



ArcGIS – platform for Riga Technical University property and field facilities management

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The aim of the project

- The main goal of the project is to gather all information about the property belonging to RTU in one place;
- Information of the boundaries of the land units, the areas of different land uses, the localization of different communications and more is needed to successfully manage the property;
- So far in RTU it has not been possible to obtain such information easily or at all;
- There is a growing need for this kind of information, that is up-to-date and conveniently available;
- ArcGIS is a very convenient platform for displaying this information online and without additional specific software.

Data sources (1)

- High-detailed topographic information (1:500)



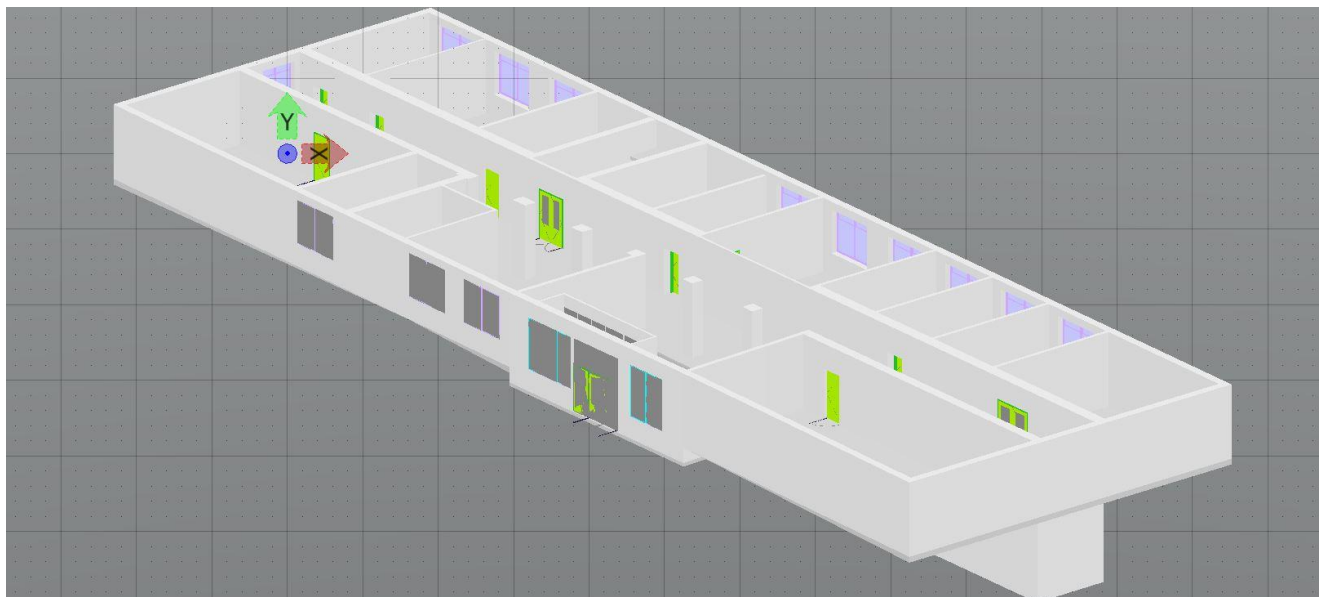
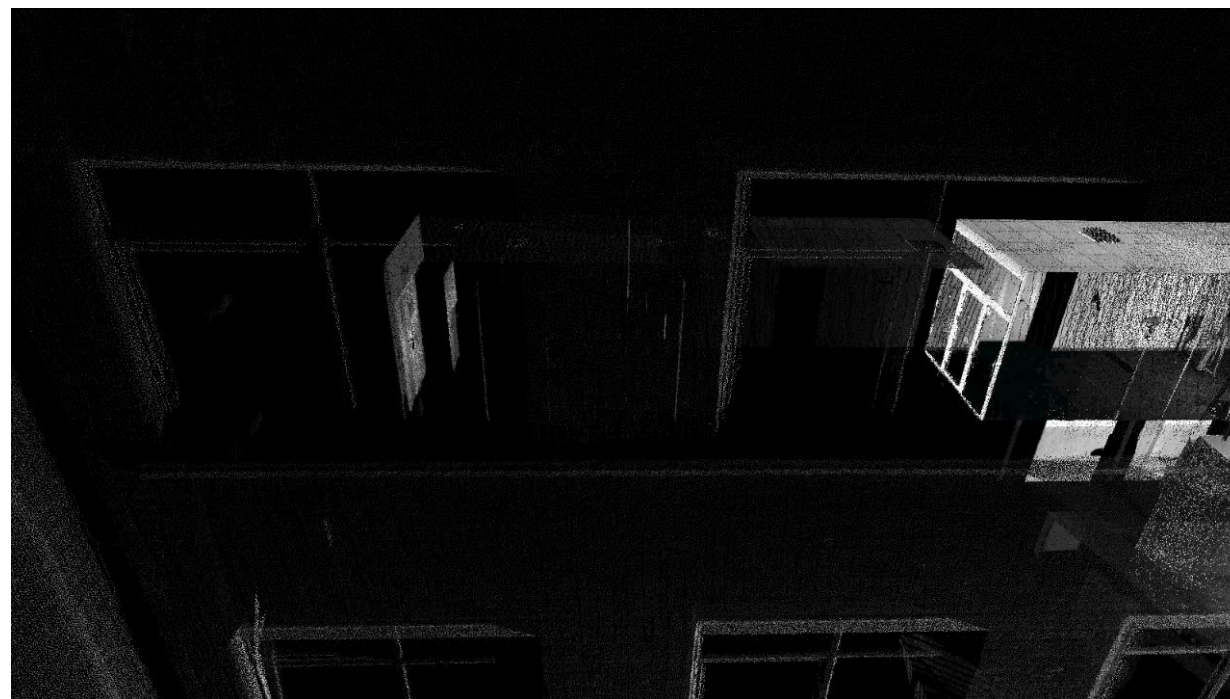
Data sources (2)

- 3D models

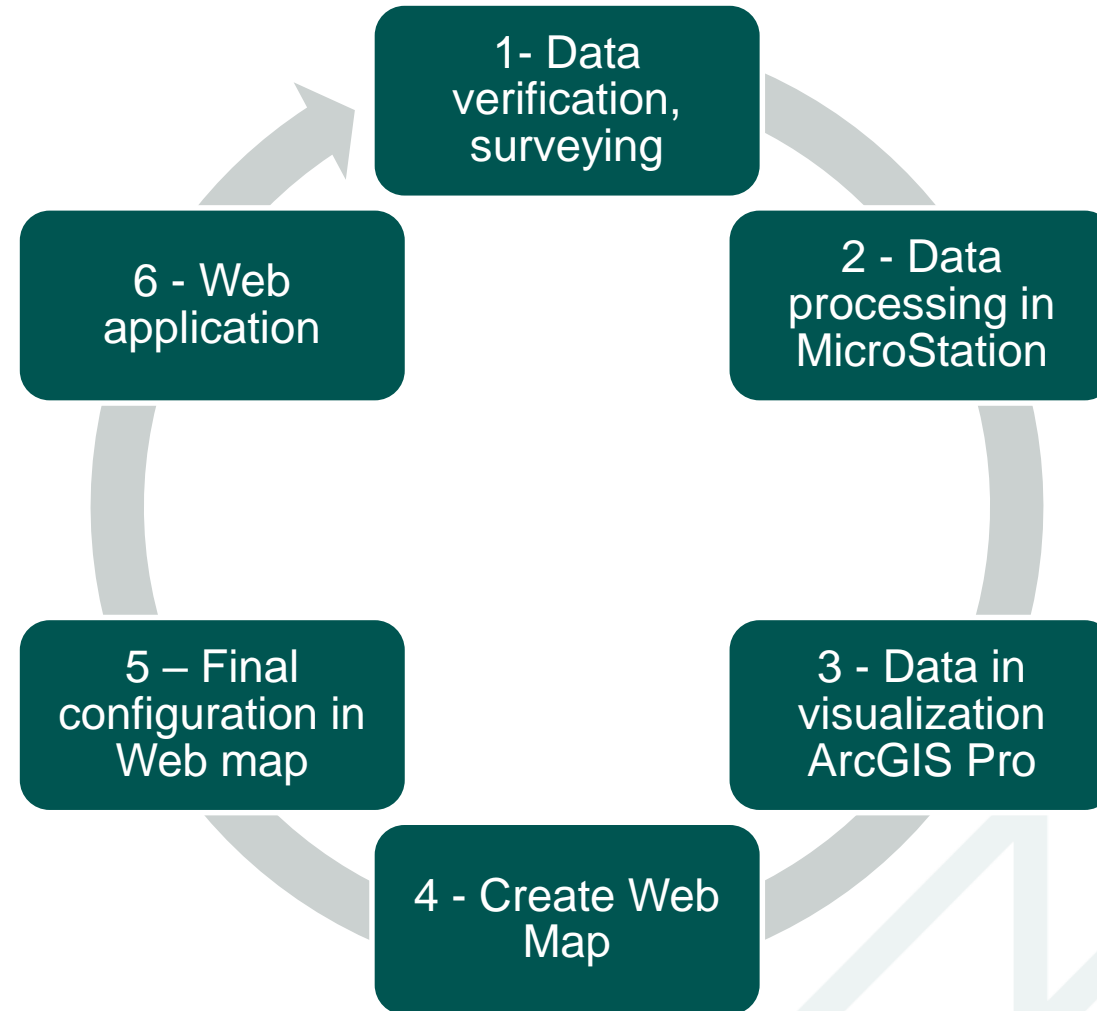


Data sources (3)

- Laser scanning



Data cycle



1.Data verification and surveying

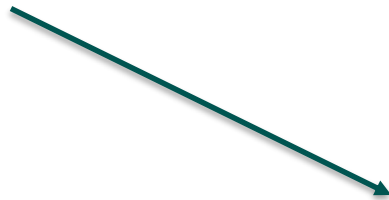
- Collect, measure and control the various data:
 - Measure the missing data and make control measurements for existing ones from high-detail topographic information database:
 - GNSS RTK measurements;
 - Total Station measurements;
 - Information from ortho photo from drones.
 - Collect additional data - species and diameters for trees, floor plans and 3D models for buildings etc.



2. Bentley MicroStation v8i



- Unordered data, unlocked lines

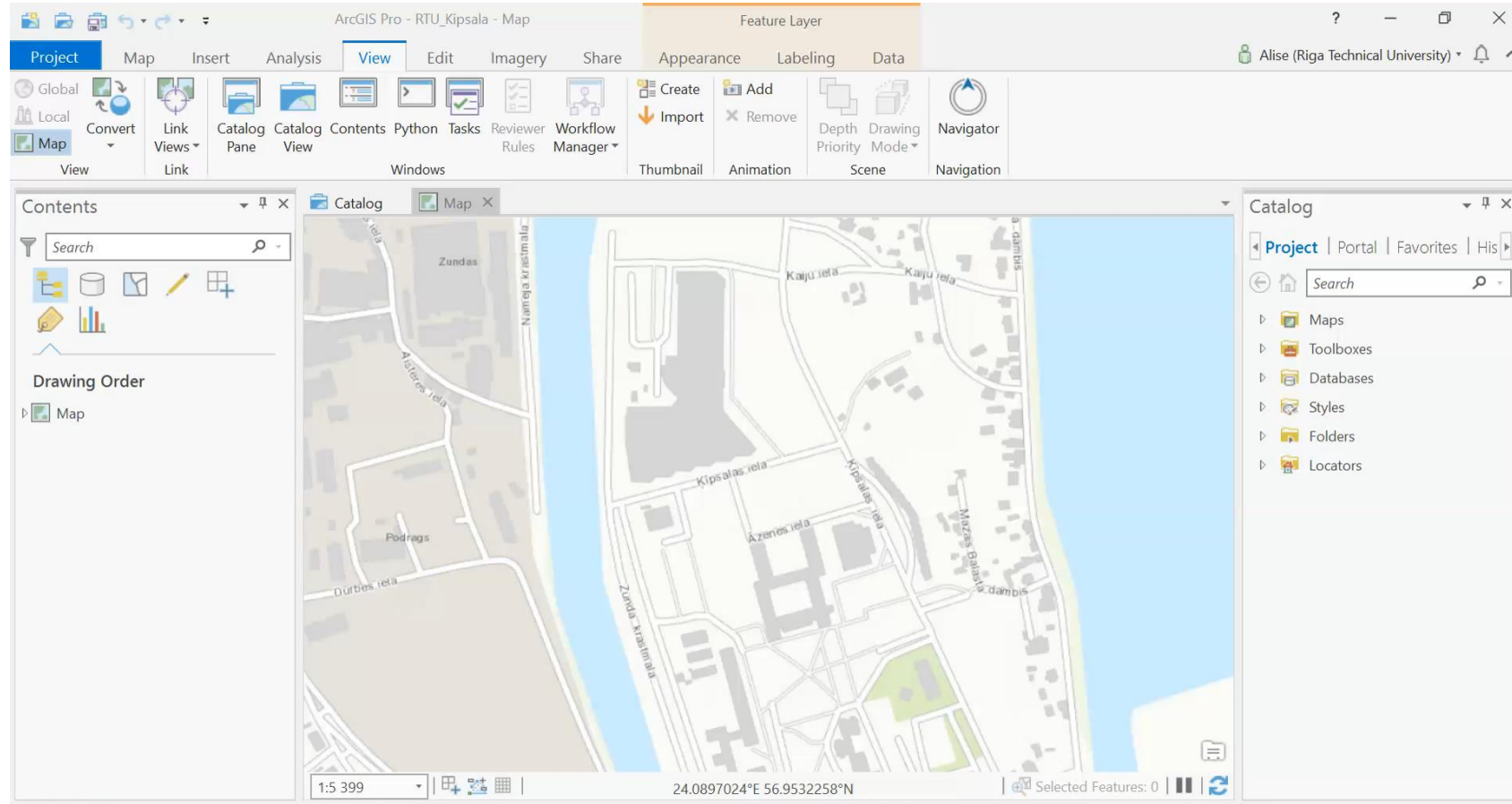


- All data converted to shapes



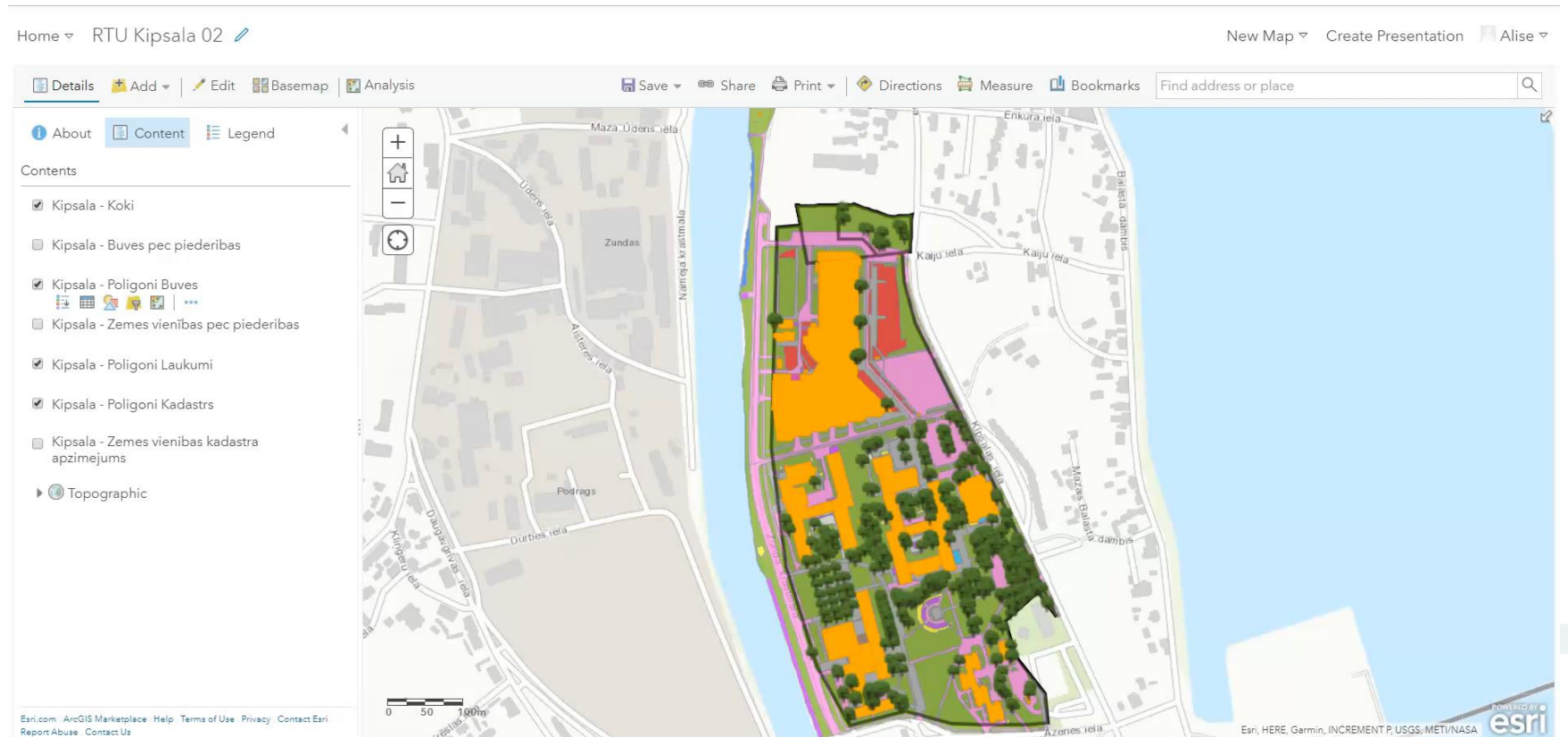
3. ArcGIS Pro

- Data input;
- Create attribute table – database creating
- Visualization;
- Classification;
- Sharing map as web layer.



5. Web map

- **Create web map;**
- Final configuration, visualization.

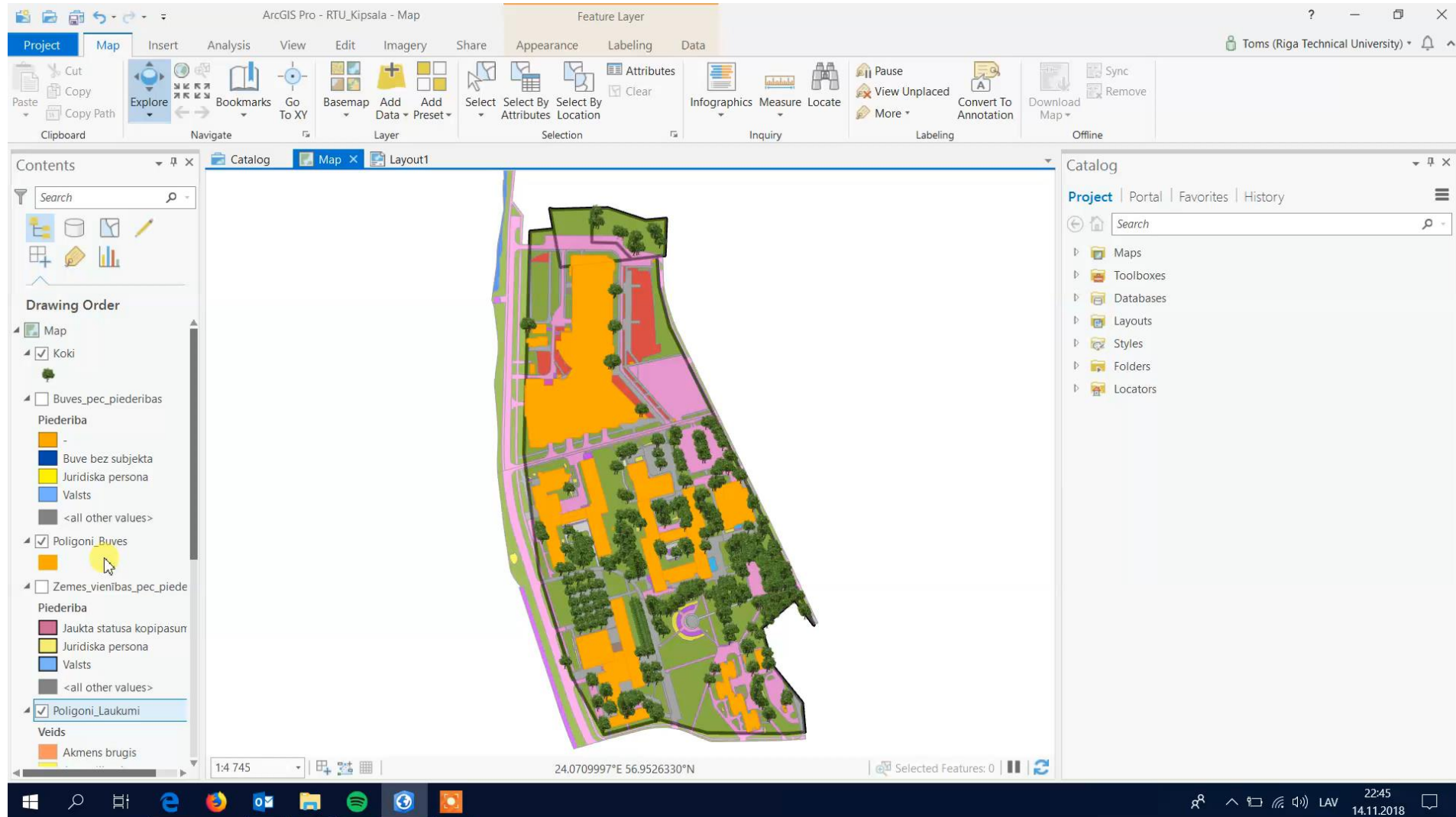


6. Web application

- Create web application;
- Designing;
- Tool adding;
- Create infographics.

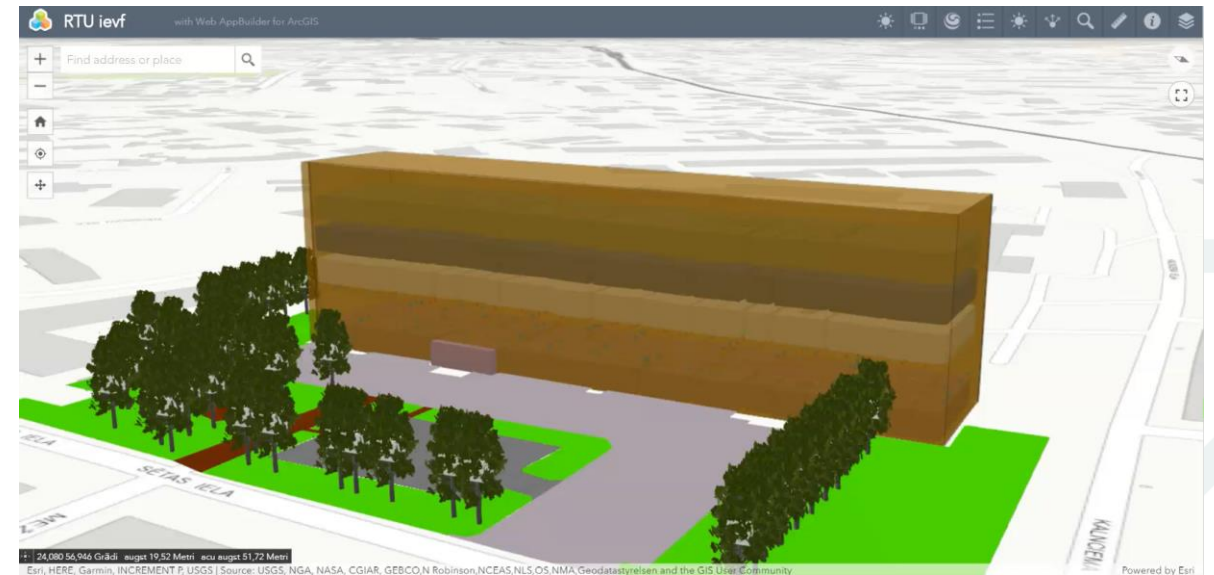


Layout in ArcGIS Pro



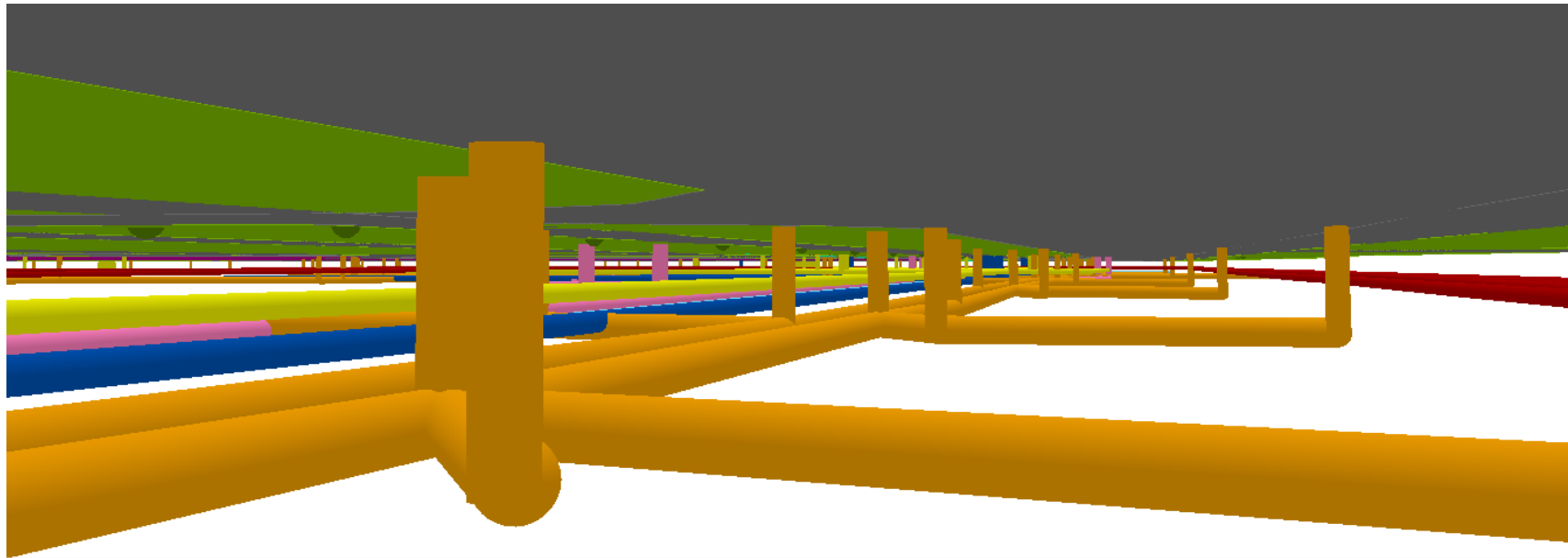
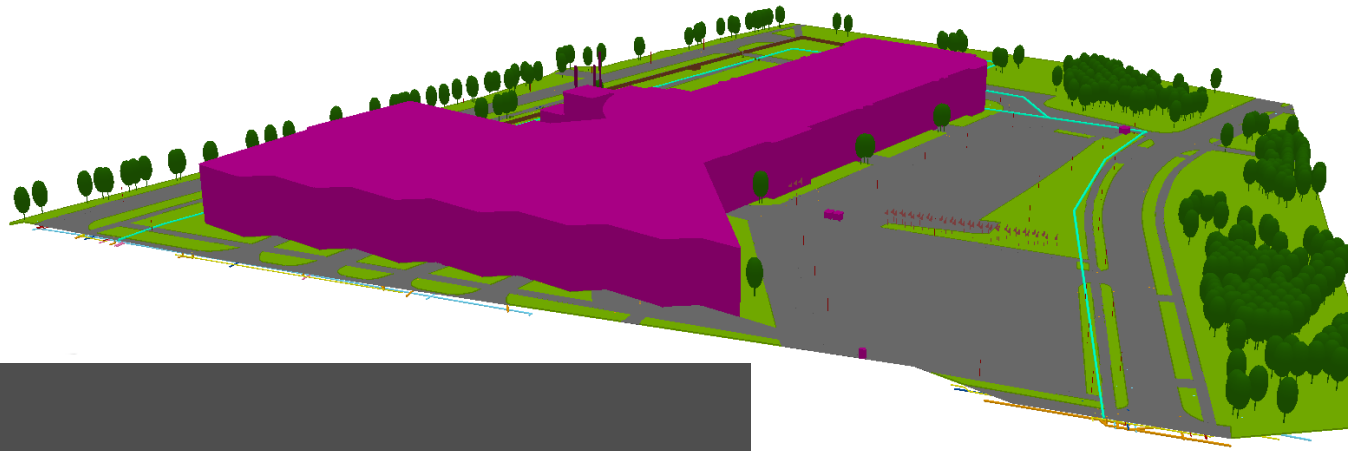
Other examples (1)

- 3D Floor plans



Other examples (2)

- 3D Underground Communications



Results

- ArcGIS is significantly simplifies the time of property management and inventory;
- It is a convenient tool for decision making and planning in the context of property development;
- It allows to gather all the information related to the property in one place and in a convenient way - online and without any additional specialized software;
- The main goal of the project is to gather in this way all possible information in the 3D environment for all territories owned by RTU throughout the country.

Results

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RTU apsaimniekotās teritorijas



Web Mapping Application

1. RTU Ķīpsala 14.11.2018



Web Mapping Application

2. RTU Ķīpsalas
peldbaseins 14.11.2018



Web Mapping Application

3. RTU Meža ielas
komplekss 14.11.2018



Web Mapping Application

4. RTU stadions
Daugavgrīvas ielā
14.11.2018



Web Mapping Application

5. RTU Pulka iela



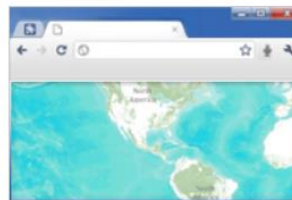
Web Mapping Application

6. RTU "Ronisi" atpūtas un
sporta baze 14.11.2018



Web Mapping Application

RTU IEF 2D



Web Mapping Application

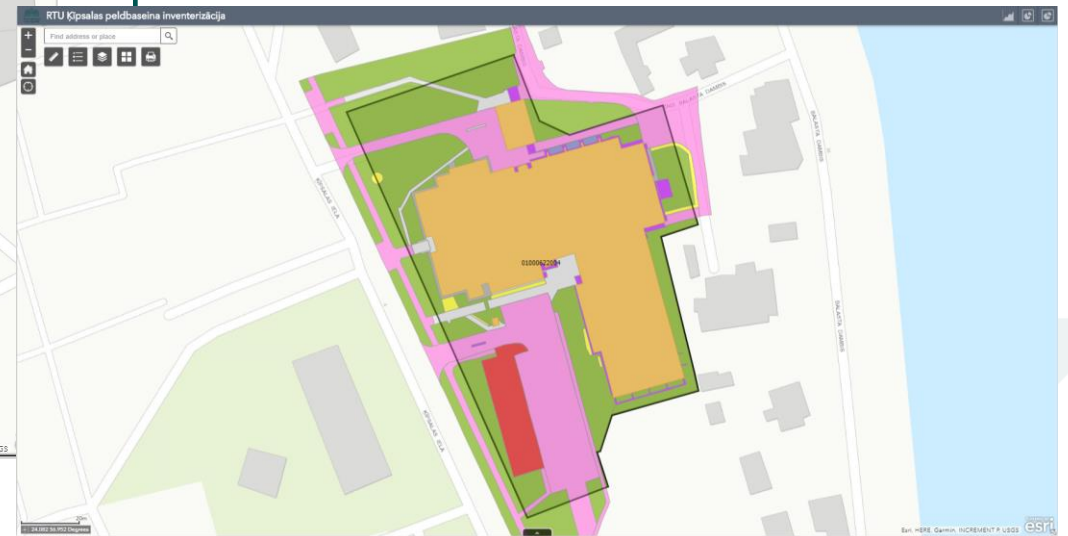
RTU IEF 3D



Previous 1 Next

Results

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- It is a convenient tool for decision making development;



Thank you!

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