

Industry 4.0









18 th century	19 th century	20 th century	21 st century
(1784)	(1870)	(1969)	

1st Industrial Revolution

Steam replaces human power in manufacturing and transport, Productions revolutionized through massive efficiency increase.

Economic growth changes the society.

2nd Industrial Revolution

Electricity is a game changer. Telegraphs and telephones start a new wave of globalization and radically change all developed economies. Mass production enables a wide spread of first automobiles and further increases the living standard.

3rd Industrial Revolution

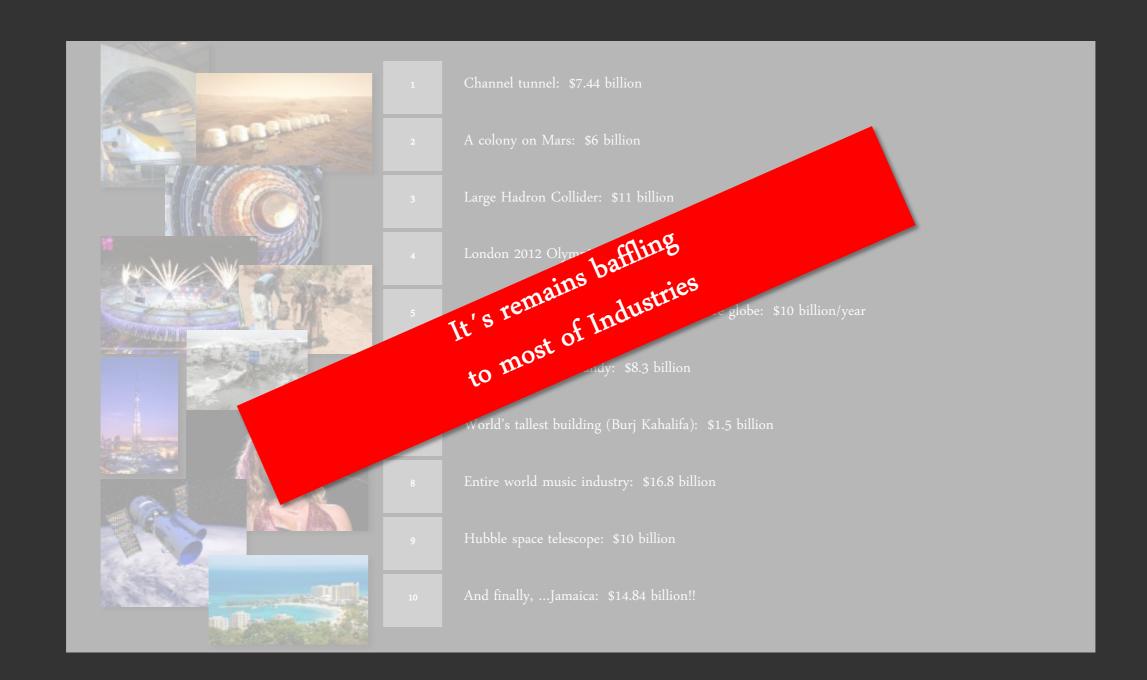
Information Technology and electronics are used to automate production. Importance of the service economy increases, pushing manufacturing production to low-wage areas. Electronic ways of communication open access to new markets.

4th Industrial Revolution

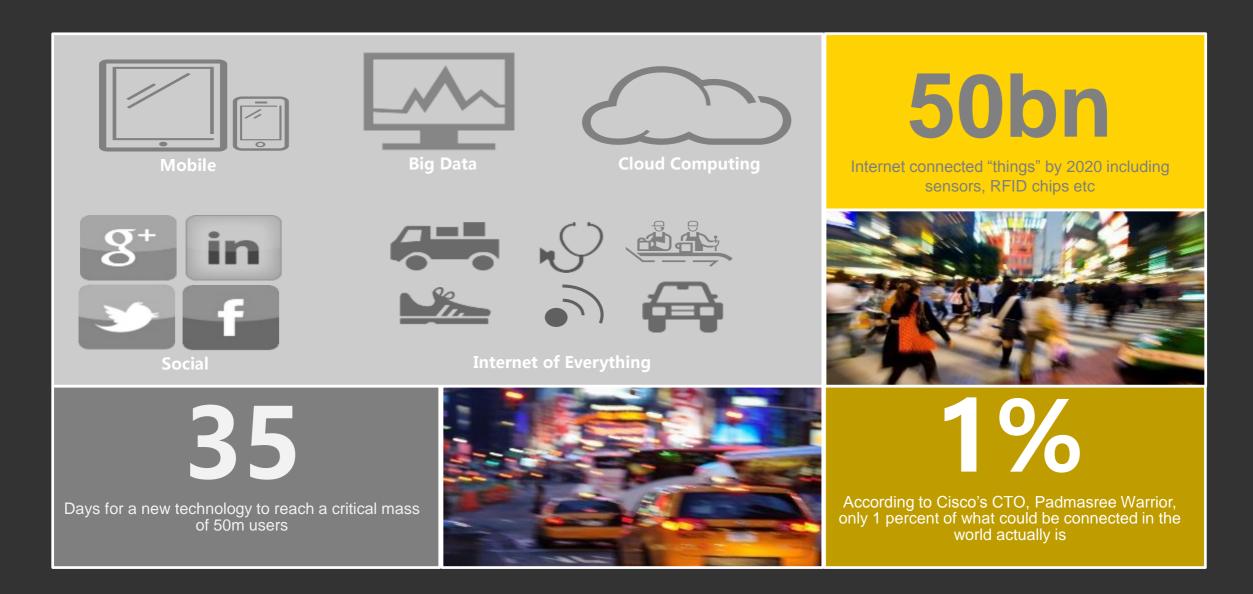
Digitalization is changing entire production chains, disrupting classical business models, new market players emerge. The digital era brings a fusion of technologies that is blurring the lines between the physical, digital and biological spheres.



10 Things That Are Cheaper Than WhatsApp



Industry 4.0 revolution is defining mega-trend of our time but the explosive growth has barely begun





What drives the 4th Industrial Revolution?

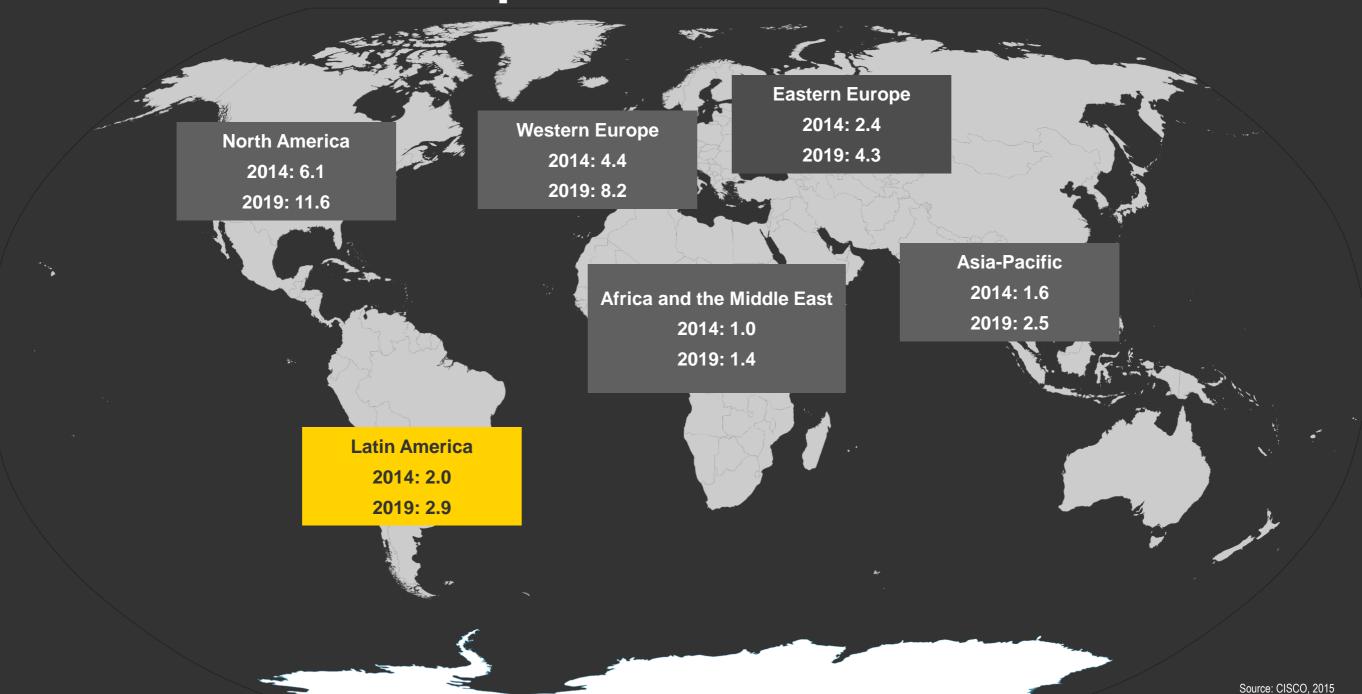
Cost of sensors



Computing power



Number of sensors per inhabitant...



... Digital technology will change the world significantly in the near to medium future and this change will have a disruptive impact on business models

Changing world in figures



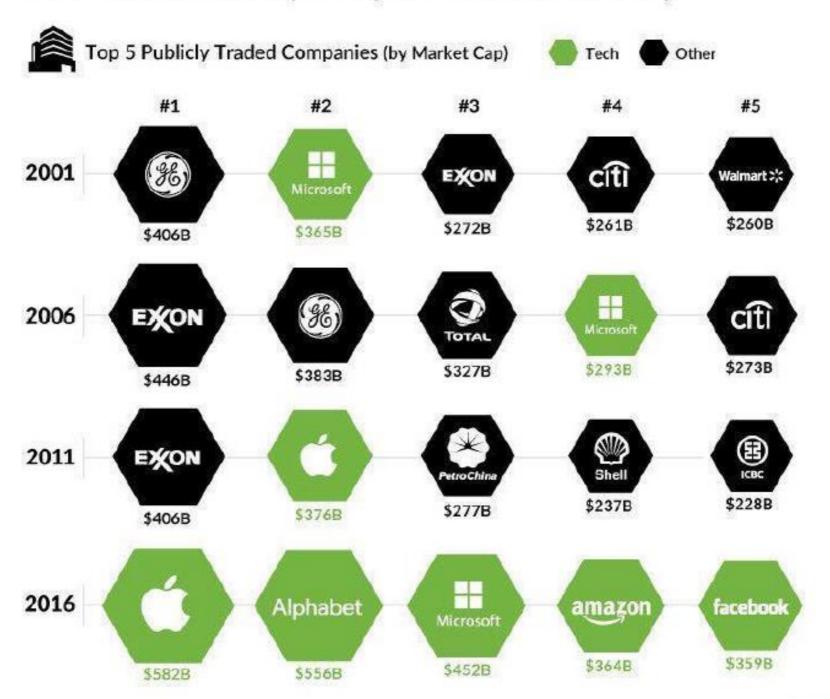
- 1) © Copyright Cisco white paper "Embracing the Internet of Everything To Capture Your Share of \$14.4 Trillion"
- 2) © Copyright IDC. Source [THE DIGITAL UNIVERSE IN 2020: Big Data, Bigger Digital Shadows, and Biggest Growth in the Far East, December 2012]
- 3) © Copyright Oxford Economics Ltd. [The New Digital Economy, June 2011]

Data is the new

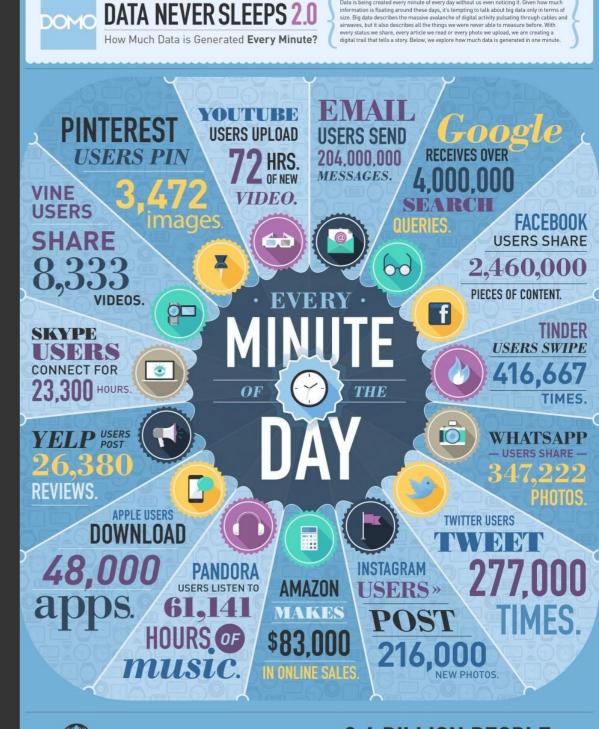
oil

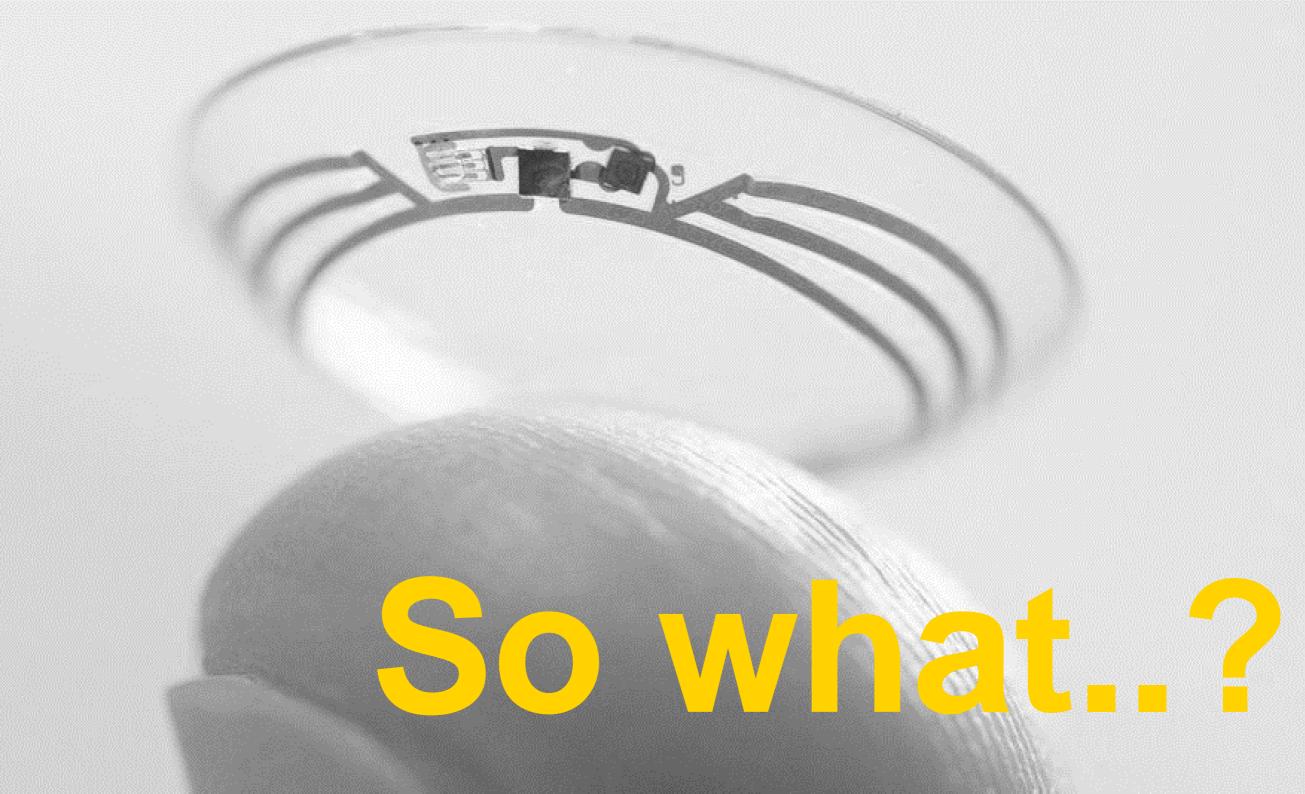
THE LARGEST COMPANIES BY MARKET CAP

The oil barons have been replaced by the whiz kids of Silicon Valley

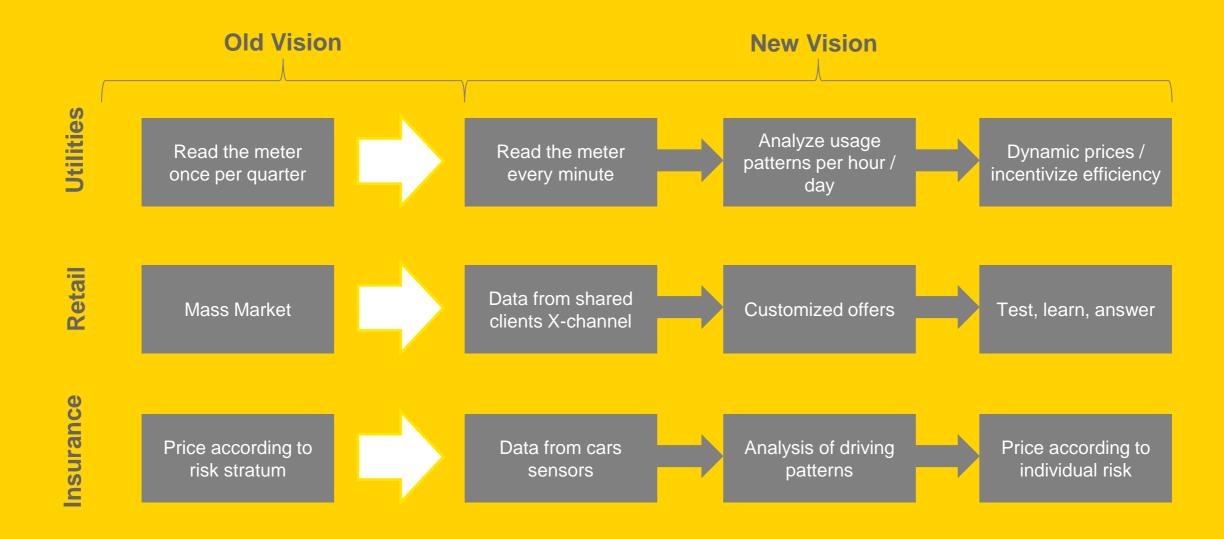


- More data was created in the last 2 years than in the previous history of humanity
- Every second, 40,000 Google searches are triggered
- 31.25 million messages are sent per Facebook per minute and 2.77 million videos are watched
- Every minute 300 hours of video are uploaded to YouTube
- By 2020 there will be 6,100 million SmartPhone users, all with sensors capable of collecting any type of data.
- Only 0.5% of the data is currently exploited





It changes the way companies think about their business





Conclusion: can't happen to us, right?

This is Sofia. Sofia is my niece. Sofia just turned 18...



Sofia does not know how to use email.

Sofia would <u>never</u> consider calling me.

Or anyone else, for that matter.

In the last 12 months, Sofia sent/received 173,556 "Snaps" (Snapchats). That's 475 a day.

In 5 years time, Sofia will work for a company like EY.

p.s. – Sofia does have a Facebook profile! – But it's fake – just to show her Mum and Dad that she is a good girl! Facebook is "totes uncool"

Consider this...

Digital disruption has already occurred... but we are still only a few percent through it...

- ▶ The world's largest "taxi" company owns no taxis (Uber)
- ► The world's largest accommodation provider owns no real estate (Airbnb)
- ► The largest communications companies own no telco infrastructure (Skype, WeChat)
- ► The world's most valuable retailer has no inventory (Alibaba)
- ► The world's most popular media owner creates no content (Facebook)
- ► The world's fastest growing bank has no actual money (SocietyOne)
- ► The world's largest movie house own no cinemas (Netflix)
- ► The world's largest vendors of software don't write the code they sell (Apple / Google)



Um... where next?

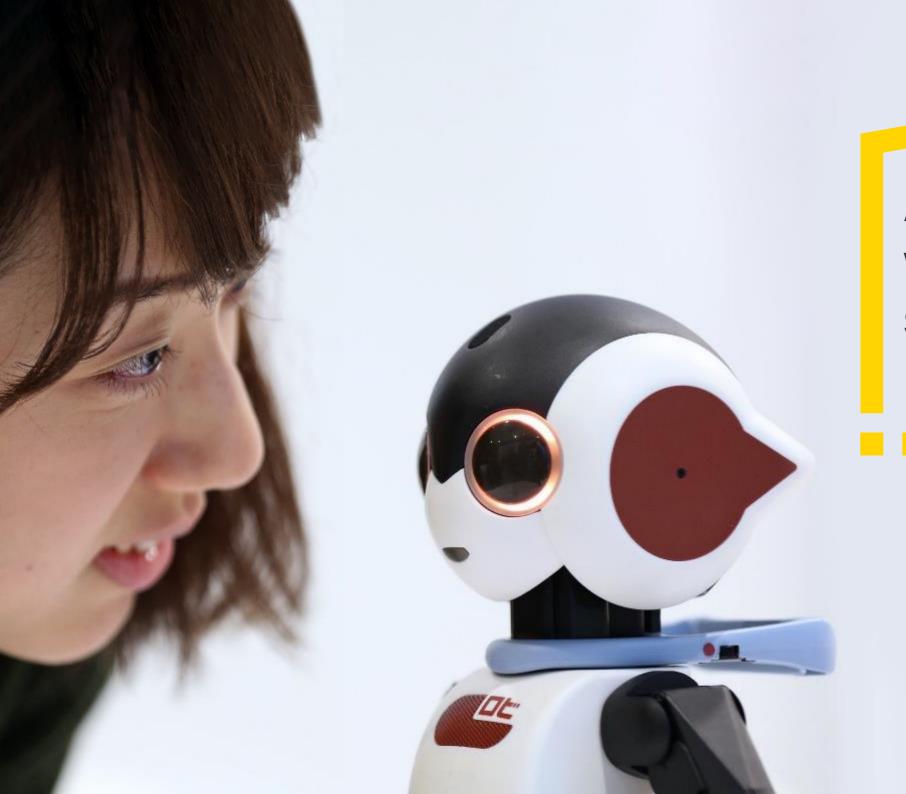
Will health sciences giants actually manufacture medicines?

Will automotive companies still exist?

Will car insurance exist?

Will banks exist? Will cash?





As we say robot, will our children say colleague?