Workshop Proposal: PIFs for Projects ("PifPro'15")

This Workshop Proposal is a continuation of the successful workshop in Assisi (Oct 2012) and Rotterdam (Oct 2014).

MEASURING PERFORMANCE IMPACT FACTORS FOR ICT PROJECTS

ICT Projects have a bad reputation: they often exceed budget or change scope. It holds especially when writing new software is involved; however, writing mobile apps, joint & distributed software development across organizations, integration of new services, sizing maintenance or ICT portfolio projects is also affected. Project management is needed but without proper estimation methods and tools it is limited to managing the budget overrun. For the economy, this is a serious blocker, since ICT is the major engine for economic growth. Work breakdown structure fails because it is part of the project to find out what work is needed; expert estimation fails because experts cannot remember previous decisions and their estimates suffer from important variations. Without proper budgeting, ICT projects carry enormous risks for the financial stability for the sponsors of an ICT project.

There have been other approaches to estimation, especially based on benchmarking within or across organizations and industries. The question arises which parameters to select for comparing different projects. Functional size is a very popular and success approach when developing new software, and definitely a major cost driver. However, quality, complexity, security requirements and other non-functional, but highly influential, parameters drive cost probably much more than functionality. Team size, distributed development, personal skills, stakeholder's interests, and other factors influencing people, process, product, or technology, must be taken into account for estimating. How to deal with them? What about the way to deal with NFR (Non-Functional Requirements)? As an 'adjustment' or as a separate component of a project matching FURs and NFRs? Recently, the 'agile' way proposed different ways to manage such variations, reflected also in new attributes provided in the ISBSG R13 data repository for Development &Enhancement (D&E) projects. Does it distribute differently functional vs non-functional effort in a Sprint (iteration) or not? If yes, how? Again, the DevOps paradigm seems to be more and more appealing to the ICT community: can it have an impact on estimates? How and why?

In 2010, the GUFPI-ISMA working group on Software Benchmarking Standards identified 27 parameters affecting performance of ICT projects from various sources, including ISBSG, IFPUG and COCOMO. They have the potential to improve comparability of ICT projects for benchmarks across organizations and industries; however, so far they were not adopted on an international level. Last year in Rotterdam, several experiences were discussed crossing different approaches, with a plenty of interesting discussions.

This workshop aims to establish and consolidate more and more across the years a community of researchers and practitioners who are willing to share their experiences and insights for

1) Using *Performance Impact Factors* (PIFs) for project estimation in ICT;
2) Refining definition for PIFs;
3) Understanding how to measure these factors can eventually be measured;
4) Setting up a framework for benchmarking based on PIFs.

The workshop is planned for half-day or full day duration, depending upon the number of accepted workshop papers and the number attendees.

CALL FOR PAPERS

The organizing committee is looking for short (15'), and full (30') contributions to the following topics:

- Estimation Models for ICT projects
- Estimation Frameworks
- Definition of PIFs
- Measurement of PIFs
- Influencing PIFs
- Benchmarking approaches
- Transition from estimates to actuals
- Measuring actuals
- Comparing estimate with actuals
- Identifying cost controls
- Transferring cost controls into actual effort
- Impact of new development trends on estimates
- Agile project management (APM) styles

DEADLINES

Please submit your paper or short presentation proposal (.ppt editable format) by August 16, 2015, to thomas.fehlmann@swissict.ch. Notification for acceptance is being expected by September 20, 2015.

ORGANIZING COMMITTEE

Mauricio Aguiar (IFPUG), Luigi Buglione (GUFPI-ISMA), Ton Dekkers (NESMA), Thomas Fehlmann (swissICT), , Harold van Heeringen (ISBSG), Eberhard Kranich (DASMA), Luca Santillo (COSMIC / GUFPI-ISMA)

CALL FOR PARTICIPATION

Participants will have an opportunity to discuss with experts the current state of the art in software and measurement methods in projects. The workshop will investigate whether an international standardization of PIFs is useful; if yes, feasible and, if yes, discuss ways how to achieve it.

Profiles

Mauricio Aguiar

Mauricio Aguiar has worked in the IT industry for over 30 years, initially as developer, then Development Manager, followed by Database Support Manager, Project Manager, and Measurement Specialist.

He was first certified as a Function Point Specialist (CFPS) in the United States in 2000 and then in Brazil in 2003. He obtained the Qualified PSM Instructor designation in 2002. PSM stands for "Practical Software and Systems Measurement" and is sponsored by the US Army.

Currently, Mauricio manages his own company – TI Metricas – and specializes in the study, application, and development of estimation models. TI Metricas has offices in Sao Paulo and Rio de Janeiro, Brazil.

Luigi Buglione

Luigi Buglione is a Measurement & Process Improvement Specialist at Engineering Ingegneria Informatica SpA (formerly Atos Origin Italy and SchlumbergerSema) in Rome, Italy and Associate Professor at the École de Technologie Supérieure (ETS) – Université du Québec, Canada. Previously, he worked as a Software Process Engineer at the European Software Institute (ESI) in Bilbao, Spain. Dr. Buglione is a regular speaker at international Conferences on Software/Service Measurement, Process Improvement and Quality, and is actively part of several International (ISO WG10-25-40, IFPUG, COSMIC, ISBSG, MAIN) and National (GUFPI-ISMA, AutomotiveSPIN Italy, AICQ, itSMF Italy) technical associations on such issues. He developed and was part of ESPRIT and of Basque Government projects on metric programs, EFQM models, the Balanced IT Scorecard and QFD for software and is a reviewer of the SWEBOK project (2004 and 2010 editions). He received a Ph.D in Management Information Systems from LUISS Guido Carli University (Rome, Italy) and a degree cum laude in Economics from the University of Rome "La Sapienza", Italy. Further information on SPIMQ (www.eng-it.it/spimq) and SEMQ websites (www.semq.eu). He can be reached at luigi.buglione@eng.it or luigi.buglione@computer.org.

Ton Dekkers

Ton Dekkers is a recognized expert in the field of Software Cost Engineering: Sizing, Estimating, Benchmarking, Validation & Verification and Analysis, with a strong background in Software Development and IT estimation and control.

In addition, Ton is Past President of International Software Benchmarking Standards Group (ISBSG), President of the Netherlands Software Measurement Association (NESMA), member of the International Advisory Committee of COSMIC and a member of the Parametric Estimation SIG of the Dutch Association of Cost Engineers.

His knowledge, experience and enthusiasm have made him well known in the software measurement community and he is a regular speaker at National and International Conferences.

Thomas Fehlmann

Thomas Fehlmann is a senior expert in software metrics and project cost estimation, a Lean Six Sigma Black Belt for agile software development and promoter of customer-oriented software product design. He runs the Euro Project Office since 1999, is internationally recognized as Quality Function Deployment (QFD) expert since 2001, and serves as software metrics expert of swissICT since 2003. Since 2004, he is Swiss delegate in the International Software Benchmarking Standard Group (ISBSG) and became vice-president in 2013.

Thomas Fehlmann published on Six Sigma for Software, QFD, Software metrics and measurements, and Transfer Functions together with Eberhard Kranich

Harold van Heeringen

Drs. Harold van Heeringen CFPA, works for Sogeti Nederland as a senior metrics consultant. He is president of the International Software Benchmarking Standards Group (ISBSG). Harold is graduated from the university of Groningen in business economics in 1997 and he has worked in the information technology ever since.

Harold is an expert in the functional sizing methods FPA and COSMIC and he is a certified practitioner in both methods. Furthermore he is an expert on different software estimation models and benchmarking practices. In his role as metrics consultant, he advises clients on how to implement Estimating & Performance Measurement processes into their organizations and he trains people in functional size measurement, project estimation and benchmarking. Next to his consulting work, he is also heavily involved in the SOGETI estimation process for fixed-price / fixed date projects. Harold is an advanced expert in using estimation tools like QSM SLIM, SEER-SEM and the ISBSG tooling.

Eberhard Kranich

Eberhard Kranich studied Mathematics and Computer Science with a focus on Mathematical Programming/Optimization, Mathematical Statistics and Complexity of Algorithms, and has more than 30 years of industrial experience in oil, food, and automotive industry, and in telecommunications. Until 2013, he worked as a Six Sigma Black Belt at T-Systems, a Deutsche Telekom AG company, with an emphasis on software process improvements in the context of (early) effort estimation, defect containment, inspections, and on software quality assurance in general. Together with Thomas Fehlmann he published papers on Design for Six Sigma transfer functions applied to Lean Six Sigma, the Quality Function Deployment methodology and Taguchi methods.

Luca Santillo

Luca Santillo is a software measurement certified expert since 1996. He a member of the GUFPI-ISMA (Italian Software Metrics Association) Board of Directors and COSMIC (Common Software Measurement International Consortium) Past President. He was also the ISBSG (International Software Benchmarking Standards Group) honorary treaasurer. He regularly publishes papers regarding FSM (Functional Size Measurement), experience and applications, and related topics such as software estimation.