



# **Project Overview**

# **EMI 1 Kebnekaise Report**

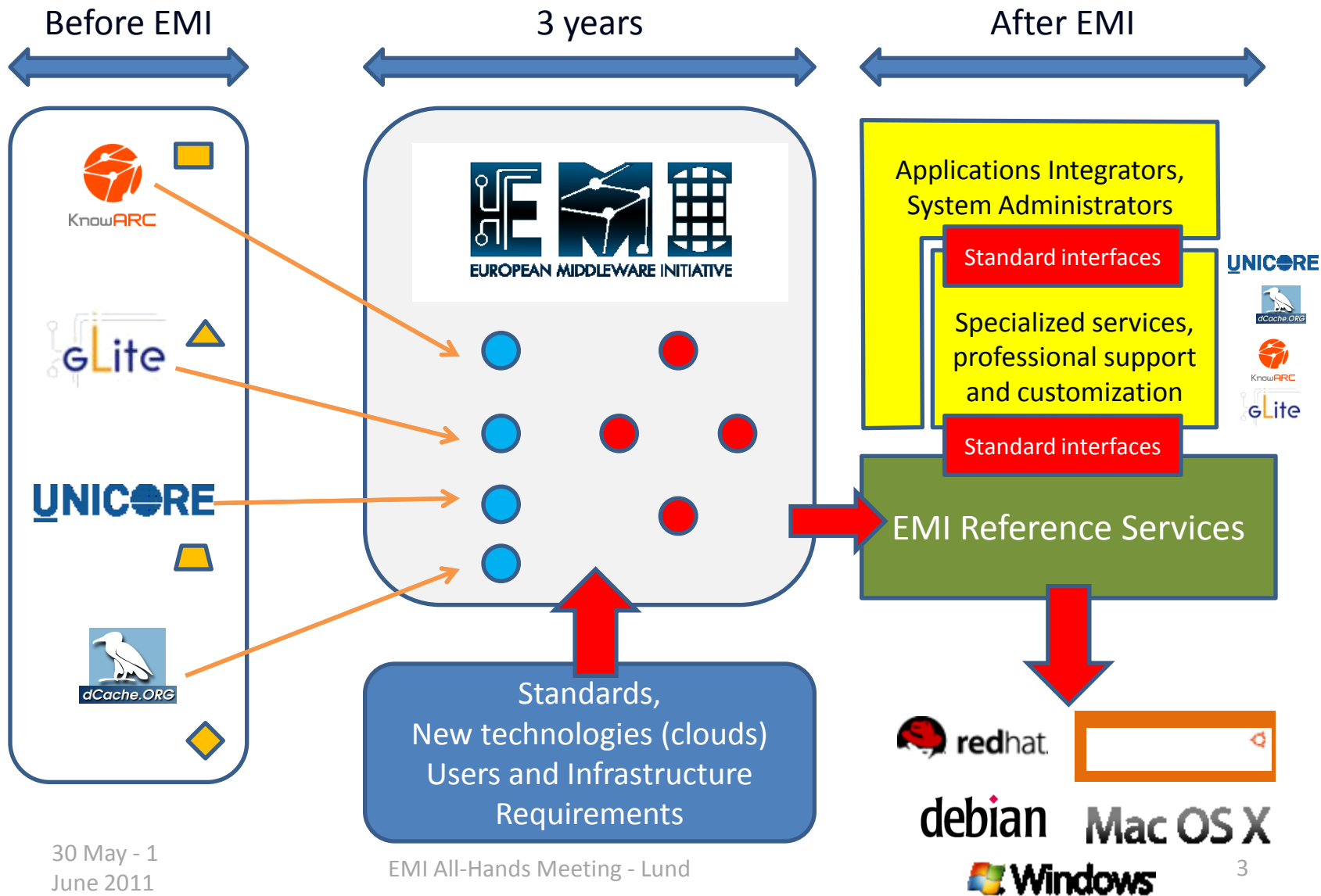
Alberto Di Meglio (CERN)  
Project Director

EMI All-Hands Meeting  
Lund, 30 May – 1 June 2011

# Content

- EMI 1 Kebnekaise
- Project highlights
- AH Goals
- Agenda

# EMI Middleware Evolution



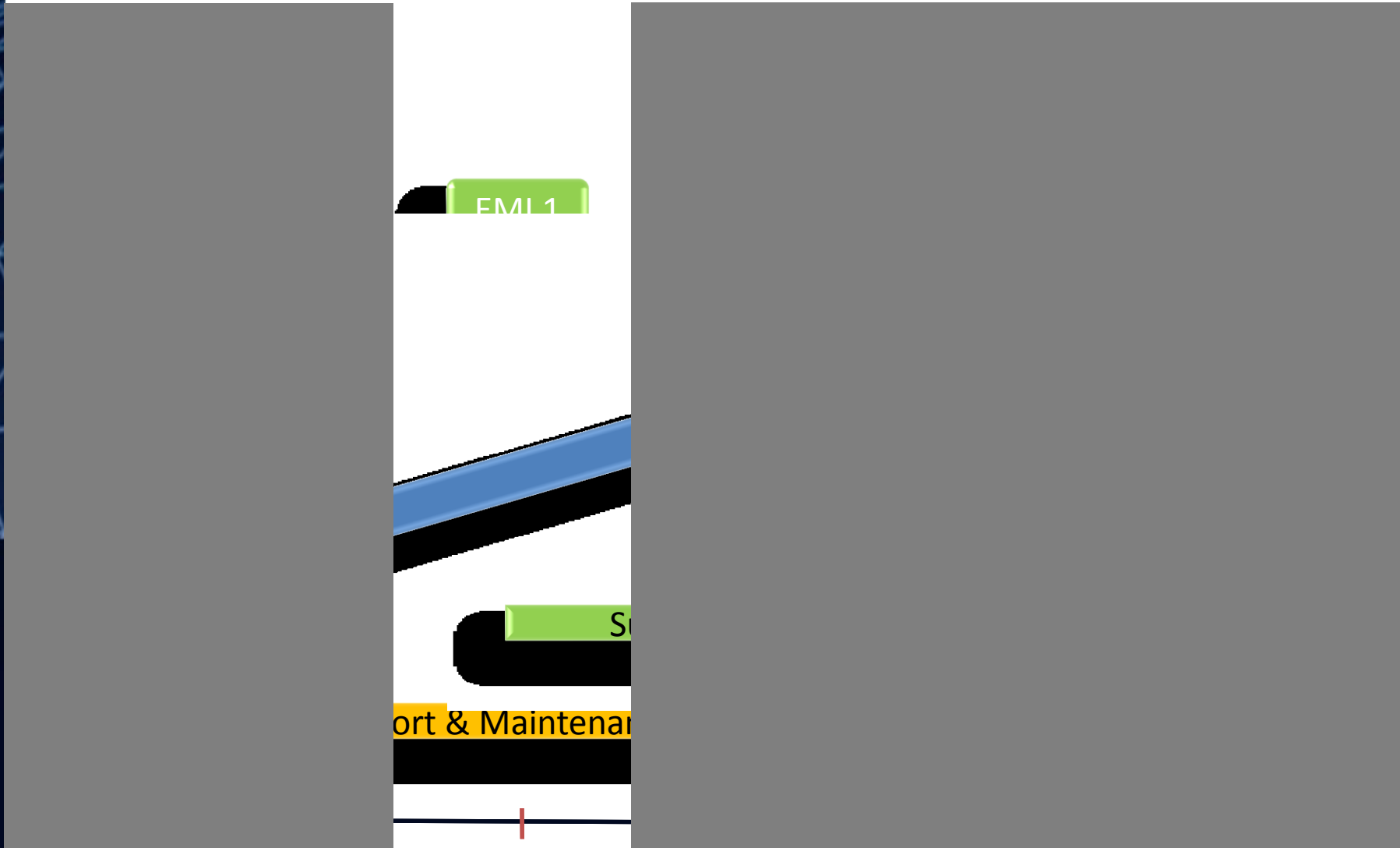
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June 2011

EMI All-Hands Meeting - Lund

# Release Plan



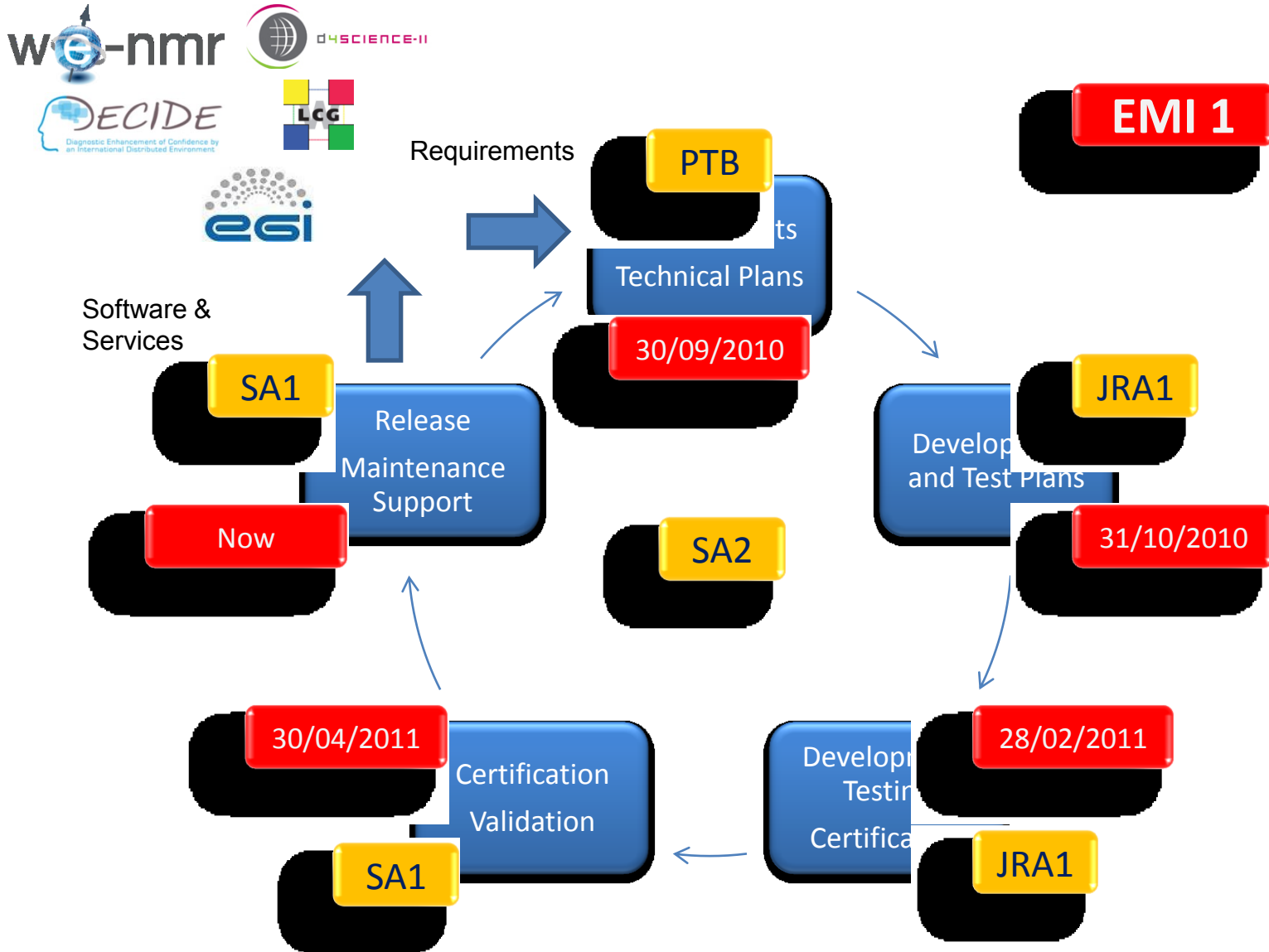
EMI INFOSO-RI-261611



01/05/2010    31/10/2010    30/04/2011    30/04/2012    28/02/2013

30 May - 1 June 2011    EMI All-Hands Meeting - Lund

# EMI 1 Release Cycle



# EMI 1 in Numbers

- 54 Products from ARC, dCache, gLite, UNICORE
  - <https://savannah.cern.ch/task/?group=emi-releases>
- 333 EMI packages
- 192 external deps, 165 from SL5/EPEL, 27 managed by EMI
- 100% of RPMS
- 86% of SRPMS
- Latest builds:
  - 64bit: [http://bit.ly/emi\\_1\\_64](http://bit.ly/emi_1_64)
  - 32bit: [http://bit.ly/emi\\_1\\_32](http://bit.ly/emi_1_32)

# EMI 1 Release



**EMI Updates**

**EMI Updates**

12/05/11 15:00



**EMI 1.0.0 (Kebnekaise) has been released**

12/05/11 15:00

The EMI project is pleased to announce EMI 1 Kebnekaise release. This release features for the first time a complete and integrated set of middleware components (ARC,dCache, gLite and UNICORE), created in the past from different EU projects, and

## CONTINUING EMIS 0.94 RELEASE

Kebnekaise will be supported for 18 months, with 6 additional months

## EMI 1 (Kebnekaise) Overview

The European Middleware Initiative (EMI) project aims to deliver a consolidated major middleware providers in Europe - ARC, dCache, gLite and UNICORE towards a stable integrated distribution of compute and data management deployment in distributed computing infrastructures in Europe and beyond

The first EMI release is focused primarily on laying the foundations for the original middleware stacks, improving the compatibility with mainstream components and compliance with existing standards.

EMI 1 components follow more closely packaging guidelines and policies like the File Hierarchy Standard (FHS), make extensive use of off-the-shelf packages and repositories like EPEL, reduce the dependency on less standard technologies

EMI 1 introduces a number of changes and new functionality in response to

- **Security** - Replacement of GSI with SSL in the security components; initial implementation of obtaining X.509 attribute certificates in VOMS Admin; initial implementation of
- **Compute** - Full support for the CLUSTER service in CREAM; initial implementation of CREAM; initial implementation of common MPI methods across the

# EMI Repository



## EMI Software Repository

[About EMI](#)

[Documentation](#)

[Support](#)

[Mailing list](#)



[News](#)

EMI 1 Released  
(12/05/2011)

### Welcome to the EMI Software Repository

EMI is a collaboration among the major European providers of middleware and services for distributed computing and data research infrastructure. ARC, dCache, gLite and UNICORE work together to provide efficient, standard products that can be distributed by infrastructure providers, site administrators or researchers.

The goal of EMI is to provide software compliant with the major Operating Systems distributions policies reusing as much existing software components.

### Latest Supported Releases

#### EMI 1 (Kebnekaise)

Base	<a href="#">SL5 (i386)</a>	<a href="#">SL5 (x86_64)</a>
Updates	<a href="#">SL5 (i386)</a>	<a href="#">SL5 (x86_64)</a>
Third-Party	<a href="#">SL5 (i386)</a>	<a href="#">SL5 (x86_64)</a>

<http://emisoft.web.cern.ch/emisoft/index.html>



# EMI 1 Release Criteria

- The release snapshot is based on the achievement of a set of “acceptance criteria” (certification, package formats, documentation, etc)

EMI 1 (Kebnekaise) - Acceptance Criteria List

The acceptance criteria are the conditions by which a Product is considered ready or not for inclusion in an EMI release. The criteria can be "exclusive" or "incl" criterion causes exclusion from the release, failing an inclusive criterion doesn't cause exclusion from the release, but the Product is marked as not fully compli The exclusive criteria are marked in **bold** in the table. Refer to the legend for an explanation of the colour coding.

**GREEN** OK  
**YELLOW** Failed, but an alternative exists (for example documentation is not PDF, but another usable format is provided as a temporary v  
**RED** Failed

	Certification Report	Binary RPMS	FHS Compliance [1]	Documentation	Source RPMS	Binary tarball	Source tarball	Comments
AMGA v.2.1.2	OK	OK	OK	OK	OK	OK	OK	
APEL parsers v.1.0.0	OK	OK	OK	OK	OK	OK	OK	
APEL publisher v.1.0.0	OK	OK	OK	OK	OK	OK	OK	
ARGUS v.1.3.0	OK	OK	OK	OK	OK	OK	OK	
ARGUS-EES v.0.0.10	OK	OK	OK	OK	OK	OK	OK	
CREAM LSF module v. 1.0.0-1	OK	OK	OK	OK	OK	OK	OK	
CREAM TORQUE module v. 1.0.0-1	OK	OK	OK	OK	OK	OK	OK	
DGAS-sensors	OK	OK	OK	OK	OK	OK	OK	

Detailed criteria table:

DPM v.1.8.1	OK	OK	OK	Warning	FAIL	FAIL	Warning	Not all src.rpm, tar.gz, src.tar.gz, Doc
LFC v.1.8.1	OK	OK	OK	Warning	FAIL	FAIL	Warning	Not all src.rpm, tar.gz, src.tar.gz, Doc
dCache v.1.9.12	OK	OK	FAIL	OK	FAIL	OK	OK	Only dcache-server and dcacheVoms: compliant, the clients are not. Not all c no ref. to EMI
Delegation Java v.2.0.1	Warning	OK	OK	Warning	OK	OK	OK	Certified - as being part of other servic ref. to EMI
core BDII v.5.2.3	Warning	OK	OK	FAIL	OK	FAIL	FAIL	Certified - as being part of other servic present, doc present not in pdf but in t
lqg-info-clients v1.0.0	Warning	OK	OK	FAIL	OK	FAIL	FAIL	Testing done, report format not compli
site BDII v.1.0.0	Warning	OK	OK	FAIL	OK	FAIL	FAIL	Certified - not compliant to policies, Dc some in twiki, no ref. to EMI
top BDII v.1.0.0	Warning	OK	Warning	FAIL	OK	FAIL	FAIL	Certified - but not compliant to policies gite-info-provider-ldap - not FHS com 3.1), some in twiki, no ref. to EMI
FTS v.2.2.6	FAIL	OK	OK	Warning	FAIL	OK	OK	No certification, no src.rpms, some do
StoRM SE v.1.7.0	FAIL	OK	OK	Warning	FAILED	OK	Warning	Not certified, Not all components have no ref. to EMI
Hydra v.1.0.1	FAIL	OK	OK	FAIL	OK	OK	OK	No certification, no doc

Notes:  
 [1] FHS = Filesystem Hierarchy Standard, <http://www.linuxfoundation.org/en/FHS>  
 -- DoinaCristinaAlftimiei - 09-May-2011

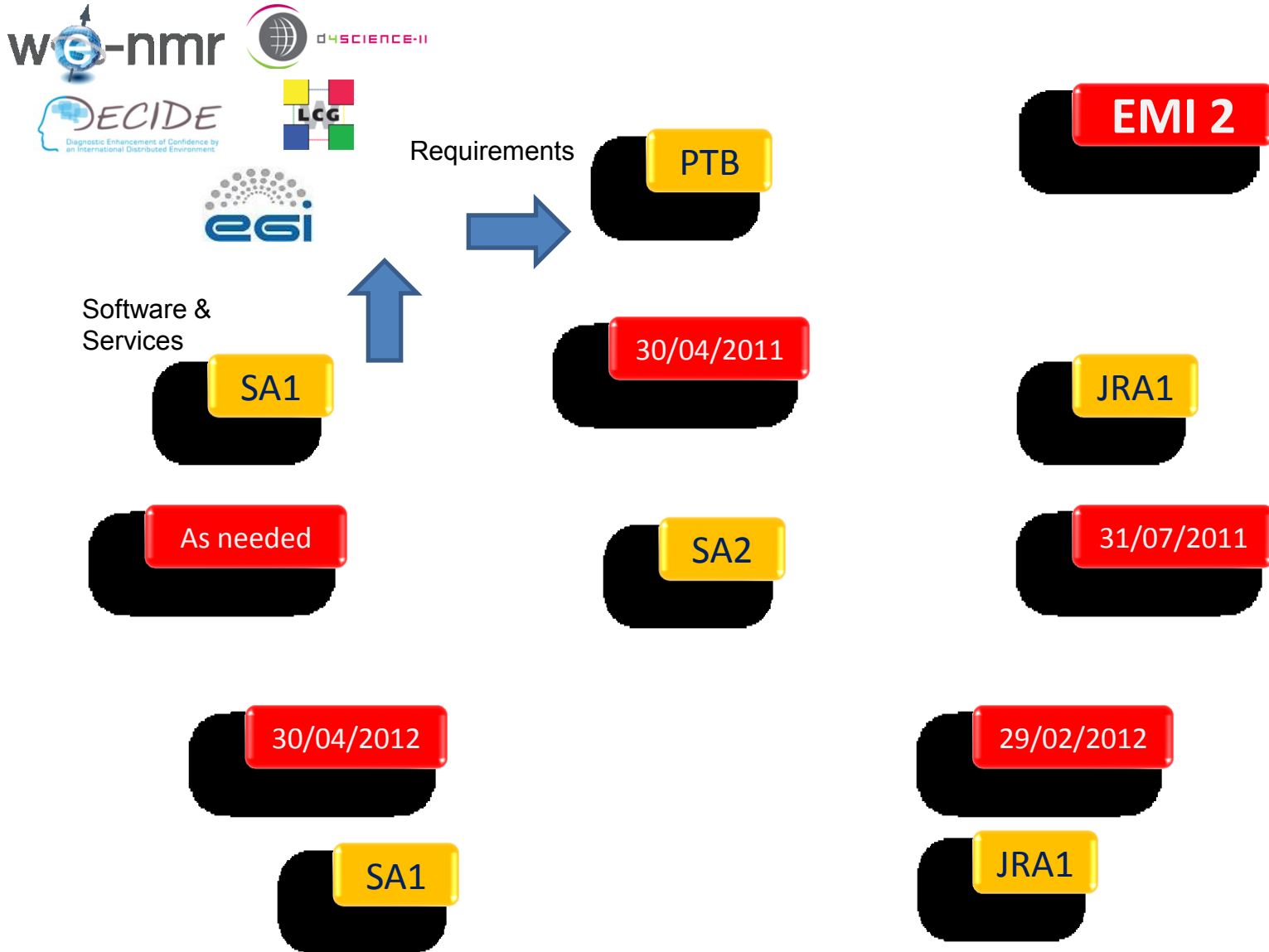
<http://www.eu-emi.eu/kebnekaise-acceptance-criteria>



# What now?

- Start regular updates/maintenance phase
- Every product maintained independently (but only backward compatible changes)
- “EMI Release Preview Program”
- Start porting to SL6 and Debian (precise schedule to be worked out)
- Step up the compliance with QA policies and in particular with OS guidelines
- Start EMI 2 development work, based on the agreed prioritized requirements and area workplans

# EMI 2 Release Cycle



# Release Codenames

EMI 1



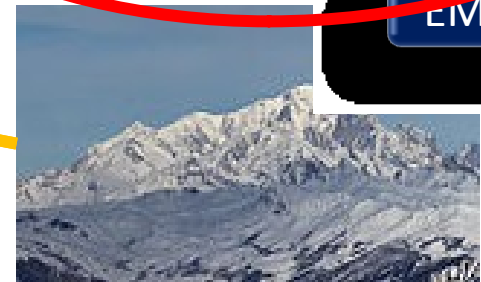
Kebnekaise (SW), 2104 m

EMI 2



Matterhorn (CH), 4478 m

EMI 3



Monte Bianco (IT/FR), 4810 m

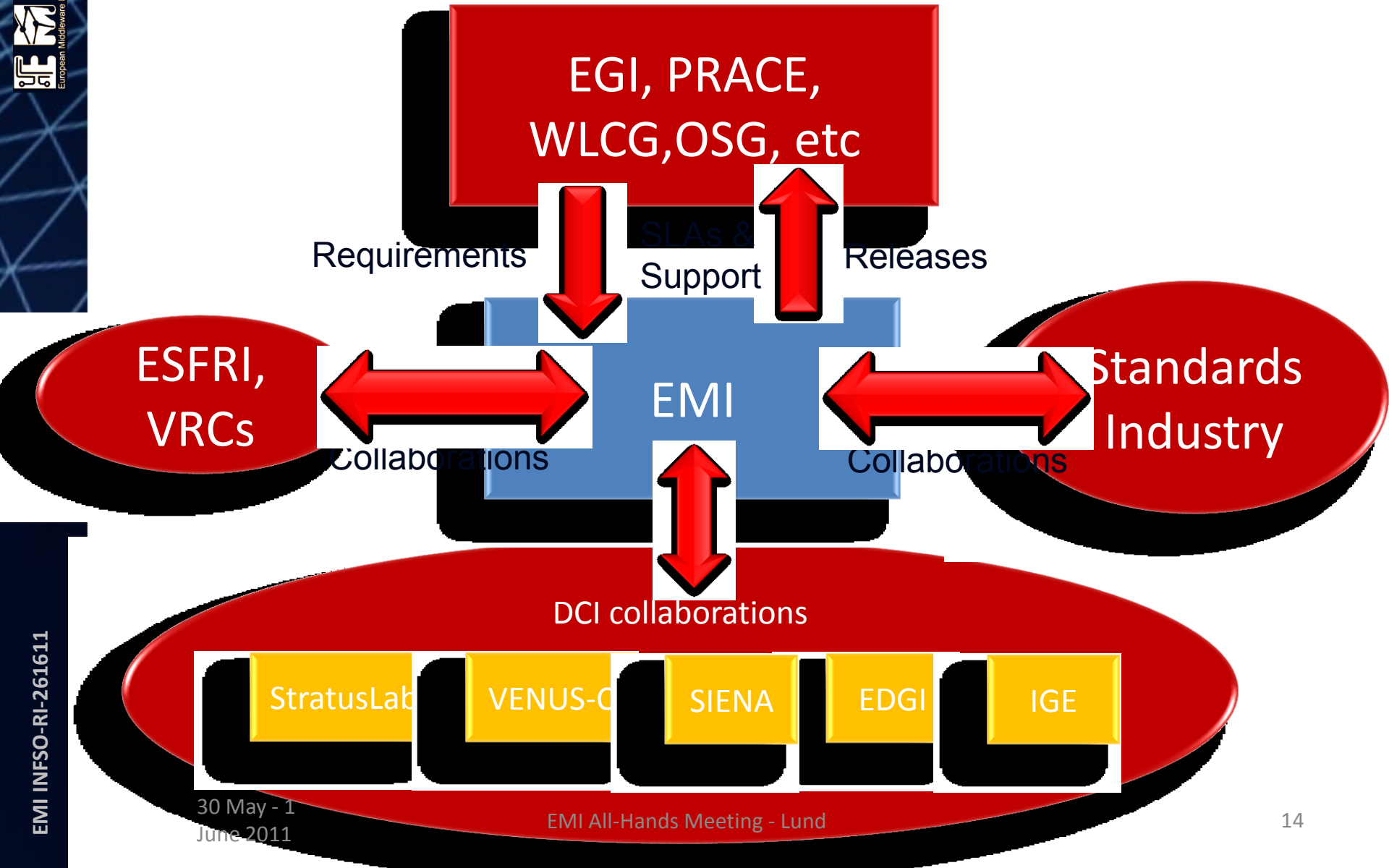


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# Collaborations and Strategies



- Regular TCB meetings to discuss requirements and technical matters
- EMI 1 released into EGI release process to start certification and staged roll-out
- SLA signed on April 14<sup>th</sup> specifies the service levels, especially user support response times
  - Will be monitored using GGUS tools
- EGI Year 2 seems to be focusing on grid and cloud integration/interoperability
  - Need to follow that and understand the impact on EMI in terms of new requirements



# WLCG

- Regular MB and GDB meetings to discuss requirements and technical matters and report on releases
- Not clear at the moment whether middleware will be taken from EMI or UMD
  - Probably depends on which service, which Institute, which purpose and how quickly UMD is released
- There are a number of important discussion on info systems and clouds that may have an impact on EMI in terms of requirements

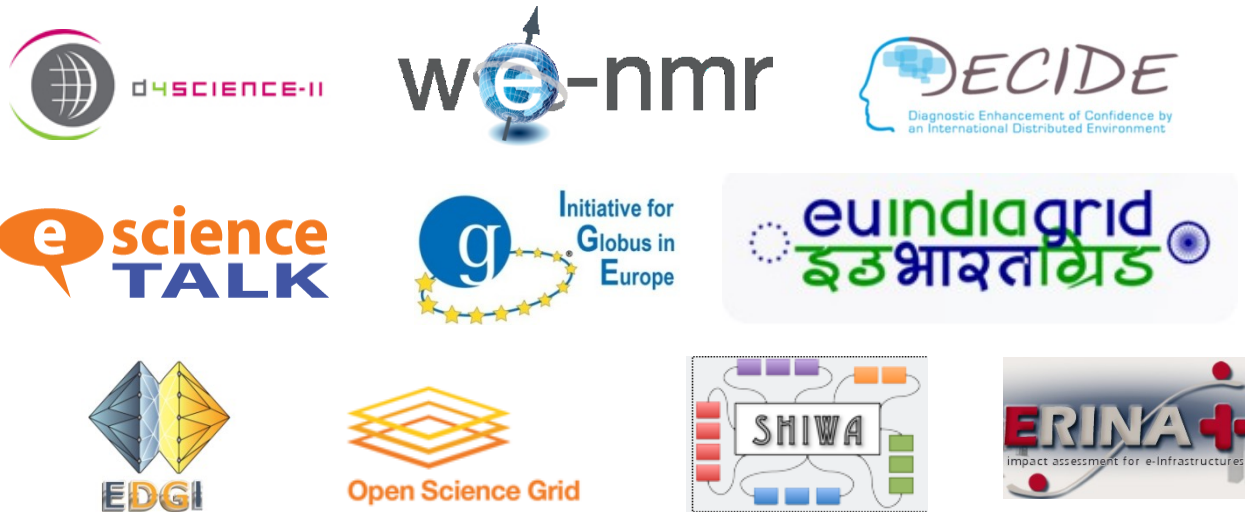
# PRACE

- First formal contact established in November 2010
- No special collaboration mechanism in place so far
  - Agreement to attend the next major PRACE event to showcase EMI and get user requirements
- Relationship to be strengthened in year 2



# Other communities

- Several MoUs or collaboration letters have been signed or are being signed with other projects and initiatives, for example



More Details can be found at

<http://www.eu-emi.eu/collaboration>

# Standards and Industry

- EMI participation in standardization activities has been strong, many EMI members are driving several standardization efforts
  - In year 2 the specs will have to be transformed into real implementations
- Collaboration with industry is important for sustainability, but not easy to achieve, not much to report on this in year 1
  - Contacts exists with Google, Red Hat, some smaller service providers (TheSyrrus Ltd)
  - New contact established with Canonical

# EC Review

- Review takes place in Brussels on June 22<sup>nd</sup>
  - Remote rehearsals have already taken place
  - First F2F dress rehearsal on Wed afternoon
  - Need a 20 minutes demo, we have some ideas, but proposals are very welcome
- ALL deliverables and milestones have to be completed by June 6<sup>th</sup> or will have to be reported as not achieved
  - As of today still 11 to be submitted

# AH Goals

- Two main themes
  - Present what has been done in year 1, do some post-mortem of what went well and what must be improved
  - Start in earnest the discussion and planning for year 2 in all activities

# Agenda

- Three types of sessions:
  - Reporting sessions per WP (this session)
  - Plenary or parallel session per topic, activity or WP to present plans, discuss and refine (this morning, all of Tuesday)
  - Final session with summaries (wed morning)
- Only for the bravest:
  - Football tournament
  - Remember: *the thing to kick is the big round one not the bone connecting knee and foot or other people*

# Survey

- There will be a survey at the end of the AH
- The link will be sent after the meeting
- Please fill it up to allow us to improve in the organization of this type of events



**Thank you**

EMI is partially funded by the European Commission under Grant Agreement INFSO-RI-261611