Provisioning of Grid Middleware for EGI in the framework of EGI-InSPIRE
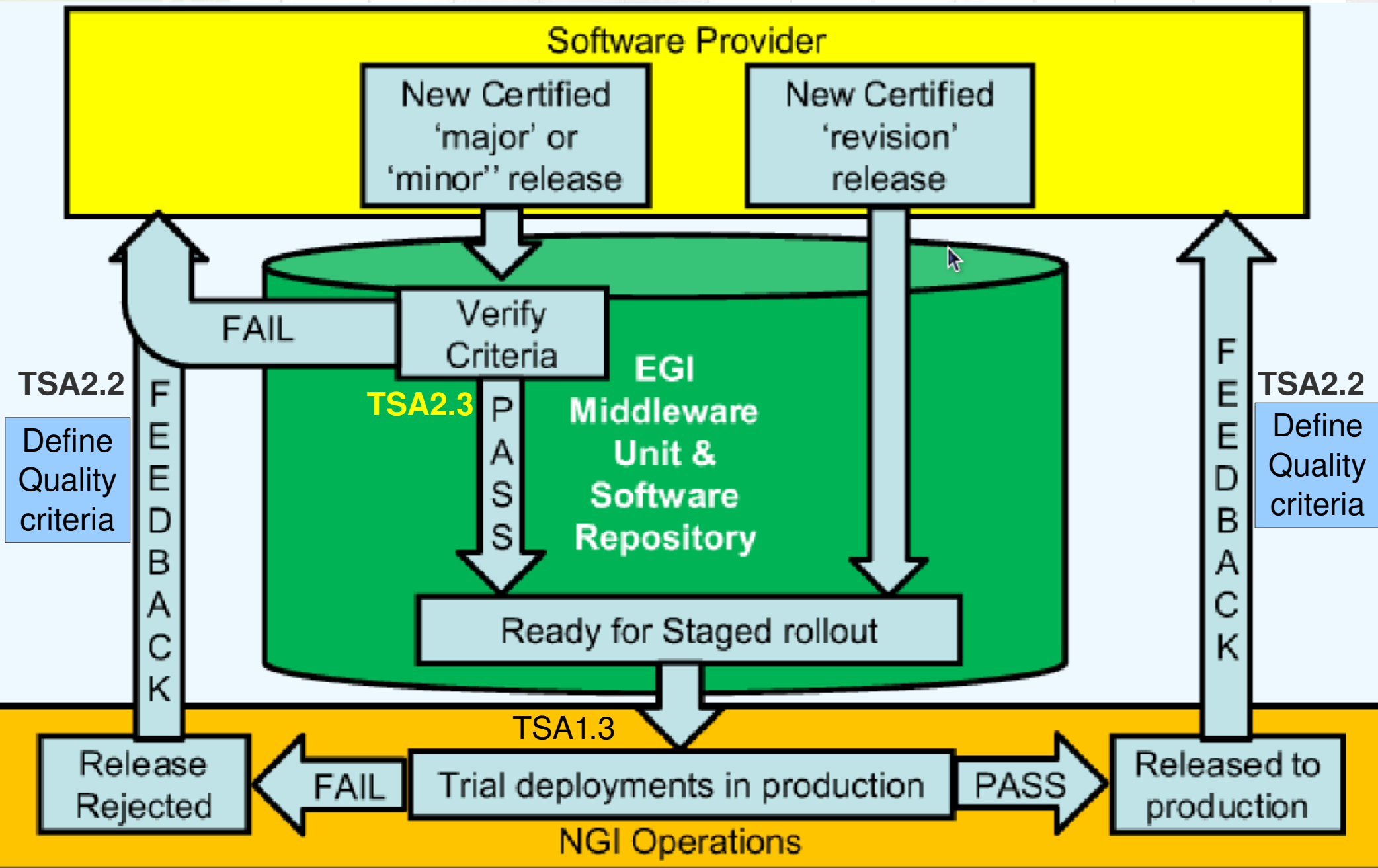
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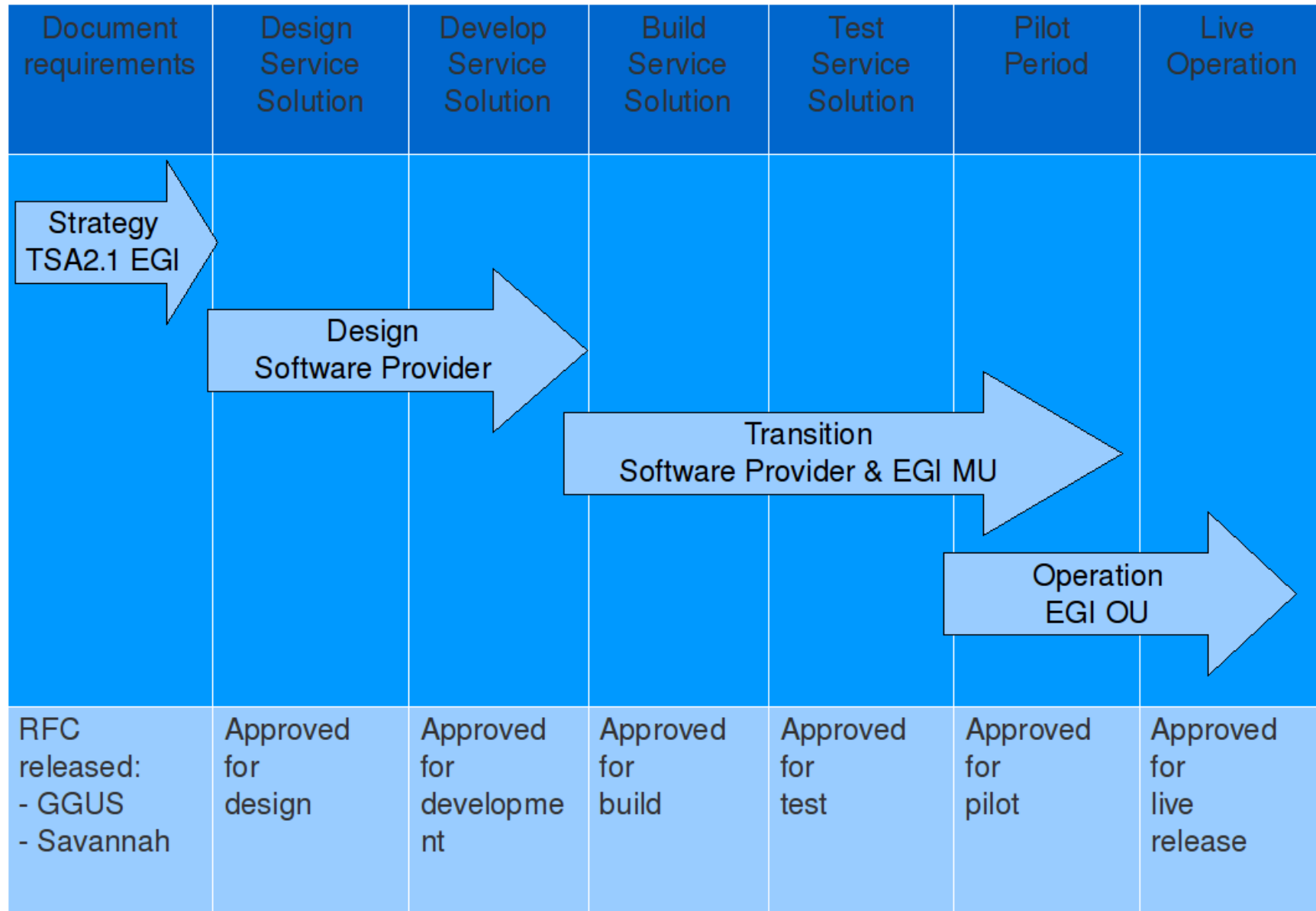
LIP, CSIC, CESGA

- Introduction

- Interaction with the Software Providers.

- Global tasks coordinated by Ibergrid

  - **Definition of UMD quality criteria**

  - **Verification of conformance criteria**

  - **Service deployment validation**

- Summary and conclusions

- EGI will use the Unified Middleware Distribution (UMD):
    - **gLite, ARC, Unicore, Globus.**
- Ibergrid global coordination tasks in EGI:
    - **TSA2.2: Definition of the UMD quality criteria.**
        - **Aim: produce generic and specific component acceptance criteria for the UMD.**
    - **TSA2.3: Verification of conformance criteria.**
        - **Aim: Validation of UMD according to TSA2.2 QC definitions.**
        - **Pre-release component testing.**
    - **TSA1.3: Service Deployment Validation.**
        - **Aim: new software releases will be deployed safely and reliably to the production grid infrastructure**
        - **This will be achieved through a managed staged roll-out of MW in Early Adopter sites**

SERVICE LIFECYCLE

| Document requirements	Design Service Solution	Develop Service Solution	Build Service Solution	Test Service Solution	Pilot Period	Live Operation
Strategy TSA2.1 EGI →						
	Design Software Provider →					
			Transition Software Provider & EGI MU →			
					Operation EGI OU →	
RFC released: - GGUS - Savannah	Approved for design	Approved for development	Approved for build	Approved for test	Approved for pilot	Approved for live release

- Software providers for EGI are in general external to the project:
  - **The UMD will be provided by the European Middleware Initiative (EMI):**
    - **gLite: result of development EDG, LCG and EGEE projects.**
    - **ARC: development supported by the Nordic countries.**
    - **Unicore: targeted to integrate HPC clusters.**
  - **Globus (possible through the Initiative for Globus in Europe: IGE)**
  - **EGI software providers: such as operational tools.**
  - **Community contributers.**

- EGI will sign Service Level Agreements with EMI.

- EGI should have a large influence in the UMD roadmap.

- Definition of the UMD Quality Criteria (QC):

  – **Tight collaboration between EGI and SW providers to formalize the tests and requirements for MW components.**

  – **Generic acceptance criteria:**

    - **Interoperability, availability on a specified minimal set of platforms, availability of SDK, security, documentation.**

  – **Specific criteria: depending on the component.**

    - **In the framework of the previous projects (EGEE and LCG) some criteria is already defined.**

  – **On going work: definition of unit, functional and high level tests for some of the gLite components. This will extend to all components.**

  – **New and stricter criteria may be introduced along time.**

- Verification of conformance criteria:

  - **The process depends on the type of release:**

    1. **Major release or new component: New functionality not necessarily backward compatible.**

    2. **Minor release: New functionality, backward compatible.**

    3. **Revision release: Bug fix, backward compatible.**

    4. **Emergency release: Urgent bug or security vulnerability fixes.**

  - **In all cases a report containing the results of the automated and non-automated tests defined in the task TSA2.2 should be provided.**

  - **New documentation for major releases or new components. Updated documentation for the Minor releases.**

- Service deployment validation → Staged-Rollout (SR) process:

  - **EGEE → EGI Grid infrastructure is a production service serving several scientific communities.**

  - **Stable, reliable, highly available: this sets the level of quality of deployed Grid middleware.**

  - **A given verified Grid MW component performed by TSA2.3, is considered as production quality.**

  - **The SR process is a step preformed by Early Adopter sites which are the first ones to deploy the new version of a component into the production infrastructure, and... produce a report.**
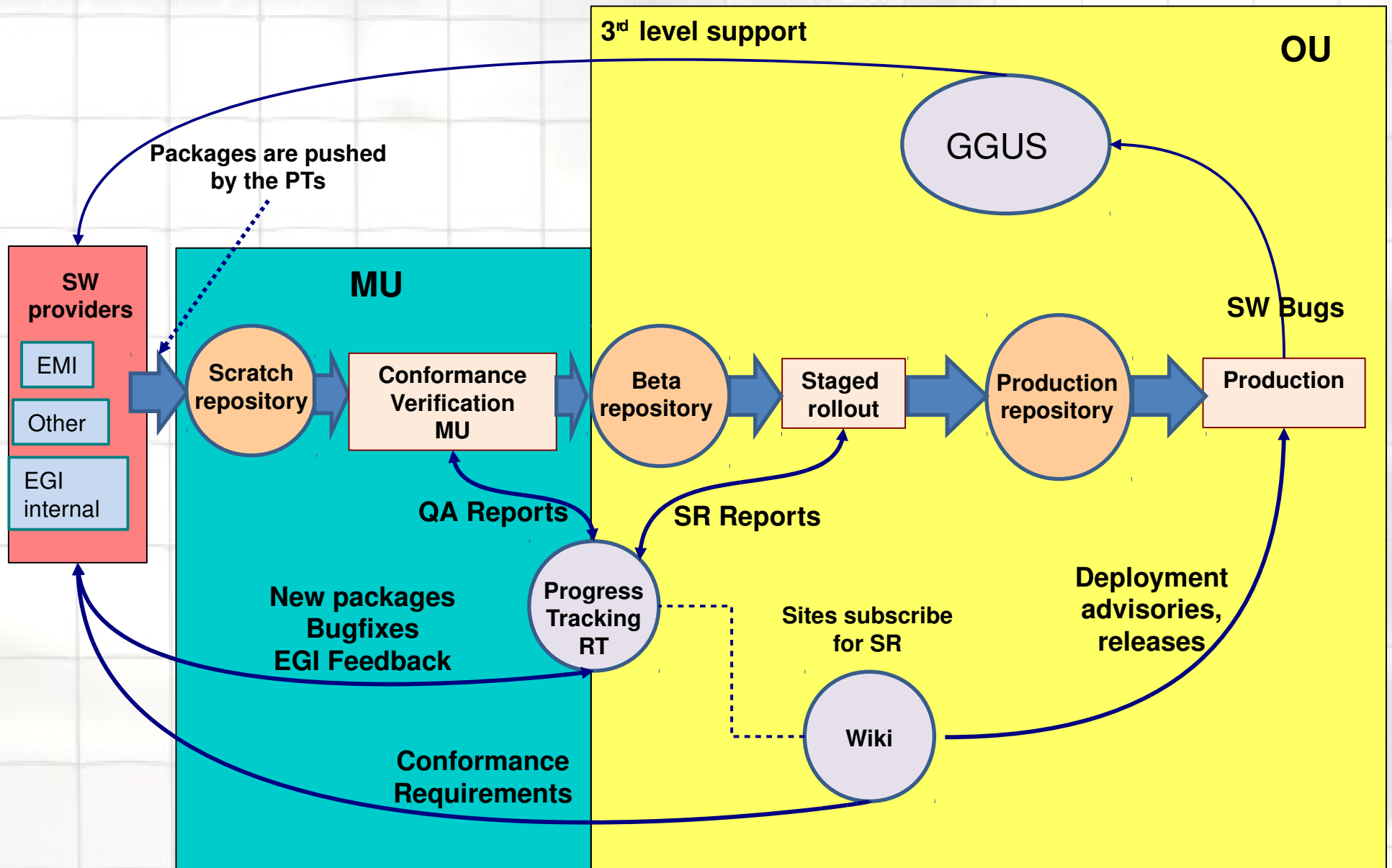
- EGI.eu domain:
  - **A wiki is in place and documentation is being produced:**
    - **Definition of the QC: generic and per component**
    - **Description of the staged rollout process: both the administrative and coordination level, as well as for Early Adopter sites.**
  - **Software repositories have been setup and partially populated.**
  - **Task tracking tool (RT system) has been setup and under test: checking functionality and adaptation to the requirements of the SR process.**

- Transition from EGEE to EGI and EMI is ongoing:
  - **Human resources, and tools used in these processes.**