

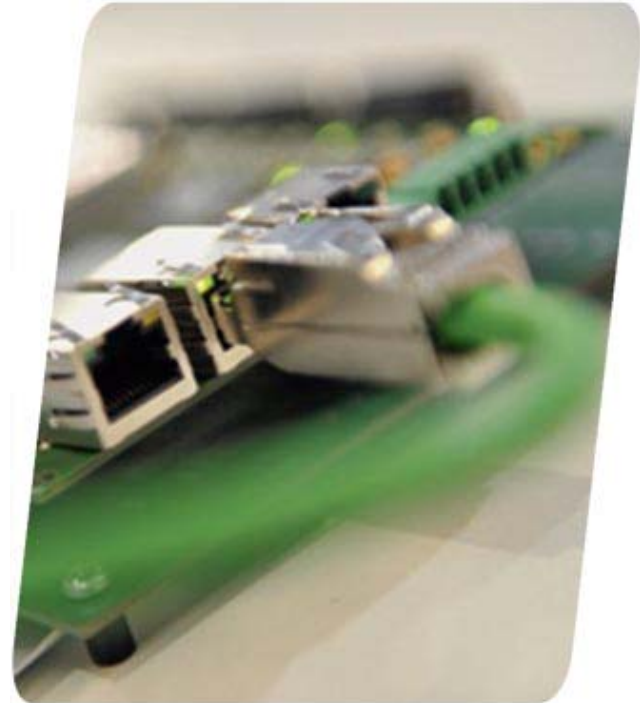
The leading  
Industrial  
Ethernet  
Standard



Management  
Summary

## Trends in Automation

- From centralized control system structures to distributed on-site units
- Use of Ethernet in all levels of automation
- Increased use of open IT standards in automation
- Tight merging of the IT and automation worlds



## Agenda

- PI
- Organization
- Benefits
- Market
- Conclusion



the leading  
Industrial Ethernet  
Standard

- the solution for all markets
- based on comprehensive and complete set of functions
- the global standard
- in your application
- gives you a competitive advantage

## Agenda

PI  
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PI (PROFIBUS & PROFINET International)

Regional PI  
Associations

PI Competence  
Centers

PI Test  
Laboratories

PI Training  
Centers

Technologies



Fieldbus based  
Automation  
Technology

Proxy Technology



Ethernet based  
Automation  
Technology

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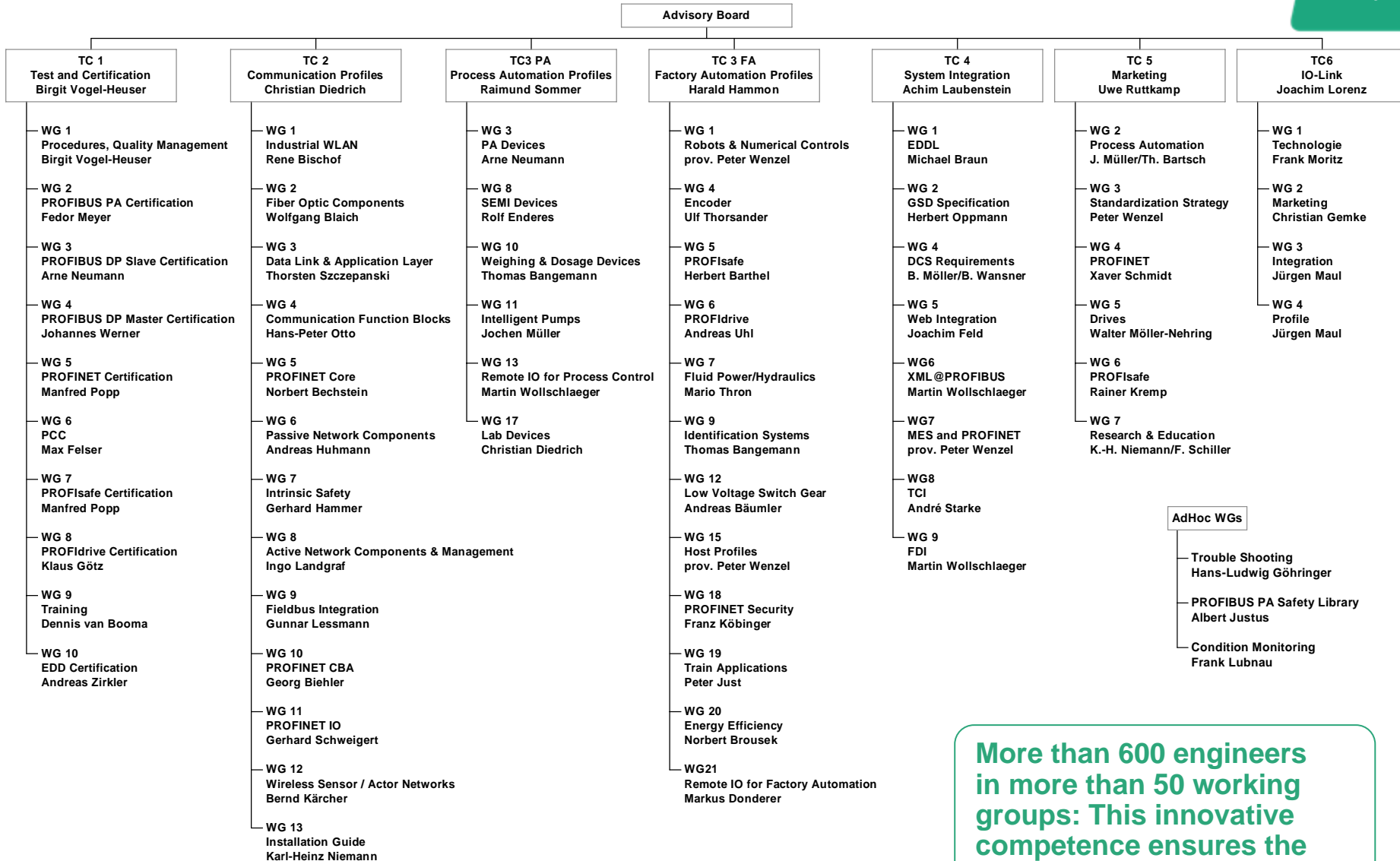


PI worldwide:

27 Regional PI Associations (RPA)

PI Technical Support:

40 PI Competence Centers (PICC)  
18 PI Training Centers (PITC)  
10 PI Test Laboratories (PITL)



**More than 600 engineers  
in more than 50 working  
groups: This innovative  
competence ensures the  
technological future of  
PROFIBUS and PROFINET**

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More than  
**31,400,000**  
installed nodes



More than  
**14,500,000**  
installed nodes



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## Standardized

- IEC standard 61158 and 61784
- ISO 15745
- Based on IEEE 802.3
- Openly available specifications



## Standardized and accepted in China

- To date, the only Ethernet standard with GB/Z Approval by the Standardization Administration in China (SAC)



**Global market access thanks to international standard**



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## Factory Automation



## Motion Control



## Process Automation



### The comprehensive standard

- Established in factory automation
- Proven in Motion Control applications
- Used in the process industry for inbound and outbound applications
- PROFINET in standardization for the primary process

**One system for all applications**

Agenda

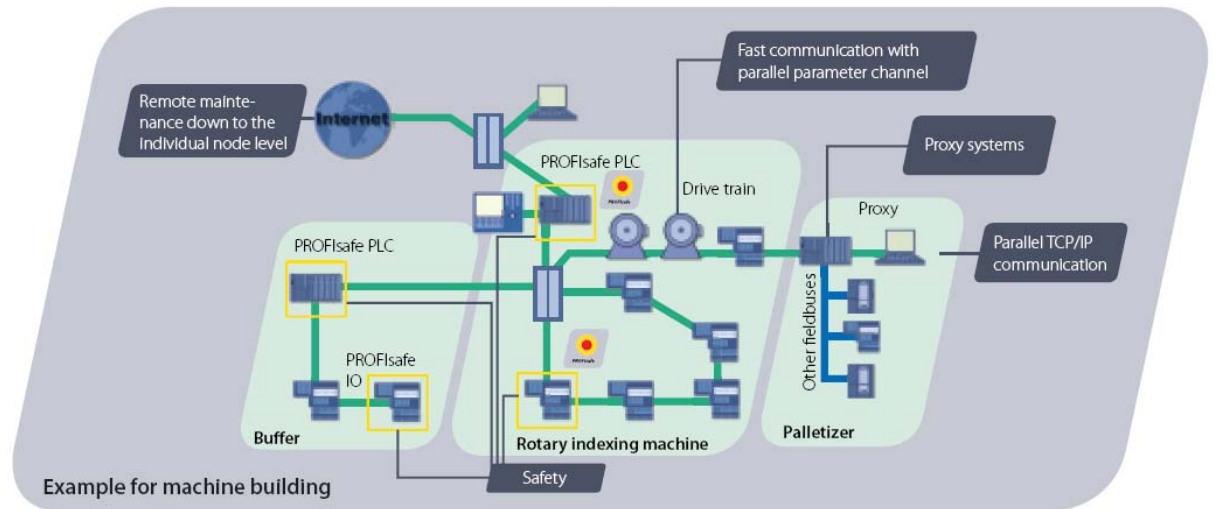
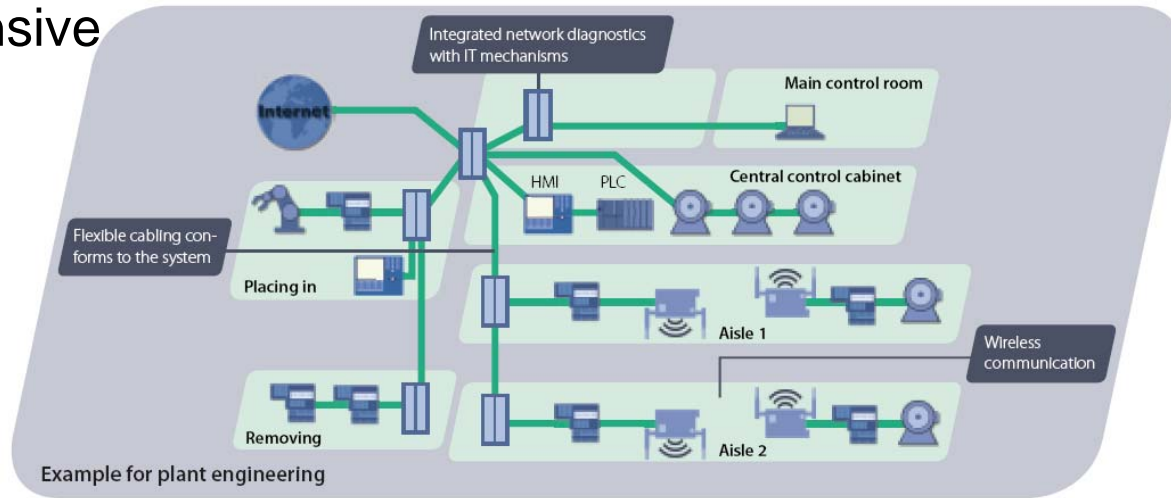
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- comprehensive functions
- in your application



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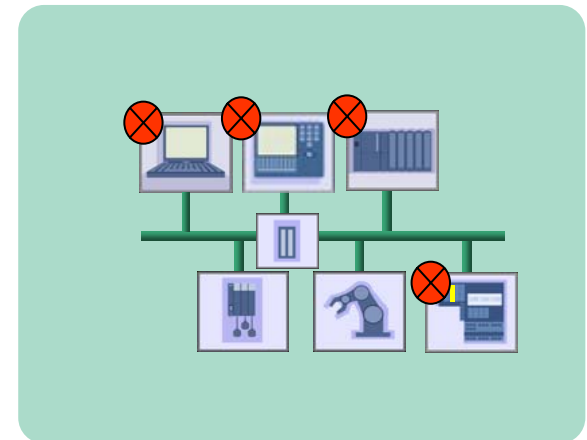
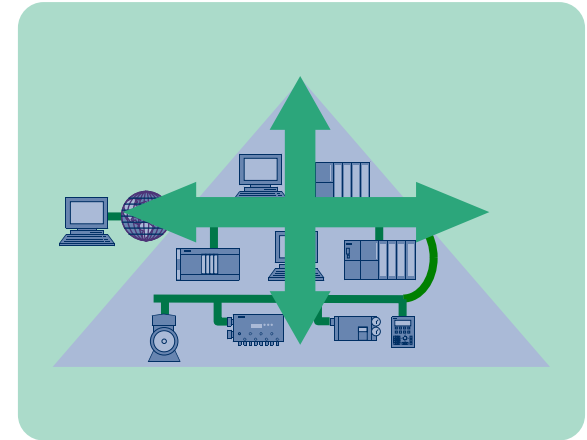
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## PROFINET the basis for...

- Seamless communication – horizontally and vertically
- Diagnostics - integrated and continuous for devices and systems
- ... and all independent of location



**PROFINET – for more continuity (uniform structures)**

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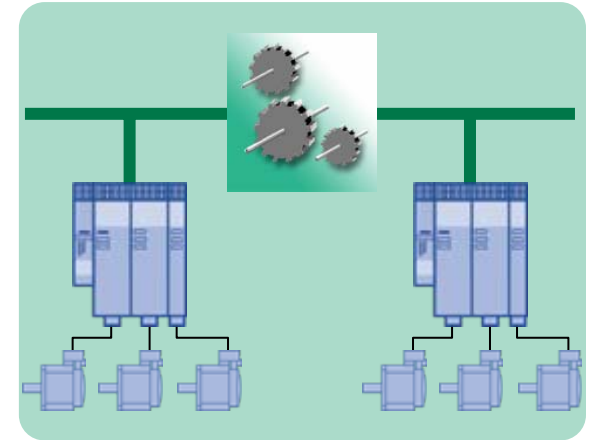
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## PROFINET for...

- More nodes
- Higher performance
- Better precision
- Higher output
- ... greater performance data of your machine or plant



**PROFINET – for more nodes and better performance**

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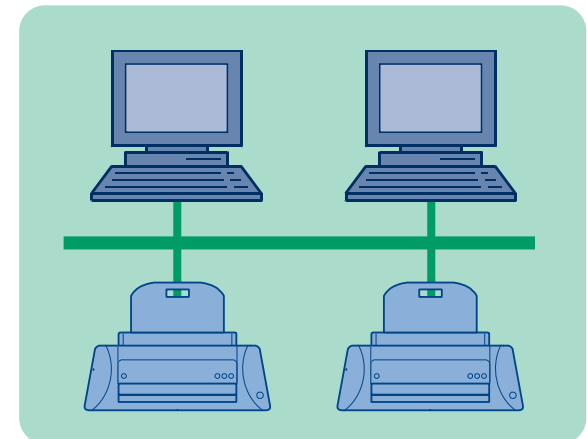
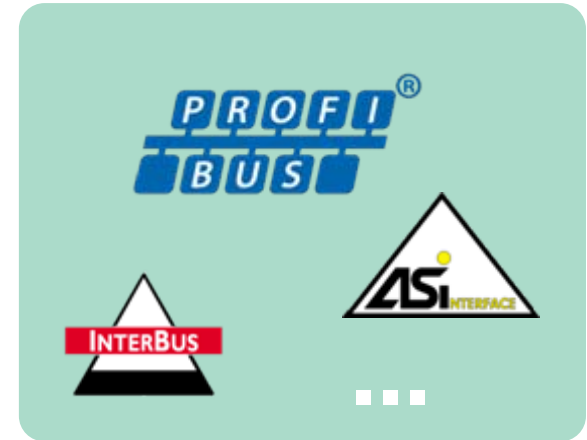
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## PROFINET protects the investment you have made, such as...

- Acquired automation components
- Installed fieldbus systems
- Already installed Ethernets
- while enabling you...
- To continue using existing knowledge and tools easily



**PROFINET – the seamless integration of existing system**

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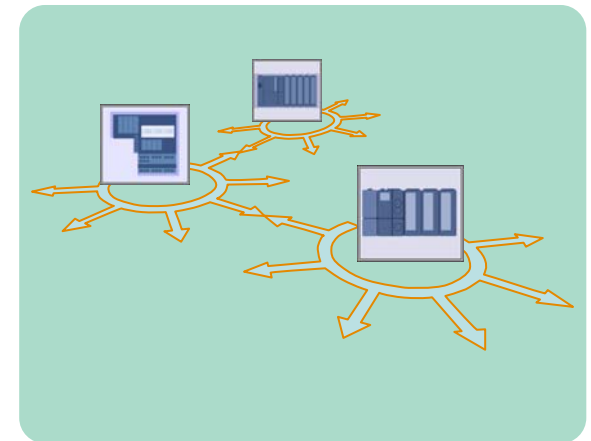
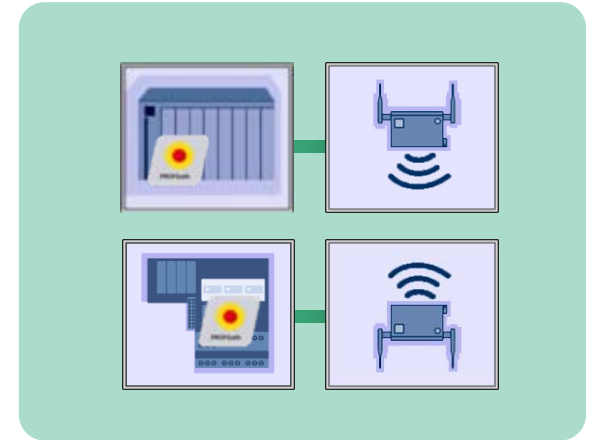
Benefits

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## with PROFINET you can...

- Automate on a wireless and at the same time failsafe basis
- Synchronize intelligent drive technology
- Structure your production on a distributed and intelligent basis
- ... and much, much more!



**PROFINET enables you to have new, innovative applications**

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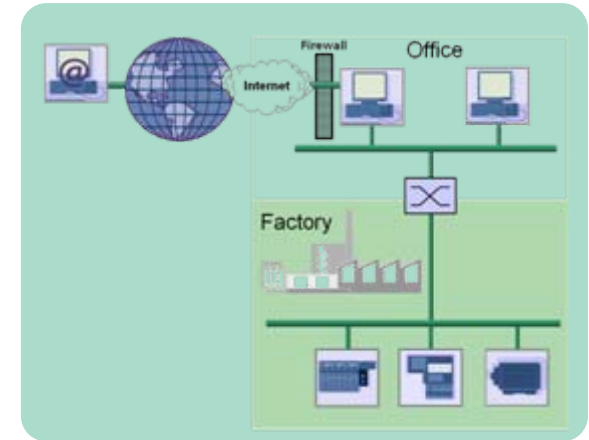
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## PROFINET...

- Using IT functions without limitations
- One system for all applications – accepted and supported worldwide
- Multi-vendor system
- ... without compromises!



**PROFINET enables you the use of open standards**

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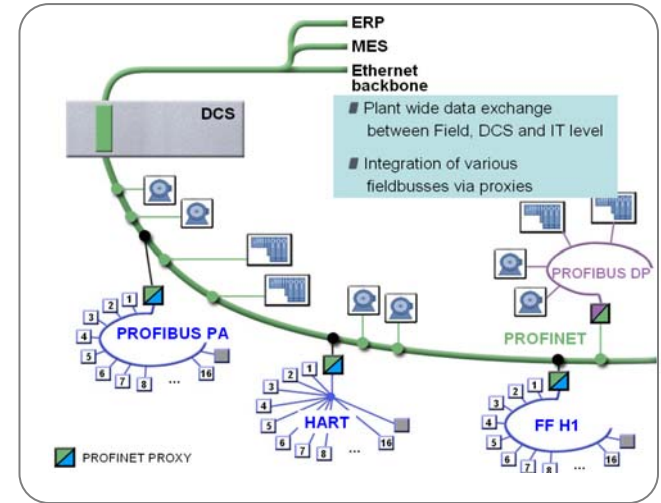
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## PROFINET...

- covers all technical requirements also of the process industry

- solves also new challenges like energy saving





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## PROFINET offers ...

**... more continuity and uniform structures**

**... more nodes and better performance**

**... seamless integration of existing systems**

**... new, innovative applications**

**... continuous enhancements**

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## End users



## Device vendors



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# AIDA

PROFIBUS  
Nutzerorganisation e.V.  
Karlsruhe

Press release on SPS/ IPC/ DRIVES

November 2004

The German automobile manufacturers

- AUDI AG
  - BMW AG
  - DaimlerChrysler AG for Mercedes Car Group assembly plants (Standard Integra MCG), and
  - Volkswagen AG for the Volkswagen brand
- have agreed on a joint procedure regarding the Industrial Ethernet issue.

**In future, the PROFINET protocol standard with integrated personal safety will be used.**

The aim is simple and uniform link-up of the automation components used.

## Safety through accepted and proven technology

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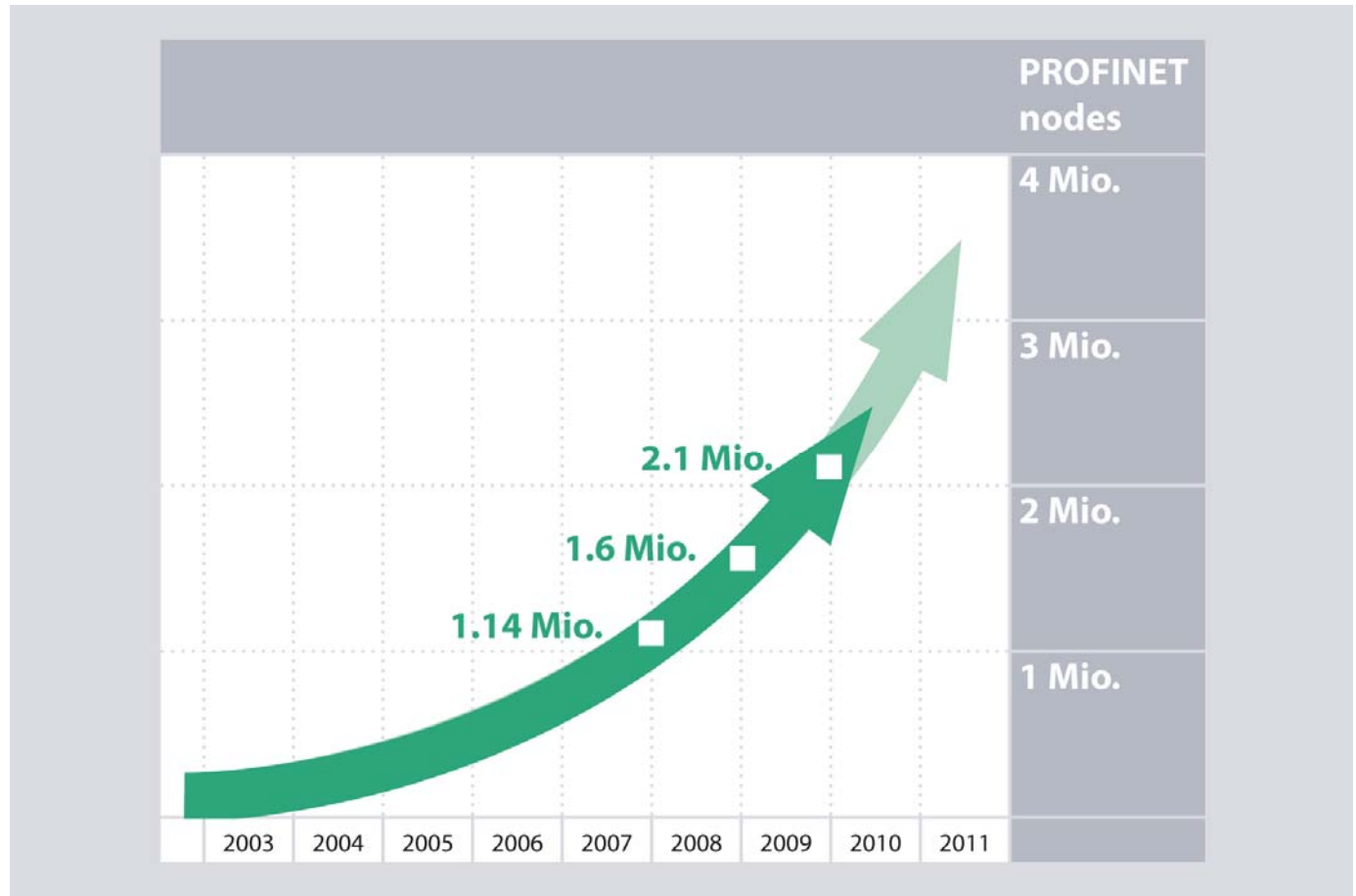
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**In difficult economic climate 10 % greater sales compared to 2008**

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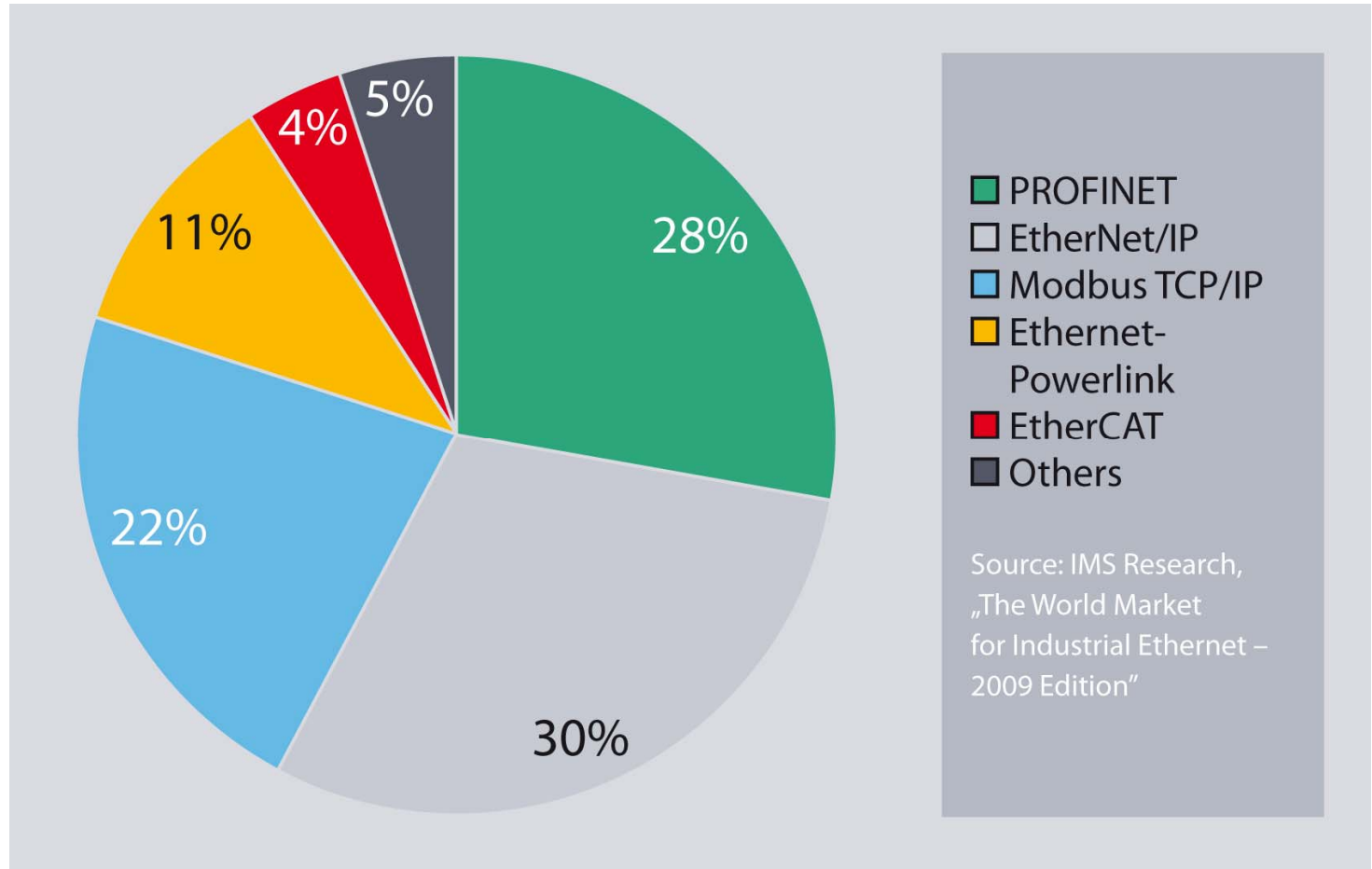
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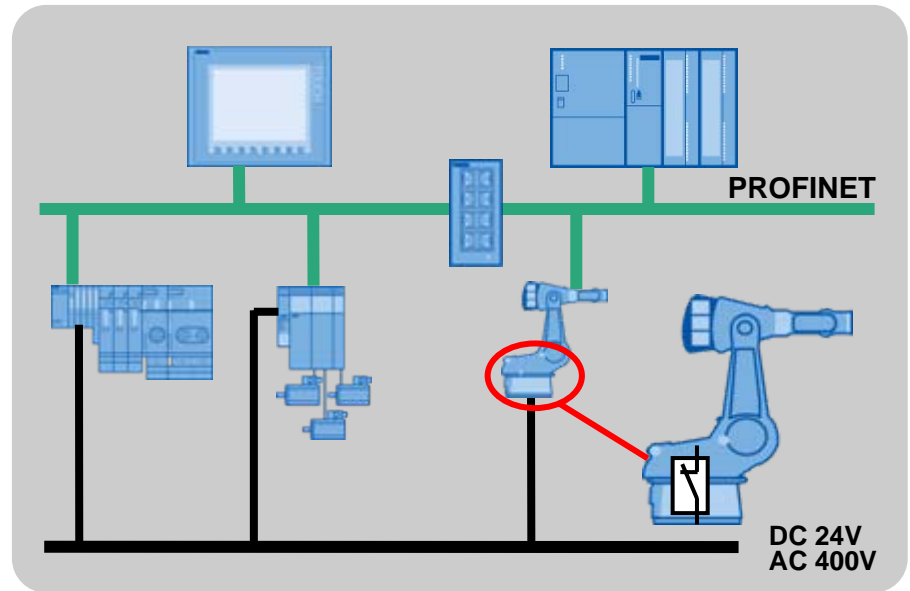
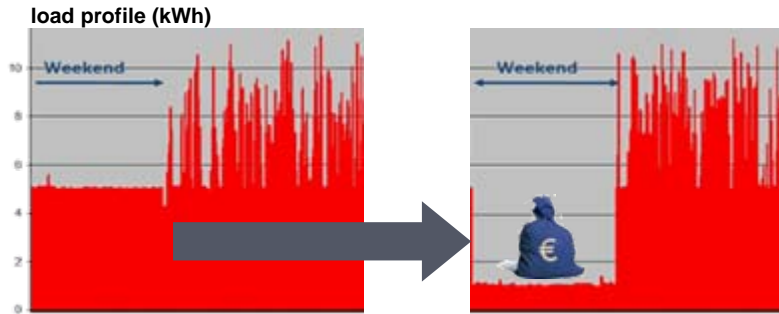
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**IMS Research forecast for PROFINET: +8.7%**

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**PROFINET – innovative and user-oriented**

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- The fieldbus based on Ethernet for all applications
- Covers the key markets and key technologies in automation – both today and in the future
- Supported by the greatest automation organization for communication solutions