SECOND

ECLIPSE TRACTUS-X
COMMUNITY DAYS

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STUTTGART

SUPPORTED BY:

Cofinity-X  polygran  smartSense  IDTA
Open Source Development in Industry Collaborations

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Open Source Is About **User Freedom**

**Freedom 0** - to **run** the program, for any purpose

**Freedom 1** - to **study** how the program works, and **change** it to make it do what you wish

**Freedom 2** - to **redistribute** copies

**Freedom 3** - to distribute copies of your **modified** versions to others
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>81%</td>
<td>% companies consuming open source in products or services</td>
<td>TODO Group, Harvard Business School</td>
</tr>
<tr>
<td>44%</td>
<td>% firms contributing to upstream open source projects</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>% productivity improvement seen by firms contributing to open source</td>
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What is not open source!

1. Pushing your code to GitHub just for the review.
   - **Abandonware**

2. Forgetting to add a proper OSI approved licence to your project.
   - **OSS is voluntary**

3. **Source-available licences** put restrictions on the use of the software, while true open-source licences do not.

4. **Ethical source licences** put restrictions on the use of the software, while true open-source licences do not.
Open Source is Innovation at an Industrial Scale

**Competition**
- Commercial Adopters focus resources on rapidly building differentiating features

**Collaboration**
- Technology Producers jointly define roadmap and build core capabilities

**Governance**
- The Eclipse Foundation provides an open, vendor-neutral environment to enable collaboration

$13+ billion of shared investment to date
Definition of a healthy Open Source Project

• 2001 definition of a healthy open source project:
  • It works and it solves a business or technical problem

• 2021 definition of a healthy open source project:
  • Working, secure, and carbon-neutral code, delivered on an environmentally friendly, sustainable, predictable, repeatable, and supply-chain secure basis with millions of users and thousands of GitHub stars, along with a plethora of adopters and a large, dynamic ecosystem all delivered by a diverse and welcoming community governed in an open and transparent manner with a commitment to equity and social justice.
What we learned

• The amount of resources required to have a “healthy open source project” has increased dramatically
  • Many of the tasks necessary for health fall outside the interests of most developers
• The success of open source is forcing its industrialization and professionalization
• The ever-growing definitions of “open source software health” may be unsustainable
  • At a minimum, they are changing the dynamics of how open source is created
• The ability of the “hero programmer” or small teams to significantly impact the industry has been reduced
  • Not necessarily a bad thing... open source has always been a team sport
dependencies

all modern digital infrastructure

a project some random person in nebraska has been thanklessly maintaining since 2003
Why Open Source may not be enough

Open Collaboration

Contribution
- Transfer of IP rights
- Future influence

Collaboration
- Rules for collaboration (Governance)
- Predictability
- Sustainability

Open Source

Adoption
- Open Source License
- Four Freedoms
Fundamental Governance Principles

- Transparency
- Openness
- Meritocracy
- Vendor Neutrality
The Eclipse Dataspace Working Group

Interested in joining? Contact membership.coordination@eclipse-foundation.org
Program Plan Core Objectives

# Core & Protocols
- Core protocol specifications
- Standardization
- Alignment between specifications and OSS projects

# Data Planes & Components
- Data plane implementations
- Advanced technology integration
- Additional (optional) components

# Authority & Management
- Tools and workflows for dataspace management
- Policy management
- Member management
- Starter kits
Transition from Consortium to the Catena-X Association

CX ASSOCIATION
Setting up structures, tooling, resources and working model

CX CONSORTIUM
Coaching & transitioning, process responsibility and contents

We are here

July 2024

Consortia steering Release 24.03
Joint steering Release 24.05
Association steering Release 24.08
Where the association has been 8 months ago ...
... and where we are today!
... and where we are today!

- 10 Committees
- More than 20 Expert Groups
- 80 actively participating companies
- More than 250 active experts in our association bodies
Catena-X Association – Purpose and tasks

- Bundling of the interests of the Association members for technical standards
- Development and promotion of common standards and principles
- Formulation of requirements for the creation of a neutral industry network based on GAIA-X and IDSA
- Certifying and promoting interoperable applications and implementations
- Stimulate the Open source development
- Promotion of the distribution and internationalization of the objectives of the Association
- Promotion of cooperation between science, research and industry
- Selection and qualification of suitable Service Providers (Solution Partners)
- Promoting the establishment of end-to-end data chains
- Promotion of education, training and qualification
Collaboration between Tractus-X and Catena-X
A wide range of players working together to scale globally

“Catena-X is the industrial policy lighthouse project for the digitalization of supply chains.”
(R. Habeck – Federal Minister of Economics and Climate Protection / Vice Chancellor of Germany)

> 180 companies already engaged in Catena-X

The full list of all members can be found at www.catena-x.net

Starting point
German automotive industry
We are the foundation for Manufacturing-X

Including SME and additional sectors

Research and development: Industry Use Cases

Common Base

Transfer project (tbc)

Shared Services

Shared technical base layer

Regulatory framework and standards
Voices from around the world are our endorsement.

“Data ecosystems represent the future of collaborative data exchange for Mercedes-Benz. We are laying the foundation to integrate Catena-X across multiple scenarios throughout the value chain.”

“Sovity and NTT Communications jointly drive for strengthening the internationalization of Catena-X. Over recent months, our concerted efforts have helped different Japanese companies to get onboarded to Catena-X.”

“Transmission behaviour twin – The BMW Group exchanges transmission data with ZF for >65,000 vehicles. So far, 20-30 million raw data points have been exchanged via the EDC, to analyse the health status of the car fleet – if required.”

“Catena-X helps hundred thousands of suppliers as well as OEMs to communicate requirements and transfer data using standardized ecosystems to achieve their compliance, sustainability and circularity goals effectively and efficiently.”
Your contributions are the key for our success
We are Tractus-X ...

- We are passionate for technology and innovation
- We share real innovation
- We are live
- We shape the future of the automotive industry
- We are the blue print for other open source projects and dataspaces
- ... and we are a really great community
Let's work together
tractus-x.com