**SciencePAD**
**Open Software for Open Science**

Alberto Di Meglio – CERN

# SciencePAD

- SciencePAD is a collaboration among several research centres, projects and companies
- Originally born from the experience of the European Middleware Initiative (EMI) project
- It has three major goals
  - Support the formalization of software information and its integration in digital knowledge networks
  - Promote and directly demonstrate the use of formalised information in software services for scientific research
  - Promote the correct adoption and exploitation of open source best practice policies and methods
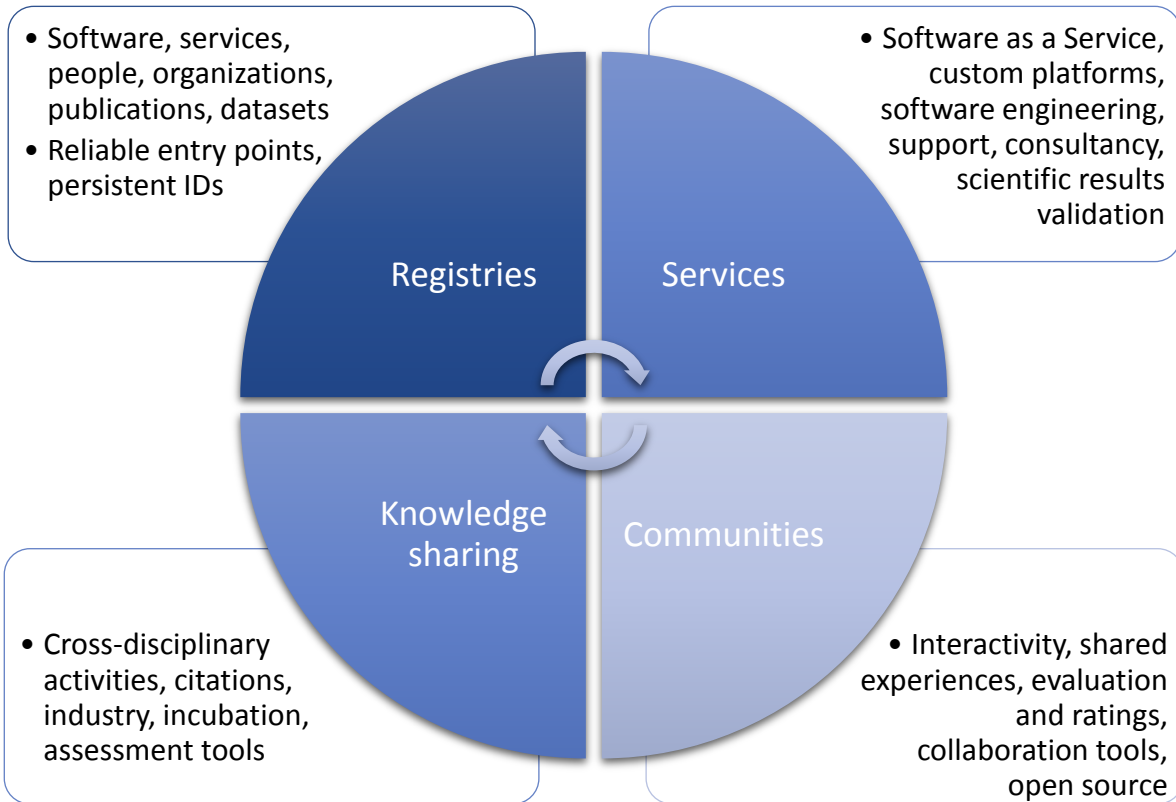
# EMI in a nutshell



- Collaboration of 4 mw providers (ARC, dCache, gLite, UNICORE)
- 26 partners
- 24M EUR
- 3 years (05/10 – 04/13)
- 55 products
- 2M SLOC
- Open source

# Critical issues

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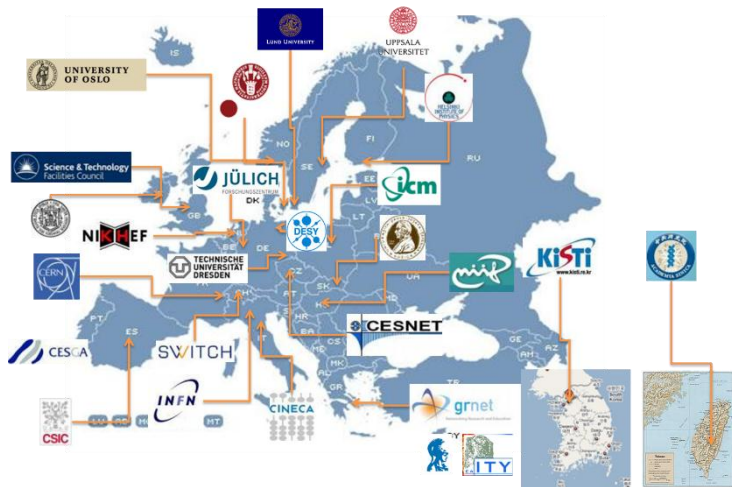
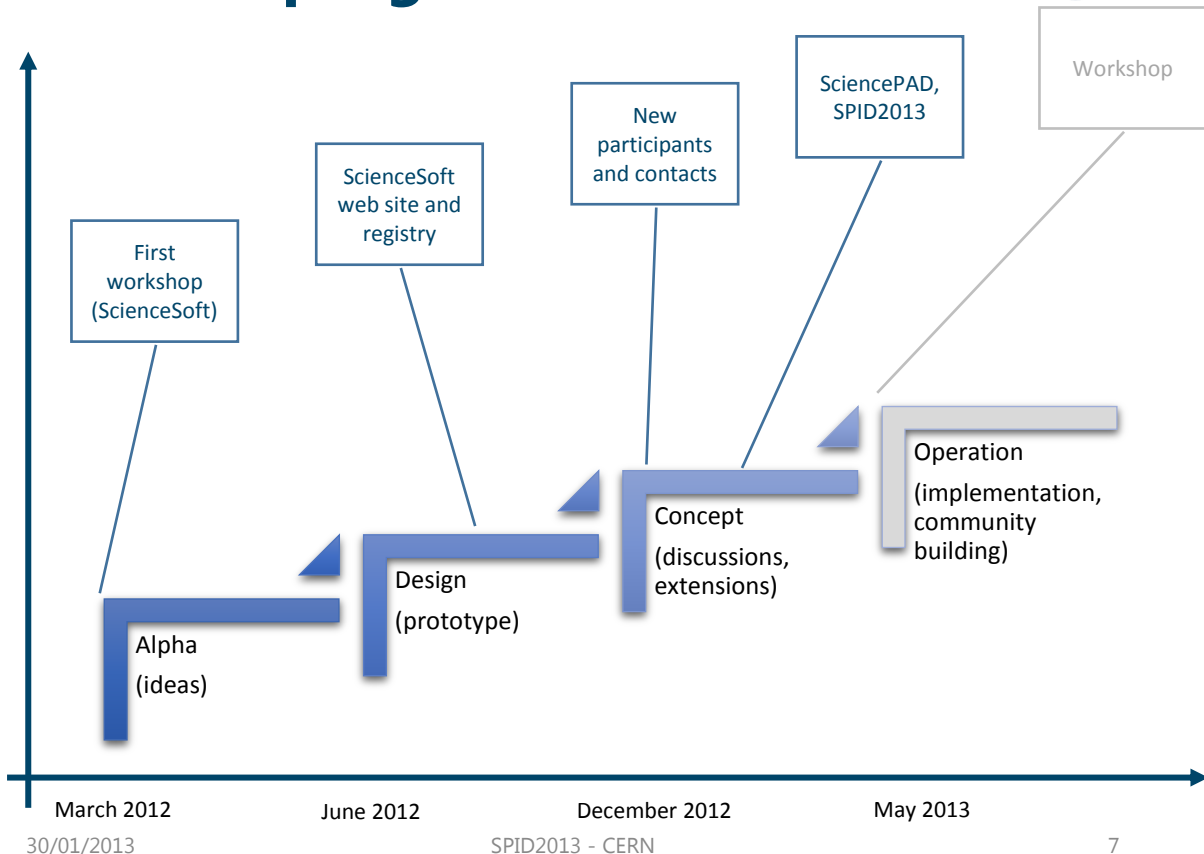| Problem area | Challenge description | Affected stakeholder groups |
|---|---|---|
| **Difficulty in identifying software and related activities** | Limited or complex ways of finding what exists already | Researchers, software developers |
| | Lack of visibility and recognition of development activities | Software engineers, developers |
| **Difficulty in evaluating software** | Lack of consistent real usage information and impact assessment | Development projects, infrastructure managers, funding bodies |
| | Limited access to other users' experience | Researchers, infrastructure managers and operators |
| **Difficulty in leveraging existing software through re-use** | Lack of continuity in development, coordination of software | Software engineers, developers, software development projects |
| | Lack of continuity in support of software | Researchers, research projects |
| | Non-optimal communication between users and developers | Researchers and software developers, R&D projects, infrastructure managers and operators |
| **Difficulty in justifying or proposing business case for development of new software** | No way of assessing the user "market" and potential revenues | SMEs |
| | Limited possibilities of influencing the production of software | Researchers, infrastructure managers and operators |
| | Limited commercial exploitation and support for technology transfer | Funding bodies, software engineers, SMEs |

# Identified areas of work

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- Software, services, people, organizations, publications, datasets
- Reliable entry points, persistent IDs

• Software as a Service, custom platforms, software engineering, support, consultancy, scientific results validation

Registries

Services

Knowledge sharing

Communities

- Cross-disciplinary activities, citations, industry, incubation, assessment tools

• Interactivity, shared experiences, evaluation and ratings, collaboration tools, open source

# State of the art

# Work in progress

SciencePAD

First workshop (ScienceSoft)

ScienceSoft web site and registry

New participants and contacts

SciencePAD, SPID2013

Workshop

Alpha
(ideas)

Design
(prototype)

Concept
(discussions, extensions)

Operation
(implementation, community building)

March 2012

June 2012

December 2012

May 2013

# New collaborations

# SciencePAD Goals
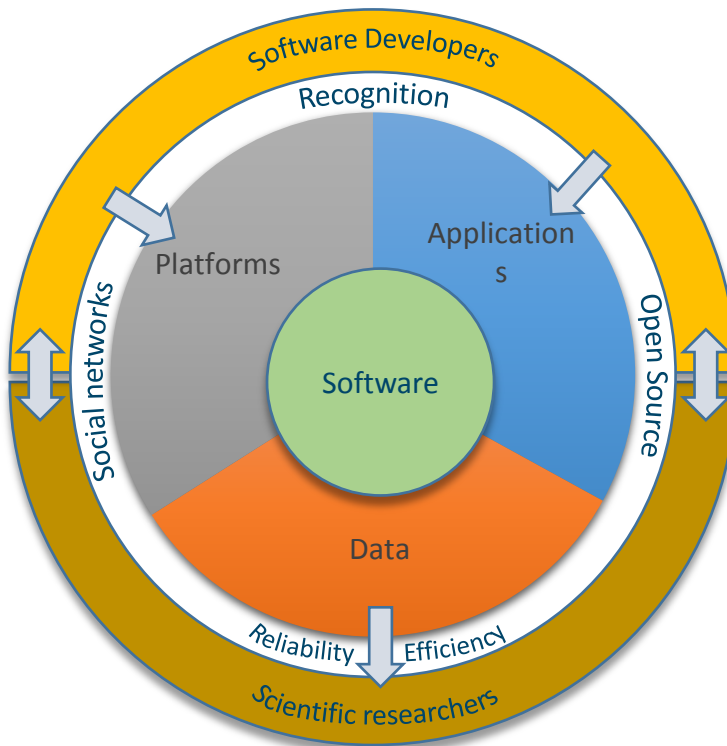
# PIDs in SciencePAD
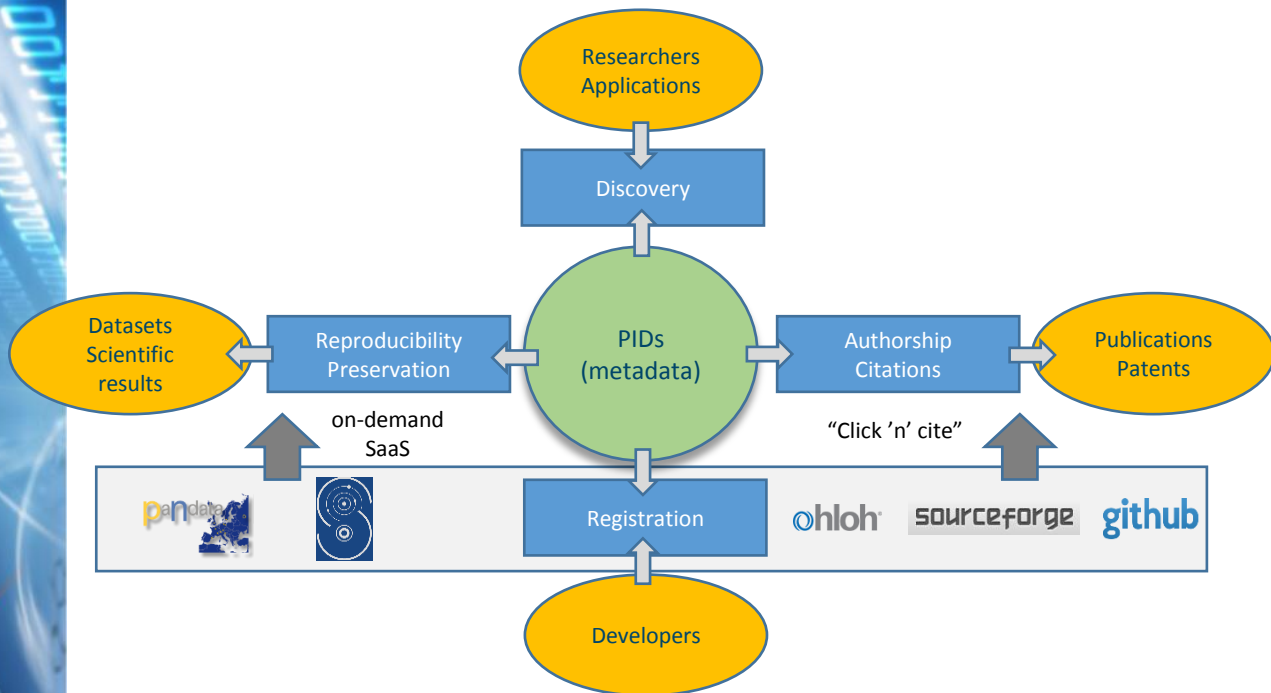
# Next steps

- Keep collecting more information and feedback from stakeholders (developers, research communities, projects, funding bodies)

- Discuss with other projects about common activities and extending/reusing/integrating methodologies and functionality

- Prepare for the more formal operational phase
  - Proper design of software registries
  - Software metadata, formats, ontologies (generic and community-specific)
  - Broader-scope prototypes and software services with interested communities

**http://sciencepad.org**