

DIGITAL TWIN AND SUSTAINABILITY

Bo Grave

**Senior Group Director,
Head of Digital Development**

RAMBOLL

A STRONG HERITAGE

Founded in 1945 in Copenhagen, Denmark

We have had a key role in developing sustainable societies and cities across the world ...

... now we are moving to digital

RAMBOLL

[Add text]

- 
- **14.000 Employees**
 - **35 countries**
 - **300 offices**
 - **100.000 projects**

WE STAND ON DEEP AND WIDE KNOWLEDGE

Buildings



Transport



Water



Environment & Health



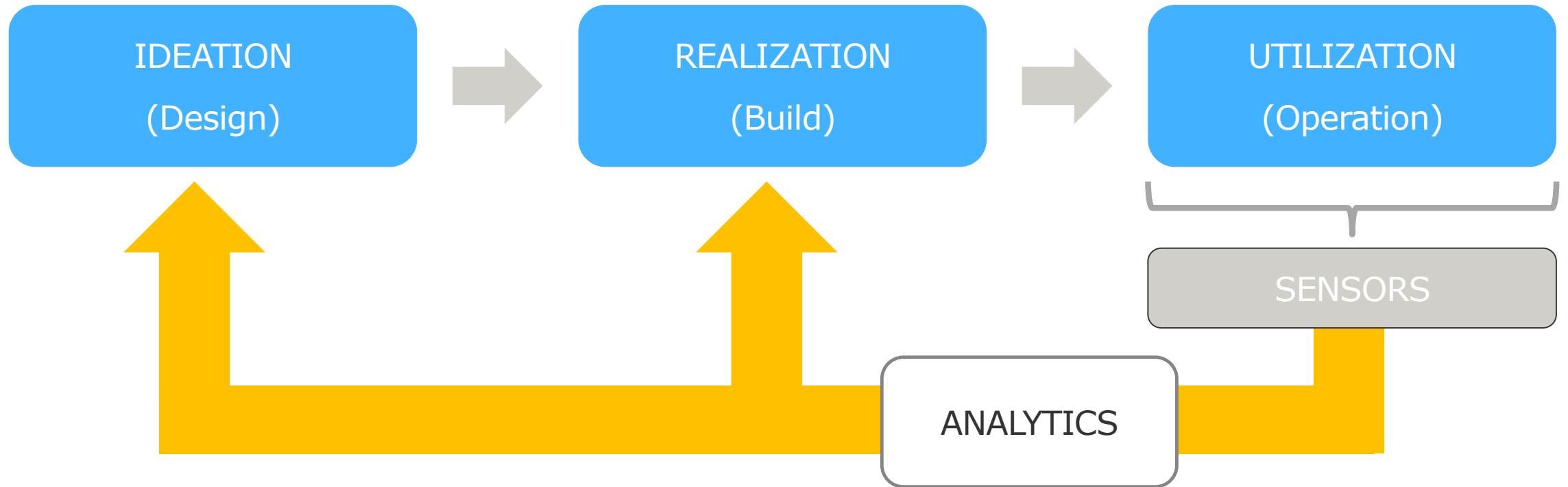
Energy



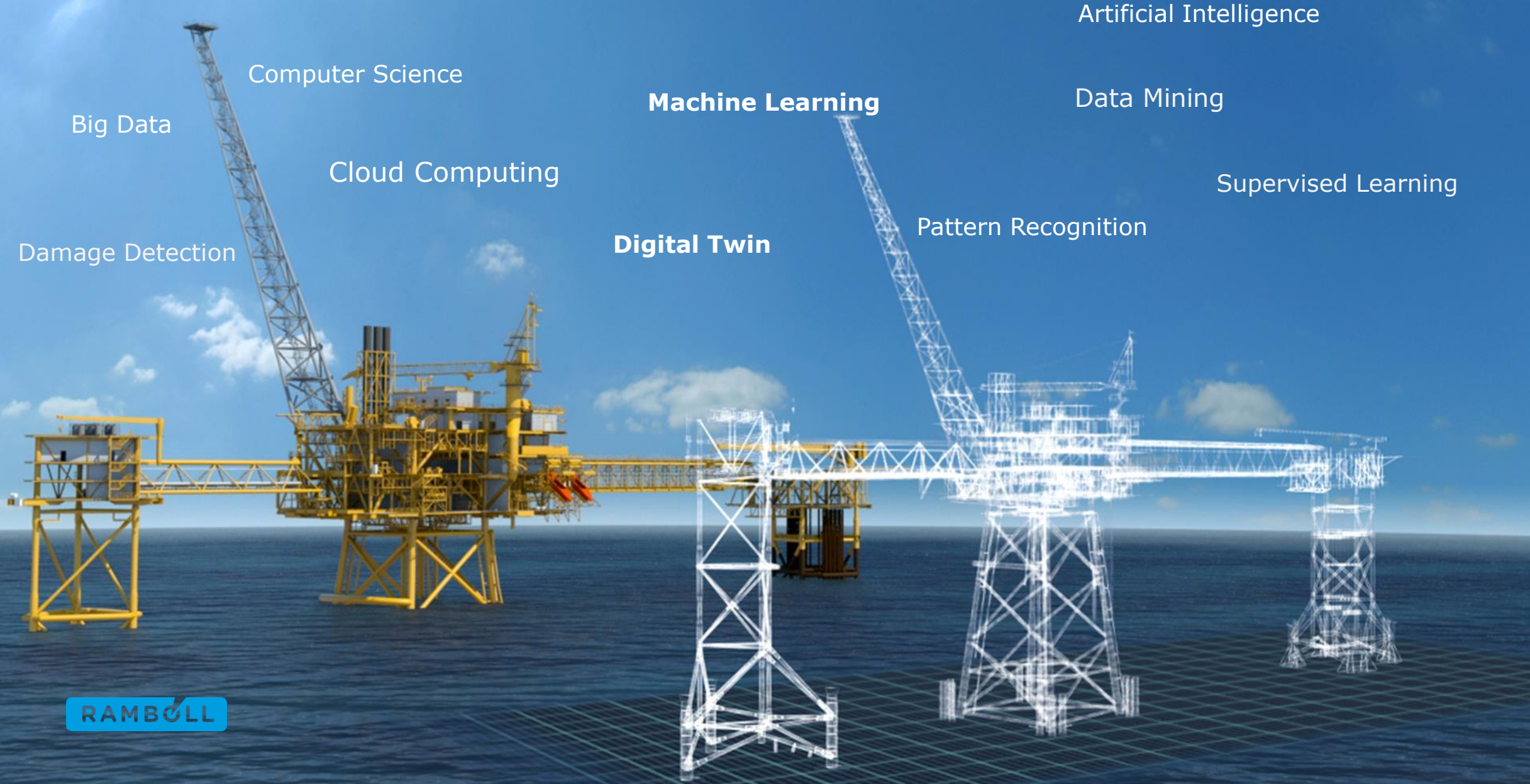
Management Consulting

**20 out
of 20**

DIGITAL TWIN



RAMBOLL CURRENT DIGITALIZATION – ALL PART OF TODAY'S DIGITAL TWIN



Artificial Intelligence

Computer Science

Machine Learning

Data Mining

Big Data

Cloud Computing

Supervised Learning

Damage Detection

Digital Twin

Pattern Recognition



Defining Digital Twin in an Engineering Consultant context



UN'S SUSTAINABLE DEVELOPMENT GOALS

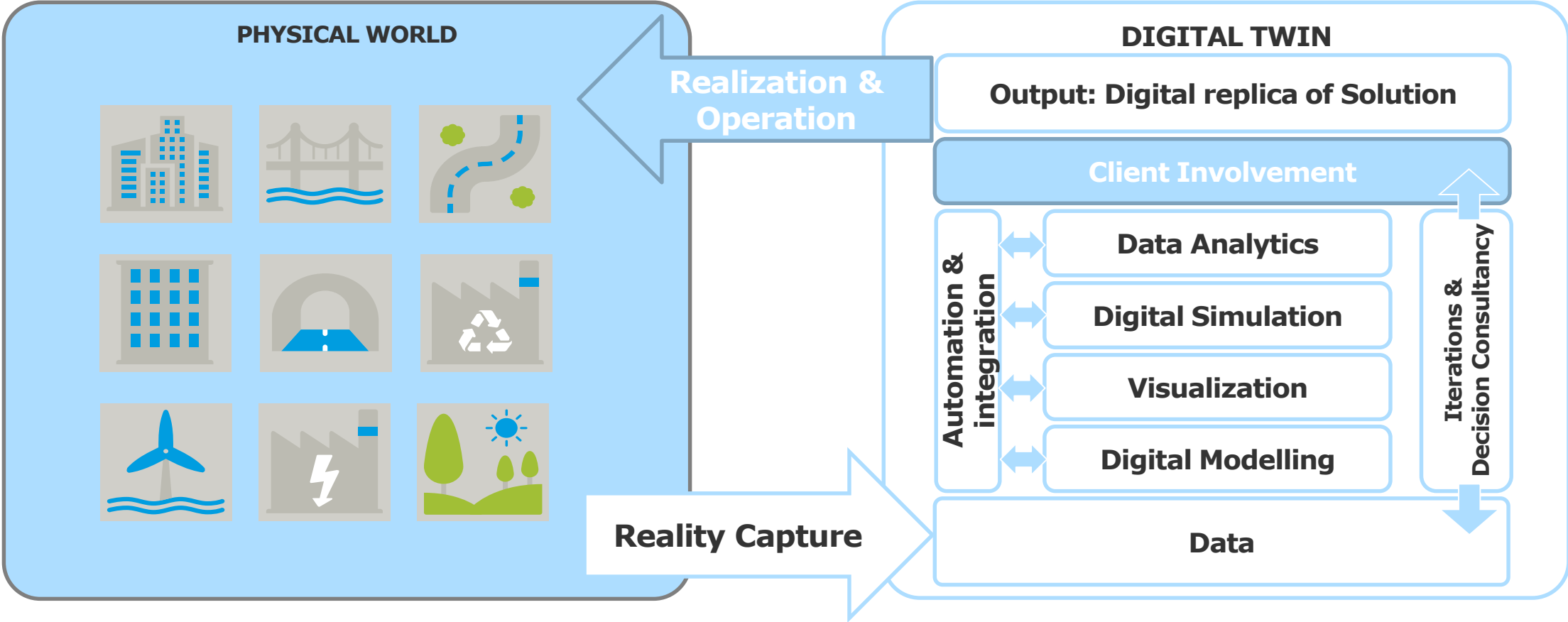




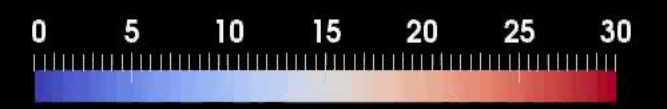


DIGITAL TWIN

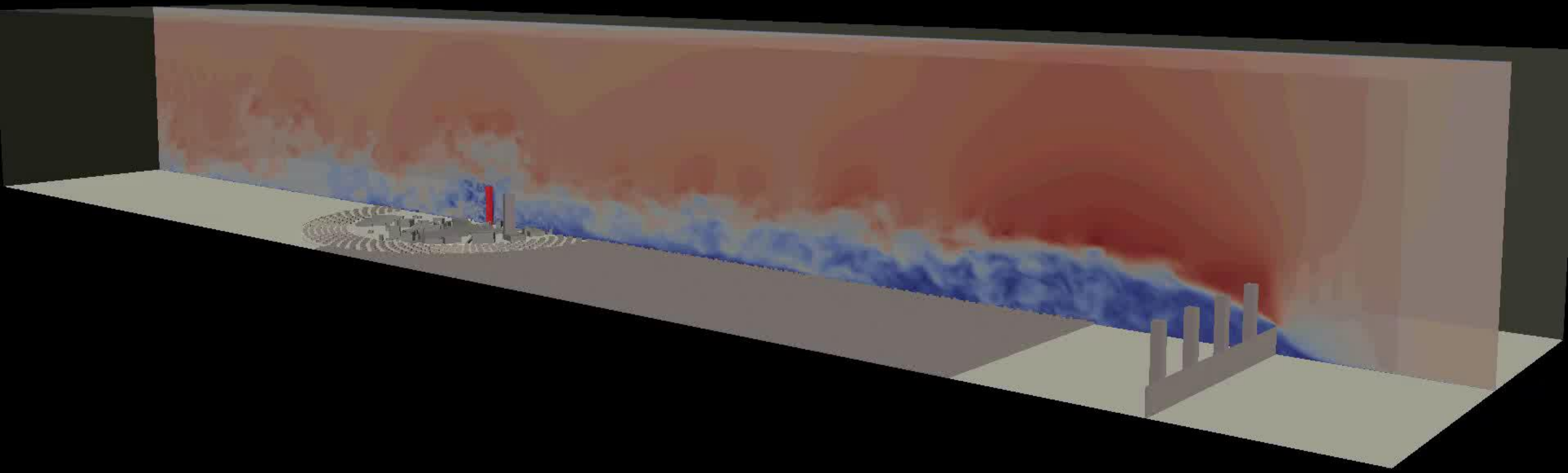
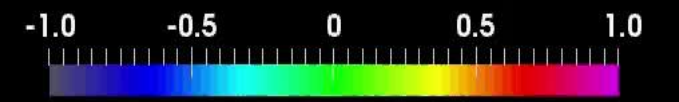
– BRINGING VALUE TO THE CLIENT



Wind Tunnel Speed (m/s)



Pressure Coefficient



8 DECENT WORK AND
ECONOMIC GROWTH



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



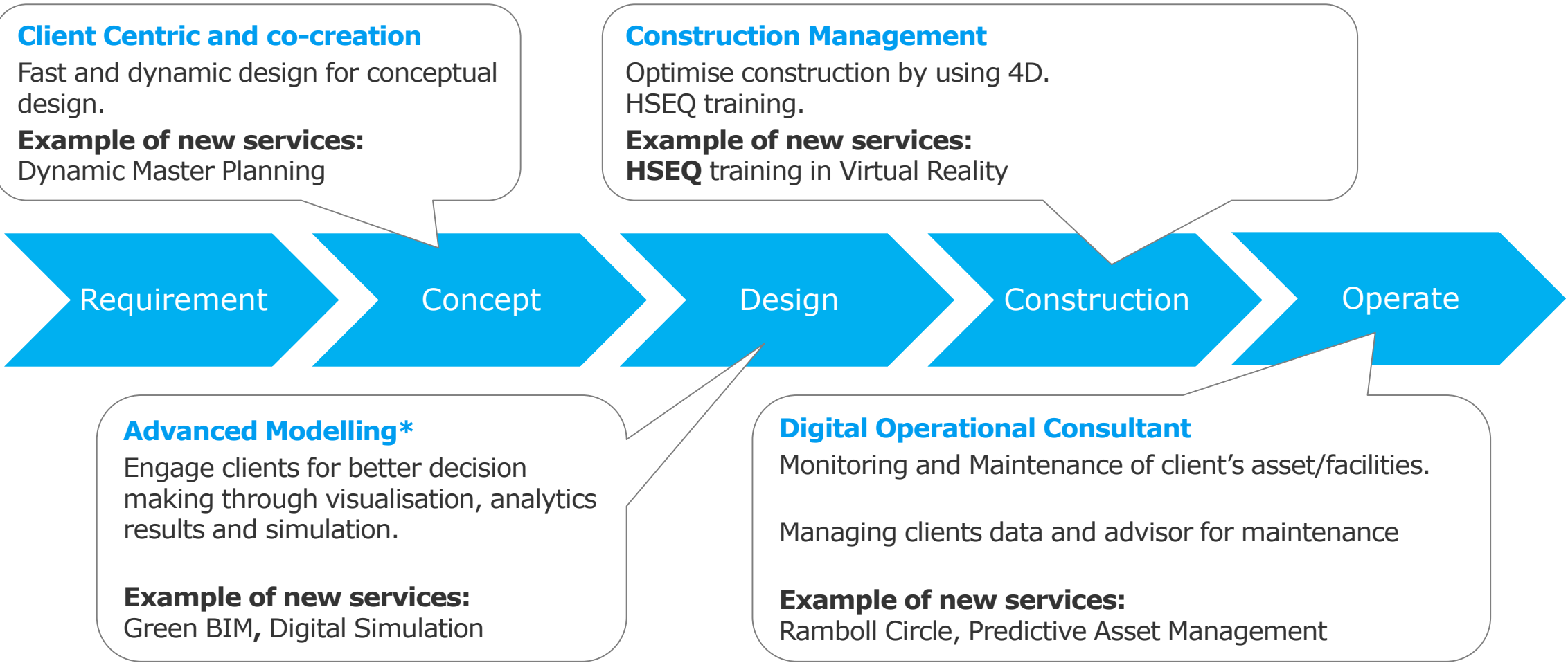
15 LIFE
ON LAND

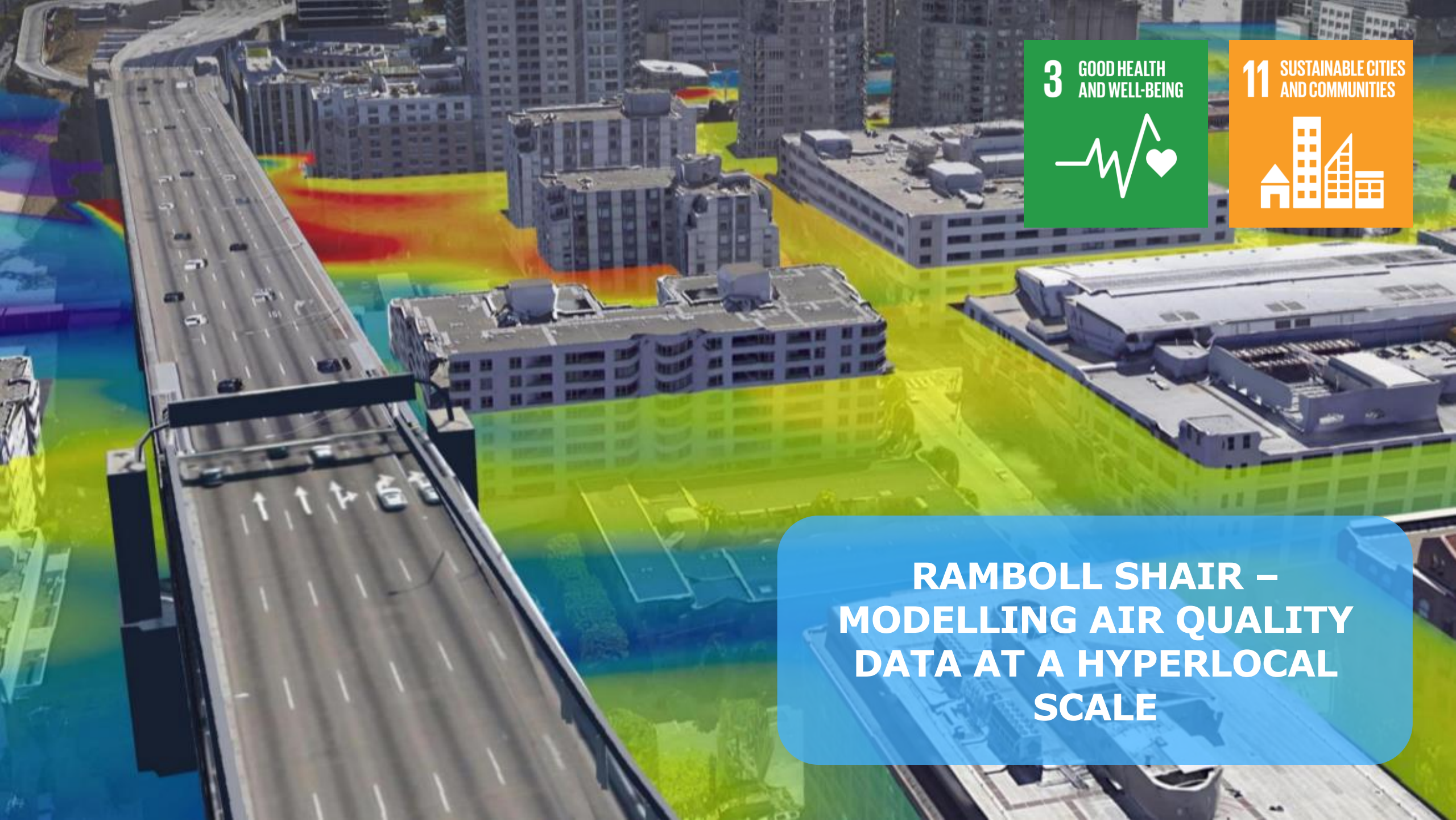


**GREEN BIM – AUTOMATION
OF SUSTAINABLE DESIGN
PROCESSES WITHIN
BUILDINGS**

DIGITAL TWIN

CREATING NEW REVENUE, MOVE IN VALUE CHAIN





3 GOOD HEALTH
AND WELL-BEING



11 SUSTAINABLE CITIES
AND COMMUNITIES



**RAMBOLL SHAIR –
MODELLING AIR QUALITY
DATA AT A HYPERLOCAL
SCALE**



3 GOOD HEALTH
AND WELL-BEING



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES
AND COMMUNITIES



**COPENHAGEN
– MOBILITY AS A SERVICE
BY OPTIMISING
TRANSPORTATION
SOLUTIONS**

11 SUSTAINABLE CITIES
AND COMMUNITIES



15 LIFE
ON LAND



**RIYADH – LOWERING
DISTRICT TEMPERATURE BY
6-8 DEGREES WITH SMART
WIND AND THERMAL
MODELLING**



Thank you!

Bo Grave

**Senior Group Director,
Head of Digital Development**

bogr@ramboll.dk

