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Dear Reader,

Are you looking for the best researchers with whom to collaborate on Horizon Europe cluster 6 bids? Then, read on.

We have matched our researchers to the upcoming Horizon Europe calls, based on both their expertise and the industry relations they can bring to the bid.

As the largest university in Norway - NTNU: the Norwegian University of Science and Technology - we can be a powerful partner and collaborator. With 240 signed projects and € 133 million in funding from Horizon 2020, we have currently achieved the University’ set targets for it.

And we are setting even more ambitious targets, for Horizon Europe, making it one of the centerpieces of our international strategy.

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 and technology development create opportunities for increasing sustainable value creation and finding answers to major challenges. Through the United Nations, the world has agreed on 17 Sustainable 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.**
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.

**FACTS**

<table>
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<th>NOK 9,4 billion</th>
<th>41 971</th>
<th>7401</th>
<th>406</th>
</tr>
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<tr>
<td>annual budget</td>
<td>students</td>
<td>person-years</td>
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NTNU offers 371 programmes of study (2019), 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 that is awarded most funding from the Research Council in Norway, as well as being granted with 240 signed projects and a total funding of €133 million from Horizon 2020 (and 11 more projects in the process of being signed). Moreover, NTNU is a host or partner for 46 major research centres (SFF, SFI, and FME), and has internal initiatives to develop and recruit top researchers.

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 participation in more than 30 H2020 projects, 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:
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 five people, Director Massimo Busuoli, one intern and two trainees, as well as an EU advisor which is stationed in Brussels for the Faculty of Information Technology and Electrical Engineering (IE).

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
NTNU's thematic research area on oceans has as its overarching vision to contribute to solving complex sustainability challenges in the ocean space. The aim is to promote ocean related research, education, innovation and outreach within technology, natural and social sciences, humanities and the arts, and specifically to facilitate interdisciplinary activity cutting across these areas.

Our research activities are centered on the following six areas:

**Sustainable use of ocean resources – seafood and marine bio-resources.**
- Salmon farming, with a special focus on the environmental factors.
- Aquaculture technology.
- Improved utilization of bio-marine resources

**Sustainable use of ocean resources – energy and minerals**
- Exploring the possibility of sustainable extraction of marine minerals.
- The possibility for sustainable development of ocean wind and potential other renewable energy sources at sea
Mapping and monitoring of the ocean space
- Consequences of climate change and pollution.
- The Arctic and northern ocean areas.
- Autonomous systems.

Blue art and the humanities
- Historic and cultural studies of technology and management of natural resources.
- Research ethics, technology ethics, and environmental ethics.
- Art and media, what is the role of artists and the media in addressing global challenges connected to the oceans.

Sustainable coastal communities, administration and economy
- Administration of the ocean and ocean resources – locally, nationally and internationally.
- Circular ocean and coastal economy

Green maritime transport and infrastructure
- Energy efficiency
- Autonomous systems

Contact information

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Director NTNU Oceans  
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**Maria Azucena Gutierrez Gongalez**  
NTNU Oceans Research & Education Coordinator  
Phone: +47 91897745  
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**Alexandra Neyts**  
Project Manager Aquaculture  
Phone: +47 73591596  
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NTNU Sustainability

Overcoming the grand challenges of our time will require new thinking and new knowledge. This is the motivation of NTNU Sustainability, which is one of four strategic research areas at NTNU. The programme brings together the best minds from a range of disciplines to create the knowledge needed by society to understand and change unsustainable patterns of behaviour and development.

NTNU’s research includes environmental, economic and social aspects of sustainability in the broadest sense, however, NTNU Sustainability works with some 20 core research units at the university that excel in the field of environmental sustainability, and with focus on four main areas of research:

Area A – Sustainable use and conservation of biodiversity and ecosystem services
Area B – Circular economy and resource efficiency
Area C – Climate change mitigation and adaptation
Area D – Transition towards smart sustainable cities and built environment

To secure strategic interdisciplinary collaboration, these main areas combine elements of research across three interlinked dimensions:

i) Research on innovative, methods solutions and technologies,
ii) Research on modelling, analysis and environmental impact assessment,
iii) Research on behavior and governance for realizing improvement potential.
NTNU Sustainability

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Director NTNU Sustainability
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Tomas Moe Skjølsvold
Research Leader Area C: Climate Change
Phone: +47 73550189
Mail: tomas.skjolsvold@ntnu.no

Annemie Wyckmans
Research Leader Area D: Sustainable Cities
Phone: +47 40871863
Mail: annemie.wyckmans@ntnu.no
NTNU NANO

NTNU is home to the largest centre for nanoscience and nanotechnology in Norway. The aim of the strategic initiative NTNU Nano is to coordinate and promote research within nanotechnology, nanoscience and functional materials at NTNU. Nanotechnology and nanoscience is to a large extent of fundamental nature. However, the potential for future applications is large. NTNU NanoLab aims to be a promoter in the process of establishing new industrial initiatives.

Active research areas within nanoscience and nanotechnology are:
- Nanotechnology for energy and environment
- Nanostructured materials
- Nanoelectronics, nanomagnetism and nanophotonics
- Bionanotechnology
NTNU Food Forum

With a vision to effectively contribute to the European efforts in this important thematic area, the University have created the NTNU Food Forum.

The forum mobilizes around 100 scientific and administrative staff from 8 faculties and 25 departments working with food research, innovation and education, guaranteeing a wide multidisciplinary approach.

The NTNU Food Forum joins social science and humanities expertise with technological, medical and natural science expertise to create collaborative arenas and reach out to industry and civic sectors addressing grand challenges around food.

Through this, NTNU expects to maximize the contribution in knowledge and research capabilities that the biggest Norwegian University can provide to the European System in this important area.
In line with its vision “Natural sciences and technology for a better future”, the research at the Faculty of Natural Sciences addresses global challenges in energy, climate, environment, food, water, health and welfare. Our research activities range from basic research within biology, physics and chemistry, to enabling technologies such as biotechnology, materials technology and nanotechnology.

The faculty hosts three Norwegian Centres of Excellence, within conservation biology, physics of porous media and quantum spintronics respectively, and takes part in several others.

Four Centres for Research-based Innovation are also lead from the faculty. They cover the areas of industrial innovation within the areas of subsea production and processing, industrial catalysis, and metal production.

The faculty is characterized by extensive laboratory infrastructure and field work in education and research, and hosts both university-wide and national research infrastructures.

Among others, these include:

- NTNU's Centre of Fisheries and Aquaculture (SeaLab)
- The Research Vessel Gunnerus. It is equipped with state-of-the-art technology for a variety of research activities within biology, technology, geology, archaeology, oceanography and fisheries research.
- Digital Life Norway. A national research centre for biotechnological education, research and innovation
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 available 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 - link
- AD - Faculty of Architecture and Design – Tone Woie Alstadheim
- HF - Faculty of Humanities – Chamila T. Attanapola and Thomas Aarnseth
- IE - Faculty of Information Technology and Electrical Engineering – Nathalie Søyseth
- IV - Faculty of Engineering – Miriam Khider and Ingunn Syrstad Bøgeberg
- MH - Faculty of Medicine and Health Science – Emma Louise Walton and Morgane Colleau
- NV - Faculty of Natural Sciences – Thais Mothe-Diniz and Eugen Gravningen Sørmo
- SU - Faculty of Social and Educational Sciences – Bård Li and Jens Rohloff
- ØK - Faculty of Economics and Management – Gunnar Bendheim
- VM - NTNU University Museum – Solveig Bakken
- NTNU in Gjøvik – Anne Hilde Ruen Nymoen
- NTNU in Ålesund – Kirsti Brekke
ASSOCIATED RESEARCHERS

Destination 1: Biodiversity and ecosystem services

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 1.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
DESTINATION 1 - CALLS

HORIZON-CL6-2022-BIODIV-01-01: Observing and mapping biodiversity and ecosystems, with particular focus on coastal and marine ecosystems

HORIZON-CL6-2022-BIODIV-01-02: Building taxonomic research capacity near biodiversity hotspots and for protected areas by networking natural history museums and other taxonomic facilities

HORIZON-CL6-2022-BIODIV-01-03: Network for nature: multi-stakeholder dialogue platform to promote nature-based solutions

HORIZON-CL6-2022-BIODIV-01-04: Natural capital accounting: Measuring the biodiversity footprint of products and organizations

HORIZON-CL6-2022-BIODIV-01-05: Intercropping – understanding and using the benefits of complexity in farming and value chains

HORIZON-CL6-2022-BIODIV-01-06: Monitoring and effective measures for agrobiodiversity

HORIZON-CL6-2022-BIODIV-01-07: Protection and sustainable management of forest genetic resources of high interest for biodiversity, climate change adaptation, and forest reproductive materials

HORIZON-CL6-2022-BIODIV-01-08: Assessing the nexus of extraction, production, consumption, trade and behaviour patterns and of climate change action on biodiversity in the context of transformative change

HORIZON-CL6-2022-BIODIV-01-09: Understanding the role of behaviour, gender specifics, lifestyle, religious and cultural values, and addressing the role of enabling players (civil society, policy makers, financing and business leaders, retailers) in decision making

HORIZON-CL6-2022-BIODIV-01-10: Cooperation with the Convention on Biological Diversity

HORIZON-CL6-2022-BIODIV-02-01-two-stage: Maintaining and restoring pollinators and pollination services in European agricultural landscapes

HORIZON-CL6-2022-BIODIV-02-03-two-stage: Resilient beekeeping
Ana Širović

DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

Expertise
Marine bioacoustics, ocean noise, ocean observations, long-term time series analysis, marine mammal acoustics, fish acoustics.

Long-term studies of marine life using passive acoustic methods.

Relevant projects
Ocean ambient sound monitoring across the Pacific Ocean.
Marine mammal monitoring for US Navy.
Cetacean-prey studies.

Contact information
asirovic.ntnu@gmail.com

Brage Bremsset Hansen

DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

Expertise
Ecology, population dynamics, tundra, vegetation ecology, Svalbard, reindeer, arctic, and climate change effects.
Community dynamics, Svalbard reindeer, Barnacle geese, rain-on-snow, behavioral ecology, trophic interactions, population genetics, and extreme climatic events.

Relevant projects
REINCLIM: Reindeer population dynamics under climate change.
INSYNC: Community dynamics in a rapidly warming high Arctic: trophic synchrony in time and space.
Numerous field-based projects in the high Arctic.
Field vegetation experiments in Svalbard.
Barnacle goose population dynamics.
Snow bunting monitoring and reproductive phenology under climate change.
Wild reindeer population monitoring and capture-mark-recapture.
Contemporary and ancient spatial genomics of reindeer.

Contact information
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+47 41604443

Cameron Ghalambor

DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

Expertise
Evolution, ecology, physiology, insect, pollination, pest, and climate.

Range limits and species interactions in coastal habitats.

Relevant projects
Thermal tolerance of temperate and tropical aquatic insects.
Role of plasticity in rapid evolution.
Salinity tolerance and biotic interactions in tropical estuaries.

Contact information
cameron.ghalambor@ntnu.no
+47 92055927
Dina Margrethe Aspen

**DEPARTMENT OF INTERNATIONAL BUSINESS**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Contact information**
dina.aspen@ntnu.no

**Expertise**
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

**Relevant projects**
- Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
- Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
- SUSTRANS - Sustainable transportation in rural tourism pressure areas.

Faouzi Alaya Cheikh

**DEPARTMENT OF COMPUTER SCIENCE**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Contact information**
faouzi.cheikh@ntnu.no
+47 95187956

**Expertise**
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

**Relevant projects**
- Genes to behave - using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operations vehicles.

Jan Grimsrud Davidsen

**DEPARTMENT OF NATURAL HISTORY**
**NTNU UNIVERSITY MUSEUM**

**Contact information**
jan.davidsen@ntnu.no
+47 92464314

**Expertise**
Evaluation of impact from anthropogenic activities on lifehistory choices and migratory behaviour in salmonids in coastal landscapes.
- Biotelemetry, fish tracking, salmonids, impact assessment.

**Relevant projects**
- Consequences of land-use change and human activity on anadromous salmonids and the ecosystem services that they provide.
- Marine migrations, habitat use and survival of sea trout, Atlantic salmon and Arctic char in marine fjord systems with aquaculture.
- Sensitivity of fish to seismic sound, establishing impact distance on NCS.
Jo Arve Alfredsen
DEPARTMENT OF ENGINEERING CYBERNETICS
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

**Expertise**

**Relevant projects**
Aquaexcel, SFI Create, SFI Exposed, SFF AMOS.

**Contact information**
jo.arve.alfredsen@ntnu.no
+47 90945805

**Relevant industry contacts**

Michael Martin
DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

**Expertise**
Genomics, biodiversity, population genetics, phylogenetics

**Relevant projects**
HoloFood, HoloFish, DarwinPlants, ColdRein

**Contact information**
mike.martin@ntnu.no
+47 90151850

**Relevant industry contacts**
Aquaculture

Tomasz Opach
DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

**Expertise**
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

**Relevant projects**
“INSITU – Sharing incident and threat information for common situational understanding”
“ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment”,
“Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems”
“WP3: Interactive Applications and Databases”
“ClimRes; Climate change and natural hazards: the geography of community resilience in Norway”
“In Hac Vita; Increasing Nordic Homeowners’ Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt”
“NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research”
“Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique”

**Contact information**
tomasz.opach@ntnu.no
+47 96856325
Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehICles, funded under MarTERA ERA-NET Call 2020.

Michael Martin

DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Genomics, biodiversity, population genetics, phylogenetics

Contact information
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture

Relevant projects
HoloFood
HoloFish
DarwinPlants
ColdRein
Ferne Edwards

**DEPARTMENT OF DESIGN**
**FACULTY OF ARCHITECTURE AND DESIGN**

**Expertise**
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

**Relevant projects**
- ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
- 2x Australian Research Council projects on ethical consumption - Researcher in project team.
- (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team

**Contact information**
ferne.edwards@ntnu.no
+47 92970304

**Relevant industry contacts**
Water enterprises through my work in EdiCitNet

---

Tomasz Opach

**DEPARTMENT OF GEOGRAPHY**
**FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES**

**Expertise**
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

**Relevant projects**
- “INSITU – Sharing incident and threat information for common situational understanding”
- “ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment”,
- “Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems”
- “WP3: Interactive Applications and Databases”
- “ClimRes; Climate change and natural hazards: the geography of community resilience in Norway”
- “In Hac Vita; Increasing Nordic Homeowners’ Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt”
- “NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research”
- “Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique”

**Contact information**
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+47 96856325

---

Xinlu Qiu

**DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY MANAGEMENT**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Expertise**
Social scientist. Sustainability, business model, public procurement, renewables, SME, energy choice.

**Relevant projects**
- ECHOES (Energy Choices supporting the Energy union and the Set-plan)
- XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).

**Contact information**
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+47 94256320
Dina Margrethe Aspen

DEPARTMENT OF INTERNATIONAL BUSINESS
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
dina.aspen@ntnu.no

Relevant industry contacts
Collaboration with private and public partners such as United Future Lab Norway and Business Hub for Sustainability (b4hs).

Expertise
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

Relevant projects
Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
SUSTRANS - Sustainable transportation in rural tourism pressure areas.
Faouzi Alaya Cheikh
DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperAtion unDerwater foR efficient operATions vehICles.
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DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

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ADRATIC - cooperation underwater for efficient operations vehicles.

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Michael Martin

DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Genomics, biodiversity, population genetics, phylogenetics

Relevant projects
HoloFood
HoloFish
DarwinPlants
ColdRein

Contact information
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture

Tomasz Opach

DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

Relevant projects
“INSITU – Sharing incident and threat information for common situational understanding”
“ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment”
“Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems”
“WP3: Interactive Applications and Databases”
“ClimRes; Climate change and natural hazards: the geography of community resilience in Norway”
“In Hac Vita; Increasing Nordic Homeowners’ Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt”
“NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research”
“Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique”
HORIZON-CL6-2022-BIODIV-01-07: PROTECTION AND SUSTAINABLE MANAGEMENT OF FOREST GENETIC RESOURCES OF HIGH INTEREST FOR BIODIVERSITY, CLIMATE CHANGE ADAPTATION, AND FOREST REPRODUCTIVE MATERIALS

Elizabeth Barron
DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
IPBES, human geography, environmental governance, nontimber forest products, fungi, biodiversity conservation politics, public lands management.

Research on microbiome and its role in biodiversity.

Contact information
elizabeth.barron@ntnu.no

Michael Martin
DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Genomics, biodiversity, population genetics, phylogenetics

Relevant projects
HoloFood
HoloFish
DarwinPlants
ColdRein

Contact information
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture
Dina Margrethe Aspen

**DEPARTMENT OF INTERNATIONAL BUSINESS**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Expertise**
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

**Relevant projects**
Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
SUSTRANS - Sustainable transportation in rural tourism pressure areas.

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Michael Martin

**DEPARTMENT OF NATURAL HISTORY**
**NTNU UNIVERSITY MUSEUM**

**Expertise**
Genomics, biodiversity, population genetics, phylogenetics

**Relevant projects**
HoloFood
HoloFish
DarwinPlants
ColdRein

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Contact information

Dina Aspen
dina.aspen@ntnu.no

Relevant industry contacts
Collaboration with private and public partners such as United Future Lab Norway and Business Hub for Sustainability (b4hs).

Contact information

Michael Martin
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture
Elizabeth Barron

DEPARTMENT OF GEOGRAPHY  
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
IPBES, human geography, environmental governance, nontimber forest products, fungi, biodiversity conservation politics, public lands management.

Expertise in diverse environmental knowledges and participation in decisionmaking.

Contact information
elizabeth.barron@ntnu.no

Lorenzo Cañás Bottos

DEPARTMENT OF SOCIAL ANTHROPOLOGY  
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
Ethnography, qualitative methods, cultural analysis, culture and environment, standardization. Anthropology of religion

Relevant projects
Pata Negra: The social and cultural life of iberian pigs. Culture and food.

Contact information
canas.bottos@ntnu.no
+47 94974869

Relevant industry contacts
Small scale hog production in Spain.

Xinlu Qiu

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY MANAGEMENT  
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Social scientist. Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan). XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).

Contact information
jxinlu.qiu@ntnu.no
+47 94256320
Brage Bremset Hansen

**DEPARTMENT OF BIOLOGY**
**FACULTY OF NATURAL SCIENCES**

**Contact information**
brage.b.hansen@ntnu.no
+47 41604443

**Expertise**
Ecology, population dynamics, tundra, vegetation ecology, Svalbard, reindeer, arctic, and climate change effects.
Community dynamics, Svalbard reindeer, Barnacle geese, rain-on-snow, behavioral ecology, trophic interactions, population genetics, and extreme climatic events.

**Relevant projects**
- REINCLIM: Reindeer population dynamics under climate change.
- INSYNC: Community dynamics in a rapidly warming high Arctic: trophic synchrony in time and space.
- Numerous field-based projects in the high Arctic.
  - Field vegetation experiments in Svalbard.
  - Barnacle goose population dynamics.
  - Snow bunting monitoring and reproductive phenology under climate change.
  - Wild reindeer population monitoring and capture-mark-recapture.
  - Contemporary and ancient spatial genomics of reindeer.

Cameron Ghalambor

**DEPARTMENT OF BIOLOGY**
**FACULTY OF NATURAL SCIENCES**

**Contact information**
cameron.ghalambor@ntnu.no
+47 92055927

**Expertise**
Evolution, ecology, physiology, insect, pollination, pest, and climate.
Identifying adaptive differences in cryptic species.

**Relevant projects**
- Thermal tolerance of temperate and tropical aquatic insects.
- Role of plasticity in rapid evolution.
- Salinity tolerance and biotic interactions in tropical estuaries.

Michael Martin

**DEPARTMENT OF NATURAL HISTORY**
**NTNU UNIVERSITY MUSEUM**

**Contact information**
mike.martin@ntnu.no
+47 90151850

**Relevant industry contacts**
Aquaculture

**Expertise**
Genomics, biodiversity, population genetics, phylogenetics

**Relevant projects**
HoloFood
HoloFish
DarwinPlants
ColdRein
Faouzi Alaya Cheikh
DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
- Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operations vehicles.

Ferne Edwards
DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Contact information
ferne.edwards@ntnu.no
+47 92970304

Relevant industry contacts
Water enterprises through my work in EdiCitNet

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
- ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
- 2x Australian Research Council projects on ethical consumption - Researcher in project team.
- (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team.
Cameron Ghalambor

DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

**Expertise**
Evolution, ecology, physiology, insect, pollination, pest, and climate.

Using physiological tolerance to predict vulnerability and spread of insects to future climate change.

**Relevant projects**
Thermal tolerance of temperate and tropical aquatic insects.
Role of plasticity in rapid evolution.
Salinity tolerance and biotic interactions in tropical estuaries.

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Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

**Expertise**
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

**Relevant projects**
H2020 IA - Work package lead of governance, infrastructure and internationalisation for EdiCitNet, TU Berlin. ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin. 2x Australian Research Council projects on ethical consumption - Researcher in project team. (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team.

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**Contact information**

Cameron Ghalambor
cameron.ghalambor@ntnu.no
+47 92055927

Ferne Edwards
ferne.edwards@ntnu.no
+47 92970304

**Relevant industry contacts**
Water enterprises through my work in EdiCitNet
ASSOCIATED RESEARCHERS

Destination 2: Fair, healthy and environment-friendly food systems from primary production to consumption

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 the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
DESTINATION 2 - CALLS

DISCLAIMER: Please notice that the Topics list is clickable to allow you to immediately reach the one for which you could be interested to open a collaboration dialogue with NTNU

HORIZON-CL6-2022-FARM2FORK-01-04: Innovative solutions to prevent adulteration of food bearing quality labels: focus on organic food and geographical indications

HORIZON-CL6-2022-FARM2FORK-01-06: Biosecurity, hygiene, disease prevention and animal welfare in aquaculture

HORIZON-CL6-2022-FARM2FORK-01-07: Building alternative protein-friendly sustainable and healthy food environments

HORIZON-CL6-2022-FARM2FORK-01-08: Research and innovation for food losses and waste prevention and reduction through harmonised measurement and monitoring

HORIZON-CL6-2022-FARM2FORK-01-09: Microbiomes in food production systems

HORIZON-CL6-2022-FARM2FORK-01-10: Integrated surveillance system to prevent and reduce diet-related non communicable diseases (NCDs)

HORIZON-CL6-2022-FARM2FORK-01-11: Effective systems for authenticity and traceability in the food system

HORIZON-CL6-2022-FARM2FORK-01-12: Agro-ecological approaches in African agriculture systems

HORIZON-CL6-2022-FARM2FORK-01-13: AU-EU Combatting all forms of malnutrition

HORIZON-CL6-2022-FARM2FORK-01-14: African food cities

HORIZON-CL6-2022-FARM2FORK-02-02-two-stage: Emerging and future risks to plant health

HORIZON-CL6-2022-FARM2FORK-02-04-two-stage: Smart solutions for the use of digital technologies for small- and medium-sized, farms and farm structures

HORIZON-CL6-2022-FARM2FORK-02-05-two-stage: Innovative food from marine and freshwater ecosystems
Lorenzo Cañás Bottos

DEPARTMENT OF SOCIAL ANTHROPOLOGY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
Ethnography, qualitative methods, cultural analysis, culture and environment, standardization.
Previous experience in first hand ethnography with small scale farmers (Mennonites in Argentina and Bolivia) as well as with pig producers in Spain (certification and standardization). anthropology of food, food and culture.

Relevant projects
Pata Negra: The social and cultural life of iberian pigs.
Culture and food.

Contact information
канас.ботtos@ntnu.no
+47 94974869

Relevant industry contacts
Small scale hog production in Spain.

Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences.
2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operAtIons vehIcles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.
HORIZON-CL6-2022-FARM2FORK-01-06: BIOSECURITY, HYGIENE, DISEASE PREVENTION AND ANIMAL WELFARE IN AQUACULTURE

Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
- Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operation vehicles.

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), EarTags production company (OSID).

Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Relevant projects
- AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
- AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
- TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
- ADRIATIC – cooperation underwater for efficient operation vehicles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.
Atle Bones
DEPARTMENT OF BIOLOGY
FACULTY OF FACULTY OF NATURAL SCIENCES

Contact information
atle.m.bones@ntnu.no
+47 91897237

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Plant algae plant and algae biotechnology, engineering and natural host defense systems and interactions with pathogens and pests.

Relevant projects
Healthy plants for healthy people.
DAMPs and PAMPs in plant defence
Genome editing of plants and marine algae
Engineering plants and algae for bioremediation

Faouzi Alaya Cheikh
DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperAtion unDerwater foR efficient operATions vehICles.

Duan Chen
DEPARTMENT OF CLINICAL AND MOLECULAR MEDICINE
FACULTY OF MEDICINE AND HEALTH SCIENCES

Contact information
duan.chen@ntnu.no
+47 98409675

Expertise
Experimental surgery and pharmacology, gastroenterology, obesity, cancer.

Relevant projects
Understanding food-gut-brain mechanisms across the lifespan in the regulation of hunger and satiety for health (FP7: 266408)
Horizon-Cl6-2022-Farm2fork-01-07: Building Alternative Protein-Friendly Sustainable and Healthy Food Environments

Marcos X. Álvarez Cid

Department of Computer Science
Faculty of Information Technology and Electrical Engineering

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences.

2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperation underwater for efficient operations vehicles, funded under MarTERA ERA-NET Call 2020.
Eva Falch

DEPARTMENT OF BIOTECHNOLOGY AND FOOD SCIENCE
FACULTY OF FACULTY OF NATURAL SCIENCES

Contact information
eva.falch@ntnu.no
+47 93098888

Relevant industry contacts
Link to regional food actors (e.g. Bavi food, Sunndalspotet, Oi Trøndersk mat og drikke), seafood industry, fish oil producers (e.g. Rieber vivomega), biotechnology (e.g. Greentech innovators), associations (e.g. Sjømatbedriftene) and clusters of companies (e.g. NCE Aquatech Cluster, NCE Blue Legasea).

Expertise
Food science, Food technology, Food Biotechnology, Enzymatic processing, Food quality, Biomarine resources, Lipid chemistry, Lipid processing, Oil refinement, Lipid oxidation, Lipid stability, Lipid analysis, Food proteins, Rest raw materials, Nuclear magnetic resonance spectroscopy, Food industry.

Biotechnology and food science for producing and stabilizing for food usage, technology, quality and analysis as food ingredients.

Relevant projects
SUPREME - Sustainable Utilisation of rest raw materials from whitefish (2019-2023)
OMEGA - fish Oil MicroEncapsulation Generating fortified food products for improved human health (2020-2024)
ReFOOD - international partnership for research and education in energy efficient resource utilization in FOOD value chains between Norway and India. (2016-2020)
IFOODnet - Towards a Norway - Japan Innovative Research & Training Network Driving Next-Generation Food Systems (2021-2024)
InterCold - Interdisciplinary Education and Research Platform in Cold-Chain of Fish: From Norway to Japan (2020-2023) Waste2Value - Industry cases in the student curriculum (2020-)
Digital Classrooms with EU - project where the students are in dialogue with EU policy makers and food actors. (2016-)
Other selected project: Utilisation of byproducts from fisheries (EU 2001-2006)

Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Contact information
ferne.edwards@ntnu.no
+47 92970304

Relevant industry contacts
Water enterprises through my work in EdiCitNet

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
2x Australian Research Council projects on ethical consumption - Researcher in project team.
(Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team
Heidi Dreyer

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Supply chain management and logistics

Relevant projects
Retail supply chain management 2020

Heidi.C.Dreyer@ntnu.no
+47 98291146

Relevant industry contacts
Norwegian food producers such as Tine and Nortura and retailers such as Coop, Norgesgruppen and Rema.

Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR effIcient operATions vehICles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.
Paritosh C Deshpande

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
paritosh.deshpande@ntnu.no
+47 45040995

Relevant industry contacts
1) Strong links to industrial stakeholders from Norwegian fishing sector, fishing gear producers, waste managers, recycling sector
2) Strong academic and professional collaborations with the industrial sector (steel, ship recycling, construction, waste management) from India

Expertise
Circular economy, decision support for sustainable development, marine plastics pollution, resources management, citizen science.

Working on projects associated with Assessing sustainability in the circular economy strategies within the fish food sector of Norway.

Relevant projects
1) Circular Ocean (EU-NPA), 2015-2018
2) Blue Circular Economy (EU-NPA) 2018-2021
3) Dismantling of Vessels with Enhanced Safety and Technology DIVEST (EU FP7) 2008-2011
CalaFeed (NFR): Sustainability in the novel fish feed technology 2021-2024
SDGAsia: Mapping plastic waste from fishing gears and development of sustainable resource management in Taiwan (UN) 2021-2023
Daniel Machado

DEPARTMENT OF BIOTECHNOLOGY AND FOOD SCIENCE
FACULTY OF NATURAL SCIENCES

Contact information
daniel.machado@ntnu.no
+47 45040995

Relevant industry contacts
SilicoLife, Portugal (expertise: computational design of optimized microorganisms)
Chr. Hansen, Denmark (expertise: design of starter cultures for the fermented food industry)

Expertise
Computational Biology, Microbial Strain Design, Microbial Communities, Modeling and Simulation, Genomescale metabolic modeling.

I can contribute with modeling and omics-based data integration and analysis of microbial communities.

Relevant projects
ERA CoBioTech - Cell4Chem (as PI)
EU2020 - ShikiFactory (as post-doc)
EU2020 - DD-DeCaF (as post-doc)

Michael Martin

DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Contact information
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture

Expertise
Genomics, biodiversity, population genetics, phylogenetics

Relevant projects
HoloFood
HoloFish
DarwinPlants
ColdRein
Duan Chen

DEPARTMENT OF CLINICAL AND MOLECULAR MEDICINE
FACULTY OF MEDICINE AND HEALTH SCIENCES

Contact information
duan.chen@ntnu.no
+47 98409675

Expertise
Experimental surgery and pharmacology, gastroenterology, obesity, cancer.

Relevant projects
Understanding food-gut-brain mechanisms across the lifespan in the regulation of hunger and satiety for health (FP7: 266408)
Heidi Dreyer
DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
Heidi.C.Dreyer@ntnu.no
+47 98291146

Expertise
Supply chain management and logistics

Relevant projects
Retail supply chain management 2020

Relevant industry contacts
Norwegian food producers such as Tine and Nortura and retailers such as Coop, Norgesgruppen and Rema.

Lorenzo Cañás Bottos
DEPARTMENT OF SOCIAL ANTHROPOLOGY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Contact information
canas.bottos@ntnu.no
+47 94974869

Expertise
Ethnography, qualitative methods, cultural analysis, culture and environment, standardization.
Previous experience in first hand ethnography with small scale farmers (Mennonites in Argentina and Bolivia) as well as with pig producers in Spain (certification and standardization). Anthropology of food, food and culture.

Relevant projects
Pata Negra: The social and cultural life of iberian pigs.
Culture and food.

Relevant industry contacts
Small scale hog production in Spain.
Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehICles, funded under MarTERA ERA-NET Call 2020.
Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
- Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operations vehicles.

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), EarTags production company (OSID).
Hao Wang

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Artificial intelligence; big data; data-driven water data analysis.

Relevant projects
One PhD in water data analysis, in collaboration with a water engineering professor inside NTNU.

Contact information
hawa@ntnu.no
+47 70161534

Relevant industry contacts
Different cities government (kommuner) in Norway, as they manage water resources and facilities.

Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Ethical Analysis; Ethical assessment; Environmental and Social Justice;

Contact information
rita.bouman@ntnu.no
Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
- Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operations vehicles.

Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
- ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
- 2x Australian Research Council projects on ethical consumption - Researcher in project team.
- (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team.
Atle Bones
DEPARTMENT OF BIOLOGY
FACULTY OF FACULTY OF NATURAL SCIENCES

Expertise
Plant algae plant and algae biotechnology, engineering and natural host defense systems and interactions with pathogens and pests.

Relevant projects
Healthy plants for healthy people. DAMPs and PAMPs in plant defence Genome editing of plants and marine algae Engineering plants and algae for bioremediation

Contact information
atle.m.bones@ntnu.no
+47 91897237

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Michael Martin
DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Genomics, biodiversity, population genetics, phylogenetics

Relevant projects
HoloFood
HoloFish
DarwinPlants
ColdRein

Contact information
mike.martin@ntnu.no
+47 90151850

Relevant industry contacts
Aquaculture
Faouzi Alaya Cheikh

**DEPARTMENT OF COMPUTER SCIENCE**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Contact information**
faouzi.cheikh@ntnu.no
+47 95187956

**Relevant industry contacts**
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), dairy production company (TINE AS), Eartags production company (OSID).

**Expertise**
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

**Relevant projects**
- Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
- New traits in pig and cattle based on 3D imaging technology.
- 3D Udder conformity traits.
- ADRATIC - cooperation underwater for efficient operations vehicles.

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Heidi Dreyer

**DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Contact information**
Heidi.C.Dreyer@ntnu.no
+47 98291146

**Relevant industry contacts**
Norwegian food producers such as Tine and Nortura and retailers such as Coop, Norgesgruppen and Rema.

**Expertise**
Supply chain management and logistics

**Relevant projects**
Retail supply chain management 2020

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Jo Arve Alfredsen

**DEPARTMENT OF ENGINEERING CYBERNETICS**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Contact information**
jo.arve.alfredsen@ntnu.no
+47 90945805

**Relevant industry contacts**

**Expertise**

**Relevant projects**
- Aquaexcel.
- SFI Create.
- SFI Exposed.
- SFF AMOS.
Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehICles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

Xinlu Qiu

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Social scientist. Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan). XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).

Contact information
jxinlu.qiu@ntnu.no
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Arun Kamath

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Contact information
arun.kamath@ntnu.no
+47 46649127

Expertise
Wave modelling, wave-structure interaction, floating structures in waves, mooring floating structures, aquaculture structures, spreading of marine pollution.

Relevant projects
Research council of Norway: High resolution modelling of floating flexible aquaculture structures

Duan Chen

DEPARTMENT OF CLINICAL AND MOLECULAR MEDICINE
FACULTY OF MEDICINE AND HEALTH SCIENCES

Contact information
duan.chen@ntnu.no
+47 98409675

Expertise
Experimental surgery and pharmacology, gastroenterology, obesity, cancer.

Relevant projects
Understanding food-gut-brain mechanisms across the lifespan in the regulation of hunger and satiety for health (FP7: 266408)

Eva Falch

DEPARTMENT OF BIOTECHNOLOGY AND FOOD SCIENCE
FACULTY OF FACULTY OF NATURAL SCIENCES

Contact information
eva.falch@ntnu.no
+47 93098888

Expertise
Food science, Food technology, Food Biotechnology, Enzymatic processing, Food quality, Biomarine resources, Lipid chemistry, Lipid processing, Oil refinement, Lipid oxidation, Lipid stability, Lipid analysis, Food proteins, Rest raw materials, Nuclear magnetic resonance spectroscopy, Food industry.

Relevant projects
SUPREME - Sustainable Utilisation of rest raw materials from whitefish (2019-2023)
OMEGA - fish Oil MicroEncapsulation Generating fortified food products for improved human health (2020-2024)
ReFOOD - international partnership for research and education in energy efficient resource utilization in FOOD value chains between Norway and India. (2016-2020)
InterCold - Interdisciplinary Education and Research Platform in Cold-Chain of Fish: From Norway to Japan (2020-2023)
Waste2Value - Industry cases in the student curriculum (2020-)
Digital Classrooms with EU - project where the students are in dialogue with EU policy makers and food actors. (2016-)
Other selected project: Utilisation of byproducts from fisheries (EU 2001-2006)
ASSOCIATED RESEARCHERS

Destination 3: Circular economy and bioeconomy sectors

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 3.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
HORIZON-CL6-2022-CIRCBIO-01-01: Circular Cities and Regions Initiative’s project development assistance (CCRI-PDA)

HORIZON-CL6-2022-CIRCBIO-01-02: Marginal lands and climate-resilient and biodiversity-friendly crops for sustainable industrial feedstocks and related value chains

HORIZON-CL6-2022-CIRCBIO-01-03: Benefits of the transition towards sustainable circular bio-based systems from linear fossil-based

HORIZON-CL6-2022-CIRCBIO-01-04: Maximising economic, environmental and social synergies in the provision of feedstock for bio-based sectors through diversification and increased sustainability of agricultural production systems

HORIZON-CL6-2022-CIRCBIO-01-05: EU-China international cooperation on unlocking the potential of agricultural residues and wastes for circular and sustainable bio-based solutions

HORIZON-CL6-2022-CIRCBIO-01-07: Marine microbiome for a healthy ocean and a sustainable blue bioeconomy

HORIZON-CL6-2022-CIRCBIO-02-01-two-stage: Integrated solutions for circularity in buildings and the construction sector

HORIZON-CL6-2022-CIRCBIO-02-03-two-stage: Sustainable biodegradable novel bio-based plastics: innovation for sustainability and end-of-life options of plastics

HORIZON-CL6-2022-CIRCBIO-02-04-two-stage: Photosynthesis revisited: climate emergency, “no pollution and zero-emission” challenge and industrial application

HORIZON-CL6-2022-CIRCBIO-02-05-two-stage: Life sciences and their convergence with digital technologies for prospecting, understanding and sustainably using biological resources

HORIZON-CL6-2022-CIRCBIO-02-06-two-stage: Harnessing the digital revolution in the forest-based sector
Andreas Erbe
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39

Xinlu Qiu
DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Social scientist.
Sustainability, business model, public procurement, renewables, SME, energy choice.

Contact information
jxinlu.qiu@ntnu.no
+47 94256320

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan).
XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).
Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Contact information
ferne.edwards@ntnu.no
+47 92970304

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
2x Australian Research Council projects on ethical consumption - Researcher in project team.
(Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team.

Relevant industry contacts
Water enterprises through my work in EdiCitNet

Thorsten Hamann

DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

Contact information
thorsten.hamann@ntnu.no

Expertise
Plant cell walls, plant environment interactions, abiotic stress

Relevant projects
NFR funded project on plant cell wall wall integrity maintenance, MSCA osmotic regulation and cell walls.
HORIZON-CL6-2022-CIRCBIO-01-03: BENEFITS OF THE TRANSITION TOWARDS SUSTAINABLE CIRCULAR BIO-BASED SYSTEMS FROM LINEAR FOSSIL-BASED

Andreas Erbe
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19 FERRY-FREE E39

Ottar Michelsen
DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Environmental management, environmental reporting, sustainability, circular economy, impacts of land use, impacts of climate change

Contact information
ottar.michelsen@ntnu.no

Relevant industry contacts
Relevant projects
Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
rita.bouman@ntnu.no

Expertise
Ethical Analysis; Ethical assessment;
Environmental and Social Justice;
Diego Maria Barbieri

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDISM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Xinlu Qiu

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Social scientist.
Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan).
XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).

Contact information
jxinlu.qiu@ntnu.no
+47 94256320
Atle Bones
DEPARTMENT OF BIOLOGY
FACULTY OF NATURAL SCIENCES

Expertise
Plant algae plant and algae biotechnology, engineering and natural host defense systems and interactions with pathogens and pests.

Relevant projects
Healthy plants for healthy people.
DAMPs and PAMPs in plant defence
Genome editing of plants and marine algae
Engineering plants and algae for bioremediation

Contact information
atle.m.bones@ntnu.no
+47 91897237

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Paritosh C Deshpande
DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Circular economy, decision support for sustainable development, marine plastics pollution, resources management, citizen science.

Relevant projects
1) Circular Ocean (EU-NPA), 2015-2018
2) Blue Circular Economy (EU-NPA) 2018-2021
3) Dismantling of Vessels with Enhanced Safety and Technology DIVEST (EU FP7) 2008-2011
CalaFeed (NFR): Sustainability in the novel fish feed technology 2021-2024
SDGAsia : Mapping plastic waste from fishing gears and development of sustainable resource management in Taiwan (UN) 2021-2023

Contact information
paritosh.deshpande@ntnu.no
+47 45040995

Relevant industry contacts
1) Strong links to industrial stakeholders from Norwegian fishing sector, fishing gear producers, waste mangers, recycling sector
2) strong academic and professional collaborations with the industrial sector (steel, ship recycling, construction, waste management) from India
Andreas Erbe

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Contact information
andreas.erbe@ntnu.no
+47 73594048

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Diego Maria Barbieri

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Contact information
diego.barbieri@ntnu.no
+47 93002908

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19 FERRY-FREE E39

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Ottar Michelsen

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
ottar.michelsen@ntnu.no

Expertise
Environmental management, environmental reporting, sustainability, circular economy, impacts of land use, impacts of climate change

Relevant industry contacts
Recycling industry,
Xinlu Qiu

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
jxinlu.qiu@ntnu.no
+47 94256320

Expertise
Social scientist.
Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan).
XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).
Andreas Erbe
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Contact information
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+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39
Andreas Erbe

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Atle Bones

DEPARTMENT OF BIOLOGY
FACULTY OF FACULTY OF NATURAL SCIENCES

Expertise
Plant algae plant and algae biotechnology, engineering and natural host defense systems and interactions with pathogens and pests.

Contact information
atle.m.bones@ntnu.no
+47 91897237

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), dairy production company (TINE AS), EarTags production company (OSID).

Relevant projects
Healthy plants for healthy people.
DAMPs and PAMPs in plant defence
Genome editing of plants and marine algae
Engineering plants and algae for bioremediation
Per Bruheim

DEPARTMENT OF BIOTECHNOLOGY AND FOOD SCIENCE
FACULTY OF FACULTY OF NATURAL SCIENCES

Contact information
Per.Bruheim@ntnu.no
+47 41498495

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Bioreactor operation/ Fermentation technology Microbial physiology Metabolomics, Fluxomics, Lipidomics

Relevant projects
Healthy plants for healthy people. DAMPs and PAMPs in plant defence Genome editing of plants and marine algae Engineering plants and algae for bioremediation
Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperation underwater for efficient operations vehicles.

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), dairy production company (TINE AS), Eartags production company (OSID).
ASSOCIATED RESEARCHERS

Destination 4: Clean environment and zero pollution

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 4.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
HORIZON-CL6-2022-ZEROPOLLUTION-01-01: Preventing groundwater contamination and protecting its quality against harmful impacts of global and climate change

HORIZON-CL6-2022-ZEROPOLLUTION-01-02: Piloting innovative governance solutions to limit nitrogen and phosphorus emissions at the interface of rural/coastal and urban/industrial environments

HORIZON-CL6-2022-ZEROPOLLUTION-01-03: EU-China international cooperation on nature-based solutions for nutrient management in agriculture

HORIZON-CL6-2022-ZEROPOLLUTION-01-04: Securing drinking water quality by protecting water sources against pollution, providing innovative monitoring and treatment solutions and ensuring safe distribution
HORIZON-CL6-2022-ZEROPOLLUTION-01-01: PREVENTING GROUNDWATER CONTAMINATION AND PROTECTING ITS QUALITY AGAINST HARMFUL IMPACTS OF GLOBAL AND CLIMATE CHANGE

Andreas Erbe

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Hao Wang

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Artificial intelligence; big data; data-driven water data analysis.

Contact information
hawa@ntnu.no
+47 70161534

Relevant industry contacts
Different cities government (kommuner) in Norway, as they manage water resources and facilities.

Thomas Meyn

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Advanced water treatment: Coagulation / flocculation, (membrane) filtration, adsorption, electrochemical oxidation Experience with treatment of drinking water, landfill leachate and urban runoff from roads and tunnels, including tunnel wash water Water quality analysis, characterization of (natural) organic matter and particles / colloids in water, complementary effect-based characterization

Contact information
thomas.meyn@ntnu.no

Relevant industry contacts
Water Treatment Technology, Inrigo AS Filter material provider, Leca AS

Relevant projects
One PhD in water data analysis, in collaboration with a water engineering professor inside NTNU.
Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
Aquatic Pollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAR - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehICles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Tomasz Opach

DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

Relevant projects
“INSITU – Sharing incident and threat information for common situational understanding”
“ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment”,
“Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems”
“WP3: Interactive Applications and Databases”
“ClimRes; Climate change and natural hazards: the geography of community resilience in Norway”
“In Hac Vita; Increasing Nordic Homeowners’ Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt”
“NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research”
“Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique”

Contact information
tomasz.opach@ntnu.no
+47 96856325
Andreas Erbe

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry
Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39

Hao Wang
DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Artificial intelligence; big data; data-driven water data analysis.

Relevant projects
One PhD in water data analysis, in collaboration with a water engineering professor inside NTNU.

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Contact information
hawa@ntnu.no
+47 70161534

Relevant industry contacts
Different cities government (kommuner) in Norway, as they manage water resources and facilities.
Andreas Erbe

DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperation underwater for efficient operations vehicles.

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), dairy production company (TINE AS), Eartags production company (OSID).

Hao Wang

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Artificial intelligence; big data; data-driven water data analysis.

Relevant projects
One PhD in water data analysis, in collaboration with a water engineering professor inside NTNU.

Contact information
hawa@ntnu.no
+47 70161534

Relevant industry contacts
Different cities government (kommuner) in Norway, as they manage water resources and facilities.
Marcos X. Álvarez Cid

**DEPARTMENT OF COMPUTER SCIENCE**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Expertise**
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences.

2D/3D digitization.

**Relevant projects**
- AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
- AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
- TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
- ADRIATIC – cooperAtion unDerwater foR effIcient operATions vehICles, funded under MarTERA ERA-NET Call 2020.

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

Paritosh C Deshpande

**DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Expertise**
Circular economy, decision support for sustainable development, marine plastics pollution, resources management, citizen science.

Manage a Laboratory at NTNU to perform specific analysis to characterize, quantify micro pollutants in the waters.

**Relevant projects**
1) Circular Ocean (EU-NPA), 2015-2018
2) Blue Circular Economy (EU-NPA) 2018-2021
3) Dismantling of Vessels with Enhanced Safety and Technology DIVEST (EU FP7) 2008-2011
CalFeed (NFR): Sustainability in the novel fish feed technology 2021-2024
SDGAsia : Mapping plastic waste from fishing gears and development of sustainable resource management in Taiwan (UN) 2021-2023

Contact information
paritosh.deshpande@ntnu.no
+47 45040995

Relevant industry contacts
1) Strong links to industrial stakeholders from Norwegian fishing sector, fishing gear producers, waste mangers, recycling sector
2) strong academic and professional collaborations with the industrial sector (steel, ship recycling, construction, waste management) from India
Thomas Meyn

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Advanced water treatment: Coagulation / flocculation, (membrane) filtration, adsorption, electrochemical oxidation Experience with treatment of drinking water, landfill leachate and urban runoff from roads and tunnels, including tunnel wash water Water quality analysis, characterization of (natural) organic matter and particles / colloids in water, complementary effect-based characterization

Contact information
thomas.meyn@ntnu.no

Relevant industry contacts
Water Treatment Technology, Inrigo AS Filter material provider, Leca AS

Øyvind Mikkelsen

DEPARTMENT OF CHEMISTRY
FACULTY OF NATURAL SCIENCES

Expertise
Analytical and environmental chemistry, Arctic Aquaculture

Contact information
oyvindm@ntnu.no
+47 73596260

Relevant industry contacts
Aquaculture Metallurgical / processing industry
Here you can find potential NTNU professors and employees that are interested in collaborations on destination 5.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
HORIZON-CL6-2022-CLIMATE-01-01: Climate sensitive water allocation systems and economic instruments

HORIZON-CL6-2022-CLIMATE-01-02: Understanding the oceanic carbon cycle

HORIZON-CL6-2022-CLIMATE-01-04: Fostering the resilience of agricultural production: from observation of changes to the development of resilience strategies
HORIZON-CL6-2022-CLIMATE-01-01: CLIMATE SENSITIVE WATER ALLOCATION SYSTEMS AND ECONOMIC INSTRUMENTS

Tomasz Opach

DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

Contact information
tomasz.opach@ntnu.no
+47 96856325

Relevant projects
“INSITU – Sharing incident and threat information for common situational understanding”
“ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment”,
“Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems”
“WP3: Interactive Applications and Databases”
“ClimRes; Climate change and natural hazards: the geography of community resilience in Norway”
“In Hac Vita; Increasing Nordic Homeowners’ Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt”
“NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research”
“Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique”
HORIZON-CL6-2022-CLIMATE-01-02: UNDERSTANDING THE OCEANIC CARBON CYCLE

Atle Bones

DEPARTMENT OF BIOLOGY
FACULTY OF FACULTY OF NATURAL SCIENCES

Expertise
Plant algae plant and algae biotechnology, engineering and natural host defense systems and interactions with pathogens and pests.

Relevant projects
Healthy plants for healthy people.
DAMPs and PAMPs in plant defence
Genome editing of plants and marine algae
Engineering plants and algae for bioremediation

Contact information
atle.m.bones@ntnu.no
+47 91897237

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperation underwater for efficient operations vehicles.

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), dairy production company (TINE AS), Eartags production company (OSID).
Arne Anderson Stamnes

**DEPARTMENT OF ARCHAEOLOGY AND CULTURAL HISTORY**
**NTNU UNIVERSITY MUSEUM**

**Expertise**
Archaeology, geophysical surveys, GIS- and spatial analysis, geostatistics, cartography.

Studying the resilience of past agricultural societies.

**Contact information**
arne.stamnes@ntnu.no
+47 90958457

**Relevant industry contacts**
Large expertise in 3d-radar Ground Penetrating Radar systems.

Tomasz Opach

**DEPARTMENT OF GEOGRAPHY**
**FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES**

**Expertise**
GIS and geographic visualization, information visualization, visual interfaces, empirical user studies, vulnerability and resilience assessment, thematic mapping, cartographic design.

**Contact information**
tomasz.opach@ntnu.no
+47 96856325

**Relevant projects**
"INSITU – Sharing incident and threat information for common situational understanding"
"ExTra – Exploring Climate Transitions in the Making: Integrative Planning Towards a Sustainable Built Environment"
"Citizen Sensing – Urban Climate Resilience through Participatory Risk Management Systems"
"WP3: Interactive Applications and Databases"
"ClimRes; Climate change and natural hazards: the geography of community resilience in Norway"
"In Hac Vita; Increasing Nordic Homeowners' Adaptive Capacity to Climate Change: Research and development of a web-based tool VisAdapt"
"NORD-STAR; Nordic Center of Excellence (NCoE) – Nordic Strategic Adaptation Research"
"Prototype development of the Forest Fire Visualizator and its evaluation with eye-tracking technique"
ASSOCIATED RESEARCHERS

Destination 6: Resilient, inclusive, healthy and green rural, coastal and urban communities

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 6.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
HORIZON-CL6-2022-COMMUNITIES-01-01: Boosting women-led innovation in farming and rural areas

HORIZON-CL6-2022-COMMUNITIES-01-02: Assessing and improving labour conditions and health and safety at work in farming

HORIZON-CL6-2022-COMMUNITIES-01-03: Integration of marine ecosystem service valuation, conservation and restoration in socio-economic models

HORIZON-CL6-2022-COMMUNITIES-01-04: Social innovation in food sharing to strengthen urban communities’ food resilience

HORIZON-CL6-2022-COMMUNITIES-01-05: Assessing the socio-politics of nature-based solutions for more inclusive and resilient communities

HORIZON-CL6-2022-COMMUNITIES-02-01-two-stage: Smart solutions for smart rural communities: empowering rural communities and smart villages to innovate for societal change

HORIZON-CL6-2022-COMMUNITIES-02-02-two-stage: Developing nature-based therapy for health and well-being
Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
rita.bouman@ntnu.no

Expertise
Ethical Analysis; Ethical assessment;
Environmental and Social Justice;
Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
faouzi.cheikh@ntnu.no
+47 95187956

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave – using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperation underwater for efficient operations vehicles.
Dina Margrethe Aspen

DEPARTMENT OF INTERNATIONAL BUSINESS
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

Relevant projects
Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
SUSTRANS - Sustainable transportation in rural tourism pressure areas.

Contact information
dina.aspen@ntnu.no

Jan Grimsrud Davidsen

DEPARTMENT OF NATURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Evaluation of impact from anthropogenic activities on lifehistory choices and migratory behaviour in salmonids in coastal landscapes.
Biotelemetry, fish tracking, salmonids, impact assessment.

Relevant projects
Consequences of land-use change and human activity on anadromous salmonids and the ecosystem services that they provide.
Marine migrations, habitat use and survival of sea trout, Atlantic salmon and Arctic charr in marine fjord systems with aquaculture.
Sensitivity of fish to seismic sound, establishing impact distance on NCS.

Contact information
jan.davidsen@ntnu.no
+47 92464314

Relevant industry contacts
Aqua culture, international road constructors.
HORIZON-CL6-2022-COMMUNITIES-01-04: SOCIAL INNOVATION IN FOOD SHARING TO STRENGTHEN URBAN COMMUNITIES’ FOOD RESILIENCE

Ferne Edwards
DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Contact information
ferne.edwards@ntnu.no
+47 92970304

Relevant projects
ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
2x Australian Research Council projects on ethical consumption - Researcher in project team.
(Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team

Relevant industry contacts
Water enterprises through my work in EdiCitNet

Lorenzo Cañás Bottos
DEPARTMENT OF SOCIAL ANTHROPOLOGY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Expertise
Ethnography, qualitative methods, cultural analysis, culture and environment, standardization.
Previous experience in first hand ethnography with small scale farmers (Mennonites in Argentina and Bolivia) as well as with pig producers in Spain (certification and standardization), anthropology of food, food and culture.

Contact information
canas.bottos@ntnu.no
+47 94974869

Relevant projects
Patenaegra: The social and cultural life of Iberian pigs.
Culture and food.

Relevant industry contacts
Small scale hog production in Spain.

Rita V. d'Oliveira
DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Ethical Analysis; Ethical assessment; Environmental and Social Justice;

Contact information
ritabouman@ntnu.no
Arne Anderson Stamnes

DEPARTMENT OF ARCHAEOLOGY AND CULTURAL HISTORY
NTNU UNIVERSITY MUSEUM

Contact information
arne.stamnes@ntnu.no
+47 90958457

Expertise
Archaeology, geophysical surveys, GIS- and spatial analysis, geostatistics, cartography.

Studying the resilience of past agricultural societies.

Relevant projects
Several large-scale geophysical surveys, predictive modeling, climate-change and prehistoric agriculture

Elizabeth Barron

DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Contact information
elizabeth.barron@ntnu.no

Expertise
IPBES, human geography, environmental governance, nontimber forest products, fungi, biodiversity conservation politics, public lands management..

Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Contact information
ferne.edwards@ntnu.no
+47 92970304

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
2x Australian Research Council projects on ethical consumption - Researcher in project team.
(Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team
Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Ethical Analysis; Ethical assessment;
Environmental and Social Justice;

Contact information
rita.bouman@ntnu.no
**Dina Margrethe Aspen**

**DEPARTMENT OF INTERNATIONAL BUSINESS**
**FACULTY OF ECONOMICS AND MANAGEMENT**

**Contact information**
dina.aspen@ntnu.no

**Expertise**
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

**Relevant projects**
Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
SUSTRANS - Sustainable transportation in rural tourism pressure areas.

**Diego Maria Barbieri**

**DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING**
**FACULTY OF ENGINEERING**

**Contact information**
diego.barbieri@ntnu.no
+47 93002908

**Relevant industry contacts**
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

**Expertise**
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

**Relevant projects**
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design SOCIETAL IMPACT OF COVID-19 FERRY-FREE E39

**Faouzi Alaya Cheikh**

**DEPARTMENT OF COMPUTER SCIENCE**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Contact information**
faouzi.cheikh@ntnu.no
+47 95187956

**Relevant industry contacts**
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

**Expertise**
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

**Relevant projects**
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperAtion unDerwater foR efficient operATions vehICles.
Marcos X. Álvarez Cid

**DEPARTMENT OF COMPUTER SCIENCE**
**FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING**

**Contact information**
marcos.alvarez@ntnu.no  
+47 73413034

**Relevant industry contacts**
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

**Expertise**
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

**Relevant projects**
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehICles, funded under MarTERA ERA-NET Call 2020.
Duan Chen

**DEPARTMENT OF CLINICAL AND MOLECULAR MEDICINE**
**FACULTY OF MEDICINE AND HEALTH SCIENCES**

**Contact information**
duan.chen@ntnu.no
+47 98409675

**Expertise**
Experimental surgery and pharmacology, gastroenterology, obesity, cancer.

**Relevant projects**
Understanding food-gut-brain mechanisms across the lifespan in the regulation of hunger and satiety for health (FP7: 266408)
ASSOCIATED RESEARCHERS

Destination 7: Innovative governance, environmental observations and digital solutions in support of the Green Deal

Here you can find potential NTNU professors and employees that are interested in collaborations on destination 7.

The following pages are sorted into the calls for the destination presented in the draft for cluster 6. To simplify your navigation among available expertise per topic, the list of topics have been made clickable.
DESTINATION 6 - CALLS

HORIZON-CL6-2022-GOVERNANCE-01-01: Mobilisation of society to transform food systems for co-benefits

HORIZON-CL6-2022-GOVERNANCE-01-02: European Partnership for a climate neutral, sustainable and productive Blue Economy

HORIZON-CL6-2022-GOVERNANCE-01-03: Multi-layer governance performance of marine policies

HORIZON-CL6-2022-GOVERNANCE-01-06: Water governance, economic and financial sustainability of water systems

HORIZON-CL6-2022-GOVERNANCE-01-07: New technologies for acquiring in-situ observation datasets to address climate change effects

HORIZON-CL6-2022-GOVERNANCE-01-08: Uptake and validation of citizen observations to complement authoritative measurement within the urban environment and boost related citizen engagement

HORIZON-CL6-2022-GOVERNANCE-01-09: Environmental observations solutions contributing to meeting “One Health” challenges

HORIZON-CL6-2022-GOVERNANCE-01-10: Piloting approaches and tools to empower citizens to exercise their “data rights” in the area of food and nutrition

HORIZON-CL6-2022-GOVERNANCE-01-11: Upscaling (real-time) sensor data for EU-wide monitoring of production and agri-environmental conditions

HORIZON-CL6-2022-GOVERNANCE-01-12: Thematic networks to compile and share knowledge ready for practice


HORIZON-CL6-2022-GOVERNANCE-01-14: Improving preparation of multi-actor projects to enable the relevant actors to work in a co-creative way

HORIZON-CL6-2022-GOVERNANCE-01-15: Developing EU advisory networks on water use
Elizabeth Barron

DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL AND EDUCATIONAL SCIENCES

Contact information
elizabeth.barron@ntnu.no

Expertise
IPBES, human geography, environmental governance, nontimber forest products, fungi, biodiversity conservation politics, public lands management...

Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Contact information
ferne.edwards@ntnu.no
+47 92970304

Relevant industry contacts
Water enterprises through my work in EdiCitNet

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
H2020 IA - Work package lead of governance, infrastructure and internationalisation for EdiCitNet, TU Berlin. ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin. 2x Australian Research Council projects on ethical consumption - Researcher in project team. (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team

Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
rita.bouman@ntnu.no

Expertise
Ethical Analysis; Ethical assessment; Environmental and Social Justice;
HORIZON-CL6-2022-GOVERNANCE-01-02: EUROPEAN PARTNERSHIP FOR A CLIMATE NEUTRAL, SUSTAINABLE AND PRODUCTIVE BLUE ECONOMY

Eva Falch
DEPARTMENT OF BIOTECHNOLOGY AND FOOD SCIENCE
FACULTY OF FACULTY OF NATURAL SCIENCES

Expertise
Food science, Food technology, Food Biotechnology, Enzymatic processing, Food quality, Biomarine resources, Lipid chemistry, Lipid processing, Oil refinement, Lipid oxidation, Lipid stability, Lipid analysis, Food proteins, Rest raw materials, Nuclear magnetic resonance spectroscopy, Food industry.

Relevant projects
SUPREME - Sustainable Utilisation of rest raw materials from whitefish (2019-2023)
OMEGA - fish Oil MicroEncapsulation Generating fortified food products for improved human health (2020-2024)
ReFOOD - international partnership for research and education in energy efficient resource utilization in FOOD value chains between Norway and India. (2016-2020)
IFOODnet - Towards a Norway - Japan Innovative Research & Training Network Driving Next-Generation Food Systems (2021-2024)
InterCold - Interdisciplinary Education and Research Platform in Cold-Chain of Fish: From Norway to Japan (2020-2023)
Waste2Value - Industry cases in the student curriculum (2020-)
Digital Classrooms with EU - project where the students are in dialogue with EU policy makers and food actors. (2016-)
Other selected project: Utilisation of byproducts from fisheries (EU 2001-2006)

Contact information
eva.falch@ntnu.no
+47 93098888

Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF
Xinlu Qiu

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
MANAGEMENT
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
jxinlu.qiu@ntnu.no
+47 94256320

Expertise
Social scientist.
Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan).
XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).
Rita V. d'Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Contact information
rita.bouman@ntnu.no

Expertise
Ethical Analysis; Ethical assessment;
Environmental and Social Justice;
Hao Wang

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Artificial intelligence; big data; data-driven water data analysis.

Relevant projects
One PhD in water data analysis, in collaboration with a water engineering professor inside NTNU.

Contact information
hawa@ntnu.no
+47 70161534

Rita V. d' Oliveira

DEPARTMENT OF INDUSTRIAL ECONOMICS AND TECHNOLOGY
FACULTY OF ECONOMICS AND MANAGEMENT

Expertise
Ethical Analysis; Ethical assessment; Environmental and Social Justice;

Contact information
rita.bouman@ntnu.no
Andreas Erbe
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING
FACULTY OF NATURAL SCIENCES

Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Contact information
andreas.erbe@ntnu.no
+47 73594048

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

Arne Anderson Stamnes
DEPARTMENT OF ARCHAEOLOGY AND CULTURAL HISTORY
NTNU UNIVERSITY MUSEUM

Expertise
Archaeology, geophysical surveys, GIS- and spatial analysis, geostatistics, cartography.

Relevant projects
Several large-scale geophysical surveys, predictive modeling, climate-change and prehistoric agriculture

Contact information
arne.stamnes@ntnu.no
+47 90958457

Relevant industry contacts
Large expertise in 3d-radar Ground Penetrating Radar systems.

Diego Maria Barbieri
DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
FACULTY OF ENGINEERING

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39

Contact information
diego.barbieri@ntnu.no
+47 93002908

Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF
HORIZON-CL6-2022-GOVERNANCE-01-07: NEW TECHNOLOGIES FOR ACQUIRING IN-SITU OBSERVATION DATASETS TO ADDRESS CLIMATE CHANGE EFFECTS

Jo Arve Alfredsen

DEPARTMENT OF ENGINEERING CYBERNETICS
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
jo.arve.alfredsen@ntnu.no
+47 90945805

Relevant industry contacts

Expertise

Relevant projects
Aquaexcel.
SFI Create.
SFI Exposed.
SFF AMOS.

Marcos X. Álvarez Cid

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Contact information
marcos.alvarez@ntnu.no
+47 73413034

Relevant industry contacts
Contacts with the Norwegian animal breeding industry. At the international level, good links with research institutes on plant production and Agriculture 4.0. Also water utilities companies.

Expertise
Senior professional on European R&D funding with a proven track-record of granted projects in the last 8 years. Expertise in this field is supported by a research career focused on the development of image analysis algorithms for environmental and industrial applications, with special emphasis in the agrifood and water sectors. Subjects covered include hyperspectral imaging, computer vision, image processing, pattern recognition, texture analysis, 3D representation, IoT and AI. Co-author of more than 20 publications in peer-reviewed journals and international conferences. 2D/3D digitization.

Relevant projects
AIHABs - AI-powered Forecast for Harmful Algal Blooms, funded under ERA-NET COFUND.
AquaticPollutants 2020. ALAMEDA – Bridging the Early Diagnosis and Treatment Gap of Brain Diseases via Smart, Connected, Proactive and Evidence-based Technological Interventions, funded under H2020-SC1-DTH-02-2020.
TransformAr - Accelerating and upscaling transformational adaptation in Europe: demonstration of water-related innovation packages, funded under the Green Deal H2020-LC-GD-1-3-2020.
ADRIATIC – cooperAtion unDerwater foR efficient operATions vehiCles, funded under MarTERA ERA-NET Call 2020.
Dina Margrethe Aspen
DEPARTMENT OF INTERNATIONAL BUSINESS
FACULTY OF ECONOMICS AND MANAGEMENT

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Expertise
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

Relevant projects
Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
SUSTRANS - Sustainable transportation in rural tourism pressure areas.

Relevant industry contacts
Collaboration with private and public partners such as United Future Lab Norway and Business Hub for Sustainability (b4hs).

Xinlu Qiu
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FACULTY OF ECONOMICS AND MANAGEMENT

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Expertise
Social scientist.
Sustainability, business model, public procurement, renewables, SME, energy choice.

Relevant projects
ECHOES (Energy Choices supporting the Energy union and the Set-plan).
XPRESS (Support for public procurements to facilitate the collaboration between SMEs and public sector for the development and adoption of renewables in municipalities and cities).
Diego Maria Barbieri

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Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

Relevant projects
HERMES - Integrated Evaluation of Energy and Emission Reduction Potential and Management Strategies for Urban and Road Systems
VEGDIM - Analytical Pavement Design
SOCIETAL IMPACT OF COVID-19
FERRY-FREE E39
Faouzi Alaya Cheikh

DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs. New traits in pig and cattle based on 3D imaging technology. 3D Udder conformity traits. ADRATIC - cooperation underwater for efficient operations vehicles.

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Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Earhtags production company (OSID).

Ferne Edwards

DEPARTMENT OF DESIGN
FACULTY OF ARCHITECTURE AND DESIGN

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
H2020 IA - Work package lead of governance, infrastructure and internationalisation for EdiCitNet, TU Berlin. ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin. 2x Australian Research Council projects on ethical consumption - Researcher in project team. (Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team.

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Relevant industry contacts
Water enterprises through my work in EdiCitNet.
HORIZON-CL6-2022-GOVERNANCE-01-11: UPSCALING (REAL-TIME) SENSOR DATA FOR EU-WIDE MONITORING OF PRODUCTION AND AGRI-ENVIRONMENTAL CONDITIONS

Andreas Erbe
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Expertise
Corrosion and interface chemistry of engineering materials; in situ spectroscopy; applied vibrational spectroscopy, especially empirical interpretations

Relevant industry contacts
Metal producing industry; metal pretreatment industry; solar industry

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Expertise
Image and video processing and analysis, Signal processing, machine learning, deep learning, multi-target tracking, IoT, multimodal data analysis.

Relevant projects
Genes to behave –using vision related behavior traits in commercial breeding programs for pigs.
New traits in pig and cattle based on 3D imaging technology.
3D Udder conformity traits.
ADRATIC - cooperator unDerwater foR efficient operATions vehICles.

Relevant industry contacts
Animal breeding: pigs and cows (NORSVIN AS, GENO AS), diary production company (TINE AS), Eartags production company (OSID).

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Expertise

Relevant projects
Aquaexcel.
SFI Create.
SFI Exposed.
SFF AMOS.

Relevant industry contacts
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Relevant industry contacts
The Norwegian Public Roads Administration (NPRA), Veidekke, SINTEF

Expertise
Civil Engineering, Highway and Pavement Engineering, Transportation Engineering, Bridge Engineering, Life Cycle Assessment

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Relevant industry contacts
Water enterprises through my work in EdiCitNet

Expertise
Social scientist (cultural anthropology) with extensive experience in sustainable cities, food systems and just transitions.

Relevant projects
ERC Consolidator grant - core member of SHARECITY research team, Trinity College Dublin.
2x Australian Research Council projects on ethical consumption - Researcher in project team.
(Australian) National Climate Change Adaptation program (NCCARF) - Researcher in project team
Dina Margrethe Aspen

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**Expertise**
Sustainability analysis, multi-criteria decision analysis, digital twin, mobility, urban and regional planning, smart cities.

**Relevant projects**
- Twin Fjord - A participatory planning support system for sustainable land-use management using digital twin technology.
- Smart Plan - Sustainable development through co-creation and visual simulation in urban and regional planning.
- SUSTRANS - Sustainable transportation in rural tourism pressure areas.

Eva Falch

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**Expertise**
Food science, Food technology, Food Biotechnology, Enzymatic processing, Food quality, Biomarine resources, Lipid chemistry, Lipid processing, Oil refinement, Lipid oxidation, Lipid stability, Lipid analysis, Food proteins, Rest raw materials, Nuclear magnetic resonance spectroscopy, Food industry.

**Relevant projects**
- SUPREME - Sustainable Utilisation of rest raw materials from whitefish (2019-2023)
- OMEGA - fish Oil MicroEncapsulation Generating fortified food products for improved human health (2020-2024)
- ReFOOD - international partnership for research and education in energy efficient resource utilization in FOOD value chains between Norway and India. (2016-2020)
- iFOODnet - Towards a Norway - Japan Innovative Research & Training Network Driving Next-Generation Food Systems (2021-2024)
- InterCold - Interdisciplinary Education and Research Platform in Cold-Chain of Fish: From Norway to Japan (2020-2023)
- Waste2Value - Industry cases in the student curriculum (2020-2021)
- Digital Classrooms with EU - project where the students are in dialogue with EU policy makers and food actors. (2016-2020)
- Other selected project: Utilisation of byproducts from fisheries (EU 2001-2006)
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Relevant industry contacts
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Relevant projects
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Relevant industry contacts
Water enterprises through my work in EdiCitNet

Expertise
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Expertise
Ethical Analysis; Ethical assessment; Environmental and Social Justice;
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Expertise
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Environmental and Social Justice;