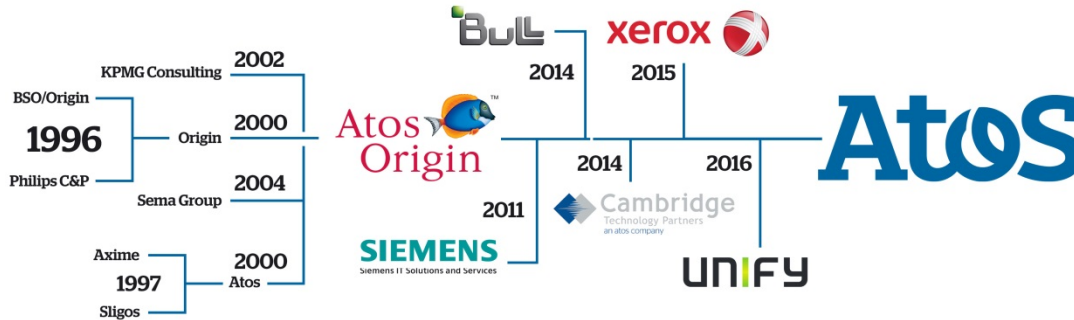


From Big Data to Cognitive Computing

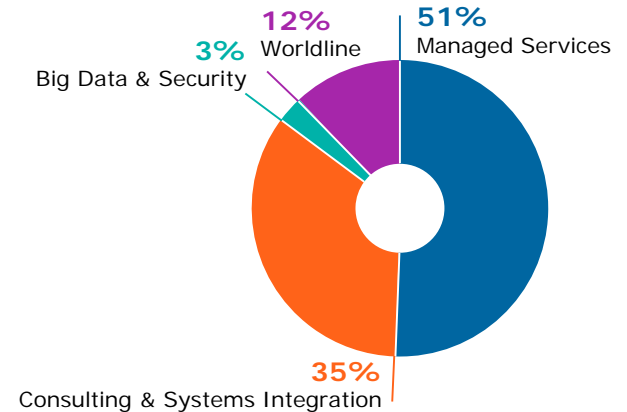
The Rapid Development of Analytics Technologies

Winfried Holz, CEO Atos Germany
23.11.2016

Atos at a glance: leveraging on recent acquisitions' competences and becoming Tier One global player



Revenue distribution (in %) per Business Unit



* Partially pro forma Revenue 2015

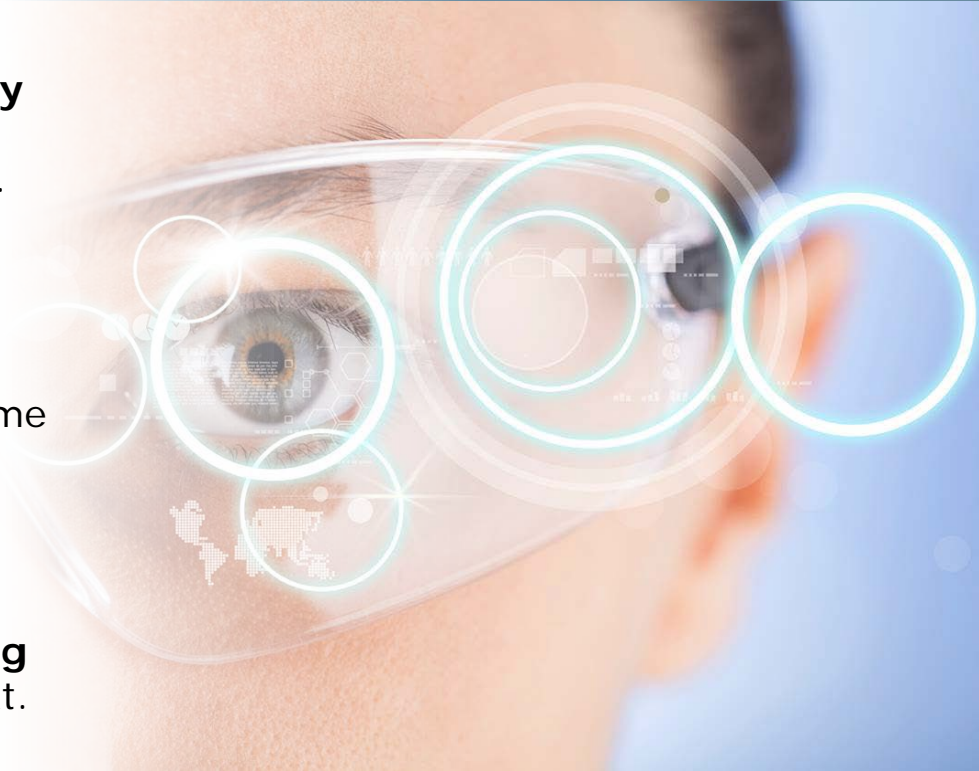
Our vision

➤ Digital Shockwaves in Business **will deeply affect** end to end production and service processes in **all sectors of the economy**.

The Digital Shockwaves **will interact and interfere:**

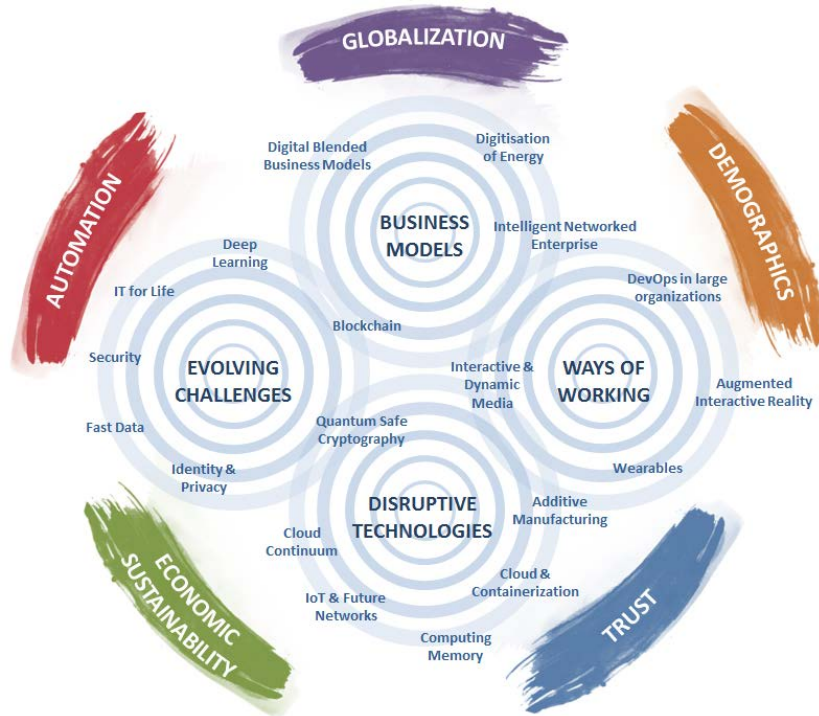
➤ Sometimes **reinforcing** their impact and sometimes **cancelling** each other out. Some will impact certain industries more than others. Some will bring **positive effects**, others will bring **potential threats**.

➤ It's essential **anticipating** and **responding** to their impact for a given business context.



Digital Shockwaves – Our Vision

Digital disruption



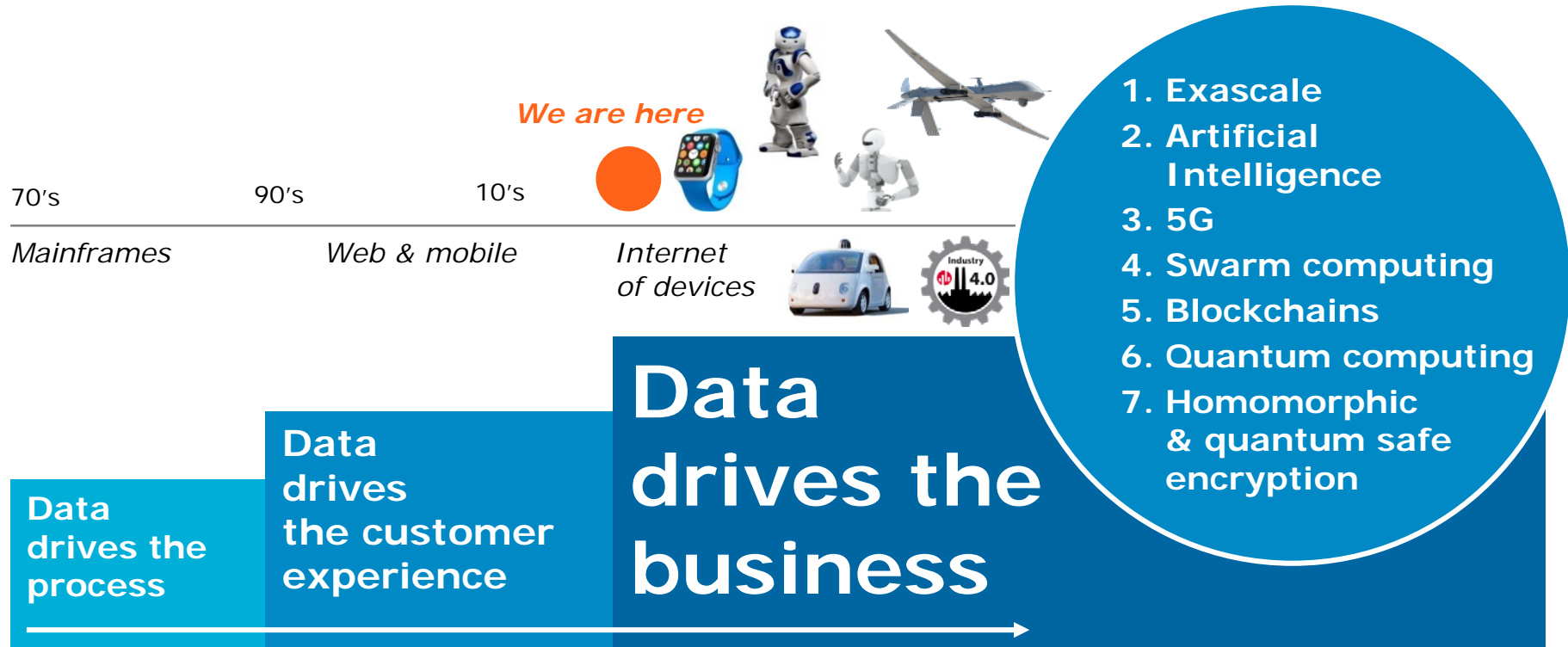
Business models – through new sources of business value and partnership, driven by data and connectivity.

Ways of working – resulting from changes in Business processes and the very nature of work.

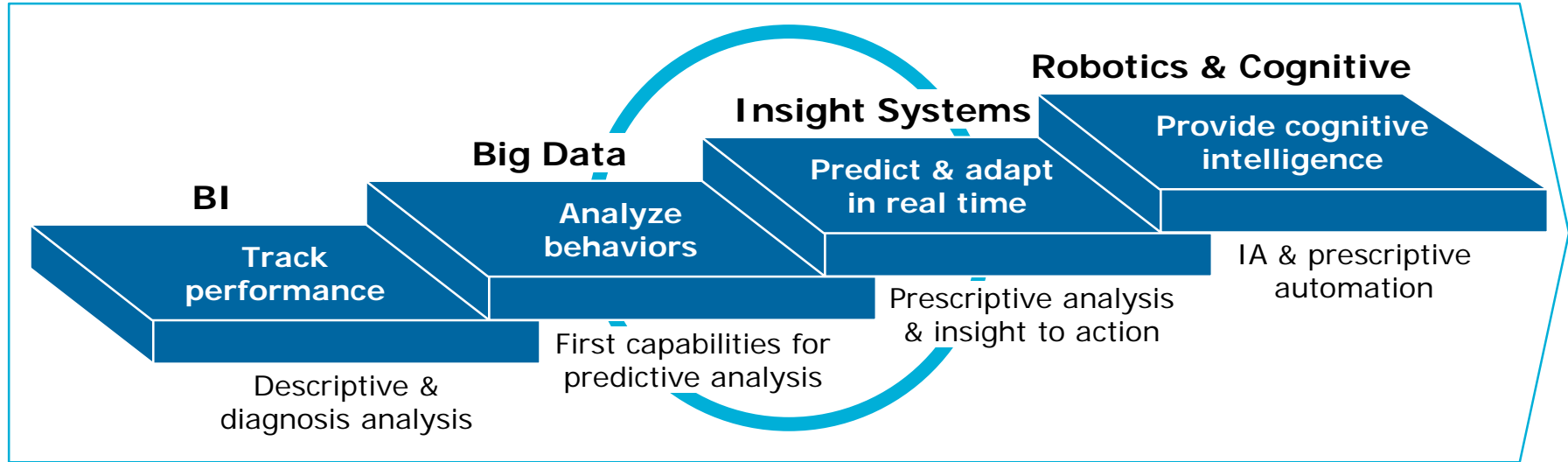
Disruptive technologies – the developments that bring revolutionary changes to the “art of the possible” not just evolution.

Evolving challenges – familiar challenges that need to be addressed with different perspectives as a result of the emergence of new influences.

7 data-driven technological breakthroughs will mark the 3rd digital wave



The World is changing from single, systems and organizations to networks of capabilities and data driven business



Many customer organizations state today that:

- ▶ They are still in an **early stages of Big Data** projects
- ▶ Their current priority is to get help to **drive business value from analytics**



Our business impact: **Improving Product Quality**



Minimizing issues at launch

- ▶ Reducing costs associated to rework
- ▶ Speeding up access to data – from months to a few days

What we did for a medical-technology company

For a medical-technology company Atos implemented in less than 6 weeks its Atos Codex Analytics solution to provide almost real time access to product development data.

Immediate access to this valuable product development data combined with Atos Data Scientist skills enabled a potential design problem to be rectified ahead of launch.

Our value proposal for CX: increase sales, boost loyalty, reduce cost to serve



A non intrusive solution enabling customized interactions on any touchpoint
Example: Mc Donald's



Contextual data

- Weather
- Offline transactions
- Social
- Demographics

Repositories



- Promotions
- Customer data

Rule Engine



- Event Processing
- Batch Processing

Analytics



- Value Segmentation
- Predictive
- Web profiling



Touchpoints

Interface/API



Mobile

- SDK
- Push Mail
- Notifications



Web

- Banner
- Retargeting
- Push Mail



Store

- Outdoor/Indoor Geolocation



Seller

- Profiling
- Recommendations



Our business impact:

Improving Customer Experience



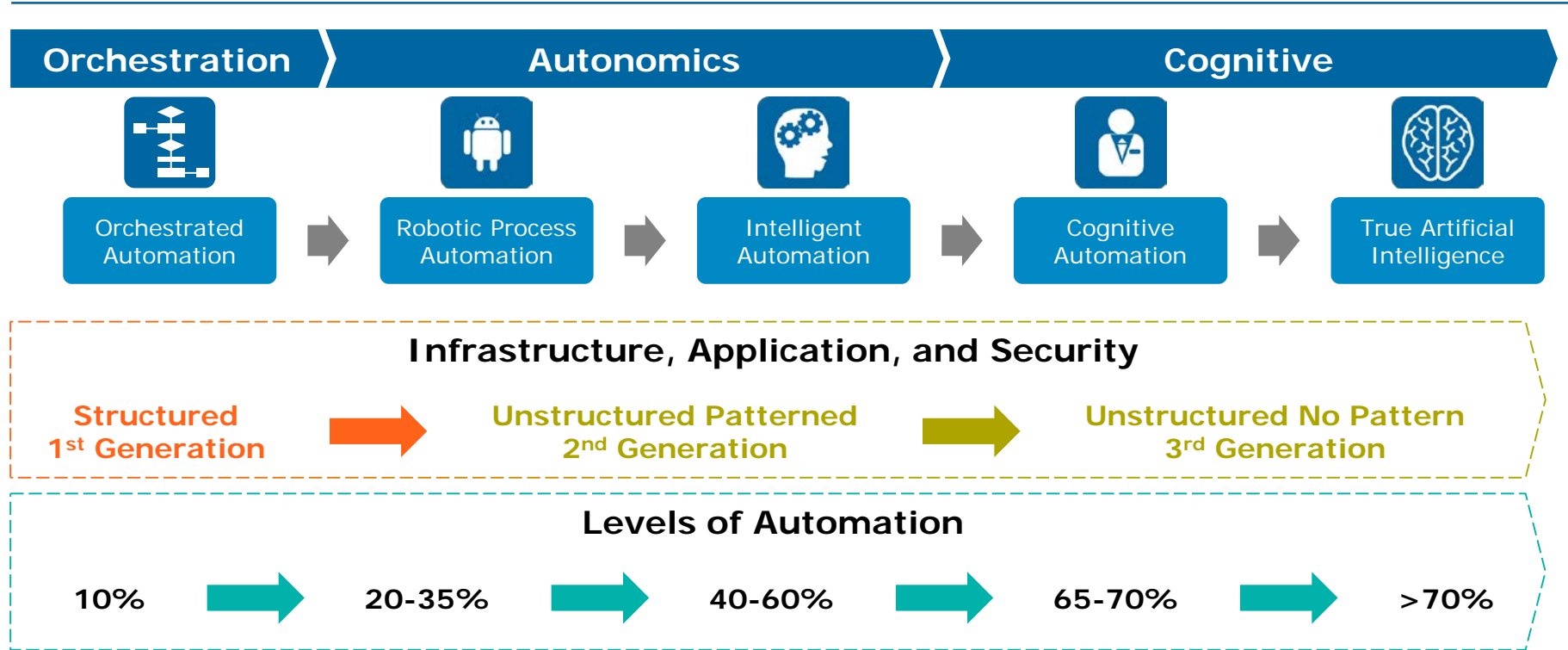
Pay How You Drive is now fitted in several thousand premium new models across 3 countries and will be extended to other passenger cars in all European countries by 2022. For some drivers, the solution is expected to reduce insurance costs by 10 to 20%

What we did for an automotive company

Created a new car insurance tariff structure based on consumers' driving behavior that rewards good driving behavior with cheaper car insurance.

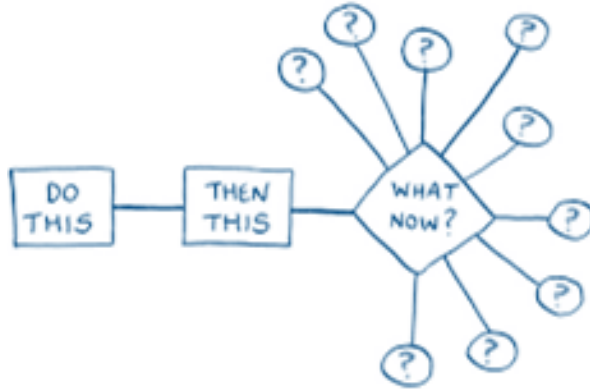
Using the Worldline contextual analytics real-time solution built on the Atos Codex platform, we designed a tool to rate good driving behavior. The tool takes into account journey data plus external geographical data, such as road type and speed limits to score the driver for their current journey and aggregated journeys and sends that score to the insurance company.

Evolution of automation



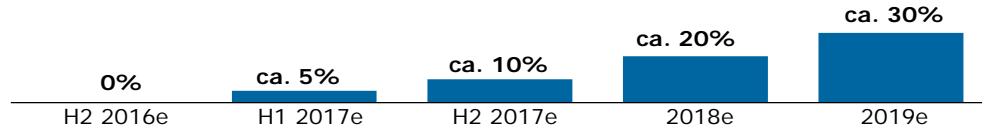
What's next

Unstructured No Pattern 3rd Generation Automation



- ▶ Production pilots cognitive automation tools to further automation efficiency rate
- ▶ Intelligent operations to further increase operational efficiencies and reliability
- ▶ Dynamic threshold management
- ▶ Knowledge item driven non standard incident handling and resolution
- ▶ Virtual Agents integrating intelligent automation offering instantaneous engagement

Customer accounts under 3rd generation automation programs



What are the challenges?

On the way to the data-driven organization

Data is efficiency and profit:

50% of global companies say that analytics investments create topline revenue growth and 54% say that it improves the operational excellence

But Companies are not yet mature:

25% of global companies say that their organization is data driven

The roadblocker is the internal organization

35% say that the lack of alignment between IT and business is biggest challenge to the execution of the vision for data and analytics.



Security must be THE central topic

- ▶ More than 80% of German companies are victims of cyberattacks or think that they are > Bitkom Spezialstudie Wirtschaftsschutz 2016
- ▶ “Black Friday” 21 October
Massive DDOS attacks in the USA including 1 million IoT devices like refrigerators or surveillance cameras were used as army of robots.
- ▶ Cybercrime was used to influence the election in the USA!
- ▶ We need to secure the data or the digitalization will fail!
- ▶ We need to think end-to-end security to avoid gaps!

Partnership for Digitalization

Example Siemens / Atos

JOE KAESER

President and CEO of Siemens AG

“ This partnership forms one of the largest strategic relationships ever between a **global engineering company** and a **global IT provider**. The value of our combined strength enables our **customers to take full advantage** of the next wave of industrial IT in order to maintain competitiveness and deliver outstanding services. ”

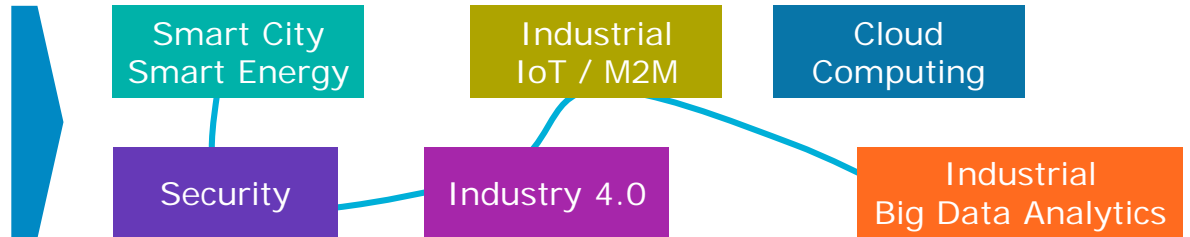
SIEMENS



230 m€

Joint Investments

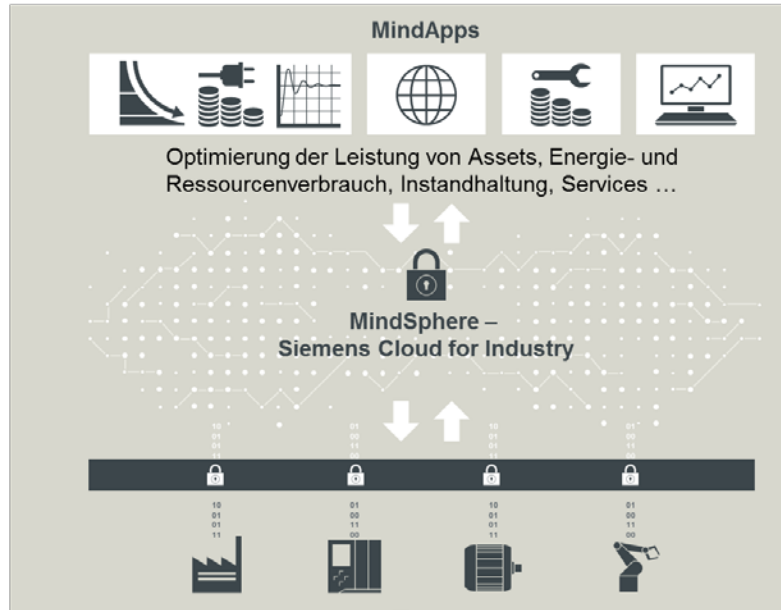
to shape the future
& **shared value creation**



Siemens MindSphere

The Future

Siemens MindSphere – An open cloud platform for Industry Customers



Optimization of plants and machines as well as energy and resources

- **Open standards** for connectivity of Siemens und third party products
- **Plug and play connection** of Siemens products (engineering in the TIA Portal)
- **Cloud for industry** with open application interface for individual customer applications
- Transparent **pay-per-use pricing model**
- Opportunities for completely new **business models** (e.g. selling machine hours)

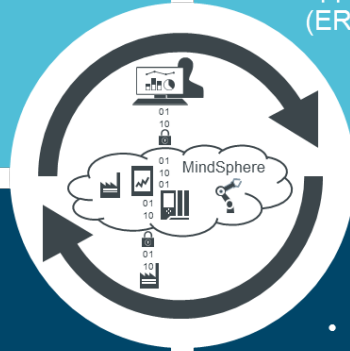
Atos Service for MindSphere

Smart Service and Use Case Development

- Business Consulting and Strategy
- Incubation e.g. Rapid Prototyping and Design Thinking
- Use Case Modelling & Catalogue
- Data Science

Design, Build and Integration of MindApps

- MindApp Development
- Advanced Analytics Implementation
- MindApp Integration to customer's backend IT systems (ERP, MES, PLM, etc.)



- Atos Industrial IoT Connect
- Custom-build Connectivity

Extended and Third Party Connectivity

- MindApps operations
- Private Cloud Deployment of MindSphere
- End-to-End responsibility from HW to Smart Service

MindSphere On-premise and Private Cloud Operation

 MindSphere Ecosystems  Available  Planned

Take away

Yes

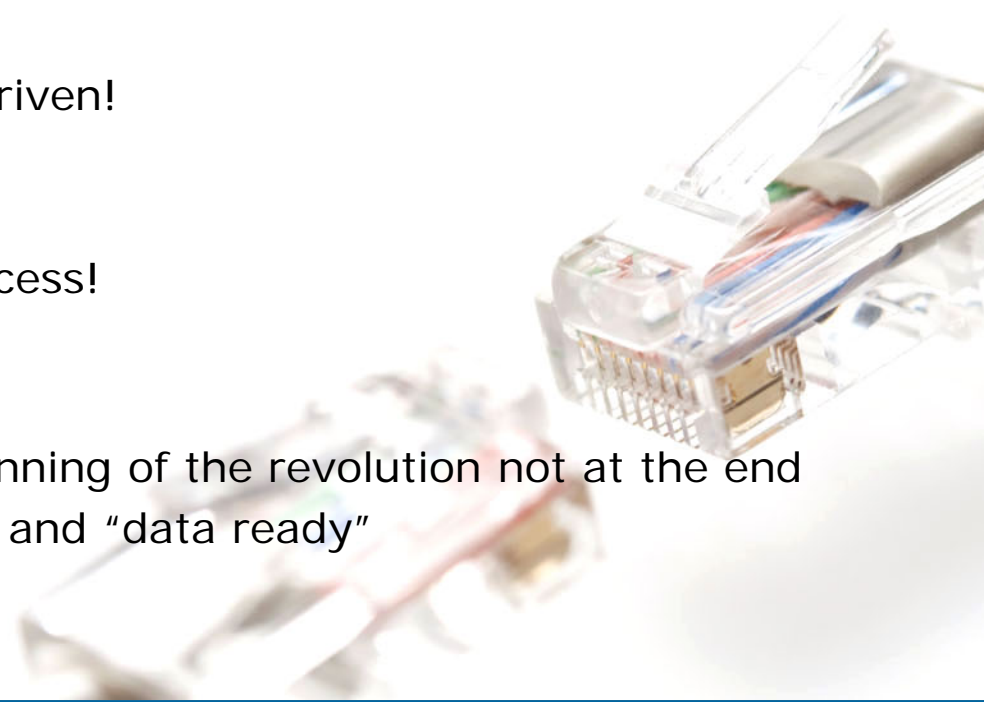
The business of the future will be data driven!

But

It will be a long and winding road to success!

We need

- ▶ to understand that we are at the beginning of the revolution not at the end
- ▶ to make our organizations “data drive” and “data ready”
- ▶ to secure the data end-to-end



Thanks

For more information please contact:
winfried.holz@atos.net

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The Atos logo is displayed in a white, bold, sans-serif font. The letters 'A', 't', 'o', and 'S' are connected, with the 't' and 'o' sharing a vertical stem. The 'S' is slightly larger and more prominent than the other letters.