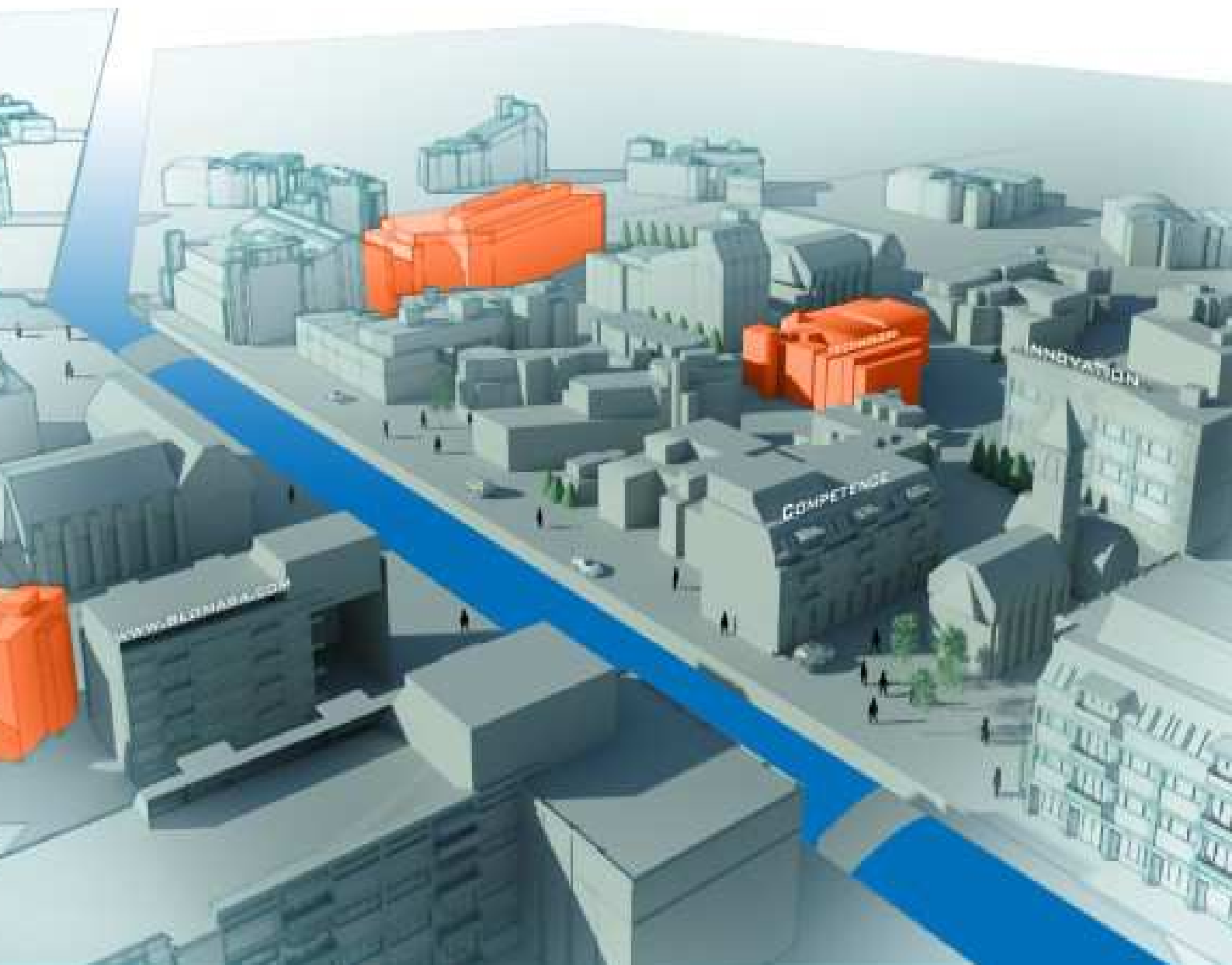


Blom International Operations

Company Profile

Version 06-2017



Company Profile

Contact

Services and Technology

Organization

Team



Company Profile

S.C. Blom International Operations SRL (BIO) is part of Heveco SRL, Ploiesti, Romania. It was established in 2008 as a Division of Blom Romania SRL and later founded as an independent production center of the NRC Group ASA - GEO Division (Blom AS), former Blom Group, Oslo, Norway.

Blom was one of the leading providers of geospatial services in Europe, both for public administration and private industry.

The Blom Group had access to a unique, Europe-wide and company-owned spatial database containing GIS data, maps, images and three-dimensional models.

With a special emphasis on cloud-based online services, Blom provided data and solutions to a wide range of clients. Through Geoinformatics services, Blom enables customers and partners to develop various complex applications to access their geospatial data assets.

BIO was established as the services operations center for the Blom Group and is located in Targoviste, Romania with about 120 staff. Out of this it developed as the groups' competence center for geospatial data production and for the execution of Geoinformatics projects. Nowadays all the competence and services are offered to the worldwide

Geoinformatics industries and communities.





BIO holds an impressive portfolio of completed contracts since being established in 2008 and currently provides services in the areas of digital mapping, GIS data production, Geoinformatics, stereo photogrammetric data capture, image processing, 3D modeling, mobile mapping, conversion and the management of geospatial data.

BIO supported Bloms' international operations, providing digital mapping services to other units of the Blom Group, e.g. Blom Aerofilms (UK), Blom Deutschland (Germany) and other subsidiaries. Besides those independent former Blom entities this is now extended to many international clients like Cyient Europe (UK), NIRAS (DK), Thales (F), etc.

Ongoing projects at BIO are originating mainly from the UK, Denmark, Norway, Sweden, Finland, The Netherlands, Austria, Germany, Switzerland, France and Italy, but also from non-European clients in Africa, the Middle East and Asia.

Company Profile

MANAGEMENT BOARD

	<p>Ralf Schroth German, studied Geodesy at Stuttgart University, PhD in Photogrammetry, legal surveyor. About 30 years in the management of a variety of international companies in Europe, Middle East and Africa. Experienced in project management, operations and general contracting. Lecturer at the Applied Technical University of Stuttgart.</p> <p>Director of Blom International Operations</p>
	<p>Stefan Oeldenberger German, studied Geology at the University of Munich (Dipl. Geol.) and Petroleum Engineering at the University of Strathclyde, Glasgow. More than 25 years of technical marketing, geospatial data production and project management expertise in Germany, the Middle East and North Africa, covering Cartography, Remote Sensing, Aerial and Terrestrial Imaging, LiDAR, Mapping and GIS.</p> <p>Division Manager</p>
	<p>Adrian Ionescu Romanian, M.Sc. in Electronics Engineering at Valahia University of Targoviste. About 15 years in Blom with experience in project management, aerial operations and sensors operations, sales and pre-sales activities, management of production facility with main focus on 3D photogrammetry, digital photogrammetry, 2D mapping and LiDAR. Operations experience in Europe.</p> <p>Division Manager</p>
	<p>Valerica Soare Romanian, M.Sc. in Finance at Valahia University of Targoviste. About 8 years in Blom with experience in Human Resources and Finances with a main focus on human resources, health and safety, payroll and general management. Experience abroad.</p> <p>Division Manager</p>

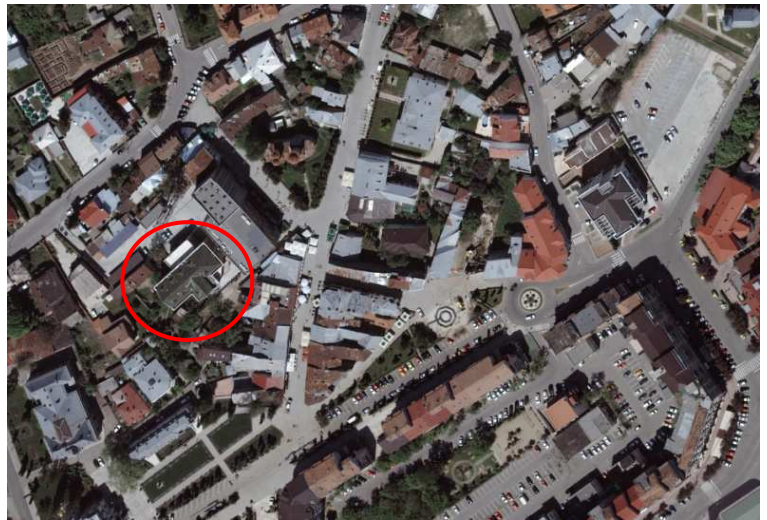
Company Profile

CONTACT INFORMATION

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Jud. Dambovita
Code postal 130010
Romania

Email: bio.office@blominfo.ro
Tel: +40(0)245 214 725



Targoviste office location

SHAREHOLDERS

Heveco SRL
100% of the shares

26 Alexandru Vlahuta Street
100171 Ploiesti
Romania



Services and Technology

Photogrammetry

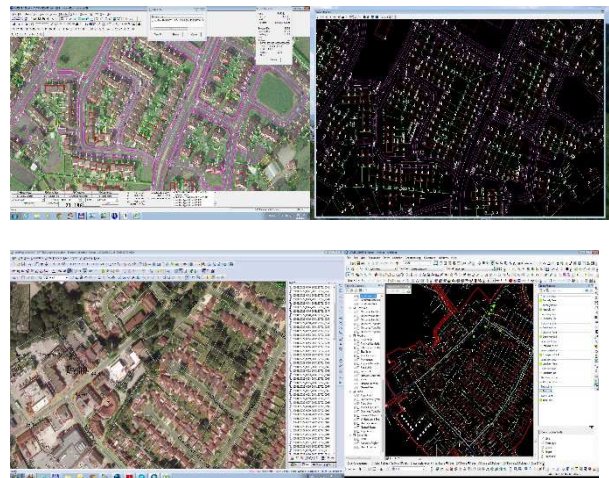
Directly (GNSS/INS) or indirectly (GCPs) geo-referenced aerial images are used to produce orthorectified raster and vector data (2D/3D) by digital image processing techniques and 3D stereo restitution. Software by BIO includes Trimble/Inpho, DAT/EM, SmartTech, Bentley Systems, ESRI, KTL, BAE-Systems, Hexagon-Intergraph, etc.. The results are graphical data bases with raster (image) or vector information.



Operators at stereo workstations



Aerial triangulation with Match-AT



Vector data from stereo restitution

Services and Technology

LiDAR - Airborne and Mobile Laser Scanning

Point clouds from various laser scanning systems are processed and edited by BIO. Interactive and automated classification is performed to create surface and filtered terrain models. Additionally, buildings for 3D city models are extracted, power lines surveyed and valuable data for forest inventories can be supplied. Digital orthophotos are produced and used for mapping purposes. Our services include the processing and matching of raw LiDAR data.

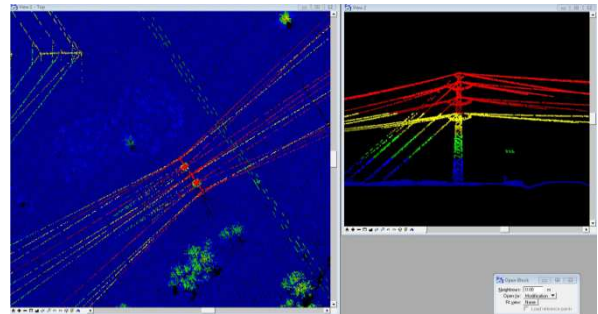
The latest 64-bit LiDAR processing software from TerraSolid is utilized in together with Bentley MicroStation.



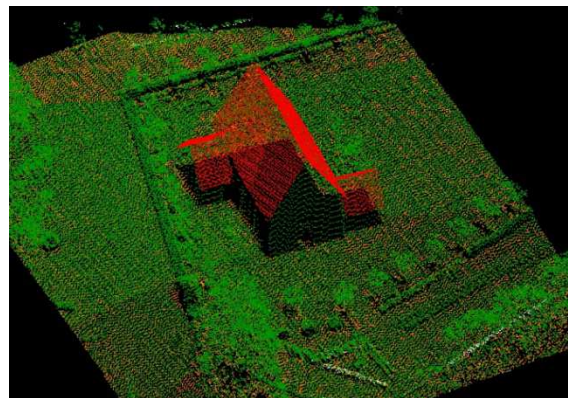
LiDAR processing section



LiDAR point cloud example



Classified LiDAR dataset for power lines



Topographic objects

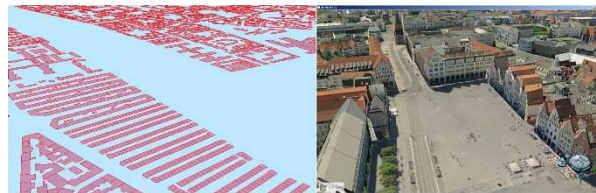
Services and Technology

Mapping, Modeling and GIS

A variety of services for different applications are performed at BIO, such as the update of 2D line maps through digital orthophotos, the generation of 3D city models or 3D landmarks (Blom3D), generation of seamless oblique images (BlomOBLIQUE and BlomORTHO), digitization of highway assets from mobile mapping sensors, utility mapping for telephone, gas, water and electricity suppliers, etc.



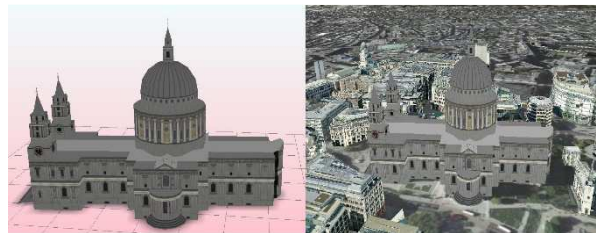
3D City Modeling



3D city model generation



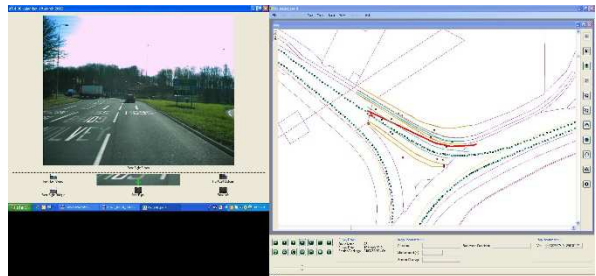
Digital orthophoto production



Blom Landmark production

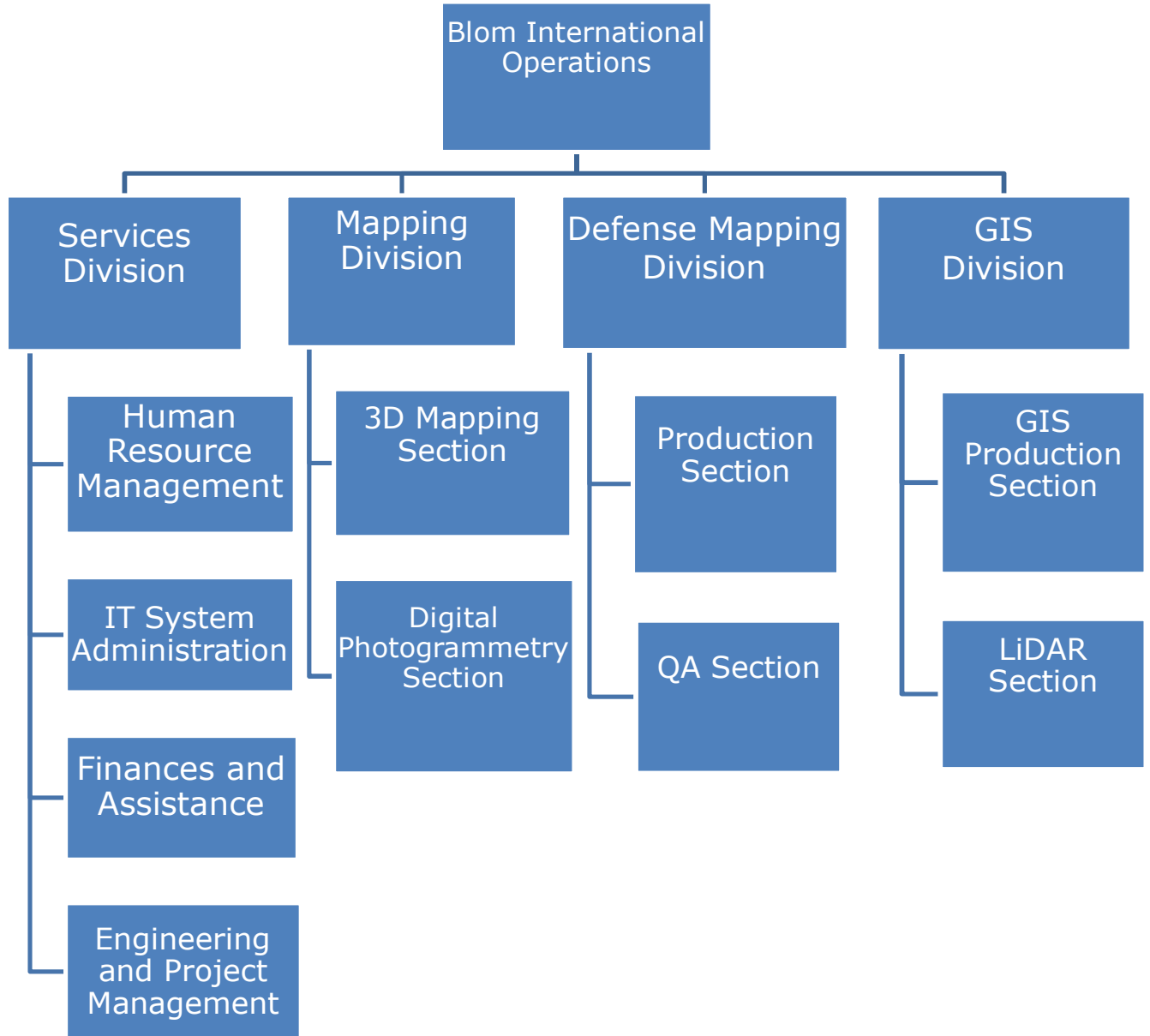


Digital orthophoto with seam lines



Mobile mapping data

Team



Mapping Division

Mapping Division is organized in 2 sections:

- 3D-Mapping and
- Digital Photogrammetry

3D-Mapping Section

Main activities are 3D vector mapping for different scales such as 1:500, 1:1.000, 1:2.000 etc., update of existing maps based on recent image flights, DTM (digital terrain model) generation and editing for orthophoto rectification or contour lines, contour lines generation with different equidistance, vector mapping for true orthophoto generation or 3D city model building.

Further activities are 3D vector processing, 3D modeling (vector validation and adjustment for several hundreds of cities worldwide from BLOM Urbex, 3D City Models database, 3D models validation for BLOM Landmarks, 3D model creation), radiometric and geometric corrections of BLOM Urbex image and other geodata libraries.

Digital Photogrammetry Section

Main activities are orthophoto generation, mosaicking, seam lines generation and editing, radiometric and geometric corrections of the final mosaic product, image geo-referencing, MIDAS processing. All image processing activities are applied to both digital frame cameras and airborne line scanners.

Defense Mapping Division

The Defense Mapping Division is organized in 2 sections:

- Production and
- Quality Assurance

Production Section

DMD is performing photo interpretation, digitization and data management for military cartography and geodata projects. Main products are digital maps and geodata sets at map scales ranging from 1:50.000 to 1:5.000, mostly based on high-resolution satellite images and supplementary data sources. The geospatial data is produced in conformance with MGCP, S-UTDS and VMap2i standards. DMD employs approx. 40 operators and engineers. DMD is using GIS software from Northgate, ESRI and Intergraph.

QA Section

The high quality and reliability of the maps produced by DMD is guaranteed by an extended and specially-designed QC process. The QA section acts in close collaboration with the client, handles the specifications transfer to the production team and maintains the technical production documentation.

GIS Division

The GIS Division is organized in 2 sections:

- GIS Production and
- LiDAR

GIS Production Section

The production and analysis of geographic data is the core area of the GIS production section. References are the mapping of highway assets, the compilation of network information systems for Telecom and district heating companies, the analysis of terrain models for slope maps and the creation of large scale maps by means of 2D interpretation of aerial images. The section is also specialized and equipped to perform the Quality Assurance Process for large asset feature capture projects (railways and highways), where data may be produced at other production sites overseas.

The GIS production sections predominantly uses standard software from ESRI, Intergraph, Bentley and TerraSolid being adapted and complemented by applications written by our programmers.

LiDAR Section

LiDAR section has extensive experience working with data acquired by airborne and mobile laser systems for various areas of applications e.g. road/railways networks, power lines management, urban modeling and planning, forest inventory. The section is performing manual and automatic LiDAR classification, DTM/DSM generation, contour line generation, orthophoto production, mosaicking and radiometric adjustments, 2D/3D mapping, mobile mapping, based on TerraSolid software. The LiDAR section can also handle the processing and matching of raw LiDAR data.



Professional Disciplines:

Blom International Operations employs specialists with backgrounds in surveying, GIS engineering, geography and environmental sciences, programming and IT-tools development, software development, automation engineering, mechanical and electronic design, sensor operators, mathematics, etc.

Nearly all staff is educated at university level with in-house external trainings providing further education and specialization meeting the demands of individual projects.



3D-Mapping Section



LiDAR Section



Digital Photogrammetry Section



GIS Production Section