european communications office

EUROPEAN COMMUNICATIONS OFFICE

ANNUAL REPORT 2013

Our Mission

The European Communications Office (ECO) is the permanent office of the European Conference of Postal and Telecommunications Administrations (CEPT), an organisation where policy makers and regulators from 48 countries across Europe collaborate to harmonise telecommunication, radio spectrum and postal regulations.

The ECO provides advice and support to CEPT to help it to develop and deliver its policies and decisions in an effective and transparent way. Its core duties are to provide a European centre of expertise in electronic communications, to contribute to the work of the three CEPT committees and to manage CEPT's day-to-day activities.

The ECO further supports CEPT member countries and other stakeholders providing a forum to debate and advance European communications policy for the benefit of all Europe's citizens.

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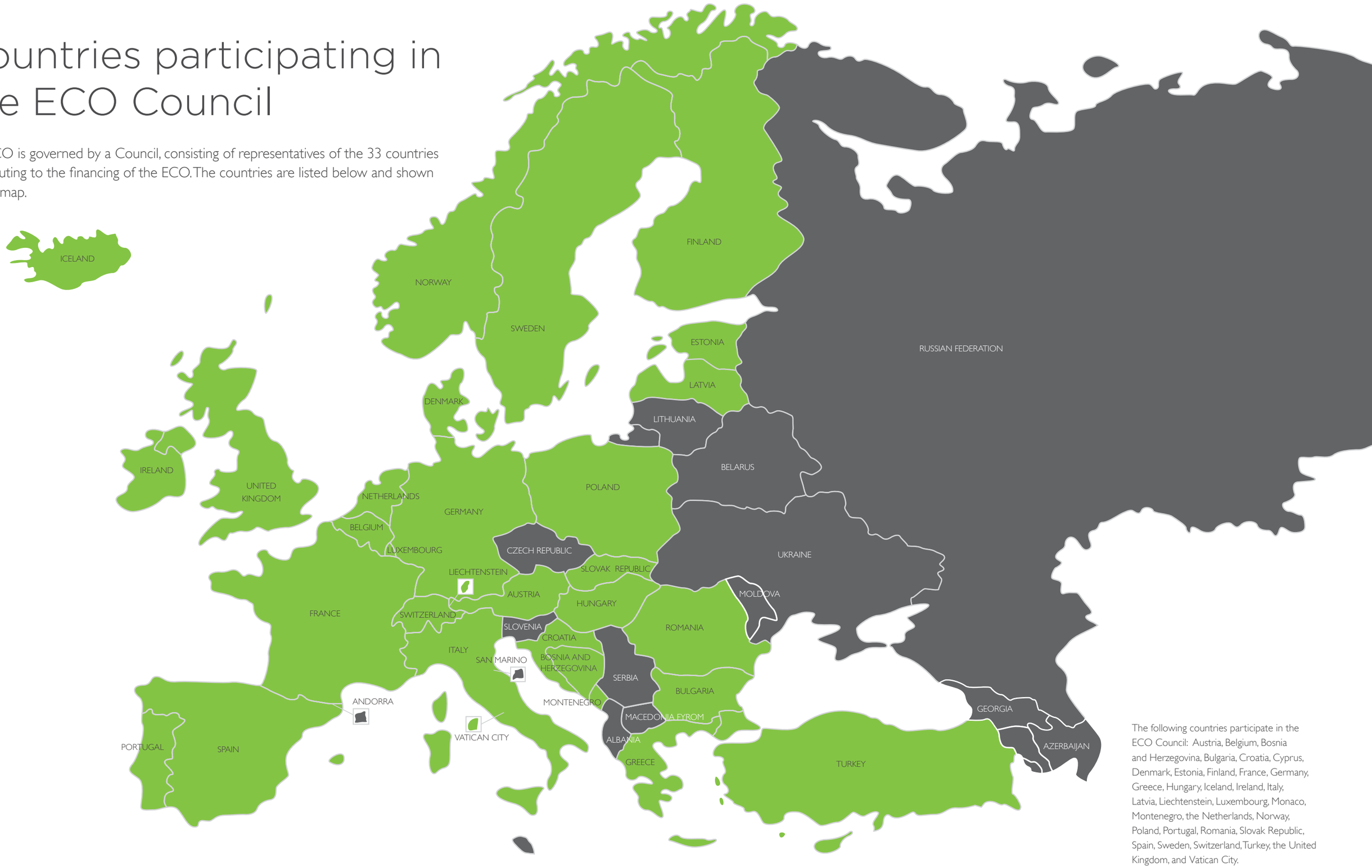
Countries participating in the ECO Council

The ECO is governed by a Council, consisting of representatives of the 33 countries contributing to the financing of the ECO. The countries are listed below and shown on the map.



The following countries participate in the ECO Council: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Luxembourg, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and Vatican City.

Chairman's Foreword

Throughout 2013, the ECO has continued to deliver on the key priorities set out in the ECC's five year strategic plan. It's been another successful year in this regard but it's also been a challenging one.

As a body of regulators, we bring together colleagues from across the 48 CEPT member countries and this creates a special kind of friendship and unity between us. Unfortunately, we had to say goodbye to three such friends and colleagues this year due to the tragic and unexpected loss of Peter Pauli, the Vice Chairman of the ECO Council; Steve Bond, the Chairman of the ECC's Conference Preparatory Group; and Marie-Thérèse Alajouanine, a key representative in CEPT's Com-ITU. The Council members and I would like to pay tribute to them all for their dedication and service to CEPT over the many years that they have supported us.

During the year, we have sought the services of other talented colleagues from across the Administrations to take on these important roles and responsibilities. My Council colleagues and I are particularly grateful to Marta Leandro and would like to welcome her as the new Vice Chairman of the ECO Council. We would also like to welcome Alexander Kühn and Johannes Vallesverd as the new Chairmen of the ECC's Conference Preparatory Group and Working Group Numbering and Networks respectively. Our thanks also go out to our many other colleagues who have taken on new responsibilities within CEPT. Their commitment and willingness to take on these key roles, while holding senior positions within their own organisations, is highly commendable and we remain indebted to them all.

Turning to the ECO's performance this year, I'm particularly pleased with the many ways in which it has supported the ECC in its drive to open up new opportunities for mobile broadband services, machine-to-machine (M2M) communications, short range devices, programme making and special events applications, and emergency communications. These services make a huge contribution to the daily lives of millions, making our own contribution all the more important and rewarding.

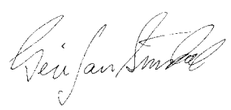
From mobile phones, alarm and metering systems, medical implants, and entertainment services to GPS, military radars, rail, maritime and aeronautical communications, emergency communications and caller location information from the scene of an incident – the ECO's work in supporting the ECC is far-reaching and considerable.

As the ECO continued to deliver expertise and support to the ECC, it also had a focus on building and strengthening relationships with some of our key partners in regulation, industry and academia. These partnerships are crucial in helping to improve engagement and awareness of the European regulatory framework and advance policy development in areas such as shared access to spectrum.

In addition, the ECO has also continued to invest in its database developments to ensure these specialist tools maintain the highest of standards and continue to meet the needs of the wide community that uses them. EFIS continues to have new features added to ensure the latest model performs strongly for the role it is expected to play in the European Union's spectrum inventory. SEAMCAT has undergone some changes too in order to keep it in line with user expectations, providing a spectrum engineering analysis tool on which they can rely.

We see continual change in the electronic communications market which is becoming more interconnected and global. The ECO in its work with the ECC is developing a range of modernised regulatory measures to support this change to allow for greater growth in some important emerging technologies.

As we look forward, I am confident that the ECO will continue to deliver its high level of technical expertise and professionalism across all ECC and other CEPT activities to help it meet the ongoing challenges in our evolving electronic communications sector.



Geir Jan Sundal

Chairman of the ECO Council

Director's Statement

I can begin with a note about how the year 2013 ended; a search for new office premises which was ultimately – in 2014 – very successful. We turned a nuisance into an opportunity. The process of identifying our requirements was a good way of reaffirming our sense of purpose; what we do and what we are about, both as a team within the office, and as part of a larger team outside it.

Amongst a quite comprehensive summary of what we did in 2013, I am pleased that this Annual Report sets out more clearly than before what our ECO experts actually do embedded within ECC committees. This is after all a large part of the ECO's function. Although I have previously described our working within the ECC as 'seamless', 2013 illustrated how dynamic a process this is. It includes knowing when we need to step into a greater level of leadership responsibility and when to step back from conventional leadership when administrations are ready to return to that role in a group, notably as a chairman. But this is always a team effort, and an understanding relationship between the ECO expert and the group she/he supports is vital.

One area where the ECO has been particularly instrumental in advancing policy in a practical and relevant way is with Short Range Devices. We are privileged to hold the chairmanship of the Short Range Device 'Maintenance Group' within the ECC. 2013 saw a major push forward in modernising the regulations, to reduce wastefulness of application-specific spectrum segmentation, providing for wider channels for a new generation of smarter devices; this in the liberating environment of licence-exempt spectrum. But that all means nothing if the devices don't work properly due to interference. Therefore a technically sound foundation is vital, and also the right pace: not too slow, not too fast.

After four years of development we at the ECO have arrived at, for now, a stable position with our more proactive communcations policy for the ECC. We believe the ECC now gets more recognition for its work; through news releases, and (experimentally) Twitter to complement the more regular use of our website pages for more technical detail and information. So stakeholders can engage with us on a variety of levels. Also we now have regular monthly bulletins to illustrate the range of substantive work going on in the ECC. Last but not least, the ECC Newsletters have been going for over three years now, and some hotter subjects are now coming round for repeat coverage. This enables us to provide a progressive narrative to the ECC's work – spectrum management doesn't stand still.

Also not new, but notable for progress in 2013 were the ECO's achievements in connecting the ECC to other essential parts of the European-level spectrum management world. On behalf of the ECC we act as an active liaison body with R&TTE ADCO and R&TTE CA, which are bodies respectively of administrations and industry, with an interest in implementation of the EU's R&TTE Directive on equipment which uses the radio spectrum. As well as this fruitful work, we have also contributed to several working groups of the EU-level 'Radio Spectrum Policy Group', a high level group of EU Member States which advises the European Commisison on spectrum policy. We contribute only where it is useful to do so, in order to ensure that the ECC's relevant deliverables and ongoing work are properly recognised in the work of the RSPG. This constructive circle of cooperation helps us to be properly joined up with our colleagues in other areas of spectrum management. We all have different jobs to do, but we are looking for the same objectives: spectrum working to deliver huge benefits to society.

So 2013 was another busy year, and I am very grateful for the support of the ECO member administrations in enabling us to achieve what we do. I am also very grateful for the talent, cooperative nature and work ethic of my colleagues here in Copenhagen for delivering it. I am proud of that, and of the fact that together we have managed to do this with a steady real terms reduction of income of 22% over the last 12 years, keeping us in the same real world that our contributing members live in.

Mark Thomas

Director of the ECO

The ECO: our role, our team

Our role

The European Communications Office (ECO) provides advice and support to CEPT to help it to develop and deliver its policies and decisions in an effective and transparent way. Our core duties are to provide a European centre of expertise in electronic communications, to contribute to the work of the three CEPT committees, and to manage CEPT's day-to-day activities.

As well as providing operational support to CEPT and its three committees (ECC, CERP and Com-ITU), we also have a central duty to maximise the effectiveness of CEPT's Electronic Communications Committee (ECC).

The ECC brings together the 48 CEPT countries to develop common policies and regulations in electronic communications and related applications for Europe, and to provide a focal point for information on spectrum use. Its primary objective is to harmonise the efficient use of the radio spectrum, satellite orbits and numbering resources across Europe. It takes an active role at the international level, preparing common European proposals to represent European interests in the ITU and other international organisations.

In this context, the ECO seeks to complement and support the ECC by:

- improving collaboration across its membership and extending its reach beyond;
- ensuring its communications are open, consistent and effective;
- delivering new initiatives and providing strategic input to its work; and
- helping CEPT's consensus model of working to operate effectively.

The principal contribution of ECO experts to the ECC is as embedded members of its various Working Groups, Project Teams and Task Groups. The exact level and balance of our contribution varies from group to group, depending on the commitments already provided by the administrations and industry participants, but it is always significant.

See the Review of the Year section on page 22 for more details on the ECO contribution to the ECC working process in 2013.

Our team

Based in Copenhagen, Denmark, the ECO operates with a small team of 12. Our team is made up of seven experts in the field of radio and telecommunications, recruited from across Europe, and five colleagues from Denmark who are responsible for managing our support and administrative services.

This provides us with a good combination of expertise and experience to help us achieve a high standard in the specialist services we provide. We work effectively as a team collaborating closely to identify how best to maximise our value across our many specialised activities.

From left to right: Bente Pedersen, Freddie McBride, Søren Conradsen, Thomas Weber, Mark Thomas, Merrete Wagner, Susanne Have, Alexander Gulyaev, Bruno Espinosa, Vibeke Hansen, Stella Lyubchenko, Jean-Philippe Kermoal.

The ECO team and their main areas of responsibility in 2013

Mark Thomas, Director, United Kingdom

Bruno Espinosa, Deputy Director, France (Spectrum Engineering (SE24), Frequency Management (FM50, FM51, FM52), Broadcast Plan Management)

Alexander Gulyaev, Russian Federation (Regulatory issues, Mobile broadband (ECC PT1), PPDR (FM49), Radio Amateur regulations, Electronic Working Arrangements (EWA))

Jean-Philippe Kermoal, France (Spectrum Engineering (WG SE, SE19, STG), SEAMCAT, fixed services, ETSI Coordination, SAT MoU)

Stella Lyubchenko, Russian Federation (Spectrum Engineering (SE7, SE21, SE40), Cognitive Radio, academic research, WRC preparation)

Freddie McBride, Ireland (Numbering and Networks (WG NaN), Com-ITU)

Thomas Weber, Germany (Frequency Management (FM22, FM44, FM48, SRD/MG), EFIS and Satellites)

Søren Conradsen (Office IT, web and mail services technical enquiries)

Vibeke Hansen (Webmaster editor, reception)

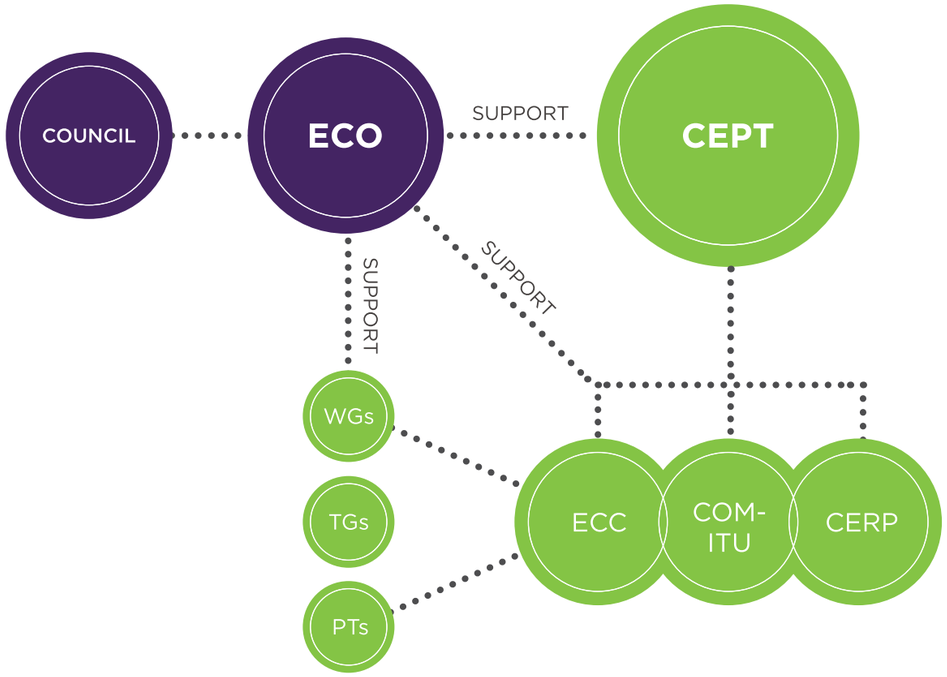
Susanne Have (CEPT, Council, administration, SAT MoU)

Bente Pedersen (Public consultations, ECC deliverables' library ('DocDB'), EFIS, administration)

Merrete Wagner (Finance, premises, Human Resources)

Supporting CEPT

The ECO provides a Secretariat for CEPT (including its Presidency) as an umbrella organisation for its three autonomous business committees.



The Chairmen of the three committees are also co-Presidents of CEPT.

CEPT ECC
Electronic Communications Committee

The Electronic Communications Committee (ECC) is responsible for telecommunications harmonisation, as well as European co-ordination and preparation for meetings in the Radiocommunication Sector of the International Telecommunication Union (ITU).

Mr. Eric Fournier, France, is Chairman of the ECC.

CERP

The European Committee for Postal Regulation (CERP) is responsible for postal regulation, as well as European co-ordination and preparation for meetings of the Universal Postal Union (UPU).

Mr. Ulrich Dammann, Germany, is Chairman of CERP up to the end of his term in May 2014. Following his appointment, Mr. Ljubisa Mitevski of the Former Yugoslav Republic of Macedonia will succeed Mr. Dammann as both Chairman of CERP and co-President of CEPT with effect from June 2014.

ComITU

The Committee for ITU Policy (Com-ITU) is responsible for European co-ordination and preparation for meetings of the International Telecommunication Union (ITU).

Mr. Marcin Krasuski, Poland, is Chairman of Com-ITU.

The CEPT joint presidency works together to deliver greater efficiency through the effective co-ordination of its work to create a dynamic market in the field of European posts and telecommunications for the benefit of society.

The ECO's support to the Presidency is mainly as a permanent office in the following areas:

1) the day-to-day handling of correspondence into and from the Presidency, with some secretarial and advisory support to coordination between the co-Presidents;
2) the provision and maintenance of content of the parts of the CEPT website which relate to the Presidency and CEPT as a parent organisation for its three committees;
3) the preparation of reports to the membership on the activities of the Presidency (these should be annual) and assistance to the Chairmen with other aspects of reporting to the membership;
4) the invoicing and collection of CEPT member financial contributions, used to pay for the ECO's support and such external expenditure as required, namely the costs of Assemblies, and some of the facilities provided for CEPT delegations and international conferences;
5) (as required): technical support to CEPT delegations at some major international conferences (ITU conferences such as WRC, WCIT, WTSA, WTDC, PP), this is usually an SMS-based messaging and chat system;
6) (as required): preparation of facilities and secretariat support for CEPT Assemblies.

The CEPT Assembly is the supreme body of the organisation, and is convened as required. There has been no Assembly meeting in 2013.

General

The ECO is the European centre of expertise in electronic communications. We're an integral part of CEPT's Electronic Communications Committee (ECC) and are active across all of its projects and activities. We also provide specialist support to the other CEPT committees where needed.

By providing expertise and a range of specialist support services to the ECC, and its many working groups and project teams, we are able to maximise its effectiveness and enhance its efficiency.

Here is a summary of our services.

Participation in project teams

In 2013 – Our experts actively contributed to more than 120 meetings across different project teams within CEPT's leading business committees: the ECC and Com-ITU.

In 2013, we chaired seven project teams which support the work of the ECC and its working groups on a range of radio and telecommunications issues. The details are provided in the Review of the Year section on page 23.

Conducting consultations to deliver better policies

In 2013 – We carried out 46 public consultations covering a wide range of topics to enhance ECC policies.

The ECO is responsible for conducting consultations on behalf of the ECC (see at: http://cept.org/ecc/tools-and-services/ecc-consultation) as part of the approval process of ECC deliverables. In addition to bringing together member administrations, our public consultation procedures set out the ways in which other stakeholders can get involved in order to contribute to the improvement of the ECC's policies.

The role of the ECO is not only to launch the consultations but also to perform a detailed analysis of the responses received and to submit proposals to the relevant body within the ECC in order to reflect appropriately the views expressed by stakeholders.

Conducting questionnaires for improved regulatory outcomes

In 2013 – We administered 15 questionnaires to aid ECC policy development.

Questionnaires, including electronic questionnaires, are developed within the framework of ECC working groups and project teams. The ECC uses them to gather information from administrations and other stakeholders to improve the development of ECC deliverables. The ECO assists the relevant groups in the development of the questionnaires and acts as a contact point in order to distribute them, collect responses, summarise and analyse them, and submit the results of this process to the relevant ECC groups.

Providing facilities for collaborative working

In 2013 – We hosted 43 meetings attracting over 935 participants from all around Europe.

CEPT's work is based on collaboration between regulators and industry representatives coming from different countries across Europe. Creating a forum for these important discussions is one of our central services. We provide facilities for both physical and electronic meetings and tools for electronic exchanges (e-mail reflectors, forum).

Meeting premises in Copenhagen

Our meeting rooms have internet access for delegates and projection facilities. In 2013, we had four rooms with a respective capacity of approximately 60, 20, 10 and 8 seats. In addition, the main room has video and audio webcasting features. We will offer a similar level of facilities in our new premises from May 2014.

Electronic meetings

We provide a range of facilities for electronic meetings:

- All-electronic meetings based on audio links, with document visibility to delegates ('Go-to-Meeting');
- Remote audio participation (audibility and interventions) and document visibility for physical meetings, optional management facility for meeting secretary; these facilities have some technical and procedural limitations;
- Video and audio streaming combined with external audio intervention from the Hamlet meeting room at the ECO, Copenhagen.

Meeting management

The CEPT portal hosts a meeting Calendar, which allows viewers to see all meetings, or, if they prefer, only those of interest, for efficient planning, associated with meeting registration facilities.

This portal includes also a meeting document server for all the Committees. This allows a choice of open and protected document access, and maintains an archive of meeting documents. Access for uploading documents can be adjusted to suit the meeting Chairman's preferences. In 2013, more than 12 500 meeting documents have been made available on our document server.

Tools for electronic exchanges

The ECO hosts an email server where each group can set up email reflectors to exchange and circulate information through correspondence lists. In addition, a Forum, fully integrated into the CEPT portal, offers many opportunities for groups as an efficient method for correspondence activities.

Online Information Systems

The ECO provides a range of bespoke online information systems on which many of our European stakeholders rely.

Document database - ECODocDB

In 2013 – The ECO document database, gathering the published ECC deliverables, has been visited more than 400 000 times.

Our document database (ECODocDB, http://www.ecodocdb.dk/) is an important online resource. It acts as a library for all ECC deliverables, namely ECC Decisions, ECC Recommendations, ECC Reports and CEPT Reports. It also gives access to the European Commission Decisions related to ECC activities and provides helpful information associated with each deliverable (e.g. related documents, implementation status).

Spectrum Engineering Advanced Monte Carlo Analysis Tool (SEAMCAT)

In 2013 – Our spectrum engineering analysis tool SEAMCAT was downloaded by over 1200 people from all around the world. It has also been restructured to match better with the specific needs of its users.

SEAMCAT (Spectrum Engineering Advanced Monte Carlo Analysis Tool) is a software tool based on the Monte-Carlo simulation method which permits statistical modelling of different radio interference situations. It has been developed to deal with a diversity of complex spectrum engineering and radio compatibility problems.

It is a generic compatibility analysis tool which is neither system-specific nor service-specific. This enables it to address any interference scenario regardless of the type of victim receiver and interfering radio systems.

The tool is designed for systems, in particular terrestrial systems, that operate in shared or adjacent frequency bands. It can also evaluate radio equipment parameters (e.g. transmitter emission masks, receiver sensitivity and density of interfering transmitters) where all interference mechanisms can be taken into account.

The tool is updated on a regular basis and is downloadable free of charge at: www.seamcat.org. The main developments included in 2013 are described in the Review of the Year section on page 27.

The ECO organises public workshops on SEAMCAT, which are available to administrations, industry and universities for free. Details on our 2013 workshops are set out within the Review of the Year section on page 22.

The ECO also provides an online handbook facility which is regularly updated at: www.seamcat.org/xwiki.

ECO Frequency Information System (EFIS)

In 2013 – Our EFIS frequency information system, which currently contains data on the spectrum use in 44 CEPT countries, was redesigned and improved to maintain its unique position as the high quality reference information tool on spectrum use and licensing conditions across Europe.

In January 2002, the ECO launched a frequency information system called EFIS (ECO Frequency Information System). EFIS is available to the public on the Internet either via the ECO website or directly under http://www.efis.dk/.

This tool provides a valuable service to all those with an interest in spectrum utilisation. EFIS also meets CEPT's policy objectives of harmonisation and transparency as well as the European Union policy objectives laid down in the Decision of the Council and European Parliament on Radio Spectrum Policy.

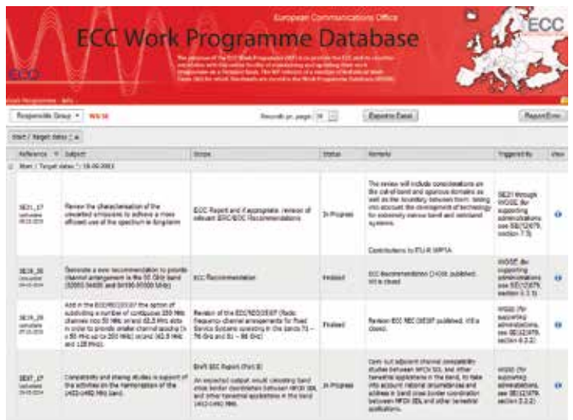
Since its launch in 2002, EFIS has expanded considerably. Most of CEPT's 48 national administrations now publish their data in EFIS, the scope of the content is wider and there are many more features and facilities.

In 2007, EFIS became the 'European Spectrum Information Portal', fulfilling EC Decision 2007/344/EC on harmonised availability of information regarding spectrum use in the European Union Member States. EFIS also plays a key role in the European Union's spectrum inventory, which is part of the programme of initiatives set out in the EU Radio Spectrum Policy Programme (RSPP).

With EFIS, users can search for and compare spectrum use across Europe as well as related information such as CEPT activities, radio interface specifications according to the R&TTE Directive and other national or international regulations. The latest developments in EFIS are described in the Review of the Year section on page 24.

ECC Work Programme Database

In 2013 – The ECC Work Programme database, describing the status of around 340 ECC Work Items, has been consulted 840 times.



The ECC Work Programme Database (ECC WP DB) is a part of the suite of ECO software tools which support CEPT. The purpose of the WP DB is to provide the ECC and its constituent bodies with online facilities for maintaining and updating their work programme on an ongoing basis. The Work Programme (WP) consists of a number of Work Items, allocated to the various groups within the ECC, stored in the Database with the possibility to filter them by reference name, status and by responsible group.

The database is available at http://eccwp.cept.org/.

Providing a central source of information

In addition to the reference and analysis tools described in the previous sections, the ECO works together with CEPT countries and other stakeholders to provide more accurate and up-to-date operational information in several key areas. This includes a number of web pages providing information on the ongoing activities within the ECC, as well as the following services.

ECO Bulletin

The ECO brings to each ECC Plenary meeting (usually three times per year) a bulletin on activities in radio communications in other world regions, where a regulatory dimension is raised (e.g. by innovative services or technology). The main objectives are to inform the ECC about initiatives related to spectrum management in other regions of the world and to enable comparison to be made with the regulatory approach in other regions to subjects already treated by the ECC (including, where relevant, to the work of the ECC's Conference Preparatory Group). In 2013, the three bulletins addressed a wide range of issues with an emphasis put on reporting about various initiatives in spectrum sharing, on the progress made across the world on band plans for mobile broadband and on regulatory developments relative to direct air-to-ground communications.

Satellite Monitoring Memorandum of Understanding

Due to the highly specialised and costly nature of satellite monitoring facilities, a group of seven national authorities have established an agreement under the Satellite Memorandum of Understanding (Sat MoU) to have access to the monitoring earth station in Leeheim, Germany. The agreement facilitates satellite monitoring activities within CEPT, particularly to investigate interference to and from the satellites.

The ECO provides secretariat support to the management committee responsible for the Sat MoU and manages CEPT's Sat MoU account set up to cover the costs of using the Leeheim facilities. The ECO also provides a link between the ECC activities on satellite and monitoring and the Sat MoU.

In 2013, the ECO supported the MoU in the running of a call for tender for a study on satellite geolocation in order to improve the precision of the geolocation results.

Further information on the Sat MoU is available from our website at: http://www.cept.org/eco/groups/eco/sat-mou

The signatories of the agreement are: France, Germany, Luxembourg, The Netherlands, Spain, Switzerland and the United Kingdom.

● Sat MoU signatory countries ● Other CEPT member countries

Programme Making and Special Events applications (PMSE)

Terrestrial audio and video links are used for a number of Programme Making and Special Events applications (PMSE). The applications covered by PMSE range from theatrical productions and corporate events to various levels of broadcasting contribution activities.

Within a general framework defined by the ECC, the conditions of use of the spectrum for PMSE applications vary from country to country. In 2012, CEPT administrations provided, in response to a questionnaire, a consolidated set of information on the availability and conditions for the use of many frequency bands for PMSE. This is published on the CEPT portal with an analysis developed by the ECO.

In addition, in 2013 we have developed, and maintain on the website, a list of contact points in CEPT administrations concerning PMSE related activities. Together these publications are intended to provide assistance to the PMSE industry and users in getting access to the relevant information on the conditions of use of spectrum for PMSE across CEPT countries.

The information on our website related to PMSE is available at: http://cept.org/ecc/topics/programme-making-and-special-events-applications-(pmse)

Amateur Radio

The ECO takes the lead role in the activities of the ECC Frequency Management Working Group (WG FM) on amateur radio issues. We work closely with the International Amateur Radio Union (IARU) Region 1. We act as the focal point with regard to the CEPT regulatory framework on amateur radio aspects, such as certificates and licences.

We also work with non-CEPT countries which have expressed an interest in joining the CEPT regulatory framework.

Earth Stations on Vessels, Aircraft Earth Stations and Earth Stations On Mobile Platforms

The ECO Documentation database includes technical information on the operators' networks of Earth Stations on Vessels (ESVs), and Aircraft Earth Stations (AESs). In 2013, we extended this information to include Earth Stations On Mobile Platforms (ESOMPs).

We maintain and update these files as prescribed by the regulatory frameworks for ESVs, AESs and ESOMPs. The information is available in the ECO Documentation database in connection with the relevant ECC Decisions. More details are available here: http://www.cept.org/ecc/topics/satellite-regulatory-information/earth-stations-on-aircraft-(aes),-vessels-(esv)-and-mobile-platforms-(esomps)

Numbering & Networks

Efficient numbering and network management contributes to a competitive communications environment and addresses issues such as transparent and non-discriminatory access to numbering and network resources, including emergency services, technology neutrality, consumer protection, transparency and ease of use. Numbering, naming and addressing schemes are managed by administrations at the national level in accordance with national and international legislation and agreements. The ECC and the ECO have been actively involved in assisting national administrations to address numbering policy issues in order to facilitate seamless communication for business and residential users worldwide.

We provide on our website a list of relevant documents and links related to numbering at: http://cept.org/ecc/topics/numbering. In 2013, we extended and updated the links providing access to the numbering pages of CEPT's national regulators.

Terrestrial-Digital Audio Broadcasting Plans

Another of our tasks is to manage two CEPT digital broadcasting plans across Europe. One of these addresses a residual 10 MHz (230-240 MHz) used for T-DAB and not covered by the Geneva 06 (GE06) plan relevant for most T-DAB broadcasting in Europe between 174 and 230 MHz. The other is the plan covering L-Band frequencies between 1452 and 1479.5 MHz, designated for T-DAB with some flexibility available for variants to this system. In 2013, the ECC adopted Decision (13)03 which sets out a harmonised framework to use these frequencies for mobile services, and specifically downlinks. However, the L-Band plan remains as a basic framework for use of the frequencies.

The plans are available from the ECC website at: (http://www.cept.org/ecc/topics/broadcasting/t-dab). These provide details of the allotments for each country. They also give a list of individual broadcast transmitters which have been co-ordinated between CEPT administrations and their agreed characteristics.

REVIEW OF THE YEAR

A principal driver of the ECO activities is the ECC's five year strategic plan, first published in March 2010. This sets out the ECC's approach to meeting key challenges and priorities in the developing world of spectrum management over the coming years. The Strategic Plan places the achievement of certain objectives on the ECO.

In 2013, the ECO's emphasis was especially placed in five main areas and we report on our performance against these strategic objectives in the pages that follow.

- Further development of electronic newsletters and communication initiatives to promote the ECC's achievements and increase the visibility of its deliverables;
- Support to the ECC in developing closer business relationships through external presentations and cooperation with industry, other external organisations, academia and research programmes;
- Promotion of exchange of views through the organisation of workshops, training sessions and the development of material to increase CEPT members' awareness of ECC activities;
- Contribution to the improvement of the efficiency of the ECC and of its working processes;
- Development of EFIS in order to respond to the needs of various stakeholders.

Meeting the objectives of the ECC Strategic Plan

The ECO is responsible for maximising the effectiveness of the ECC. A key part of this duty is our ability to achieve the objectives laid down in the ECC's Strategic Plan to ensure our work remains effective and focused in the right strategic direction.

Here we review our progress for 2013 on meeting the ECC's strategic objectives in five key areas.

Promoting ECC deliverables and activities through electronic newsletters and communications initiatives

Developing the ECC's communications programme has received significant attention from the ECO in 2013, the main objectives being to increase the visibility of ECC activities and to promote ECC deliverables.

In 2013, we have continued to promote the ECC's work through the publication of ECC electronic Newsletters. We have also launched two initiatives with the publication on our website of monthly summaries of activities within the ECC Working Groups, Project Teams and Task Groups and with the start of our presence on Twitter. In addition, we have contributed to the development of a communications plan in the context of CEPT preparations for the World Radiocommunication Conference in 2015. Taken together, these developments have brought the ECO's communications activities to a stable position, from which we expect to consolidate and improve our existing activity rather than developing new initiatives.

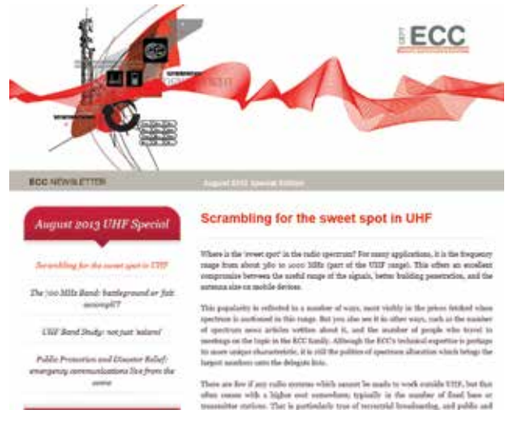
Considering the positive feedback received in 2011 and 2012, we have continued our activities towards the development, coordination, and distribution of ECC electronic Newsletters.

In 2013, three ECC e-newsletters have been published in April, August and October respectively. The articles were written by ECO and ECC experts and addressed a large range of topics:

- In the April 2013 edition, the recently appointed ECC Chairman, Eric Fournier, highlighted the ECC's objectives and priorities and also identified the challenges he was preparing to address with the Committee.
- The August 2013 release was a special edition focused on the UHF spectrum. The ECO authored three articles providing full details of the ECC's activities in this part of the spectrum. It described the studies on the '700 MHz' band, and its potential use for more capacity for mobile broadband services. The second element was to inform about the creation of a new Task Group set up to raise and answer questions on the future use of the rest of the UHF broadcasting band (470-694 MHz). The third article presented the search for frequencies to deliver high quality video from the scene of incidents and events for public protection and disaster relief (including planned large-scale public events): BB-PPDR.
- Two innovative approaches in frequency management were addressed with, on one hand the ECC's response to requests for spectrum below 1 GHz for a wide variety of Short Range Devices (SRD) applications and, on the other hand, the description of the Licensed Shared Access (LSA) aiming at enabling access to additional frequency bands for mobile broadband under an individual licensed regime while maintaining incumbent uses through the development of appropriate sharing mechanisms.
- The achievements in the area of numbering and networks were also covered with a description of the ECC's views related to the long term evolution in Numbering, Naming and Addressing and with an article dealing with the quality of service parameters and measurement methods for retail Internet access service.

The newsletters were distributed electronically to some 5000 stakeholders and released on the ECC website, where they have been consulted between 1000 and 2500 times, the latter being for the UHF special edition.

You can subscribe to the ECC e-Newsletter for free from the following link: http://www.cept.org/ecc/who-we-are/ecc-newsletters. An online archive of past copies is also available here.



In March 2013, we launched a new initiative with the publication of the ECC Monthly Summary. This is a factual monthly bulletin listing the outcomes of meetings of the various ECC specialist groups which have taken place. The main objectives are to provide information on the evolution of the work items under development and to guide the reader through the full ECC decision-making process. Another objective is to promote the relevant group pages on the website, where further details can be obtained. The bulletin's content is drawn from the contributions of the ECO's experts having responsibility for the various groups.

Through the year, nine monthly summaries have been published in the news area of the ECC main page (http://www.cept.org/ecc) and each issue has been consulted a few hundred times.

In June 2013, the ECC launched on Twitter. The account, @CEPT_ECC, is managed by the ECO and is used to communicate information about the latest developments across the range of ECC activities and to promote upcoming meetings, consultations, and workshops. We have not planned to make Twitter a central point of dialogue with stakeholders but more a reminder and a means to alert them to what the ECC and the ECO are doing, with a proper set of information obtainable on the website. As a result of this low-key approach, we are issuing about two tweets per week, mainly associated with major meetings. At the end of 2013, the number of followers was still limited but is slowly growing in number and diversity.

In order to respond to the specific requirements in terms of communication of the ECC Conference Preparatory Group (CPG), leading the CEPT preparation for the next World Radiocommunication Conference (WRC-15), the ECO has assisted the CPG Chairman in the development of a useful set of information published on the website, which includes a list of 'Frequently Asked Questions' and should serve as a reference for external queries. The approach has distinctly different drivers and constraints from the rest of the ECC's work. Although, as in other areas, we wish to ensure that the CPG/ECC's role and contribution to successful outcomes is properly recognised, the primary objective with the CPG is to ensure a proper degree of confidentiality of detail, balanced by a wider understanding of the process. This should allow for effective progression of the CPG's work by mitigating the distortions of partially-informed external comment.

Supporting the ECC in developing closer business relationships with industry and external organisations and encouraging a regular exchange of views

During the year, ECO experts have continued to collaborate with important stakeholders from across the telecommunications sector to share information and increase awareness and understanding about the ECC's areas of expertise, its policies and regulations, and about the specialist databases and tools it provides for effective spectrum management. We have also continued to contribute to a core set of regular meetings with some of our leading partners. In addition, we have strengthened our links with academia and research programmes to improve engagement in important research areas such as the developments in cognitive radio techniques and in mobile broadband technologies.

Promoting the work of the ECC at key telecommunications events

55th CRAF meeting (Zurich, Switzerland, 3 - 5 April 2013)

In the context of the collaboration process between the ECC and the Committee on Radio Astronomy Frequencies (CRAF), Stella Lyubchenko (ECO) was invited to the 55th CRAF meeting to introduce the ECO's SEAMCAT spectrum engineering analysis software. The presentation included a case study to illustrate the relevance of SEAMCAT for compatibility studies involving the radio astronomy service.

CRAF observatory in Bleien, close to Zurich, Switzerland

8th Annual European Spectrum Management Conference (Brussels, Belgium, 25-26 June 2013)

The 2013 European Spectrum Management Conference brought together more than 200 participants from all the major stakeholders for a detailed and interactive discussion on key issues and developments relating to spectrum management policy in Europe. In a session devoted to the EU spectrum inventory, Thomas Weber (ECO) described the developments planned for the EFIS database in order to provide authoritative and comprehensive information in support of the spectrum inventory.

Future Network & Mobile Summit 2013 (Lisbon, Portugal, 4 July 2013)

In the context of convergence and innovation, the 22nd Future Network and Mobile Summit, supported by the European Commission, addressed the challenges of building the Future Internet Infrastructures, based on mobile, wireless and fixed broadband communications technologies. Thomas Weber provided a European update on public safety future networks addressing the existing deliverables and ongoing activities on Public Protection and Disaster Relief (PPDR) applications.

EMC Europe Symposium 2013 (Brugge, Belgium, 2-6 September 2013)

EMC Europe is trailed as the leading EMC Conference in Europe which this year was held in Brugge, Belgium. The ECO was invited to this event for the fourth consecutive year to contribute to the exchange of technical information on EMC.

The presentation made by Stella Lyubchenko (ECO) was very specialised in describing a new algorithm implemented in the SEAMCAT tool to model the interference into CDMA-type cellular networks. An associated poster prepared by the ECO together with ECC experts was displayed in the exhibition hall of the event.

Workshop on TRIAL LSA (Helsinki, Finland, 3 September 2013)

In the context of its TRIAL programme, TEKES, the Finnish Funding Agency for Innovation, organised jointly with the COST-TERRA research programme a workshop to discuss and share knowledge, experiences and scientific and technical test results on Licensed Shared Access (LSA). Bruno Espinosa (ECO), as chairman of the Project Team FM52 of the ECC, presented the activities carried out in this group on the shared use of the band 2.3-2.4 GHz using the LSA concept.

International Broadcasting Convention - IBC 2013 (Amsterdam, The Netherlands, 15 September 2013)

The yearly IBC is promoted as a global meeting place for those engaged in the future of electronic media and entertainment technology and content. During the 2013 edition of the Convention, Mark Thomas, the ECO Director, was invited to speak from a regulatory perspective at a session dedicated to spectrum. He explained how the spectrum regulatory framework is structured and emphasized, with a few illustrative case studies, the balanced approach that regulators need to take when considering spectrum demands.

International Broadcasting Convention – IBC 2013 (Amsterdam, The Netherlands, 16 September 2013)

At the same IBC 2013 event, the Association of Professional Wireless Production Technologies (APWPT) organised a session on spectrum needs for wireless microphones and cameras in broadcast content production. Bruno Espinosa (ECO) gave a presentation on the ECC's latest initiatives on spectrum for Programme Making and Special Events (PMSE) applications. He highlighted the various actions launched by the ECC to identify suitable solutions to accommodate PMSE spectrum requirements.

Number Portability Global Summit 2013 (London, UK, 1 October 2013)

This summit is trailed as the event for Number Portability representatives to meet, learn, network and stay updated with developments in Number Portability globally. In a panel discussion on 'How can, and should, operators and regulators address the demand for "service portability" alongside Number Portability', Freddie McBride, the ECO expert on numbering issues, presented the ECC's continuing activities to identify and address the technical regulatory challenges related to service portability.

Professional LTE and Spectrum Management Conference (London, UK, 9 October 2013)

This event attracted 155 attendees and was packed with interesting discussion sessions bringing together the PPDR community with broadcasters, regulators, commercial operators and academics. Alexander Gulyaev (ECO) provided a presentation on the ECC's ongoing developments towards the identification of a European harmonised solution for Broadband PPDR.

FP7 RAS Projects Spectrum Access Workshop (Brussels, Belgium, 22 October 2013)

As part of the EU FP7 concertation on future networks, a workshop was organised on worldwide perspectives in flexible spectrum use and opportunities for standardisation. Its main objective was to challenge the stakeholders on the introduction of dynamic spectrum sharing in Europe. Thomas Weber, ECO, reported on the regulatory evolution in the ECC, addressing topics like Licensed Shared Access, TV White Spaces, cognitive devices and trends related to mitigation techniques for shared access of the spectrum.

When every second counts: New Advanced Broadband and Mobile Emergency Communications (Lyngby, Denmark, 14 November 2013)

The American Chamber of Commerce in Denmark organised a workshop aimed at exploring the needs for new mission critical mobile broadband communication services, which can no longer be facilitated by narrow band communication alone. Alexander Gulyaev (ECO) presented the ECC's activities towards enabling a harmonised implementation of Broadband PPDR.

Working collaborately with our partners

The ECO is fundamental in helping the ECC extend its reach beyond CEPT member administrations. We work hard to build and enhance effective business relationships with a wide range of stakeholders through our active participation in a set of regular meetings and events, and as the first point of contact for all ECC activities.

In 2013, we continued to participate in a significant number of meetings with key stakeholders for the further enhancement of ECC deliverables. We also extended our role as the central point of contact for exchanges with other international and regional organisations.

ETSI

ETSI is an essential partner of the ECC and the ECO is actively involved in this cooperation through a diverse range of activities.

We develop and maintain, on the ECC website, a dedicated page (http://www.cept.org/ecc/who-we-are/ecc-and-etsi) describing how these two organisations work together, containing tools to strengthen the synergy between them and highlighting relevant information related to ETSI.

The ECO participates at each meeting of the ETSI TC ERM, which is responsible for ETSI's interface with the ECC on radio matters. The main goal of this participation is to contribute to the consistency between the ECC and ETSI activities and to promote in ETSI an awareness of the ECC's outputs and requirements, and vice versa.

This also helps us in maintaining a matrix which indicates the relationship between specific groups respectively within the ECC and ETSI.

In 2013, we have further developed an initiative intended to ensure the consistency between the Harmonised Standards developed by ETSI and the related ECC deliverables. The first step involves the regular maintenance of a spreadsheet listing the ETSI Harmonised Standards under development which relate to ongoing ECC activities. Our experts then monitor these draft Harmonised Standards and provide the results of their analysis to the relevant ECC groups in order to identify whether further action is needed.

In addition, the ECO follows ETSI standardisation activities related to next generation telecommunications networks, their infrastructure, security and identification. For this purpose, we participate in the ETSI Project End-to-End Network Architectures (E2NA) and its Technical Committee Network Technologies (TC NTECH) in which we report on the relevant work of the ECC's Working Group Numbering and Networks (WG NaN) and its Project Teams.

European Commission

The ECO continued its task of providing regular support to the ECC Chairman as observer at the Radio Spectrum Committee (RSC) of the European Commission and at the Radio Spectrum Policy Group (RSPG).

In particular, the ECO prepared the summary report of ECC activity for each RSC meeting.

We have also been involved in RSC discussions related to the spectrum inventory to determine the role that EFIS would play in the inventory and the interaction between Member States, EFIS and the Commission in this context.

Within the RSPG, we have contributed to the completion of two Reports on sectoral spectrum needs and interference management respectively. Our role was to promote the ECC deliverables relevant to these topics and to ensure that they were accurately reflected in the published RSPG Reports.

In December 2013, a workshop jointly organised by the European Commission and CEPT was held in Brussels on European preparations for the ITU World Radiocommunication Conference 2015 (WRC-15). Over 190 participants from across Europe gathered together to discuss the technical background to a number of complex issues on the agenda of WRC-15. The ECO was actively involved in the preparations and running of the workshop in support of the ECC Conference Preparatory Group (CPG), and in the development of a follow up report which provided a summary of the discussions.

In 2013, the ECO participated in TCAM (Telecommunication Conformity Assessment and Market Surveillance Committee) activities on the R&TTE (Radio and Telecommunications Terminal Equipment) Equipment Classes to ensure consistency between the latest developments in TCAM and the related information included in EFIS.

R&TTE CA and ADCO R&TTE

Following the agreement of June 2010 between the ECC, ETSI, the R&TTE Compliance Association (R&TTE CA), and the Administrative Co-operation in R&TTE (ADCO R&TTE reporting to TCAM) to strengthen the inter-organisational co-operation in the R&TTE equipment compliance area, the ECO continued in 2013 to provide the interface for bridging the relevant processes in the ECC and other organisations.

ADCO R&TTE is the major group of the European regulators in the R&TTE compliance area. In view of the increased number of topics of mutual interest between the market surveillance authorities meeting in ADCO and the frequency managers at the ECC, the role of the ECO is increasing in this area. In 2013, we have presented to the ADCO meetings the ECC's views and positions on many issues on ADCO's agenda.

The ECO has also spoken, on behalf of the ECC, at a workshop on risk assessment in the field of effective use of spectrum and electromagnetic compatibility organised by ADCO R&TTE in October 2013. In its activities on developing a risk assessment tool, ADCO R&TTE has identified that the assistance of the ECC would be beneficial in defining some criteria for the assessment. This triggered regular exchanges between both organisations where the ECO acts as an interface.

ITU

As part of our support to the ECC, we have been involved in relevant ITU-R (Radiocommunication Sector) and ITU-T (Telecommunication Standardisation Sector) study groups. This provides us with the opportunity to promote European achievements to other regions of the world and also to increase our awareness of the activities and developments outside of Europe, and to enlarge in a significant way our range of valuable contacts.

Within the ITU-R, we participated in the WP 5A to promote the ECC's activities on Public Protection and Disaster Relief (PPDR) communications and in three spectrum management working groups (WP 1A, WP 1B, and SG 1), mainly to support the ECC's work on short range devices (SRD) and to promote the EFIS tool, as illustrated by the presentation to WP 1B made by Thomas Weber on this topic.

With regard to EFIS, the ECO has engaged in a cooperation process with the ITU-R radiocommunications bureau to share the experience on the development and maintenance of databases and to explore synergies between EFIS and the comparable ITU-R registers.

We have also worked together with the ITU-R SG1 management team in order to define the scope and the agenda of a workshop to be held by the ITU-R in June 2014 on global/regional SRD harmonisation possibilities (including Ultra Wide Band (UWB) technology).

We also contributed to the work of the ECC WG NaN (Numbering and Networks) through our participation in ITU-T SG2, the lead study group for service definition, numbering and routing of telecommunications traffic.

Other organisations

In 2013, we maintained our exchanges with various organisations, such as the International Amateur Radio Union (IARU Region 1) and the International Railways Union (UIC), in order to identify the issues of mutual interest between these communities and the ECC and to trigger their active involvement in some areas dealt with by the ECC.

Acting as focal point for the exchange between the ECC and the other Regional organisations

In the context of preparations for World Radiocommunication Conferences, the exchanges between the various regional organisations have become more and more prominent. In order to guarantee a better and continuous information exchange between the ECC Conference Preparatory Group (CPG) and its partners in other regions of the world, it was decided in 2013 to task the ECO to act as a permanent contact between CEPT and other regional organisations. This action will help in the exchange of information about forthcoming meetings, participation from CEPT and regional organisations to different level meetings, document exchange and bilateral meetings when approaching the upcoming WRC. The ECO is also involved with the CPG coordination team in the preparation of presentations providing CEPT positions which are submitted to the meetings of the other regional organisations.

Collaboration with academia and research projects whose work is relevant to the ECC's present and possible future work

In 2013, the ECO has built upon the contacts taken with academia and research projects during the previous years to strengthen their involvement in ECC work and their awareness of the European regulatory framework. Our efforts have focused on five topics identified with the ECC in 2012 and led us to increase our participation in events organised by research projects. As described on page 19, we have spoken in two workshops related to shared access of spectrum. We have also participated in two workshops on the use of cognitive techniques for Programme Making and Special Events applications (PMSE) and for unlicensed application in the white spaces of the TV band respectively.

We have also participated in the FP7-ICT project ABSOLUTE external advisory board as an adviser, consistent with previous guidance from the ECC (to assist projects to understand the regulatory environment). The project aims to define a flexible platform based on LTE-A solutions for emergency communications by developing a quick and reconfigurable network with high capacity impact.

These initiatives have provided tangible results in 2013 with a significant increase in the participation of research projects in ECC activities. Groups within the ECC have received presentations from various projects covering topics such as spectrum sharing in mobile networks, coexistence between different radar applications, cooperative femtocells in mobile networks, and use of cognitive methods for the sharing between satellite and terrestrial systems.

The ECO Director, Mark Thomas (2nd from left) and Alexander Gulyaev (left) during the presentation to representatives of the Serbian Ministry of Culture, Media and Information Society

Promoting a regular exchange of views through workshops and training sessions, and developing material to increase CEPT members' awareness of ECC activities

PT TRIS Workshop at the FTTH Council Conference, London, 19 February 2013

Project Team Technical Regulatory Issues (PT TRIS) of ECC/WG NaN ran a workshop at the Fibre-To-The-Home (FTTH) Council Conference at the Excel Arena in London. The workshop was well attended with over 40 conference delegates participating.

The aim of the workshop, organised by the ECO and facilitated by the Chairman of WG NaN, was to take a closer look at national mapping initiatives currently underway in different European countries. The workshop not only focused on the scope and objectives of those initiatives but also on lessons learned from the different projects and how broadband network developers could benefit from them.

SEAMCAT Workshop, ECO, Copenhagen, 11-12 June 2013

In order to increase the extent of use of SEAMCAT and to update users on the latest developments, the ECO organised a SEAMCAT workshop structured in two sessions and attended by 34 participants from CEPT administrations and the industry. The first day was specifically designed for beginners and included a general presentation of the tool and tutorials on its main features. The second day was designed for intermediate users and focused on more advanced features such as the generation of plugins and the use of the CDMA and OFDMA modules.

Presentations for delegations from CEPT administrations

In its efforts towards greater promotion of ECC activities, the ECO took the opportunity during visits to Copenhagen by CEPT administrations to give presentations on an overview of the regulatory framework in spectrum and numbering and some more detailed elements on specific topics, as interest demanded.

- On 17 April 2013, as part of a study visit on Broadband Implementation Models and Broadband Law, we were visited by a delegation from the Serbian Ministry of Culture, Media and Information Society. We informed them specifically about the ECC's activities on mobile broadband, infrastructure mapping and monitoring of quality of retail Internet Access Service;
- On 11 September 2013, we received the staff of the Postal Services and Telecommunications Section at the Norwegian Ministry of Transport and Communications. We provided an introduction to ECC and ECO activities and highlighted some of the high-profile interests in spectrum management (spectrum for mobile broadband and short range devices, shared access of the spectrum etc.) and in the numbering and networks area (such as accuracy and reliability of call location information and long term evolution in numbering, naming and addressing).

Contributing to the improvement of the efficiency of the ECC and its working processes

While the previous sections illustrate the support provided by the ECO to the ECC in the promotion of its activities and the development of working relationships with other organisations, this section describes the main tasks performed by the ECO within the ECC and its subsidiary groups to improve its efficiency and streamline its working processes.

The principal contribution of ECO experts to the ECC is as embedded members of its various Working Groups, Project Teams and Task Groups. This involves the participation of ECO experts in almost all the meetings of the ECC and its many subsidiary bodies, and their assistance in the preparation and management of the meetings and the follow-up work thereafter. In 2013, the physical participation of ECO staff at meetings within the ECC reached approximately the level of 280 man-days shared mainly between the six international experts from our team, plus the Director.

The exact level and balance of their contribution varies from group to group, depending on the commitments already provided by the administrations and industrial participants, but it is always significant.

The ECO expert's contribution in all cases, including back-office support from the ECO's general staff, includes facilitating and implementing much of the group's use of the ECO's standing facilities and services (including the group's use of the website, maintenance of the work programme database, running consultations and questionnaires, and checking approved deliverables before publication).

However, ECO participation within a group goes well beyond this operational support and has a direct influence on the ECC's work. In some cases, the ECO is invited to provide a Chairman to a Project team or a Forum Group. In 2013, we chaired seven project teams which support the work of the ECC and its working groups on a range of issues. These include:

Project Team SE19 (Fixed Services) of the Spectrum Engineering Working Group (WG SE);

Project Team SE40 (satellite services) of the WG SE from November 2013;

Project Team STG responsible for the development of the CEPT compatibility tool, SEAMCAT, within the WG SE;

Project Team SRD-MG of the Frequency Management Working Group (WG FM) responsible for short range devices (SRD);

Project Team FM52 (band 2.3-2.4 GHz) of the WG FM from October 2013

Forum Group on Radio Amateur issues of the WG FM; and

Project Team EFIS-MG responsible for the development of the EFIS tool within the Frequency Management Working Group.

In addition, the neutral position of the ECO is also used at times by the chairmen of the groups to start building consensus on delicate issues. This leads us to act frequently as rapporteur of drafting groups during the development of deliverables. This has become more prominent in 2013 where some projects had to operate under a tight timescale (e.g. for the development of CEPT responses to EC Mandates), requiring some preparatory work performed by correspondence. In this context, the ECO can be tasked to provide background material which will assist in the further development of the work.

Jean-Philippe Kermoal, ECO, editing online while chairing Project Team SE19 during its 62nd meeting at the ECO, Copenhagen, in February 2013

Alexander Gulyaev, ECO, left, supporting FM49 chaired by Peter Buttenschoen, Germany, right, during the 13th FM49 meeting at the ECO, Copenhagen, in December 2013

As part of our activities in the developments of EFIS and SEAMCAT, we are the first to contribute to ECC activities by providing either analysis of spectrum usage and related information within EFIS or by carrying out detailed compatibility and sharing studies within SEAMCAT.

Because of our involvement in the full range of ECC activities, we are well placed to act as the liaison point or help with coordination between the various groups. This is an enabler role and we use it to provide efficiency and consistency within the ECC. As examples, we have been extensively involved in the coordination of activities amongst various groups within the Spectrum Engineering and the Frequency Management working groups on topics such as the use of the unpaired 2 GHz bands, studies for Programme Making and Special Events (PMSE) applications, for direct air-to-ground communications (DA2GC), and the initiation of technical work on additional spectrum for Radio Local Area Networks in the 5 GHz range.

This coordination role is also used to help strengthen the relationship within CEPT between the ECC and other committees, in particular Com-ITU.

In addition to the deliverables adopted by the ECC, the ECO can sometimes develop its own studies intended to complement the ECC's work. This leads to the development of ECO Reports. In 2013, the revision of ECO Report 03 on the licensing of mobile bands was initiated and is due for completion in early 2014.

We are noticing that a more significant contribution is being required from the ECO (beyond our general support). This is largely seen as a result of administrations having to respond to constraints on their own expenditure. Up to a point, this can be an efficient way to spread the burdens amongst the administrations: particularly as the ECO is independent of any one administration and is wholly dependent upon and driven by the collective will of the member administrations working in cooperation.

Developing the ECO Frequency Information System (EFIS) and contributing on the EU spectrum inventory process

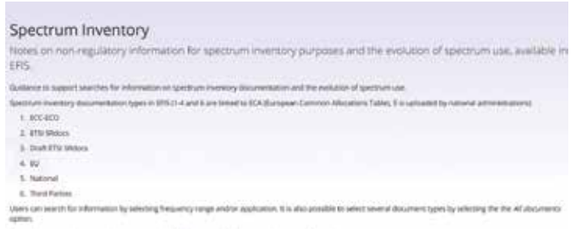
Due to the unique position of EFIS as a comprehensive reference tool for spectrum usage information across Europe, we have implemented significant enhancements to it in 2013 in order to maintain our efforts in improving its accuracy and its usability.

EFIS and the EU spectrum inventory

Most of the development work applied to EFIS in 2013 related to the role which it is expected to play in the European Union's spectrum inventory, which is part of the programme of initiatives set out in the EU Radio Spectrum Policy Programme (RSPP).

The Commission has, within its Radio Spectrum Committee, adopted an Implementing Act for the spectrum inventory which references the role that EFIS should play in it. Information will flow from Member States to EFIS then to the European Commission. The ECO has undertaken some liaison work with the Commission's Joint Research Centre which the Commission has tasked with developing an electronic analysis tool for the inventory.

In this context, some additional features have been implemented in EFIS to allow the import and the processing of data collected from electronic questionnaires hosted on the CEPT portal (see also page 29).

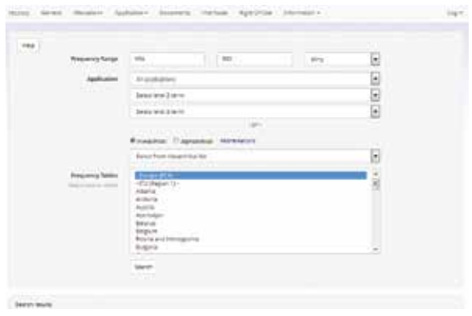


EFIS as a tool to generate reports on spectrum usage

The EFIS project has developed a report generation feature, which facilitates the preparation of consolidated documents reflecting the spectrum usage, the national implementation and the status information. This feature has been used to generate ERC Report 25 (the European Common Allocation Table). Other applications are expected to follow in 2014 with ECO Report 03 on licensing of mobile services, ERC Recommendation 70-03 on Short Range Devices and similar types of Reports covering other application areas such as fixed links and satellite services.

Improvements of the EFIS user interface

In addition, during 2013, the EFIS web-design and graphical user interface were completely renovated and modernised in order to make the tool more convivial for users and also for administrations providing information into the system.



Managing our operational services

The ECO delivers a range of professional and operational services to CEPT and its Committees, in particular the ECC. In 2013, we have been active in strenghtening our effectiveness in order to respond in a satisfactory way to the needs of our member countries and industry partners. Here's a summary of what we have achieved over the year.

Supporting the CEPT Presidency

On 25 April 2013, CEPT and the Universal Postal Union (UPU) co-signed a Memorandum of Understanding in order to work more closely together on issues of technical cooperation and to share more information and best practice on regulatory issues. We provided assistance to the CERP Chairman, acting as CEPT Co-President, for the preparation process, including the development of the text, and the CEPT internal approval process.

Ulrich Dammann, Co-President of CEPT, during the signing of the MoU with the UPU

Extending the support to Com-ITU

In 2013, the ECO has significantly extended its support to Com-ITU which, in addition to the operational assistance already provided during previous years, now includes a more active and substantial participation from the ECO in Com-ITU activities.

For 2013, the main areas of support have been:

- Monitoring of ITU-T (standardisation sector of the ITU) study groups' activities relevant to Com-ITU: the ECO, through its active participation in ITU-T, has developed a reference document describing in a comprehensive way the ITU-T structure and summarising its main activities. It is intended to assist Com-ITU in its preparation to the ITU-T Review Committee.
- Supporting Com-ITU in the preparation of the main ITU events planned in 2014: Com-ITU activities in 2013 have been mainly devoted to the preparation of two major ITU events scheduled in 2014: the World Telecommunication Development Conference (WTDC-14) and the ITU Plenipotentiary Conference (PP-14). We have supported Com-ITU in the development of European Common Proposals to WTDC-14 and have helped in the cooperation between Com-ITU and the ECC for the identification of issues of common interest in the context of its preparation for PP-14.

In addition, the Committee has, under our guidance, increased its use of the website facilities offered by the CEPT portal and of the electronic working methods developed by the ECO to a level similar to the ECC.

Com-ITU Chairman Marcin Krasuski (centre) with the vice-chairmen elected in January 2013 - Mr. Frédéric Riehl (left) and Dr. Ahmet Erdinç Çavşoglu (right)

Managing CEPT's family of websites

Following the introduction of the new CEPT website in 2011 and a series of improvements made in 2012, the developments affecting the website have been more limited in 2013, thus providing a stable electronic working environment to the portal users.

One key development in 2013 has been the integration in our website of a tool specifically designed for electronic questionnaires (see page 29).

Some improvements have been brought to the content and the design of the website in particular to ensure that the constant evolution and updates of the information contained in the website follow a determined scheme and thus do not alter the consistency between various areas. We also extended the concept of notifications in order to keep the users up-to-date in their areas of interest (meeting calendar, meeting documents, forum). In addition, minor improvements and adjustments have been implemented on an ad-hoc basis, taking due account of the feedback sent to us by users.

Number of registered users to the systems: 3100

Number of visits for 2013: 700 000

Average number of visit per day: 1900

Average visit length: 20 min.

Promoting electronic working arrangements

Fully operational since 2012, our web-meeting facilities are based on the use of the commercial 'GoToMeeting' system (or the GoToWebinar version for larger audiences) combined with the meeting management features integrated into our portal. In 2013, these facilities became part of CEPT's routine in terms of meeting management. The users together with the ECO have now gained good experience in using this electronic facility in a natural and transparent way. The growth in the number of web-meetings, in particular within the ECC, is the main factor in extending the ECC's capabilities to respond to its increasing workload.

In 2013, the ECO organised over 100 web-meetings with the GoToMeeting system ranging from small meetings of a couple of experts discussing technical studies in preparation for a physical meeting to larger sessions of correspondence groups gathering more than 20 participants. Average participation in web-meetings observed in 2013 was approximately 10 people per meeting.

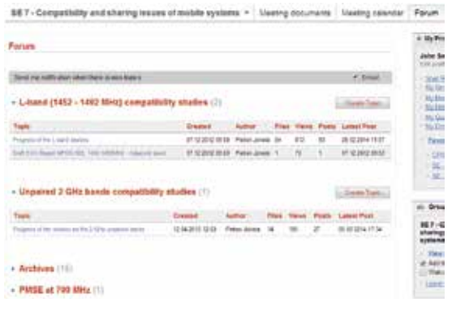
The facilities of remote participation in physical meetings set up by the ECO have been used on an ad-hoc basis within Com-ITU and the ECC but such practice is currently still limited.

Facilitating discussions through the CEPT Forum

The CEPT Forum, fully integrated into the CEPT portal in 2012, was enhanced in 2013 as a result of the initial feedback received, in particular to make it more user friendly. The topic management and post edition functions have been significantly improved and the notification system, informing the interested users of newly created topics or posts, has been modified so that the full text of the post is now included in the notification email.

In addition to the traditional usage aimed at exchanging views on a specific topic, the CEPT forum has also been used, thanks to its notification feature, as an efficient way to circulate information quickly, such as meeting timetables, which are particularly useful during large meeting gatherings of more than one hundred participants with many sessions running in parallel.

In 2013, the CEPT Forum was used by 69 groups within the ECC and Com-ITU generating 623 posts within 81 different topics.



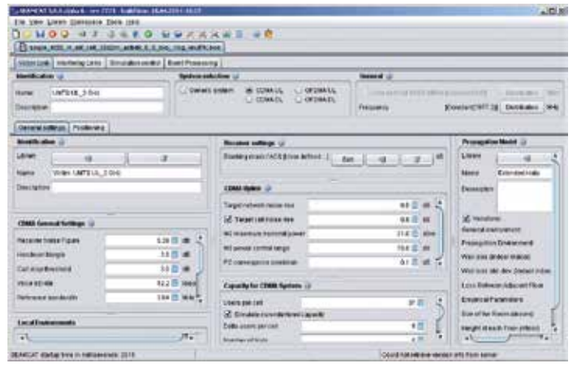
Developing the SEAMCAT spectrum analysis tool to match users' needs

SEAMCAT (Spectrum Engineering Advanced Monte Carlo Analysis Tool) is a software tool, developed by the ECO, based on the Monte-Carlo simulation method which permits statistical modelling of different radio interference situations. It is extensively used within the ECC to perform compatibility analysis between applications which would share the same range of spectrum or which are being assessed for adjacent band compatibility.

The software is developed and enhanced by the ECO, in cooperation with the SEAMCAT Technical Group (STG) an entity of the ECC Working Group Spectrum Engineering (WG SE).

In 2013, the development of SEAMCAT has been focused in two main workstreams:

- Short-term improvements to respond to the needs of the ECC groups and to the feedback of the users: this included some improvements to the user interface, enhancements to facilitate the post-processing of the SEAMCAT outputs and the addition of new technical features.
- Optimisation of the architecture of the software to improve its effectiveness and to ease its future developments: considering the increasing trend of requests for specific features in the software, a major rebuilding of the SEAMCAT architecture has been launched in order to reduce the core of the software and to organise many of the features in plugins. This tool will lead to a more generic use of the tool by the user so that they can develop their own module to the tool; modules that eventually can be shared within the SEAMCAT community.

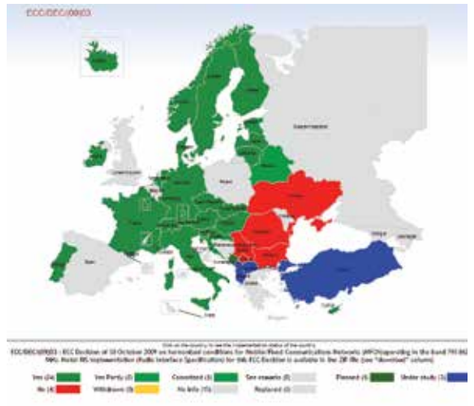


A survey on the number of SEAMCAT downloads indicated that in 2013 around 1200 people have downloaded the software from both CEPT and non-CEPT countries.

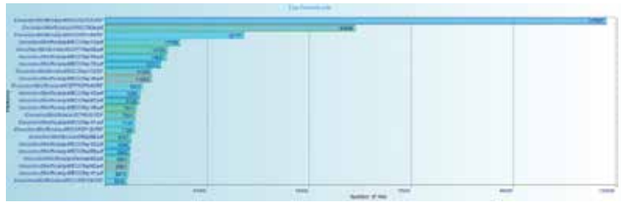
The SEAMCAT webpage (www.seamcat.org) was also visited 4540 times in 2013.

Managing the ECO Documentation Database – ECODOCDB

The ECO Documentation Database continued to provide an important online resource for users wanting to access ECC Decisions, Recommendations and Reports, and CEPT Reports. The documentation database also includes some helpful information such as related documents and, for ECC Decisions and some ECC Recommendations, the level of implementation across Europe.



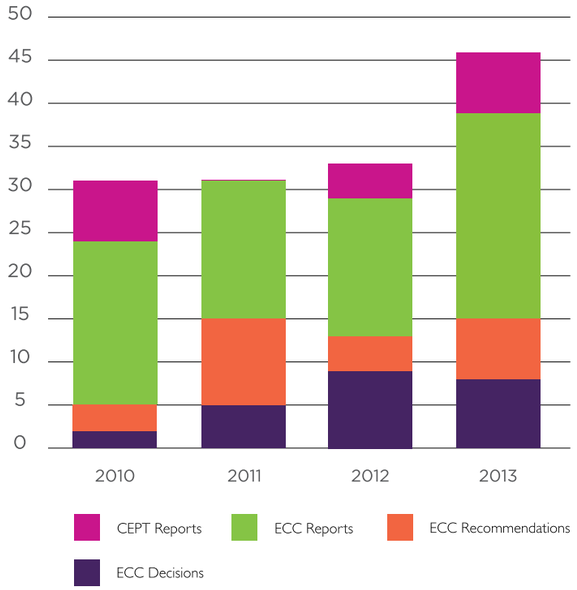
In 2013, there have been around 400 000 visits to the ECODOCDB, representing about 1100 visits per day.



The overview of the most downloaded documents reflects the issues of most interest to people visiting the website such as: frequency regulatory information (ERC Report 25 which contains the European common table of frequency allocations and applications (ECA)), short range device applications (ERC Recommendation 70-03), cognitive radio issues (ECC Report 159), and studies related to mobile broadband applications (ECC Report 172, ECC Report 174).

Gaining consensus through public consultations

In 2013, we carried out 46 public consultations which were used to inform the substance of new or revised ECC deliverables, all of which were published. Eight of these related to ECC Decisions, seven to ECC Recommendations, twenty-four to ECC Reports and seven to CEPT Reports in response to mandates from the European Commission. The responses received to the consultations were analysed by ECO experts, distributed to the relevant working groups for careful consideration and taken fully into account in the decision-making process.



Improving ECC deliverables through questionnaires

In 2013, the ECO sent out 15 questionnaires to administrations and, where appropriate, other stakeholders in the 48 CEPT countries. These questionnaires are a central element for the development of many of the ECC's deliverables. Our role in the process also includes the compilation and analysis of the responses in order to assist the groups responsible for their development. The following is a list of questionnaires conducted in 2013.

QUESTIONNAIRE	REPLIES RECEIVED
Number Portability December 2013	32
Calls to Emergency Services: Accuracy & Reliability of Caller Location Information	71*
Generation of ECO Report 03 from EFIS	17
Privacy issues and mobile conference calling	13
Applying the charging principles of national and international freephone numbers to roaming customers	17
Questionnaire on frequency bands under consideration for Broadband Direct-Air-to-Ground Communications (DA2GC)	34
Questionnaire on the 17.7-19.7 GHz Fixed Service	34
Frequency Arrangement 3400-3600 MHz	9
Number Portability – questionnaire May 2013	31
Questionnaire on WRC-15 AI 9.1.	21
Annual Interference statistics	33
Country related M2M Update	20
The present usage and requirements in the UHF band for maritime on board communications	30
Interference into GSM-R caused by MFCN	34
ECO Report 03 – Regular update	28

* For this questionnaire, some of the replies were submitted using the new electronic questionnaire tool developed by the ECO

In order to improve the benefits of the questionnaire and to make the process more efficient and effective, in 2013 we developed a dedicated tool to support electronic questionnaires. This was also planned in conjunction with the expected requirement to use questionnaire-based techniques as a principal means of gathering information on spectrum use in the context of EFIS and its role in the European Commission's spectrum inventory.

The tool is integrated in the CEPT portal and has been designed to meet the needs of the groups developing questionnaires and also to CEPT members and other stakeholders when responding to them. It also includes some features allowing users to process the data generated by the replies. In the case of questionnaires related to spectrum use, the data collected can then be transferred into EFIS.

The tool became fully operational in October 2013 and was used by some of the respondees to our questionnaire on calls to emergency services.


Questions 1 - 11

Question 1: Does your incumbent fixed network operator have an official plan for PSTN migration? (e.g. by making a public announcement or releasing information to the media?)
- Yes
- No

Question 2: How will future interconnection between telephony providers be supported in your country?
- SS7-based interconnection will continue (via gateway)
- Full transition to SIP-based interconnection
- A combination of both SS7- and SIP-interconnection

Question 3: In relation to your response to Question 2 above, please specify which alternative(s) are mandated by the NRA?

Do you foresee major technical problems or threats in adopting SIP/IP-based interconnection? If so, please explain.

Question 4: What are the main drivers for the PSTN-migration? (tick more than one box if appropriate)
- Operational costs?
- Old equipment?
- Vendor support?
- Staff competence?
- Other reasons? (please specify in the "Remarks" field below)

Remarks:

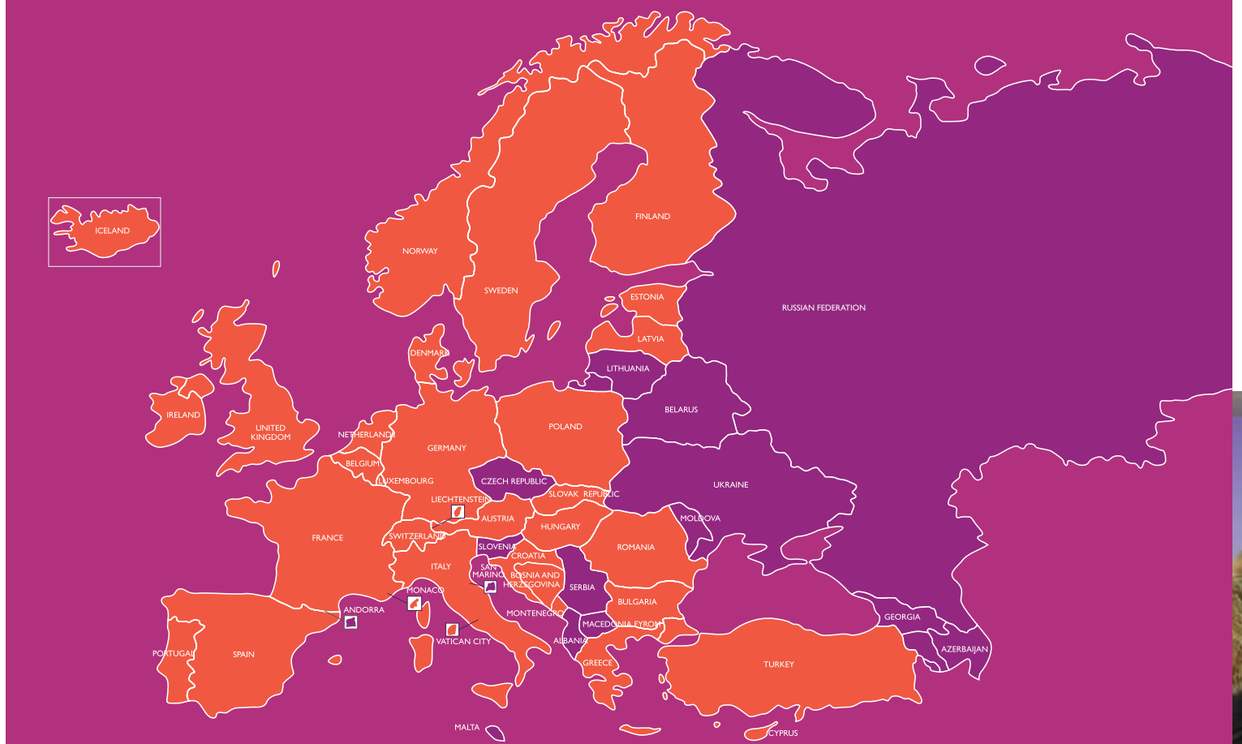
Providing a forum for debate

We hosted 43 meetings in 2013 at our premises in Copenhagen bringing together around 935 participants, mostly from around Europe for a total of 96 meeting days. These meetings ranged from small teams of 5 people to larger gatherings of more than 60 participants.

2nd meeting of the project team CPG PTB at the ECO, Copenhagen in March 2013.

The first ECC TG6 meeting in October 2013 attracted more than 55 participants to the ECO's premises in Copenhagen.

GOVERNANCE & FINANCIAL SUMMARY



Structure and governance

Thirty-two countries are now Contracting Parties to the 'Convention for the establishment of the European Communications Office' which defines the terms of reference for the ECO and its funding arrangement, since Bosnia and Herzegovina joined in as a Contracting Party in November 2013.

The ECO is governed by the Council, consisting of representatives of the Contracting Parties to the Convention. The Council has responsibilities which include agreeing the ECO's budget and work programme on an annual basis. These are prepared by ECO staff under the guidance of the Director. The draft Work Programme is informed by the ECC's Strategic Plan and discussions between the responsible ECO staff member and the ECC (its Working Groups and Project Team Chairmen), as well as other parties for whom the ECO works, notably Com-ITU and the CEPT Presidency. The ECO Convention also states that the ECO's work programme should be based on proposals from the CEPT Committees. The Council is also responsible for appointing the Director of the ECO. The Council's preferred method of working is by consensus.

Mr. Geir Jan Sundal (Norway, also ECC Vice-Chairman until March 2014) has been Chairman of the Council since his election in November 2011.

In June 2013, the ECO Council's Vice-Chairman, Peter Pauli, tragically died in an accident. Peter was Head of Frequency Management at BAKOM/OFCOM, the Swiss regulator, and had been a senior and influential figure in frequency management in Europe for many years. Ms. Marta Leandro of Portugal was appointed as the ECO's new Vice-Chair at the November 2013 meeting of the ECO Council. Ms Leandro is currently a senior expert in the External Affairs Department of the Autoridade Nacional de Comunicacoes (ANACOM), the Portuguese regulator responsible for spectrum management. Her numerous duties include representation of Portugal in various relevant international fora, such as the ITU, and chairing of Eutelsat's IGO Assembly of Parties.

The ECO Council during its eighth meeting in Istanbul, 29-30 May 2013

Financial summary

The ECO was approximately 96% financed by the following 32 countries in 2013[1]:

Austria, Belgium[2], Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Luxembourg, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and Vatican City.

The remainder is from directly funded services (e.g. administration of the CEPT and the Satellite Memorandum of Understanding) and income from investments of the ECO's net capital.

The following figures provide a financial summary for 2013. The negative operating balance is in line with the goal to reduce gradually the net capital of the ECO.

Financial summary 2013

	DKK	EUR
INCOME	18,492,580	2,478,006
EXPENDITURE		
Staff Costs (salaries, pension contributions, etc.)	11,819,864	1,583,862
Running Expenses (outsourcing, projects, professional fees, travel)	4,407,088	590,550
Office Facilities (rent, building related expenses)	2,545,936	341,155
Expenditure total	**18,772,888**	**2,515,567**
Operating balance for end of year	-280,308	-37,561

Based on exchange rate of DKK 1 = EUR 0.134

1 Bosnia and Herzegovina, which joined the ECO Convention in November 2013, will start contributing to the financing of the ECO in 2014.

2 Belgium is not one of the Contracting Parties to the ECO Convention but contributes to the financing of the ECO.

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