



Enhanced Readiness

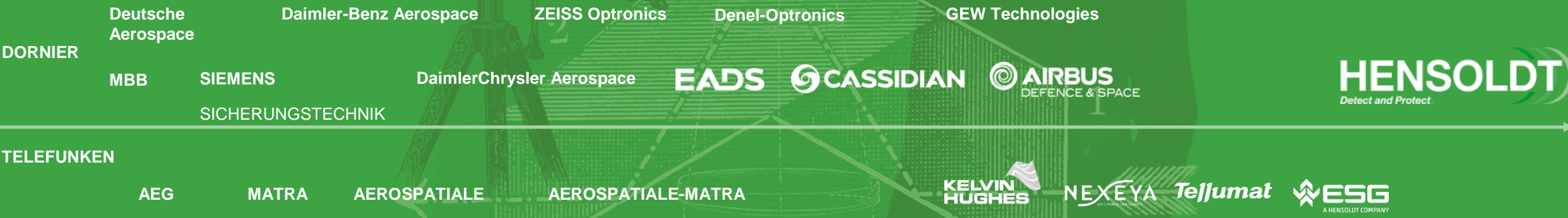
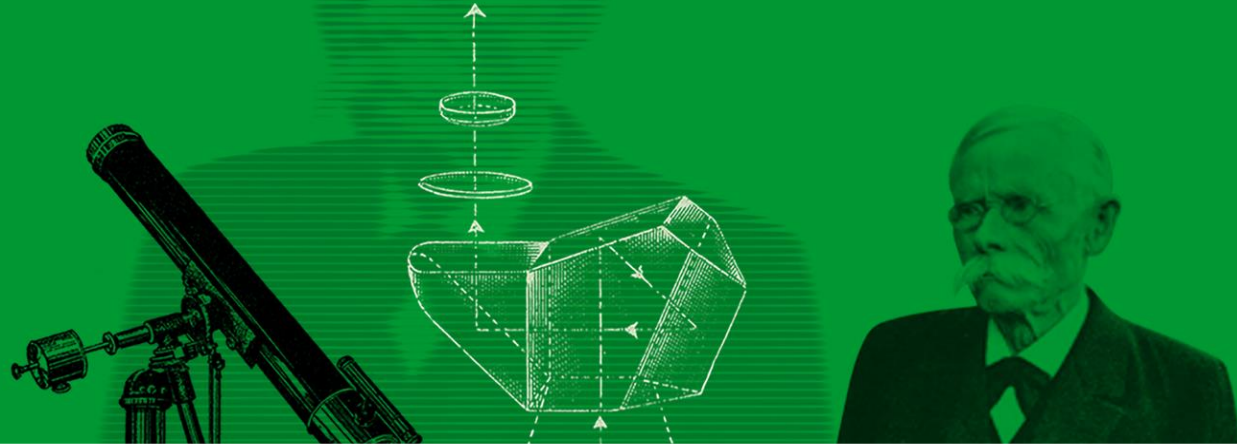
... through XR Gaming Technology

2024/05/28 – Tobias Sorg, HENSOLDT Sensors



Our heritage

Innovation is at the core of HENSOLDT's DNA



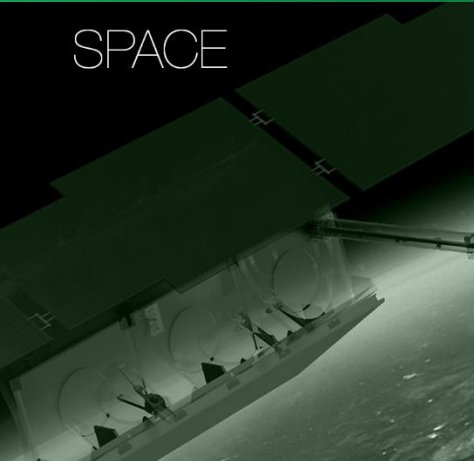
Detect and Protect.



Capabilities

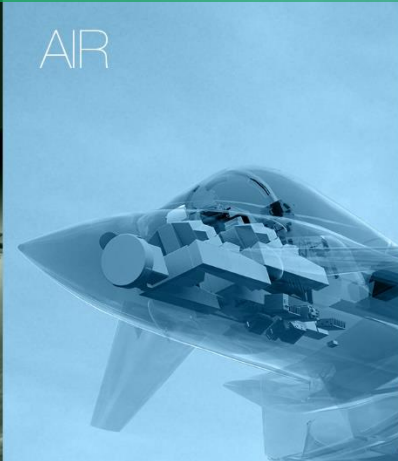
Our core competence is to detect threats and protect what matters most

SPACE



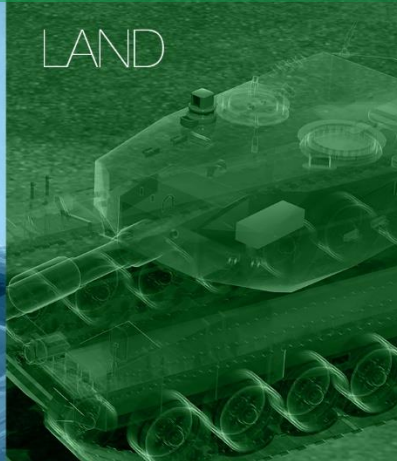
- Optical communication in space
- Planet and space observation
- Protection in space
- Space consulting

AIR



- Air traffic control
- Identification friend-or-foe
- Platform protection
- Air defence
- ISTAR
- Situational awareness
- Air mission management
- Electronic support and attack

LAND



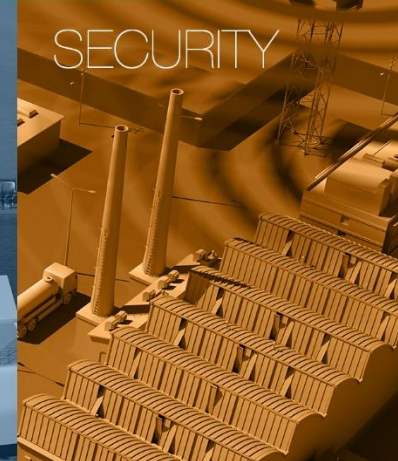
- Observation and targeting
- Situational awareness
- Reconnaissance and surveillance
- Platform and force protection
- Electronic support and attack
- Command posts
- Smart energy solutions

SEA



- Coastal surveillance
- Platform protection
- Situational awareness
- ISTAR
- Navigation
- Electronic support and SIGINT

SECURITY



- Border protection
- Infrastructure protection
- Force protection
- Counter drone

CYBER



- Controlling the information space
- Embedded secure IT
- Tactical cyber security
- Cryptology and secure communication
- AI-based OSINT analytics
- Private cloud service

Serious Games in XR?

“A type of game that utilizes XR tech for a purpose other than pure entertainment.”

https://en.wikipedia.org/wiki/Serious_game



Some Use Cases



<https://unimersiv.com/military-incorporating-vr-troop-training/>

Immersive simulation scenarios.



<https://militaryembedded.com/avionics/software/military-skills-shortage-augmented-reality>

Enhancing real-world training with digital elements.



<https://www.youtube.com/watch?v=bFRB8kSWHRE>

Integrating virtual and real-world components.

Characteristics

SERIOUS GAMING

Motivation



Skills



Retention

XR

Immersion



Entertainment

Education

Challenges in Military Training '23



Study Analysis

Study: VIRtual Training of Urban Operations as a Multi-user Scenario

by HOLOGATE and German Army '2024

Real value-add to existing training 97%



Better understanding 85%



Effective assessment 84%



Today's Limitations



Technical Limitations



High Initial Costs



Simulation – Reality Discrepancies



Dependency and Over-reliance



Cybersecurity

Thanks for your Attention

Why XR Serious Gaming?

- **Enhanced Learning Experiences:** Increased Retention and Recall, Immediate Feedback
- **Improved Realism and Immersion:** Multi-sensory Engagement, Multi-sensory Engagement
- **Enhanced Tactical Proficiency:** Advanced Skill Development, Stress Acclimatization
- **Increased Safety:** Risk Mitigation, Error Reduction
- **Resource and Time Efficiency:** Cost-Effective, Time Optimization
- **Global Accessibility and Collaboration:** Uniform Training Standards, Enhanced Collaboration
- **Customization and Scalability:** Adaptive Learning, Scalable Environments
- **Data-Driven Insights:** Performance Analytics, Informed Decision-Making