



STATSBYGG

BIM conference – EBTG/Statsbygg Digital twin in Statsbygg

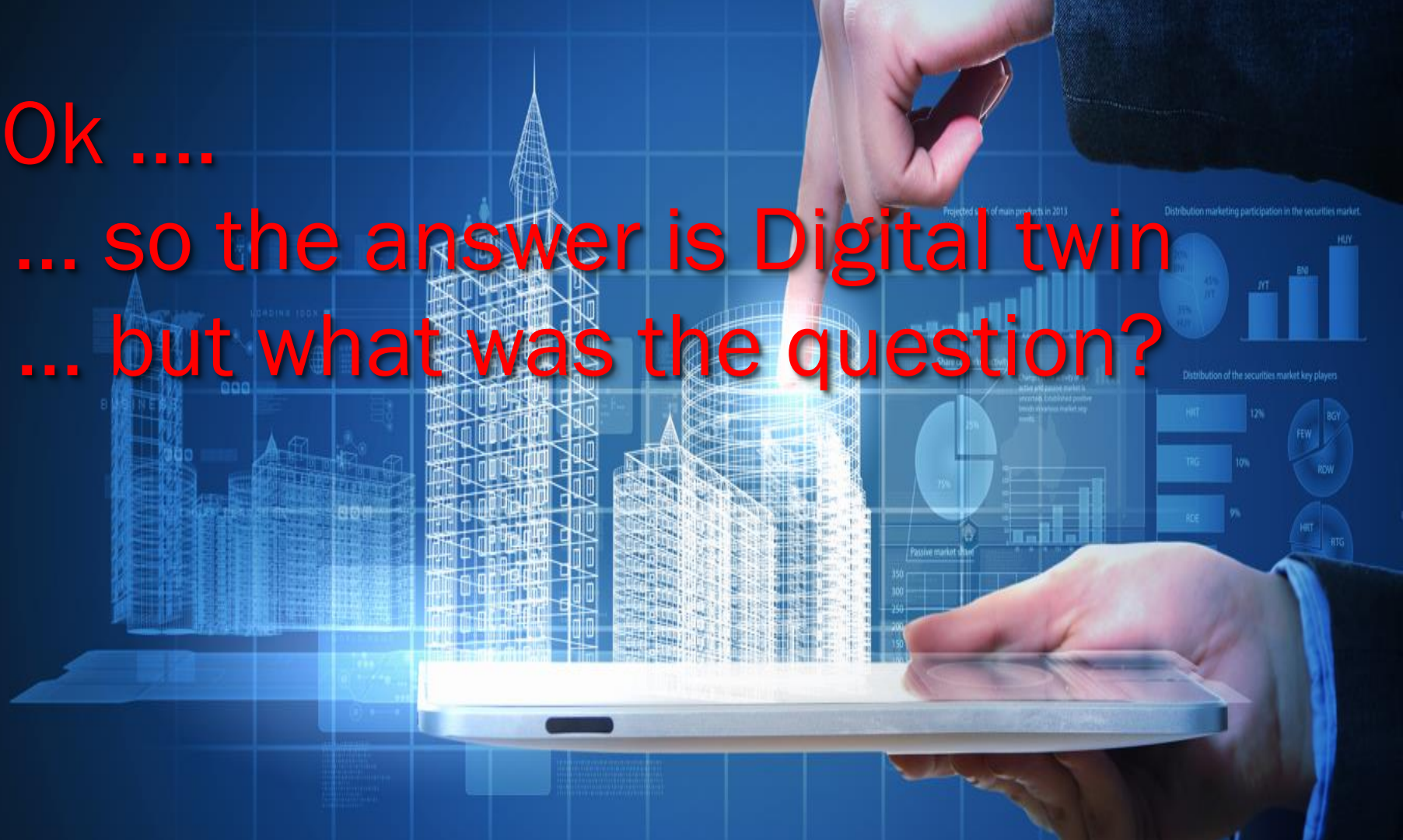
Leiv Engelschiøn/CIO

Oslo, 28.8.2019



Ok

... so the answer is Digital twin
... but what was the question?



The
question is:
why a
Digital twin?



Ambitions



I dag Kort sikt Mellomlang sikt Lang sikt MÅL VISJON

(2017-2018) (2019-20-21) (2022-23-24-25) Digital roadmap

The Norwegian construction industry has high ambitions

Digital construction site

Digital twin

25 % reduction in construction cost

50 % faster construction time

50 % lower greenhouse gas emissions

50 % improvement in export

En heldigital, konkurransedyktig, bærekraftig og seriøs næring



Common digital platform

Standards, rules and regulations

Digital competence

Plan for benefits realisation

FORUTSETNING

PRODUKTER



20 % reduction in facility management and operations cost

Ambitious goals requires dramatic
changes



New ways of
collaborating

Digitalisation

Robotisation

Artificial
intelligence

Analytics

Digital twin



What is a digital twin?

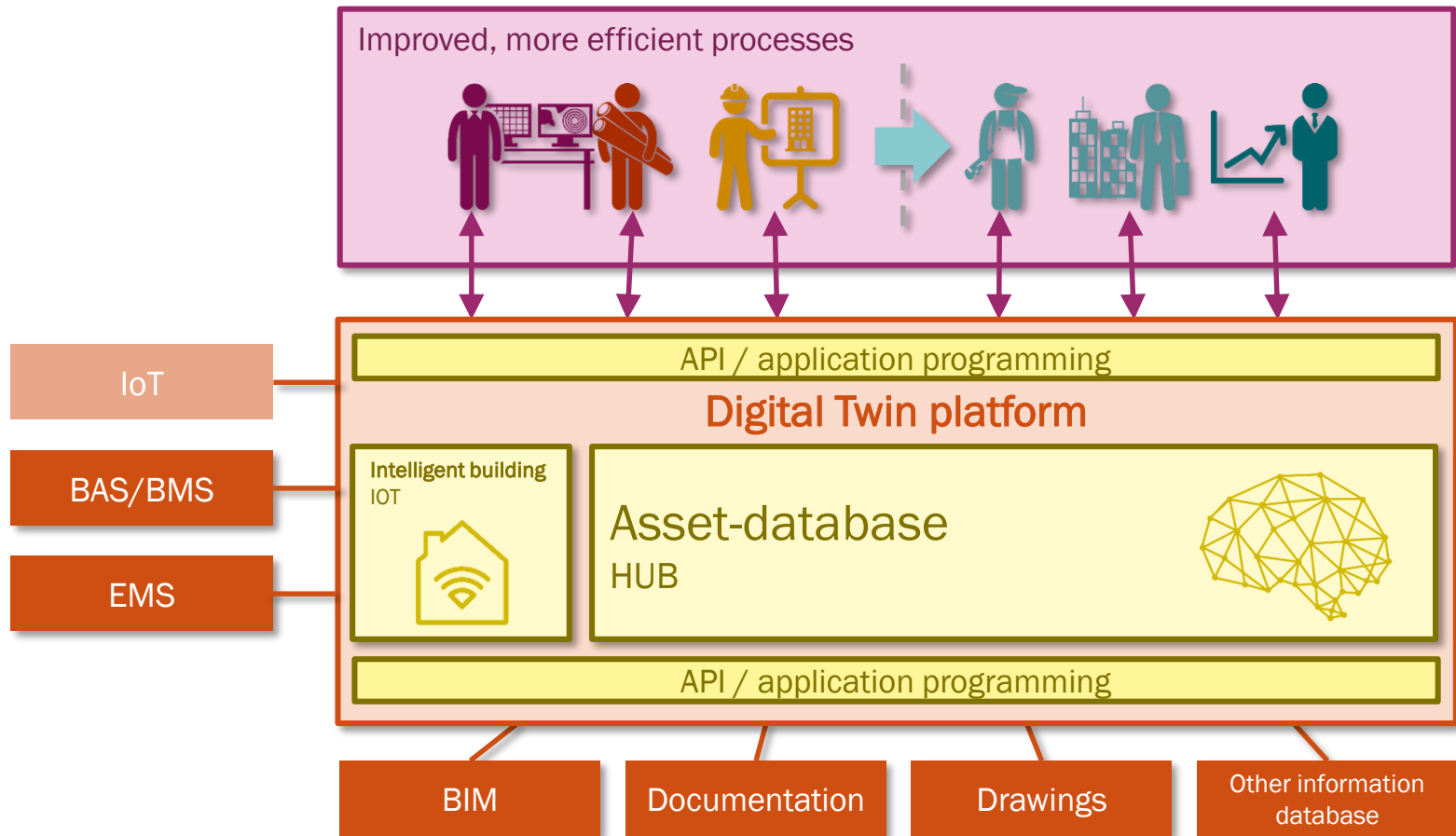


Statsbyggs' definition of a Digital Twin

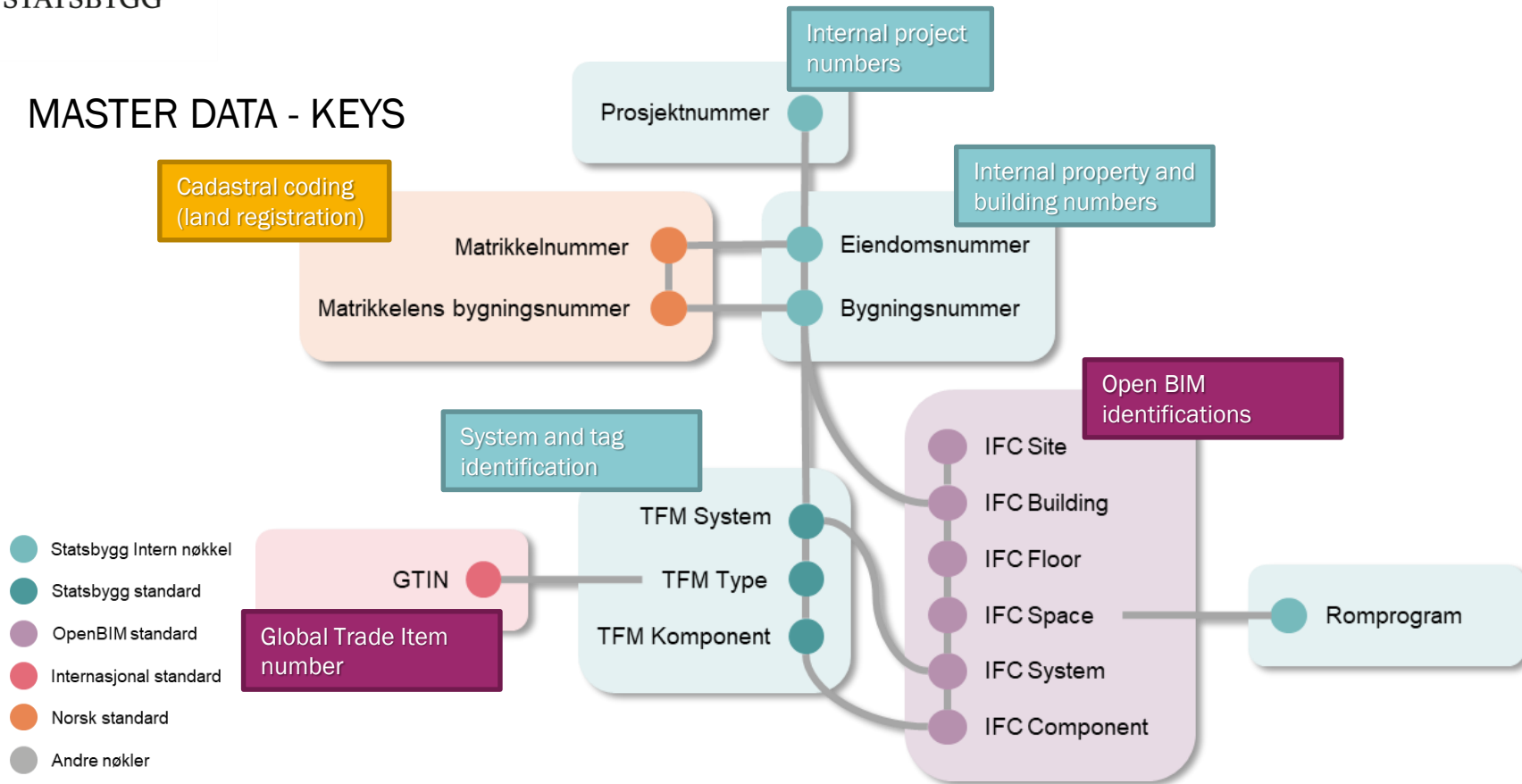
“A **digital replica** of the building that contains all **necessary** information or reference to the **information** covering **all needs** throughout the **lifecycle** of the building, made available for the user where, when and in the form the information is needed”

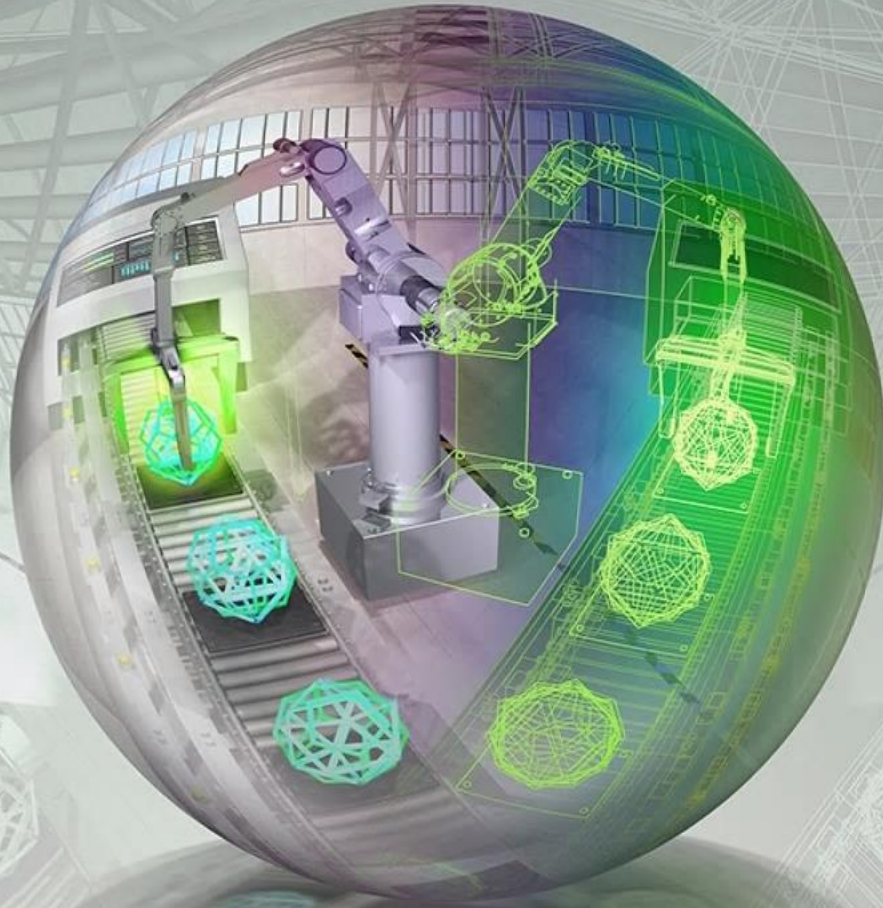


Statsbyggs' digital twin architecture



MASTER DATA - KEYS





What are the
potential
benefits of a
digital twin?

More efficient collaboration

Less construction flaws

Improved cost control

Better design quality

Enabling robotisation

Efficient information flow

Better logistics

As-built = as-designed

All digital

Digital construction site



Information at your fingertip

Visual maintenance instructions

Remote maintenance support

Maintenance as-needed

Preventive maintenance

Maintenance
support





Usage data

Energy saving

Locational services

Individual customization

23%

8%

89%

New services

Custom cleaning

Personalised experience

67%

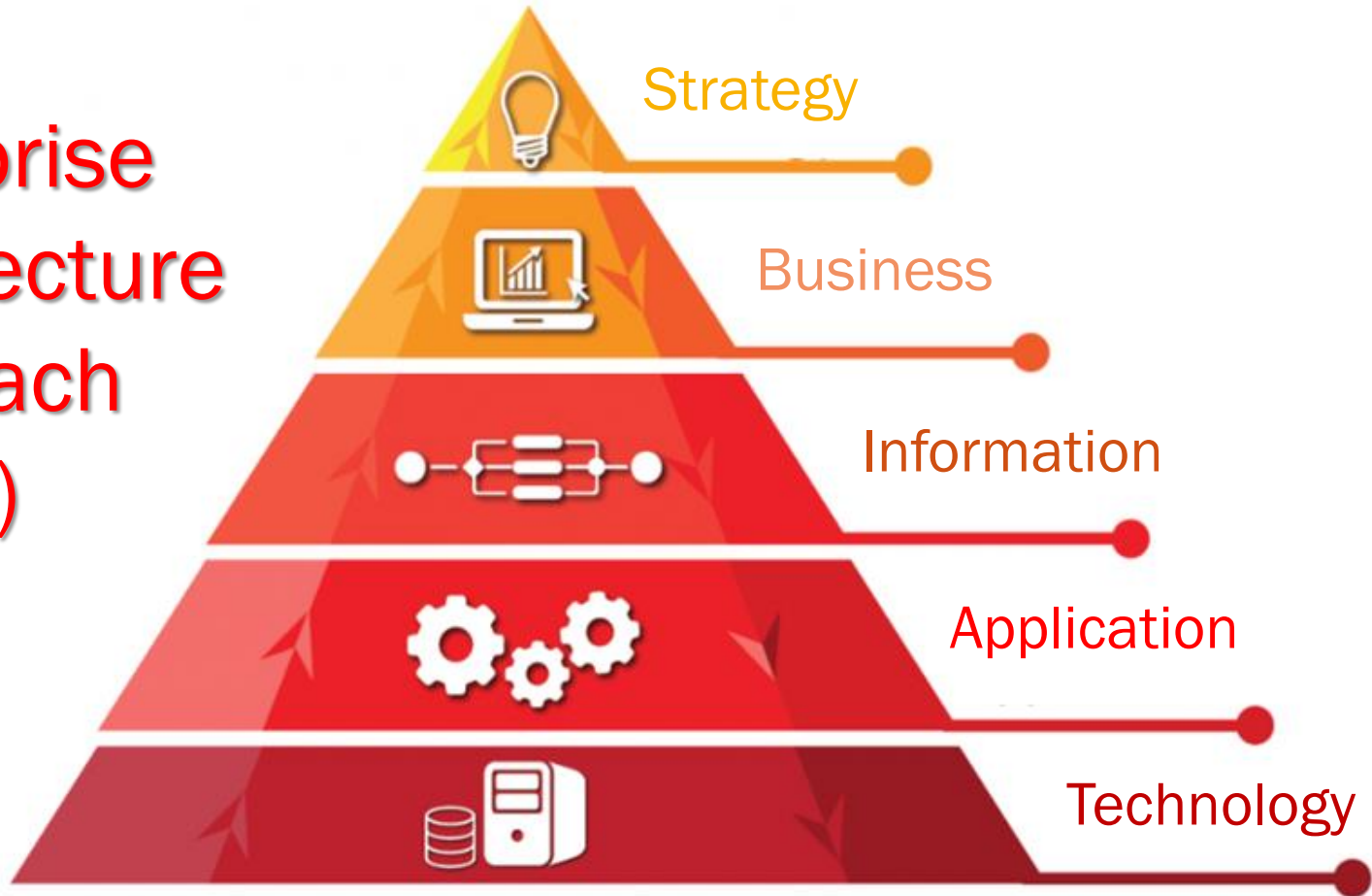
Space optimisation





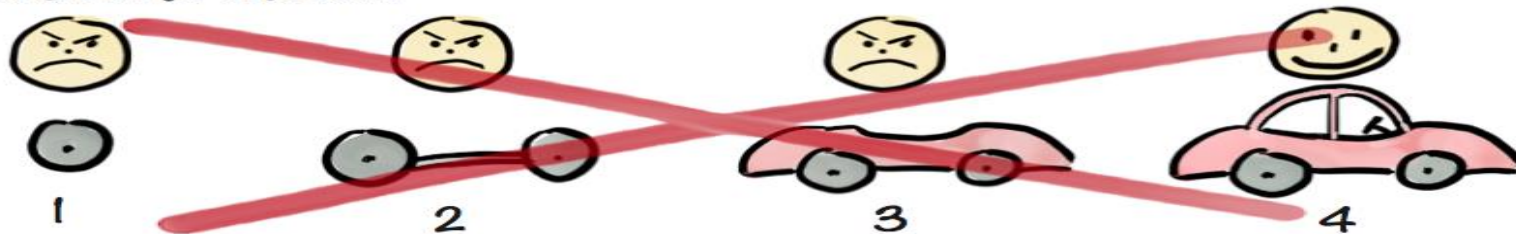
What are we doing
in Statsbyg right
now?

Enterprise Architecture approach (Togaf)

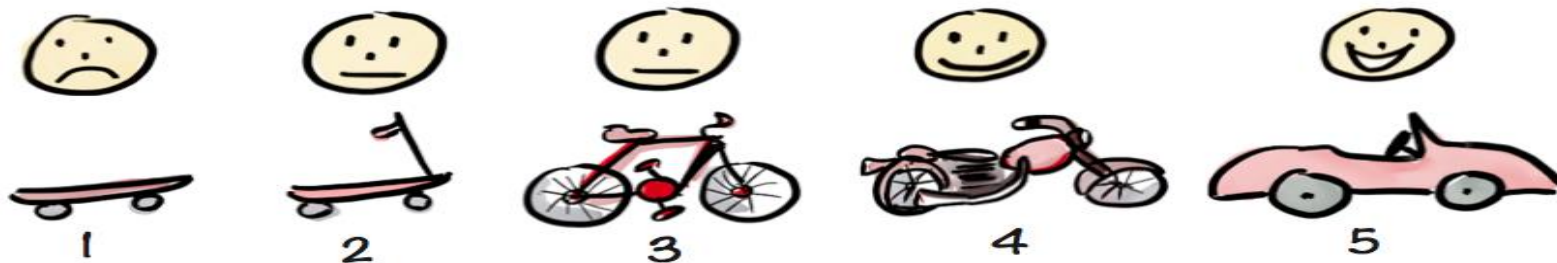


Benefit realisation – step by step

Not like this....



Like this!



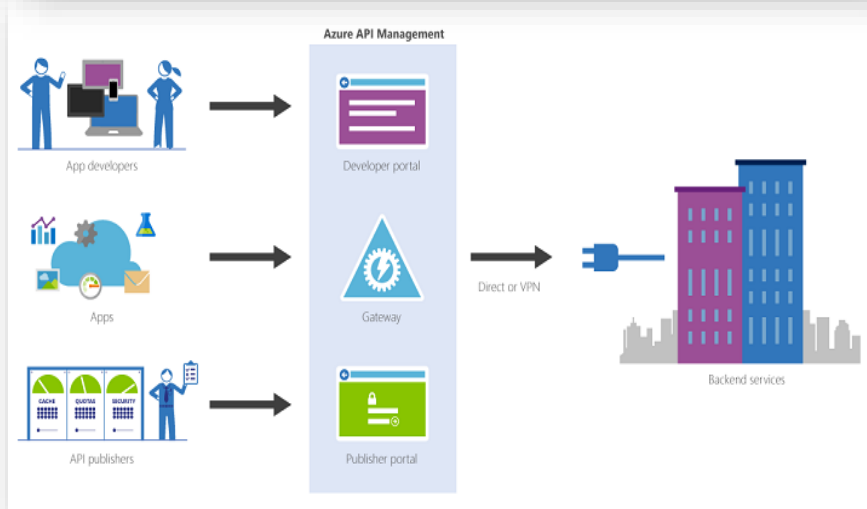
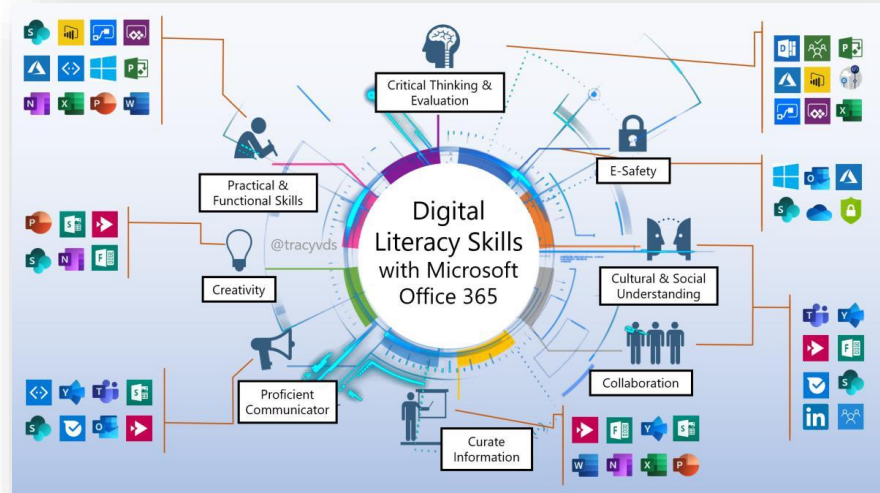
Some strategic choices:

«Cloud first»

Office 365 for
collaboration

Open API

Azure APIM and security
platform



Statsbygg approach to digital twin

