

# Update and The Way Forward

Jörg Freitag

PI Chairman



- Figures
- Organization
- PROFINET
- PROFlenergy
- FDI



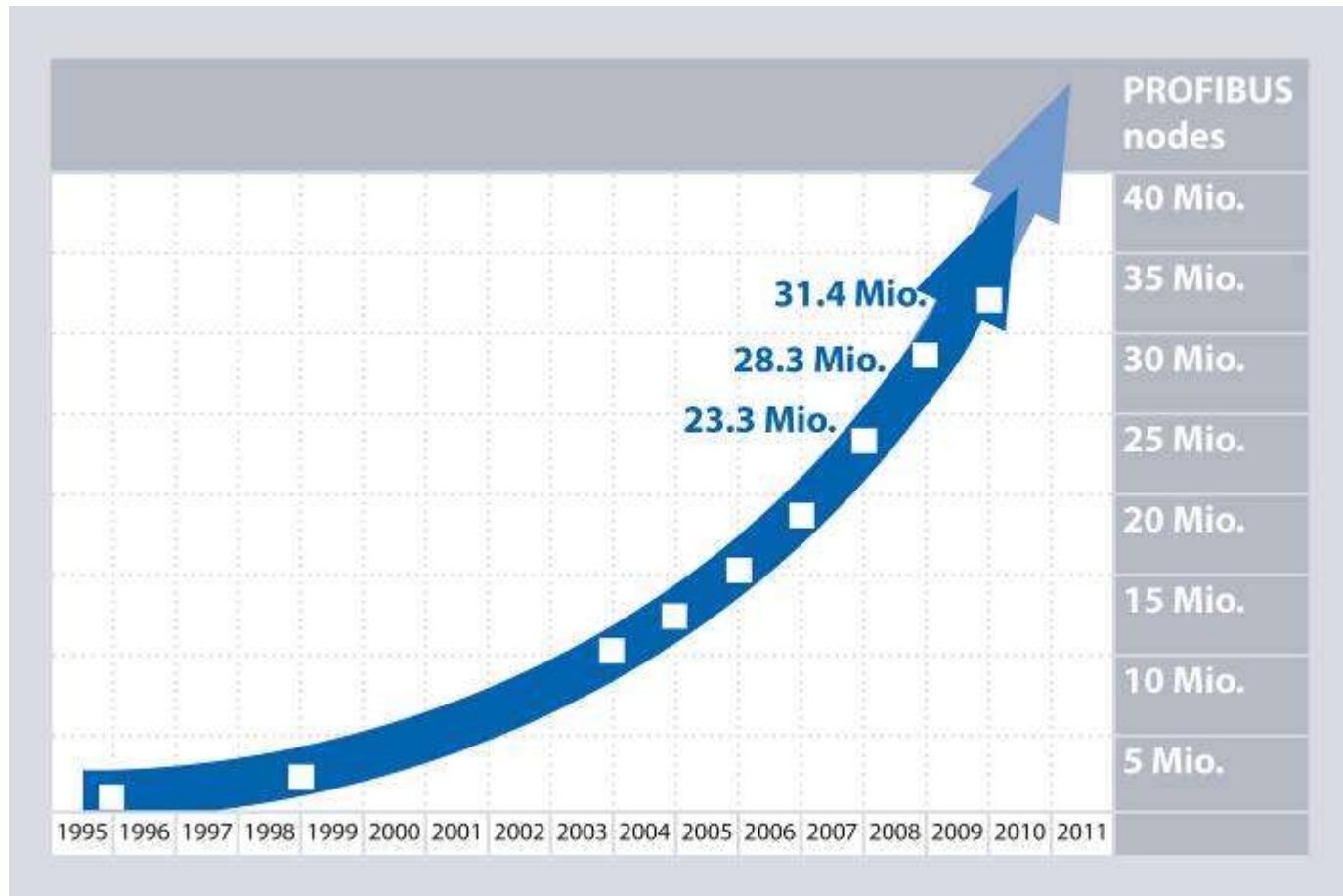
**Business figures**

## Figures

Organization

PROFINET

PROFenergy

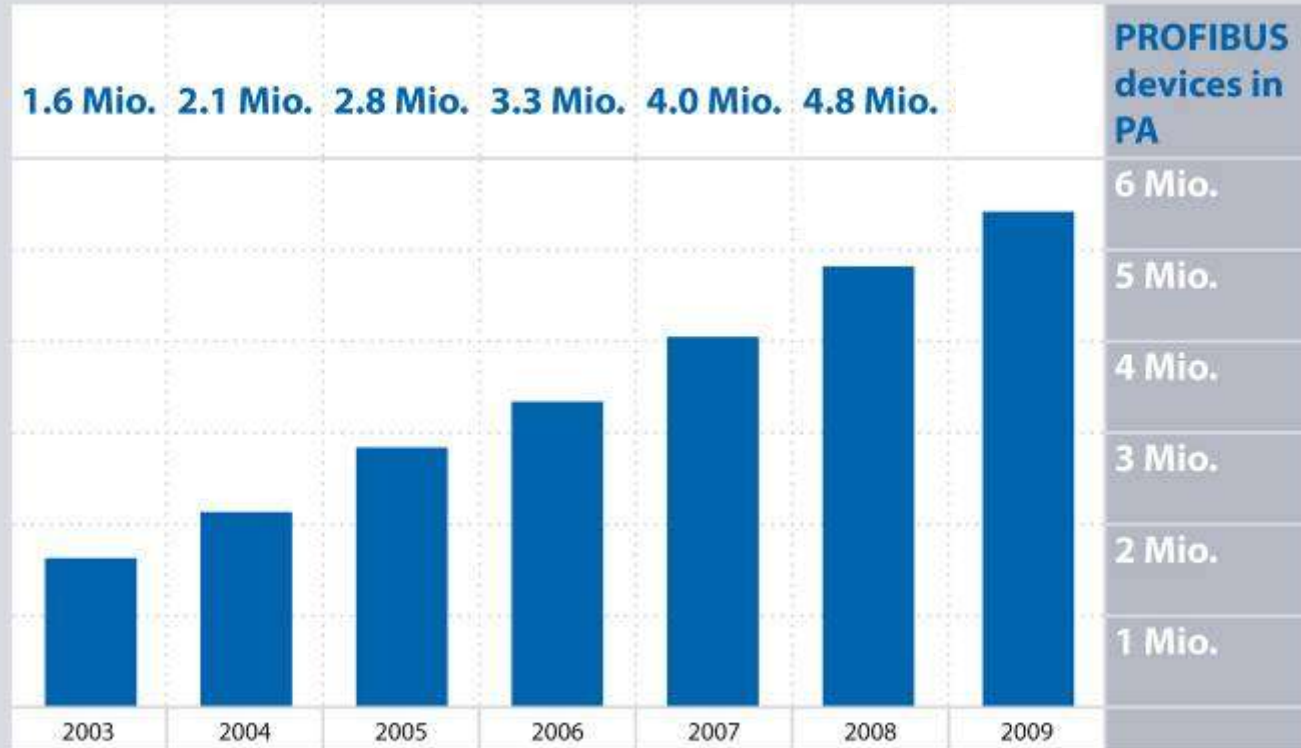


## Figures

Organization

PROFINET

PROFenergy



## Figures

Organization

PROFINET

PROFenergy



Figures

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PROFINET

PROFenergy

**2007: Every 15<sup>th</sup> device sold with  
PI technology (PB/PN) is PROFINET**

**2008: Every 12<sup>th</sup> device sold with  
PI technology (PB/PN) is PROFINET**

**2009: Every 7<sup>th</sup> device sold with  
PI technology (PB/PN) is PROFINET**

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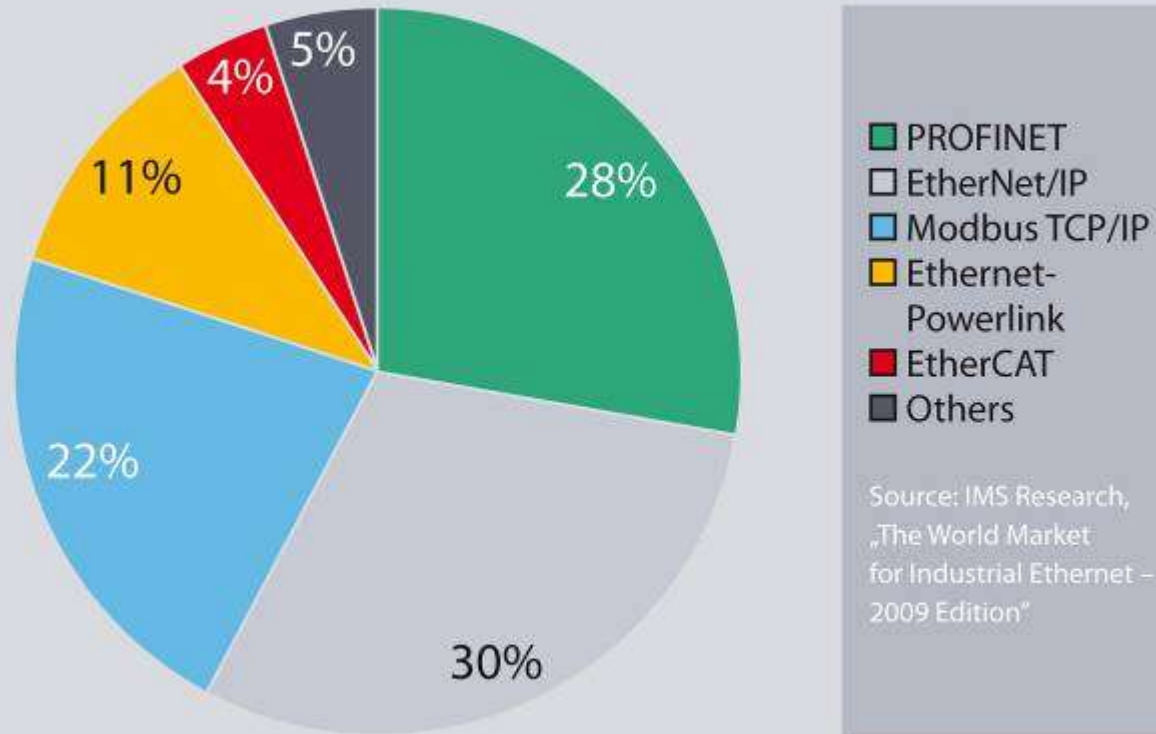


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## Organization

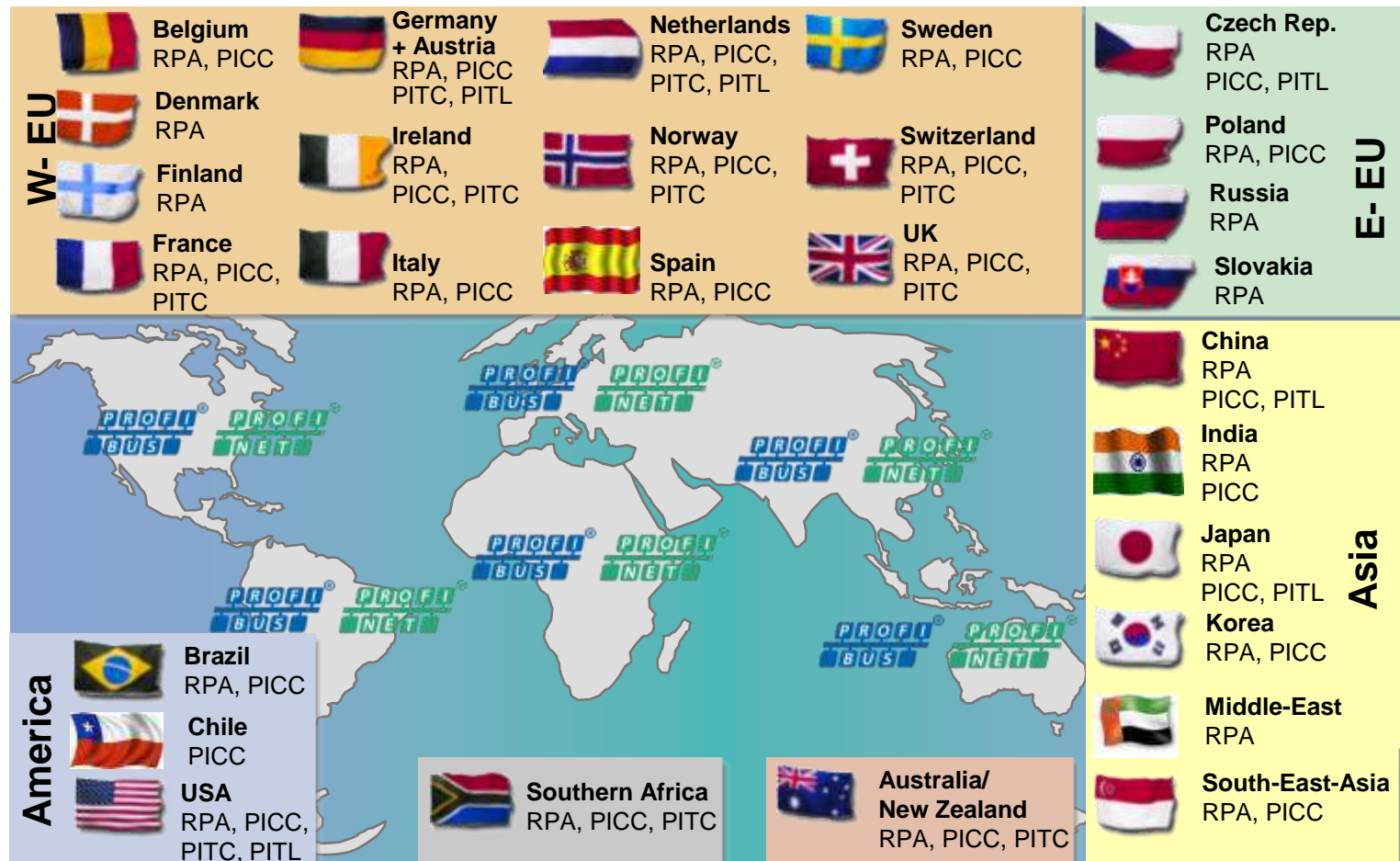
Figures

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- 27 Regional PI Associations (RPA)
- 40 PI Competence Centers (PICC)
- 18 PI Training Centers (PITC)
- 10 PI Test Laboratories (PITL) for Certification Tests

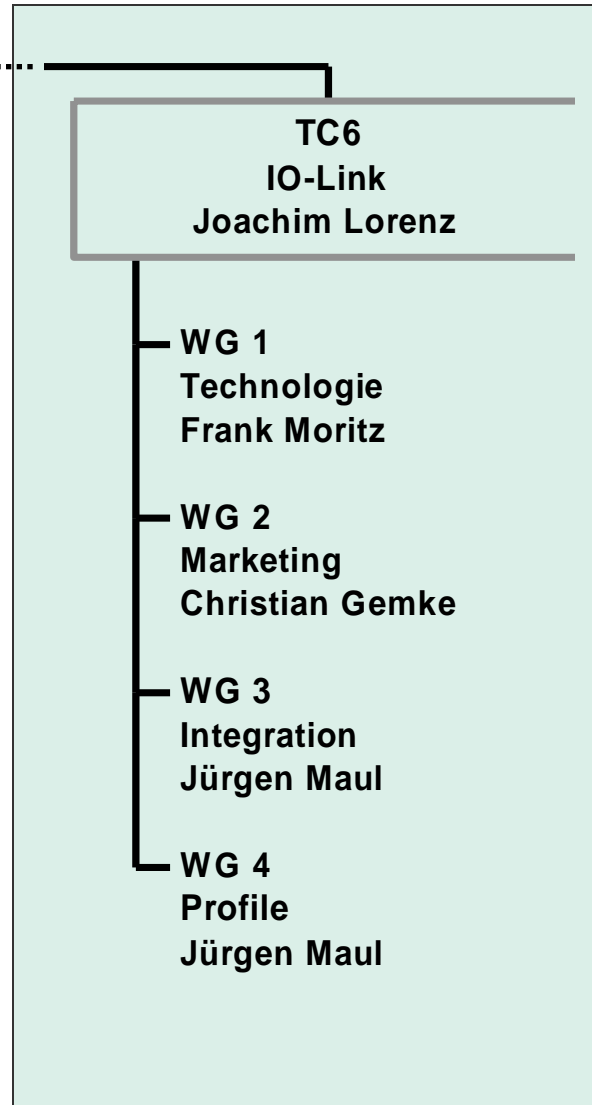


Figures

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- Omission of admission fee
- Since 1 Jan 2010, annual PI member fee only



Figures

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Profile logo



**PROFINET**

Figures

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## F actory Automation



- Automotive Industry
- Machine tool industry
- Logistic & Transportation & Material Handling
- Electro Industries
- Textile Industries

## M otion Control



- Wood-, ceramic-, glass processing machines
- Plastic injection molding machines
- Packaging machines
- Printing presses

## P rocess Automation



- Oil & Gas, Energy
- Chemicals
- Pharmaceutical
- Mining & Metal
- Food & Beverage
- Water & Waste Recycling

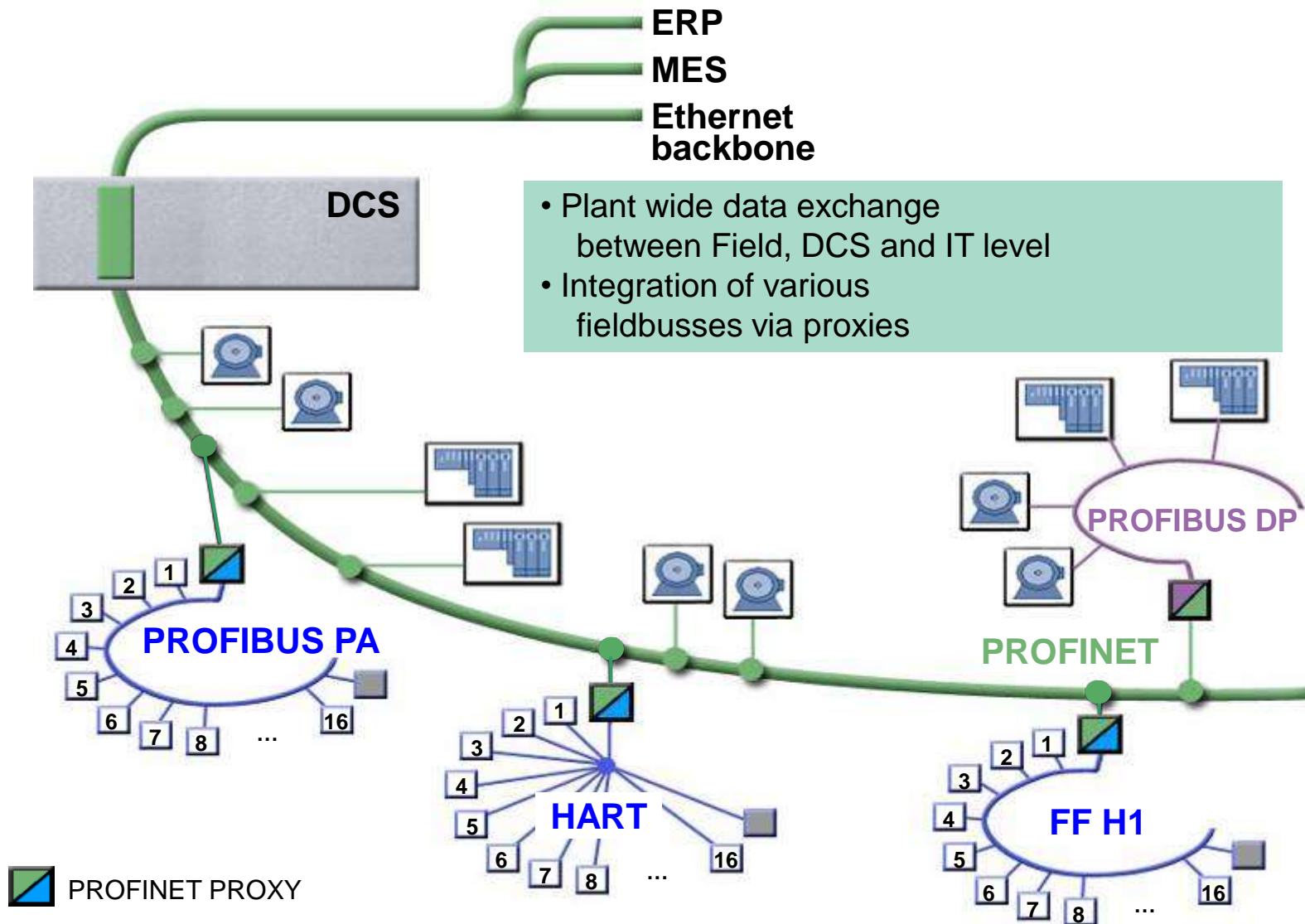


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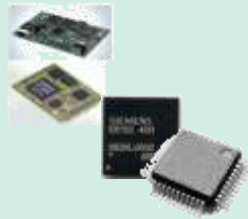
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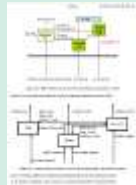
Technology



*Basic technology*



*Specification*



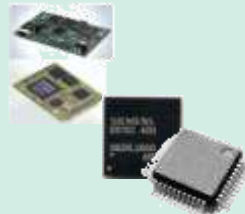
Vendors



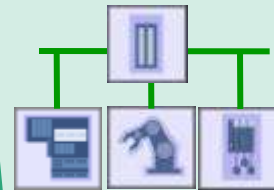
*Devices*



*Basic technology*



OEMs



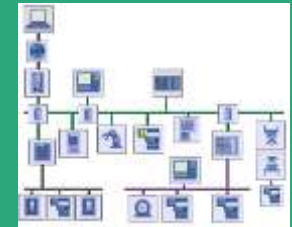
*Machines*



*Devices*



Users





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**Software stack**  
for different operating systems



**ASICs**  
for an optimum integration



**PC boards**  
for the implementation on a PC



**Modules & boards**  
completely executable hardware for end devices



Figures

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**Hans-Jürgen Hilscher**  
Geschäftsführer  
Hilscher Gesellschaft für Systemautomation mbH



Die vier Netzwerk-Cont  
funktionen skaliert für die  
alle anderen Real-Time-  
Controller-Stack und ein

**Michael Volz**  
Geschäftsführer  
HVS Industrial Networks GmbH



**Wolfgang Hopfes**  
Head of Product Marketing  
Soring AG



„Soring ist weltweit eine  
und Produce. Mit unser  
FPGA-Hardware bieten  
Flexibilität. Wir sichern  
anderes Protokoll verwe  
und auch in Zukunft Ihre  
Preis.“

**Klaus-Peter Willems**  
Geschäftsführer  
TMG Technologie und Engineering GmbH



„Die TMG Technologie und Engineering GmbH ist Dienstleister in der industriellen Kommunikation und unterstützt die Technologien Profinet, Profibus und IO-Link aber auch andere Feldbus- und Ethernet-Systeme auf der Basis von eigenen Protokoll-Stacks und Engineering-Tools. Wir integrieren die Technologien in die Geräte unserer Kunden. Insbesondere für Profinet realisieren wir Profinet-Geräte mit RT-Protokoll auf kleinen Microcontrollern auch mit zwei Ethernet-Boards.“



**SIEMENS**

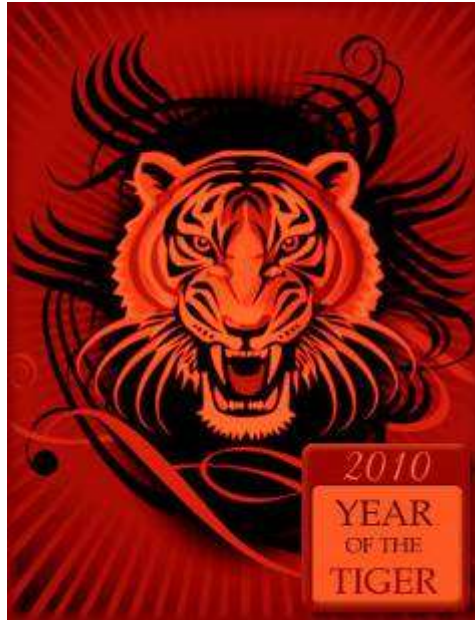


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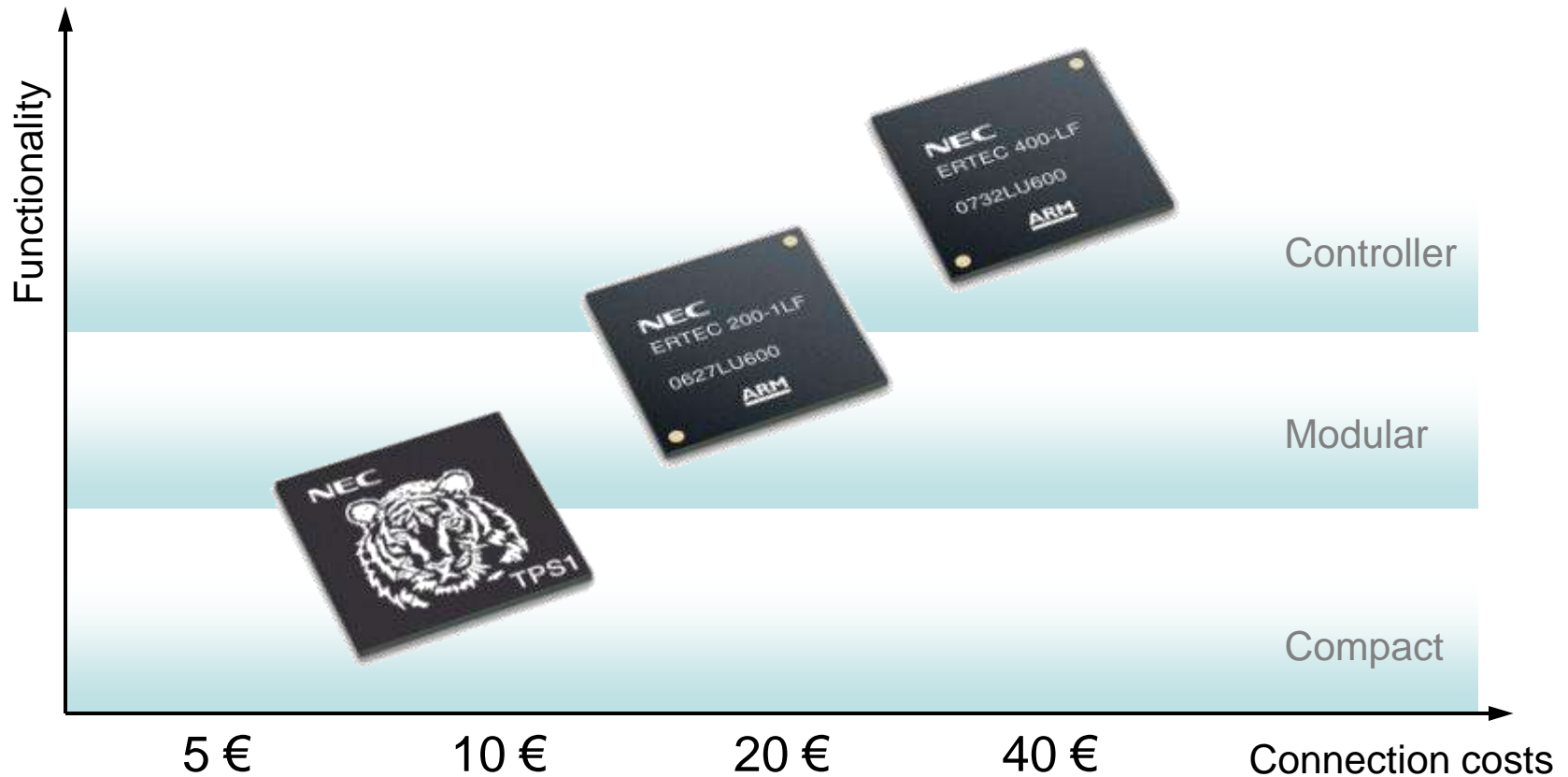
PROFenergy



- Since February 14th, 2010 according to the Chinese moon calendar
- Other years of the tiger took place in 1986 and 1998
- Citation: „Years of the tiger are typically characterized by dramatic changes or even revolutions.“
- Besides impulsiveness and uneasiness the tiger is also characterized by energy, fortitude and optimism ...



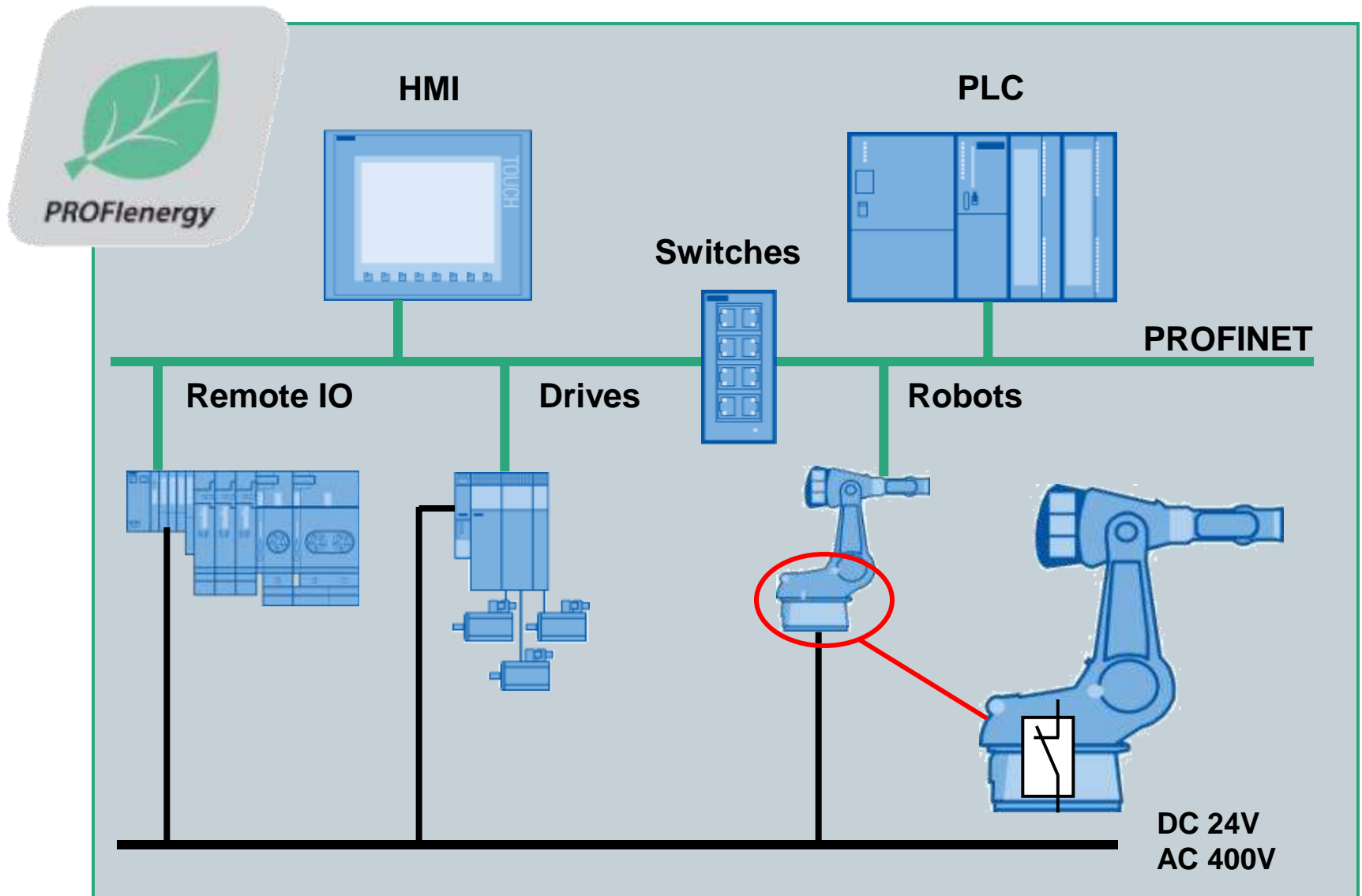
Source: Spiegel Online, February 17th, 2010, „Spekulanten wetten auf das Jahr des Tigers“, Author Claudia Wanner



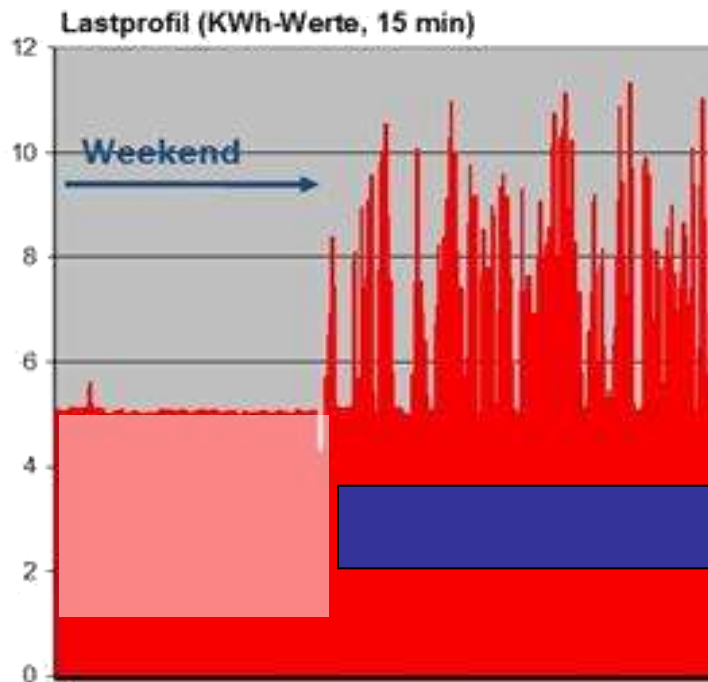


***PROFlenergy***

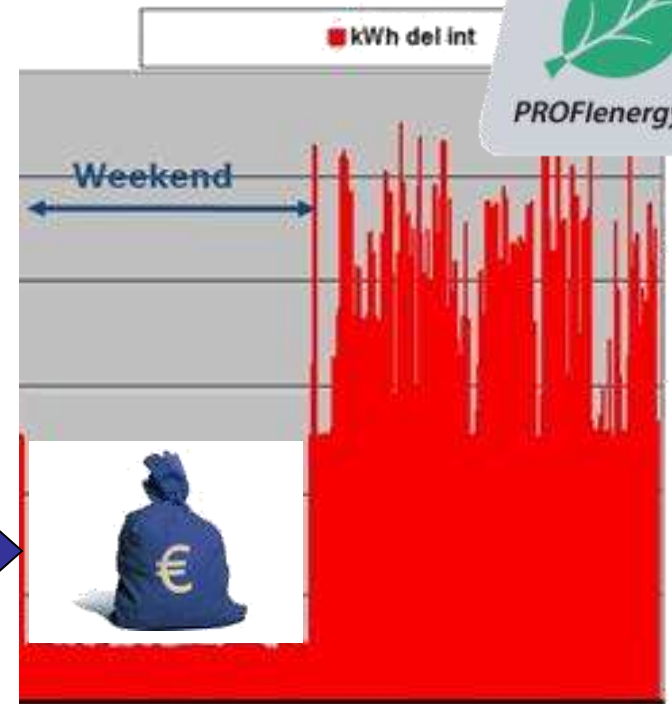
**PROFlenergy**



## Energy consumption without PROFlenergy



## Reduced energy consumption with PROFlenergy



**Energy saving of up to 80 per cent during shutdowns!**

Figures

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PROFlenergy

## SIEMENS

**PHOENIX  
CONTACT**

**Rexroth**  
Bosch Group

**MURR**  
ELEKTRONIK  
*stay connected*

**ABB**

 **BOSCH**

**SCA**  
SCHUCKER

**AIT**  
Institut für  
Automation & Industrial IT  
FH Köln



**Lenze**

**SEW**  
EURODRIVE

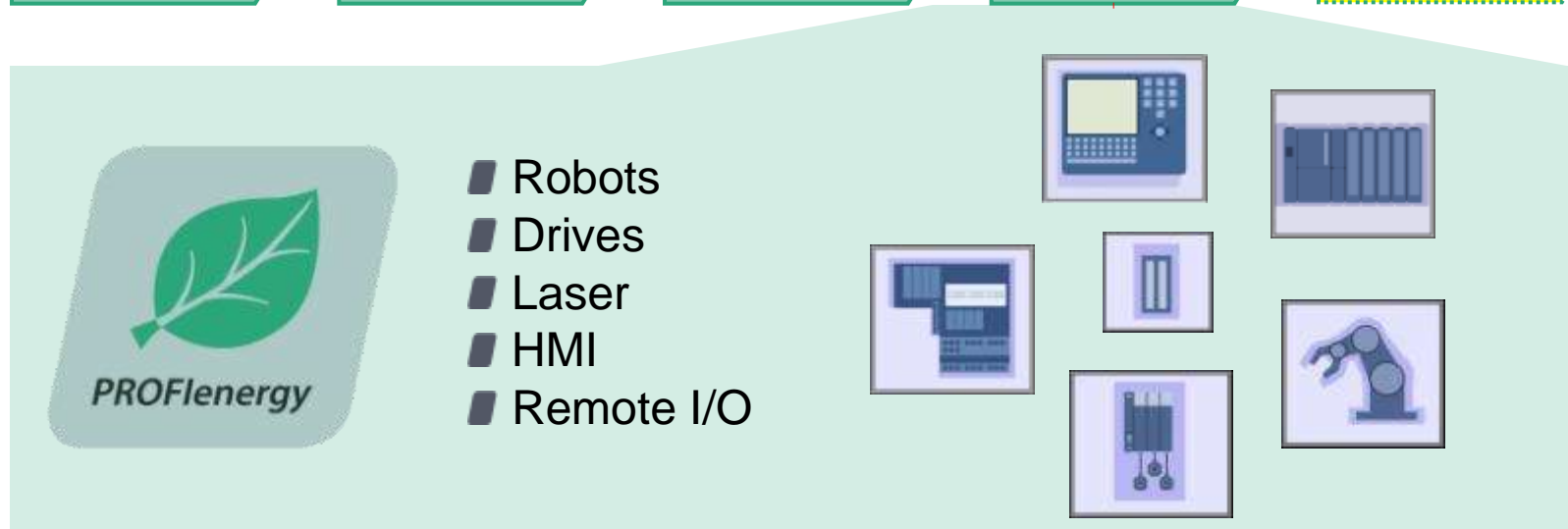
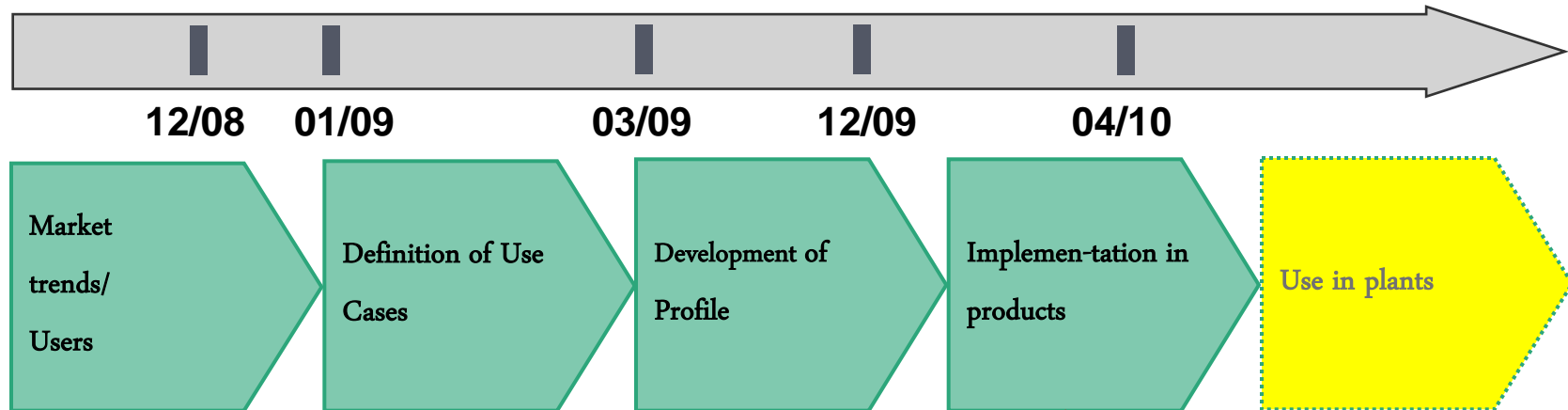
*Danfoss*

**hilscher**  
COMPETENCE IN  
COMMUNICATION

**ifak**

**WZL**  
RWTHAACHEN



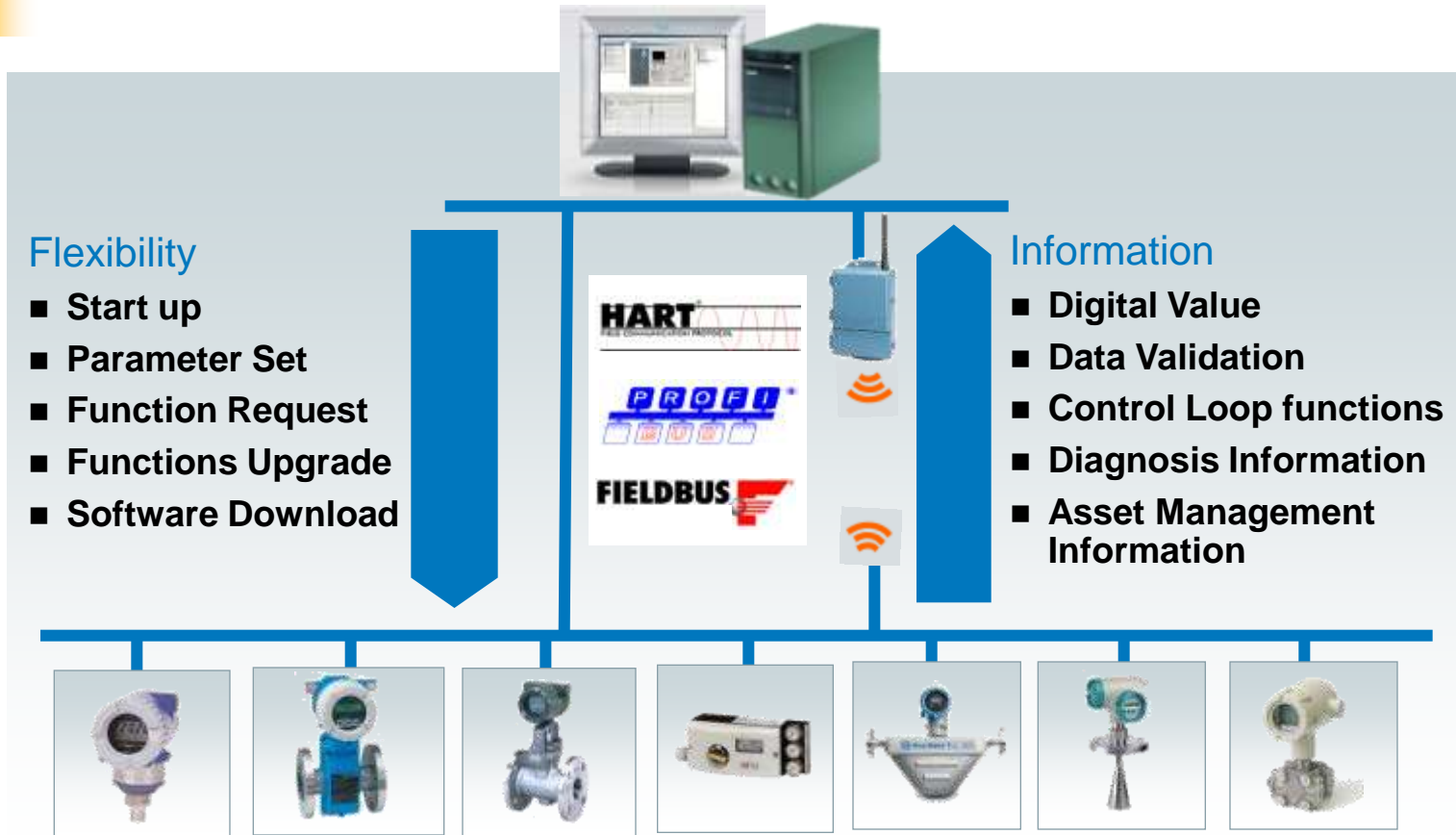


**Products with “PROFlenergy” onboard  
will be available on the market in 2010**



## FDI Cooperation

# Intelligent Sensor Systems communicate with the Automation System



Field device Integration wired or wireless is crucial

# Common Agreement to form FDI Cooperation

- Global automation suppliers unite to speed the harmonization of FDT and EDDL technologies for the benefit of all users

FDI Cooperation



- **ECT** (EDDL Cooperation Team)



## Common Agreement cont.

- Standardized integration of field devices based on a harmonized EDDL and FDT technology
- EDDL for HART, PROFIBUS, and FF will be harmonized
- Scalable for simple to sophisticated devices
- Compatibility with already installed devices
- Access to devices via FDI Device Packages

Harmonized EDDL for :  
- FOUNDATION Fieldbus  
- HART  
- PROFIBUS





# Technical Update

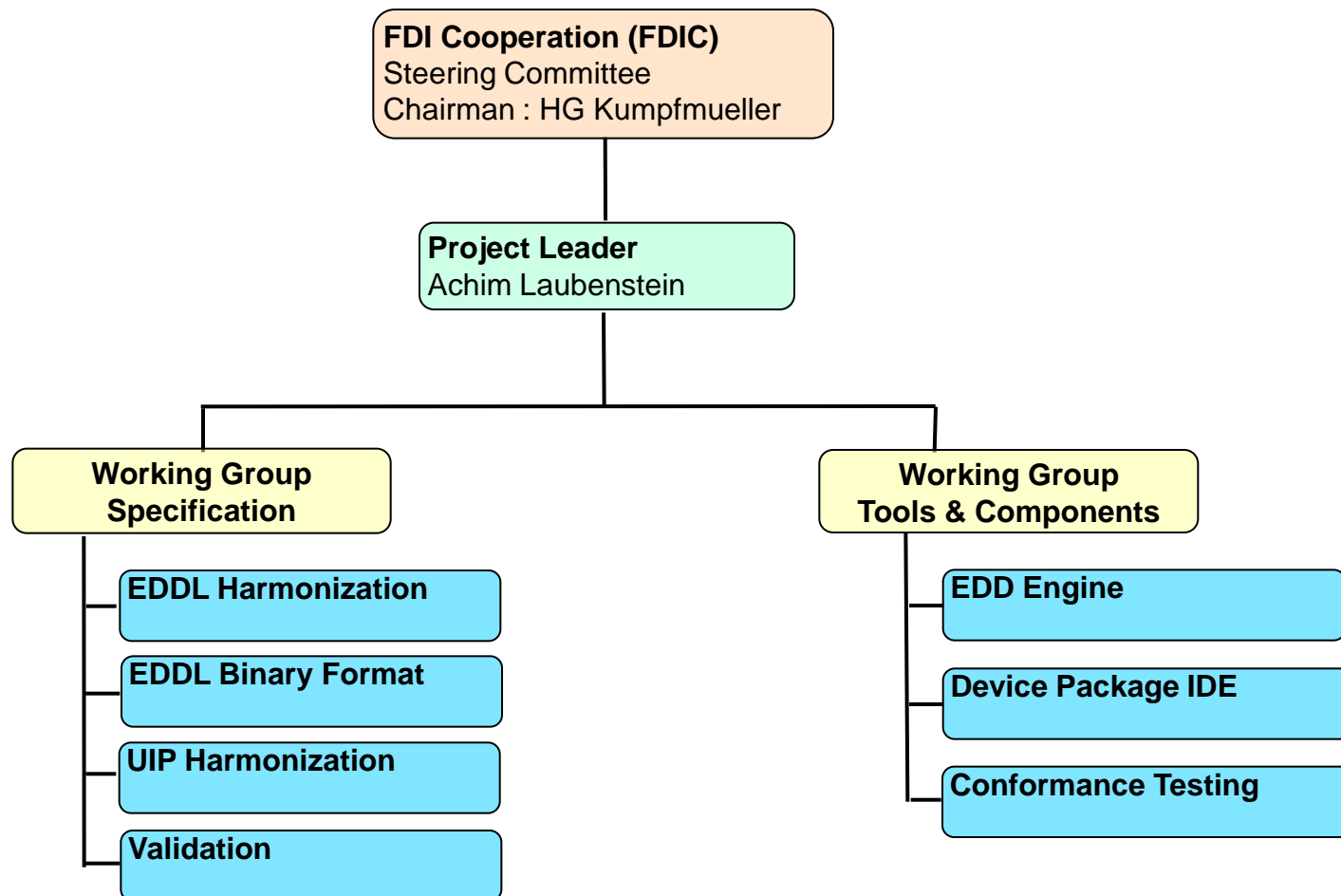
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- Time schedule

- |  |               |
|--|---------------|
| ■ Draft FDI specification:             | now available |
| ■ Final FDI Specification:             | End of 2010   |
| ■ Common interpreter:                  | End of 2011   |
| ■ Development and<br>test environment: | End of 2011   |

# Project organization

More than 25 specialists of the international vendors are working on various subprojects





## Summary

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- FDI combines best of both worlds EDDL and FDT/DTM
- All DCS Vendors are committed to support FDI
- With delivering the FDI device package, device vendors have access to all major DCS systems
- Main Customer associations NAMUR and WIB welcome and support FDI
- From simple to complex : FDI supports the whole range of devices.
- FDI is Microsoft Operating system independent.



Figures

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[www.profibus.com](http://www.profibus.com)

[www.profinet.com](http://www.profinet.com)

The screenshot shows the homepage of the PI (Profibus & Profinet) website. At the top, there is a navigation bar with links for 'myCountry', 'Contact', 'Imprint', 'Print', 'RSS', and a search bar. The main header features the PI logo and the tagline 'Share Our Vision for Automation'. Below this is a horizontal menu with links for 'Home', 'Community', 'Technology', 'Products', 'Training', 'Events', 'News & Press', and 'Downloads'. On the left side, there is a login section with fields for 'Username' and 'Password', and a list of links for 'COMMUNITY', 'TECHNOLOGY', 'PRODUCTS', 'TRAINING', 'EVENTS', 'NEWS & PRESS', and 'DOWNLOADS'. The main content area is divided into two large banners: 'PROFI® PROCESS FIELD BUS' and 'PROFI® INDUSTRIAL ETHERNET'. The PROFIBUS banner includes the text 'The World's most popular fieldbus' and a 'MORE >' link. The PROFINET banner includes the text 'The most powerful Industrial Ethernet' and a 'MORE >' link. Below these banners is a section titled 'PI: Your Automation Partner' with the text 'technology support for designers, managers, integrators & engineers' and a 'MORE >' link. On the right side, there is a 'Latest News' section with a table of recent news items, including 'Profile for Identification Systems for PROFIBUS' and 'Certification for PA Profile'. Below the news section are three smaller promotional boxes for 'ERTEC', 'Thousands of engineers use it... PROCENTEC', and 'PROFIBUS Diagnostics'. At the bottom right, there is a 'profichip' logo with the text 'automation in silicon' and an image of a chip.

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