

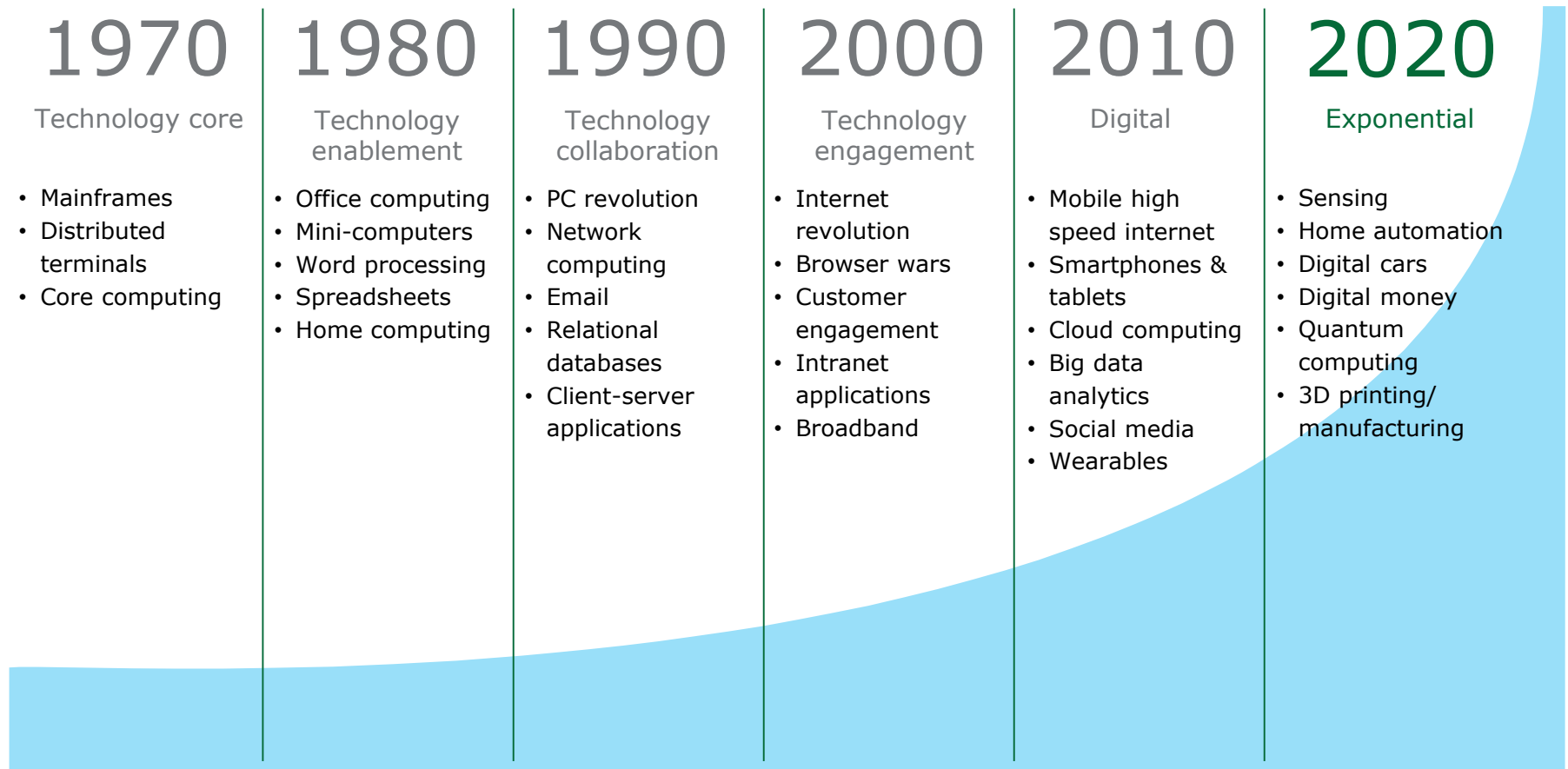


Trends in Robotics

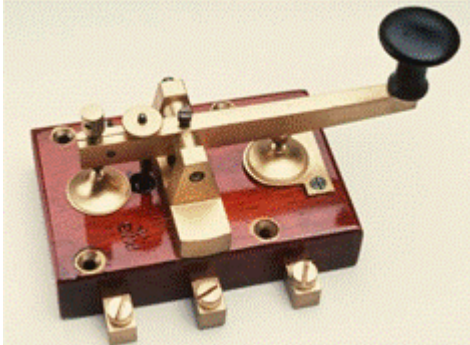
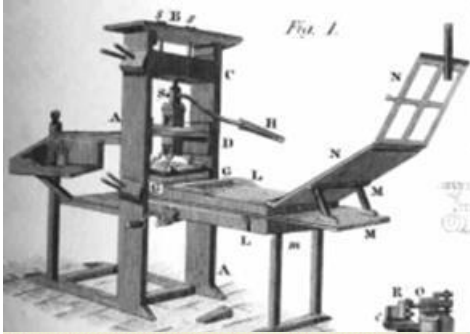
New technologies and implications for the workplace

Technology cycles are becoming exponential

Technology eras are characterized by exponential growth and connectivity



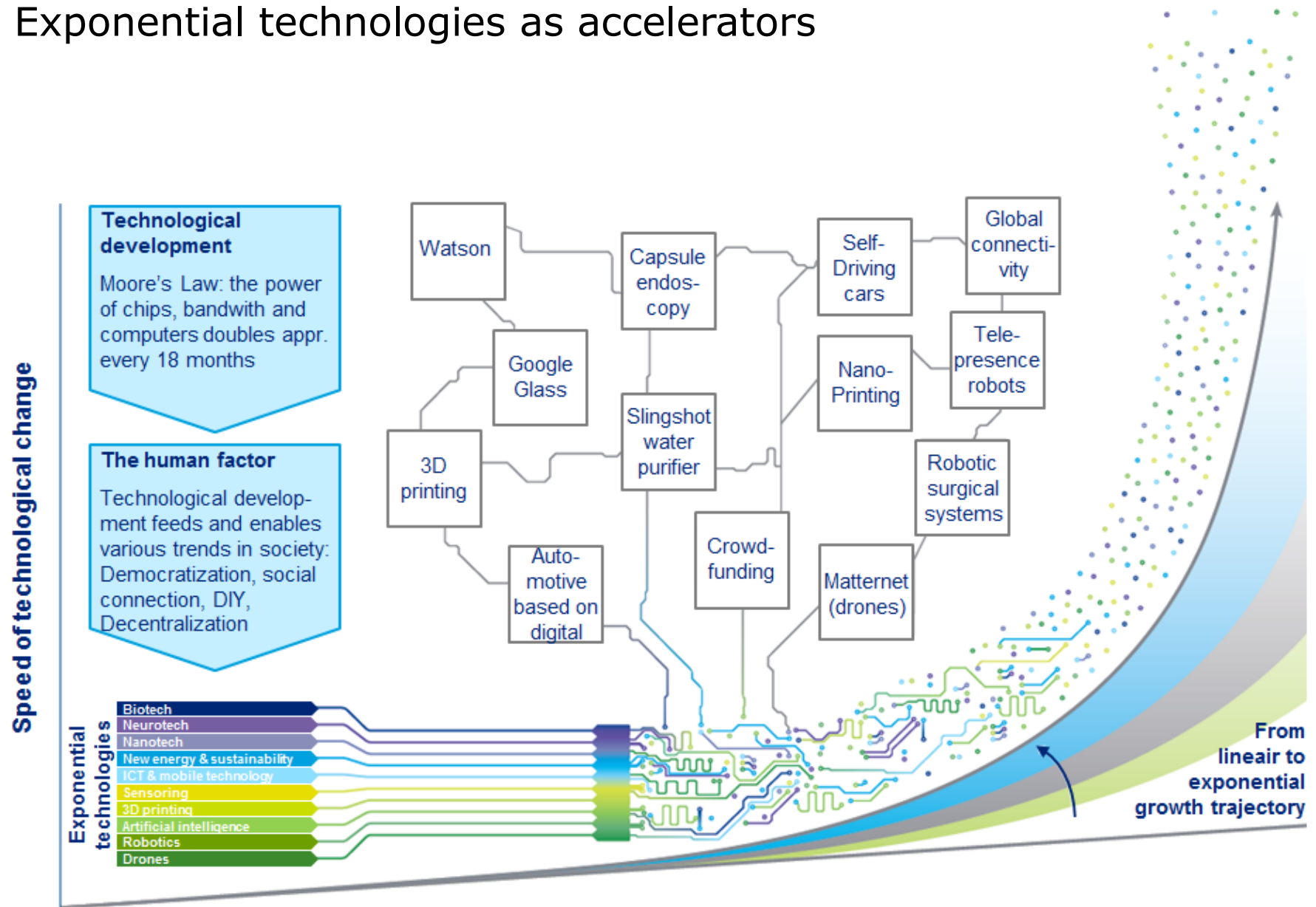
Revolutionary milestones in modern technology



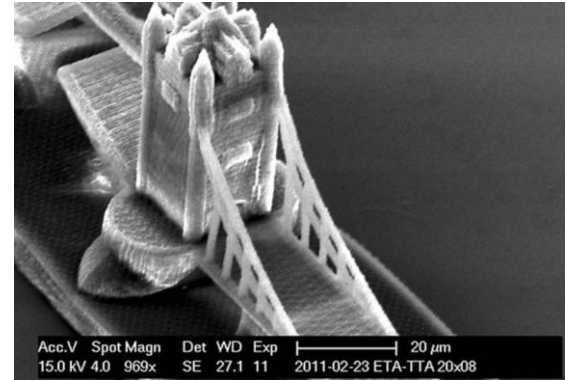
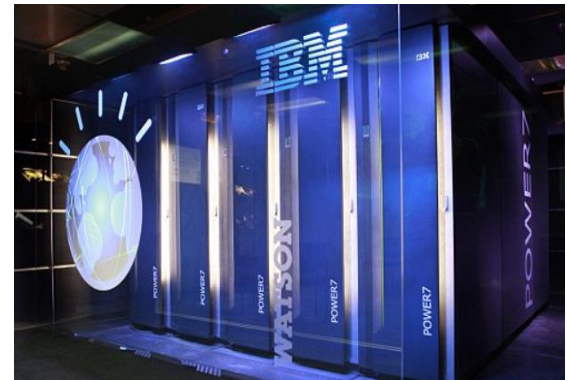
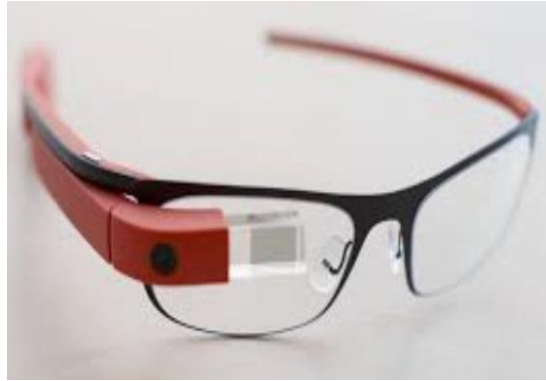
<https://www.youtube.com/watch?v=FW651kusiBI>

TECHNICAL

Exponential technologies as accelerators



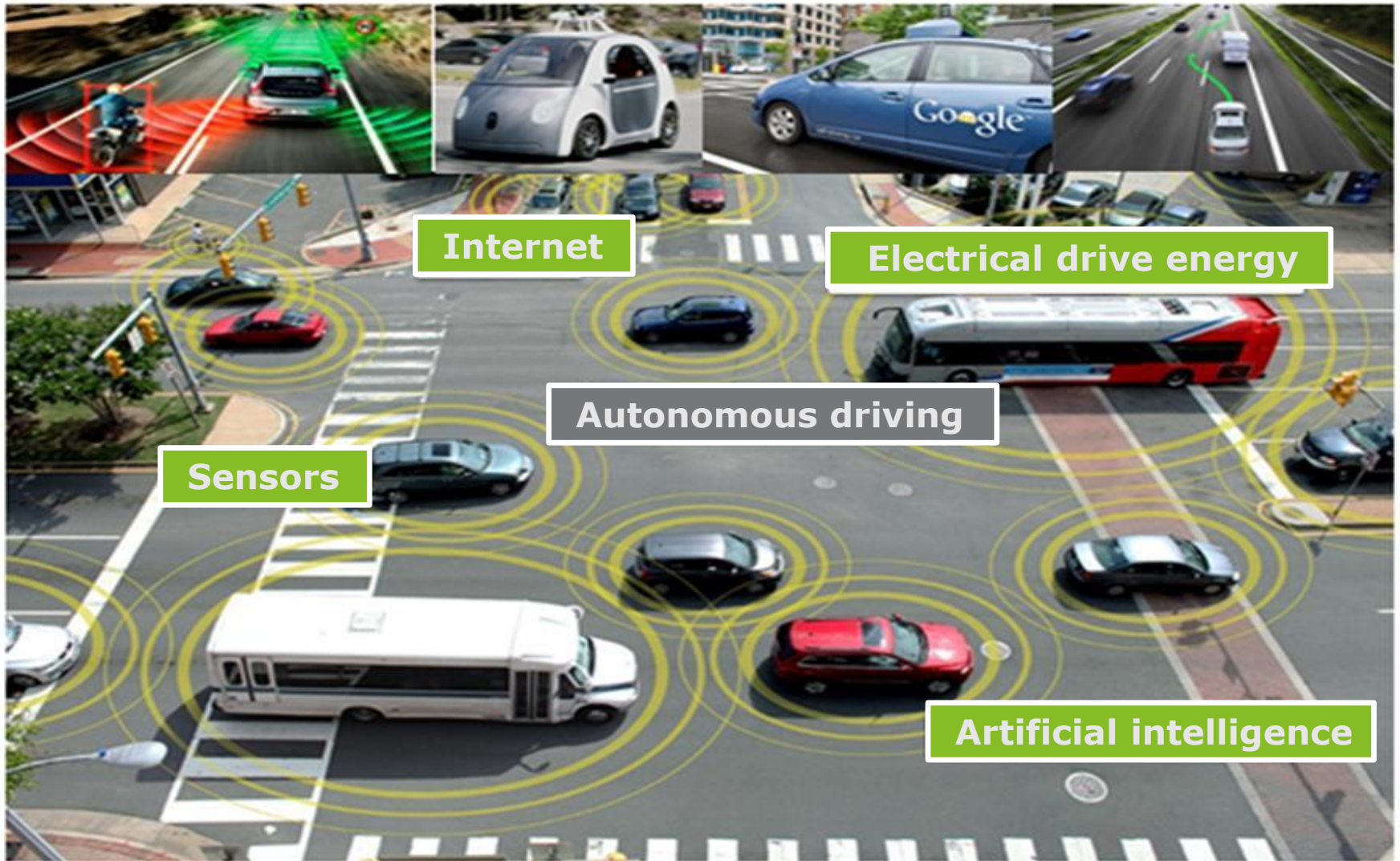
Variety of new technologies



Smaller, faster, cheaper

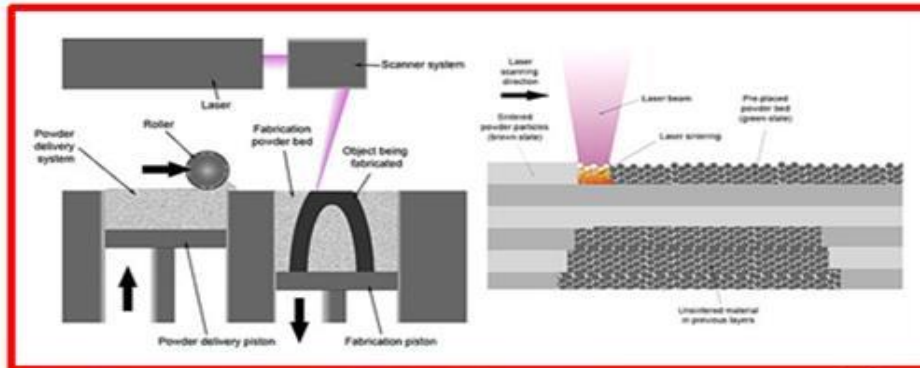


Machines sense and communicate

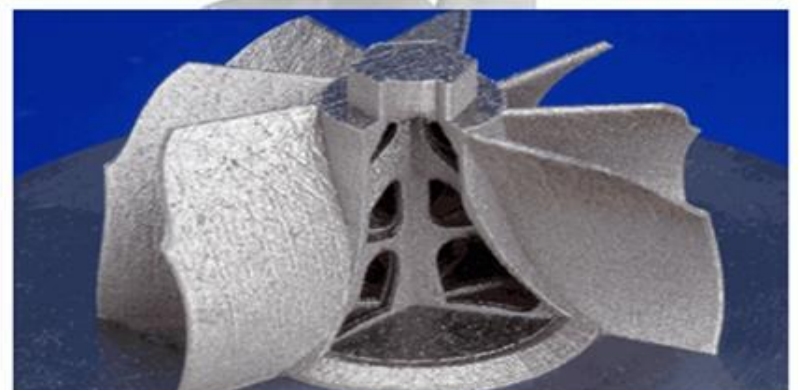
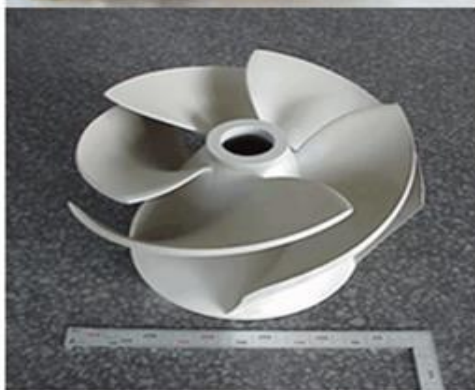


<https://www.youtube.com/watch?v=y-rEI4bezWc>

Complexity and individualization at no cost



Direct Metal Laser Sintering (DMLS)



<https://www.youtube.com/watch?v=VTJq9Z5g4Jk>

Augmented reality



Disruption was underestimated by past predictions

Pioneers, kings, and business men alike misjudged the future development of innovations across various scientific fields

**Wilhelm II about
early automobiles**



Kaiser Wilhelm II
End of 19th Century

"I believe in the horse. The car is only a temporary phenomenon."¹

**Thomas Watson
on computers**



Thomas Watson
Chairman of IBM, 1943

"I think there is a world market for maybe five computers."

**Darryl Zanuck
about television**

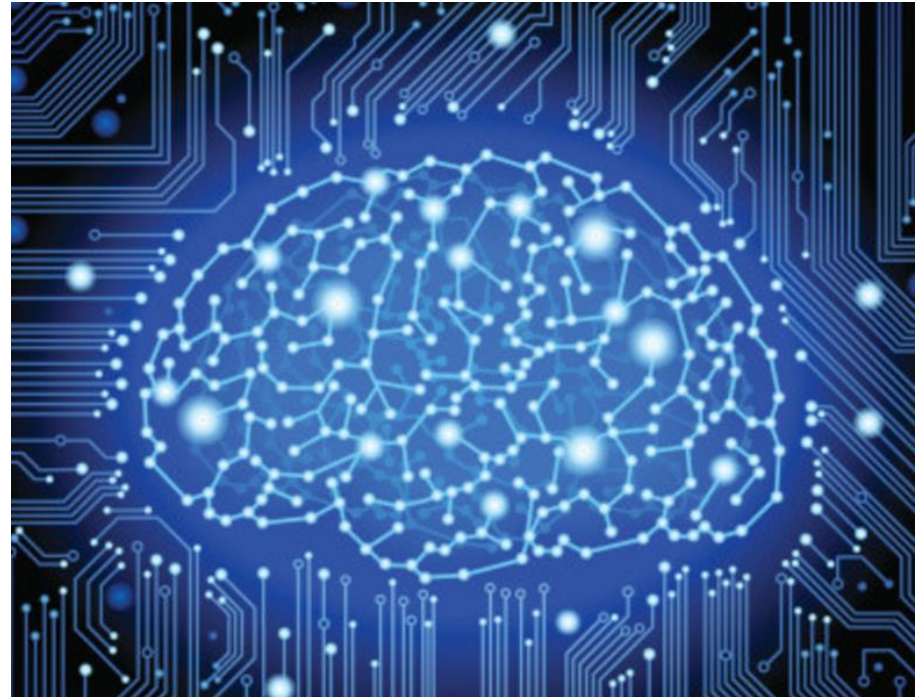


Darryl Zanuck
20th Century Fox, 1946

"Television won't last because people will soon get tired of staring at a plywood² box every night."

Note: 1) Kaiser Wilhelm II. said,: „Ich glaube an das Pferd. Das Auto ist nur eine vorübergehende Erscheinung.“; 2) The plywood box is one of the first versions of commercial TV made out of a special wood

Physical robots vs. virtual robots



Robotics introduction and context

Organisational challenges



Cost challenges



Growth ambition



Scalable operating model

Traditional solutions



Process improvement/
cost reduction



System integration



Outsourcing and
offshoring



Move to digital,
mobile & self-
service



Consolidation
(scale, skills)



Core system
replacement

Innovative solutions



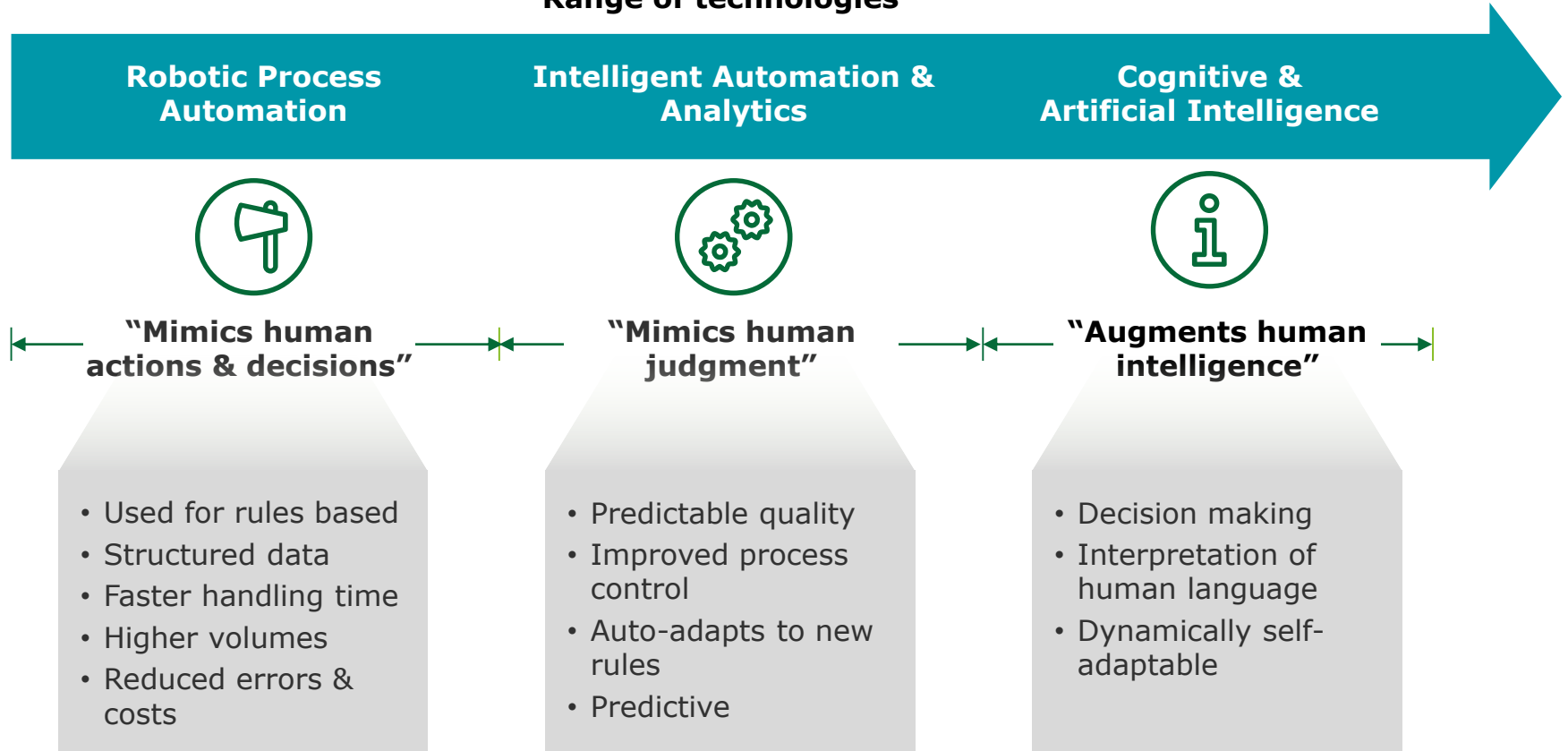
Robotic Process
Automation
(RPA)



Artificial
Intelligence
(AI)

The different flavours of process automation

Range of technologies



Benefits of RPA in Detail

Robotic Process Automation can deliver significant benefits



Decreased cycle times

Faster execution, 24/7 availability



Flexibility and scalability

Flexible virtual workforce, scalable



Improved accuracy

No human error, 100% completion



Improved employee morale

Focus on higher value



Detailed data capture

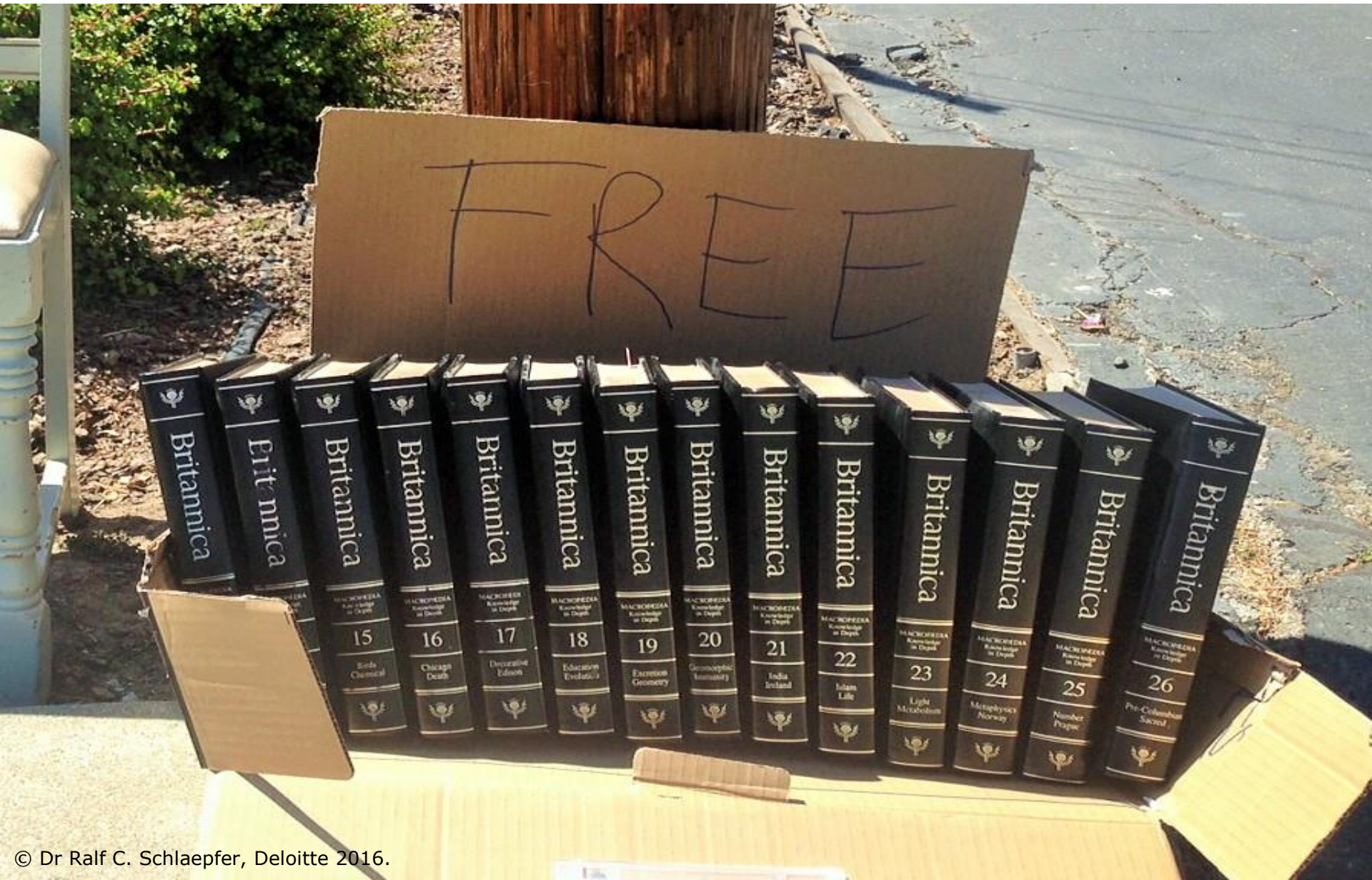
Tasks monitored and recorded, audit trail



Reduced operational costs

Capacity/FTEs release

Understand the potentially disruptive impact of new technologies, from the outside in



Time it took to reach 50 million users

Radio – 38 yrs

Television – 13 yrs

Internet – 4 yrs

Facebook – 3.5 yrs

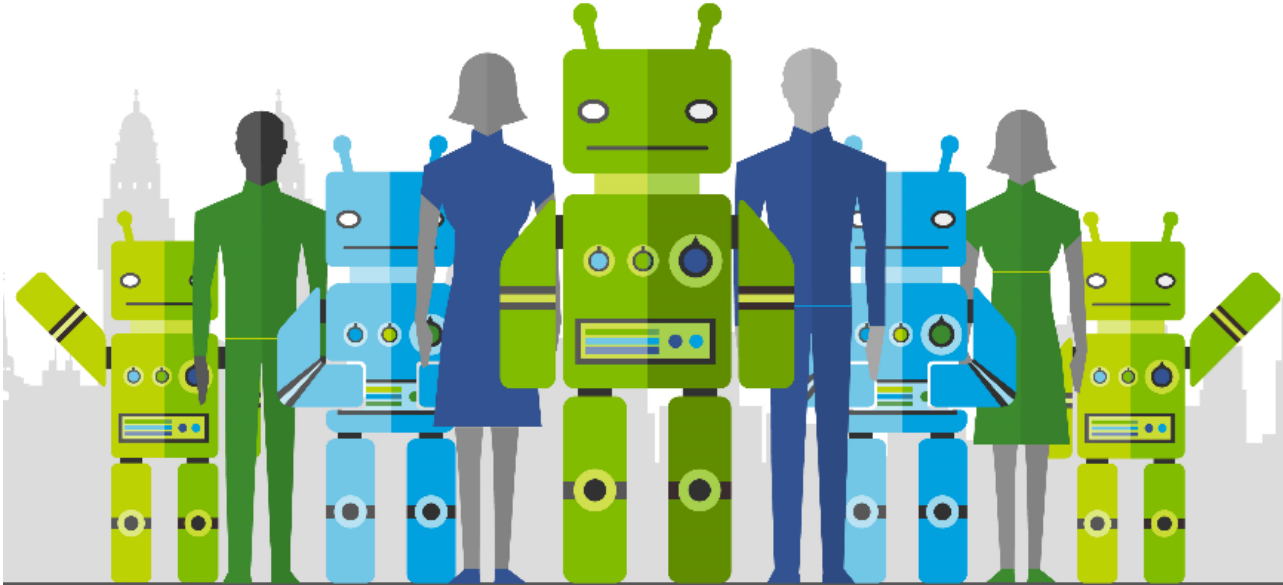
Twitter – 9 months

Instagram – 6 months

Angry Birds – 35 days



Huge implications for talent and the workplace

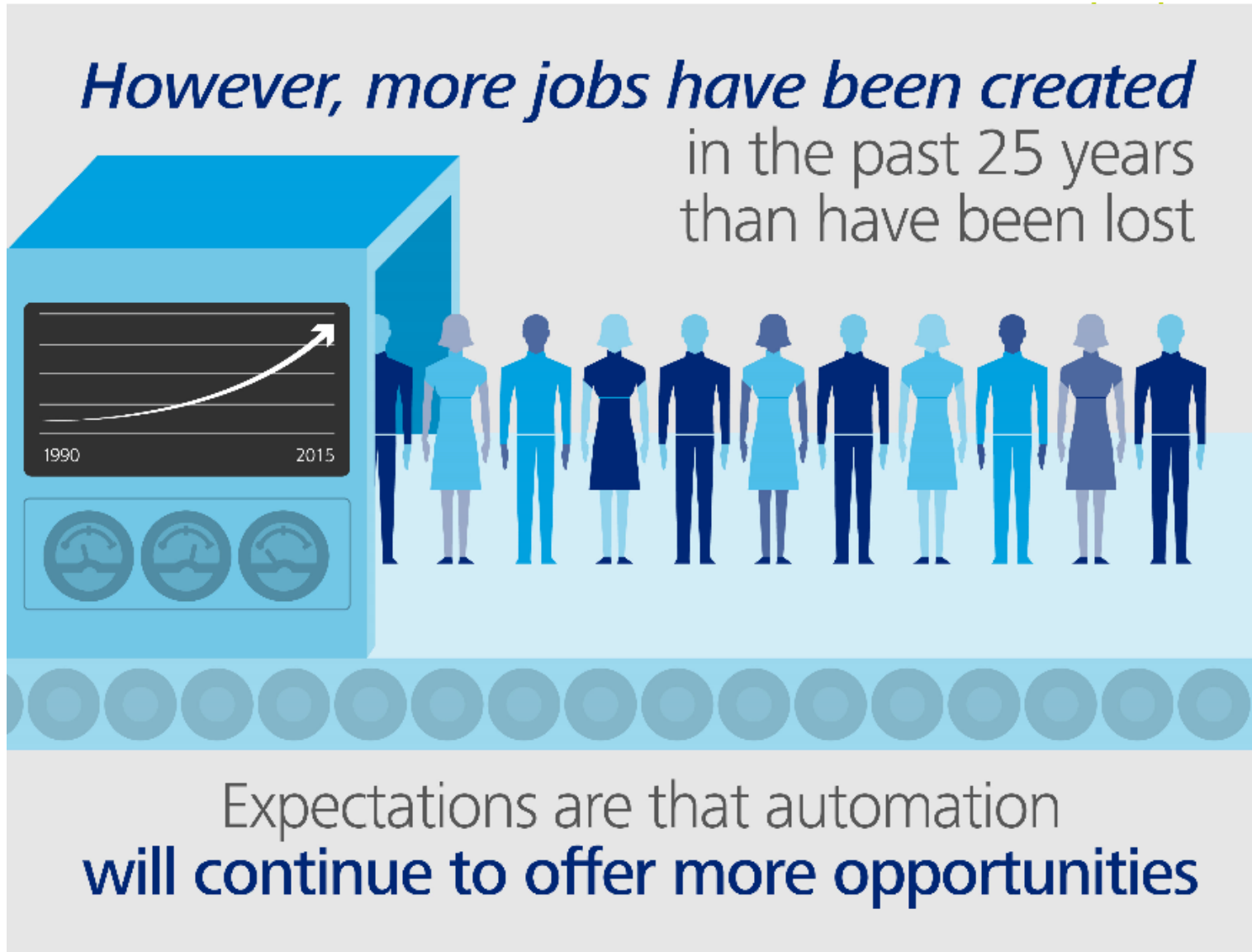


The impact of automation on the workforce is already visible in Switzerland. Jobs with a low risk of being replaced by automation have grown significantly over the last 25 years, while jobs with a high risk have grown less vigorously or have even decreased.

In the coming years or decades almost

50% *of current jobs could be rendered obsolete by automation*

Huge implications for talent and the workplace (cont.)

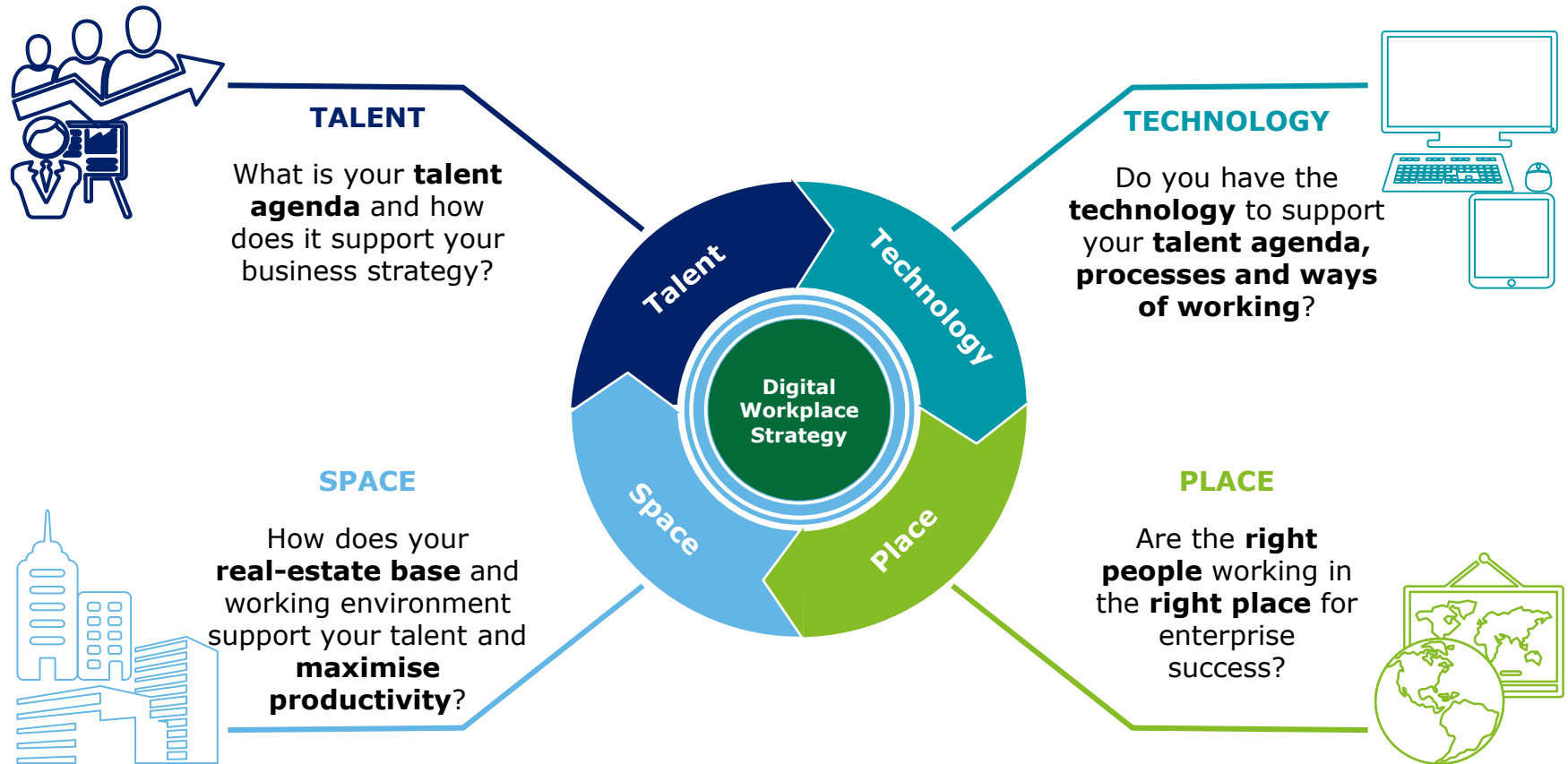


Huge implications for talent and the workplace (cont.)



Four dimensions of a digital workplace

A successful digital workplace strategy requires multiple functions to work together



Case study: The Edge

20 of the “world’s first” innovations in the building



- **Philips Connected Lighting System:** Equipped with a microprocessor and individual sensors – daylight, movement, temperature and infrared
- **MAPIQ app:** Single UX connecting all building user systems (meeting room, locker, find my colleagues, and AV control)
- **Next level data analytics:** Real estate and facility management



Wireless charging



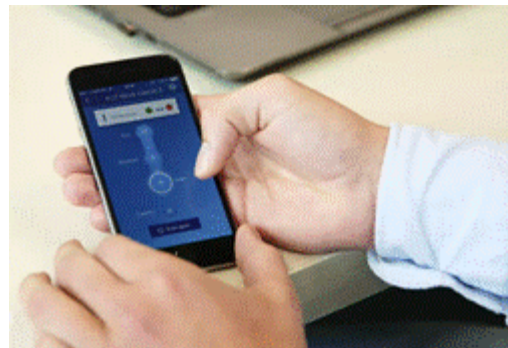
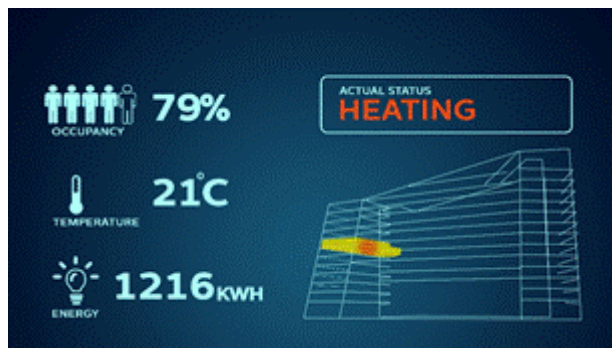
Interactive screens



Security robots

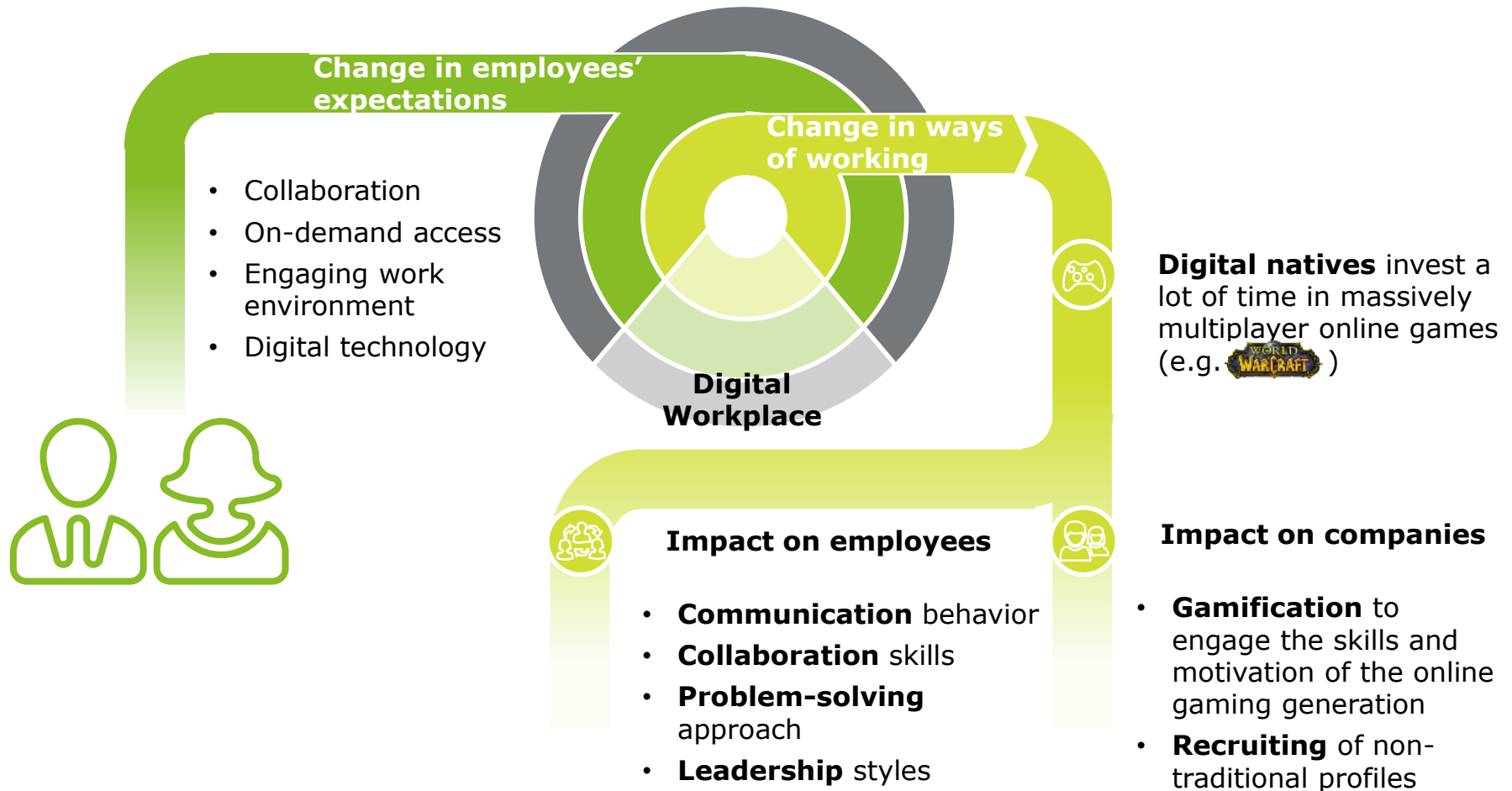


Front office IT shop



The face of the digital workforce

Digitalization has a profound impact on employees' expectations and their way of working





Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited (“DTTL”), a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/ch/about for a detailed description of the legal structure of DTTL and its member firms.

Deloitte AG is a subsidiary of Deloitte LLP, the United Kingdom member firm of DTTL.

Deloitte AG is an audit firm recognised and supervised by the Federal Audit Oversight Authority (FAOA) and the Swiss Financial Market Supervisory Authority (FINMA).

This publication has been written in general terms and therefore cannot be relied on to cover specific situations; application of the principles set out will depend upon the particular circumstances involved and we recommend that you obtain professional advice before acting or refraining from acting on any of the contents of this publication. Deloitte AG would be pleased to advise readers on how to apply the principles set out in this publication to their specific circumstances. Deloitte AG accepts no duty of care or liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication.

© 2016 Deloitte AG. All rights reserved.