



ERCIM

European Research Consortium
for Informatics and Mathematics

The Importance of Software Eco Systems in Europe

**Presentation of a white paper
produced by ERCIM**

October 2025

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- by excelling in research, by acting as a bridge to applications, and by coordinating EU projects.
- by being internationally recognized as a major representative organisation in its field; the portal which gives access to all relevant ICT research groups in Europe.

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Nishu GUPTA
Former ERCIM Fellow



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The Importance of Software white paper

- European Digital Sovereignty is important.
- Current efforts have a very hardware-first approach.
 - Software efforts tend to be focused on hardware needs.
- Most of the value is in fact depending on having control of the higher-level software eco systems.
- These eco systems have a significantly different business logic than the hardware ones.

- Software eco systems are agile and volatile.
 - One person with a PC can change the world – and has done it.
- These initial efforts create communities and eco systems.
 - These are complex, evolving, organic structures – they fork, they swerve ... but they produce.
 - No longwinded structured decision processes, as in hardware development.
- The software these communities create forms the basis for industry.
 - No company can afford to develop everything by themselves – they need good open source platforms to build on.

- Open Source communities are by many seen as not needing any funding.
 - People seem to think that it is volunteers that have another day time job.
 - In some of the commission's writings it looks like Open Source software is created from thin air – to be fair there are also good initiatives in the commission's writings.
- There are a lot of companies that support Open Source.
 - Often in a good way, but sometimes not – we cannot rely on this.
- The funding needs to be agile.
 - There has to be funding in place when an idea is born – otherwise the americans or chinese grab the lead.
- We need to build skills and new methods for software development.
 - Have you heard about AI?

- A comprehensive and targeted focus on the European software ecosystem.
 - Public funding for experimental research into software development as well as to the development and maintenance of production-grade commodity software.
 - No one-time investment – this requires a continuous commitment.
 - New EU regulations on e.g., AI, sustainability, privacy, etc should be matched by corresponding and dedicated funding to software research, development, and maintenance – do we or don't we want our values to prevail world-wide?
 - Funding the promotion, integration, and maintenance of European open-source projects and eco systems to ensure retainment of “ownership” and know-how.

Software eco systems in Europe

We have the potential – we don't have the funding.

Do we want European values to prevail or not?

This is where that happens!



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