

CERN Entrepreneurship Meet-up #51
Project Management Meet-up #01

25' to present the **value**
of **project management**
for **entrepreneurs**

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Five millennia of project management



Back to the ancient Egypt



The Wadi el-Jarf Papyrus
a.k.a. *The logbook of Merer*



Pierre Tallet

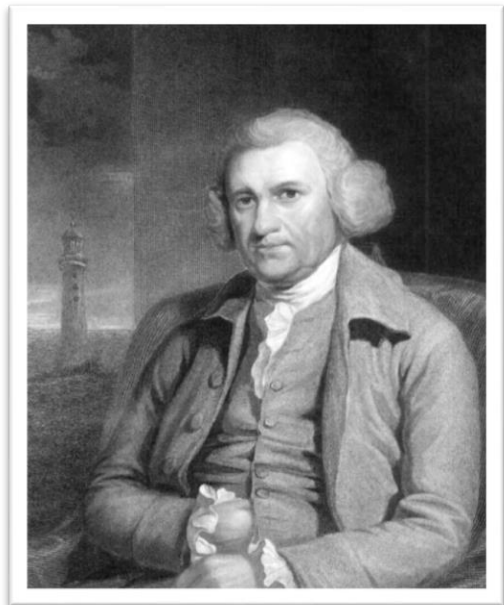


Renaissance in Florence

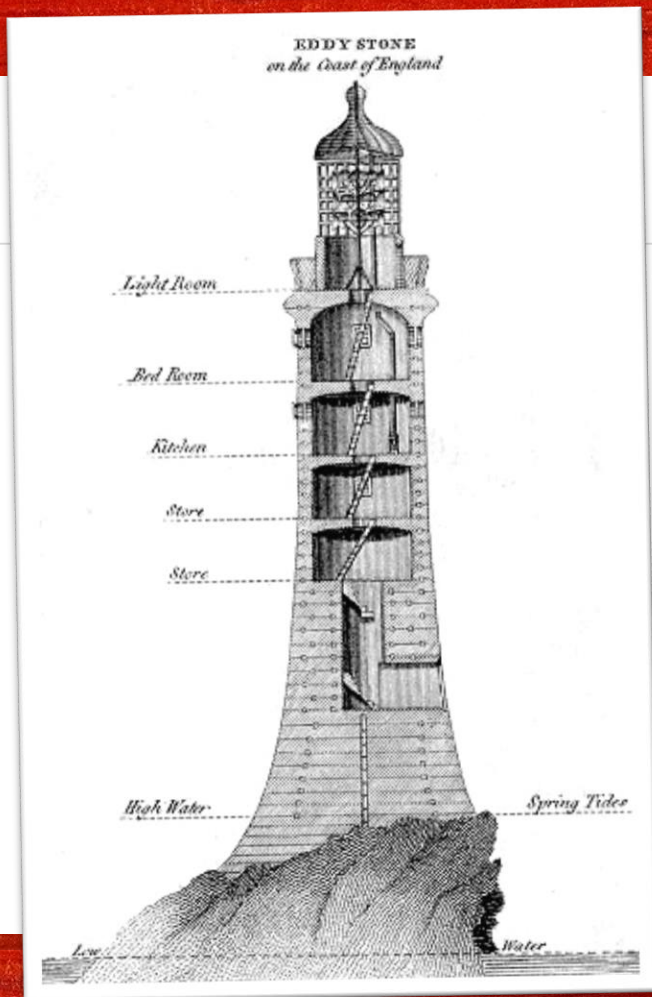




18th century in England



John Smeaton
1724–1792





Early 20th century



Henry Gantt
1861–1919



Karol Adamiecki
1866–1933



The advent of modern project management

- 1960's with CPM, PERT, PDM → project scheduling
- 1970's with the first PM methodologies → PRINCE, HERMES
- 1980's with the first PM standards → PMI's PMBoK
 - Project management vs. Project leadership
 - Project management applied to non-technical projects
- 1990's and the advent of agile/lean project management
- 2000's with program/portfolio management

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Project management in a nutshell



The project management triangle (1969)



Martin Barnes



Computing / Software

Organizational



Construction

Training / HR

PROJECTS

Industrial Plants

Events



Complex Systems

New Services



New Products



So... what is project management?

A set of **methods, tools, techniques** and **competencies** useful to ease the **successful completion** of a project, i.e. the delivery of the **results, on time, on budget** and **at the expected level of performance and quality**



Then, which standard/methodology to follow?

 10006:2003

HERMES 5.1



Systems Engineering
Handbook NASA/SP-2007-6105 Rev1

 21500:2012

 PRINCE2

 EUROPEAN COORDINATION
FOR SPACE STANDARDISATION

 PMBOK

 gdpm

INCOSE SEBoK

IPMA[»] ICB

 #748

XP
EXTREME
PROGRAMMING

RUP
RATIONAL
UNIFIED
PROCESS



openSE

an **open**, **lean** and **participative**
approach to **systems engineering**

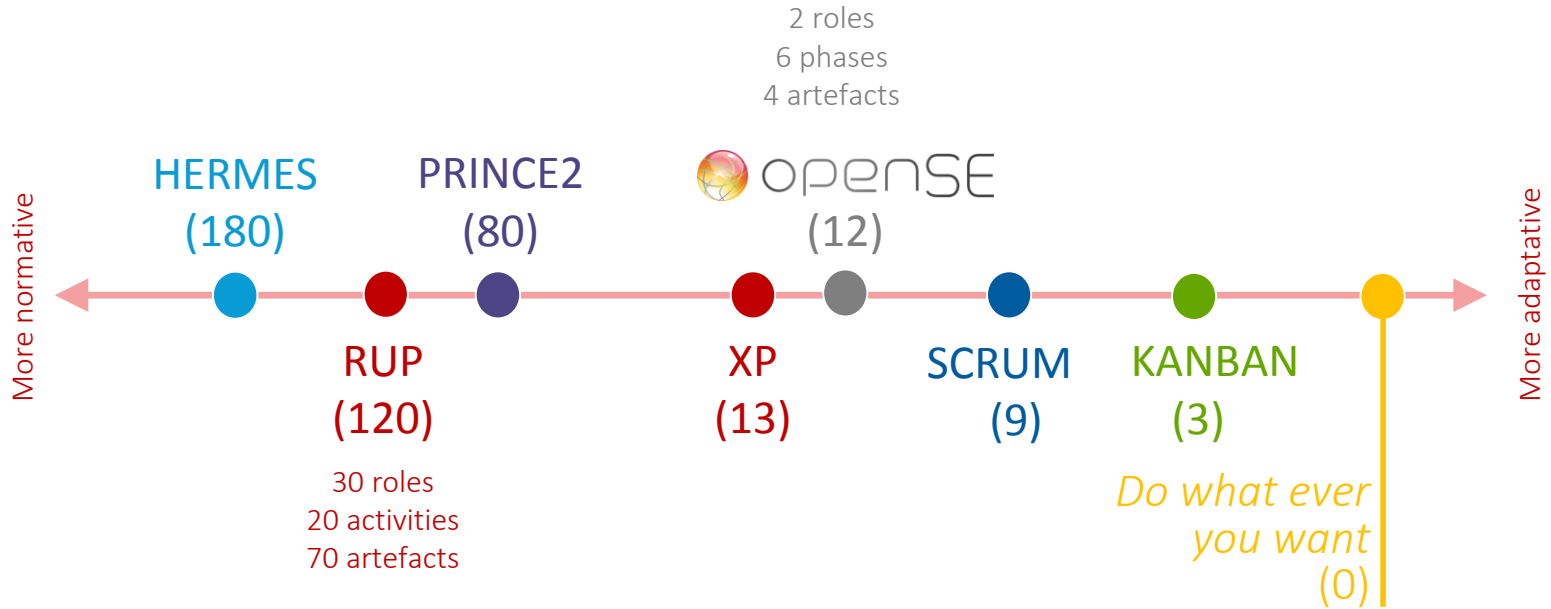
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The research leading to this framework has received funding from the European Commission under the FP7 ITN project PURESAFE, grant agreement no. 264336.



Then, which standard/methodology to follow?



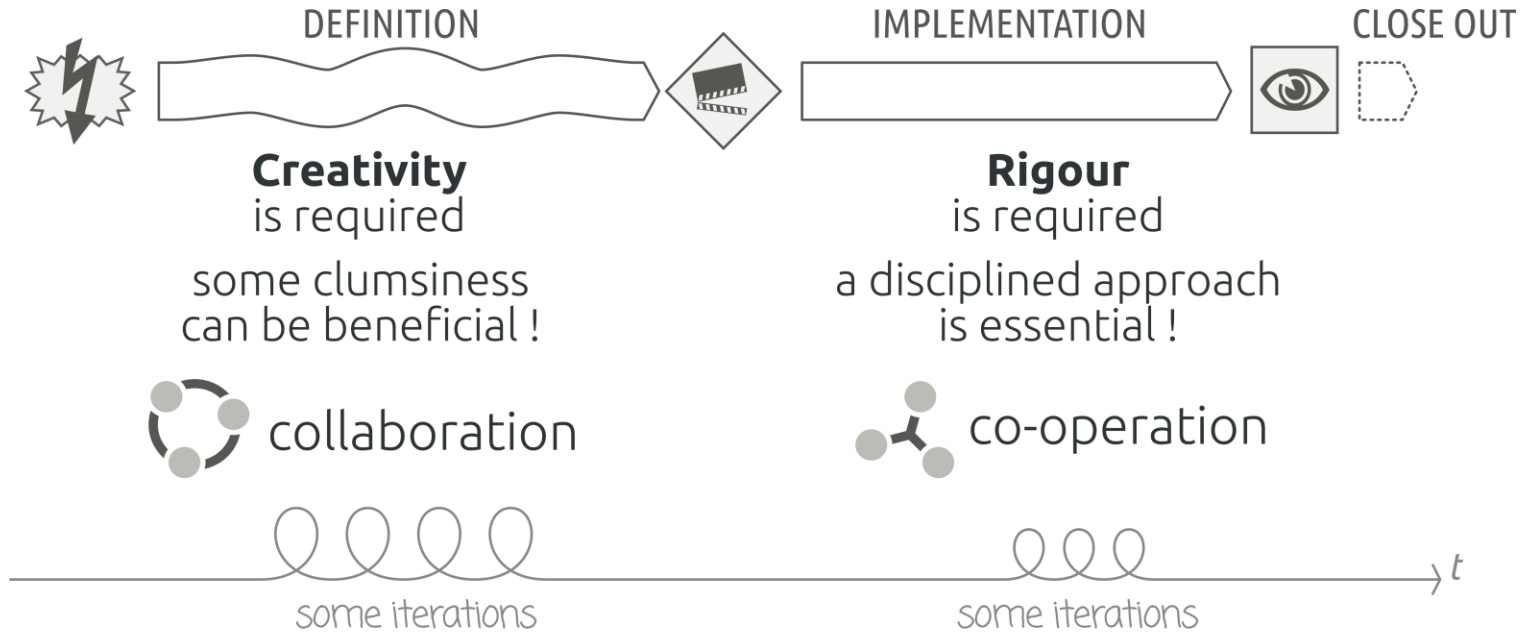


So, what shall know a project manager

1. How to launch a project → project roadmap + role definitions
2. How to set up a quality system → project management plan
3. How to gather needs and transform them into requirements
4. How to estimate the costs and set a budget
5. How to plan and schedule his/her project → PBS, WBS, RACI
3. to 5. aim at defining a reference (i.e. a baseline)
6. How to assess uncertainties and mitigate project risks
7. How to handle issues and changes
8. How to report progress to project stakeholders



One more important thing a PM shall know



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Project management as a component
of an entrepreneurship strategy

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Project management at CERN



60 Years of Project Management at CERN

Pierre Bonnal



YEARS / ANS CERN

Today Facilities = Yesterday Projects!

60 years of CERN vs. 45 years of PMI

PRAM *in the Sixties*

NSMPM *in the Seventies*

POL *in the Eighties*

Web-based tools *of the Nineties*

Project Control 2.0 *in the years 2000s*

IMPACT *and openSE in the years 2010s*

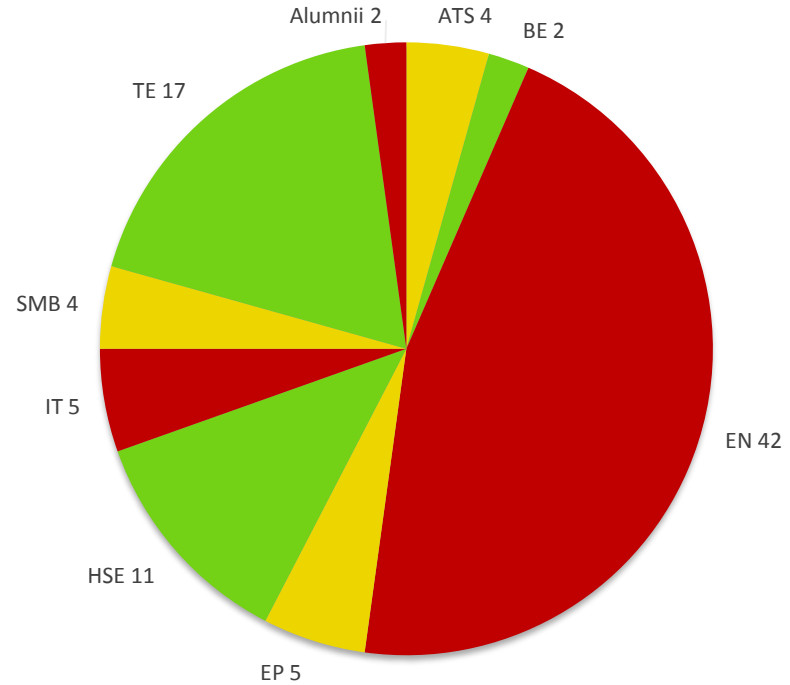
Will Project Planning & Scheduling 2.0 *be next?*



PM training at CERN

- Under the auspices of HR-LD
- One pilot session in 2015
- Six sessions in 2016
- Ten sessions in 2017
 - Nine regular sessions
 - One session for *non-technicals*
- Total of **175 participants** from 8 departments, with the participation of 2 alumni
- A session = three half-days ($3 \times 3\frac{1}{2} \approx 10$ hours)
- A few half-day sessions on specific topics: risks, EVM

Participants 2017





What's next...



Need of a forum for sharing practices