

GOALS



- A cornerstone technology for the Internet of Things
- Under standardization in IETF
- Wire-like **reliability**, deterministic **latency**, bounded **duty cycle**



- **Continuous delivery benchmarking** on **w-iLab.t** and **IoT-lab** testbeds
- Unbiased benchmark to **industry**, **standards bodies**, **academic community**

CHALLENGES

Define industry-relevant test scenarios

- specific testbed nodes
- traffic pattern
- interference pattern
- transmission power

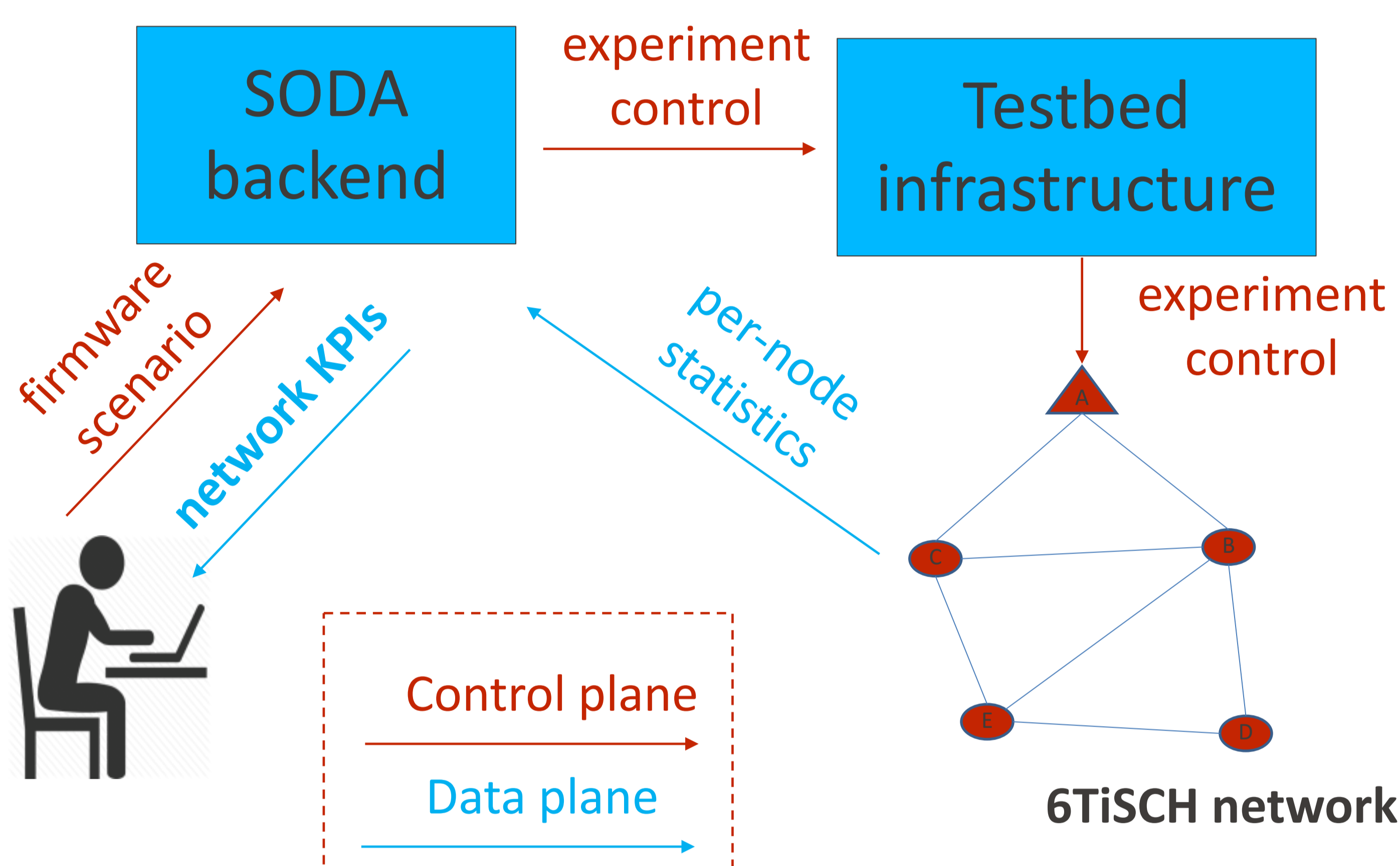
Synergy among different stakeholders

- testbed patron
- firmware developer(s)
- test scenario automation platform

Getting the community involved!

- IoT Benchmarking Initiative iotbench.ethz.ch

DEMO SETUP



RESULTS

A first prototype of the SODA platform is available!

- Complete workflow automated on IoT-lab Saclay
- Supports OpenWSN firmware
- Real-time metric monitoring



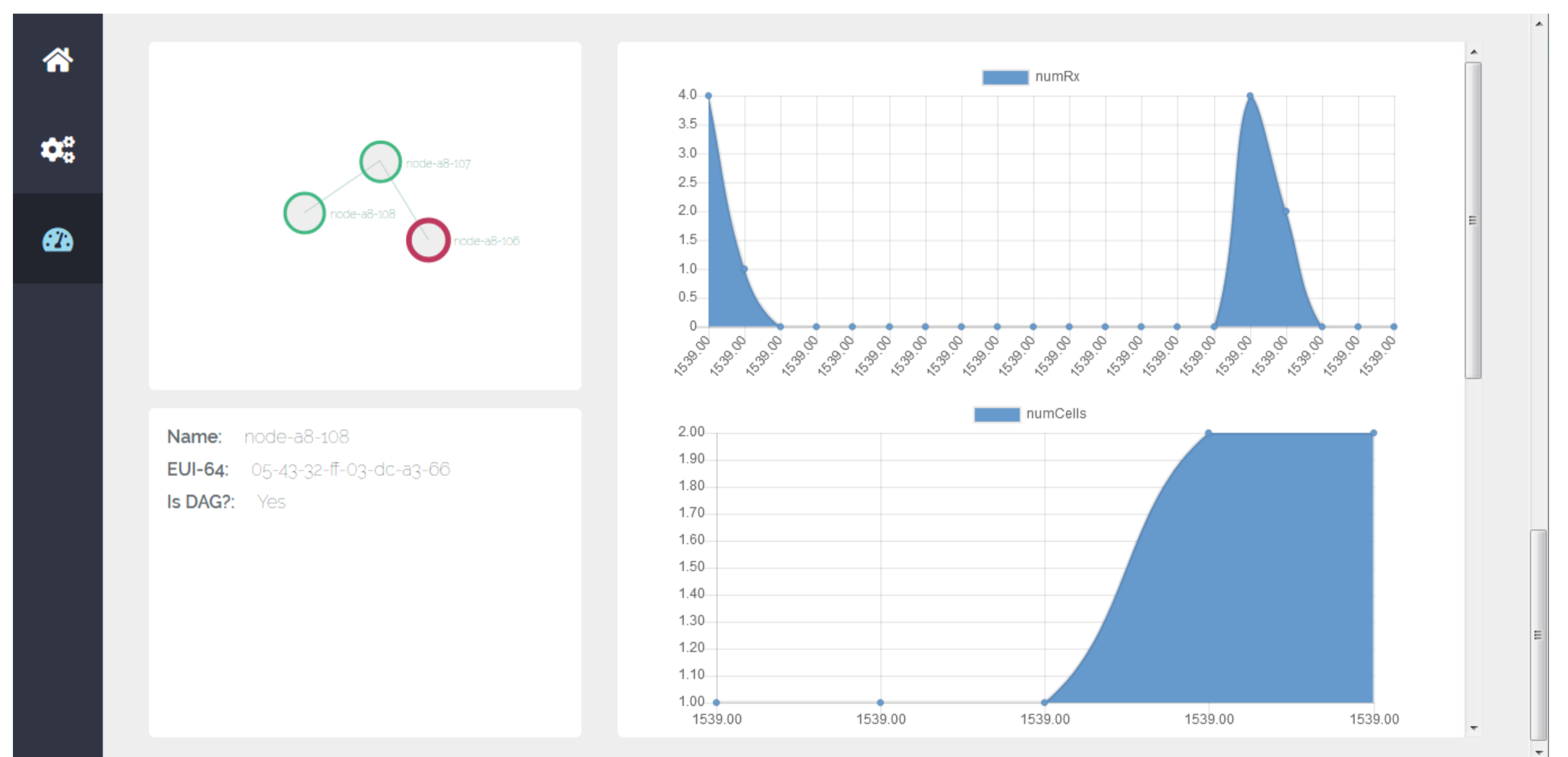
MORE RESULTS

Done

- Project website: www.soda.ucg.ac.me
- Integration with OpenWSN software for statistics collection and logging
- Extensive dissemination as part of IoT Benchmarking Initiative

Work in progress

- Measuring and logging new metrics
- Definition of industry-relevant scenarios
- Support for **w-iLab.t**
- Making the SODA platform production-ready



CONCLUSIONS

SODA is on track!

Great collaboration with Fed4FIRE patrons



Active collaboration with leading institutions around 6TiSCH networks



We are heavily involved in standardizing 6TiSCH within the IETF

POST MORTEM

We want to "raise the bar in the quality of experimental data" in the low-power networking community!

- Production-ready tools
 - A layer of network semantics processing on top of Fed4FIRE resources
- Continuous delivery benchmarking with:
 - Updates to the standards
 - Novel research proposals

www.soda.ucg.ac.me