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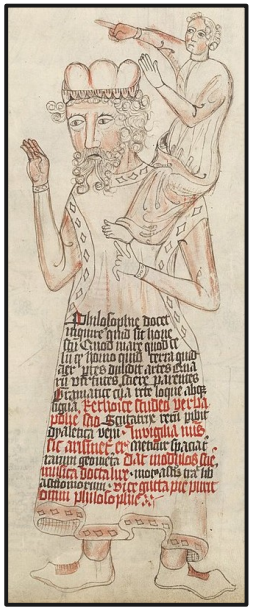
Building a Free and Open Knowledge Base
for Sustainable Technology

Evolution in Open Knowledge Creation

- 70 % of the worldwide code base is based on open source [1]
- Open Collaborative Innovation in Software Development
  - Cloud Computing [2]
  - High Performance Computing and Big Data [3]
  - Artificial Intelligence [4]
  - Robotics [5]
  - Web Technology [6]
  - Blockchain [7]
  - Embedded Operation Systems [8]



Wikipedia

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

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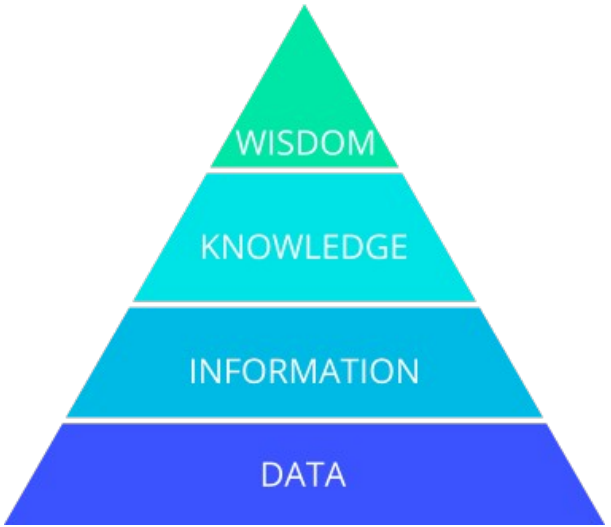
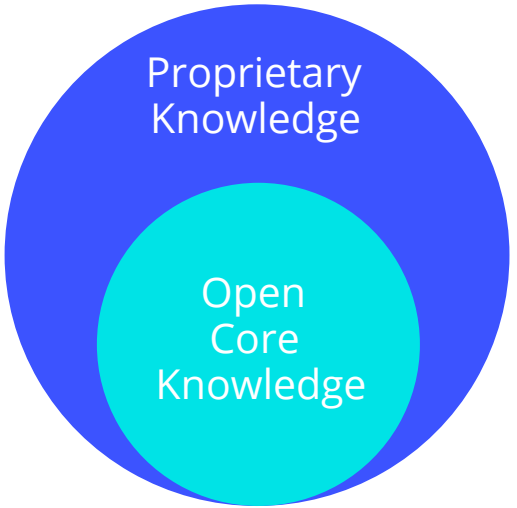
Why is Modern Software Development so Innovative?



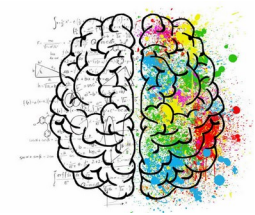


Through the disclosure of information and knowledge, an innovative, resilient and independent business ecosystem has evolved within the software industry.

What is the Secret of Open Collaboration?

Open Business Models [1]

Open Standards and Data

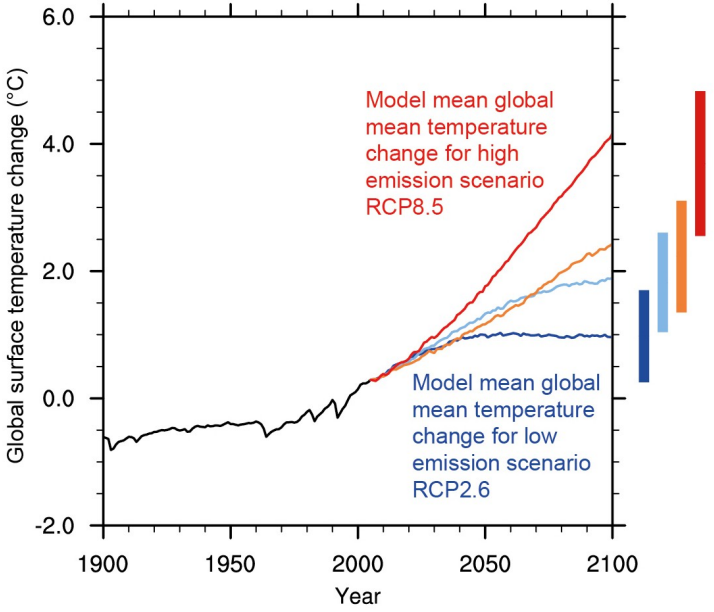


Reproducible Science and Knowledge

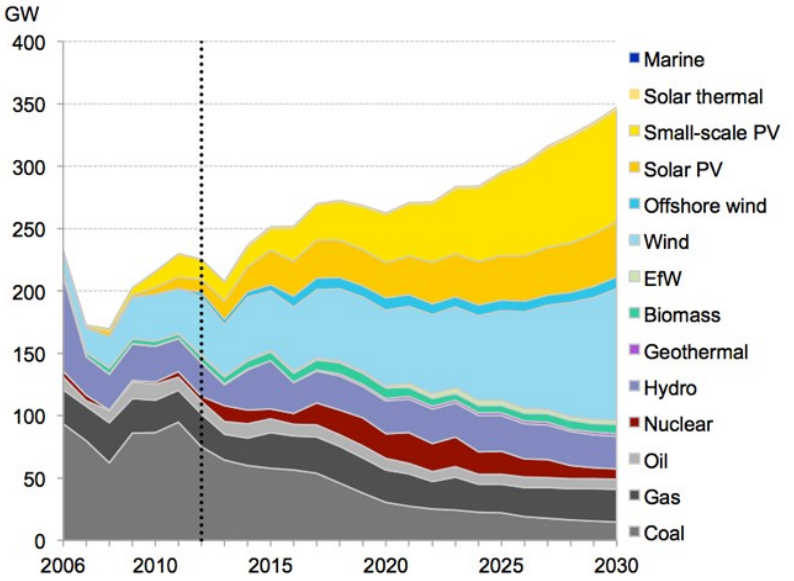
Inner Source - Open Source Culture within Organizations [2]

Open Community

Climate Change - A Challenge in Collaboration



epa.gov



motherjones.com

How can we spread knowledge, accelerate innovation and increase cooperation in sustainable technologies?

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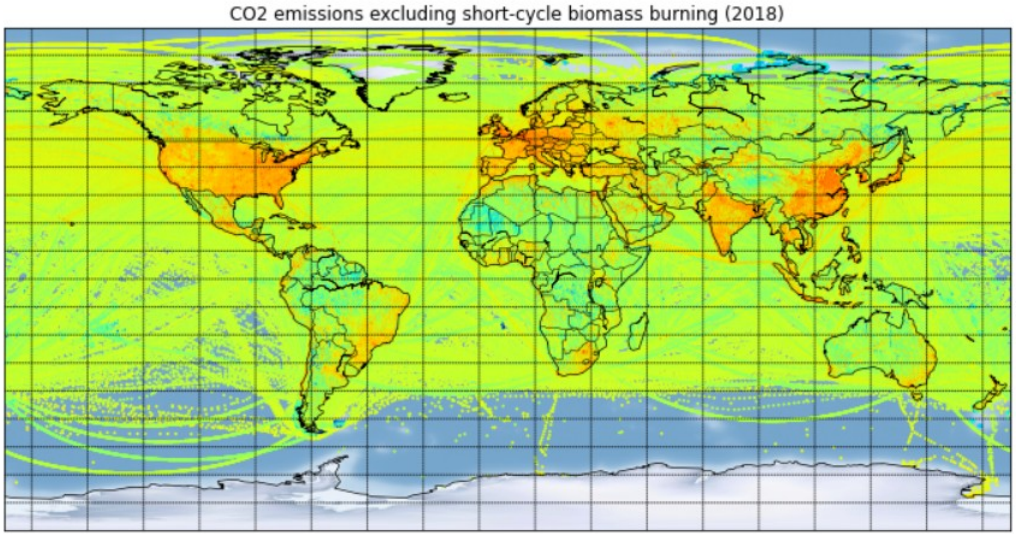
Truly Sustainable is Open

Only by exchanging sustainable technology and knowledge worldwide the impact of climate change can be reduced in the long term.

Open Collaboration and development methods have shown fast accerlation of nearly all knowledge based industries.

Independent and open technology gives us a real chance to reach global climate targets.



https://edgar.jrc.ec.europa.eu/overview.php?v=50_GHG

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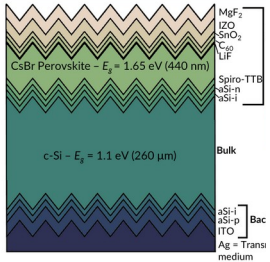
A Knowledge Base for Open Sustainable Technology

- Provision of the first global platform of all sustainable, active and open technology projects.
- Everyone can contribute, discuss and extend the platform.
- All projects are free, open and sustable for professional usage.

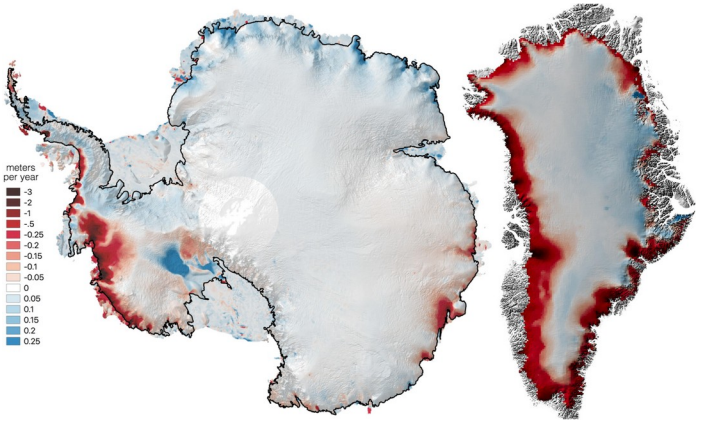
Artwork by Eleanor Lutz

Awesome List

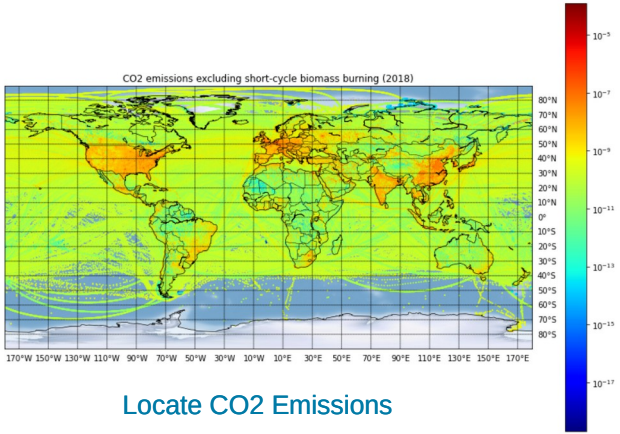
Finding Hidden Gems



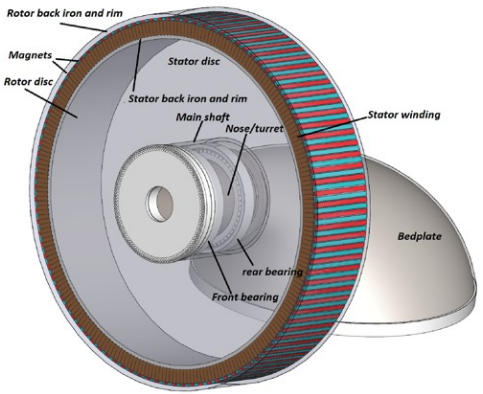
Raytrace Modelling in PV



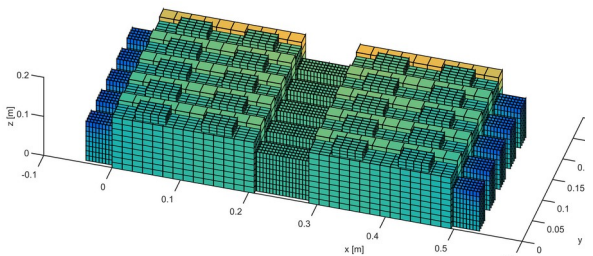
Monitoring the poles



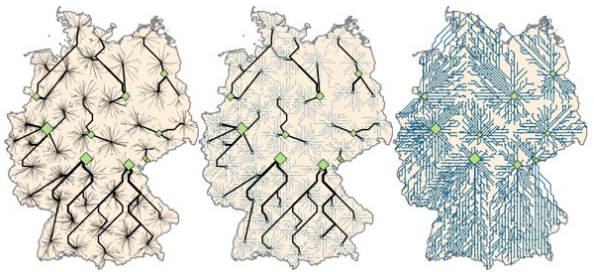
Locate CO2 Emissions



Reference Turbine Standards and Construction Plans



Coupled Electrical-thermal simulations of battery systems



Hydrogen Infrastructure Model

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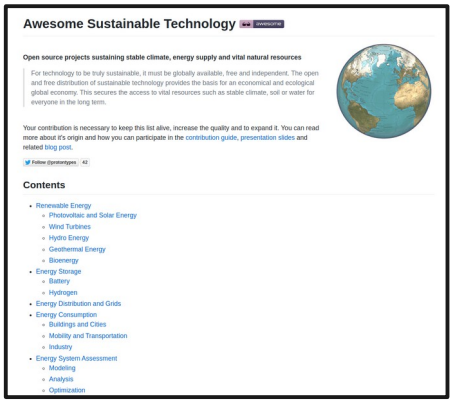
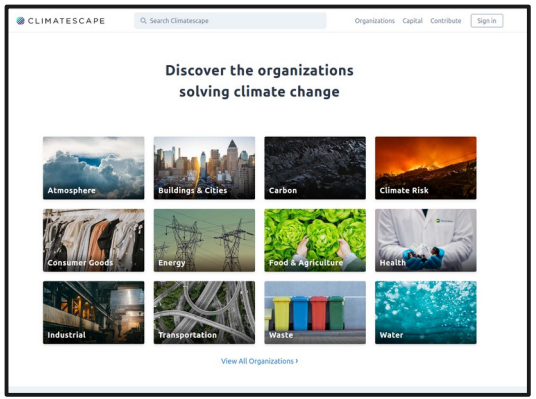
Scaling the List to a Knowledge and Tooling Base

- ✔ Simple Data Structure
- ✔ Easy to Maintain
- ✔ Simple Overview





https://climatescape.org/

- ✔ Better Accessibility
- ✔ Cross Reference Topics
- ✔ Dynamic Features
- ✔ Newsletter
- ✔ Improved User Experience

How can we combine the advantages of an awesome list with the overview, usability and accessibility of a knowledge platform?

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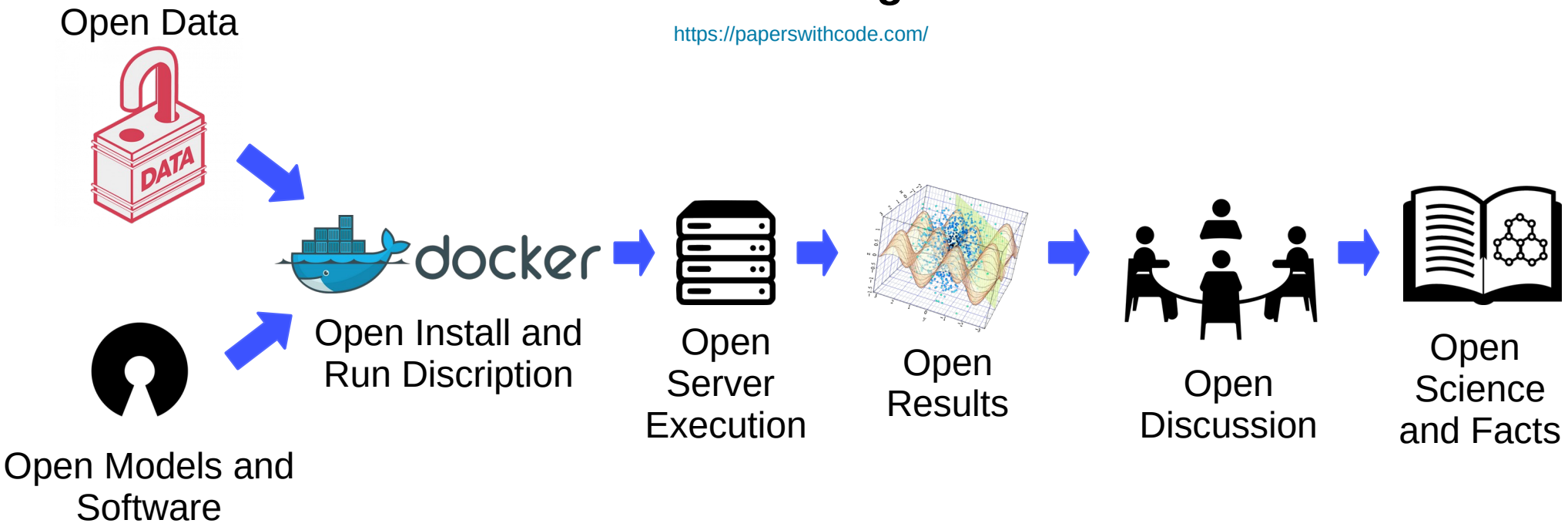
Climate Science with Code

Learning from the Reproducibility Challenge in Machine Learning

https://paperswithcode.com/



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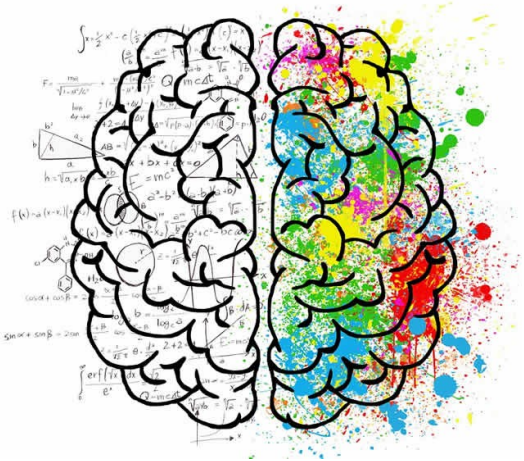
How can you contribute?

- Contribute to the list and spread the knowledge
- Talk about the power of open technology and tools
- Release and use open technology
- Donate to open and sustainable projects
- Add your knowledge, fix bugs, add features, …
- Don’t use patents, but license smartly



Don’t be afraid to share knowledge. Learn how to build open business ecosystems.

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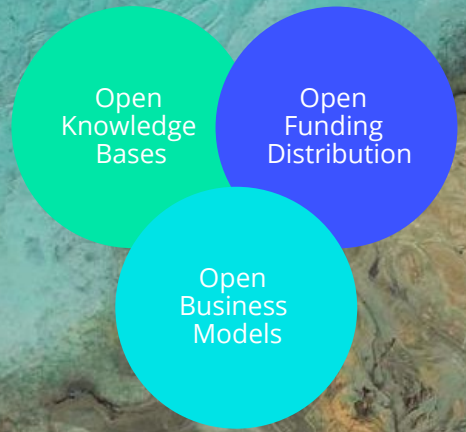
An independent non-profit organization supporting research and business development based on free and open technology.



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