SQuAT fest 2016

AppHub SQuAT Fest
Brussels, January 26, 2016

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SQuAT fest 2016

Introduction

Cédric Thomas, OW2

AppHub SQuAT Fest
Brussels, January 26, 2016

The AppHub project at a glance

- Collaborative and Support Action
  - H2020
- Partners:
  - Fraunhofer FOKUS (Research organisation, Coordinator)
  - OW2 (Open Source Community)
  - UshareSoft (Technology and Service Vendor)
- Jan. 2015 – Dec. 2016

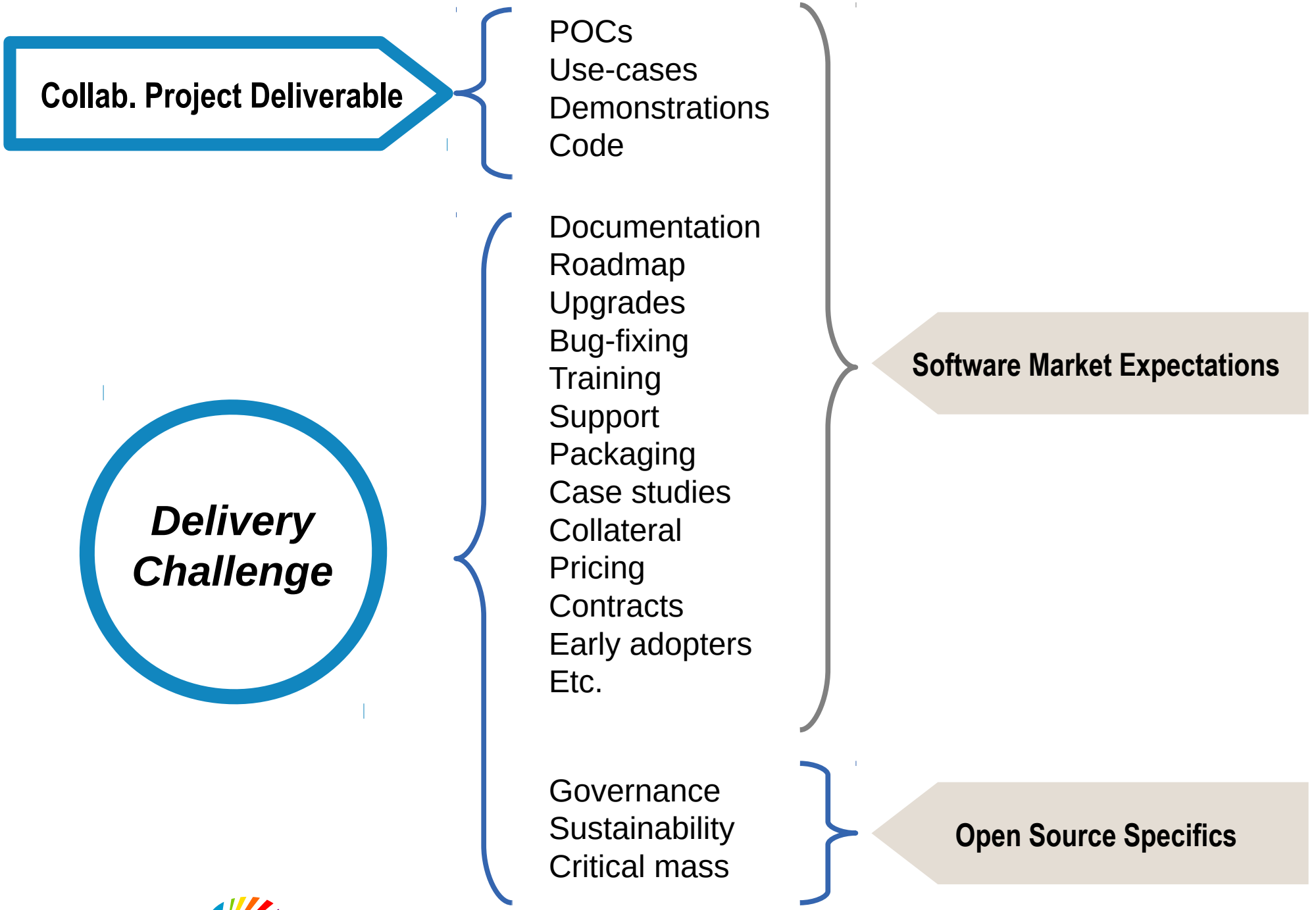
www.apphub.eu.com

AppHub

Your AppHub Contacts

- Project lead and Directory Platform
  - Peter Deussen, Fraunhofer FOKUS
  - peter.deussen@fokus.fraunhofer.de
- Factory and Market Platform
  - Alexandre Lefebvre, UShareSoft
  - alexandre.lefebvre@usharesoft.com
- Quality tools and Best Practices
  - Stéphane Laurière, OW2
  - stephane.lauriere@ow2.org
- Community and Market Outreach
  - Cedric Thomas, OW2
  - cedric.thomas@ow2.org

AppHub


Collab. Project Deliverable
POCs
Use-cases
Demonstrations
Code
Delivery Challenge
Documentation
Roadmap
Upgrades
Bug-fixing
Training
Support
Packaging
Case studies
Collateral
Pricing
Contracts
Early adopters
Etc.
Software Market Expectations
Governance
Sustainability
Critical mass
Open Source Specifics

AppHub's mission

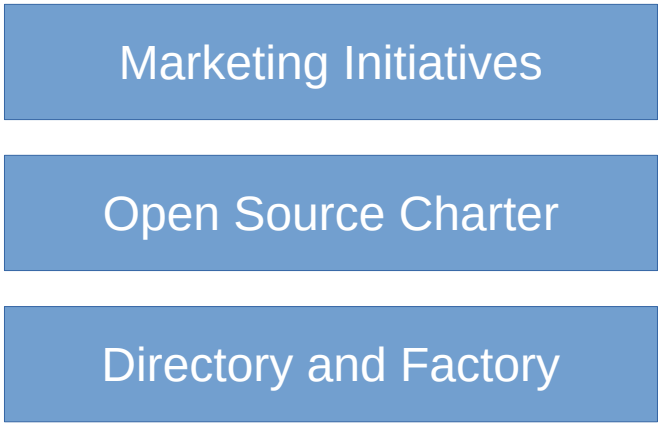
- AppHub addresses the delivery challenge of EU-supported OSS
- Bridging OSS SMEs and Collaborative projects with the mainstream market

AppHub

Why AppHub

- You have open source project results to disseminate
- You want to make them not only visible...
  - in the AppHub - European Open Source Marketplace
- ...But also readily usable
  - by end users
  - ready to go
  - on any cloud
- AppHub makes it easily possible for you!

A community platform for the dissemination of EU-funded open source collaborative projects



- The three key services of a platform
  - Technical infrastructure
    - Delivers collaborative services to project teams
  - Rules of engagement
    - Framework for making decisions and doing things together
  - Market outreach
    - communication and branding services for developing the visibility and market awareness of the project.

AppHub

Producer
Developer of open source software

Describe and classify

Upload or link

AppHub.**Directory**

Open interoperability framework:
Taxonomy for open source assets

AppHub.**Factory**

Packaging
versiononing
publishing

AppHub.**Market**

Market Place

Browse, compare and select

Deploy

Consumer
User and Integrators of open open source software

Provider
IaaS Cloud Provider

AppHub

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AppHub Cloud Service Providers

CSP Program Ten Marketing Advantages

- ✔ Support for technical format
- ✔ Participation in webinars
- ✔ One-button connection
- ✔ Mention in AppHub emailing communications and/ or newsletters
- ✔ Logo on AppHub Website
- ✔ Listing on AppHub website
- ✔ Listing on AppHub Marketing material
- ✔ Joint marketing communication
- ✔ Joint Events
- ✔ Company profile on AppHub website

- Six CSPs have registered in the apphub-csp@ow2.org Mailing List
- ACMEO (Germany)
- CLARANET (France)
- FLEXIANT (UK)
- IKOULA (France)
- OUTSCALE (France)
- PROFITBRICKS (USA)

AppHub

AppHub Outreach Partners

Outreach Partner Program

Five Marketing Advantages

- ✔ Cross referencing
- ✔ Listing on AppHub Marketing material
- ✔ Listing on AppHub website
- ✔ Logo on AppHub Website
- ✔ Mention in AppHub emailing communications and/ or newsletters

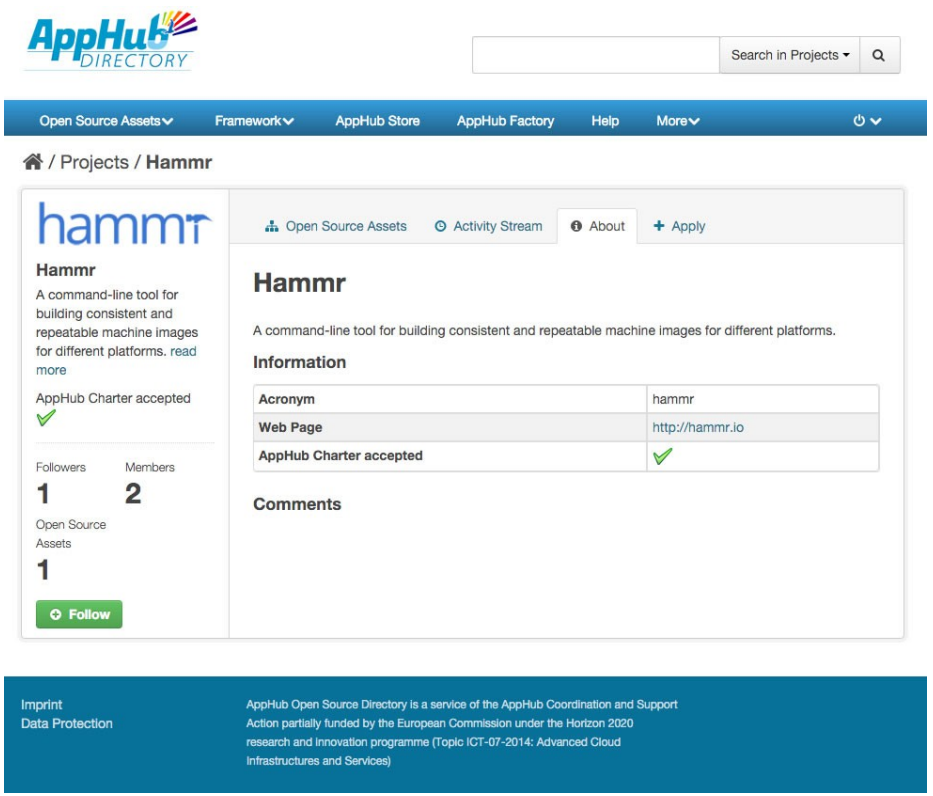
- First list of Outreach Partners with established contact:
  - ADULLACT
  - ASL
  - IRILL
  - OPENSTACK
  - OSI

AppHub

AppHub's unique dissemination benefits

- Immediate exposure to global market
- Seamless handling of software deployment
- Open source project management best practices

AppHub early adopters



AppHub beta Evaluation form:
http://l.ow2.org/apbeval

- First 12 European Beta-Users
  - ASCETiC (end **Sept 2016**)
  - erOCCI (ongoing)
  - Hammr (ongoing)
  - INPUT (end **Jan 2018**)
  - PaaSage (end **Sept 2016**)
  - S-CASE (end **Oct 2016**)
  - SPECS (end **Apr 2016**)
  - Artist (end Sept 2015)
  - Celar (end Sept 2015)
  - CloudSpaces (end Sept 2015)
  - MODAClouds (end Sept 2015)
  - OSSMeter (end March 2015)

AppHub

Your project on AppHub, Today!

- 09:15 – 09:30 Introduction
- 09:30 – 11:00 AppHub Project and OW2 SQuAT
- 11:00 – 11:30 Coffee break
- 11:30 – 12:30 Alignment Discussion Session
- 12:30 – 14:00 Lunch break
- 14:00 – 14:30 Summary of open discussion
- 14:30 – 15:30 Hands-on session
- 15:30 – 16:00 Coffee break
- 16:00 – 17:00 Hands-on session
- 17:00 – 17:30 Wrap-up

Project Name	Represented by	URL
Arcadia	Fatemeh Ahmadi Zeleti + Mahdi Ghafori	http://www.arcadia-framework.eu/wp/
ASCETiC	Lara Lopez	http://www.ascetic-project.eu/
BEACON	Philippe Massonet	http://www.beacon-project.eu/
Cosmos	Vrettos Moulos	http://www.cosmos-fp7.eu/
DICE	Dana Petcu	http://www.dice-h2020.eu/
ENTICE	Radu Prodan	http://www.entice-project.eu/
MIKELANGELO	Daniel Vladušič + Gregor Berginc	https://www.mikelangelo-project.eu/
ModaClouds	Dana Petcu	http://www.modaclouds.eu/
Orbit	Vrettos Moulos	http://www.orbitproject.eu/
PaaSage	Junior Fleurial Monfils	http://www.paasage.eu/
PaasWord	Simone Braun + Gerald Hübsch	http://www.password-europe.com/
Preforma	Benjamin Yousefi	http://www.preforma-project.eu/
SPECS	Dana Petcu	http://www.specs-fp7.eu/
SyncFree	Tyler Crain	https://syncfree.lip6.fr/

Our objectives today

AppHub SQuAT fest 2016

- Expected Results
  - 14 EU projects represented
  - XX Projects with Charter approved
  - XX new AppHub Beta-testers
  - XX Projects with assets in Directory
  - XX Projects with Products in Store
  - XX Links to CSP, Outreach Partners
- SQuAT Fest **follow-up webpage**

http://www.apphub.eu.com/bin/view/SQuATFest

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Project Overview

Peter Deussen, Fraunhofer FOKUS

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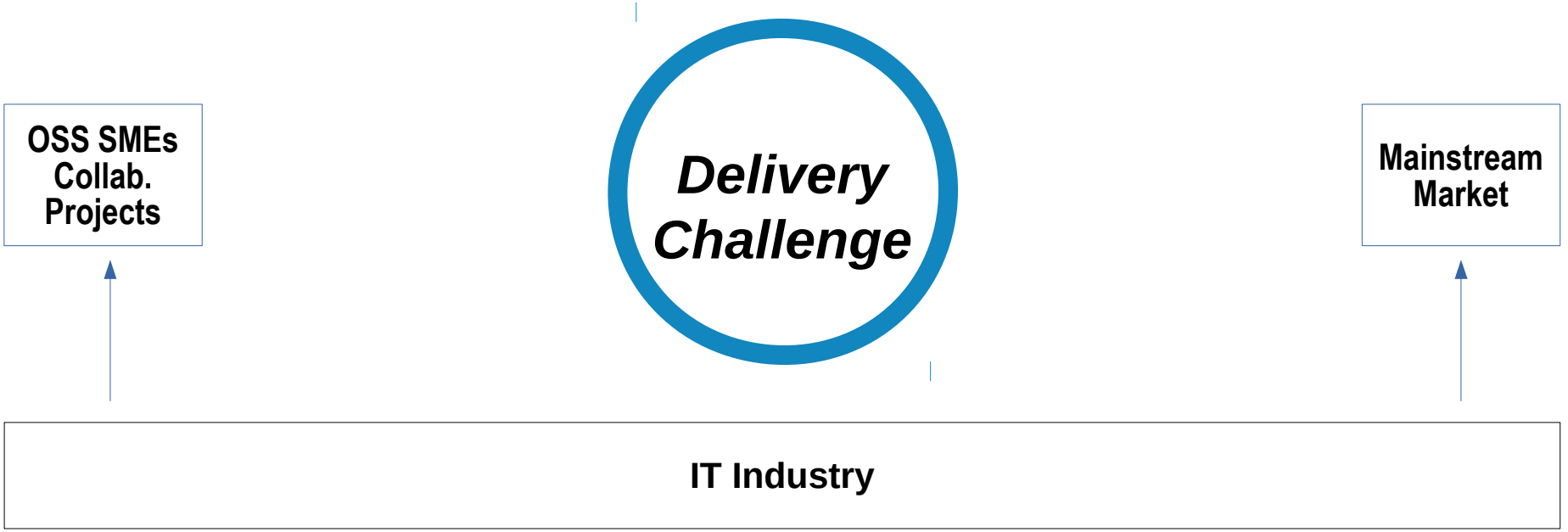
AppHub's mission

- AppHub addresses the **delivery challenge** of EU-supported OSS
- Bridging OSS SMEs and Collaborative projects with the mainstream **market**



AppHub

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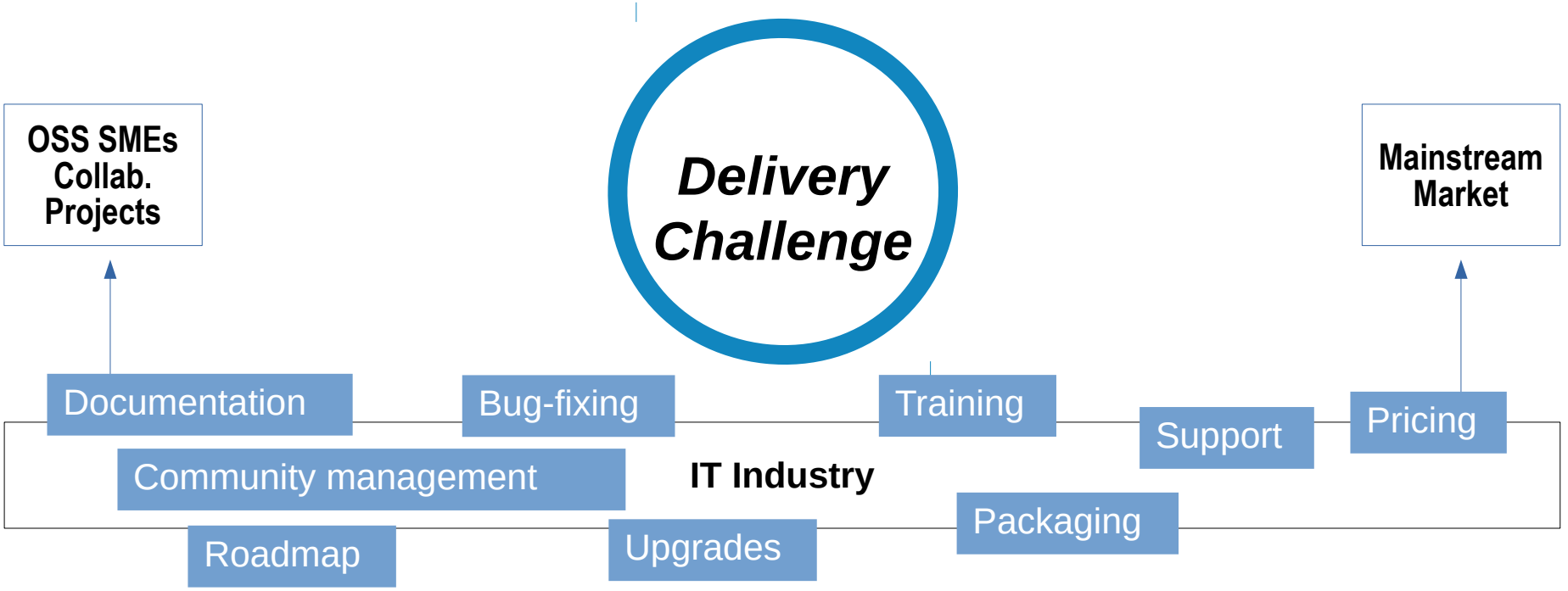

AppHub

AppHub facilitates the dissemination of your open source software assets

Producer

AppHub

Provider

Consumer

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Producer
Developer of open source software

Describe and classify

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Open interoperability framework:
Taxonomy for open source assets

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Support
on using the AppHub Marketplace

Please provide feedback:
How to you experience the usability of the Marketplace ?
Is our documentation understandable and useful ?

- Enterprise computing reference model
  - Helps you to describe your open source software in context
  - No silver bullet but a reasonable compromise
- Guides for consumers and producers
  - Explain how to use the platform
- Additional material
  - Quick workflow guides
  - Screencasts
- https://directory.apphub.eu.com/page/help

AppHub

Support
on helping you to implement open source governance

Please provide feedback: Are there additional topics you are interested in!

- Open Source Charter
  - Commitments that help you to set up a successful popen source project
- Quality controls for your project
  - A list of measures that will help you to increase the quality of your software
  - Aligned with the Open Source Charter
- Open Source lifecycle model
  - Stages and activities to guide the development of open source software
  - Aligned with the quality controls
- Data protection guidelines
  - Based on the upcoming European GDPR

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Platform Demonstration

Alexandre Lefebvre, UShareSoft

Fraunhofer FOKUS

OW2

UShareSoft®

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AppHub Demonstration Objectives

- Get familiar with the AppHub concepts and platform
- See the detailed steps in order to expose your project in AppHub
  - Add your Project details to the AppHub Directory
  - Package your Project as a template in the AppHub Factory
  - Expose the result in the AppHub Store
- You can get started during the hands-on session this afternoon

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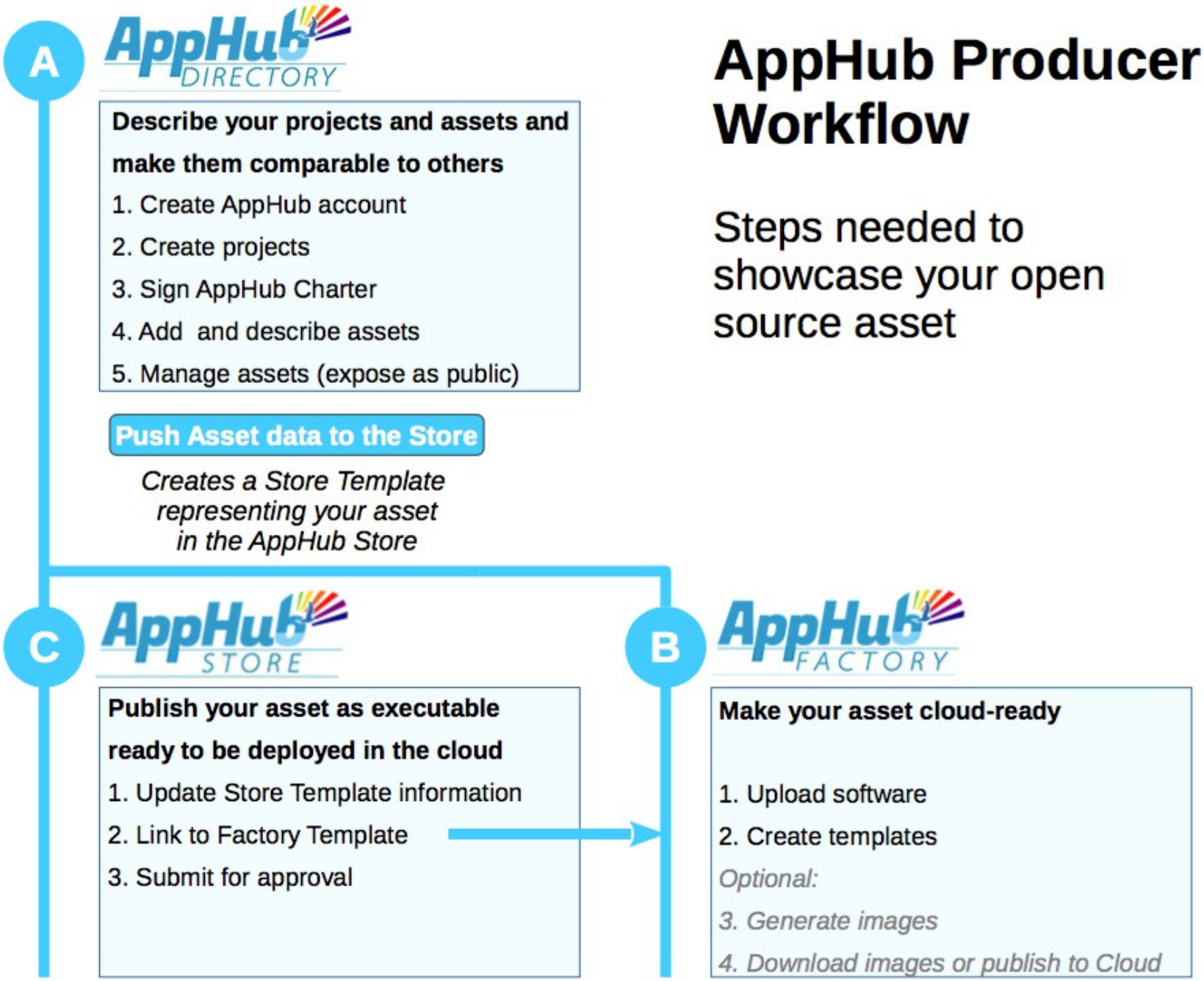
AppHub Demonstration Outline

- What your project will look like for Consumers
  - browse AppHub Store, export to AppHub Factory to generate images
- How to create your project on the AppHub Directory
  - create an account, create your project, add assets
- How to use the AppHub Factory to create a Template
- How to import your Factory template and expose it in the Store

AppHub

AppHub Producer Workflow

Steps needed to showcase your open source asset



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AppHub Demonstration: References and links

- View screencasts on the AppHub project website, Discover > Videos link
- See guides on the AppHub Directory website, Help link in menubar
- Get help from the AppHub team
  - Send feedback and but report links in the Directory “More” menu
  - Or use the AppHub issue tracker https://jira.ow2.org/browse/APB/

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The AppHub Charter Explained

Cédric Thomas, OW2

AppHub SQuAT Fest

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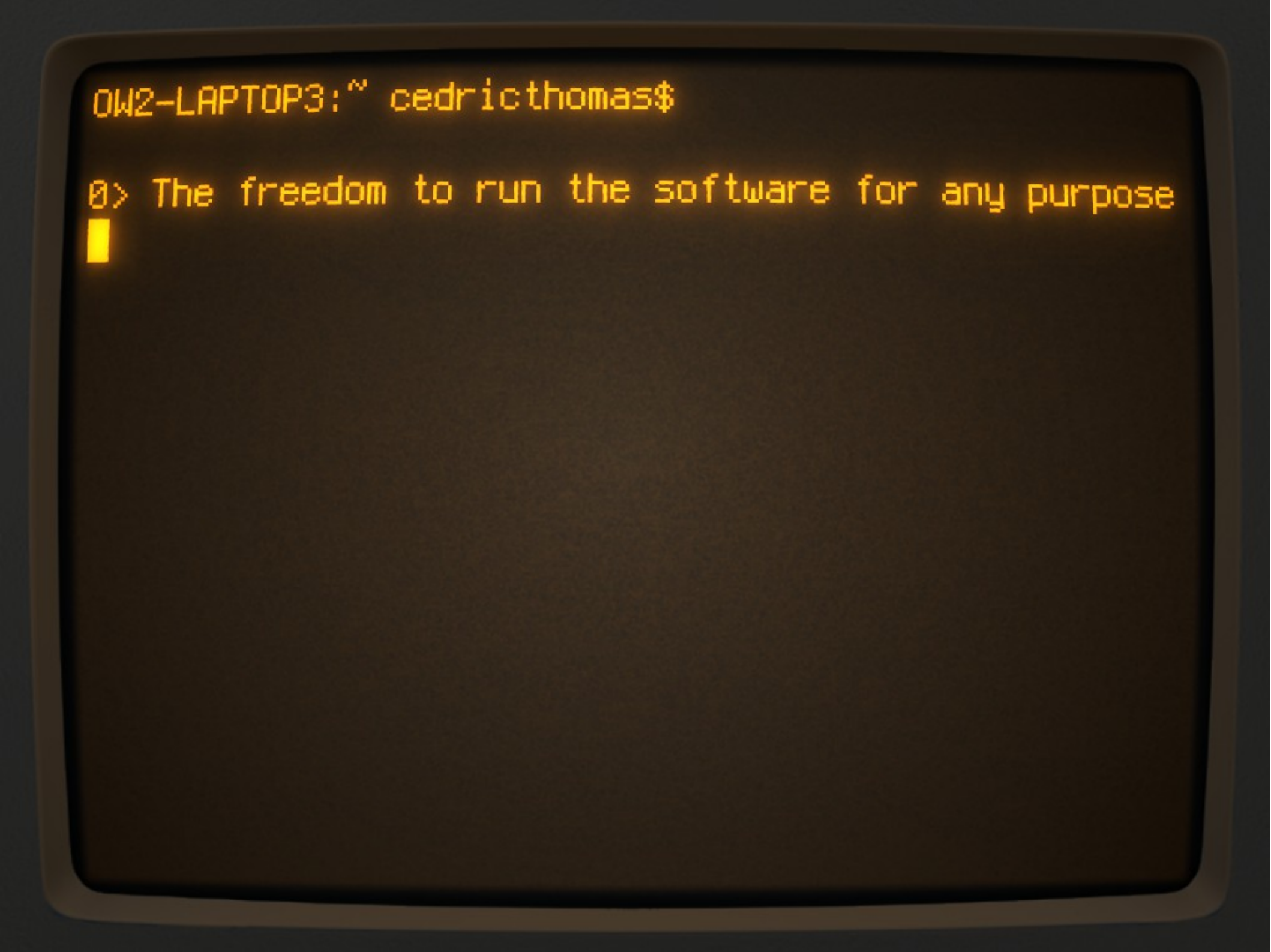
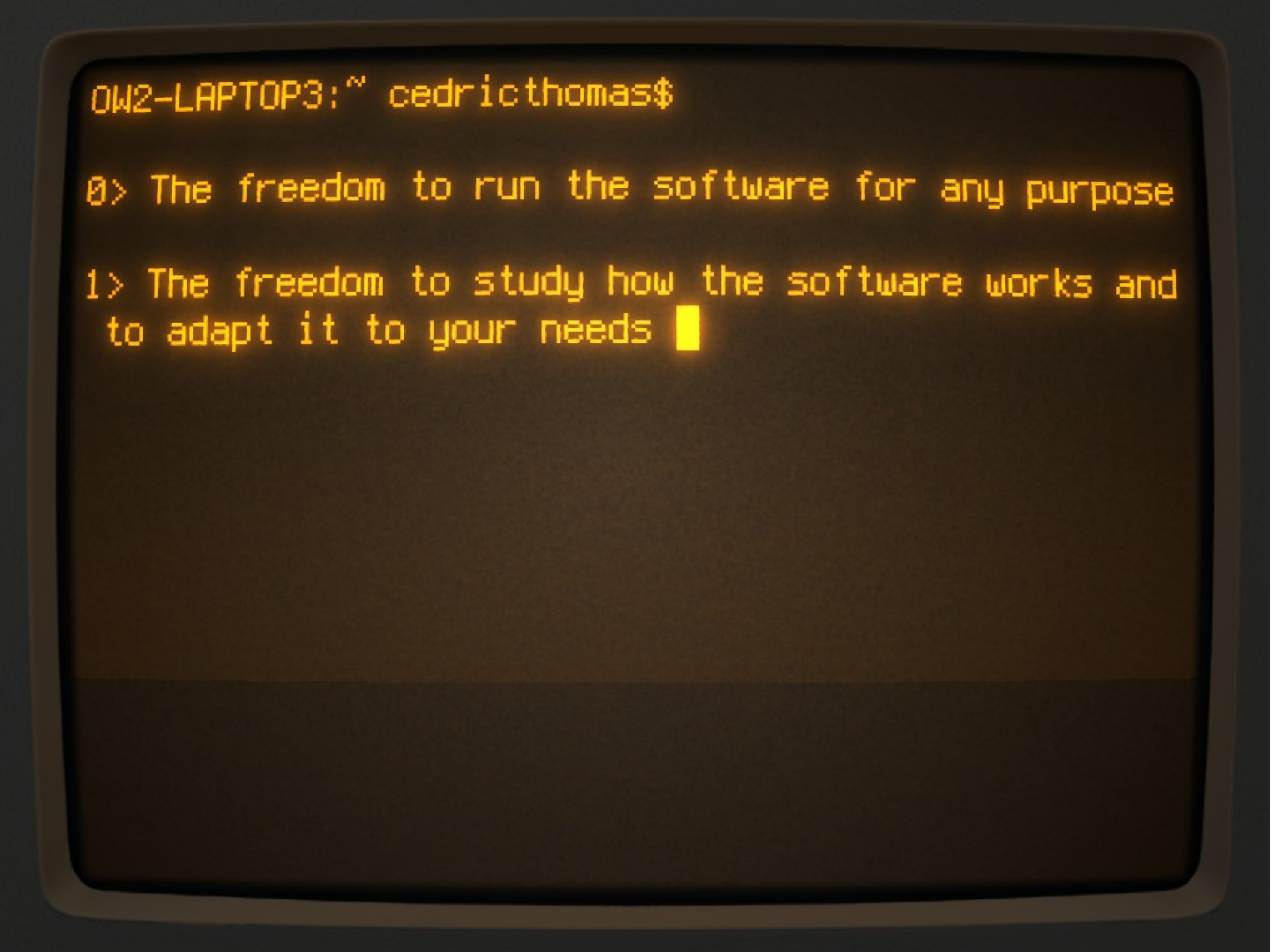

OW2-LAPTOP3:~ cedricthomas$
0> The freedom to run the software for any purpose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0> The freedom to run the software for any purpose
1> The freedom to study how the software works and to adapt it to your needs

OW2-LAPTOP3:~ cedricthomas$

0> The freedom to run the software for any purpose

1> The freedom to study how the software works and to adapt it to your needs

2> The freedom to redistribute copies of the softw are

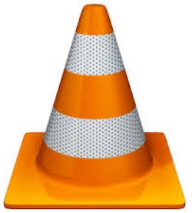
OW2-LAPTOP3:~ cedricthomas$

0> The freedom to run the software for any purpose

1> The freedom to study how the software works and to adapt it to your needs

2> The freedom to redistribute copies of the software

3> The freedom to improve the software and distribute your improvements to the public



LibreOffice
The Document Foundation

OpenOffice

FreeBSD

RAILS

JOnAS

MySQL

AppHub

XWIKI
heroku
SkySQL
Activeeon
SCALE BEYOND LIMITS
puppet labs
bonitasoft
open your processes
nebula
EUCALYPTUS
spagobi
SUGARCRM
THE CLOUD IS OPEN
OpenERP
Open Source Management Software
eNovance
Cloud & Managed Services Provider
PostgreSQL
JASPERSOFT
the intelligence inside
FUNAMBOL
Mobile 2.0 messaging, powered by open source.
redhat
CANONICAL
GLUSTER
talend
*open integration solutions
inktank
CloudBees
The Java™ PaaS Company
openSUSE
ACTUATE
The BIRT Company™
FOSS
FOSS-Group
Alfresco
GitHub
pentaho™
open source business intelligence™
eXo
cloudera
Kaltura
creating together
WSO2
LIFERAY
mongoDB
INFOBRIGHT
Joyent
Acquia™
INGRES

Tencent 腾讯
intel
Microsoft
CISCO
IBM
CITRIX
Google
HUAWEI
hp
Baidu 百度
DELL
ORACLE

The charter aims at contributing to the implementation of legal, technical and community management best practices

- Improve the overall perception and market readiness of the projects
- Make projects easy-to-contribute-to
- Improve projects' perceived trustworthiness
- Make projects sustainable: worth contributing to, worth investing in
- Overall, improve professionalism of EU OSS SMEs and EU-supported open source projects

Governance makes the difference

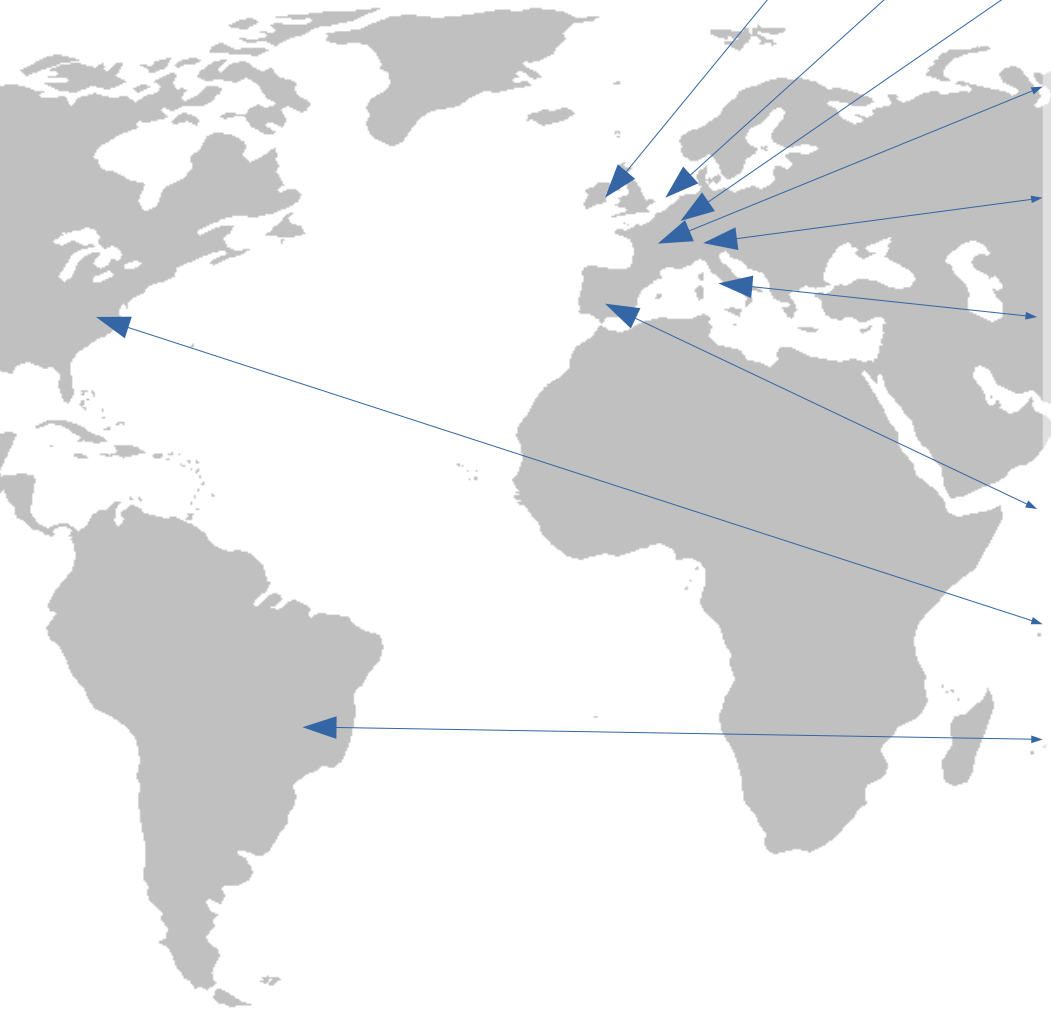
- Repositories and forges are just places to store/develop code
  - GitHub, BitBucket, SourceForge, BerliOS, etc.
- Open source licensing code does not make an OSS project
  - Hundreds of thousands of OSS are still waiting for contributors
- Communities are built around well respected OSS governance
  - Transparent, Open, Fair, etc.
- Third-party stakeholders expect:
  - Trustworthiness
  - Predictability

AppHub

The AppHub Advisory Board

- Pramatic
  - People with hands-on experience
  - No diva nor so-called luminaries
- Technical
  - It is about software engineering
  - But also about OSS community
- European but also global
  - Technology is global
  - Representative of successful projects

The AppHub Advisory Board



- **Theo Lynn** (Irish Centre for Cloud Computing & Commerce)
- **Lars Kurth** (Xen)
- **Sophie Gautier** (LibreOffice)
- **Roberto di Cosmo** (IRILL)
- **Patrick Ohnewein** (FSFe)
- **Francesco Chicchiricco** (Apache Coccon, Syncope, Olingo)
- **Manuel Velardo** (Cenatic)
- **Dave Neary** (Red Hat)
- **Nelson Lago** (Uni Sao Paolo FLOSS Competency Center)

The OSS charter covers 10 broad chapters

- Governance
- Licenses, copyright and IP Mgt
- Project documentation
- Architecture
- Project testing process
- Code maintainability and stability
- Requirement and Roadmap Mgt
- Configuration and version Mgt
- Use of and compliance with standards
- Contribution and Contributors Mgt

AppHub

Charter Process Highlights

- Engagement
  - Signing the charter
- Enforcement
  - Checking compliance
- Evolution
  - Updating the Charter

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RISCOSS Platform

Cedric Thomas, OW2

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riscoss

MANAGING RISK AND COST IN OPEN SOURCE SOFTWARE PROJECTS

- Facilitate the adoption of open source software into mainstream products and services
- Risk management methodology
  - License conflicts
  - License uncertainty
  - Project Actviveness
  - Code quality
  - Maintenability
  - Upgrade constraints
  - Etc.

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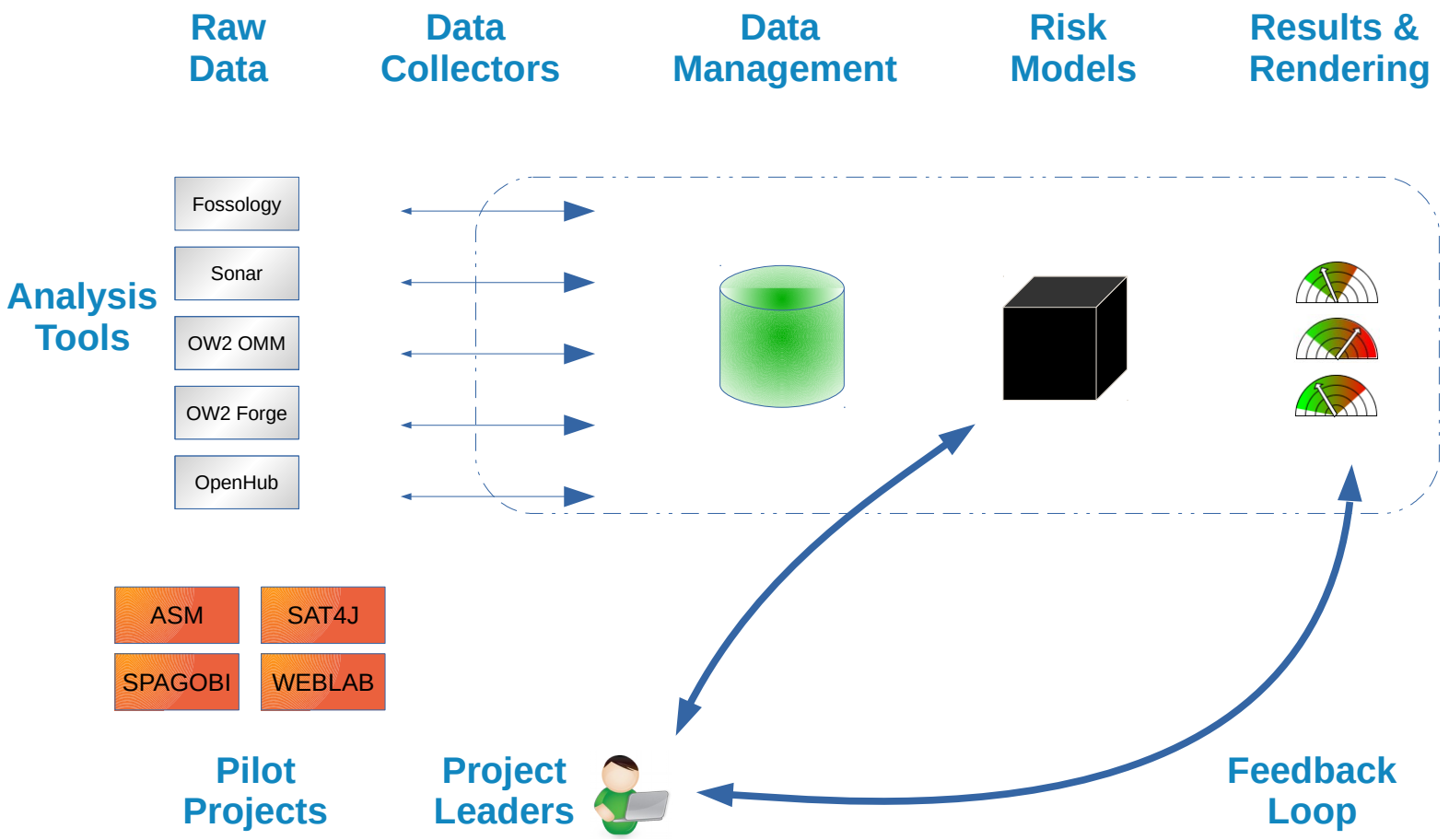
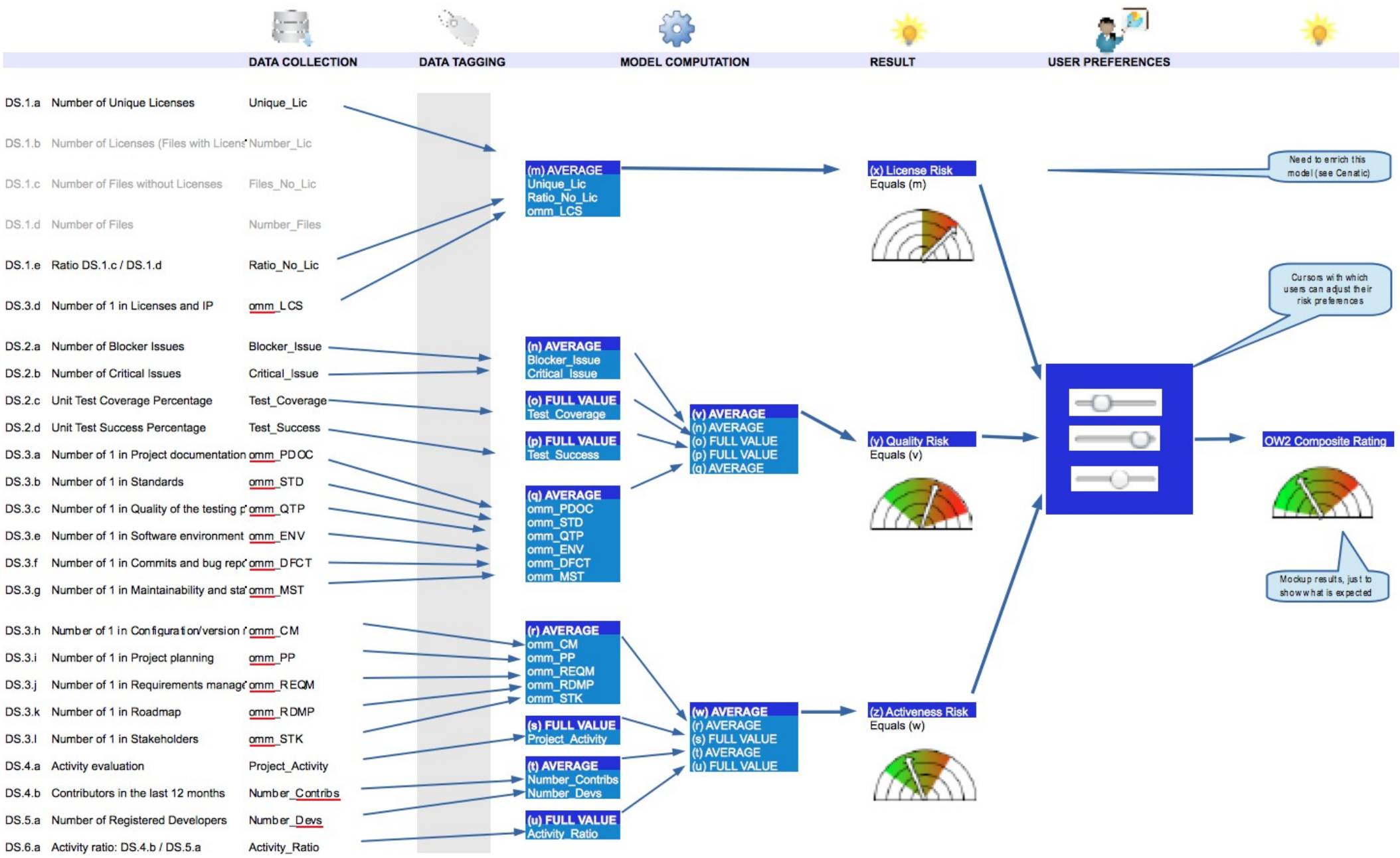
How to implement a systematic approach towards understanding, representing and assessing all kinds of risk?

- Understanding, managing and mitigating OSS adoption risks is crucial to avoid potentially significant adverse impact on the business, in terms of time to market, customer satisfaction, revenue and brand image.
- A real-life use-case
  - Developing regulation-compliant product for the Ericsson Corporation

Project to Analysis

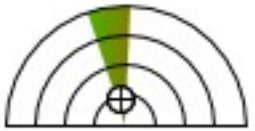
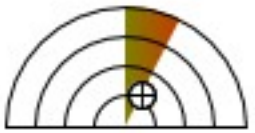
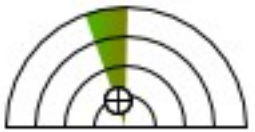



DATA COLLECTION
DATA TAGGING
MODEL COMPUTATION
RESULT
USER PREFERENCES
DS.1.a Number of Unique Licenses
Unique_Lic
DS.1.b Number of Licenses (Files with Licens
Number_Lic
DS.1.c Number of Files without Licenses
Files_No_Lic
DS.1.d Number of Files
Number_Files
DS.1.e Ratio DS.1.c / DS.1.d
Ratio_No_Lic
DS.3.d Number of 1 in Licenses and IP
omm_LCS
DS.2.a Number of Blocker Issues
Blocker_Issue
DS.2.b Number of Critical Issues
Critical_Issue
DS.2.c Unit Test Coverage Percentage
Test_Coverage
DS.2.d Unit Test Success Percentage
Test_Success
DS.3.a Number of 1 in Project documentation
omm_PDOC
DS.3.b Number of 1 in Standards
omm_STD
DS.3.c Number of 1 in Quality of the testing p
omm_QTP
DS.3.e Number of 1 in Software environment
omm_ENV
DS.3.f Number of 1 in Commits and bug repo
omm_DFCT
DS.3.g Number of 1 in Maintainability and sta
omm_MST
DS.3.h Number of 1 in Configuration/version
omm_CM
DS.3.i Number of 1 in Project planning
omm_PP
DS.3.j Number of 1 in Requirements manage
omm_REQM
DS.3.k Number of 1 in Roadmap
omm_RDMP
DS.3.l Number of 1 in Stakeholders
omm_STK
DS.4.a Activity evaluation
Project_Activity
DS.4.b Contributors in the last 12 months
Number_Contribs
DS.5.a Number of Registered Developers
Number_Devs
DS.6.a Activity ratio: DS.4.b / DS.5.a
Activity_Ratio
(m) AVERAGE
Unique_Lic
Ratio_No_Lic
omm_LCS
(n) AVERAGE
Blocker_Issue
Critical_Issue
(o) FULL VALUE
Test_Coverage
(p) FULL VALUE
Test_Success
(q) AVERAGE
omm_PDOC
omm_STD
omm_QTP
omm_ENV
omm_DFCT
omm_MST
(r) AVERAGE
omm_CM
omm_PP
omm_REQM
omm_RDMP
omm_STK
(s) FULL VALUE
Project_Activity
(t) AVERAGE
Number_Contribs
Number_Devs
(u) FULL VALUE
Activity_Ratio
(v) AVERAGE
(n) AVERAGE
(o) FULL VALUE
(p) FULL VALUE
(q) AVERAGE
(w) AVERAGE
(r) AVERAGE
(s) FULL VALUE
(t) AVERAGE
(u) FULL VALUE
(x) License Risk
Equals (m)
(y) Quality Risk
Equals (v)
(z) Activeness Risk
Equals (w)
Need to enrich this model (see Cenatic)
Cursors with which users can adjust their risk preferences
OW2 Composite Rating
Mockup results, just to show what is expected

Analysis of SAT4J using OW2-ALL Risk Configuration

Last modified by superadmin on 2015/07/07 02:56

Risk Evaluation

Quality Risk		◦ Positive: 0.0416 ◦ Negative: 0.2082
License violation risk		◦ Positive: 0.0714 ◦ Negative: 0.0076
License uncertainty		◦ Positive: 0.0232 ◦ Negative: 0.3332
Inability to modify the OSS component		◦ Positive: 0.3064 ◦ Negative: 0
Activeness Risk		◦ Positive: 0.025 ◦ Negative: 0.2249

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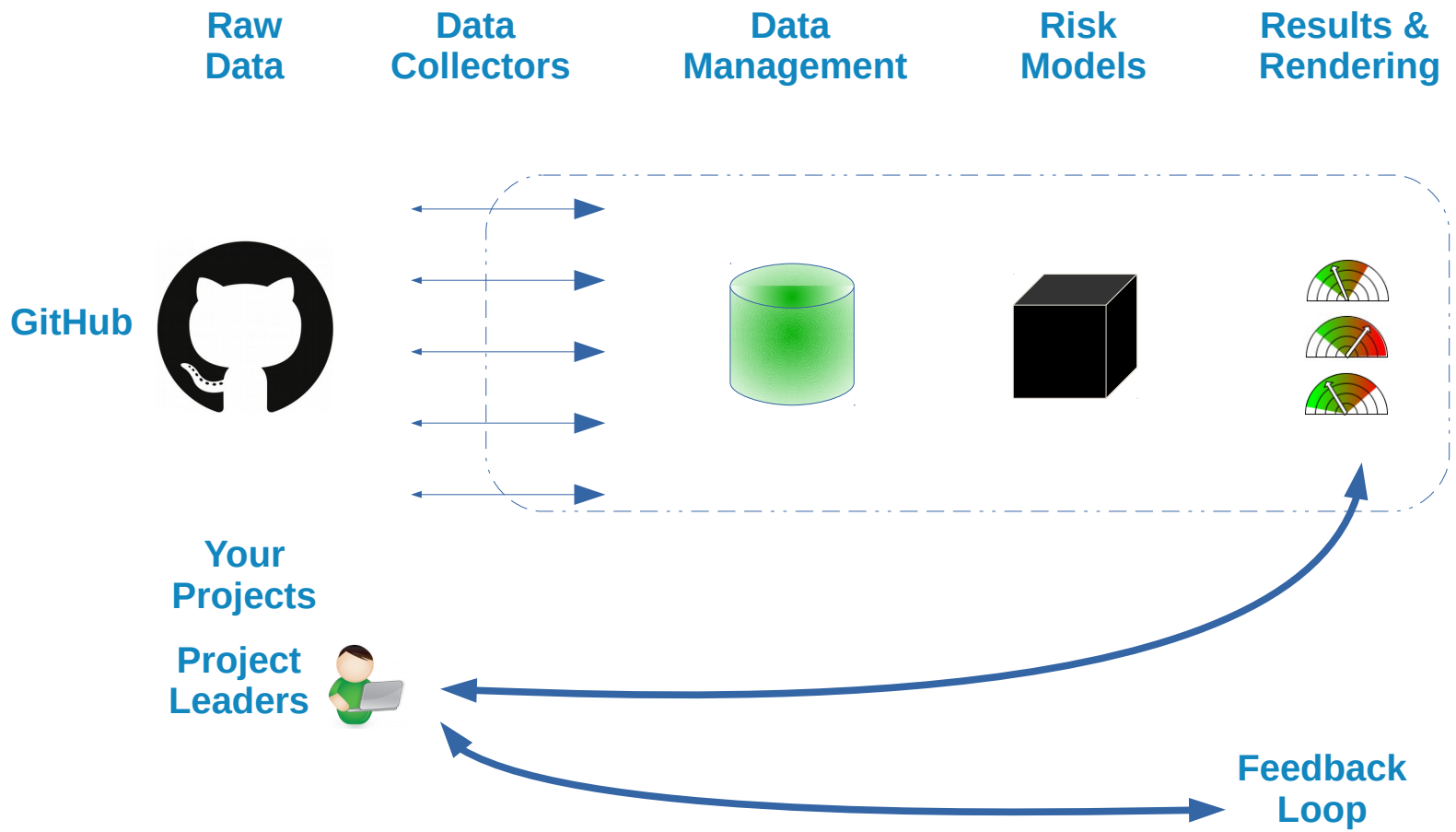
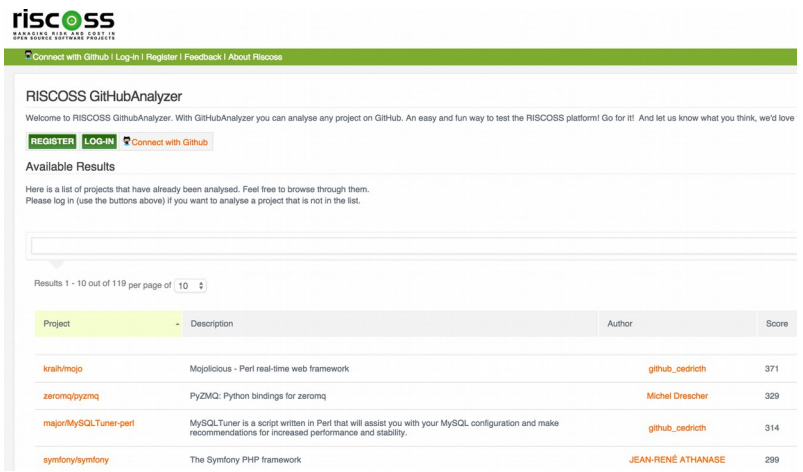
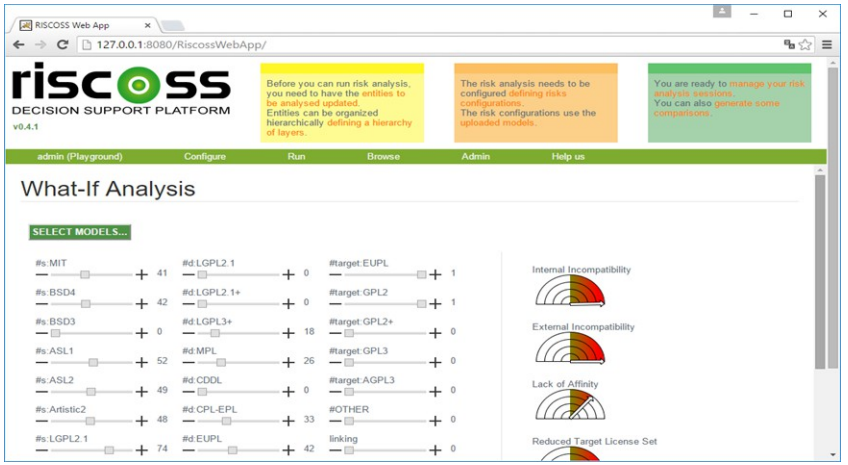
Try RISCOSS GitHubAnalyzer

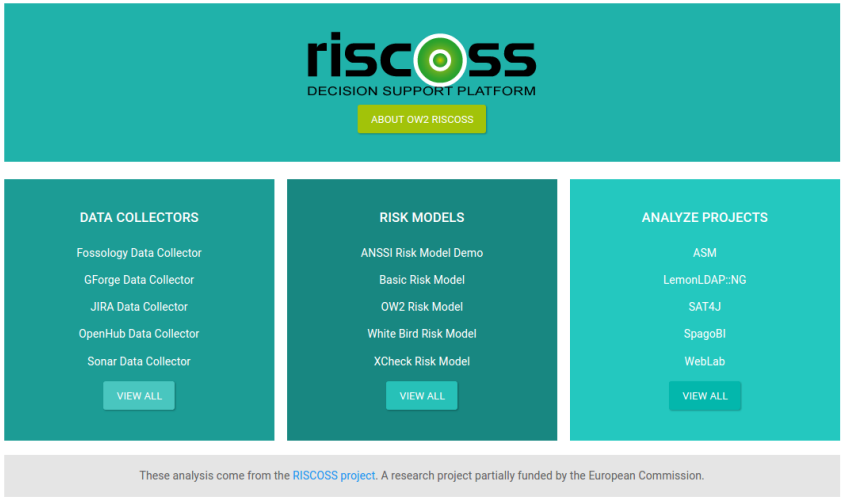


Three platforms

- RISCOSS GitHubAnalyzer
- RISCOSS Corporate
- RISCOSS Community







SQuAT fest 2016

OW2 SQuAT, Introduction to QA Tools

Stéphane Laurière, OW2

AppHub SQuAT Fest
Brussels, January 26, 2016

SQuAT: Software Quality and Trustworthiness

- Purpose:
- OSS quality and adoption increase
- Best practices dissemination
- Standardization
- AppHub EU projects survey context:

- **44%** of projects don't perform quality management
- **44%** of projects don't have community involved
- **38%** of projects don't maintain requirements on their software
- **38%** of projects don't follow a project roadmap
- **25%** of projects do not implement a throughout testing process
- **6%** of projects don't provide documentation (guides)

Quick Project Survey

Only One of Two European Open Source Project Manage Stability and Maintainability

AppHub Study, Oct. 2015

http://www.apphub.eu.com/bin/view/Share_Collateral/AppHub_Survey_1

eSurvey: http://l.ow2.org/b

- An AppHub study on the OSS Delivery Challenge
  - Sept-Oct 2015 survey
  - N=16 EC projects
- 44% don't perform Qty Mngt
- 44% don't have community involved
- 38% don't maintain requirements on their software
- 38% don't follow a project roadmap
- 25% don't implement a througout testing process
- 1 project doesn't provide guide/doc

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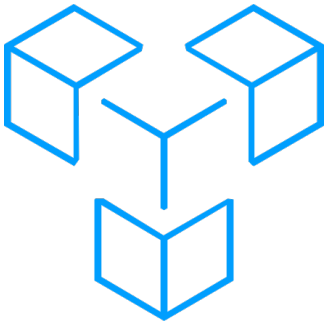
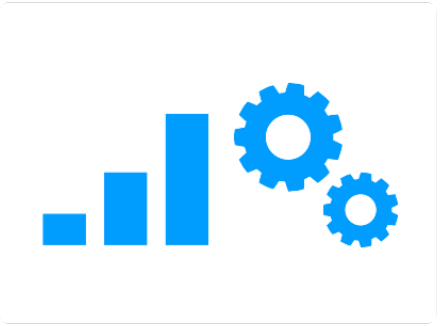
SQuAT Methodology Pillars

Governance analysis



Code and engineering processes analysis



Metrics and dashboards computation

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SQuAT Scope

Deployment

Planning

Commits / Bugs

Quality API

Standards

Requirements

Visual reporting

Documentation

Testing

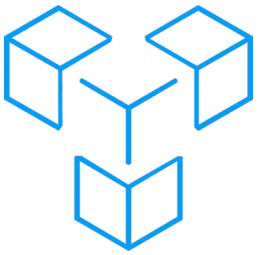
Metrics

Licences and IP

Static code analysis

Stakeholders involvement

Governance



Engineering

Dashboards

AppHub

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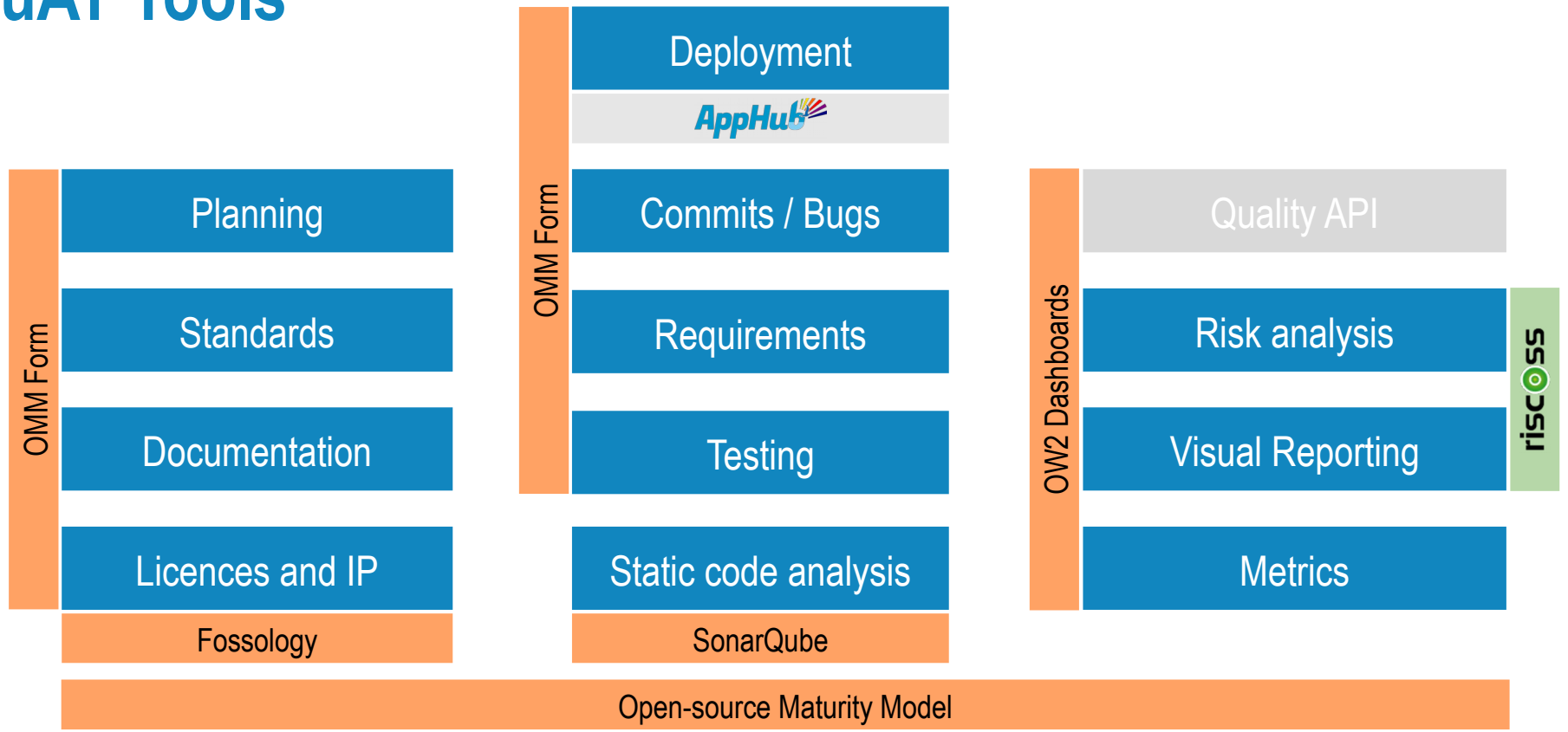
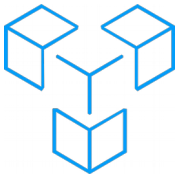
SQuAT Tools



Governance



Engineering

Dashboards

AppHub

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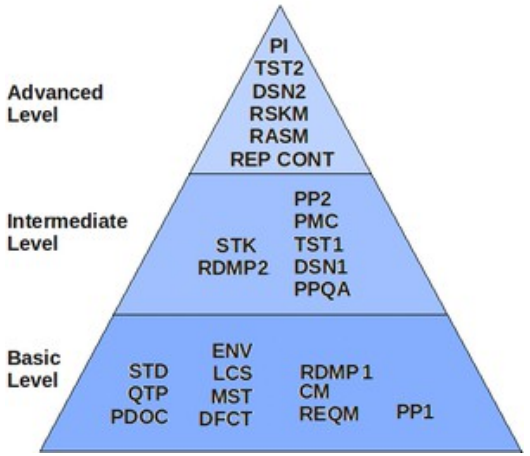
SQuAT Tools – Open-source Maturity Model



Qualipso
Quality Platform for Open Source Software

- Outcome of the Qualipso FP6 EU Project
- OMM on Wikipedia
- OMM keeps evolving for covering new quality criteria such as Deployment capabilities within AppHub

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OMM Form

ProActive Workflows & Scheduling

PDOC: Project Documentation

Purpose: Develop and maintain project documentation, making it readily accessible to the community

PDOC-1.1	Does the project create a development documentation?	75-100 % implemented
PDOC-1.2	Does the project create user documentation?	75-100 % implemented
PDOC-1.3	Does the project create generic documentation?	50-75 % implemented
PDOC-2.1	Does the project provide a documentation system?	75-100 % implemented
PDOC-2.2	Does the project maintain the documentation based on the collected user feedback?	75-100 % implemented
PDOC-3.1	Does the project have a documentation roadmap?	25-50 % implemented
PDOC-3.2	Does the project improve documentation through support of several natural languages?	0 -25 % implemented
PDOC-3.3	Does the project improve intrinsic quality of documentation?	75-100 % implemented
PDOC-3.4	Improve documents based on feedback and on evaluation	50-75 % implemented

STD: Use of Established and Widespread Standards

Purpose: Promote the use and implementation of Open Standards for product and process

STD-1.1	Does the project implement widely accepted open product standards?	75-100 % implemented
STD-1.2	Does the project implements standards certified by FLOSS-supporting certification entities?	50-75 % implemented

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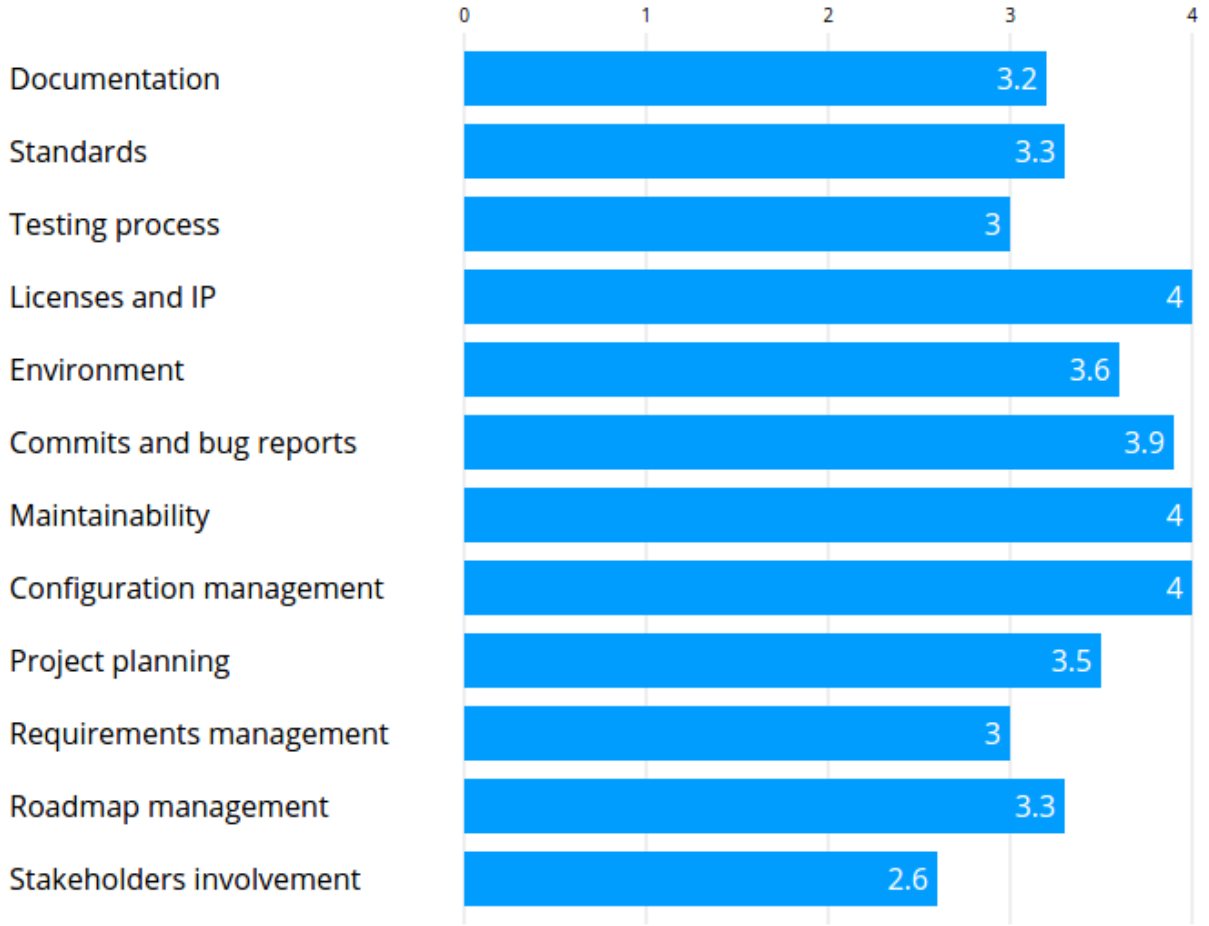
OMM Form

ProActive Workflows & Scheduling

ProActive OMM



Average OMM score by category

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IP Analysis with FOSSology

- www.fossology.org - GPLv2
- SPDX compliant

  SPDX is a standard format for communicating the components licenses and copyrights associated with a software package

- Hosted by the Linux Foundation

FOSSology Analysis

ProActive Workflows & Scheduling

fossology.ow2.org

Scanner Count	Concluded License Count	License Name
940	0	AGPL-3.0
427	0	No_license_found
12	0	MPL
6	0	Microsoft-possibility
6	0	BSD
5	0	Apache-2.0
4	0	MIT
4	0	GPL-3.0
2	0	OFL-1.1
2	0	MIT-style
2	0	MIT-possibility
2	0	GPL-possibility
2	0	GPL-2.0
1	0	Zlib
1	0	See-file
1	0	BSD-possibility
1	0	BSD-2-Clause

Showing 1 to 17 of 17 licenses ◀ Previous Next ▶

Hint: Click on the license name to search for where the license is found in the file listing.

Unique licenses	17	1407	Files
Unique scanner detected licenses	17	0	Unique concluded licenses
Licenses found	991	0	Licenses concluded
Files with no detected licenses	427	0	Concluded files with no license information

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IP analysis with Fossology

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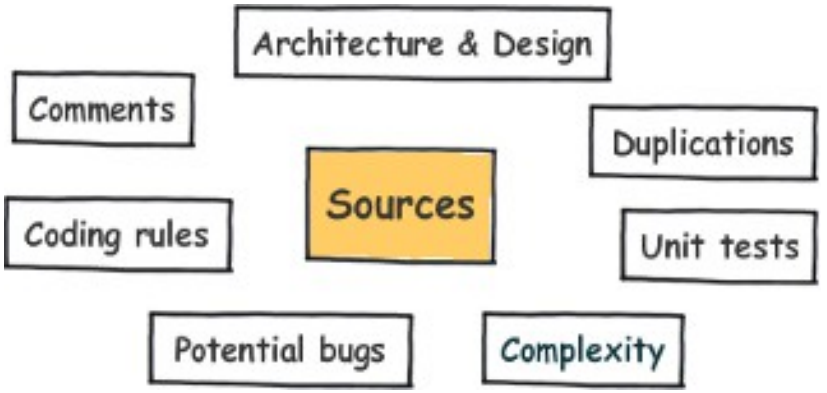
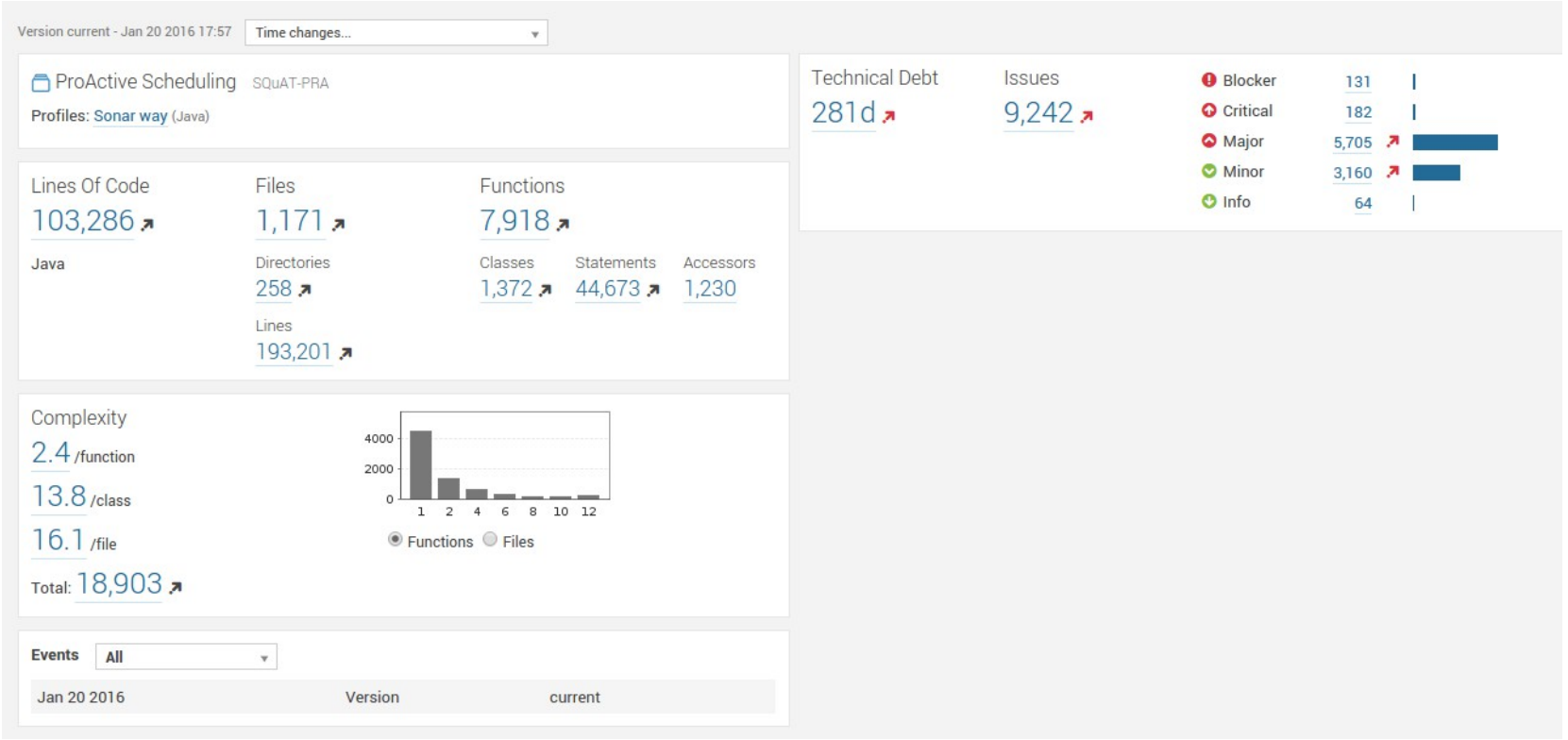
- Hosted by the Linux Foundation

SonarQube static code analyser

- www.sonarqube.org - LGPLv3
- Covers "the seven axis of code quality"
- Supporting company: SonarSource



SonarQube applied to ProActive



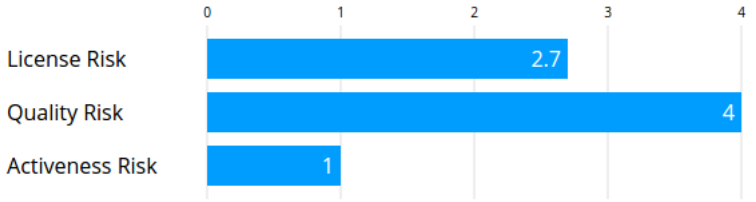
Rule	
Throwable and Error classes should not be caught	113
"equals(Object obj)" and "hashCode()" should be overridden in pairs	17
Return statements should not occur in finally blocks	1

SQuAT Dashboard

Overview | Quality Metrics | Risk Drivers | Risk Assessment

Choose a Risk Model: Basic Risk Model

riscoss



	Indicators			Computed Score
License risk		Value	Normalized	
	Unique license	17	4	2.7
	Ratio no license	30%	2	
	OMM License Indicator	0	1	
Quality risk		Value	Normalized	
	Blocker issues	131	5	4.0
	Critical issues	183	5	
	Test coverage		5	
	Test success		5	
	OMM documentation	1	1	

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OSS Quality Initiatives

Reuse Readiness Levels (RRLs)

DejaCode

AppHub

- OSS quality models
- The Linux Foundation Badge program
- OpenHub analysis model
- OSSWatch Software Sustainability Maturity Model
- NASA Reuse Readiness Levels
- License and IP analysis:
- Black Duck Software, Palamida, DejaCode, TripleCheck
- Static code analysers on Wikpedia
- Dashboards and APIs: Bitergia, FlossCommunityMetrics

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SQuAT fest 2016

COFFEE BREAK!

Fraunhofer FOKUS

OW2

ShareSoft

AppHub SQuAT Fest
Brussels, January 26, 2016

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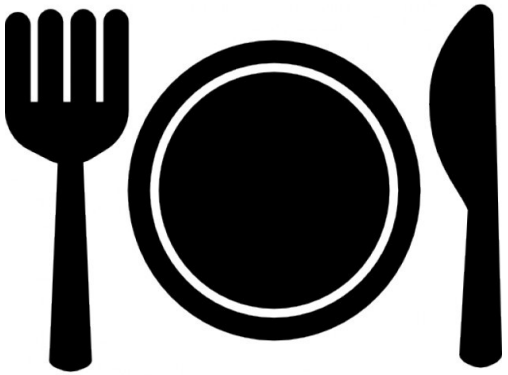
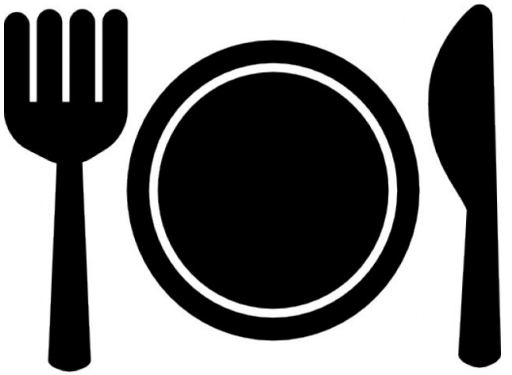
AppHub SQuAT fest 2016





LUNCH BREAK!

Fraunhofer FOKUS

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Brussels, January 26, 2016

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