

GOALS

- Create the “Facebook for smart devices” proof of concept
- Track and log data transferred by sensors, beacons, etc.
- Create the initial distributed DB of open, shareable and reusable data generated by smart devices

CHALLENGES

- Automatic creation and maintenance of profiles and feeds for smart devices
- Storage of data in machine-readable (semantic) format
- Identification of bottlenecks
- Verification of viability

DEMO SETUP

- Connection to the IMEC testbed
- Reading and analysis of sensors data
- Storage of data in linked data format (key:value, JSON-LD)
- On-the-fly generation of web pages using static and dynamic data
- Creation of 4 different profiles on the basis of obtained datasets depending on the type of stored data.
- Visualisation of feed and geo data stored in the profiles

RESULTS

- Tested data collection and storage
- Confirmed that data can be stored and used on any third-party services (GitHub pages, AWS, etc.)
- Produced a working example of a decentralized and API-free (access via HTTP) sensor database
- Prepared a demo of the first basic IoT profiles
<https://imec.wr.io/#dashboard>
- Confirmed the initially assumed bottleneck related to the page size
- No technical constraints for using various sensors with any types of datasets

MORE RESULTS

- Data can be stored on any static hosting services under full customer’s control
- No vendor-lock. Anyone is able to use open profiles without limitation
- First cases where prepared for our pilot clients: 24/7 agricultural field monitoring, waste bin level tracking, and a few more

CONCLUSIONS

- Proof of Concept is ready
- No restrictions for further usage, development and dissemination of the achieved results

POST MORTEM

- Participation in EU programmes to improve the product further from different tech and business aspects
- Elimination of the bottleneck at Stage 2
- Preparation of the product for more use cases
- Dissemination