Facilitation and Management of Modeling Projects: Experiences and Outlook

Janis Stirna, Stockholm University

Outline

- Purpose of Enterprise Modelling (EM)

- Typical EM project process and roles

- EM competence levels

- Facilitator competences

- Some examples of facilitator competences
  - Types of actor behaviour
  - Body language
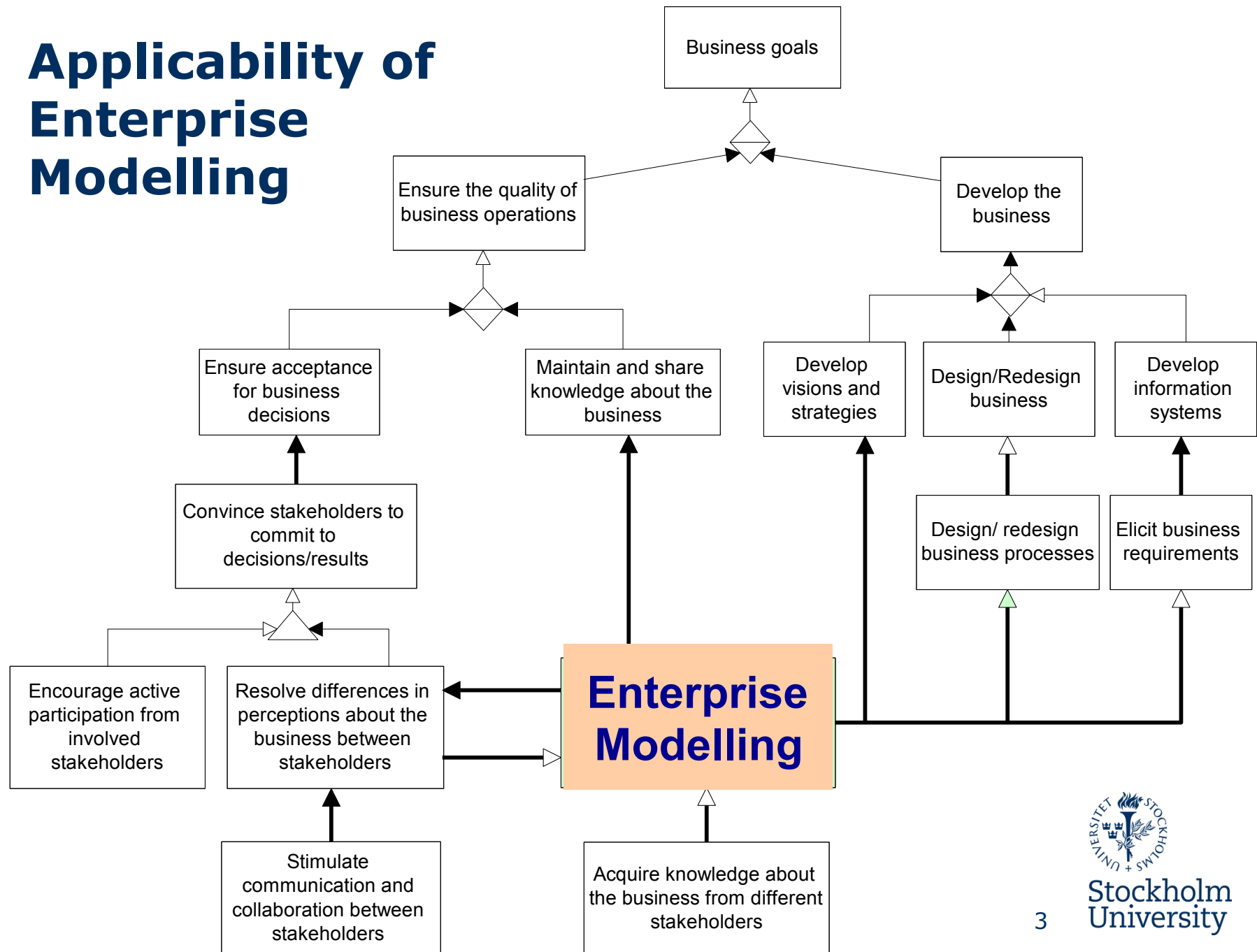
- EM project management competences

Stockholm University

Applicability of Enterprise Modelling

Business goals

Ensure the quality of business operations

Develop the business

Ensure acceptance for business decisions

Maintain and share knowledge about the business

Develop visions and strategies

Design/Redesign business

Develop information systems

Convince stakeholders to commit to decisions/results

Design/ redesign business processes

Elicit business requirements

Encourage active participation from involved stakeholders

Resolve differences in perceptions about the business between stakeholders

Enterprise Modelling

Stimulate communication and collaboration between stakeholders

Acquire knowledge about the business from different stakeholders

Stockholm University

3

Effects of the Participatory Approach

Common picture in a mutually agreed language and **model** gives **effectiveness**

Effect:

Clearer requirements

Increased understanding

Better commitment to decisions

Image: © Joakim Örvander, 2014

Stockholm University

4

The most important resource in practice

People with knowledge and skills

Stockholm University

Important distinction

Quality of modelling process

Reasonable method use

Model quality

Correct and valid knowledge content

Areas of responsibility in group modelling

are

responsible for — **Modelling facilitator**

responsible for — **Domain experts**

Stockholm University
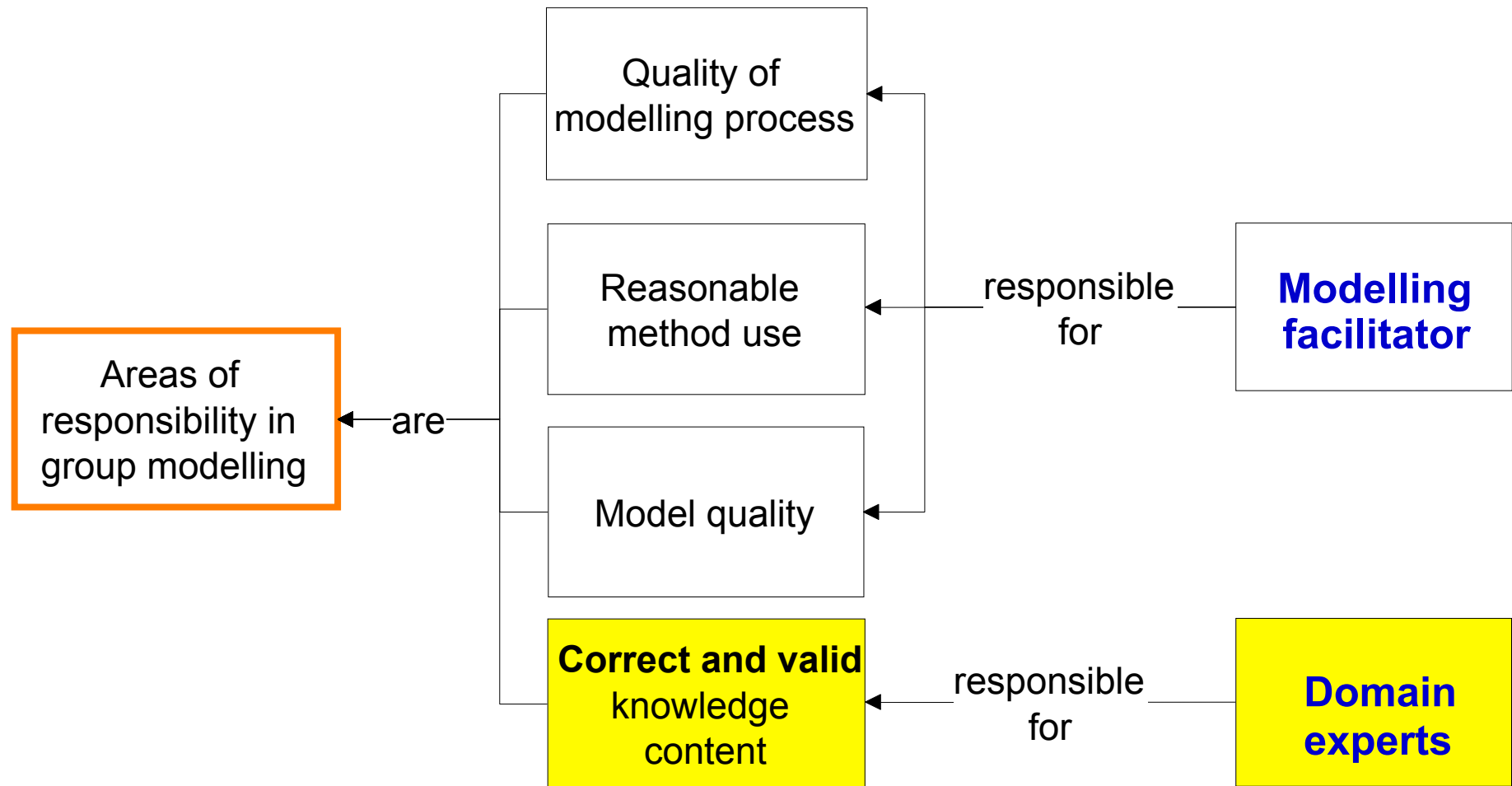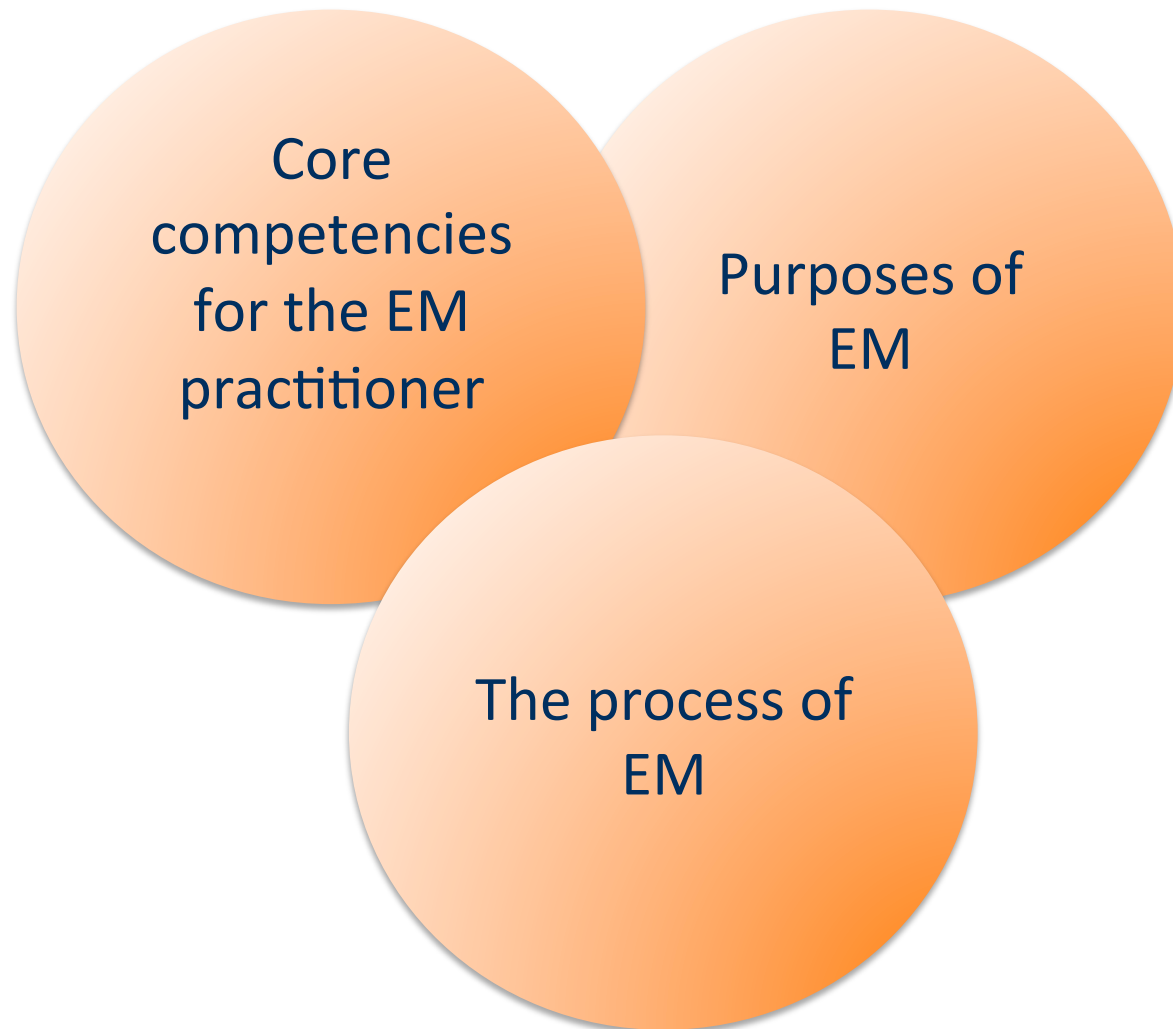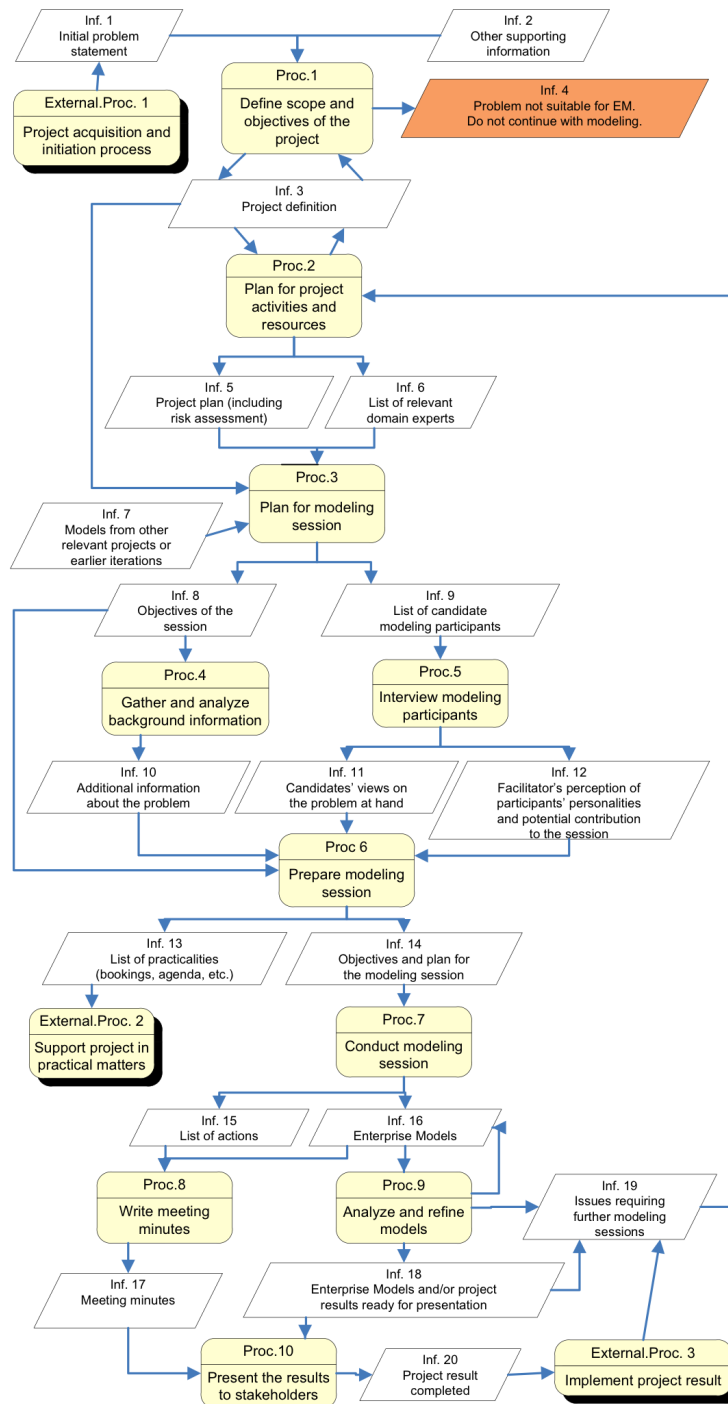
The EM process

Two types of activities:

- Modeling using a modeling language
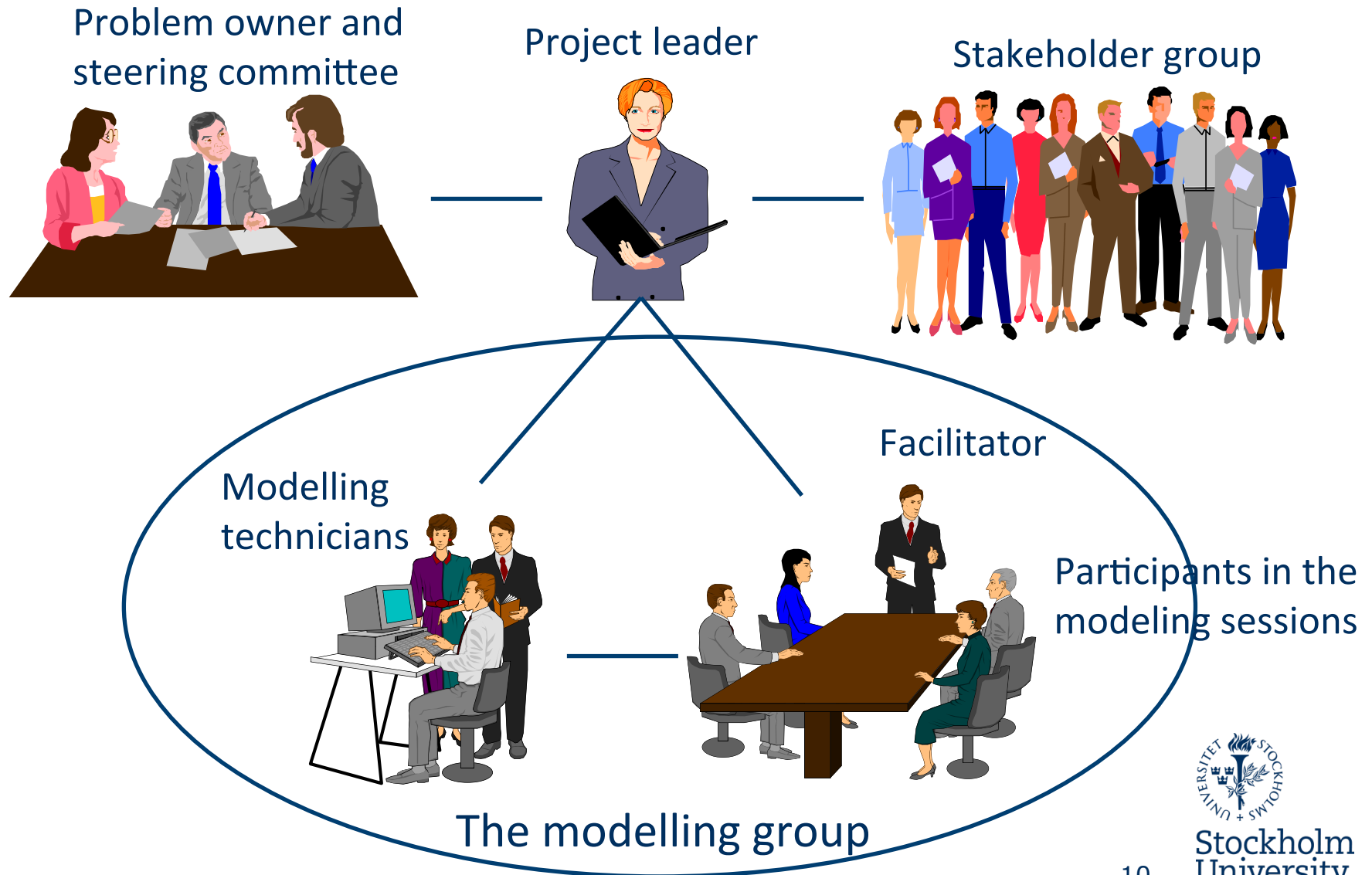- Setting up and managing modeling activities and projects

Persson & Stirna J., 2010

EM Process Step	Problem owner	Domain expert	EM project leader	EM facilitator	Tool expert
P1 Define scope and objectives of the project	R		P		
P2 Plan for project activities and resources	R		P	P	
P3 Plan for modeling session	P		R	P	
P4 Gather and analyze background information			P	R	
P5 Interview modeling participants		P		R	
P6 Prepare modeling session	P		P	R	
P7 Conduct modeling session		P		R	P
P8 Write meeting minutes			P	R	P
P9 Analyze and refine models	P		P	R	P
P10 Present the results to stakeholders	R	P	P	P	

P = participant
R= responsible

Stockholm
University

Project organization

Problem owner and steering committee

Project leader

Stakeholder group

Modelling technicians

Facilitator

Participants in the modeling sessions

The modelling group

Stockholm University

The modelling facilitator

a negotiator

a generalist with an ability to make abstractions

a listener

skilled in analysis and synthesis

able to have a holistic view

creative

co-operative

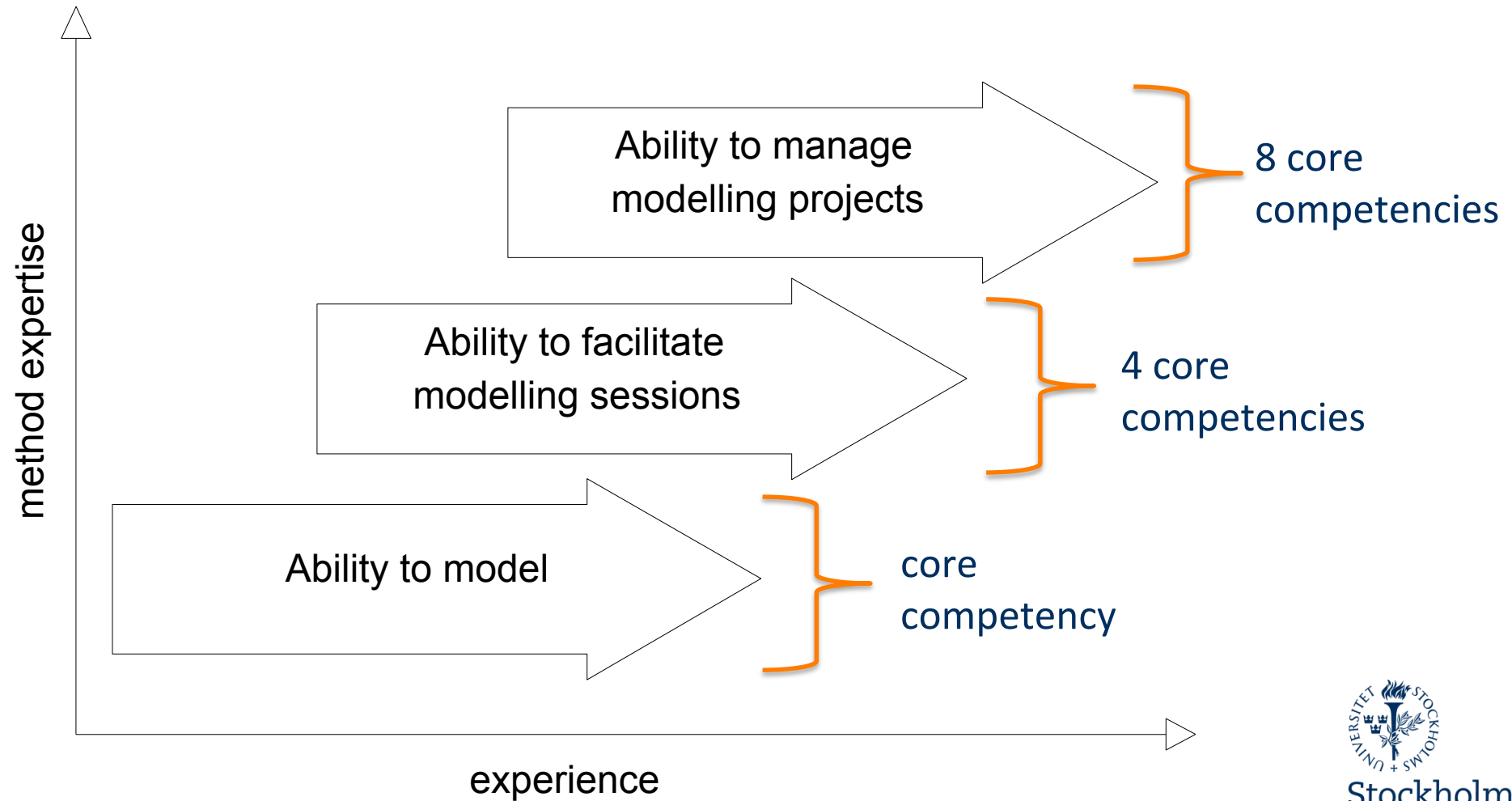pedagogical

authoritative

courageous

humble

open-minded

energetic

Levels of EM practitioner competency

Competencies related to modeling

- ability to model

- ability to assess and to improving model quality according to the EM purpose

- ability to use modeling tools to document models

- to have a basic knowledge about facilitation in participatory modeling sessions

Stockholm University

Competencies related to facilitating modeling sessions

- ability to drive the modeling session towards its objectives

- ability to deal with different stakeholder types and behaviors

- ability to listen what is said and sense what is left unsaid, e.g. by observing body language

- ability to identify and address issues arising from factors such as differences in organizational culture, management style, and decision-making structure

Stockholm University

Types of stakeholder behavior in modeling sessions

The salesman

The buyer

The questioner

The observer

The boss

The one who knows best

The riding policeman

The joker

The missionary

The expert

The representative

Stockholm University

Example: "Missionary"

How to spot:	Keeps repeating the same issue, usually a solution. Can be openly critical to the modeling project as such. Typically hides the negative attitude in face to face interviews.
What are the typical behaviors:	Speaks a lot, critical to other participants and to facilitator, keep proposing a single solution. Can be destructive, if the mission is to sabotage.
What is the likely impact if left undealt with	*Positive:* Not any *Negative:* No real participative effort, the session turns into arguments between a few participants. One-sided often dysfunctional solutions. Postponed decisions and real work.
How to mitigate the negative impacts:	Have a clear understanding of how each participant is related to the project and the expected result. What else do they do in the company. Pre-interviewing allows turning them. Do not take participants without pre-interviewing.

Stockholm
University

Example: "Expert"

How to spot:	Typically an expert in specific subject area Frequently proposes solutions related to or involving that particular area
What are the typical behaviors:	Active in discussions, proposes solutions, disuses and often criticizes solutions that are not related to his/her area of expertize
What is the likely impact if left undealt with	*Positive:* Quite elaborate solutions in a specific area, can be responsible for implementation if the expertise area is matching *Negative:* One-sided solutions limited to a specific area of expertise. Explain the purpose of the session, the need to elicit and assess a broad range of solutions.
How to mitigate the negative impacts:	Explain the purpose of the session, the need to elicit and assess a broad range of solutions. Put in charge of a certain aspect of the solution if appropriate.

Stockholm University

Example: "The representative"

How to spot:	Wonders-in unexpected, often late. Usually sent-in by somebody else with high authority.
What are the typical behaviors:	Does not speak, asks polite questions about the purpose of the project, this session, what modelling is and why it is any good.
What is the likely impact if left undealt with	*Positive:* Not any *Negative:* Will pass over wrong information to the person he/she "represented". The modelling effort needs to halt and spend time on introducing the project to this person
How to mitigate the negative impacts:	Do not accept participants without pre-interviewing. Plan how will collect the participants. Arrange the modeling session at a "secret location" or outside the office. Start with a lunch together.

Stockholm University

Facilitators should be able to sense

- Should be aware of *culture differences*
- Should carefully listen what is said
  - and even more carefully sense what *is not said*

- *Body language* often gives hints about people's opinions and attitudes at the modelling seminar, e.g.:

  - Sitting with legs crossed, foot kicking slightly = Boredom
  - Arms crossed on chest = Defensiveness
  - Walking with hands in pockets, shoulders hunched = Dejection
  - Hand to cheek; touching mouth = Evaluation, thinking
  - Touching, slightly rubbing nose = Rejection, doubt, lying

  - *Body language differs depending on culture, age, nationality, etc.*

Stockholm University

Anti-pattern: everybody is a facilitator

Everybody is a facilitator	
Problem	You do not have a modeling facilitator at a modeling seminar. This can be caused by either not realizing the need for a facilitator or not being able to afford the services of an external facilitator. A special case of this problem is when the facilitator is unexpectedly unable to attend due to force majeure.
Anti-solution	The group members attempt to "facilitate each other" in various ways according to the best of their knowledge of what facilitation really is. In doing this the group members might even engage in a pseudo competition about who will facilitate more or louder. It is also not uncommon that the highest ranking manager assumes the role of facilitator.
Actual results and unintended consequences	The discussion in the modeling room might appear creative and inspired at the outset, but usually it is quite chaotic. It runs the risk of discussing only themes and topics that are very commonly discussed in the organization. The resulting model usually contains a large number of various modeling components dealing with an abundance of issues, most of which are not relevant to the problem at hand. The modeling language is not followed and the model may also include "drawings" of various kinds.
Primary fallacies	The assumptions that participative modeling can be done without a dedicated and skillful facilitator, that anyone can facilitate, and that more facilitation leads to better results.

Stirna, J., A.Persson (2009) Anti-patterns as a Means of Focusing on Critical Quality Aspects in Enterprise Modeling, Halpin et al.
http://www.springerlink.com/content/vx1212567304x171/

Stockholm University

Competencies related to setting up and managing EM projects

- ability to assess the organizational context – culture and decision making approach
- ability to select an appropriate EM approach and tailor it in order to fit the situation at hand
- ability to select an appropriate EM tool
- ability to interview involved domain experts
- ability to define a relevant problem
- ability to define requirements on the results
- ability to establish a modeling project
- to adjust a presentation of project results and issues related to them to various stakeholders
- ability to navigate between the wishes of various stakeholders while upholding the EM project goal
- ability to assess the impact of the modeling result and the modeling process in the organization

Recommendation: Assess the organizational context

- Power and decision-making structure → you have to have access to and obtain the trust of the relevant decision makers
  - This is influenced by the credibility of the method and its provider
- Consensus driven vs. authoritative organisational culture
- Management by objectives vs. management by directives
- Long term vision vs. daily "fire fighting"
- Openness vs. hidden agendas
- Ask questions, listen, observe, and sense
  - what is said vs. what is not said
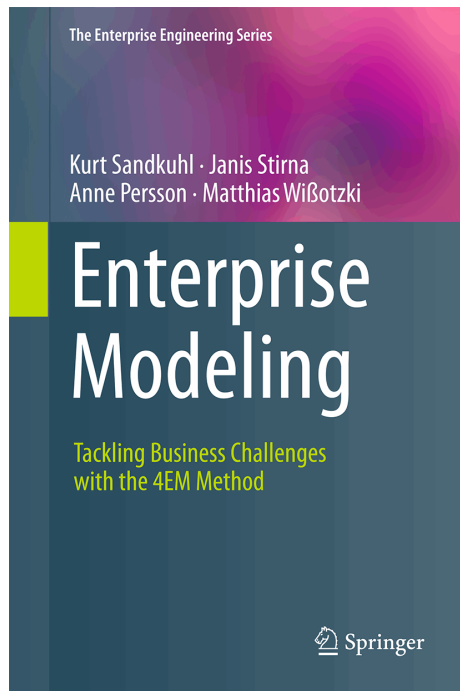 - Focus on a broad group of stakeholders

Stockholm University

Open issues and challenges

- How to deal with shortage of modeling facilitators and leaders?

- How to become a modeling facilitator?
  - Courses for professionals
  - Mentoring

- How to become a modeling project leader?
  - Experience based
  - Mentoring

- How to share knowledge about facilitation?

- How to teach model facilitation and project leadership in universities?

- How to facilitate the application of research results (e.g. languages, methods, tools) in practice?

Stockholm University

Thank you

js@dsv.su.se

http://janis.blogs.dsv.su.se

Capability as a Service in Digital Enterprises

http://caas-project.eu