Quality Control in SA1

Giuseppe Fiameni – CINECA
g.fiameni@cineca.it

Claudio Cacciari – CINECA
c.cacciari@cineca.it

Quality Assurance Vs Quality Control

- **Quality Assurance**: *The process of auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operational definitions are used.*

- **Quality Control**: *The process of monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.*

Quality Assurance Vs Quality Control

- **Quality Assurance**: *The process of auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operational definitions are used.*

- **Quality Control**: *The process of monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.*
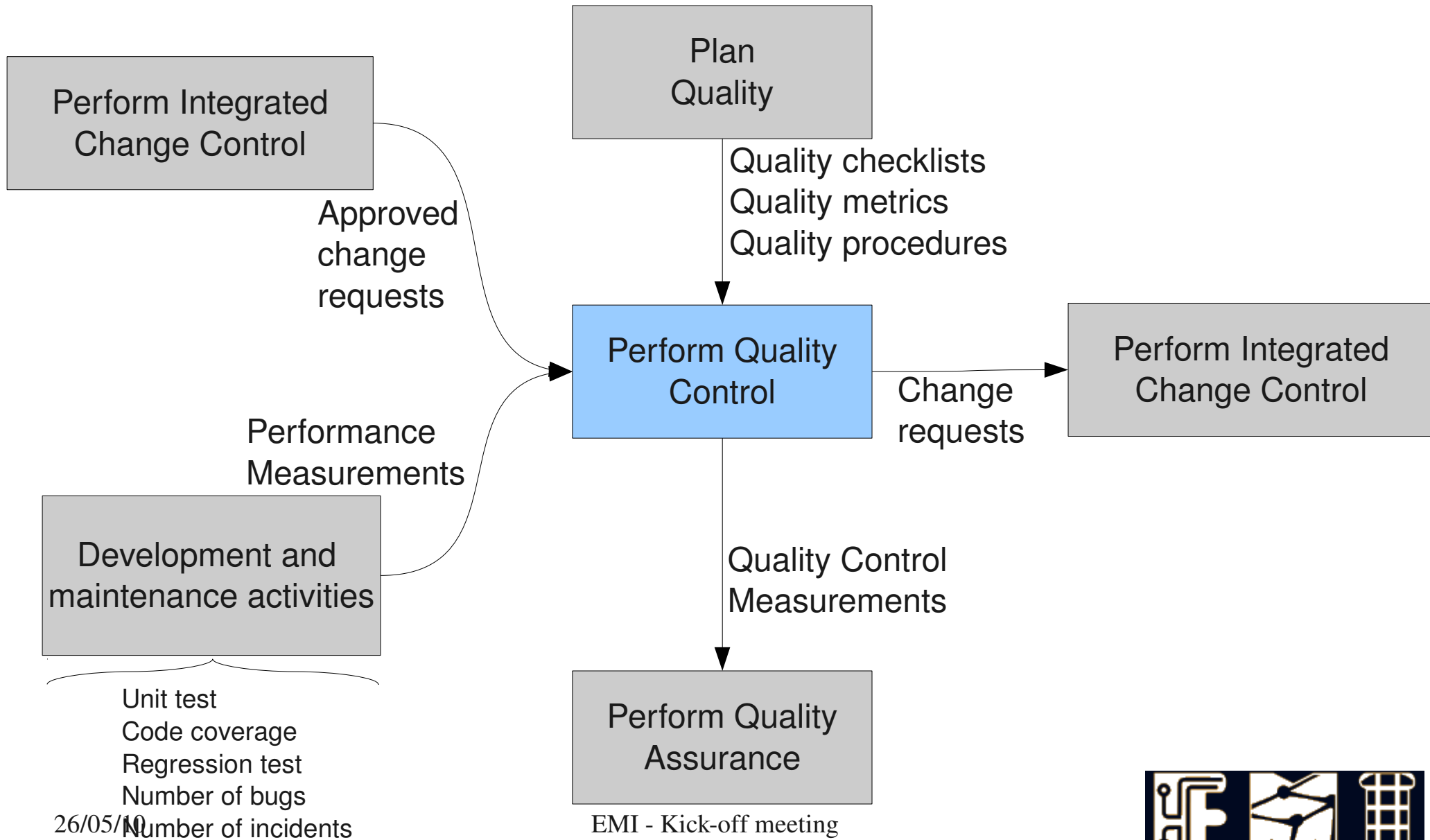
Quality Control in SA1 Goals

- Application of QA processes and procedures defined by SA2.

- Certificate and validate software components (SLA, standards, etc.)

- The Product Teams are responsible to perform the QC activities as part of their standard maintenance activities.

- Security assessments of selected EMI components (under the coordination of CSIC).
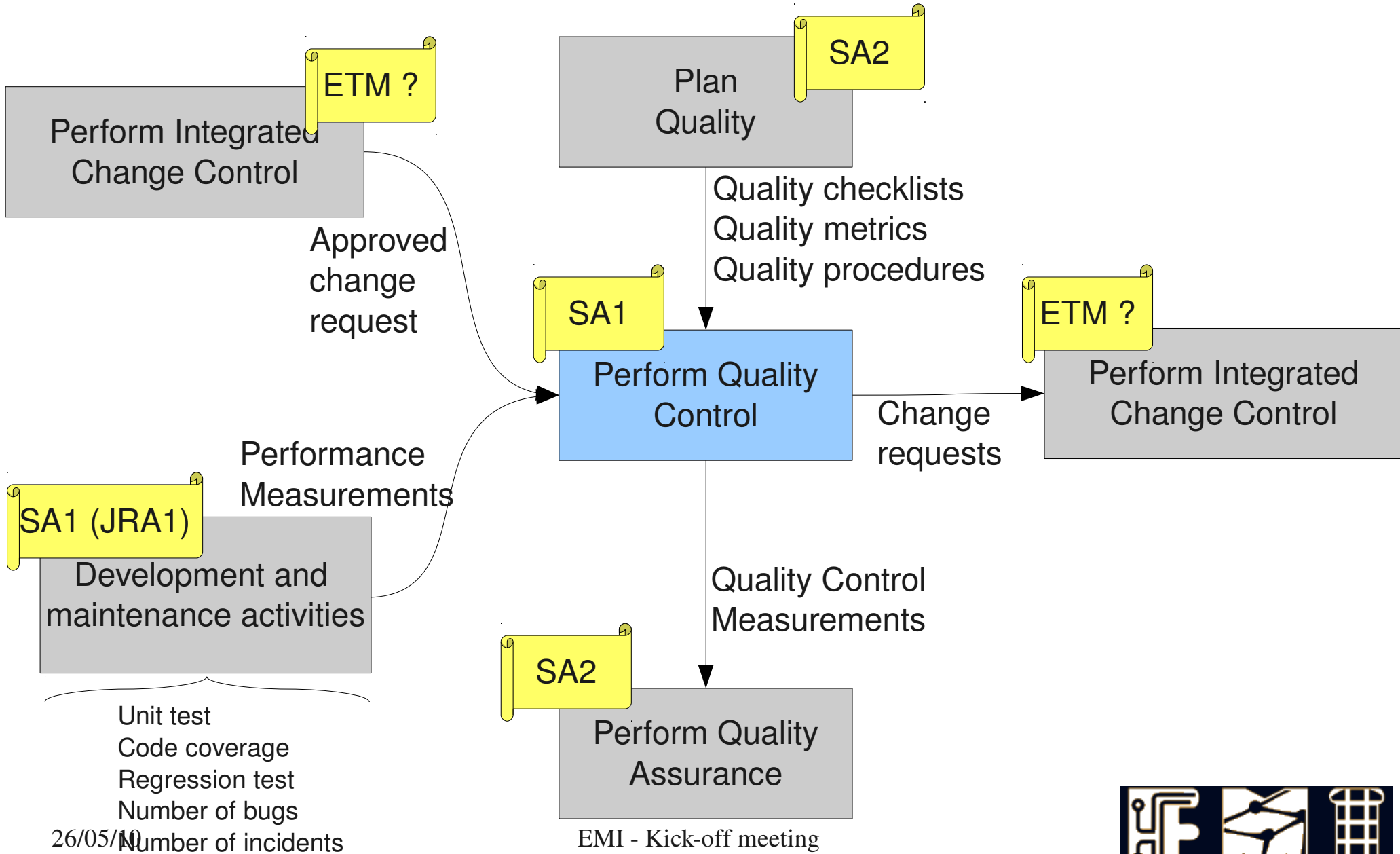
Effective Quality Control

- Monitoring and recording results of executing the quality activities (i.e. please give me the code coverage for your source code and a mechanism to validate it!)

- Assess performance comparing collected results with Quality Plan directives (metrics, procedures, etc.)

- Recommend necessary changes to Change Management Control Board (ETM ?)

- Identify measurement trends that might be hiding possible errors (rule of seven)

Information flow

Perform Integrated Change Control

Plan Quality

Perform Quality Control

Perform Integrated Change Control

Development and maintenance activities

Perform Quality Assurance

Approved change requests

Quality checklists
Quality metrics
Quality procedures

Change requests

Performance Measurements

Quality Control Measurements

Unit test
Code coverage
Regression test
Number of bugs
Number of incidents

26/05/10

European Middleware Initiative

Information flow

ETM ?

Perform Integrated
Change Control

SA2

Plan
Quality

Quality checklists
Quality metrics
Quality procedures

Approved
change
request

SA1

Perform Quality
Control

ETM ?

Perform Integrated
Change Control

Change
requests

Performance
Measurements

SA1 (JRA1)

Development and
maintenance activities

Unit test
Code coverage
Regression test
Number of bugs
Number of incidents

Quality Control
Measurements

SA2

Perform Quality
Assurance

26/05/10

EMI - Kick-off meeting

European Middleware Initiative

Quality Control in action 1/3

- Build up the team and establish the ground rules among members

- Study and review the Quality Plan as soon as it is available (PM1)

- Get familiar with procedures and processes described in Quality Plan

- Identify metrics and procedures that require a quality control in SA1 (SA2 provides input here)

- Collaborate with Quality Assurance (SA2) and Quality Control of JRA1

Quality Control in action 2/3

- Figure out how to collect measurements from potentially heterogeneous tools (the product teams are expected to provide information according to Quality Plan directives, not vice versa!)

- Analyze collected information and eventually suggest changes to CMB (Change Management Board)

- Prepare monthly report

Quality Control in action 3/3

- Propose an "incremental" approach for metrics definition (suggestion for SA2)

  - e.g. not all the existing components might be equipped with unit tests right now!

- Keep everything easy. The quality control must not be perceived as just an overwhelming activity; the benefits of applying quality control must be clearly demonstrated to developers.

- Blame developers who do not respect quality guidelines :)

- Q/A ?

EMI - Kick-off meeting