



Belgium charts its course for “space defence applications” innovation

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DIRS Technology Roadmap sets the vision for 2025–2035

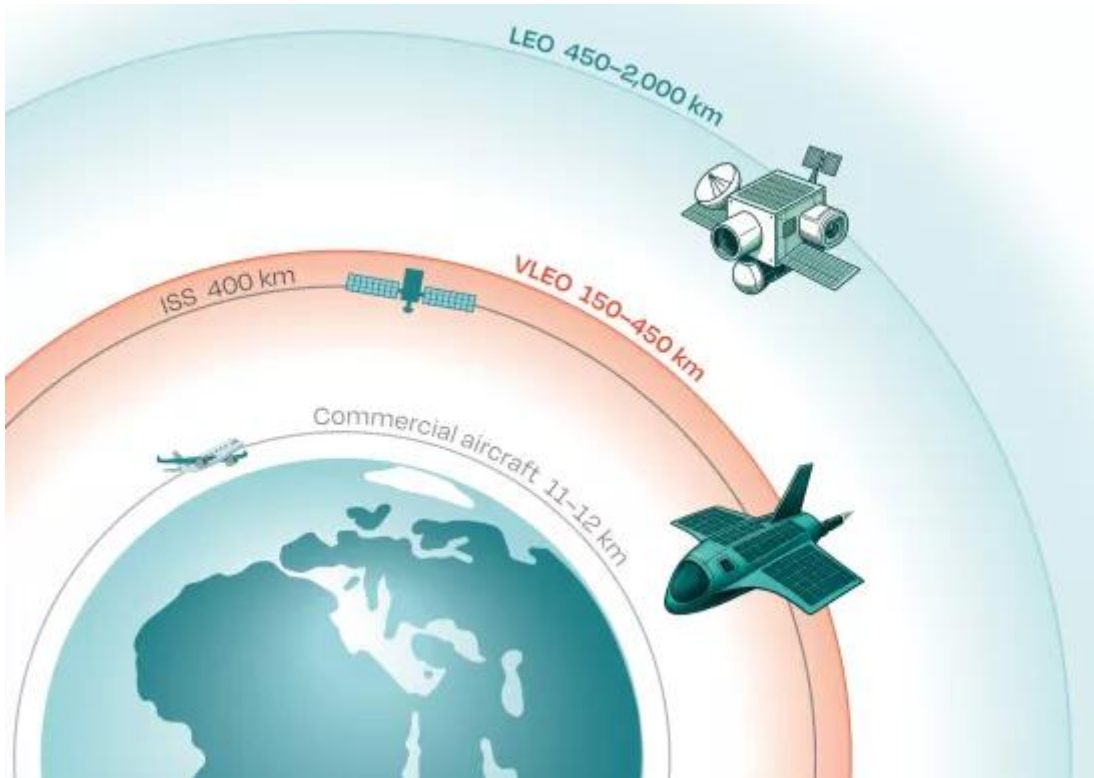
Belgium is stepping forward in the field of space defence applications innovation. The Royal Higher Institute for Defence (RHID) has released the **DIRS Technology Roadmap on Space Defence Applications**, outlining national priorities that will guide research and technology development for the next decade. The roadmap, part of the *Defence, Industry and Research Strategy (DIRS)*, is now available for download on the [RHID](#) website.

Sirris at the core of the roadmap’s development

Sirris, Belgium’s industry-driven technology innovation centre, coordinated and edited the roadmap on behalf of RHID. Working closely with experts from defence, industry, academia, and research organisations, Sirris translated strategic priorities into clear research and technology development (RTD) agendas.

This work included:

1. Organising stakeholder workshops to define key sub-domains, challenges, technology needs and shared objectives
2. Mapping Belgium's Defence Technological and Industrial Base (DTIB) and its capabilities
3. Developing technology roadmaps for **Space-Based Earth Observation**, **Space Situational Awareness (SSA)**, and **Very Low Earth Orbit (VLEO)** technologies



Driven data fusion for future satellite

A shared national effort

The roadmap reflects the combined contributions of more than 40 Belgian companies, universities, and research centres from Belgium's DTIB. This network represents a strong, multidisciplinary ecosystem capable of supporting national and European defence ambitions in space applications.

The roadmap identifies research priorities such as:

- **AI-based Earth observation systems** for rapid intelligence and threat detection
- **Autonomous SSA sensors** to monitor and characterise space objects in real time
- **Electric propulsion, power provision, and aerodynamic platform design** for sustained Very Low Earth Orbit operations

These capabilities will help Belgium contribute to European strategic autonomy while enhancing national security and resilience.

Why this matters

"The DIRS roadmap offers a structured vision for the period up to 2035 and shows how the Belgian DTIB can evolve through cooperation, targeted R&D and capacity development."

Space is becoming a critical domain for defence and security. From early-warning systems to satellite-based intelligence, space technologies underpin both military and civil resilience. By defining a long-term roadmap, Belgium ensures that innovation efforts align with national interests, European cooperation, and industrial competitiveness.

The DIRS roadmap provides a structured vision up to 2035, showing how Belgium's DTIB can evolve through collaboration, targeted R&D, and capability development.

How Sirris supports defence & security innovation

Sirris's role in the DIRS roadmap reflects its core mission: helping companies innovate efficiently and securely. For organisations active or interested in Defence & Security, Sirris offers expertise across the full innovation chain, from idea to industrial deployment.

Its services cover:

- **Concept creation and validation:** technology roadmapping, IP strategy, and consortium setup
- **Product and process development:** additive manufacturing, advanced materials, AI-enabled and cyber-proof solutions
- **Testing and manufacturing:** climate and component testing, scalable and digitised production

Through this integrated support, Sirris connects defence priorities with industrial innovation, bridging the gap between strategy and implementation.

Belgium's DIRS roadmap marks a key milestone in shaping the nation's role in European space defence applications. By coordinating this effort, Sirris reinforces its mission to turn technology insights into real industrial impact, supporting companies to innovate securely, sustainably, and strategically.

Would you like to discover the full vision?

Download the DIRS Technology Roadmap on Space Defence Applications via the Royal Higher Institute for Defence (KHID).

[Download the DIRS roadmap](#)

Would you like to innovate in defence and security?

Discover how Sirris guides you from idea to industrial application, with expertise across the entire innovation chain.

[Discover how Sirris supports you](#)

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