

The main graphic features a blue-tinted profile of a human head on the right side, with intricate white circuit board patterns overlaid on the face. In the upper center, a glowing blue globe of the Earth is shown. A large white number '4' is superimposed on the globe. To the right of the '4', the words 'th Industrial revolution' are written in a white, sans-serif font. The background is a light blue gradient with faint horizontal lines and a large, faint white number '4' on the left side.

4th Industrial revolution

Adam Woodhouse
CIO Advisory, KPMG in the UK

The fourth industrial revolution

First

Water and steam power
Mechanical production



Second

Division of labour
Mass production
Electricity



Third

Electronics
Information technology
Automated production



Fourth

Datafication
Hyper-connectivity
Digital labour and professional augmentation



1800

1784: First mechanical loom

1900

1870: First assembly line

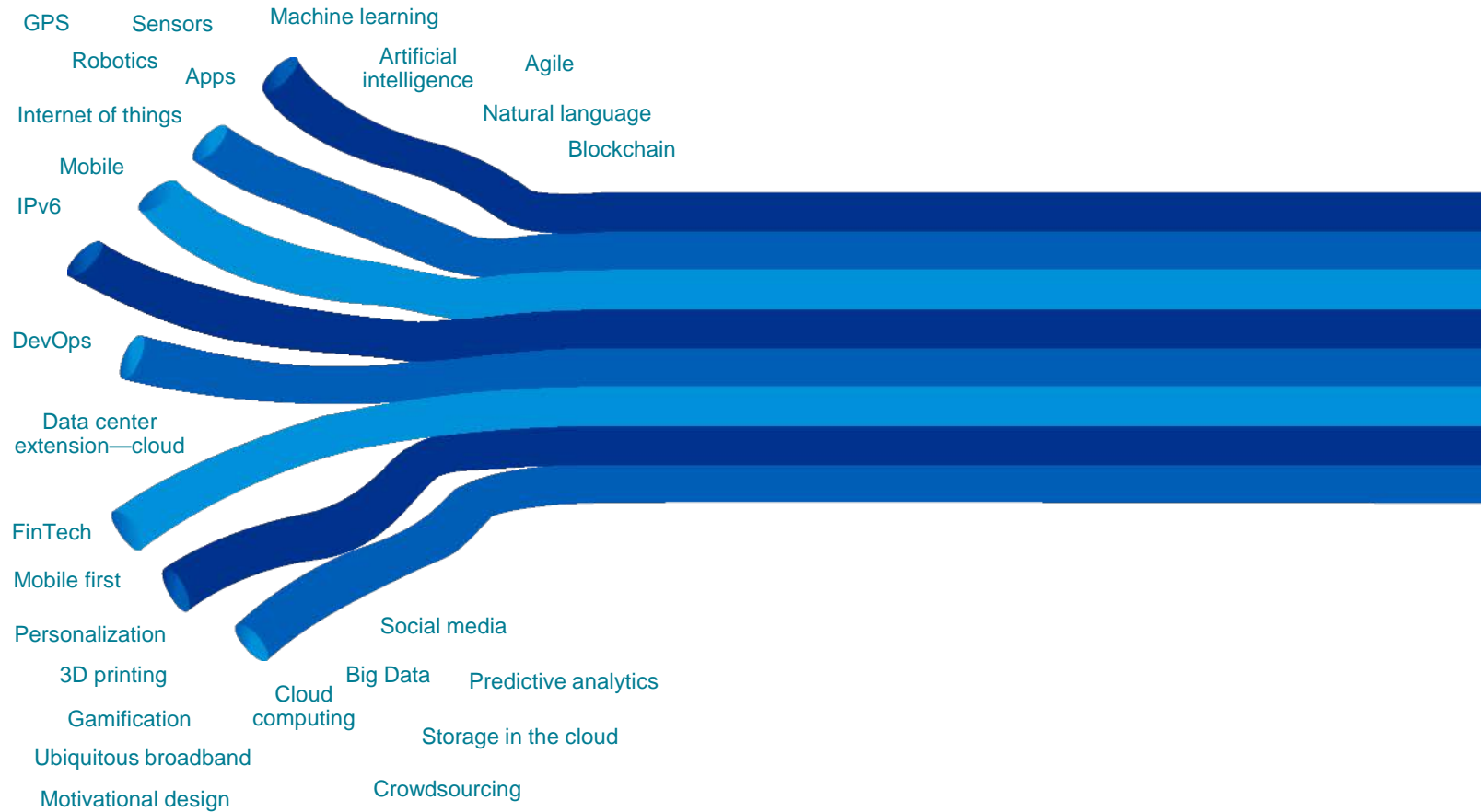
2000

1969: First programmable logic controller

Tomorrow starts today...

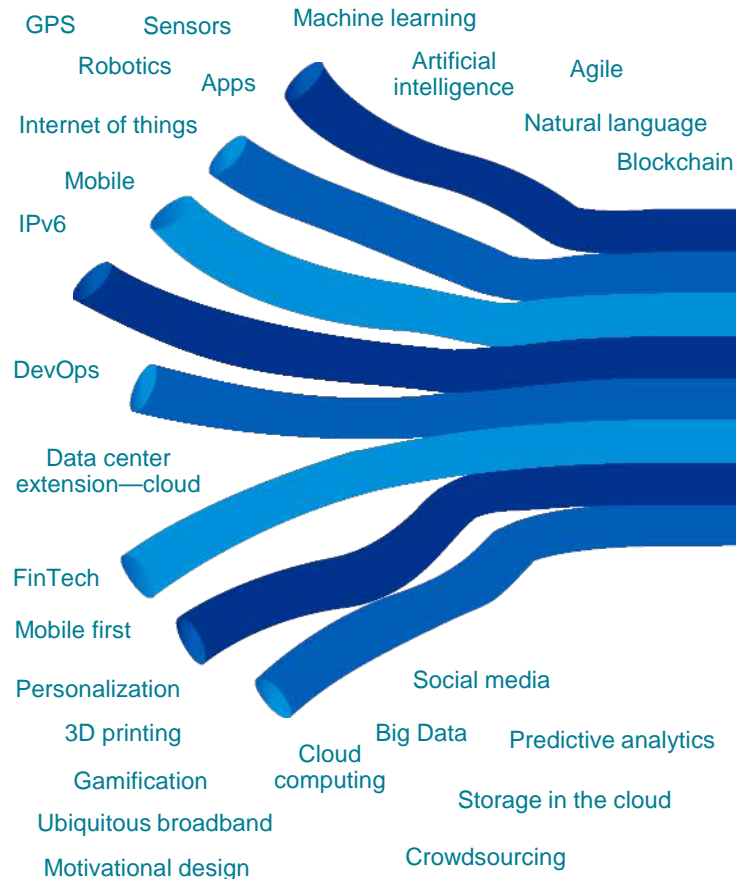
Disruptive technologies

Third industrial revolution: Digital disruption



Disruptive technologies

Third industrial revolution: Digital disruption

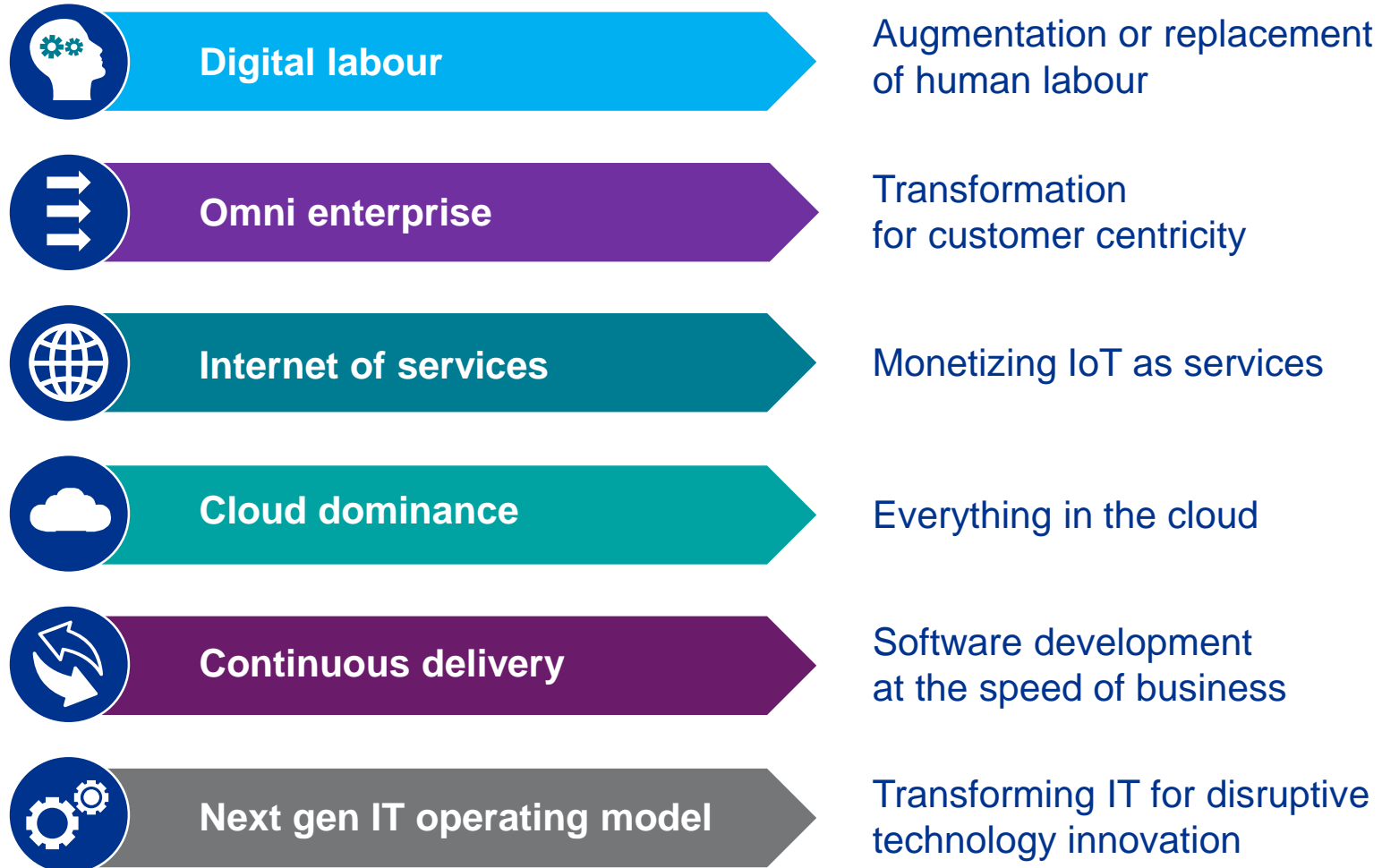


Fourth industrial revolution: Disruptive capabilities

Innovating by harnessing the
confluence of digital disruption to:

- **Make almost anything**
- **Connect almost everything from everywhere**
- **“Datify” and digitize almost everything**
- **Access extensive content and compute**
- **Automate thought processes**

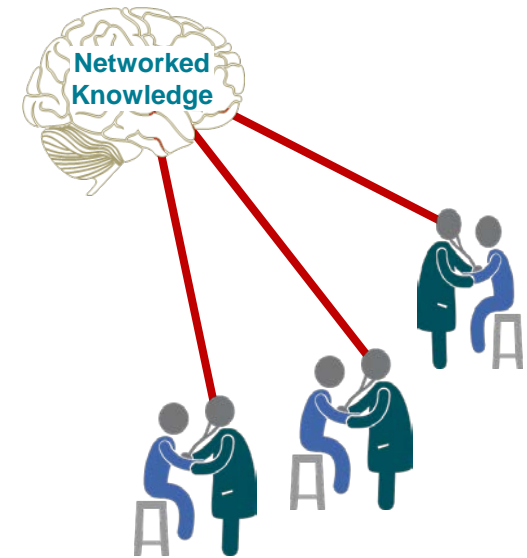
Six big bets for disruptive technology



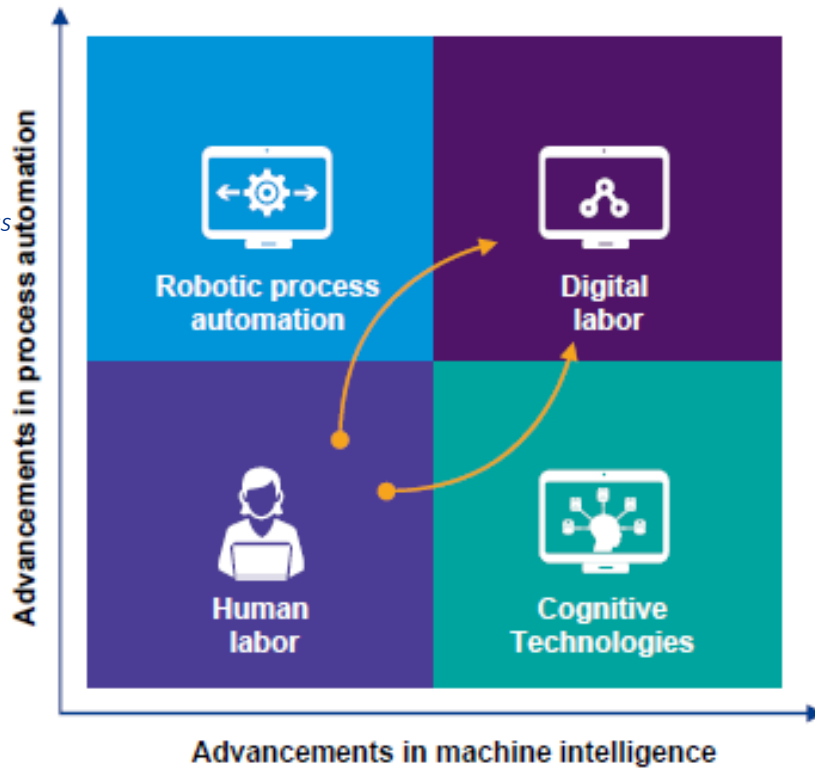


Cognitive systems mimic human brain functions

1. Perceive (interpret sensory input beyond traditional data)
2. Reason (hypothesize, weigh supporting evidence)
3. Learn (Improve confidence levels with experience)

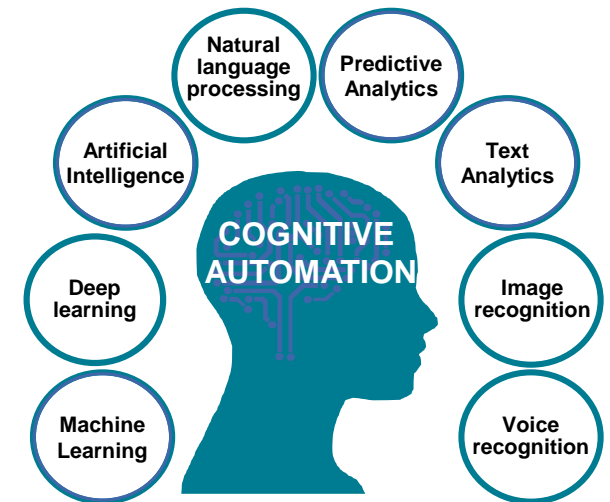


Transactional, rule-based, and repeatable process automation



Replacement of human (cognitive) labour

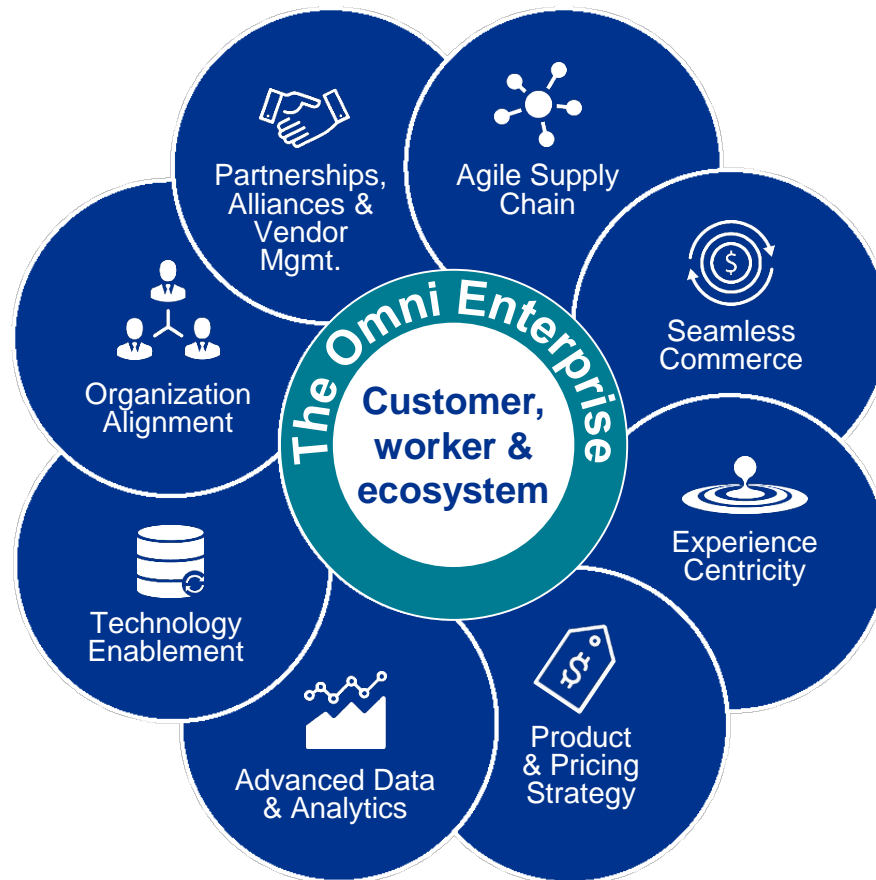
Automation driven by self learning and adaptive technologies, typically with unstructured data





To deliver on ever-increasing consumer, worker, and ecosystem expectations for a true Omni experience, organizations must take a holistic approach, addressing each of these eight key enablers.

The Omni Enterprise 8 Critical Success Factors for Omni Execution



Internet of services



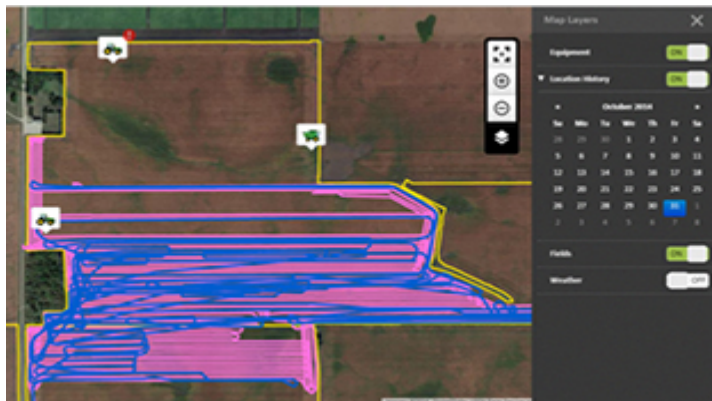
Rolls-Royce

Power as a service



JOHN DEERE

Farming as an app



Adobe no longer sells Creative Suite licenses. Now 100% Creative Cloud subscriptions

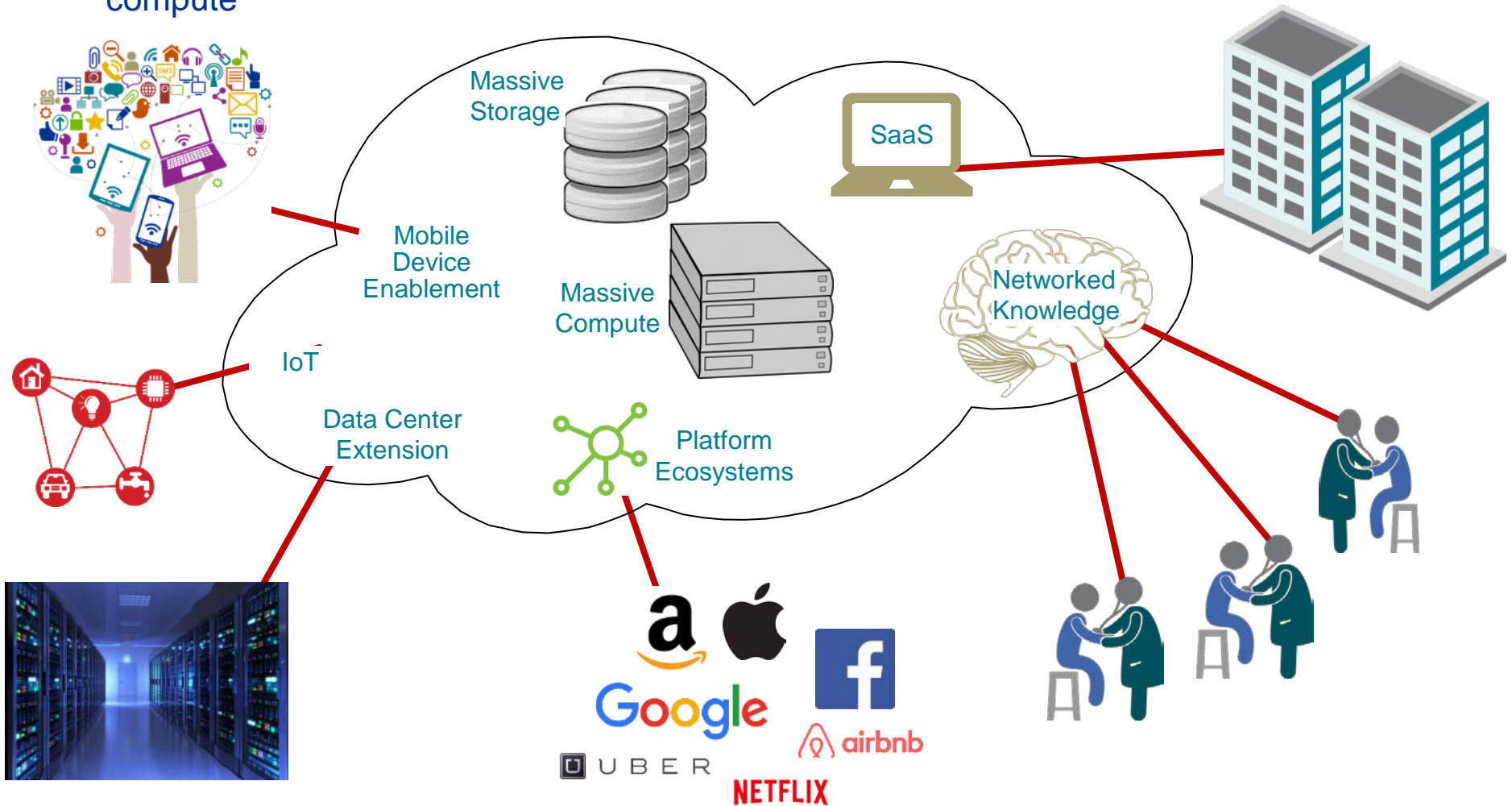
Honeywell | Your Home



Cloud dominance



The cloud is taking on a significant role well beyond serving as a utility for storage and compute



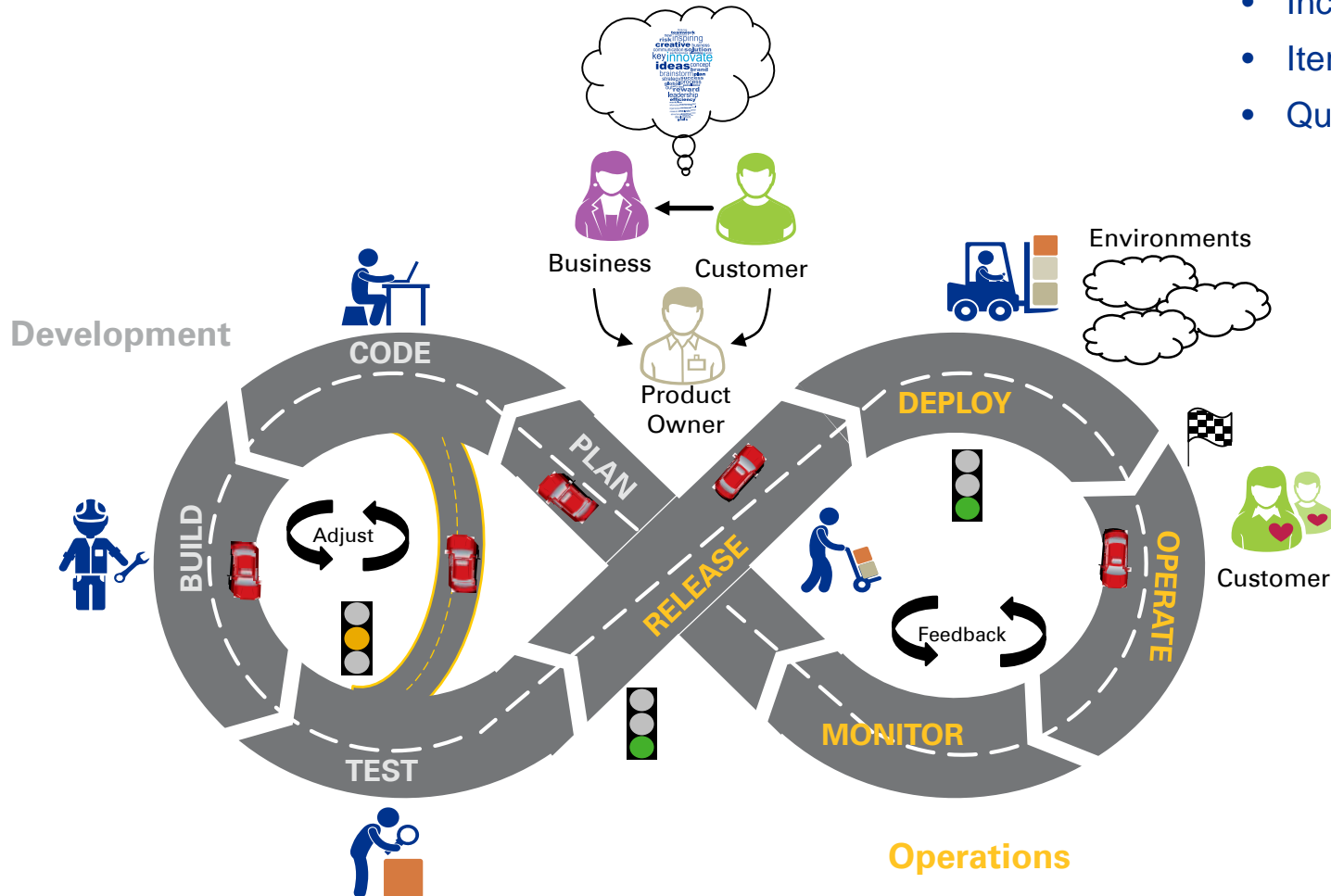
Continuous delivery



Software development at the speed of business

Drivers

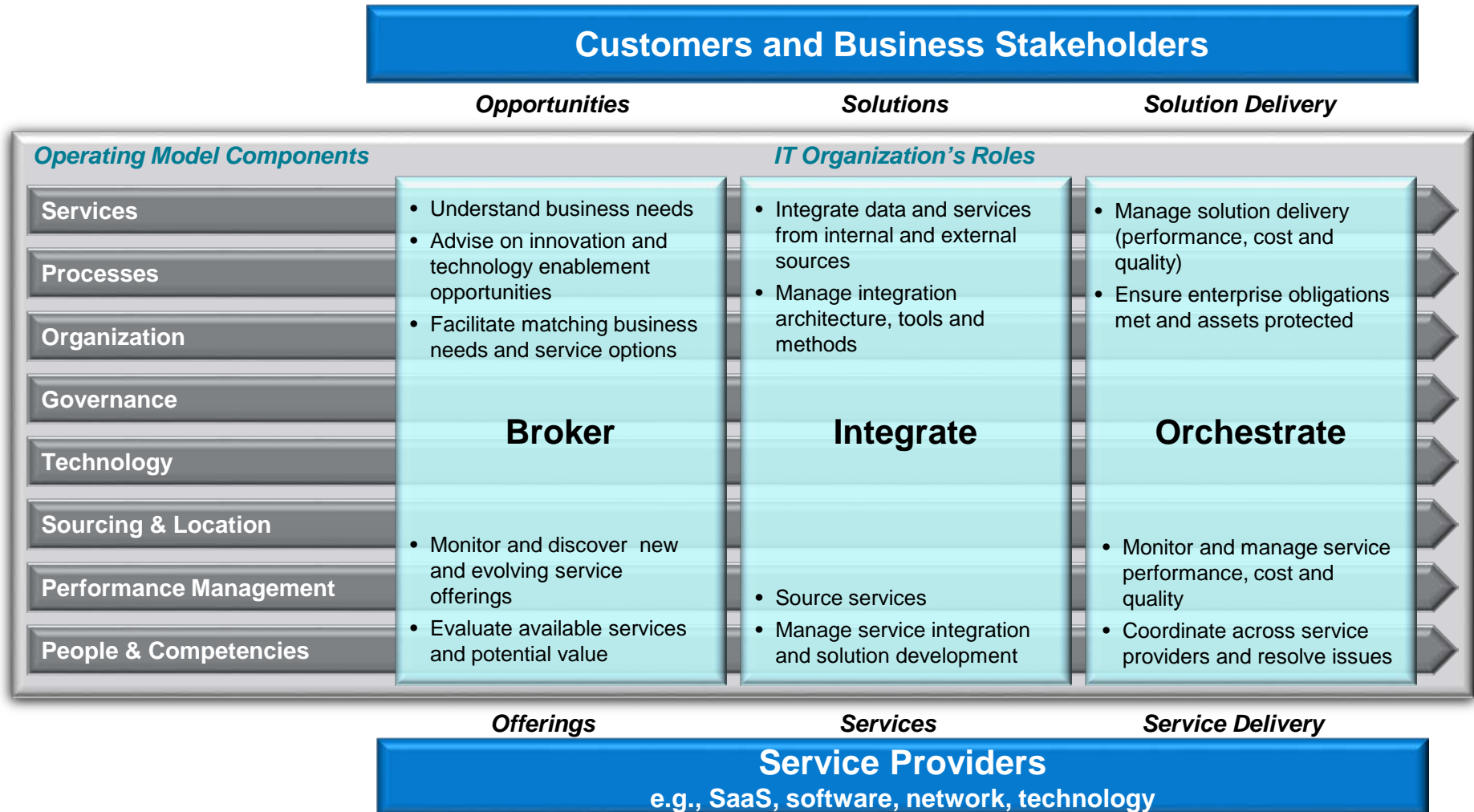
- Customer expectations
- Urgency
- Inclusiveness
- Iteration
- Quality



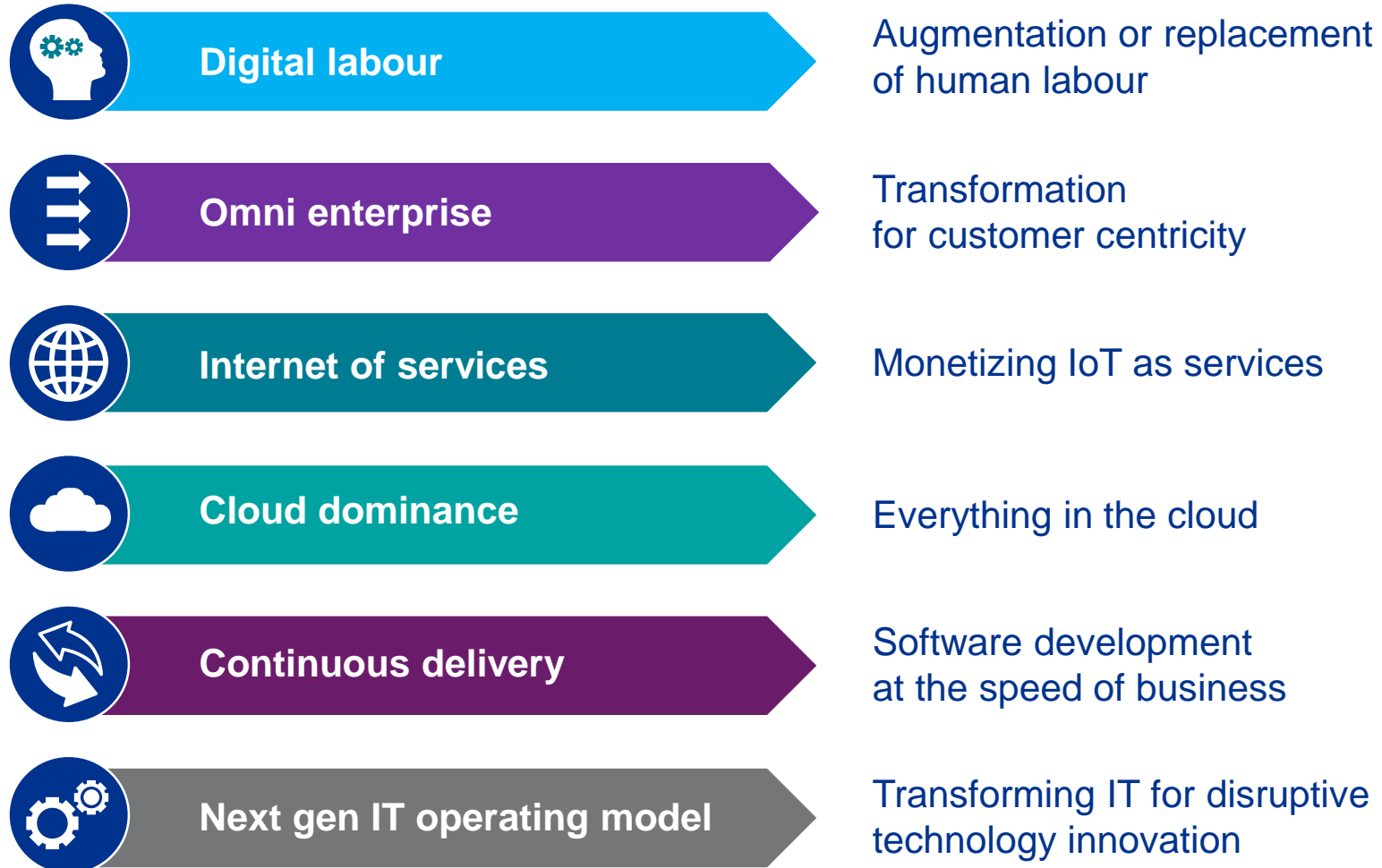
Next Generation of the IT operating model



The Future of IT – The “Broker, Integrate, Orchestrate” Operating Model



Six big bets for disruptive technology



Six Imperatives to deliver value by embracing disruption

Innovate to Grow and Compete

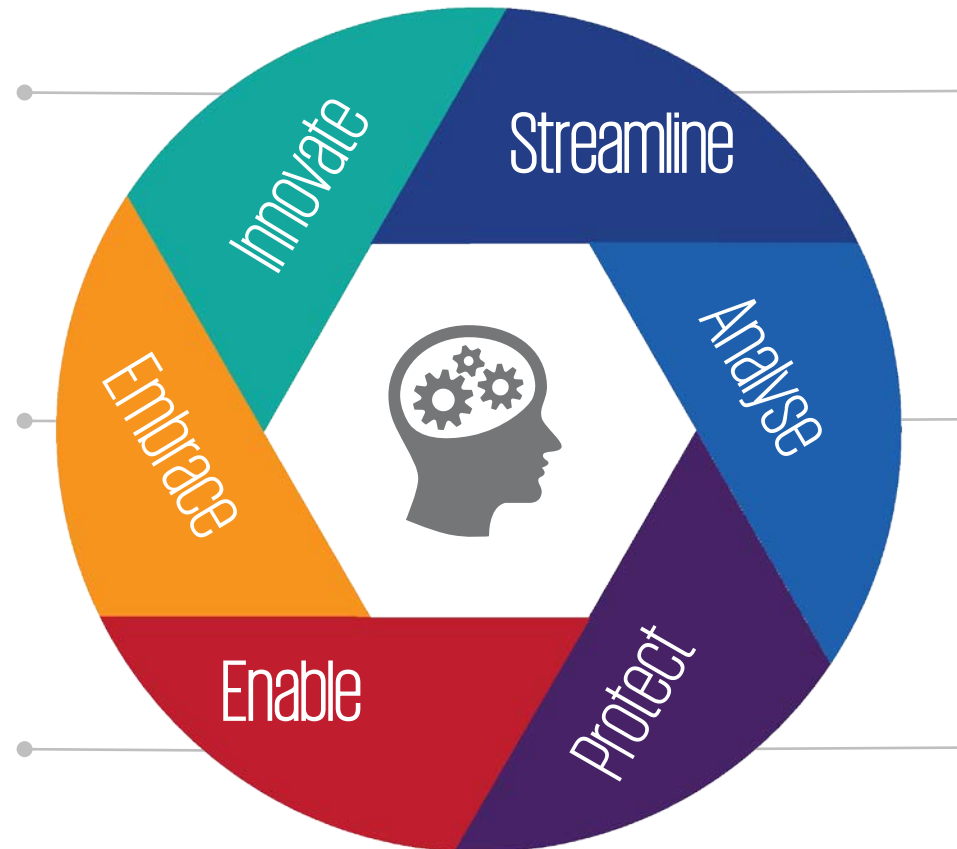
- Partner with the business to drive technology innovation
- Incentivise culture to step outside comfort zones
- Ring-fence funding for sensible experimentation

Embrace Disruptive Technologies

- Enable seamless, frictionless and personalized Omnichannel customer interactions
- Exploit disruptive platforms
- Continually refresh skills and culture

Enable Business Agility at Scale

- Adopt continuous software delivery practices
- Position for rapid responses to changing market dynamics
- Quickly execute and achieve benefits of M&A, market expansion, divestiture



Streamline IT for Cost/Performance

- Rationalize and simplify the IT estate
- Architect for service integration and sharing
- Balance opex and capex spending mix

Use Analytics to Manage IT

- Run the business of IT with fact-based discipline and transparency
- Better understand the costs and value of technology investments and services
- Develop actionable insights through analytics, predictive modelling, and visualization

Protect the Enterprise

- Security and availability becoming non-negotiable
- Proactively protect business assets/IP and stakeholder information
- Minimize impact of disruption



Adam Woodhouse

KPMG CIO Advisory in the UK

T: +44 7932 795717

E: Adam.Woodhouse@KPMG.co.uk

© 2016 KPMG International Cooperative (“KPMG International”), a Swiss entity. Member firms of the KPMG network of independent firms are affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.