



# Virtual Validation and Verification of the VaMEx Initiative

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## Requirements of Virtual Testbeds

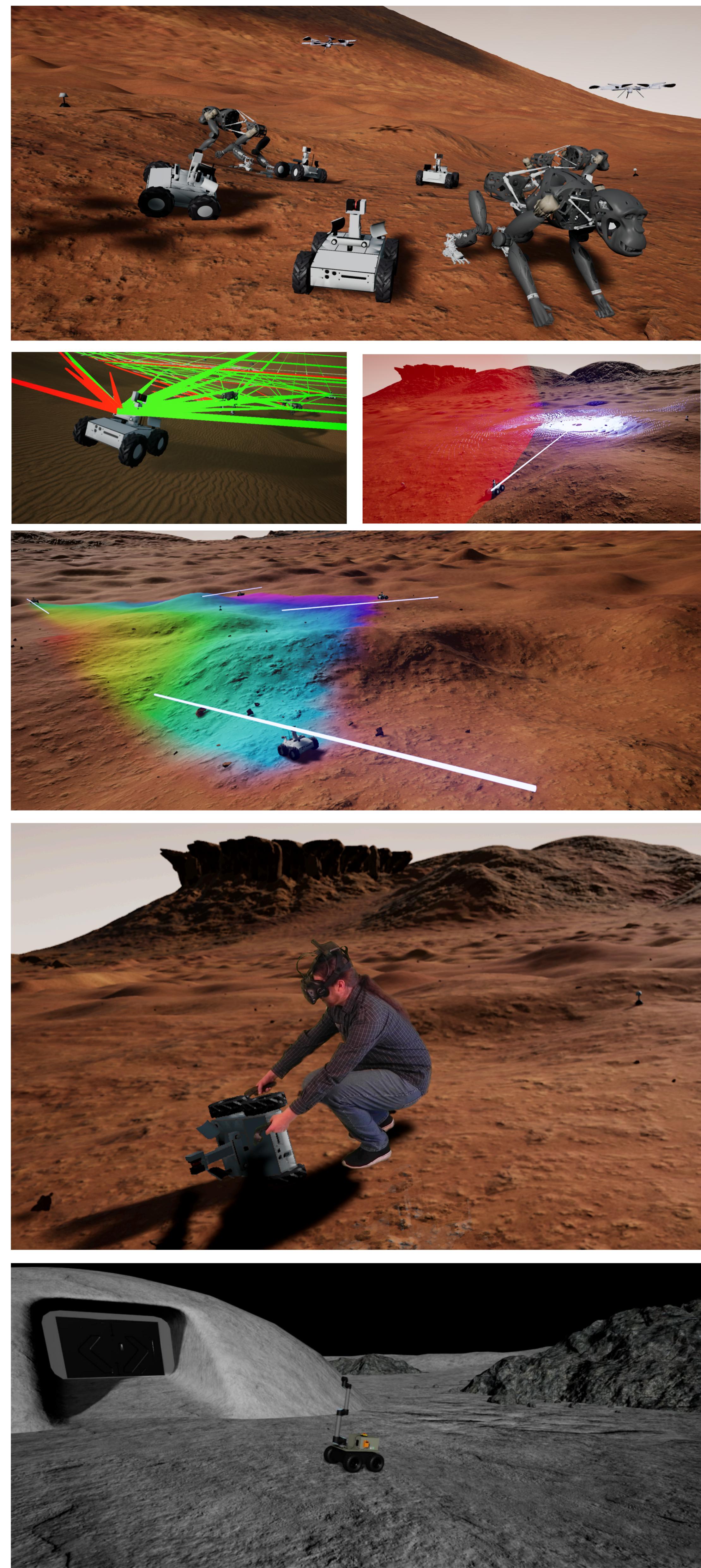
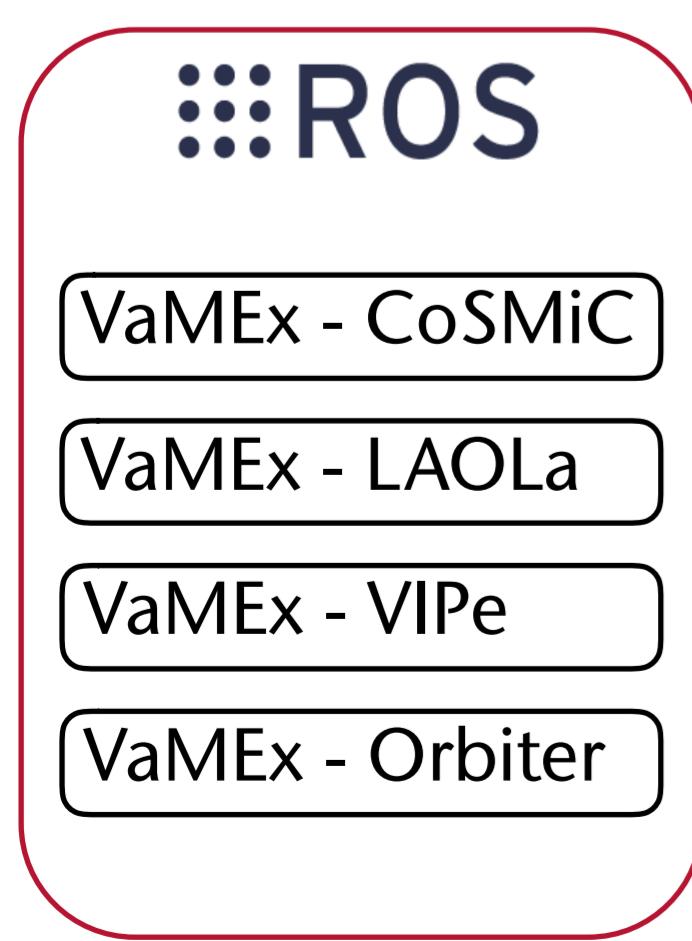
- Realistic simulation
- Faster than realtime
- Validation & verification
- Modular architecture (ROS)
- Handle large amount of terrain data and swarms
- High-bandwidth sensor data

## Use Case VaMEx

- **VaMEx** initiative for planet Mars
- Autonomous cooperating heterogenous swarm
- Integration of earlier projects
- POIs: resources, caves

## Features of VaMEx-VTB

- Realistic sensor synthesis
- Physical behaviour
- Visualization of meta data
- Desktop and VR
- More than 40 km<sup>2</sup> realistic area
- Adaptable to moon village and many more ...



<https://cgvr.cs.uni-bremen.de/research/vamex-vtb/>

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