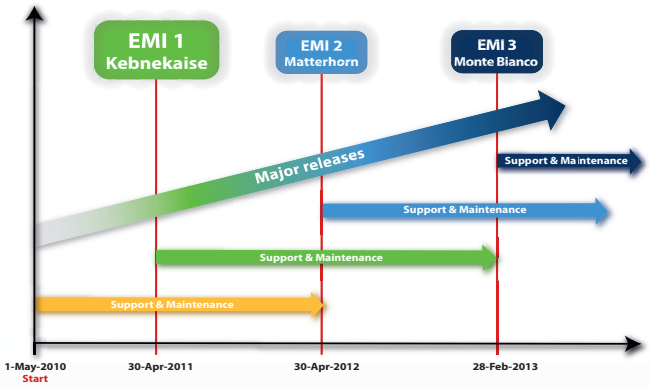
EUROPEAN MIDDLEWARE INITIATIVE

EMI 1 Release

Balancing between stability and innovation

The EMI 1 release consists of technologies of four distinct middleware providers (ARC, gLite, UNICORE, and dCache); it thus focuses on providing a stable integrated distribution of them, and introducing a small set of innovations aimed at simplifying middleware deployment (e.g. reduced installation size and decreased dependencies on third-party components), usability (e.g. better error messages) and standardization (e.g. in the area of information exchange based on GLUE2). These highlights are the major aspect characterizing EMI 1 – Kebnekaise.

At the same time, EMI 1 is built with innovation in mind, and can be viewed as a technology reference baseline for EMI 2.



EMI 1 products follow more closely packaging guidelines and policies defined by Fedora; widespread compliance with FHS, extensive use of off-the-shelf packages from the OS distribution or major downstream repositories like EPEL, reduce the dependency on less standard technologies and protocols.

* Security - Replacement of GSI with SSL in the security components, most notably VOMS; REST-based interface for obtaining X.509 attribute certificates in VOMS Admin; initial integration of ARGUS with middleware services (e.g. REAM)

* Compute - Full support for the CLUSTER service in CREAM; initial support for GLUE 2 in all CEs; integration of ARGUS in CREAM; initial implementation of common MPI methods across the different compute services

* Data - Adoption of pNFS4.1 and WebDAV standards (dCache); preview version of a messaging-based Storage Element-File Catalog synchronization service (SEMsg)

* Information Systems - ARC CE, UNICORE WS, CREAM, dCache, DPM expose a richer set of information via the experimental adoption of the GLUE2 information model standard.

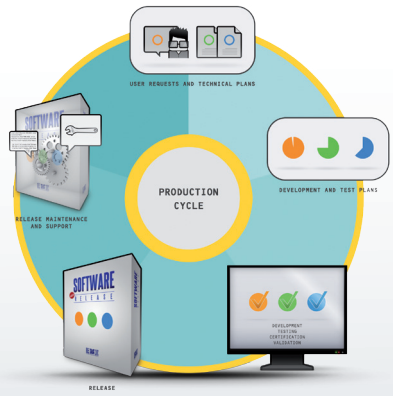
For details please see www.eu-emi.eu/emi-1-kebnekaise

The EMI Release Roadmap

Lifetime of each EMI major release is two years, which includes full support is for 18 months + security-related support extending for another 6 months. This applies also to previous middleware distributions (ARC, dCache, gLite, UNICORE) that will be supported for at least 18 months after their last release.

EMI Policies on

- Release Management
- Change Management
- Configuration and Integration
- Packaging
- Testing
- Documentation
- Certification



Available at www.eu-emi.eu/emipolicies

Preview of EMI 2

Keywords: innovation, convergence, usability

- Support to Scientific Linux 6 and Debian
- Common Storage Accounting Records
- Common EMI Execution Service Interface
- Common Security Profiles
- Experimental adoption of messaging
- Some interactive access for at least one EMI Computing element
- Consolidation of compute area clients/APIs
- Common EMI Registry
- Full GLUE 2 support