

# Effects of Software Industry Structure on a Research Framework for Empirical Software Engineering

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## ABSTRACT

A new research framework for applying empirical software engineering methods in industrial practice and accomplishments in using it. The selected target : a governmentally funded software development project involving multiple vendors.

Involved :

- In-process project data measurement in real time.
- Data sharing with industry and academia (I & A).
- data analysis, and feedback to the project members.

Show the value of this research framework and issues of empirical data sharing between I & A.

This experiment raised two major issues.

- The necessity of a new research framework for project measurement called the "Macro Measurement Tool".
- Effects of the software industry structure on this framework.

\*) EPM: Empirical Project monitor

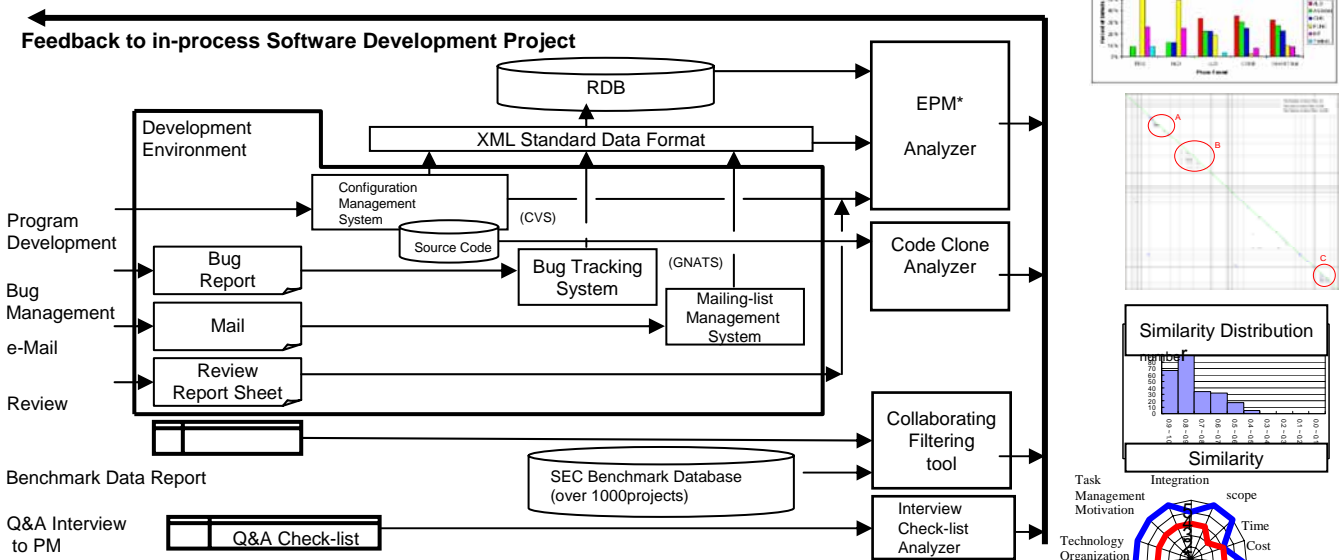


Fig.1 In-process Project Measurement and Feedback Structure

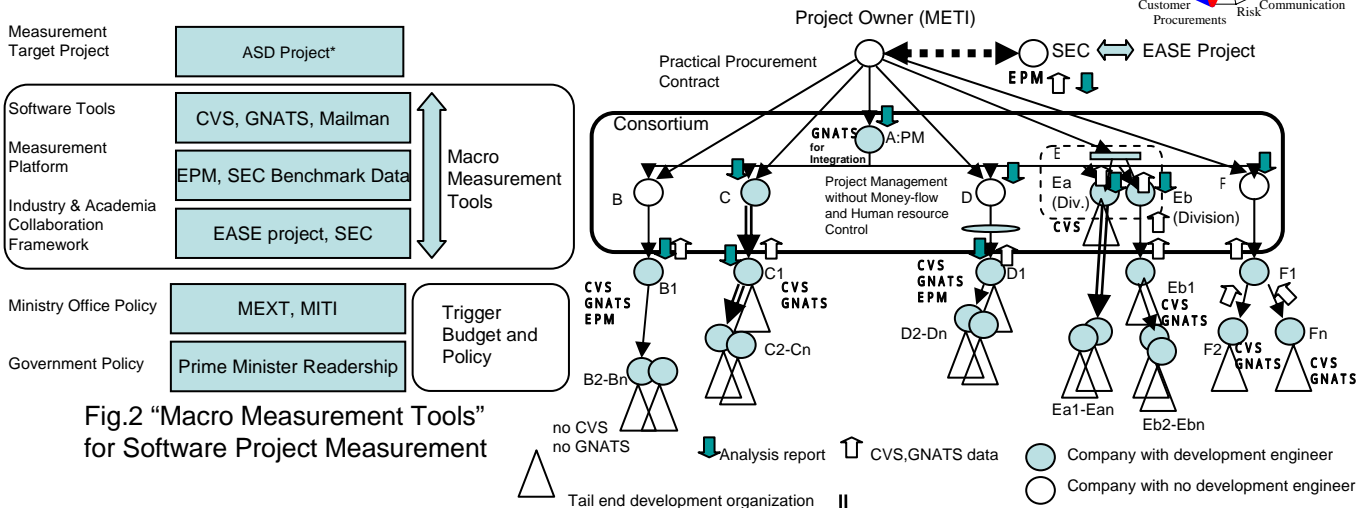


Fig.2 "Macro Measurement Tools" for Software Project Measurement

Fig.3 Development Organization (ex: ASD Project\*)

\*) ASD Project: Advanced Software Development Project