physiology, psychology, and body measurements: Physiology, Psychology, Anthropometry
8. Neuroscience, neuroanatomy, and behavior: Neuroscience, Neuroanatomy, Behavior and emotion
9. Social behavior, mental health, and brain plasticity: Social behavior, Mental health, Neuropeptides, Plasticity
10. Cultural and social sciences, and linguistic research: Cultural and social sciences, Linguistic research, Pragmatic competence, Cognitive linguistics, Social cognition, Idiomaticity in language acquisition
11. Inflammation and neurological disorders: Inflammation, Neurological disorders, Neuropsychiatric disorders
12. Circular economy and plastic waste management: Circular economy, Plastic degradation
13. Personality, psychopathology, and assessment: Personality, Psychopathology, Assessment
14. Neurobiological mechanisms of addiction and the role of the cerebellum: Addiction, Neurobiological mechanisms, Cerebellum
15. Noradrenergic system and memory formation: Noradrenergic system, Drug-induced memories
16. Risk stratification, stress research, and therapy programs: Risk stratification, Stress research, Therapy programs

Topic details:

Occupational health, Job burnout, Work-related stress, Individual well-being, Psychological area, Educational area, Neuropsychiatric disorders, Biological underpinnings, Digital health, Experimental psychology, Behavioral economics, Experimental economics, Social norms, Social capital, Other-regarding preferences, Neuroscience, Stress regulation, Posttraumatic stress disorder, Alzheimer's disorder, Autism, In vivo behavioral pharmacology, Physiology, Psychology, Anthropometry, Neuroanatomy, Behavior and emotion, Social behavior, Mental health, Neuropeptides, Plasticity, Cultural and social sciences, Linguistic research, Pragmatic competence, Cognitive linguistics, Social cognition, Idiomaticity in language acquisition, Inflammation, Neurological disorders, Circular economy, Plastic degradation, Personality, Psychopathology, Assessment, Addiction, Neurobiological mechanisms, Cerebellum, Noradrenergic system, Drug-induced memories, Risk stratification, Therapy programs, Elections, Electoral systems, Electoral behavior, Cybersecurity, Social cybersecurity, Governance in cyberspace, Interdisciplinary cooperation, Health sciences, Motivated behaviors, Neurobiological correlates, Psychobiological correlates, Behavioral ecology, Evolutionary biology, Systematic zoology, Inclusion, Participation, Disability, Telemedicine, Nutritional behavior, Environmental psychology, Social psychology, Neurotoxic effects, Neuroinflammatory effects, Drug-induced effects, Mammalian ecology, Host-pathogen relationship, Educational sciences, Pedagogy, Play-based learning.

Topic 2.2 Biochemistry & Molecular Biology



44 Researchers	
R2	**14**
R3	**5**
R4	**25**
Already existing cooperations with EDUC colleagues	**4**
Willingness to start a cooperation with EDUC colleagues	**35**
Cooperations with local ecosystems	**21**
Companies	11
Public/private Institutions	17
NGOs	1
Others	1
External funding for research projects in the last 5 years	**26**
European Programmes	10
National Programme	22
Regional Programmes	12
Role in the Projects	
Lead Beneficiary	**14**
Partner	4

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.3 Bioinformatics/Genomics/Data Science (**7 researchers**)
- 2.1 Behavioral Sciences (**6 researchers**)
- 2.4 Biotechnology & Applied Microbiology (**6 researchers**)
- 2.7 Lifelong Health and Wellbeing (including Digital health) (**6 researchers**)

- 2.8 Medical Sciences (Emergency Medicine; Surgery; Oncology; Rheumatology; others) (**6 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

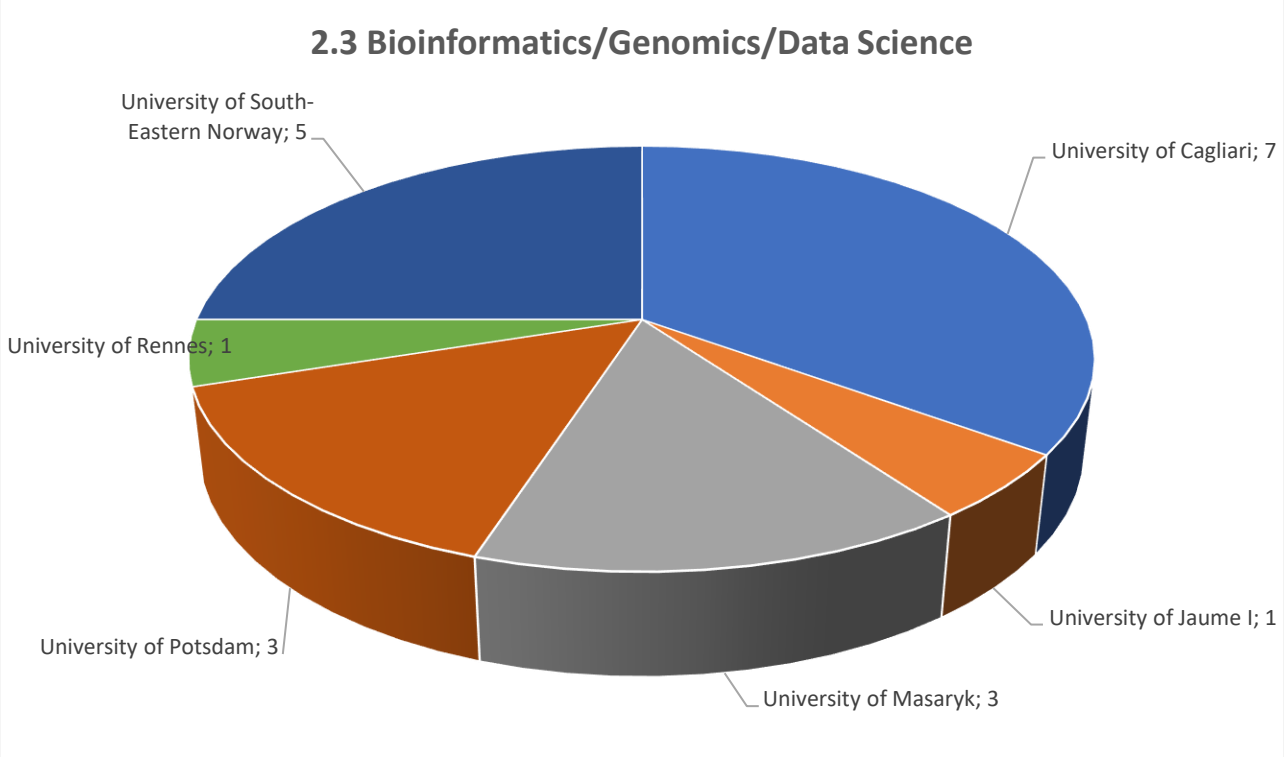
1. Evolutionary Biology
2. Chemical Biology
3. Metabolomics
4. Biophysics
5. Proteomics
6. Molecular Genetics
7. Mathematical Biology
8. Medical Genetics
9. Molecular Pathology
10. Neuroscience
11. Cell Biology
12. Immunology
13. Cell Death and Biomedical Research
14. Retinal Neuroscience
15. Mental Health and Neuroscience
16. Genetic Engineering and Microbiology
17. Plant Biology
18. Circular Economy and Enzyme Development
19. Microbial Ecology
20. Infection Control and Public Health
21. Biotechnological Tools for Agricultural Pest Control
22. Structural Biology
23. Biomarkers and Heart Disease Monitoring

Topic details:

Evolutionary genomics, Biodiversity, Design and synthesis of new molecules with biological activity, Extraction and analysis of pollutants from contaminated water and soil, Application of metabolomics to medical sciences and food sciences, Permeability of lipid membranes and protein channels to drugs, Structure-to-function relationship of bioactive peptides, Adsorption processes at the gas-solid interface and in the liquid-state, Mass spectrometry analysis of proteins, Immunogenetics, Complex genetic diseases, Genomics, Long-read sequencing, Analysis of partial differential equations with direct applications to mathematical biology, Medical genetics, Molecular, morphological, and immunohistochemical analyses applied to the study of the microenvironment and cytotypes involved in tumor progression and neurodegenerative diseases, Stress regulation, Posttraumatic stress disorder (PTSD), Alzheimer's disorder, Autism, In vivo behavioral pharmacology studies, Brain and neuroendocrine system research, Regulation of the actin cytoskeleton, Basic, applied, and clinical research in immunology, Regulation of the immune system, Tolerance and autoimmunity, Immunodiagnostics, Autoimmunity in pregnancy and infertility, Mechanisms of cell death, Biomedical research, Understanding the retinal neuronal hyper-network, Role of electrical synapses in visual information processing, Gap junction forming connexin proteins in the retina, Ganglion cell population activity and visual pattern encoding, Mental health, Stress, Aggressivity, Depression, Neuropeptides, Interneurons, Amygdala, Social behavior, Plasticity, Childhood neglect, Postpartum depression, Creating model organisms for preclinical drug testing, Microbiology in pharmacological research, Plant tolerance to environmental stress, Plant hormones, New biotechnological materials, Plant genetics, Plant development, Plant epigenetics, Developing enzymes for degrading plastic and plastic in clothes, Microbial ecology, Infection control program, Administrative, engineering, and personal protective equipment (PPE) controls, Building design for infection control, Infection control in healthcare settings, public buildings, and transportation systems,

Biotechnological tools for biological control of agricultural pests, Trophic interactions and population dynamics, Molecular taxonomy for detecting invasive species, Plant-arthropod-microbiome interactions, Cryo-electron microscopy, Carbon dioxide fixation, Rare diseases, Monitoring heart muscle damage, dysfunction, and other.

Topic 2.3 Bioinformatics/Genomics/Data Science



20 Researchers	
R2	4
R3	5
R4	11
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**17**
Cooperations with local ecosystems	**11**
Companies	6
Public/private Institutions	10
NGOs	0
Others	0
External funding for research projects in the last 5 years	**10**
European Programmes	4
National Programme	8
Regional Programmes	4

Role in the Projects	
Lead Beneficiary	7
Partner	1

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.3 Bioinformatics/Genomics/Data Science (**7 researchers**)
- 2.1 Behavioral Sciences (**6 researchers**)
- 2.4 Biotechnology & Applied Microbiology (**6 researchers**)
- 2.7 Lifelong Health and Wellbeing (including Digital health) (**6 researchers**)
- 2.8 Medical Sciences (Emergency Medicine; Surgery; Oncology; Rheumatology; others) (**6 researchers**)

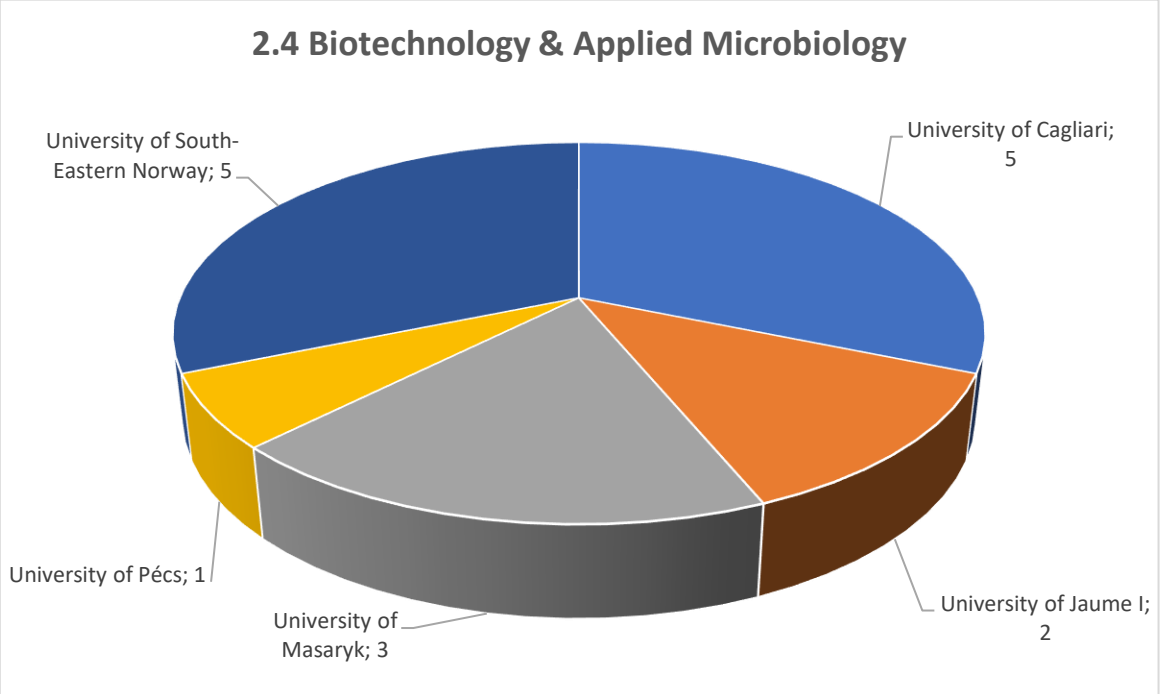
List of emerged sub-topics *(analysis supported by AI)*

1. Evolutionary Biology
2. Molecular Biology and Biomedical Research
3. Blockchain Technology and Distributed Ledger Technology
4. Neuroscience
5. Circular Economy
6. Infection Control and Public Health
7. Chemometrics and CO_2 Capture
8. Computational Statistics and Data Analysis
9. Artificial Intelligence and Machine Learning
10. Applied Mathematics
11. Metabolism and Mitochondrial Dysfunction
12. Computational Neuroscience and Neural Networks
13. Chromosome and Genome Evolution
14. Metabarcoding and Metagenomics
15. Autonomous Systems

Topic details:

Evolutionary genomics, Biodiversity, Molecular, morphological, and immunohistochemical analyses in tumor progression and neurodegenerative diseases, Renewable energy communities, NLP models for blockchain analysis, Interoperability between blockchain and agnostic protocols, Inflammation underlying neurological and neuropsychiatric disorders, Developing enzymes for degrading plastic and plastic in clothes, Administrative, engineering, and personal protective equipment (PPE) controls, Building design for infection control, Infection control in public buildings and transportation systems, Multivariate data analysis, CO2 capture technologies, Spectroscopy (IR, NIR, Raman), Data mining, pattern recognition, statistical learning, and big data, Quality of statistical data, data editing, missing data imputation, and data validation, Causal inference, Computational finance, Statistics for health policy, pharmacoeconomics, and biostatistics, Diagnostics and control of thermonuclear fusion and energy systems management, Risk factor evaluation for Multiple Sclerosis and contraction infection during a pandemic in medical fields, Inverse problems, data assimilation, numerical linear algebra, Evolutionary biology and systematic zoology, Translation of works in the history and philosophy of mathematics, Plant epigenetics, telomere biology, Comparative plant genomics and cytogenomics, Metabolic and mitochondrial dysfunction in disease models, Regulation of physiological and metabolic function in skeletal muscle and whole body during exercise, Alterations of energy expenditure and body weight regulation, Computational methods in medicine and biology, Machine learning, Monte Carlo simulation methods, Evolution of chromosomes, genomes, and ecological consequences, Metabarcoding and metagenomics in soil and health.

Topic 2.4 Biotechnology & Applied Microbiology



16 Researchers	
R2	1
R3	7
R4	8
Already existing cooperations with EDUC colleagues	**0**
Willingness to start a cooperation with EDUC colleagues	**16**
Cooperations with local ecosystems	**14**
Companies	10
Public/private Institutions	10
NGOs	1
Others	0
External funding for research projects in the last 5 years	**9**
European Programmes	5
National Programme	7
Regional Programmes	5
Role in the Projects	
Lead Beneficiary	**5**
Partner	1

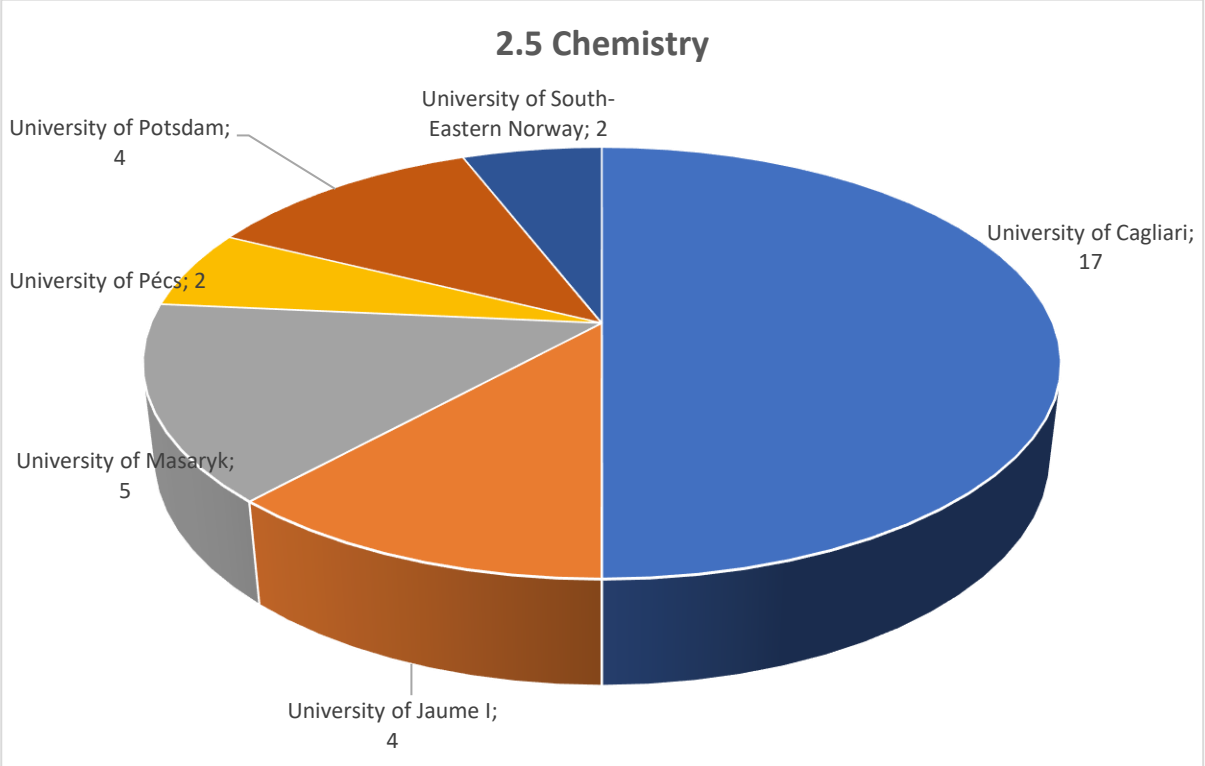
Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.2 Biochemistry & Molecular Biology (6 researchers)
- 1.4 Environmental risks (5 researchers)

List of emerged sub-topics *(analysis supported by AI)*
1. Antiviral Research
2. Immunology and Autoimmunity
3. Plant Biology and Biotechnology
4. Infection Control and Public Health
5. Circular Bioeconomy
6. Geomicrobiology and Microbial Corrosion
7. Biogas Production and Anaerobic Stabilization
8. Metabolic Engineering and Synthetic Biology
9. Metabarcoding and Metagenomics
10. Tick-borne Diseases
11. Infection Prevention as a Science
12. Water/Wastewater Treatment and Resource Recovery
13. Bioelectronics and Medical Devices
14. Microbial Virulence and Alternative Antimicrobial Therapies

Topic details:
Target viruses: RNA viruses EBOV/Coronavirus/Flavivirus; Retroviruses HIV, Deep cooperation with Drug Design and Synthesis and Pharmaceutical Technologies and Structural Biologists, Regulation of the immune system, Tolerance and autoimmunity, Immunodiagnostic laboratory, Immunophenotyping, Autoimmunity in pregnancy and infertility, Plant tolerance to environmental stress, Plant hormones, New biotechnological materials, Infection control program, Administrative, engineering, and personal protective equipment (PPE) controls, Building design for infection control, Valorization of biowaste through integrated biochemical processes, Process schemes for waste-biorefinery focusing on dark fermentation, Valorization of residues and recovery of materials, Geomicrobiology of underground gas storages, Microbially induced anaerobic corrosion, Reduction of methane emissions in ruminants using plant food additives, Biogas production from biowaste, Anaerobic stabilization of sewage sludge, Biological methanization and microbial corrosion, Microbial biotechnology, Systems biology, Bioinformatics, Molecular biology, Metabarcoding and metagenomics in soil and health, Ticks and tick-borne diseases, Epidemiology and surveillance, Microbiology and immunology, Healthcare-associated infections (HAIs) and antimicrobial resistance (AMR), Vaccinology and immunization programs, Personal protective equipment (PPE) and hygiene practices, Environmental and engineering controls, Health behavior and communication, Health policy and economics, Innovative biological/bioelectrochemical processes for water/wastewater treatment, Resource recovery from sediments and metallurgical waste, Bioelectronics, Medical devices, Implantable microsystems, Microbial virulence, Antimicrobial properties of alternative drugs, Antimicrobial photodynamic therapy.

Topic 2.5 Chemistry



34 Researchers	
R2	6
R3	6
R4	22
Already existing cooperations with EDUC colleagues	**4**
Willingness to start a cooperation with EDUC colleagues	**24**
Cooperations with local ecosystems	13
Companies	6
Public/private Institutions	10
NGOs	2
Others	1
External funding for research projects in the last 5 years	**20**
European Programmes	3
National Programme	12
Regional Programmes	14
Role in the Projects	
Lead Beneficiary	**12**
Partner	6

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.7 Materials Science (**18 researchers**)
- 1.4 Environmental risks (**7 researchers**)
- 1.2 Circular economy, resources, recycling (**6 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

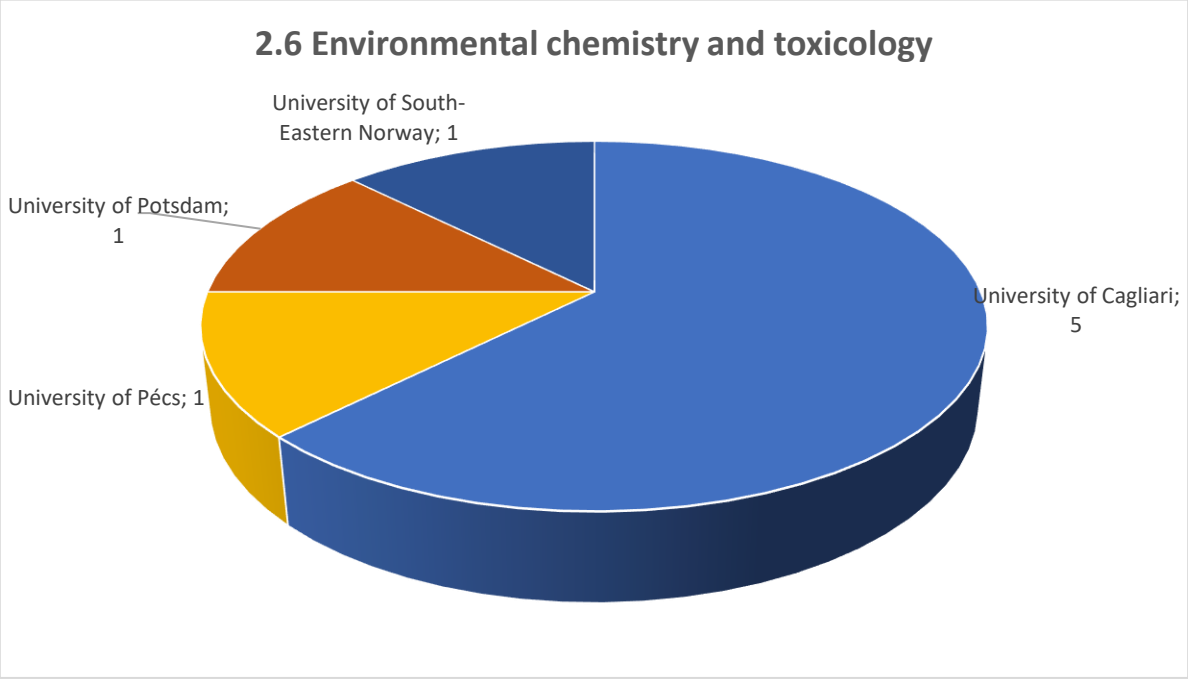
1. Organic Chemistry and Synthesis
2. Analytical Chemistry
3. Supramolecular Chemistry
4. Medicinal Chemistry and Drug Discovery
5. Nanoscience and Nanotechnology
6. Environmental Chemistry and Remediation
7. Materials Science and Engineering
8. Metabolomics and Omics Sciences
9. Physical Chemistry and Catalysis
10. Green Chemistry and Sustainable Processes
11. Quantum Chemistry and Spectroscopy
12. Circular Economy and Bioactive Compounds
13. Energy Production and Storage
14. Chemometrics and Multivariate Data Analysis
15. Industrial Chemistry
16. Carotenoids

Topic details:

Organic chemistry, synthesis, Design and Synthesis of new molecules with biological activity, Metabolomic analysis by GC-MS, Bioanalytical Chemistry, Qualitative and quantitative analysis using capillary electrophoresis (CE), Determination of compounds in pharmaceuticals or biological fluids using HPLC, Design, synthesis, and characterization of molecular chemosensors, Design of novel supramolecular architectures and materials based on non-covalent interactions, Supramolecular gels as smart materials, Design and synthesis of biologically active compounds, Drug discovery, Development and investigation of novel agonist/antagonists at opioid receptors, Antitumor, analgesic, antimicrobial agents, Enzyme inhibitors, HIV drug discovery, Antiparasitic and ATPase active agents, Nanostructure-based chemiresistors and electronic noses, Development and use of nanostructured materials, Nanomedicine, drug formulation, drug delivery, drug targeting, Development of supramolecular materials for sensing and remediation of pollutants, Removal of pollutants from the environment, Chemical recycling of CO_2, Wastewater treatment, water remediation, Use of by-products as secondary raw materials, Synthesis, functionalization, and characterization of nanostructured materials, Polymer chemistry and engineering, Development of materials for 3D printing, Development of high-efficiency fluorescent probes, Development of photoinduced processes and organocatalytic processes, Metabolomics applied to medical sciences and food sciences, Multidisciplinary synergies with other "omics" sciences, Permeability of lipid membranes and protein channels to drugs, Structure-to-function relationship of bioactive peptides, Adsorption processes at the gas-solid interface and in the liquid-state, Synthesis and characterization of micro and mesoporous nanostructured solids as catalysts and sorbents, Heterogeneous catalytic processes, Selective/reactive adsorption processes, Synthesis of new chemical processes with low environmental impact, Sustainable processes in industrial chemistry, Green chemistry and CO_2 capture technologies, Quantum chemical studies of reaction mechanisms, Development of chemical concepts of NMR spectroscopy, Paramagnetic NMR spectroscopy, Relativistic effects in chemistry, DFT calculations, Supramolecular interactions, Supramolecular metal complexes, Host-guest chemistry, Metallodrugs, Circular economy related to the recycle of agro-food industries by-products, Extraction and analysis of pollutants from contaminated water and soil, Search for new bioactive compounds,

Decarbonization, Energy production and storage, Green hydrogen production and storage, Chemometrics, Multivariate data analysis, Process online monitoring and fault detection, Spectroscopy analysis (IR, NIR, Raman), Industrial Chemistry with a focus on sustainable processes, Study of microporous and mesoporous catalysts, Study of heterogeneous catalytic processes, Study of selective/reactive adsorption processes, Chemistry of natural products, Carotenoids.

Topic 2.6 Environmental chemistry and toxicology



8 Researchers	
R2	**3**
R3	**2**
R4	**3**
Already existing cooperations with EDUC colleagues	**0**
Willingness to start a cooperation with EDUC colleagues	**8**
Cooperations with local ecosystems	**3**
Companies	3
Public/private Institutions	3
NGOs	0
Others	0
External funding for research projects in the last 5 years	**5**
European Programmes	1
National Programme	4
Regional Programmes	1
Role in the Projects	
Lead Beneficiary	**2**
Partner	2

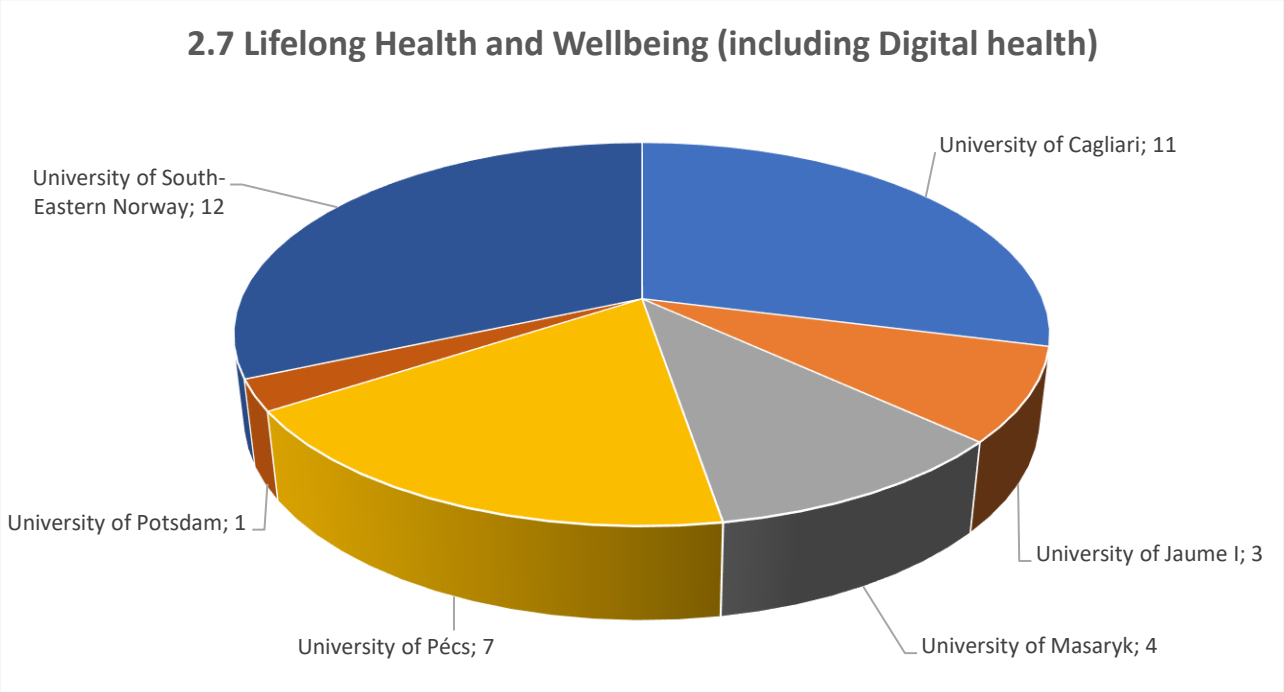
Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.4 Environmental risks (**5 researchers**)
- 2.5 Chemistry (**3 researchers**)

List of emerged sub-topics *(analysis supported by AI)*
1. Medicinal Chemistry and Bioactivity
2. Environmental Analysis and Remediation
3. Neuropsychiatric Disorders
4. Chemometrics and Data Analysis
5. CO2 Capture Technologies
6. Materials for Environment
7. Materials for Energy
8. Metabolomics and Lipidomics
9. Mycotoxins

Topic details:
Design and synthesis of new molecules with biological activity, Extraction and analysis of pollutants from contaminated water and soil, Soil science, Soil remediation, Application of integrated biochemical processes for biowaste valorization, Study and understanding of the biological underpinnings of the development of neuropsychiatric disorders, Chemometrics, Multivariate data analysis, Process online monitoring and fault detection, CO_2 capture technologies, Wastewater treatment, Micropollutants, Water remediation, Porous materials, Ionic liquids, Ionic liquids and liquid crystals, Metal-containing ionic liquids, Ion transport, Membranes, Metabolomics and lipidomics research, Molecular interactions of mycotoxins, Metabolites of mycotoxins, Combined effects of mycotoxins, Binders for mycotoxins, Removal of mycotoxins.

Topic 2.7 Lifelong Health and Wellbeing (including Digital health)



38 Researchers

R2	11
R3	8
R4	19

Already existing cooperations with EDUC colleagues	**2**
Willingness to start a cooperation with EDUC colleagues	**35**
Cooperations with local ecosystems	**21**
Companies	12
Public/private Institutions	19
NGOs	6
Others	1
External funding for research projects in the last 5 years	**22**
European Programmes	9
National Programme	18
Regional Programmes	6
Role in the Projects	
Lead Beneficiary	**12**
Partner	3

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.1 Behavioral Sciences (**13 researchers**)
- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**6 researchers**)

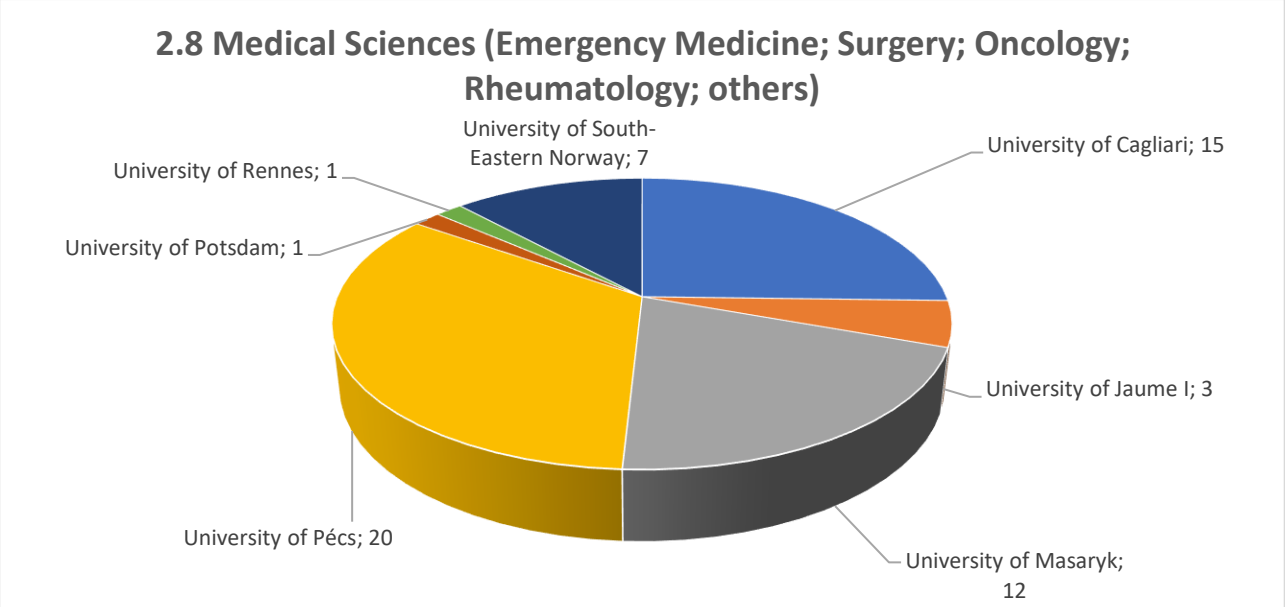
List of emerged sub-topics *(analysis supported by AI)*

1. Occupational Health and Well-being
2. Digital Health and Psychology
3. Biomedical Engineering and Medical Devices
4. Molecular Analysis and Disease Research
5. Physiology, Psychology, and Anthropometry
6. Immunology and Autoimmune Diseases
7. Physical Activity and Health-related Behaviors
8. Biomechanics and Rehabilitation
9. Infection Control and Prevention
10. Environmental Health and Forestry
11. Risk Stratification and Prevention Programs
12. Regenerative Medicine and Biomedicine
13. Aging and Well-being
14. Nutrition
15. Clinical Psychology and Disability
16. Electronics and Manufacturing Technologies
17. Assistive Technology and Quality of Life
18. Educational and Outdoor Research
19. Medicinal Sciences and Cardiology
20. Neurodevelopmental Disorders and Inclusive Education
21. Child Welfare and Social Work
22. Architectural Lighting Design
23. Digital Transformation and Social Inequalities
24. Metabolomics and Lipidomics Research
25. Faculty Development and Medical Education
26. Bioethics and Environmental Ethics

27. Cardiac Rehabilitation and Cardiology
28. Task-Shifting and Health Communication
29. Social Attitudes and Health Education
30. Personal Health Interfaces and Business Economics
31. Vision Science

Topic details:
Job burnout, Work-related stress, Promotion of individual well-being, Psychological and educational areas, Assessment tools development, Experimental psychology, Diagnosis and monitoring tools, Hardware and software development, Digital phenotyping, Tumor progression, Neurodegenerative diseases, Microenvironment analysis, Cytotype analysis, Physiology, Anthropometry, Immunology, Immundiagnostic laboratory, Autoimmunity in pregnancy and infertility, Autoimmunity in systemic and organ-specific autoimmune diseases, Effects of physical activity, Health-related behaviors in children and adolescents, Biomechanics, Ergonomics, Exoskeletons, Design for rehabilitation, Stroke patients and rehabilitation pathways, Infection control in healthcare and public settings, Building design for infection control, Engineering controls and administrative controls, Diagnostic tools for infection prevention, Effects of green areas on health, Volatile organic compounds and essential oils, Environmental impact measurement, Forestry involvement, Development of risk-stratification instruments, Evidence-based prevention and therapy programs, Stress research and adaptation, Treatment strategies for chronic diseases, Stem and progenitor cells in biomedicine, Biomaterials in biomedicine, Ageing and later-life well-being, Sexuality, Technology use, Nutrition research, Inclusion and participation promotion, Telemedicine and digital health equity, Clinical psychology of aging, Neurocognitive disorders, Sustainable electronics, Environmental impact of manufacturing technologies, Assistive technology, Technology for learning environments, Piloting experiences, Technology for quality of life and well-being, Educational research, Outdoor research, Angiology, Cardiovascular risk factors, Deep venous thrombosis, Post-thrombotic syndrome, Inclusive education, Inclusive life trajectories, Child welfare, Effects of stress and anxiety on decision making, Vaccine hesitancy, Pro-environmental consumer behavior, Consumer privacy, Light pollution, Lighting for tunnels, Lighting for the elderly, Lighting for partially sighted persons, Daylighting and circadian rhythms, Digital transformation of societies and institutions, Digital inequalities, Social capital and digital profiling, Faculty development, Medical education, Bioethics, Environmental ethics, Cardiac rehabilitation, Task-shifting, Health communication, Eye, vision, and health, Promotion of student attitudes in sexual health, LGBTQIA, and violence prevention, Personal health interfaces leveraging human-machine interactions, Business economics and robotics, Market implementation and business development, AI-supported human-machine interfaces, Vision science research.

Topic 2.8 Medical Sciences (Emergency Medicine; Surgery; Oncology; Rheumatology; others)



59 Researchers	
R2	**14**
R3	**17**
R4	**28**
Already existing cooperations with EDUC colleagues	**4**
Willingness to start a cooperation with EDUC colleagues	**50**
Cooperations with local ecosystems	**26**
Companies	15
Public/private Institutions	18
NGOs	3
Others	2
External funding for research projects in the last 5 years	**34**
European Programmes	12
National Programme	24
Regional Programmes	13
Role in the Projects	
Lead Beneficiary	**15**
Partner	13

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.7 Lifelong Health and Wellbeing (including Digital health) (**11 researchers**)
- 2.9 Physiology & Sport Science (**9 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

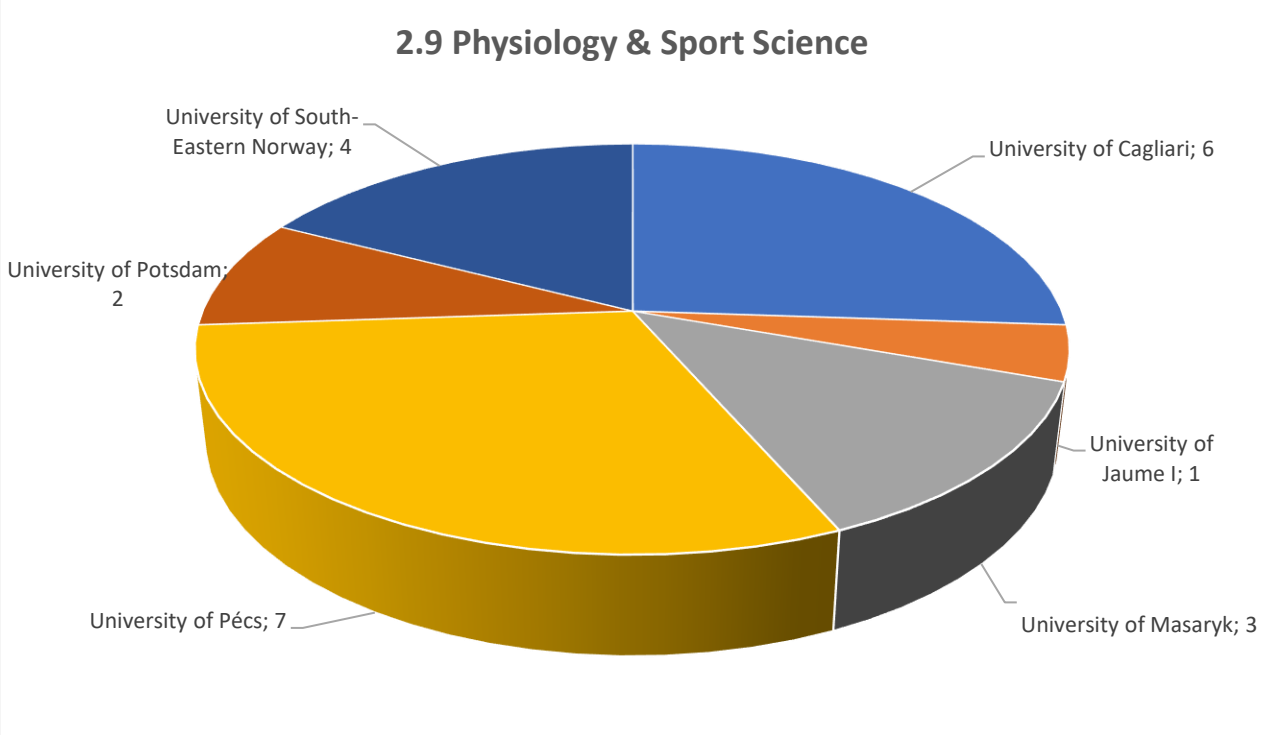
1. Medical Imaging
2. Surgery
3. Oncology
4. Molecular and Cellular Research
5. Immunology and Autoimmunity
6. Orthodontics
7. Infection Control, Epidemiology
8. Environmental Health
9. Periodontal Health
10. Stroke and Rehabilitation
11. Gynecology
12. Forensic Medicine and Legal Medicine
13. Sleep Medicine
14. Retinal Research
15. Pediatric Otolaryngology
16. Multiple Myeloma
17. Limb Anatomy
18. Medical Genetics
19. Decision-Making and Behavioral Science
20. Diabetes Research
21. Rheumatology and Connective Tissue Diseases
22. Migration Health
23. Aging and Energy Balance Regulation
24. Disease Prevention
25. Neuromuscular Disorders
26. Nephrology and Diabetes
27. Additive Manufacturing
28. Neuroscience, Neurological Research
29. Health Communication

Topic details:

Magnetic Resonance Imaging (MRI), Diffusion MRI, General Surgery, Endocrine Surgery, Clinical Chemistry-Metabolomics-Biomarkers, Multidisciplinary synergies with MDs, Biologists, Chemists, Data analysts, Systematic reviews on anaesthesia, intensive care, and pain medicine, Chronic pain, Multicentre randomised trials on perioperative care or intensive care, Molecular genetics, Immunogenetics, Complex genetic diseases, Genomics, Long-reads sequencing, Immunohistochemical analyses, Tumor progression, Neurodegenerative diseases, Brain microdialysis, Role of mesolimbic and mesocortical dopamine, Drugs of abuse, Natural reward and energy drinks, Associative learning, Operant behavior for food and drugs of abuse, Retinal neuronal hyper-network, Electrical synapses, Visual information processing, Basic, applied, and clinical research, Regulation of the immune system, Tolerance and autoimmunity, Systemic and organ-specific autoimmune diseases, Autoimmunity in pregnancy and unknown infertility, Autoantibody detection, Immunophenotyping, Aliger therapy, Midapaltal suture maturation, Infection prevention, Engineering in infection prevention, Diagnostic tools, Public buildings and transportation systems, Green areas and health, Forestry, Environmental sciences, Periodontal disease, Implant rehabilitation, Lifestyle influence on periodontal health and disease, Periodontal status in oncologic patients, Gerodontology and oral health of institutionalized patients, Stroke patients, Post-stroke situation, Rehabilitation pathways, Ovarian cancer, Endometrial cancer, Cervical cancer, Vulvar cancer, Carcinomatosis, Sleep, Sleep-disordered breathing, Obesity, Geriatrics, Retinal oximeter, Oxygen metabolism, Musculoskeletal disorders, Connective tissue diseases, Scleroderma, Interstitial lung disease, Biomarkers, Capillaroscopy, Migration trends, Geographical epidemiology,

Integration-related health aspects, Cultural competence in health and public health assistance, Migrant workforce integration, Age-related regulatory changes, Treadmill training, Caloric restriction, Volatile molecules, Early disease detection, Risk factors, Allelic polymorphisms, Nutrition and health, Insect consumption, Myopathies, Neuromuscular diseases, Chronic kidney disease, Diabetic complications, Oxidative stress, Epidemiology, Antidiabetics, Kidney disease, Polymers and composites, Medical simulation education, Nephrology, Transplantation, Computational fluid dynamics, Hemodynamics, Subarachnoid hemorrhage, Inflammation, Sepsis, Vagus nerve stimulation, Clinical trials, Coronary interventions, Microbial virulence, Antimicrobial properties, Alternative drugs, Antimicrobial photodynamic therapy.

Topic 2.9 Physiology & Sport Science



23 Researchers	
R2	5
R3	6
R4	12
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**20**
Cooperations with local ecosystems	**9**
Companies	3
Public/private Institutions	8
NGOs	2
Others	1
External funding for research projects in the last 5 years	**12**

European Programmes	4
National Programme	7
Regional Programmes	4

Role in the Projects	
Lead Beneficiary	**7**
Partner	2

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.8 Medical Sciences (Emergency Medicine; Surgery; Oncology; Rheumatology; others) (**9 researchers**)
- 2.7 Lifelong Health and Wellbeing (including Digital health) (**7 researchers**)
- 2.1 Behavioral Sciences (**6 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

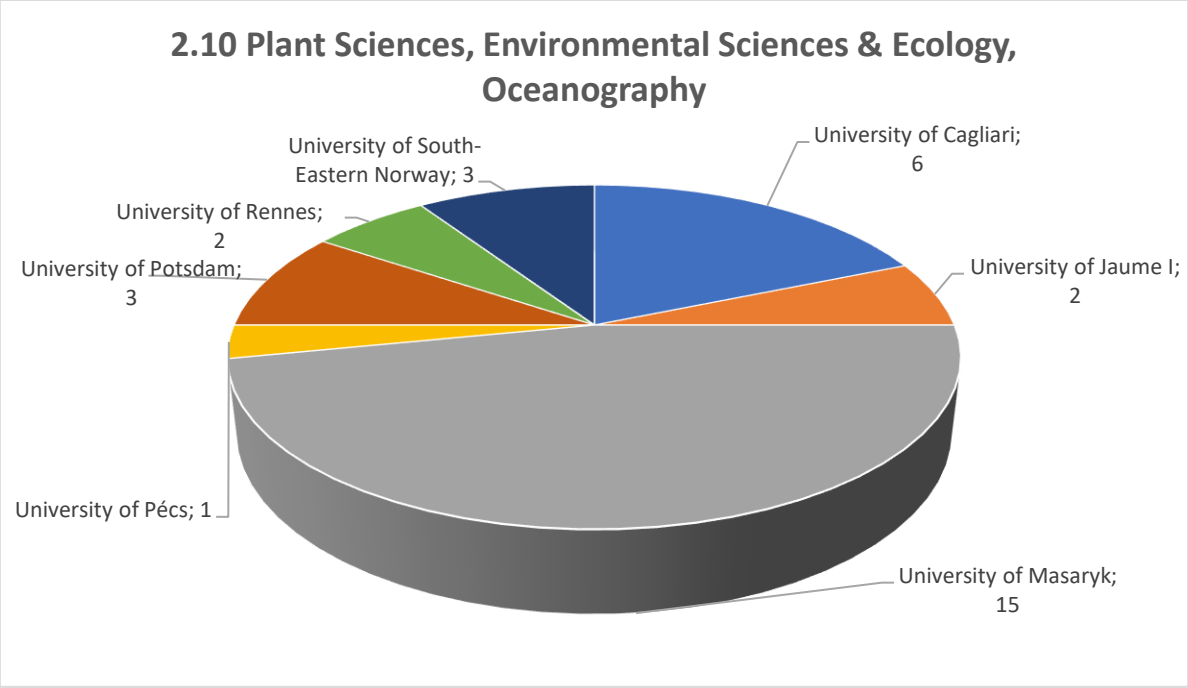
1. Neuroscience
2. Physiology
3. Retinal Research
4. Sustainable Tourism and Supply Chain Management
5. Motor Learning and Control
6. Stress Research
7. Electrophysiology
8. Training Load Management and Performance
9. Nutrition
10. Sustainable Electronics
11. Metabolic Dysfunction and Exercise
12. Educational and Outdoor Research
13. Women's Football
14. Sports Medicine
15. Decision-Making and Behavioral Science
16. Chronic Systemic Autoimmune Diseases
17. Age-Related Regulatory Changes
18. Body Composition Analysis
19. Neuropeptides and Regulation of Food Intake

Topic details:

Stress regulation, Posttraumatic stress disorder, Alzheimer's disorder, Autism, In vivo behavioral pharmacology studies, Brain and neuroendocrine system, Human studies, Molecular studies, Anthropometry, Effects of physical activity and health-related behaviors in children and adolescents, Retinal neuronal hyper-network, Electrical synapses, Visual information processing, Gap junction forming connexin proteins, Synchronization of ganglion cell action potentials, Function of electrical and chemical synapses, Equestrian tourism/equestrian events and equestrian heritage, Social sustainability of tourism, Sustainable supply chain management, Social sustainability of aquaculture, Rural business ecosystems, Motor learning, Motor control, Skill acquisition, Perception-action coupling, Visual behavior, Gaze behavior, Stress and psychophysiological adaptation, Chronic diseases in industrial populations, Musculoskeletal disorders, Mental disorders, Metabolic disorders, Pain, Depression, Metabolic syndrome, Neuronal adaptation, Treatment strategies, Cellular and tissue level, Cardiac and neural, Load and injury, Training demand and energy availability, Technology to monitor training load and performance, Financial costs of athlete's performance, Physiological factors responsible for inter-individual variability of olfactory function, Role of olfactory system in food choices, nutrient intake, and eating behavior, Functional plasticity of olfactory system, Physiological and

physio-pathological states of individuals, Printed electronics, Environmental impact of manufacturing technologies in electronics, Metabolic and mitochondrial dysfunction in cell cultures and rodent models of disease, Regulation of physiological and metabolic function in skeletal muscle and whole body during exercise, Alterations of energy expenditure and body weight regulation, Performance, Injury prevention, Effectiveness of sports and physical activity in patients, High-performance sports in adults and adolescents, Prevention of injuries, Distinct fields like low back pain, tendinopathies, Training programs in patient care and prevention, Plastic recycling, Pro-environmental consumer behavior, Green enabling technologies, Trust and suspicion, Negotiation, Self-disclosure, Consumercy, Quality of life examination, Relationship with health, mobility function, and environmental factors, Energy balance in rat models, Effects of treadmill training and caloric restriction, Ageing, Peripheral factors in the regulation of food intake.

Topic 2.10 Sciences, Environmental Sciences & Ecology, Oceanography



32 Researchers	
R2	**8**
R3	**6**
R4	**18**
Already existing cooperations with EDUC colleagues	**2**
Willingness to start a cooperation with EDUC colleagues	**24**
Cooperations with local ecosystems	**17**
Companies	8
Public/private Institutions	15
NGOs	0
Others	1
External funding for research projects in the last 5 years	**19**

European Programmes	10
National Programme	18
Regional Programmes	5

Role in the Projects	
Lead Beneficiary	12
Partner	6

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.3 Bioinformatics/Genomics/Data Science (**7 researchers**)
- 1.12 Sustainable Changes: climate and resources (**7 researchers**)
- 2.2 Biochemistry & Molecular Biology (**5 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

1. Evolutionary Biology
2. Plant Adaptation to Climate Change
3. Ecology and Climate Change
4. Circular Economy
5. Plant Tolerance to Environmental Stress
6. Infection Control and Engineering
7. Horticulture and Plant Breeding
8. Soil Science
9. Systematic Zoology and Entomology
10. Biodiversity and Ecology
11. Plant Epigenetics and Genomics
12. Environmental Management and Microbiology
13. Analytical Chemistry of Plant Specialized Metabolites
14. Bone Regenerative Medicine and Biomechanics
15. Chromosome and Genome Evolution
16. Chemometrics and Multivariate Data Analysis
17. Plant Physiology and Mineral Nutrition
18. Trophic Dynamics of Aquatic Ecosystems
19. Plant Stress Physiology and Photosynthetic Processes
20. Urban Ecology

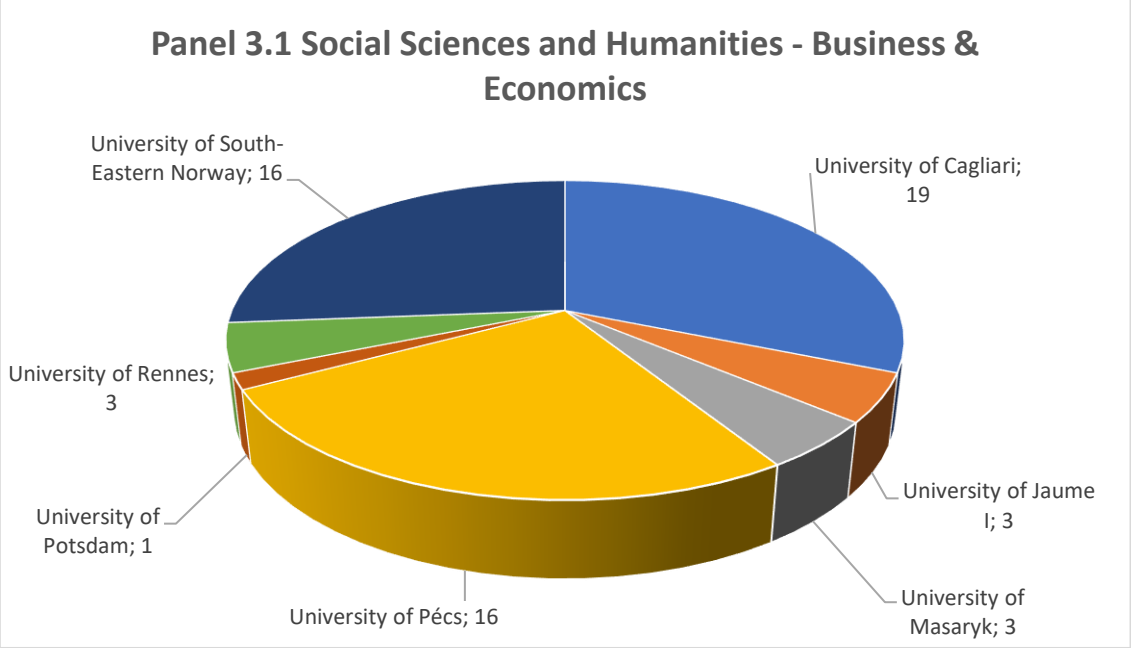
Topic details:

Evolutionary genomics, Biodiversity, Endemic subantarctic plants, Cold buffered climate in islands, Long-term evolution in the southern hemisphere, Plant as a holobiont with microorganism communities, Plant variability across climatic gradients, Plant phenotype, metabolome, transcriptome, microbiome, Evolutionary histories of endemic plant species, Natural and anthropogenic disturbance, Marine heatwaves, Marine geomorphology, Impact of human practices and behavior on natural ecosystems, Recycling of agro-food industries by-products, Search for new bioactive compounds, Plant hormones, New biotechnological materials, Infection prevention, Engineering in infection prevention, Diagnostic tools, Building design for infection control, Infection control in public buildings and transportation systems, Organoleptic and functional quality, Soil hydrology and groundwater, Evolutionary biology and systematic zoology, Hemipteran insects, Morphology, Ecology, Invertebrates in soil ecology, Saproxylic species ecology and conservation, Mammal ecology and behavior, Large-scale patterns and mechanisms, Molecular genetics and taxonomy, Biogeography, Macroecology, Theoretical ecology, Wetland ecology and management, Plant epigenetics, Telomere biology, Comparative genomics and cytogenomics, Drainage and filtering of water, Microbiology and technical sciences, CO_2 capture, Spectroscopy (IR, NIR, Raman), Physiological ecology of plants, Plant

anatomy, Responses to natural and anthropogenic impacts, Climate change effects, Collaboration with climatologists, geologists, and biochemists, Activation and capacity of protective mechanisms, Biophysics of photosynthesis, Life in extreme environments, Photosynthetic activity of phototrophs, Environmental extremes and changing conditions, Metabolomics and lipidomics research.

5. Micro data analysis Panel 3 - Social Sciences and Humanities

Topic 3.1 Business & Economics



61 Researchers	
R2	**15**
R3	**22**
R4	**24**
Already existing cooperations with EDUC colleagues	**4**
Willingness to start a cooperation with EDUC colleagues	**53**
Cooperations with local ecosystems	**34**
Companies	21
Public/private Institutions	23
NGOs	9
Others	6
External funding for research projects in the last 5 years	**28**
European Programmes	17
National Programme	19
Regional Programmes	10

Role in the Projects

Lead Beneficiary	**13**
Partner	9

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.2 Circular economy, resources, recycling (**11 researchers**)
- 1.12 Sustainable Changes: climate and resources (**9 researchers**)
- 3.5 European Union Studies (**7 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

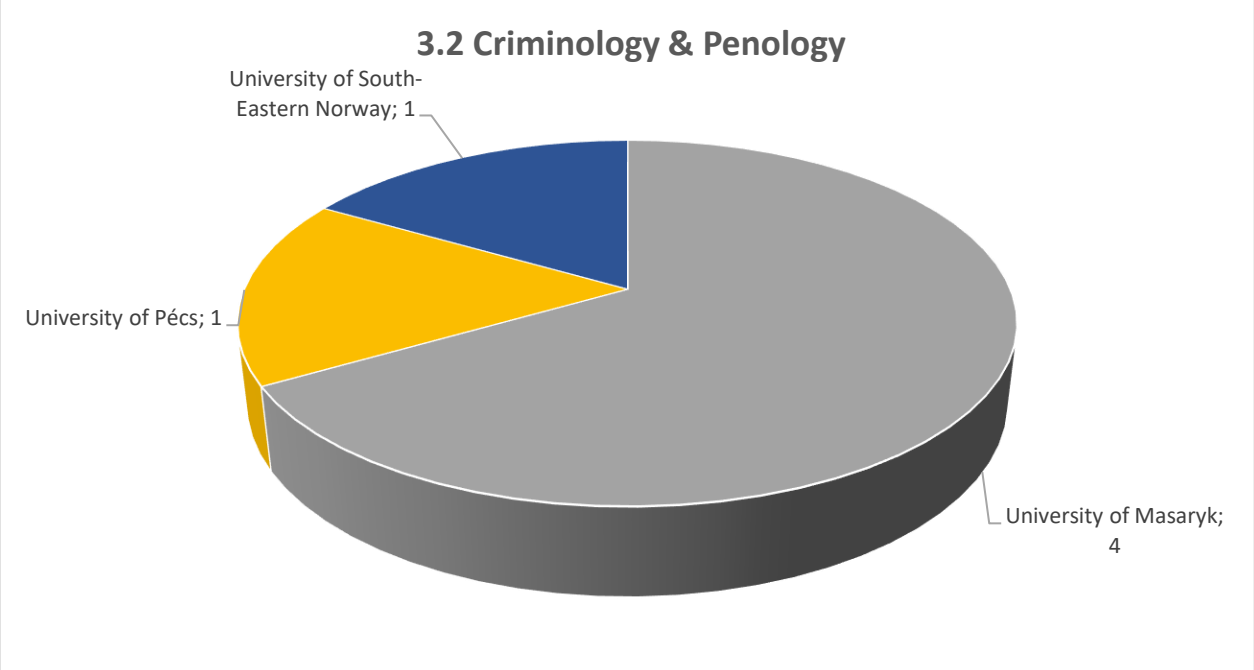
1. Corporate Governance
2. Labor Economics
3. Regional Economics
4. Banking and Finance
5. Behavioral and Experimental Economics
6. Macroeconomics
7. Finance and Ethics
8. Economic Geography
9. Economic History and Innovation
10. Tourism and Regional Development
11. International Economics
12. Equestrian Tourism
13. Quantitative Finance
14. Entrepreneurship
15. Strategic Management
16. Environmental, Social, and Governance (ESG) Issues in Banking and Finance
17. International Trade
18. Sustainable Corporate Governance
19. Computational Statistics and Data Mining
20. Quality Management
21. Gender Bias and Education
22. Public Management
23. Defence and International Relations
24. Didactics of Foreign Languages
25. Tax Law
26. Artificial Intelligence

Topic details:

Integration of environmental issues by organizations, Research on labor economics, Economics of technological change, Regional economics, Banking systems stability, Financial contagion risk, Credit risk, Energy markets, Social norms, Social capital, Other-regarding preferences, International macroeconomics, Econometrics, Trade, Institutions of finance, Financial regulation, Finance and ethics, Finance and ecological transition, Location of firms, Location of inventors, Impact of transport infrastructure on economic outcomes, Inventions and technological adoption during the Industrial Revolution, Drivers explaining location and timing of historical discontinuity, Relationship between tourism and regional development, Smart tourism and smart destinations, Tourism center and periphery relations, Spatial concentration and de-concentration of tourism, Regional tourism geography, Tourism product development, Cross-border tourism development, Tourism niche products and trends, Economic integration, Economic integration, Equestrian tourism and events, Equestrian heritage, Social sustainability of tourism, Sustainable supply chain management, Social

sustainability of aquaculture, Rural business ecosystems, Risk theory, Time series modeling and forecasting, Energy economics and finance, Entrepreneurship education, Online consumer entrepreneurship, AI in education, Sustainable entrepreneurship, Strategic management, Quality management, Business simulations, ESG issues related to banking and finance, Time series analysis, Textual analysis, Bayesian analysis, International trade, History of globalization, Transport and trade costs, Sustainable corporate governance, Performance measurement, Impression management in corporate reporting, Household accounting, Computational statistics, Data mining, Pattern recognition, Statistical learning, Big data, Quality of statistical data, Statistical data editing, Missing data imputation, Data validation, Causal inference, Computational finance, Statistics for health policy, pharmacoeconomics, and biostatistics, Human resource management, Gender bias and education, Public management, Performance measurement and management in the public sector, Sustainability accounting and accountability, Defence industrial cooperation, Defence role in the EU, Arms trade, European and international sanctions, Intercultural communication in education and business, Teaching French, Employment issues, HR, Tax law, Artificial Intelligence.

Topic 3.2 Criminology & Penology



6 Researchers

R2	**2**
R3	**3**
R4	**1**
Already existing cooperations with EDUC colleagues	**1**
Willingness to start a cooperation with EDUC colleagues	**4**
Cooperations with local ecosystems	**4**
Companies	1
Public/private Institutions	4
NGOs	2

Others	0
External funding for research projects in the last 5 years	**3**
European Programmes	1
National Programme	2
Regional Programmes	0
Role in the Projects	
Lead Beneficiary	**1**
Partner	1

Correlated research topics/areas (as indicated by the researchers of this topic):

- 1.3 Computer/Digital Science including Cyber Security and Artificial Intelligence (**3 researchers**)
- 3.6 Justice, inequality and inclusion (including Social inclusion) (**3 researchers**)

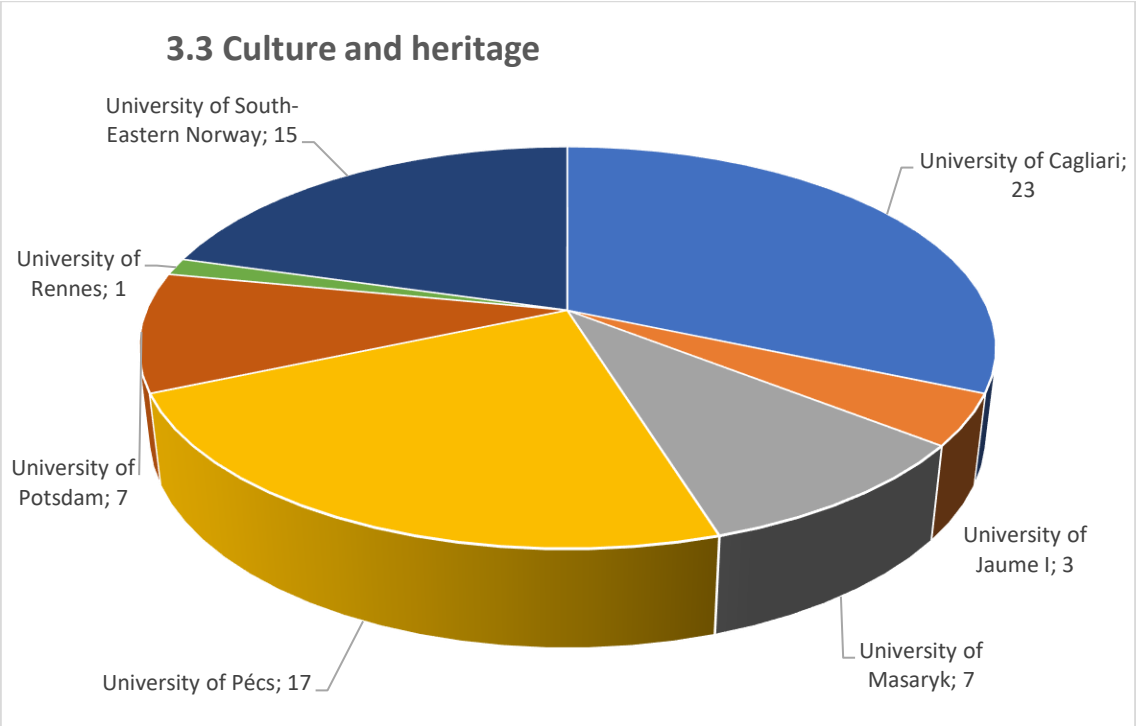
List of emerged sub-topics *(analysis supported by AI)*

1. Security and Terrorism Studies
2. Social Work and Social Exclusion
3. Criminal Law
4. Decision Making and Behavior

Topic details:

Violent Extremism and Terrorism, Hybrid Threats, Security Policy, Faith-Based Social Services, Social Exclusion, Individual Strategies for Overcoming Social Exclusion, Social, Community-Level Trauma and Its Solutions, Social Meaning, Connectedness, Togetherness, Criminal Liability of Legal Entities, Basics of Criminal Liability of Legal Entities, Criminal Proceedings Conducted Against a Legal Entity, Intersections of Private Law and Criminal Law, Criminal Offences Against Property, Drug and Related Criminal Offences, Evidence in Criminal Proceedings, Proceedings on Extraordinary Remedies, Effects of Acute Stress and Anxiety on Decision Making, Vaccine Hesitancy, Nudging, Plastic Recycling, Pro-Environmental Consumer Behavior, Novel Green Enabling Technologies, Trust and Suspicion, Negotiation, Self-Disclosure, Consumer Privacy.

Topic 3.3 Culture and heritage



73 Researchers	
R2	**12**
R3	**25**
R4	**36**
Already existing cooperations with EDUC colleagues	**15**
Willingness to start a cooperation with EDUC colleagues	**51**
Cooperations with local ecosystems	**38**
Companies	8
Public/private Institutions	26
NGOs	12
Others	8
External funding for research projects in the last 5 years	**42**
European Programmes	15
National Programme	27
Regional Programmes	17
Role in the Projects	
Lead Beneficiary	**21**
Partner	17

Correlated research topics/areas (as indicated by the researchers of this topic):

- 3.7 Languages (Multilingualism) and Linguistics (**17 researchers**)
- 3.6 Justice, inequality and inclusion (including Social inclusion) (**15 researchers**)
- 3.4 Digital humanities and digital competence in education (**15 researchers**)

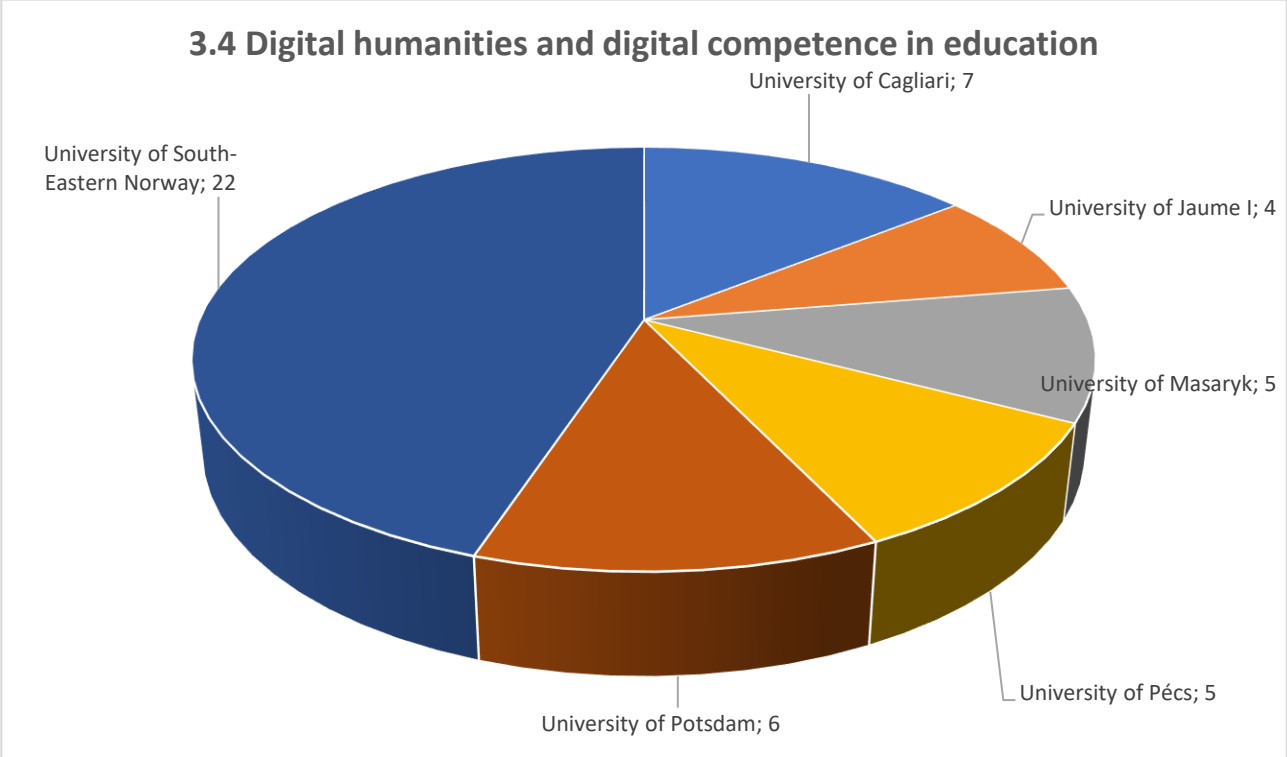
List of emerged sub-topics *(analysis supported by AI)*

1. Archaeology
2. Literature and Cultural Studies
3. Art History
4. Journalism and AI
5. European Studies
6. Disability and Minority Affairs
7. European Legal History and Family Law
8. Architecture and Urban Planning
9. Comics Studies and Media Geopolitics
10. Linguistics and Cognitive Science
11. Equestrian Tourism and Sustainability
12. Cultural Geography and Heritage Studies
13. Latin American History and Constitutionalism
14. Social Studies and History
15. Early Modern History and Foreign Policy
16. History and Philosophy of Mathematics
17. Elections and Electoral Behavior
18. Legal English and Forensic Linguistics
19. Roman Law and Comparative Law
20. Language Teaching and Intercultural Communication
21. Law and Literature

Topic details:

Archaeometry, American Literature, American Studies, Cultural Studies, Critical Theory, History of Medieval Art, Chinese Studies, Linguistics, Discourse Studies, Media Studies, Political Science, Generative Linguistics, History, Philosophy, and Literature in the Creation of Europe, Cities in Literature, Philosophy, and Geography, Literature's Influence on the Image of the Other and its Impact on Literature, Disability Inclusion Network, Minority Affairs, Transhistorical Identities, Legal History, Family Law, Management of Historical Cities, Vernacular Architecture, Historical Materials and Landscape, Climate Adaptation and User Requirements, Architectural Heritage, Étude de la bande dessinée (Comics Studies), Media Geopolitics, Popular Geopolitics, Media Culture, Language in Mind, Developmental Aspects of Pragmatic Competence, Cognitive Linguistics, Social Cognition and Idiomaticity in Language Acquisition, Experimental Pragmatics, Neurolinguistics, Psycholinguistics, Equestrian Tourism and Events, Equestrian Heritage, Social Sustainability of Tourism, Sustainable Supply Chain Management, Social Sustainability of Aquaculture, Rural Business Ecosystems, Cultural Geography, Critical Heritage Studies, Senses and Affect, Historia Contemporánea de América Latina (Contemporary History of Latin America), Constitucionalismo e Independencias (Constitutionalism and Independence) in Spain and Latin America, Social Studies, Social Studies Didactics, Memory Studies, Medieval Studies, Early Modern History, International Relations, Role of Personalities in European Politics, Dynastic Legitimacy, Women's Regency, Juridical, Political, and Anthropological Synergies, Translation of Works in History and Philosophy of Mathematics, Elections, Electoral Systems, Electoral Behavior, Local Politics, Legal English, Forensic Linguistics, Legal Profession, Work Culture, Culture of English-Speaking Countries, Autonomous Learning, Language Counseling, Roman Law, Law of Succession, Comparative Law of Succession, Didactics of Foreign Languages, Intercultural Communication, Language Teaching in Education and Business, Law and Theatre, Law and Society.

Topic 3.4 Digital humanities and digital competence in education



49 Researchers	
R2	7
R3	22
R4	20
Already existing cooperations with EDUC colleagues	**5**
Willingness to start a cooperation with EDUC colleagues	**38**
Cooperations with local ecosystems	**28**
Companies	9
Public/private Institutions	20
NGOs	10
Others	2
External funding for research projects in the last 5 years	**32**
European Programmes	13
National Programme	24
Regional Programmes	9
Role in the Projects	
Lead Beneficiary	**15**
Partner	11

Correlated research topics/areas (as indicated by the researchers of this topic):

- 3.3 Culture and heritage (**15 researchers**)
- 2.1 Behavioral Sciences (**11 researchers**)

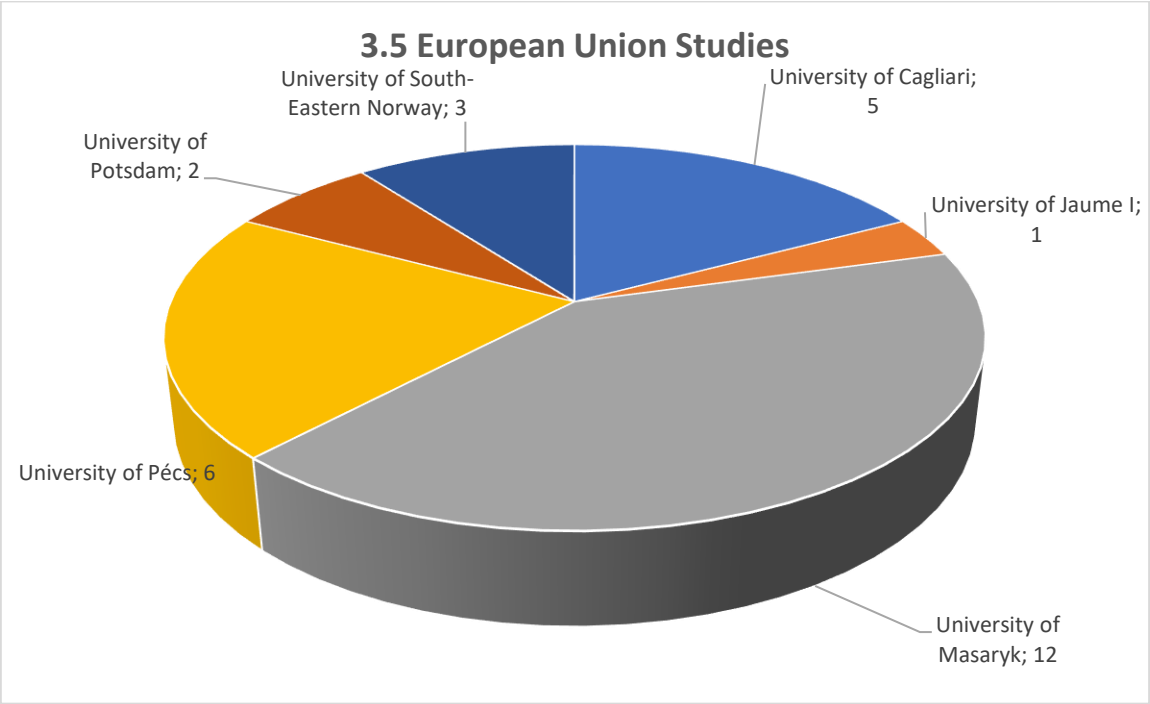
- 3.7 Languages (Multilingualism) and Linguistics (**9 researchers**)

List of emerged sub-topics *(analysis supported by AI)*
1. Promotion of individual well-being during the life cycle
2. History of Medieval Art
3. AI in Chinese journalism
4. Digital health and experimental psychology
5. Management of historical cities and architecture
6. Étude de la bande dessinée, comics studies, media geopolitics, popular geopolitics, media culture
7. Teaching languages for the future
8. Political history
9. Green energy, smart cities, and sustainability
10. Communication and social transformation
11. Embodied learning and teaching in higher education
12. Educational technology
13. Social studies, history, social studies didactics, memory studies, medieval studies
14. Learning and teaching with technology
15. Numerical cognition, embodied cognition, perception and action, human-robot interaction
16. Public sector management
17. Violent extremism, terrorism, hybrid threats, security policy
18. Cybersecurity
19. Computational Literary Studies, Digital History, Digital Manuscript Studies, Digital Editions
20. Law and computer science interdisciplinary projects
21. Interdisciplinary cooperation in health sciences
22. Reading and Writing Acquisition
23. Semiotics of culture applied to political communication
24. Architecture representation, digital modeling, urban and architectural survey
25. Assistive technology and learning environments
26. Digital Cultural Heritage, Digital Editions, Computational Literary Studies
27. Children's literature, youth literature, digital cultures, popular culture
28. Jewish Studies
29. Innovation in healthcare
30. Digital literature (electronic literature)

Topic details:
Psychological well-being, Educational well-being, Linguistics, Discourse studies, Media studies, Political Science, Generative Linguistics, AI Engineering, Vernacular architecture, Historical materials, Landscape, Climate adaptation, User requirements, Digital competence, Cultural differences, Plurilingualism awareness, English as a Lingua Franca, Cultural Theory and Applied Communication Studies, Cognition, Personality, Communication Research, Theoretical, Computational and Cognitive Linguistics, Social science, Information Systems, User involvement, User acceptance, Forest management, Smart energy solutions, Instructional media design, Adaptive technologies, Numerical cognition, Embodied cognition, Perception and action, Human-robot interaction, Overlaps with private sector management studies, Interfaces with political science and public policy, Social cybersecurity, Governance of/in cyberspace, Cybersecurity behavior, Electronic evidence, Artificial intelligence, Cybersecurity and privacy/data protection, Digital populism, Protest movement, Contemporary form of iconoclasm, Self-determination movements, Technology for learning environments, Piloting experiences, Large-scale piloting design and management, Technology for quality of life and well-being, Fandom, Gender & sexuality studies, Diversity in education, Multilingualism/multilinguality, Literacy (esp. critical literacy), Presentation/construction of Jews/Judaism(s) in educational materials, Gender and Sexuality in Judaism, Studies of Norwegian Jewry, Interreligious

relations, Innovation in healthcare, Labour history, Church history, Impact of Lutheranism, Socialism, and Christianity, Tolkien.

Topic 3.5 European Union Studies



29 Researchers	
R2	3
R3	12
R4	14
Already existing cooperations with EDUC colleagues	**6**
Willingness to start a cooperation with EDUC colleagues	**20**
Cooperations with local ecosystems	**10**
Companies	4
Public/private Institutions	8
NGOs	2
Others	2
External funding for research projects in the last 5 years	**18**
European Programmes	11
National Programme	13
Regional Programmes	3
Role in the Projects	
Lead Beneficiary	**7**
Partner	6

Correlated research areas:

- 3.6 Justice, inequality and inclusion (including Social inclusion) (**15 researchers**)
- 3.1 Business & Economics (**7 researchers**)

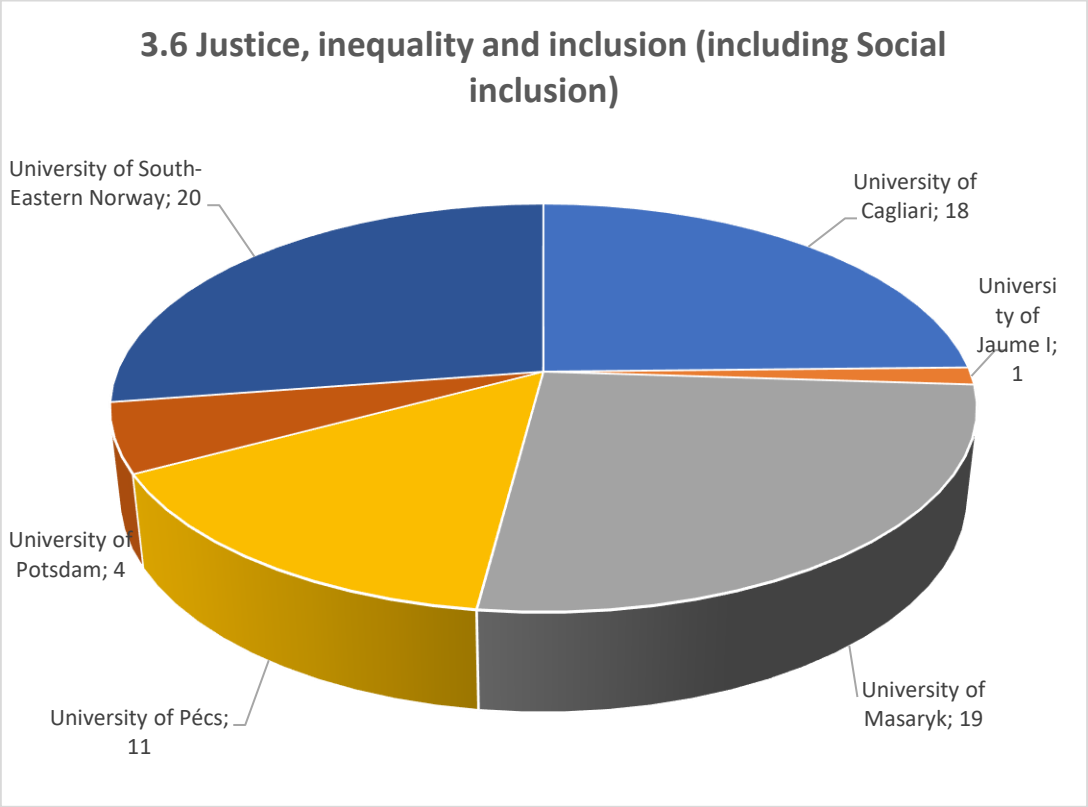
List of emerged sub-topics *(analysis supported by AI)*

1. International Environmental Law
2. Transport Law
3. European Studies
4. Econometrics, Economic Integration, International Economics
5. Public Management
6. Europeanisation, Euroscepticism, MLG
7. Violent extremism and terrorism
8. Defence industrial cooperation
9. Judicial Behavior
10. EU law and related national law
11. Judicial governance
12. Regulation of Cross-border relationships within the EU and beyond
13. Law and computer science
14. Implementation of EU Law
15. Critical and decolonial views on Human Rights
16. International Migration and Ethnic Relations
17. Digital transformation of societies and institutions
18. European legal philosophy and legal cultures
19. Examination of quality of life and its relationship with health, mobility function, and environmental factors in patients with different chronic systemic autoimmune diseases.
20. History of Literature and Ideas
21. Innovation and inequality

Topic details:

AI & Law, Interplay between domestic and international law, Rights of Persons with Disabilities, International Court of Justice, Overlaps with private sector management studies, Interfaces with political science and public policy, Hybrid threats, Security policy, Defence role in the EU, Arms trade, European sanctions, International sanctions, Human Rights, Freedom of Religion or Belief, Access to Court, Judicial independence, Rule of law, Separation of powers, EU asylum law, Legal linguistics, EU constitutional law, EU legal principles (rule of law), Interpretation of EU law, EU external relations, EU consumer protection, EU unfair commercial practices, Court of Justice of the European Union, European Court of Human Rights, Constitutional courts, Transitional justice, European Private International Law, Global legal skills, Enforcement of EU law, Interpretation of EU (private international) law, Electronic evidence, Artificial intelligence (NLP/ML over legal data), Cybersecurity, Privacy/data protection, Better Regulation Agenda, Differentiation in the European Union, Tax Law, Indigenous Peoples migration, Human Rights risk assessment and due diligence (AI), Intersection of culture, human rights, and power relations, Refugees and Asylum Policy, Digital inequalities on micro, meso, and macro levels, Social capital and digital profiling, Project proliferation in the public and private sectors, Cultural Heritage, History of the Media, Cultural History of European Cities and Regions.

Topic 3.6 Justice, inequality and inclusion (including Social inclusion)



73 Researchers	
R2	14
R3	29
R4	30
Already existing cooperations with EDUC colleagues	**7**
Willingness to start a cooperation with EDUC colleagues	**58**
Cooperations with local ecosystems	**41**
Companies	8
Public/private Institutions	27
NGOs	20
Others	10
External funding for research projects in the last 5 years	**37**
European Programmes	19
National Programme	23
Regional Programmes	8
Role in the Projects	
Lead Beneficiary	**11**
Partner	4

Correlated research topics/areas (as indicated by the researchers of this topic):

- 3.3 Culture and heritage (**15 researchers**)
- 3.5 European Union Studies (**15 researchers**)
- 3.8 Psychology (**9 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

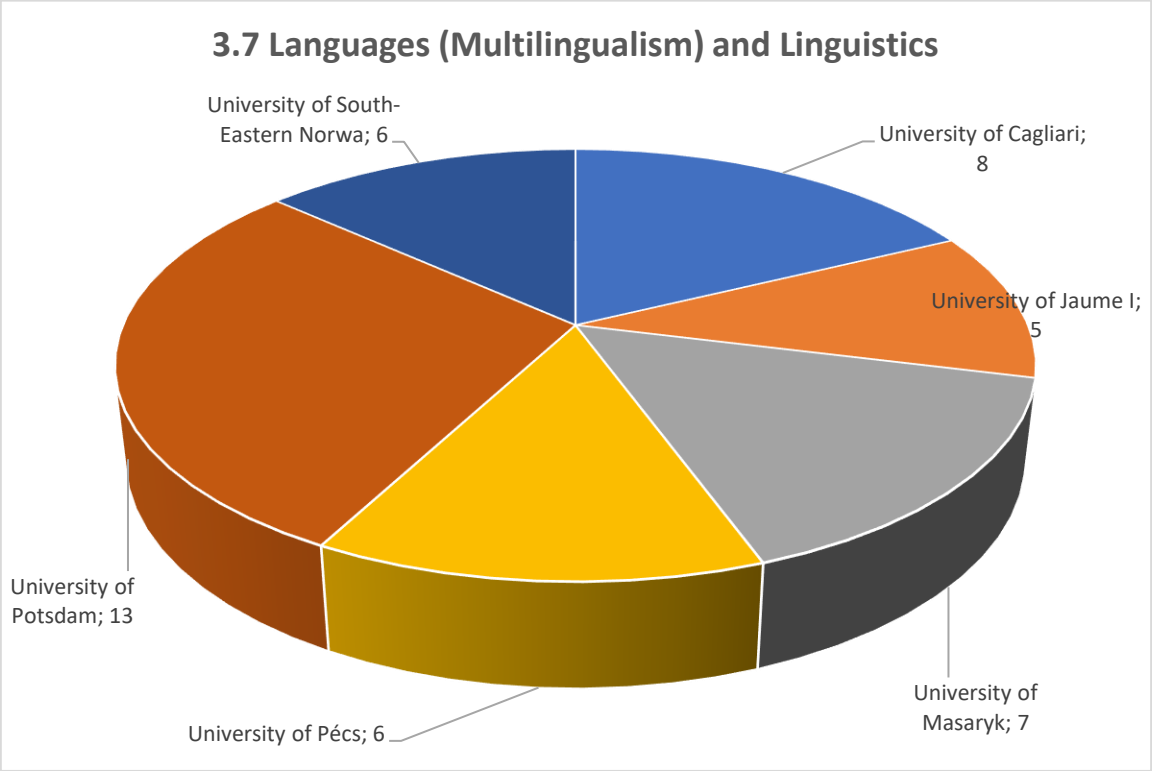
1. Education
2. International Environmental Law
3. Social movements and mutualism
4. Urban planning
5. Applied Statistics
6. Transport law
7. Gender Studies
8. Disability Inclusion Network
9. European legal history and family law
10. Communication and social transformation
11. Social studies
12. Inclusive schools
13. Public finance law
14. Violent extremism and terrorism
15. Social work
16. Democratic governance
17. Faith-based social services (social work)
18. Judicial Behavior
19. EU law
20. Law
21. Inclusion of disadvantaged individuals in the labor market
22. Judicial independence
23. Social inclusion of people with intellectual disabilities
24. Law and Literature
25. Social work values and ethics
26. Translation and Adaptation
27. Clinical Psychology
28. Social inequality

Topic details:

Evidence-based education, Systematic reviews and meta-analysis, Impact evaluations, Effective interventions in primary and secondary school, AI & Law, Interplay between domestic and international law, Rights of Persons with Disabilities, International Court of Justice, Health and Roma communities inclusion in Europe, Policy design, Decision support systems, Evaluation of educational systems, Composite indicators for evaluating educational institutions, LGBTQ+ studies, Intimate citizenship, Minority Affairs, Transhistorical identities, Theories and practices of deprivation of rights, Legal relevance of Vetus et Novum Testamentum, Impact of Jewish-Christian and Roman Law on legal culture, History, Social studies didactics, Memory studies, Medieval studies, Gifted and talented students, Disadvantaged students, Constitutional law, Hybrid threats, Security policy, Social services, Deinstitutionalization, Social assistance and support, Inter-organizational cooperation, Migrant integration, Participation in policy-making processes, Preventing discriminatory policies and practices, Enabling the participation of inhabitants, Social exclusion, Social, community-level trauma, Social meaning, connectedness, togetherness, Human Rights, Freedom of Religion or Belief, Access to Court, Legal linguistics, EU constitutional law, EU legal principles, Interpretation of EU law, EU external relations, EU

consumer protection, EU unfair commercial practices, Financial law, Tax law, Roman Law, Law of succession, Comparative law of succession, Judicial governance, Constitutional courts, Transitional justice, Youth studies, Social policy, Evaluation, Rule of law, Separation of powers, EU asylum law, Disability studies, Law and Theatre, Law and Society, Law and Cultural Heritage, Change of society, Prestige of social work as a profession, Identity of social workers in multidisciplinary teams, Cooperation, negotiation, and conflict resolution in social work and healthcare, Blended learning in social work education, Support of staff in times of changes, Literary Ecosystem, Literature, visual arts, and asylum, Disability, Telemedicine, Digital health equity, Ageing, Neurocognitive disorders.

Topic 3.7 Languages (Multilingualism) and Linguistics



45 Researchers	
R2	7
R3	19
R4	19
Already existing cooperations with EDUC colleagues	**9**
Willingness to start a cooperation with EDUC colleagues	**33**
Cooperations with local ecosystems	**16**
Companies	5
Public/private Institutions	9
NGOs	4
Others	2

External funding for research projects in the last 5 years	**24**
European Programmes	10
National Programme	17
Regional Programmes	5
Role in the Projects	
Lead Beneficiary	**13**
Partner	8

Correlated research topics/areas (as indicated by the researchers of this topic):

- 3.3 Culture and heritage (**17 researchers**)
- 3.4 Digital humanities and digital competence in education (**9 researchers**)

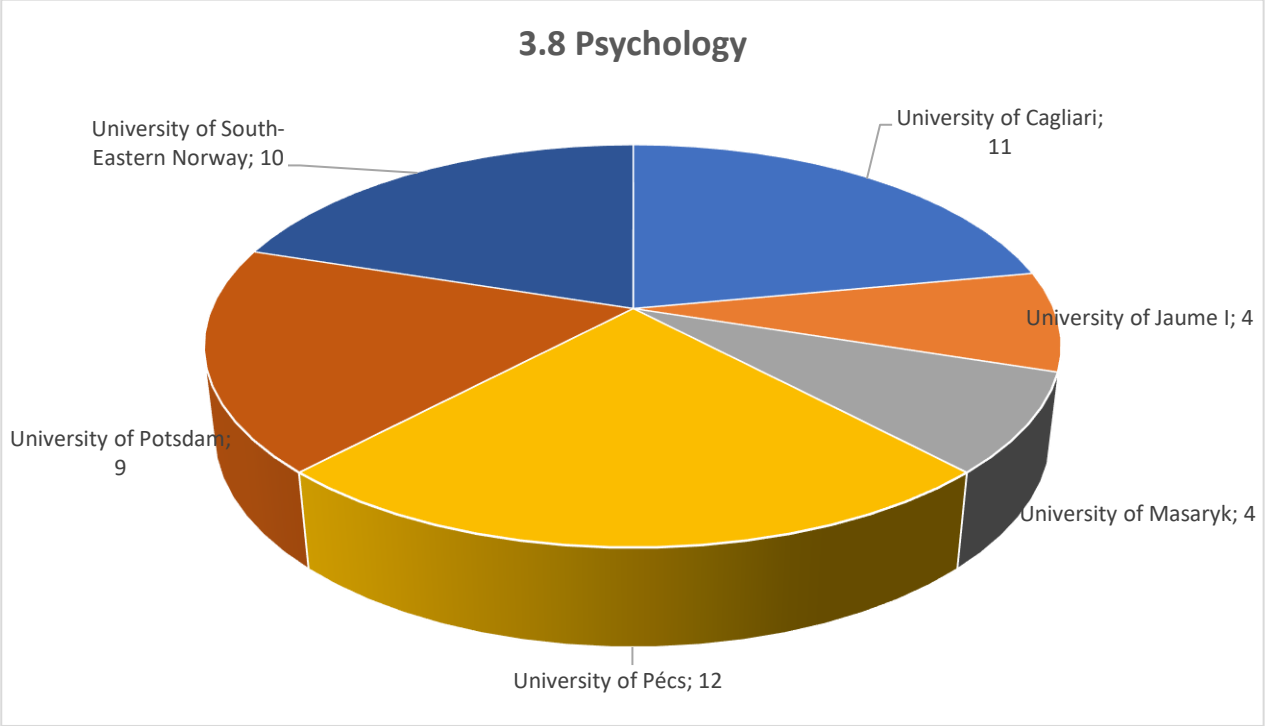
List of emerged sub-topics *(analysis supported by AI)*

1. Sociolinguistics
2. Text linguistics
3. Ecostylistics
4. Cognitive Semantics
5. Communication and interlinguistic and intercultural mediation studies
6. Teaching languages for the future through digital competence
7. American literature
8. Psycholinguistics
9. German grammar
10. Generative grammar
11. Computational linguistics
12. Numerical cognition
13. Legal linguistics
14. Legal English
15. Didactics of foreign languages
16. European Private International Law and Global Context
17. Language integration of asylum seekers
18. Reading and Writing Acquisition
19. Contemporary English literature
20. Semiotics of culture applied to political communication
21. Italian literature
22. Critical Discourse Analysis
23. Language and aging
24. Second language acquisition
25. Functional linguistics
26. Linguistic landscapes
27. Computational Linguistics
28. Children's literature
29. Norwegian language and literature
30. Neurolinguistics
31. Aesthetics
32. Learning and teaching foreign languages
33. History of Literature and Ideas
34. Translation studies
35. Literacy
36. Sociolinguistics

37. British and Irish Authors reception in Europe and Hungary
38. CLIL (Content and Language Integrated Learning)

Topic details:
Language contact, Language planning, Multilingualism, Speech interactions, Speech corpora, Corpus linguistics, Digital humanities, Ecolinguistics, Stylistics, Pragmatics, Metaphor, Environmental communication, Environmental humanities, Emotions and early multilingual development, Language acquisition in infants, Graphematics (also comparative), Morphology, Crosslinguistic variation, Language technology, Automatic text analysis for the social sciences, Embodied cognition, Perception and action, Human-robot interaction, EU law and related national law, Forensic linguistics, Legal profession, Work culture, Culture of English-speaking countries, Autonomous learning, Language counseling, Roman Law, Law of succession, Comparative law of succession, Intercultural communication in education, Intercultural communication in business, Teaching French, Qualitative research, Intercultural differences in work/study experience, Regulation of cross-border relationships within the EU and beyond, European Union external relations, Enforcement of EU law, Interpretation of EU (private international) law, Global legal skills, Corpus linguistics, Language in education, English education, Language assessment, Pragmatics, Semantics, Research on aspectuality, temporality, modality, and evidentiality, Research on the history of linguistics, Multimodality, Critical literacy, Visual literacy, Sociolinguistics, Language change and variation, Historical sociolinguistics, Natural Language Processing, Spoken Dialogue Systems, Human/Robot Interaction, Youth literature, Digital cultures, Popular culture, Fandom, Gender & sexuality studies, Diversity in education, Affect studies, English language teaching, Multilingualism/multilinguality, Literacy (especially critical literacy), Didactics in Norwegian language and literature, Psycholinguistics, Cognitive Sciences, Human rights, Literature, Gender studies, Diversity, South Asia, Middle East, Nordic countries, Language assessment, Early start programs, Teacher education, Cultural Heritage, History of the Media, Cultural History of European Cities and Regions, Migration studies, Struggling readers, Reading comprehension, Digital methodology in language teaching, Linguistic minorities, Multilingual communities, Language preservation and revitalization, Transgenerational language transmission, Language rights and legislation, Minority languages in the media, Friulian and Sardinian in Italy, Sociolinguistic and legal cooperation, Hungarian reception of English literature, History of the English novel, Comparative literature.

Topic 3.8 Psychology



50 Researchers	
R2	8
R3	18
R4	24
Already existing cooperations with EDUC colleagues	**4**
Willingness to start a cooperation with EDUC colleagues	**40**
Cooperations with local ecosystems	**26**
Companies	8
Public/private Institutions	18
NGOs	7
Others	1
External funding for research projects in the last 5 years	**27**
European Programmes	12
National Programme	21
Regional Programmes	9
Role in the Projects	
Lead Beneficiary	**17**
Partner	8

Correlated research topics/areas (as indicated by the researchers of this topic):

- 2.1 Behavioral Sciences (**26 researchers**)
- 2.7 Lifelong Health and Wellbeing (including Digital health) (**9 researchers**)

- 3.6 Justice, inequality and inclusion (including social inclusion) (**9 researchers**)
- 3.4 Digital humanities and digital competence in education (**8 researchers**)

List of emerged sub-topics *(analysis supported by AI)*

1. Education
2. Occupational Health
3. Psychology and Well-being
4. Digital Health and Experimental Psychology
5. Gender Studies and LGBTQ+ Studies
6. School Prevention and Education
7. Physiology and Psychology
8. Aging and Quality of Life
9. Work & Organizational Psychology from a Gender Perspective
10. Clinical Psychology
11. Nutrition and Nutritional Behavior
12. Environmental Psychology and Social Psychology
13. Educational Sciences and Pedagogy
14. Maritime Domain/Industry, Operations, and Logistics
15. Neurobiological and Psychobiological Correlates
16. Neurodevelopmental Disorders and Inclusive Education
17. Employee Voice and Career Development
18. Sustainability in Business and Marketing
19. Child Welfare and Social Work
20. Decision Making and Consumer Behavior
21. Psycholinguistics and Cognitive Sciences
22. Health Psychology and Chronic Diseases
23. Active Citizenship and Just Transition
24. Mental Fatigue and Data Analysis
25. Emotions and Affective Responses
26. Art
27. Visual Cognition & Emotion Lab
28. Programme Evaluation and Identity Structure Analysis
29. Behavioural Science and Psychology in Educational Psychology and Training

Topic details*:*

Evidence-based education, Systematic reviews and meta-analysis, Impact evaluations through experimental and quasi-experimental designs, Effective interventions to improve student outcomes in primary and secondary school, Job burnout, Work-related stress, Promotion of individual well-being, Psychological and educational area, Assessment tools development, Cognitive development, Oral and written language development, Math abilities, Modeling behavior, Learning and virtual reality devices, Intimate citizenship, Bullying prevention, Prejudice reduction, Active citizenship education, Anthropometry, Crisis and transition, Qualitative methods, Client-helper interaction and communication, Technologies to improve the quality of life for older adults, Occupational Health Psychology, Trajectories of women and men at work, Effects on occupational health, Inclusion and participation, Telemedicine and digital health equity, Clinical psychology of aging, Neurocognitive disorders, Play-based learning, Mental and emotional well-being, Teacher education, Sustainable consumption, Culture and tourism, Child Welfare and Social Work, Effects of stress and anxiety on decision making, Vaccine hesitancy, Pro-environmental consumer behavior, Psycholinguistics and Cognitive Sciences, Health Psychology and Chronic Diseases, Active Citizenship and Just Transition, Mental Fatigue and Data Analysis, Emotions and Affective Responses, Art, Human visual cognitive processes, Attention and working memory, Influence of emotions on visual attentional processes, Pathology-related

special groups (phobias, behavioral addictions), Theoretical understanding of visual cognitive processes, Convergent techniques (behavioral paradigms, eye-tracking, pupillometry), Trident method for program evaluation, Identity structure analysis using ISA/Ipseus software, Transitions and liminality as lived experiences, Synergy with educational psychology, training, and assessment research.