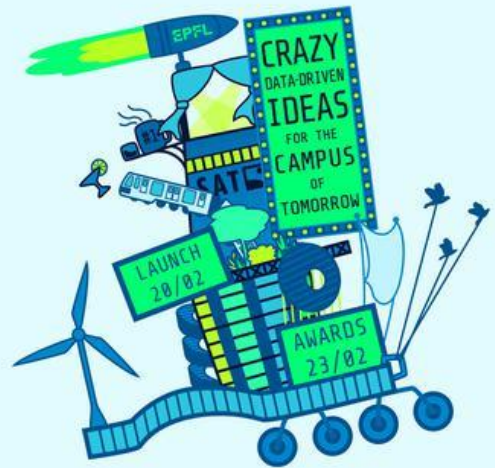


The background of the slide is an aerial photograph of the EPFL campus, showing various buildings, green spaces, and a central plaza with a large, modern, curved structure.

Data Ideathon kick-off

Alain Borel
&
EPFL Library
Research Data team

February 20, 2023



EPFL Library's 1st Data Ideathon

What is an ideathon?

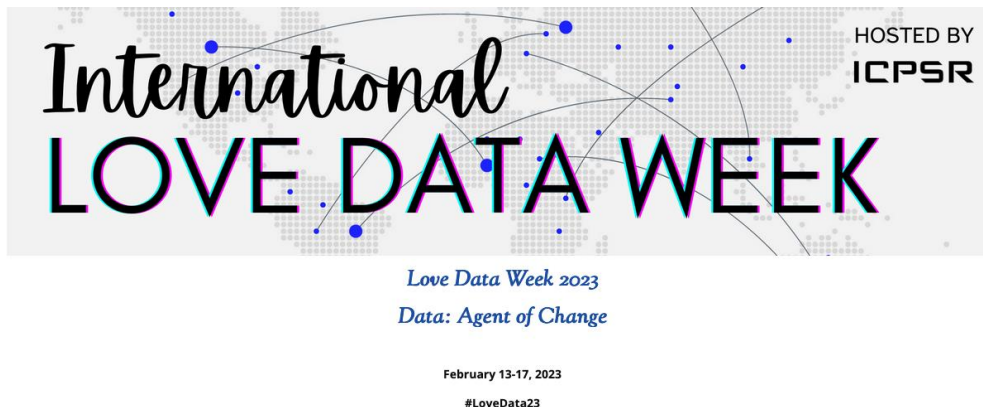


- A brainstorming event where individuals from different backgrounds, skills and interests converge to diagnose predefined problems, identify the best opportunities and ideate the most viable solution.

In other words:

- Usually short & intensive
- Participants work in teams
- All teams must develop ideas to address designated issues

EPFL Library's data ideathon: concept



- How would you use EPFL's data (scientific, technical, administrative... you name it) to promote change? Which crazy ideas of yours could shape the campus of tomorrow?
- Not an official call for projects. No official connection with the Solutions for Sustainability (S4S) Initiative. We're here to have fun, but seriously good ideas are welcome as well!

EPFL Library's data ideathon: how to participate



Love Data Week 2023

Data: Agent of Change

February 13-17, 2023

#LoveData23

- Team up with 1 to 3 other enthusiastic people
- Imagine ideas based on data that you know, suppose or would like to exist at EPFL
- Prepare your pitch for the final event on Thursday, in the format of your choice: text, slides, images, illustrations, short videoclips, prototypes, theatrical performances, etc. (**actual implementation of the idea is NOT required**)
- Be creative! Mix the data sources! Think outside the box!

Q: Data? What data? A: It's everywhere

The screenshot displays the Zenodo website interface. At the top, the Zenodo logo is on the left, a search bar in the center, and 'Upload' and 'Communities' buttons on the right. A dropdown menu shows 'researchdata@epfl.ch'. Below the header, the text 'EPFL - École Polytechnique Fédérale de Lausanne' is centered. The main content area is titled 'Recent uploads' and features a search bar with 'Search EPFL - École Polytechnique Fédérale de Lausanne'. Three dataset entries are listed:

- February 10, 2023 (v1) Dataset Open Access**
Supplementary datasets for the manuscript "Generative machine learning produces kinetic models that accurately characterize intracellular metabolic states"
 Choudhury, Subham; Narayanan, Bharath; Moret, Michael; Hatzimanikatis, Vassily; Ljubisa Miskovic;
 Supplementary files containing datasets needed to reproduce the results of the manuscript "Generative machine learning produces kinetic models that accurately characterize intracellular metabolic states" by S. Choudhury et al. The code to use with these data and reproduce the manuscript r
 Uploaded on February 10, 2023
- February 7, 2023 (v1) Dataset Open Access**
Unintentional synchronization with self-avatar for upper-and lower-body movements
 Loën Boban; Lucas Strauss; Hugo Decroix; Bruno Herbelin; Ronan Bouluc;
 The subjective experience of embodying an avatar when immersed in virtual reality (VR) is known to support the sense of presence and to help with the interaction in a virtual environment. Virtual embodiment is often thought of as the consequence of a replacement of the physical body by a virtual one
 Uploaded on February 7, 2023
 Published in Front. Virtual Real. - Virtual Reality and Human Behaviour.
- January 30, 2023 (v2) Dataset Open Access**
A striatal circuit balances learned fear in the presence and absence of sensory cues
 Michael Kintscher; Olexiy Kochubey; Ralf Schneggenburger;
 This repository stores the raw data that gave rise to the study by Kintscher et al. 2023, published by eLife (eLife2023;12:e75703; DOI:https://doi.org/10.7554/eLife.75703), as well as a preprint at bioRxiv (doi: 10.1101/2021.12.09.471922). Please refer to the original publication regarding experimen
 Uploaded on January 30, 2023
 Published in eLife, vol. 12, p. e75703.

On the right side, there is a green 'New upload' button and a community page for 'EPFL - École Polytechnique Fédérale de Lausanne'. The community page includes the EPFL logo, a description of the community's purpose, and contact information for the RDM support team.

- Scientific data, for example datasets uploaded to Zenodo or other repositories

EPFL IS-ACADEMIA ACADEMIC MANAGEMENT PROGRAM
Borel Alain (BOREL)

Search in the portal

Fr | En

■ [Homepage](#) [My courses](#) [Timetable](#) [Doctoral students](#) [Projects](#) [Assign assistants](#) [Evaluations](#)

Welcome to the teacher portal

Search in the portal

Notifications

Teachers

You have exam protocol to download.

You have grades to enter and/or transmit.

My delegations

[See details](#)

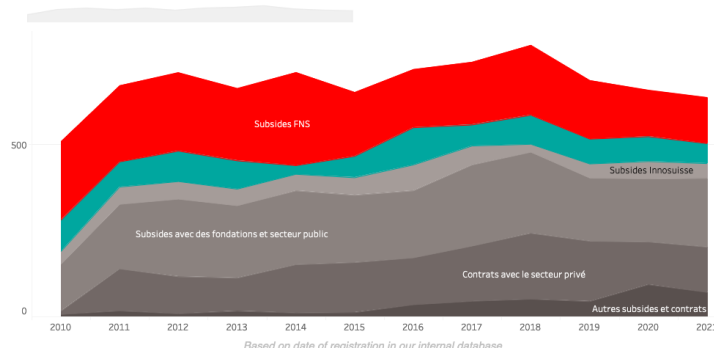
- IS-Academia: information about students, courses, etc.

Statistiques Recherche


Voici les statistiques liées à la recherche. Veuillez consulter le [glossaire recherche](#) pour plus de précisions quant aux termes utilisés.


635

Nombre de subsides et contrats de recherche obtenus en 2021



- Statistics, reports, surveys...



News Careers Contact  EN


COMPETENCIES FOCUS **PROJECTS** RENT/BUY INVESTMENT ABOUT US

[< BACK](#)

EPFL Data Center

Ecublens (VD)

Development of a data centre in a building volume with a minimum capacity of 200 racks and a power of 4 MW.



Information

Client
École Polytechnique Fédérale de Lausanne, Lausanne

Services rendered by HRS
Sole contractor with full cost, quality and deadline guarantee

Architect
ARCHITRAM Architecture et urbanisme SA, Renens

Contact

HRS Real Estate SA
Rue du Centre 172
1025 St-Sulpice

+41 58 122 90 00
st-sulpice@hrs.ch

- Suggests operational data (power, water...), maybe also supercomputing

Idea example 1: Carbon footprint of EPFL publications

Data sources

- we know EPFL collects data to measure its carbon footprint <https://www.epfl.ch/about/sustainability/our-climate-your-campus-faq-en/#faq-item-55ff42dfff9d5d91ea780dac4d87f889>
- we know EPFL produces scientific publications and records them by faculty, institute, laboratory: <https://infoscience.epfl.ch/collections/?c=Infoscience%2FResearch>
- we know EPFL laboratories can be located in buildings <https://search.epfl.ch/?filter=unit&q=EPFL>

The idea

- Hypothesis 1: CO2 footprint data can be calculated at the level of a building (possible at least for power consumption)
- Hypothesis 2: producing scientific publications is EPFL's main activity (wrong, but let's pretend just for fun)
- Hypothesis 3: each lab only produces CO2 within its own lab (probably wrong quite often)
- By combining the 3 data sources, one could produce a map displaying the average footprint of 1 publication by building.

Evaluation

- originality: average
- feasibility: probably OK
- presentation quality: weak in the current format 🤔
- relevance: low (unlikely hypotheses + no clear outcome, sustainability-wise; should we just close the buildings with the highest per-publication footprint?)

Idea example 2: Daily commute optimizer

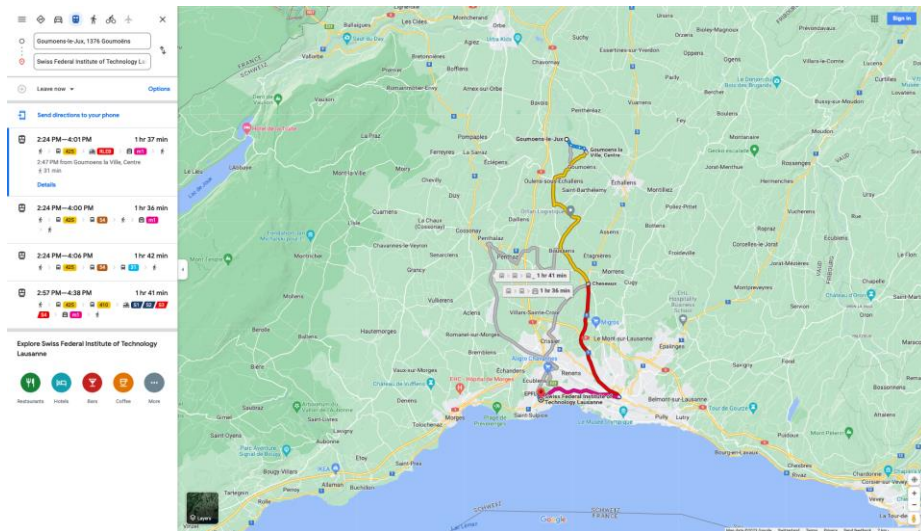
Data sources

- we know EPFL collects staff and student statistics <https://www.epfl.ch/about/overview/fr/statistiques-institutionnelles/statistiques-personnel/> and <https://www.epfl.ch/about/overview/fr/statistiques-institutionnelles/statistiques-education/>; individual data include the permanent residence (and work place for staff; which campus is probably sufficient)
- we know EPFL performs yearly mobility surveys <https://www.epfl.ch/campus/mobility/mobilite/mobility-survey/>
- we know that several online solutions to calculate itineraries are available, some of them offer an API

The idea

- Hypothesis 1: we are allowed to obtain matching lists of residence and work/study places (personal names are not necessary, but still tricky due to privacy laws: precision should not be too high: work/study campus and postal number of residence, maybe?)
- Hypothesis 2: we are allowed to know how many days per year each person would travel to his/her destination campus

Using the API, one could obtain the yearly commute distance and time for each person, ideally for all possible travel options which would allow cost/carbon footprint/etc. estimations. A minimal average over all EPFL members could be compared with the results of the usual surveys.



Evaluation

- originality: not high, perhaps already done?
- feasibility: permissions will be a problem unless some work is delegated to someone who is already allowed to access the data
- presentation quality: too wordy but at least we have a picture!
- relevance: good?

How to join

- Teams of 2-4 participants
- Open to all EPFL (at least 1 team member; open to students, researchers, admin & technical staff). The Library staff and their families are excluded
- Register your group (names & e-mail addresses) by mail to researchdata@epfl.ch until Wed. Feb. 22 at noon (Lausanne time)



How to win

- Send us a title on behalf of your group until Feb. 23, 9:00 AM
- Present your team's idea in 3 minutes during the ceremony on Thursday, Feb. 23, 12:00-14:00 (in French or English)
- Our jury will evaluate the ideas based on presentation, originality, feasibility, relevance to the themes... and pure fun
- 3 winning projects will receive rewards worth 500, 300 and 200 CHF (REKA vouchers <https://reka.ch/en>)



Have fun!

Surprize us!

**We look forward to your presentations
on Thursday**



**Do not forget:
sign up for Thursday, too
(if you want to participate
or if you only want to join
as a spectator)**