



## The roadmap to European Standardisation

*In the European Community users and manufacturers work together with the strong objective to reach common standards. The history has learned that this cooperation is in the end beneficial for all parties, although to get consensus is not always easy.*

Over the years in all different energy sectors a number of communication standards has been developed. For the further development of Smart Grid it is a must for the energy supply industry to development cross-over solutions, in other words these standards have to be brought together in one way or another. Besides the increased complexity and technological convergence also other aspects have to be taken in mind, such as: the integration of new power generation and storage options as well as the integration of the consumer behaviour monitored via Smart Metering.

“Typical in the standardisation of intelligent energy grids is the amount of stakeholders, the tremendous speed in which the changes take place and the economic impact they will have,” explained Ralf Hoffmann. Vice Executive Officer of the Görlitz Group and Vice President of the manufacturers’ association ESMIG (European Smart Metering Industry Group) is active at all levels of European standardization for several years.

For the manufacturers - according to the experts - mandatory standards reduce the risk of bad investments and establish a clear legal framework for competition. "A high degree of interoperability also paves the way for mass production at lower costs, allowing real competition within the EU and supports the European manufacturers for taking a leading position in the world market."

The German roadmap for the standardisation of E-Energy and Smart Grid analysis the national situation, summarises the different approaches and identified the gaps and the need for action. This Roadmap includes the standardisation activities at the European level regarding the Smart Meters functionalities and communication interfaces.

In 2009, under the EU standardisation mandate M/441 the three European standards bodies CENELEC (European Committee for Electrotechnical Standardization), CEN (European Committee for Standardization) and ETSI (European Telecommunications Standards Institute) started to prepare common EU standards for smart metering technologies, which should be adopted, on a voluntary basis, by the Market.

The M/441 mandate is focused on the six main functions of the Meter and on the examination of the prevailing standards and norms:

1. Reading meter values and forwarding
2. Two-way communication between the meter and a stakeholder in the chain.
3. Different pricing models and payment systems to be supported by the meter
4. Remote meter switch off and supply start / end
5. Communication with devices in the home
6. Support of a home display or interface to display the meter data in real time

Within nine months, according to the mandate M/441’s time schedule, an EU standard for the communication of smart metering systems should be submitted” reported Andreas Bolder, director meter-data processing at Rhein Energie, representing, amongst others, the utilities in



the Technical Committee 294 of CEN, responsible for the standardisation of communication systems for meters and remote meter-reading.

In addition to this standard for communication systems, which was submitted in April 2010, harmonised solutions for additional smart meters functions should be adopted within 30 months according to the time schedule of the mandate. The final standard, a pre-condition given by "Brussels", should incorporate existing standards and procedures but should also be open for new developments to adopt them faster and less expensive. Here, the EU Commission is clear that Member States will continue to adopt different solutions, due to national law, regulations and the processes between market partners.

### **70 to 80 change requests**

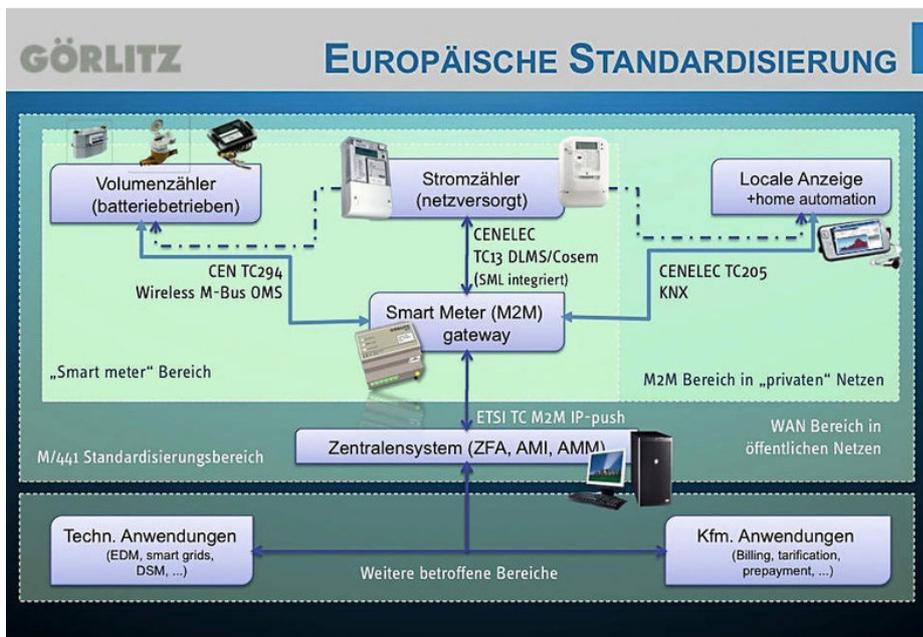
The goal is to facilitate harmonised solutions through appropriate voluntary standards, according to the Mandate. Member States may specify in such a harmonized framework, their own requirements in accordance with their national legislation and specific local issues; such as data security and consumer protection. In order to process the 30-month mandate properly, the three standardization bodies together with representatives of the associations Aqua and Fagogaz and the European Association for Metrology (WELMEC) have founded the working group "Smart Metering Coordination Group". It is responsible for the overall coordination. In this framework, two ad-hoc working groups will produce the templates for the different parts of the standards. One of them standardises the communication and the other regulates additional functions. Both groups focus on the functional needs of households and of small and medium-sized companies. There is no need to though the market segment of special contract customers, because here functional solutions already exist.

"At European level all stakeholders, a total of about 20 associations, are involved in this debate," said Ralf Hoffmann, Chairman of the Working Group Communications. " They need to report and find consensus with their member organisations in 27 EU countries. At the end of the discussions concerning the proposals we often end up with to 70 to 80 change requests for each sentence but up till now we always reached a final consensus opinion."

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Picture 1



Picture 2;



Picture 3; Ralf Hofmann