



Airbus OSPO

The (ongoing) journey of developers in a heavy industry

Frédéric Sicot Mouret - frederic.sicot@airbus.com
on behalf of the Airbus Open Software Community
OSPO OnRamp - July 2026

AIRBUS

Airbus is a global leader in aeronautics, defence, space and related services



Airbus, Airbus Defence and Space and Airbus Helicopters

165k

End 2025 total workforce

€619bn

End 2025 order book

€73bn

2025 revenue



Airbus Software Engineering Overview



DO-178C, Software Considerations in Airborne Systems and Equipment Certification

development assurance level (DAL):

- A: Catastrophic
- B: Hazardous
- C: Major
- D: Minor
- E: No effect

Airbus Software Engineering Overview



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Data Science / AI

Airbus Software Engineering Overview



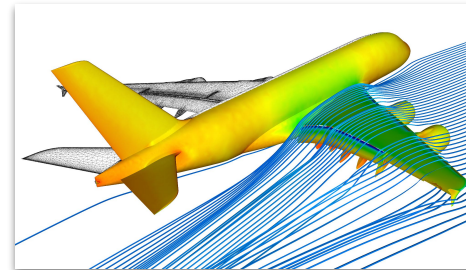
DO-178C, Software Considerations in Airborne Systems and Equipment Certification

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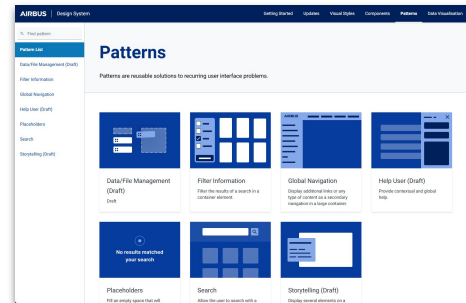
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Quality Processes
Conf management



Simulation



Application Software & Services



Data Science / AI

Airbus Software Engineering Overview



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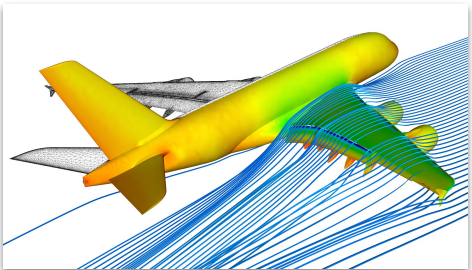
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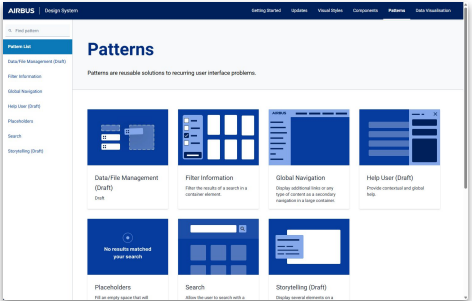
Quality Processes
Conf management

Key Features

- Lifespan > 40 years
- Waterfall
- Safety requirements



Simulation



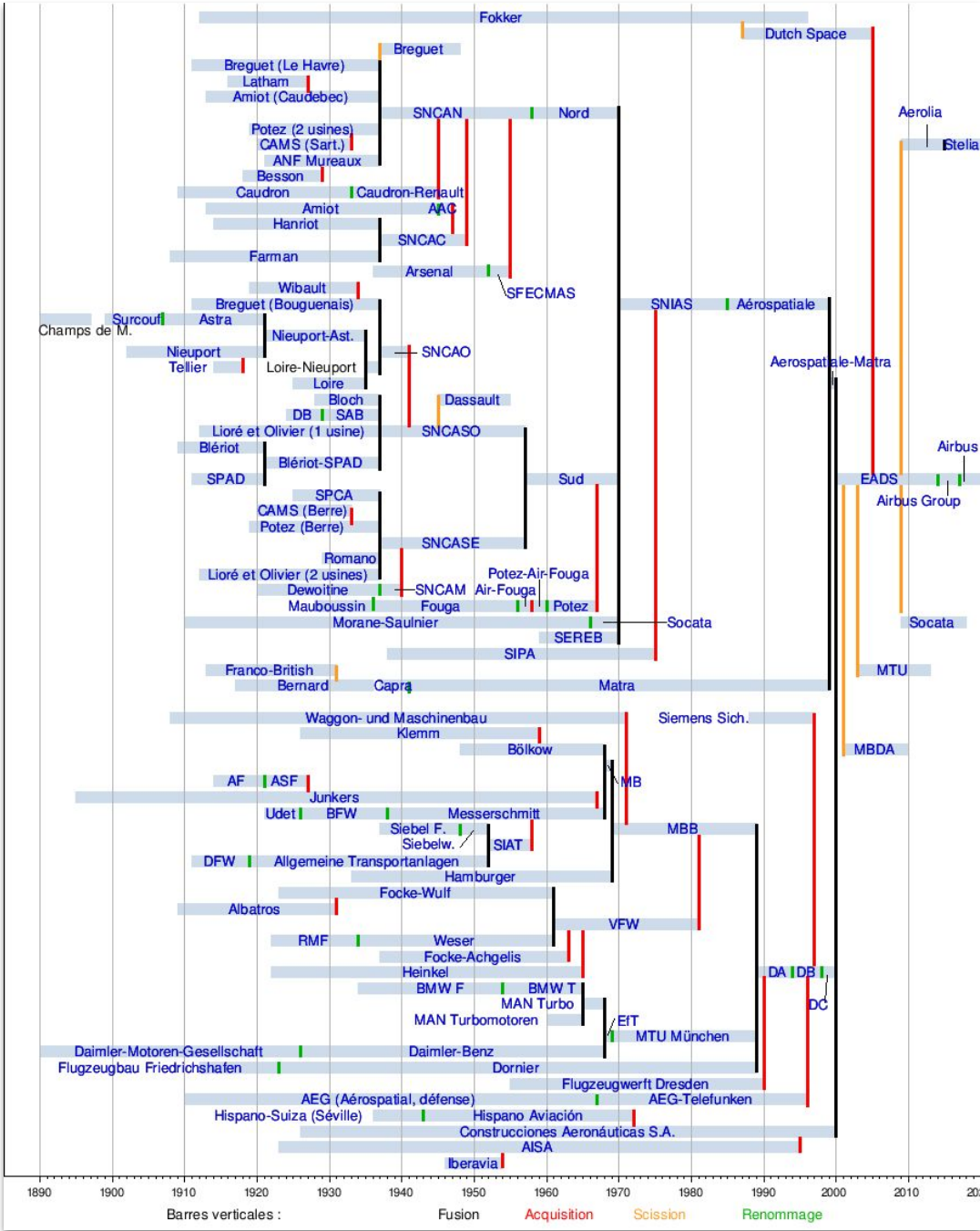
Application Software & Services



Data Science / AI

Key Features

- Lifespan 5-15 years
- down to < 1 year
- Agile-like



We Are One



 **Grand-Prairie**

 **Elancourt**

 **Group-wide projects**
(People Safety...)

 **Bremen**

 **Montoire de Bretagne**

 **Donauworth**

Example of a custom NLP library
Data scientists across the group informally collaborated on a Python package.
#WeAreOne

 **Getafe**

 **Marignane**

 **Sevilla**

 **Toulouse**

We Are One*

*but not in front of the law...

The Journey of Naive Developers in the Corporate World



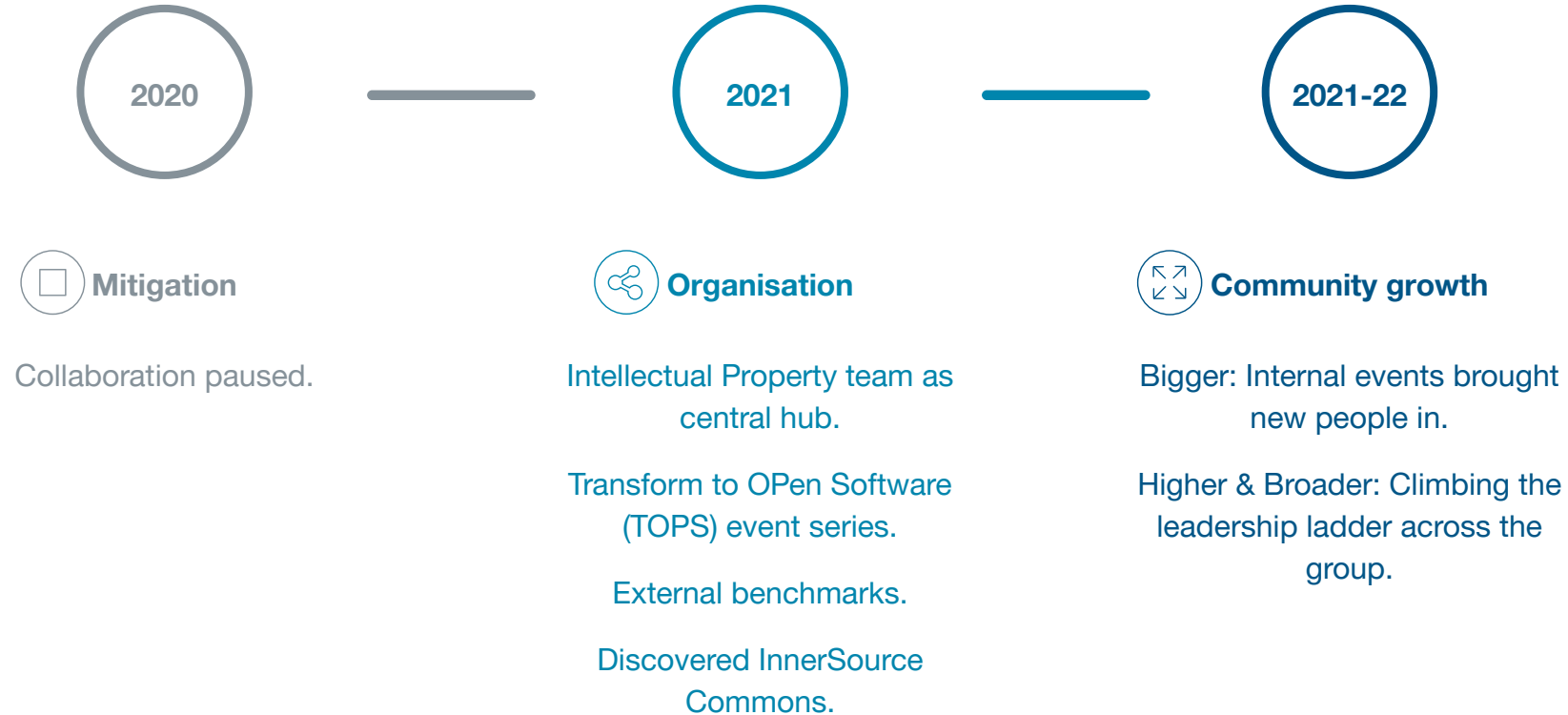
 **Mitigation**

Collaboration paused.

The Journey of Naive Developers in the Corporate World



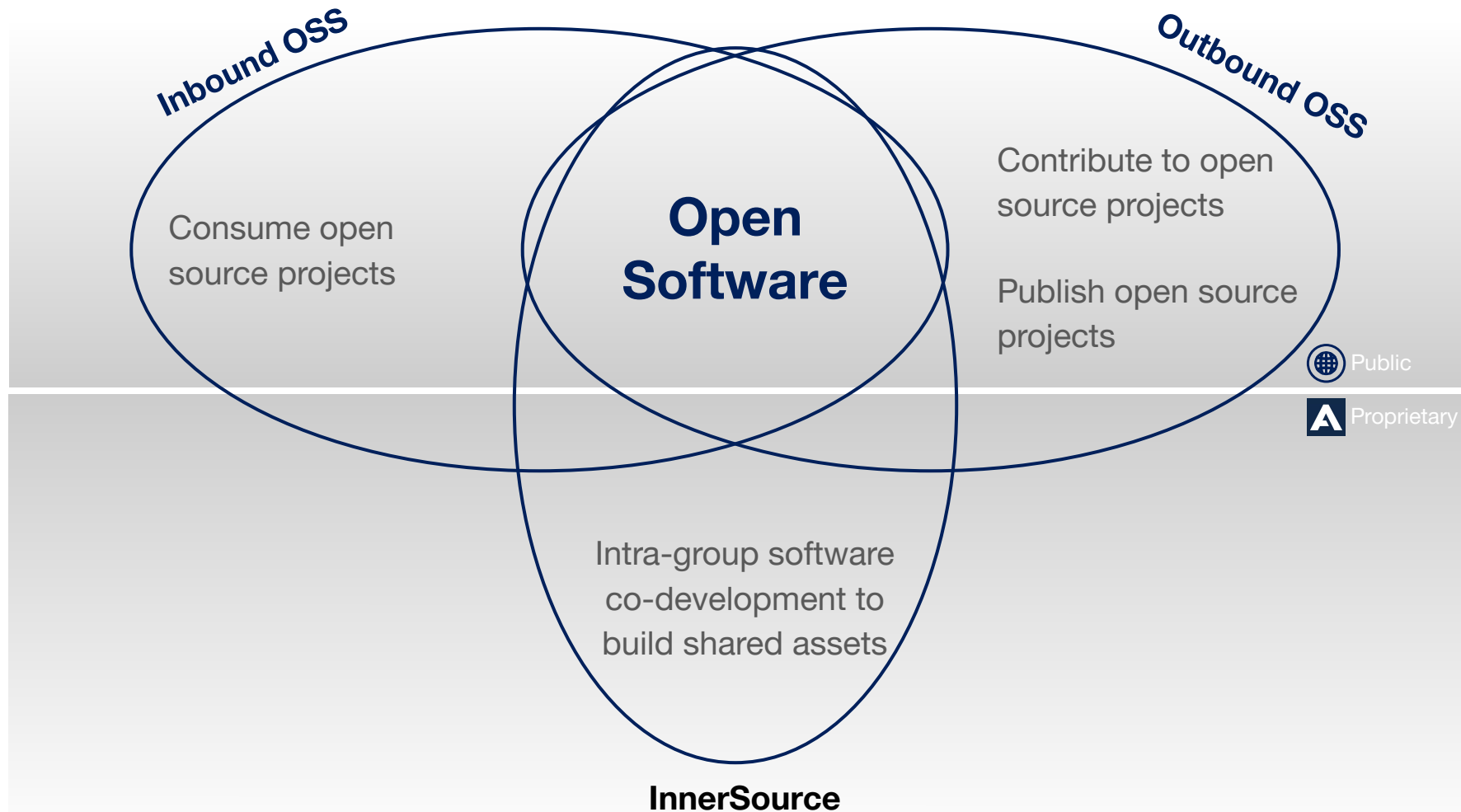
The Journey of Naive Developers in the Corporate World



The Journey of Naive Developers in the Corporate World



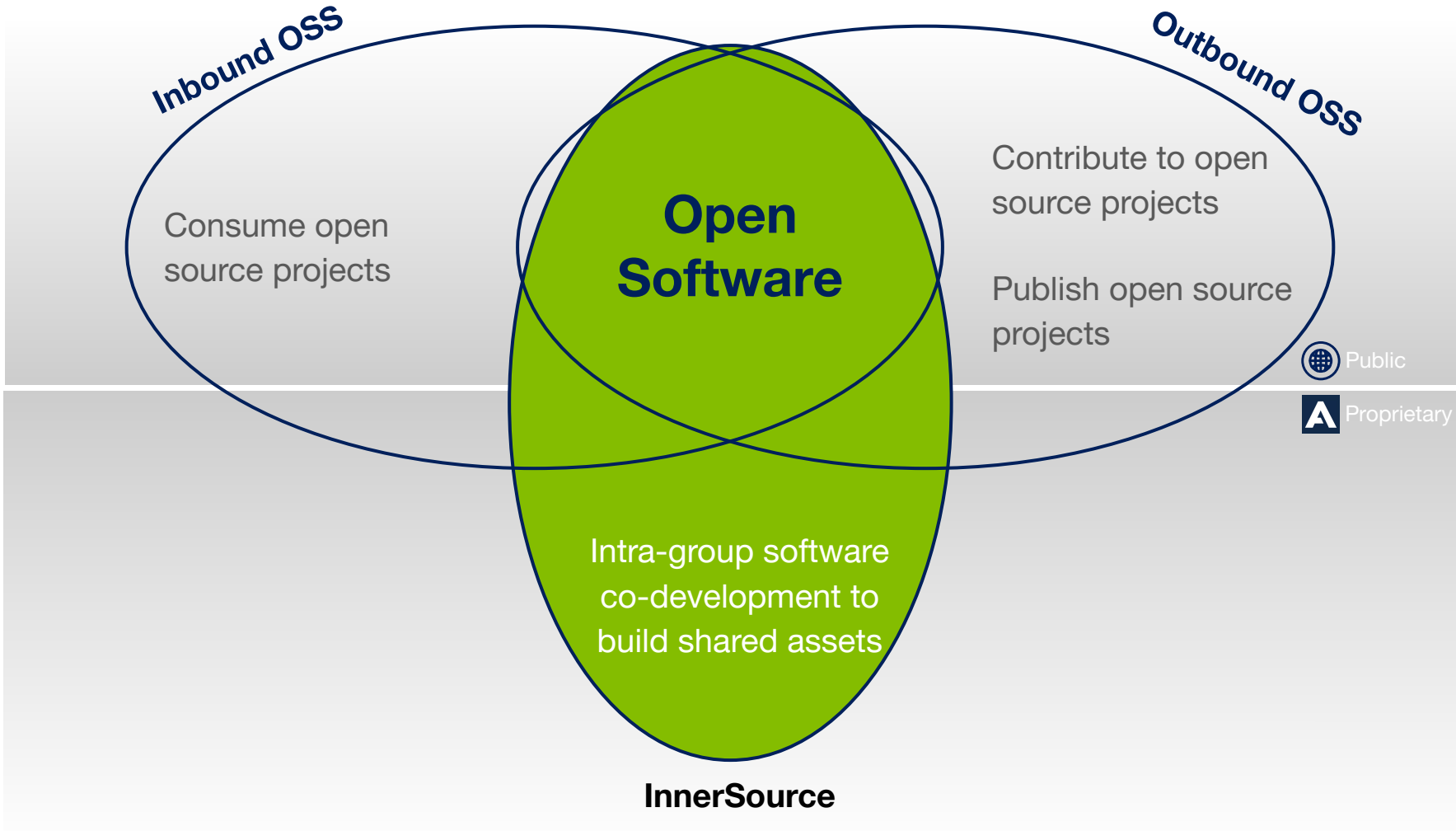
Scope of Airbus' Open Software Program Office (OSPO)



Distributed OSPO

- Ad hoc team in Software Enablement & Governance in Commercial Aircraft
- Collaboration with peers in the divisions
- Started with InnerSource

Scope of Airbus' Open Software Program Office (OSPO)



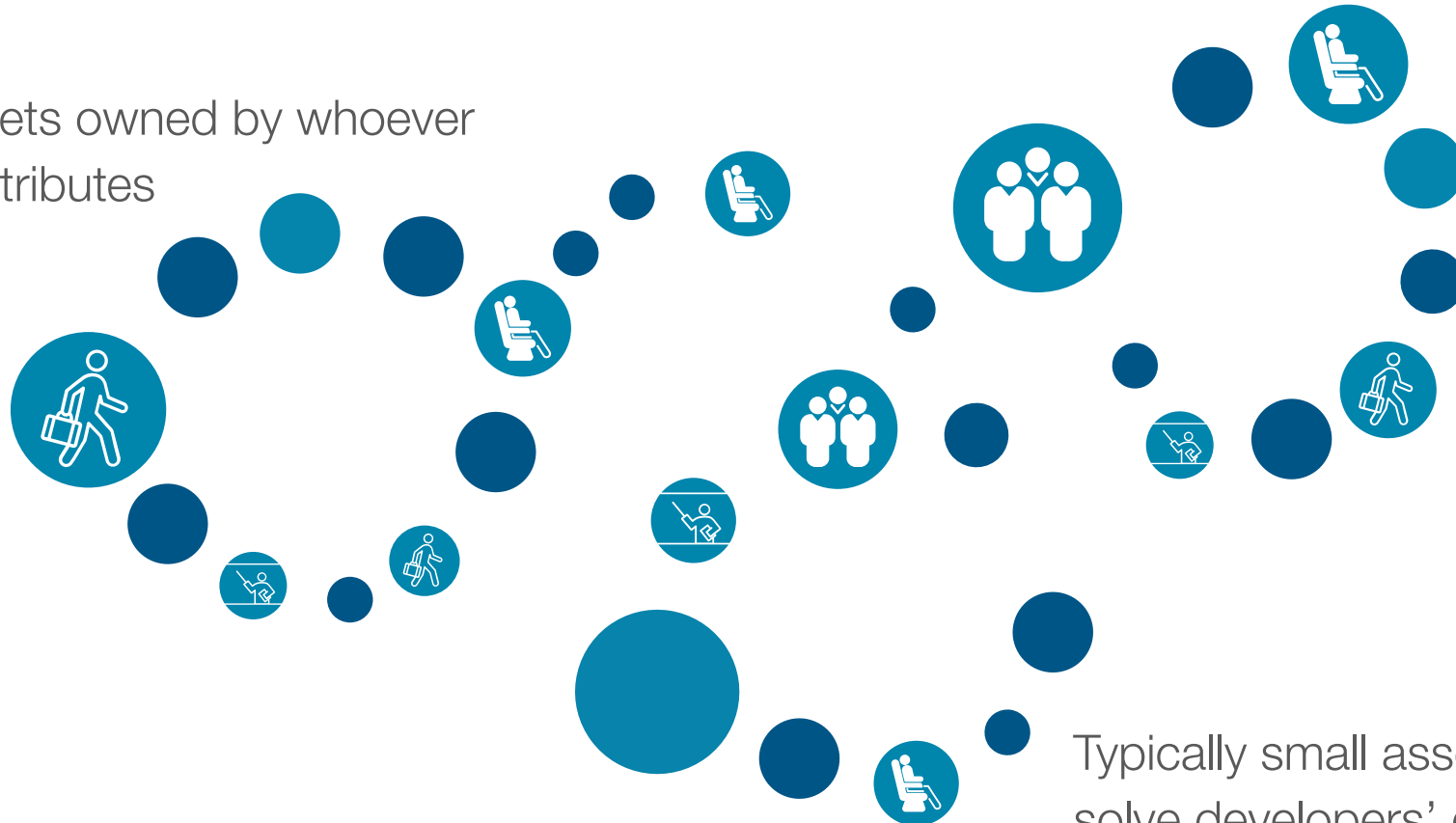
InnerSource Strategy



Two kinds of InnerSource software

Community Owned

Assets owned by whoever contributes



Pitfalls:

- Be careful for churn/retirement
- Everybody share

Typically small assets that solve developers' everyday problems

Business Case of an InnerSource Project (after 3 years)

Core Team managed by Alice

Budget: 100k man hours + 12k for “InnerSource” (Opportunity cost)

User Teams managed by Bob, Carol, Dave...

Cost avoidance: 60k man-hours

Business Case of an InnerSource Project (after 3 years)

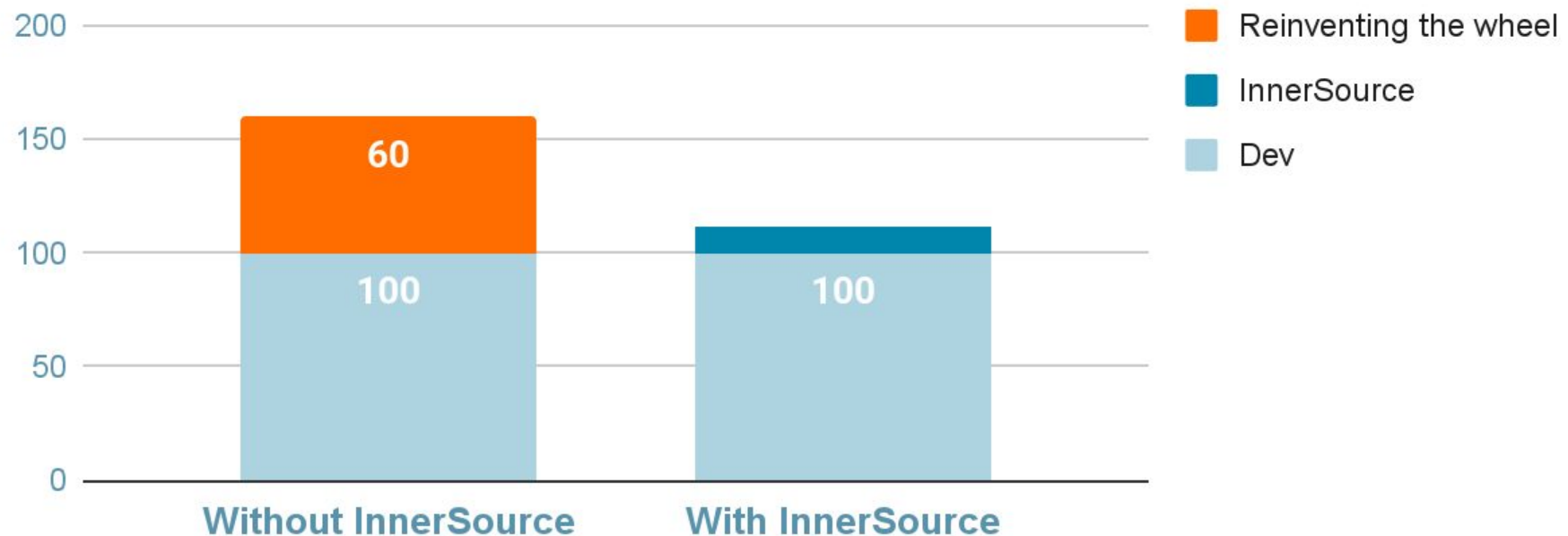
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ROI 1:5 (12k:60k), cost avoidance: 48k



Business Case of an InnerSource Project (after 3 years)

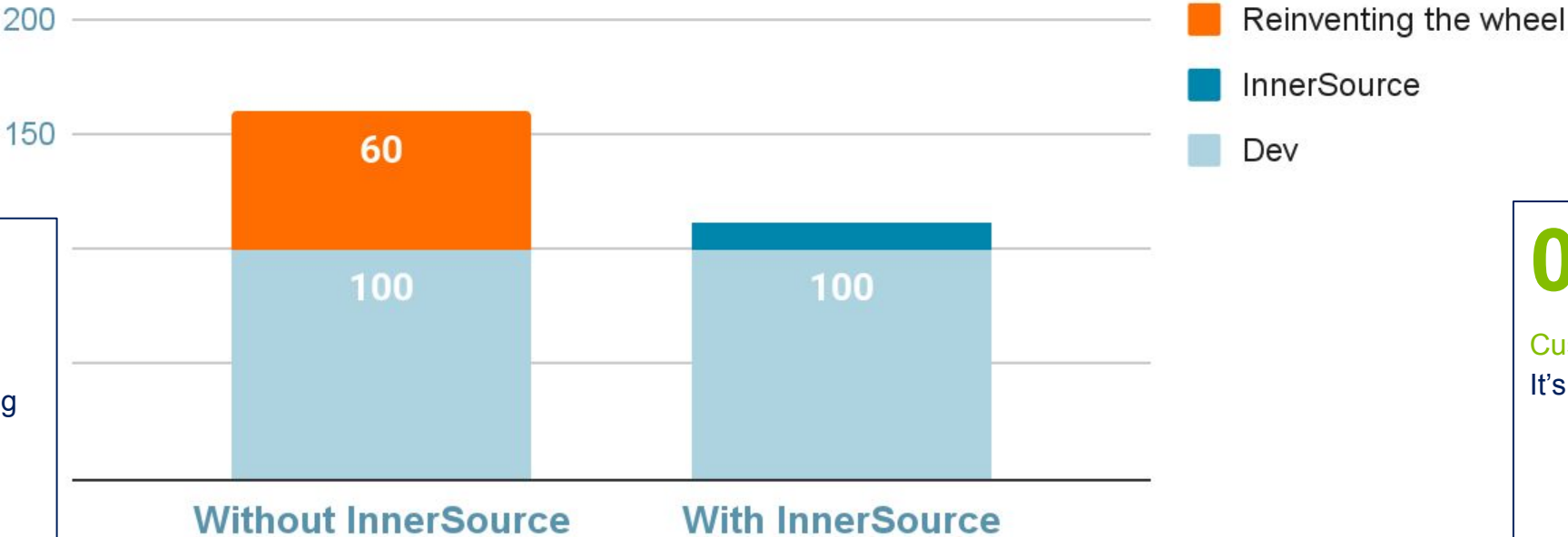
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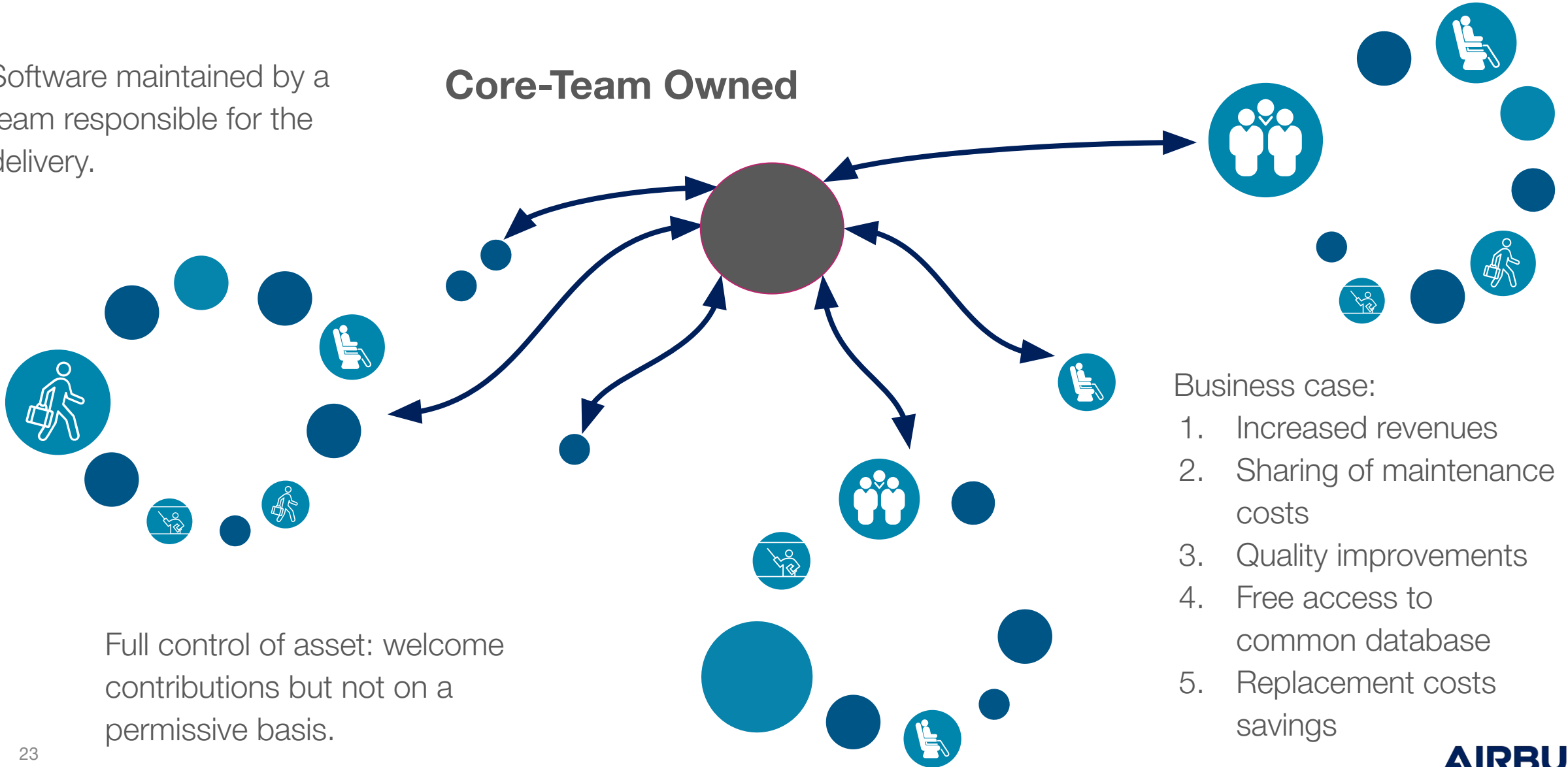
1:0
Core Team ROI
Core team got nothing in return

0.1:5
Customer team ROI
It's almost 100% benefit

Two kinds of InnerSource software

Software maintained by a team responsible for the delivery.

Core-Team Owned



Full control of asset: welcome contributions but not on a permissive basis.

Business case:

- 1. Increased revenues
- 2. Sharing of maintenance costs
- 3. Quality improvements
- 4. Free access to common database
- 5. Replacement costs savings

Building an Economy of Sharing: Balancing Supply and Demand

Community Owned: Supply-side Economy

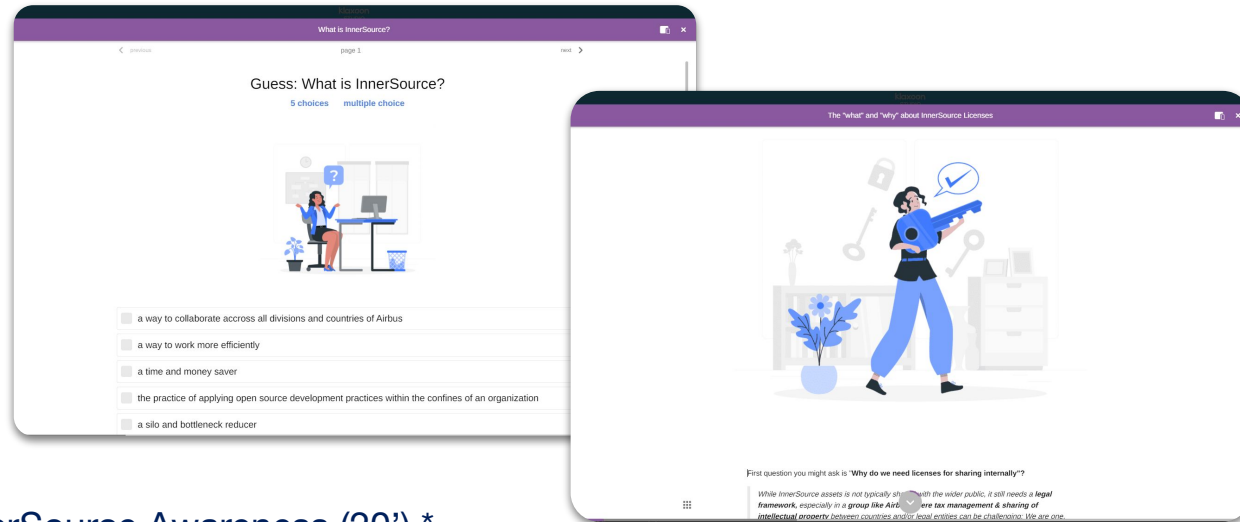
- Too much supplies
- “Nobody uses my InnerSource software 😭”
 - Documentation
 - Communication
 - Community management
- Incentivize on consumption

Core-Team Owned: Demand-side Economy

- Many leaders hesitate to adopt inner-source because it brings higher exposure: political, security, financial
- InnerSource Washing
- Lighthouse projects leading by examples



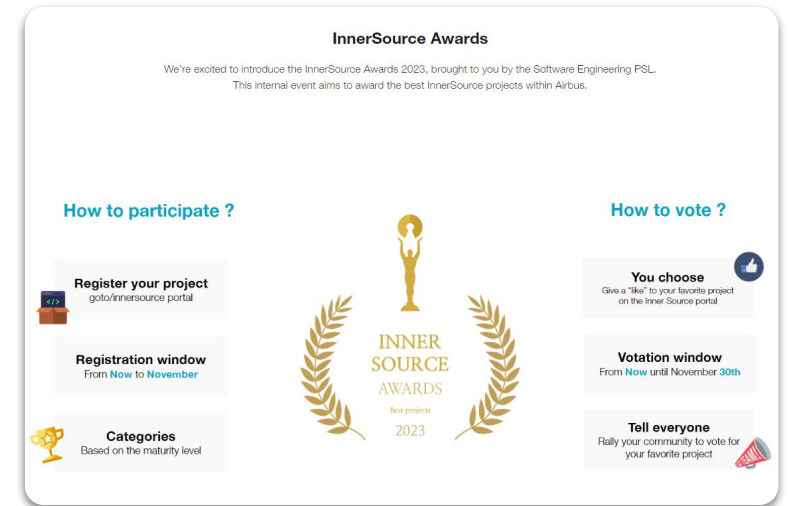
Awareness & Training



- InnerSource Awareness (20') *
- InnerSource License Awareness (10') *
- InnerSource KickStart Workshop

**Self-service, interactive, available to everyone within Airbus*

Switch from broadcast **“Show & Hope”**
community to **“Train & Support”**



Community Events & Award



InnerSource Portal (Backstage Bazaar Plugin)

Add score, maturity level and other metrics

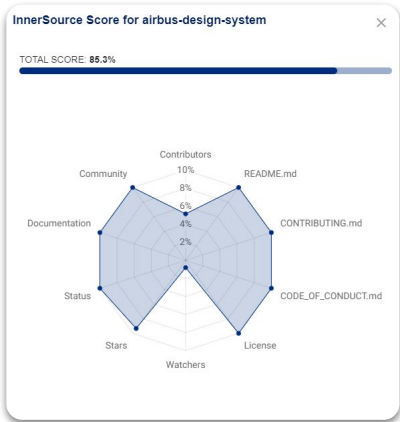
The screenshot displays the 'Code Collab Portal' interface. At the top, a dark blue header contains the title 'Code Collab Portal' and the subtitle 'Discover InnerSource Projects and Reusable Components'. Below the header is a navigation bar with links for 'LIST OF PROJECTS', 'INNERSOURCE ISSUES', 'ABOUT', and 'AWARDS'. The main content area is titled 'Projects & Components (119)' and features a 'Sort by: Score' dropdown menu. A search bar is located on the right side of the main area. Below the search bar, there are several project cards. Each card displays a maturity level (e.g., 'First-Class InnerSource' or 'Established InnerSource'), a project name (e.g., 'design-system', 'GenAiR'), a brief description, and a list of tags (e.g., 'reusable', 'library', 'pip', 'open-for-c').

Search based on tags

Crawler to get new possible projects

InnerSource Portal

InnerSource Score computed using the repository information (license, #maintainers, documentation available, etc.)



License information

Maturity Level

Award voting button

airbus-design-system

LIKED BY 13

INNERSOURCE SCORE
85 %

DESCRIPTION
Airbus Design System - DevKit for faster and consistent web app development

LICENSE
Shared Maintenance...

MATURITY LEVEL
First-Class InnerSource

PROJECT STATUS
Maintained

LAST UPDATED
2023-10-31

LANGUAGES

- HTML 5.2%
- JavaScript 22.1%
- CSS 0.1%
- TypeScript 71.9%
- SCSS 0.5%
- Shell 0.1%

REPOSITORY INFO

Starred	Issues	Forks
108	9	30

Maintainers	Contributors
16	15

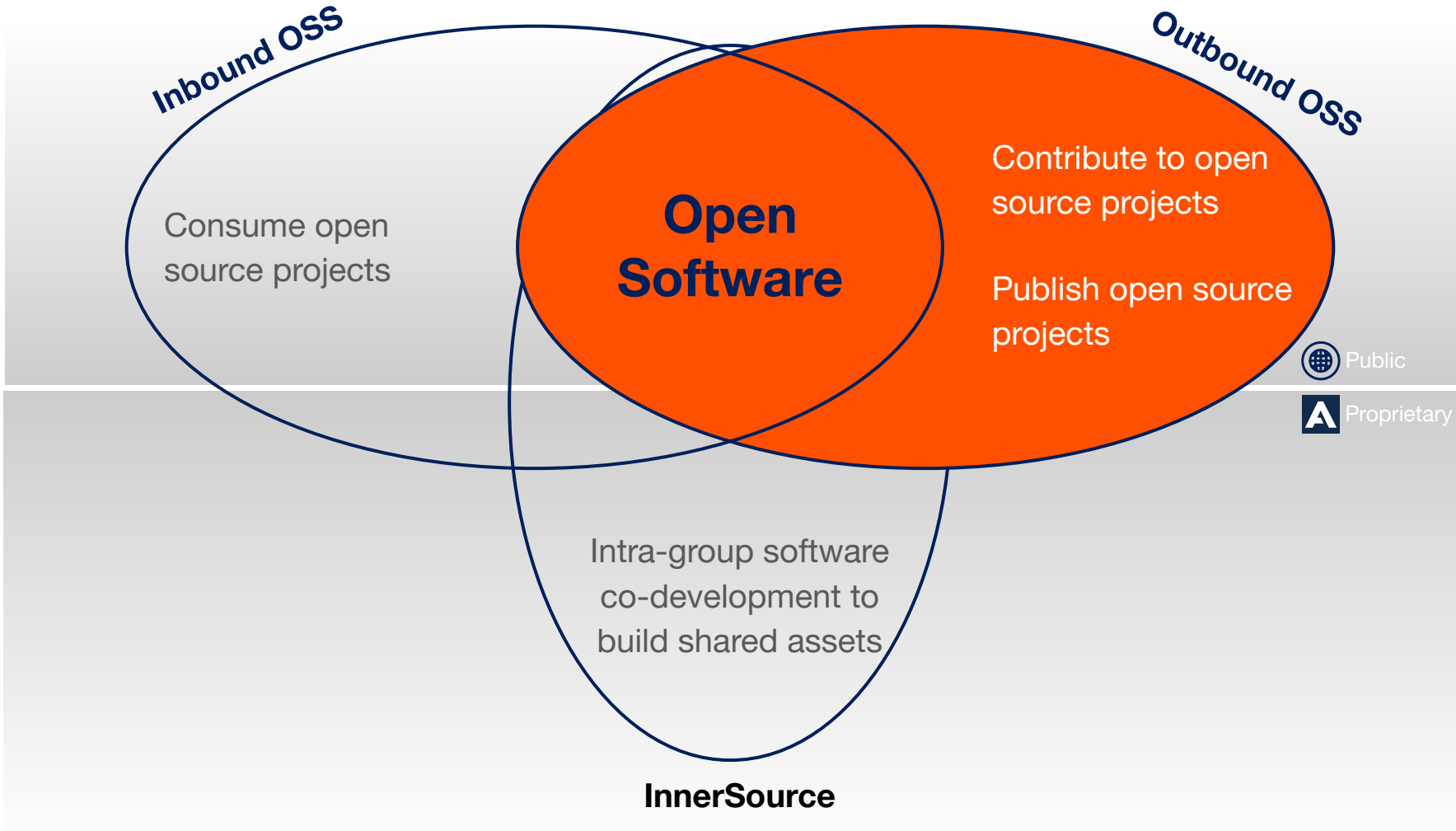
USEFUL LINKS

- Go to documentation
- View GitHub Repository
- Access Community
- Contact

Status based on the activity of the repository

Repository information retrieved from GitHub directly

Scope of Airbus' Open Software Program Office (OSPO)



Public GitHub Organisations

Airbus Group
We design, manufacture and deliver industry-leading commercial aircraft, helicopters, military transports, satellites and launch vehicles
Toulouse <https://www.airbus.com> Verified

Overview Repositories 3 Packages People Projects 3

Popular repositories

- scikit-decide** (Public)
AI framework for Reinforcement Learning, Automated Planning and Scheduling
Python 25 15
- ED247_LIBRARY** (Public)
Example of ED-247 standard implementation
C++ 14 10
- decomon** (Public)
Python 12

People
This organization has no public members. You must be a member to see who's a part of this organization.

Top languages
Python C++

Repositories
Find a repository... Type Language Sort

scikit-decide (Public)
AI framework for Reinforcement Learning, Automated Planning and Scheduling

Airbus Defence And Space

Overview Repositories 5 Packages People Projects 5

Popular repositories

- pesto** (Public)
PESTO provides a set of tools to ease the process of packaging a Python algorithm in a processing web service into a docker image. The deployment of a web service becomes now as easy as filling few...
Python 22 6
- geoprocessing-api** (Public)
GeoProcessing API
3 1
- AIS_message_generator** (Public)
An NMEA / AIS / AIVDO message generator
Python 1
- vispa** (Public)
Unified Robot Description Format (URDF) of Airbus's Versatile In-Space and Planetary Arm (VISPA)
Python 1
- pesto-schema** (Public)
This project provides a set of schema to define PESTO APIs

People
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Top languages
Python

Repositories
Find a repository... Type Language Sort

Airbus DS GEO S.A.
Toulouse, France <http://www.intelligence-airbusds.com>

Overview Repositories 30 Packages People 1 Projects 30

Popular repositories

- godal** (Public)
golang wrapper for github.com/OSGeo/gdal
Go 62 9
- cogger** (Public)
cogger is a fast geotiff to COG converter
Go 43 5
- playground-docs** (Public)
Documentation for Intelligence Playground
Python 7 9
- osio** (Public)
Object Storage IO wrapper for golang
Go 7 2
- mcog** (Public)
Go 7
- geocube** (Public)
Go 7 3

People
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Top languages
Go Python TypeScript
Jupyter Notebook JavaScript

Repositories
Find a repository... Type Language Sort

AIRBUS airbus-seclab
<https://airbus-seclab.github.io/>

Overview Repositories 33 Packages People 5 Projects 33

Pinned

- bincat** (Public)
Binary code static analyser, with IDA irr
OCaml 1.3k 153
- ilo4_toolbox** (Public)
Toolbox for HPE ILO4 & ILO5 analysis
Python 343 67
- gustave** (Public)
GUSTAVE is a fuzzing platform for amb
Python 180 22
- diffware** (Public)
An extensively configurable tool provid
Python 155 11
- android_emuroot** (Public)
Android_Emuroot is a Python script tha
Python 92 25

People
This organization has no public members. You must be a member to see who's a part of this organization.

Top languages
Python C Ruby C++
OCaml

Repositories
Find a repository... Type Language Sort

qemu_blog (Public)
A series of posts about QEMU internals:

AIRBUS CERT
cert@airbus.com

Overview Repositories 25 Packages People 2 Projects 25

Pinned

- mispy** (Public)
Another MISP module for Python
Python 14 4
- mispgolang** (Public)
Golang library for MISP
Go 4 6
- regrippy** (Public)
A modern Python-3-based alternative 1
Python 145 13

People
This organization has no public members. You must be a member to see who's a part of this organization.

Top languages
Python Go C C#
C++

Most used topics
dfir forensics etw windows
bodyfile

Repositories
Find a repository... Type Language Sort

regrippy (Public)
A modern Python-3-based alternative to RegRipper
Python 145 Apache-2.0 13 1 0 Updated 5 hours ago

Winshark (Public)
A wireshark plugin to instrument ETW

AIRBUS Airbus CyberSecurity
Airbus CyberSecurity protects governments, military, organisations and critical national infrastructure from cyber threats.
Elancourt, France <https://airbus-cyber-security.com> Verified

Overview Repositories 13 Packages People Projects 13

Popular repositories

- aflghidra_emu** (Public)
C 160 17
- graylog-plugin-alert-wizard** (Public)
Alert Wizard plugin for Graylog to manage the alert rules
JavaScript 33 5
- IP2LoRa** (Public)
IP tunnelling over LoRa
Python 33 15
- CyberSecResources** (Public)
Python 22 3
- graylog-plugin-aggregation-count** (Public)
Alert condition plugin for Graylog to perform aggregation
Java 21 2
- graylog-plugin-correlation-count** (Public)
Alert condition plugin for Graylog to perform correlation
Java 21 5

People
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Top languages
Java Python C
JavaScript

Most used topics
graylog graylog-plugin alerting
groupby

Repositories
Find a repository... Type Language Sort

Becoming Upstream First (the working-level way)

<https://github.com/airbus-forks>

Onboard any airbus developers to contribute to their FOSS supply chain from one-off patch to sustained contributions

Same charter as publishing to open source augmented with upstream project checks:

- CLA / DCO
- Contributors guidelines

The screenshot shows the GitHub organization page for 'airbus-forks'. The page header includes navigation tabs: Overview, Repositories (31), Projects, Packages, Teams (21), People (38), Security and quality, Insights, and Settings. The organization profile features a logo with a stylized 'A' and a fork icon, and a bio stating: 'We believe in the power of collaboration and open-source contribution. This organization serves as a hub for projects that we're actively contributing to.' It also lists 15 followers and provides links to the website (https://www.airbus.com), LinkedIn (company/airbusgroup), and Twitter (@Airbus). The main content area displays a README file with a 'Welcome to airbus-forks!' message and an 'About Us' section stating they are part of the Open Software Program Office (OSPO). A 'We think you're gonna like it here.' section suggests tasks for getting started. The right sidebar shows a 'View as: Public' dropdown, a 'Discussions' section, and a 'Repositories' section listing 'wasm-micro-runtime' and 'IPW3'.

Other ways to contribute (the corporate way - WIP)



The Open Source I Trust

Membres fondateurs :



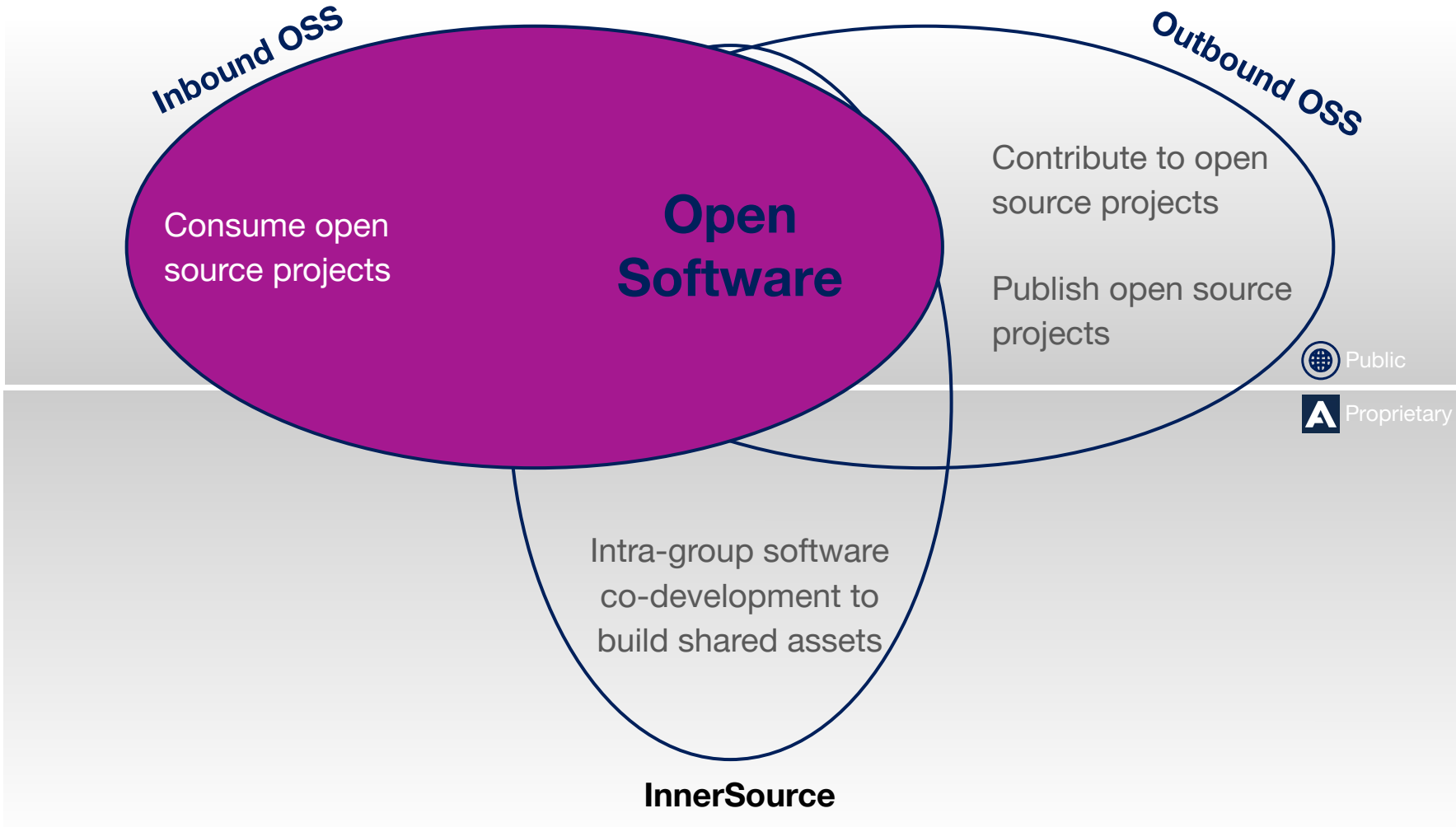
Membres associés :



Sponsoring



Scope of Airbus' Open Software Program Office (OSPO)



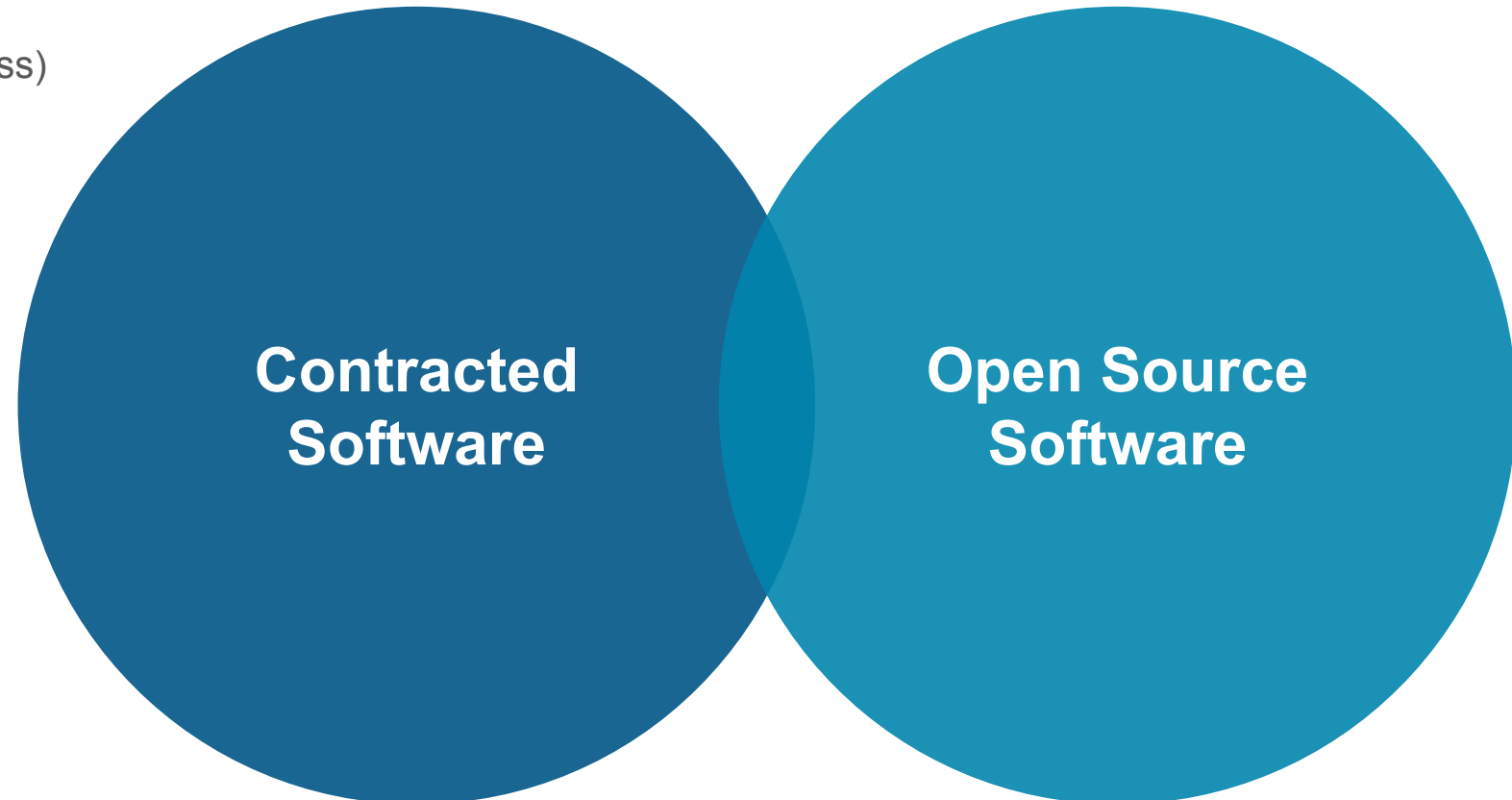
FOSS Supply Chain

Make

- Legal compliance
- Cybersecurity risks management
- Developer awareness
- AI (model whitelisting process)

Buy (Rent)

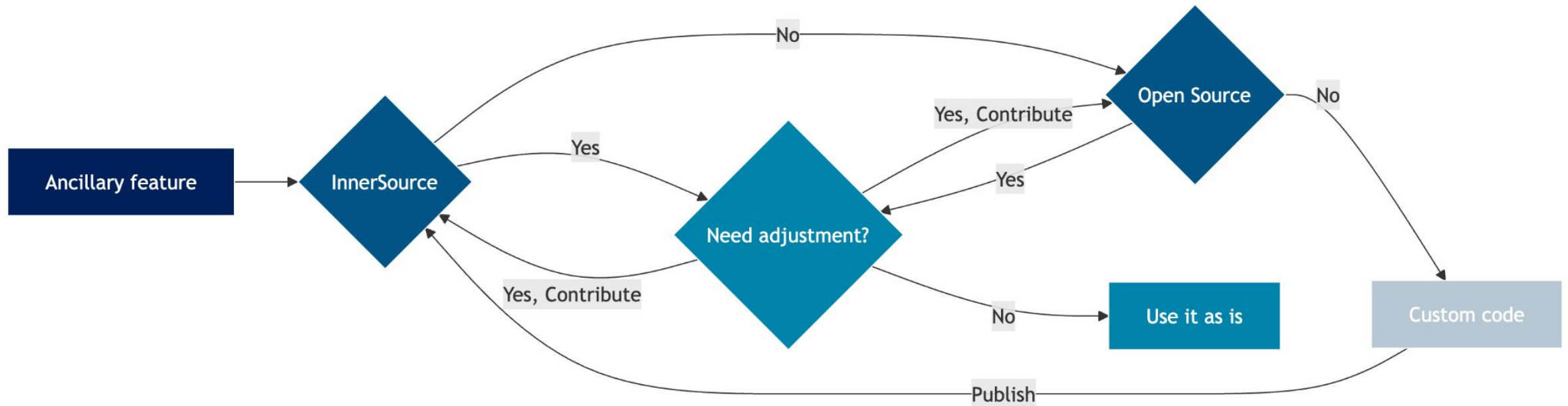
- Improve procurement awareness and practice (difficult to work with small fragmented companies)



Summary

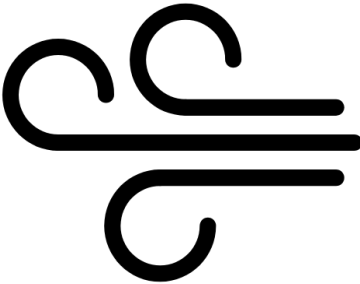
Engineering Expectations

Anytime you need some functionality that is ancillary to the purpose of your application, you should:



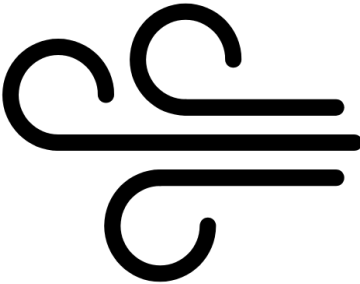
This approach involves teams sharing the “byproducts” of their work on real business projects, such as shared libraries, services, tools, and scripts. These byproducts are then promoted on a global scale, and the repository of shared code is open for external contributions.

OSPO Headwinds and Tailwinds



Cybersecurity

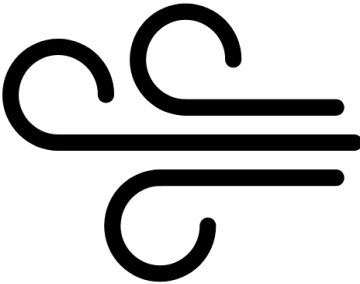
OSPO Headwinds and Tailwinds



Cybersecurity

AI

OSPO Headwinds and Tailwinds

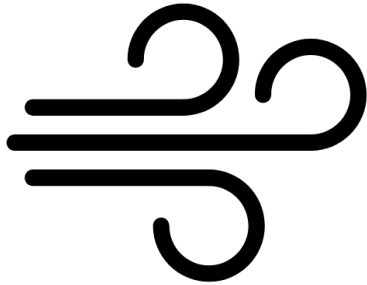


Cybersecurity

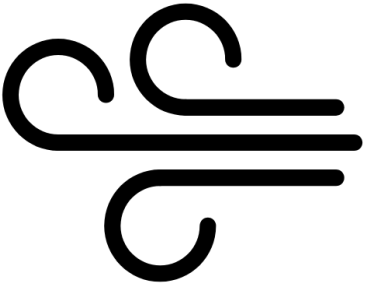
AI

Geopolitics

OSPO Headwinds and Tailwinds



Cybersecurity

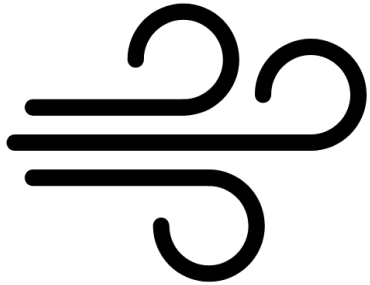


Cybersecurity

AI

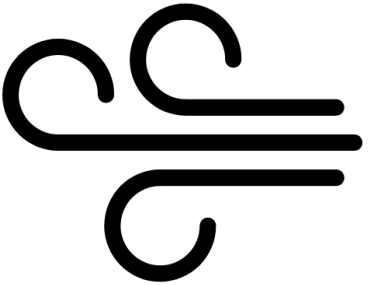
Geopolitics

OSPO Headwinds and Tailwinds



Cybersecurity

AI

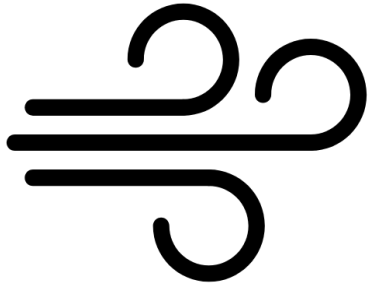


Cybersecurity

AI

Geopolitics

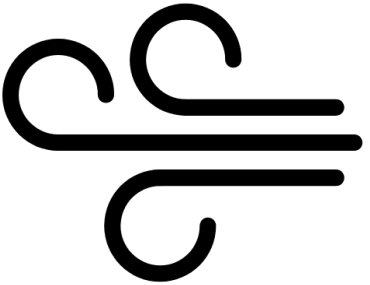
OSPO Headwinds and Tailwinds



Cybersecurity

AI

Geopolitics



Cybersecurity

AI

Geopolitics

Lessons Learned and Challenges

Lessons learnt

Understand - and play - the corporate game

Grit and sustained efforts over hard push

Naivety to hedge against self-censorship

eXpert to complement OSPO

... but it's only the beginning



- Product lifecycle & regulations
- Technical
- Cultural
- Balancing Security & InnerSource
- Crossing the chasm
- Export control
- Product portfolio, make/buy strategy and platforms
- HR
- ...

Acknowledgments

We could not be here today without the community! Also thanks to all the Alices I met at Airbus.



BOSCH

PHILIPS



THALES

Mercedes-Benz
Tech Innovation



SIEMENS



Thank you

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