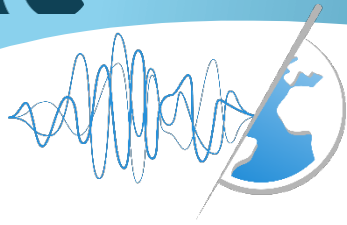


Open Research in Acoustics: the Noise-Planet experience

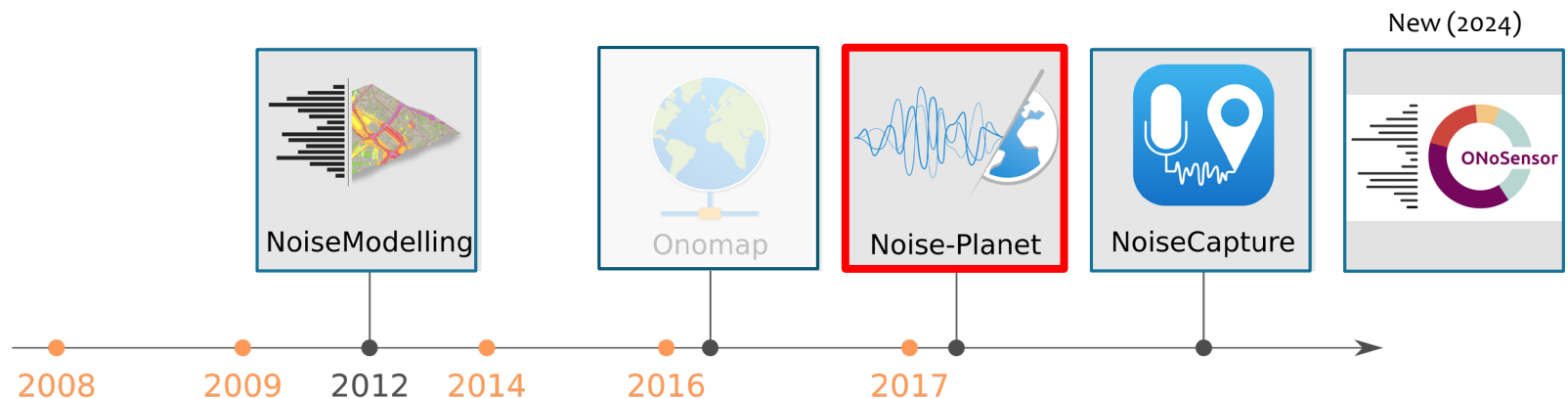
Judicaël PICAUT

NoiseModelling Days 2025



Scientific tools for environmental noise assessment

The **Noise-Planet project** aims to provide a global and generic framework dedicated to the collect, the modelling and the assessment of environmental noise. The project is born from a collaboration, started in 2008, between researchers and engineers, specialized in **acoustics** and **geographic** information sciences, in an **Open Science framework**.



~~Thanks to~~

Because of Erwan Bocher...

... the developer of OrbisGIS software (and latter H2GIS), which in **2006** was the GIS system that ran the first version of NoiseModelling (formerly NoiseM@p).

... convinced that the future of Science lay in open dissemination:

- Open Source
- Open Data
- Open Access
- **Open Science & Open Research**



Key dates:

- **1990s**
Open Source Initiative (OSI) founded in 1998, setting the stage for open-source principles in science.
- **Early 2000s**
Open Access movement began, highlighted by the Budapest Open Access Initiative in 2002.
- **2010s**
Growth of open science initiatives

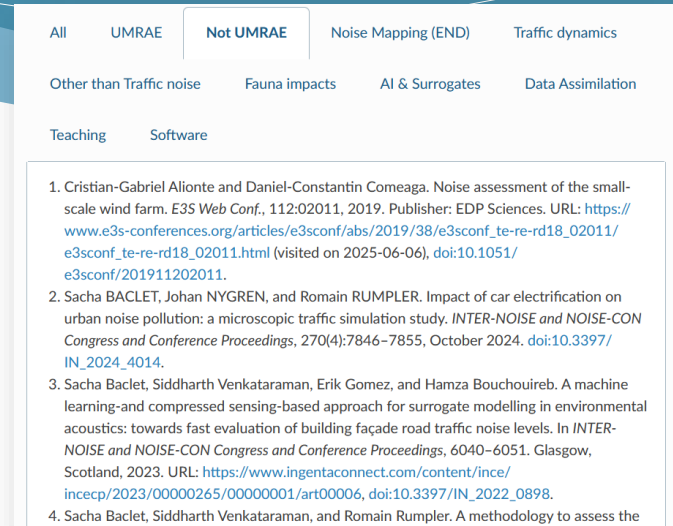
Benefits of Open Science

- **Open Access Publications:** Making research results freely accessible.
- **Open data:** Providing research data in reusable formats.
- **Open Source Software:** Using and sharing open-source software.
- **Transparency:** Documenting and sharing research methods and protocols.
- **Ethics:** Adhering to ethical standards and ensuring research reproducibility.
- **Collaboration:** Working with other researchers, professional and citizens.
- **Training:** Educating on Open Science practices and sharing free (not a black box) tools for teaching.
- ...

A challenging process

- **Costs:** High publishing fees for open access and technical infrastructures
 - Includes funding in research projects
- **Resources management:** Requires rigorous organization and resources.
 - Many “Open” projects but same human resources
- **Confidentiality Legal Issues:** Complexities with intellectual property and copyright.
 - Need to be clear and to ask contributors’ agreement
- **Confidentiality:** Ethical concerns with sensitive data.
 - Try to be consistent with legislation: need a lawyer
- **Quality Control:** Ensuring data is well-documented and high-quality.
 - Spend time in documentation writing and code testing
- **Skills Gap:** Need for additional training and skills.
 - Organize internal training and good practices for the team
- **Recognition:** Limited academic credit for open science contributions.
 - Check with their institution that this type of commitment is supported

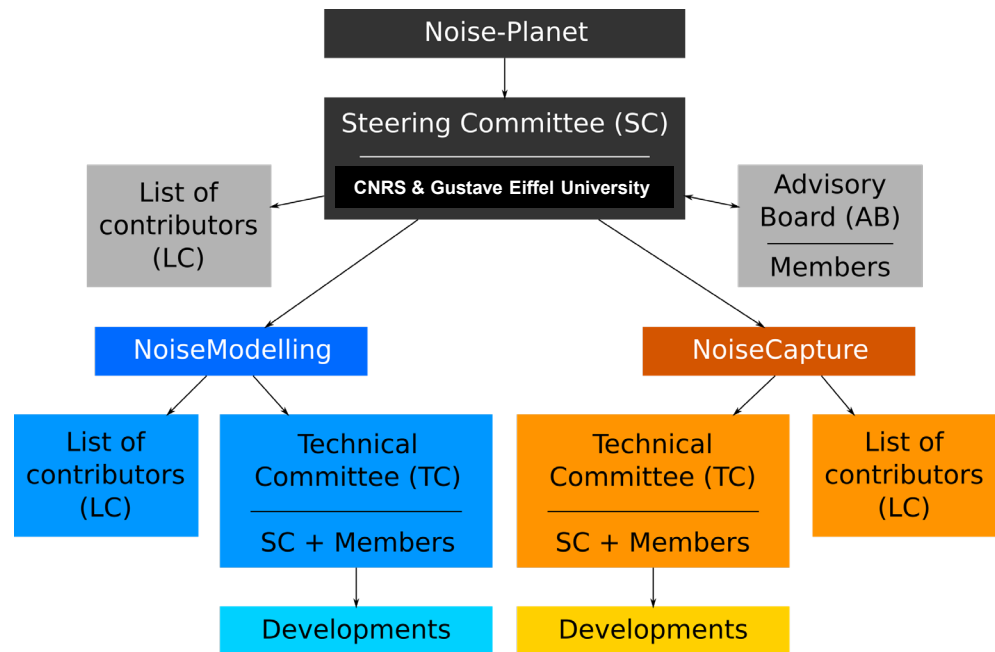
- The development of **scientific knowledge** thanks to our tools, by our lab and by other research teams
- Increased **visibility and attractiveness** thanks to the tools we provide
- The development of national and international research and expertise **collaborations**
- The availability of free tools for **educational activities**
- Institutional and national **recognition** of our commitment to open science



2023 Open Science Award for Free Research Software in the “Promising Community” category by the Ministry of Research (France)

A fragile sustainability

- Need to create an **active community** and involve members from outside the UMRAE laboratory in discussion and decision-making groups
- The implementation of an organization that follows the **principles of a foundation**, with the possible long-term goal of changing Noise-Planet's status



**Thank you
for your attention**

contact@noise-planet.org

<https://noise-planet.org>

<https://www.linkedin.com/company/noise-planet/>