



equinor

Autonomy as part of the digital journey

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Digitalisation drives the next wave of improvements

Safety and sustainability strengthened through
leveraging digital technologies

Digitalisation & innovation
Potential

Value creation producing fields

Above **2** bn USD

Automated drilling – cost
Around

-15%

Field of the future – capex
Around

-30%

Integrated remote operations US Onshore

Around **500** million USD
Added value

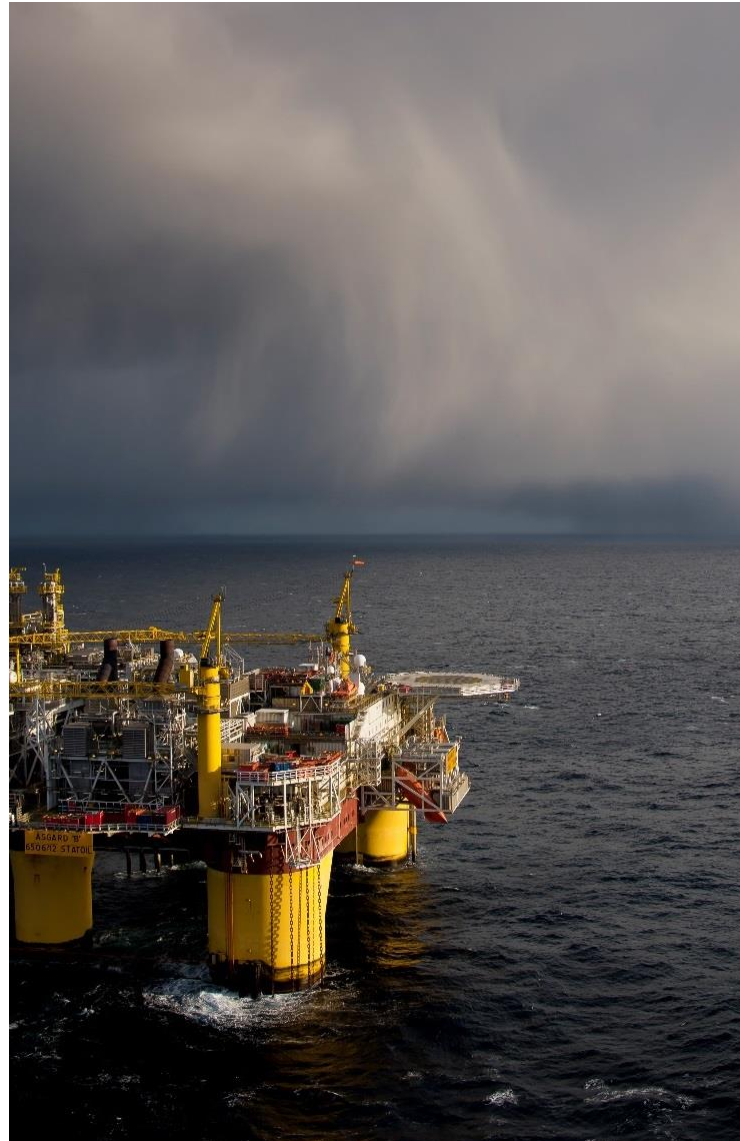
Equinor's Technology Strategy

Optimise production from existing and near field resources

Capture value of digitalisation, infrastructure and people

Maximise value from NCS and international operations:

- Unlock existing and near field hydrocarbon potential
- Prolong infrastructure lifetime
- Safe and efficient operations



Some examples

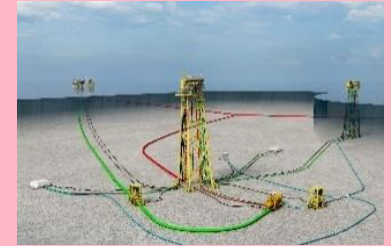
Subsurface data integration



Automated drilling control



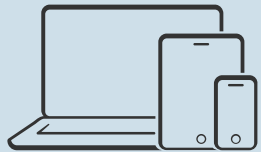
Remotely operated factories



Autonomous inspection



At Equinor,
digital opportunity is driven by
three technological enablers



Process
digitalisation



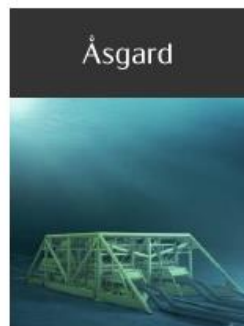
Data science and
analytics



Robotics and remote
control

Roadmap towards an unmanned Remotely Operated Factory - ROF™

Innovation, technology and digitalisation for a future-fit portfolio



Åsgard

In operation
Subsea compression



Hywind
Scotland

In operation
Offshore floating
wind



Oseberg
Vestflanken 2

Ongoing
Unmanned
Wellhead Platform
(UWPT™)



Krafla/Askja

Unmanned production
platform, supported
from host (UPPT™)



Peon

Stand alone
gas/condensate
development



UK and Barents

Stand alone remote
oil and gas field
developments



Brazil

Ultra deep water
UPP™

Field of the future
potential¹

Capex³
-30%

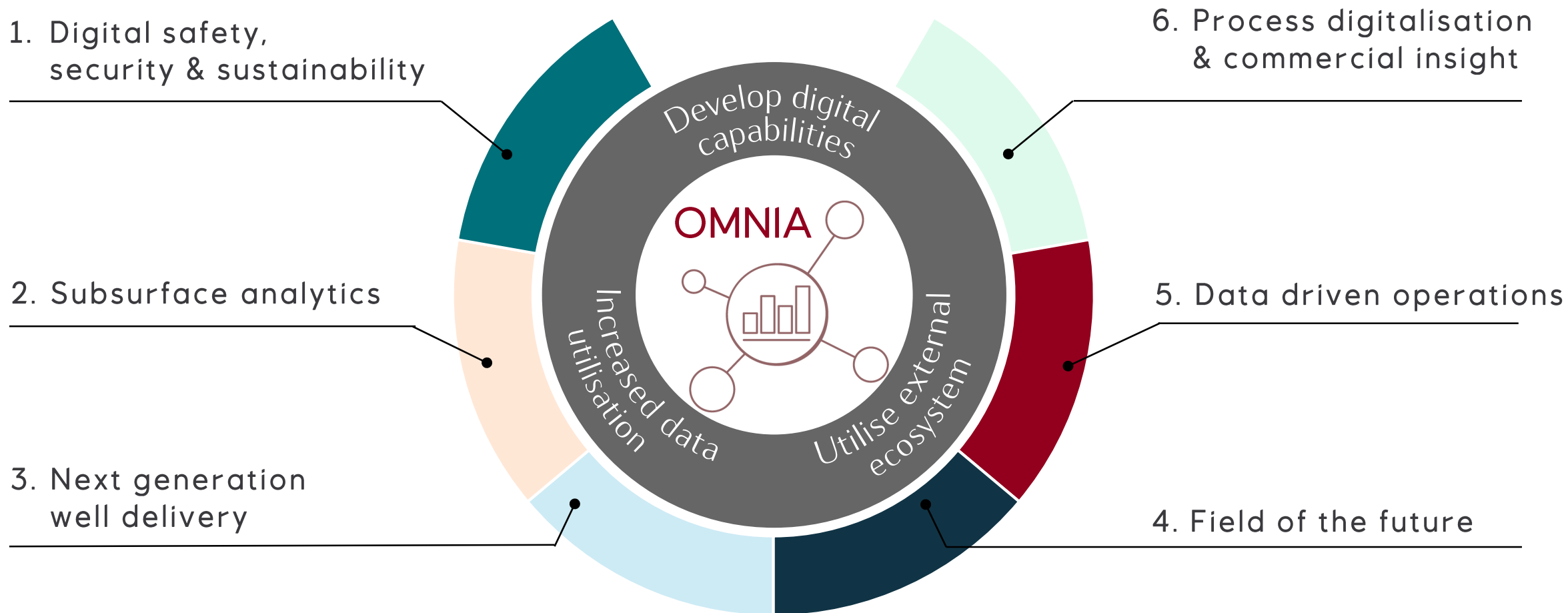
Opex
-50%

Automated drilling
potential²

Cost
-15%

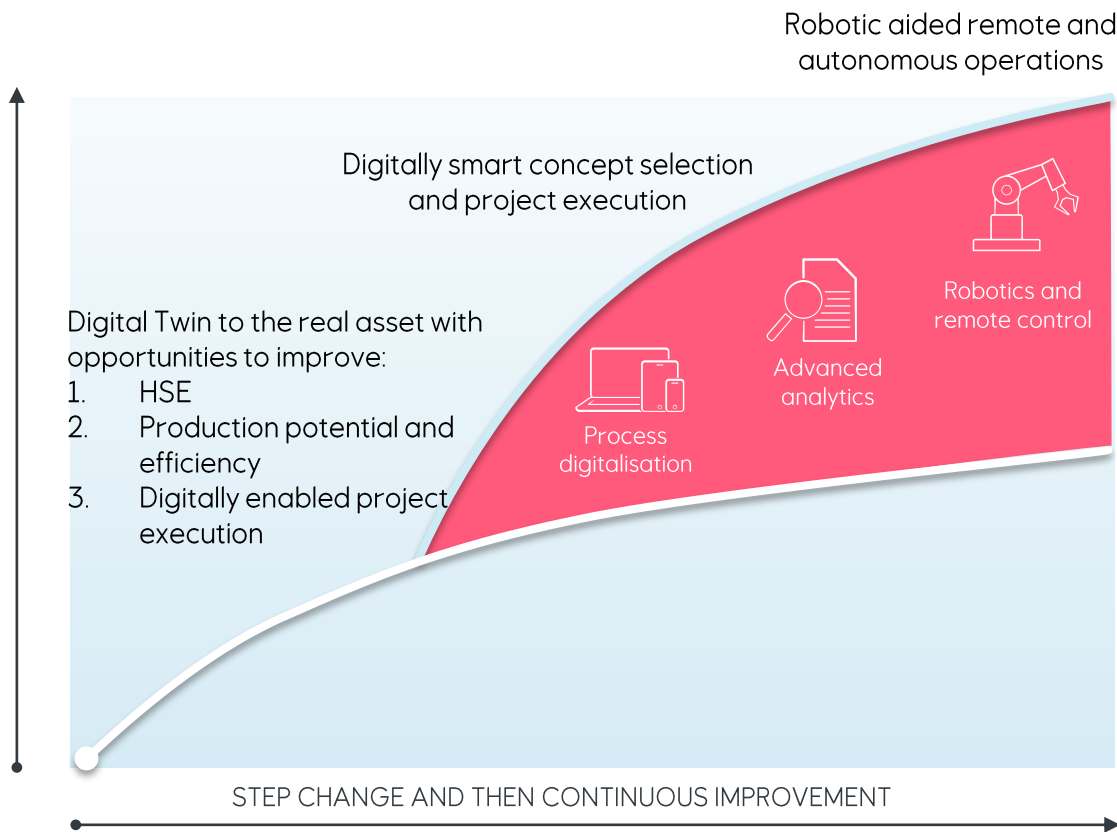
Source: Equinor CMU presentation 7 Feb 2018

A roadmap to accelerate our development

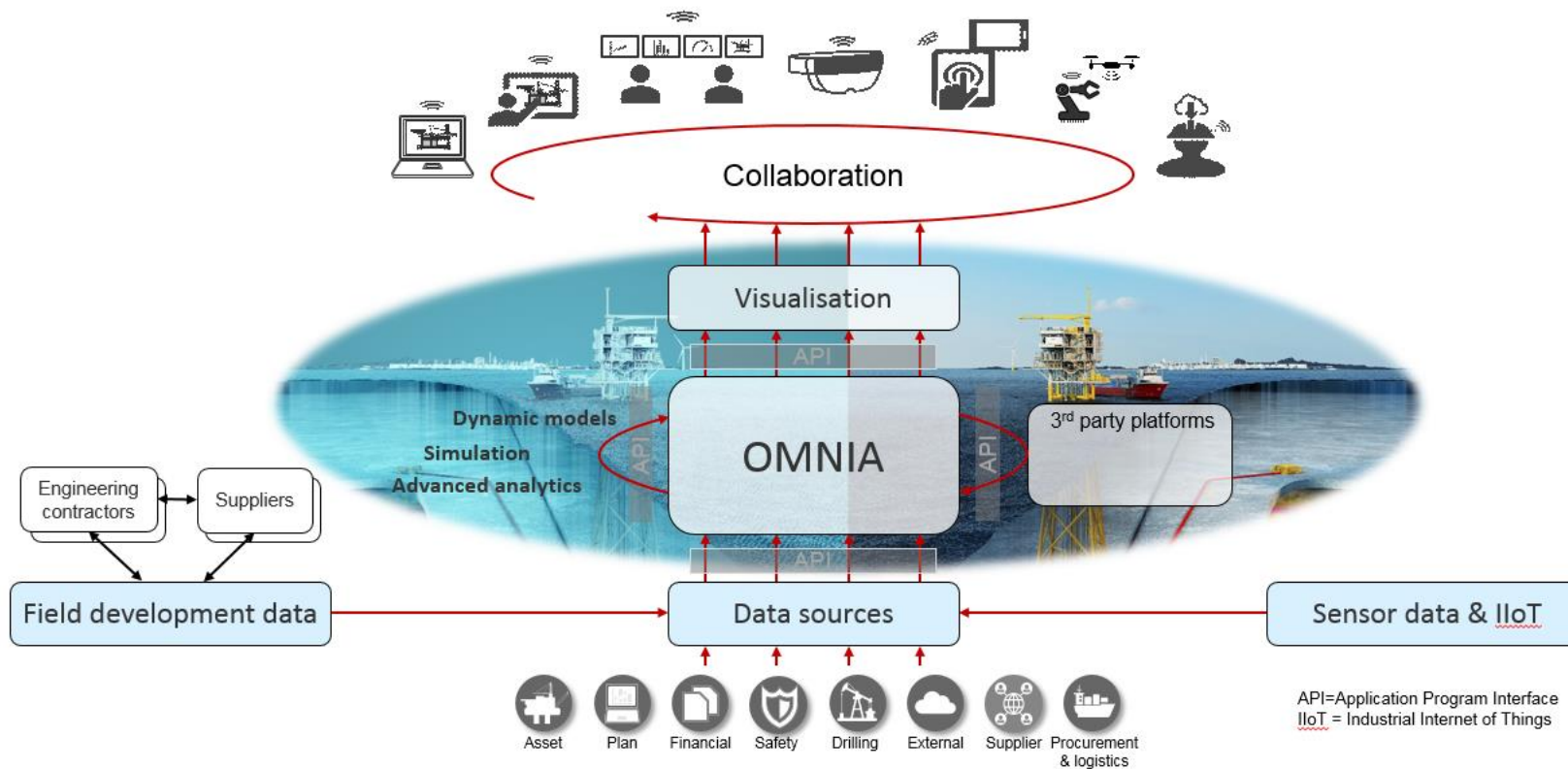


Field of the Future | *What* and *how* we build and operate

A future digital field has to leverage data driven operation model, digital infrastructure, condition based maintenance, advanced analytics and robotics



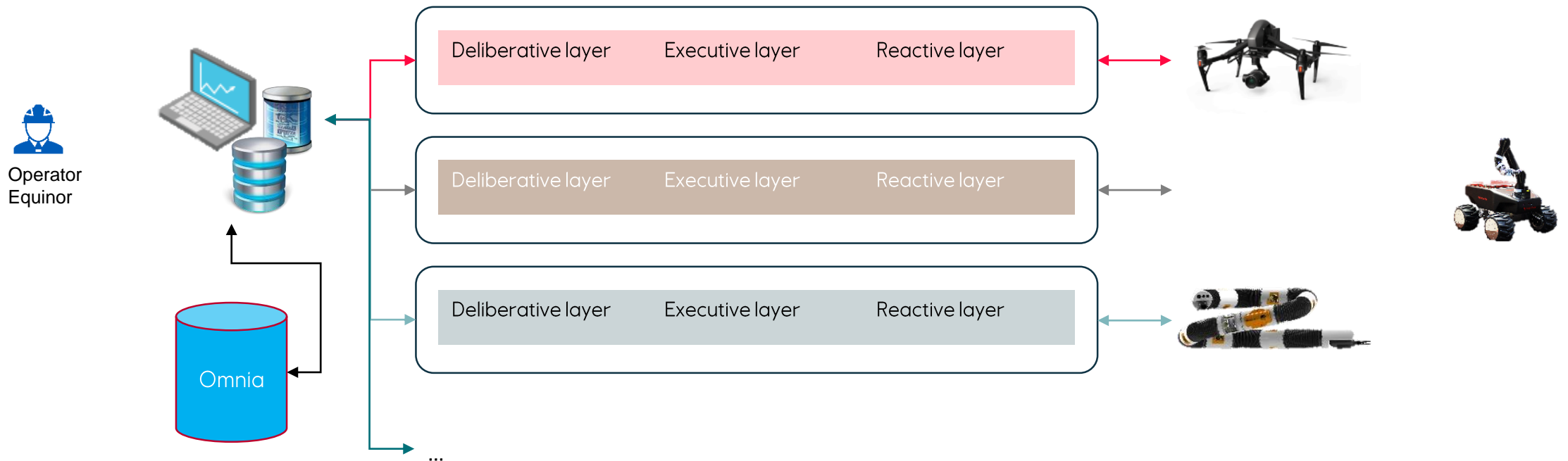
Omnia – providing an integrated view across systems



Some thoughts on autonomy

- Equinor operating many robots as part of an asset

Human	Interface	Deliberative layer	Executive layer	Reactive layer	Physical layer
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Some thoughts on autonomy - creating the world view

