

AGILE – Per chi vuole saperne di più

Agile & Requirement Management: Quanto è grande un requisito?

Parte 1: Classificare & Gestire i Requisiti



Luigi Buglione, IFPUG CFPS/CSP/CSMS, COSMIC

email: luigi.buglione@eng.it, luigi.buglione@gufpi.org

mobile: +39 335 1214813

LinkedIn public profile: <http://it.linkedin.com/pub/luigi-buglione/1/623/480/>

LinkedIn GUFPI-ISMA: <http://www.linkedin.com/groups?gid=5185976>

Profile Summary

- Presidente **GUFPI-ISMA** (www.gufpi-isma.org)
- Direttore IFPUG Conf & Edu Committee (CEC)
- Coordinator ISBSG Technical Committee
- MAIN Board
- ...
- <http://www.semq.eu/leng/bioskita.htm>



CALENDARIO

14 GENNAIO 2014 13.00-14.00	1° Webinar "Agile Project Management" Contraria sunt complementa
11 FEBBRAIO 2014 13.00-14.00	2° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (1a parte)
11 MARZO 2014 13.00-14.00	3° Webinar "Agile Project Management" Agile è il futuro? Quando applicare una metodologia innovativa
8 APRILE 2014 13.00-14.00	4° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (2a parte)
13 MAGGIO 2014 13.00-14.00	5° Webinar "Agile Project Management" Il Tempo è denaro: Benefici economici dell'Agile
10 GIUGNO 2014 13.00-14.00	6° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (3a Parte)
8 LUGLIO 2014 13.00-14.00	7° Webinar "Agile Project Management" La metodologia Scrum

- **1 PDU (registration on <http://pmi-rome.org>)**
- **Linkedin group: PMI Rome Italy Chapter**

9 SETTEMBRE 2014 13.00-14.00	8° Webinar "Agile Project Management" Agile & Metriche del Software
14 OTTOBRE 2014 13.00-14.00	9° Webinar "Agile Project Management" Come cambia l'organizza-zione e l'azienda
11 NOVEMBRE 2014 13.00-14.00	10° Webinar "Agile Project Management" Il cambio del paradigma. Come cambiare il contesto intorno a noi
9 DICEMBRE 2014 13.00-14.00	11° Webinar "Agile Project Management" Un caso di successo. Intervista a chi l'agile l'ha usato



- Quanto è grande un requisito?
- Quanti e quali sono i requisiti da valutare?
- Come elicitarne al meglio un requisito implicito?
- Quali tecniche per poter rendere 'oggettive' tali valutazioni?



- Introduzione
- Scope Management
- Requirement Management
- Question time
- Recap & Lesson learned



- **Q: quanto è grande il tuo progetto?**



- **Q: è importante (o necessario) per te avere questa informazione? Se sì, a cosa ti serve?**

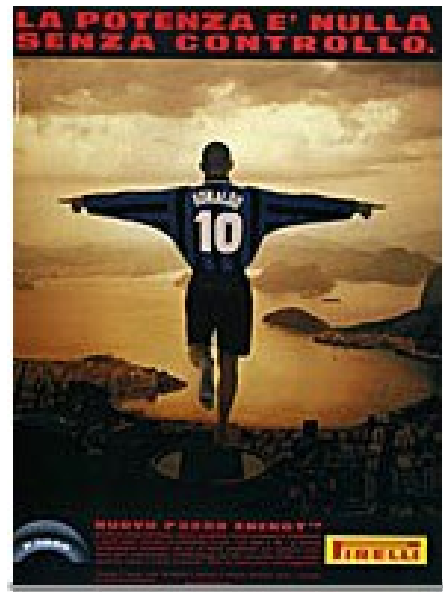
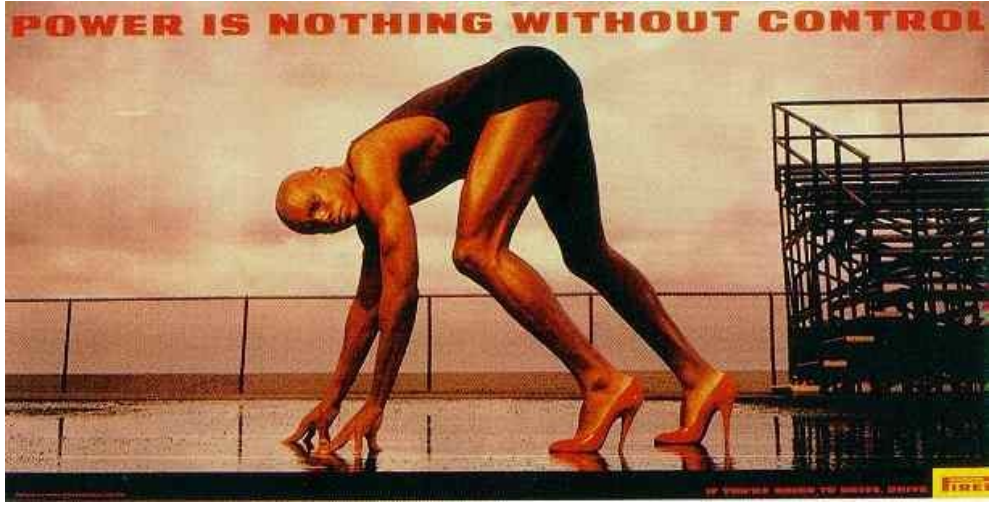
- **Q: che livello di produttività esprime attualmente il tuo progetto?**

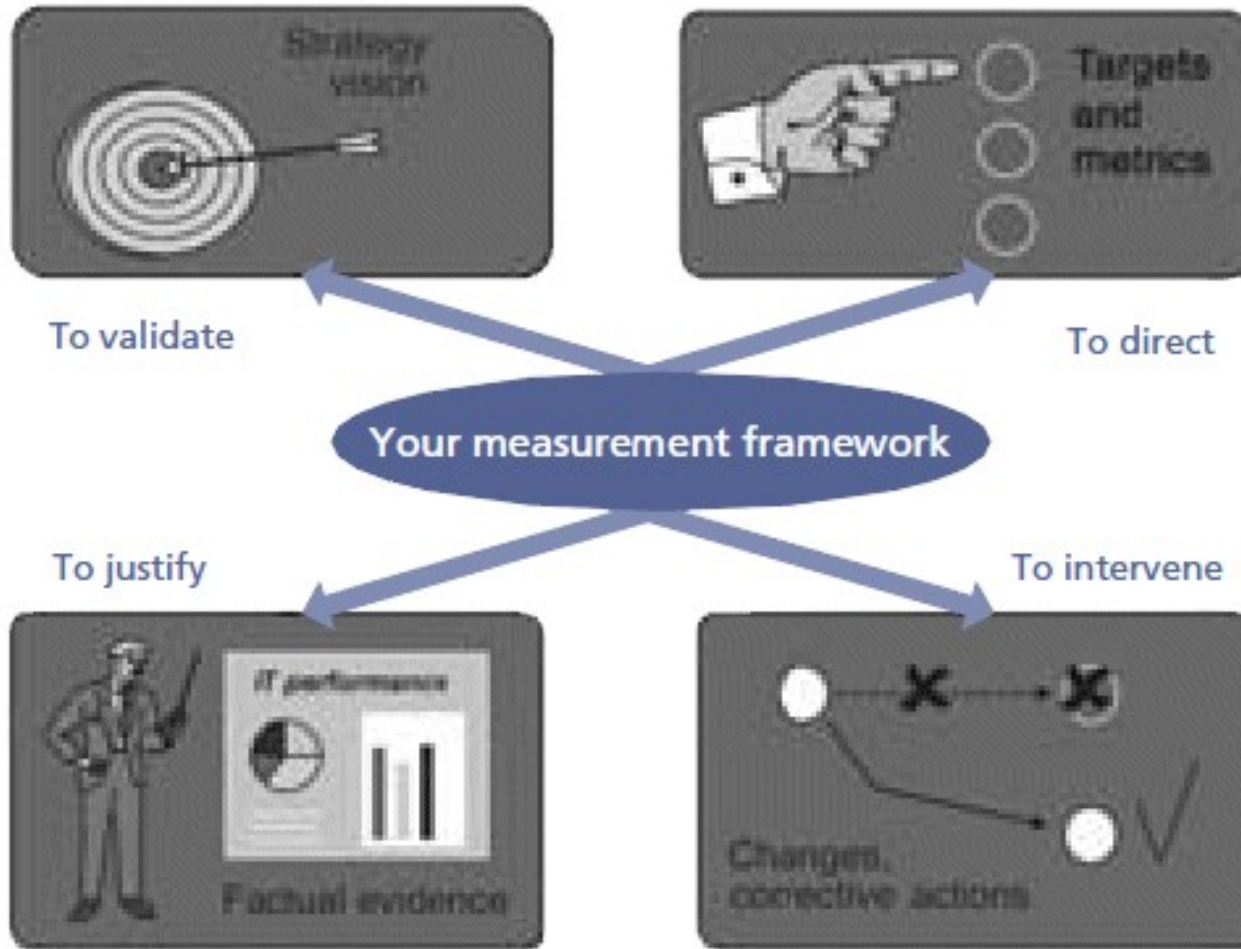


- **Q: come poter misurare un progetto? Quante unità di misura ti servirebbero? Quante concretamente ne usi per gestire un progetto?**



“You cannot control what you cannot measure” (Tom Demarco)

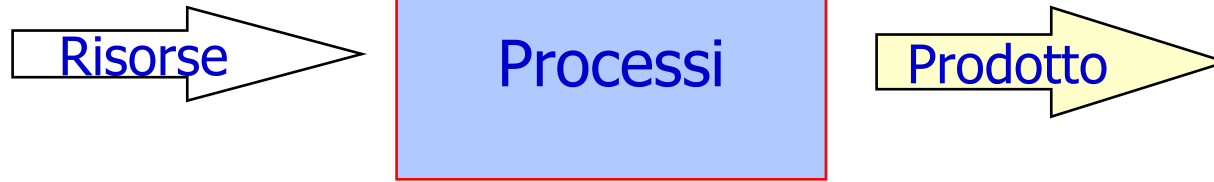




Copyright © AXELOS 2013 (ITIL v3 Refresh 2011 – CSI book)

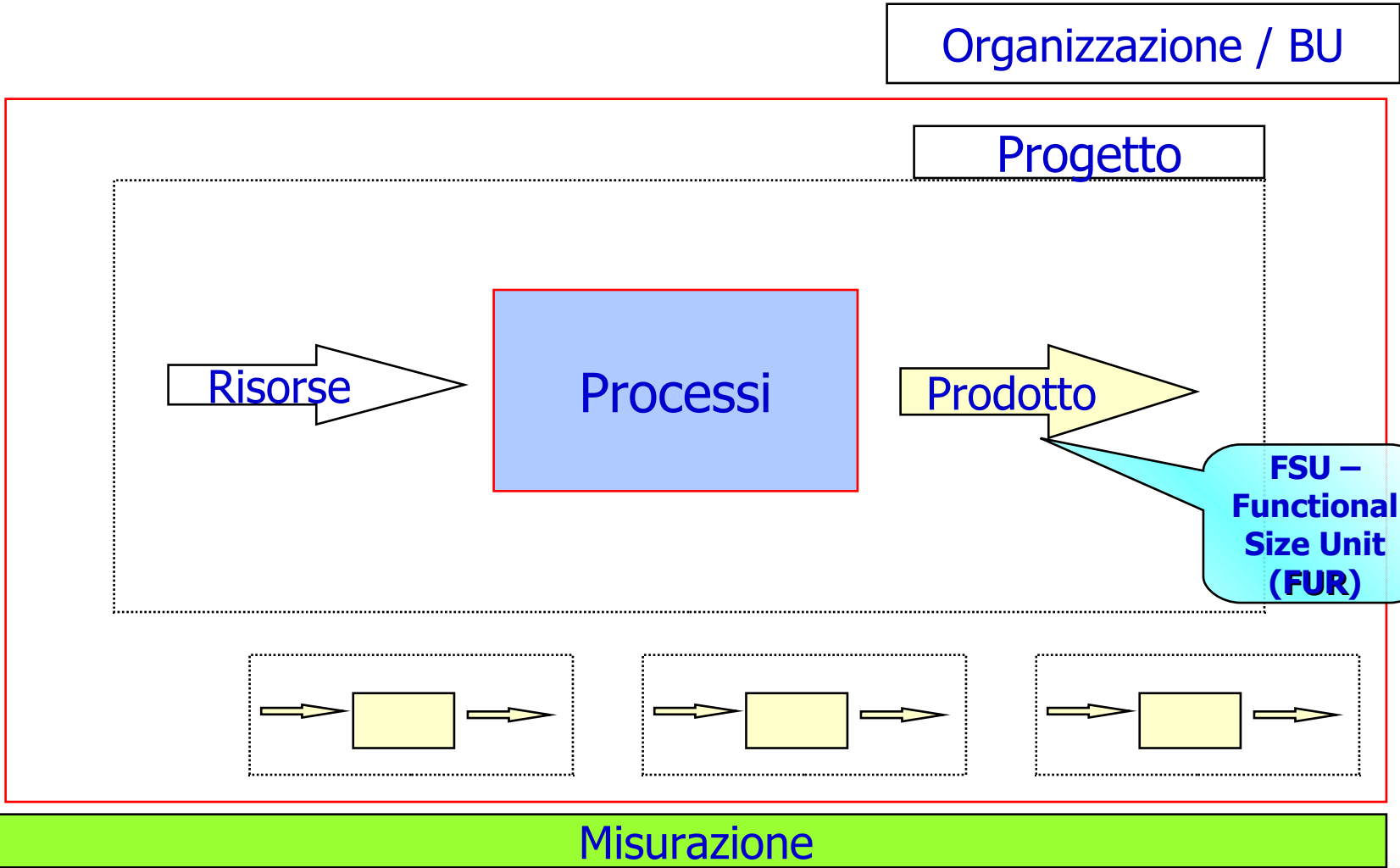






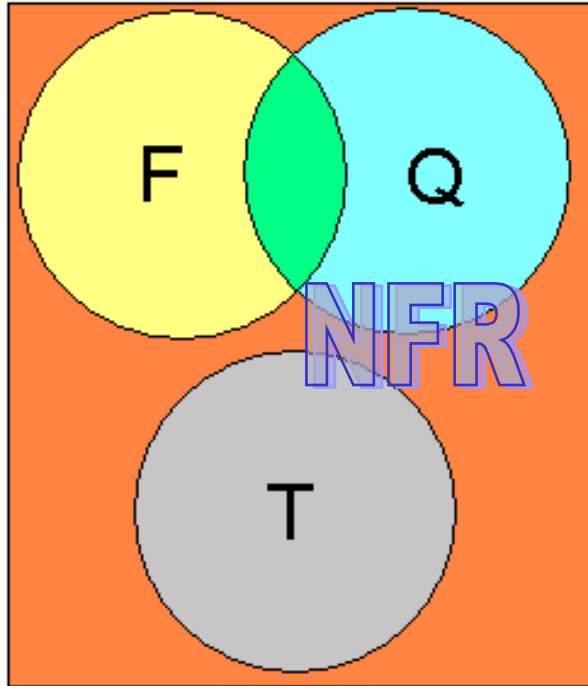
Misurazione





Fonte: L. Buglione & A. Abran, ICEBERG: a different look at Software Project Management, IWSSM2002 in "Software Measurement and Estimation", Proceedings of the 12th International Workshop on Software Measurement (IWSSM2002), October 7-9, 2002, Magdeburg (Germany), Shaker Verlag, ISBN 3-8322-0745-1, pp. 153-167.





- **Requisiti Funzionali** (Functional User Requirements – **FUR**): “a sub-set of the user requirements. The Functional User Requirements represent the user practices and procedures that the software must perform to fulfil the users’ needs. They exclude Quality Requirements and any Technical Requirements”

- **Requisiti di Qualità** (Quality Requirements): “any requirements relating to software quality as defined in ISO 9126:1991”

- **Requisiti Tecnici** (Technical Requirements): “requirements relating to the technology and environment, for the development, maintenance, support and execution of the software”

- **Requisiti Non-Funzionali** (Non-functional Requirements): “A software requirement that describes not what the software will do but how the software will do it. Syn: design constraints, non-functional requirement. See also: functional requirement. - EXAMPLE software performance requirements, software external interface requirements, software design constraints, and software quality attributes. Note: Non-functional requirements are sometimes difficult to test, so they are usually evaluated subjectively”

• **Fonti:**

- ✓ ISO/IEC14143-1:2007, *Information Technology-Software Measurement-Functional Size Measurement-Part 1: Definitions of Concepts*: International Organization for Standardization, 2007
- ✓ IFPUG, *Framework for Functional Sizing*, Version 1.0, September 2003), International Function Point User Group, Westerville, Ohio, January 2004, URL: <http://www.ifpug.org>
- ✓ **SEVOCAB**: www.computer.org/sevocab





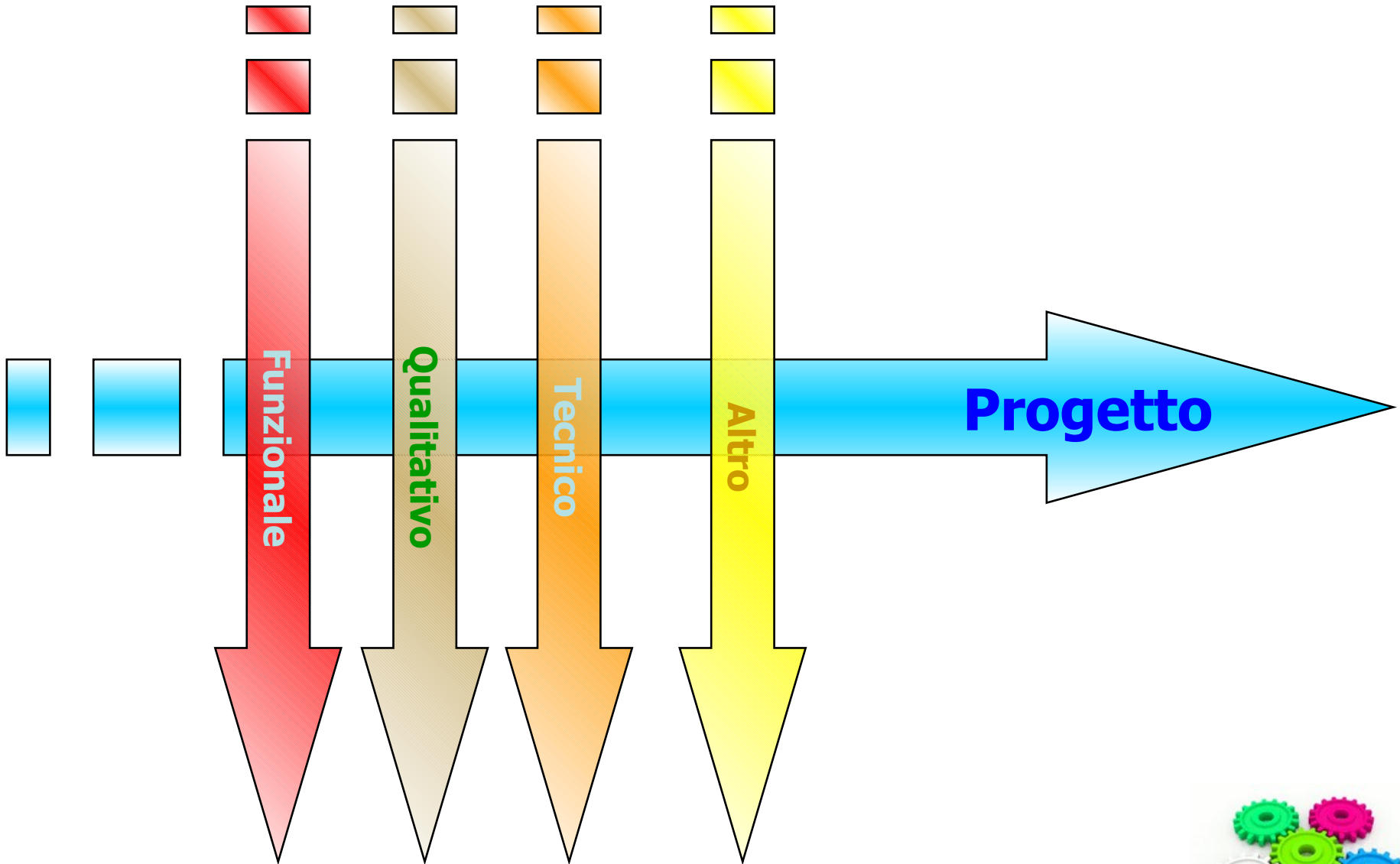
E – Entity	persona	Persona	Persona
A – Attribute	altezza	peso	intelligenza
M - Measure	Cm / m / ...	Kg / lbs / ...	QI / ...

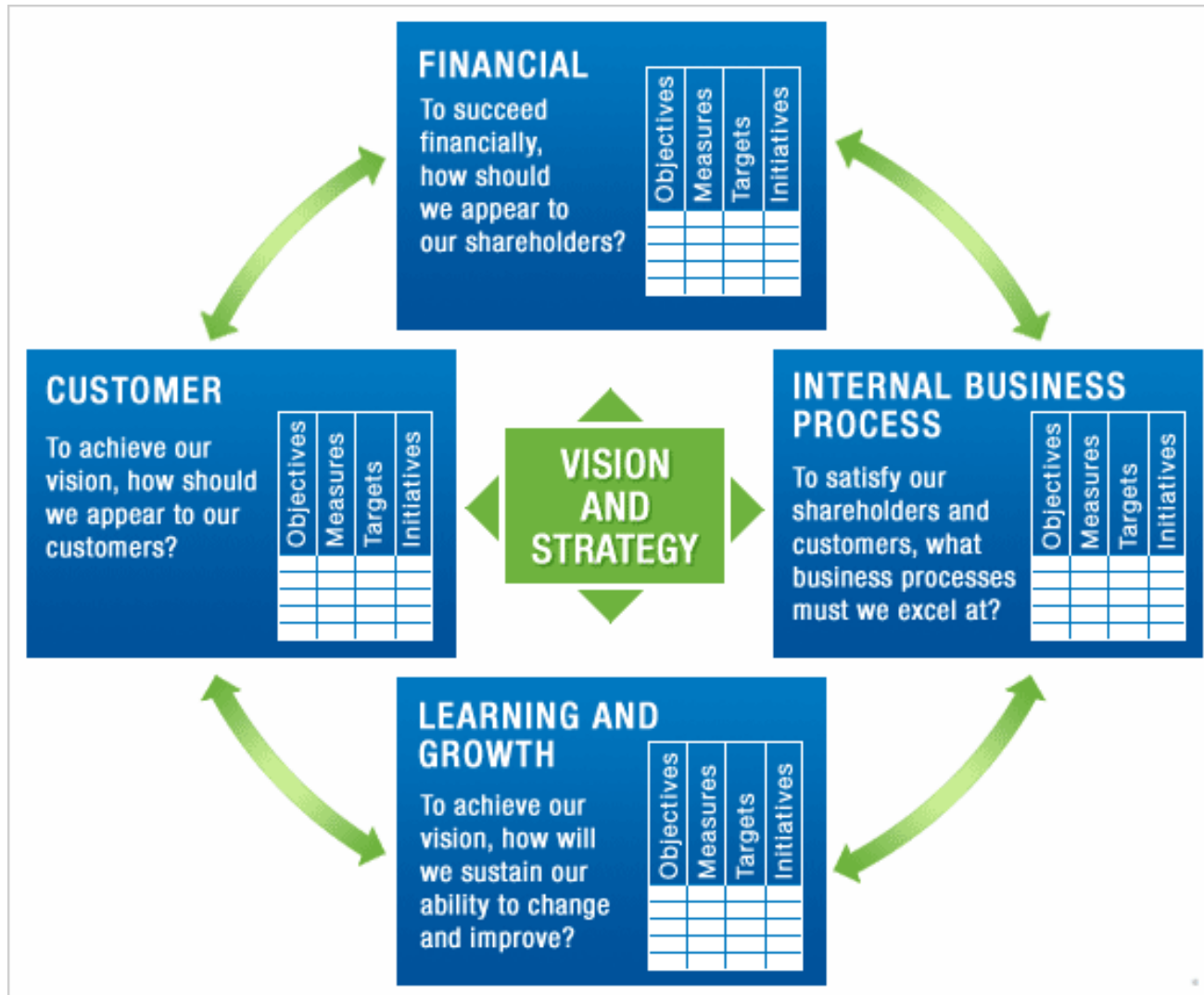


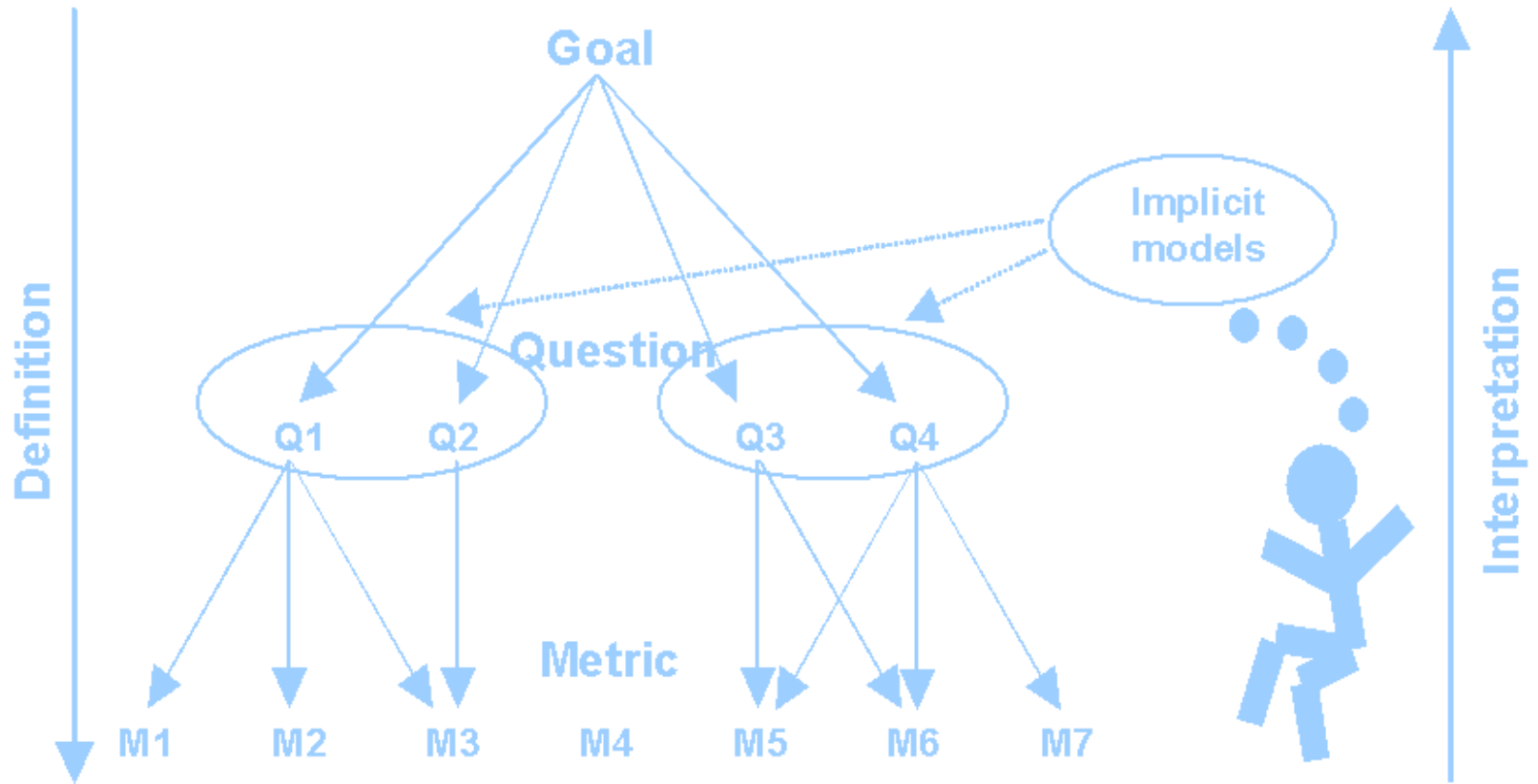
E – Entity	(software) product	(software) product	(software) product
A – Attribute	Lunghezza codice	Funzionalità	Complessità
M - Measure	LOC – Lines of Code	Function Point	V(G) – McCabe compl.

Fonte: Buglione L., Ebert C., *Estimation, Encyclopedia of Software Engineering*, Taylor & Francis Publisher, June 2012, ISBN: 978-1-4200-5977-9









Fonte: V. Basili, G. Caldiera, and H.D. Rombach, "Goal Question Metric Approach," Encyclopedia of Software Engineering, pp. 528-532, John Wiley & Sons, Inc., 1994: URL: www.cs.umd.edu/projects/SoftEng/ESEG/papers/gqm.pdf



- Introduzione
- Scope Management
- Requirement Management
- Question time
- Recap & Lesson learned

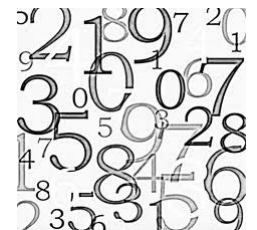


- **A:** ... come posso pianificare un'attività se non è chiaro lo **'spazio di azione'**?



- **A:** ...difatti nell'ICT – oltre alle **certificazioni** sui metodi FSM – sono proposti anche **percorsi specifici** (es. **NorthernSCOPE**, **SouthernSCOPE**, **ECQA Scope Mgr**, ...), a sottolineare la **rilevanza del tema**

- **A:** ...sia il PMBOK che i metodi FSM richiedono la definizione dello *scope* come **azione preliminare e necessaria** allo svolgimento delle ulteriori attività



Knowledge Areas	Project Management Process Groups							
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group			
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase			
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope				
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	8. Project Quality Management			
					8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
7. Project Cost Management	7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget			7.4 Control Costs	9. Project Human Resource Management			
					9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
					10. Project Communications Management	10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications
					11. Project Risk Management			
					11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses	11.6 Control Risks		
					12. Project Procurement Management			
					12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
					13. Project Stakeholder Management			
					13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement



- Introduzione
- Scope Management
- Requirement Management
- Question time
- Recap & Lesson learned



- **Q: che livello di controllo (granularità) ha il tuo progetto?**

(a)



(b)



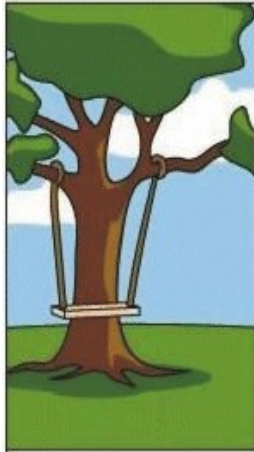
oppure







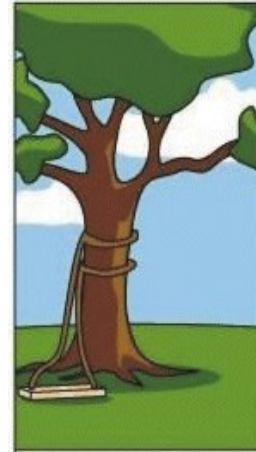
Cosa il cliente dichiara di volere



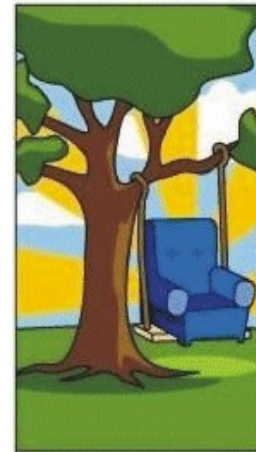
Cosa capì il capo progetto



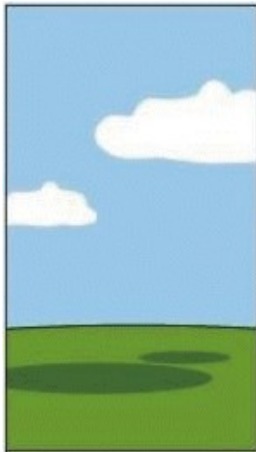
Come lo progettò l'analista



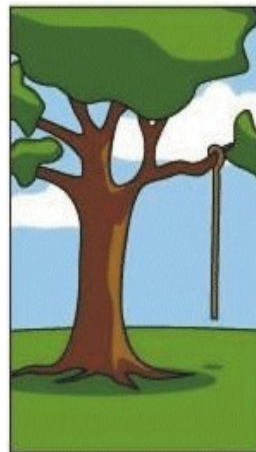
Cosa programmo il programmatore



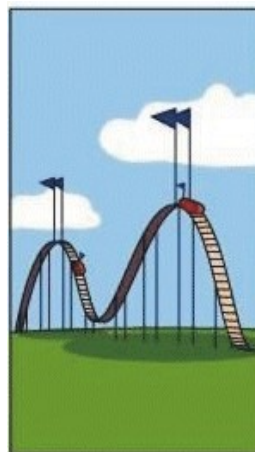
Cosa definì il consulente



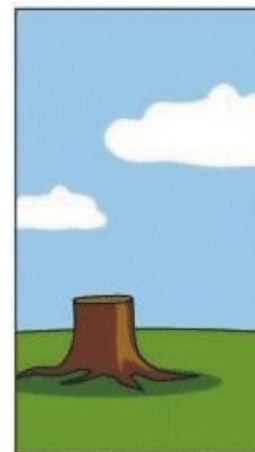
Come il progetto fu documentato



Cosa fu installato



Cosa fu messo in conto al cliente

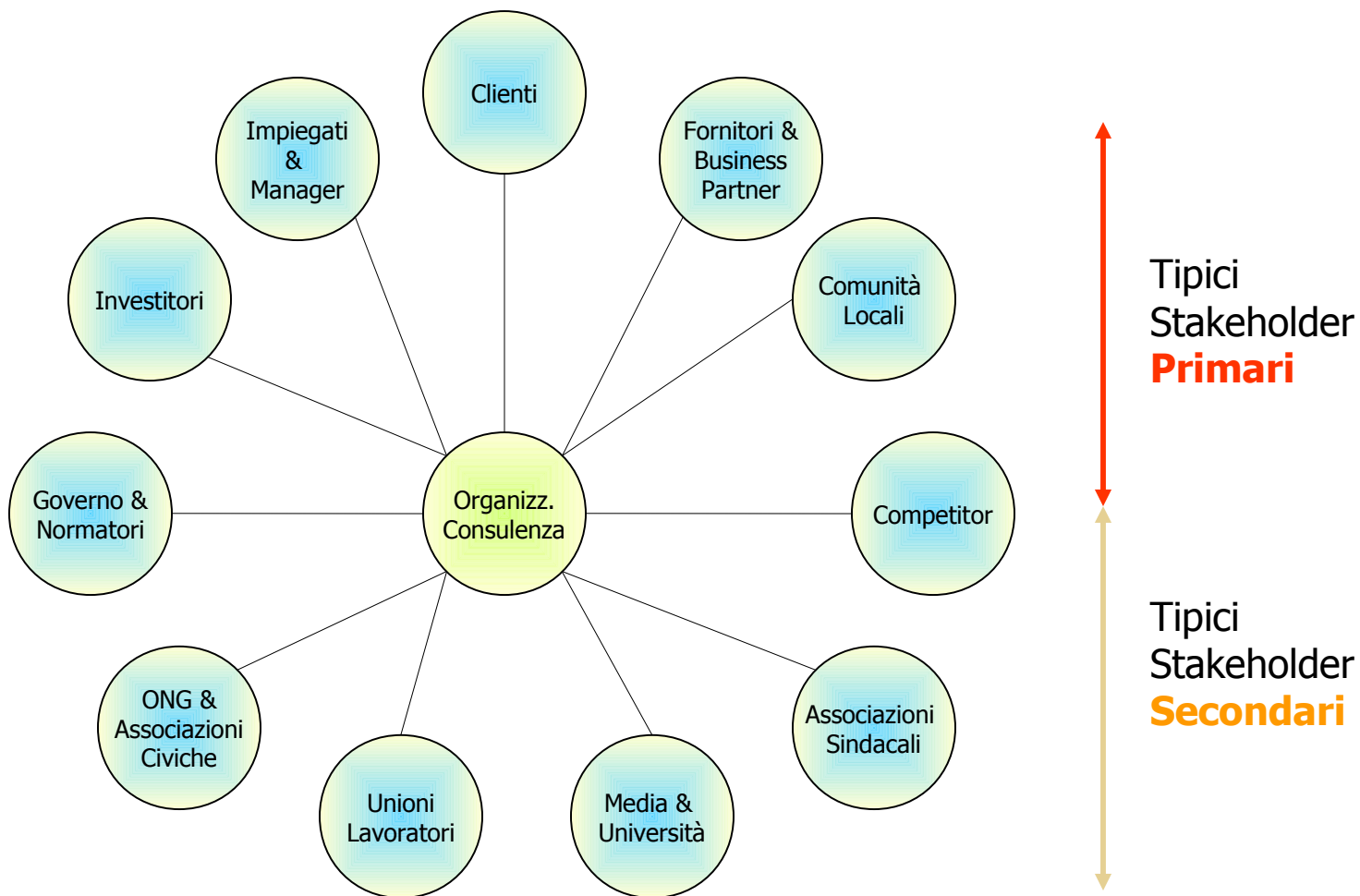


Come fu eseguita la manutenzione



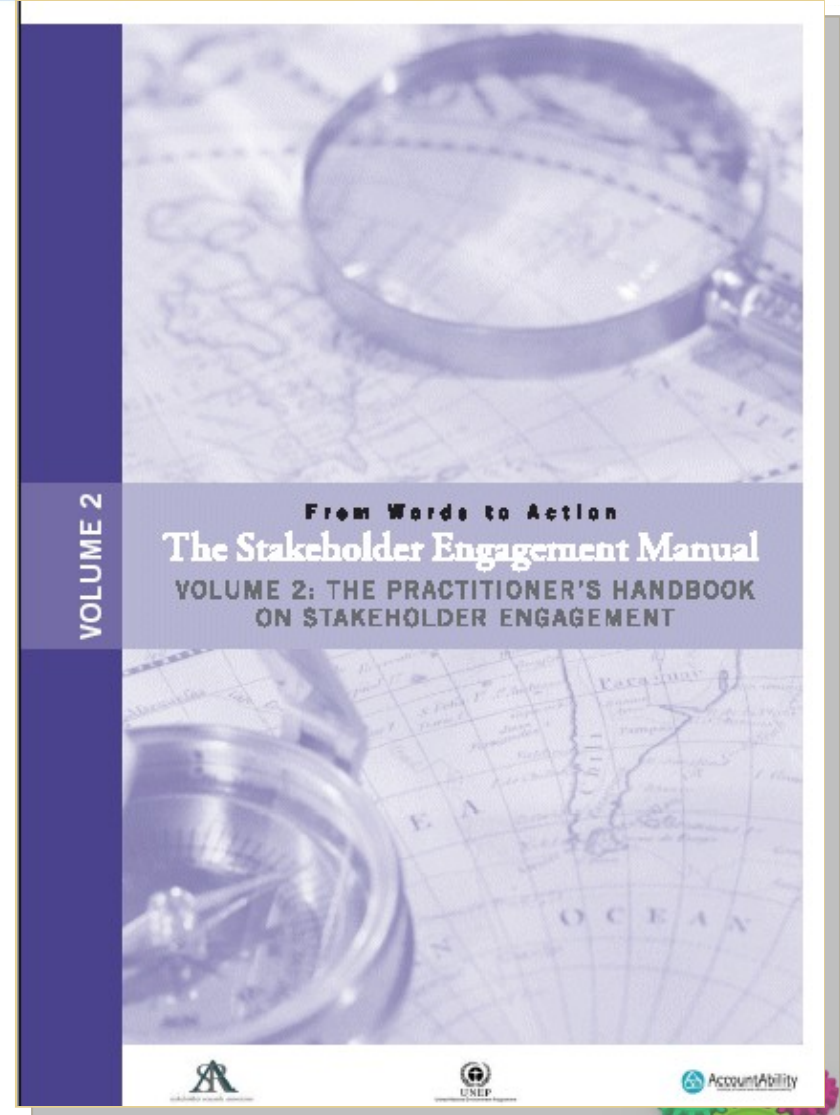
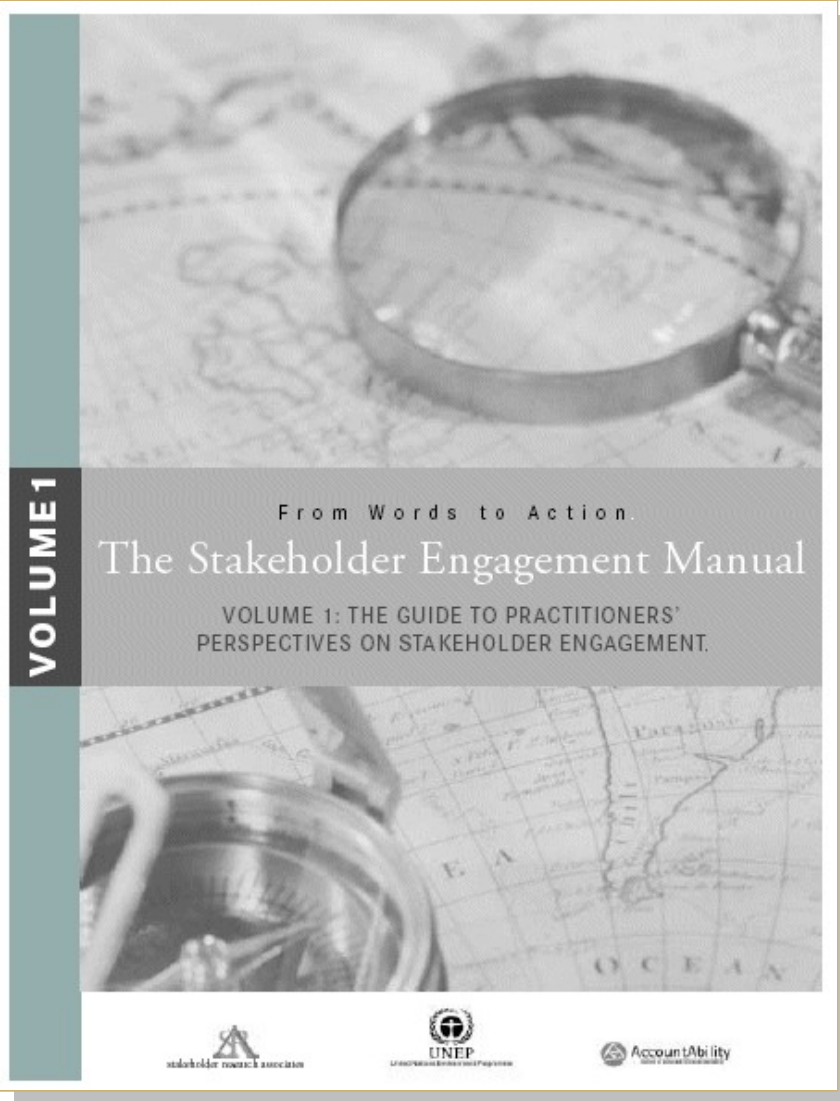
Quello di cui il cliente avrebbe avuto bisogno





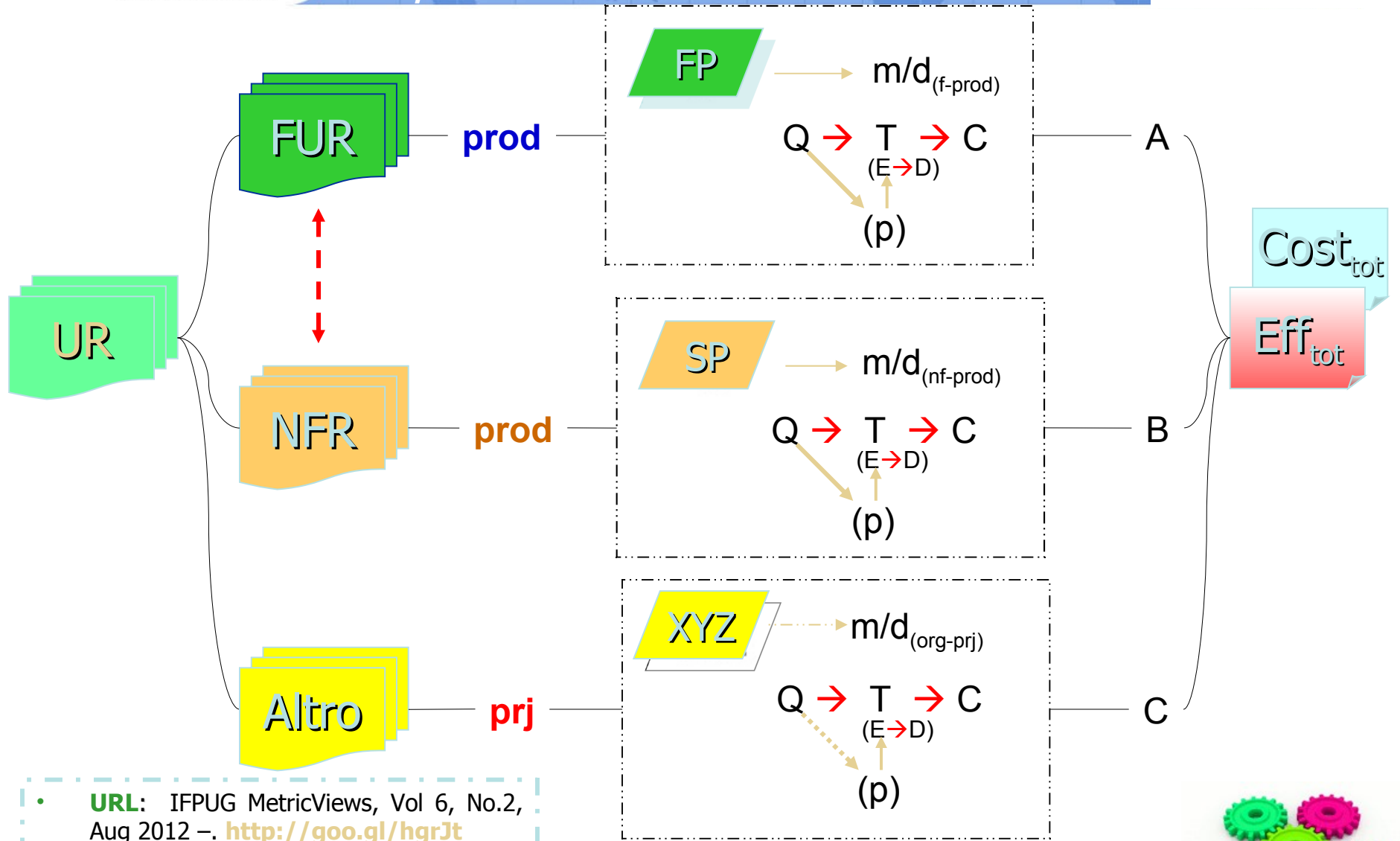
Fonte: SRA, The Stakeholder Engagement Manual, 2005, URL: www.accountability21.net/publications.aspx?id=904





Knowledge Areas	Project Management Process Groups						
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group		
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase		
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope			
6. Project Time Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule			
	8. Project Quality Management				8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality
	9. Project Human Resource Management				9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team	
	10. Project Communications Management				10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs			
	11. Project Risk Management				11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks
	12. Project Procurement Management				12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements 12.4 Close Procurements
	13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement		





• **URL:** IFPUG MetricViews, Vol 6, No.2, Aug 2012 -. <http://goo.gl/hgrJt>



✓ Stakeholder Engagement

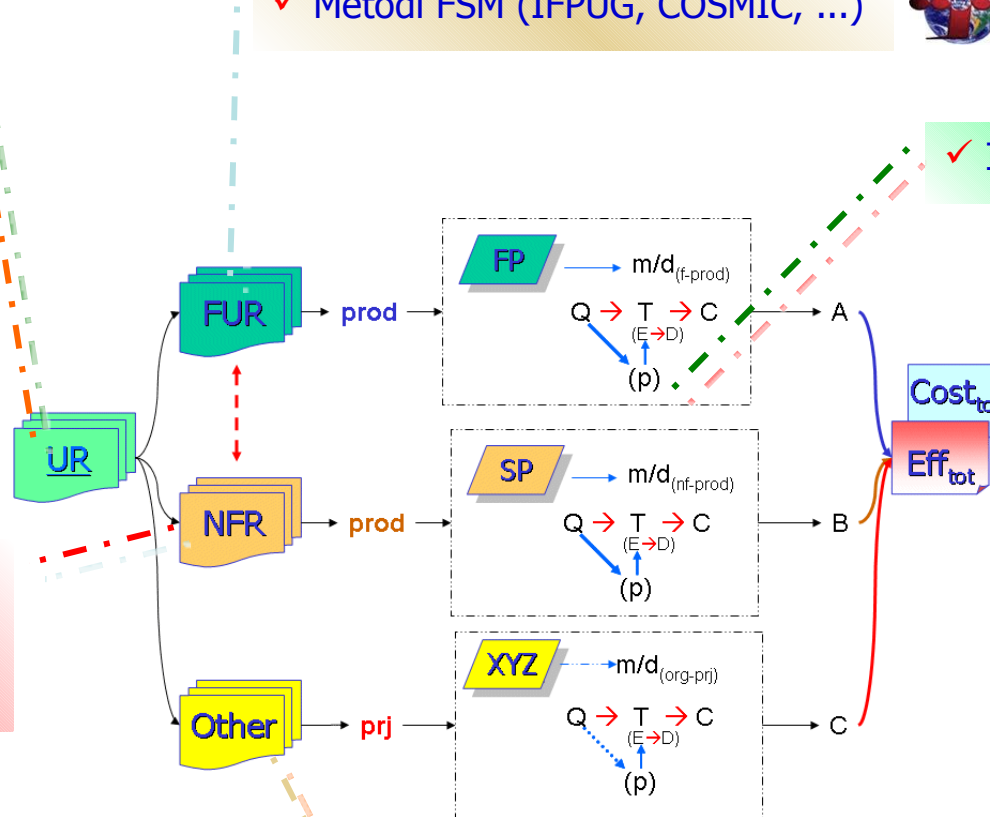
✓ Metodi FSM (IFPUG, COSMIC, ...)



✓ ISBSG D&E r12+



- ✓ IFPUG SNAP
- ✓ ISO/IEC 25010:2011 (ex 9126-x)
- ✓ ...



✓ Elaborazione natura task WBS / process model

• **URL:** IFPUG MetricViews, Vol 6, No.2, Aug 2012 -. <http://goo.gl/hgrJt>



- Introduzione
- Scope Management
- Requirement Management
- Question time
- Recap & Lesson learned





- Introduzione
- Scope Management
- Requirement Management
- Question time
- Recap & Lesson learned



- La gestione degli requisiti è fondamentale per il corretto dimensionamento e susseguente stima degli effort e costi di un progetto
- I requisiti non sono tutti uguali: distinguere per
 - Entità misurabile
 - Attributo
- 'Divide et impera': il livello di granularità è fondamentale
 - Processo Elementare
- I requisiti 'impliciti' rappresentano il rischio maggiore
 - Scope Creep: che percentuali?
 - Stakeholder Engagement: quali stakeholder contattare?
 - Tracciabilità requisiti (dagli UR agli SRS, verso i Test Case)
- I 3 "Δ"
 - Determinare i 'delta' tra stima e conteggio
 - Impostare database storici (PHD – Project Historical Database)
 - Monitorare
 - % di requisiti impliciti vs espliciti
 - Principali ragioni per lo 'scope creep' → process improvement



- PMI, PMBOK – 5th Edition (2013)
- Accountability.org, Stakeholder Engagement Standard (AA1000SES)
- IFPUG FPA, CPM v4.3.1 (2010), www.ifpug.org
- COSMIC, MM v3.0.1 (2009), www.cosmicon.com
- ISO/IEC 14143-1:2007
- ISO/IEC 25010:2010
- www.projectcartoons.com
- Buglione L., The Next Frontier: Measuring and Evaluating the Non-Functional Productivity, IFPUG MetricViews, Vol 6, No.2, Aug 2012 –. <http://goo.gl/hgrJt>
- Buglione L. & Abran A., Improving the User Story Agile Technique Using the INVEST Criteria, IWSM-MENSURA 2013, Ankara, Oct 23-26 2013
- SEMQ: www.semq.eu
- GELOG: <http://www.gelog.etsmtl.ca/>



Thank you!



CALENDARIO

14 GENNAIO 2014 13.00-14.00	1° Webinar "Agile Project Management" Contraria sunt complementa		
11 FEBBRAIO 2014 13.00-14.00	2° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (1a parte)		
11 MARZO 2014 13.00-14.00	3° Webinar "Agile Project Management" Agile è il futuro? Quando applicare una metodologia innovativa		
8 APRILE 2014 13.00-14.00	4° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (2a parte)		
13 MAGGIO 2014 13.00-14.00	5° Webinar "Agile Project Management" Il Tempo è denaro: Benefici economici dell'Agile		
10 GIUGNO 2014 13.00-14.00	6° Webinar "Agile Project Management" Agile & Requirement Management: Quanto è grande un requisito? (3a Parte)		
8 LUGLIO 2014 13.00-14.00	7° Webinar "Agile Project Management" La metodologia Scrum		
		9 SETTEMBRE 2014 13.00-14.00	8° Webinar "Agile Project Management" Agile & Metriche del Software
		14 OTTOBRE 2014 13.00-14.00	9° Webinar "Agile Project Management" Come cambia l'organizza-zione e l'azienda
		11 NOVEMBRE 2014 13.00-14.00	10° Webinar "Agile Project Management" Il cambio del paradigma. Come cambiare il contesto intorno a noi
		9 DICEMBRE 2014 13.00-14.00	11° Webinar "Agile Project Management" Un caso di successo. Intervista a chi l'agile l'ha usato

- **1 PDU (registration on <http://pmi-rome.org>)**
- **Linkedin group: PMI Rome Italy Chapter**

