assessments instantly – all in a highly synergetic, efficient and easy to use environment.

The starting point in Geodesign Hub is the set-up of evaluation systems. These systems shall answer the question whether the current study area is working well or not. Up to 10 evaluation systems are allowed. This idea follows the logic that before you can start thinking about change you have to find out how well your systems are working currently. We decided to focus on the following 10 systems:

1. Agriculture
2. Forest, parks and protected areas
3. Roads
4. Education facilities
5. Low-density housing
6. High-density housing
7. Small food processing enterprises
8. Touristic facilities
9. Aquaculture
10. Greenhouses

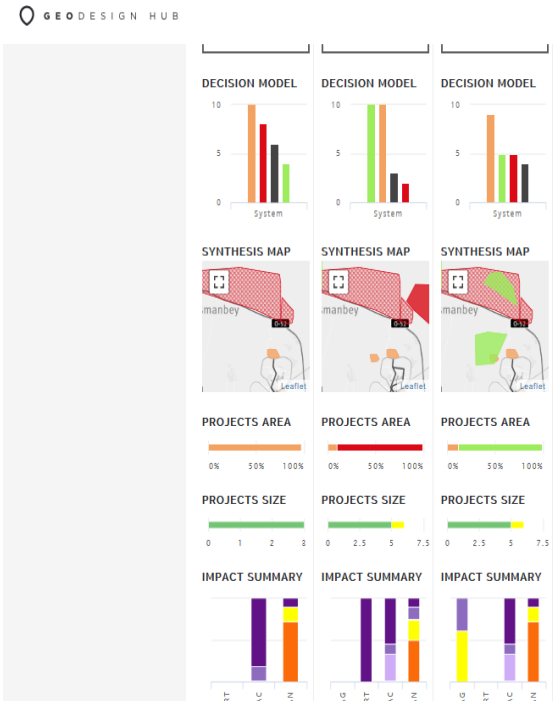

Figure 4. Geodesign Hub showing 3 development scenarios

Accordingly, data collection had to be limited to support the evaluation of the above mentioned systems. Among others, the deployment of Unmanned Aerial Systems (UAS) seemed to be necessary in order to collect data with the required accuracy for such a vast area. For collecting data in the already developed area, a multi-copter based and in the bigger undeveloped part of the campus, a fixed wing based system has been acquired, training conducted and testing carried out.

Figure 5. Point cloud of GAP YENEV derived from multi-copter UAS

4. CONCLUSION

Harran University decided to create a new master plan for its main campus, Osmanbey, using Geodesign methodology. Using this methodology, the master plan would satisfy three criteria: 1) Creation based on a participatory approach, 2) Development of a user-friendly GUI allowing decion-makers to be actively involved, and 3) Building of a dynamic system that allow the easy integration of future changes. So far, passes 1 (definition of scope) and 2 (definition of exact methodology) according to the Geodesign methodology of Steinitz have been finished. Works for pass 3 (implementation of the methodology) are continuing.

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