HORIZON EUROPE CALLS 2024/2025

CLUSTER 2 CULTURE, CREATIVITY AND INCLUSIVE SOCIETY

NTNU IN EUROPE: LIST OF CALLS WITH THEIR RESPECTIVE INTERESTED NTNU RESEARCHERS



Produced by: NTNU Brussels office, SU faculty, HF faculty, ØK Faculty and NTNU University Museum

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Dear Reader,

Are you looking for the best researchers with whom to collaborate on Horizon Europe cluster 2 calls? Then please, read on.

At NTNU, the Norwegian University of Science and Technology, we have matched our researchers to the upcoming Horizon Europe 2023/2024 calls, based on both their expertise and the industry relations they can bring to the table.

As the largest university in Norway, we can be a powerful partner and collaborator. With more than 85 funded projects, of which 53 are already signed (accounting for more than € 32 million in funding) at the time of writing, we are setting even more ambitious targets for Horizon Europe 2023/2024 and going forward.

This document is one of six prospectuses that outline areas of expertise for - and of interest to - NTNU researchers, for each of the upcoming six clusters of Horizon Europe.

They are living documents. Even if you do not find an exact match, our research community would be thrilled to open a collaborative dialogue with you. Just ping a message to one of our institutional contact points, like NTNU's Brussels Office.

Together, we can create true "knowledge for a better world"

Tor Grande

Pro-rector of Research





Knowledge provides people with opportunities and influence, as well as a foundation for making wise choices. Knowledge inspires and challenges. It changes attitudes, mindsets, and how we perceive the world around us. Informed debate strengthens our democracy. NTNU's activities should benefit society as a whole and society can trust that our findings comply with best scientific practice.

Knowledge technology and development create opportunities for increasing sustainable value creation and finding answers to major challenges. Through the United Nations, the Sustainable world has agreed on 17 Development Goals. NTNU will contribute actively towards achieving the Sustainable Development Goals.

NTNU's strength is our competence in science and technology combined with academic breadth and interdisciplinarity.

ABOUT NTNU



NTNU is a university with an international focus, with headquarters in Trondheim and campuses in Ålesund and Gjøvik. NTNU has a main profile in science and technology, a variety of programmes of professional study, and great academic breadth, including medicine, architecture, and entrepreneurship.

KEY NUMBERS FOR 2022

NOK 10 billion 44 170 7761 412 annual budget students FTE doctoral degrees

NTNU offers 397 programmes of study (2022), as well as continuing and further education. The university has the main responsibility for higher education in technology in Norway, and largest in engineering, teacher education and architecture. NTNU aims to be a national hub in programmes of professional study.

NTNU is the institution awarded the most funding from the Research Council in Norway, as well as being granted with 255 signed projects and a total funding of more than €141 million from Horizon 2020. Moreover, NTNU is a host or partner for 46 major research centers (SFF, SFI, and FME), and has internal initiatives to develop and recruit top researchers.

In Horizon Europe (HEU) - as of March 2023 - NTNU has 97 funded projects, of which 77 are already signed (accounting for more than € 46 million in funding), positioning NTNU among the top HEU Norwegian actors, and among the top 10 actors within the European Higher Education Sector in HEU.

Beyond its science and technology profile, NTNU covers a broad range of social science and humanities (SSH) disciplines including sociology, political science, education, psychology, economics, history, cultural sciences and the arts. Researchers from SSH disciplines have successfully addressed societal issues and contributed to social innovation through involvement in more than 30 HEU projects so far, presenting NTNU as promising and strong partner in future European collaborations in all Global Challenge clusters under Horizon Europe.

From 2014-2023, NTNU has identified several strategic research areas and enabling technologies:

NTNU Energy













NTNU BRUSSELS OFFICE



The NTNU Brussels Office represents
NTNU in Brussels, provides strategic
advice on European policies, promotes
NTNU positions, manages or participates
in strategic networks and initiatives in
Brussels, and provides professional
services to the NTNU community based on
its Brussels presence

The office represents both «the door to NTNU» for organizations that want to collaborate and create synergies with NTNU, and «the door to Europe» for colleague active in or willing to enter the European Arena.

NTNU opened the doors to its Brussels Office in 2015 and today the staff consists of four people, Director Massimo Busuoli, one intern and two trainees.

The office activities and services include the following:

- Promotion and representation of NTNU in Brussels
- Positioning of NTNU in relevant Brussels-based initiatives and bodies
- Contribution to improve NTNU's EU project portfolio
- Provide internship opportunities for NTNU employees and students
- Provision of logistic support and services in Brussels



FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES (SU)

In line with its vision Knowledge for a better Society, the Faculty of Social and Educational Sciences contributes public debate and societal development identifying and defining key societal issues. The faculty encompass a wide range of SSH (Social Sciences and Humanities) disciplines and is organised into seven departments - Teacher Education, Education and Life-Learning, Sociology and Political Science, Psychology, Geography, Social Work, Anthropology. The faculty had about 475 permanent scientific staff (10% of NTNU total), 8,600 enrolled students (20%) and a PhD production of 38 candidates (10%) in year 2020, thus emphasizing the faculty's role and importance within the organisation with regard to scientific impact and educational output.

The faculty's disciplines develop insight and provide perspectives on the relationships between the individual, society, natural sciences and technology. The faculty has a strong commitment to contribute to democratic development and lifelong processes in learning, education and formative self-development, which is reflected by a large degree of involvement of actors in the public sector, governmental organisations, NGOs and companies in both research and education collaborations.

Research at SU Faculty

Interdisciplinarity and internationalisation are at the core of the faculty's priority areas. Research at the Faculty represents a unique combination of social sciences, humanities and natural sciences, facilitating interdisciplinary collaboration both within NTNU, at the national and international level. Since the launch of the H2020 framework program in 2014, the participation in EU projects and networks has steadily increased. Today, researchers are involved in 18 on-going H2020 projects, of which 5 coordinated by the faculty. Research activities within H2020 cover a broad range of thematic areas and fields:

- Energy, policy and behaviour (<u>SMARTEES</u>, <u>ECHOES</u>, <u>ENCHANT</u>, <u>ENTRANCES</u>, <u>SENDER</u>, <u>CAMPAIGNERS</u>, ACCTING, <u>IMMERSAFE</u>)
- Sustainability and environmental sciences (<u>CityxChange</u>, <u>EIT RawMaterials</u>, RAINFOREST, CircoMod, PURPES)
- Citizen science and democracy (<u>RECONNECT</u>, <u>ISEED</u>, <u>LEGACIES</u>, INCITE-DEM)
- Health (<u>H-WORK</u>, <u>UPRIGHT</u>, GUIDEPREP, BEST-COST)
- Psychology, learning and educational sciences (AIM COACH, MOST, MaTeK)

Moreover, the faculty has capacity and outstanding expertise in pedagogy and the educational sciences, which is underscored by participation in 19 on-going Erasmus+ projects, of which 6 are coordinated, thus establishing the faculty not only as a key player in Norway, but also as a strong partner in future European collaborations.





FACULTY OF HUMANITIES (HF)

The Faculty of Humanities at NTNU aims at being Norway's best environment for challenge-driven and action-oriented research in the humanities. Our particular strength lies in understanding the relationships between humans, culture, society, nature and technology.

The Faculty of Humanities' research spans from basic research within philosophy, via history, archaeology, cultural heritage management, arts and literature, to applied research in fields as languages and linguistics. Our faculty is also hosting environments that work with climate change and artistic development of high international quality.

Our disciplines are an important part of NTNU as a multidisciplinary university and for realizing the vision of knowledge for a better world. The disciplines provide a broad understanding of the cultural dimensions in societal development and offer insight into the management of our cultural heritage. The academic environments contribute the knowledge needed to solve society's major challenges and to realize the UN's Sustainable Development Goals.

Humanistic research at NTNU explores a wide range of thematic areas, including both a basic research approach to develop new ideas and phenomena for understanding the world, as well as applied research approaches addressing societal challenges. Researchers contribute to national and international inter-, multi- and transdisciplinary research by providing their expertise in SSH.

Research at Faculty of Humanities

These are the on-going Horizon 2020 & Horizon Europe projects that our researchers are contributing with their expertise research areas.

- Arts and heritage studies (<u>RevolutionaryOpScan</u>)
- Democracy, Integration, cultural diversity and understanding (ISEED, REDEMOS, EASYRIGHTS)
- Digitalisation and artificial intelligence (<u>BIAS</u>, <u>Robotics4EU</u>)
- Energy, climate and environment research (<u>ARV</u>, <u>iclimabuilt</u>, <u>SENDER</u>, <u>SSH-Centre</u>, <u>MidWay</u>)
- Gender and ethics analysis (STOP-IT)
- Language learning and processing (<u>SelISTEM</u>, <u>e-LADDA</u>, <u>NNLPP</u>)
 Responsible research and innovation (<u>ETHNA</u>, <u>ATLANTIS</u>)

Research at HF Faculty

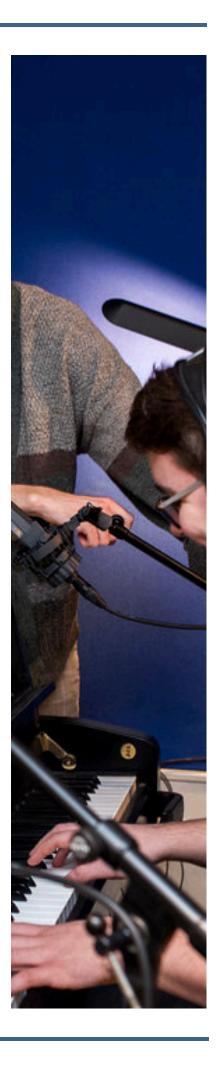
Department of Historical and Classical Studies

specialized in European integration, cultural heritage management and museology, classical civilization and classical studies, history, and archeology.

Researchers at the <u>Department of Modern</u>
<u>History and Society</u> focus on the political economy of commodities, work and daily life, science and technology, war, occupation and legacies of war, and demography.

At the <u>Department of Philosophy and Religious</u> <u>Studies</u>, research group on philosophy explores contemporary theoretical philosophy, phenomena such as aesthetics, phenomenology, hermeneutics, and existentialism, and applied ethics. Research group on religious studies is specialized in Islamic studies, conspiracy culture, south Asian religions, and Judaism and cognitive science of religion in Norway.

Research at the <u>Department of Art and Media</u>
<u>Studies</u> focuses on different thematic areas within media studies, film studies, art history, drama and theatre studies.





Department of Music specializes in musicology, dance studies, music technology and artistic development. The Department is also involved in pedagogical research, and it is an active contributor to the cross-disciplinary research network, "Music Education in Development".

At the **Department of Language and Literature**, research group on language and communication studies language systems, language usage, language development in society and language development in individuals. Research group on literature and cultural history studies and analyses Nordic, German, French, English (British and American), and Spanish literature, as well as literary theory. Further, research focuses on European political history – particularly British – as well as the history of the European Union.

Research at the <u>Department of Interdisciplinary</u> <u>Studies of Culture</u> is twofold. The Gender and diversity group focus on thematic areas such as biopolitics and reproduction, ethnicity, gender and equality, gender, technology and science, and sexuality gender and culture.

The Technology and society research group analyses policy, innovation, production of knowledge, and everyday life activities and provide their knowledge to understand present societal challenges relating to energy, climate and environment, science governance, digitalization and robotization of society and biopolitics and reproduction.

Faculty of Economics and Management (ØK)

The research at the Faculty of Economics and Management has a broad span within economics, management and technology, and is largely characterized by interdisciplinary and regional, national and international cooperation. The faculty's researchers are important contributors to industry and economic policy, and have key expertise in areas needed for a circular economy and the green shift, digitalization and future work life and an innovative public sector.



Our researchers are involved in a wide range of national and international research projects and centres:

Centre for Environment-friendly Energy Research (FME)

- NTRANS Norwegian Centre for Energy Transition Strategies
- CINELDI Centre for Intelligent Electricity Distribution (Sintef Energi)
- HydroCen Norwegian Centre for Hydropower Technology
- MoZEES Mobility Zero Emission Energy Systems (Institutt for energiteknikk)
- NCCS Norwegian CCS Research Centre (Sintef Energi)
- ZEN The Research Centre on Zero Emission Neighbourhoods in Smart Cities

Centre for Research-based Innovation (SFI)

- SFI Manufacturing
- SFI Harvest



NTNU UNIVERSITY MUSEUM

The NTNU University Museum's main mission is to develop, preserve and disseminate knowledge of culture, nature and science, as a basis for sustainable social and environmental development. It consists of four units: The Department of Archaeology and Cultural History, the Department of Natural History, the National Laboratory for Age Determination and the Department of Public Outreach and Exhibitions.

The Department of Archaeology and Cultural History conducts research on prehistoric, historic, maritime and Sami archaeology. It contains a well-equipped conservation laboratory, and a unique collection of human remains from medieval through modern ages which is the basis for several research initiatives at a high international level. In close collaboration with the Department of Natural History and other academic groups at NTNU, we are building a singular inter- and trans-disciplinary capacity and expertise in research fields on cultural and natural heritage studies, taking advantage of NTNU's science and technology profile.

The Museum undertakes geophysical surveys as part of research and cultural heritage management projects, and hosts the Terrestrial, Marine and Aerial Remote sensing for Archaeology research group (TEMAR) . This is the first group in Norway with the capacity to deploy in-house expertise and technologies required to explore hidden cultural remains from the air, ground-surface or underwater. The breadth of expertise includes staff with solid experience in radar (GPR), ground-penetrating electromagnetic induction (EMI), magnetometry, and resistivity, LiDAR, modelling geospatial and predictive using GIS platforms, photogrammetry and unmanned aerial vehicle (UAV) operations.



We are a founding partner in NTNU Applied Underwater Robotics Laboratory (AUR-Lab). Through the Center of Excellence for Autonomous Marine Operations and Systems (AMOS), we are building world leading expertise in the use of marine robotics and sensors for underwater cultural heritage research and management in the intersection between marine archaeology, marine ecology and marine cybernetics. As we enter the UN Decade of Ocean Science, particular efforts are being made to identify and fill knowledge gaps regarding vulnerable underwater cultural heritage in Arctic and deep waters.

Our researchers are involved in a wide range of nationally and EU-funded projects. Currently, we are partnering and coordinating Horizon 2020 Pillar 1 and EU RTD framework programme projects, including an ERC Synergy Grant (4-Oceans) and a COST Action (SAGA). We have established a successful track record in RCN projects such as the on-going FRIHUMSAM MedHeal600 project.

Research Infrastructures

- Museum collections
- Conservation lab
- Radiocarbon and dendrochronology lab
- DNA lab
- <u>Airborne, terrestrial and underwater geophysical</u> <u>surveying infrastructure</u>
- <u>Applied Underwater Robotics Laboratory</u>
- NTNU research vessel Gunnerus



COLLABORATING WITH NTNU

As the largest Norwegian university with high multidisciplinary nature, NTNU offers a wide range of expertise and competences. Specific mapping of available researchers willing to collaborate on Horizon Europe have been performed for all clusters, producing documents similar to this brochure.

Make sure you have the latest version avaible by downloading it from this website.

Should you be interested to explore collaboration opportunities in areas not present in any of these brochures, you can get in touch with the institutional entry points of the university.

ENTRY POINTS

NTNU Brussels Office

Faculty EU advisors

AD - Faculty of Architecture and Design

<u>Tone Woie Alstadheim</u> and <u>Srutarshi Pradhan</u>

HF - Faculty of Humanities

<u>Chamila Thushari Attanapola</u> and <u>Thomas Aarnseth</u>

IE - Faculty of Information Technology and Electrical Engineering Nathalie Søyseth and Filip Jessen

IV - Faculty of Engineering

<u>Ingunn Syrstad Bøgeberg and Miriam K. Khider</u>

MH - Faculty of Medicine and Health Sciences

Emma Louise Walton

NV - Faculty of Natural Sciences

<u>Thais Mothe-Diniz</u> and <u>Eugen Gravningen Sørmo</u>

SU - Faculty of Social and Educational Sciences

<u>Bård Li</u> and <u>Jens Rohloff</u>

ØK - Faculty of Economics and Management

Elisabeth Strand Vigtel

VM - NTNU University Museum

<u>Astrid Johansen</u>

NTNU in Gjøvik

Anne Hilde Ruen Nymoen

NTNU in Alesund

Medya Temelli Fenerci

ASSOCIATED PROFESSORS

Destination 2:

Innovative Research on the European Cultural Heritage and Cultural and Creative Industries

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 2.

The following pages are sorted into the calls for the destination presented in cluster 2. To simplify your navigation among available expertises per topic, the list of topics have been made clickable.

ASSOCIATED PROFESSORS

Destination 2:

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HORIZON-CL2-2024-HERITAGE-ECCCH-01-02: A European Collaborative Cloud for Cultural Heritage – Innovative tools for documenting, interlinking and organising data



Roger Andre Søraa

Department of Interdisciplinary Studies of CultureFaculty of humanities and social sciences

Contact information

roger.soraa@ntnu.no +4748148781

Relevant links outside academia Industry, public sector, NGOs

Expertise

His research focuses on automation, robotization, and the digitalization of society – how humans and technology relate to each other. Dr. Søraa is especially interested in the social domestication of technology.

- RRI, social readiness, SSH, Social robots
- Artificial Intelligence
- Digitalization of healthcare
- Automation of work
- Automation of practices
- Japan digitalization, Korea digitalization; Digitalization in Asia
- Human-technology interaction; Robotization; Digital society; Social domestication of technology; Hospital robots; Gerontechnology
- Technology and society
- Interdisciplinary studies
- Studies of Technology and Society (STS);
 Technological innovation; Cultural impact of technology

Relevant projects

Lead of EU RIA project, partner in several RIA, MSCA, CSA projects.



NTNU

KNOWLEDGE FOR A BETTER WORLD

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NTNU BRUSSELS OFFICE

HF FACULTY

SU FACULTY

OK FACULTY

NTNU UNIVERSITY MUSEUM

PHOTOS

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PAGE 5 - ÅGE HOJEM/NTNU

PAGE 7 - KARI STØRE GULLICHSEN/NTNU

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PAGE 14: AGE HOJEM/NTNU