

An aerial photograph of the EPFL campus in Lausanne, Switzerland. The image shows modern architectural structures, including a large building with a white, undulating roof and a colorful, multi-story building. The campus is situated near a large body of water (Lake Geneva) and mountains in the background under a dramatic, cloudy sky.

Co-Creating Open Databases Across Disciplinary Boundaries

Open
Science Days
2026

02.06.2026



Open Research Data National Prize 2024

Ask us anything about your
Data & Code !
enacit4research@epfl.ch



Interns



kubernetes



MATLAB



julia



python™



PostgreSQL



git

PostGIS



GDAL



enhancer

Enhancing Research
through IT Expertise

Supporting researchers with their data and code

Fostering Collaborative, FAIR, Open Research Data & Code for Scientific Valorization

Research Data Lifecycle



Software dev & packaging

- Code packaging, refactoring, migration, deployment
- Collaborative repository mgt

Data valorization

- Web application development
- Database set-up
- Data pipelines automation

Welcome to GPM-API
A python package to access and analyze satellite precipitation data: radar, passive microwave and IMERG products are at your fingertips!

Start exploring the Global Precipitation Measurement Mission data archive now!

Deployment	PyPI package: 3.0.0	on conda-forge: 3.0.0
Activity	PyPI downloads: 10,000	Conda downloads: 7,000
Python Versions	Python: 3.8-3.11, 3.12-3.13	
Supported Systems	Linux, macOS, Windows	
Project Status	Stable status: 100%	
Build Status	Tests: 100%, Lint: 100%, Docs: 100%	
Linting	Code style: 100%, Ruff: 100%, Code quality: 100%	
Code Coverage	Coverage: 100%, 100%	
Code Quality	Code quality: 100%, Code quality: 100%	
License	License: 100%	
Community	Stack: 100%, GitHub: 100%	
Citation	DOI: 10.26434/chemrxiv-2023-10000	

Stack | Documentation

Un atlas des paysages de mobilité à Vernier
Vers une lecture affective de l'espace de la Commune de Vernier, Genève

EPFL

Cartographie affective de Vernier
Ces cartographies affectives représentent l'espace urbain vécu dans Vernier à travers quinze entretiens réalisés avec des habitants. Elles nous guident à travers la commune.

- ☐ 01 La forêt tropicale
- ☐ 02 L'envers des choses
- ☐ 03 Une barrière bleue
- ☐ 04 Passages secrets
- ☐ 05 Archipels et deltas
- ☐ 06 Territoires DOM-TOM
- ☐ 07 Jeux de pistes
- ☐ 08 Au plateau des pins
- ☐ 09 Sous les pavés, la Cité
- ☐ 10 Le nom des rues
- ☐ 11 Une histoire de calloirs
- ☐ 12 L'invention d'une ritournelle
- ☐ 13 La campagne Naïlle
- ☐ 14 La coin de terre
- ☐ 15 Là où l'on revient

Atlas des paysages de mobilité

Contextes et fonds de carte

Description
Ces cartes tentent de dessiner les engagements affectifs des citoyens avec leur environnement quotidien, en mettant en évidence leurs perceptions, leurs paysages et leurs expériences. La compréhension et la spatialité de la commune évolue selon qui l'habite. Une image collective et partagée émerge à l'intersection des expériences individuelles. Les paysages habités se superposent et proposent une nouvelle figure de la commune aux limites.

Constellations. Rassemblement d'une série de lieux significatifs pour chaque récit, montrant l'étendue et la nature discontinue de notre expérience vécue et les différents territoires que cela dessine.

Horizons. Succession de points de vue visibles depuis l'itinéraire. Révèle la profondeur de l'espace affecté par notre mobilité et l'intensité variable du regard selon les lieux.

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Open databases

Co-creating and contributing

- Global Building Data Initiative - <https://www.gbdi.io/>
- Indoor Air Quality (IAQ) Database - <https://iaqdb.epfl.ch/>
- Masonry Shake Table Database / MMS Database - <https://masonrydb.epfl.ch/>
- AddLidar (airborne LIDAR datasets) - <https://addlidar.epfl.ch/>
- DataLakes - <https://www.datalakes-eawag.ch/>

- RESSLAB-Hub - <https://resslab-hub.epfl.ch/>
- Atlas of Regenerative Materials (AREMA) - <https://atlas-regenmat.ch/>

... and many other exciting projects!

Live demos

- Co-created by EPFL's Resilient Structures Laboratory (RESSLab) and ENAC-IT4R
- Started in 2021 (2013 for the groundwork)
- Prof. Lignos awarded by the American Institute of Steel Construction
- In brief: open-access database and models used in the design and assessment of steel composite structures

AREMA

Atlas of REgenerative MAterials

- Co-created by Chair of Sustainable Construction, ETHZ and ENAC-IT4R
- In brief: open-source digital platform mapping available regenerative materials, describing the diversity of building materials derived from these resources and detail their characteristics and performance.

AI and LLMs in (daily) practice

AI as a catalyzer

Boilerplate...

- Coding (boilerplate, init, implementation plans, review)
- Design
- Fast prototyping

AI as a catalyzer

... and beyond

- Inference on premises by EPFL's Research Computing Platform
- Automated translation from researcher inputs in 3-4 languages
- Custom MCPs and tools to interact with APIs Process natural language into structured outputs
- Data formatting and validation: translate any format into required CSVs based on data dictionary

Thank you for attention

Feel free to reach out: enacit4research@epfl.ch