

# KARL STORZ VIDEO ENDOSCOPY ESTONIA

**Company Presentation & Topics for thesis** 

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### The world is our home

Headquarters

Sales & Marketing
Manufacturing

Training Centers





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### Facts and figures at a glance



### **Tradition & future: A third-generation family business**





### Dr. med. h. c. Karl Storz

- Founder and inventor
- 1945: Founded KARL STORZ as a two-person company in Tuttlingen
- Laid the foundation for the company's global success in the field of medical technology
- Inventor of more than 400 patents and utility models



### Dr. h. c. mult. Sybill Storz

- 1996: Daughter of the company's founder takes over the company management
- Accelerated the global expansion of KARL STORZ
- 2019: Handover of sole management to her son Karl-Christian Storz
- 2019 to the present day: Chair of the Supervisory Board



### **Karl-Christian Storz**

- 2019: Takeover of management
- Consistently drives forward the digitalization, customer centricity and international development of KARL STORZ
- Continues to foster a close cooperation with healthcare professionals, clinics and research facilities

# Product portfolio Tallinn





Iexible video endoscopes

**Rigid endoscopes** 

**Rigid endoscopes** 

### **Research and development topics**



#### X-ray visibility of plastic parts

- choice of additives and their effect on X-ray visibility
- effects on mechanical properties
- abrasiveness and effects on equipment

#### High-frequency compatibility of video images in endoscopy

- necessity and possibilities of analogue signal shielding
- the possibilities of using a sensor with digital output
- optical video signal and its advantages/disadvantages

### Fabry-Perot pressure sensor manufacturability at Karl Storz

- sensor design and manufacturing steps
- initial signal processing
- testing and analysis of results

## Fabry-Perot pressure sensor signal processing and integration with Karl Storz equipment.

- signal processing solution taking into account KS standards
- integration with software and hardware

#### Design of a polymer lens for a single instrument.

- choice of plastics
- manufacturing technology

# Collecting and analysing production data from a semi-automated production lines to improve the quality of large-scale production.

- defining the data to be collected and methods
- data flow analysis methods and definition of patterns Application of a collaborative robot for precision bonding on a production line in a manual workplace.







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