

Steering Committee meeting

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WBC-VMnet Project SME Partner presentation

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Outline

- ❖ Short introduction about company Elcon Geretebau
- ❖ Proposal of topics for Practical Placement implementation for WBC students (10 students total x 1 month)
- ❖ PPP implementation in the country– list of new SMEs as host enterprises for domestic students
- ❖ IFP implementation in the country (7 fellows per WBC country) – topics, sponsor enterprises, fellows, host R&D institutions
- ❖ Proposal of topics for case studies (implementation of Virtual Manufacturing technologies at product development and optimization)
- ❖ Conclusions

❖ Short introduction about company Elcon Geretebau d.o.o.

Elcon Geretebau – history and today

Company has been established in 1993. with one CNC lathe and a CNC milling machine. During that period company growing (some of awards see it on rights) and today it has experience in manufacturing highly precise parts by CNC milling and CNC turning.

Elcon is today one of the leading companies in the region, in the domain of production of CNC parts using milling and lathing, switch assemblies, and CAD-CAM solutions including consultancy.

The produced parts are used for:

- ✓ *Medical engineering*
- ✓ *Film industry*
- ✓ *Laser technology*
- ✓ *Optical technology*
- ✓ *Mechanical engineering and many other industries (e.g. the automobile industry)*

Buyers, with whom we work with today are located in:

Germany, Austria, Switzerland, France, England, Denmark, Slovenia, USA, etc.

Our team comprises of 70 or so highly-motivated experts. Our workshops consist of over 40 machining centers for milling and lathing.



Award for the most successful company in the region in the 50-employee category.



One of the fastest growing SMEs companies in Croatia



Elcon Geretebau – production & control

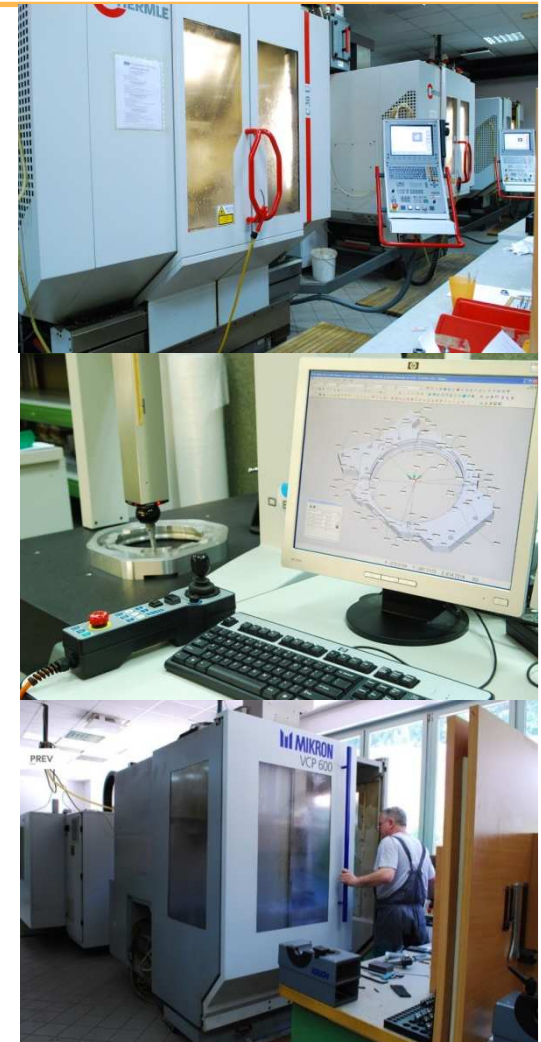
We manufacture individual parts - **prototypes**, including small, medium and large series, up to a maximum of 1000-2000 of the same item. 75% of the parts we manufacture are made from **aluminum**, and in terms of machinery and equipment we are best equipped to manufacture parts from aluminum. But, we also manufacture parts from **stainless steel, brass, plastics, copper**, etc, and can with satisfaction point out that, in the production of parts using such materials, we possess a high level of specimen complexity and an enviable level of quality.

We use [AUTOCAD](#), and plan in the next investment cycle to obtain the CAD software [SOLID WORKS](#) or [SOLID EDGE](#). When using CAM software, we most frequently use [MASTERCAM](#) but also [ESPRIT](#).

The abilities of 5-axis 3D milling is one of reason why to chose us as your partner for the production of parts using CNC-CAD-CAM technologies.

Another reason is our quality control department with trained controllers and modern measuring equipment (**3D CMM** [DEA](#) measuring machine, 3-coordinate [BROWN&SHARPE](#) measuring device, etc.) which is guarantee of superior quality at Elcon.

Between 2001 and 2002, Elcon expanded its assortment of services and besides manufacturing, began offering installation of assembly parts. Today we manufacture and install over 10 various types of assemblies that are mainly used in the medical and laser industry.



❖ Proposal of topics for Practical Placement implementation for WBC students (2 students total x 1 month)

- ELCON Geretebau already has been organized, Practical Placement implementation for 1 WBC student in during of 1 month.
- For second student, it can be organized PPP in following 6 areas:
 - ❑ TECHNICAL OFFICE
 - dealing with in-house software for manufacturing control (bill of materials, quotations, invoices, technology, warehouse)
 - learning about materials using in production (aluminum, stainless steel ...)
 - ❑ TECHNOLOGY
 - definition of technological procedures according to manufacturing design sheet
 - preparing design to manufacturing
 - ❑ MANUFACTURING (CAD-CAM)
 - introduction about machine tools in machine shop (lathes, milling machines)
 - working with cutting tools
 - introduction in using MASTERCAM software
 - machining of basic product.

❖ Proposal of topics for Practical Placement implementation for WBC students (2 students total x 1 month) - continued

❑ PROCUREMENT OFFICE

- basic skills in procedures of tools and materials procurement
- dealing with suppliers (main)
- globally tracking of raw materials price on world stock market (www.bloomberg.com)

❑ SELLING OFFICE

- relation with main customers
- receiving demand (decision about interesting demand)
- quotations (prices calculations)

❑ QUALITY CONTROL OFFICE

- learning about measurement instruments
- writing of measurement procedures
- basic work on CMM – DEA machine.

❖ PPP implementation in the country– list of new SMEs as host enterprises for domestic students

- List of new SMEs for PPP implementation:
 - SCAM MARINE <http://www.scam-marine.hr/>
 - TOKARIJA BALEN <http://www.tokarija-balen.hr/>
 - VARGON <http://www.vargon.hr/page.php?9>
 - RAPIDAL
 - BROSS <http://bross.hr/index.php?page=home>
 - VULKAN NOVA <http://www.vulkan-nova.hr/>
 - NOVEN <http://www.noven.hr/index.htm>
 - MACK <http://www.mack-project.com/>
 - MG Rijeka <http://www.mg-rijeka.hr/>

❖ IFP implementation in the country (7 fellows per WBC country) – topics, sponsor enterprises, fellows, host R&D institutions

• CTC-Rijeka (Faculty of Engineering) host institution for following IFP implementation:

- ✓ Elcon Geretebau (2-3 fellows) for industrial application of CAD technology (SolidWorks),
- ✓ Scam Marine (1 fellows) for modelling & optimization parameters of AWJ machining process (modelling & optimization techniques using software's),
- ✓ Rapidal (1-2 fellows) for industrial application of CAM technology (SolidCAM) for die/mold machining,
- ✓ Tokarija Balen (1-2 fellows) for industrial application of CAM technology (SolidCAM, Catia) in machining,
- ✓ Bross (1-2 fellows) knowledge transfer for gear and gearbox optimization,
- ✓ Vulkan Nova (1-2 fellows) knowledge transfer for welding processes.

❖ Proposal of topics for case studies (implementation of Virtual Manufacturing technologies at product development and optimization)

After consult all relevant persons in company about this topics we proposal following subjects:

- Application of CAD/CAM technology (SolidWorks, Catia, SolidCam) or*
- Process Quality Improvement.*

❖ Conclusions

- Company is ready for PPP implementation. One of the reason of that is our long time cooperation and support all students even abroad, and this process stay very important to our company in future,
- for IFP implementation our company decide to take knowledge in 3D design through SolidWorks software,
- for case study with select two possible topics, which can be realized in short period of time.

**THANK YOU
FOR YOUR ATTENTION**

**AND I CALL ALL OF YOU
TO VISIT OUR COMPANY
AFTER MEETING DAY**

This project has been funded with support from the European Commission



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