

The Emergence of Shared Leadership in Project-based Integrated Design Teams

A case study on the way interpersonal skills can influence team functioning



P5

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Introduction



People can influence project outcome

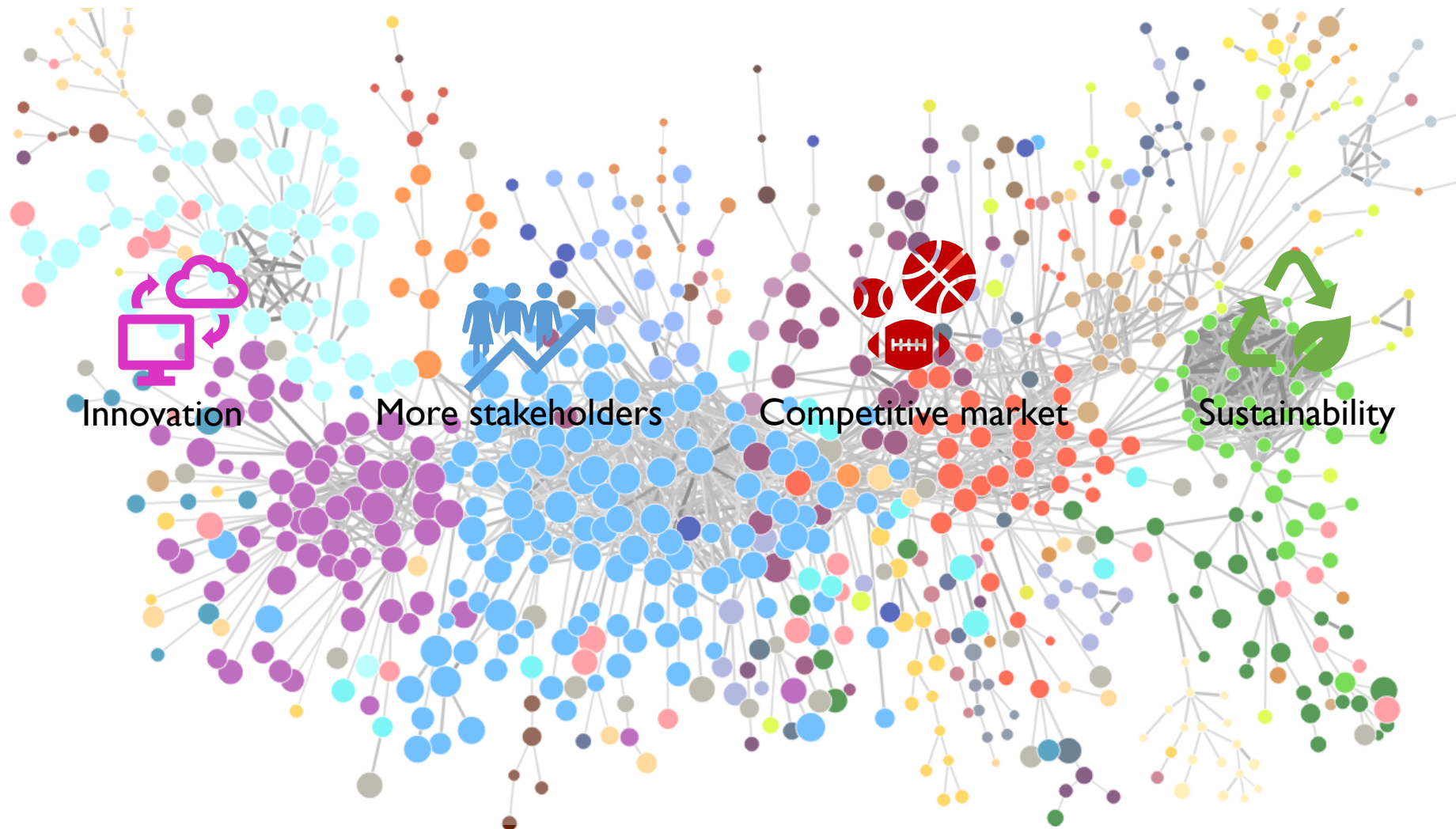




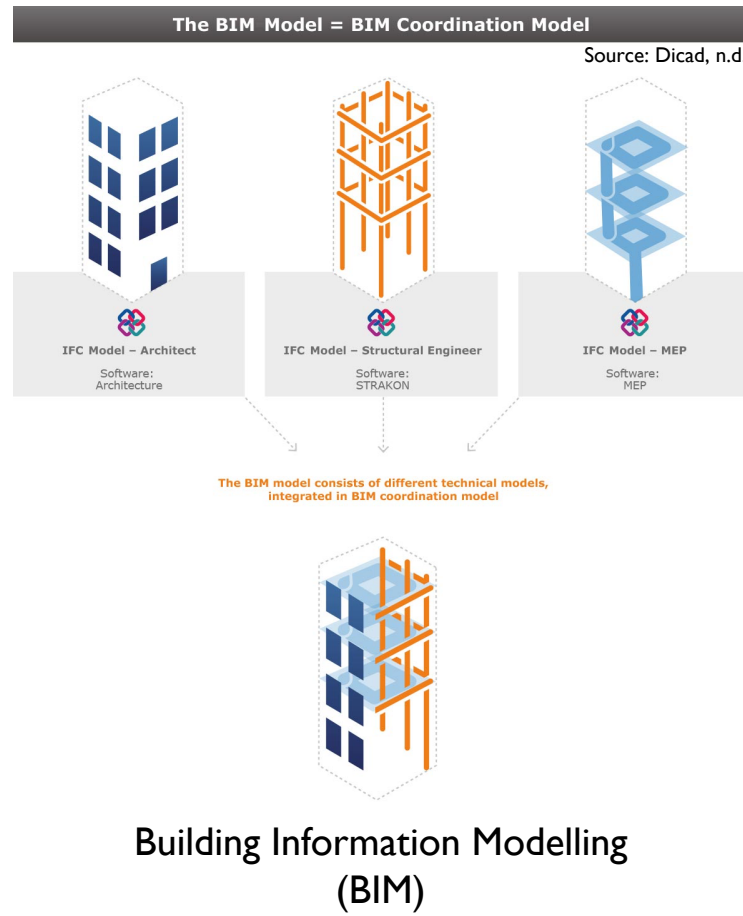
Background

Problem statement

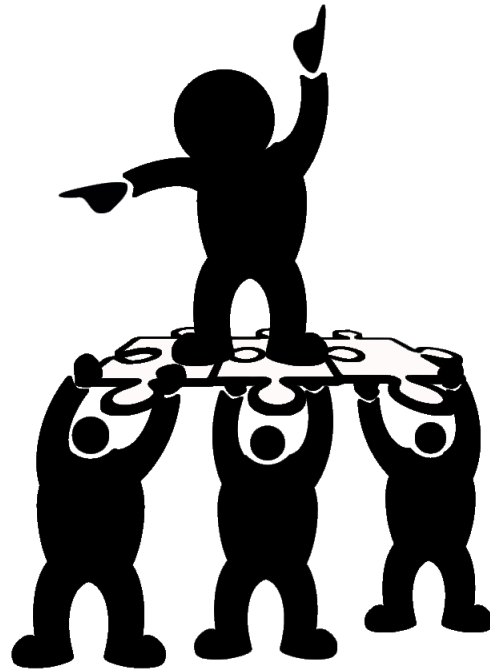
Construction project complexity



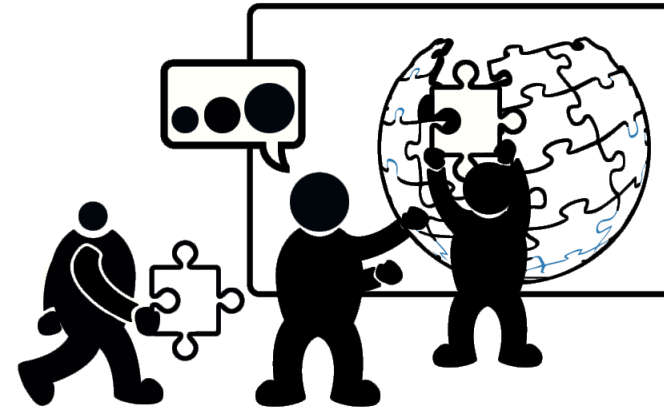
Innovation in the construction industry



Leadership

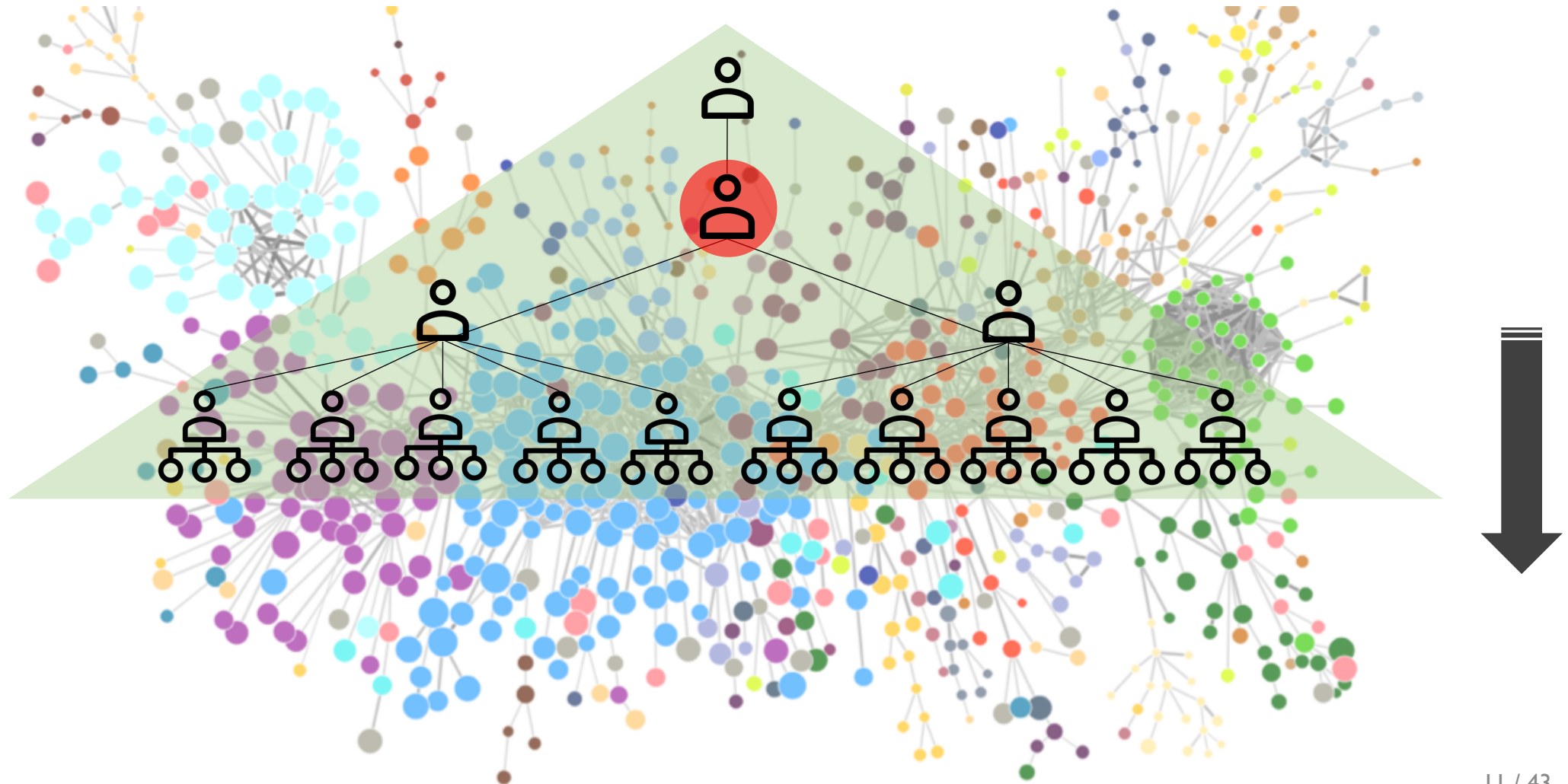


Traditional / focused leadership

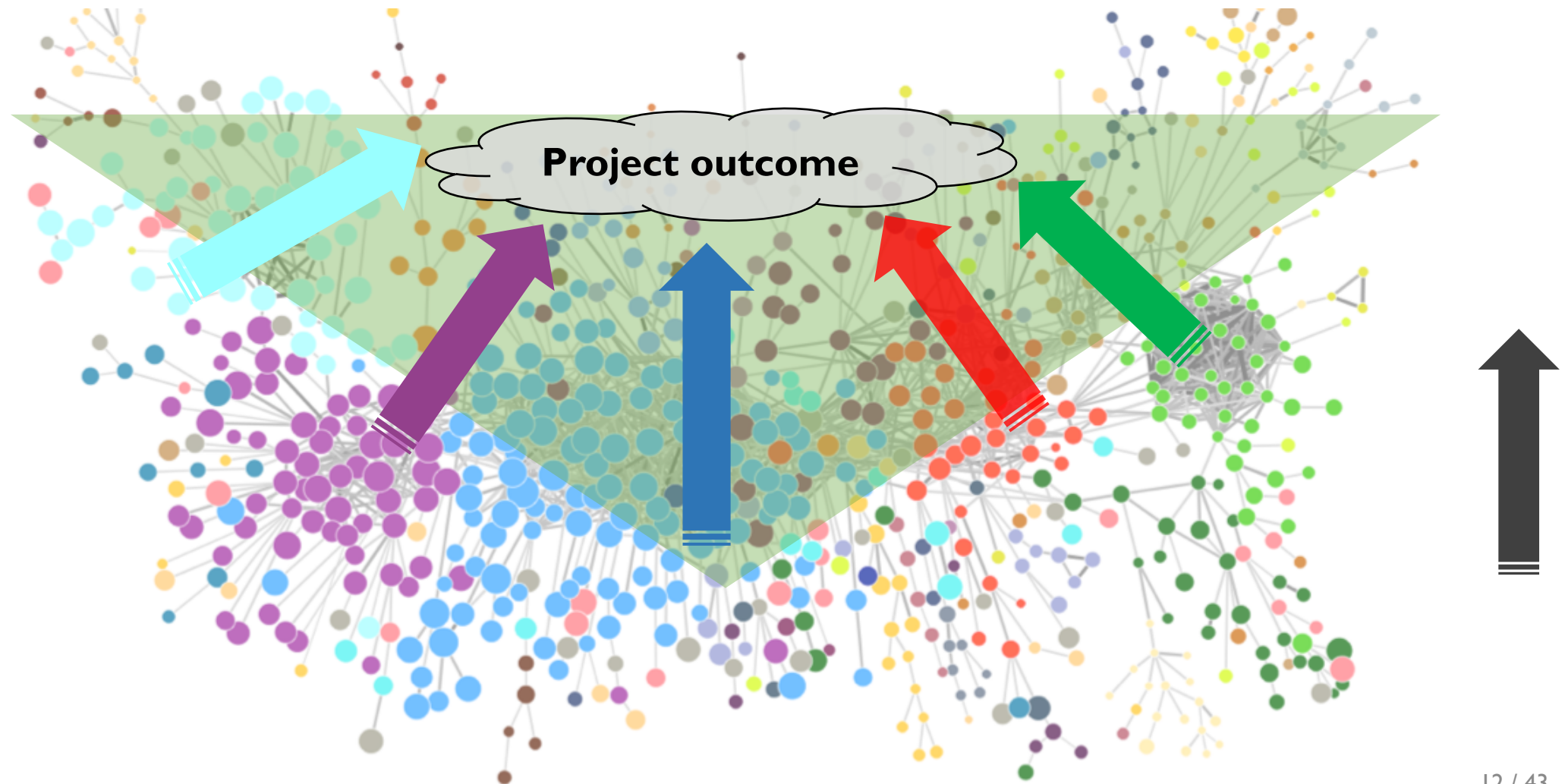


Shared leadership

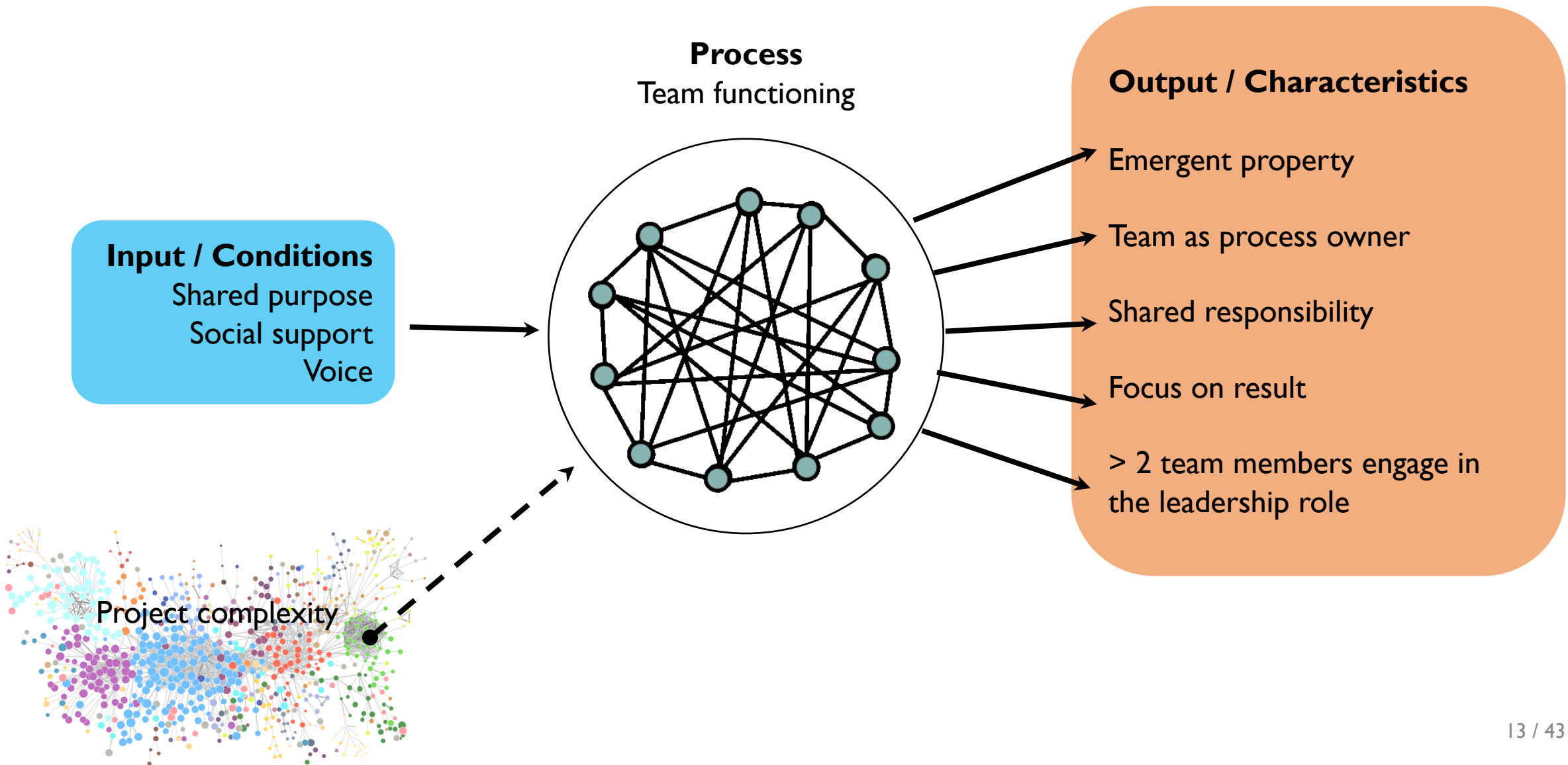
Traditional leadership / top-down approach



Shared leadership / bottom-up approach



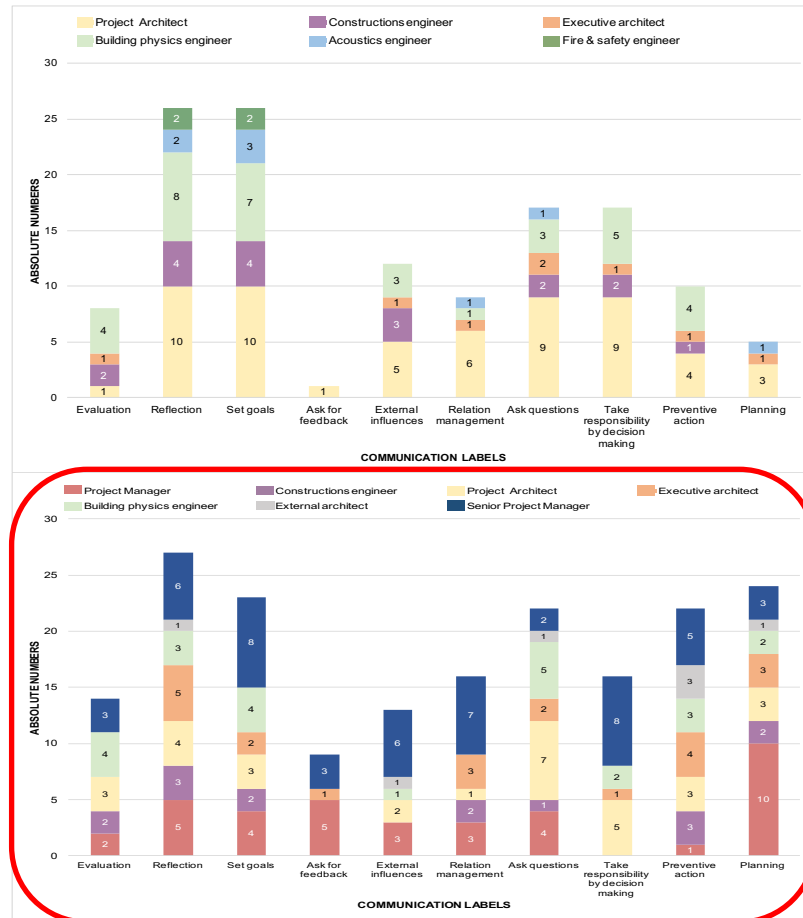
Shared leadership



Research



Research question



Graphs by Syed (2017)

Considering **interpersonal skills**,
 how can **process managers*** influence
team functioning in **project-based integrated
 design teams** which apply **shared leadership**?

Interpersonal skills are important

*“I have a huge interest in **how** other **people think**, what **their motives** are and that they **all feel heard**. And that is by **showing interest**.*

*That is something **different than fulfilling a task**.*

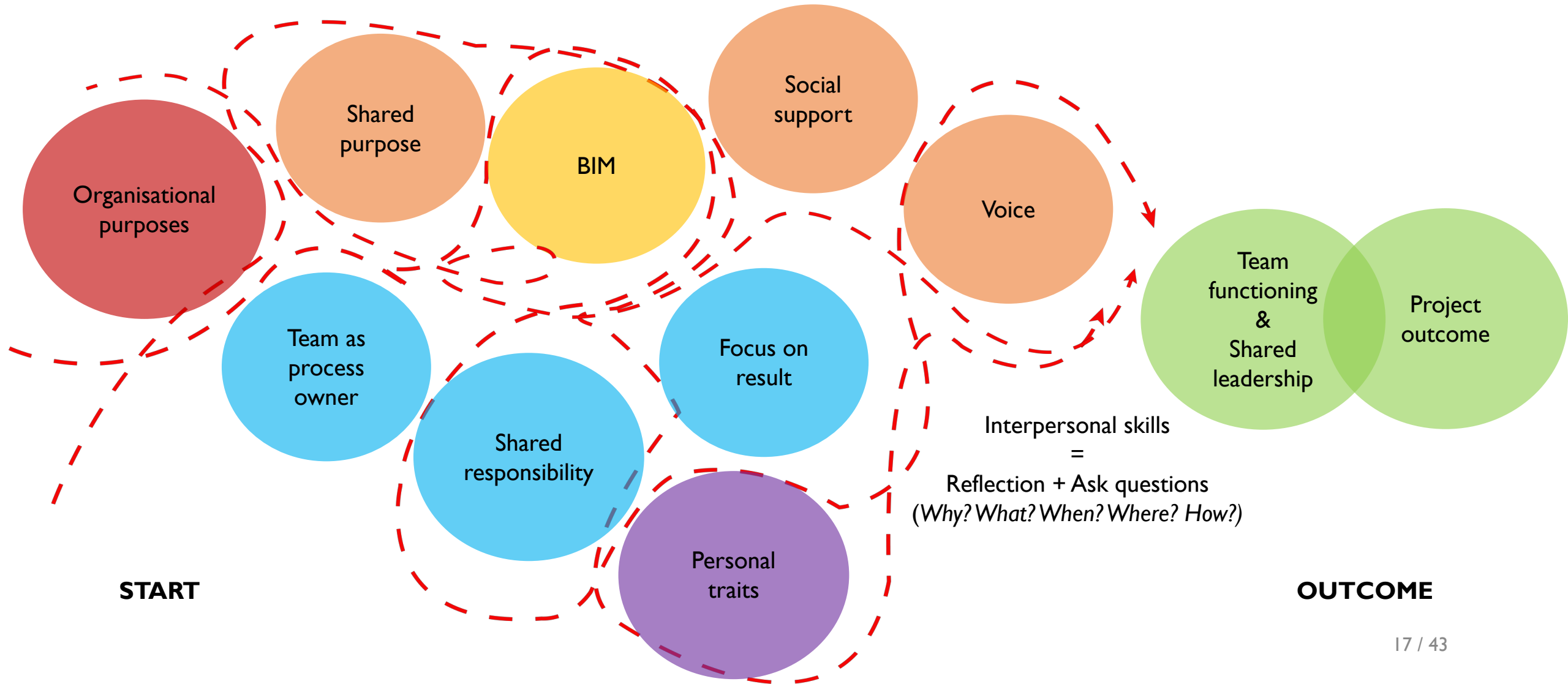
*The **team members all know how the technical process works**.*

*It is **important** to think about the **functionality** and the **integral collaboration**. And that needs to get attention.*

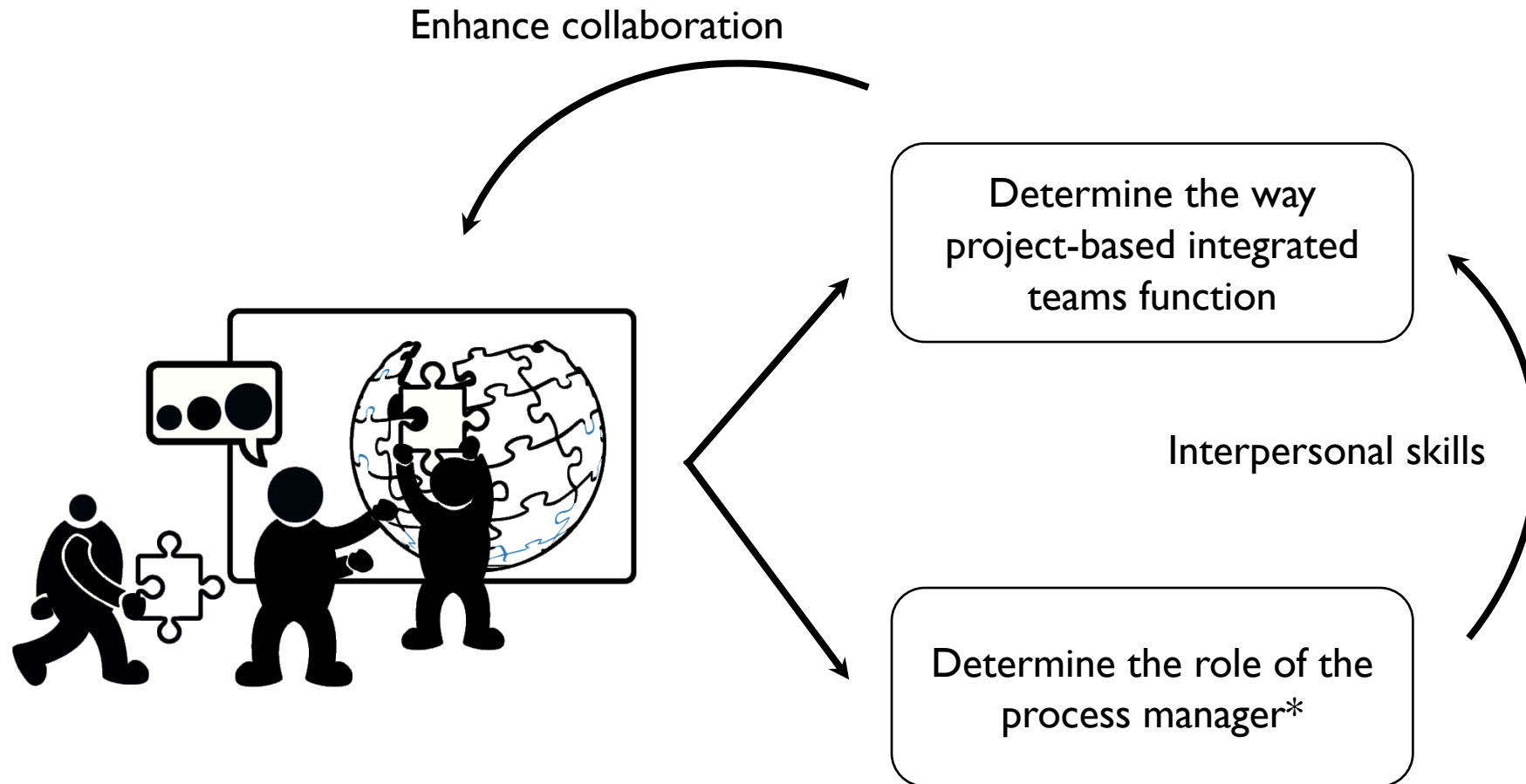
*That is where my attention goes. Which is much **more people oriented than task oriented**.”*

(Process manager, case study I, interview with Syed, 2017)

Interpersonal skills smooth processes

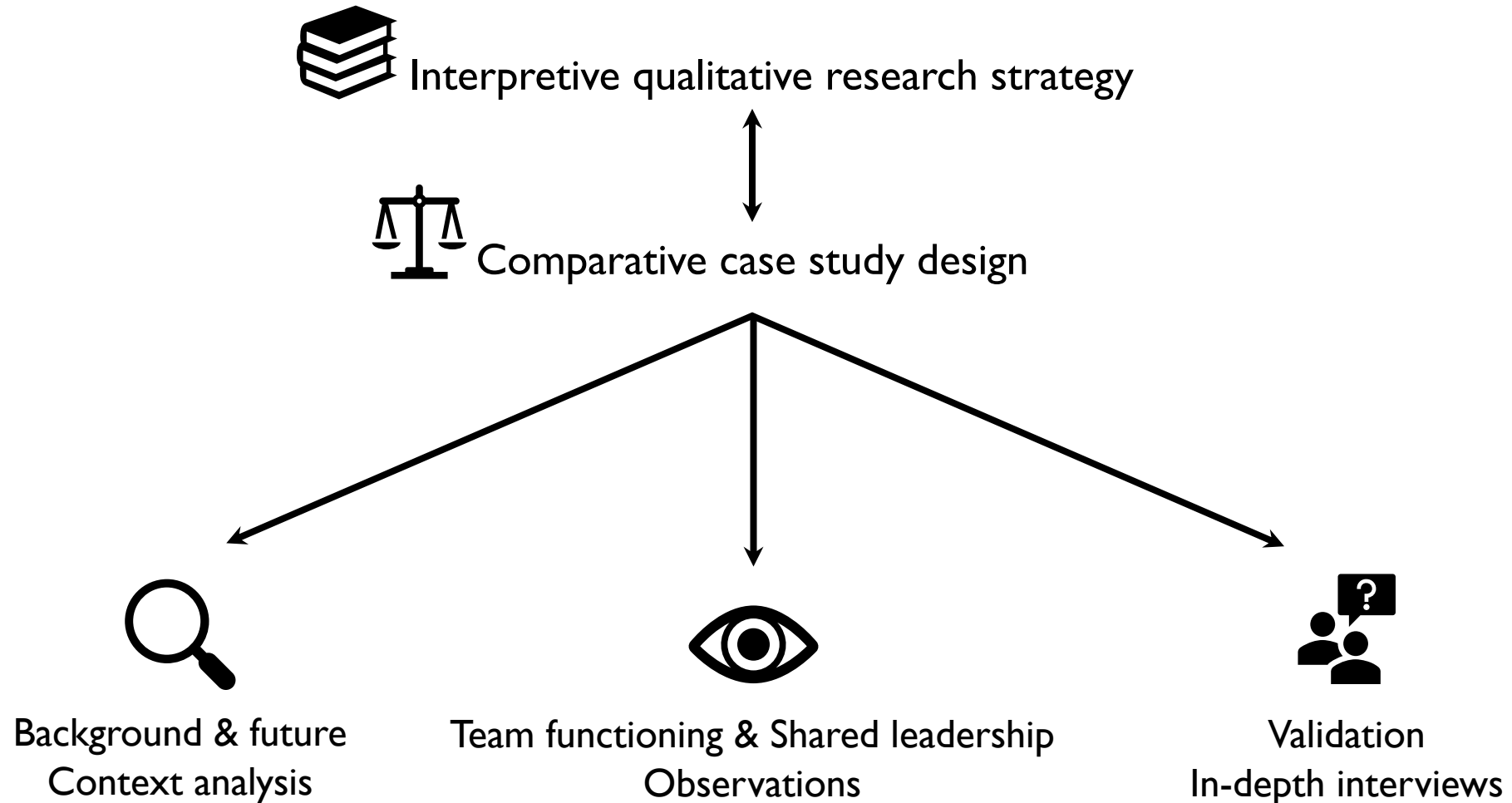


Research aim & relevance



*Adopted terminology used in case study project plan

Research methods



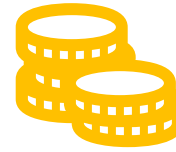
Observing team functioning & shared leadership



Behaviours



Actions



Project topics



Interpersonal skills

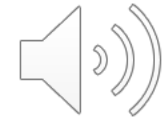
Dialogue between lead architect 2A & lead architect 2B (case study 2):

Lead architect 2A: “Did they ask for **such a panel?** The client” → **Asks question, quizzical behaviour**

Lead architect 2B: “The client asked?” → **Asks question, quizzical behaviour**

Lead architect 2A: “No I ask. Did they ask? I never speak to them...” → **Asks question, quizzical behaviour**

Lead architect 2B: “Oh yeah, no I... No we do not have discussed about that **but I think it is okay if we tell the story like that**”



Case selection

Case study 1



- Renovation and additional department to existing hospital ~ 30.000 m²
- Preliminary design 2 phase
- 3-year delay
- Involved parties:
 - Foreign hospital organisation
 - All parties are Dutch

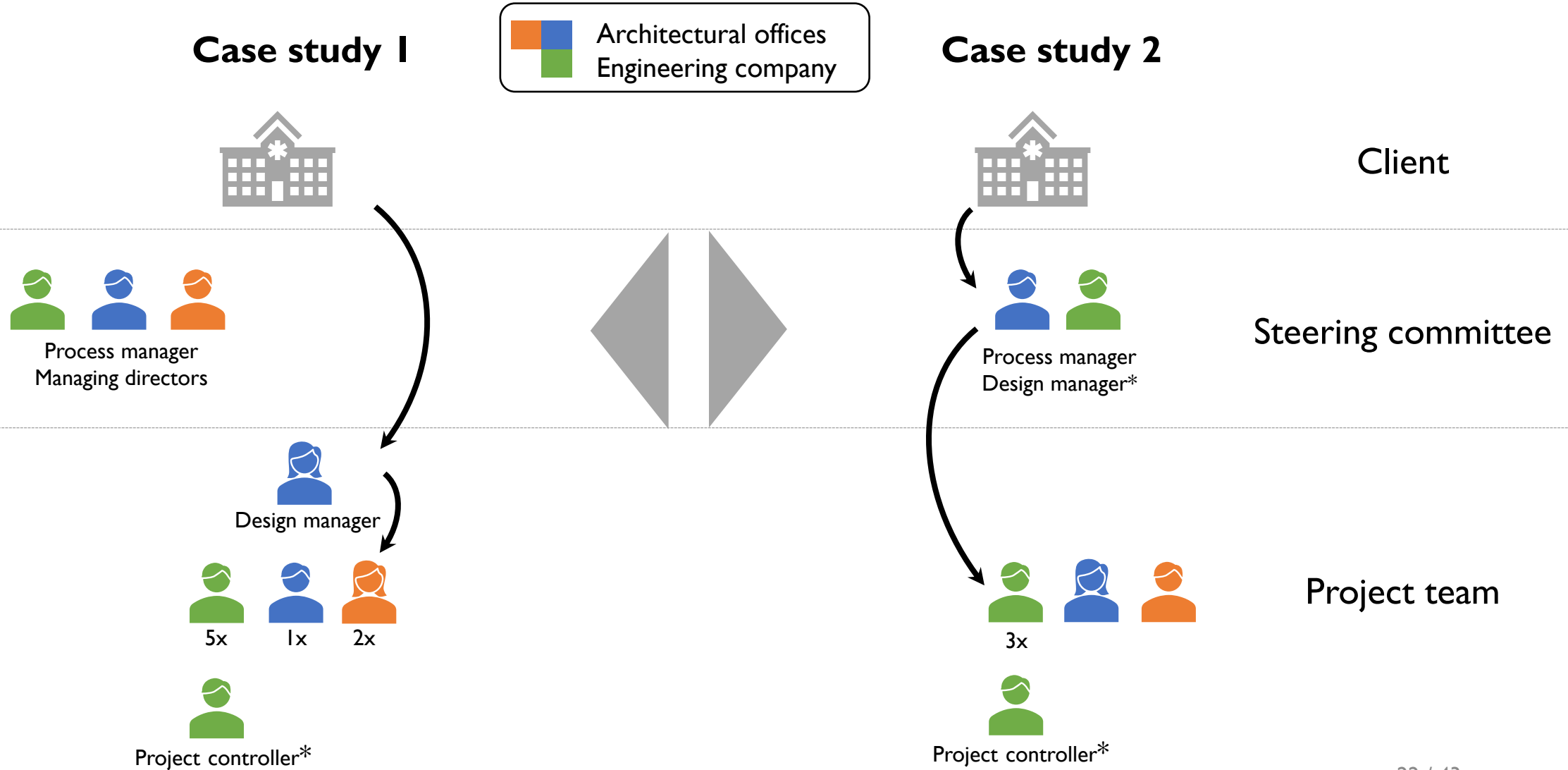
Case study 2



- New hospital building complex to be built ~ 130.000 m²
- Technical design phase
- 1-month delay
- Involved parties:
 - Foreign hospital organisation
 - Foreign architects
 - Dutch subcontractor
 - 3 languages involved



Project organisation & communication



Main differences case studies

	Case study 1	Case study 2
1. Project size	~30.000 m2, addition and renovation	~130.000 m2, new
2. Area context	Urban, more challenging	Non-urban, less challenging
3. Contract	Even share %	Uneven share %
4. Planning	3-year delay	1-month delay
5. Spoken language	1 language	3 languages
6. Information management during project meetings	BIM as 3D Revit model	BIM as a means
7. Team composition	Dutch, bigger and more diverse	Foreign, smaller and less diverse
8. Presence of managers	Mostly present	Mostly absent



Case study I: Observations

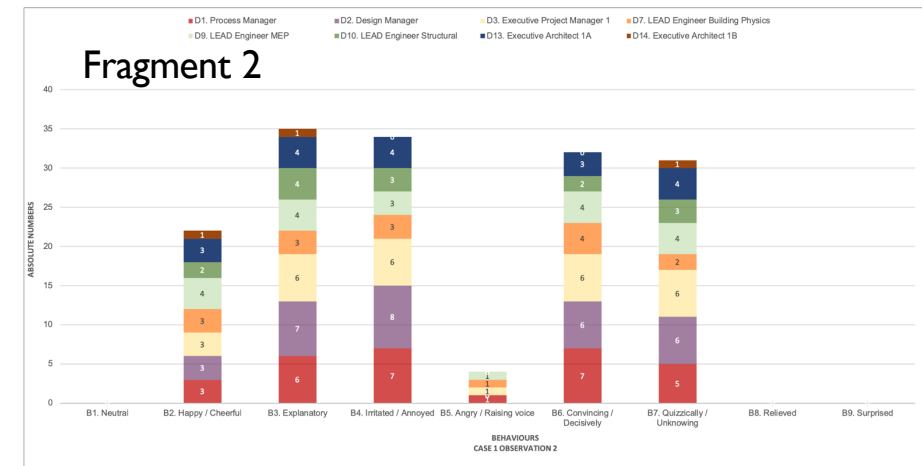
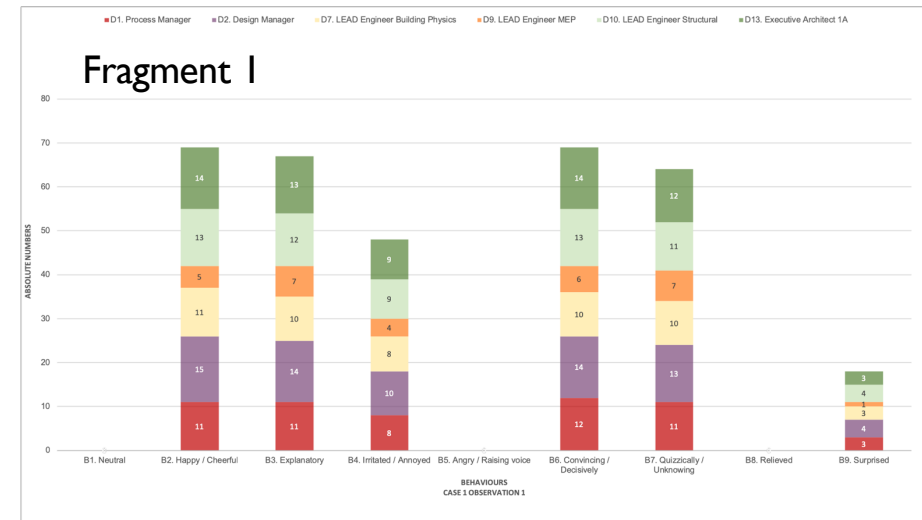
“I do not understand, so what are the **deliverables** for the building permit? [...] Is an additional wind research **within our scope**?”
(Building physics engineer, August 15, 2018)

“So how much time do we need for [...] ? In conclusion, the **planning is not feasible**?” (Process manager, August 15, 2018)

“Is it working? Can you see it?” (Design manager, Skype meeting, October 1, 2018)

“I think meeting face-to-face is much better. Call me old fashioned but **designing is done face-to-face with pencil and paper**”
(Process manager, Skype meeting, October 1, 2018).

“I feel like I have just **wasted my time**” (Structural engineer, October 1, 2018)



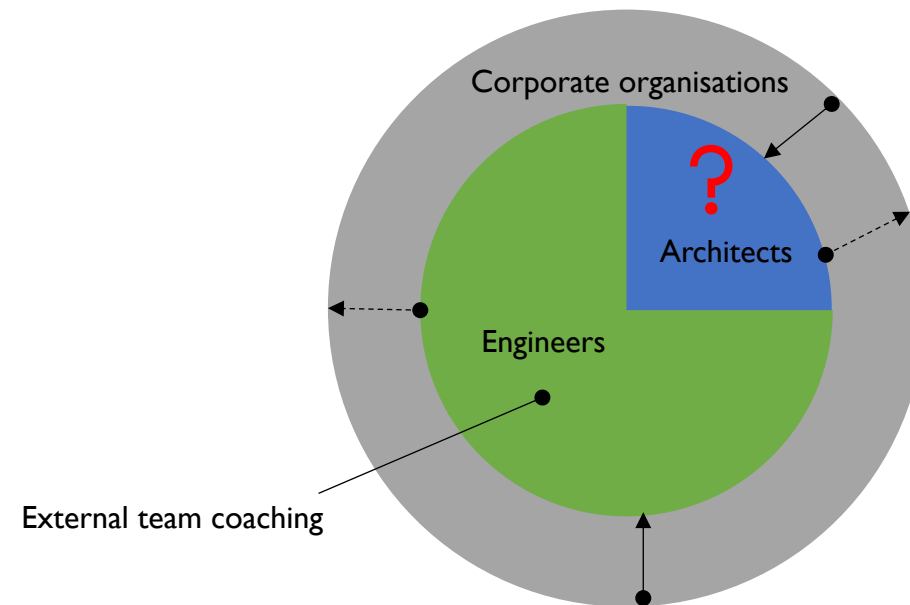
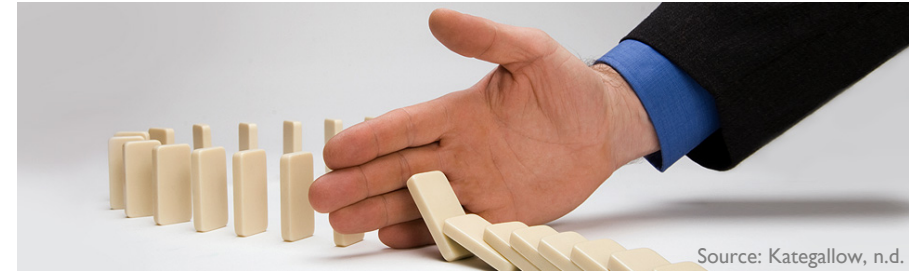
Case study I: Intervention

“This **project organisation is complex** eh?” (Process manager, October 8, 2018)

“Let’s **talk about** the project and the collaboration, let’s make a round starting with [engineer team member]” (Project controller, October 8, 2018)

”I need to **be able to talk to my project manager**” (Building physics engineer, October 8, 2018)

“So **how** do we solve this? Any **suggestions? What** needs to change?” (Process manager, October 8, 2018)



Case study I: Observations after intervention

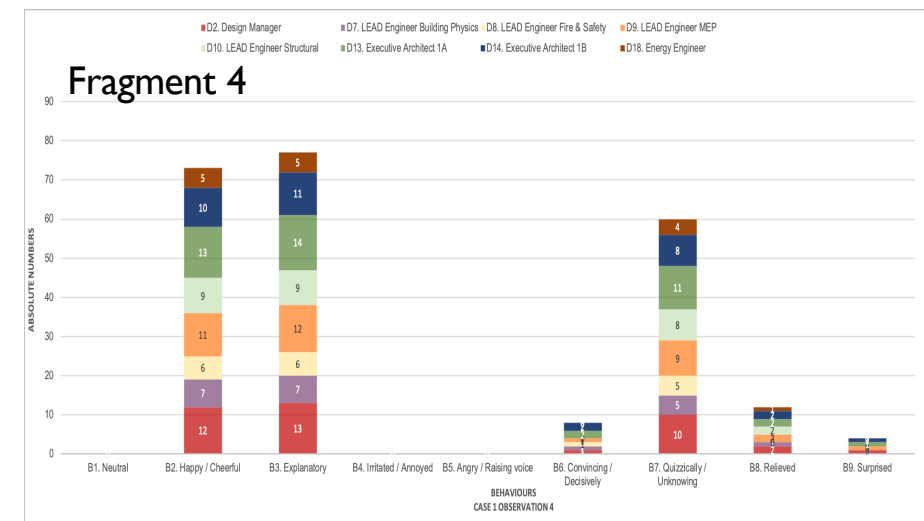
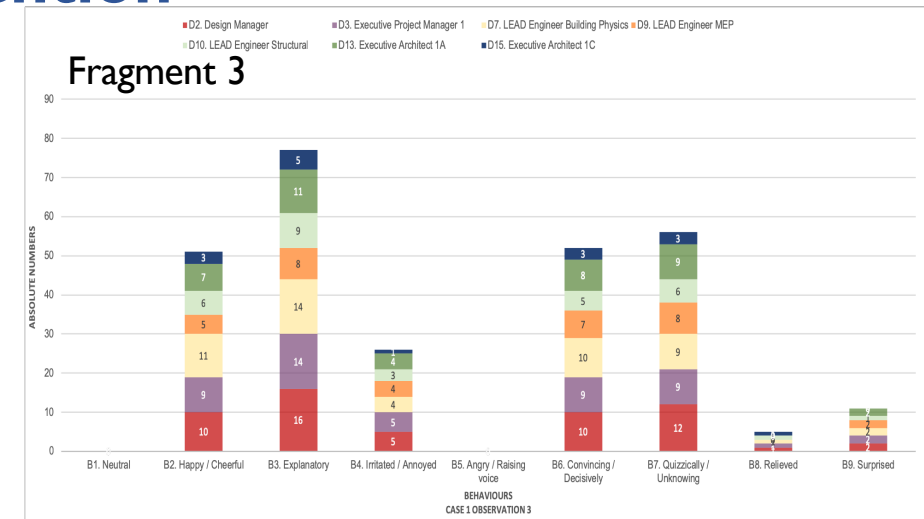
“The floor plans are necessary for my calculations. This is my report and what my discipline is about” (Building physics, October 10, 2018)

*“I do not understand can you please **explain**”* (Executive architect IA, October 10, 2018)

*“So if I understand correctly [...], is **that sufficient time for** [engineer team member]?”* (Project controller, October 10, 2018)

*“We have to take the **building order** also into account”* (Design manager, October 25, 2018)

*“Let us **introduce ourselves to the new members** who joined us, **I will start** [...].”* (Design manager, October 25, 2018)



Case study 2: Observations

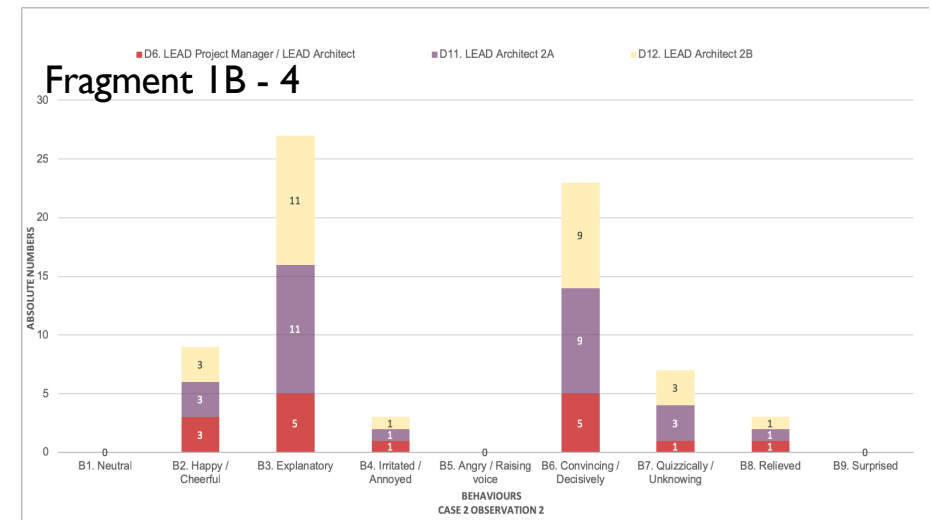
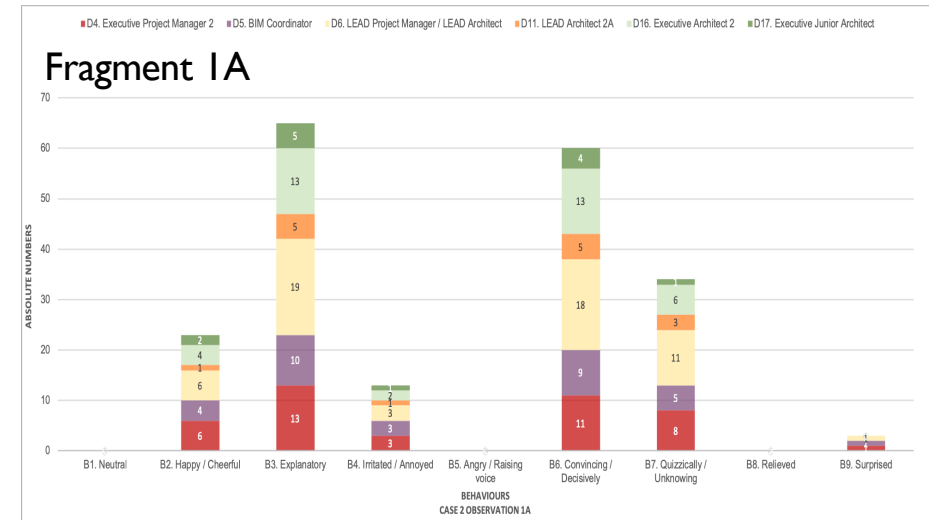
“So what does that mean extra work? What does that mean according to [country] **regulations?**” (Project controller, August 29, 2018)

“Wait. He is saying something else than what you just said. Are you **aware of that?**” (Project controller, August 29, 2018)



“The problem with the **volume** is, that the **space** is too short [...] The idea is that you can change this each month, like the four seasons. I like it” (Lead architect 2B, September 27, 2018)

“I have **prepared some questions** and made some **remarks**. So let us have a look” (Executive architect 2, October 17, 2018)



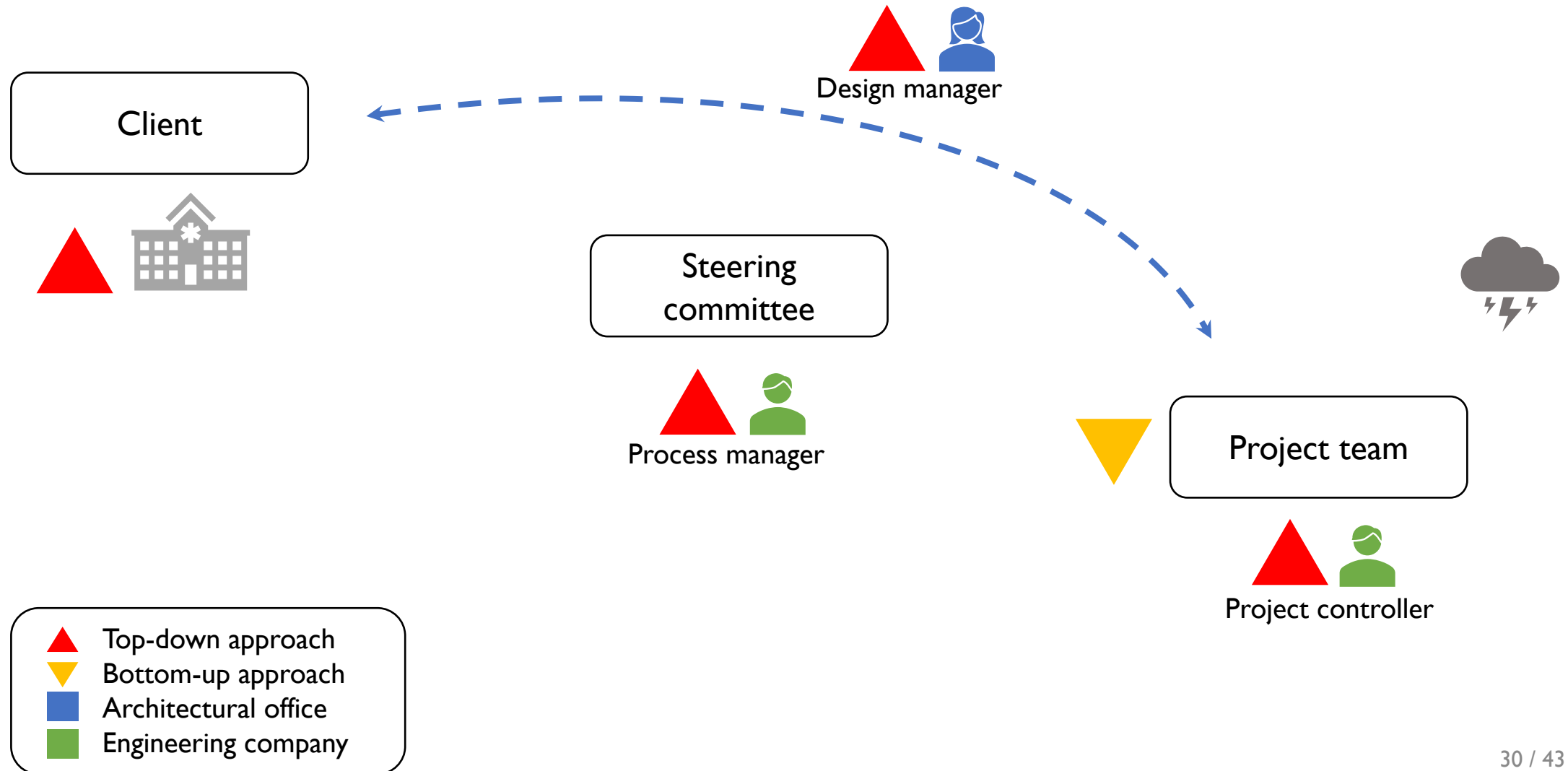
Findings

Three managers in the project organisation



Design manager	Process manager	Project controller
<p>“Design manager (project management role with a strong focus on design). The project architect does not design but guards the quality of the design. And sufficient coordination with other disciplines. Taking responsibility by making sure that my team that works on a project does the right things. We do what the client needs of which we ourselves should think it is good and that the quality is good. There is also a bit of cost management. So that we guard our scope”</p> <p>(Design manager, case study I, interview with Syed, June 2017).</p>	<p>“My formal role is master project responsible or project director. I am responsible for the financial quality and the overall project aspects. And this can be fulfilled in different ways. That is what I sometimes do, I try to get to the roots of the tree which I try to do from a sideways and not apply a hierarchical approach. [...] And try to get to know the bottlenecks. The response you get out of these questions and the atmosphere are the most important”</p> <p>(Process manager, case study I, interview with Syed, October 2017).</p>	<p>“I have no formal role in the project team. I mainly focus on facilitating mutual understanding among team members of the engineering team. So internally”</p> <p>(Project controller, case study I, informal conversation, February 18, 2019).</p>

Finding I Project organisation and context



Roles & responsibilities

Project leader?

Project director?

Design manager?

Project manager?



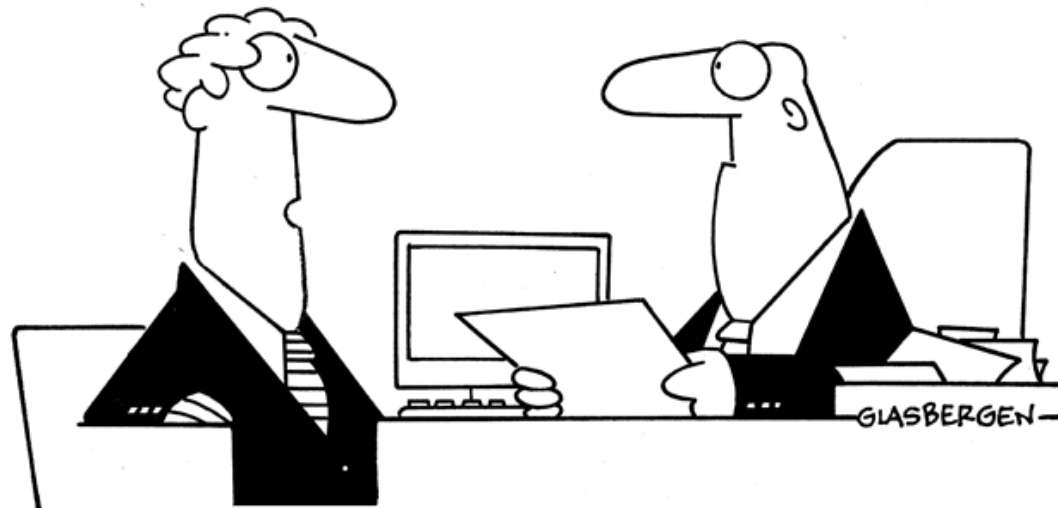
“Planning and budget are not my responsibility, so I do not know”
(Junior architect, case study 2, informal communication, October 17, 2018)

“I need to be able to talk to my project manager” (Building physics engineer, case study 1, intervention, October 8, 2018)

“The design manager should be able to manage the process”
(Process manager, case study 1, informal communication, October 1, 2018)

“The design manager is also the process manager” (Project controller, case study 1, interview, March 27, 2019)

Conflict of interest



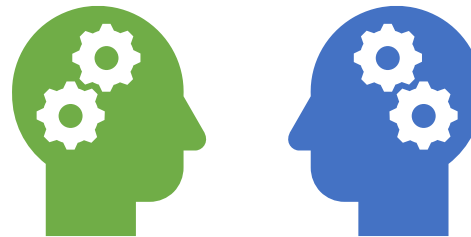
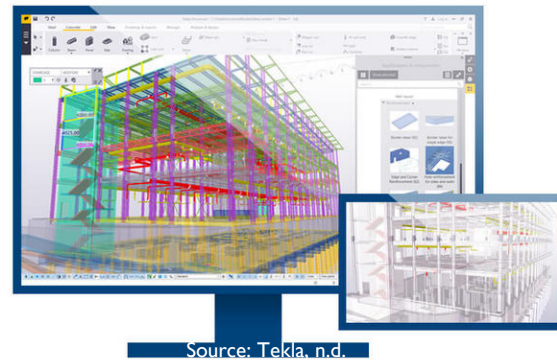
"Yes, I have leadership experience. Last week I organized a street protest against your company."

*"One time the design manager was surprised and made a puzzling remark why the engineers are not allowed to work... Well yeah, that was because of the costs. The budget has been spent, there is no **money.**"*

(Process manager, case study I, interview, March 27, 2019)

Finding 2

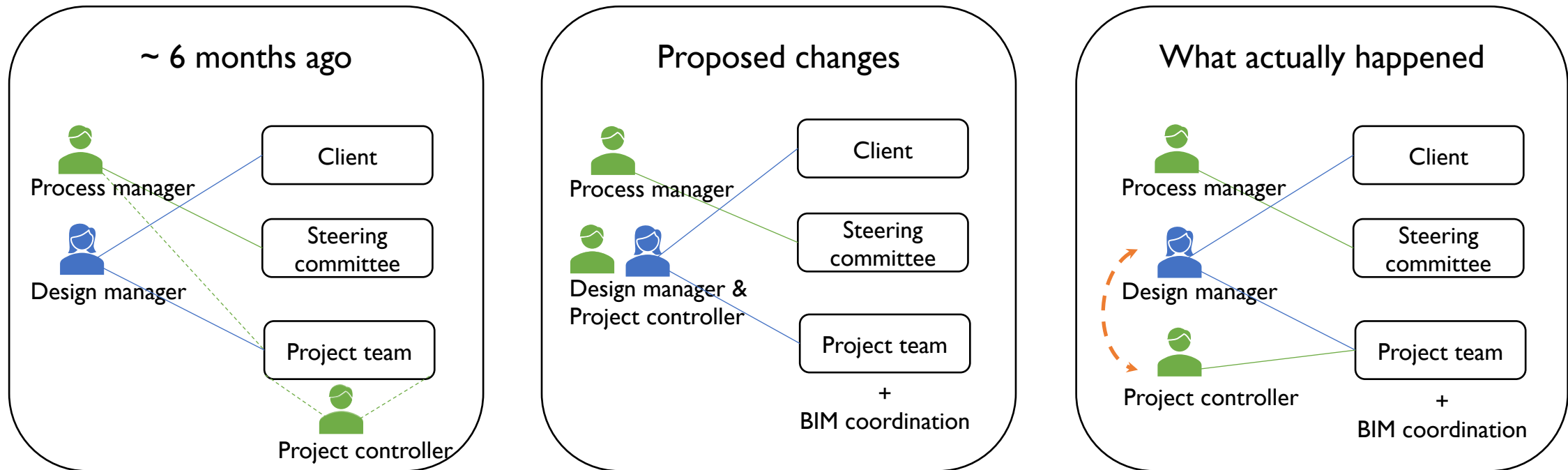
Information management part of team functioning



Building Information Modelling
(BIM)

Validation

Changes in case study I project plan





Conclusions

Research question

Considering **interpersonal skills**, how can **process managers*** influence **team functioning** in **project-based integrated design teams** which apply **shared leadership**?

Important findings

- Project organisation and context → purpose, roles & responsibilities
- Information management → BIM to support shared mental model

Recommendations for shared leadership



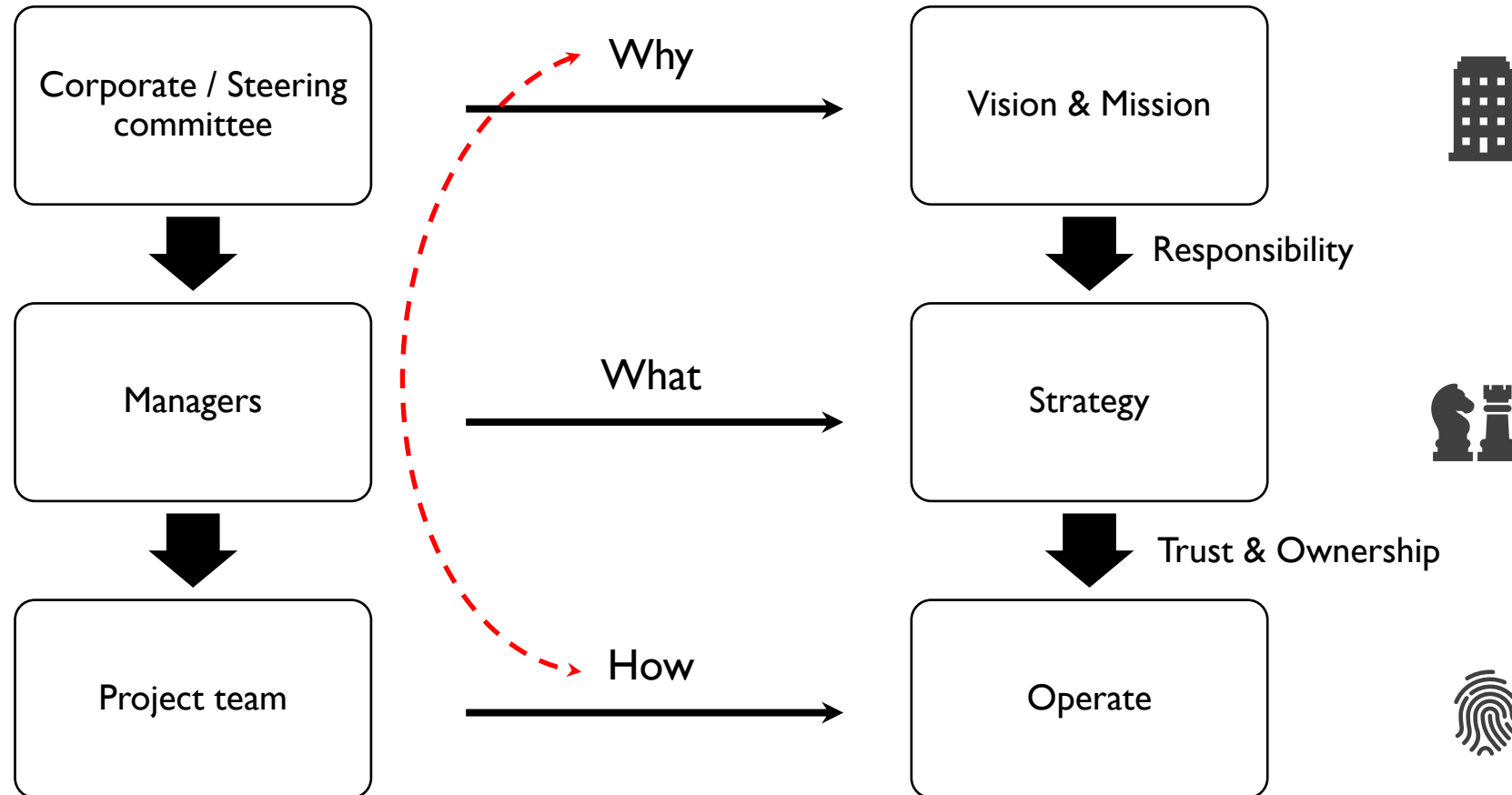
- Shared responsibility \neq shared risk
- Mindset and culture
- Open communication
- Manage expectations
- Reflect



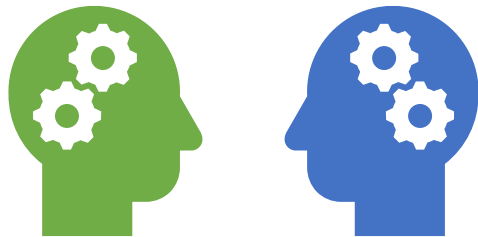
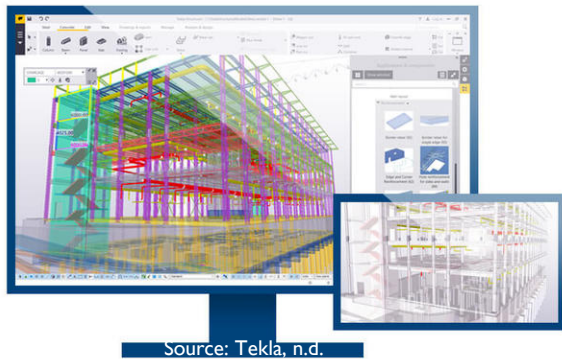
Pyramid of Lencioni



Recommendations for practitioners



BIM supports shared leadership



Complex projects such as hospitals can benefit from BIM (Merschbrock & Munkvold, 2015).

BIM as a means to support shared mental model, not as a goal.

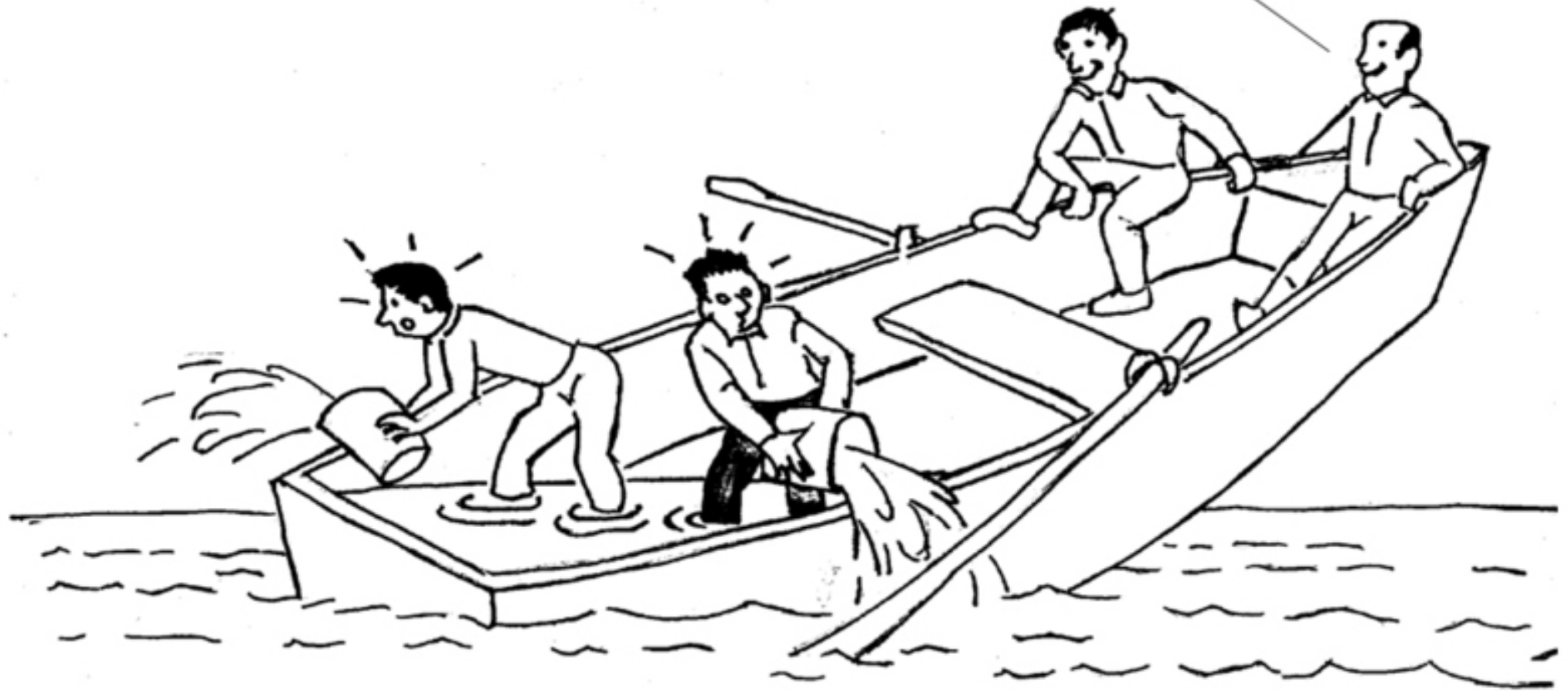
Critical factors (Bel, 2018)

- Stakeholder involvement
- No face-to-face replacement

Recommendations for education



Sure glad the hole isn't at our end.



Thank you

Coming **together** is a beginning

Keeping **together** is process

Working **together** is success

- *Henry Ford*