

Digital Transformation

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

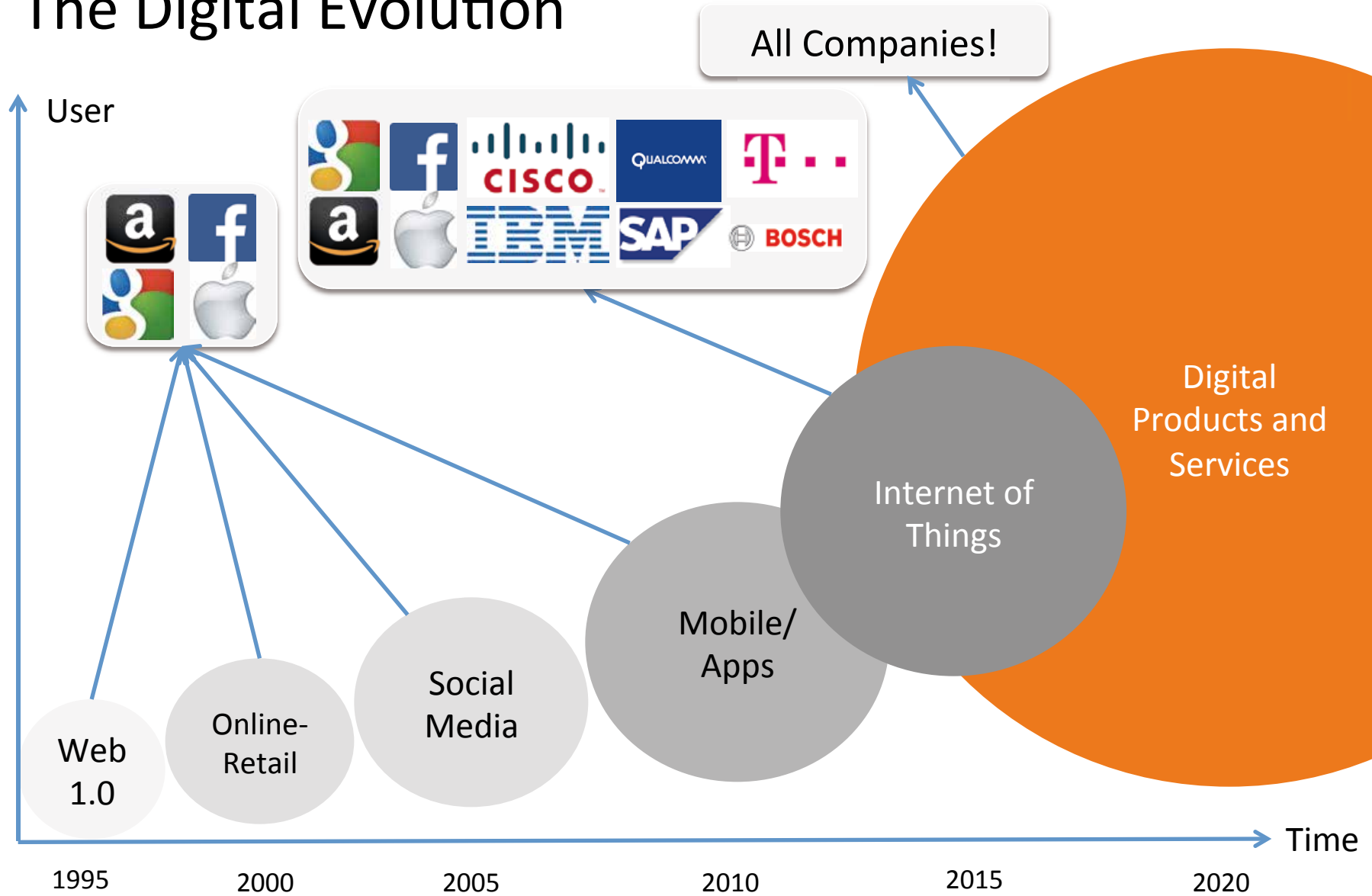
Dr. Holger Schmidt

FOCUS Magazine – Chief Correspondent Digital Economy
Netzoekonom.de

16th February 2016, Wirtschaftspolitischer Club
Deutschland, Berlin



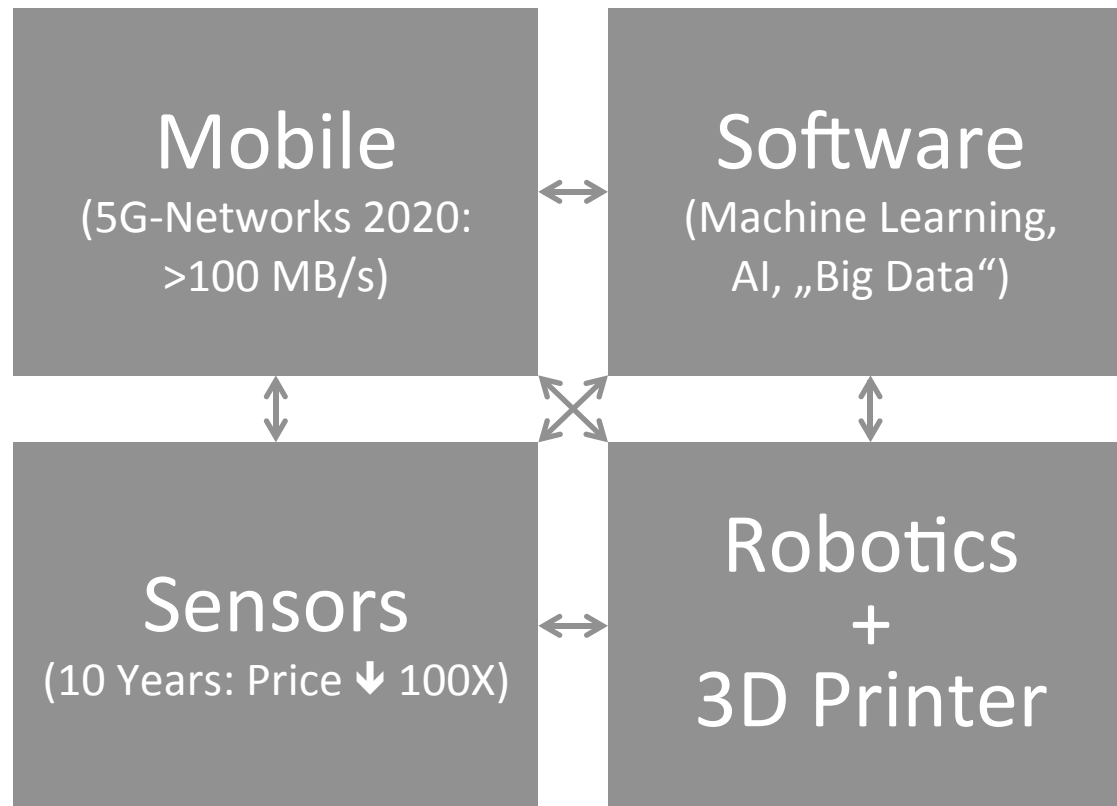
The Digital Evolution



Source: MIT Center for Digital Business

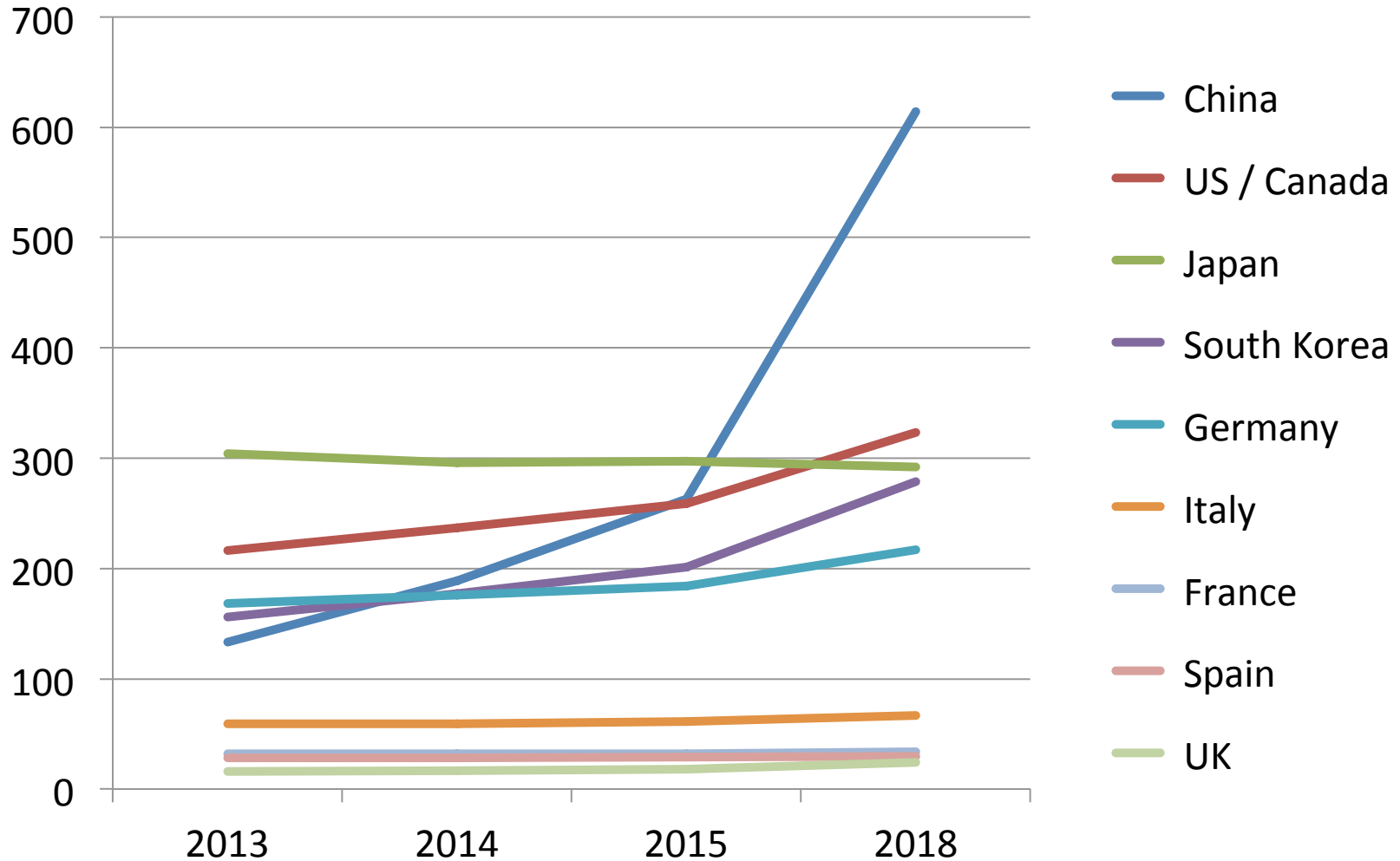
Digital Technologies

Accelerated, reinforcing Technical Progress



Operational Stock of Industrial Robots

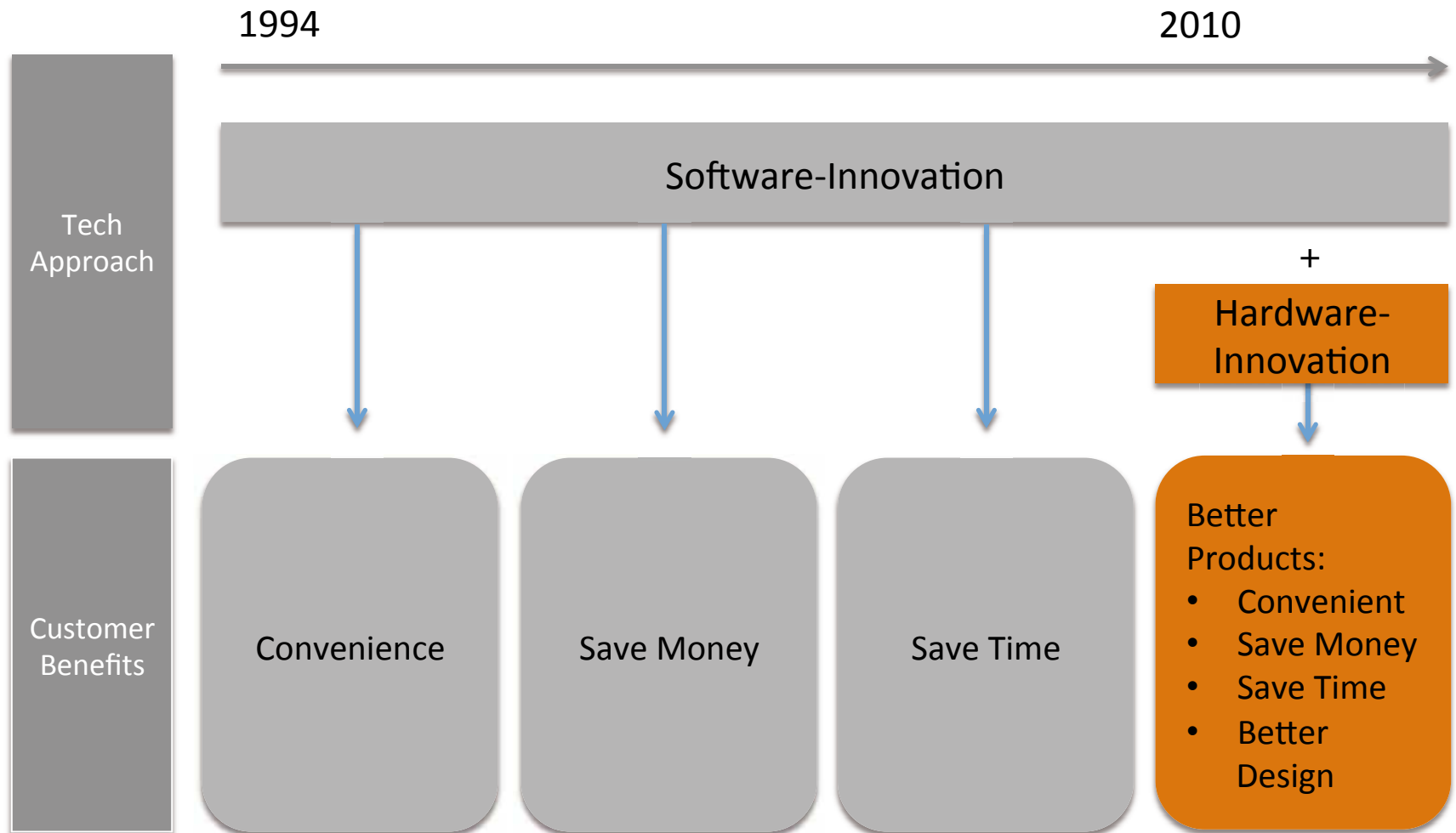
In 100000



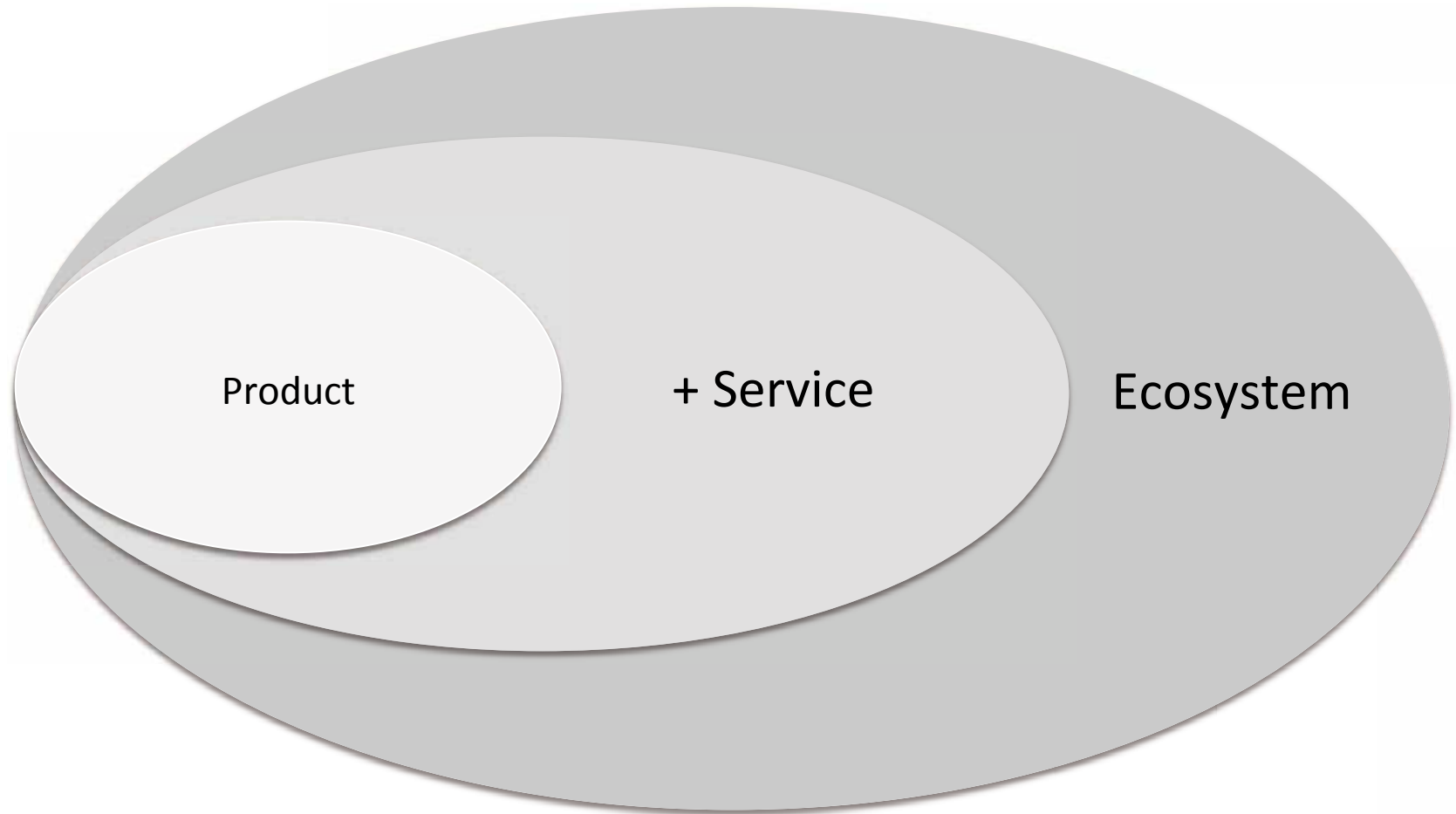
Source: International Federation of Robotics

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

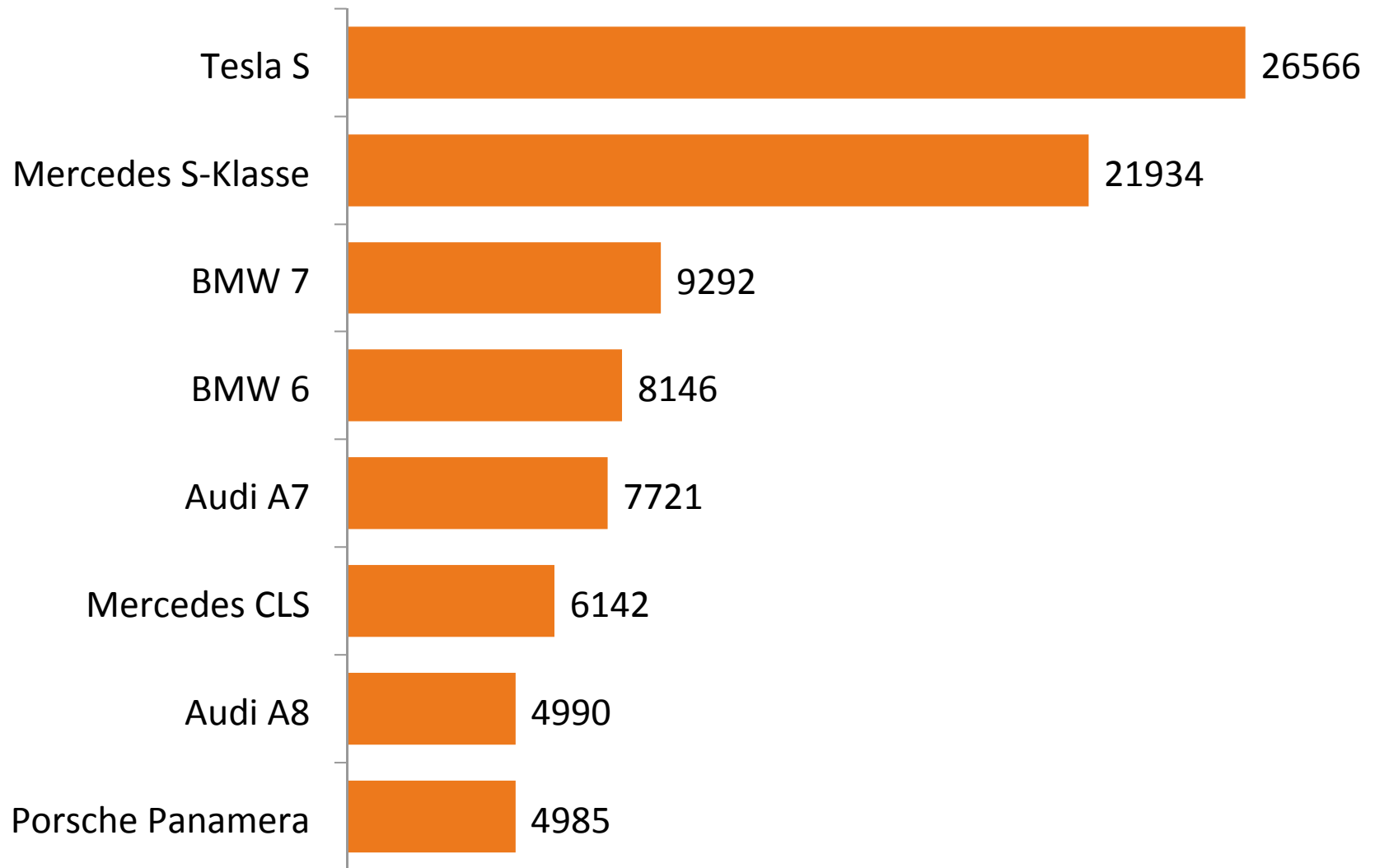
The Train that never arrives too late



Velaro (Barcelona - Madrid)

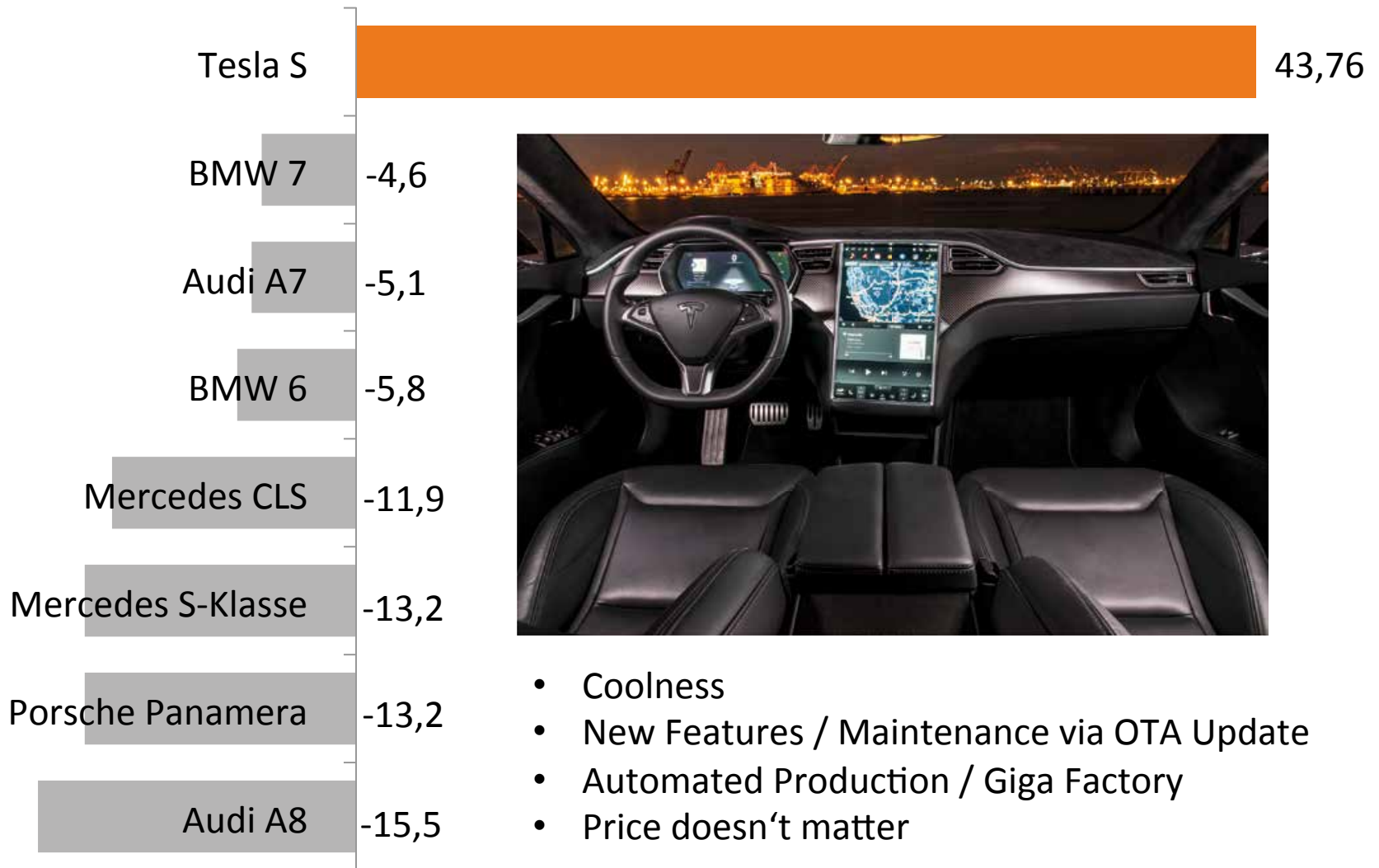
- 2,5 h for 625 Kilometer
- 15 Min Delay:
Passengers get back
full ticket price
- Combination of Sensors and
Big Data Analytics
(Teradata) allows replacement
of Parts before they break
(Predictive Maintenance)
- Result: No passenger got
his money back

Disruption: Sales of „Large Luxury Cars“ USA 2015



Disruption: Growth of „Large Luxury Cars“ US

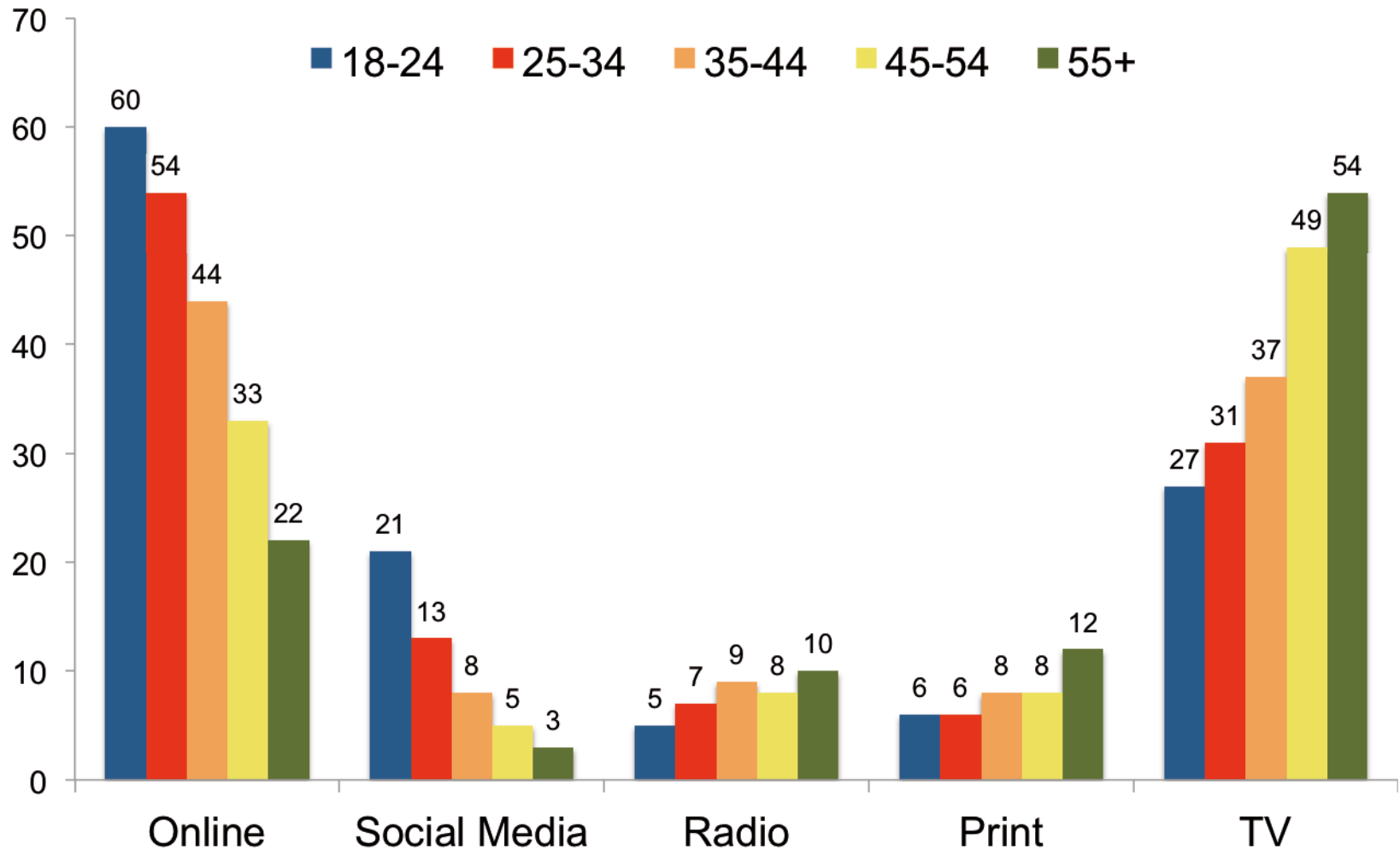
Change 2015/2014 in Percent



Media Business

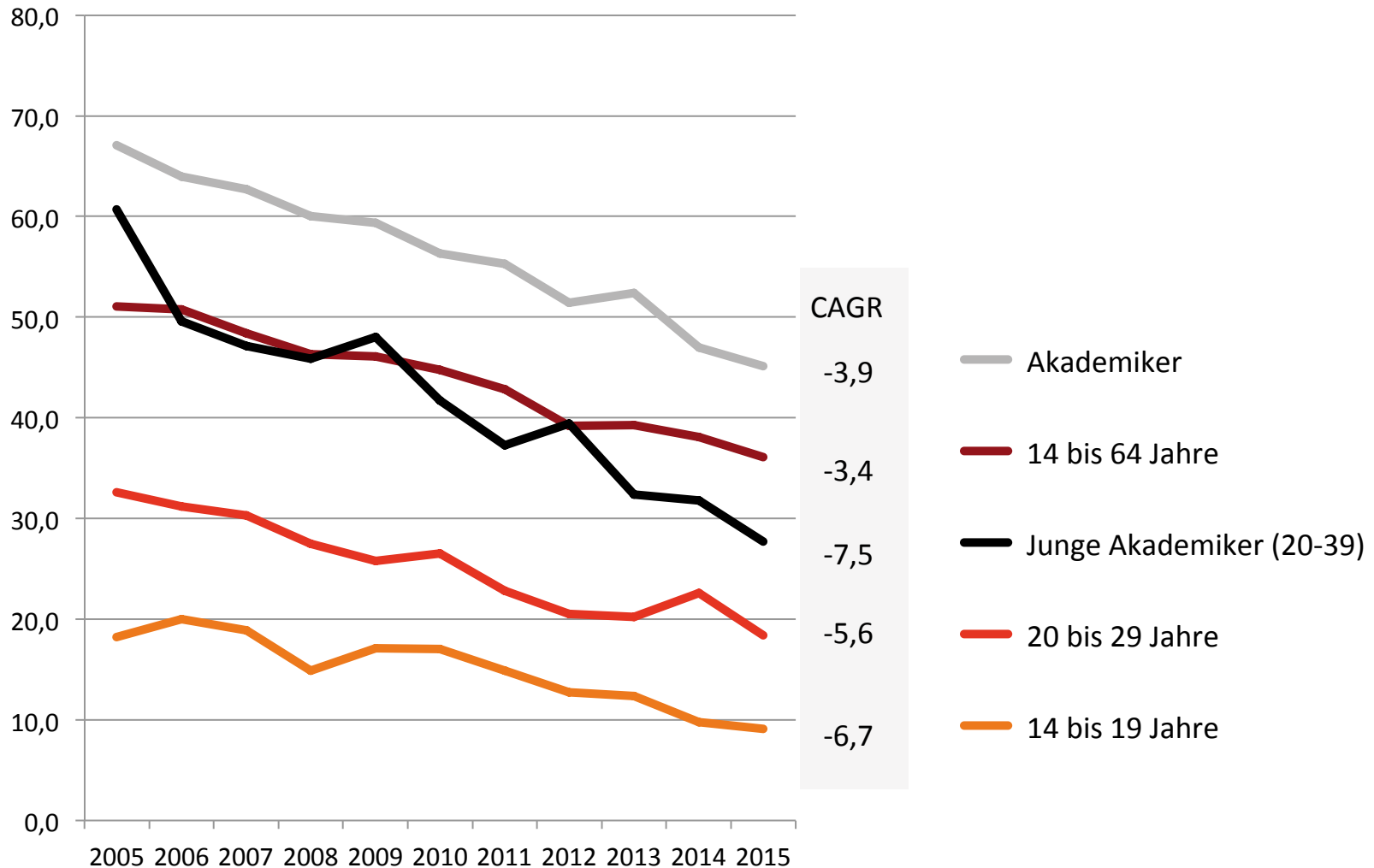
Important Sources of News

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



Quelle: Reuters Digital News Report 2015

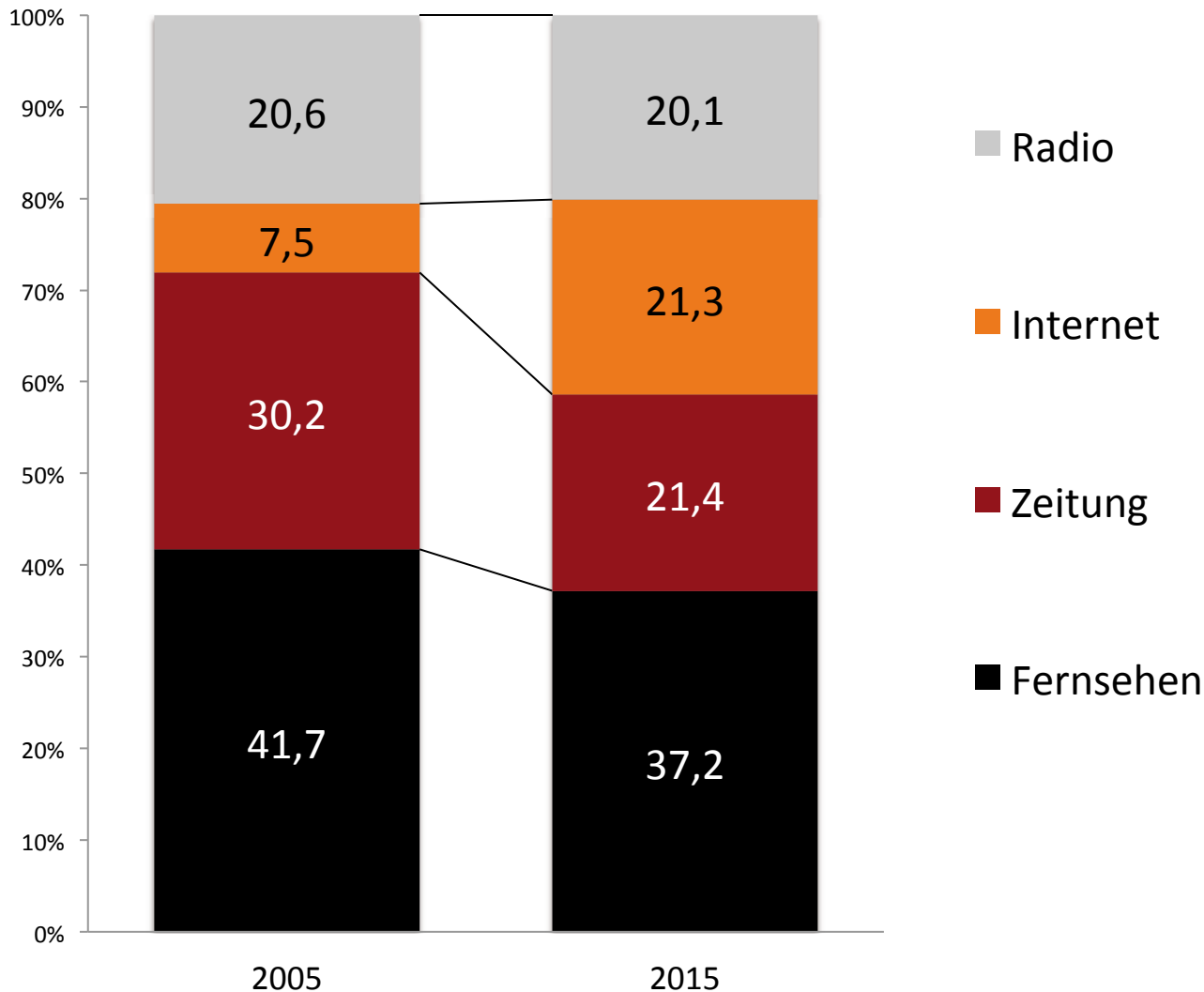
„Reading the news in a Newspaper“



Quelle: Allensbacher Computer- und Technikanalyse (ACTA) 2015

Bedeutung der Medien für Meinungsbildung der 14-64-Jährigen

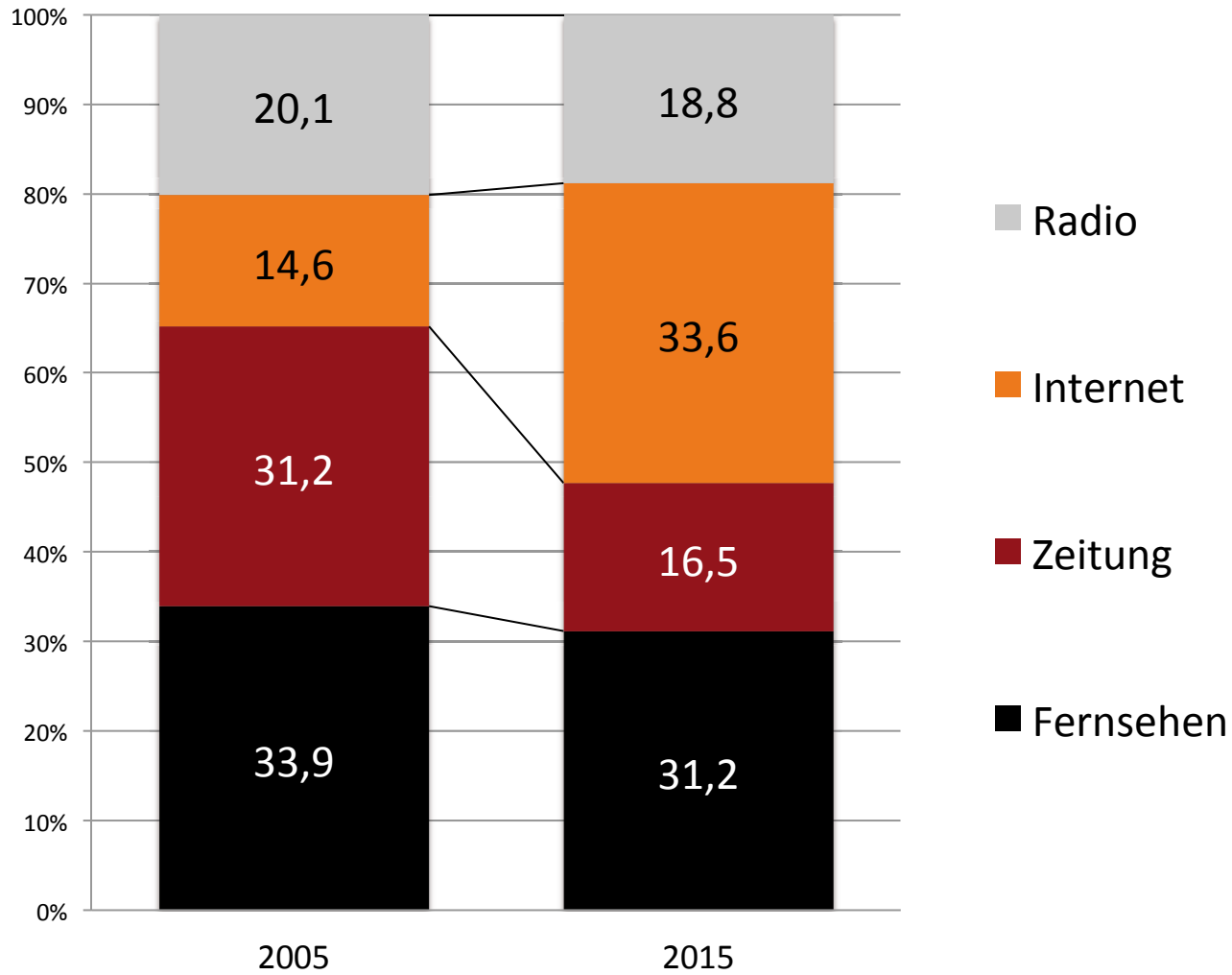
Anteil in Prozent



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

Bedeutung der Medien für Meinungsbildung der 20-39jährigen Akademiker

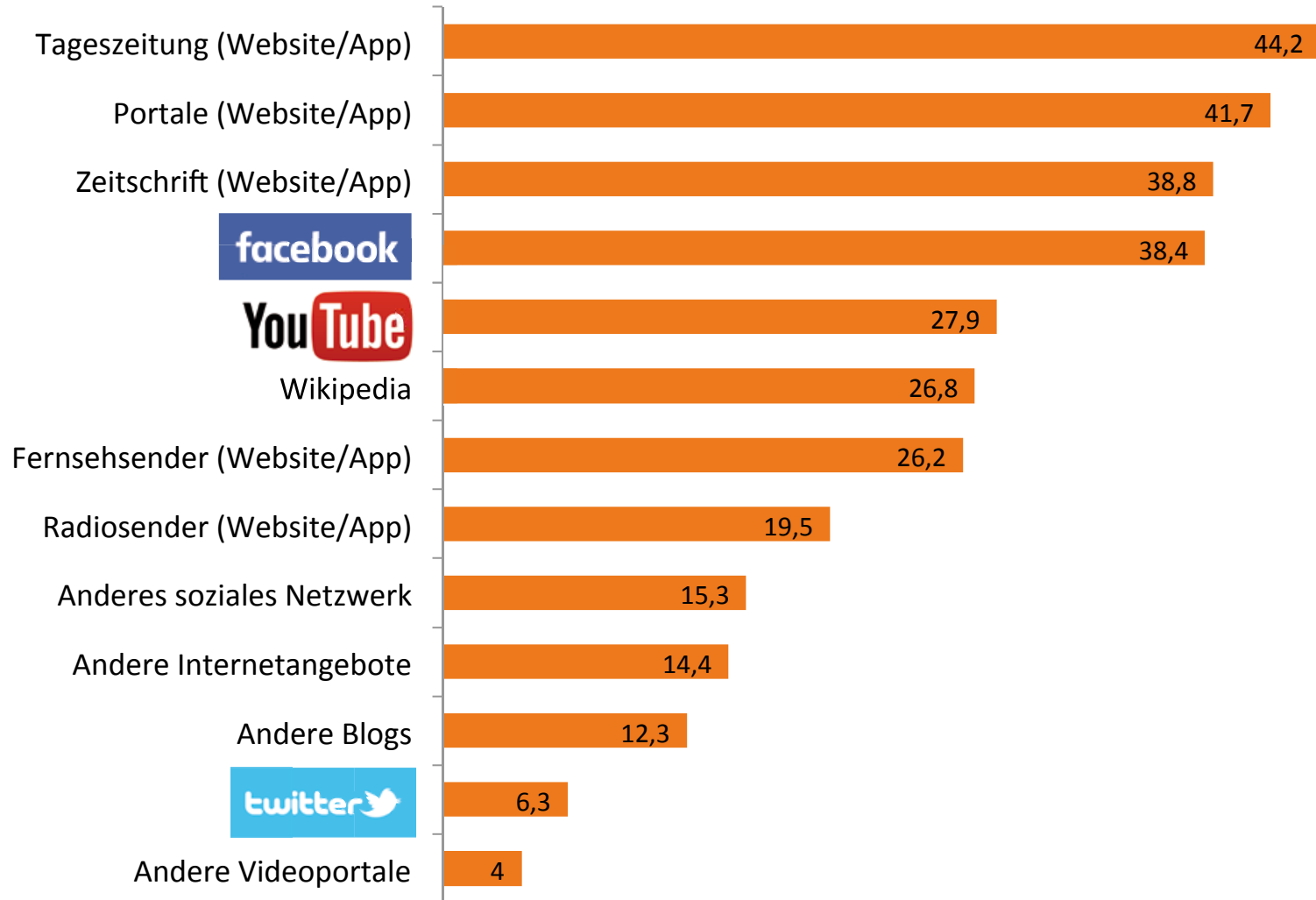
Anteil in Prozent



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

Online-Nachrichtenquellen Gesamtbevölkerung

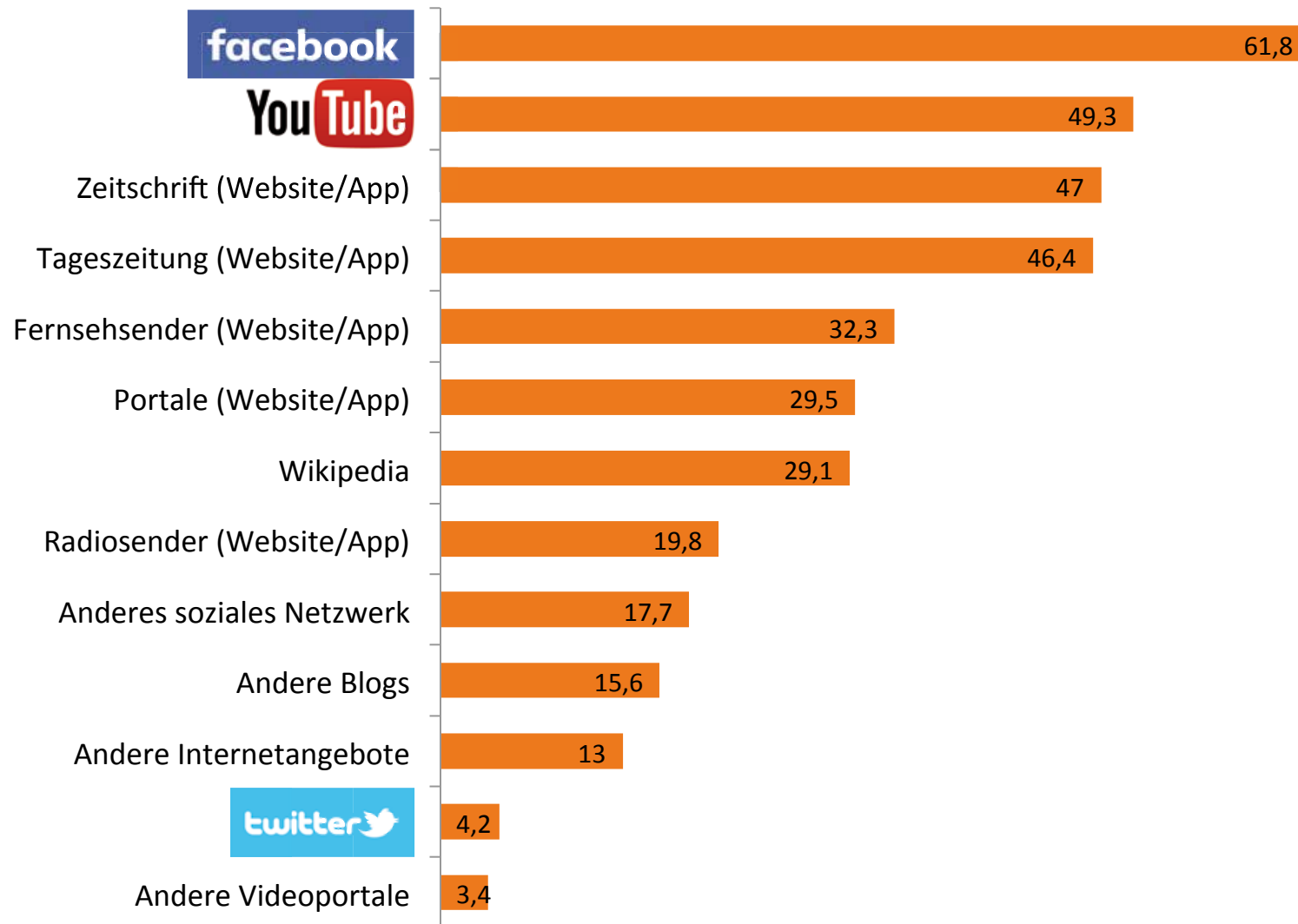
Angaben in Prozent



Quelle: TNS Infratest 2015

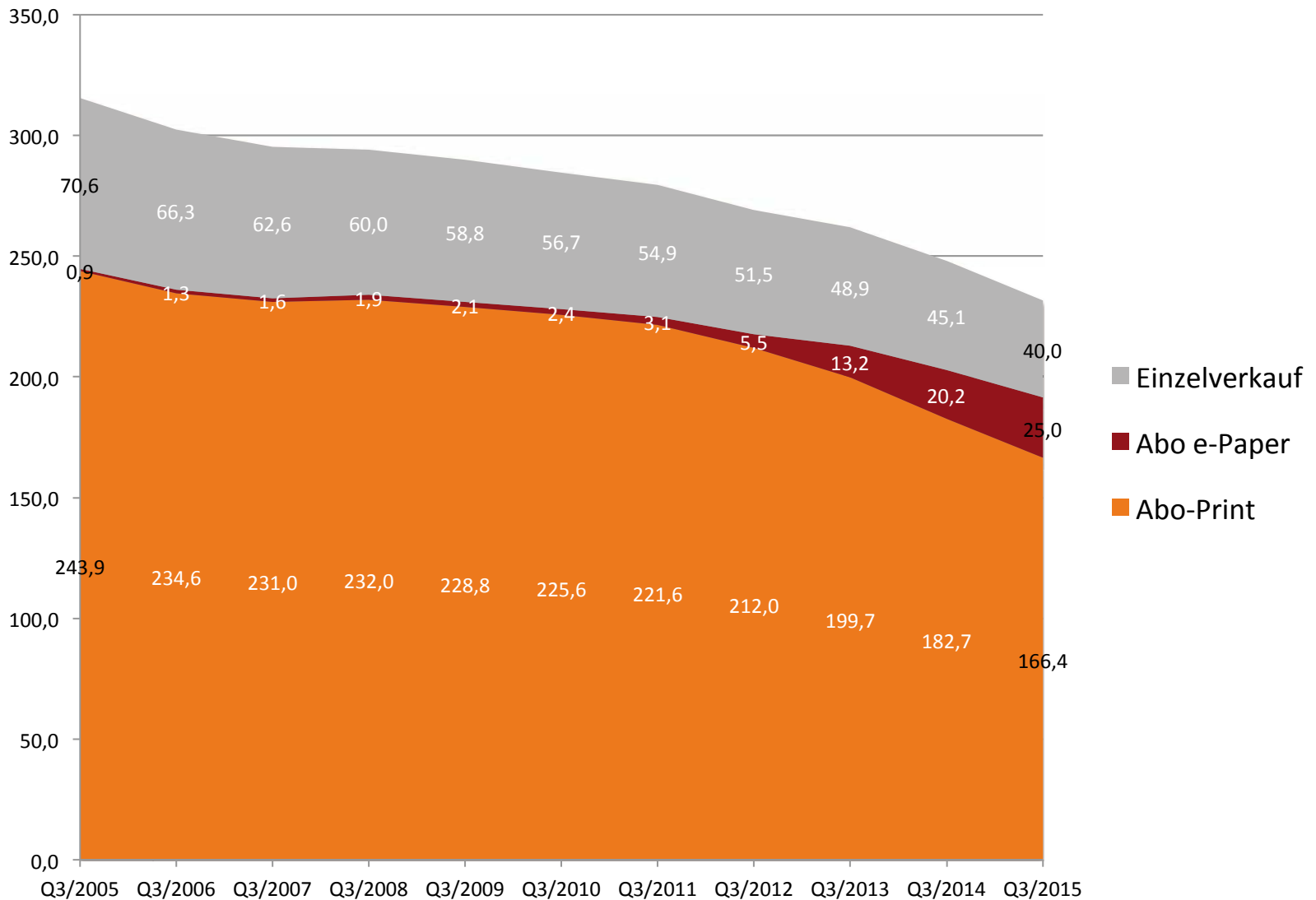
Online-Nachrichtenquellen 14 – 29-Jährige

Angaben in Prozent



Quelle: TNS Infratest 2015

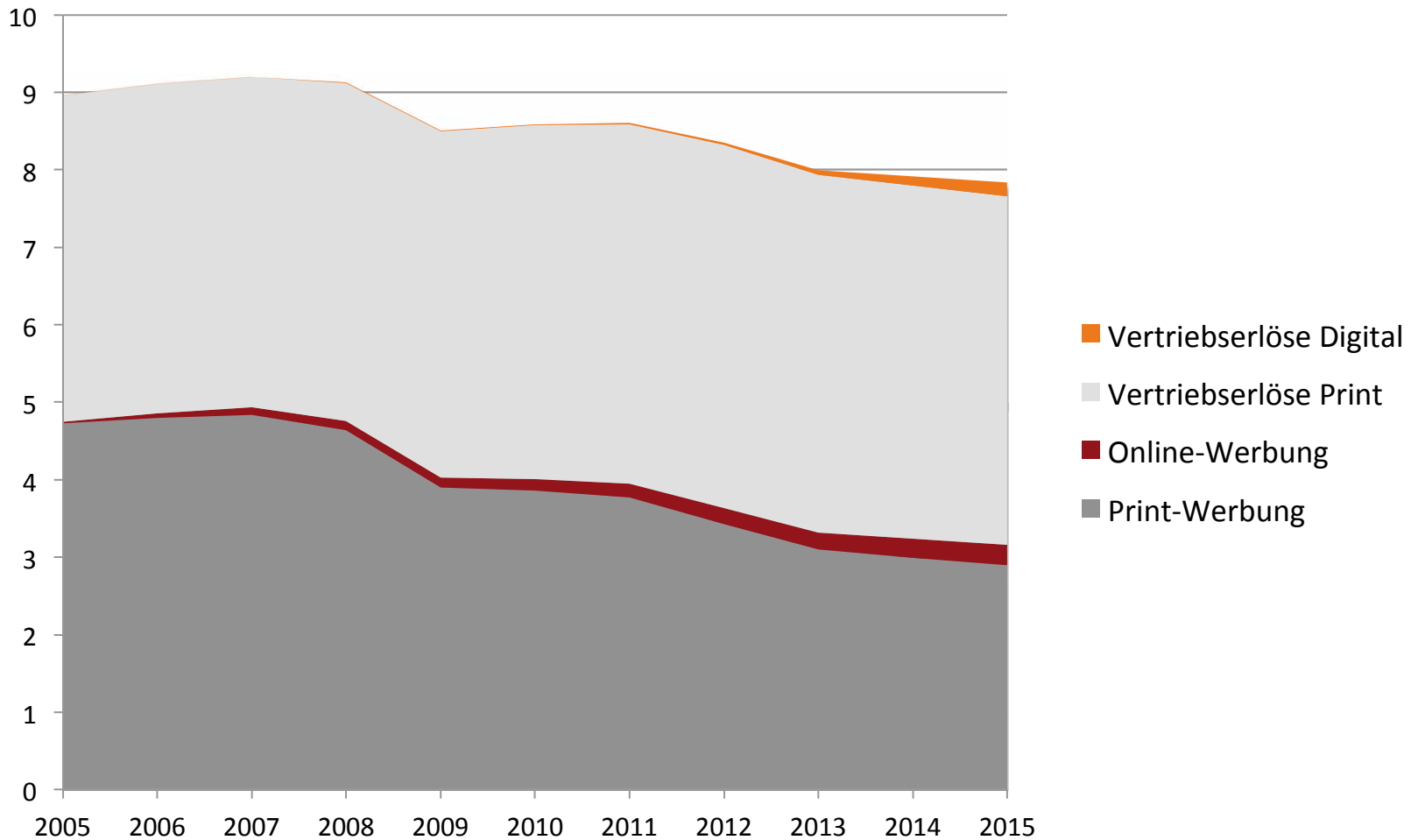
Auflagenentwicklung (Abo/EV) der F.A.Z.



Quelle: IVW

Umsatzquellen deutscher Zeitungen

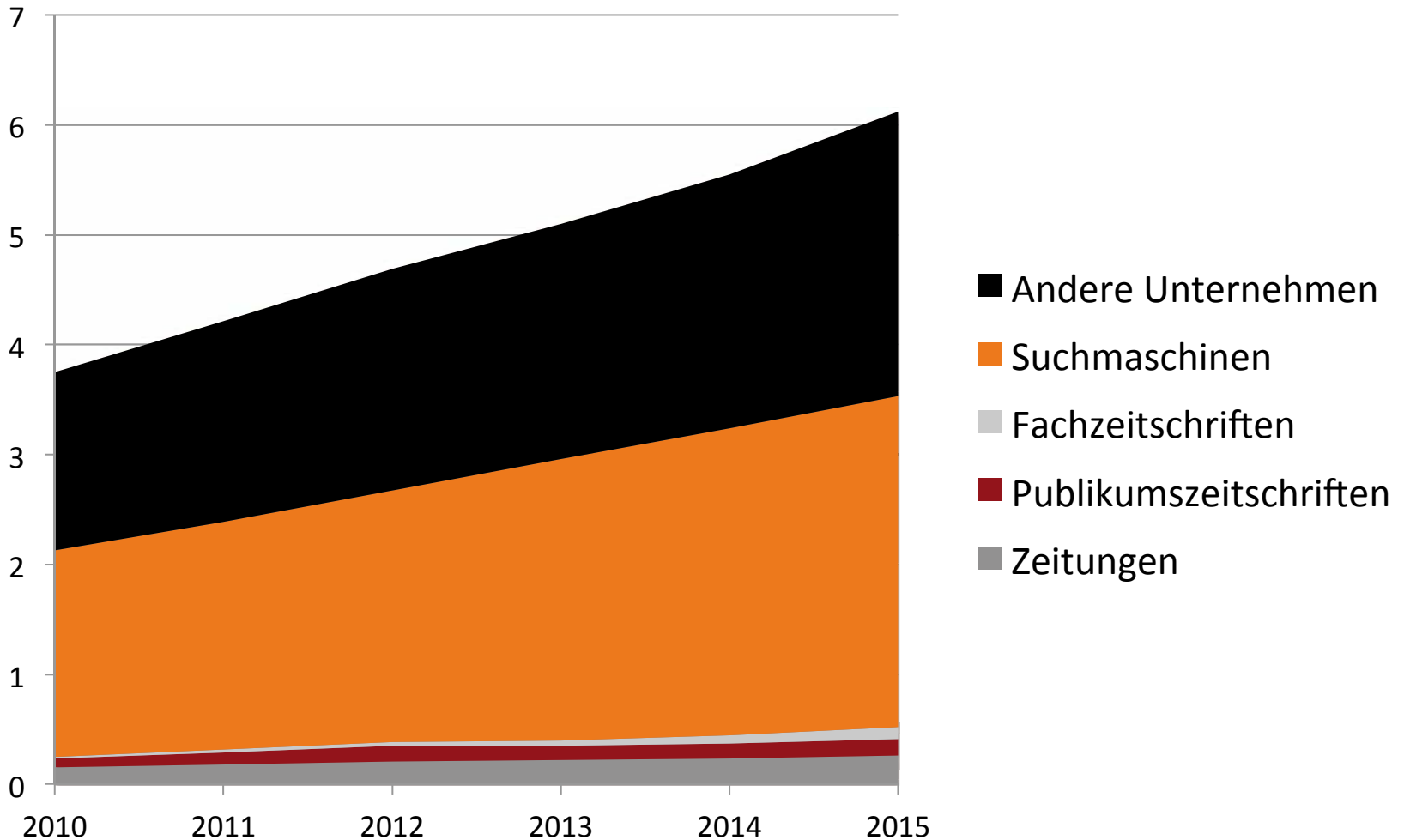
In Milliarden Euro



Quelle: PWC, ZAW, BDZV

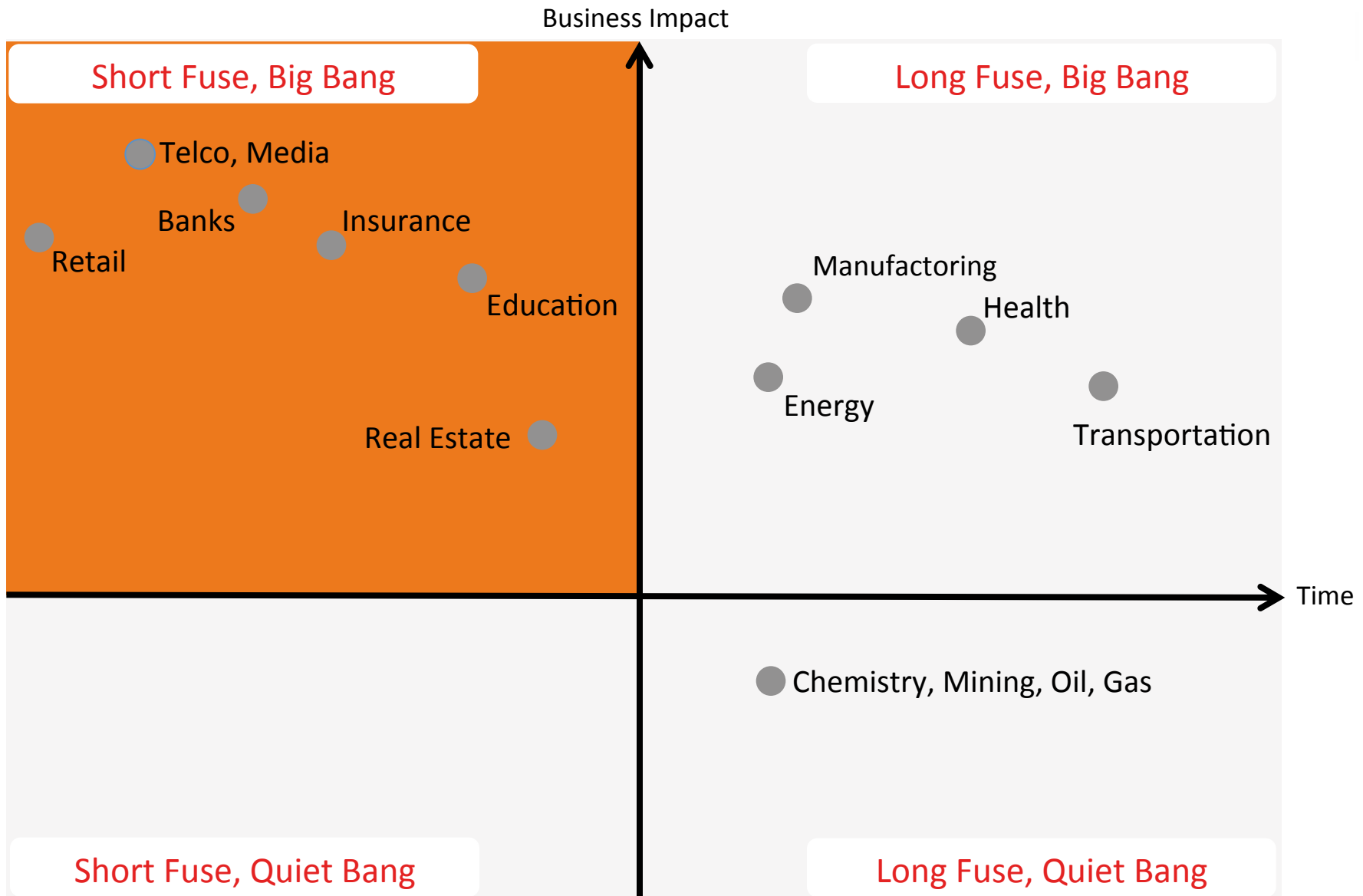
Online-Werbung in Deutschland

Umsatz der Anbieter in Milliarden Euro



Quelle: PWC, BDZV

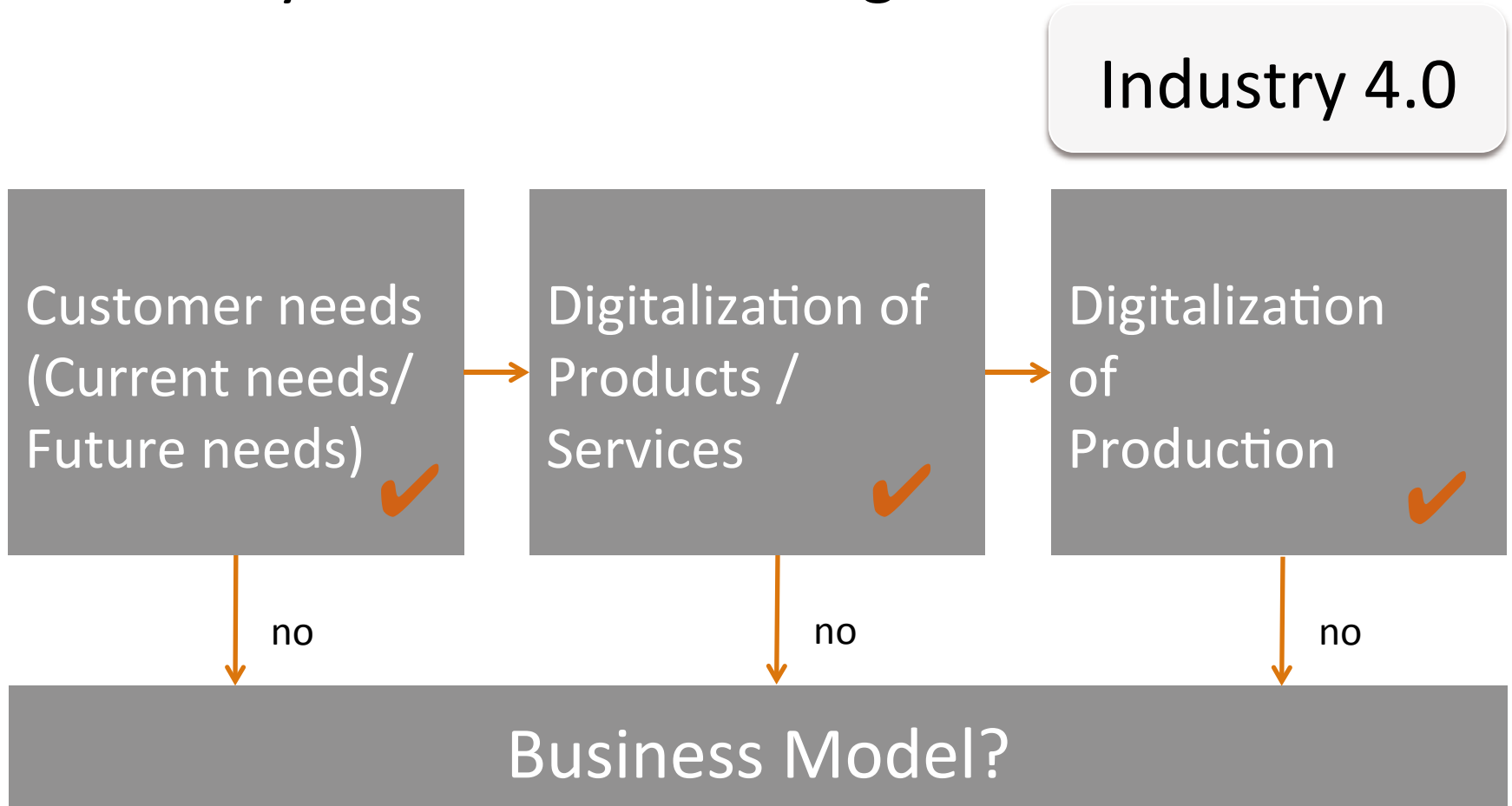
Digitalization of Industries



Source: Deloitte

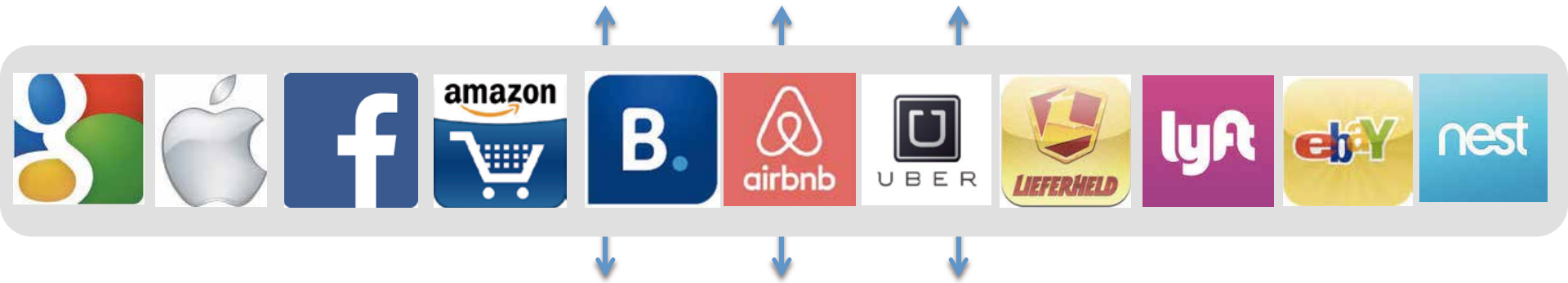
Digital Business Models

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



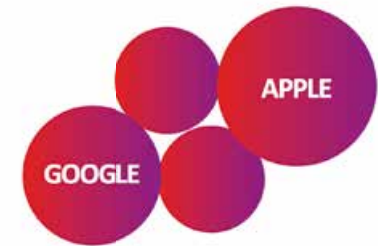
Private

Transaction

Innovation

Integrated

N. America



Asia



Europe



Source: Global Platform Survey. The Center for Global Enterprise

Das Amazon-Modell

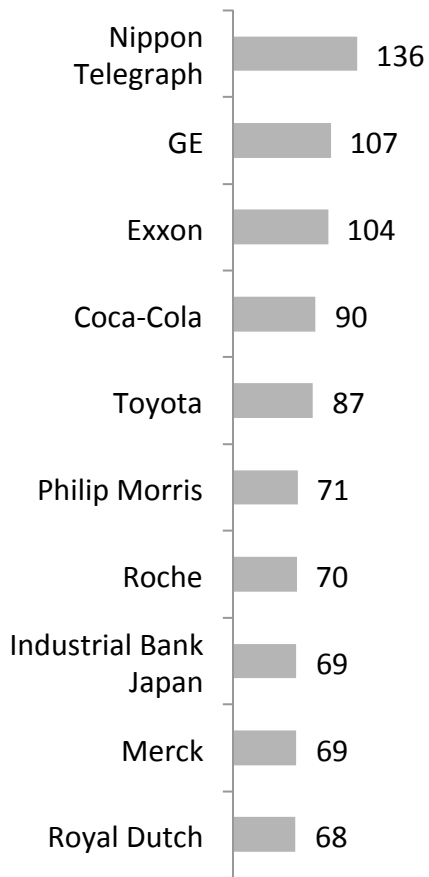


Source: FT

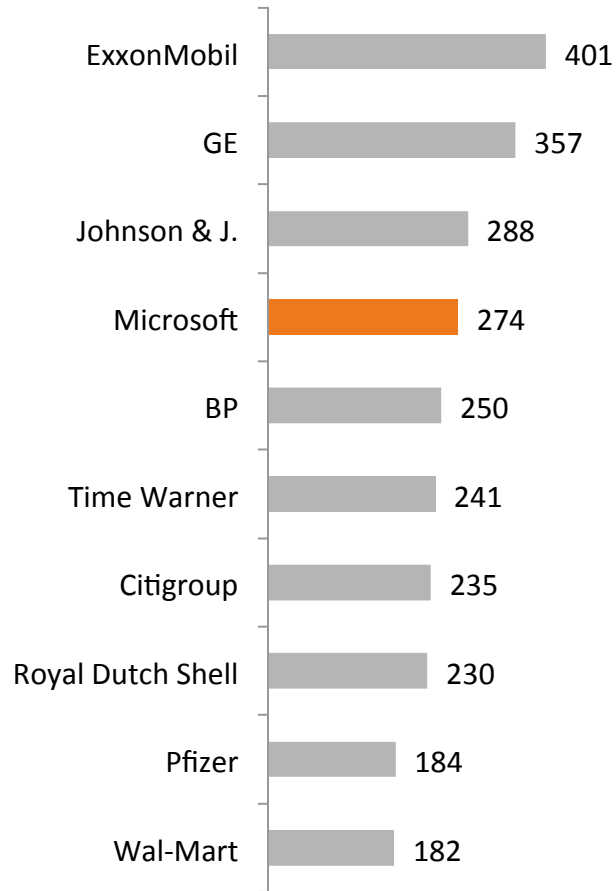
Tech-Giants at the Stock Exchange

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

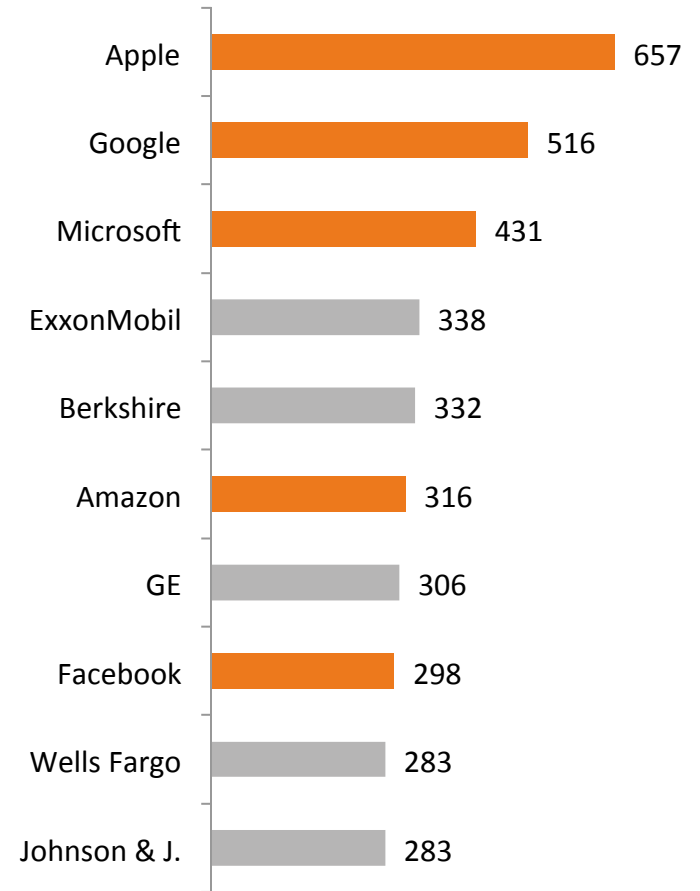
1995



2005



2015



Tech-Share
Of Top 10

0%

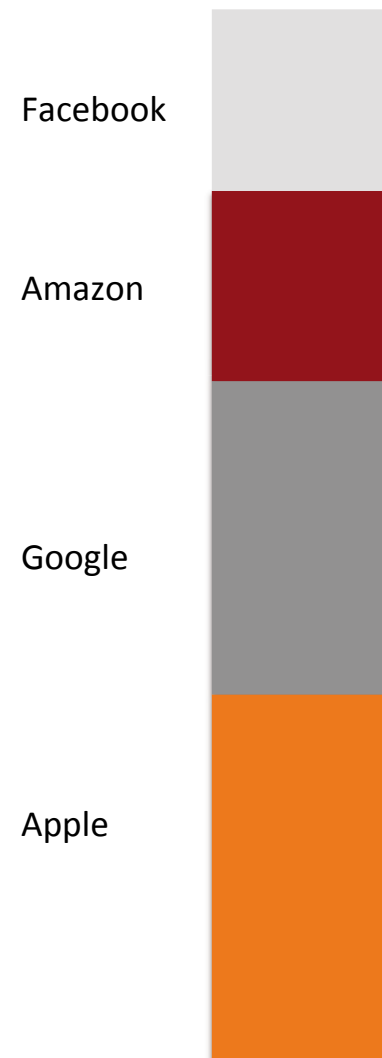
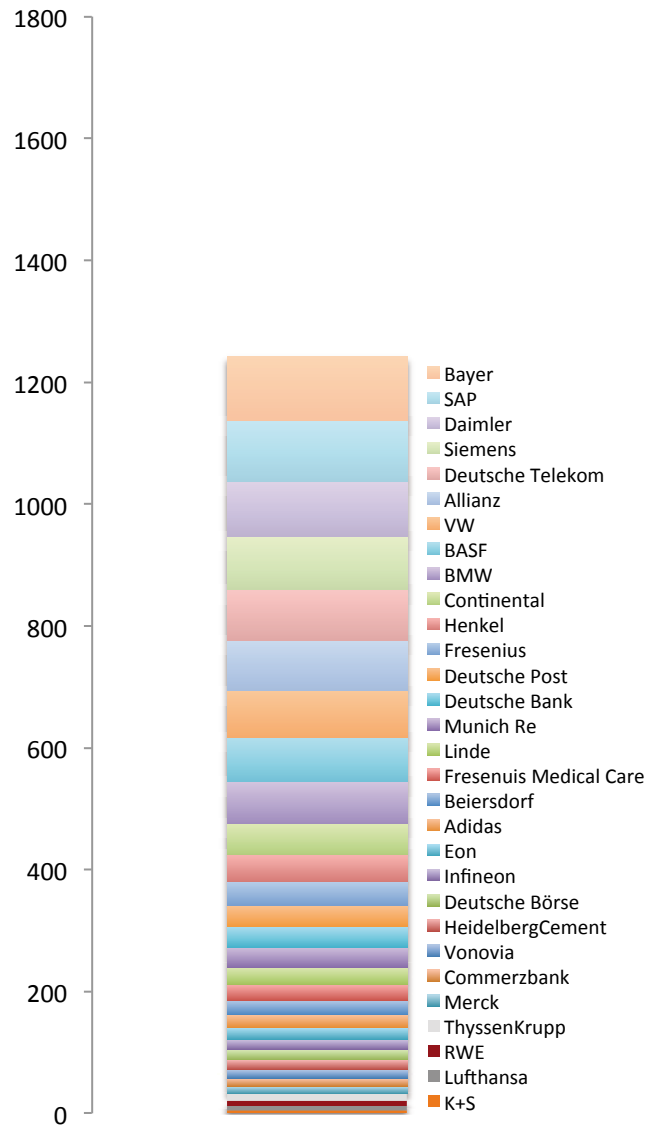
10%

58%

Source: Yahoo Finance

Dax 30 vs Big 4

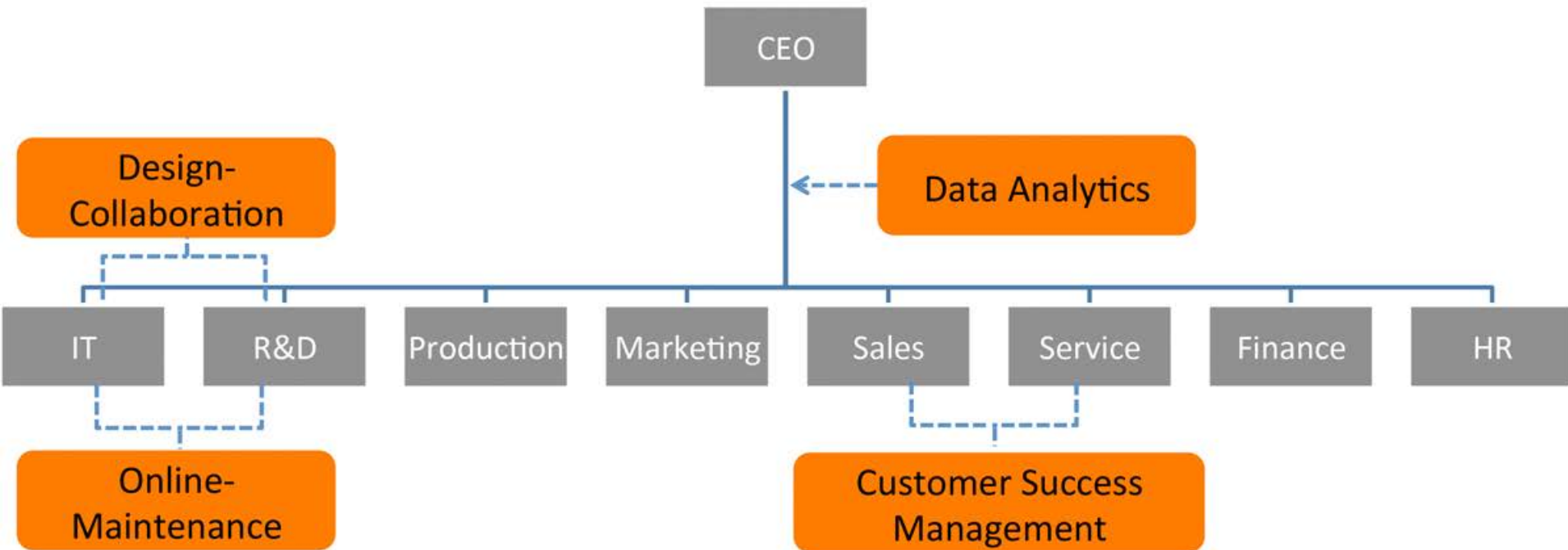
Market Cap (December 23 2015, \$B)



Source: Bloomberg

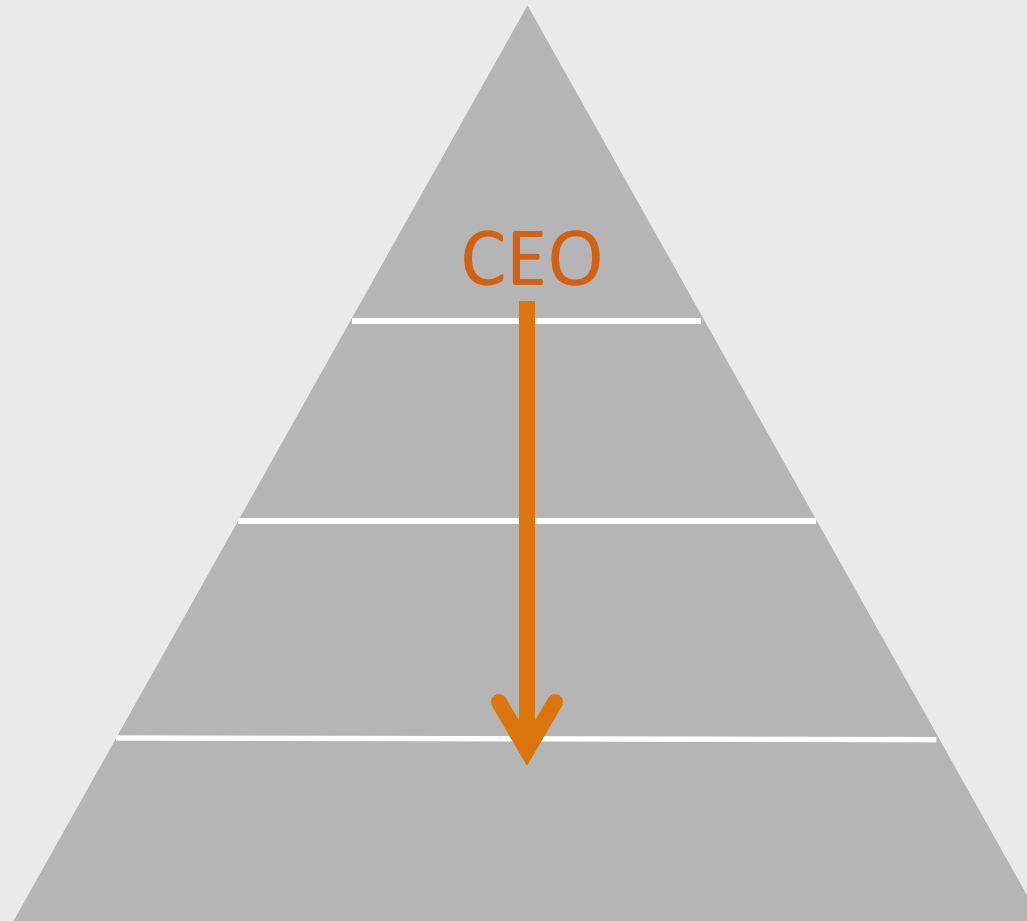
Digital Organizations

The new Organization for the Digital Age



Source: Michel E. Porter / Jim Heppelmann

Digital Transformation works only Top-Down



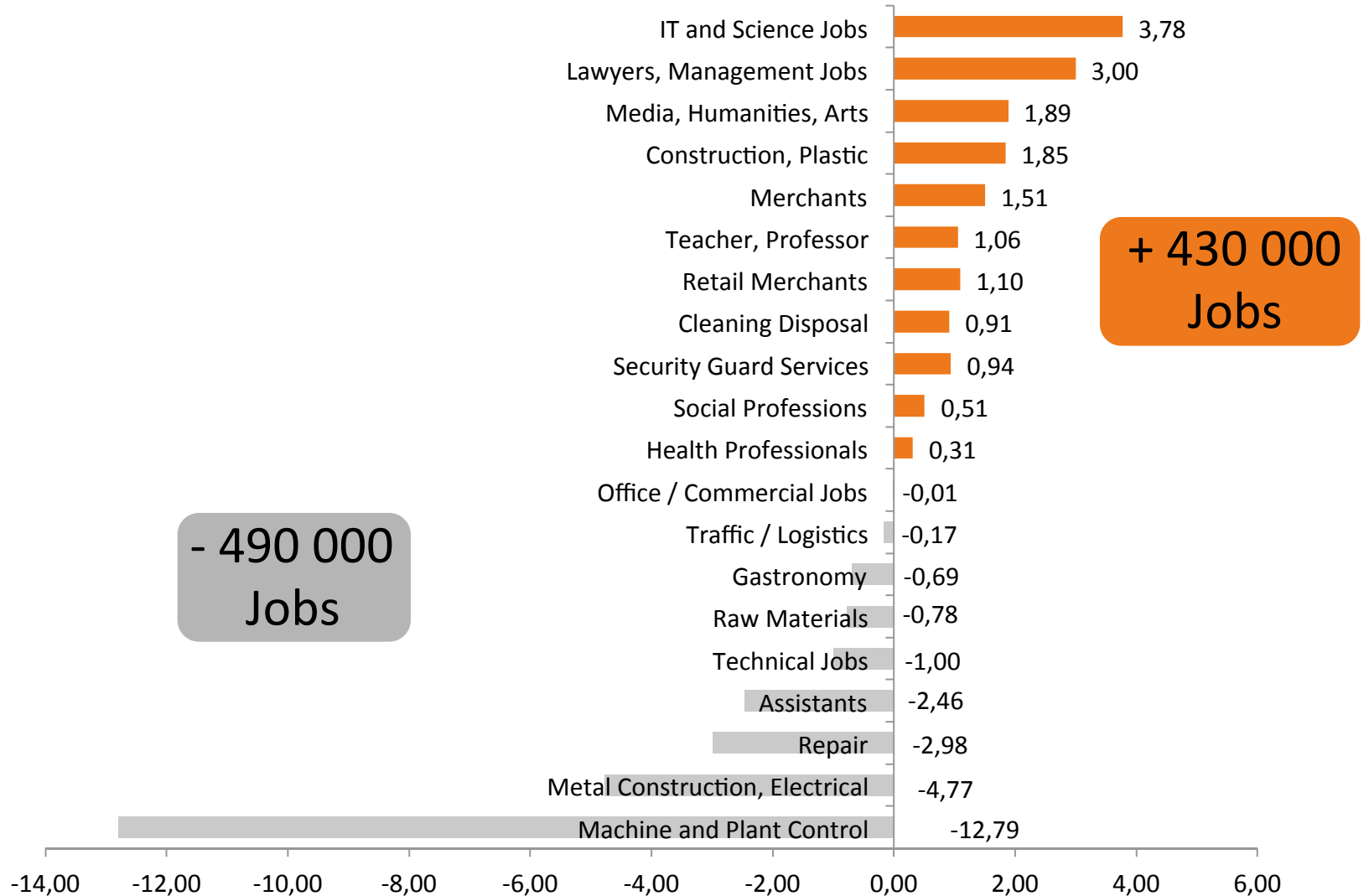
Digital Work

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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