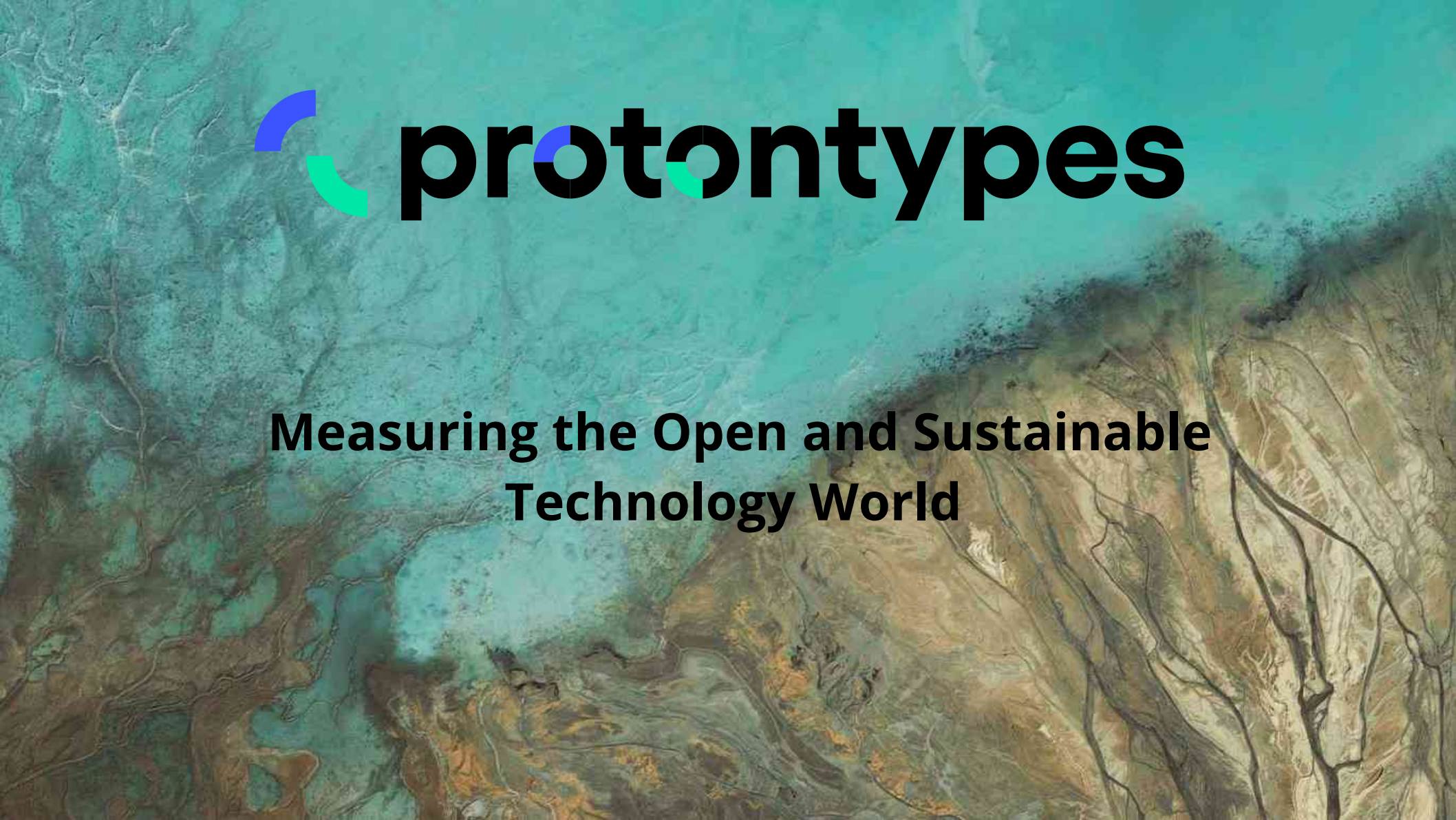
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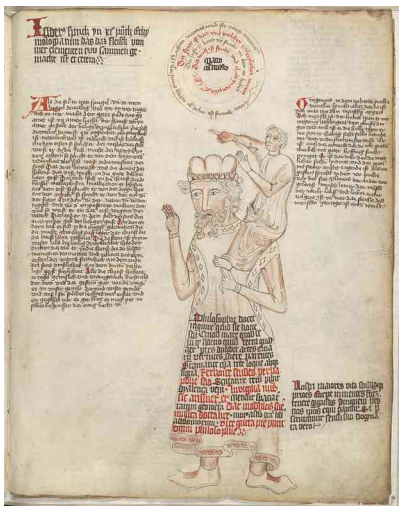
Measuring the Open and Sustainable Technology World

Standing on the Shoulder of Giants

Open source is the cooperative, open and global demonstration of technology combined with knowledge transfer and proof.

The scientific consensus on which our prosperity is built upon, uses the same principle.



“Knowledge is a collective tradition”

- Vandana Shiva

"If I have seen further it is by standing on the shoulders of Giants."

- Isaac Newton

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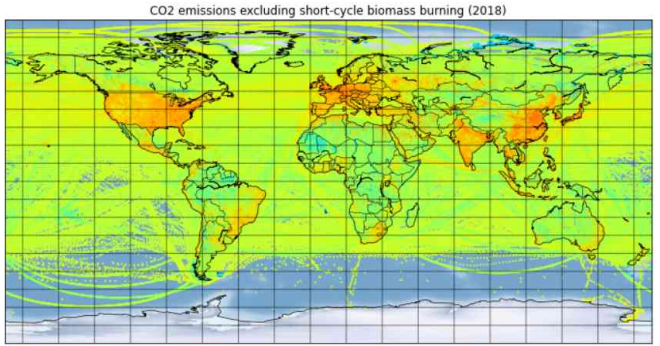
Truly Sustainable is Open



Emissions Database for Global Atmospheric Research

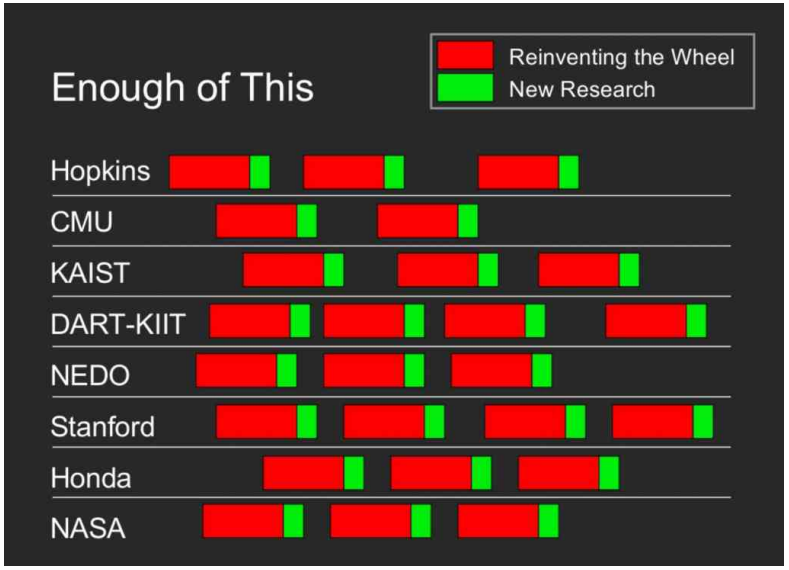
Transparency and Trust

Sustainability is massively misused for pure marketing purposes. By publishing life cycle assessments, data sets and models, we can **create an open measure of what is actually sustainable.** Openness is thus the best way to reduce greenwashing.

Collaborative Innovation

Through the worldwide exchange of sustainable technology and knowledge the effects of climate change can be solved on a global scale. Openness in finding solutions means that organizations and companies worldwide are involved in finding solutions.

Stop Reinventing the Wheel



Most of the time spent in robotics was reinventing the wheel (slide from Eric and Keenan pitch deck)

*„**The Unix philosophy** emphasizes building simple, short, clear, modular, and extensible code that can be easily maintained and repurposed by developers other than its creators. The Unix philosophy favors composability as opposed to monolithic design“*. Wikipedia

Marketing in Open Source: A Necessary Burden

Many excellent open source projects fail due to a lack of users and contributors.

- Users do not know how to discover high quality open source projects.
- Projects lack marketing experience.
- Many institutions use self-hosted git repositoriy for their projects.
- Active projects are lost in the sheer mass of incative projects.
- Most open source project can not be cited.
- Many projects are just release open source for reproduceability and transparency

Good projects and ideas no longer spread by themselves in a world where everyone is screaming for attention.

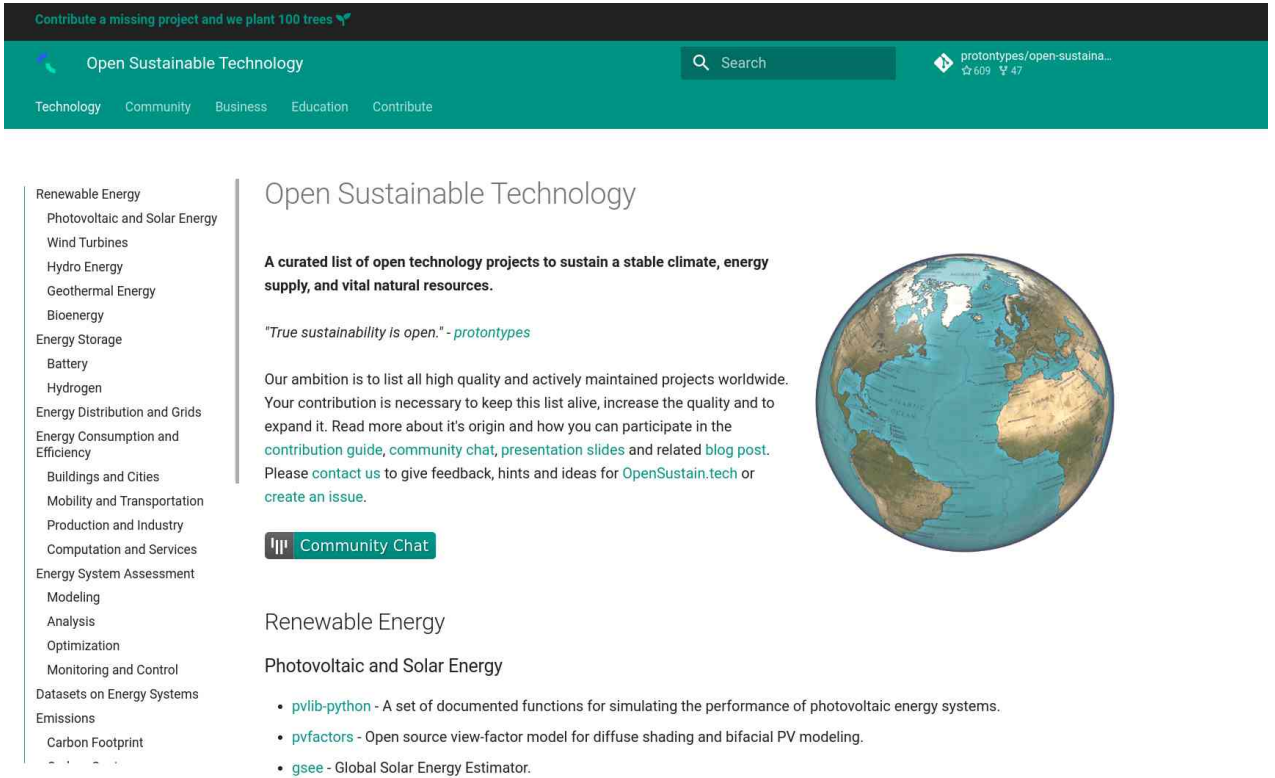
Simple methods to spread your project

Marketing of Open Source Projekts is possible **without** investing into advertisement

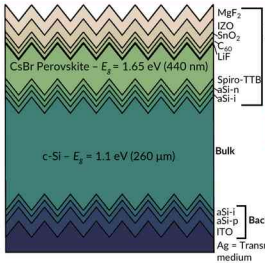
- Get in touch with other communities.
- Create a recognition effect for your project.
- Write about your project in difference channels.
- Publish your project in a journal.
- Create a professional public appearance with a unique email address and domain name.
- Add your projects to awesome list and other indexes.
- Create a simple community chat, posting guide, and welcome culture.
- Be creative how you do marketing. (A good example: https://github.com/auchenberg/volkswagen)

Most open source projects are non startups and grow very slowly, especially in the beginning. Finding the first users and contributors will be the hardest.

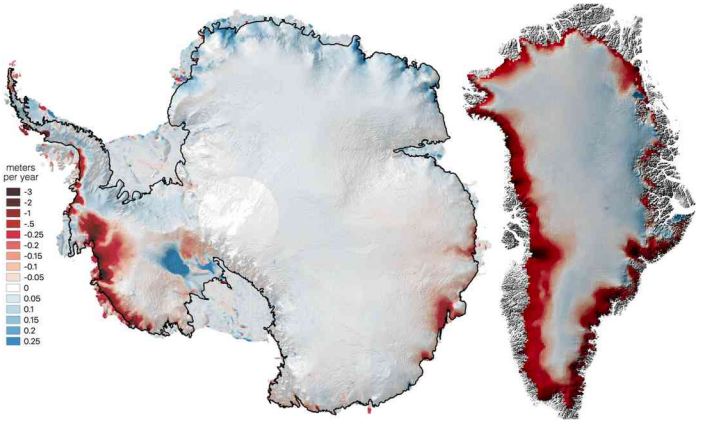
OpenSustain.tech



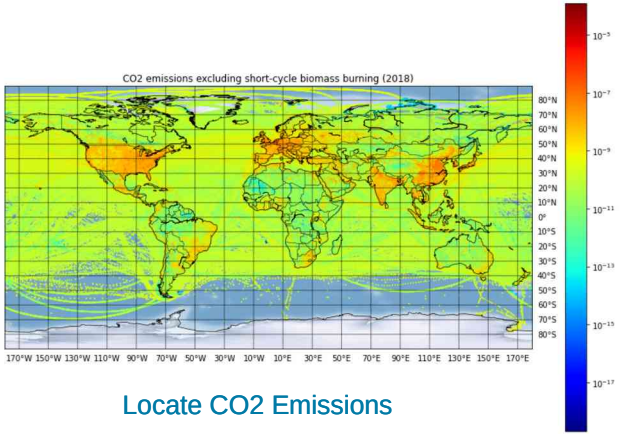
Finding Hidden Gems



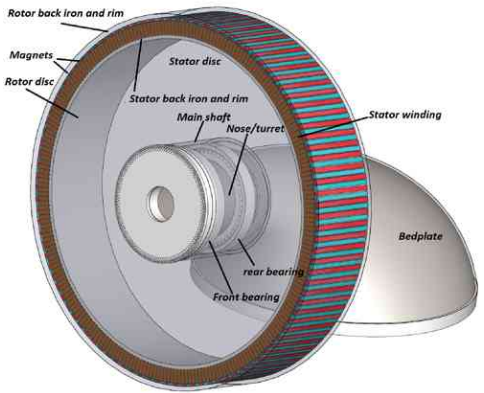
Raytrace Modelling in PV



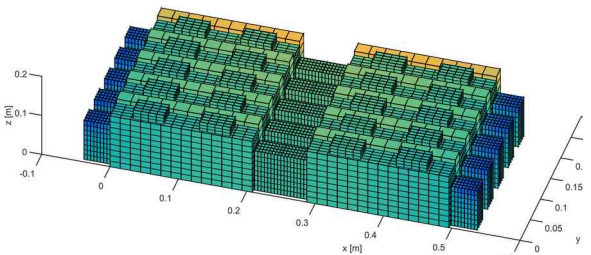
Monitoring the poles



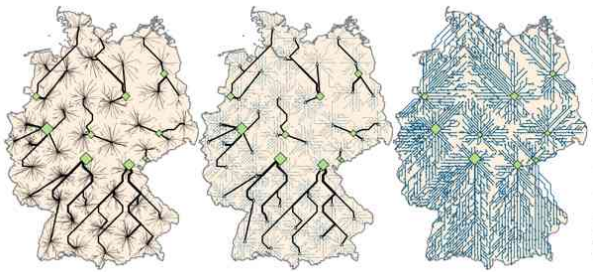
Locate CO2 Emissions



Reference Turbine Standards and Construction Plans



Coupled Electrical-thermal simulations of battery systems



Hydrogen Infrastructure Model

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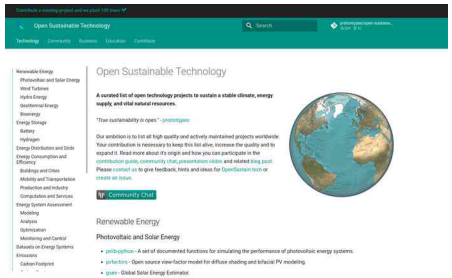
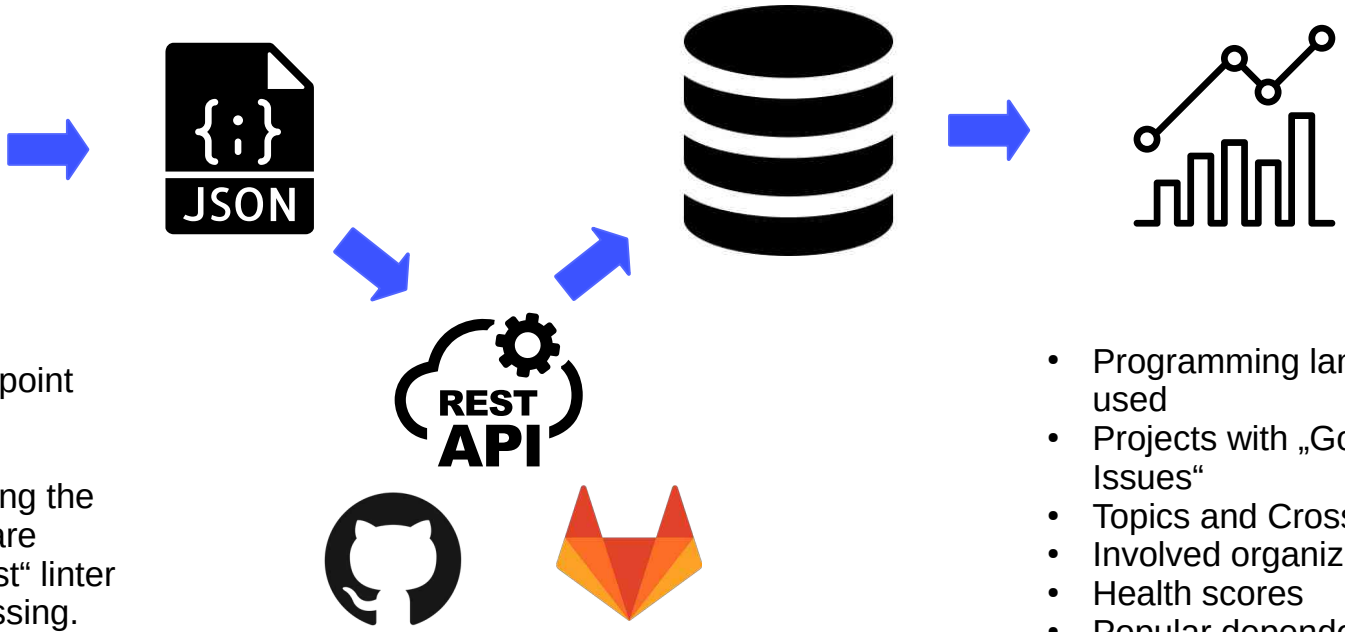
Next steps for OpenSustain.tech

1. Identify new and missing projects
   - Involving and growing community
   - Free Marketing for projects that are contributed to OpenSustain.tech
   - Technology scouting by projects members
   - Planting of 100 trees for every accepted pull request with the help of Continuous Reforestation.
2. Automated statistics of listed projects via the Git* API
   - Measure the health of a projects.
   - Discover interrelations between projects.
   - Analysis the growth of a projects.
3. Improved user experience
   - Create a database with improved search function.
   - Enable clustering of projects based on used defined criterias.

Measuring Open Sustainability





- Links on OpenSustain.tech point directly to Git repositories if possible.
- All markdown files for creating the OpenSustain.tech website are checked by an „awesome list“ linter to ensure automated processing.

- Programming languages used
- Projects with „Good First Issues“
- Topics and Crosstopics
- Involved organizations
- Health scores
- Popular dependencies
- Total contributors
- ...

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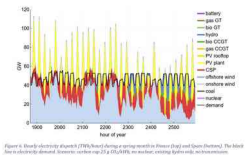
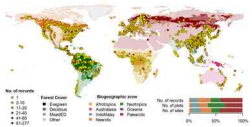
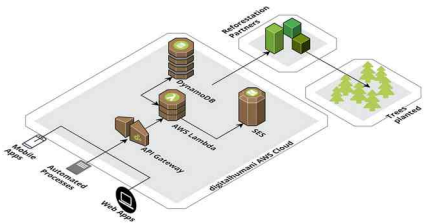
Open Carbon Offset

Measure Power Consumtion	Carbon Intensity and Energy Mix for your Location	Reforestation Opportunity Assessment	Reforestation as a Service
 Scaphandre PowerAPI	electricityMap  Green Cost Explorer  GlobalEnergyGIS.jl	 GLOBAL FOREST WATCH	 Digital Humani
	0.400 kg CO2 per kWh	2 kg CO2 per tree per year	1 $ per tree
10000 kWh / year →	4000 kg of CO2 / year →	2000 trees / year →	2000 $ / year

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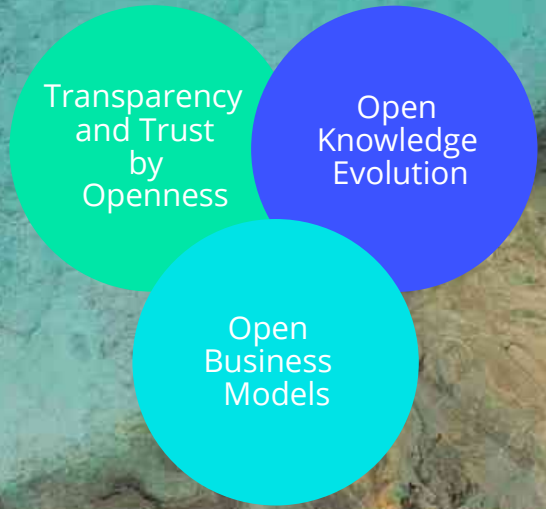
Open Community Accelerating Free and Sustainable Technology



Contact us:

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