
OPEES
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solutions
LiNUX
Open Source
A380
AIRBUS
A380

Gaël Blondelle

Leader OPEES

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beo

Model Driven Company

About Obeo

Model Driven Company

Obeo is honored to celebrate Eclipse Helios
We are proud to have contributed!

Obeo & Eclipse success story:
- Eclipse Strategic Member
- leader of 5 projects
- 14 committers
- 1 400 000 lines of code contributed

Model
Design
Generate

Understand
Meter
Migrate

OPEES

Open **P**latform for the **E**ngineering of (Critical) **E**mbedded **S**ystems

Main Objective:

Ensure the long term availability of Open Source tools for Critical systems

Long term availability…

AIRBUS A300 Life Cycle

Program began in 1972, production stopped in 2007

2007-1972 = 35 years…

Support will last until 2050

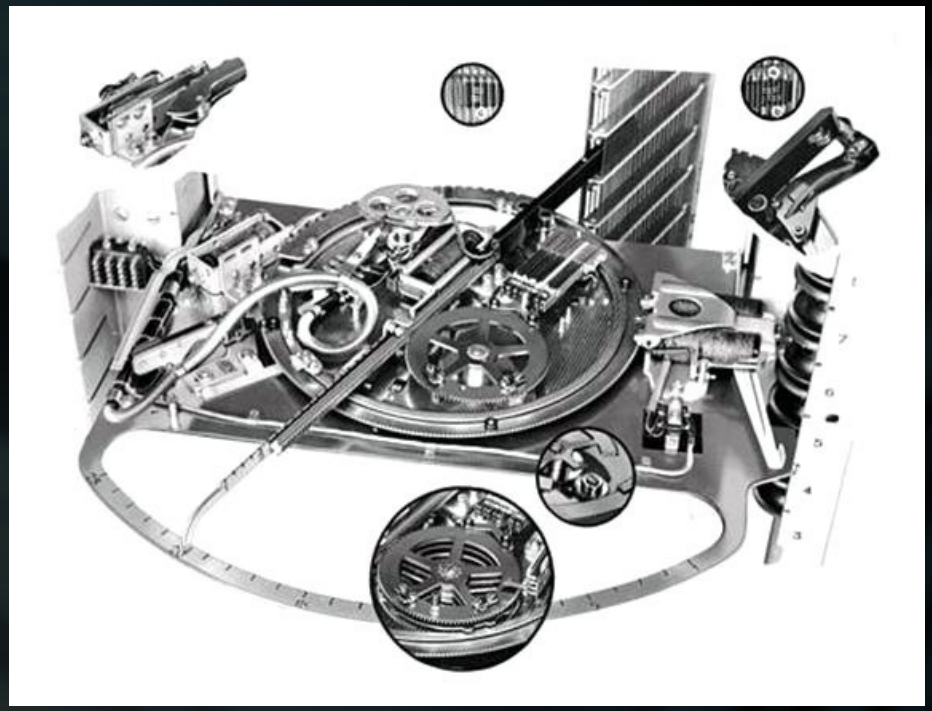
2050-1972 = 78 years !!

On board software development for very long lifecycle products

AIRBUS

Long term availability…

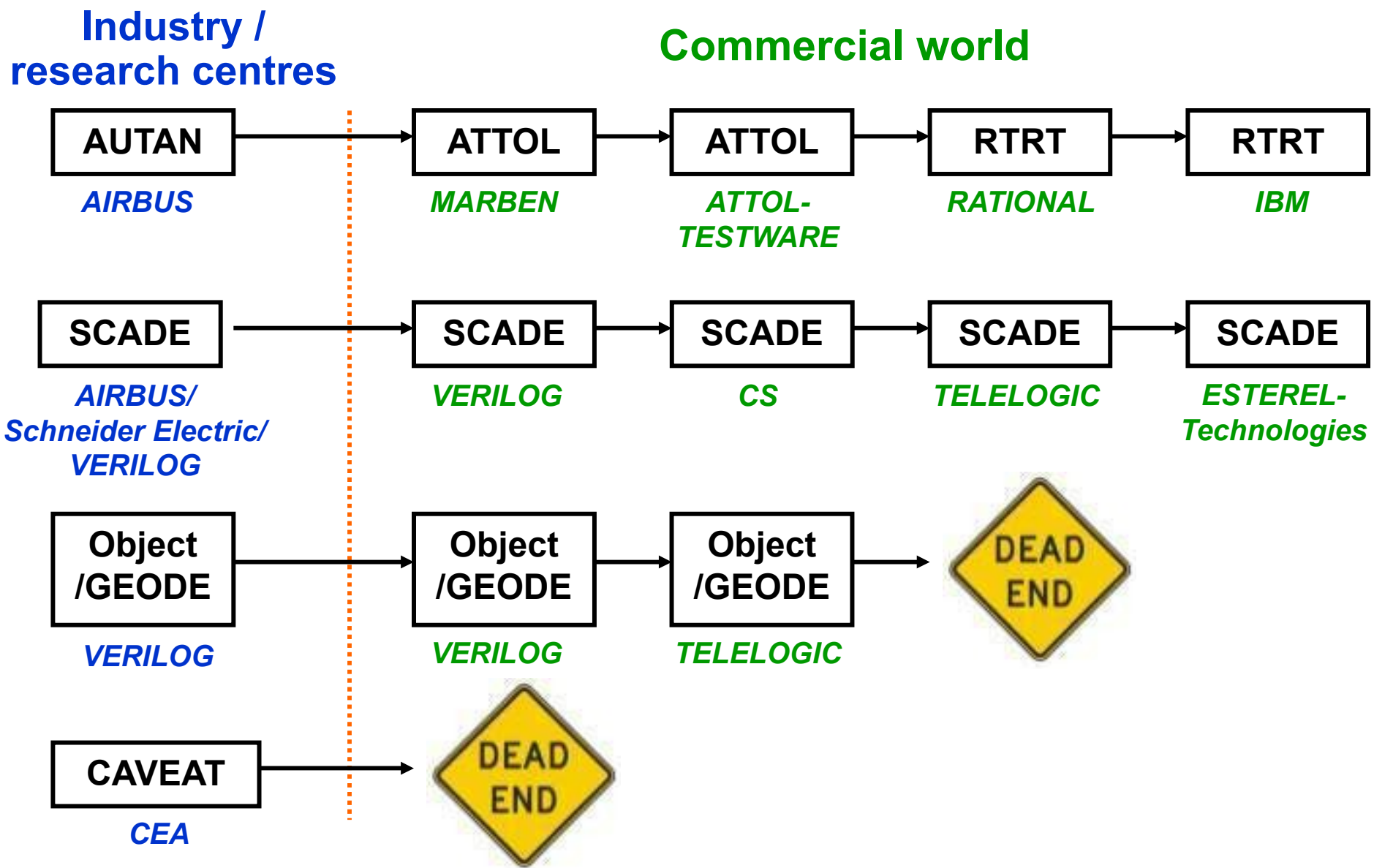
- 500 point selector switch first release in 1920
- Was still used in the 1980s



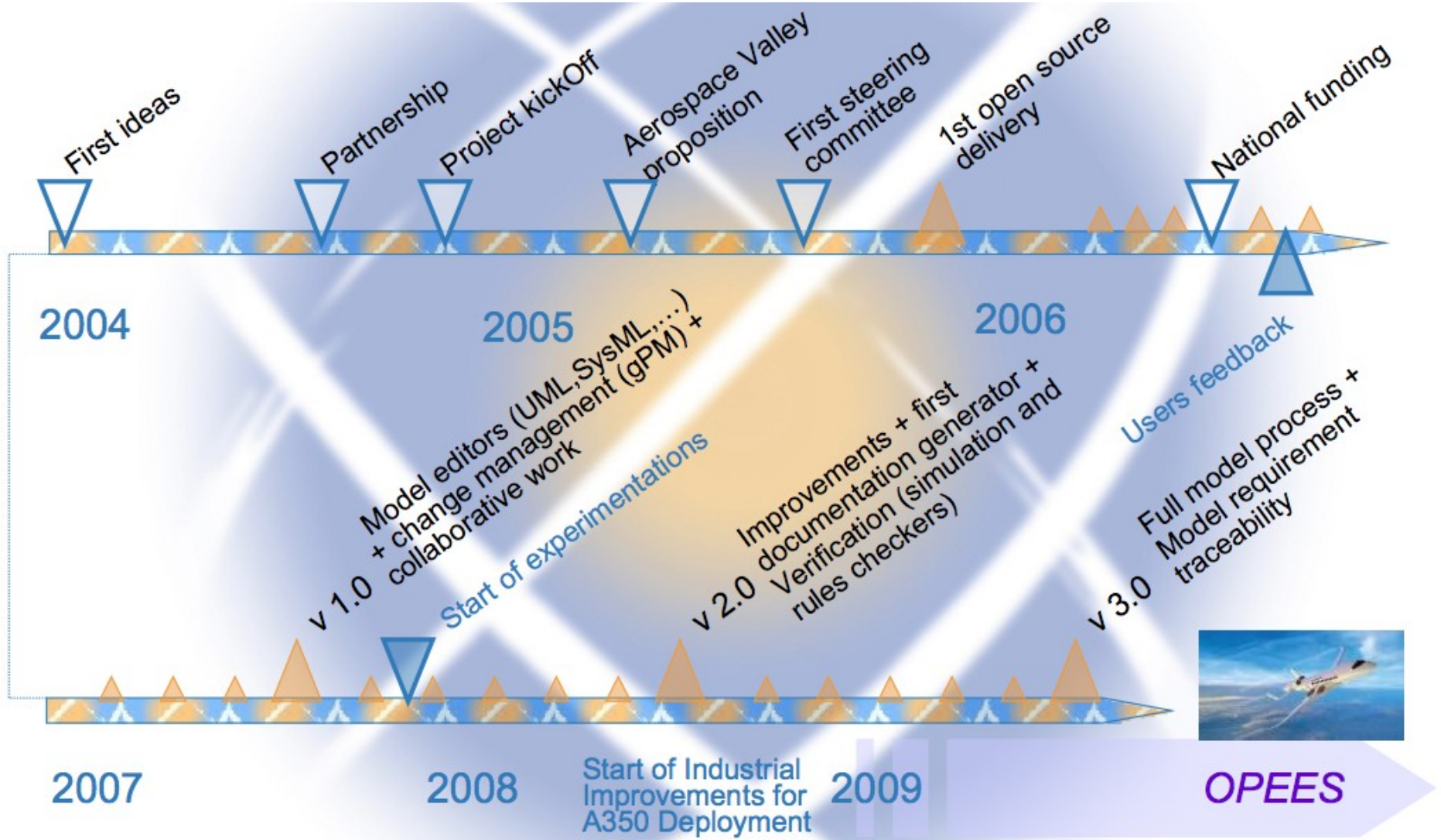
Life Cycle is usually 30-40 years

ERICSSON

Long Term Availability for What?

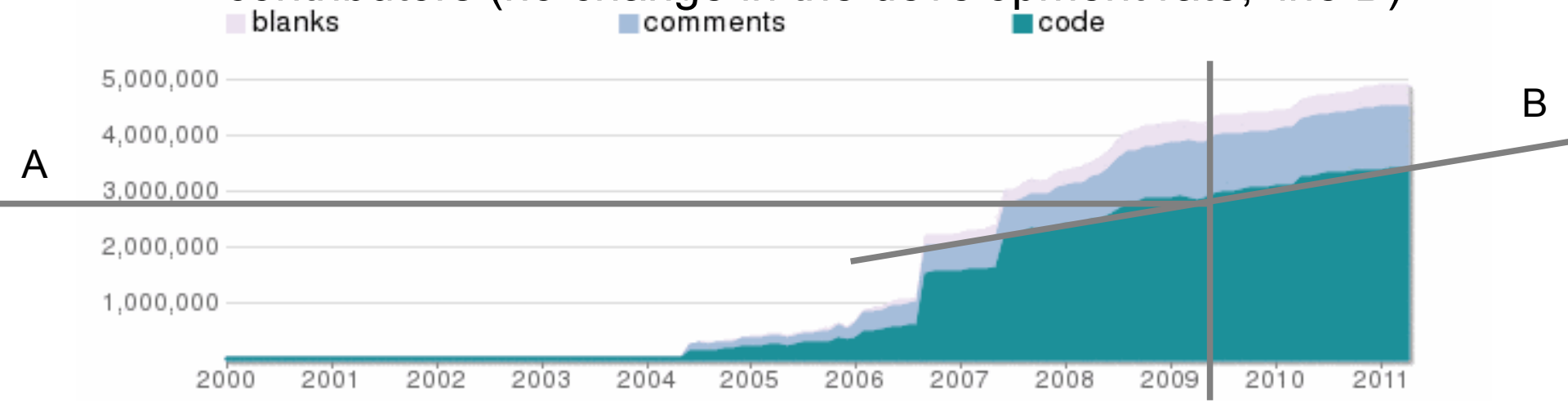


Tooling for critical systems
The Topcased example

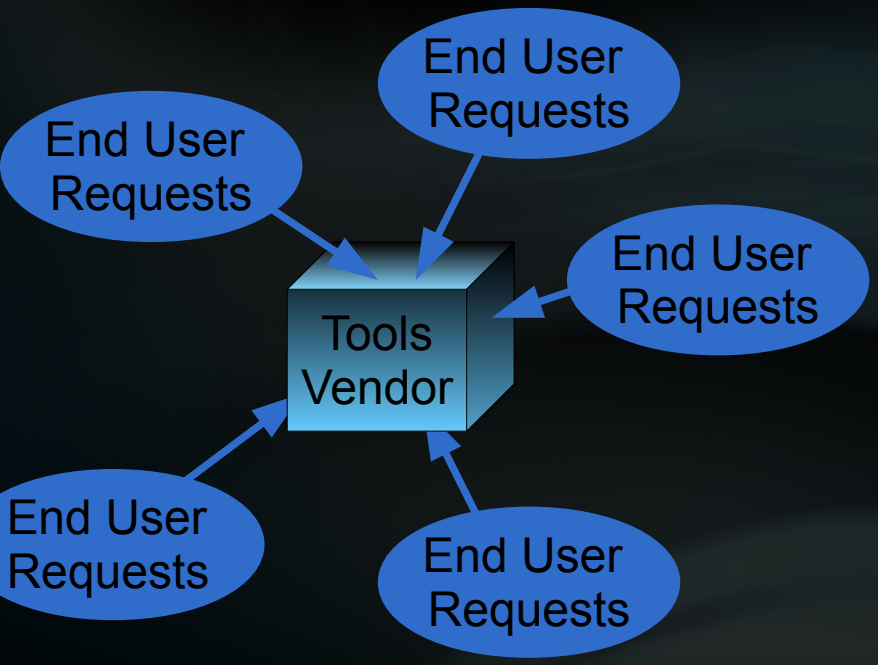


Long Term Availability for Topcased

- After its acquisition in 2009, Anyware, the main contributor stopped its activities around Topcased
- Thanks to the Open Source approach
  - The code base has not been lost due to IP (nearly 3M LoC, line A)
  - The ecosystem was strong enough to find other skilled contributors (no change in the development rate, line B)

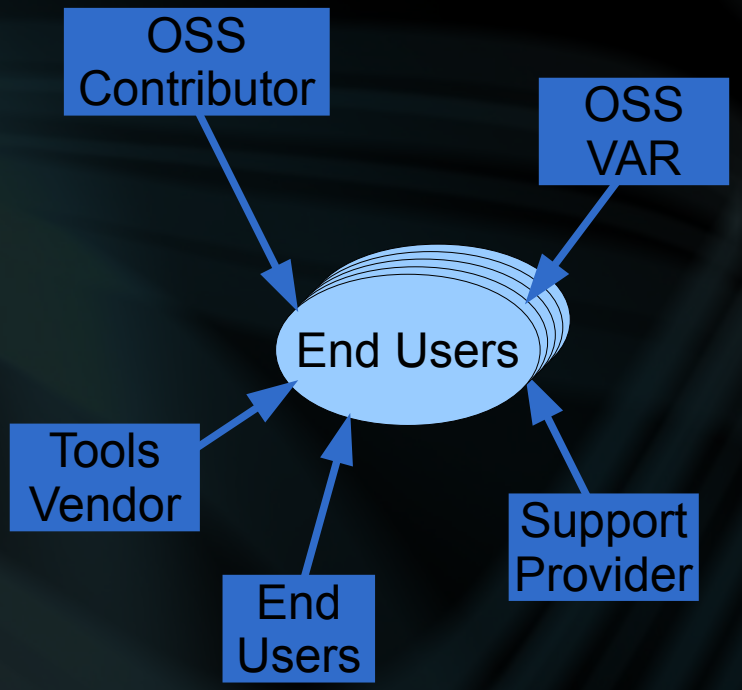


Focus on Industrial User Strategy



Users adapt their process to the tools
Less than 20% Features Requests accepted

Usual Tools Vendor ecosystem



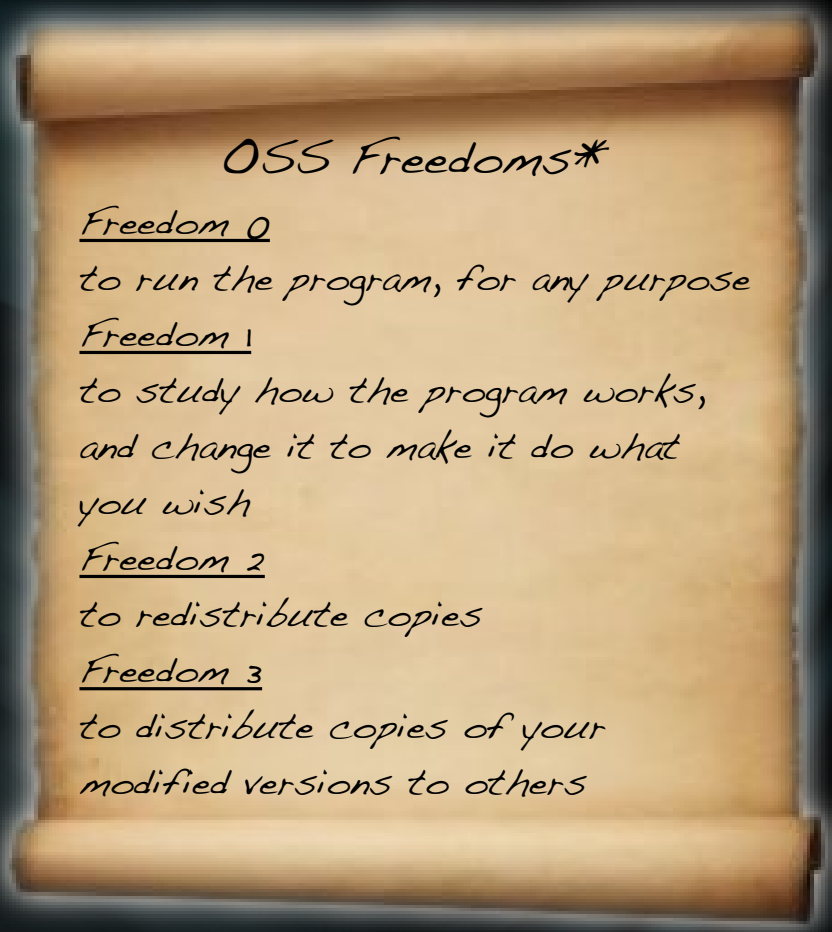
Nearly **80%** Features Requests implemented as generic features
20% implemented as end user extensions

OPEES Target ecosystem

OSS as an enabler

OSS advantages

- Manage IP issues
- Open code and open formats enable
  - Migration
  - Interoperability
  - Extensibility
- Lowers vendor lock-in
- Share common platforms between tools vendors and industrial users

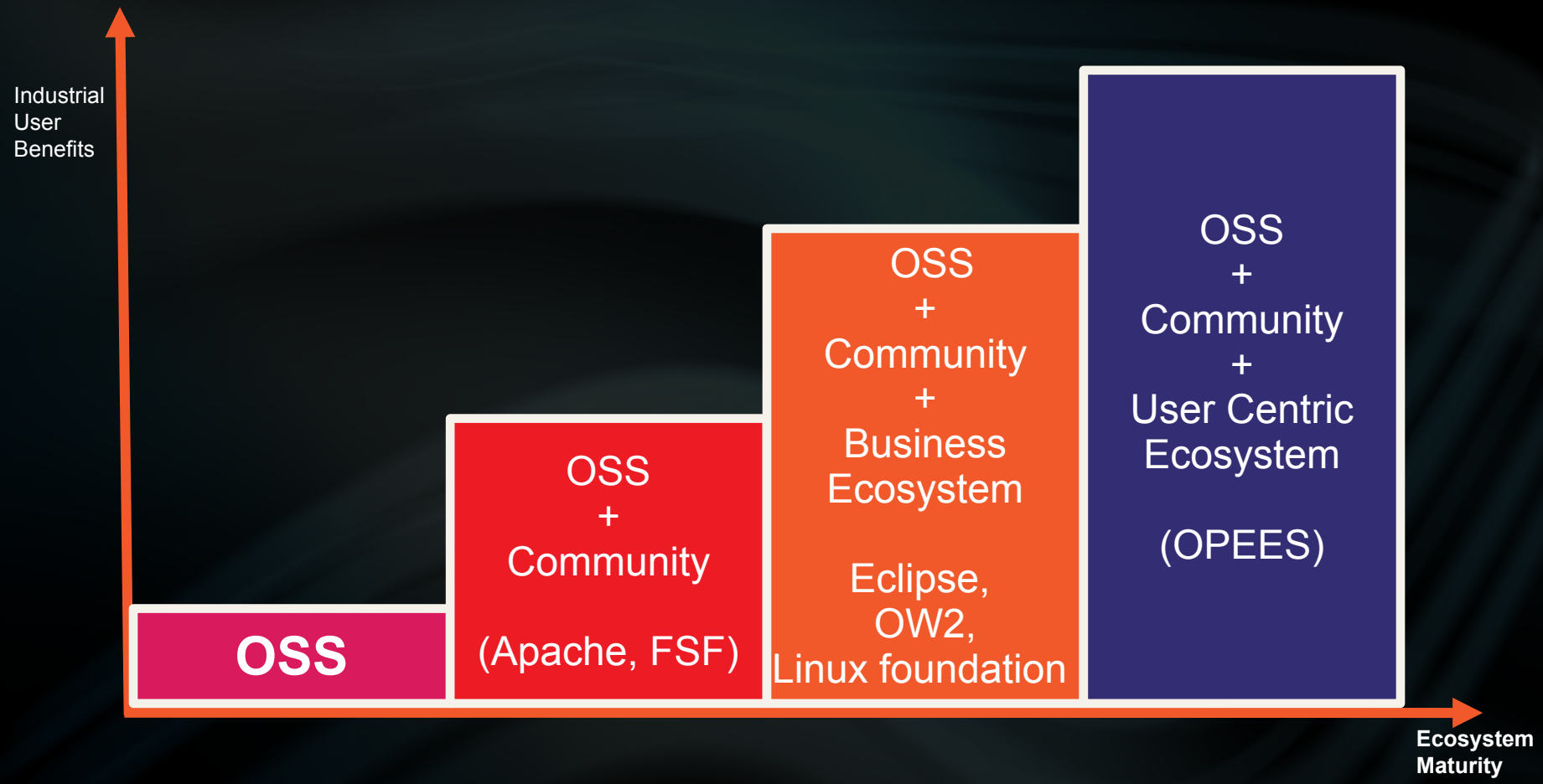


(*) As defined by the Free Software Foundation

OSS is not enough! Additional needs

- Community management
- Ecosystem development
  - Industrial User centric
  - Access to skilled professionals
  - Training, Support, Maintenance
  - Processes to assess tool maturity
- Very Long Term Support

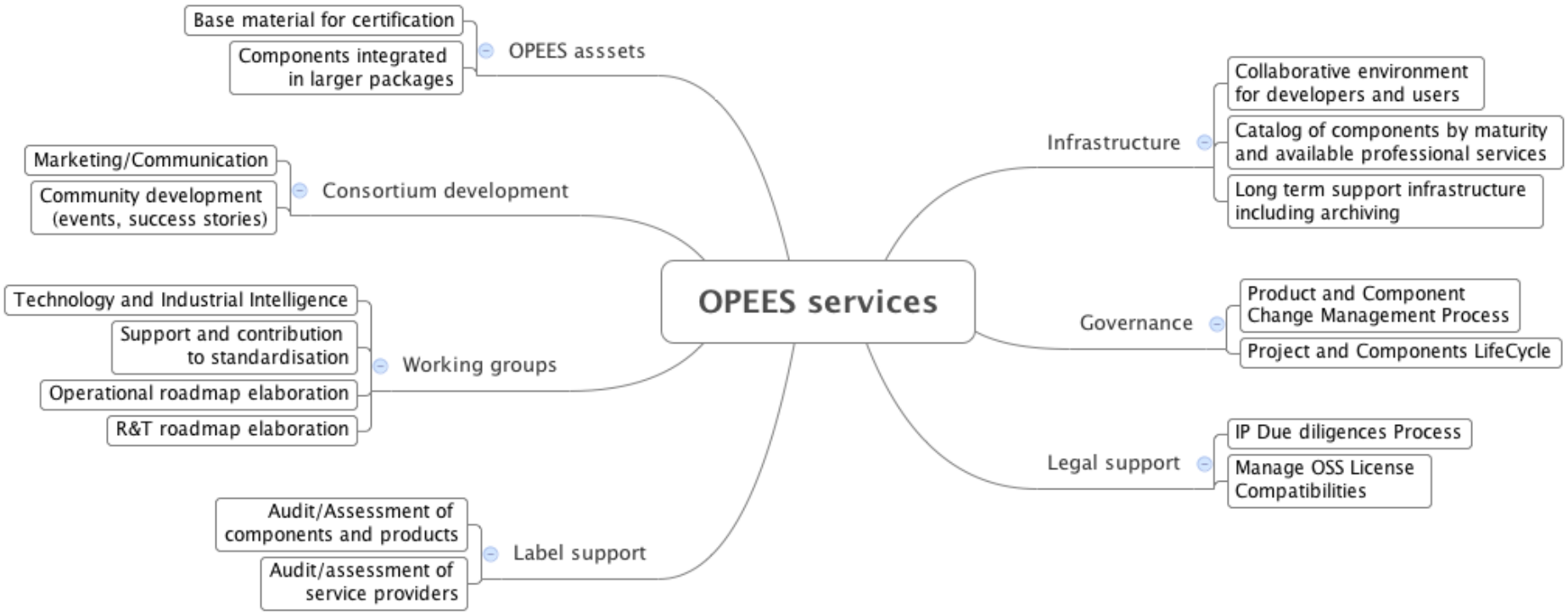
Maturity of OSS ecosystems



OPEES in a Nutshell

- Missions
  - Ensure long-term availability of critical / embedded systems engineering technologies
  - Secure industry competitiveness and development
- Towards a federation of Industrial Users and Service Providers
  - Build a sustainable ecosystem around OPEES technologies
  - Avoid the creation of one ecosystem per industrial user
- OPEES openly federates some services that were provided by Tools Vendor with lock-in

OPEES added value



Comparing Eclipse and OPEES

Implemented in Eclipse

- OSS license
- OSS governance
- Development process
- Collaboration infrastructure
- Integrated releases
- Meritocracy
- Project Management Committees
- IP Management
- Long Term Support

To be implemented in OPEES

- Maturity assessment
- Industry oriented governance
- Labels
  - regular assessment
  - and formal evaluation
- Certification Process Enablement
  - TopCased Quality Kit
  - Change Control Board
- Very Long Term Support

OPEES ITEA project 2009-2012
35 members from 5 European countries


Next steps

- Implement the OPEES legal entity
  - Sustainable after the end of the ITEA project
- Grow the community
  - Approach applies to other domains like
    - Railway
    - Automotive
    - Nuclear

Join the initiative!


Thank you
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