

IPNA

**Добър ден!**

**Education and ISO 9000 in SMEs**


**the international standard**

Dr. Helmut Krassnigg place: Slara Zagora  
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**Content**

1. Thoughts about quality
2. ISO 9000 introduction
3. ISO 9000 explanation
4. Ressource Management (ISO 9000 section 4)
5. Best practise education and ISO in SME



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**Definitions of quality**

I. Thoughts about quality

- Quality
  - Etymology: from Old French *qualité*, from Latin *qualitas*, from *qualis* >of what kind
- Quality → ISO 9000:2005  
Degree to which a set of inherent characteristics fulfils requirement
- In general
  - Technical:  
A specific characteristic of an object (the qualities of ice - i.e. its properties)
  - Philosophical:  
The essence of an object (the quality of ice - i.e. "iciness")
  - Practical:  
The achievement or excellence of an object (good quality ice - i.e. not of inferior grade)
  - Metaphysical:  
The meaning of excellence itself

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**Customer's definition of quality**

I. Thoughts about quality

Quality is "meeting or exceeding customer expectations".

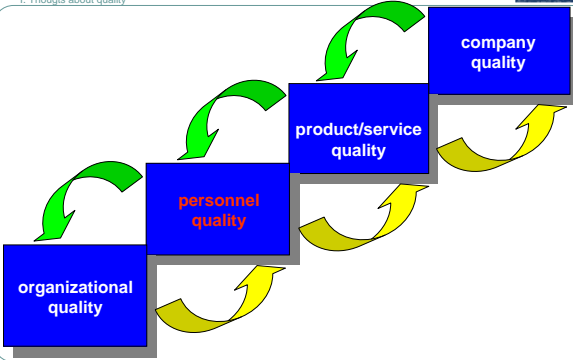
**Delighted customers**

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**Total quality thinking**

I. Thoughts about quality



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**ISO 9000 family**  
(17.12.2005) I. ISO 9000 introduction

ISO 9000:2005

ISO 9001:2000

ISO 9004:2000

Quality management systems	Quality management systems	Quality management systems
Fundamentals and vocabulary	Requirements = certification standard	Guidelines for performance improvements

In most cases, an organization claiming to be "ISO 9000 registered" is referring to ISO 9001!

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## ISO 9000...

II. ISO 9000 introduction



... is the only standard which is accepted by all accredited certification bodies in the EU.

... can differ from one organization to another.

... certification does not guarantee the compliance (and therefore the quality) of end products and services, it certifies that consistent business processes are being applied.

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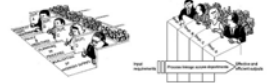
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## The focus is on ...

II. ISO 9000 introduction



- Customers
- Process approach
- Continual improvement
- Involvement of people / personnel



further on:

- Monitoring key processes
- keeping proper records
- checking for defects & corrective action
- reviewing the whole system

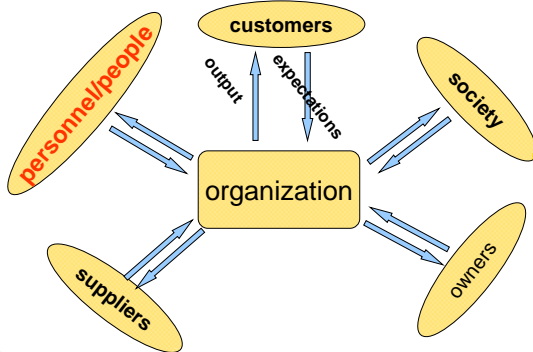


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## Interested parties

II. ISO 9000 introduction

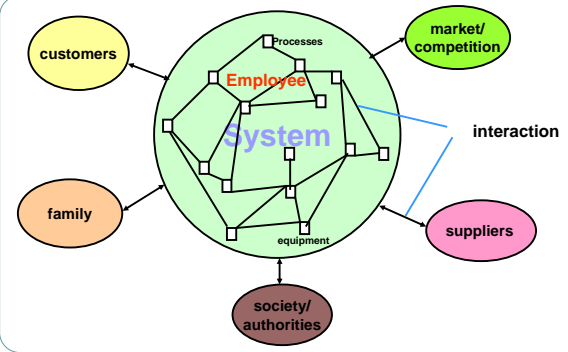


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## System & interaction

II. ISO 9000 introduction

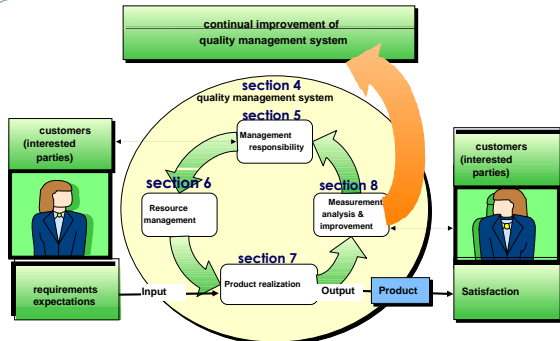


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## Process-based QMS

III. ISO 9000 explanation



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## Requirements ISO 9001

III. ISO 9000 explanation



The requirements come in Sections 4 to 8.

- Section 4 is entitled General Requirements
- Section 5 is entitled Management Responsibility
- Section 6 is entitled Resource Management
- Section 7 is entitled Product Realization
- Section 8 is entitled Measurement, analysis and improvement



In each of these areas, ISO 9001:2000 seeks to set out key requirements, which if met will ensure consistency.

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## Compulsory documents

III. ISO 9000 explanation



The standard specifies six compulsory documents:

1. Control of Documents (4.2.3)
2. Control of Records (4.2.4)
3. Internal Audits (8.2.2)
4. Control of Nonconforming Product / Service (8.3)
5. Corrective Action (8.5.2)
6. Preventive Action (8.5.3)



Tokyo Tsukiji fish market

In addition to these, ISO 9001:2000 requires a Quality Policy and Quality Manual (which may or may not include the above documents).

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## „What keeps organizations away from success?“

III. ISO 9000 explanation



- Inefficient processes
- Insufficient qualification
- Poor resources
- „Not invented here“
- Unclear objectives
- Unsupportive corporate culture
- Rigid organizational structure

(survey Arthur D. Little)

also mentioned:

„20 % of the changes are based on plans and reason, 80 % due to economic pressure“.

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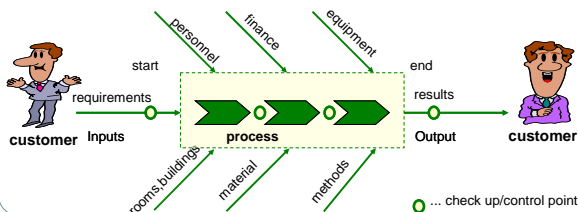
## Definition process (EN ISO 9000)

III. ISO 9000 explanation



Interrelated activities, transforming inputs into outputs

**Side note:** Inputs for one process normally are results of other processes



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## Resource management (ISO 9000, section 6)

IV. Resource Management (ISO 9000 section 6)



### 6.1 Provide quality resources

- Identify resources needed to support the quality system.
- Identify resources needed to improve customer satisfaction and provide them.

### 6.2 Provide quality personnel

#### 6.2.1 Use competent personnel

Ensure that your personnel have

- the right experience
- the right education
- the right training
- the right skills

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## Resource management (ISO 9000, section 6)

IV. Resource Management (ISO 9000 section 6)



### 6.2.2 Support competence

- Define acceptable levels of competence.
- Identify training and awareness needs.
- Deliver training and awareness programs.
- Evaluate effectiveness of training and awareness.
- Maintain a record of competence.

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## Resource management (ISO 9000, section 6)

IV. Resource Management (ISO 9000 section 6)



### 6.3 Provide quality infrastructure

- Identify,
- infrastructure needs,
  - building, workspace,
  - hardware & software,
  - equipment.
- provide and maintain them.

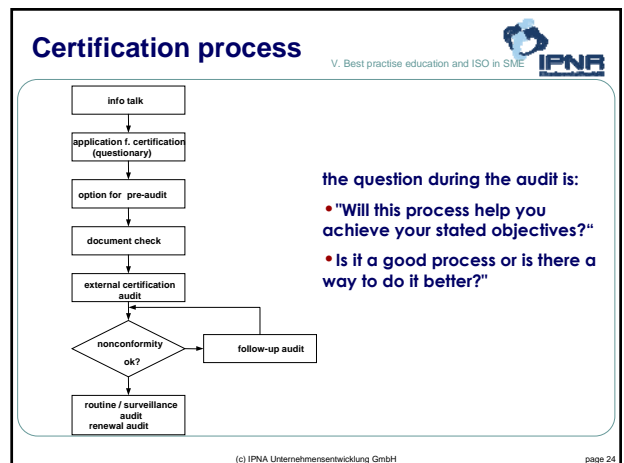
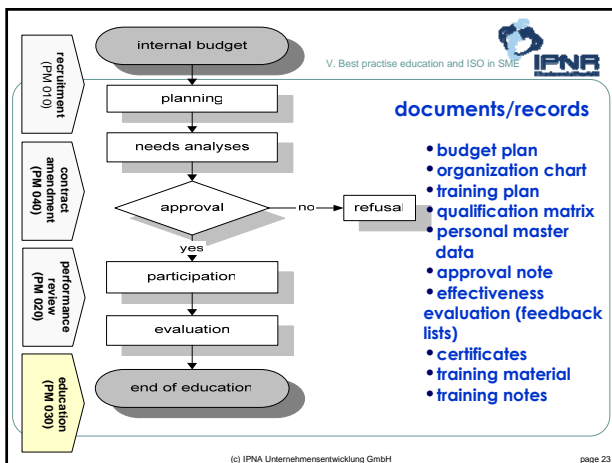
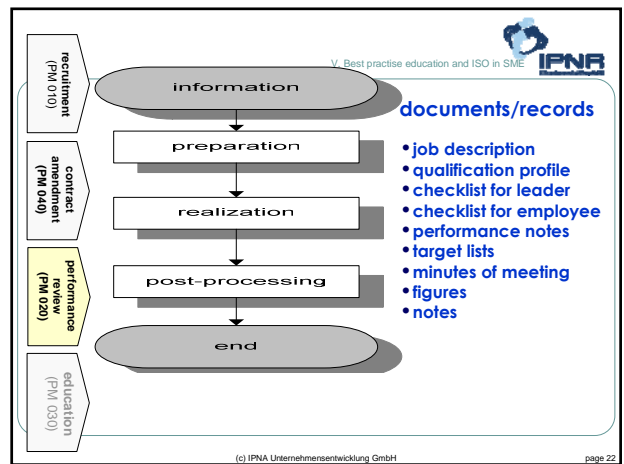
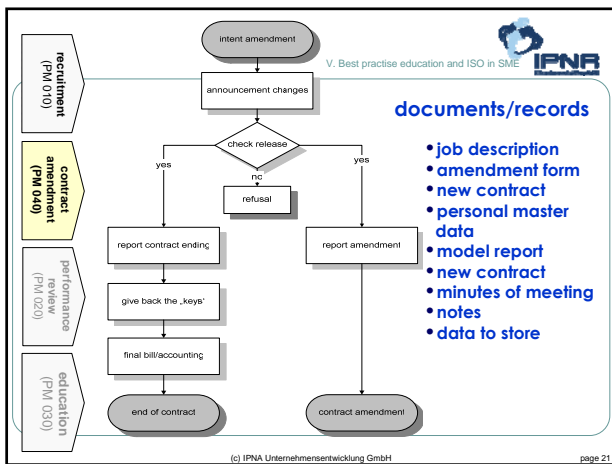
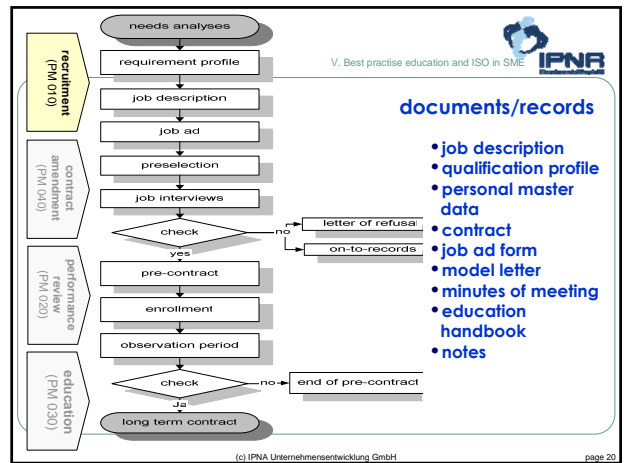
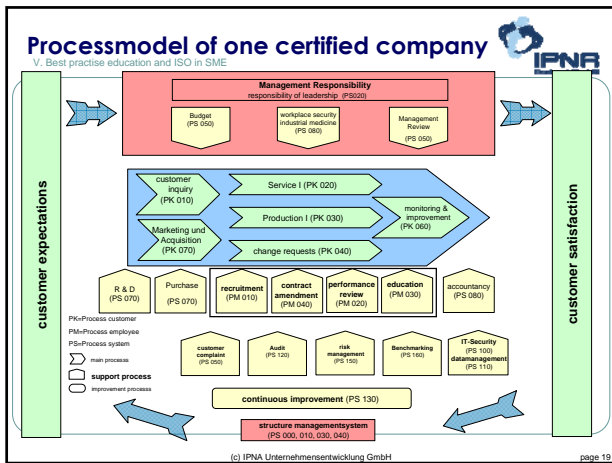
### 6.4 Provide quality environment

- Identify
- needed work environment
  - factors needed to ensure products meet requirements,
- and manage them.

that is f. e. ergonomics, influence of heat, lighting, airflow/ventilation, hygiene, noise, social aspects, safety rules

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## Contact



**Благодаря!**  
**Thanks a lot for your attention!**

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