Dear Colleagues,

I am pleased to share the first newsletter for the year 2015. India has taken a technology leap in many areas recognizing the need to align with the Developed Countries. The government initiatives are adding impetus to projects of national importance e.g. Digital India, Smart Cities including Smart Grid, Intelligent transport, Internet of Things and the “Make in India” program of course. In Europe, similar emphasis can be witnessed in these above mentioned areas and many more and through this newsletter it is our endeavor to bring you a glimpse of important areas of work, new technologies and standardization work being carried out in Europe.

In this seventh edition of the project SESEI Newsletter – India, we start by informing our readers about the new edition of ‘Guide for addressing accessibility in standards’ as released by CEN CENELEC. The new Guide can not only be used by standards developers, but by designers, manufacturers, service providers, service users including educators. It sets out a methodology for considering accessibility and integrating relevant requirements during the development and revision of standards for a wide variety of products, services and environments.

In the automotive sector, European Commission launched new CARS 2020 Action Plan for automotive industry on 4th February 2015. The main focus of the action plan would be to strengthen the competitiveness of the automotive sector, both in Europe and externally and steer the automotive sector through the ongoing mobility revolution and making Europe the key player and trendsetter in the domains of innovative modes of transport and intelligent transport systems.

CEN developed new European Standards for tyre pressure measuring instruments and monitoring systems which will contribute to improving the safety of cars and other motor vehicles and to reducing the number of accidents on roads. Similarly European Commission adopted a law to help manufacturers seeking to use innovative methods to improve vehicle safety. Vehicle and equipment manufacturers will now be able to present safety features incorporating new and advanced technologies for EU type-approval, which was not always possible under previous legislation.

This edition also features a very comprehensive article written by the ETSI Director-General Mr. Luis Jorge Romero, on 5G technologies, providing information on the
4G, LTE, LTE Advance and 5G technologies standardization work, expectations from different quarters and amalgamation of 5G standards development in 3GPP. 3GPP is a partnership between seven different standards bodies, including ETSI and has proved to be highly successful in delivering high quality specifications which meet industry needs. It will work with other regional standards bodies and Industry to build components of a 5G network.

In the previous edition we had provided you details about the new ETSI Mobile-Edge Computing (MEC) Industry Specification Group (ISG). In this edition we provide further information on the first meeting of ETSI ISG MEC held in December 2014 in Munich. The ISG MEC has also started work on the Proof of Concept (PoC) framework.

Another big news I want to share with you is about oneM2M Release 1 standards - World’s First Global Standards for M2M Deployment. oneM2M’s Release 1 is a set of 10 specifications, all publicly available from oneM2M’s website at www.onem2m.org/release1, covering requirements, architecture, API specifications, security solutions and mapping to common industry protocols such as CoAP, MQTT and HTTP.

First three specifications of an Internet of Things (IoT) network dedicated to low throughput communications were released by the ETSI’s Low Throughput Networks ISG. These new requirements provide a breakthrough in the M2M business, allowing object connection for a few euros per year, with a few milliwatts for transmission power and a modem costing less than 1 euro. The key to the success of IoT standardization and implementation, these assumptions are the basis for many new and innovative applications.

ETSI also published ETSI Standard ES 203 237 – the ‘Green Abstraction Layer’ (GAL), opening the way to managed energy efficient networks of the future. The GAL is an architectural interface/middleware that gives access to the green networking capabilities of specific devices. It is then able to adapt energy consumption to take account of load variations.

A new ISG was formed at ETSI to work on millimetre Wave Transmission (mWT) to facilitate the use of the V-band (57-66 GHz), the E-band (71-76 & 81-86 GHz) and, in the future, higher frequency bands (up to 300 GHz) for large volume backhaul and fronthaul applications to support mobile network implementation, wireless local loop and any other service benefitting from high speed wireless transmission.

This newsletter also brings forward an endearing example of collaborative efforts the “Smart Grid Coordination Group (SG-CG)” formed jointly by CEN, CENELEC and ETSI. The joint efforts has helped in preparing a coherent and consistent understanding of which standards are needed for Smart Grids and how new requirements are being transferred into standardization activities carried out by the various Technical Committees of CEN, CENELEC and ETSI. An interview of the SG-CG chairman bringing out the efforts and work done by the co-ordination group is a must read.

It is also a great learning to know that European Commission and EFTA organized independent review of the European standardization system. The independent review of the European Standardisation System has been carried out by the consultancy company Ernst & Young (E&Y) at the request of the Commission.

Finally, a new tool was launched by the European Union Delegation to India for summarizing a number of European calls for proposals relevant for Indian research organisations and researchers on its website. It includes calls under the European
New CEN-CENELEC Guide for addressing accessibility in standards

CEN and CENELEC have published a new edition of their ‘Guide for addressing accessibility in standards'. The 2014 version of CEN-CENELEC Guide 6 replaces the previous edition, which was published in 2002.

The new Guide is intended for use by standards developers, as well as by designers, manufacturers, service providers, service users and educators. It sets out a methodology for considering accessibility and integrating relevant requirements during the development and revision of standards for a wide variety of products, services and environments.

This Guide has been produced in the framework of the long-standing collaboration between the European Standardization Organizations and their international counterparts (ISO, IEC ITU). The content of CEN-CENELEC Guide 6:2014 is identical to ISO/IEC Guide 71:2014, which was published on 1 December 2014.

By applying the principles set out in the Guide, Technical Committees at European and international levels will be able to develop voluntary standards which can then be used to ensure that products, services and environments may be accessed and used by persons with different abilities and needs, regardless of their age or size.

By adopting and publishing this Guide, CEN and CENELEC reaffirm their commitment to addressing and integrating accessibility in European Standards. CEN-CENELEC Guide 6:2014 is available for download (free of charge) from the CEN-CENELEC website: www.cencenelec.eu/standards/Guides

Monica Ibido, Programme Manager, Sustainability & Services
Article extracted from CEN-CENELEC Connect Issue 18

5G Outlook: Technology, Standards, Applications. What can we expect?

Current mobile systems are defined in terms of generations. Third Generation systems are considered to be those capable of meeting the IMT-2000 performance requirements laid down by the International Telecommunications Union. Numerous mobile technologies meet this requirement, the most common is UMTS (Universal Mobile Telecommunications System), standardized by a global consortium of standards bodies, the 3rd Generation Partnership Project (3GPP), of which ETSI is a founding partner. A similar process was put in place for IMT-Advanced, i.e. 4G. Industry has largely converged on a single principal 4G, LTE (Long Term Evolution), which is also standardized by 3GPP.

Just as 3G and 4G mobile systems are defined in terms of performance capabilities, and not a specific technology or a
single radio interface, 5G will be the same. However, while the ITU is developing its set of performance requirements for "IMT for 2020 and beyond" that should embody the ITU’s opinion of what defines a 5G mobile system, and which is expected to be delivered in the 2016-2017 timeframe, other parts of this industry are moving faster.

The GSMA has recently released a white paper on 5G. They describe two alternative definitions of 5G. One defines 5G as a consolidation of existing and new radio technologies to provide greater coverage and a more reliable ‘always-on’ experience. The other concerns a step change in data rate and an order of magnitude improvement in latency. The GSMA describes a set of requirements for 5G systems to meet which has evolved from research studies:

- 1-10Gbps connections
- 1 millisecond end-to-end round trip delay (latency)
- 1000x bandwidth per unit area
- 10-100x number of connected devices
- (Perception of) 99.999% availability
- (Perception of) 100% coverage
- 90% reduction in network energy usage
- Up to ten year battery life for low power, machine-type devices.

It may not be possible to meet all these requirements with a single radio technology, and some, in particular the latency requirement, may not be met until well into 5G’s lifetime.

The NGMN (Next Generation Mobile Networks) Alliance, a consortium of many of the world’s largest mobile network operators, is developing its view of 5G mobile requirements. NGMN will release a white paper in March this year which will outline the end-to-end requirements that they expect future 5G systems to meet. In an executive version of their paper, released in December 2014, they outline an end-to-end vision of 5G networks which goes beyond radio interface aspects and which encompasses core network evolution. They believe that 5G networks will combine a number of radio access technologies, with the potential need to develop a new access technology to meet some of the 5G requirements they have outlined. The NGMN has also proposed a timetable for 5G developments that point to first deployments occurring around 2020.

Technologies for 5G

Whatever technology choices are made for 5G networks, they must clearly satisfy some high-level characteristics: they must offer much greater capacity than current networks can be expected to offer; they must be cheaper to deploy and install, and their operational costs must also be much lower – in particular they need to offer significant savings in energy consumption over today’s networks in order that such massive use of mobile connectivity be economically and ecologically viable.

The European Union has established a 5G Public Private Partnership (5GPPP) in 2013, announced at the 2014 Mobile World Congress. This programme will invest an EU budget of €700m in research, development and innovation on 5G over the next six or seven years, matching a corresponding investment by industry. A previous round of funding from the EU resulted in projects such as METIS and 5GNOW. These projects have been developing requirements and exploring potential technologies for 5G. Some of the technologies and techniques being considered include making use of new spectrum bands including millimetre wave spectrum (30-300 GHz), increasing use of shared spectrum, very large MIMO, non-orthogonal waveforms, moving networks, context awareness, and integrating broadcast solutions into a 5G interface – to cater for broadcast type content increasingly being delivered to mobile users.

5G is not an exclusively European effort, of course. Each region of the world is pursuing the development of 5G technologies, and the various research initiatives exchange information in the many international conferences on the subject. Structures such as the Wireless World Research Forum assist in this dialogue. The key industry players are involved in these initiatives, and the dialogue they have established will be continued into the standardization forum as the research progresses towards development and implementation.
Continued Development of 4G

4G LTE technology is only at the early stages of its development, despite already performing well beyond initial expectations. The peak capabilities of 3G and earlier 2G technologies were reached between 15 and 20 years after their launch. Similarly, with a market launch in 2010, LTE will continue to evolve well into the early years of 5G deployment.

Many of the techniques being considered for 5G technologies are in fact expected to appear in LTE. Beyond the deployment of LTE-Advanced, expect to see extended channel aggregation, dual carrier or dual connectivity, congestion control for M2M traffic, interference cancellation techniques, and efforts to increase spectral efficiency and take LTE into higher spectrum than is currently used.

With such a large scope for development and enhancement of LTE, it’s not unreasonable to believe that LTE will evolve to meet many of the performance requirements of 5G networks.

Standards for 5G

While we don’t yet know what a 5G standard will contain, there are some aspects which we can predict. 5G will be a mobile technology, by definition. The mobile industry develops its standards in 3GPP, a partnership between seven different standards bodies, including ETSI. 3GPP has proven to be very successful in delivering high quality specifications which meet industry needs. Therefore we expect that 3GPP will develop the dominant 5G standard, mirroring the development of LTE. This is not to deny the fact that 3GPP will have to work with other standards bodies to build components of a 5G network.

In order to meet the anticipated launch date of 2020 for initial deployments, standards must be available by the end of 2018. To achieve this, standardization will have to start approximately 2 years earlier, during 2016. This implies initial preparation work must be carried out during this year – which is already happening, both in 3GPP, and of course in parallel in NGMN, GSMA and ITU.

A 5G radio access technology alone will not achieve all the performance expectations outlined above. Significant enhancements are required for the core network. Standardization is already underway in technical fields such as Software Defined Networking (SDN), Networks Function Virtualisation (NFV), autonomic network management, mobile edge computing etc. This work doesn’t need to wait for a formal definition of 5G, and ETSI is already developing standards for these topics, as they will benefit 4G and 5G networks alike. Likewise, preparatory standardization which will benefit 5G is underway in ETSI, in our work on millimetre Wave Transmission, Mobile-edge Computing, and our work on shared spectrum management techniques in our Reconfigurable Radio Systems committee.

Conclusion

A strict definition of 5G is not yet agreed, but key characteristics have emerged and are already influencing standardization. The anticipated delivery date of 2020 is realistic and approaching rapidly. In preparation, ETSI has already commenced work on technologies which can be components of 5G.

5G will be a global technology, and we anticipate that the principal 5G standard will be developed by 3GPP, bringing together the many initiatives and trials that are underway throughout the world. 3GPP continues to develop today's 4G LTE standards and it may well qualify as being capable of 5G performance at the peak of its development.

5G should offer an experience of being always connected, always in coverage, with very high capacity and bandwidth. Predicting the services which can make use of this type of connectivity is difficult: much depends on the price at which 5G is offered, and the cost of deployment and operation for network operators. If these costs can be constrained sufficiently, we can expect to see mobile connectivity being added to many pieces of equipment and enabling whole new ways of interacting with and using objects around us. We will enter a world of truly pervasive connectivity which even the most avid user of mobile technology today cannot imagine.
REPORT: Vehicle safety and the protection of vulnerable road users - next steps

The Commission has published a long awaited report with a list of over 50 specific vehicle safety features that have the most potential to improve vehicle safety, and thus road safety, in the EU.

Both the General Safety Regulation (EC) 661/2009 on vehicle safety and the Pedestrian Safety Regulation (EC) 78/2009 on the protection of vulnerable road users in a collision require the Commission to monitor technical developments in enhanced passive safety requirements and consider possible inclusion of new safety features and enhanced active safety technologies. The Commission will report on the latest developments to the European Parliament and the Council in an envisaged Communication which is planned to be adopted in 2015.

The Communication will outline the methodology to identify the next measures and a way forward in terms of vehicle safety. It will be based on the summary of findings included in the just published comprehensive report that lists:

- the most cost beneficial measures ('green light' measures);
- other measures that are either neutral or that need further detailed analysis ('orange' measures);
- measures that are likely not to be cost effective ('red' measures).

The process of identifying the most cost-efficient measures has been carried out together with government and non-government stakeholders, including the vehicle industry, supplier industry, type-approval authorities, technical services, transport-, environment- and safety organisations.

Sustainable Mobility and Automotive Industry unit grow-g3@ec.europa.eu

Article Extracted from EC, DG-GROWTH News Section

Independent Review of the European Standardisation System

On 26 March 2015, a meeting on the independent review of the European Standardisation System arranged by the European Commission, was hosted by the EFTA Secretariat. 112 participants had registered for the meeting and represented EU and EFTA States, industry, European and national standards organisations, Annex III organisations and other stakeholders.

The European Commission organised the meeting in order to have an open approach where all stakeholders affected would get the chance to be heard before the conclusion of the report by the independent consultant. The independent review of the European Standardisation System has been carried out by the consultancy company Ernst & Young (E&Y) at the request of the Commission. In the meeting, E&Y presented the methodology as well as the findings and recommendations. A lively debate followed in which the participants were able to exchange their views and give their opinions.

Hein Bollens, DG GROW, Petros Mamalis DG GROW, Silvia Vaccaro, DG GROW and Margrethe Aserson, EFTA Secretariat
The meeting was chaired by Mr Hein Bollens, Acting Head of Unit, Standards for Boosting Competitiveness (J4), DG GROW. Mr Bollens emphasised that standardisation was the cornerstone of the Internal Market. “European Standardisation has been successful during the last 30 years and we have to ensure that it can be as successful for the next 30 years”, Mr Bollens said. He highlighted that the European Standardisation System is made by industry for industry and supports EU policies and legislation, and that is important to establish an appropriate framework to ensure that all the actors in the system understand and agree on the way forward.

The independent review focuses on the five strategic objectives for European Standardisation as defined in the Communication “A strategic vision for European Standards” (COM (2011)311). These are:

- Speed of standards
- European standards to support the competitiveness of European businesses
- Standards to support EU legislation and policies
- Inclusiveness of the standardisation process
- Standards to support the competitiveness of European businesses at global level

After the meeting Mr Bollens said that the independent review was a first step to better understanding the current standardisation system and developing it further to make it fit for current and future challenges such as EU economic growth, competitiveness for EU businesses and jobs. “A first step was taken today when the Commission organised an exchange of views on the conclusions and recommendations made by the independent review to be further embedded in the Standardisation Roundtable of 1 July 2015”. “I am pleased that EFTA hosted this successful event and participated in the debates”, said Mr Bollens.

Article extracted from EFTA Website
Smart Grids: efficient and flexible energy distribution for the future

How much do you know about standardization in relation to 'Smart Grids'? We asked Ralph Sporer, Chairman of the CEN-CENELEC-ETSI Smart Grid Co-ordination Group, to bring us up-to-date on the latest developments

Ralph Sporer obtained his PhD from the Friedrich-Alexander University Erlangen and began working for Siemens AG in 1996. Within Siemens, he is currently Standardization and Regulation Manager with responsibility for a wide range of fields including power transmission and distribution, Smart Grids and Smart Metering. Dr Sporer is deeply involved in standardization activities at national, European and international levels. At European level he chairs the CENCELEC- ETSI Smart Grid Coordination Group (SG-CG), and at international level he chairs the IEC Advisory Committee on Energy Efficiency.

What makes a 'Smart Grid' different from more traditional electricity distribution networks?

'Smart Grids' is a term describing the fundamental changes occurring at all levels of the energy chain. These changes respond to the need to sustain Europe’s energy supplies and integrate the European energy market, as well as the European Union’s objectives in relation to greenhouse gas emissions, renewable energy sources and energy efficiency. They are manifested in an increased share of renewables, an advanced interaction of the consumer and new responsibilities of all stakeholders in the energy market. Many of these changes are leading to an increased level of information, communication and automation – especially in the distribution grid.

How would you describe the cooperation between CEN, CENELEC and ETSI in relation to Smart Grids?

From the start it was clear that Smart Grids must be dealt with by a collaborative effort, in order to include all major stakeholders represented in the different European Standardization Organizations (ESOs). Although there are some differences in terms of setup, organization and rules, I have experienced a very constructive and collaborative atmosphere among all the participants and also at management level. Our work has been supported by the Joint Presidents Group (JPG) as well as by key officials of CEN-CENELEC and ETSI. I personally consider the joint work on Smart Grids to be an example of best practice in terms of collaboration between the three ESOs.

What are the main areas that the CENCELEC- ETSI Smart Grid Coordination Group has been focusing on since it was set up in 2011?

The Smart Grid Coordination Group (SG-CG) was established by the ESOs in response to a specific mandate (M/490), issued by the European Commission in March 2011. This mandate contained a series of tasks to be completed by the ESOs, including: the development of a reference architecture, the development of sustainable and systematic standardization processes, and the elaboration of a list of standards to support the implementation of Smart Grids in Europe. The mandate also highlighted the importance of security aspects, as well as interoperability aspects.

The SG-CG reacted to these requests by setting up a number of working groups dealing with different aspects of the mandate. Each of these working groups has produced reports about their work at the end of 2012, and again at the end of 2014. Furthermore, we worked from the beginning on the internationalization of the results, as we wanted to not only respond to European requirements, but also to generate added value for European industry in terms of accessing markets around the world.

Which were the most important challenges and obstacles that the Coordination Group had to address?

Obviously, the tight time schedule and the huge number of stakeholders made the execution of the mandate a challenging
task. In order to develop a coherent and consistent understanding of which standards are needed for Smart Grids, it was also necessary to investigate how new requirements are being transferred into standardization activities carried out by the various Technical Committees of CEN, CENELEC and ETSI.

In the field of Smart Grids, it is necessary for experts from quite diverse areas to work together in a systematic process to derive requirements from business models and new applications. The SGCG has developed such an approach, which involves collecting various use cases and then mapping them to a common architecture model – the so-called Smart Grid Architecture Model (SGAM). This process results in a list of available standards and a list of missing standards (or "gaps"), which is then further developed into a working programme for the ESOs.

What is the significance of the reports that were approved by CEN, CENELEC and ETSI at the end of 2014?

These reports have been very well received by the Smart Grids community, and their significance can also be seen in initiatives such as the STARGRID Project and the Multi-Stakeholder Platform on ICT Standardization, which both rely heavily on the work of SG-CG. Furthermore, we have received positive feedback from our international partners, notably in the USA and Japan, and many of our results have also been taken-up at international level by the IEC’s Strategic Group on Smart Grid. So overall, I would say that the perception in the marketplace is very positive!

What should be the next steps regarding standardization in relation to Smart Grids?

The results of the successful collaboration between CEN, CENELEC and ETSI in the framework of mandate M/490 will be presented at a Conference on Smart Grid Standardization Achievements, to be hosted by the European Commission on 26 February. Following this conference, we expect to receive the final approval of the Commission and a successful closing of the mandate, which can be seen as a major success.

Of course, standardization in the field of Smart Grids will not stop after the completion of mandate M/490. The ESOs have already agreed that the SGCG should continue, but with a slightly different name: the Smart Energy Grid Coordination Group (SEG-CG). Besides the further development of some details in the work already carried out, and following-up on new developments in the field of Smart Grids, the group will also focus on promoting the results of its work at European and international levels.

There will be a lot of activities in the coming year, reflecting the ongoing technological developments in this important field. Thanks to the progress made during the last five years, the ESOs now have an agreed procedure and methodology to derive standardization needs in a systematic way. So I would say that standardization activities in the field of Smart Grids can now be seen as "business as usual" for the ESOs.

The methodology developed in relation to Smart Grids and Smart Metering could also be applied in a number of other areas where CEN, CENELEC and ETSI wish to collaborate, such as 'Smart Cities', E-Mobility, Ambient Assisted Living or Advanced Manufacturing. These are all topics that depend on the application of ICT and technological convergence, connecting sectors that were previously seen as distinct.

For more information about European standardization activities in relation to Smart Grids, please see: www.cencenelec.eu/go/SmartGrids

Article extracted from CEN-CENELEC Connect Issue 18
ETSI Mobile-edge Computing Industry Specification Group starts work, opening the door to a fresh ecosystem

Boosting user experience through innovation at the mobile network edge

On 24 September 2014, a new multi-stakeholder industry initiative on Mobile-edge Computing (MEC) was formed under the auspices of an ETSI Industry Specification Group (ISG).

The aim of this initiative is to create a standardized, open IT environment at a location considered to be the most lucrative point in the mobile network: the Radio Access Network (RAN) edge. Characterized by proximity, ultra-low latency and high bandwidth, this environment will offer cloud computing capabilities as well as exposure to real-time radio network and context information.

One of the objectives of the ISG MEC is to leverage this open and standardized IT service environment in order to allow applications from network equipment vendors, mobile operators, OTT (Over The Top) players, content providers and application developers to be efficiently and seamlessly integrated across multi-vendor, mobile-edge computing platforms.

As a result, applications will be able to use the service environment intelligently and transform the mobile-broadband experience. Interactive and delay-sensitive applications, located in close proximity to users, will, for example, benefit from the increased responsiveness of the edge as well as from maximized speed and interactivity. Popular and locally relevant content will be delivered directly from the edge.

Knowledge of real-time network information and service analytics (at the source) could be used to optimize the network and service operations (responding and adapting to changing network conditions). This would improve service experience and the utilization of network resources, enabling them to handle unprecedented amounts of traffic. Real-time network and fine-granular context information (including location) could be used to enrich the mobile-broadband experience by creating highly personalized services which are tailored to individual needs and preferences.

IT economies of scale can be leveraged in a way that will allow proximity, context, agility and speed to be used for wider innovation that can be translated into unique value and revenue generation. All players in the new value-chain will benefit from closer cooperation, while assuming complementary and profitable roles within their respective business models.

Operators can reposition themselves in the value chain and redefine personalized services. They can capitalize their networks and open them up to authorized third-parties (in a secured way), while allowing Over the Tops (OTTs), application developers and internet players to flexibly, agilely and rapidly deploy innovative applications and services towards mobile subscribers, enterprises and vertical segments. They will be able to create new revenue streams, thrill their customers by developing a new breed of applications that provide incremental value, and open up new market opportunities (e.g. enterprise and vertical segments).

In addition, applications supporting tighter integration of network and service parameters will improve both service experience and utilization of the network resources.

The work of the MEC initiative will ensure standards-based behavior and a dual-vendor approach.

Application service providers, OTT players and independent software vendors will be able to translate proximity and context into value and enhance and accelerate their applications and services to provide a unique and unparalleled experience. Innovative applications will be rapidly deployed in a new standards-based environment, taking advantage of new levels of flexibility and agility. The applications will be able to expand their cloud into the mobile network and create a whole new set of services. They will be able to feel and react to end-user experience in real time, based on the actual radio conditions.
The new MEC specifications will allow applications and services to be deployed on top of multi-vendor Mobile-edge Computing platforms, enabling them to be used by the vast majority of the customers of a single mobile operator. The mobile subscriber will enjoy a unique, gratifying and personalized mobile-broadband experience.

MEC is a natural development in the evolution of mobile base stations and the convergence of IT and telecommunications networking. The MEC initiative will help to develop favorable market conditions for all players in the value chain as well as facilitate economic growth with a myriad of new use cases across multiple sectors (see Figure 1).

The MEC server can be deployed at any of the following sites: at the LTE macro base station (eNodeB), at the 3G Radio Network Controller (RNC) and at a multi-technology cell aggregation site. The multi-technology cell aggregation site can be located indoors within an enterprise (e.g. a hospital, a large corporate HQ), or indoors/outdoors in a large public building or arena (e.g. a shopping mall, a stadium) to control a number of local, multitechnology access points, providing radio coverage to the premises.

The MEC initiative will produce interoperable and deployable Group Specifications that will enable the hosting of third-party applications in a multi-vendor MEC environment. The initial scope of the ISG MEC focuses on use cases; it specifies the related requirements and details the reference architecture, including the components and functional elements that are the key enablers for MEC solutions. When the first documents reach the required maturity level, work on platform services, APIs (Application Programming Interfaces) and interfaces will commence. The MEC platform API will be application-agnostic and will allow the smooth porting of value creating applications on every mobile-edge server with guaranteed SLA (Service Level Agreement) (see Figure 2).

The ISG MEC has also started work on the Proof of Concept (PoC) framework.

In addition, the ISG MEC will strive to disseminate the specifications and accelerate the development of edge applications across the industry, increasing the market scale and improving the market economics.

The first meeting of the ETSI ISG MEC took place on 2-4 December 2014 and was hosted by Nokia Networks in Munich. The group has attracted 30 member and participating organizations, including network operators, vendors, technology suppliers and content delivery network (CDN) providers. It is important that the various players in the emerging new ecosystem will actively participate in the ISG, share best practices and contribute to the development of the specifications. The work of the initiative will stimulate innovation, facilitate global market growth, allow all players to benefit from greater collaboration and, most importantly, provide best-ever experience to the mobile subscribers.

For more information, see the MEC Executive Brief, and the MEC Introductory White Paper on the ETSI Portal. This white paper introduces the concept of Mobile-edge Computing and the related key market drivers; it also discusses the business, consumer and technical value/benefits that this technology offers and describes some key use cases. The paper highlights the enablers, the requirements and challenges for Mobile-edge Computing as well as the objectives of the MEC initiative.
In addition, it discusses the relationships between the MEC interfaces and other industry efforts.

Nurit Sprecher, Convenor of ETSI ISG MEC. First published in Components in Electronics Magazine. Reproduced by kind permission of Specialist Business Media Ltd.

New action plan for the car sector launched

The launch of the new CARS 2020 Action Plan for automotive industry was announced on 4 February 2015 by Elżbieta Bieńkowska, Commissioner responsible for Internal Market, Industry, Entrepreneurship and SMES. The new Action Plan will help foster competitiveness of the automotive industry and guide the sector through the ongoing mobility revolution.

Following the previous successful CARS 2020 process, the new plan aims to help the sector face new challenges stemming from technological changes, globalisation and a new approach to mobility that requires a coordinated approach on the EU level. It will cover a period of two years.

What does the new Action Plan bring?

The plan will be even more ambitious than its predecessor. It will have a much more forward looking perspective and more action objectives.

The plan will be a unique opportunity to re-shape the position of the European automotive sector and give it a proper direction for future development. The process will lay down solid foundations for the execution of the plan. Moreover, a strong, inclusive High Level Group with a broad participation of the Commissioners and Member States will be created.

Main objectives

The new process focuses on two main objectives:

- strengthening the competiveness of the automotive sector, both in Europe and externally;
- driving the sector through the ongoing mobility revolution and making Europe the key player and trendsetter in the domains of innovative modes of transport and intelligent transport systems.

Background information

The CARS 2020 Action Plan and the subsequent CARS 2020 process were the Commission's response to an unprecedented fall of demand for vehicles on European markets. Even though economic climate has improved since the publication of the Action Plan in November 2012 and its successful implementation, the industry is now facing new challenges.

Next steps

Further details as well as the very final structure of the process will be discussed during the next meeting of the Competitiveness Council at the beginning of March 2015.

Article extracted from EC, DG-GROWTH News Section
CEN and CENELEC sign new Cooperation Agreement with JISC

The European and Japanese standardization organizations - CEN, CENELEC and JISC - have agreed to further develop and strengthen their cooperation by implementing a new Cooperation Agreement.

The new Cooperation Agreement has been signed by the Presidents of CEN, CENELEC and JISC, and was presented at a ceremony in Tokyo on 13 November 2014 (alongside the IEC General Meeting). The agreement will be supported by a detailed roadmap for its implementation, to start in the first quarter of 2015.

Previously, separate Cooperation Agreements existed between CEN and JISC, and between CENELEC and JISC. The three partners decided that it would be better to align these agreements and focus their cooperation on strategic priorities, while streamlining the technical cooperation between Europe and Japan.

By developing and deepening their cooperation, and working within the existing international standardization framework (ISO and IEC) as much as possible, the partners will contribute to overcoming technical barriers to trade and support the successful implementation of any trade agreement between the EU and Japan.

For more information about international cooperation agreements, please see: www.cencenelec.eu/intcoop/Agreements

Article extracted from CEN-CENELEC Connect Issue 18

oneM2M unveils Release 1 standards - World’s First Global Standards for M2M Deployment

The era of widespread deployment of Machine to Machine (M2M) technology and the foundation for the Internet of Things (IoT) advanced significantly when oneM2M, the global standards initiative for M2M and the IoT, issued its Release 1 global standards at the end of January 2015.

More than 200 member companies from across the world contributed to Release 1’s development through the seven leading ICT standards development organizations including ETSI and five industry consortia that founded oneM2M.

oneM2M’s Release 1 is a set of 10 specifications, all publicly available from oneM2M’s website at www.onem2m.org/release1, covering requirements, architecture, API specifications, security solutions and mapping to common industry protocols such as CoAP, MQTT and HTTP.

oneM2M Release 1 also makes use of OMA (Open Mobile Alliance) and Broadband Forum specifications for Device Management capabilities. Release 1 provides sufficient building blocks to enable today’s generation of M2M and IoT applications to interwork with each other.

“Release 1 utilizes well-proven protocols to allow applications across industry segments to communicate with each other as never before – not only moving M2M forward but actually enabling the Internet of Things,” said Dr Omar Elloumi, Head of M2M and Smart Grid Standards at Alcatel-Lucent and oneM2M Technical Plenary Chair.
“Having such a set of specifications working together at the service layer to truly stitch M2M together will allow service providers to support applications and services across a range of industries. This opens up a whole new world – a future of seamless interaction to transform the way we all work and play in the future.

“The horizontal service platform we have created is already useable over several underlying transport technologies, such as Wi-Fi, fixedline, and cellular. This reduces the complexity for the M2M application developer, allows lower CAPEX and OPEX for the service providers and creates a world where ultimately people will interact more seamlessly with other people and machines in their daily lives,” he added.

oneM2M Release 1 follows the announcement last August of oneM2M’s Candidate Release specifications – the first circulation of the specifications which have now become Release 1. In December a highly successful showcase event took place at ETSI, where demonstrations were conducted by leading technology companies and organizations. At the showcase the first commercial deployments of oneM2M were announced.

A series of four webinars were also held leading up to the showcase, and these are still available for viewing from the oneM2M website.

“But this is just the start of our role in the process. We now need to work on making the whole experience of using M2M much easier for everyone, as well as looking to achieve further seamless interworking with other IoT technologies through collaboration with the groups working on them,” added Dr Elloumi.

In addition to its Release 1 set of specifications, oneM2M has also published a white paper (www.onem2m.org/whitepaper) which provides an overview of the issues facing the M2M and IoT market and how oneM2M will contribute to solving them.

Article Extracted from ETSI Standards - The Standard February 2015

Improving motor vehicle safety - easier approval process for innovative safety systems

The Commission adopted a law to help manufacturers seeking to use innovative methods to improve vehicle safety.

Vehicle and equipment manufacturers will now be able to present safety features incorporating new and advanced technologies for EU type-approval, which was not always possible under previous legislation. The new Regulation also addresses gaps in legislation such as the provision of rules concerning the cab strength of commercial vehicles - aimed to protect the occupants of such vehicles in case of severe accidents - and also rules concerning replacement parts for vehicle braking systems. The new Regulation also optimises and streamlines the process of vehicle type approval, reducing administrative burden for the vehicle industry, their suppliers, and also for Member State type approval authorities. The Regulation will be applicable in all member states from 22/2/15.

Background

This Regulation supplements and amends General Safety Regulation (EC) No 661/2009 of the European Parliament and of the Council concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefore. The General Safety Regulation mainly sets out provisions for newly introduced safety requirements (e.g. electronic stability control, seat belt reminders, tyre pressure monitoring), but also certain simplifications as recommended by the Commission’s CARS21 initiative.

Article extracted from EC, DG-GROWTH News Section
Tyre pressure measuring instruments and monitoring systems

New European Standards developed by CEN in relation to tyre pressure measuring instruments and monitoring systems should contribute to improving the safety of cars and other motor vehicles and to reducing the number of accidents on Europe's roads.

July 2009, the EU Council and European Parliament adopted a new Regulation (EC 661/2009), which aims at improving road safety and energy efficiency by requiring accurate tyre pressure monitoring systems (TPMS) to be fitted in all new cars. Since November 2014, all new cars sold in Europe must be equipped with a system that continuously monitors tyre pressure and warns the driver when the tyre pressure is too low.

In April 2010, CEN accepted a request from the European Commission (EC Mandate 457) to develop a European Standard containing harmonised solutions for the metrological performance of Tyre Pressure Gauges (TPG), and another European Standard covering the interoperability of TPG with Tyre Pressure Monitoring Systems (TPMS).

The work requested under Mandate 457 has been undertaken by CEN’s Technical Committee 'Road Vehicles' (CEN/TC 301) through its Working Groups on 'Tyre pressure gauges metrology' (WG 8) and 'Interoperability between tyre pressure gauges with tyre pressure management system (TPMS)' (WG 9). This work has resulted in a new (revised) European Standard (EN 12645:2014) and another draft European Standard (FprEN 16661), which should be adopted and published in 2015.

The newly revised European Standard EN 12645:2014 defines metrological and technical requirements and tests in relation to Tyre Pressure Gauges (TPG) or Measuring Instruments (defined as "devices for inspection of pressure and/or inflation/deflation of tyres for motor vehicles"). This new European Standard was adopted by CEN in August 2014, and should be published by all CEN members before the end of February 2015.

EN 12645:2014 supersedes the previous version of this standard, which was adopted by CEN in 1998. The revised standard is completely updated and includes clear definitions of three categories of Tyre Pressure Gauges (fixed, portable and handheld TPG). It covers metrological requirements and control, technical requirements and tests with new clauses for electronic devices, as well as inscription and marking.

The draft European Standard (FprEN 16661) defines requirements and processes for the interoperability of tyre pressure gauges (TPG) with a TPMS or vehicle, through standardized interfaces and data exchange formats allowing advanced information, management and control systems. The architecture of FprEN 16661 is open and scalable to support different levels of interoperability (from full interoperability to fully manual).

Meanwhile, ETSI has been developing a new Technical Specification (TS 101 556-2) for an electronic communication system to support application requirements for Tyre Pressure Monitoring System (TPMS), which will enable secure interfacing for data exchanges.

For more information about CEN/TC 301 'Road Vehicles', please see: www.cen.eu/go/TC301

Thierry Legrand, Programme Manager, Industry, Technology & Infrastructure

Article extracted from CEN-CENELEC Connect Issue 18
New Industry Specification Group on millimetre Wave Transmission at ETSI

ETSI has created a new Industry Specification Group (ISG) to work on millimetre Wave Transmission (mWT), with the first meeting held at ETSI on 14-15 January 2015.

There is increasing interest in using millimetre wave spectrum, in the 30GHz to 300GHz range, for radio transmission. There is one order of magnitude of more spectrum available in this band than in lower bands. Larger bandwidth channels are possible, of 2GHz, 4GHz, 10GHz or even 100GHz. This allows radio systems to offer fibre-like capacity. The spectrum can be made available quickly, and can be reused easily with the limited propagation range in this band. Lower spectrum license costs also lead to a lower total cost of ownership and lower cost per bit of radio systems using this spectrum.

However there are barriers to using this spectrum. Regulations for millimetre wave radio differ greatly from country to country. There is a lack of key components leading to high equipment costs. There is huge variety in the types of equipment and applications using this spectrum and there is still a lack of confidence in the technology.

ETSI’s new Industry Specification Group on millimetre Wave Transmission (ISG mWT) will facilitate the use of the V-band (57-66 GHz), the E-band (71-76 & 81-86 GHz) and, in the future, higher frequency bands (up to 300 GHz) for large volume backhaul and fronthaul applications to support mobile network implementation, wireless local loop and any other service benefitting from high speed wireless transmission.

The approach is to analyze issues, to exchange information and to develop common views across the industry, on subjects including regulation and licensing schemes, propagation channel models, simulation results, measurements, semiconductor technology roadmaps, and experiences gained from early roll-outs and trials. Other ISG mWT work will focus on use-cases and requirements and identify the most suitable millimeter wave bands for the most important transmission applications.

At the ISG’s first meeting Mr. Renato Lombardi of Huawei Technologies was elected as the chairman of the Industry Specification Group while Mr. Nader Zei of NEC Europe was elected as the vice chairman.

“ISG mWT was conceived as an industry wide platform to prepare for large scale usage of millimetre wave spectrum in current and future transmission networks by improving the conditions to make millimetre wave spectrum a suitable and convenient choice for all stakeholders. The ISG aims to be a worldwide initiative with global reach and to address the whole industry: national regulators, standards organizations, telecom operators, product vendors and key component vendors.” says Mr. Lombardi.

During the meeting, a plan was agreed to develop five new specifications. These cover:

- An analysis of the maturity and field proven experience of millimeter wave transmission
- Potential applications and use cases of millimetre wave transmission
- An overview of V-band and E-band worldwide regulations
- An analysis of V-band street level interference
- Analysis of the millimetre wave semiconductor Industry technology status and evolution.

Participation in the millimetre Wave Transmission Industry Specification Group is open to all ETSI members as well as organizations who are not members, subject to signing ISG Agreements. A complete list of ISG mWT members is published.
on the ETSI Portal pages for mWT.

For information on how to participate please contact ISGsupport@etsi.org

Article Extracted from ETSI Standards - The Standard February 2015

EU-India R&I cooperation opportunities: new tool

The European Union Delegation to India welcomes 2015 launching a new tool that summarises a number of European calls for proposals relevant for Indian research organisations and researchers on its website: click here

It includes calls under the European R&I Framework Programme Horizon 2020 as well as bilateral calls between EU Member States or Associated Countries and India. This new public file will be regularly updated.

It is complementary to keeping an eye on forthcoming and new calls on Horizon 2020 Participant Portal or referring to the Overview of EU and member states R&I cooperation with India (January 2014). The latter includes detailed information on funding opportunities offered by the EU and its Member States and is also prepared by the Research & Innovation Section of the EU Delegation to India.

Article extracted from first 2015 issue of the EURAXESS LINKS INDIA NEWSLETTER

EURAXESS Links India is a networking tool for European researchers active in India and Indian ones wishing to collaborate and/or pursue a research career in Europe. EURAXESS Links India provides information about research in Europe, European research policy, opportunities for research funding, for EU-India and international collaboration and for trans-national mobility. Membership is free.

New ETSI specification for Internet of Things and Machine to Machine Low Throughput Networks

ETSI’s standardization group dedicated to Low Throughput Networks technology has just released the first three specifications of an Internet of Things (IoT) network dedicated to low throughput communications.

These new requirements provide a breakthrough in the machine to machine business, allowing object connection for a few euros per year, with a few milliwatts for transmission and a modem costing less than 1 euro. The key to the success of IoT standardization and implementation, these assumptions are the basis for many new and innovative applications.

Low Throughput Network (LTN) technology is a wide area bidirectional wireless network with key differentiators compared to existing networks. It enables long-range data transmission (distances around 40 km in open field) and/or communication with buried underground equipment and operates with minimal power consumption allowing several years of operation, even with standard batteries. This technology also implements advanced signal processing that provides effective protection against interference.

As a consequence, LTN is particularly well suited for low throughput machine to machine communication where data volume is limited and low latency is not a strong requirement. Applications include remote measurement, smart metering for water, gas or electricity distribution or smart cities applications such as air pollution monitoring or public lighting.
LTN could also cooperate with cellular networks to address use cases where redundancy, complementary or alternative connectivity is needed. Providing connections to the billions of connected objects projected to form part of M2M and the IoT networks is a major challenge. A great number of these objects need only low throughput connectivity, but they also require an efficient connection that is both cost effective and low energy-consuming.

LTN IoT networks have a similar topology to existing networks used for high data rates and dynamically adapt power and frequency in the same way, but will also manage new requirements concerning power consumption and the number of base stations required to cover an entire country. Low power, very low throughput, long battery life, simple, effective and robust radio communication principles are the key features of the first ETSI LTN specifications. The three new ETSI group specifications defining LTN are GS LTN 001 containing the use cases, GS LTN 002 describing the functional architecture and GS LTN 003 defining the protocols and interfaces.

Article Extracted from ETSI Standards - The Standard February 2015

Green Abstraction Layer standard to manage energy consumption of telecom networks

A new ETSI Standard - the ‘Green Abstraction Layer (GAL)’ – enables operators for the first time to manage the energy consumption of telecom networks easily, offsetting network performance and capacity against energy costs.

Network efficiency is an important goal for telecommunications operators today but telecom management systems are not designed to be sufficiently flexible or scalable to manage energy efficiency. Traditionally, to improve energy efficiency, operators have had to install more energy-efficient equipment, with consequent upgrading costs. Instead, network device manufacturers and operators have adapted their network capabilities – and hence their energy requirements – to actual traffic profiles, but there is no easy way to monitor or set this configuration.

Now ETSI has published ETSI Standard ES 203 237 – the ‘Green Abstraction Layer’ (GAL), opening the way to managed energy efficient networks of the future. The GAL is an architectural interface/middleware that gives access to the green networking capabilities of specific devices. It is then able to adapt energy consumption to take account of load variations.

The GAL offers a framework for information exchange between power-managed data-plane entities and control processes. It enables energy management protocols to determine consistently which power-management capabilities are available at the data-plane, their potential effects on both energy consumption and network performance, and how to interact with them. The protocols can then be insulated from the specific hardware features of underlying devices and still choose the most suitable energy configuration. As a result, operators can now dynamically seek better trade-offs between network performance, capacity and energy costs.

GAL-enabled applications can be developed easily and installed in telecom management systems to manage the energy efficiency of network devices. Like traditional network systems, the GAL supports the following main functionalities:

- discovery – to retrieve information about available energy configurations and other related information about a network device and its components
- provisioning – to set the energy configuration for a network device and/or its components
• monitoring of the physical devices and relevant parameters.

The GAL was produced by ETSI’s Environmental Engineering Technical Committee (TC EE) with the support of the European ECONET project (www.econet-project.eu).

Article Extracted from ETSI Standards - The Standard February 2015

White Papers/Publications

Manual for businesses: how to check upcoming EU Regulations online: To help EU businesses keep up with new provisions they need to comply with, the Commission prepared a manual on how to access upcoming EU Regulations. The manual will make it easier for companies and entrepreneurs to check what provisions will affect their business in the near future. Information on upcoming EU Regulations are crucial for all EU businesses. As EU Regulations are directly applicable in all EU countries, companies need to know the exact dates when the new provisions enter into force to be able to comply with them. Information on upcoming EU Regulations is available on the EUR-Lex website. To help companies and entrepreneurs access information, the Commission developed a short manual on how to perform advanced searches in EUR-Lex. The manual helps users find relevant information on the entry into effect date of EU Regulations and their provisions. The manual was translated into all official EU languages and is available on the YourEurope Business website.

Environmental Helpdesk (CEN/EHD): The CEN Environmental Helpdesk (CEN/EHD) provides information and support to CEN Technical Committees (TCs) and Working Groups when addressing environmental issues in European Standards. The role of the CEN/EHD is to: a) Develop environmental awareness among CEN technical bodies and encourage a systematic approach to integrate environmental aspects into standards; b) Structure environmental information and provide supporting tools available for TCs; c) Provide guidance to specific environmental projects within standardization. In order to help deliver these objectives, the CEN/EHD has produced an Environmental Framework of tools and support services that are freely available to all CEN committee members. For More Information

New version of the ‘Blue Guide’ on the implementation of EU product rules: The new ‘Blue Guide’ builds on the on the content of the Guide to the implementation of directives based on the New Approach and the Global Approach (the "Blue Guide") published back in 2000, but reflects the modernisation brought to the legal framework in the past decade. This new version of the Guide includes new chapters, for example on the obligations of economic operators or accreditation, or completely revised chapters such as those on standardisation or market surveillance. The new ‘Blue Guide’ was drafted in close cooperation with national authorities and interested parties. It will be updated regularly. For More Information

ETSI Work Programme 2014-2015: This Work Programme offers an opportunity to take a look at some of the emerging technologies we can expect to see in the years to come – and to highlight the important part that ETSI will play in their development. For More Information

ETSI Annual Report April 2015: ETSI has published its Annual Report April 2015. This report details the activities of the institute during 2014. The text of the report was approved at General Assembly #65, 17-18 March this year. A PDF copy of the report is available from the ETSI website at http://www.etsi.org/about/annual-report.

CEN and CENELEC Work Programme 2015: The CEN and CENELEC Work Programme 2015 provide an overview of our most important standardization activities that will be developed this year. It covers all of the different fields and sectors that CEN and CENELEC are dealing with, and it also includes information about other activities related to international cooperation, SME participation, societal stakeholders’ involvement, education about standardization, etc. Those standardization activities respond to market needs, and in particular to the demands of European industry. They also
correspond to the European Union’s annual work programme for European standardization for 2015, which was published by the Commission last summer. As we hope that the Work Programme will help our community and other interested stakeholders be actively involved in European standardization activities, this year’s edition includes specific details about the relevant Technical Bodies and the number of standards and other deliverables that have been published by CEN and/or CENELEC. It also highlights how many standardization requests (Mandates) from the European Commission have been accepted by CEN and/or CENELEC, and identifies the most relevant corresponding elements of the EU Work Programme for European standardization 2015.

For More Information

Events Calendar 2015

**PADES Remote Plugtests 2015**

**Remote, 04 - 29 May 2015:** The remote Plugtests™ interoperability event that will be held from 4 to 29 May 2015, will concentrate on PADES Digital Signature (PADES - PDF Advanced Electronic Signature). This remote event aims to conduct conformance and interoperability testing on PADES digital signatures. A special focus will be performed on the augmentation of PADES signatures and on the usage of some new attributes defined in CAdES and XAdES signatures. The participation to this event is free of charge. For More Information

**Wireless media distribution beyond 2020**

**Sophia Antipolis, France, 06 May 2015:** ETSI and the EBU are pleased to announce an important and timely event to examine the future of the delivery of audiovisual media services. The event will take place on 6 May 2015, at ETSI's Headquarters in Sophia Antipolis (South of France)... For More Information

‘Benefits of integrating the environment in standards’

**Brussels, Belgium, 19 May 2015:** This interactive seminar will explore the benefits for the environment and economy through integrating environmental protection aspects in European standards. It will also discuss the challenges encountered during the development and use of the standards incorporating environmental protection provisions and identify the necessary future actions. For More Information

**Third ETSI Workshop on ICT Energy Efficiency and Environmental Sustainability**

**Sophia Antipolis, France, 3-5 June 2015:** The third ETSI Workshop on ICT Energy Efficiency and Environmental Sustainability will take place on 3-5 June 2015, in Sophia-Antipolis, France. For More Information

**European Standardization Summit 2015**

**Riga, Latvia, 4th June 2015:** The 4th European Standardization Summit will take place on 4 June 2015 in the National Library of Latvia in Riga and is part of the official programme of the Latvian Presidency of the Council of the European Union. How standardization can contribute to a cleaner and smarter economy in Europe is the theme for 2015. The Summit will focus primarily on the construction sector, which represents a major part of the European single market and is especially important for the Latvian economy. For More Information

**Security Week**

**ETSI Headquarters, 22-26 June 2015:** Following our highly successful series of annual Security Workshops, we are now expanding our event to extend the Security Workshop with more focused thematic streams, to provide more time for networking, a chance to see demonstrations of ETSI-standardized security solutions at work, and offer opportunities for ETSI security-related committees to hold open meetings which all delegates may attend. For More Information

**The ETSI Seminar**

**Sophia Antipolis, France, 25-26 June 2015:** The ETSI Seminar is run twice a year (June and December), to provide an intensive course on ETSI, its organization, structure, ways of working and related subjects. It is targeted at those who are new to ETSI or those who need to develop a deeper understanding of how to work effectively in ETSI. For More Information
About Project SESEI

SESEI stands for “Seconded European Standardization Expert in India” and is a project based in New Delhi, India, with an objective to increase visibility of European and Indian standardization and promote EU/EFTA-India cooperation on standards and related issues. The Project is managed by the European Telecommunications Standards Institute (ETSI), an EU recognized Standards Organization for the ICT Sector and is further supported by the other two recognized EU Standards Organizations CEN and CENELEC. The other two Project partners include the European Commission and the European Free Trade Association. It is a Standardization focused project, with priority sectors for this phase of the project as ICT, Automotive, Machinery, and Electronic Appliances including Consumer Electronics.

For further information, please visit: http://eustandards.in/