

# **GOVERNANCE AND COMMUNITY**

Key factors for successful open source projects

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#### WHAT MAKES AN OPEN SOURCE PROJECT SUCCESSFUL?



What are the key factors?





# **AGENDA**

- Technical factors
- Legal factors
- Social factors
- A success story: Orekit





# (OBVIOUS) TECHNICAL FACTORS

- > Efficient response to an (unmet) need
- Robust, reliable, well designed and coded software
- Sufficient documentation
- Support (a way to report bugs and ask questions)
- Access to the source code repository







#### LEGAL FACTORS

- > License
  - A potential stumbling block!
  - Choose a well-known license, adapted to your context
  - Writing your own license is a very bad idea!
- Copyright ownership
  - Who holds the copyright on contributions?







#### SOCIAL FACTORS: COMMUNITY

- > Releasing source code is easy!
  - Success is measured by community, not source code
- > Building a community is hard
  - You must meet non-technical needs and expectations of users and contributors: support, benevolence, transparency, consideration and trust



# SOCIAL FACTORS: GOVERNANCE

- > Governance is the constitution of the project
  - Set of principles by which the project operates
  - Make known the conditions of participation in the project
- Introduce Transparency and Trust
- > Particularly important principles:
  - Decision-making processes
  - People involved in decisions



#### SOCIAL FACTORS: DOMINANT MODELS OF DECISION-MAKING PROCESS

- The benevolent dictatorship
  - Centralized control held by a few people (often only one), committed to the success of the project
- > Meritocracy
  - Distributed control awarded in recognition of contributions



### SOCIAL FACTORS: CONCLUSION

A license is a **legal framework** for collaboration

A governance model is a **social framework** for collaboration

Ross Gardler – Open Source Governance Models (2013)







### A SUCCESS STORY: OREKIT – IN BRIEF

- Orekit is a low level space dynamics library in Java
- > Open Source (Apache 2.0), funded by CS Group
- Used by space agencies, space companies and research laboratories:

Airbus Defence & Space, ESA, Eumetsat, US Navy, Swedish Space Corporation, Exotrail, Thales Aliena Space, Technische Universität Berlin, ITTI, SupAero, University of Texas at Austin, ...

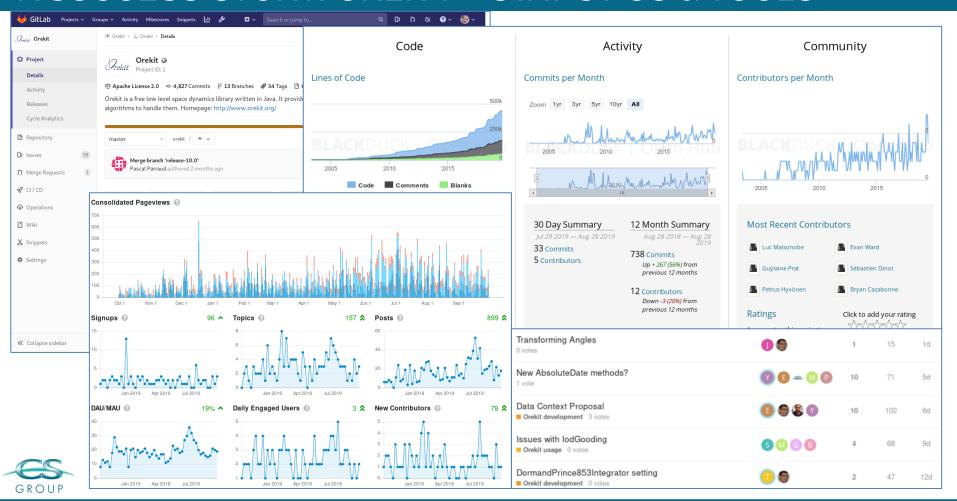


# A SUCCESS STORY: OREKIT – CHARACTERISTICS

- Open governance: 9 entities are members of the Project Management Committee (PMC)
- Meritocracy
  - User ⇒ Contributor ⇒ Committer ⇒ PMC member
- > Trust: 4 external committers
- > Very responsive support, acclaimed by all users
- Contributions made easier by an efficient and modern collaborative platform



# A SUCCESS STORY: OREKIT – STATISTICS & TOOLS





Thank you for your attention.
What questions did I not answer?



