Schweizerische Eidgenossenschaft
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Federal Department of the Environment, Transport, Energy and Communications DETEC

**Swiss Federal Office of Energy SFOE**
Digital Innovation Office

# Open Innovation and Hackathons supporting the energy Strategy 2050 and the Strategy Digital Switzerland.

## 1. Background

The Federal Council created «Energy Strategy 2050» (ES2050) to improve energy efficiency and thus reduce the environmental impact of energy consumption and to promote the expansion of new renewable energies in Switzerland. An additional target of the Federal Council is to make optimal use of the opportunities presented by digitalisation. Against the background of climate change and the reorganisation of the energy supply system, digitalisation or innovation, is an important field of action within the «Digital Switzerland» strategy.

The Swiss Federal Office of Energy SFOE and Energy Switzerland are supporting digitalisation and innovation, in particular against the background described above, through «open Innovation». There are of course a variety of promotional programmes, but these are usually for more advanced projects. However, through the bottom-up process and the opportunities presented by digitalisation and use of open data, a plethora of good ideas and solutions can be created and materialized. *Open innovation* provides a dedicated environment in which to develop and physically establish ideas so they can be even further developed. Using Hackathons, or other similar concepts, which are open to a large number of participants, can result in the establishment of a «proof of concept» for such innovative ideas. In particular through the participation of players from outside the sector, a bottom-up contribution can thus be made to initiate change, reorganise the energy sector and to make it more sustainable. This opens up new dimensions for an efficient, renewable, transparent, more digital and climate-friendly energy supply in Switzerland.

Hackathons are special because they create the space that committed people and companies with ideas need to grow. They also serve in supporting the search for digital, innovative solutions within ES2050 and the Digital Switzerland strategy. The pillars described below play a significant role with respect to the type of organisation that the SFOE's Digital Innovation Office and SwissEnergy support:

## 2. Cornerstones of the Open Innovation Event:

### I. Energy Strategy 2050

i. **Improving energy efficiency:**
Energy is present in all its many facets in the lives of each of us. It is also a valuable resource and so we have to find out how we can use it most effectively. Hackathons are an excellent opportunity to exchange information on the topic of energy efficiency because all the participants are able to share their insight with the aim of finding solutions in this vast and varied sector.

ii. **Enhanced use of renewable energy sources:**
The changeover from fossil energy sources to renewable forms of energy makes it possible to massively reduce the CO2 footprint of an activity. At the same time such sources change the

way the energy supply works most comprehensively. Often very variable and unpredictable amounts of energy are produced at peripheral locations. Heat pumps, solar panels, electric vehicles, storage batteries and similar products now constitute a complex energy eco-system with which we will have to learn to live. This explains why the integration of renewable energies is such a challenge and why hackathons can encourage innovation in the sector because of the creative and cooperative spirit prevalent at these events.

## II. Strategy «Digital Switzerland»

**i. Establishment of an intelligent digital infrastructure for modern, decarbonised energy generation:**
To be able to profit from the advantages of digitalisation, a framework has to be created in which it can flourish: in this respect the energy sector is no exception and it too needs to present a digital infrastructure in which the power of data can come into play. Hackathons provide an opportunity for the energy world to mingle with that of digital technology, including data compilation and management, automation and artificial intelligence, thus enabling us to present new, innovative solutions for modern decarbonised energy generation.

**ii. Inclusion of the population in energy and digitisation**
During a hackathon an exchange of information takes place. People with different backgrounds can meet to handle a question and find a digitalised answer to it. Many of the targets of Switzerland's digital strategy might be achieved in hackathons. In that they unite a broad spectrum of participants, they present an opportunity for the development of solutions set up with the power of collective intelligence. Carrying out a cooperative task also gives insight into the challenges of the energy sector and digitalisation, and strengthens trust and increases transparency in the eyes of the general public. Finally, hackathons can serve as places where knowledge can be transferred both with respect to digitalisation as well as to energy issues.

## III. Knowledge Transfer

To highlight the innovative ideas gained from hackathons, it is necessary to safeguard the findings gained and encourage resumption of the development of ideas after the actual events. The availability of a platform is therefore decisive for offering access to the content after the hackathon ends. It is also important to view hackathons as just one stage in the innovation ecosystem; it is important to valorize the results in later stages of the innovation ecosystem.

*The results of the Open Innovation Event are briefly summarized by the project partner according to a given form and will be published on the website of SwissEnergy. Used data and results will be linked.*

## 3. Criteria for the evaluation of a subsidy request

**In the application for subsidies under "Description and Procedure", please describe how you fulfill the following criteria in your Open Innovation Event. Alternatively, please attach a formless attachment.**

**You find the application form here: EnergieSchweiz-Subsidy_Application**

**Send the application and attachments to SFOE_Digitalization**

**Criteria nr°1**

**How does the Open Innovation event support the Energy Strategy 2050?**
Open Innovation / Hackathons gather participants on defined topics. Concrete "challenges" are sometimes defined in advance or thematic presentations serve as an introduction. How do the challenges reflect the goals of the Energy Strategy 2050?

*Example:*
*How do the topics of the Open Innovation Event / Hackathon support the ES2050? How do you support decarbonisation, the expansion of renewable energies and energy efficiency? How are multidisciplinary solutions incentivized? How does the event want to improve the understanding of the energy sector and transparency as a whole?*

**Criteria nr°2**

**How is the "Digital Switzerland" strategy supported?**
Open Innovation / hackathons can bring a variety of participants together to work together on digital solutions. The aim is not only to promote the creation of digital solutions in Switzerland, but also to attract as many citizens as possible for this research. How is this achieved?

*Example:*
*Which target audience does the Open Innovation event have and how does inclusion of the population take place? How does the transfer of digital knowledge take place? Which digital technologies/approaches are the focus and why? To what extent does this open innovation event contribute to the creation of a digital and intelligent / smart (data) infrastructure in the energy sector?*

**Criteria nr°3**

**Does the event comply with the "Open by Default" principle?**
Open innovation / hackathons are an opportunity to work together to solve problems through collaboration and the exchange of new ideas. The open source movement presents ideas by publishing open code to be used and improved by everyone. The Open Data movement applies the same principles to data that is fuel for digitization. How is this achieved?

*Example:*
*How will the results, codes and creations be made publicly available after the event? How can they be searched? To what extent can the results be tracked after the event? Is the data used to become Open Data? Where can the data be found? How is the creative cooperation between the participants stimulated?*

**Criteria nr°4**

**How are the results and insights of the Open Innovation event secured and disseminated?**
Participants often leave the event with a head full of new ideas. They also had the opportunity to test a lot of things, some worked well, others did not. We want to support the further use of these results and insights and actively promote their dissemination.

*Example:*
*How are the results disseminated, how the work summarized (videos, interviews or posters)? How are problems with records and codes documented? How are the obstacles and difficulties encountered during the project documented? What is planned to disseminate the results?*

**Criteria nr°5**

**What activities are foreseen to further develop the results in an innovation ecosystem?**
We would like to support the continuation of the ideas developed in the event on a larger scale. For this purpose, it is necessary that the results are fed into existing funding programs as far as possible. Thus, innovations could finally find their way into everyday life.

*Example:*
*What is planned to follow up on the approaches developed during the event? Will the valorisation of ideas be possible? Do the results fit into an established research or innovation framework? What is planned to further develop promising ideas with the programs of EnergieSchweiz and the SFOE?*