



Federal Ministry
for Economic Cooperation
and Development



Nuremberg – Agency of Structural Engineering

Digital Strategies and Operational Challenges



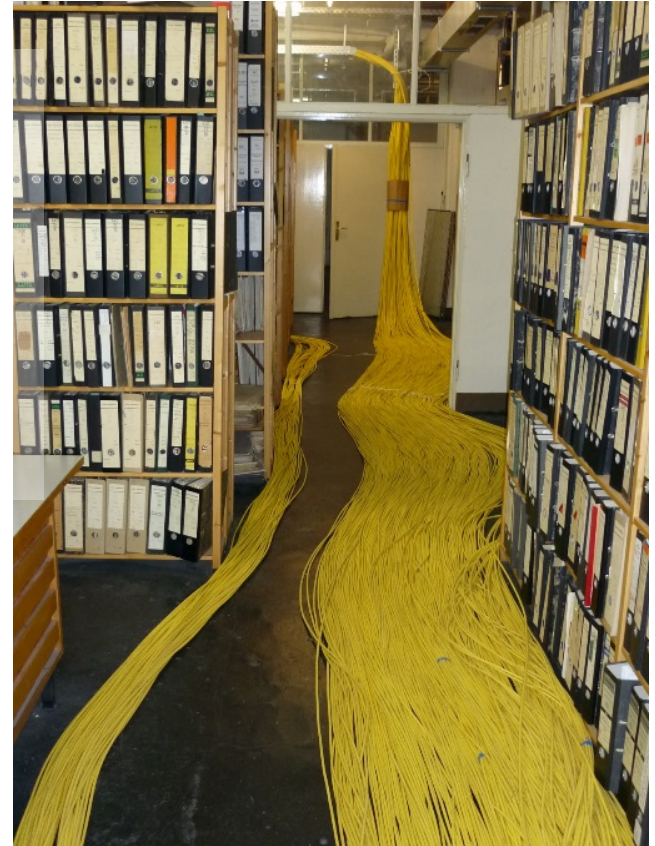
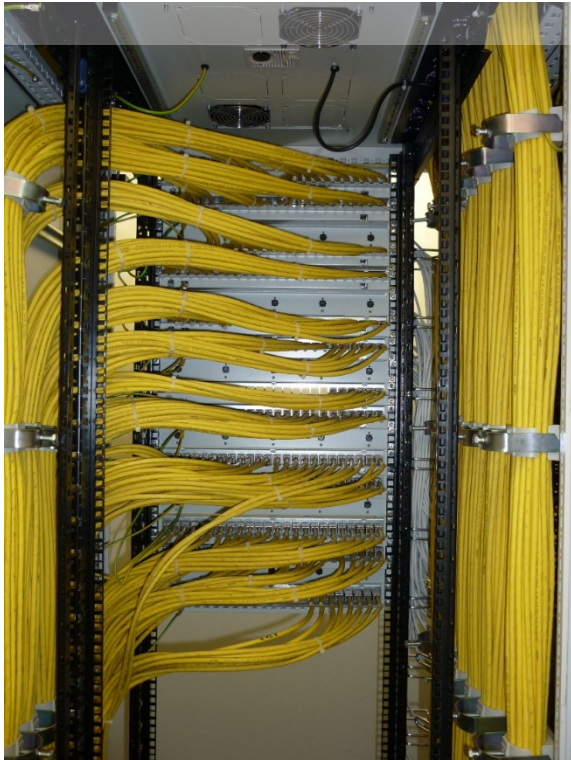
Department of Planning and Construction
Agency of Structural Engineering
Marientorgraben 11
90402 Nürnberg

Agenda Connective Cities Dialogue Event
Digital City – challenges and opportunities
Nuremberg, Germany, 23rd-25th October 2018

LAN/WLAN in Public Buildings

What you get

- According to requirement gapless wlan coverage in public buildings
- Supplemental lan upgrading for net stability and net safety and possible use of multiple nets abreast
- Safe and adequate access points



What you need

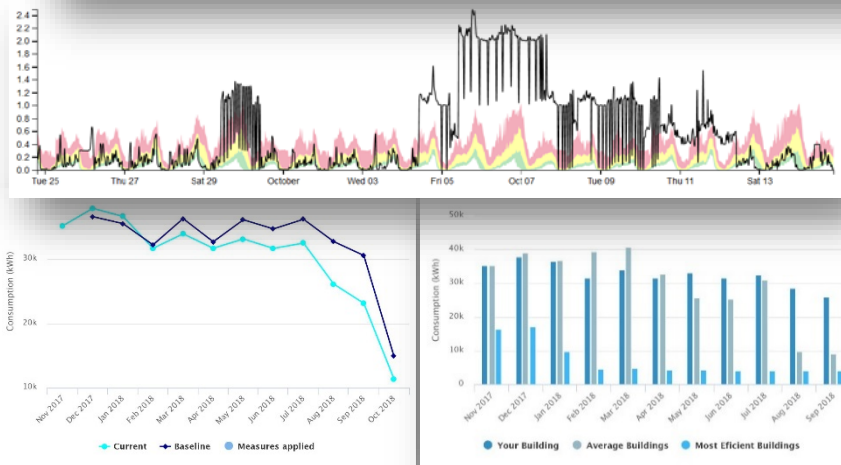
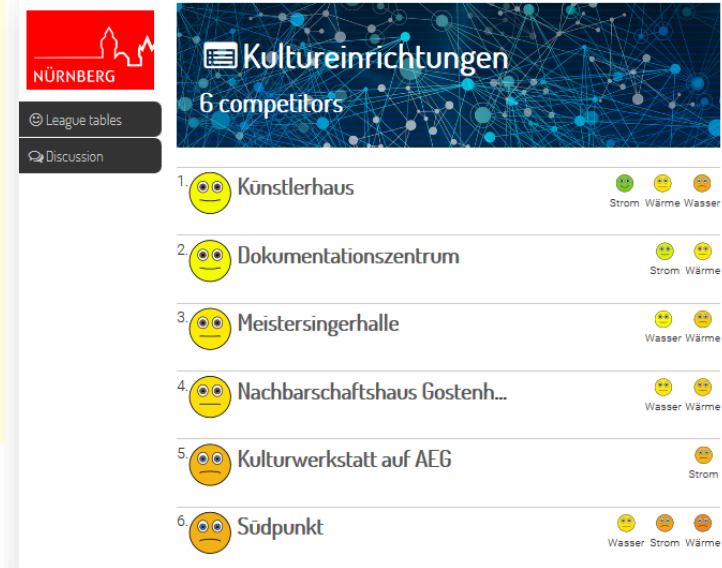
- Integrated plan of the prioritization of the net expansion
- Determination of the required technical standards regarding the IT
- Ordain the extension level of different types of buildings
- Harmonisation with existing electrotechnical infrastructure
- Proper resources for future maintenance

Energy Management: EDI-Net EDI-Net

The Energy Data Innovation Network

What you get

- Dashboard: helps with your day-to-day energy and water management
- Forum: helps to communicate to your stakeholders and share best practice
- Benchmarking Tool: helps identify opportunities for investment in energy efficiency



What you need

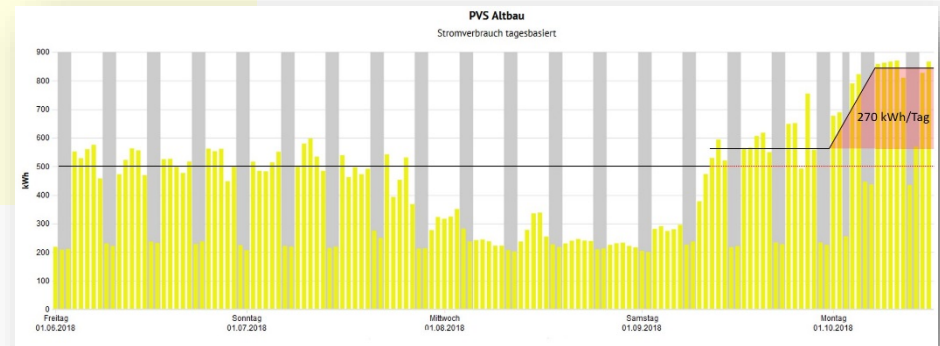
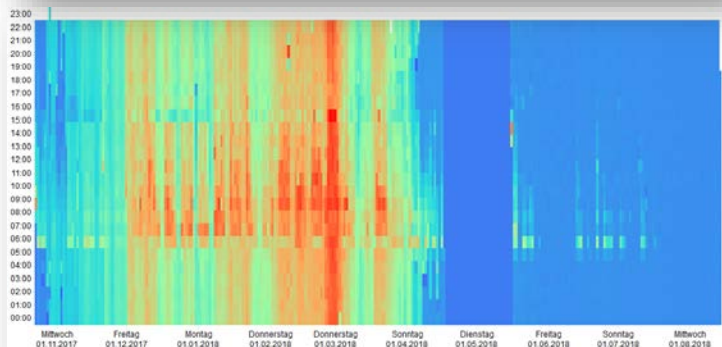
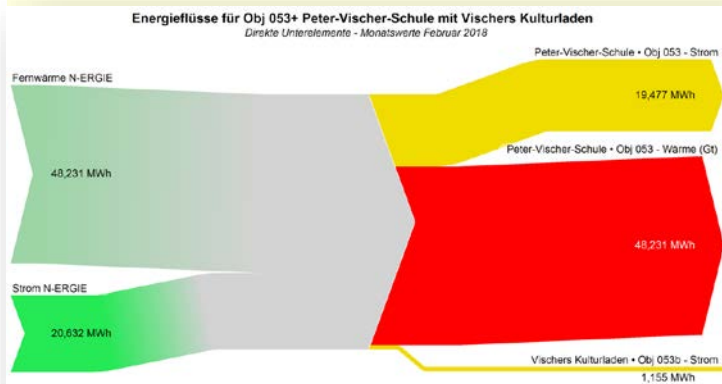
- Automated Meter Reading (AMR) system – half hourly meter data must be electronically available
- Interface (E-Mail, upload or API) to the EDI-Net servers (EU-based)
- Public screens with internet-connection to show the energy and water consumption smiley faces to all building visitors



Energy Management: Interwatt

What you get

- Automated or manual energy and water consumption reports for every building (PDF-file via E-Mail)
- Automated alarms in case of excess consumption
- Manage and track efficiency measures
- Resolution up to ¼-hourly (depends on resolution of consumption data)



What you need

- Automated Meter Reading (AMR) system (e.g. smart meters)
- or
- Facility managers to regularly provide meter data via browser-based online-form
- Full-time energy manager(s) to evaluate results, monitor alarms and prepare reports and suggestions

Building Automation

What you get

- Energy savings due to dynamic and automated settings
- Extended life of equipment by smoothing or avoiding power peaks
- Reducing operating costs by the use of electronic surveillance options and minimized personnel maintenance intervals



What you need

- Correct specifications and reviews right from the start to avoid costs for reinstalling or adjusting
- Willingness for long term service contract or on-hand expert staff
- Masterplan and timeframe for the flexibly expandable structure of a central or local control center



Electronic Procurement

What you get

- More transparency, efficiency and effectiveness
- Increase the reach of public procurement opportunities
- Additional bids raise the probability of cost reductions
- Meet public demand for more transparency

What you need

- Integration in existing and enabling of necessarily collateral, digital processes
- Prioritize the integration of key administrative workflows before departmental ones
- Streamlined and intuitive user-interface