



**Urban Air Mobility
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**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



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

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!



Wissen für Morgen

