



Sustainability of EMI Results

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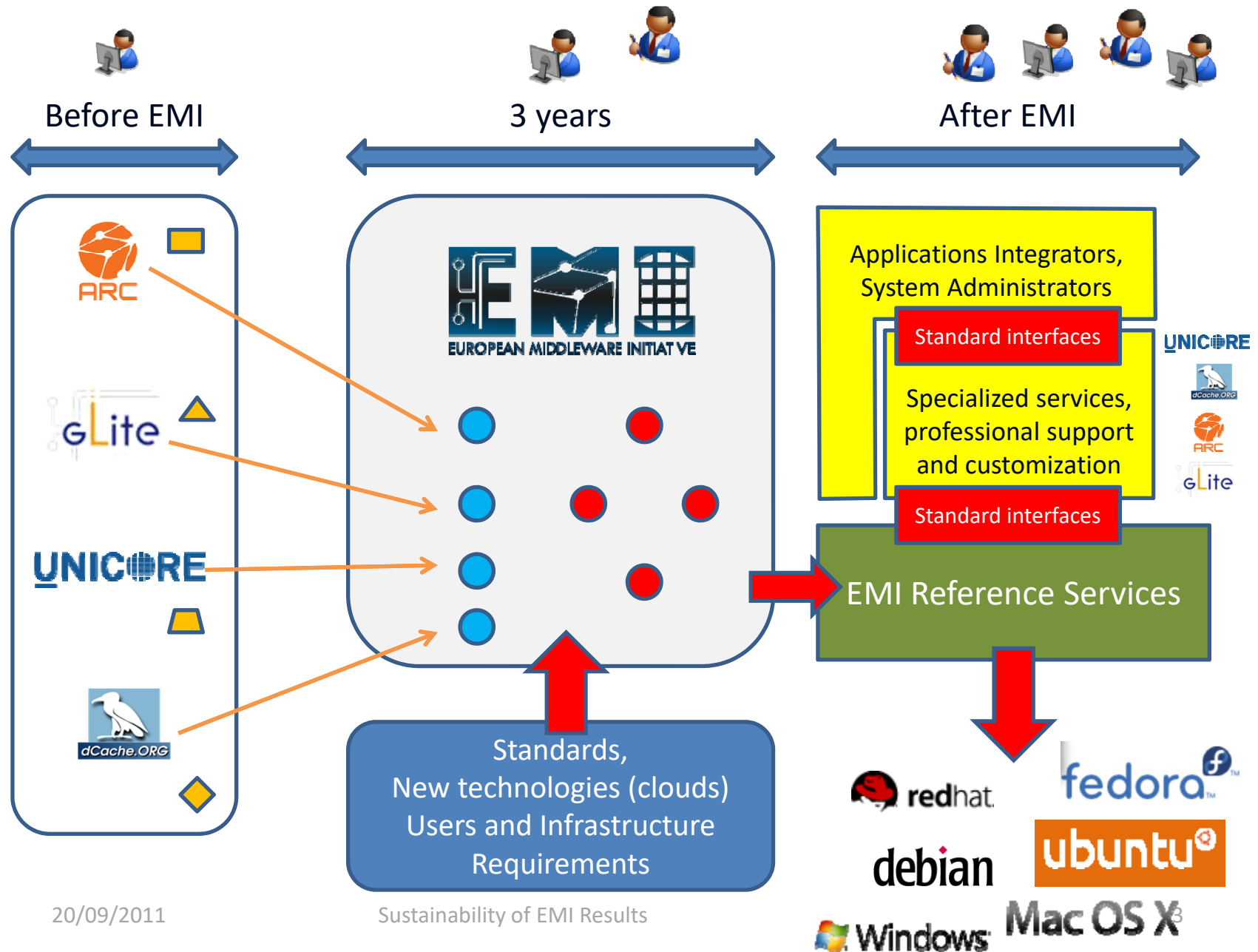
EMI Mission Statement



The European Middleware Initiative (EMI) project represents a close collaboration of the major European middleware providers - ARC, gLite, UNICORE and dCache - to **explore and implement sustainable models to support, harmonise and evolve the distributed computing and data management middleware** for deployment in EGI, PRACE and other distributed e-Infrastructures



EMI Middleware Evolution



20/09/2011

Sustainability of EMI Results

Complementary to Technology Strategies



- Understand and define 'EMI value proposition' far beyond the DCI space
- Sustainability: Inspire and confirm commitment from key stakeholders/users
- Adopt lesson learned from industry and successful open source models
- Contribute to open standards to enable re-use of EMI components 'outside the DCI ecosystem'
- Expand usage 'beyond traditional users'

Sustainability Drivers

Expansion of the user base



Decrease of costs



Commercial activities



Examples: Open Source Models



Community model

Apache, Eclipse

Support contracts
or Subscription
model

Red Hat, Canonical

Dual-licensing or
Commercial model

MySQL, Zarafa

Macro R&D
Infrastructures
model

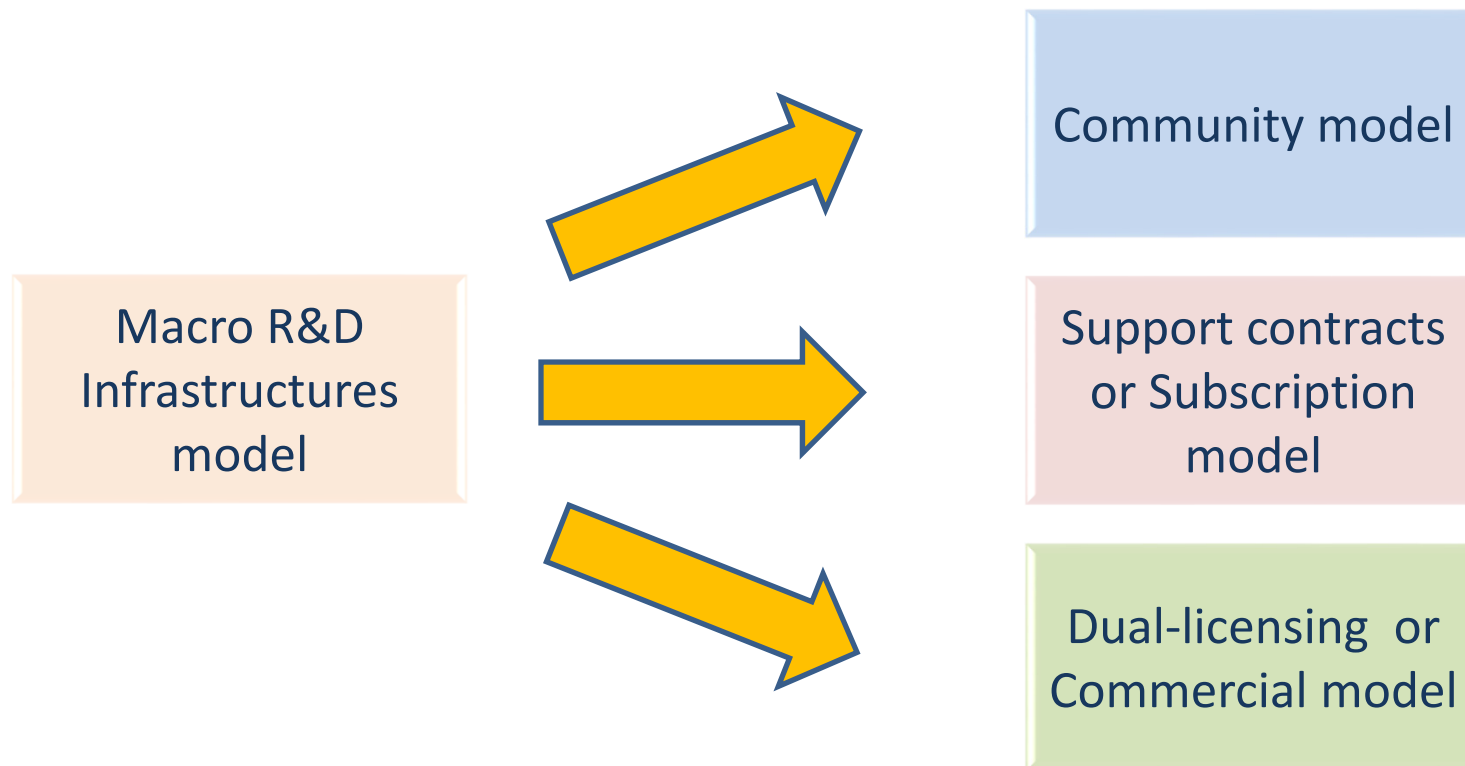
EMI and other publicly funded
projects (“unstable” future)

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From Open Source to long-term sustainability: Review of Business Models and Case studies, Chang et al.

Open Source Models

Incubation in the right condition becomes



Some lessons learned from RedHat



- Specific concrete advice for an open source community
 - Clearly have an idea/plan what you offer; who would pay for this? What is the “EMI value”?
 - Identify active and strong team leaders – they are the key in the open source community
 - Stop “free” support model of today, it is an important income on support models (week, premium) to fund the core set of people

With thanks to Francois Lucatelli (~10 years in RedHat)

EMI Value for Technical Users



- A streamlined middleware distribution available from a well-defined place
 - EMI Repository <http://eticssoft.web.cern.ch> now, EPEL/Debian as component mature
 - Regularly published service releases
- Better integration with Fedora/EPEL (and compatible OSs) and Debian
- Open to external contribution
 - Source packages fully available
 - A single patch submission channel (GGUS)

EMI Value for End Users



- Stable middleware services delivered with standard Operating Systems
 - EMI products from different technical areas (compute, data, security, infrastructure) work seamlessly together, well tested
 - 10 years experience of ‘cutting edge HPC and HTC’
- Open Source model allows
 - More rapid and transparent improvement of quality; contributions from different sources
 - Value-added services from experts
 - Open competition brings better quality

EMI Value for EGI[-InSPIRE|.eu]



- Open, transparent software releases
 - EMI Inter-product ecosystem, well-tested
- Possibility to implement revenue streams from value-added professional services (support, customization, outsourcing) via commercial SLAs
- Possible involvement of commercial companies in the provision of services, thanks to the standard open source approach

Points to stimulate the discussions



- Scientific institutes miss the organizational structure and capabilities to 'go business'
 - 'Business-oriented legal departments': patents, trust insurances, IPR issues
 - 'Marketing departments': influence 1000^x at the same time instead of 10-100 per community
 - 'Maintenance vs. research': software stability vs. scientific innovation conflicts; different careers
- Two possibilities now
 - Institutes establish necessary departments/skills
 - Let commercial companies do support and focus on research

Next Steps

- Strategic planning (new NA3 work package)
 - Work plans in current deliverable and include new activities; also ‘products and scientific results’
 - ‘Change’ the way we work towards described models; implement initial ideas in project lifetime
 - Concrete EMI product factsheets of services including key usage models, maturity, etc.
 - Talk, but more important – listen – to the community; what they want; who would pay?
 - Align with the broader (scientific) community
 - EMI products in EPEL; case studies; ‘Works with EMI’, address ‘market’ (i.e. users) requirements...



Thank you

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