

GOING DIGITAL – WHAT IT REALLY MEANS

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Going digital – what it really means

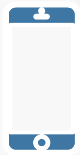
Survey, answers, definition



Collecting data



Apps



New business models



Cloud computing



Internet of things



Connected things



IT Technologies



➤ **Small survey on **Going Digital**:**

New business models, Collecting data, Cloud computing, Apps, Connected things, Internet of Things, Industry 4.0, it's about IT technology

➤ **Numerous different answers – go deeper in detail:**

None of these definitions is necessarily incorrect. Such diverse perspectives often trip up leadership teams because they reflect a lack of alignment and common vision about where the business needs to go.

Going digital is a transformation process that uses all possibilities of collecting data, apps, new business models, IT technologies, IOT, industry 4.0, connecting things, cloud computing.

to become more efficient or enter market with new products

Going digital – what it really means

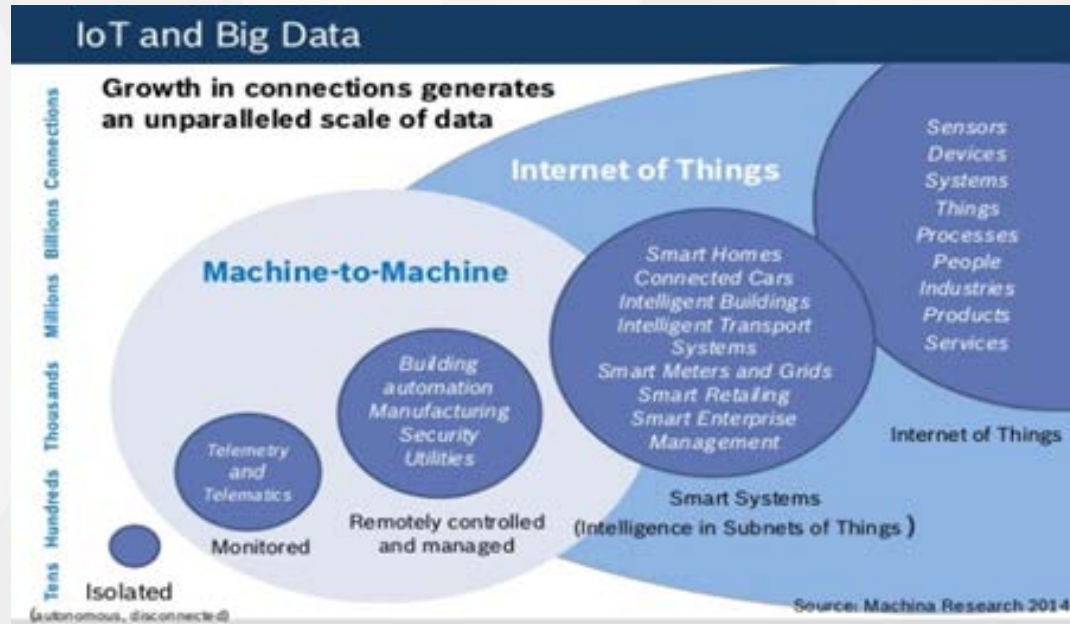
Why now?



- ▶ Billions of things around the world are already connected and sharing information, e.g. cars or Smartphones. Things are becoming more and more an active part of the internet.
- ▶ How to do this? Every "thing" in the world can send data to the network and communicate with every other "thing" to perform a variety of tasks for its owner.
- ▶ On the Internet of Things (IoT), physical and virtual worlds merge – ongoing process.
- ▶ Connected living is just a 'Click' away with a focus on **sensors**, **software** and **services**, because most of these technical equipment is available on the market or in current development

Going digital – what it really means

Drivers and changes



- ▶ *Our drivers for Going Digital:*
 - ▶ New business
 - ▶ Shorter time to market
 - ▶ Greater flexibility in production
 - ▶ Improved quality and additivity to customer
 - ▶ More efficiency
 - ▶ Cost reduction in development process and manufacturing
 - ▶ Human-machine interaction
 - ▶ **Convenience - Comfortable life**
- ▶ *Our chances:*
 - ▶ >150 billion Euro additional growth in Europe

The human urge to make oneself comfortable is the most underestimated and at least understood innovative power in the world.

Going digital – what it really means

Current developments



Become big in digitalization

Big companies aren't stupid, but the ways which made them become big won't make them big in digitalization, [*].

- well established processes,
- partially high optimized production,
- Processes with customers and suppliers
- Administration software

• <http://www.lucykung.com/latest-news/going-digital-a-roadmap-for-digital-disruption/>

** <https://www.zeit.de/2018/39/weltkonferenz-kuenstliche-intelligenz-shanghai-technologie-china-usa>



Europe is signed off

At the World Conference on artificial intelligence in Shanghai, China and the US make the future under their own feet, [**]

- Countries and companies with start from the scratch (past crises have created free spaces)
- Less laws and regulations
- Sometimes much younger population

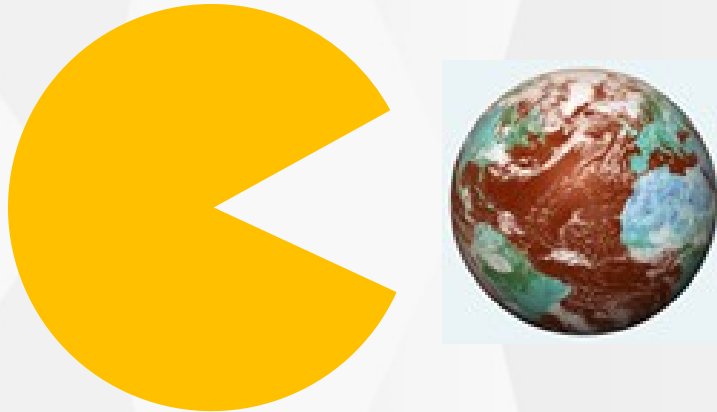


Going digital – what it really means

Trends and core elements



Trend: Software eats the world



A large number of long-standing companies were bought by young companies with new business models or went bankrupt, e.g. Kodak, TimeWarner, DVD lenders, ...

➤ *Core elements of “Going digital” transformation:*

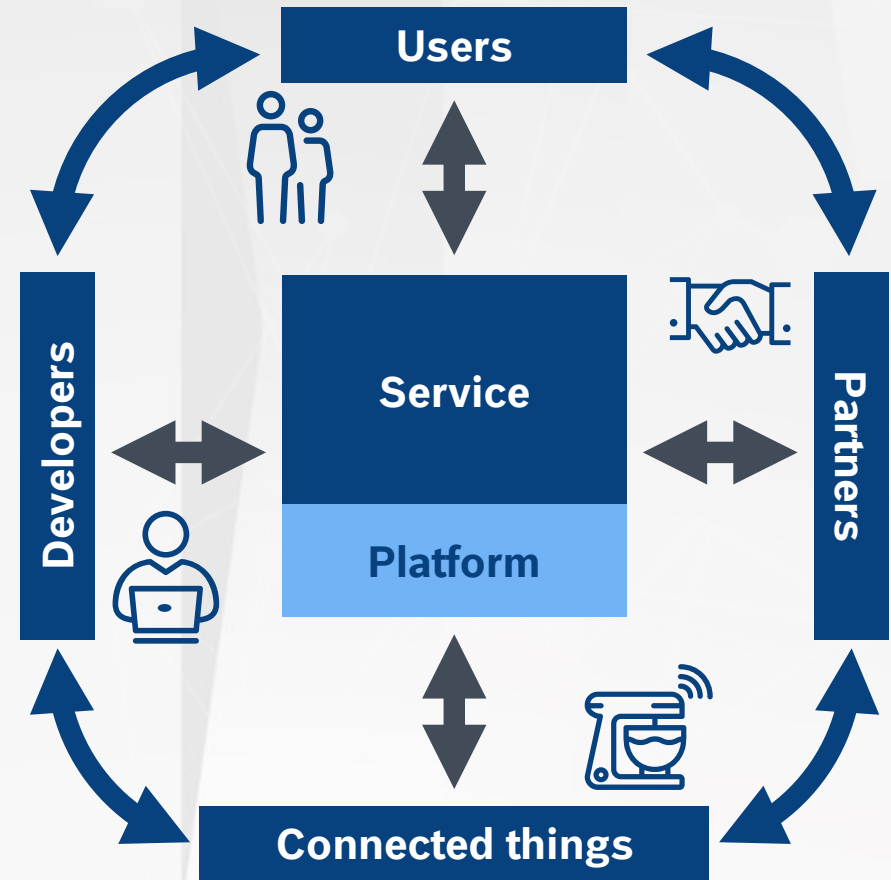
- Long-term strategy
 - Agility
 - Disruptive products
 - Leadership
 - People
 - Culture
- Big question: On which of these elements one should focus during the transformation?

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Elements of IOT Ecosystems



- **Former business system** – analog system:
 - Producer -> customer: no real feedback, no further contacts to the products, less information how it was used
- **Today's systems** – analog-digital system:
 - Producer <-> customer: closer relations, feedback from time to time
- **Future systems** – digital system:
 - several close connected elements (customer, external developers, ...) – continuous contact to the product



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Sensors and software

Services

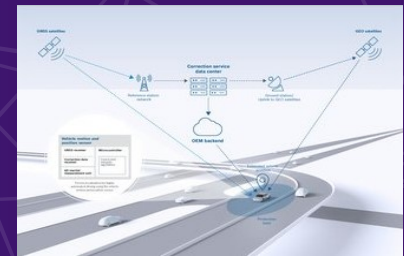
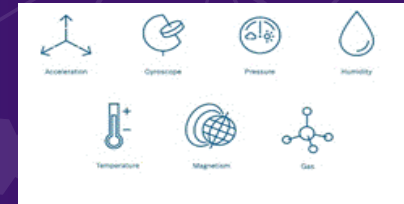
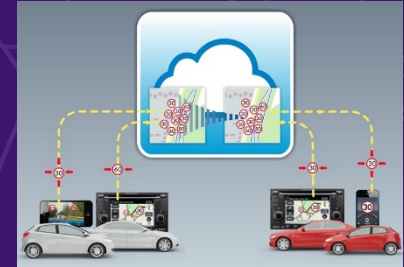


Software



Sensors

- ▶ Sensors are one essential part of “Going digital”
- ▶ More than 50 MEMS-Sensors are incorporated into every modern car, e.g. acceleration, pressure, temperature
- ▶ Smartphone “sense” and “hear” with sensors and are the drivers of sensor development
- ▶ Software enables the sensors, e.g. automated driving



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Examples for Going Digital

Services



Software



Sensors

Smart car: Car key management



Smart agriculture – smart spraying:
Identification of weeds; local and targeted
destruction of weeds



Smart Home: control of complete heating
system by smartphone; more comfort due
to connection of sensors and smartphone



Going digital – what it really means

Summary - digitalization



Services



Software



Sensors

- I. Creative destruction has become more destructive
- II. Return of individuality in the world of goods
- III. The Internet has so far changed less fundamentally the society than optimists had hoped or expected
- IV. The digitalization leads to more inequality
- V. Digitization is pushing back the shadow economy

