



SWINBURNE
UNIVERSITY OF
TECHNOLOGY

SWE20001

Managing Software Projects

Lecture 10c

Team Building
[Traditional Software Project]



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Principal References

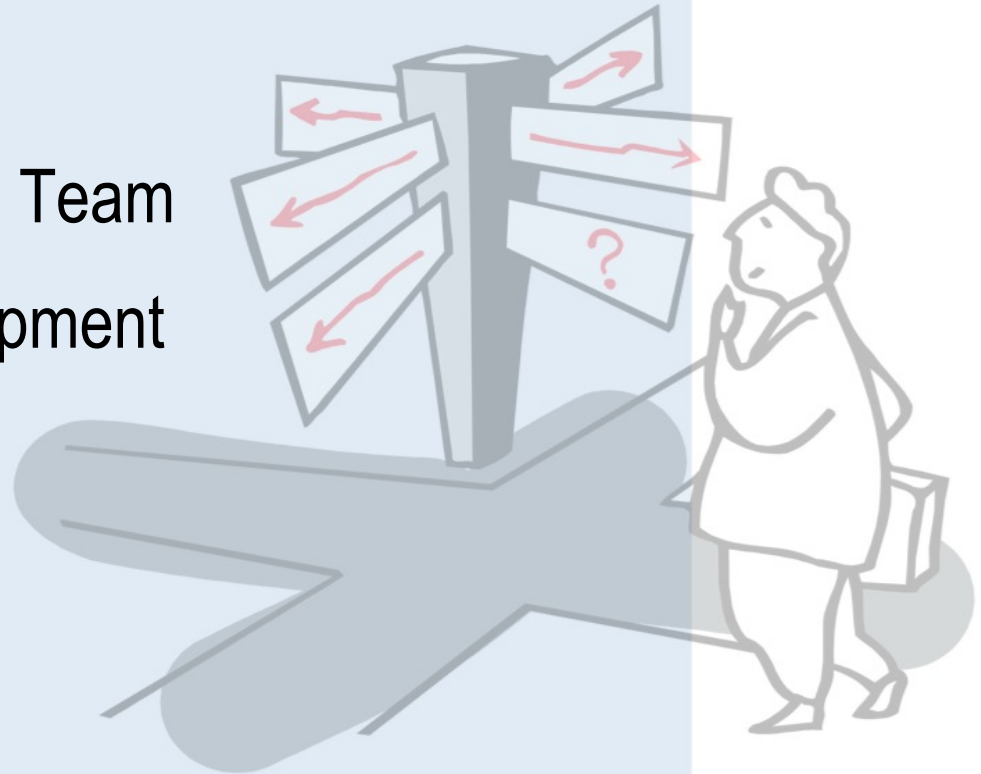


- Scott Berkun, *The Art of Project Management*, O' Reilly, 2005, Chapters 9 to 11.
- Bob Hughes, Mike Cotterell, *Software Project Management* (5th Edition), Addison-Wesley, 2009, Chapter 11.
- Robert K. Wysocki, *Effective Project Management* (5th Edition), Wiley, 2009, Chapter 9.
- Ian Sommerville, *Software Engineering* (8th Edition), Addison-Wesley, 2007, Chapter 25.

Lecture Overview



- Characteristics of Effective Team
- Team Building and Development





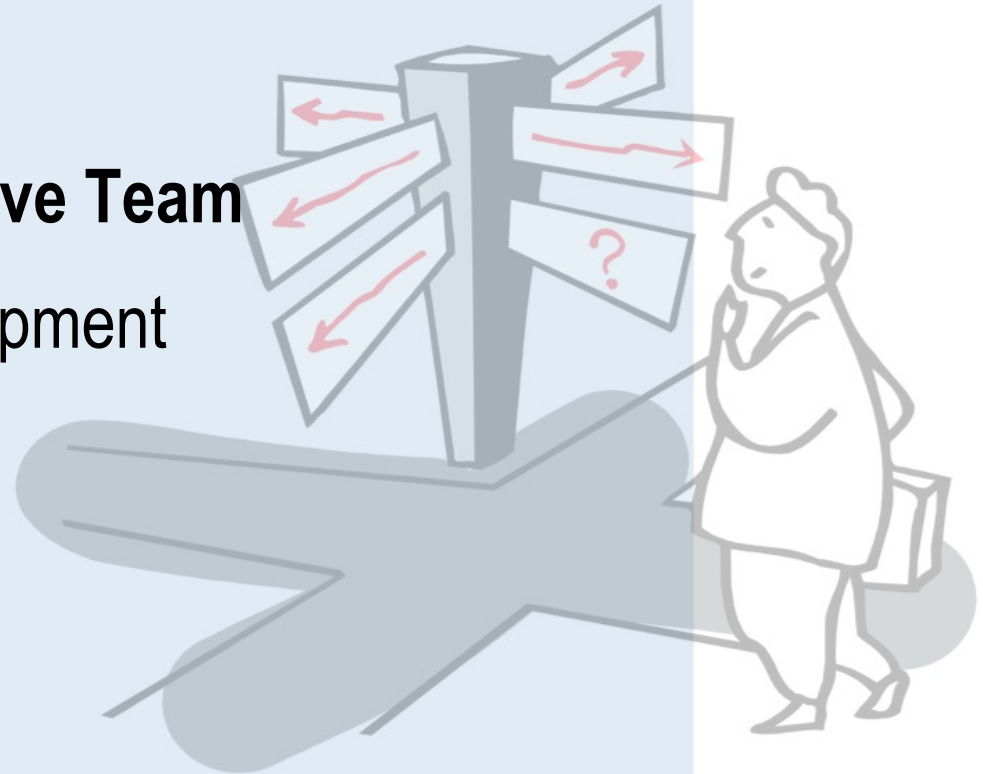
Project Success or Failure? (Recap)

- Projects rarely fail due to purely technical issues
 - Often failure is due to non-technical, *human interaction* problems
 - Pressure to complete to a tight schedule often causes a team to
 - Take shortcuts
 - Use poor methods
 - Gamble on new languages, tools or techniques that promise “The World”!
 - Pressure from management can also have a detrimental effect
- ☞ *So - How do we organize and manage individuals and teams to get the “best” possible outcome?*

Roadmap



- **Characteristics of Effective Team**
- **Team Building and Development**



Effective Team



- In an *effective* team, the output of the whole team is greater than the total of the output from each of the parts. (*De Marco and Lister*)
- Right kinds of tasks and working conditions are very important. What helps?
 - ☐ Team cohesion (“11 Freunde müsst ihr sein” - *Sepp Herrberger*)
 - ☐ Focus on “*good communication*”
 - ☐ Challenging (and rewarding!) goals
 - ☐ Goal tracking and feedback
 - ☐ Common working framework
- Conflict, confusion, and disagreement are all part of the team-building process. The act of working through issues together helps to create *team spirit*.

Successful Team



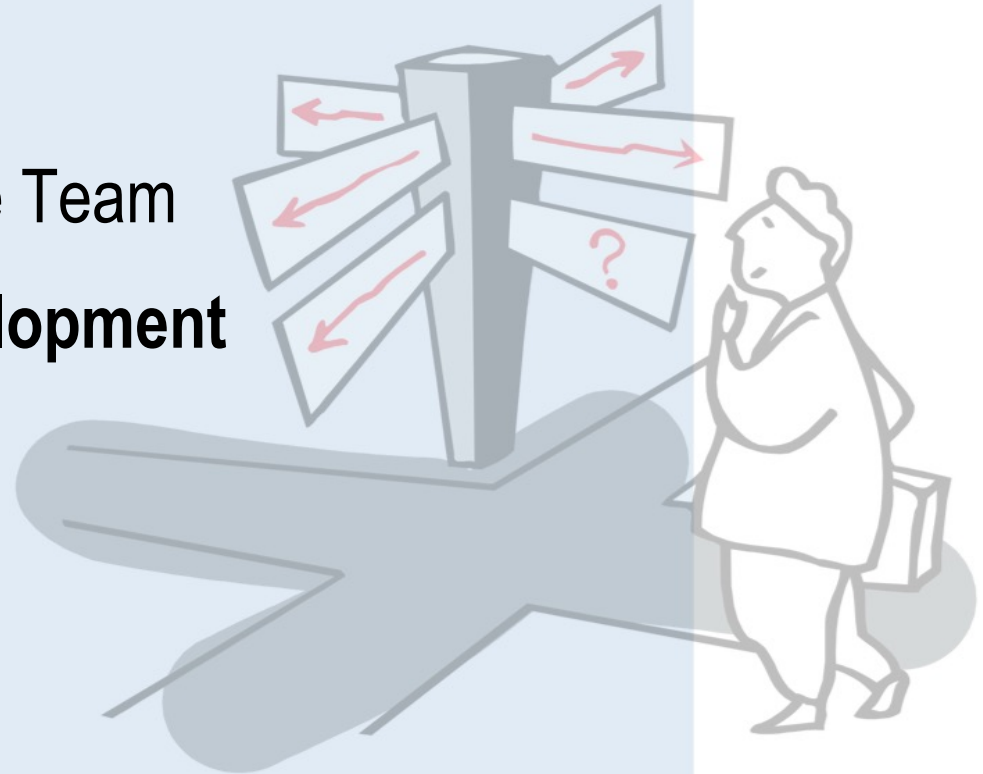
Relies on

- Agreed team goals
- Established team-member roles
- A supportive environment in which to work
- A common teamwork process that facilitates work
- A plan for the work
- A mutual team commitment to the goals, roles and plan
- Open / free communication among all team members
- The mutual respect and support of all team members

Roadmap



- Characteristics of Effective Team
- **Team Building and Development**



Team Building and Development



■ Main goal:

- ☐ To help people work together as a team more effectively to improve the project performance

☞ *A good team is more productive than the sum of its individuals!*

■ This may involve

☐ Training

- ☐ Purpose: to help individual growth
- ☐ Areas: technical skills or personal skills

☐ Team building activities

- ☐ Purpose: to help team members learn about themselves, each other, and how to work as a team more effectively
- ☐ Common ways: physical challenges, mental challenges, and psychological preference indicator tools

Tuckman's 5-stage Team “Building” Model



■ Forming:

Get to know each other; set up basic ground rules about behaviour

■ Storming:

☐ Conflicts (about leadership etc.) arise; establish methods of operation

■ Norming:

☐ Conflicts are settled; team identity/spirit emerges

■ Performing:

☐ Team works on task(s) at hand

■ Adjourning:

☐ After work is done, team disbands

At some risk,
I suggest that
you “google it”!



Common Team Problems

Most common problems for software teams

- Leadership
- Cooperation
- Participation
- Lack of Trust
- Quality
- Function creep (bells and whistles)

Reflect on these *vis a vis* the SCRUM process.

☞ *Projects are more likely to succeed when sufficient consideration is given to these aspects*

Scrum – Team Building Video



■ How to develop a team?

□ <https://www.youtube.com/watch?v=yuHuSHoZlmk>