



# FUTURE-ORIENTED TECHNOLOGIES FOR SURGERY

**DELEGATIONS FROM ALL OVER THE WORLD** are queueing up to visit *Scopis GmbH*. They want to find out more about the future-oriented technologies developed by the Berlin company which have revolutionised navigation in the operating theatre. The smart connection of software and modern mechanics makes it possible to perform operations more safely and with greater precision. International media demonstrate their enthusiasm about the new possibilities for surgery that are facilitated by the digital technologies of the future.

**»WE WANT TO MAKE OUR TECHNOLOGY WIDELY AVAILABLE AND REALLY USE OUR RESEARCH RESULTS TO BRING ABOUT CHANGE.«**

*Bartosz Kosmecki, Managing Director and founder of Scopis GmbH*

**SURGICAL INSTRUMENTS FROM SCOPIS GMBH** make 3D analysis of the human anatomy possible. Like a traffic navigation system, they guide surgeons through the operation and warn them when they diverge from the procedure. This means that risks of complications can be reduced.

**SCOPIS' SUCCESSFUL DEVELOPMENT** received support from the **European Regional Development Fund (ERDF)**. This enabled its founders to market their technology internationally, which ensured its worldwide success. The ERDF helped to assure that, today, patients in over 50 countries can benefit from the innovations developed in Berlin.



**SCOPIS**  
medical



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medical

# AUGMENTED REALITY IN THE OPERATING THEATRE

Scopis is one of the first companies in the medical field which uses **Augmented Reality Technology** to plan and guide surgical procedures. The technology expands the images from inside the body by using navigation marks inserted directly into endoscopic images. They point the way to the area about to be operated on and indicate where special care needs to be taken during surgery. The unique **Scopis Holographic Platform** projects this information via mixed reality goggles directly into the field of view of the surgeons performing the operation.

**The idea** of developing an innovative navigational system for more accurate measurement of the operating area originated at the Berliner Zentrum für Mechatronische Medizintechnik, a joint institute of the *Fraunhofer-Gesellschaft* and *Charité Berlin*. There, one of Scopis' founders, **Bartosz Kosmecki**, carried out research on surgical navigation systems as a research scientist and recognised the need to facilitate surgical interventions by providing additional information.

Based on his findings, Bartosz Kosmecki and his colleagues **Andreas Reutter** and **Dr. Christopher Özbe**k developed a prototype that enabled medical information to be incorporated into the endoscope's images. Together, the three scientists founded Scopis GmbH and developed a market-ready system in only six months.

## WITH SUPPORT FROM THE ERDF, SCOPIS WAS ABLE TO DEVELOP INTO THE LEADING PROVIDER OF DIGITALLY SUPPORTED MEDICAL TECHNOLOGY

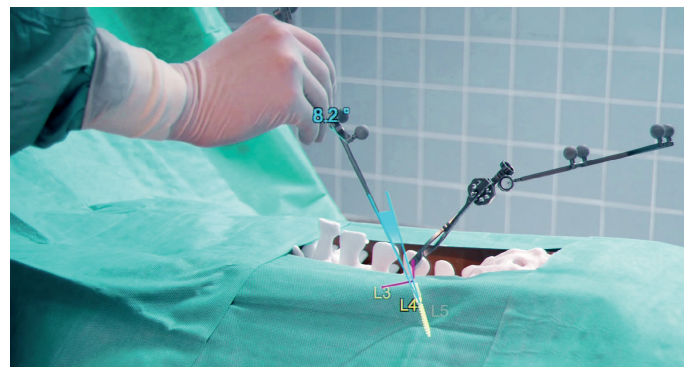
**The European Regional Development Fund (ERDF)** supported Scopis on its way to become the leading provider of digitally supported medical technology. A loan from the ERDF-funded programme for the promotion of research, innovation and technology **ProFIT** - enabled the company to successfully launch its products on the market. With equity capital from **VC Funds Technology**, Scopis was able to increase sales in over 50 countries and enter the US and Asian markets.

## ERDF: MAKING A DIFFERENCE IN BERLIN

ERDF resources have enabled the State of Berlin to focus on financing the development of innovation and technology. The *ProFIT* programme provides funding for **research, development and market deployment** in the form of grants and loans together with VC Fonds Technologie, recent Berlin Start-Ups were provided with **equity capital** to finance the development and market launch of innovative products aimed at supporting rapid company growth.

### This is how the ERDF specifically ensures that

- innovations and new technology are financed.
- real progress that improves the lives of many people can be achieved.
- high-quality jobs are created.
- companies are founded and grow.



*Scopis Mixed Reality: Insert setup help wearing AR goggles for spinal surgery*



*Scopis Holographic Navigation Platform*



*The three company founders:  
Dr. Christopher Özbe*k, Bartosz Kosmecki, Andreas Reutter

### FUNDING GUIDELINES: CONTACT:

**FUNDING PRIORITY 1**  
Activities 1.1 / 1.2:  
Pro FIT Programme for funding research, innovation and technology  
Activity 1.3: VC Funds Technology II

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**GRANT AMOUNT**  
€ 2.6 million, 50% EFRE

**PROJECT TERM**  
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