

**INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION
ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)**

**Geneva, Switzerland
25-26 October 2022**

Contribution by Switzerland

**to the CSTD 2022-2023 priority theme on “Technology and innovation for cleaner
and more productive and competitive production”**

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PRIORITY THEME 1: Technology and innovation for cleaner and more productive and competitive production

United Nations Commission on Science and Technology for Development (CSTD)

Dear CSTD member,

As you are aware, the [CSTD 25th annual session](#) selected “Technology and innovation for cleaner and more productive and competitive production” as one of the priority themes for its 26th session (2022-23 period). This priority theme is directly relevant to SDG 9 on industry, innovation and infrastructure.

As highlighted by the [Technology and Innovation Report 2021](#), We live in a time of rapid technological change, at the height of the digital transformation and the early stages of the Industry 4.0 revolution. These technological waves have great potential to bring about the transformations needed to achieve the SDGs, reduce poverty, tackle climate change and put the world on a sustainable path. They also offer a window of opportunity for developing countries to catch up technologically and narrow global divides. Critical areas for innovation in this new technological revolution are renewable energy technologies and frontier technologies for sustainable production and consumption. Innovation in these areas could help diversify economies and create higher-wage jobs while protecting the planet.

This priority theme will examine national strategies and policies related to green technology and green innovation, and the role of international cooperation, including triangular and South-South cooperation, in supporting developing countries to benefit from windows of opportunity for developing, using, adopting and adapting these frontier technologies in production processes for catching up economically and technologically.

Questions to be addressed include: What countries should do to take advantage of this window of opportunity? How could the international community support developing countries in this regard?

The CSTD secretariat is in the process of drafting an issues paper on the theme to be presented at the CSTD inter-sessional panel meeting from 25 to 27 October 2022. In this context, we would like to solicit input from the CSTD members on this theme. We would be grateful if you could kindly answer the following questions based on your experience in your country or region.

1. What are some specific examples (from the public and private sectors) of green technology and innovation for cleaner and more productive and competitive production in your country? Please include contact, website, link to reports and any other relevant information concerning these projects and initiatives.

The Swiss Innovation Agency Innosuisse promotes various projects in the fields of Bio-sourced Materials and Processing, Energy from Biomass, Environmental Technologies/Cleantech, Life Cycle Analysis, Recycling, Sustainable Land Use, of which some can be linked to cleaner productive production. In the years 2018-2022 promoted 235 projects in these fields, which is 14% of all [by Innosuisse approved projects](#).
(Contact: [Adrian Berwert](#) Innosuisse)

Offers of innovation promotion in the energy sector 2021-2022 for Swiss companies and research institutes:

[Detailed report including executive summary](#)

Selected federal funding offers:

(Contact for the following: [Andreas Haselbacher](#) SFOE)

- [SFOE Research Programs](#) - Research in all major technology fields in the areas of renewable energy and energy efficiency (ongoing application submissions + calls for proposals).

- [SFOE Pilot and Demonstration Program](#) - Development and testing of innovative energy technologies (ongoing applications)
- [SFOE SWEET](#) - funding program for 6 to 8-year consortium projects with direct reference to the goals of the [Energy Strategy 2050](#) and the [long-term climate strategy](#) of the federal government
- [SFOE ProKilowatt](#) - competitive calls for tenders for electricity-saving measures (calls for tenders)
- [SwissEnergy](#) - voluntary measures for the implementation of the energy strategy (ongoing applications + calls for tenders)
- [Repic](#) - project funding for energy-related projects in developing and transition countries (ongoing applications)
- [Technology Fund](#) - loans for innovative technologies to reduce greenhouse gas emissions (ongoing applications)

Other national funding opportunities related to energy:

- [Klik Foundation](#) - support for domestic and foreign projects to reduce greenhouse gas emissions
- [Climate Foundation](#) - support for SMEs that contribute to climate protection through projects
- [myclimate](#) - support for worldwide climate protection projects

Companies focusing on renewable energy, energy efficiency, greenhouse gas emissions:

- [Adaptricity](#) - planning of smart grids
- [Climeworks](#) - removal of CO2 from the air
- [Cowa](#) - heat storage for building applications
- [Futuricum](#) - electric trucks
- [Qaptis](#) - Removal of CO2
- [Sun2Wheel](#) - intelligent charging of electric cars
- [Symphony](#) - urban planning
- [Synhelion](#) - Production of renewable energy sources
- [Urbio](#) - urban planning
- [Winners of the BFE Watt D'Or](#) in the categories
 - Energy Technologies
 - Renewable energies
 - Energy efficient mobility
 - Buildings and Space
- And many more...

For startups in Switzerland in the field of energy, see for example:

- [Swiss Energy Startup Map 2020](#)
- [Swiss portal for cleantech startups - CleantechAlps.](#)

Networks:

- [AgroCleanTech](#) - Swiss agriculture energy consulting agency.
- [Brenet](#) - National Competence Network Building Technology and Renewable Energies
- [energie-cluster.ch](#) - Network for a CO2-neutral energy world
- [Infrawatt](#) - Association for Energy Utilization from Wastewater, Waste, Waste Heat and Drinking Water
- [NTN Innovation Booster Energy Lab](#) - Network for innovative solutions in the energy sector
- [Reffnet](#) - Network Resource Efficiency Switzerland
- [S-win](#) - Network for innovative wood technologies for the decarbonization of society

2. What are the national strategies, policies, and laws concerning green technology and innovation for cleaner and more productive and competitive production in your country?

In its 2030 Sustainable Development Strategy (2030 SDS), the Federal Council outlines the priorities it intends to set to implement the 2030 Agenda over the next ten years.

(<https://www.eda.admin.ch/agenda2030/en/home/strategie/strategie-nachhaltige-entwicklung.html>)

See further:

[Energy Strategy 2050](#)

[Long-term climate strategy](#)

[Principles of energy policy](#)

(Contact: [Andreas Haselbacher](#) SFOE)

The [Federal Act on the Promotion of Research and Innovation](#) defines as principle, that when planning federally funded activities, research bodies shall take the goals of the sustainable development of society, the economy and the environment into account (Art. 6).

The Swiss Federal Council formulates its policy for the promotion of education, research and innovation every four years in a [dispatch on the promotion of education, research and innovation](#). This dispatch is sent to the Federal Assembly for approval. In its ERI Dispatch for the years 2025-2028 sustainability is one of main transversal topics.

(Contact: [Fabienne Marti Locher](#) SERI)

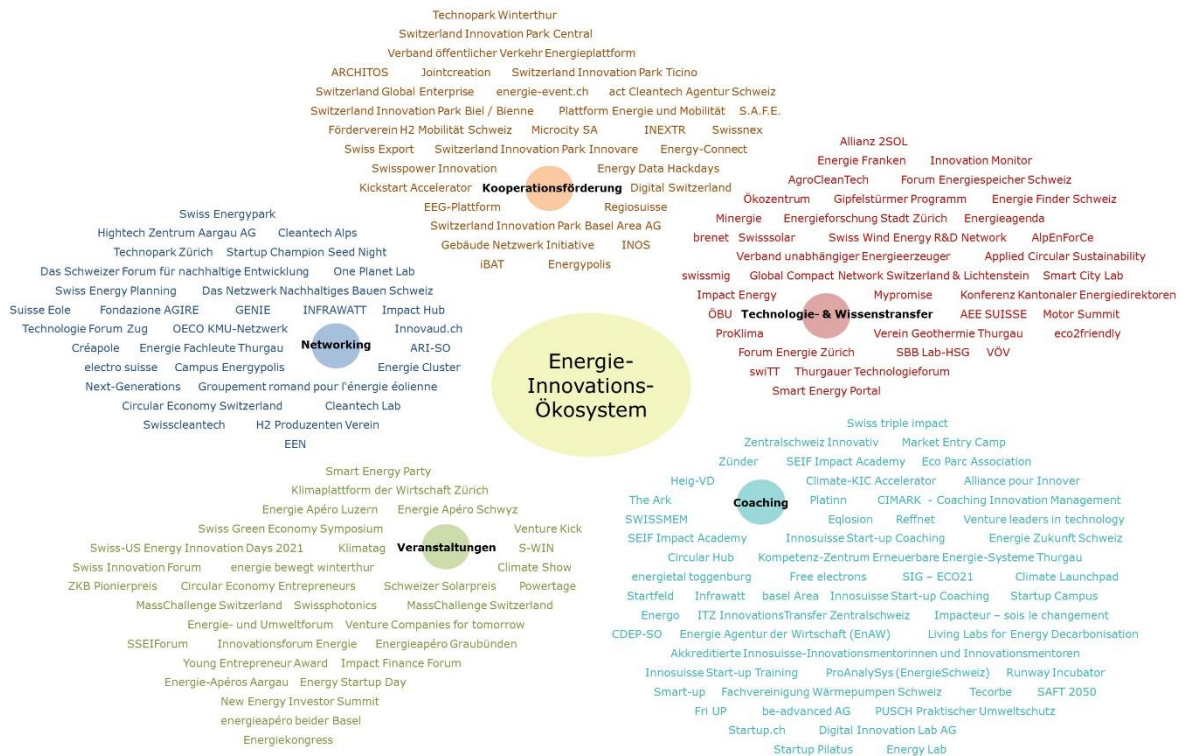
Innosuisse contributes to sustainable economic, social and environmental development at national and global level by strengthening science-based innovation and entrepreneurship in Switzerland. It provides [Flag Ship-Projects](#) and [NTN-Innovation-Boosters](#) in the field of sustainability.

(Contact: [Adrian Berwert](#) Innosuisse)

3. What are the key industries that are pioneering green innovation in the country? List the key actors in the national ecosystem of innovation related to green innovation in your country (firms, universities, financial institutions, regulators)? What are the key networks of the ecosystem in your country (including online networks, innovation hubs, forums, etc.)?

The main players in innovation are the Swiss universities, universities of applied sciences and SMEs. The institutions of the [ETH Domain](#) are of particular importance, since in addition to the two universities in Zurich and Lausanne, there are four research institutes (Eawag, Empa, PSI, WSL) that conduct applied research. In the energy sector, this applied research is expressed, among other things, in the [Energy System Integration Platform](#) at PSI and in the [NEST](#) and [move](#) demonstrators at Empa.

[Energy Innovation Ecosystem of Switzerland](#)



Übersicht Innovations-Ökosystem der Anbieter und Angebote in der Schweiz

(Contact: [Andreas Haselbacher](#) SFOE)

4. What are the challenges that your government have faced or may face in promoting green technology and innovation in your country to contribute to national development priorities and accelerate the progress towards the SDGs?

The expansion of solar and wind energy is slower than desired/planned, partly because there is resistance among the population (e.g. PV ground-mounted systems, wind turbines), partly because the conditions for subsidizing systems do not provide the right incentives (PV systems are often only dimensioned to cover self-consumption). The early proactive involvement of the population is indispensable.

(Contact: [Andreas Haselbacher](#) SFOE)

5. What should governments, the private sector, organized civil society, and other stakeholders do so that developing countries can benefit from these technologies?
6. What are some examples of international cooperation mechanisms, projects, programmes or strategies, including triangular and South-South cooperation, in green technology and innovation that your country is part of?

[Innosuisse](#) - Internationalization camps

[Repic](#) - Energy-related project funding in developing and transition countries (current applications)

[Swiss Global Enterprise](#) – Cleantech

7. What actions can the international community, including the CSTD, take to help your country take advantage of green technology and innovation for cleaner and more productive and competitive production?

8. Could you suggest some contact persons of the nodal agency responsible for projects/policies and international collaboration in this context as well as any experts (from academia, private sector, civil society or government) dealing with projects in this area? We might contact them directly for further input or invite some of them as speakers for the CSTD inter-sessional panel and annual session.

For further contacts in the Federal Administration, we refer to

- *the Federal Office of the Environment* [Economics and Innovation Division](#)
- *the Federal Office for Spatial Development* [Sustainable development \(admin.ch\)](#)

9. Do you have any documentation, references, technological assessments, future studies or reports on the priority theme in your country or region?

Please send your responses and any further inputs on the theme to the CSTD secretariat (stdev@unctad.org) by 10 August 2022. We look forward to receiving your valuable input.

Sincere Regards,

CSTD secretariat

Additional contribution:

Switzerland is running a long-term supporting program for technology transfer projects in the field of resource efficiency, energy efficiency and renewable energy called Repic.ch. The thematics quoted above (cleaner production, water and sanitation) can be included in the projects supported by Repic.ch. You will find more informations and the contact person on the website www.repic.ch.