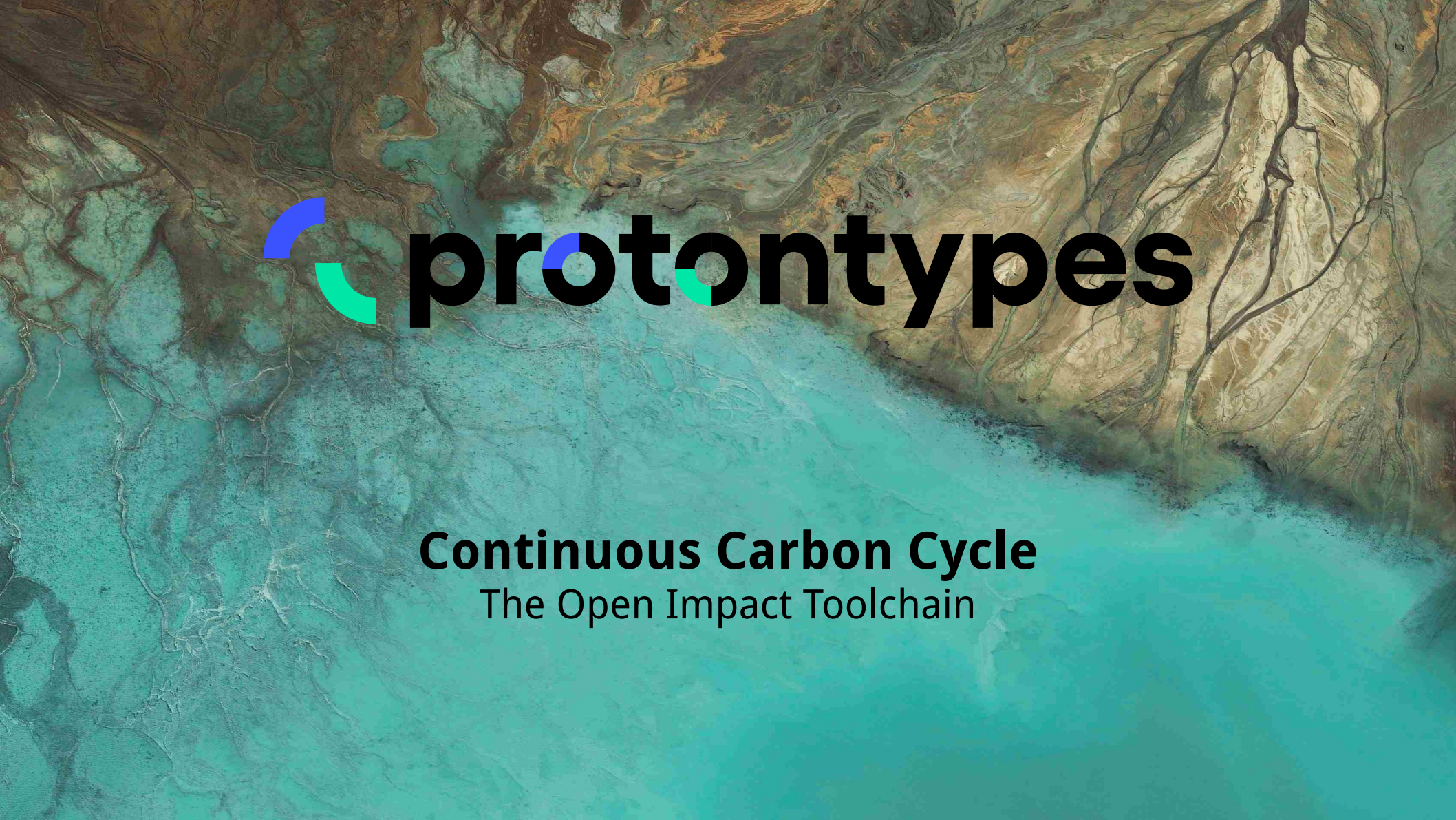
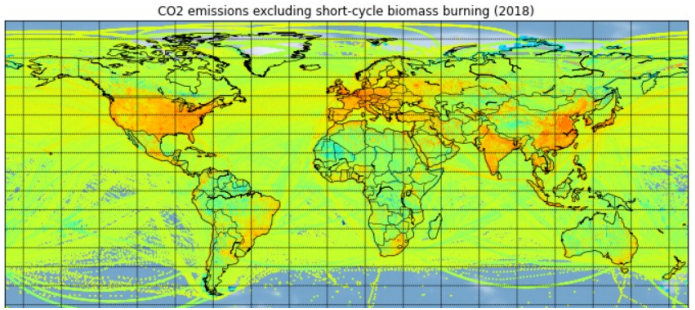


Continuous Carbon Cycle

The Open Impact Toolchain

True Sustainability is Open



Emissions Database for Global Atmospheric Research

Acceleration

Climate change needs a massive acceleration of innovation in the next year to transform technology. The **open source movement has fast-tracked the most innovative areas** such as AI, robotics, cloud or blockchain.

Transparency and Trust

Sustainability is massively misused for marketing purposes. By publishing life cycle assessments, data sets and models, we can **create an open measure of what is actually sustainable**.

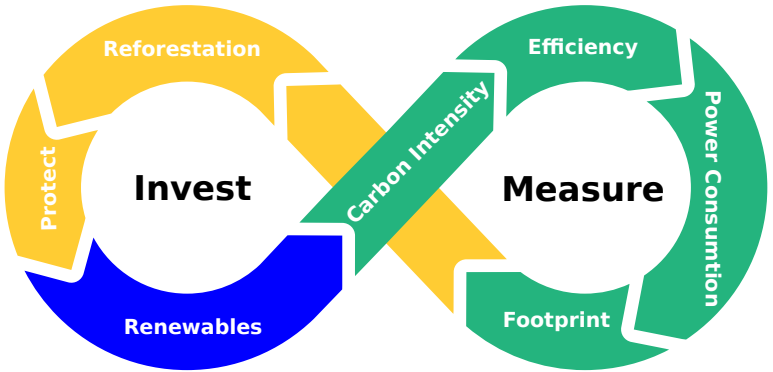
Collaborative

Openness enables organizations, individuals, and companies around the world to **participate in finding solutions together**.

Continuous Carbon Cycle

Creating an open toolchain to measure and reduce the environmental impact of your organization.

- Measure the power consumption and carbon intensity
- Estimate the efficiency within your work processes
- Create a public investment strategy to reduce your environment footprint
- Publish data, dashboard, roadmap and models of your impact
- Collaborative and open definition of standards based on software tools



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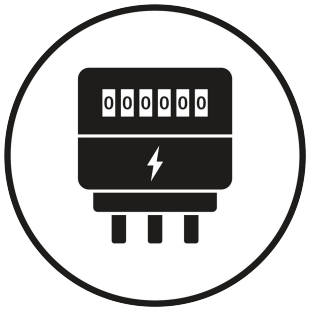
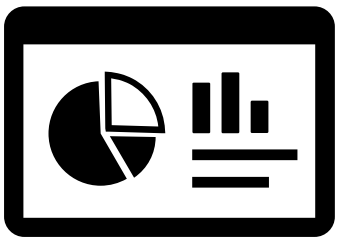
Open Climate Pledge

Impact Measurement



- Biodiversity
- Power consumption
- Energy efficiency
- GHG emissions
- Ecostress
- Assessment of buildings for renewables

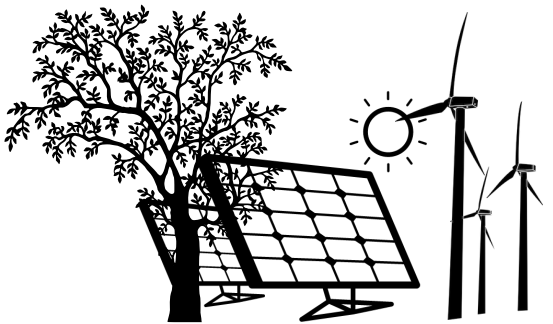
Transition Strategy



Software Models

- CO_2 intensity
- Energy mix
- CO_2 per tree
- Social impact

Invest and Act



- Optimize energy efficiency within your company
- Invest into renewable energy
- Invest into protection and recovery of nature

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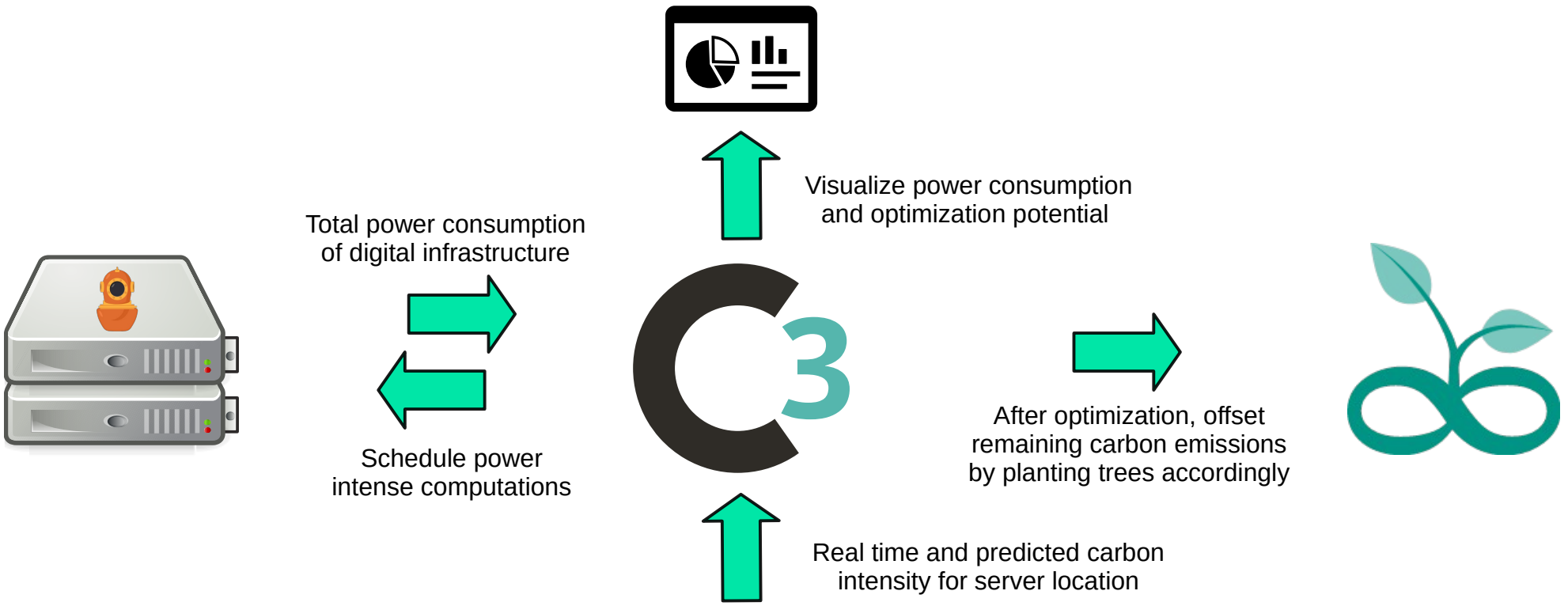
Minimal Viable Product



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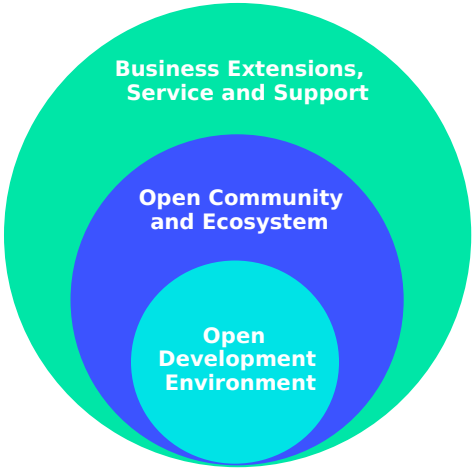
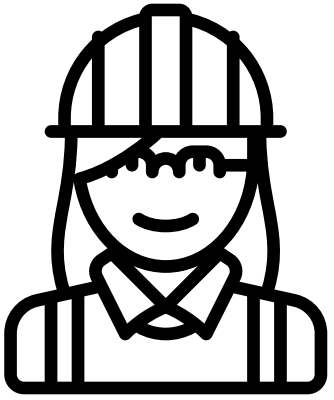
Open Core Ecosystem



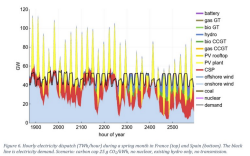
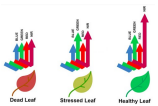
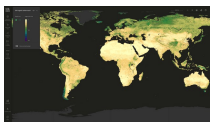
Open Core Business Models

Open Toolchain and Knowledge Base



Independent Support, Consulting and Application

Assessment of Digital Infrastructure

Measure Power Consumption and Efficiency	Estimate Carbon Intensity	Forestation Opportunity Assessment	Plant, Observe and Protect Trees
 Scaphandre PowerAPI Cloud Carbon Footprint	electricityMap  Green Cost Explorer  GlobalEnergyGIS.jl	  GROA  SoilGrid	 Digital Humani GLOBAL FOREST WATCH Global Forest Watch API
60 % efficiency	0.200 kg CO_2 per kWh	20 kg CO_2 per tree per year	$ 1 per tree
10000 kWh / year	2000 kg of CO2 / year	100 trees / year	$ 100 / year

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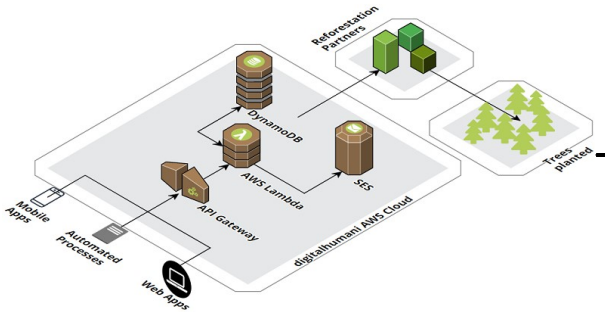
Continuous Reforestation

Automation of tree planting commissioning

- Reduction of bureaucracy
- Reduction of commissioning costs
- Creating Transparency
- Worldwide Coverage

Continuous and Automated Workflow Events



Reforestation as a Service from Digital Humani

tist

ONE TREE PLANTED

CHASE Africa
Community Health And Sustainable Environment

WeForest
Making Earth Cooler

...

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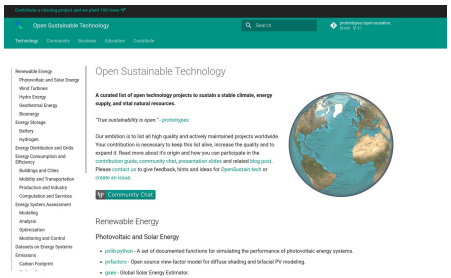
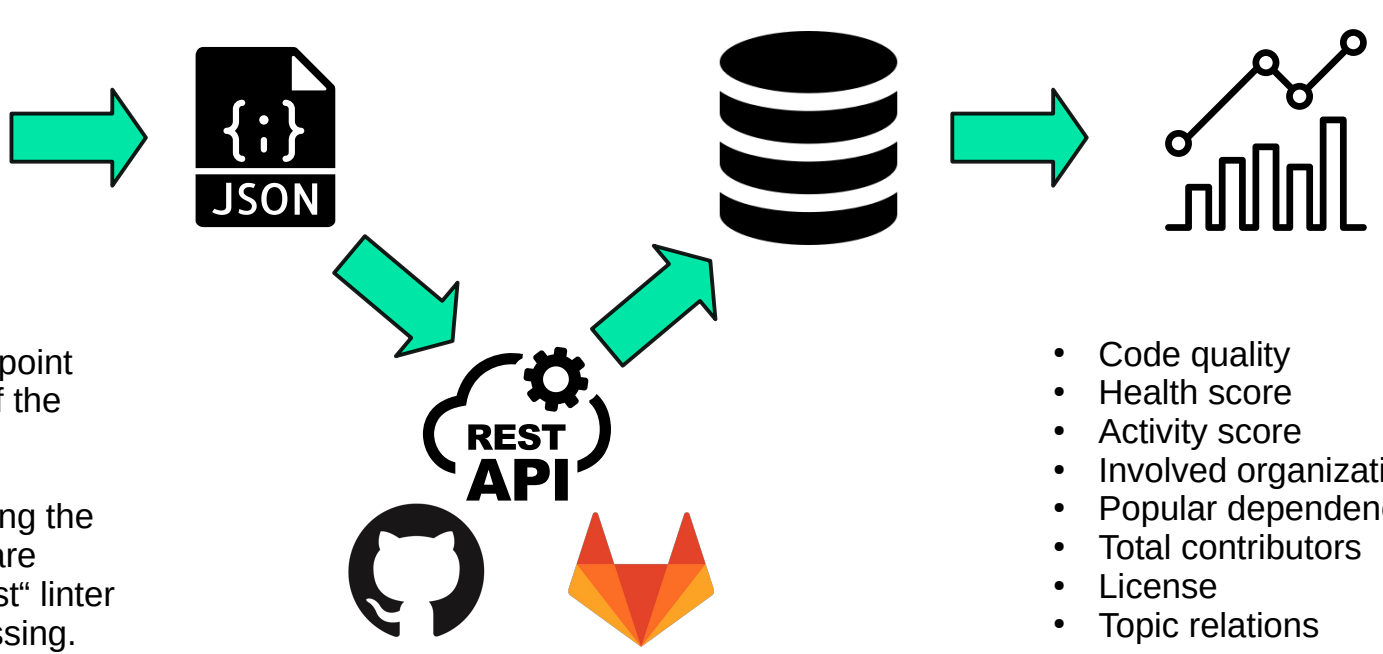
Measuring Sustainability in Open Source

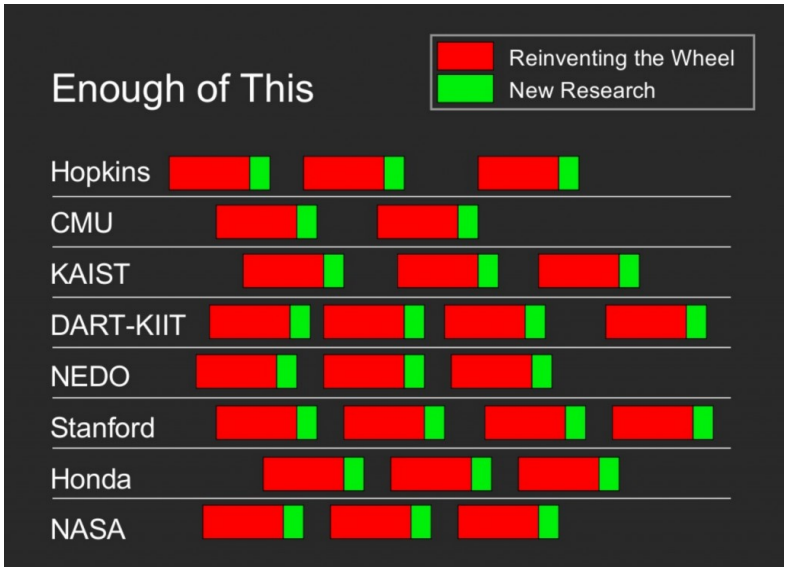




- Links on OpenSustain.tech point directly to Git repositories of the projects.
- All markdown files for creating the OpenSustain.tech website are checked by an „awesome list“ linter to enable automated processing.

- Code quality
- Health score
- Activity score
- Involved organizations
- Popular dependencies
- Total contributors
- License
- Topic relations
- ...

Overcoming Complexity through Modularity



The origin of the Robot Operating System (ROS)

*„**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

Contribute a missing project and we plant 100 trees

Open Sustainable Technology

Search

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675 57

Technology Community Business Education Contribute

- Renewable Energy
  - Photovoltaic and Solar Energy
  - Wind Turbines
  - Hydro Energy
  - Geothermal Energy
  - Bioenergy
- Energy Storage
  - Battery
  - Hydrogen
- Energy Distribution and Grids
- Energy Consumption and Efficiency
  - Buildings and Cities
  - Mobility and Transportation
  - Production and Industry
  - Computation and Services
- Energy System Assessment
  - Modeling

Open Sustainable Technology

A curated list of open technology projects to sustain a stable climate, energy supply, and vital natural resources.

"True sustainability is open." - protontypes

Our ambition is to list all sustainable, open and actively maintained technology projects worldwide. Your contribution is necessary to keep this list alive, increase the quality and to expand it. Read more about its origin and how you can participate in the contribution guide, community chat, presentation slides and related blog post. Please contact us to give feedback, hints and ideas for OpenSustain.tech or create an issue.

Community Chat Follow us

Eleanor Lutz

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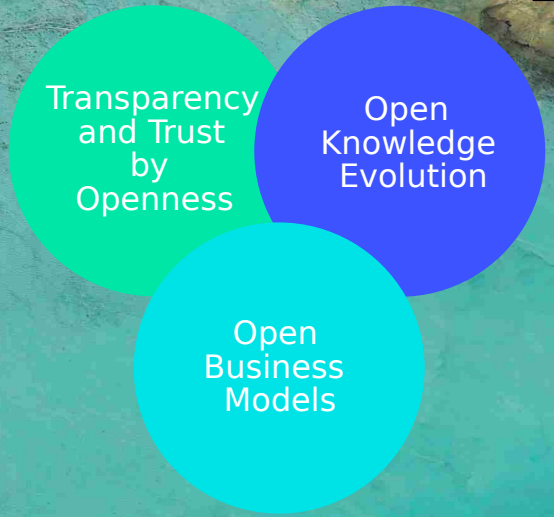

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