



UNIVERSITY OF EAST SARAJEVO
FACULTY OF MECHANICAL ENGINEERING



**Development of an integrated system
for business excellence**

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Analysis of study programs in the field of QMS offered by Universities in Bosnia and Herzegovina

- ❖ 8 public (state-owned) universities and 35 private universities and colleges in Bosnia and Herzegovina
- ❖ The Agency for Development of Higher Education and Quality Assurance in Bosnia and Herzegovina is established at the state level, in order to implement the accreditation procedure
- ❖ The accreditation process involves ministries at different levels (at the entity level for the RS and at the cantonal level of FB&H).
- ❖ Only 5 universities accredited by April 2014


Analysis of study programs in the field of QMS offered by Universities in Bosnia and Herzegovina

- ❖ Since 2001, awareness about QMS was improved significantly; most universities have QMS teams or committees
- ❖ Curricula differs between universities
- ❖ The issues of quality management are primarily studied at technical colleges, primarily at the Mechanical Engineering colleges (with some exceptions), then at the Technology colleges, followed by the Economic colleges.
- ❖ It is very uncommon to find these topics in the area of social sciences: legal sciences, philosophy, pedagogy, and the like.

Analysis of study programs in the field of QMS offered by Universities in Bosnia and Herzegovina

❖ The most common courses offered:

- Quality Management, Quality Control
- Integrated Management Systems and Business Excellence
- Development of Quality Management Systems
- Standardization and Industrial Regulations
- Quality and Competitiveness
- Project Management, Operations Management
- Safety at work, Occupational Safety, Waste Management, Quality Management and the Safety of Food and Beverages, International Regulations on Food Quality and Safety



Courses and training in the field of QMS that was provided by training organizations


- ❖ Total of 54 courses offered by a number of training organizations, such as:
 - Auditing management system according to ISO19011:2002,
 - CE Marking,
 - Documentation of management systems
 - HACCP - Hazard Analysis Critical Control Points,
 - Implementation of QMS ISO 9001:2008 (2 days)
 - Implementation of the ISMS according to ISO/IEC 27001:2005 (12 days in-class training).
 - Implementation of the requirements of ISO 14001:2004 - 20 hours
 - ...



Training organizations in the field of QMS in Bosnia and Herzegovina

❖ Private companies from both entities:

- Agencija QS, Sarajevo
- ATIA Consulting, Sarajevo
- BH Quality, Tuzla
- BHM, Zenica
- Bio-Base, Sarajevo,
- Consalta, Sarajevo
- Mobes Group, Banja Luka
- Sertifikacija, Banja Luka
- TD Consulting, Mrkonjić Grad
- Interquality, Sarajevo
- ...



Certifying organizations in the field of QMS in Bosnia and Herzegovina

- 17 organizations from both entities
- 8 certification companies support connection of consultants and certification bodies (2009)
- Data from 2009 indicate that 23 cases of suspension of the certificate occurred.
- The loss of certification happened due to failure of basic requirements of the standard (3 cases), cancellation (6 cases), bankruptcy or bad privatization (4 cases), and failure to meet financial obligations to the certification company (10 cases).



Basic information about Bosnia and Herzegovina

- ❖ Administratively divided into two entities: Federation of Bosnia and Herzegovina (F BiH) and Republic of Srpska (RS); the third administrative unit is District Brčko.
- ❖ 62 municipalities in Republic of Srpska.
- ❖ FB&H consists of 10 cantons.
- ❖ Cantons are divided into 79 municipalities.
- ❖ City of Brčko is a separate administrative unit.
- ❖ Area: 51209 km², Estimated population: 3,8M
- ❖ GDP per capita: 6709 KM (3440 EUR)

Statistical data of the QMS in enterprises

- ❖ The extremely unfavorable political, commercial, economic, and other issues in Bosnia and Herzegovina caused by the recent war, have led to significant retardation in the field of standardization and quality.
- ❖ The Institute for Standards, Metrology and Intellectual Property (Institute), and the Institute for Accreditation Bosnia and Herzegovina (BATA) were established in 2001.
- ❖ They perform their tasks in accordance with the procedures, policies and guidelines of international and European organizations.

Number of certificates (2014) in Bosnia and Herzegovina and neighboring countries

| Standard | B&H | Serbia | Montenegro | Slovenia | Croatia | Macedonia |
|-----------|------|--------|------------|----------|---------|-----------|
| ISO 9001 | 1239 | 3066 | 102 | 1614 | 2614 | 482 |
| ISO 14001 | 174 | 817 | 16 | 420 | 760 | 204 |
| ISO 22001 | 23 | 172 | 3 | 17 | 108 | 31 |
| ISO 27001 | 7 | 25 | 0 | 13 | 58 | 5 |
| ISO 50001 | 0 | 2 | 0 | 8 | 4 | 2 |
| ISO 16949 | 12 | 18 | 0 | 102 | 19 | 7 |
| ISO 13485 | - | 47 | - | 17 | 17 | 3 |

Analysis of enterprises' needs from the aspect of QMS

| | What are / will be your business decisions in terms of quality? | 2009 | | 2014 | |
|-----|---|------|-------|------|-------|
| | | No | % | No | % |
| 1. | Certification by new standard ISO 9001 (when adopted) | 149 | 30,53 | 25 | 31,25 |
| 2. | Getting or implementation of ISO 14000 | 90 | 18,44 | 16 | 20,00 |
| 3. | Model of Business Excellence | 50 | 10,25 | 10 | 12,5 |
| 4. | Process renewal | 49 | 10,04 | 8 | 10,00 |
| 5. | Benchmarking | 43 | 8,81 | 4 | 5,00 |
| 6. | TQM model | 33 | 6,76 | 8 | 10,00 |
| 7. | Certification by OHSAS 18001 | 24 | 4,92 | 4 | 5,00 |
| 8. | Balanced ScoreCard | 22 | 4,51 | 3 | 3,75 |
| 9. | Using the method of twenty keys | 14 | 2,87 | 2 | 2,5 |
| 10. | Other | 14 | 2,87 | 2 | 2,5 |

Analysis of enterprises' needs from the aspect of QMS

| | Why will you decide about the above-rounded business decisions in terms of quality? | 2009 | | 2014 | |
|----|---|------|-------|------|------|
| | | No | % | No | % |
| 1. | Technological necessity | 43 | 7,48 | 5 | 5,1 |
| 2. | Owners requirements | 54 | 9,39 | 11 | 11,1 |
| 3. | Environmental requirements | 81 | 14,09 | 17 | 17,2 |
| 4. | Wishes of employees | 22 | 3,83 | 2 | 2,0 |
| 5. | Suppliers conditions | 23 | 4,00 | 2 | 2,0 |
| 6. | Requirements of the standard | 120 | 20,87 | 15 | 15,2 |
| 7. | Customers requests | 114 | 19,83 | 23 | 23,2 |
| 8. | Management requests | 107 | 18,61 | 21 | 21,2 |
| 9. | Other | 11 | 1,91 | 3 | 3,0 |

Analysis of enterprises' needs from the aspect of QMS

| | What were / are now / will be the main obstacles / barriers to the establishment of the above-rounded business decisions? | 2009 | | 2014 | |
|----|---|------|-------|------|------|
| | | No | % | No | % |
| 1. | Indifference of lower managers | 28 | 8,54 | 2 | 2,35 |
| 2. | Indifference of employees | 21 | 6,40 | 2 | 2,35 |
| 3. | Too little staff support in changes | 35 | 10,67 | 12 | 14,3 |
| 4. | Poor information support | 21 | 6,40 | 4 | 4,8 |
| 5. | Overburden of management with a regular job | 140 | 42,68 | 41 | 48,8 |
| 6. | Poor training of employees | 23 | 7,01 | 10 | 11,9 |
| 7. | Problems with suppliers | 16 | 4,88 | 4 | 4,8 |
| 8. | Lack of interest of customers | 22 | 6,71 | 9 | 10,7 |
| 9. | Other | 22 | 6,71 | 0 | 0 |

Analysis of enterprises' needs from the aspect of QMS

| | What are the main non-financial goals that you have set yourself? | Answers of organizations | | Answers of consultants | | Answers of cert. bodies | |
|----|---|--------------------------|-------|------------------------|-------|-------------------------|-------|
| | | No | % | No | % | No | % |
| 1. | shortening time of introducing new products to the market | 44 | 8,71 | 5 | 8,33 | 6 | 30,00 |
| 2. | improve the training of employees | 167 | 33,07 | 18 | 30,0 | 5 | 25,00 |
| 3. | create a work environment-climate that gives a boost | 130 | 25,74 | 16 | 26,67 | 6 | 30,00 |
| 4. | link rewards with success of the organization | 60 | 11,88 | 2 | 3,33 | 1 | 5,00 |
| 5. | develop information skills | 92 | 18,22 | 14 | 23,33 | 2 | 10,00 |
| 6. | other | 12 | 2,38 | 5 | 8,33 | - | - |



Thank you for your attention!