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**Economic Benefits of Standardization  
 - Result of a German Scientific Study-**

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Standards benefit us all. Economic, rational, more competitive.



**Agenda**

- Introduction
- Benefits for Business
- Benefits for the Economy as a Whole
- Conclusions: **EUR 15.9 billion** a year



Standards benefit us all. Economic, rational, more competitive.



**Standards pay off**

The economic benefits of standardization are worth **EUR 15.9 billion** a year.



Standards benefit us all. Economic, rational, more competitive.

**Results of the first comprehensive study of the benefits of standardization:**

- Standards aid and accelerate technical progress
- Standards create new markets
- Standards are worth the investment

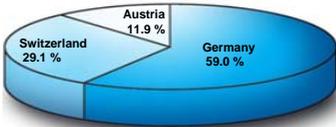




Standards benefit us all. Economic, rational, more competitive.

**Survey of businesses**

Data from three countries



Country	Percentage
Switzerland	29.1 %
Austria	11.9 %
Germany	59.0 %



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**Survey of businesses**

680 of the 4,000 businesses in Germany, Switzerland and Austria which were selected for the survey submitted detailed responses (49 questions with more than 340 separate sections).



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### Focus of survey

- Aerospace
- Construction
- Engineering
- Manufacture of metal products
- Manufacture of rubber and synthetic products
- Chemical industry (excluding pharmaceuticals)
- Automobile industry
- Electrical engineering



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### Characteristic: high level of standards activity

80 % of the businesses surveyed in these sectors work with standards.



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### Differentiated research

All significant differences were studied in relation to:

- Country
- Active involvement in standards work
- Sector
- Size of company
- Standardization department
- Management level



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### Interviews

with representatives of the public interest, business and the state:

- Bundesverband der Deutschen Industrie, BDI
- Bundesverband der Unfallkassen
- Carl Zeiss, Aalen
- Deutscher Gewerkschaftsbund, DGB
- Deutscher Industrie- und Handelstag, DIHT
- Deutscher Städtetag
- Hauptverband der gewerblichen Berufsgenossenschaften
- Stiftung Warentest
- Umweltbundesamt
- Verbraucherrat, DIN



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### Good reputation

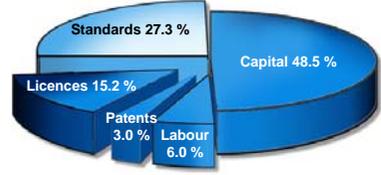
Industry-wide standards

- are highly regarded
- are considered to be accurate
- facilitate entry to new markets
- improve quality
- stimulate technical and economic progress



Standards benefit us all. Economic, rational, more competitive.

### Economic growth\* greatly influenced by standards



\* During the period from 1960 to 1990, the average annual economic growth in the Federal Republic of Germany was 3.3 %.



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**Standardization network**

We distinguish between:

- International Standards
- European Standards
- National Standards
- National preliminary standards
- CEN Workshop Agreements
- Publicly Available Specifications

Awareness of standards



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**What businesses expect of industry-wide standards:**

- Up-to-date
- Concrete solutions
- Transparency and flexibility
- Self-imposed quantitative limits



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**Standards – a strategic tool:**

- Half the businesses surveyed are actively involved in standards work.
- One in four has a designated standardization department.



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**DIN's way of working meets with approval**

- Standards work is done by selected specialists.
- Standards work uses modern electronic communication methods.
- Standards work is carried out during a defined period.

**Its clear objective:**  
Less bureaucracy – more efficiency



Benefits for business Standards for a head start



**Think economics, do business:**

Standards are effective, standards mean profit.



Benefits for business Standards for a head start

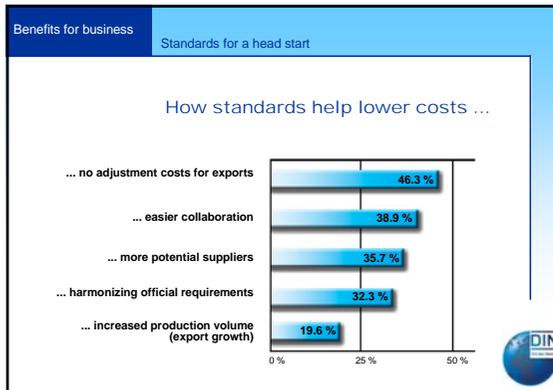


**Standards turn good ideas into successful business strategies**

**Passive benefit:**  
It is useful to use standards

**Active benefit:**  
It is twice as useful to develop standards and to use them





Benefits for business Part A

### The benefits of standards for business

#### Results and examples

DIN

- Benefits for business Part A: Overview
1. Standards – a major factor in successful business strategies
  2. Standards mean a potential competitive advantage
  3. Standards are global
  4. Standards lower costs
  5. Standards improve market position
  6. Standards facilitate cooperation between businesses
  7. Standards reduce risks
  8. Standards and product life cycles
  9. Standards mean more security
  10. Standards are in the public interest
  11. Standards by consensus or by majority vote?
  12. Standards bodies are indispensable
- 
- DIN

Benefits for business Standards are strategically important

### 1. Standards – a major factor in successful business strategies

Businesses actively involved in standardization ...

- ... have more influence
- ... have many other advantages
- ... pre-empt legislation

The facts

DIN

Benefits for business Standards are strategically important

### 1.1 Gain influence

More influence in European and international standardization requires more active national involvement.

Praxisbeispiel ▶

DIN

Benefits for business Standards are global

### 3. Standards are global

- Conformance as a strategy
- Standards open up paths – worldwide

The facts

DIN

Benefits for business Standards are global

### 3.2 Standards open up paths – worldwide

Uniform European and International Standards:

- facilitate agreements (62 %)
- reduce trade barriers (54 %)

In short: they reduce the costs of trade.

Praxisbeispiel ▶



Benefits for business Standards lower costs

### 4. Standards lower costs

- Lower transaction costs
- Lower production costs
- More efficient communication




Benefits for business Standards improve market position

### 5. Standards improve market position

- More market power in dealing with suppliers
- Market growth at the best possible level



The facts ▶



Benefits for business Standards facilitate cooperation

### 6. Standards facilitate cooperation between businesses

- Increased opportunities for strategic alliances
- Synergies lower costs and increase profits



The facts ▶



Benefits for business Standards facilitate cooperation

### 6.1 More opportunities for strategic alliances

"Coding" knowledge can make it easier for businesses to collaborate and establish strategic alliances.

Industry-wide standards facilitate cooperation between businesses at the same value-added level.



Benefits for business Standards facilitate cooperation

### 6.2 Synergies lower costs and increase profits

Cooperation at a normative level can enable businesses to fully exploit cost-saving potential.

However: Too much cooperation could result in monopolistic business structures.



Benefits for business Standards and product life cycles

### 8.1 Relevance of standards increases with length of product life cycles

Standards are a stabilizing factor, often accompanying a product for decades.

Standards are particularly important in markets with product life cycles longer than five years.



Benefits for business Standards mean more security



### 9. Standards mean more security

- Standards help reduce the number of accidents
- Involvement in standards work increases awareness of the importance of product safety



Benefits for business Standards are in the public interest



### 10. Standards are in the public interest

- Standards reduce the risk of liability
- Standards ease the burden on the state



Benefits for business Standards are in the public interest

### 10.2 Standards ease the burden on the state

Standards ease the burden on the state because they are prepared using the expert knowledge of the stakeholders.

Current legislation refers to 20 % of DIN Standards.

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Benefits for business Standards work



### 11. Standards by consensus or by majority vote?

- Businesses prefer a majority vote
- Minority groups prefer consensus
- Standards work has to use modern management and communication methods



Benefits for business Standards bodies are indispensable



### 12. Standards bodies are indispensable

- They collate expert knowledge
- They help businesses save money
- They are authorized to represent interests
- They have international influence



Benefits for business Standards bodies are indispensable

### 12.2 Standards bodies help businesses to save money



Without the national standards bodies DIN/ON/SNV, 80 % of businesses would face additional costs averaging EUR 276,000 a year.  
Potential savings would only amount to about EUR 77,000 a year.



Benefits for business Standards bodies are indispensable

### 12.3 Authorized representatives



DIN/ON/SNV

- represent the interests of their own country
- keep businesses informed about current standards work
- translate European and International Standards into their own language



Economic benefits Part B

### The economic benefits of standardization

#### Results



Economic benefits Part B: Overview



1. Every community needs standards
2. Communication needs standards
3. Growth needs standards
4. Innovation needs standards
5. Production needs standards
6. Foreign trade needs standards

Conclusion: Standards are indispensable



Economic benefits Foreign trade needs standards

### 6.1 Standards mean cost and quality advantages

Standardized product characteristics increase consumer confidence and safety.  
Standardized product quality opens up new markets.

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Economic benefits Foreign trade needs standards

### 6.2 Standards are an indicator of national economic performance

An efficient economic system draws much of its strength from its ability to respond and adapt to technical change.  
German standards keep pace with technical developments, and also set the pace for them.

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Economic benefits Foreign trade needs standards

### German standards benefit imports and exports

The European and International Standards adopted by Germany give German manufacturers a competitive advantage. The German contribution to International Standards boosts the German foreign trade surplus.



Economic benefits Standards are indispensable

### Standards are a technical necessity which makes economic sense

- They provide a dependable platform for technical progress.
- They create ideal conditions for an economically effective strategy.



Economic benefits Standards are indispensable

### Modern economies cannot do without up-to-date standards

To conclude:  
The overall economic benefit of standardization is greater than the sum of the individual economic advantages.



Types of benefits

**Direct and indirect effects**

- Direct effects: e.g. Rationalization
- Indirect effects: e.g. Impact on third parties

**Quantitative and qualitative effects**

- Quantitative effects: e.g. Savings on material and energy (in monetary units)
- Qualitative effects: e.g. Customer satisfaction, improved image

**Internal and external effects**

- Internal effects: e.g. Impact on a business
- External effects: e.g. Impact on the market



Categorizing standards

**1. Substance and application**

- Service standard
- Performance capability standard
- Basic standard
- Delivery standard
- Dimension standard
- Product standard
- Test standard
- Material standard
- Process standard

**2. Effect of standards**

- Rationalization
- Interoperability
- Quality
- Security
- Information



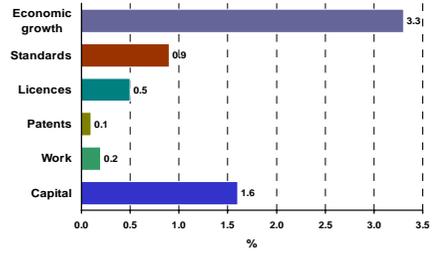
Beneficial effects of standards

	Changed product price	Changed product volume (increase in amount produced)	Changed production costs	Changed customer behaviour	Changed transaction costs
Rationalization standard	x	xx	xx	o	o
Interoperability and interface standard	o	x	xx	x	xx
Quality standard and minimum requirements	x	xx (increase in demand)	x	xx	x
Safety standard	x	xx (increase in demand)	x	xx	o
Information and product designation standard	o	o	x	o	xx

Figure 2: Beneficial effects of standards



## Factors Contributing to Economic Growth



## Standardization Benefits

### Economic Benefits of Standardisation - Summary of results -

- The benefit to the national economy amounts to more than US \$ 15 bn per year
  - Standards contribute more to economic growth than patents and licences
  - Companies that participate actively in standards work have a head start on their competitors in adapting to market demands and new technologies.
  - Transaction costs are lower when European and International Standards are used.
  - Research risks and development costs are reduced for companies contributing to the standardization process.
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## Thank you!

### Questions & Discussion

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