Dedicated to innovation in aerospace

Open Calls Space - Horizon Europe opportunities

Royal Netherlands Aerospace Centre (NLR) l 1-nov -2021

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Innovating for the Netherlands

Partner of choice for space developments and expertise

SPACE NED

I&W / EZK / DEF / J&V

Global player with Dutch roots

Innovation practically

NLR supports the whole innovation chain:

- **Process**
  from idea to prototype
- **Product**
  from development of sensor to information product

Overview NLR space

SYSTEMS

- Small satellites

SPACE APPLICATIONS

- Satellite navigation
- Earth observation
- ISR
- Space situational awareness (SSA)

SUBSYSTEMS

- Thermal control
- Space qualified electronics
- Electromagnetic compatibility
- Antennas
- Structures and materials

OTHER

- AR / VR technologies
- Prototype design and manufacturing
- Material and structural testing
- Security and safety analysis
- Environmental testing
- Low gravity flight testing

Main topics of interest in upcoming HE space calls

Type of calls	NLR capabilities and interest areas
Satellite communication systems & services (incl. GOVSATCOM)	• active beamsteering antenna's for LEO – MEO –GEO • Software defined radio's (SDR's) • cybersecurity solutions (with AI)
Earth observation systems & services	• On-board autonomy (with AI) • Cyber security • Deployable optics (hyperspectral or TIR)
Future space ecosystems	• in-orbit assembly, production (Additive manufacturing) & maintenance
Space transportation solutions and services	• (Production) concepts of micro launchers, kick stages, satellite deployment systems • Structural health monitoring (reusable concepts) • Additive manufacturing, automated composites production • Avionics, on-board computer and data processing unit (DPU)

Main topics of interest in upcoming HE space calls

Type of calls	NLR capabilities and interest areas
Copernicus evolution	• Machine learning techniques and AI for automatic feature recognition • Integration of space and non-space data • (Near) real time information solutions
EGNSS applications for mobility, safety etc	• Robust navigation solutions (incl. sensor fusion techniques) • Cyber security and cyberthreat mitigation • interference detection & localisation
SST & STM systems, missions and sensor networks	• SSA-tool: data fusion, operational insight & space debris mitigation • STM awareness development & concepts

Thank you for your attention!

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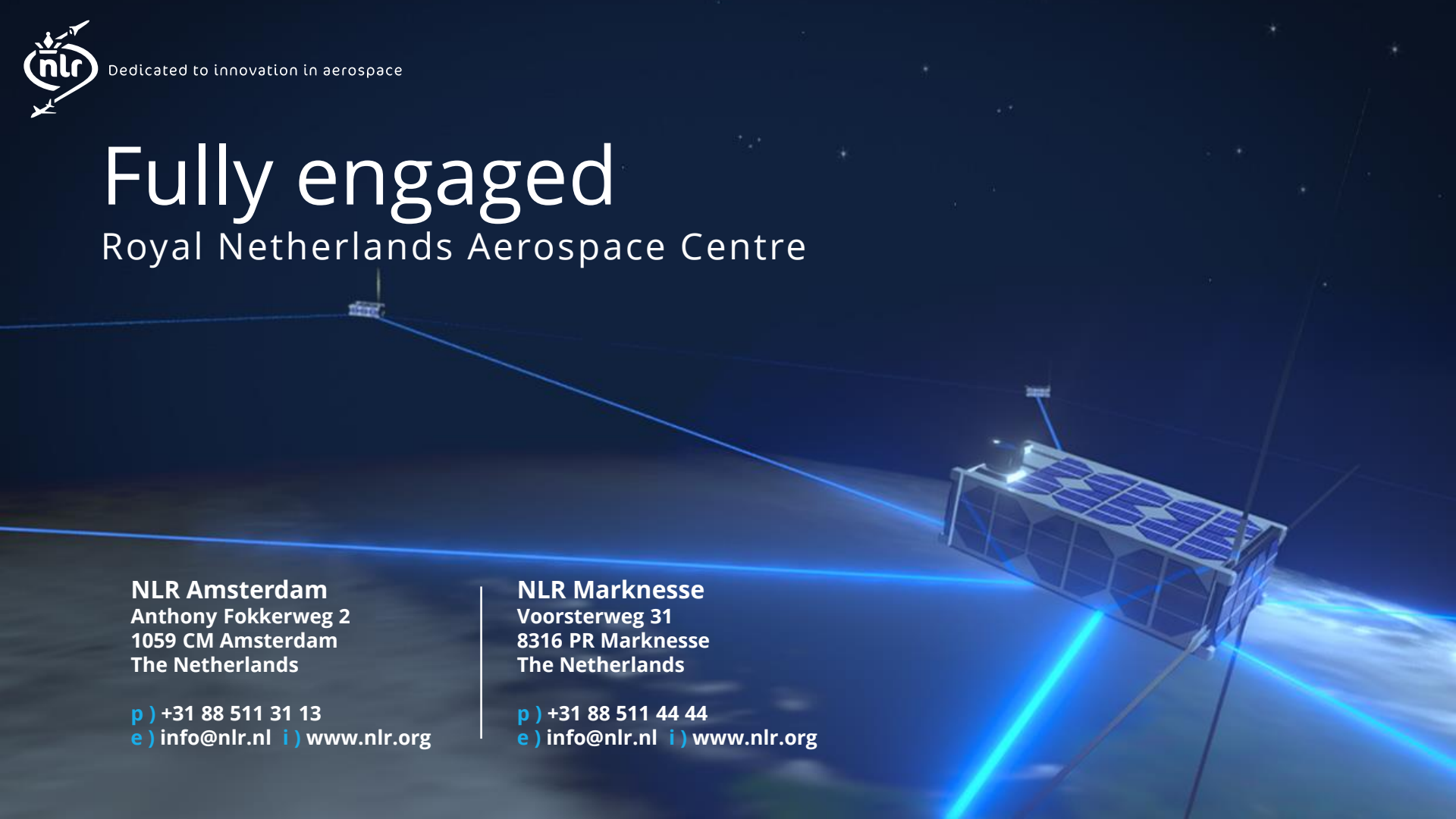
Dedicated to innovation in aerospace

Fully engaged

Royal Netherlands Aerospace Centre



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