FISMA NEWSLETTER
IT MANAGEMENT

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IT Management Manifesto and TOP 10 Metrics

FiSMA promotes better IT management. Key goals and ideas are now drafted as an IT Management Manifesto to improve application of standards and best practices. In addition, FiSMA has published a list of ten metrics that it considers to be the most useful to help its software intensive member organizations to select applicable metrics for their business.

NEW EXECUTIVE DIRECTOR FOR FISMA

Mitro Kivinen started to steer FiSMA

Mitro Kivinen, MBA, MSc Econ. has assumed the role of the executive director of FiSMA. He follows Erkki Savioja, who now moves on to become a senior advisor. Mitro has over 25 years of experience in managing and leading IT and software system development. He is a project and agile coach and certified SAFe RTE.

"My mission is to raise awareness of the benefits of measurement in the field of software and system development. Proper management requires numbers. However, there doesn't seem to be any requirement for numbers in the agile development. Not at least in such a way that we are used to."

"In practice, today, SW teams are using Scrum for a large degree and thus the collection of actuals is often omitted. The indicator for achievement is demo and after evaluation, the story-points are not followed once they have been estimated."

"This leads into issues such as lack of trustworthiness of the estimations or slipping delivery times. The teams don't always know their actual velocities and often they are cluttered with non-visible work. This leads into a situation where the teams' assumptions of their velocities do not meet the actual throughput."

"Measuring leads to manageability. Good management practices enable leadership. When leading, one must know where we stand and where to go. Measurement can give a reliable snapshot of the current situation."

"One good way to gain visibility over the work to be estimated is to obtain standards into use. The standards can give understanding on the needed work in SW and systems development. There are so much more than just programming and testing that needs to be done before a software system can produce actual business benefits."

Mitro Kivinen, FiSMA Executive Director

IT MANAGEMENT MANIFESTO

Seven values of FiSMA IT Management Manifesto

The Finnish Software Measurement Association keeps working for better management. To make its goals and ideas easier to understand, FiSMA has drafted an IT Management Manifesto, a simple collection of values and principles that could improve application of standards and best practices among the customer and supplier organizations related to IT systems and software, and their development. The following seven values are not in any particular order.

TRANSPARENCY

We value tools and methods based on international and publicly available standards over products based on secret concepts of supplier corporations.

PERFORMANCE MANAGEMENT

In software development projects we value measured high number of deliverables with required quality and low unit cost over orthodoxy in management style.

RIGHT PROGRESS METRICS

When controlling software development progress, we value good delivery speed and high productivity measured in real-time over accuracy of effort estimates.

BUSINESS AND USER ORIENTATION

In system and software development, we value product owner's priorities over selections made by developer team alone.

CONTINUOUS HIGH QUALITY

In iterative software development, we value fixing the detected bugs (the technical debt) as soon as possible over maximizing the number of new deliverables.

LEARNING FROM EXPERIENCE

We value estimates based on experience data and benchmarking over estimates based on expert opinions and auction procedures only.

LIFE-CYCLE THINKING

In system and software development, we value applicability of the provided product documents to introduce the system, to test it, to train the users, and to support enhancement and system management over detail of the specifications aimed to make programming easy.

Pekka Forselius, FiSMA Senior Advisor

TOP 10 SOFTWARE METRICS

FiSMA has published a list of ten metrics that it considers to be the most useful to help its software intensive member organizations to select applicable metrics for their business. The ten metrics introduced here represent four different viewpoints to software: A) product, B) process, C) project and D) business. For all metrics we specify below the main content, and what the measure explains.

A. Software product

B. Software process

C. Software project

D. Software business
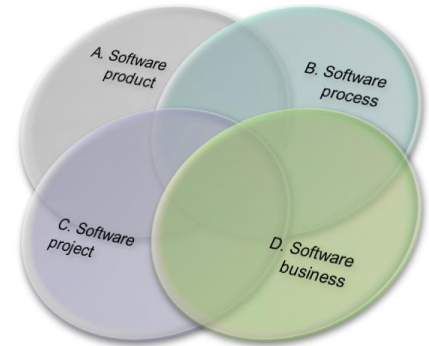
A) TWO SOFTWARE PRODUCT METRICS

A.1 Improvement of efficiency of end-user's work

Main content: A rate of user tasks, which are supported by the software compared to all other user tasks. A recommended method is a case study.

What the measure explains: How well and comprehensively the software fulfils user needs.

A.2 End-user satisfaction

Main content: User experience. Could be divided to sub-measures. A recommended method is Net Promoter.

What the measure explains: How successfully the software serves the end-user e.g. usability and accessibility.

B) THREE SOFTWARE PROCESS METRICS

B.1 Capability of the software process

Main content: An operational level derived from a summary of selected processes. Well-known and widely suggested methods are CMMI and SPICE.

What the measure explains: Process wise maturity of the supplier organisation to deliver products or services.

B.2 Agility of the software process

Main content: A level of agility adaption with the whole software organisation. A recommended method is a survey or an employee inquiry.

What the measure explains: Ability to react to external changes or requests.

B.3 Improvability of the software process

Main content: A rate of planned and decided improvement efforts which get completed accordingly. A recommended method is audit.

What the measure explains: Capability to execute while there is need to change and develop activities.

C) TWO SOFTWARE PROJECT METRICS

C.1 Functional size of the software

Main content: A size of the software to be developed, acquired, maintained or which is the subject to other activity. A recommended method is FiSMA 1.1 or any other ISO/IEC-standard FSM method (e.g. function points, FP).

What the measure explains: Functional size enables comparisons of quality, efficiency and price data of systems of different sizes. Also, a value of the software's functionality for the end-user.

C.2 Workload of the software project

Main content: The complete workload of a defined development team in assigned activities during the life cycle of the system. A recommended unit of workload is an hour.

What the measure explains: Important source data for schedules, pricing and comparison of productivity.

D) THREE SOFTWARE BUSINESS METRICS

D.1 Delivery speed of software

Main content: Functional size of the software delivered in the project divided by development time (FP/months).

What the measure explains: Delivery speed achieved in the project related to comparable ones; indicates competitiveness of both acquiring and supplying organisations.

D.2 Cost efficiency of the software purchase

Main content: Total cost of the acquired software divided by a functional size, €/FP

What the measure explains: The cost efficiency of a project compared to similar ones; indicates competitiveness of both acquiring and supplying organisations.

D.3 Efficiency of the development portfolio

Main content: Revenues of a development portfolio compared to investments. A recommended method RoI or benefit/cost ratio.

What the measure explains: A competence to allocate and address IT efforts in accordance with business goals and value creation.

Further information on the metrics: https://www.fisma.fi/in-english/introduction/

Pekka Forselius, FiSMA Senior Advisor