Development of a modular model city for Unmanned Aerial Vehicle experiments – A visionary concept
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The Vision

- Generic European City
  - Little to no skyscrapers, dedicated city parts (residential, commercial, city centre, …)
  - Scaled down for UAV/UAS/UAM experiments
- Open experimental site for internal and external contractors
  - Different scaling, according to the individual needs
  - HorizonUAM experiments to kick-off the model city site
- Modular approach
  - Fixed vertidrome positions and street network
  - Moveable containers to represent buildings
  - Possibility to include UAV exposure experiments
The Vision

National Experimental Test Center for Unmanned Aircraft Systems in Cochstedt (Artist rendering, DLR)
Part in the project

- Part of the subtask Vertiport to serve as an „analogue“ counterpart to the simulative approaches
- UAS Test Site as a part of the development of the National Experimental Test Center for Unmanned Aircraft Systems in Cochstedt
- Planned outcomes (in the course of the project)
  - Scaled model city
  - Test site for the flight experiments
Final concept

Isometric view (T. Stephani, DLR)

Street view (T. Stephani, DLR)

Street view (T. Stephani, DLR)

Close-up on the Vertiport (T. Stephani, DLR)
Final concept
Future work

- Acquisition of the area
- Acquisition of necessary permissions (construction, environment, legal)
- Construction planning and implementation
- Planning of construction and scientific equipment → continuous dialogue with future users to determine a „minimum necessities“ list
Thank you very much for your attention!