

SAFECARE

Integrated cyber-physical security for health services



SAFECARE Commercial Event : Results/Impacts from a research and technical point of view

Gheorghe Suciu, Mari-Anais Sachian

Speakers

Eng. Suciu Gheorghe is General Manager and BEIA CONSULT INTERNATIONAL founder and owner.

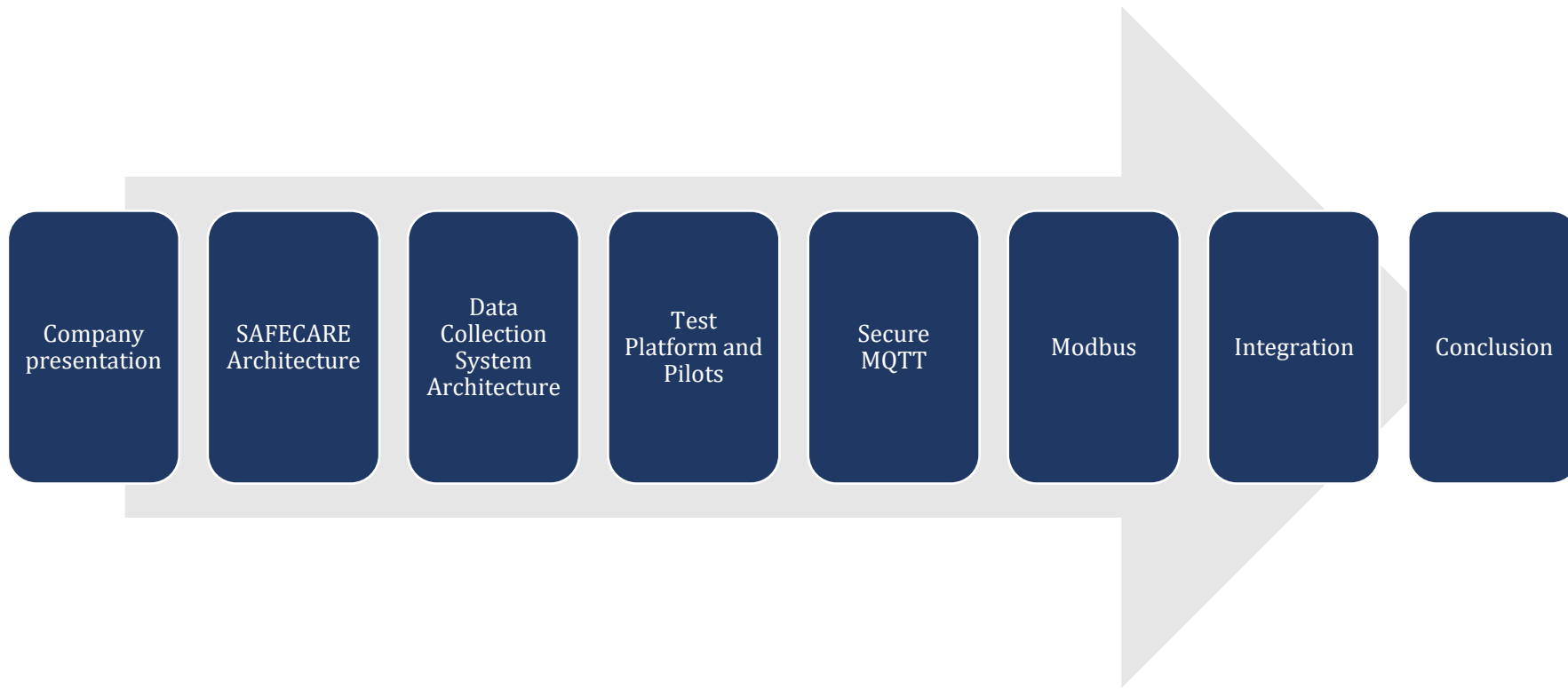
- University Politehnica of Bucharest.
- TEMIC Institute of Canada.
- Senior scientific researcher.
- Project management, electronics and telecommunication, ERP, cloud computing, M2M, IoT, Big Data acquisition and signal processing.
- More than 40 years activity in information and telecommunication systems.

Eng. Sachian Mari-Anais is a Research and Development Engineer at BEIA CONSULT INTERNATIONAL.

- University Politehnica of Bucharest.
- Cyber security, Embedded Programming, Blockchain Technology, IoT.
- Coauthor of over 10 articles in BDI journals.
- More than 4 years of experience in research activity.



Summary



BEIA CONSULT INTERNATIONAL SRL



- **Beia Consult International** is one of the leading providers of telecommunications equipment and solutions in Romania.



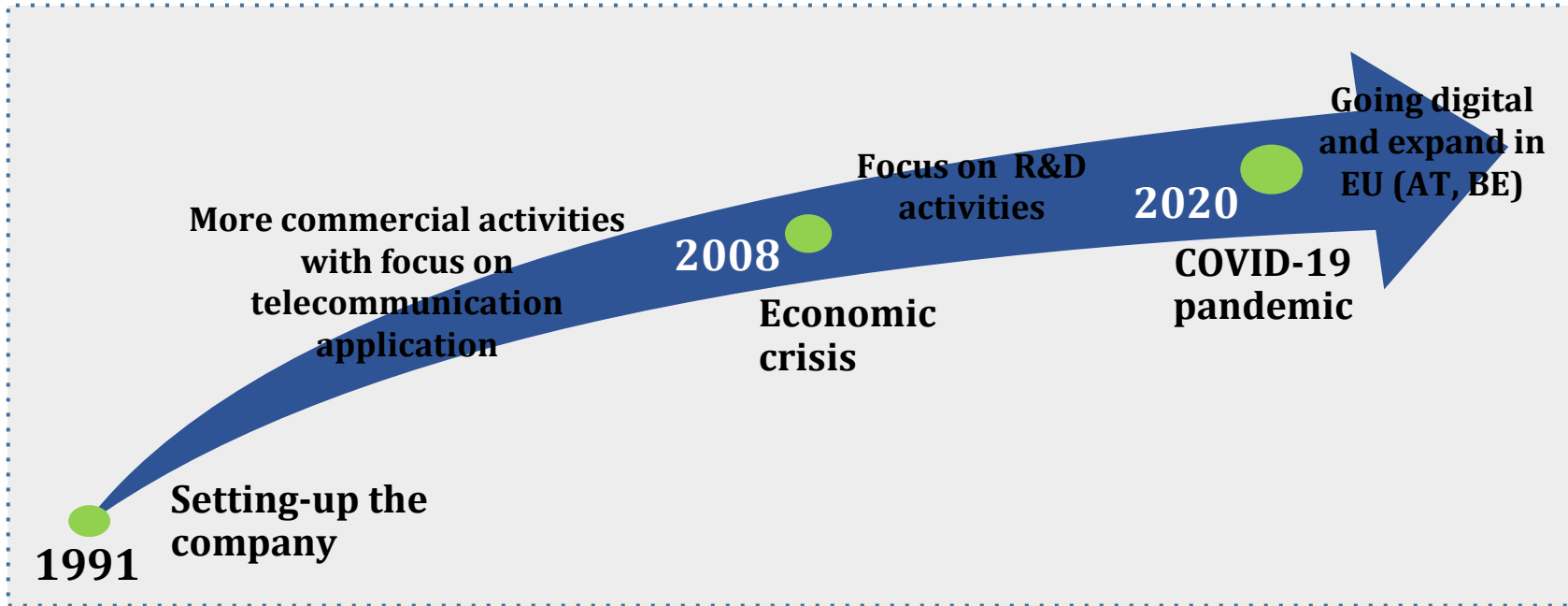
- **Main R&D European Projects.**



TOILET4ME



BEIA CONSULT INTERNATIONAL SRL



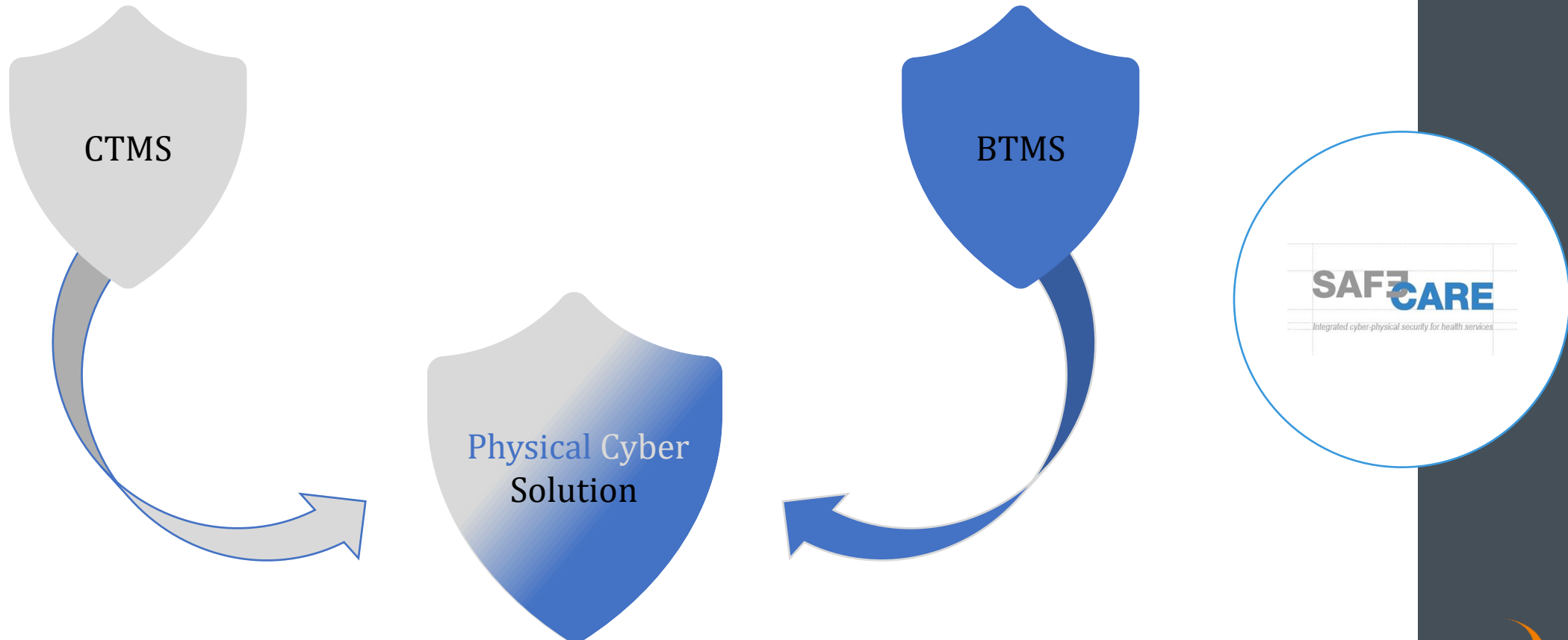
BEIA team

- 47 persons FTE
 - 30 within R&D department
 - 12 in sales and service
 - 5 in economic, HR & management

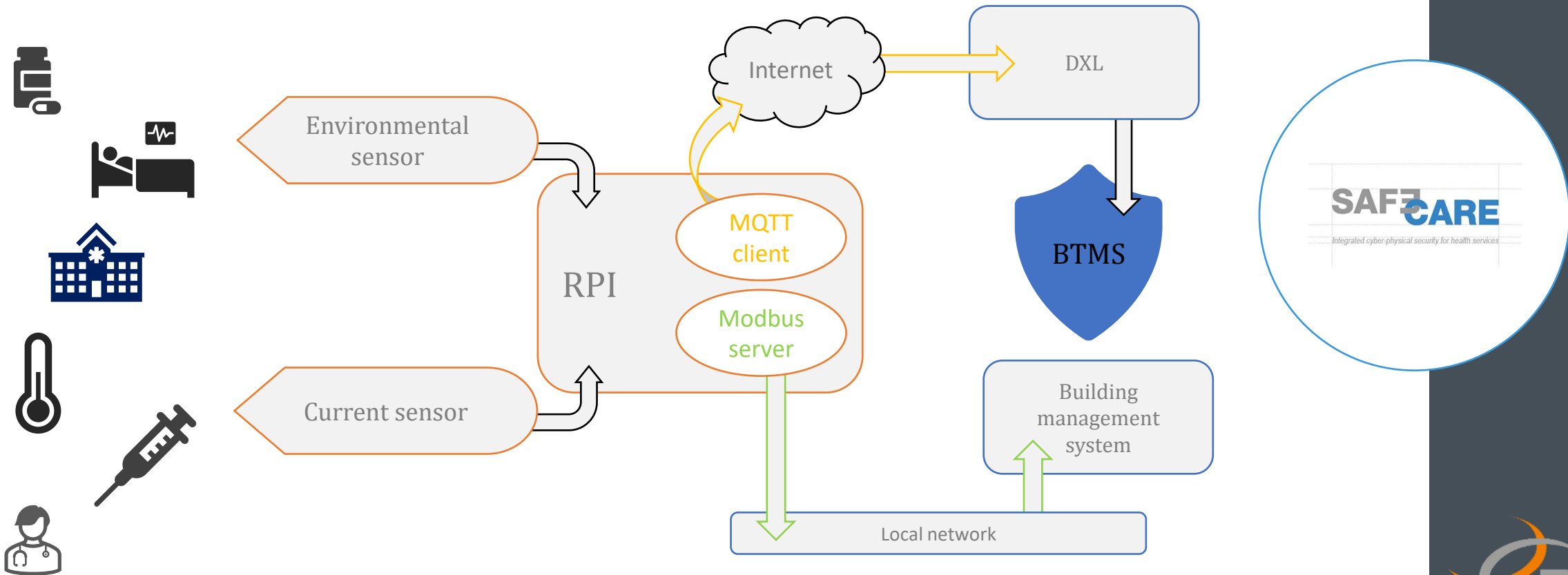
R&D projects

- EU** - H2020, Eureka Clusters, ERA-NET, Eureka network, Eurostars, etc.
- National** – National Research Programs, Operational programs, etc.

SAFECARE Architecture



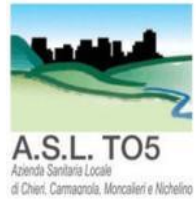
Data Collection System Architecture



Test platform and pilots



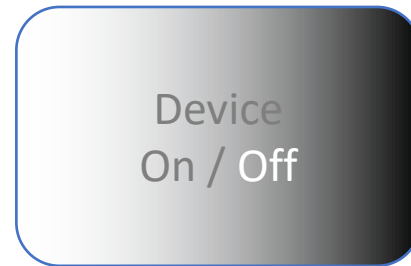
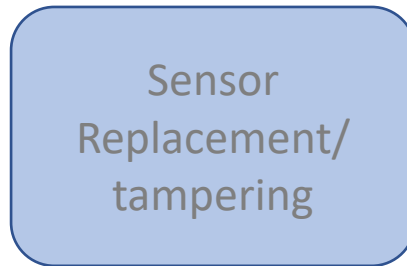
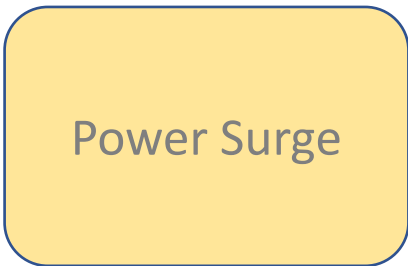
Marseille



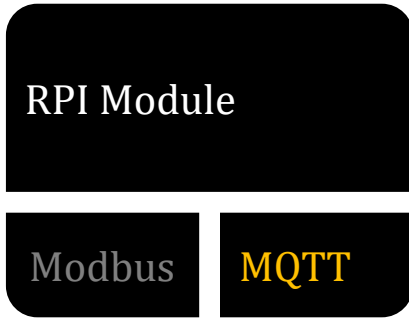
Turin



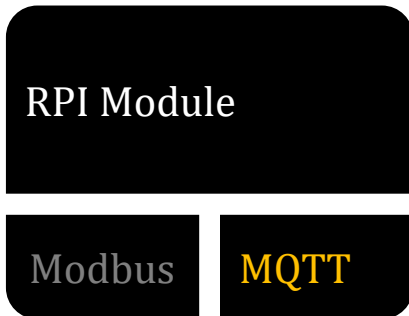
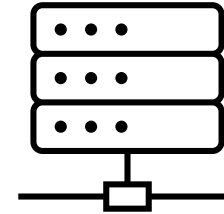
Amsterdam



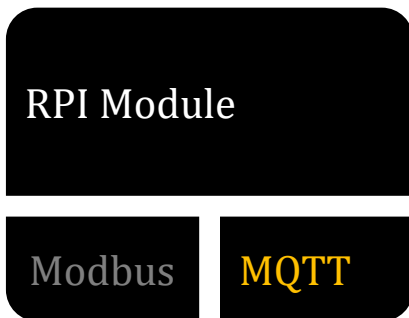
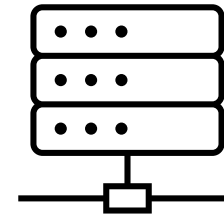
Secure MQTT



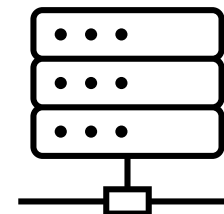
Initial connection



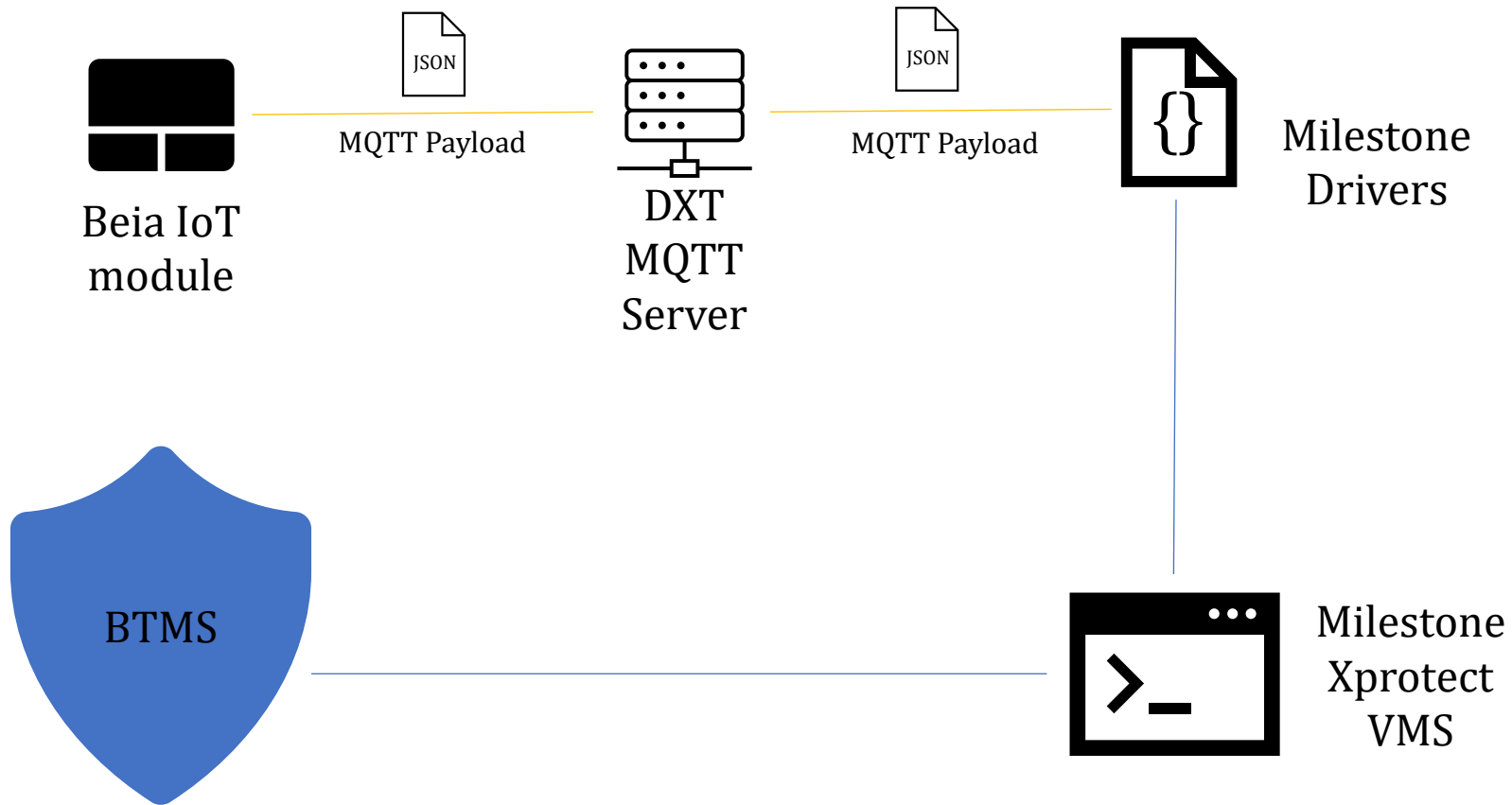
Certificate containing public key is send



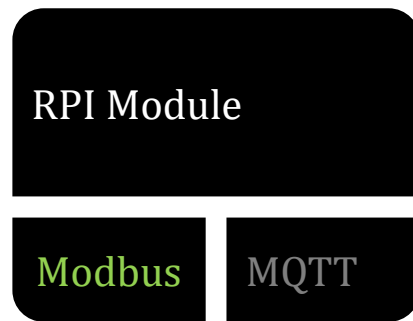
Session key is created and used for encryption



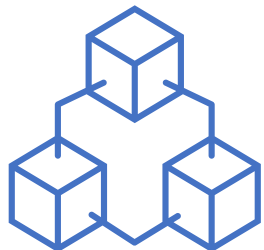
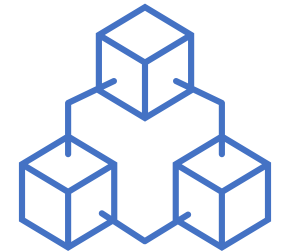
Secure MQTT



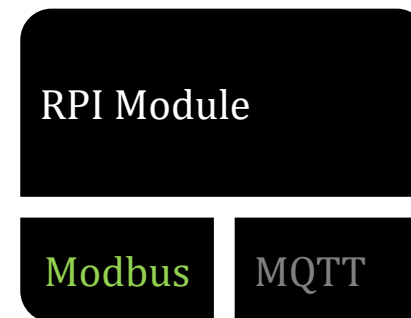
Modbus



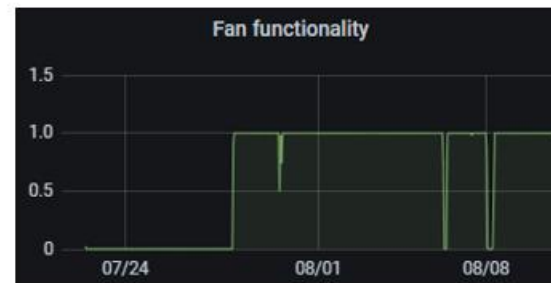
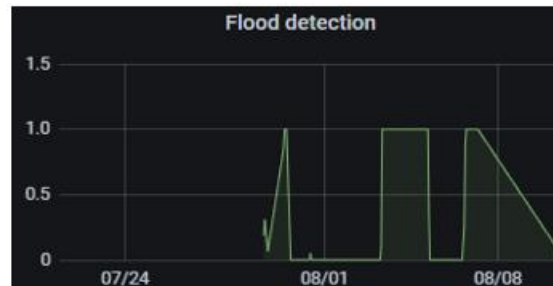
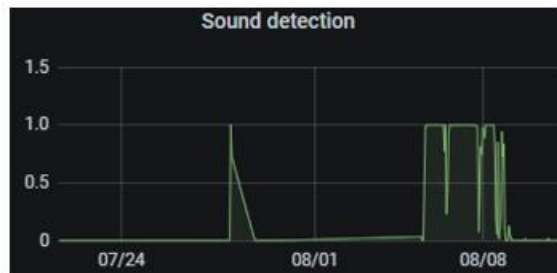
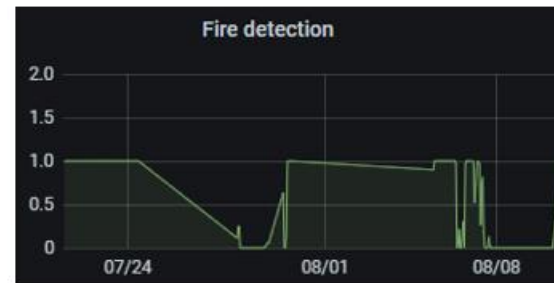
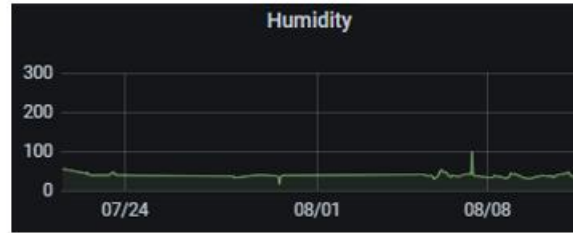
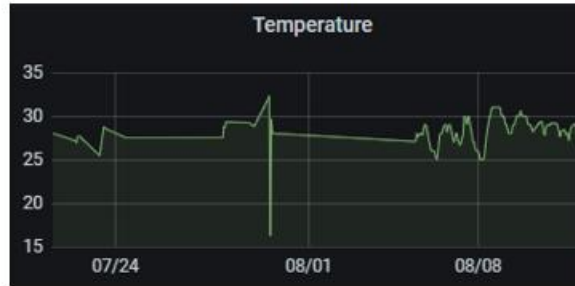
TCP IP connection



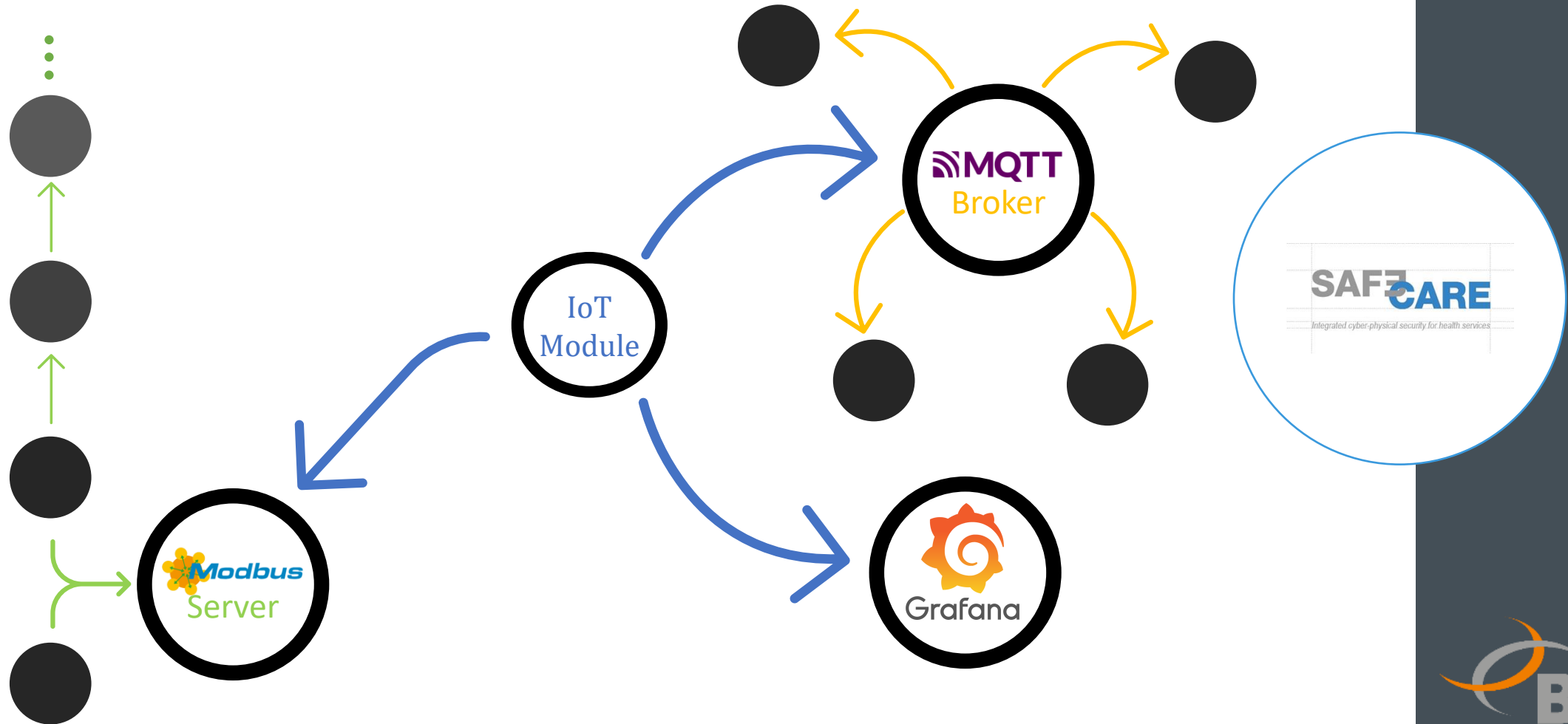
TCP IP connection



Grafana integrated solution



Integration



Conclusions

Innovation

- IoT monitorization in a hospital environment.
- Secure communication.



Challenges

- Integration with different hospital protocols.
- Dependency on the Hospital infrastructure.
- Multifunctionality.



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<https://www.safecare-project.eu/> 

@SafecareP 

SAFECARE Project 

Thank you for your attention!

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