

ETSI Industry Specification

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ETSI, the European Telecommunication Standards Institute, looks back on a long and very successful tradition in standardization. ETSI has, for example, fully developed the GSM system, thus ETSI has also developed the necessary cryptographic algorithms, used in modern telecommunication networks. Later on, together with American and Asian partners, ETSI founded 3GPP, the home of the UMTS and LTE standards. Thus ETSI is well renowned as both a European recognized standards body and a platform for developing global standards.

During the past couple of years telecommunications have speedily developed towards ICT and so has ETSI. Among the 3 European recognized standards organizations ETSI is the one responsible for ICT and has Technical Bodies working in very different fields, such as NGN, GRID, RFID, eHealth, intelligent transport systems, Smart Cards and many more, while still continuing in the 'traditional telecommunication fields' such as radio and broadcast matters for both, fixed line and wireless.

Interoperability testing of the standards is essential to ETSI, and the and ETSI's experience and skills in testing are very frequently used by other standards bodies and industry fora.

The list of ETSI-Members consists of over 700 companies, universities and research institutes. They all contribute to the standards development by direct participation. Their work is based on consensus, the standards are open and freely available for everybody on the internet.

All ETSI-Members must adhere to the ETSI IPR-Policy, which does not at all restrict the use of IPR, but prescribes to all ETSI-Members, that in case they grant Essential IPR, they must do it to all other ETSI-Members under FRAND (Fair Reasonable And Non-Discriminatory) conditions. The ETSI IPR Policy almost became a de facto standard per se, since it is nowadays used by many different standards organizations and industry fora worldwide.

Standards drive the global industry for several reasons:

- Standardization contributes to consumer confidence
- Products are commercialized faster
- Products reach global markets
- Standardization does not require full manufacturing
- Standardization does not distribute forces at the expense of SMEs or research centers
- Standardization exploits research results
- Standardization ensures interoperability
- Standardization lowers the burden of evolution and maintenance, supported by industry
- Standardization improves technologies and products through multiple feed-back

So in fact standardization shortens time-to-market.

The ICT global market is shaped by standards, be it norms and regulation, de facto standards by industry for a or specifications from standards organizations. The strength of the European ICT industry is its collaborative approach under the umbrella of the European Commission funded Framework Programs. In order to meet the very particular needs of the ICT business, i.e. rapid Research & Development in parallel with standardization, ETSI has created the concept of Industry Specification Groups (ISG). Only a minimum of 4 ETSI-Members or Applicant Members is needed for foundation. Once they have agreed on the Terms of Reference and on the text of the ISG Agreement, only the signature from the ETSI Director General is needed and they can immediately start working.

ETSI provides all necessary administration, like meeting rooms with WiFi in ETSI premises, meeting support for invitations, badges, etc. (meetings at ETSI), online meeting registration & meeting document handling, tea/coffee in ETSI premises, ISG info/meeting/document handling area on the ETSI Portal, document storage area on the ETSI DOCBOX server (FTP & HTML access), one or more e-mail lists, maintenance of the ISGs Work Items in the WPM database, processing/publication of GSs (providing they have respected the ETSI Drafting Rules), free of charge. The documents provided by an ISG are called Group Specifications (GS).

Generally an ETSI ISG is only open to those ETSI-Members and non-members, who sign the special ISG Agreement, which describes confidentiality issues, ISG budget, voting weights, etc.

ISGs are also entitled to request funding of STFs from the European Commission, should the group need additional support from experts in a certain field.

The SECOQC consortium immediately took the ETSI ISG concept as the most suitable and feasible platform for continuation of their work, and the best and easiest option to transfer their results from the FP6-Project SECOQC into standards. Thanks to the pro-activeness of the Austrian Research Centers the SECOQC consortium also was very aware of several parallel standardization efforts around the world, but because of the global structure of the ETSI-Membership, they knew that ETSI was able to help SECOQC approaching companies active in QKD outside of Europe, to join the SECOQC standardization initiative at ETSI.

The ETSI ISG on QKD is currently still in the phase building up, while as per today consisting already of some 20 members (global players, SMEs, research institutes and universities) based in all 5 continents.

The aim of this QKD ISG is to develop ETSI Group Specifications describing quantum cryptography for ICT networks. Quantum Key Distribution is the essential credential in order to use quantum cryptography on a broad basis. It is the main task of the QKD ISG to specify a system for Quantum Key Distribution and its environment.

During the kick-off meeting several Work Items are expected to be agreed upon.