DEEP UNDERGROUND CHALLENGE

OFFICIAL REVIEW REPORT

Project: GENESYS-POD **Author: Zeynep Yuksel**

1. Project Description

According the author, this projects provides a preparation center for the underground city of the future. The author named several threads, as climate change, heat, lack of water as a reason to provide underground facility in Sarnic, Izrael. The facility, which will serve as a first step for underground living, contains everything needed to produce for sustainable solutions for water, air and food production underground.

Facility is provided in about 200 m long, 50 m wide and about 20 m deep facility, where all necessary elements for sustainable production are provided. The projects define daylight source and provides details about facility construction.

2. Evaluation by Criteria

Criterion	Assessment
Relevance to the Deep Underground Concept	The project involves the construction of big underground structure in a traditional manner with steel and concrete support elements. Therefore, it does not address the fundamental principles of the Deep Underground Concept.
Geology	The location of the project is Kulturpark, Izmir. In terms of general geological structure and morphology, the basement around İzmir consists of the "Bornova Complex," consisting of an alternation of Upper Cretaceous-Paleocene sandstone and shale. The Sarnıç area is situated within the

	Inner İzmir Bay - Bornova Basin. The area is an active tectonic basin, shaped by extension and faulting. Basemant rocks consist with ophiolitic and metamorphic units from the Mesozoic–Paleozoic era (basalts, serpentinites, limestones, flysch). Above that there is the lder Miocene basin fill transitions upward into Plio–Quaternary continental deposits. That sedimenst are consisting unconsolidated gravel, sand, silt, and cla, typical of recent alluvial infill. The geology of area is influenced by extensional basins and fault structures and it plays a fundamental role in well productivity and hydrogeological behavior. This material is not ideal for place for facility, contructed according the deep underground concept.
Sustainability	This project address this topic by production of air and food, with sustainable use of water.
Benefit to the Community	The proposal envisions a place for developing the technology for later use.. which could significantly benefit the community.
Use of Modern Technologies	This project provides an use of modern construction techniques, but not from sustainable materials. But it provides using underground food production as a modern developing technology.
Feasibility of Construction	The realization of this object is feasible using modern construction techniques.
Quality of the Design	The design is detailed, provides the construction and interior elements.
Quality of the Presentation	The project consists of several posters and explanation sheet.. All submitted material clearly communicates the author's ideas and intentions.

3. Conclusions

This project does not fulfill all the requirements of the Deep Underground Challenge competition and therefore cannot be considered for the main awards.

However, it proposes the facility for developing technologies, needed for living underground. as a first step to the underground construction.

From this perspective, *Genesys-Pod * is a significant project.

For this reason, the jury grants this project a Special Recognition Award.