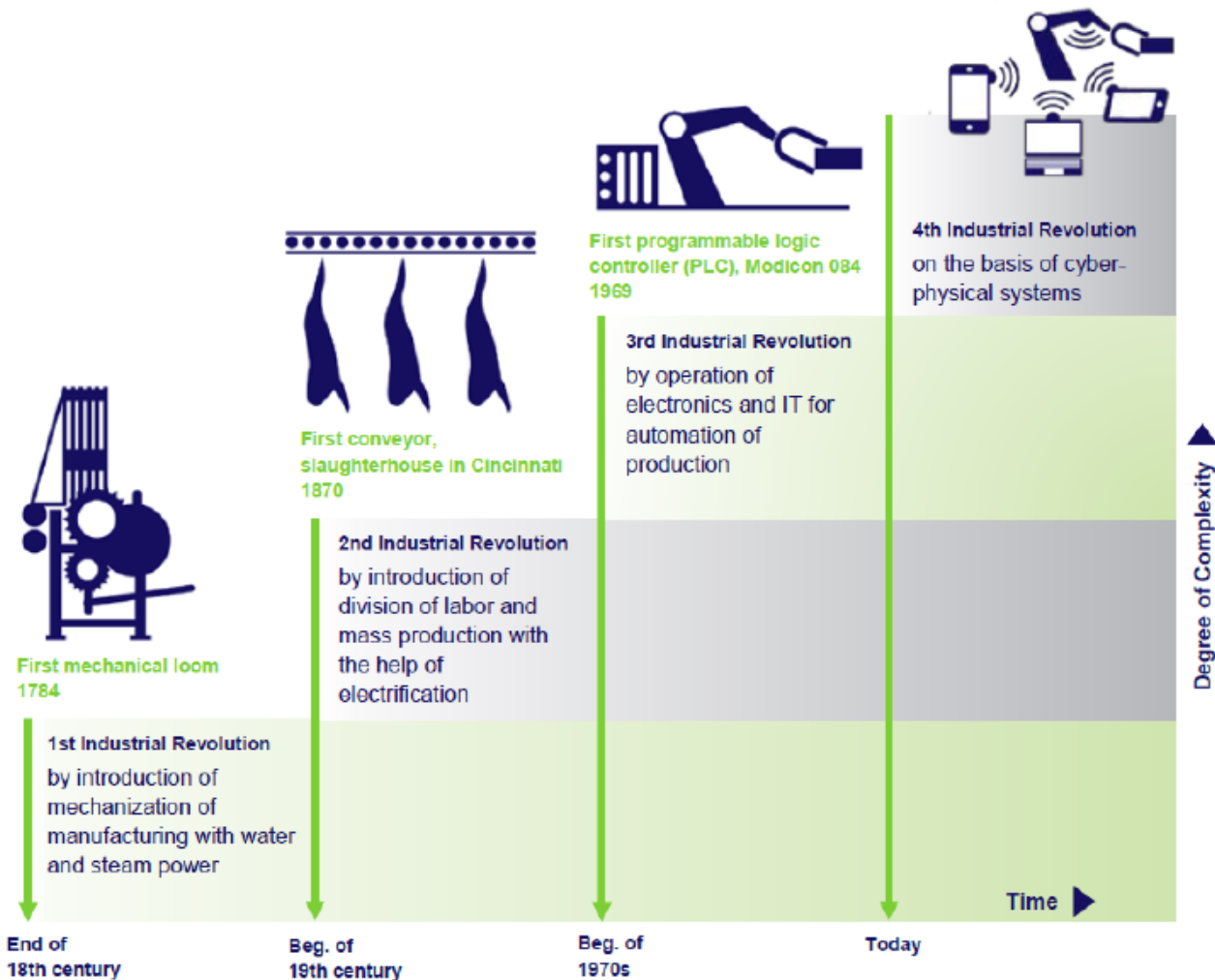


Mikko Uuskoski
Beckhoff Automation Oy

Trends are forcing us to the new business models **BECKHOFF**



Trends

- PC-based control
- IoT
- IIoT
- Industry 4.0
- CPS

Origin & Definition: Internet Of Things

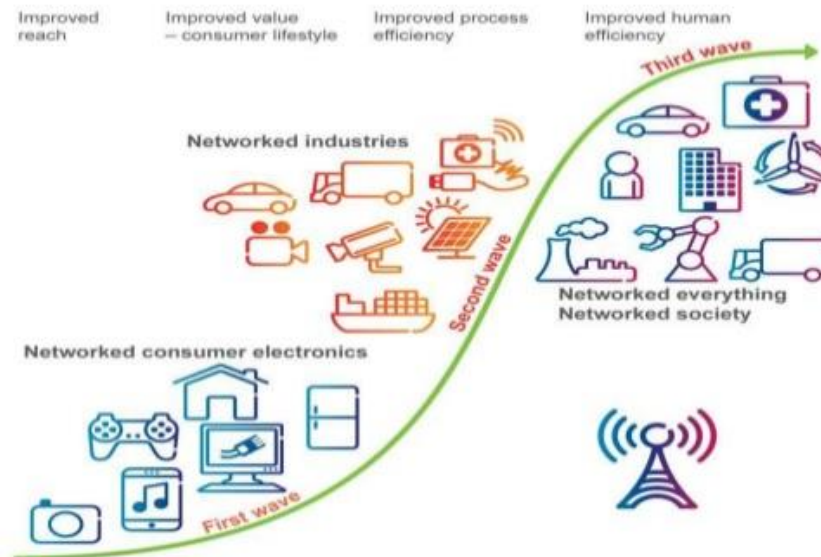
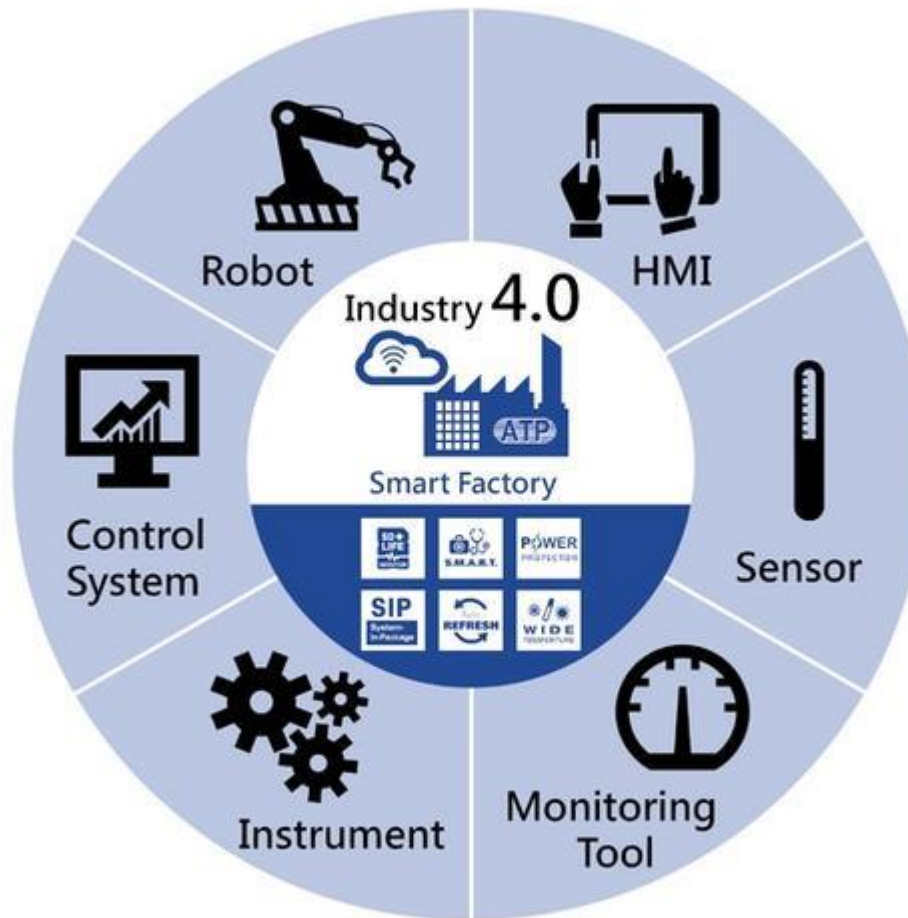
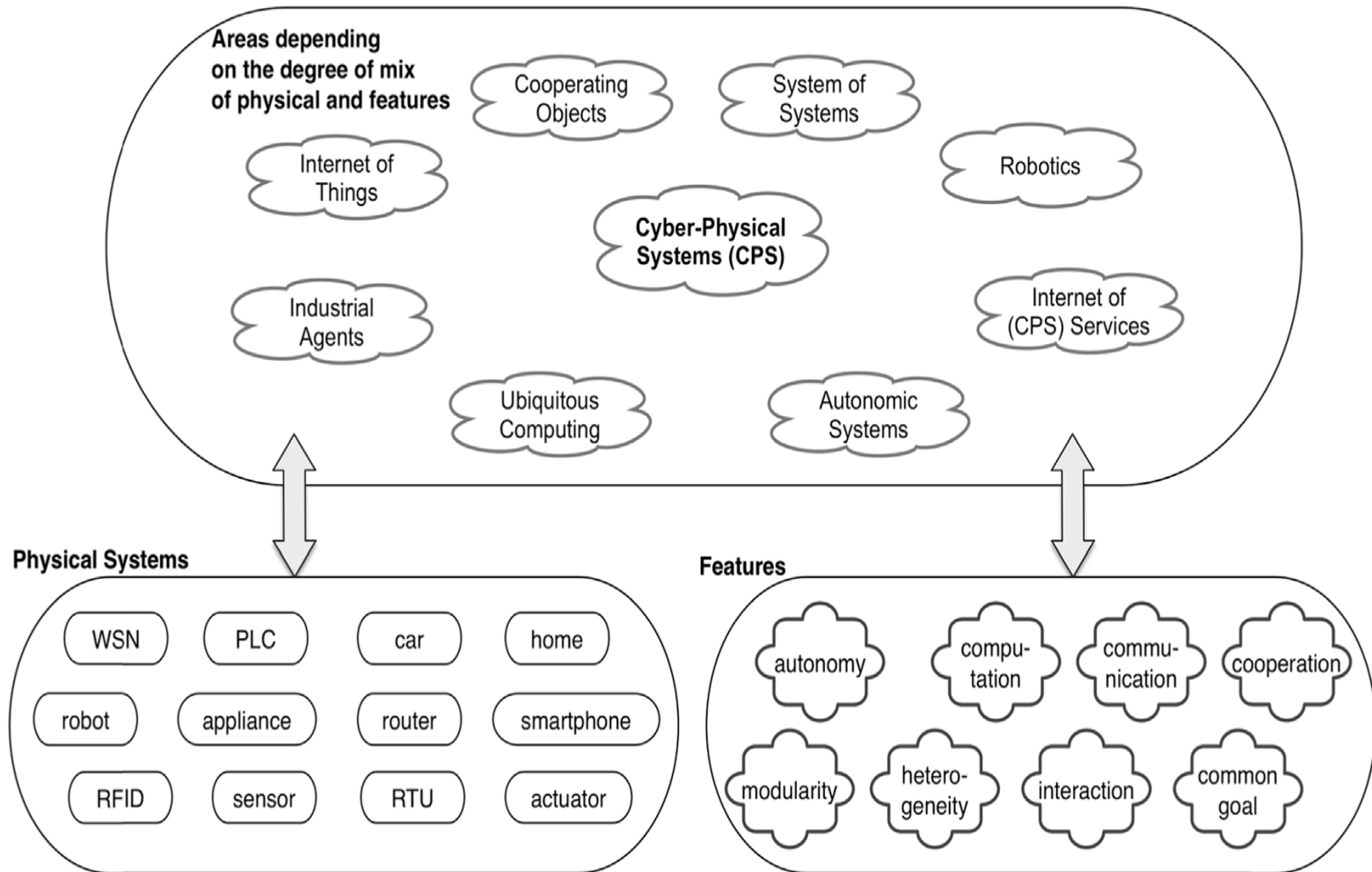


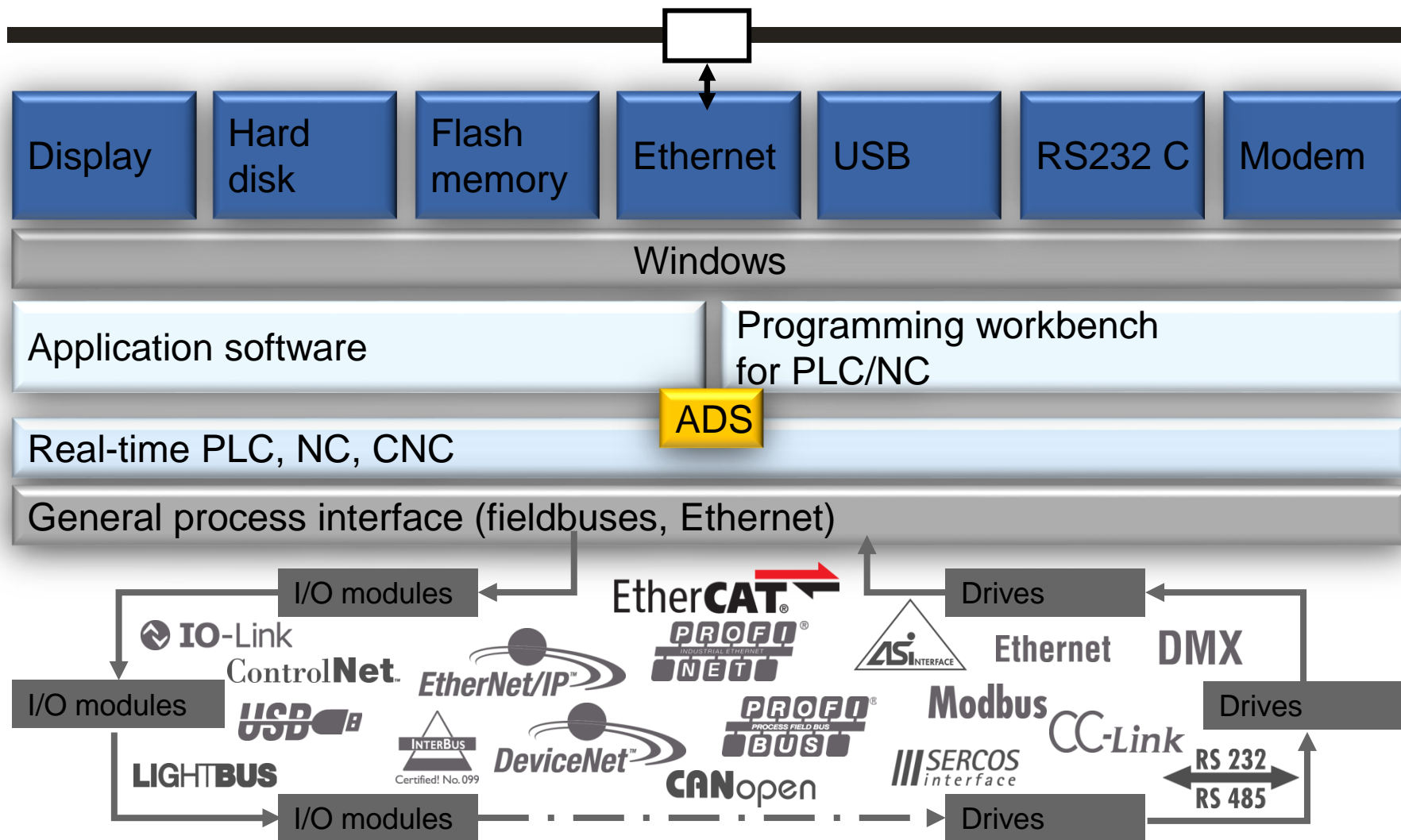
Figure 2. The three waves of connected device development.

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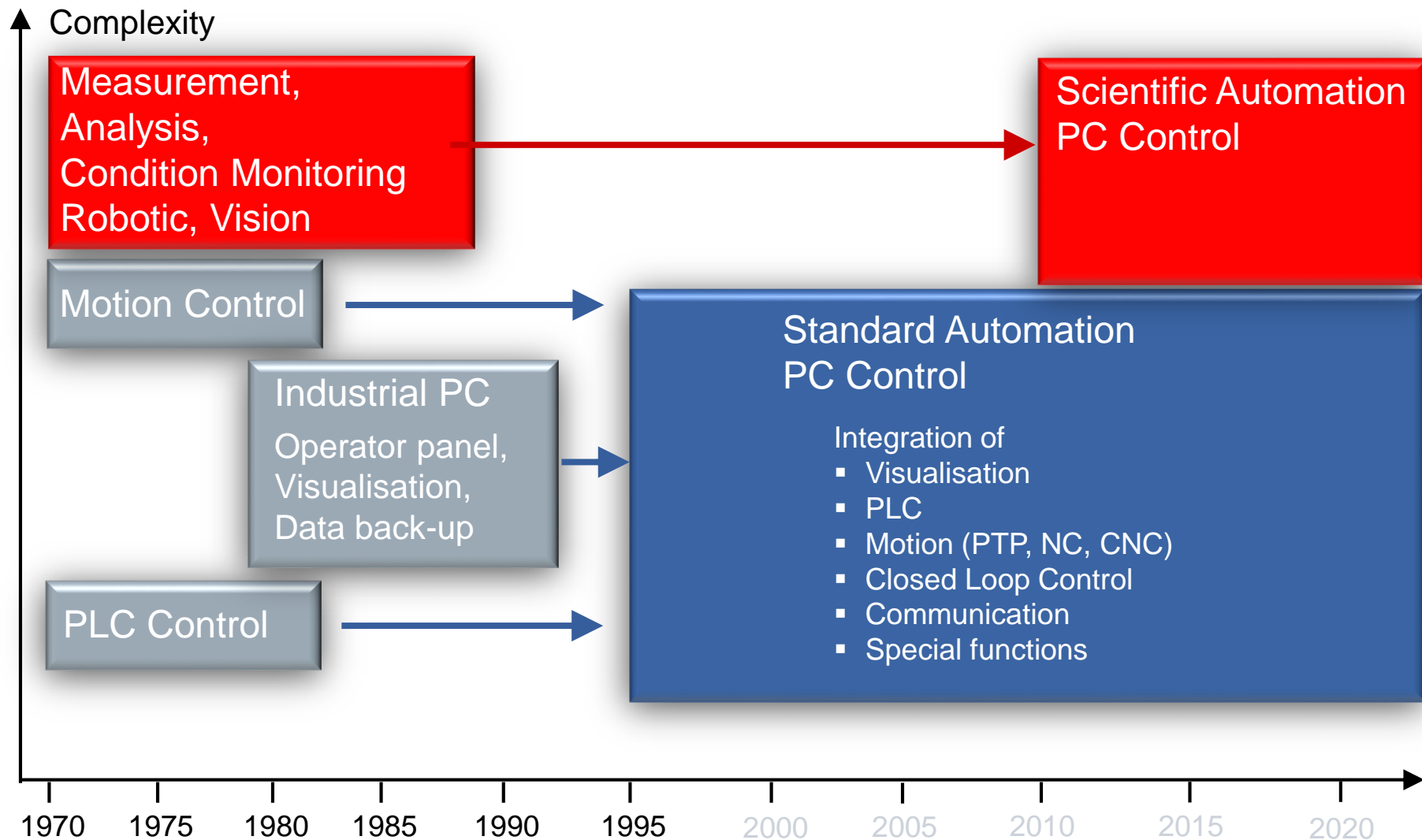




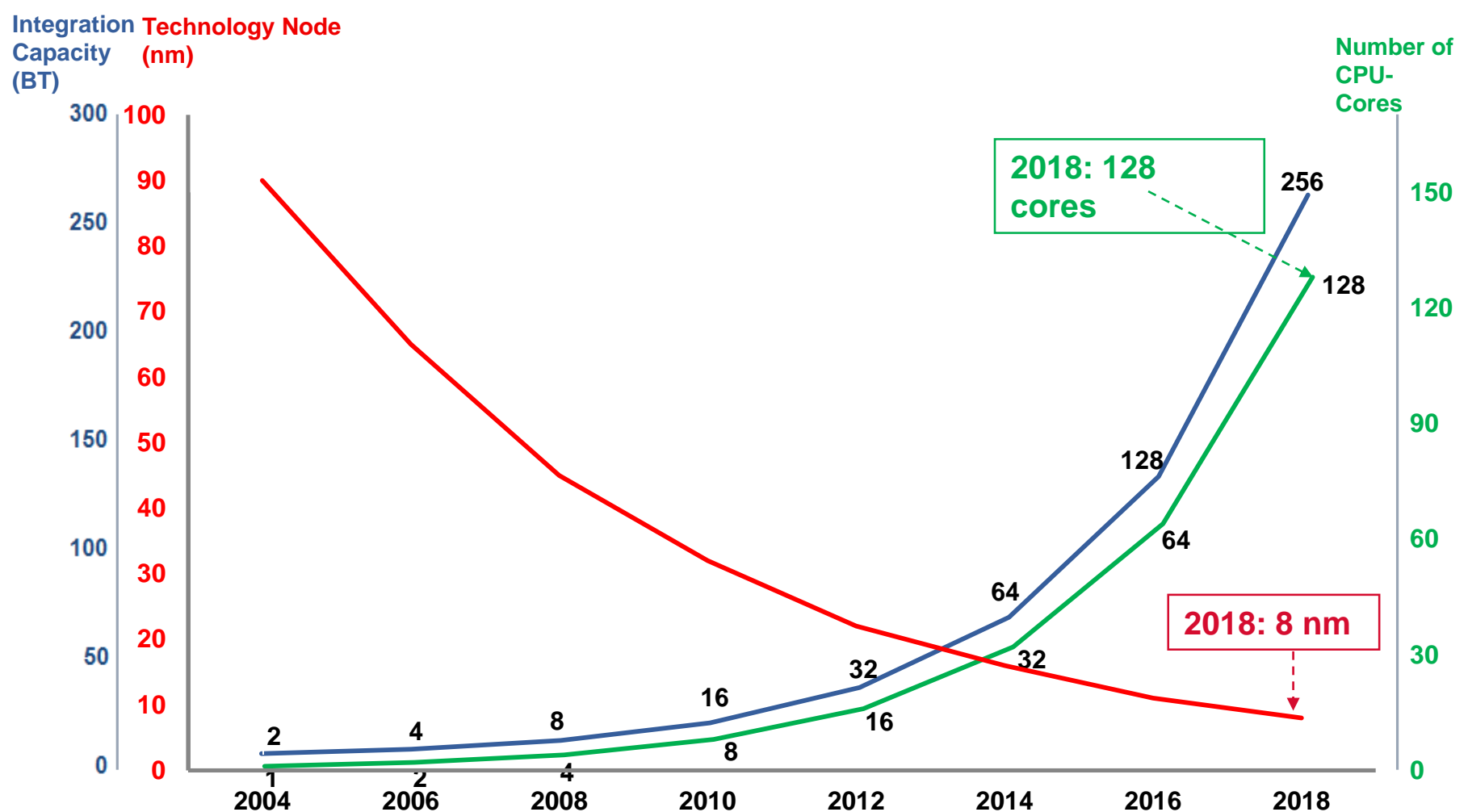
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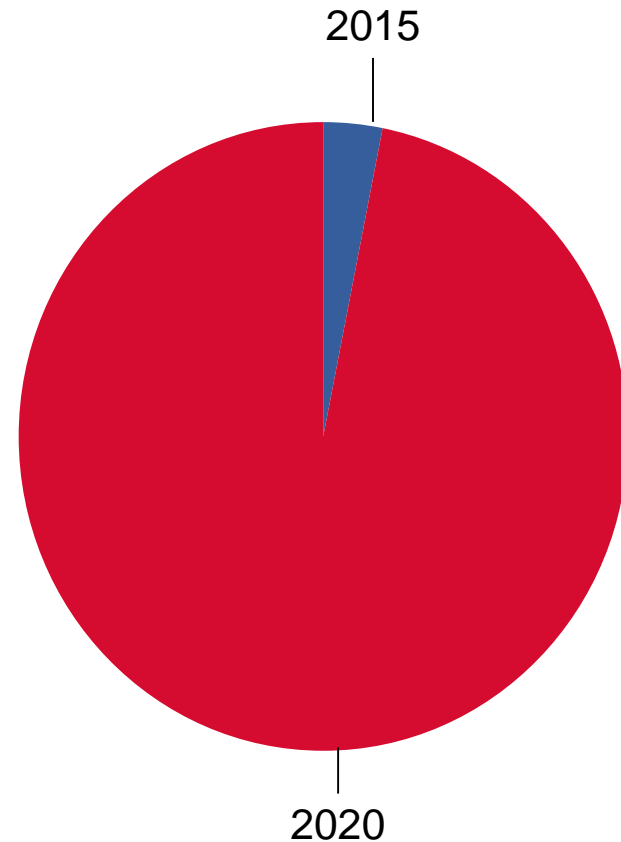


Trends are forcing us to the new business models **BECKHOFF**



Trends are forcing us to the new business models **BECKHOFF**

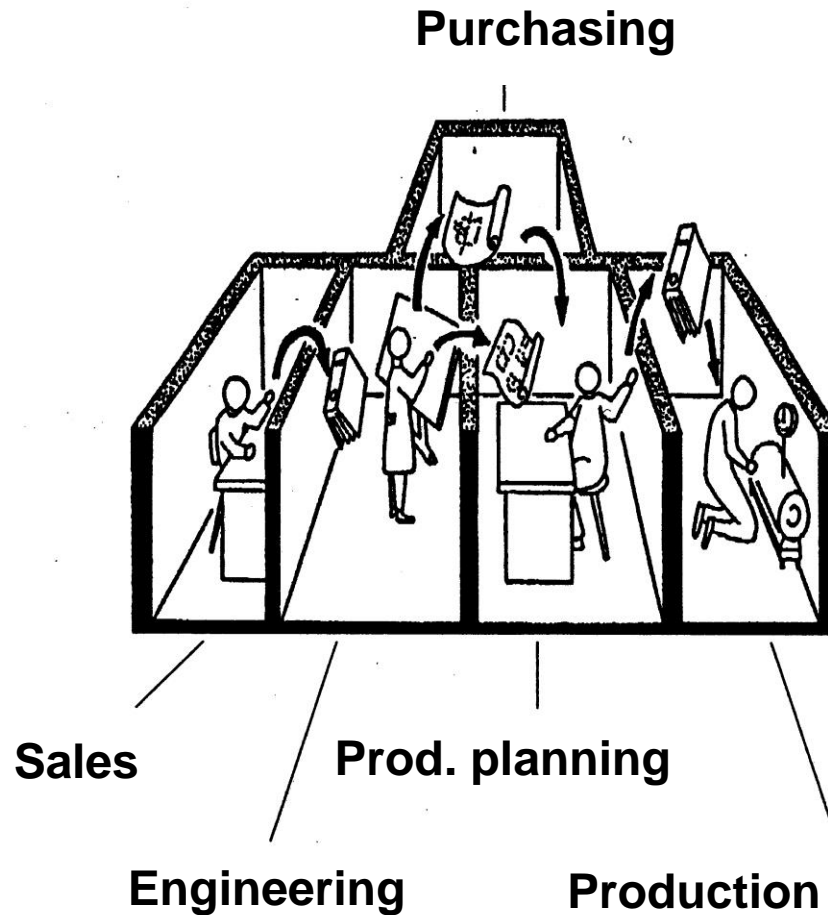
1. In 2020, PC Control technology will be 32 times more powerful than today!
2. Today's control programs will use only 3% of the 2020 CPU's!
3. The usage of the remaining 97% resources will decide your competitiveness!
4. Scientific Automation is using exactly these resources for advanced control technology



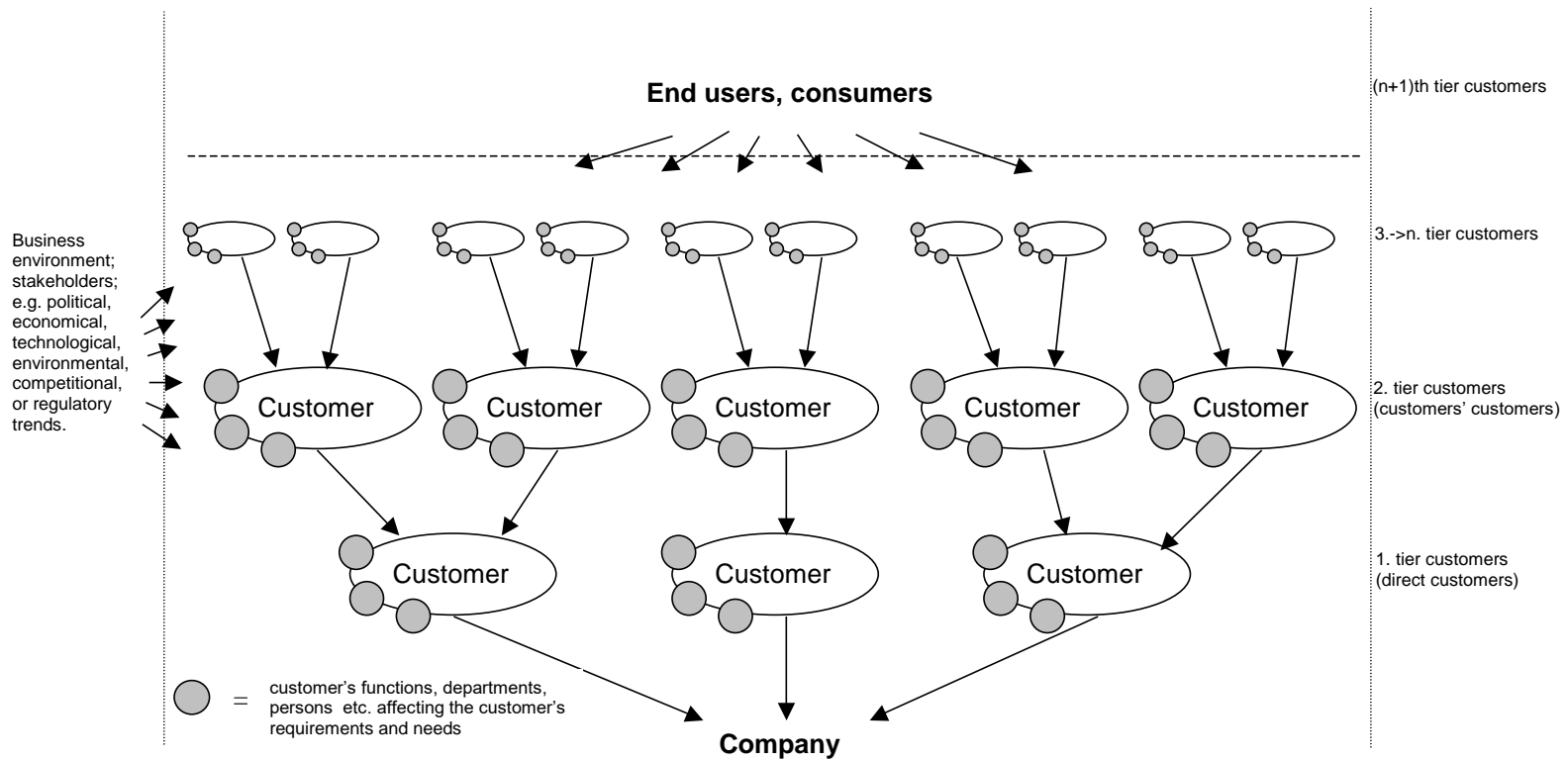
Trends =

1. Calculating power
2. Connectivity
3. More software

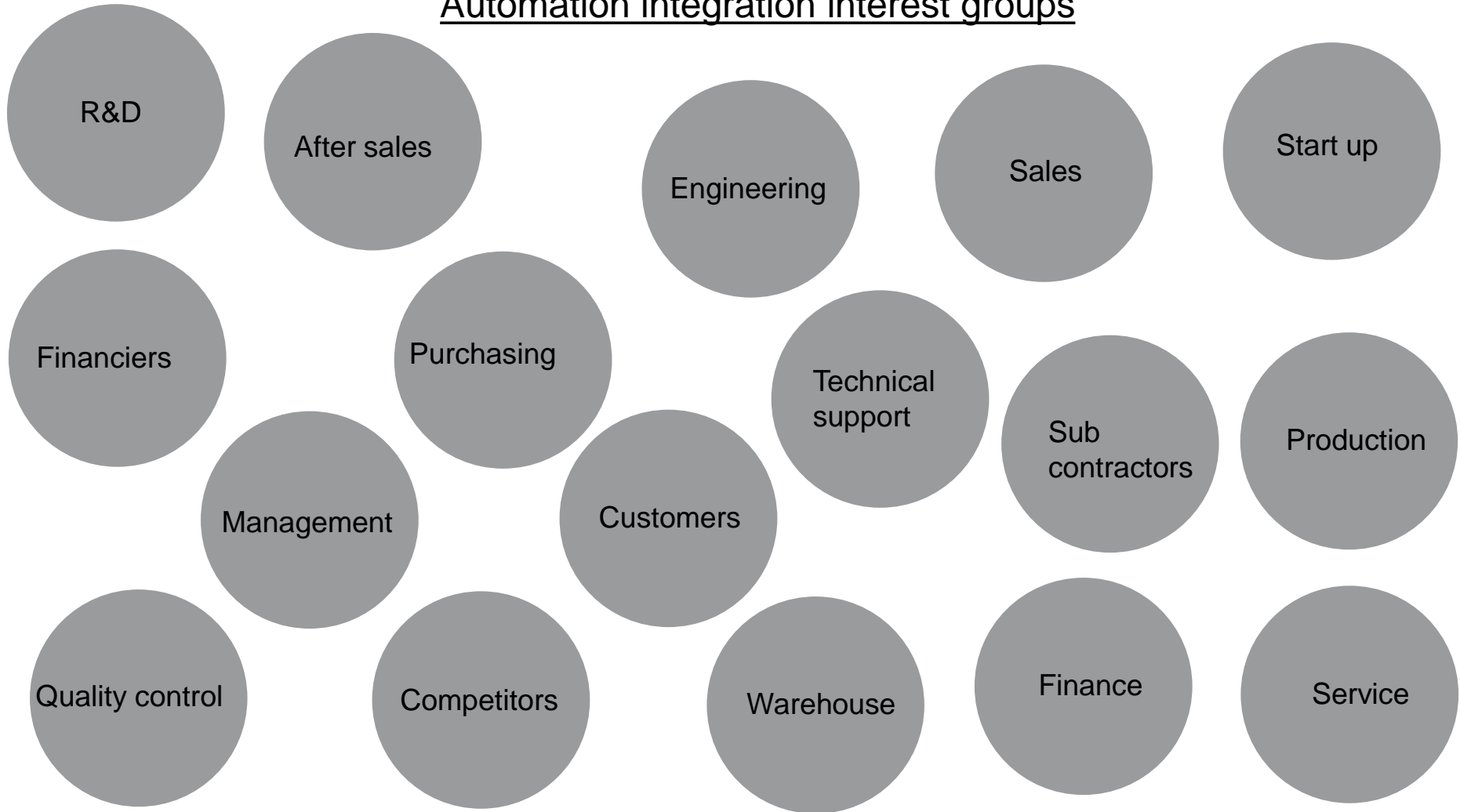
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B2B companies and customer requirement in value chain



Automation integration interest groups



- Variables of the integration

Performance Service level Training Modularity in engineering and production

Technical support Quality Availability of skilled personnel

Experience of the system Risks

Future scenarios Reliability of deliveries Standards Market area

Remote accessibility General reliability

Technology level Fault diagnostics Used technology

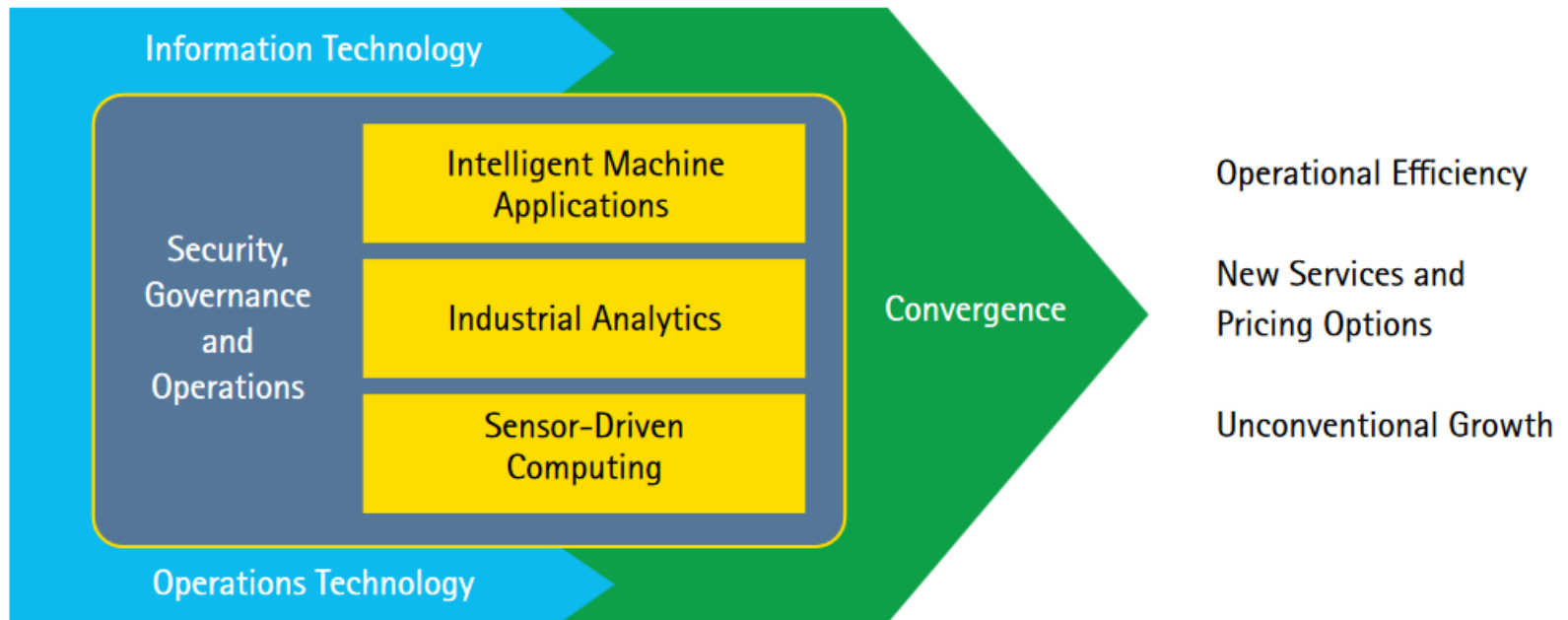
Reputation Price Scope of supply

Production time Maintenance

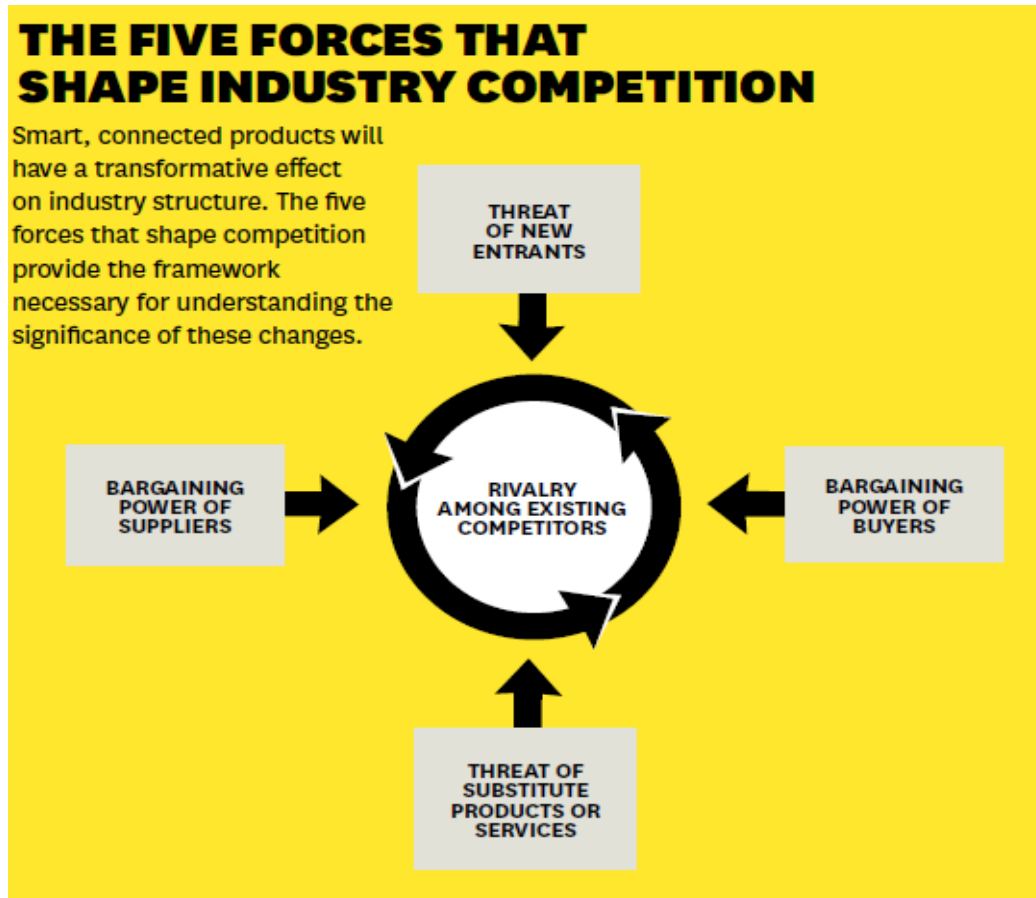
Required testing time Length of product life Modularity in R&D Origin of products Delivery time

Need for own stocking Start up time

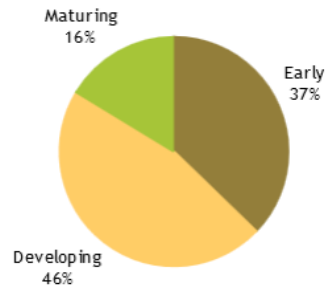
Trends are forcing us to the new business models **BECKHOFF**



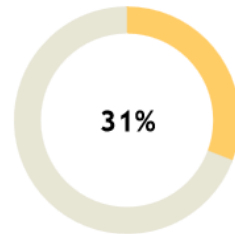
Source: Accenture; Driving unconventional growth through the industrial internet on things



Organizations Still Have Room to Mature



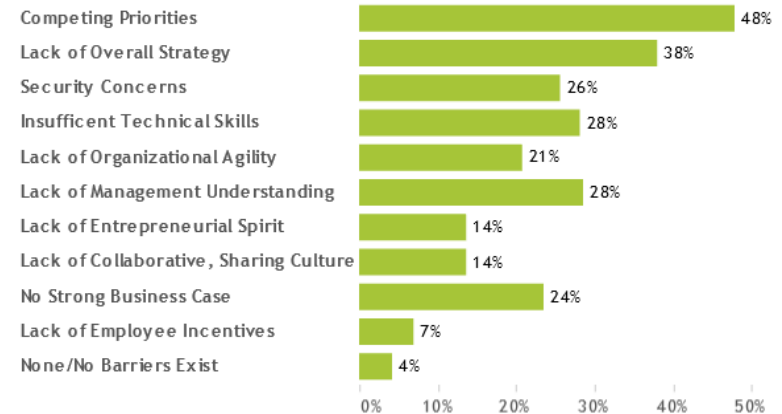
Organization digital maturity
(1-10 scale; 1-3 - Early,
4-6 - Developing, 7-10 - Maturing)



Are satisfied with their organization's
reaction to digital trends

Average: 43%

Barriers Stand in the Way of Digital Progress

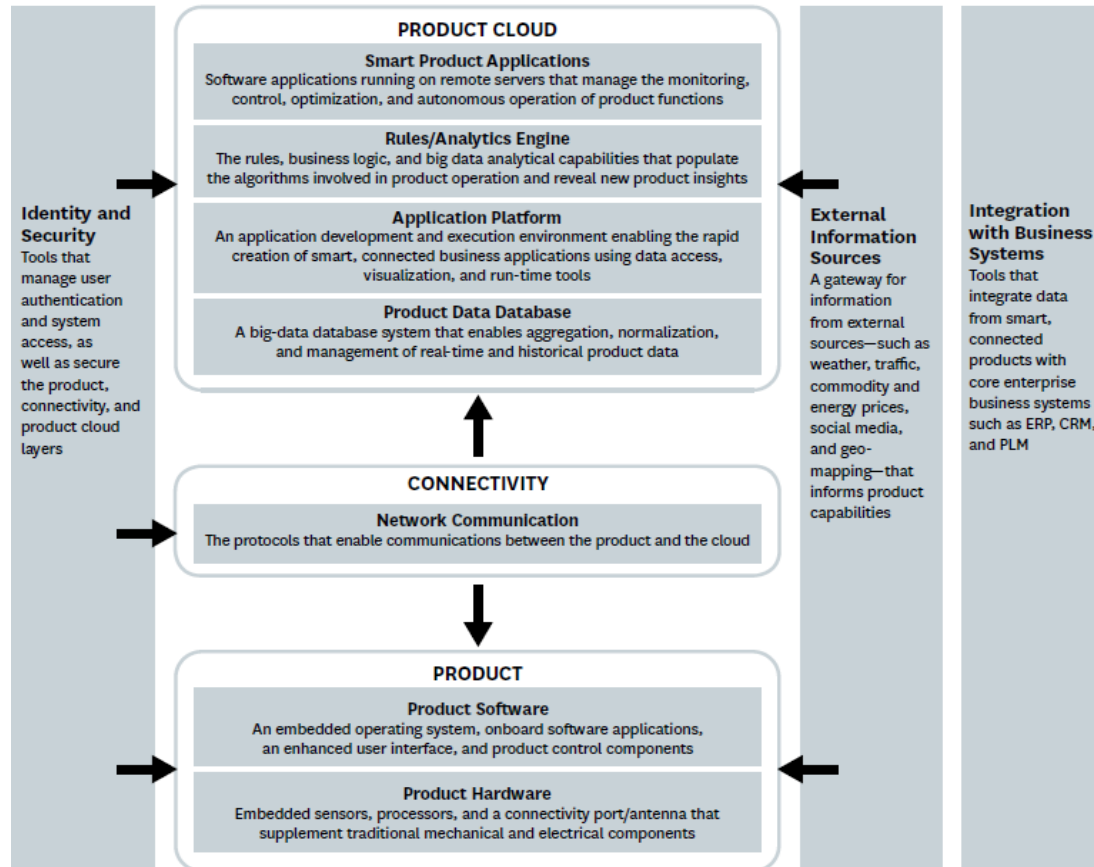


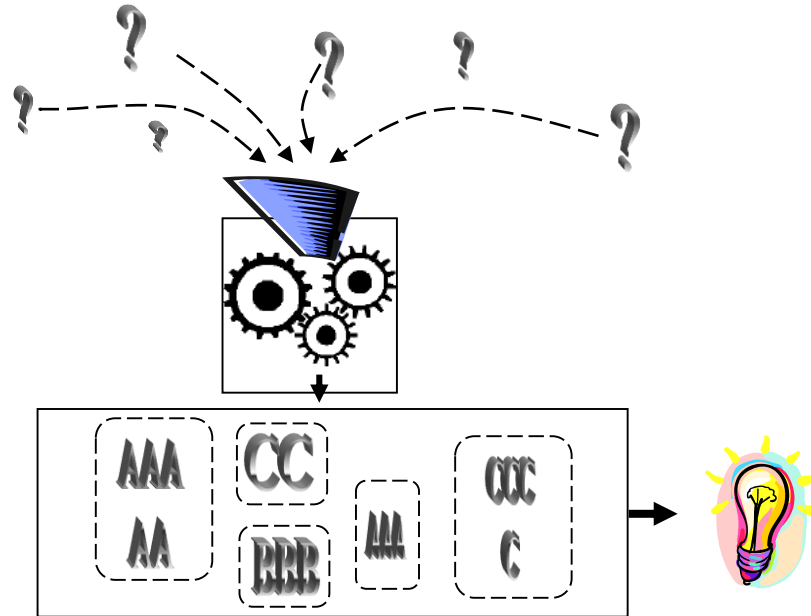
Successful Organizations Must Leverage Strategy, Culture, and Leadership to Harness the Potential Of Digital

Source: Kane G. C., Palmer D. Phillips A. N. Kiron. D. Buckley N. Strategy, not technology, drives digital transformation. MIT Sloan Management Review and Deloitte University Press

THE NEW TECHNOLOGY STACK

Smart, connected products require companies to build and support an entirely new technology infrastructure. This “technology stack” is made up of multiple layers, including new product hardware, embedded software, connectivity, a product cloud consisting of software running on remote servers, a suite of security tools, a gateway for external information sources, and integration with enterprise business systems.





Questions?