Aligning Organizations Through Measurements.
The Goal Question Metric + Strategies Approach.

Concepts.
Development of a Supporting Tool.
Advanced Development Technologies.

STRUCTURE (1/4)

There are three tracks planned:

TC, Conceptual track

TT, Technological track, and

TD, Development track.

STRUCTURE (2/4)

TC, Conceptual track

- Goal Question Metric + Strategies
  - TC GQM+S, P1: describes the approach in a nutshell focusing on the basic model that is created and the process of how to create and make use of this model.
  - TC GQM+S, P2..9: describe the recommended steps of all phases of the process in detail making use of a comprehensive application example.
    - The first stage deals with the development of a model for aligning goals and strategies through measurement. The key benefit of having such a model is the ability to reach a consensus of goals and strategies and communicates that consensus to the entire organization (Parts 3, 4, and 5).

STRUCTURE (3/4)

- The second stage involves the execution of the strategies and measurements defined by the grid, allowing us to check the attainment of the goals, effectiveness of strategies, etc (Chapters 6 and 7).
- The third stage involves learning from what has been done by analyzing the results and improving the process for generating further goals and strategies (Chapters 8 and 9).

- Experimental Software Engineering (Spare): describes the concept related to (evidence-based) science development in the domain of software engineering, and a related process model, its phases, and recommended steps.

STRUCTURE (4/4)

TT, Technological track

- The question to answer here is what technology we could use for the entire project and for each phase; we make a choice and explain the why

TD, Development track.

- We put all together, develop and integrate the GQM+S® support tool

SUPPORTING TOOLS

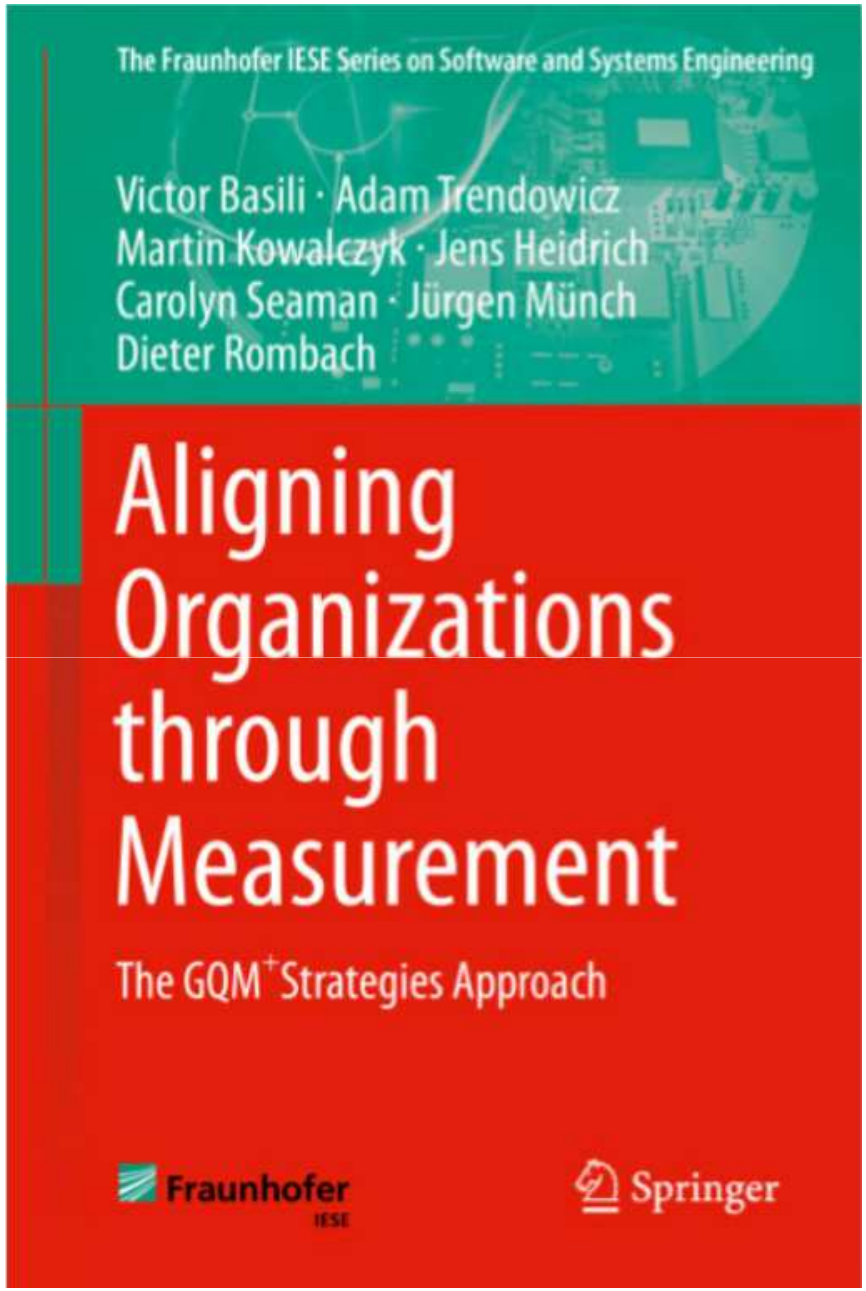
- Books on:
  - GQM+Strategies®
  - Experimental Software Engineering
- Related slides
- Open source software development and documentation tools

The book on

Aligning Organizations Through Measurements. The Goal Question Metric + Strategies Approach

Book authored by Victor Basili, Adam Trendowicz, Martin Kowalczik, Jens Heidrich, Carolyn Seaman, Jurghen Munch,and Dieter Rombach.

Fraunhofer IESE Series on Software and Systems Engineering



The book on

Experimentation in Software Engineering: An Introduction.

Book authored by Claes Wohlin, Per Runeson, Martin Höst, Björn Regnell, Anders Wesslén

Springer

INSTRUCTORS

TEACHERS

- Giovanni Cantone, Full Professor
- Manuel Mastrofini, Adjunct Professor
- Others: TBD

VOLUNTARY STUDENT ASSISTANTS

- An experiment with 4..6 Master students, formerly in this course, will be conducted. They will be voluntary giving help. We are still defining the list of these voluntary assistants. They will help the work groups, specially the Agile/Scrum groups.

QUESTIONNAIRE

- What I expect to get from this course?
- How should I obtain it?
  - What I hope they will tell me I should do in order to obtain that?
  - What I would like to do in order to obtain that?
- Collect answers, characterize them an synthesize results.

PREREQUISITES

- Software engineering, Analysis and Design, Web Application Design, Concurrent Programming, OO Programming.
- Requirements Engineering, and a related tool (e.g., Requisite Pro)
- Software Analysis and Design, and a related tool (e.g., Rational Software Architect, RSA)

YOUR DATA, BACKGROUND, AND PREFERENCES

- Collection of the attendees' Given Name, Family Name, Background (e.g., ISPW 9 CFU | POO 5CFU && SwE 5 CFU | Others to specify), and Preferred project meeting period (e.g., 1 week, 4 weeks) and software process (Agile/Scrum | RUP).
- Attending the course is indicated as mandatory. Workers, who are expected not to attend every lesson of the course, are invited to register for the RUP-based projects or to try to obtain a special assignment.

COURSE LIST

- Register to isssr@lists.uniroma2.it if you want to receive info by e-mail from the teachers.
- How should I obtain it?
  - What I hope they will tell me I should do in order to obtain that?
  - What I would like to do in order to obtain that?
- Collect answers, characterize them an synthesize results.

COURSE OFFICIAL REGISTRATION

- In order to access to exams of the academic year 2014-15, an official registration to the ISSSR course, 2014-15 issue, is requested through http://delphi.uniroma2.it/totem/jsp/homeStudenti.jsp.
- The registration deadline is December 31th, 2014.