Data Communication

(FEIM – **F**uture **E**lectronics for **I**ndustry 4.0 and **M**edical 4.0 project)

Objectives of the Project

The project will produce new outcomes in the form of cybersecurity software libraries for IoT devices, software for interoperability validation enhancing the IQRF ecosystem, hardware and firmware of prototypes implementing remote control and remote diagnostics.

Topics covered by the Project

- Implementation of cybersecurity solutions for both secure communication and product originality assurance
- Develop and test solutions for photonic generation of mmW signals upto 28/60 GHz
- Cloud based monitoring solution of aroma units
- Development of mobile unit for testing of communication signals aiming to support smart meter deployment
- IQRF ecosystem interoperability validation and automated testing

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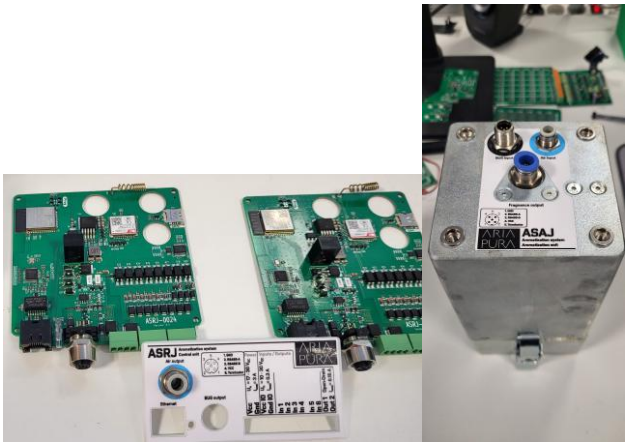
What will the Project Results enable?

- Cryptomechanisms designed to be enable authentication, key establishment, authenticated encryption and computation of authentication codes
- Authentication of fragrances preventing use non-original refills
- Solutions for 5G systems that use analog optical access network in the millimetre FR2 frequency range
- Verification of communication parameters, especially targeted for utility companies (water, electricity, gas or other physical quantities)
- Baseline validation of IQRF interoperability - an IQRF test tool will be made available in order to assure interoperability among IQRF devices produced by different vendors



Selected Results

- Cryptolibraries and a verified secure communication system (model) for data transmission in smart grids
- A photonic generation system that combines optical and high-frequency technologies
- Software for automated testing of basic interoperability of devices from different manufacturers using IQRF technology in their own IoT devices

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Partners involved:

More about FEIM project can be found on projects webpage.

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