NTNU’s cooperation with partners from Germany in Horizon 2020 projects

- There are 309 participations from Germany in 203 H2020 projects NTNU participates in (of a total of 2936 participations)
- There are 143 unique partners from Germany (out of the 309 participations)
- Approximately 10,5 % of all participations in NTNU’s H2020 projects are from Germany
- 93 participations from Germany (30 %) are from universities
- 162 participations from Germany (70%) are from public and private sector, including research institutes
- In 126 out of 203 Horizon 2020 projects NTNU is participating in, there are one or more partner from Germany (62%)
<table>
<thead>
<tr>
<th>Area</th>
<th>Number of participations from Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICT</td>
<td>44</td>
</tr>
<tr>
<td>Doctoral education</td>
<td>43 – many areas</td>
</tr>
<tr>
<td>Energy</td>
<td>40</td>
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<tr>
<td>Environment</td>
<td>36</td>
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<tr>
<td>Research Infrastructures</td>
<td>35 – many areas</td>
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<tr>
<td>Health</td>
<td>25</td>
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<tr>
<td>Materials</td>
<td>20</td>
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<tr>
<td>Security</td>
<td>18</td>
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<td>Food</td>
<td>18</td>
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<td>Government</td>
<td>7</td>
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<tr>
<td>Transport</td>
<td>6</td>
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<td>Manufacturing</td>
<td>6</td>
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<tr>
<td>Society</td>
<td>4</td>
</tr>
<tr>
<td>Space</td>
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</tbody>
</table>
B-WaterSmart: Accelerating Water Smartness in Coastal Europe

Coordinator: IWW RHEINISCH-WESTFALISCHES INSTITUT FUR WASSER BERATUNGS-UND ENTWICKLUNGSGESELLSCHAFT MBH € 294 218

Partner: NTNU € 792 432

Overall budget: € 17 432 120

Programme: Environment

Partners: 18 partners

Proposal abstract:
A water-smart economy and society is geared towards avoiding water scarcity and pollution, increasing resilience to climate change and managing water-related risks. The EU-funded B-WaterSmart project aims to speed up the transition to water-smart economies and societies in coastal Europe and beyond. To achieve this, it will adopt a large-scale systemic innovation approach to select, connect and demonstrate tailored solutions for multiple users and sectors. It will further create new business models based on circular economy and water-smartness.

The project will deliver a new framework for evaluating gains in water-smartness and sustainability at different scales. It will also demonstrate a range of promising technologies for water reuse and nutrient recovery as well as smart data applications for more efficient resource allocation and use.
SisAl Pilot: Innovative pilot for Silicon production with low environmental impact using secondary Aluminium and silicon raw materials

Coordinator: NTNU € 1 861 865
Partners from Germany: RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN € 1 409 571
SIQAI UG € 360 403
HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV € 381 250

Overall budget: € 14 538 129
Programme: Environment
Partners: 22 partners

Proposal abstract:
A water-smart economy and society is geared towards avoiding water scarcity and pollution, increasing resilience to climate change and managing water-related risks. The EU-funded B-WaterSmart project aims to speed up the transition to water-smart economies and societies in coastal Europe and beyond. To achieve this, it will adopt a large-scale systemic innovation approach to select, connect and demonstrate tailored solutions for multiple users and sectors. It will further create new business models based on circular economy and water-smartness.

The project will deliver a new framework for evaluating gains in water-smartness and sustainability at different scales. It will also demonstrate a range of promising technologies for water reuse and nutrient recovery as well as smart data applications for more efficient resource allocation and use.
OceanNETs: Ocean-based Negative Emission Technologies - analyzing the feasibility, risks, and cobenefits of ocean-based negative emission technologies for stabilizing the climate

Coordinator: HELMHOLTZ ZENTRUM FUR OZEANFORSCHUNG KIEL € 2 502 447
Partner: NTNU € 200 801
Overall budget: € 14 538 129
Programme: Environment
Partners: 14 partners

Proposal abstract:
The Intergovernmental Panel on Climate Change Special Report on Global Warming underlines that all projected actions aiming to limit warming up to 1.5 °C also require the use of negative emission technologies (NETs). So far, the majority of NETs studies have focused on land-based technologies, which are unlikely to be a sufficient climate mitigation measure to compliment emission reductions. Knowledge of ocean-based technologies that may have a higher capacity to remove and store carbon, is still limited. The EU-funded OceanNETs project will explore the feasibility, positive and negative impacts of ocean-based NETs and demonstrate whether they can play a substantial and sustainable role in medium-to-long-term actions to limit warming. Additionally, the impacts of ocean-based NETs on society and the Earth system, as well as the effects of ocean-based and land-based NETs interactions, will be assessed.
NTNU – Germany
University Cooperation in H2020 – more than 3 projects together

- RWTH AACHEN – 8 participations
- TECHNISCHE UNIVERSITAET MUENCHEN – 8 participations
- TECHNISCHE UNIVERSITAET DRESDEN – 5 participations
- TECHNISCHE UNIVERSITAT BERLIN - – 5 participations
- KARLSRUHER INSTITUT FUER TECHNOLOGIE – 5 participations
- FRIEDRICH-ALEXANDER-UNIVERSITAET ERLANGEN NUERNBERG – 4 participations
- GOTTFRIED WILHELM LEIBNIZ UNIVERSITAET HANNOVER – 4 participations
- MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV - 4 participations
- UNIVERSITAET HAMBURG - 4 participations
- UNIVERSITAET STUTTGART - 4 participations
German participants in NTNU’s H2020 projects from publica and private sector – partners with more than 3 participations

- DEUTSCHES ZENTRUM FUER LUFT - UND RAUMFAHRT EV – 4 participations
- EUROPEAN MOLECULAR BIOLOGY LABORATORY – 4 participations
- FORSCHUNGSZENTRUM JULICH GMBH – 10 participations
- FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. - 15 participations
- Gauss Centre for Supercomputing (GCS) e.V. – 4 participations
- HELMHOLTZ Insitute- 7 participations
- LEIBNIZ-INSTITUT - 5 participations
- ROBERT BOSCH GESELLSCHAFT FUR MEDIZINISCHE FORSCHUNG MBH – 5 participations