

### 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]

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

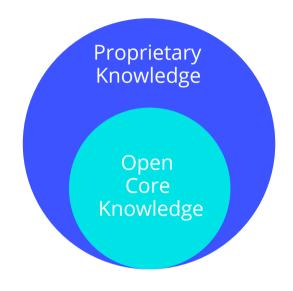


Wikipedia



### 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



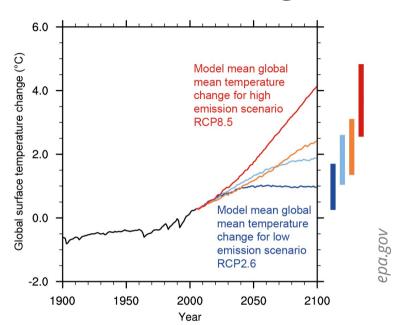
Inner Source Open Source Culture
within Organizations [2]

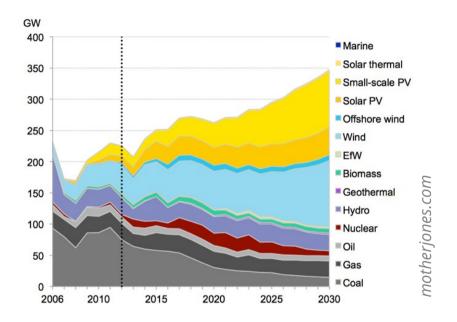


Open Community



### Climate Change - A Challenge in Collaboration





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



### Truly Sustainable is Open

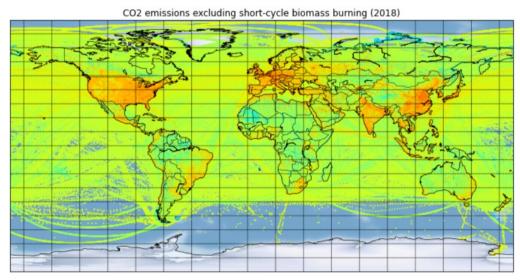
Only by exchanging sustainable technology and knowledge worldwide the impact of climate change can be reduced in the long term.



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



### 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 suitable for professional usage.



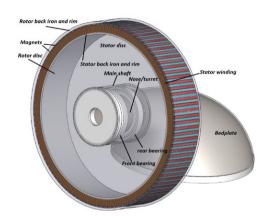
Artwork by Eleanor Lutz

**Awesome List** 



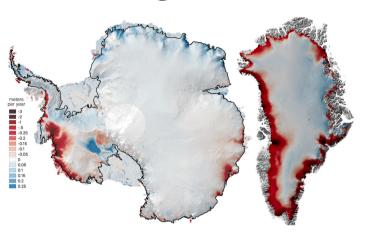
# | MgF<sub>2</sub> | PCO |

Raytrace Modelling in PV

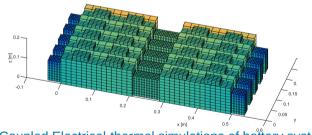


Reference Turbine Standards and Construction Plans

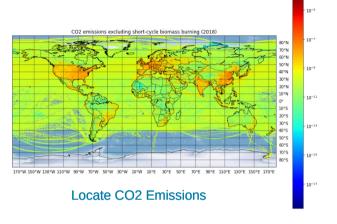
### Finding Hidden Gems

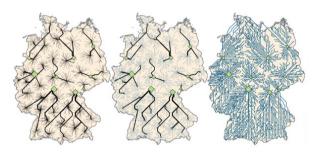


Monitoring the poles



Coupled Electrical-thermal simulations of battery systems





Hydrogen Infrastructure Model

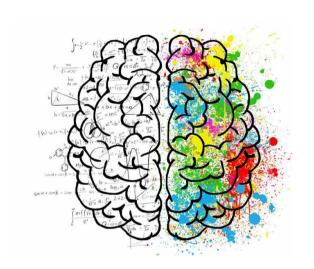


### How can you contribute?

- 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







## protontypes

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

Open Knowledge Bases Open Funding Distribution

Open Business Models



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