

# Digital Transformation

- Digital Technologies
- Digital Competition
- Digital Business Models
- Digital Organizations
- Digital Work

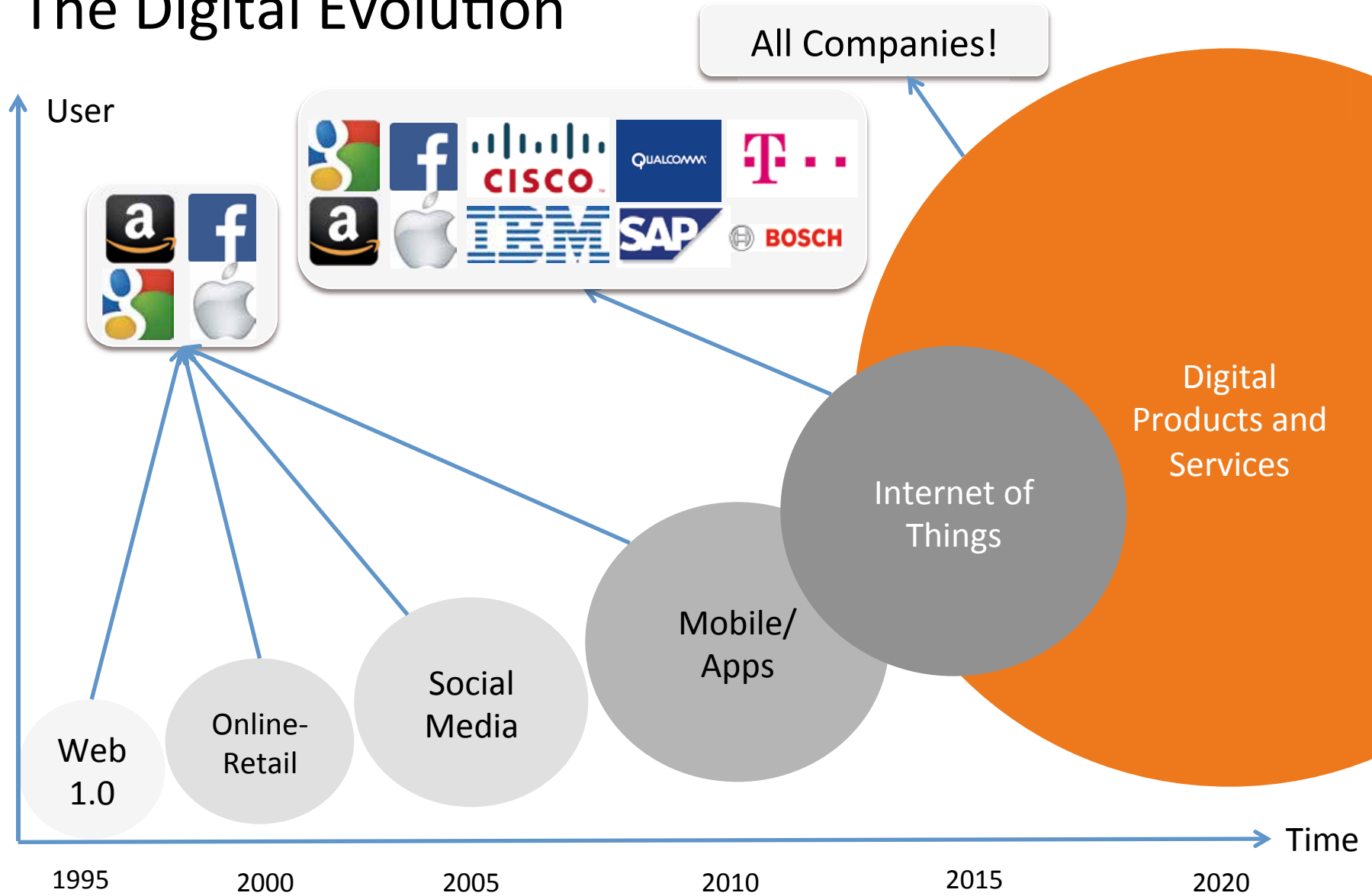
Dr. Holger Schmidt

FOCUS Magazine – Chief Correspondent Digital Economy  
Netzoekonom.de

16th February 2016, Wirtschaftspolitischer Club  
Deutschland, Berlin



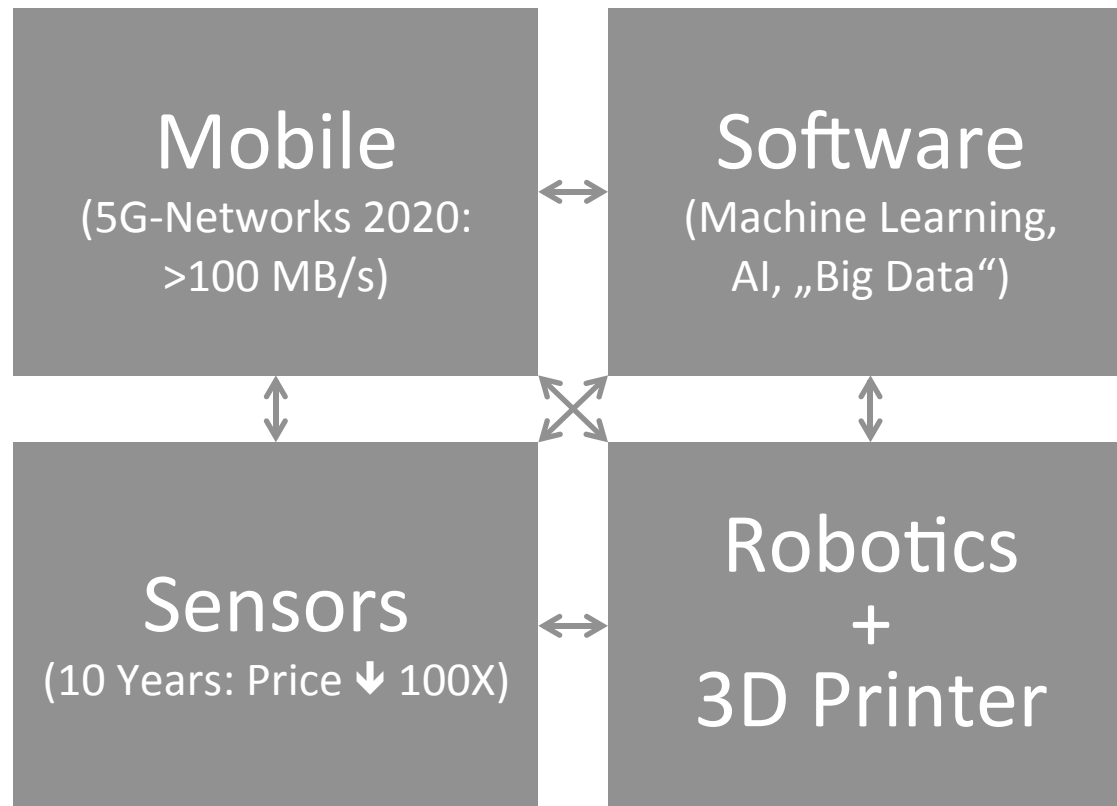
# The Digital Evolution



Source: MIT Center for Digital Business

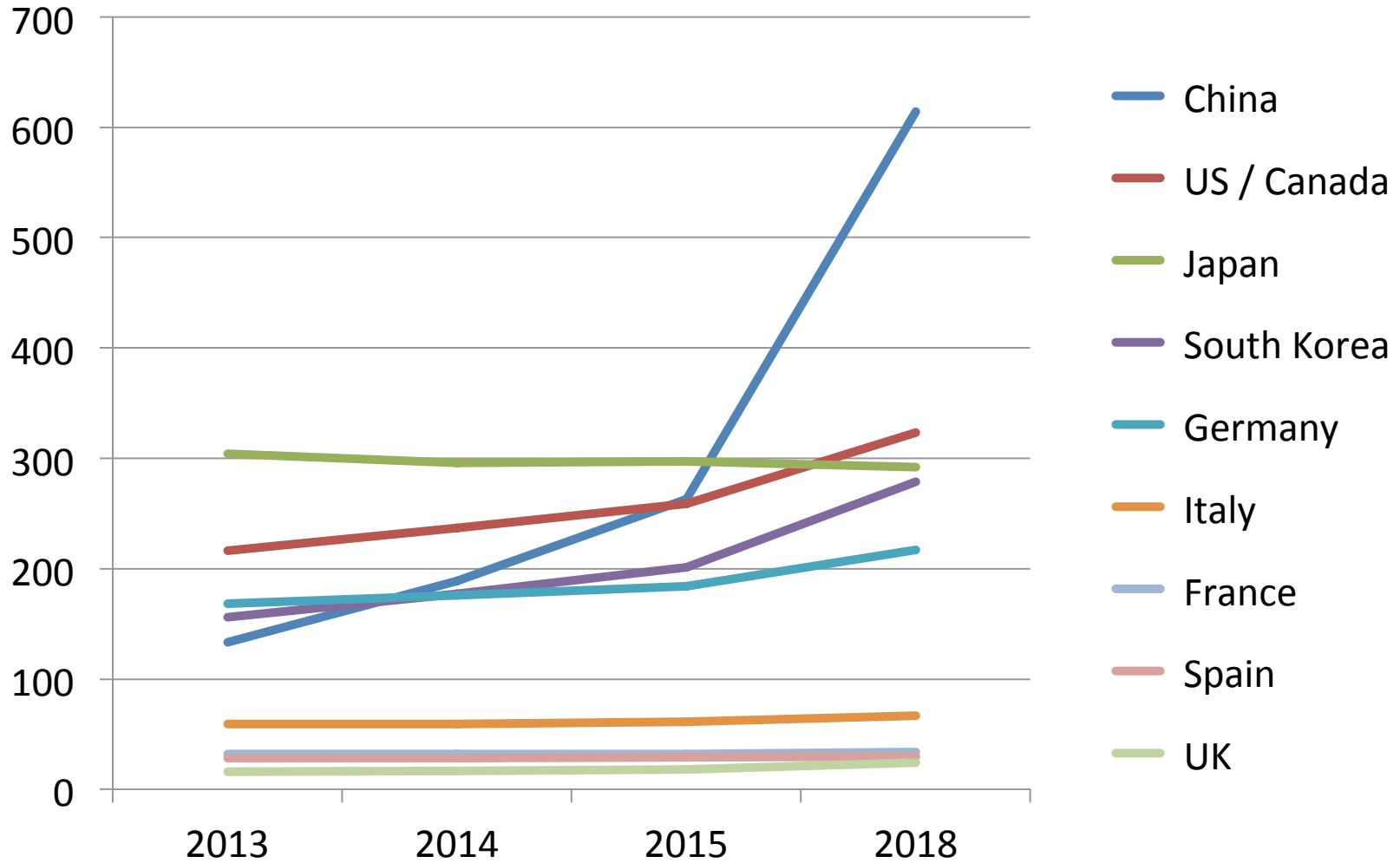
# Digital Technologies

# Accelerated, reinforcing Technical Progress



# Operational Stock of Industrial Robots

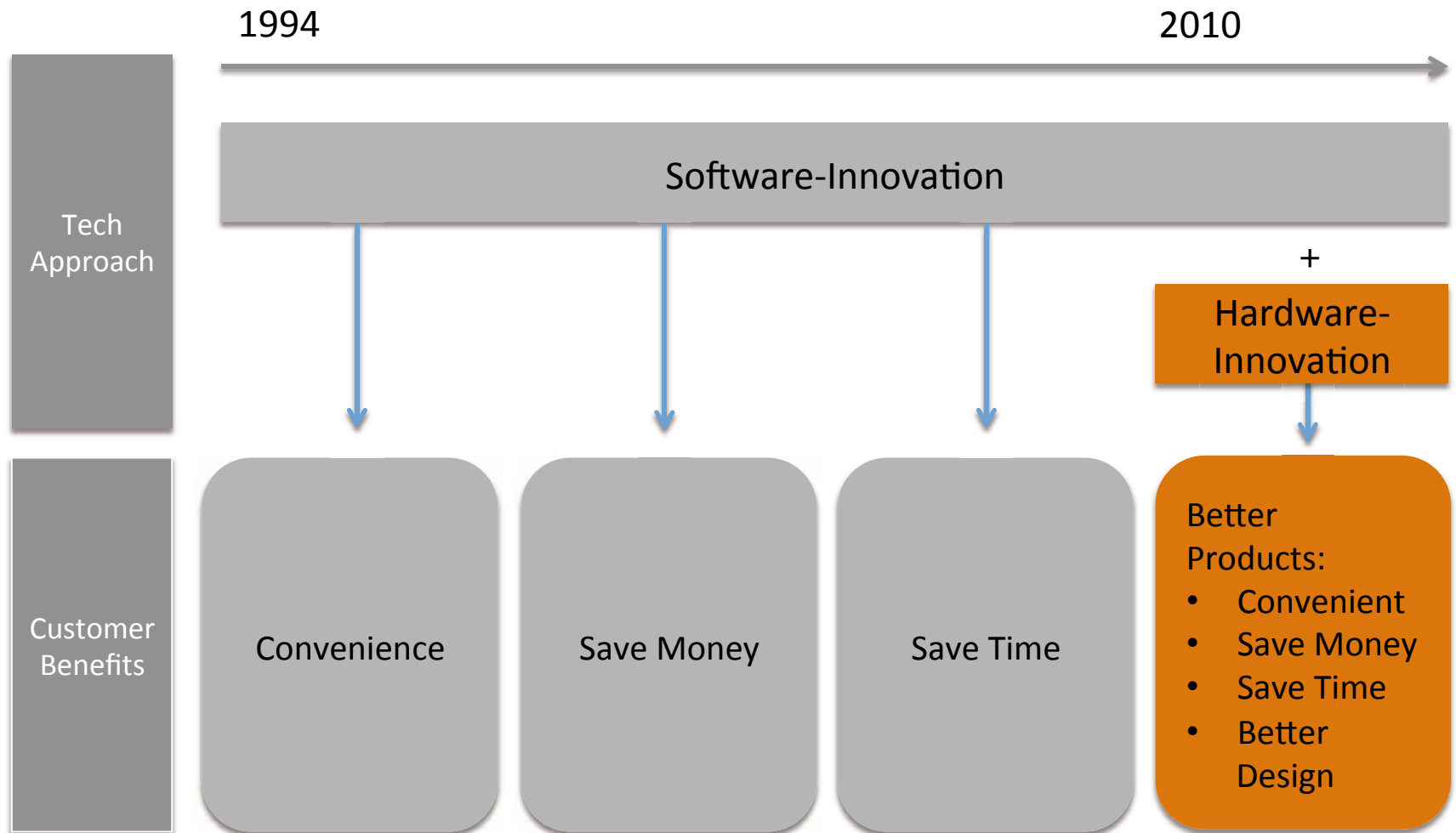
In 100000



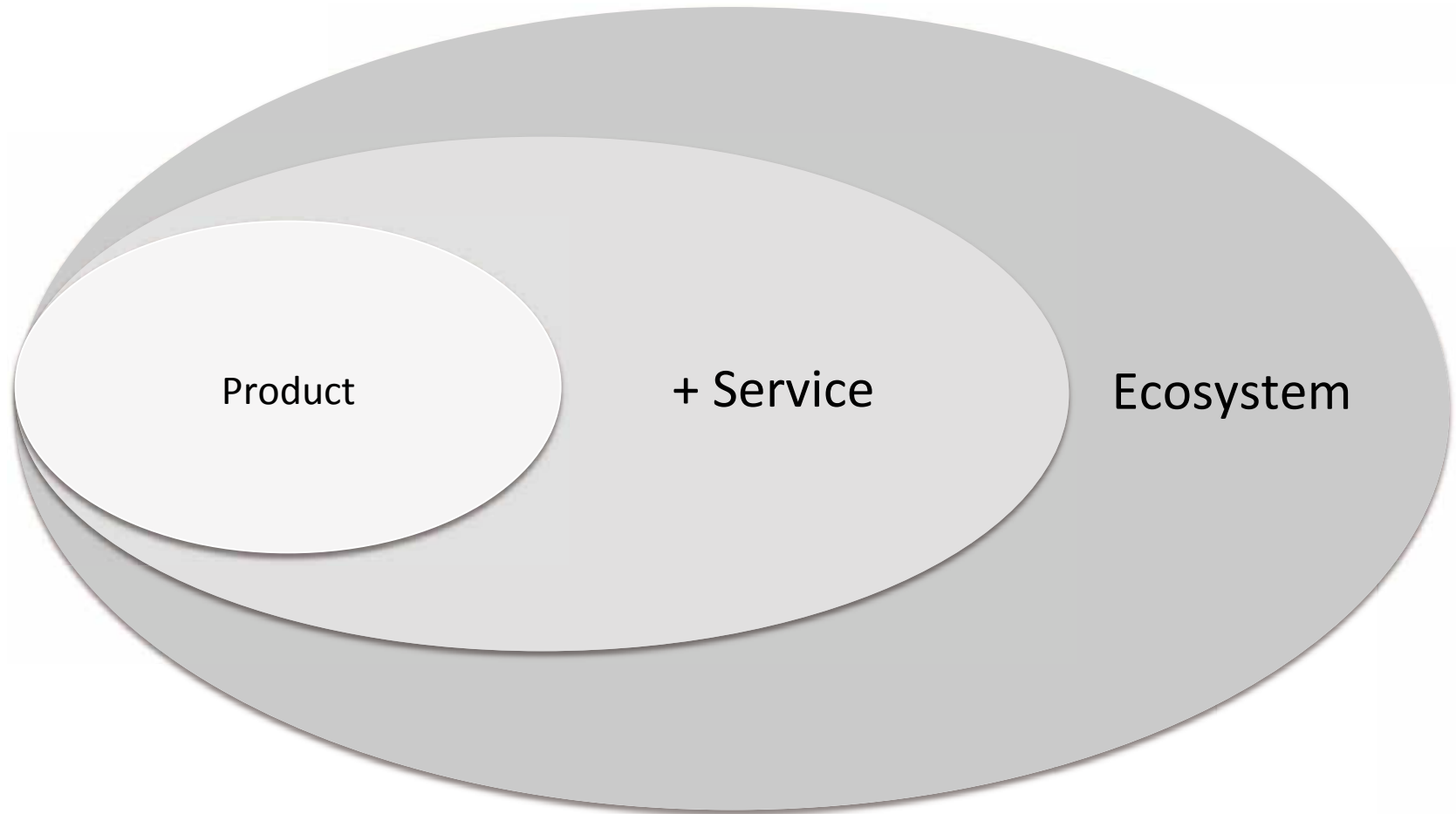
Source: International Federation of Robotics

# Digital Competition

# The Tech Approach to disrupt Incumbents



# Redefining Industry Boundaries



- Increasing Competition (New entry points for Competitors)
- Lower Price Competition – more Competition on Features and Services



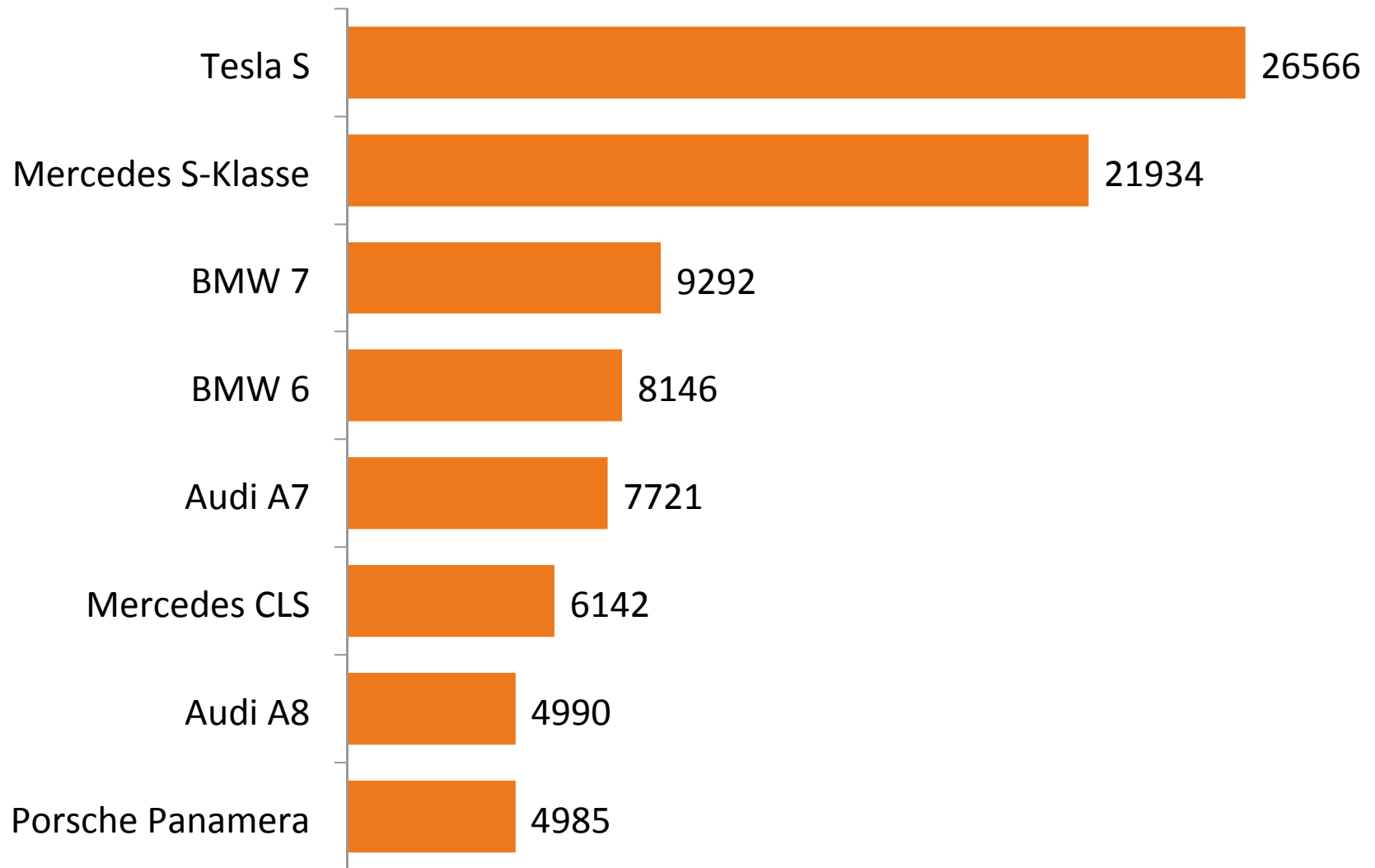
# The Train that never arrives too late



Velaro (Barcelona - Madrid)

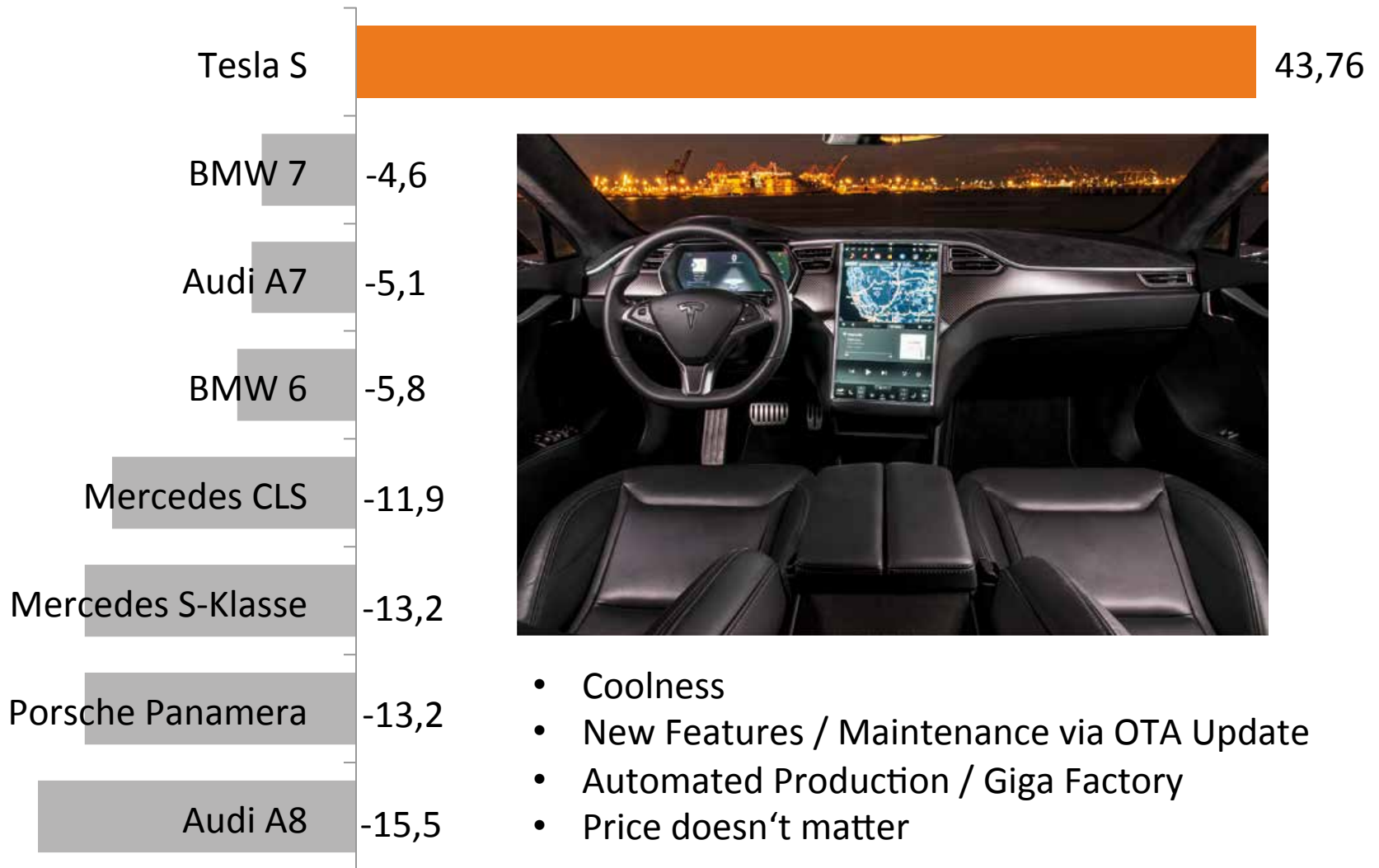
- 2,5 h for 625 Kilometer
- 15 Min Delay:  
Passengers get back  
full ticket price
- Combination of Sensors and  
Big Data Analytics  
(Teradata) allows replacement  
of Parts before they break  
(Predictive Maintenance)
- Result: No passenger got  
his money back

# Disruption: Sales of „Large Luxury Cars“ USA 2015



# Disruption: Growth of „Large Luxury Cars“ US

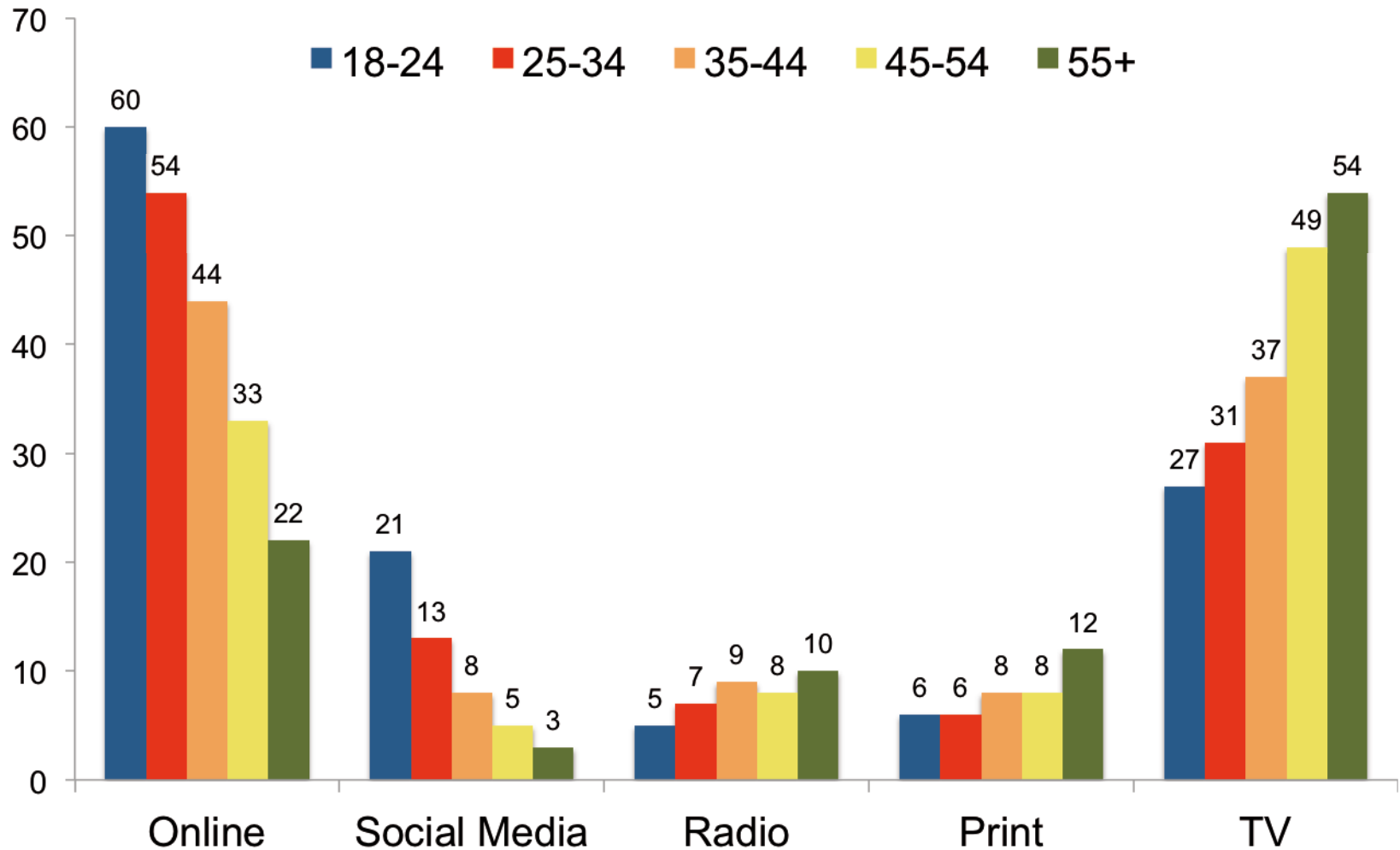
Change 2015/2014 in Percent



# Media Business

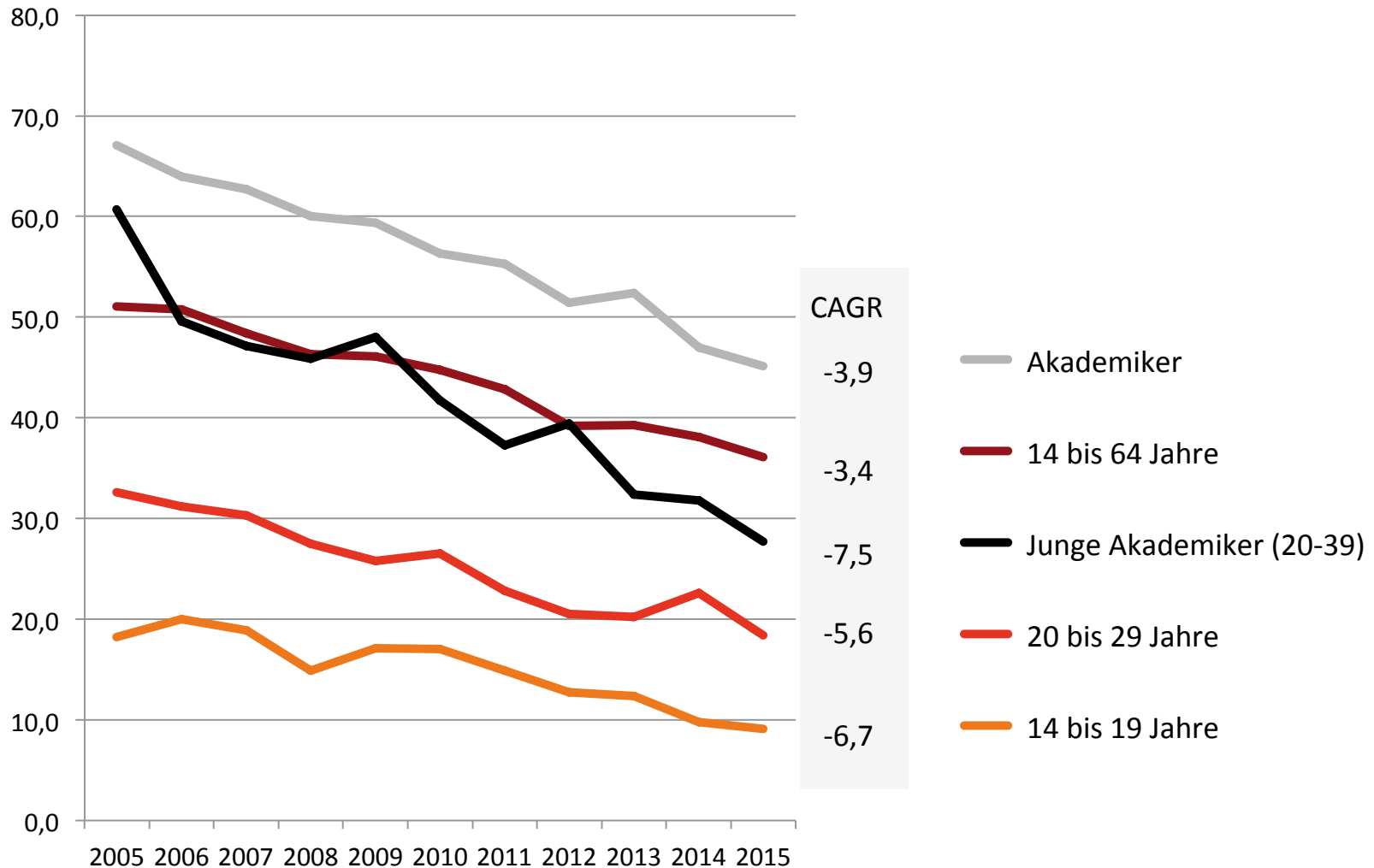
# Important Sources of News

Preferred News Source (EU/USA/AUS/JP)



Quelle: Reuters Digital News Report 2015

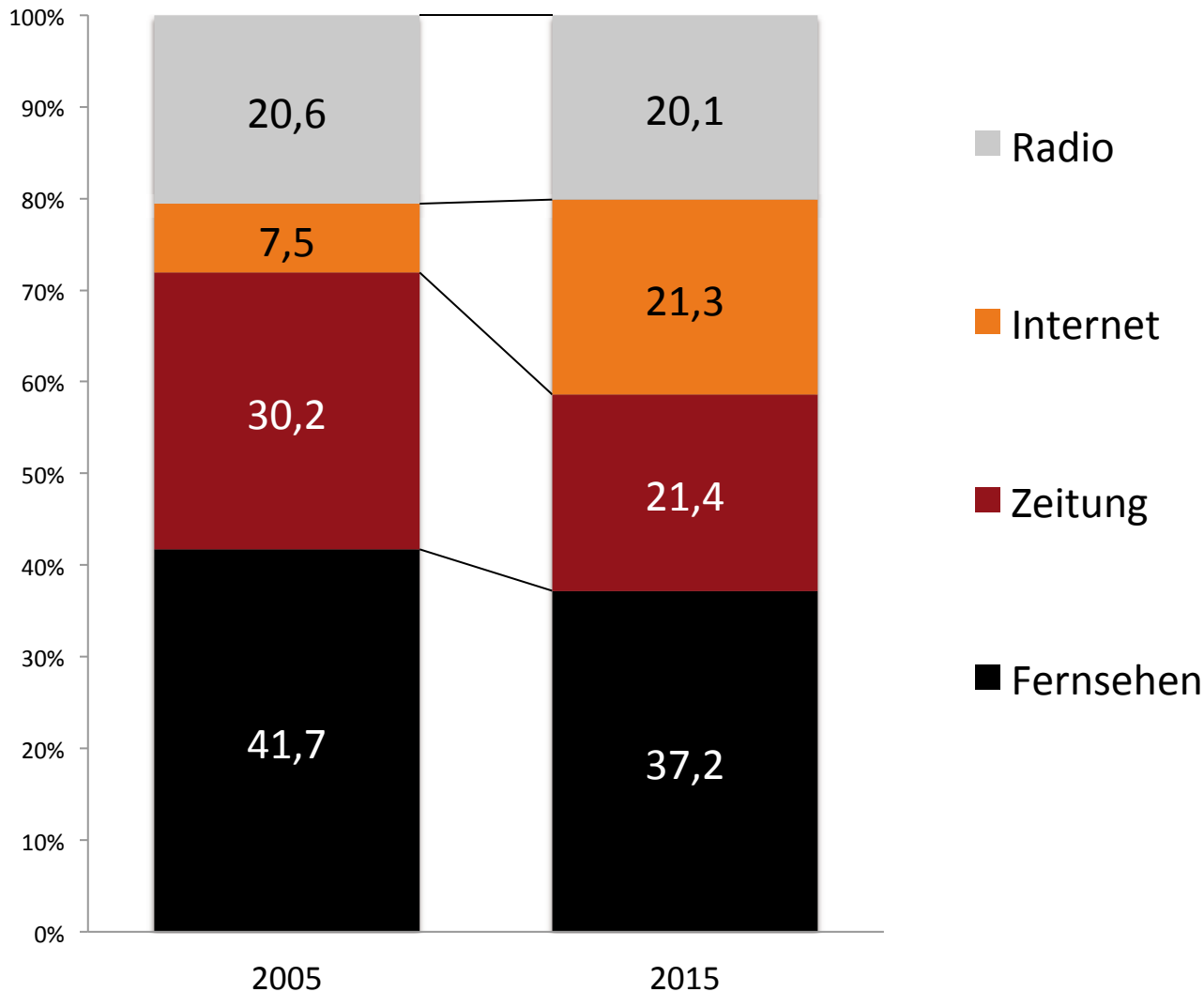
# „Reading the news in a Newspaper“



Quelle: Allensbacher Computer- und Technikanalyse (ACTA) 2015

# Bedeutung der Medien für Meinungsbildung der 14-64-Jährigen

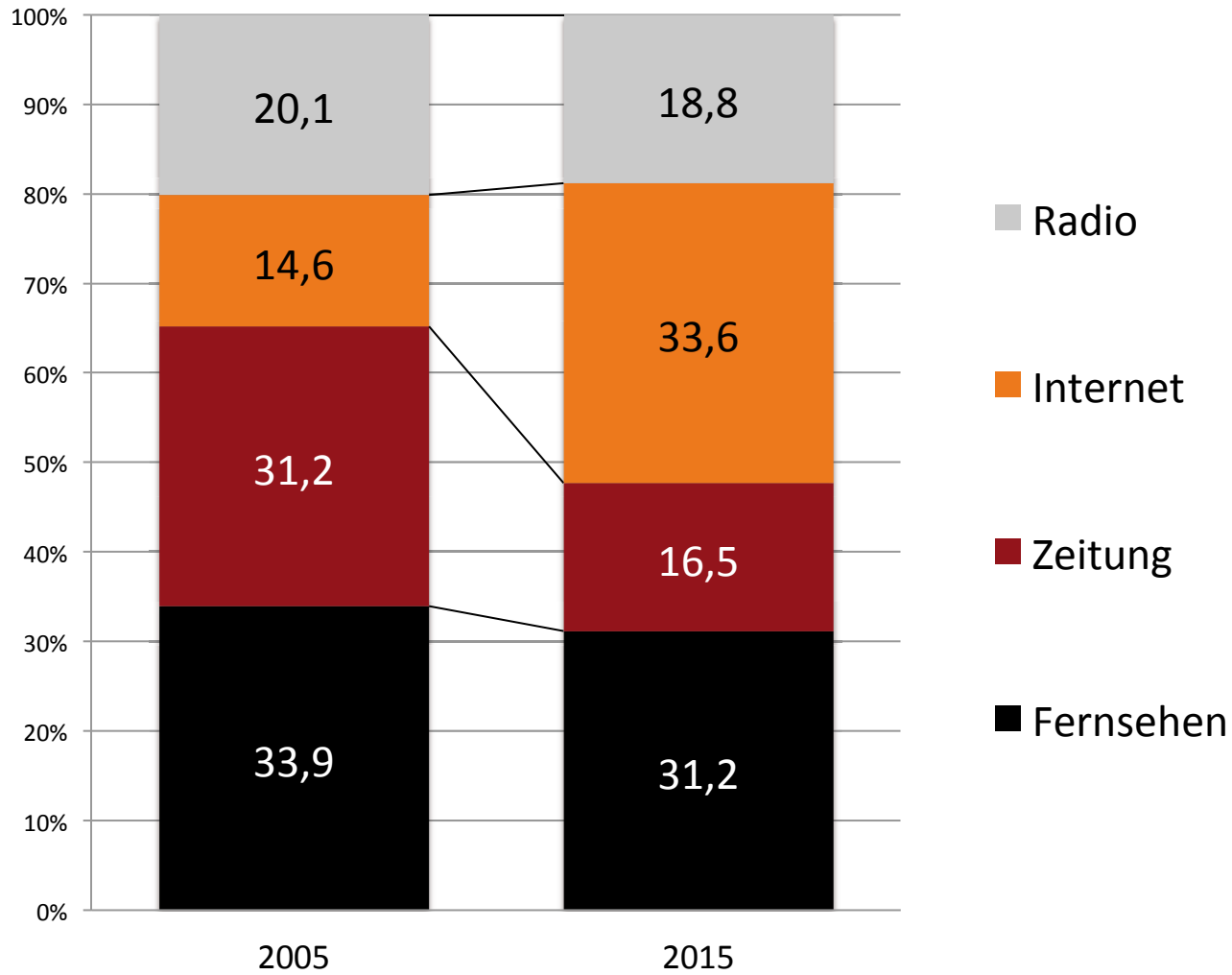
Anteil in Prozent



Quelle: Eigene Berechnungen auf Basis von Institut für Demoskopie Allensbach / ACTA 2015

# Bedeutung der Medien für Meinungsbildung der 20-39jährigen Akademiker

Anteil in Prozent

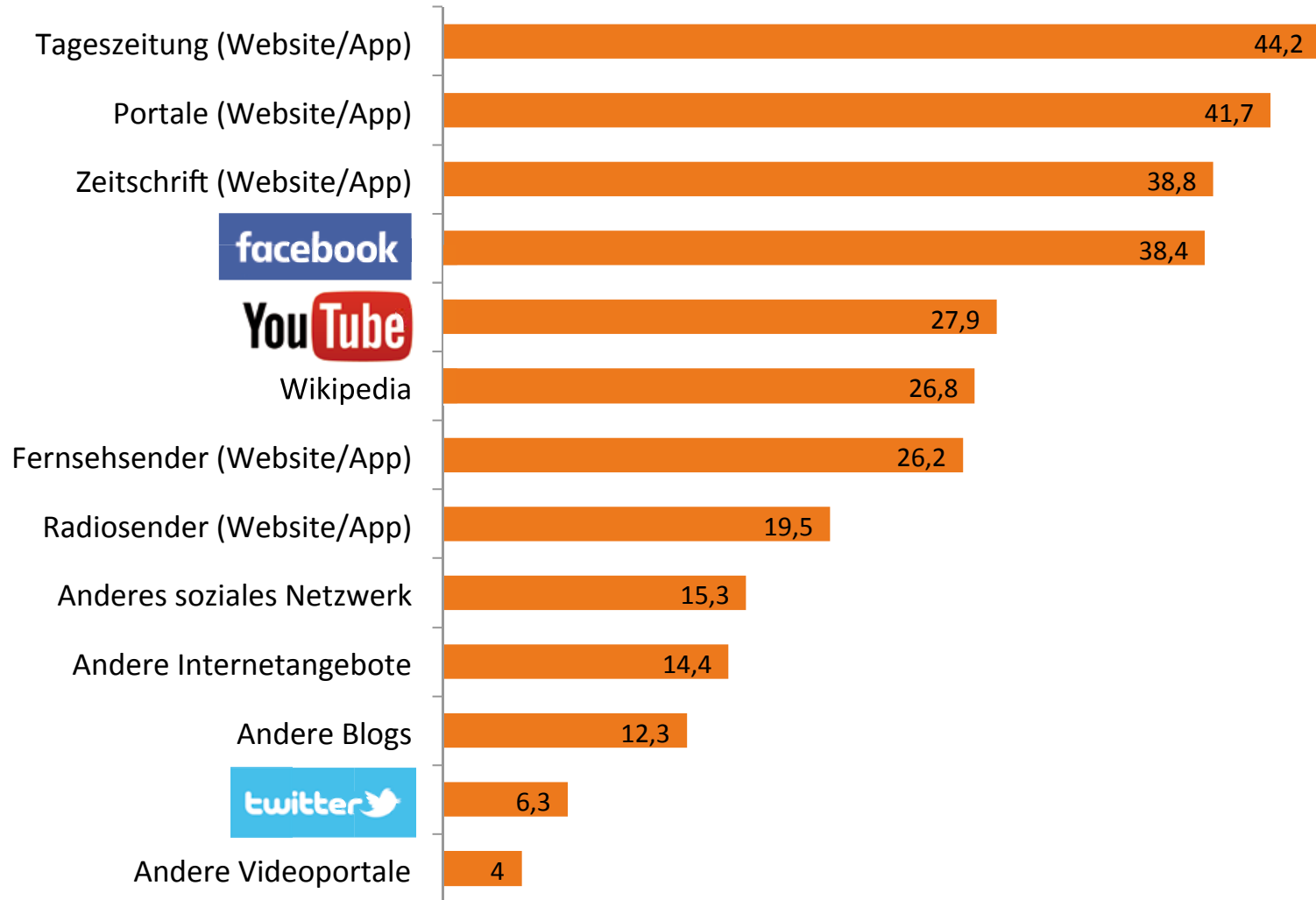


Quelle: Eigene Berechnungen auf Basis von Institut für Demoskopie Allensbach / ACTA 2015



# Online-Nachrichtenquellen Gesamtbevölkerung

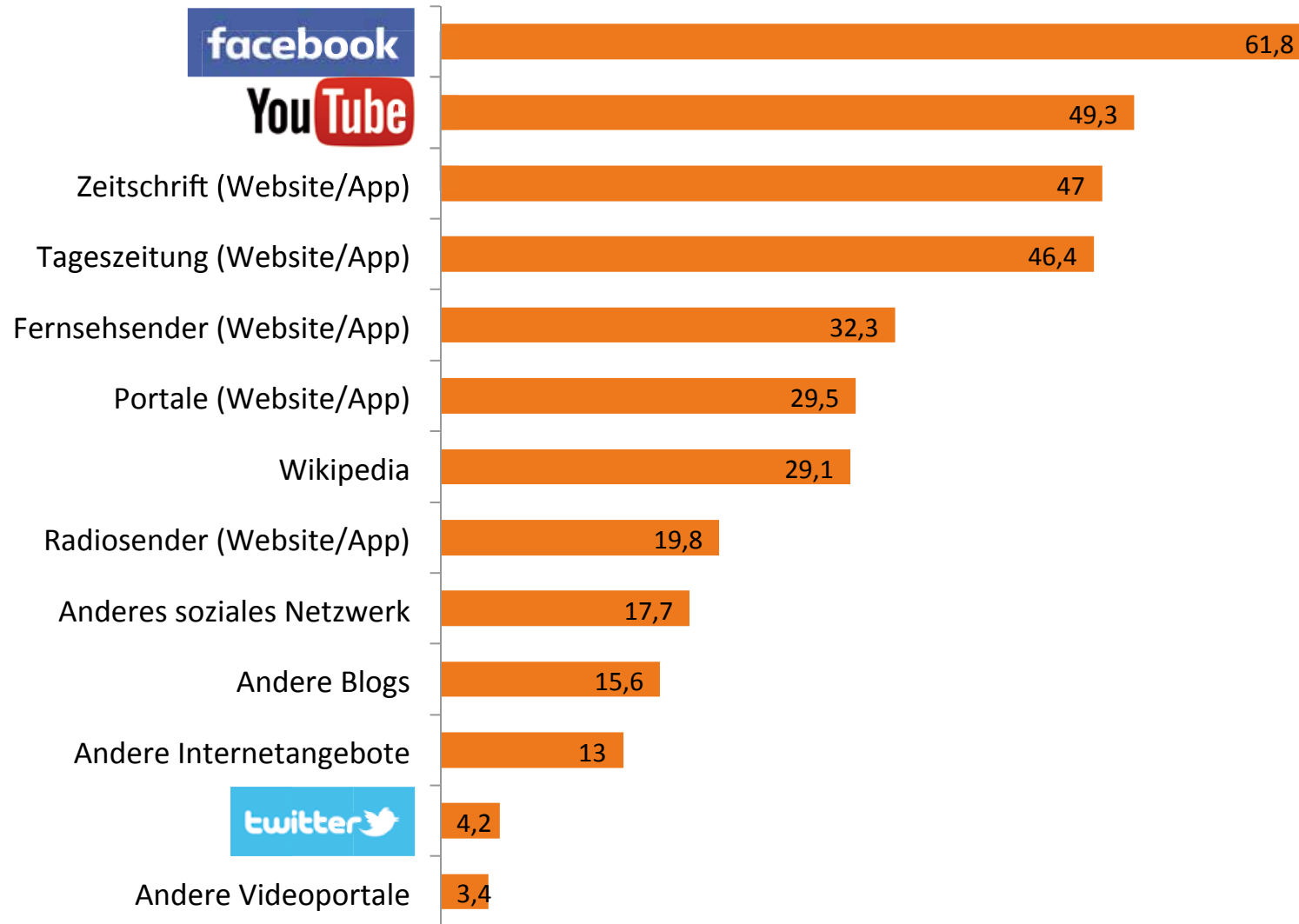
Angaben in Prozent



Quelle: TNS Infratest 2015

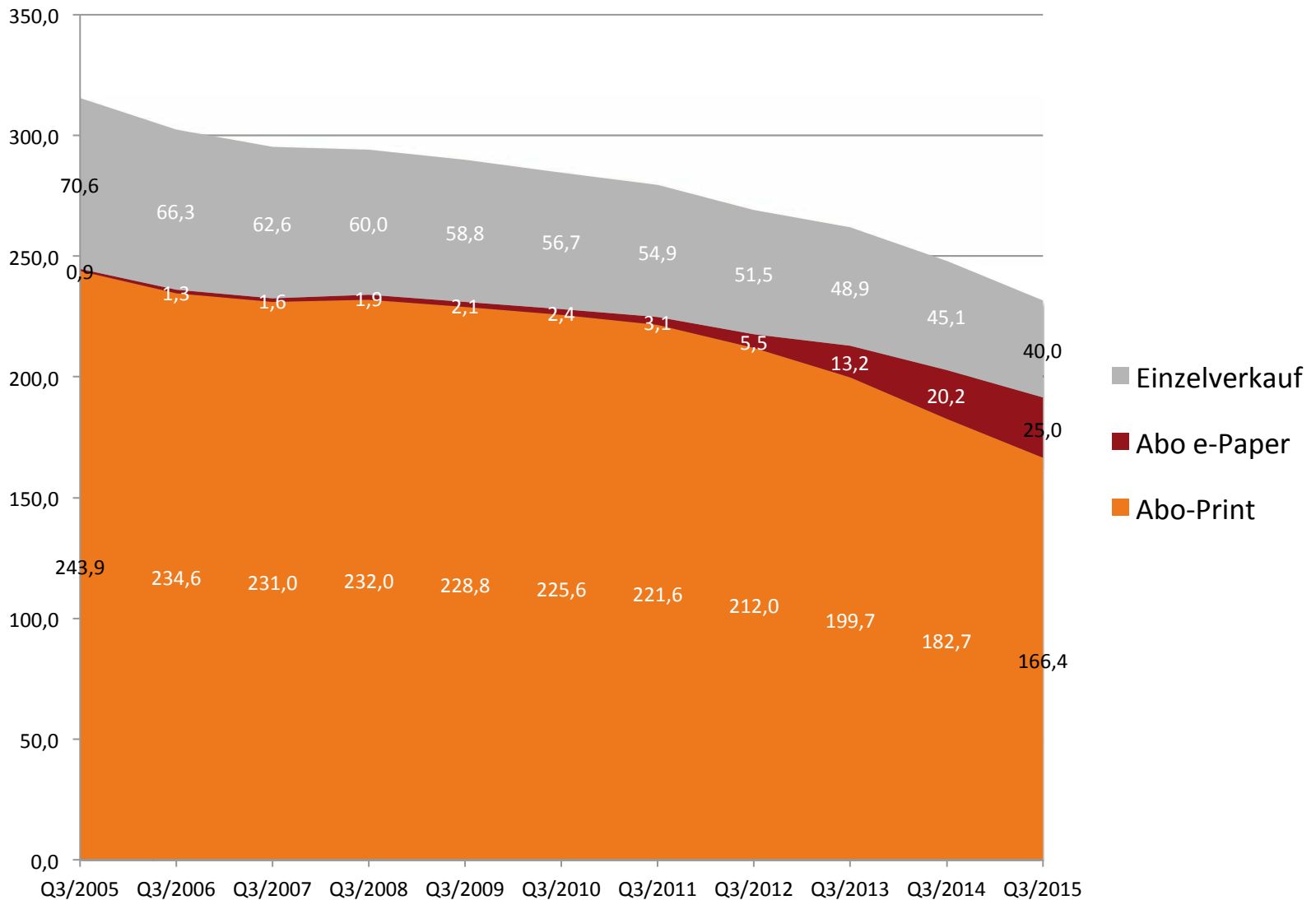
# Online-Nachrichtenquellen 14 – 29-Jährige

Angaben in Prozent



Quelle: TNS Infratest 2015

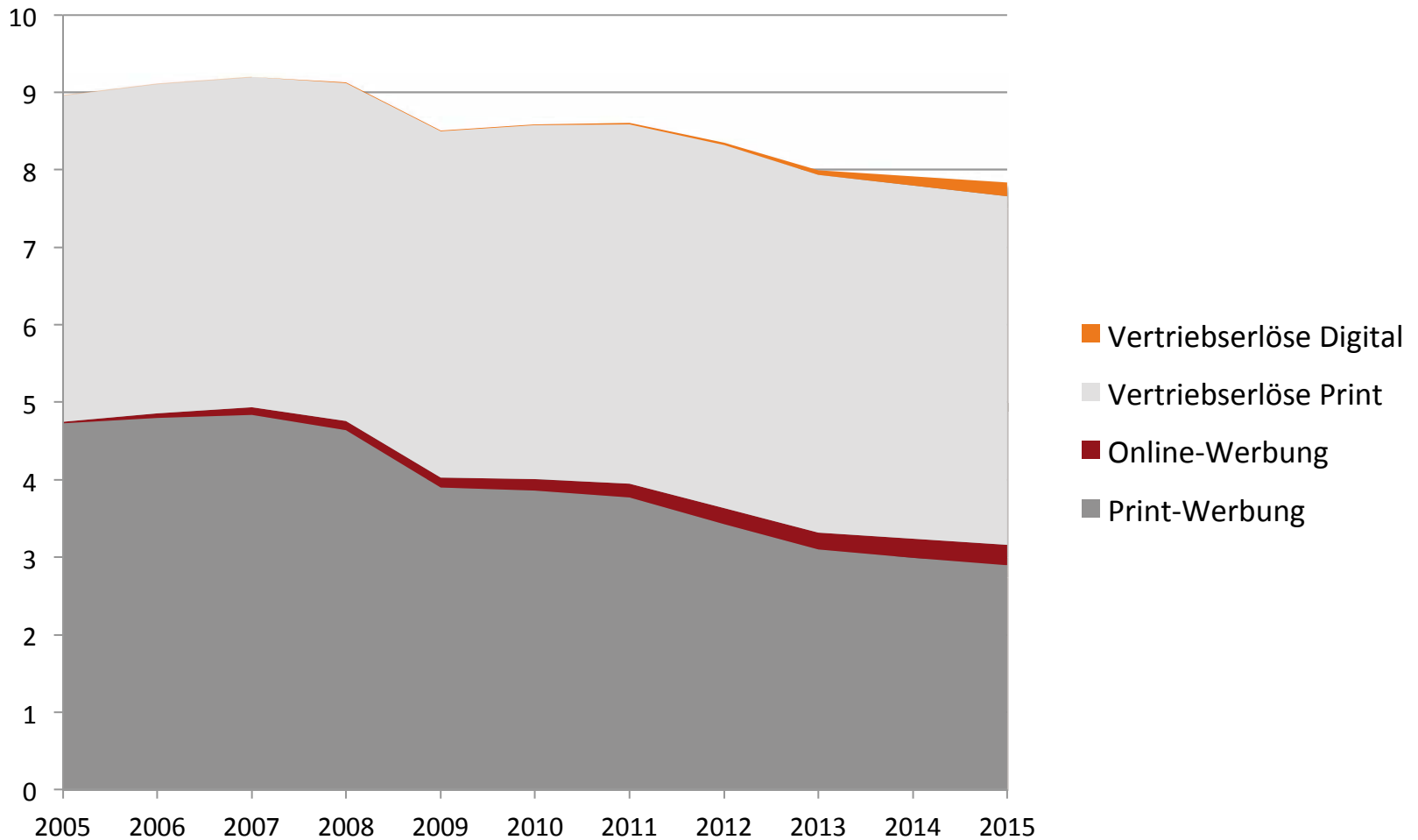
# Auflagenentwicklung (Abo/EV) der F.A.Z.



Quelle: IVW

# Umsatzquellen deutscher Zeitungen

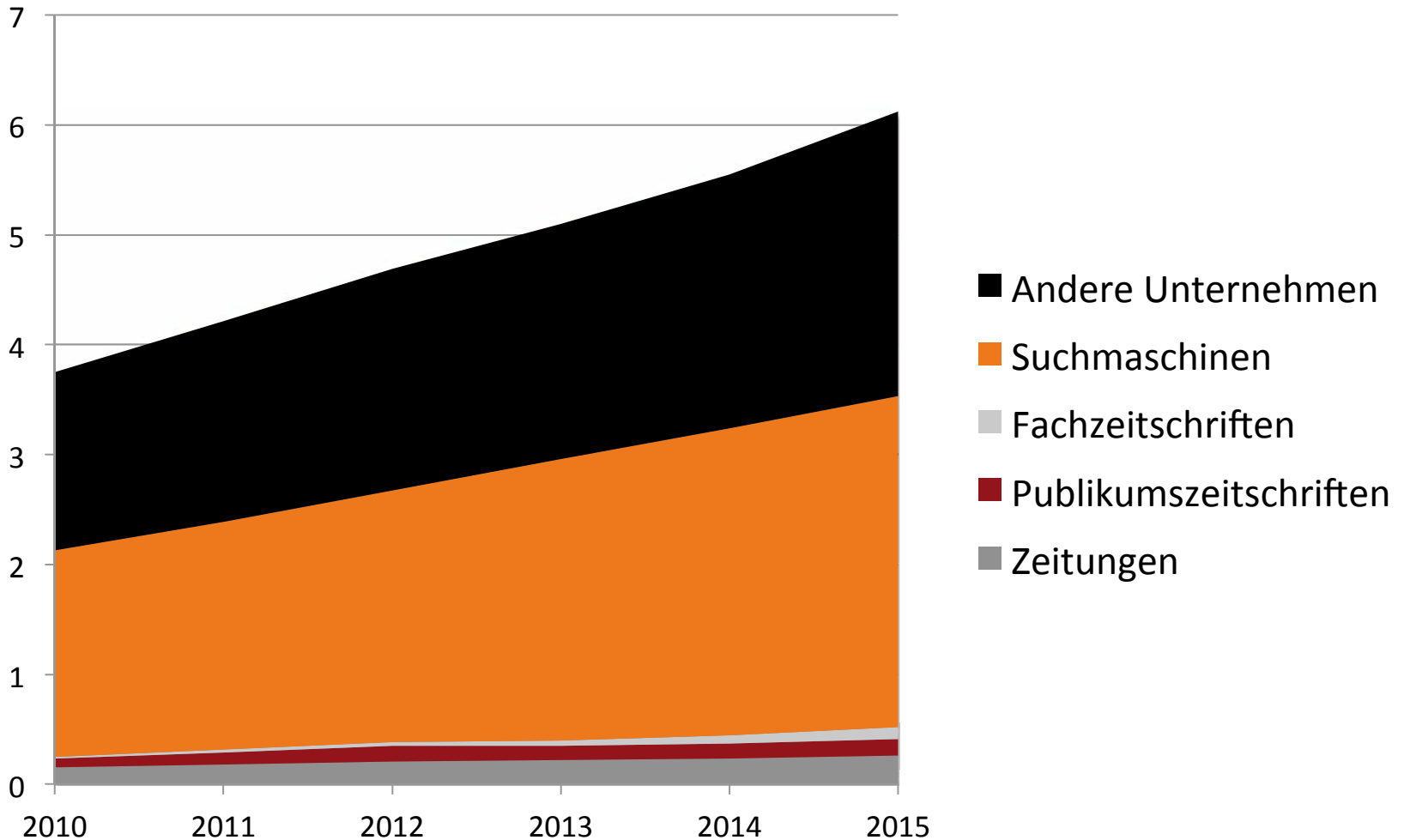
In Milliarden Euro



Quelle: PWC, ZAW, BDZV

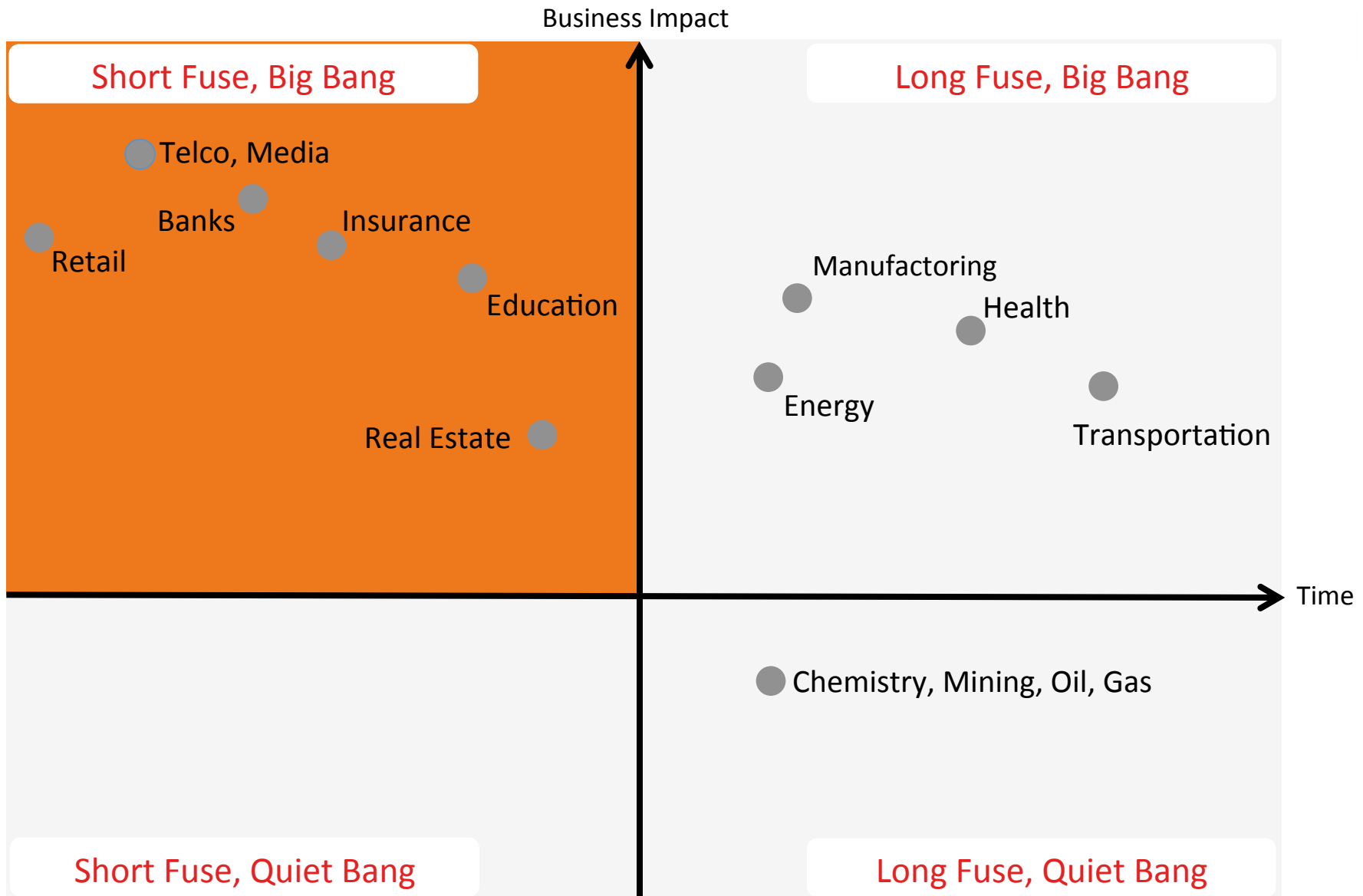
# Online-Werbung in Deutschland

Umsatz der Anbieter in Milliarden Euro



Quelle: PWC, BDZV

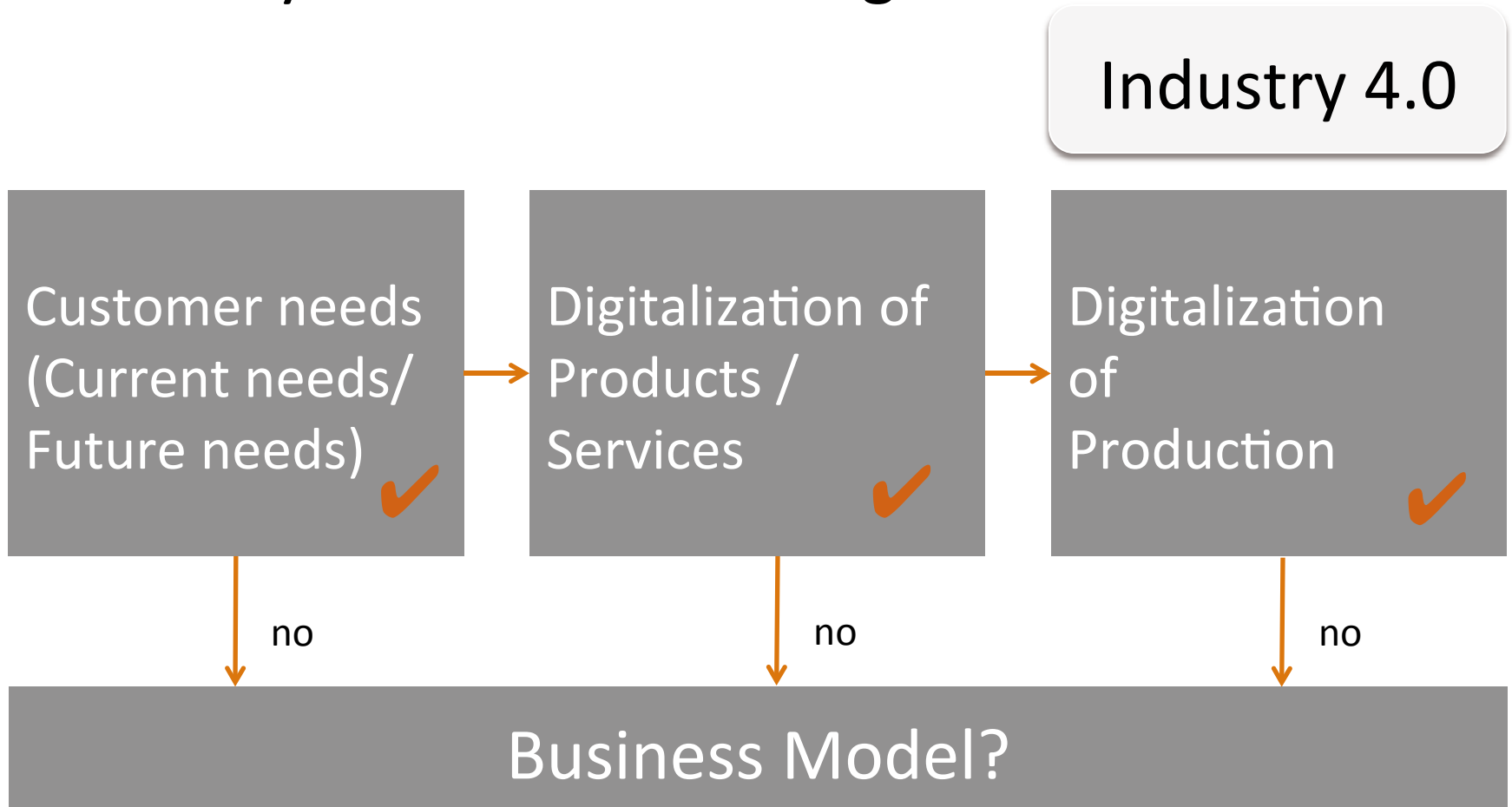
# Digitalization of Industries



Source: Deloitte

# Digital Business Models

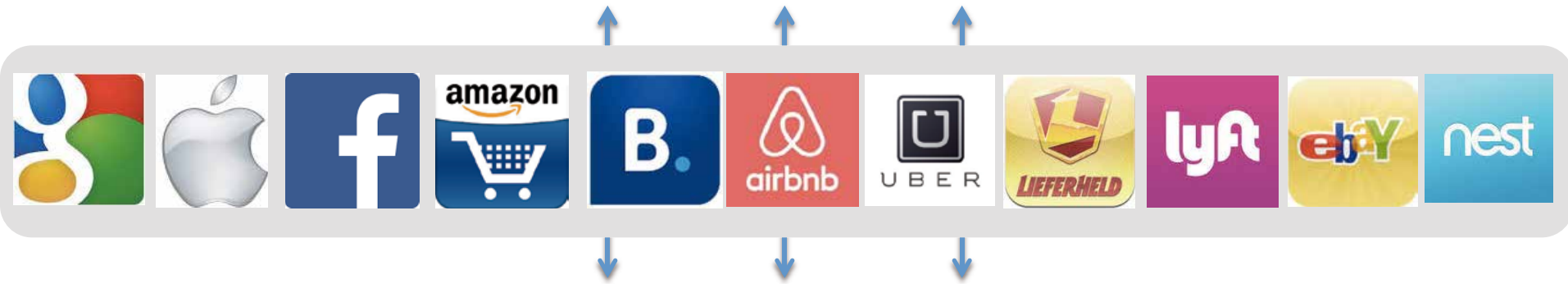
# The Path of Digitalization: Germany starts at the wrong end





# Platform Economy

Customer



Company/Provider

10 of the 20 most valuable listed Companies in the World are Platforms

# Platform Companies by Type

Bubble Size represents Market Cap December 1, 2015

Type



Public



Private

## Transaction

## Innovation

## Integrated

N. America



Asia



Europe



Source: Global Platform Survey. The Center for Global Enterprise

# Das Amazon-Modell

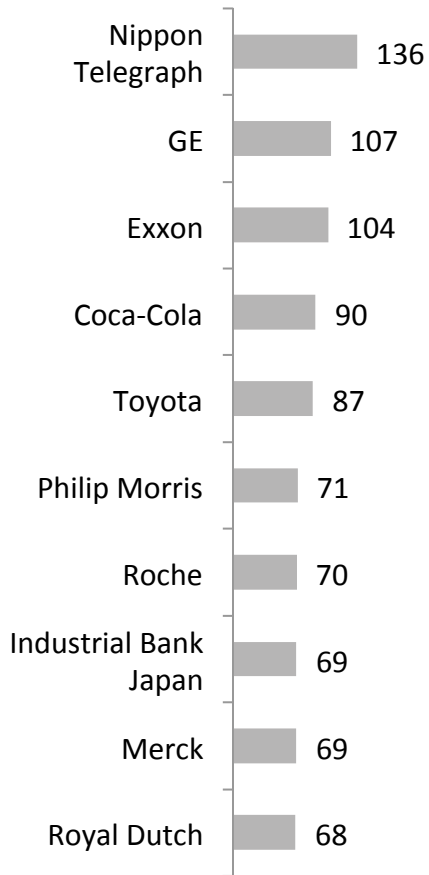


Source: FT

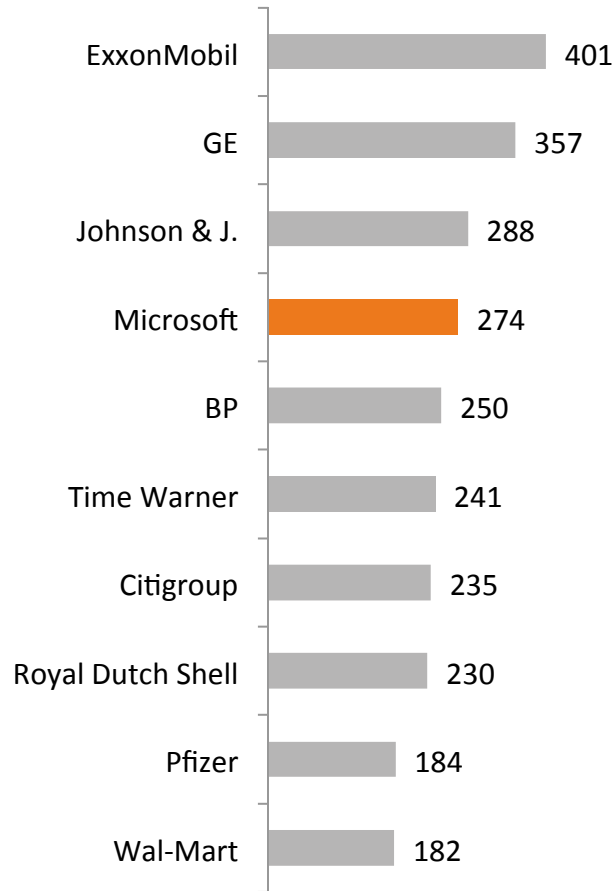
# Tech-Giants at the Stock Exchange

The 10 most valuable listed Companies of the World (\$B)

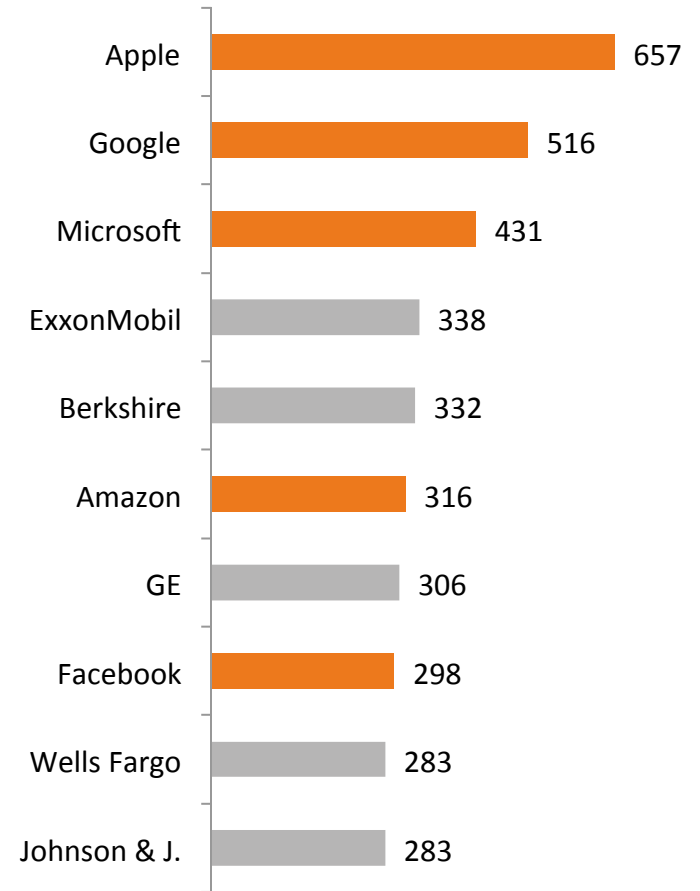
**1995**



**2005**



**2015**



Tech-Share  
Of Top 10

0%

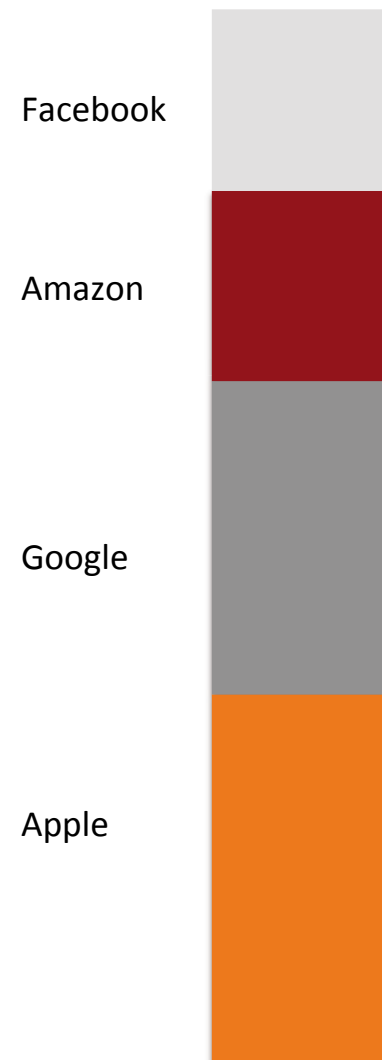
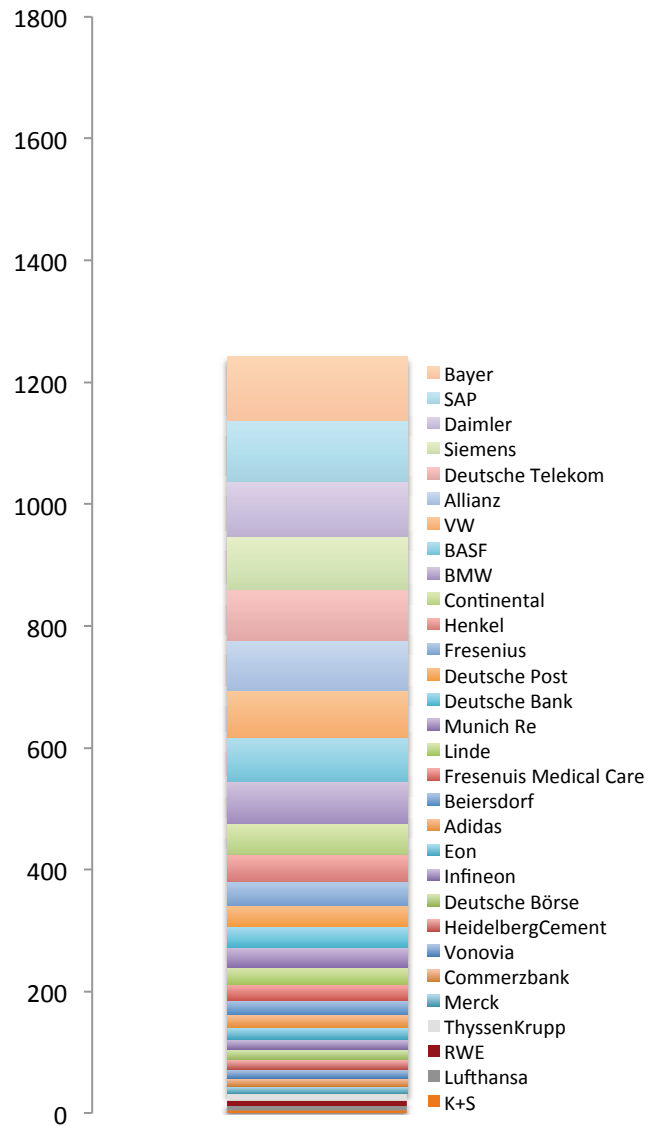
10%

58%

Source: Yahoo Finance

# Dax 30 vs Big 4

Market Cap (December 23 2015, \$B)

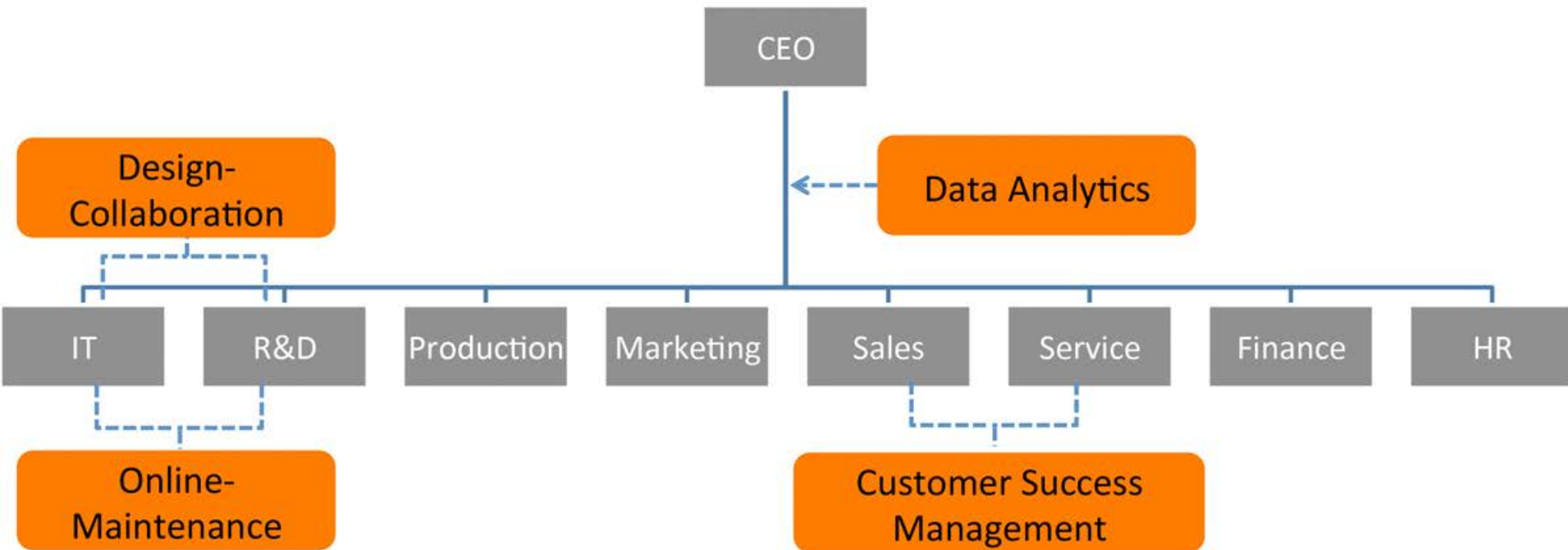


Source: Bloomberg

# Digital Organizations



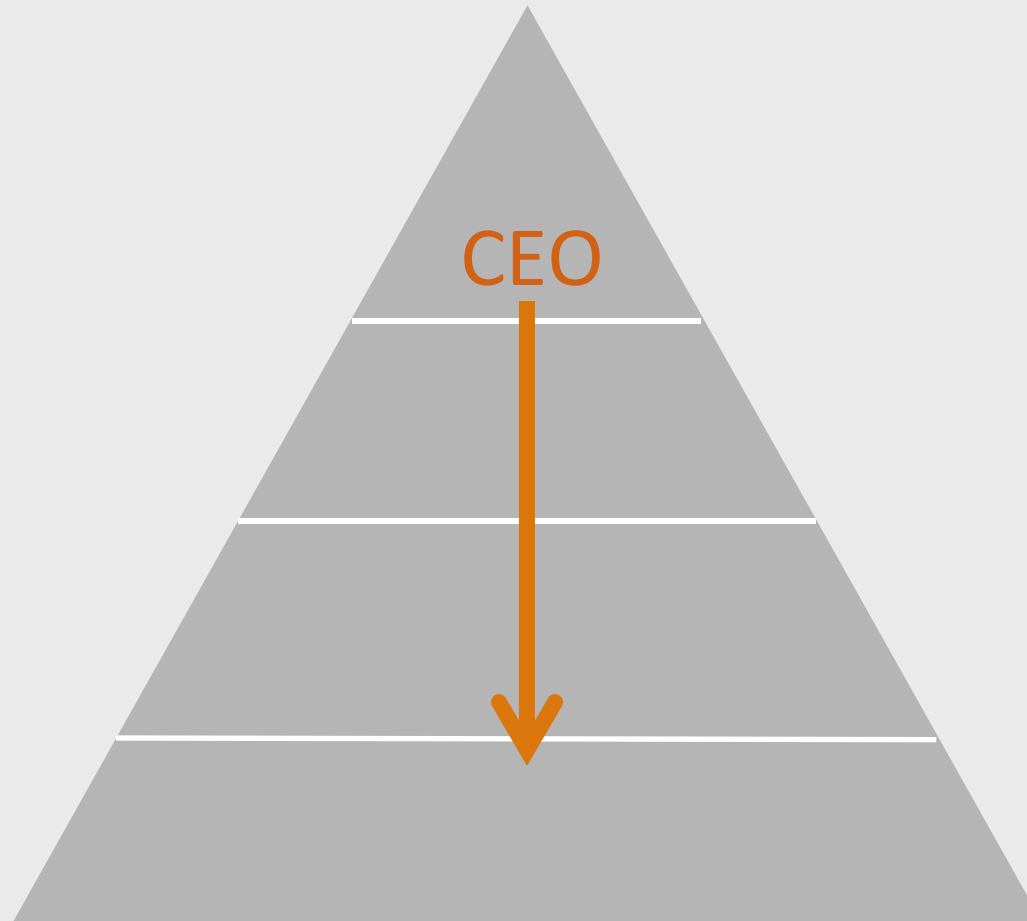
# The new Organization for the Digital Age



Source: Michel E. Porter / Jim Heppelmann



# Digital Transformation works only Top-Down



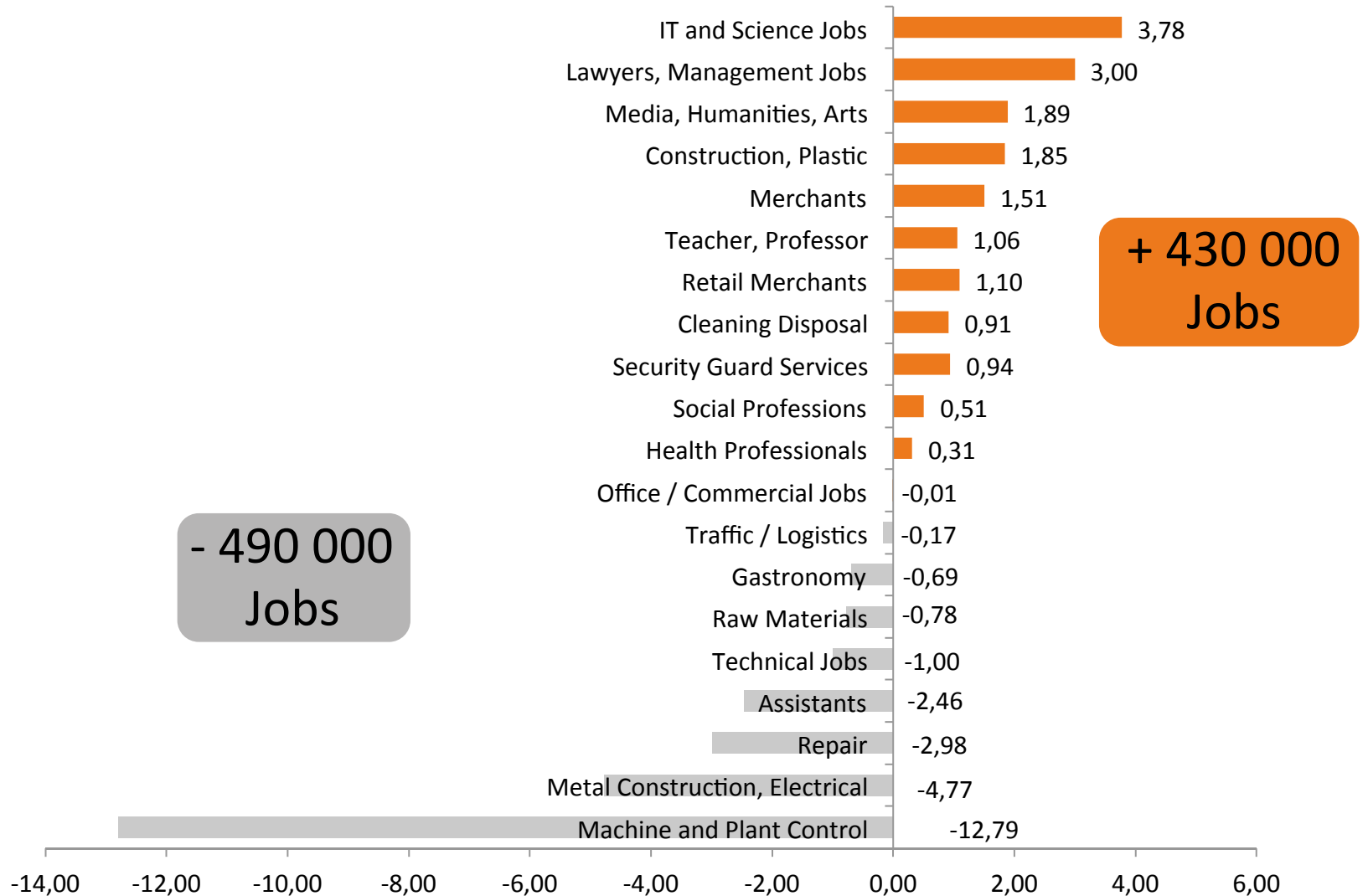
# Digital Work

# The End of Routine Tasks

- Artificial Intelligence (Machine Learning) will replace many Routine Jobs, first time in the offices.  
(Accountants, Controller, IT-Admins, Analysts, Lawyers)
- 45 Percents of all Tasks can be fully automated
- Large increase of Labour Productivity
- Germany: 5 Million Jobs can be fully automated

# Impact of Industry 4.0 on Jobs in Germany

Changes in Manufacturing in 2025 in Percent



Source: IAB Forschungsbericht 8 / 2015

*„You go to Bed as an Industry Company  
—  
and you wake up as a Software Company“*

Jeffrey Immelt / GE

# Questions?



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