



STRATEGIC COLLABORATION AGREEMENT

for Cooperation in Education, Research and
Development

Between The Norwegian University of Science and
Technology – NTNU and Norsk Hydro ASA



31. oktober – 2022



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Research and Development



Between

**The Norwegian University of
Science and Technology - NTNU**

hereinafter called “NTNU” or “Party”

And

Norsk Hydro ASA

hereinafter called “Hydro” or «Party”

Collectively referred to as “the Parties”

1 FORM OF COLLABORATION AGREEMENT

1.1 Background and purpose

The Parties have a long tradition for collaboration within education, research and development, and the Parties now wish to strengthen cooperation in areas of common interest.

As a result of mutual interest in strengthening joint collaborative efforts that meets the demands and challenges in the Parties' strategies, the Parties wish to establish a long-term strategic collaboration agreement (the "Collaboration Agreement"). The main purpose of the Collaboration Agreement is to further develop and strengthen ongoing professional collaboration on research, development, and education for mutual benefit. The Parties already have a broad project co-operation. This agreement does not replace the existing project agreements between the parties.

NTNU's vision is knowledge for a better world. NTNU's core values are creative, critical, constructive, and respectful. The core values are a platform for the university's collaboration with various partners. The university's activities are rooted in academic freedom. NTNU represents academic eminence in technology and the natural sciences as well as in other academic disciplines. NTNU uses its knowledge for the good of society and engages in solving global challenges. NTNU is internationally oriented and a contributor to global knowledge development. Research activity at NTNU is increasingly financed from international sources and in collaboration between researchers in various countries.

Whereas Hydro is a - a world leading and fully integrated aluminum company with employees and activity in 40 countries on all continents, combining local expertise, worldwide reach and unmatched capabilities in R&D. In addition to production of primary aluminum, extruded products and recycling, Hydro also extracts bauxite, refines alumina and generates energy to be the only fully integrated company of the global aluminum industry. Hydro is both highly committed to strengthening the viability of its customers and communities, and also to shaping a sustainable future through innovative aluminum solutions. Hydro also owns, operates, and have investments in various businesses outside of the aluminum industry with a base in sustainable industries and is present in a broad range of sustainable market segments like metal recycling, the battery value chain and renewables (hereunder renewable energy production, distribution, storage and new, innovative energy solutions), offering a unique wealth of knowledge and competence.

Hydro and NTNU both recognize the importance of ensuring long-term sustainability in accordance with the United Nations' sustainability goals and wish to promote collaboration to enable this. Hydro and NTNU base their collaboration on the integrity of science, widely accepted standards for research ethics and on the principles of open science.

Hydro and NTNU have the shared intention to strengthen, explore and increase the cooperation between and within the Parties in connection to Hydro's technology strategy

and climate ambitions of becoming a net-zero company by 2050 and to NTNU's strategy and contribution to a sustainable future

2 ORGANISATION

The Parties will establish a Steering Committee with representatives from both Parties. The Steering committee will meet once a year.

The Parties seek to establish strategic fields as further defined under section 3 below ("Strategic Fields"). The number and content of the Strategic Fields will depend on the joint strategic agenda and a successful collaboration between the Parties. The Steering Committee shall annually evaluate and decide upon the Strategic Fields and the strategic drivers which form the basis of the collaboration between the Parties.

Each Strategic Field will be formed and organized as required within the specific Strategic Field in question. The Parties agree that the Strategic Fields will have different requirements with respect to meeting frequency, participants, and organisation. The following is proposed as a guideline, but can be adjusted to each Strategic Field:

- The Strategic Field will consist of an adequate and equal number of representatives of each Party. The representatives shall plan, execute, and monitor the outcome from the Strategic Field.
- The Strategic Field will arrange meetings regularly as required, with the intention to meet 2 times each year.
- The Strategic Field will elect a leader that will
 - o Serve as a liaison between the Steering Committee and the Strategic Field.
 - o Send notice in writing of a meeting to all representatives in the Strategic Field as soon as possible and no later than 14 days before the Strategic Field meeting.
 - o Prepare and send to each representative a written agenda no later than 7 days before a planned meeting.
 - o Produce written minutes from each meeting

3 AREAS OF COOPERATION

3.1 Strategic drivers

The Parties will collaborate on defined Strategic Fields and on cross-cutting topics, such as digitalization and sustainability (environmental, social and economic), zero emissions, circular economy, life-cycle management and maintenance of biodiversity, which will provide direction and guidance for the collaboration.

This Collaboration Agreement is dynamic and should reflect the parties' strategies at any time. However, for the sake of information and clarity, the strategic drivers at the time of the start of the agreement, *in addition to the cross-cutting topics*, are listed in the following:

- Decarbonization of the aluminum value chain
- Recycling of aluminium
- Alloy competence
- Product development competence

- Utilization of digital tools and technologies for secure and safe operations
- Battery and hydrogen technology
- Renewable energy production and electrification

The following topics should guide the collaboration initiatives:

- Aluminium upstream; Primary Production incl bauxite and alumina:
 - Energy efficient and climate neutral Aluminum production
 - Fossil carbon independent technologies
 - Carbon capture
 - Use of hydrogen as fuel, etc.
 - Circular economy
- Aluminium downstream; Casting, recycling and extrusion:
 - Low carbon products and processes
 - Alloy development, casting, extrusion, materials response, surface quality, material quality, design and product development, increased use of aluminium in products
 - Recycling
 - Digitalisation and cyber security
 - Lean technology and production technologies
- Energy:
 - Renewable energy (hydropower, wind, solar)
 - Hydrogen
 - Battery technology
 - Digital twins and systems for interaction
 - Electrification
 - Thermal energy storage

3.2 Mechanism for cooperation

The mechanisms for cooperation will mainly be within education and competence, research and technology development, and infrastructure.

- Research and technology development

Research collaboration includes collaborative projects and centers funded by third parties such as the Norwegian Research Council and the EU, bilateral projects commissioned by Hydro and sponsored activities such as funding for professorships and Ph.D. Grants.

- Infrastructure, data and equipment

The parties will, when relevant, cooperate on investment, use and operation of research infrastructure. The parties wish to cooperate on the collection and use of data for research purposes.

- Education and competence

The parties will have a dialogue about Hydro's need for competence and lifelong learning, with the aim to increase and build knowledge related to the Strategic Fields and drivers defined above.

4 GENERAL OBLIGATIONS

This Collaboration Agreement establishes the terms under which the Parties will conduct their collaboration. The Parties shall faithfully cooperate with each other based on mutual respect and trust and adhere to the framework for this Collaboration Agreement.

This Collaboration Agreement sets forth the general intention, regulation, and principles for strategic collaboration of mutual interest and activities and projects. Including activities and projects such as

- i. Research projects/Centres Co-funded by public authorities and/or Third parties under "Multilateral Agreements"
- ii. Work/assignments commissioned by Hydro
- iii. Sponsored activities at NTNU funded by Hydro

The Parties shall agree on a joint set of standard contracts to regulate the cooperation.

This agreement does not prevent the parties from entering into similar agreements with other actors.

For the avoidance of doubt, Hydro is not bound to commission work from NTNU under this Collaboration Agreement, and NTNU is not bound to deliver work under this Collaboration Agreement.

4.1 Users of the agreement

This Collaboration Agreement may be used by the Parties and its Affiliates for Strategic Collaboration.

4.2 Publication

One of the purposes of the Collaboration Agreement is to identify common projects that result in scientific publications.

4.3 Confidentiality

Confidential information as disclosed by either party in the Steering Committee and/or as part of the work within a Strategic Field, cf. section 2 above, shall be kept confidential.

CONFIDENTIAL INFORMATION disclosed by a party, in a tangible or intangible form, shall be duly indicated as confidential:

- in the case of information disclosed in documentary or other tangible form, by labelling same as "CONFIDENTIAL", "PROPRIETARY" or the like,
- in the case of intangible disclosures, such as oral, visual or machine-readable disclosures of information, by confirming same as proprietary or confidential, in writing within one month after disclosure.

4.4 Liability

Neither party shall be liable to the other party for indirect loss or consequential loss including, but not limited to, loss of profit, loss of income, turnover or loss of contracts unless such loss did not occur because of gross negligence or intent.

Each party is itself responsible for loss or material damage and personal injury that occurs because of a Party's performance of its obligations in connection with this cooperation agreement.

Otherwise, reference is made to liability provisions as regulated in the individual project agreement.

5 DURATION

The duration of this Collaboration Agreement is 5 years from the date of signature. The Parties are entitled to extend the duration of this Collaboration Agreement with two periods of 2 years each, by mutual agreement in writing. An extension shall be approved by the Steering Committee two months prior to the expiration of this Collaboration Agreement.

6 REPRESENTATIVES OF THE PARTIES

Each of the Parties shall in writing nominate representatives (hereafter referred to as "Representatives"). A Representative is entitled to appoint a deputy to act in his or her stead. Each Party is entitled to substitute its Representative by notifying the other Party in writing.

The Parties' Representatives in connection with this Collaboration Agreement are:

Hydro

- For contractual matters: Morten Landsgård
- For technical matters: Hans Erik Vatne

NTNU:

- For contractual and technical matters: Øyvind Gregersen

7 GOVERNING LAW AND DISPUTES

This Collaboration Agreement shall be governed by and interpreted in accordance with Norwegian law.

Disputes arising in connection with the Collaboration Agreement shall be settled by private negotiation between the Parties through negotiations. If the Parties are not able to agree to a solution, the dispute shall be settled by Oslo Tingrett.

For avoidance of doubt, disputes arising in connection with or because of Multilateral Agreements or other project agreements, shall be settled by the regulations in that specific agreement.

For Hydro

Hilde M. Aasheim

Signature

Date:

HILDE M. AASHEIM

31/10-2022

HILDE MERETE AASHEIM

PRESIDENT & CEO

For NTNU

Signature

Date:

Anne Borg

31.10.2022

ANNE BORG

RECTOR