Boolean

Boolean Einstein Telescope

Innovatieve Integration of Machine- and Building Automation

About the company

- Founded in 2021 by Chris Briers
- Thomas Nagels joined as partner in 2024

- Located in Belgium, the heart of Europe
- Offices in “FacThory” the Flemish Industry 4.0 hub

- 6 FTE and growing (fast)

- Mix of services & SaaS offering

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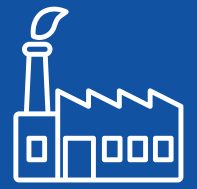
Multi-disciplinary Software Engineering

Information Technology

Industrial Automation

System Integration & Energy Management



Building Automation

Operational Technology

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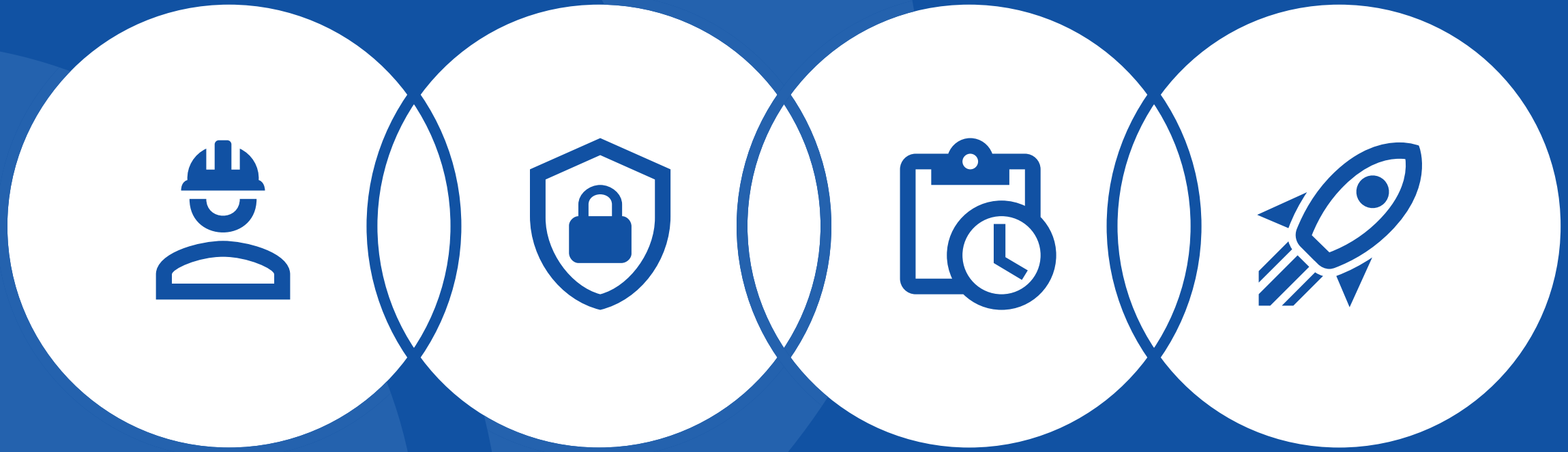
Methodology



Safety

Security

Reliability

Performance

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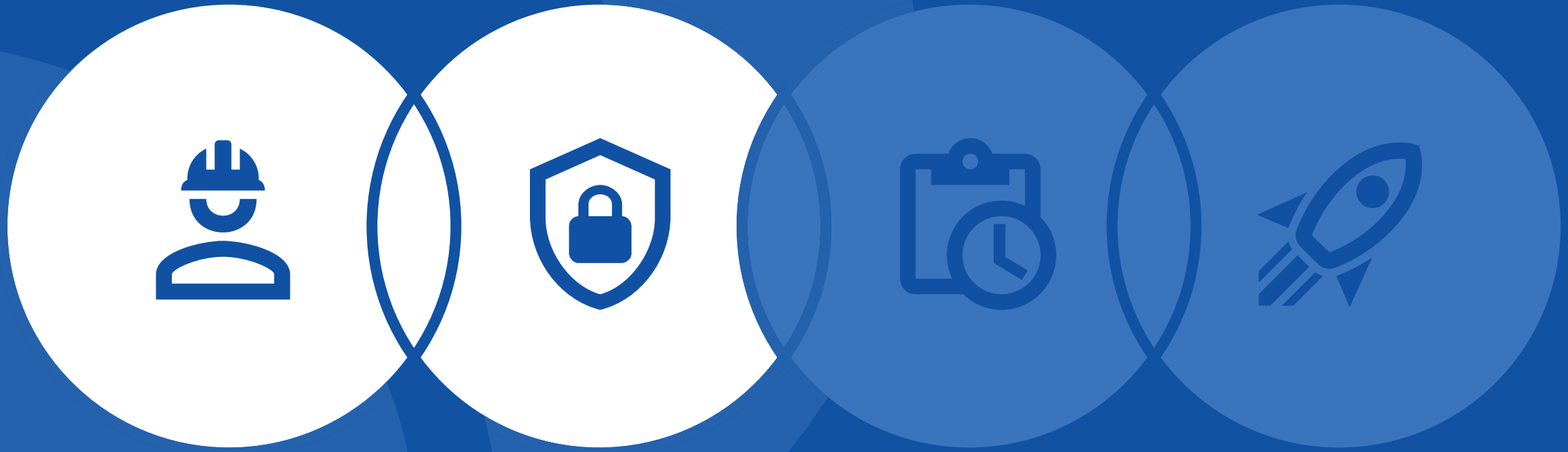
Methodology



Safety

Security

Reliability

Performance

Safety and Security in Different Universes

Industrial Automation	Critical Infrastructure	Building Automation
FSoE, PROFIsafe, OPC UA, Ethercat, …	Technology	BACnet , KNX Secure, Modbus, SIA DC-09, …
IEC 62061, IEC 62443, ISO 13849-1, ATEX, …	Standards	EN 50531, NBN S21-100, EN 50518, EN 60839, …
Proces control, operator safety, data availability, …	Applications	Access control, fire detection, intrusion detection, …

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Applied to the Einstein Telescope

- **Machine and building, simultaneously**
- Extensive underground facility
- High safety and security requirements
- Sensitive installation

Systematic integration of machines and buildings
is an innovation for the entire automation sector

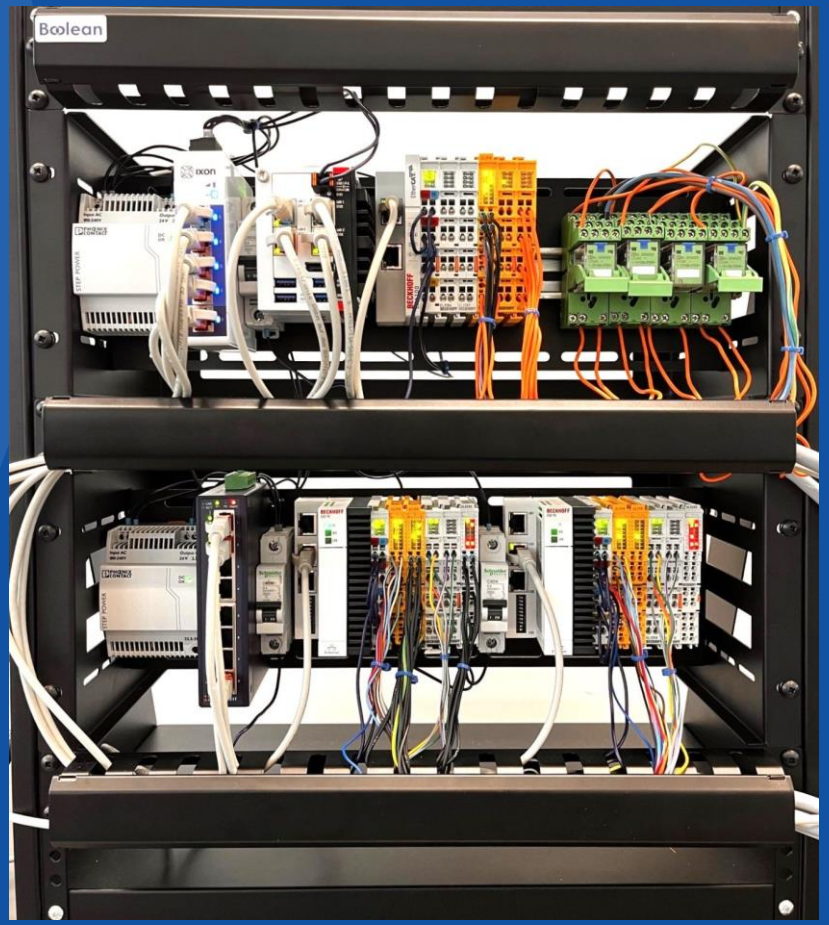
Project goals

1. Development of a framework of standards and technological guidelines integrating building and machine safety.
2. Development of an IT/OT system architecture enabling stable data exchange between building and machine control systems.
3. Network & cloud integration – design of the network architecture.

Current Project Results

- Goals reached for 75%
- Prototype IT/OT system built
- Projected completion in July

- Discussions with ET Pathfinder
- First applications beyond ET



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