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Data and Systems in Research Funding (DSF) datateam@snf.ch

Request for Information (RFI): Open Data Portal for the Swiss National Science Foundation

1. Background and purpose

Mandated by the Federal Government, the Swiss National Science Foundation (SNSF) supports scientific research in all academic disciplines, from history to medicine and the engineering sciences.

The SNSF plans to build a new open data portal, as a new website separate from www.snf.ch.

The new data portal will combine:

- 1. A grant database, where users can search for funded projects, researchers, and output data from projects. This database will replace the current <u>p3.snf.ch</u>.
- 2. Downloadable datasets (.csv files), including most of the raw data that the SNSF can legally publish. The data behind these datasets is dynamic. These datasets are currently published on p3 and opendata.swiss. Further anonymized datasets might also be published.
- 3. Documentation (what data is published or not published and why).
- 4. Various static or interactive data visualizations, reports, and data stories from a variety of sources. These will play an important role in the SNSF communication strategy, for instance linked from snf.ch or on social media. These will use both dynamic and static data, and will replace and extend the <u>current visualizations on p3</u> and the <u>annual statistics on the SNSF's activities on snf.ch</u> notably.

External contractors are invited to propose their approach for developing the data portal and its frond-end.

2. Requirements

The approach must fulfill the following requirements:

- The data portal should integrate the publication of all four categories mentioned above, with flexibility in the type of content shared.
- The SNSF must have the ability to maintain the portal internally after its initial development, without the help of any external partner. The data portal should be developed as much as possible using standard technology and not bind the SNSF to proprietary software of your company.

- Data portal content should be easy to update. Editors from the SNSF communication department should be able to publish text and images without knowledge of html, while members of the data science team should be able to publish complex interactive visualizations.
- There should be good connectivity between other SNSF websites and the elements of the data portal (at the minimum a visualization or a selection of data should be reachable with a parameterized URL).
- The portal should be designed such that one can link a visualization to the underlying data in the grant database.
- The data portal should be state-of-the-art, lean, search engine optimized, user-friendly and appeal to a diverse audience (especially researchers, scientific journalists, politicians, and interested taxpayers).
- The website should be responsive, but will not be designed primarily for mobile devices.
- There should be a full internal test system from which the live website can be easily updated, following a set of defined procedures.
- Most of the contents on the portal will be published in three languages, thus language management should be as easy as possible.

And take the following situation at the SNSF into consideration:

- The SNSF maintains a data warehouse, and the data portal will have its own dedicated database, allowing the data portal to run standalone. All the data to be published on the portal will come from there, ready and processed by the SNSF.
- The SNSF currently hosts its websites on Microsoft IIS servers at the SNSF.
- The SNSF employs a team of IT software developers whose expertise lies within the Microsoft .Net framework, as well as a data science team creating visualizations using R or javascript.
- The SNSF development teams use the Atlassian Toolchain and will use it for the lifetime management of the portal.

As well as the calendar:

The SNSF intends to have the first release of the data portal online in January 2019. This deadline is fixed, but there is some flexibility in the scope of the first release. Visualizations about the SNSF activity are the first priority (c.f. category 4 above).

Deliverables for RFI 3.

A proposition must be submitted in writing by June 4th to datateam@snf.ch. It should include:

- A proposition of a process to design and implement the portal, including a description of your preferred work organization.
- A proposition of the technology to be used. The SNSF is open to any technology/idea, if justification is provided.
- A very general idea of what the website could look like.
- Demonstration that the company has the ability to address the above mentioned requirements. The SNSF is open to discuss some of the requirements, if justification is provided.
- Demonstration that the company has experience in similar projects (examples, reference products).
- An answer to the following question: If you were asked to design some of the initial visualizations on the portal, would your company have the expertise to do so?
- Cost per hours of work, cost of licenses if such software is needed.

The next steps 4.

Several submissions will be invited for an interview. The SNSF will then ask selected companies for a tender for implementing the data portal.

June 18	June-July 18	July 18-January 19	January 19	
04.06.2018: deadline for submitting a proposition	Interviews, tender and choice of a partner	Chosen partner company design and implement the data portal in collaboration with a small team of the SNSF	31.01.2019: First version of data portal is online	

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