

The Building Commissioning Process

What is that?....

And is it useful as a
Quality Management tool?

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CLIMA2019 27th May 2019



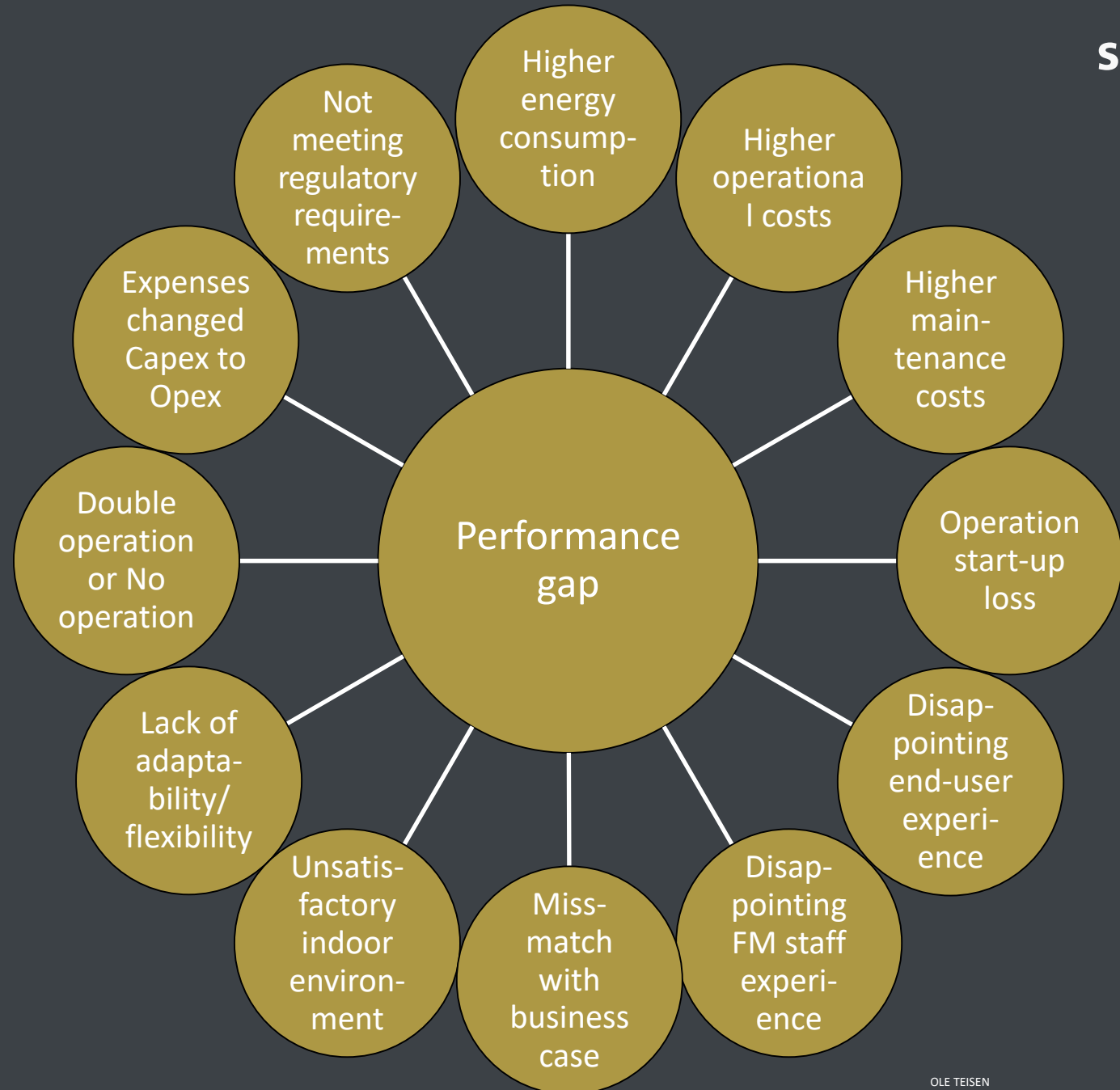
Commissioning Cx, Agenda:

- Why Commissioning?
- How Commissioning?
- Case story
- The future QUEST...

Why Cx?

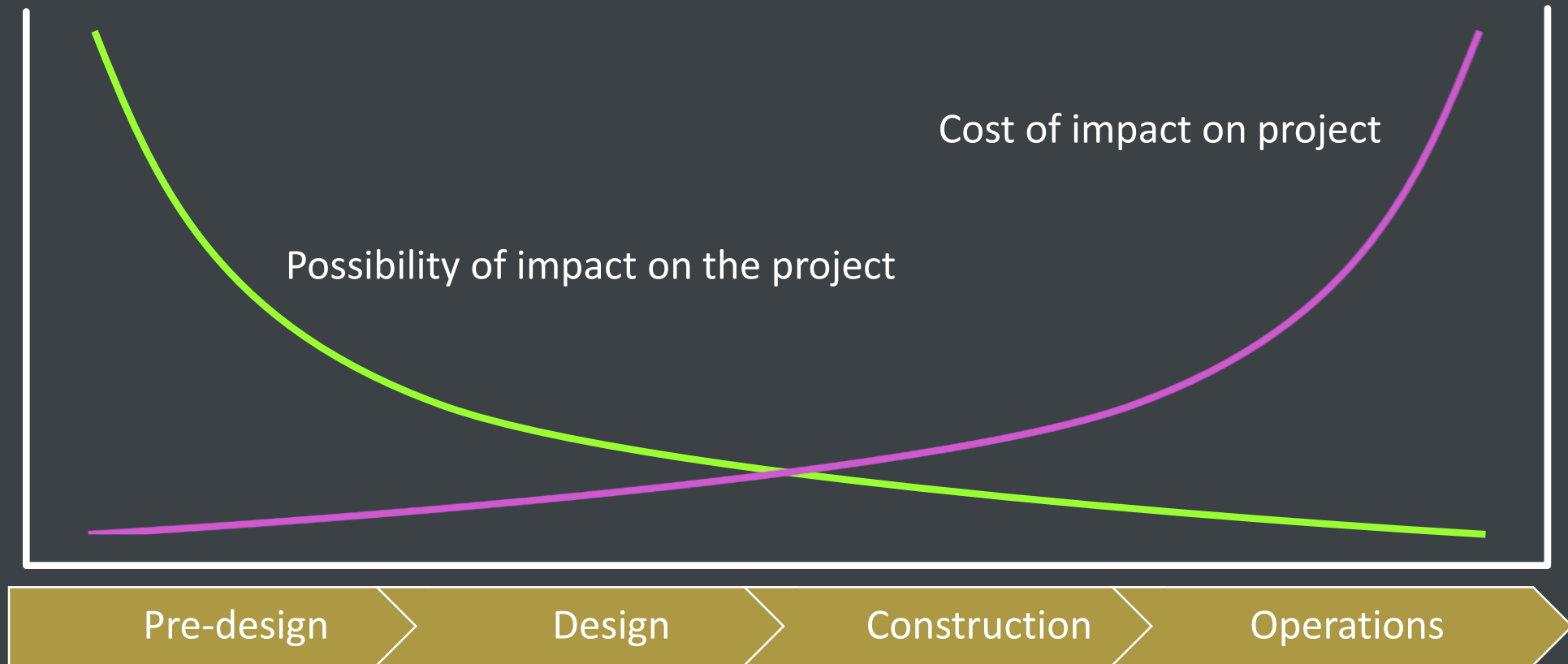
“A facilities manager’s typology of performance gaps in new buildings”

Rasmussen, Helle Lohmann & Jensen, Per Anker, 2019

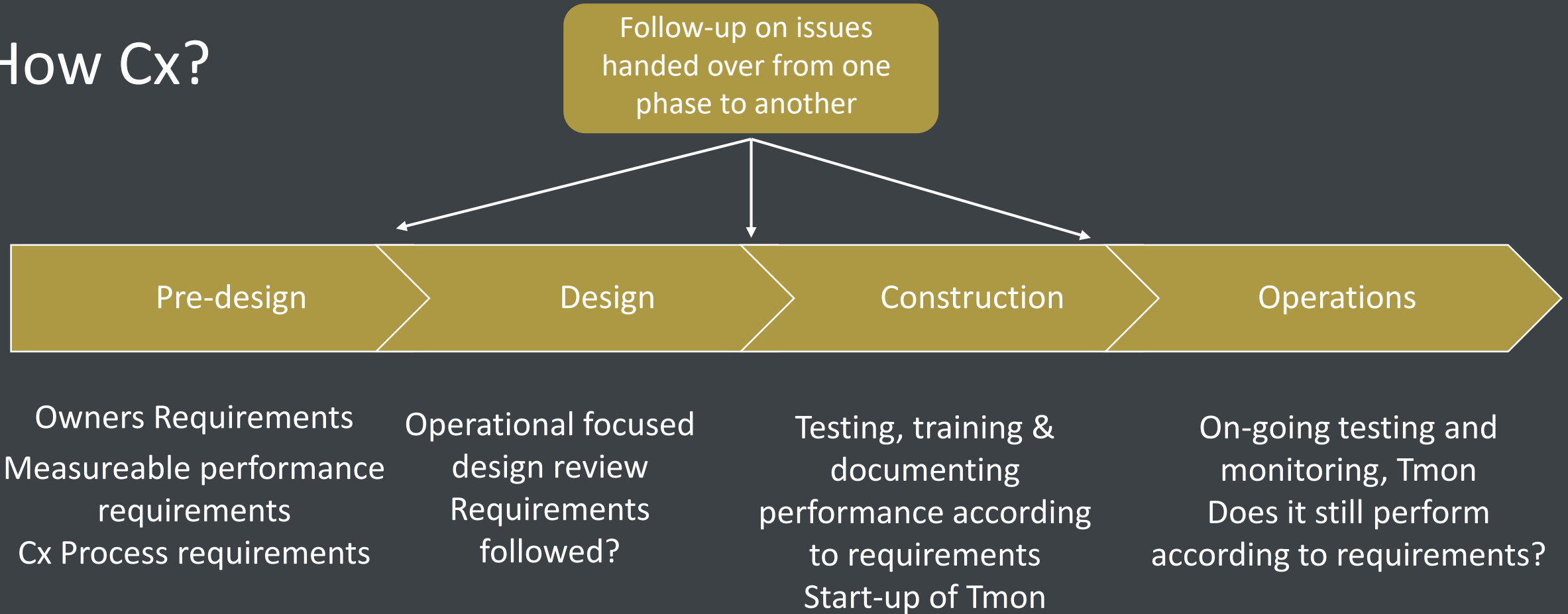




Why Cx?



How Cx?

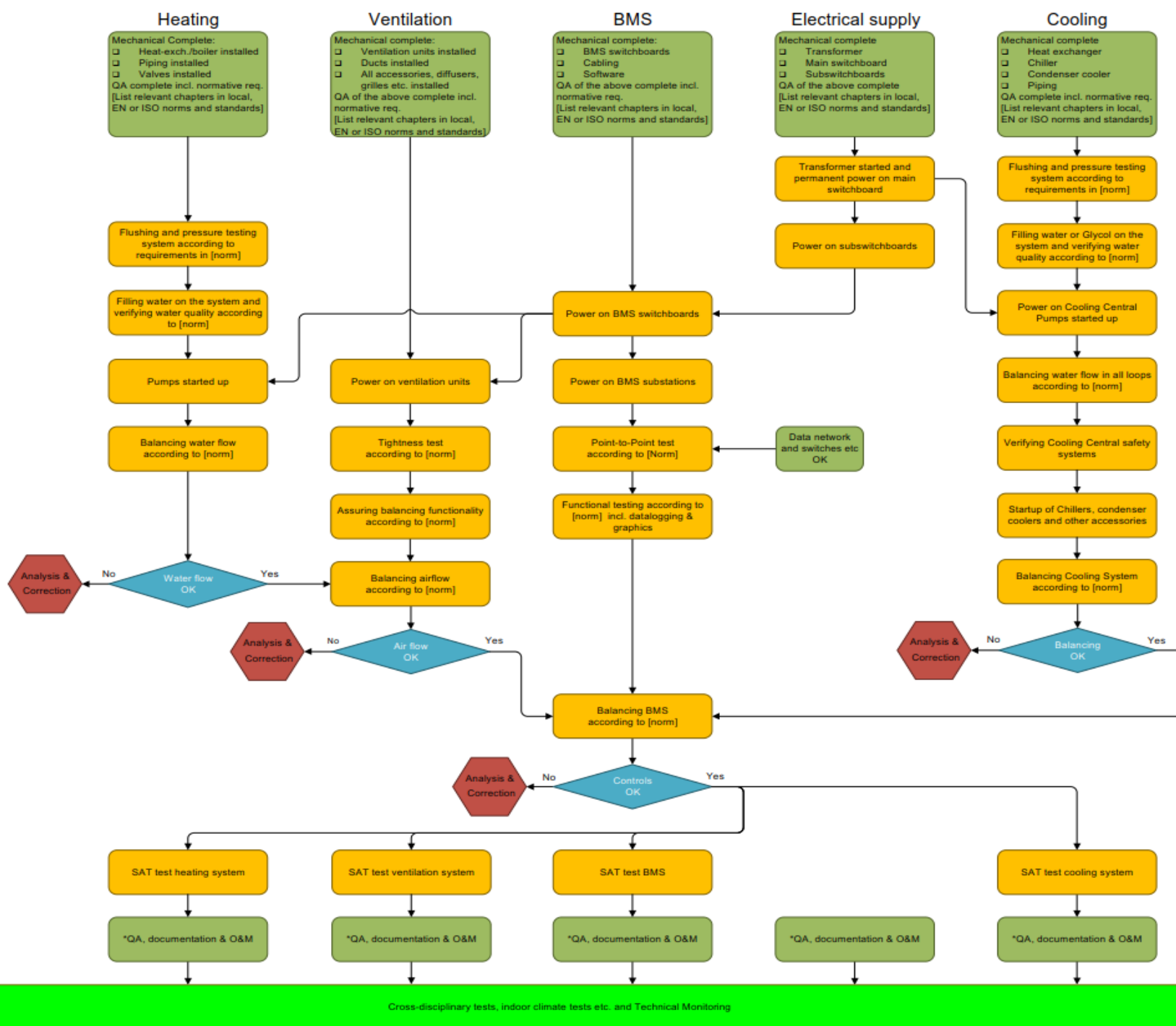


Cx characteristics

- Cx is a Third Party task like Tmon
- Cx is Hands-on task which requires more resources than Tmon
- Risk Management – Reviews to correct errors and deviations before they are built
- On-site follow-up on all prerequisites for testing
- Verification, interdisciplinary testing of the loaded building
- Cx and Tmon continues in the operations Phase
- Cx has no responsibility for the design or Construction

How to test indoor climate...





Legend

Prerequisite

Dark green boxes contains prerequisites. Documentation for fulfilled prerequisite must be shown

Contractor Action

Yellow boxes are actions with an accompanying document reporting the action

ACCEPTANCE

Blue diamonds shows acceptance by the CoP

ISSUE

Red hexagons for issues to solve

Commissioning Action

Light green boxes are Co or TM actions with an accompanying document reporting the action

[Text in square brackets]

- refers to the corresponding norm
Local domestic norms must be activated, preferably related to EN, ISO or other international documents

*QA, documentation & O&M

All QA is completed
All All issues solved and accepted by the Commissioning provider
Documentation, drawings and descriptions exists
O&M exists

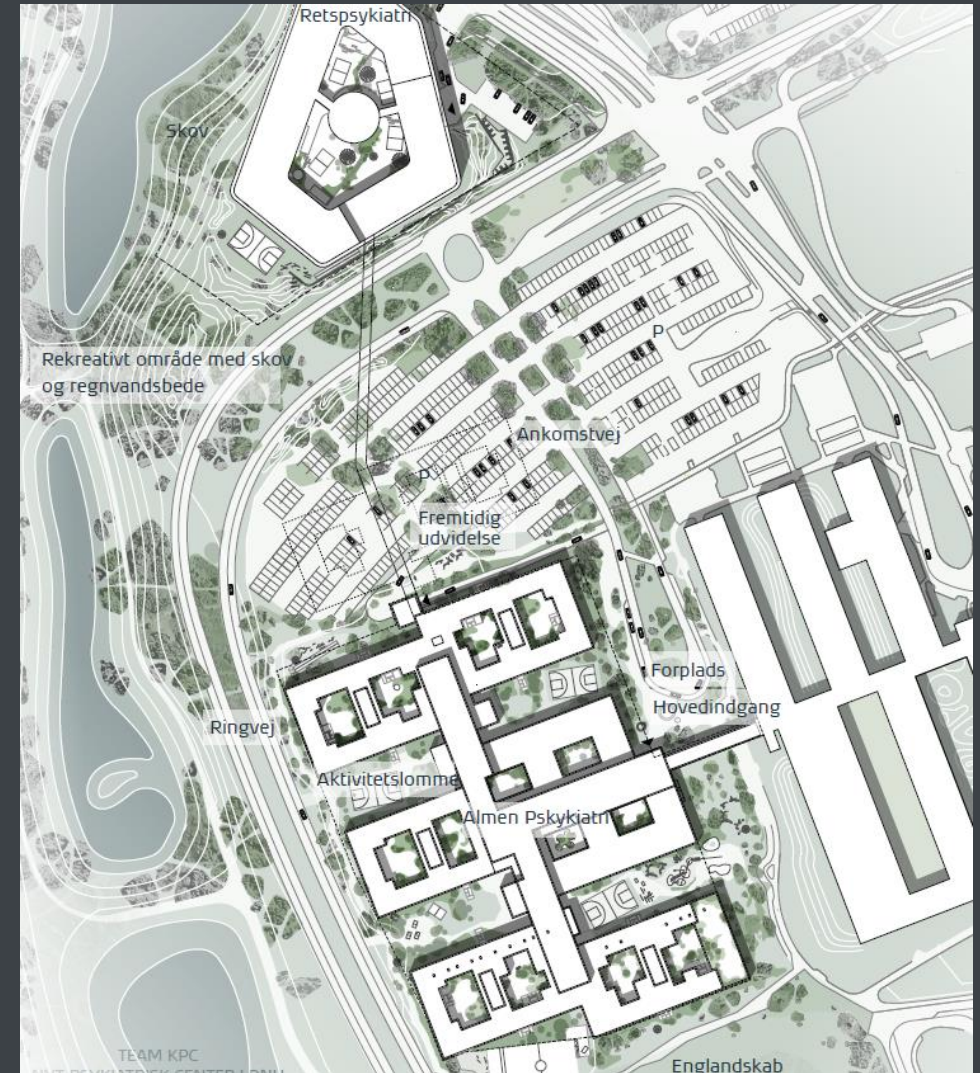


Skejby Psychiatric Hospital

Commissioning Process

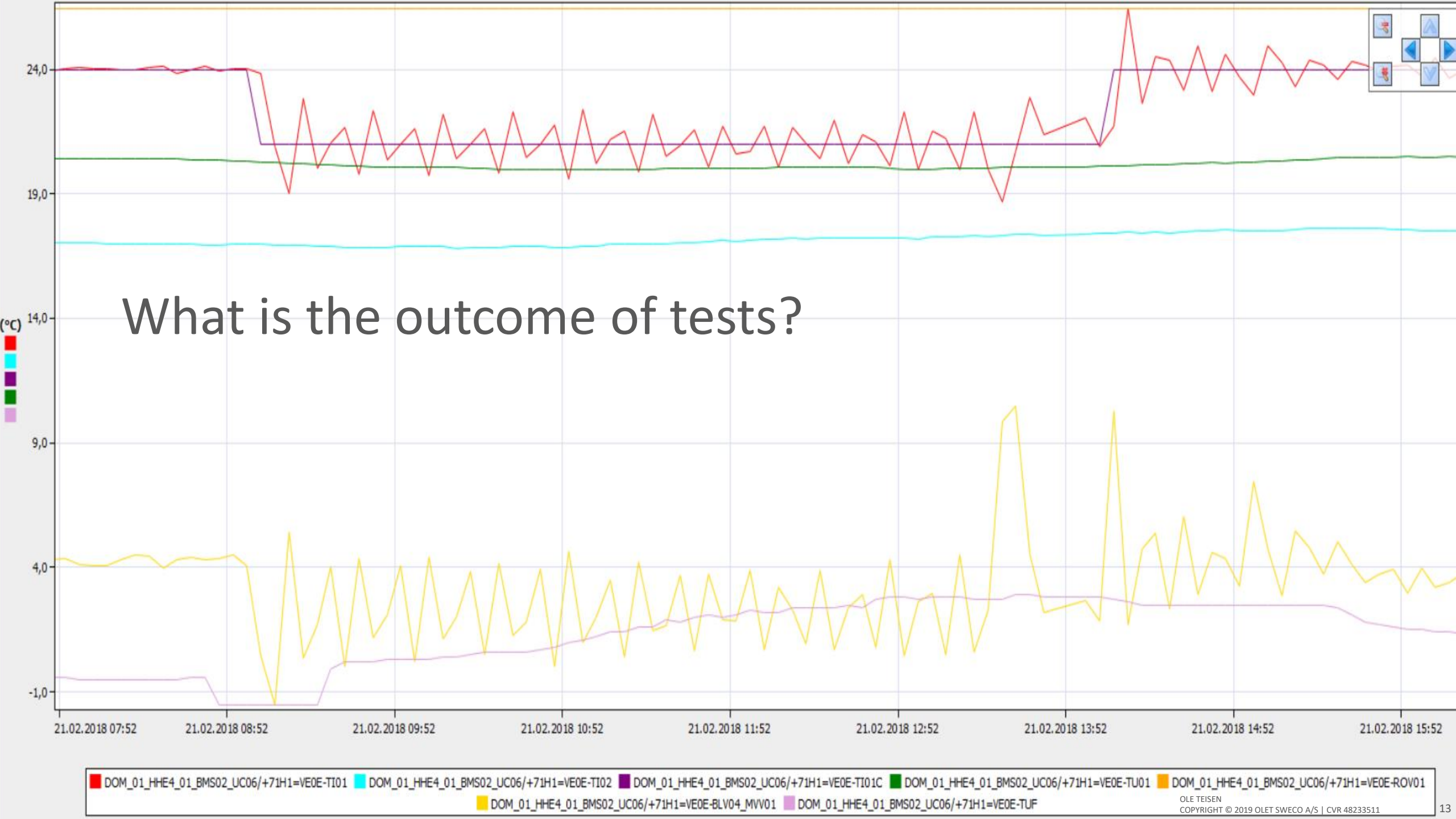
Commissioning Skejby Psychiatric Hospital:

- 1.3 Billion DKK \approx 175 Mio. € \approx 830 Mio. RON
- 40.000 m² Psychiatric Hospital
- 10.000 m² Forensic Psychiatric Hospital
- Public Private Partnership, 25 years O&M



Cx Tests to match the Owners Project Requirements as described in the OPR

Test of multiple installations contributing
to the indoor climate



Some Cx Tests in a Psychiatric Hospital are more odd than average...

Test of P5A safety glass
Must withstand 10 beats with an axe

Cx Tests to match the Owners Project Pequirements as described in the OPR



The glass passed
the test...



Test of door –
90 Kg person...



The future.... - QUEST!

The main goal of QUEST is to increase investments in Sustainability and Energy Efficiency by providing an easy-to-follow methodology for evaluating the risks associated with these investments

Remember:

- Good skills are necessary to evaluate the results!

