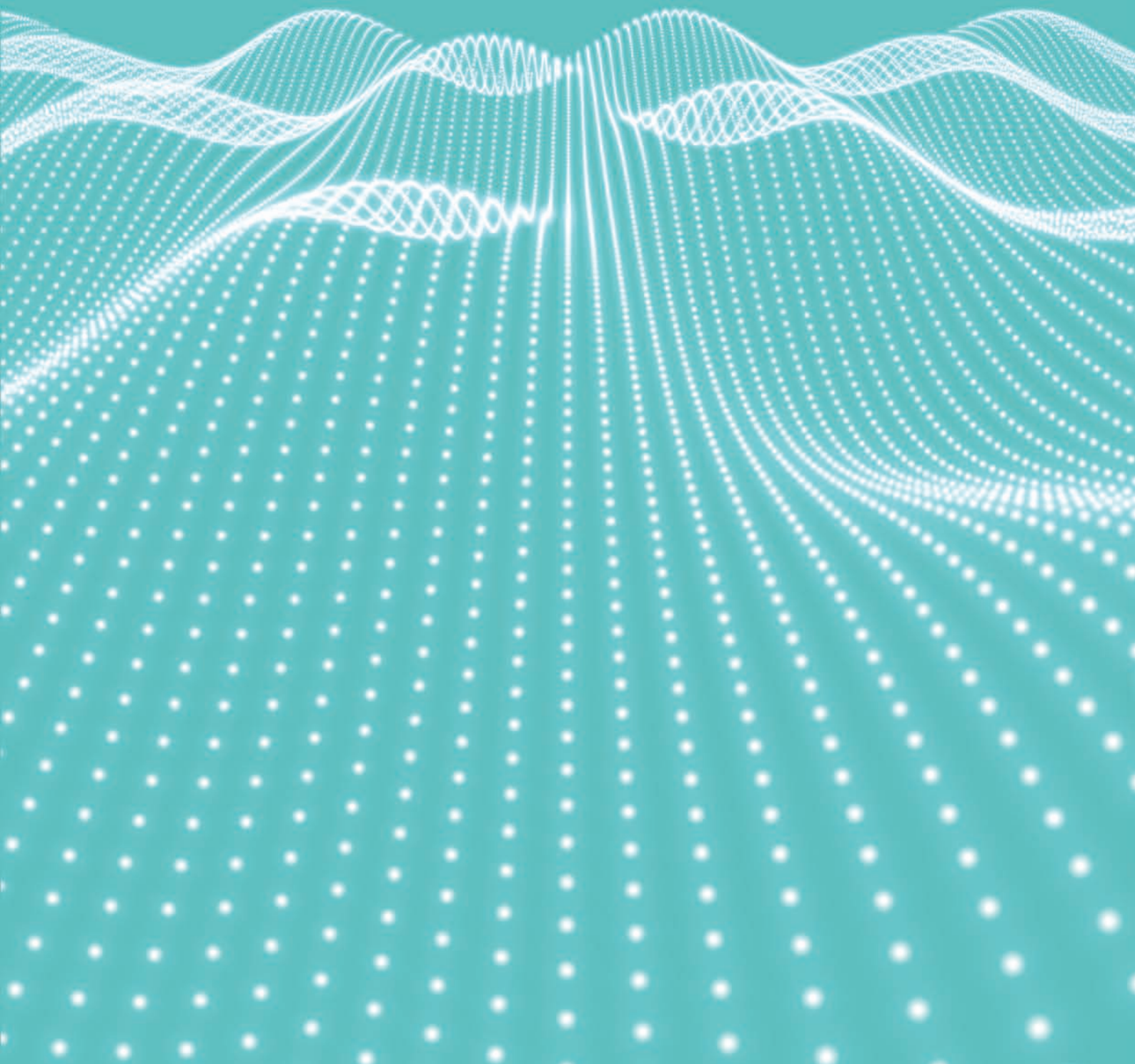
european communications office

ANNUAL REPORT
2015



OUR MISSION

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

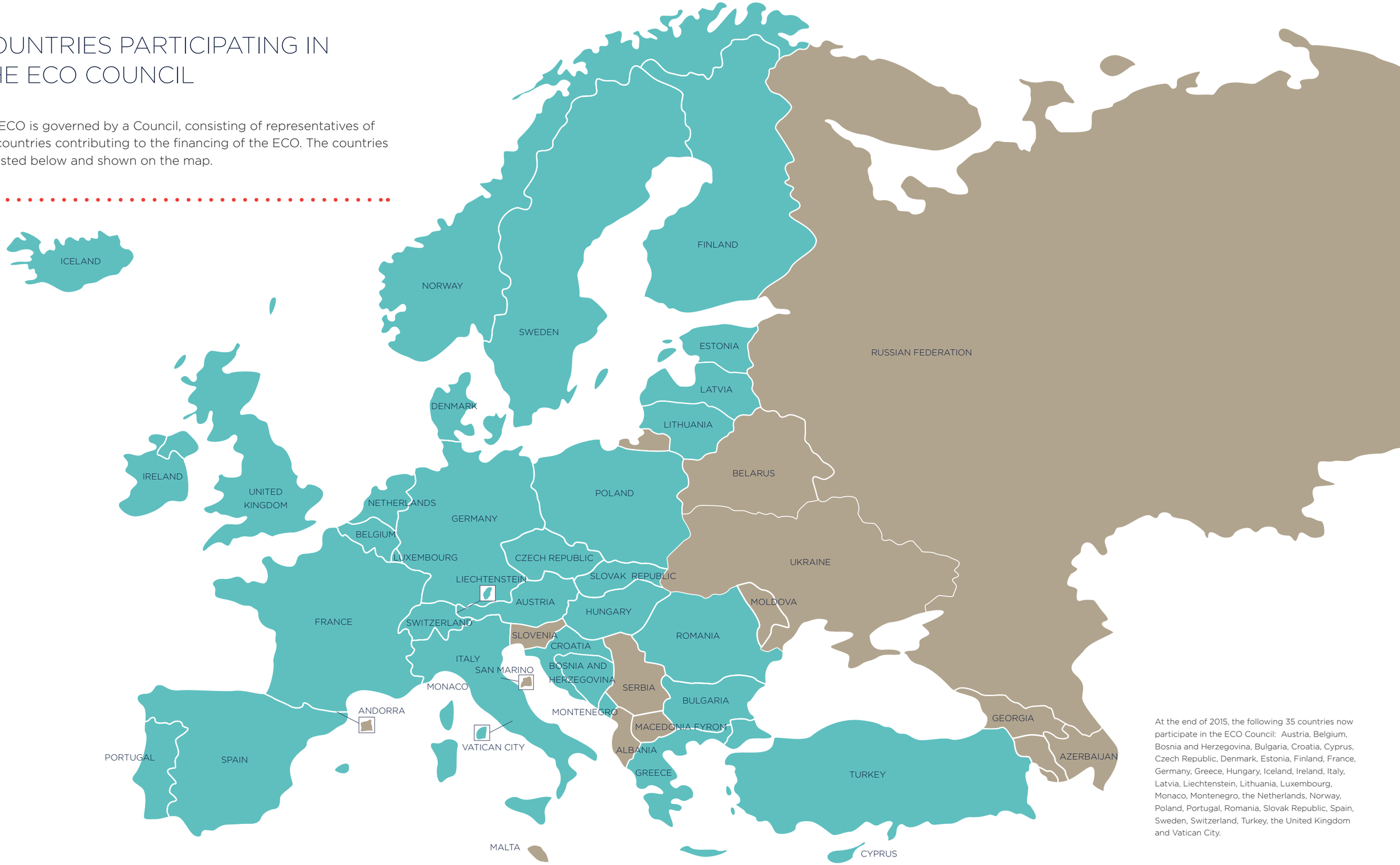
The ECO provides advice and support to CEPT to help it to develop and deliver its policies and decisions in an effective and transparent way. Its core duties are to provide a European centre of expertise in electronic communications, to contribute to the work of the three CEPT committees and to manage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

CONTENTS

COUNTRIES PARTICIPATING IN THE ECO COUNCIL

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



At the end of 2015, the following 35 countries now participate in the ECO Council: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and Vatican City.

CHAIRPERSON'S FOREWORD

It was the Greek philosopher Heraclitus who apparently said: "There is nothing permanent except change". If 2015 was to be defined in any way for the European Communications Office it would be one of change. From an administrative perspective at least, we saw a complete new team come on board.

This is my first annual report as Chairperson of the ECO Council, since taking up the position in May 2015. I wasn't completely fresh to the Council, however, having served as its vice-chairperson since November 2013.

The changing of the guard, of course, meant we had to say goodbye to some familiar faces, including Geir Sundal of Norway, as his tenure ended in May 2015. He had made a valuable contribution over the six years of his chairmanship, and sincere thanks must go to him from myself and our Council colleagues.

My change in position from vice to chair meant the title of vice chairman opened up, and Dr Samuel Ritchie of Ireland came on board.

Of course, a major change had already happened for the organisation the month beforehand. A new director was appointed, and Per Christensen started in his role on 1 April 2015. He has taken to the task with gusto, and has brought significant expertise to the team.

The ECO Convention too saw an alteration in its make-up in 2015, when early on in the year – on 1 February 2015 to be precise – Lithuania joined. A hearty welcome goes to them. Now, 35 countries are contributing to the financing of the ECO, which can only help to strengthen our service provision.

It is worth reminding you, dear reader, that the Convention is open for accession by any State whose Administration is a Member of CEPT. We look forward to welcoming additional signatories to it over the coming years.

While some names and faces have changed at the ECO, our commitment to strengthening the role of our organisation is as steadfast as ever. We have continued to build on the excellent cooperation in Council.

The entire team's performance in 2015 must be applauded. I was pleased with the many ways in which it supported the CEPT family, and in particular the ECC.

As always, it provided invaluable advice and support to CEPT. It helped the Council to develop and deliver its policies and decisions in an effective and transparent way – for the benefit of all Europe's citizens.

The ECO team members who preceded me and the ones who have joined since my tenure as chairperson began are busy, hardworking and unswerving in their commitment to this work.

Among the ECO's core duties is the provision of a European centre of expertise in electronic communications. It contributes to the work of the three CEPT committees and it manages CEPT's day-to-day activities.

Looking forward, I am confident that the ECO will continue to deliver its high level of technical expertise and professionalism across all CEPT.

And, to reiterate Heraclitus's thinking about change: "no man ever steps in the same river twice". The office will help CEPT meet the ongoing challenges in our rapidly evolving electronic communications sector.

In the following pages you will see these roles, and the challenges facing ECO, come to life. Enjoy reading.

Marta Leandro Chairperson of the ECO Council

DIRECTOR'S STATEMENT

Imagine a world where cars drive themselves, and their occupants sit back and catch up on emails, do their make up or chat freely with their children as they go from A to B? A decade ago, this could have conjured up scenes from sci-fi Hollywood movies. The likes of Tom Cruise's Minority Report or Arnold Schwarzenegger's Terminator may have come to mind.

Yet, we are no longer looking to a distant future when we imagine self-driving cars; they are fast becoming a reality. The cars are here already. Now, it's about bringing intelligent transport systems to European roads.

Transport systems aren't alone in their evolution. Our entire technological landscape continues to change. Industry is constantly looking for ways to improve their products and services in order to adapt to consumer demands.

With it, though, comes an ever increasing demand for spectrum and access to mobile and broadband services. It is an ongoing challenge for industry and the policymakers. CEPT is continually working on new forward-looking technical and regulatory measures that will foster innovation and facilitate a rapidly developing communications sector.

Unsurprisingly, 5G is already attracting much attention and effort from spectrum managers and, indeed, from CEPT. To its credit, industry has been successful in demonstrating the potential of 5G, and how it can respond to the challenges already identified for the development of services, devices and networks. New spectrum opportunities have also been identified for broadband in higher frequency ranges. The role of CEPT now is to find the suitable spectrum for making such opportunities a reality. Collaboration is key here: to do this CEPT must work side by side with the mobile industry and the other users of the spectrum.

Our main role here at ECO is to provide advice to CEPT, while also offering support to help it to develop its policies and decisions - both effectually and transparently. One of our primary responsibilities is to provide a European centre of expertise in electronic communications. We contribute to the work of the three CEPT committees and manage CEPT's day-to-day activities.

Looking back at 2015, most of our effort was around the administrative and expert support provided to the numerous meetings of the CEPT and in particular to the ECC and its working groups. The tools and services developed and maintained by the ECO are critical components to the support we provided and several important upgrades and advances happened throughout the year.

Among them were improvements to the EFIS tool, our frequency management system, which truly has become a strategic tool for reviewing spectrum use across Europe. New features have been implemented to make the system easier to navigate and use. For example, users can now process some of the data included in EFIS to match their informational needs.

The year also saw further development of SEAMCAT, the Spectrum Engineering Advanced Monte Carlo Analysis Tool. This will continue to be an invaluable resource, developed as it has been to deal with a diversity of complex spectrum engineering and radio compatibility problems. SEAMCAT can assess the potential interference between different radiocommunication systems which operate in shared or adjacent frequency bands.

Numbering and networks has been another intriguing area over the past year particularly in the area of Internet of Things with steps being made to make, for example, systems like eCall a reality. The ECO has been heavily involved in supporting the Working Group Numbering and Networks (WG NaN) in its development of policies in numbering, naming and addressing. We have also advised on technical regulatory matters in electronic communications networks.

Elsewhere, the ECO has provided administrative and expert support to the Committee for ITU Policy (Com-ITU) as it prepared to represent the interests of the European region at ITU level in 2015. It was a busy, productive and most enjoyable year.

I was fortunate enough in my first year as director of the ECO to see the build-up to the World Radiocommunication Conference (WRC-15), which was held in Geneva at the end of 2015. The overall outcome was very successful for CEPT, and an improved and more robust regulatory framework for spectrum use was delivered. Our office played a vital role in supporting CEPT and ECC in the run up to the conference. We worked with CEPT coordinators at the WRC-15 to develop weekly reports on the progress achieved in the course of the conference.

As I look back on my first year as director of ECO, I do so with much gratitude to the dedicated team that we have here in Copenhagen. I look forward to continuing the work we do and the support we offer CEPT. 2016 will no doubt bring its challenges, but we look forward to meeting them.

Per Christensen 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.

Our team

Based in Copenhagen, Denmark, the ECO operates with a small team of 12. Our team is made up of the Director, six experts in the field of electronic communications, 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: Susanne Have, José Carrascosa, Stella Lyubchenko, Freddie McBride, Søren Conradsen, Per Christensen, Vibeke Hansen, Thomas Weber, Mette Tobiassen, Jean-Philippe Kermoal, Bruno Espinosa, Bente Pedersen.

The ECO team and their main areas of responsibility in 2015

Per Christensen, Director, Denmark – joined the ECO on 1 April 2015

Mark Thomas, Director, United Kingdom – left the ECO on 31 March 2015 at end of contract period

Bruno Espinosa, Deputy Director, France (Frequency Management, EC Coordination, ETSI Coordination)

José Carrascosa, Spain (Spectrum Engineering, SEAMCAT, Broadcast Plan Management)

Jean-Philippe Kermoal, France (Spectrum Engineering, SEAMCAT, Mobile broadband) – to leave the ECO on 31 January 2016 at end of contract period and be replaced by Peter Faris (Ireland)

Stella Lyubchenko, Russian Federation (Spectrum Engineering, Frequency Management, Academic research, WRC preparation)

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

Thomas Weber, Germany (Frequency Management, EFIS Management)

Søren Conradsen (Office IT, Web and mail services, Technical enquiries)

Vibeke Hansen (Webmaster editor, Reception, Premises)

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

Bente Pedersen (Public consultations, ECC documentation database, EFIS, Administration)

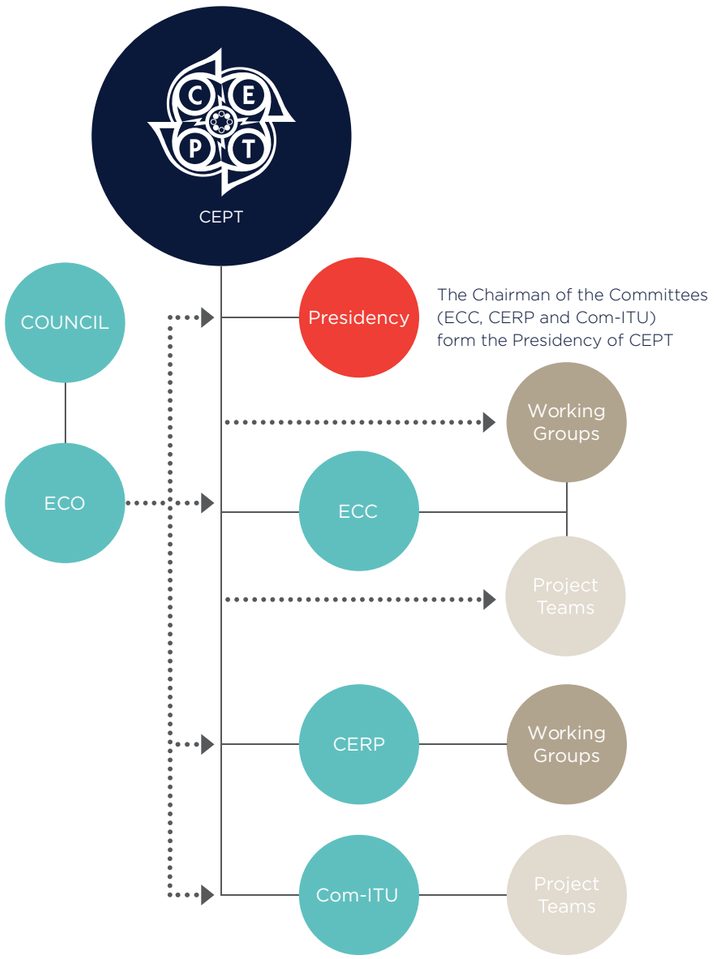
Mette Tobiassen (Finance, Human Resources) – joined the ECO in October 2015

Merrete Wagner (Finance, Human Resources) – retired from the ECO in November 2015.

SUPPORTING CEPT

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

Our structure



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 developing common policies and regulations in electronic communications and harmonising spectrum use, as well as European coordination 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 coordination and preparation for meetings of the Universal Postal Union (UPU).

Mr Ljubisa Mitevski of the Former Yugoslav Republic of Macedonia (FYROM) is Chairman of CERP.

Com-ITU

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

Mr Manuel da Costa Cabral (Portugal) has been elected as new Chairman of Com-ITU in September 2015 in replacement of Mr Marcin Krasuski, Poland.

The CEPT co-presidency works together to deliver greater efficiency through the effective coordination of its work. Its core aim is to create a dynamic market in the field of European posts and electronic communications for the benefit of society.

The ECO provides support to the Presidency, 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 for 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 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, 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 2015.

2015 IN BRIEF

The ECO provides a European **centre of expertise** in electronic communications.

The ECO has a duty to **maximise the effectiveness** of CEPT's Electronic Communications Committee (ECC).

The ECO is the **permanent office** of CEPT and its 3 committees.

At present, **35 CEPT countries** contribute to the financing of the ECO.

Some **45 CEPT countries** publish their national data about spectrum use in our EFIS frequency information system, which has been visited around **180 000 times in 2015**.

We have **significantly upgraded** our spectrum engineering analysis tool SEAMCAT towards its release 5.

The ECO Documentation database, gathering the 635 ECC deliverables in force and approximately 400 related documents, has been **visited more than 670 000 times in 2015.**

We have organised **3 workshops** tailored to specialist audiences.

We hosted **24 meetings** attracting more than **600 participants** mostly from all over Europe to Copenhagen.

Our ECC work programme database has been enhanced to provide up-to-date information on the status of **120 work items in progress within ECC.**

A total of **448 CEPT delegates** registered to our messaging/ chat system designed to support the CEPT coordination process during WRC-15.

Our experts actively contributed to **93 meetings** across different working groups and related project teams within CEPT's leading business committees: the ECC and Com-ITU.

We have delivered presentations at **12 key events** or specialised workshops to promote the ECC activities.

We published **2 special editions** of the ECC electronic newsletter in relation to WRC-15 and **2 normal editions**, covering a wide range of topics on spectrum and numbering management in 6 articles.

The CEPT webportal, which we manage, has been visited more than **1 million times in 2015.**

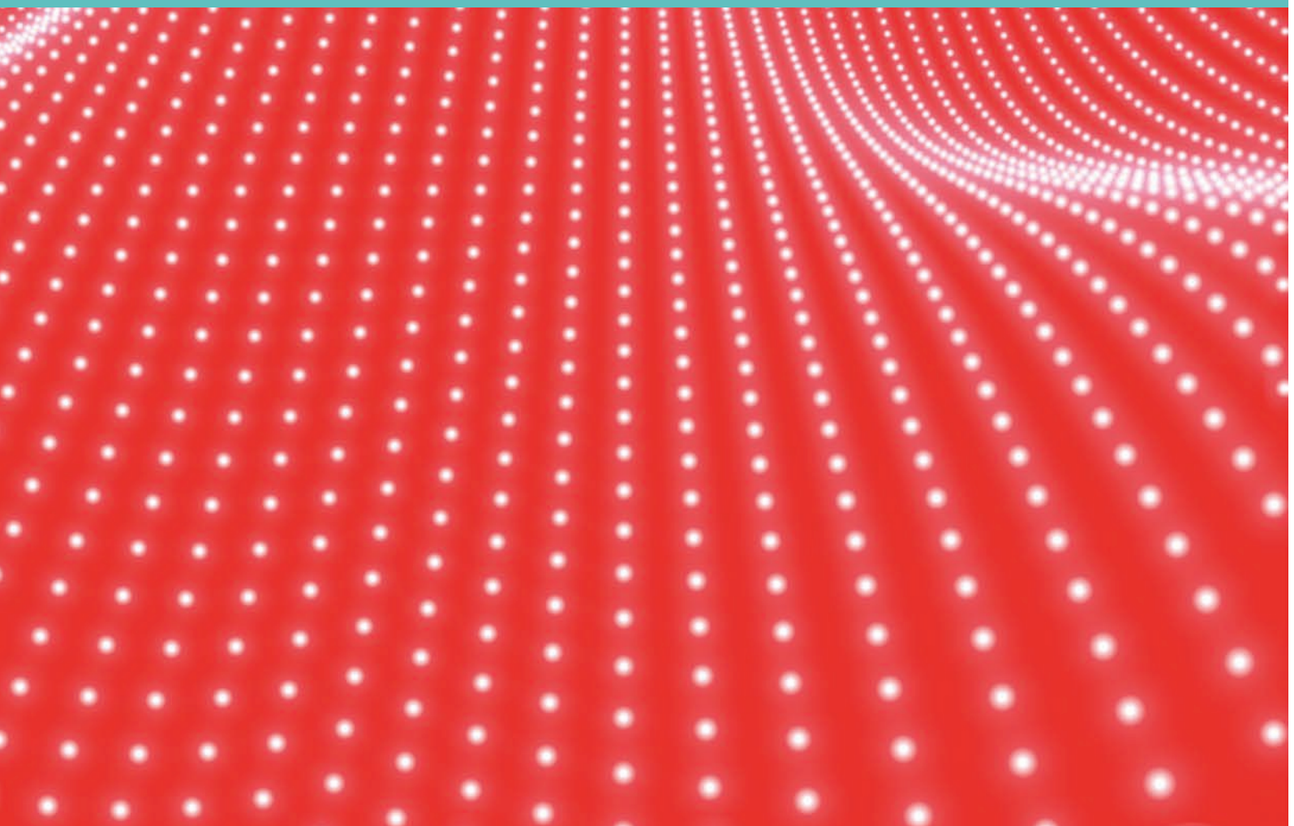
We participated in a **significant number of meetings and events** outside of the CEPT framework with the aim to promote the views and results reached within the ECC.

In 2015, we managed and processed **47 public consultations and 20 questionnaires** to support ECC policy development.

With the **8500 documents uploaded in 2015**, our meeting document server hosts approximately **40 000** working documents.

SECTION 2

REVIEW OF THE YEAR



2.1 PROVIDING SPECIALIST SUPPORT TO THE CEPT COMMITTEES

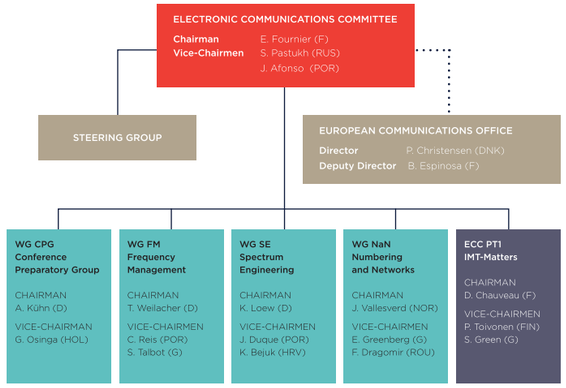
As part of our core duties, we provide a European centre of expertise in electronic communications and we contribute to the CEPT committees, in particular its Electronic Communications Committee (ECC).

Through our expertise, the development of a range of specialist support services and our active involvement in the ECC projects and activities, we seek to maximise its effectiveness and enhance its efficiency.

2.1.1 Contributing to improving the efficiency of the ECC and its working processes

The principal contribution of ECO experts to the ECC is their continuous activity as embedded members of its various Working Groups and Project Teams. The exact level and balance of our contribution varies from group to group but it is always significant. This involves the participation of ECO experts in almost all of 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.

Taking into account the structure of the ECC, the ECO's role is quite essential, through its central position, to improve the efficiency of the ECC and streamline its working processes.



Structure of the ECC – August 2015

In 2015, ECO colleagues participated in 90 meetings within the ECC, reaching approximately the level of 250 man-days shared mainly between the six international experts from our team, plus the Director.

In some cases, the ECO is invited to provide a Chairman for a Project Team or a Forum Group. During 2015, we have been chairing five Project Teams and Maintenance Groups, which support the work of the ECC and its Working Groups on a range of issues. These included:

- Project Team SE19 (Fixed Services) of the Spectrum Engineering Working Group (WG SE) until January 2015 when the Chairmanship was handed over to the administration of the Russian Federation;
- Project Team SE40 (satellite services) of the WG SE until September 2015 when the Chairmanship was handed over to the administration of France;
- Project Team STG, which is responsible for the development of the CEPT compatibility tool, SEAMCAT, within the WG SE;
- SRD Maintenance Group of the Frequency Management Working Group (WG FM) responsible for Short Range Devices (SRD); and
- Project Team FM52 (band 2.3-2.4 GHz) of the WG FM until May 2015 when the Project Team completed its tasks.

The reduction of the number of Chairmanships from five to two across the year is considered as a positive evolution showing the will from administrations to put resources in to leading groups within the ECC. It also offers more availability to the Office in order to act effectively in support of the concerned groups and their respective chairpersons. In some cases, such as that of the STG and the SRD Maintenance Group, the specific nature of the group and the central role of the ECO on these topics justify our leadership of these bodies.

We also continued to lead the activities of the WG FM forum group dealing with amateur radio issues. This is consistent with our role as the focal point of the CEPT regulatory framework on amateur radio aspects, such as certificates and licences.

Our presence is visible across a wide range of services, involving the ECO experts and back-office support from the ECO's general staff. We assist in the implementation in groups of many specialist and operational facilities operated by the ECO as described later in this Report.

However, the ECO's participation within a group goes well beyond this operational support and has a direct influence on the ECC's work. It includes, in most cases, the development of input contributions to meetings; assistance to Chairmen for the preparation of, and during, the meetings; support in the follow-up work for draft deliverables, as well as the development of summaries of meeting outcomes for publication on the ECC website.

Jean-Philippe Kermoal, ECO, right, supporting the SE19 Chairperson, Stanislava Tereshchenko, during the SE19 meeting held in Helsinki in September 2015

In addition, thanks to our central (resulting from our involvement in the full range of ECC activities) and neutral (independent from any one administration) position, we have often been invited to steer some workstreams. We have: acted as rapporteur for drafting groups; offered advice, when required in order to solve specific issues; and provided guidance in the use of ECO tools for studies on spectrum engineering (SEAMCAT) and frequency use (EFIS). When appropriate, we have also developed supporting material, in particular to initiate drafting activities. This has particularly been the case in 2015 when the Working Groups and Project Teams of the ECC had to address delicate issues, for example, in relation to Public Protection and Disaster Relief applications, Short Range Devices, or when some projects had to operate under a tight timescale (e.g. for the development of CEPT responses to EC Mandates).

We have also put efforts in improving internal coordination within the ECO staff to increase our awareness of the issues under consideration within each group. This should help us in facilitating coordination between different groups on topics of mutual interest in order to increase efficiency and consistency within the ECC.

Within its supporting role for the ECC, one area where the ECO has been very active in 2015 was obviously in the framework of the European preparation for the World Radiocommunication Conference (WRC-15). It included two main aspects: on one hand the assistance to the ECC Conference Preparatory Group (CPG) and its Project Teams during the full study cycle running from 2012 to 2015; and on the other hand, support during WRC-15 itself.

Concerning the first area, the role of the Office has been comparable to the role played with other groups, as described above, with the addition of a few specific tasks identified by the CPG coordination team during the preparatory process.

The support provided by the ECO to CEPT during WRC-15 is described on the next page.

ECO SUPPORT TO CEPT DURING WRC-15

The World Radiocommunication Conference 2015 (WRC-15) was organised by the ITU in Geneva, Switzerland, from 2 – 27 November 2015. During this high level event – attended by over 3275 participants, representing 162 out of 193 of the ITU's Member States – the ECO provided valuable support to CEPT.

During the four weeks of WRC-15, the Office played an essential role as a focal point between the CEPT coordination team and the national delegations, providing, on an ad-hoc basis, assistance to European delegates on substantial topics and on organisational matters. Support was also provided to the organisation and the running of the CEPT coordination meetings held during the Conference.

In collaboration with the ECC Conference Preparatory Group (CPG) Chairman and its team of CEPT coordinators, the Office also led the development of weekly reports providing information on the progress achieved in the course of each of the four weeks of the Conference. In addition, the Office published on the CEPT portal and on Twitter some news releases to promote the positive results achieved on the topics attracting great interest in Europe.

The ECC Chairman, Eric Fournier, left, and the ECC/CPG Chairman, Alexander Kühn in a working session during WRC-15

Before and during the event, the ECO spent a significant amount of time in improving and maintaining a messaging/chat system used during WRC-15. This was used to support the CEPT coordination process prior to and during the meetings.

The messaging system, accessible through the CEPT portal, was designed to dispatch short messages and emails with attachments, sent by CEPT coordinators to their corresponding contacts in administrations in order to keep CEPT members informed of the latest developments for each of the Agenda items.

The chat system was designed to allow real time discussion between CEPT delegates involved in different issues. Such discussions can arise during the numerous sessions in the course of the conference.

The CEPT messaging/chat system was efficiently used by CEPT delegates:

- 448 CEPT delegates registered to the system representing the 48 CEPT countries and the recognised observers.
- 201 messages were sent to the system leading to an overall traffic of 21 744 emails and SMS through the system during the course of the WRC.
- 41 groups of recipients were set up, triggering 3161 group suscriptions.
- 43 chat rooms were established. 6810 chat messages were sent.
- Up to 92 delegates were connected at the same time to the same chat room, allowing real-time coordination amongst CEPT members during meetings.

2.1.2 Conducting consultations to deliver better policies

In the context of the development of ECC deliverables, the ECO is responsible for conducting consultations on behalf of the ECC (available at: **http://cept.org/ecc/tools-and-services/ecc-consultation**).

Our public consultations are an important part of the process since they offer the opportunity to receive proposals and views from a wide range of stakeholders to improve our policies.

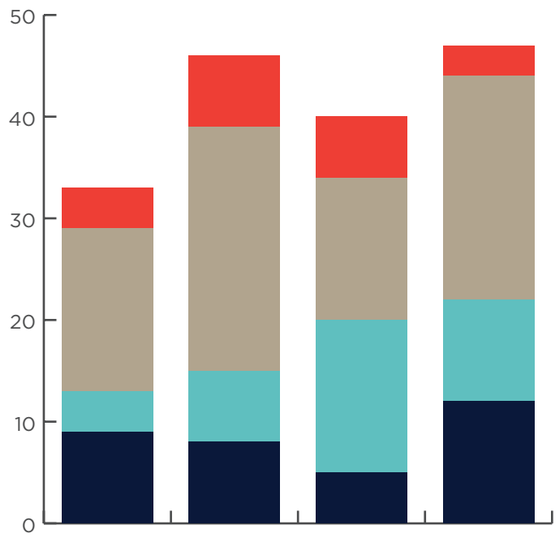
The role of the ECO in the consultation process contains two dimensions:

- Administrative responsibility in launching the consultations and collecting the responses;
- Applying our expertise in performing a detailed analysis of the responses received. Those responses can include on one hand general comments, providing views on the topic under consideration and on the other hand, specific proposals to amend the draft deliverable under consultation. As a result, we develop, when appropriate, a revised version of the draft ECC deliverable under consultation, so that the views expressed by stakeholders are properly reflected. This activity is an essential element of the final approval process of draft ECC deliverables towards their adoption and publication.

In 2015, we carried out 47 public consultations which were used to inform the substance of new or revised ECC deliverables, all of which were then published in the ECO Documentation Database (see section 2.3.4).

As a result of these 47 public consultations, we processed and analysed a total of 228 responses from administrations and other stakeholders. The number of responses triggered by each draft deliverable during a public consultation can differ significantly. While two of them did not lead to any comment, six public consultations resulted in more than 10 replies each. A maximum of 26 responses was received during the public consultation relating to the ECC Report 218 on the harmonised conditions and spectrum bands for the implementation of future European broadband Public Protection and Disaster Relief systems.

Number of consultations managed by ECO



2.1.3 Conducting questionnaires for improved regulatory outcomes

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, acts as a contact point to release them and to collect the corresponding responses, and, when relevant, develops an analysis of the responses. Our role is further described in the example on the next page.

CONDUCTING A QUESTIONNAIRE ON BEHALF OF ECC:

Unmanned Aircraft Systems – an illustrative example

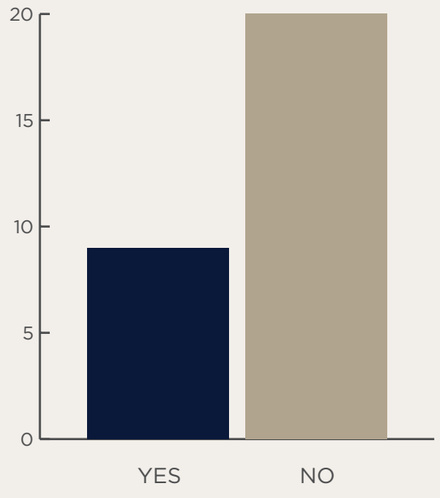
In November 2014, the ECC tasked its Working Group Frequency Management (WG FM) to investigate whether any action in relation with spectrum regulation for Unmanned Aircraft Systems (UAS) was necessary. Taking into account the complexity of the topic, the need to consider the implications on both the spectrum and the aeronautical regulations and the diverse views expressed by CEPT administrations, it became clear that there was a need, as a first step, to clarify the issues to be further addressed. Thus, it was agreed to develop a questionnaire to CEPT administrations and stakeholders on this subject aimed at collecting information on the applicable national regulations and views.

The questionnaire consisted of 11 questions, divided into two parts dealing with the spectrum regulation and the aeronautical regulation applicable to UAS for civil use respectively. It was implemented by the Office into the electronic questionnaire tool integrated in the CEPT portal that we developed in 2013.

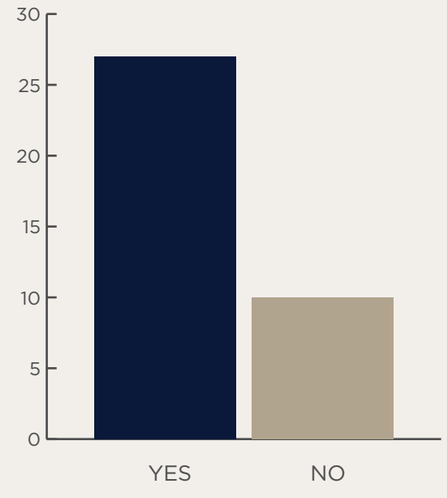
We collected the 58 responses submitted by 30 CEPT administrations and 28 involved stakeholders into the electronic tool. We also provided assistance, when required, to the respondents who were not yet familiar with the tool.

After having processed the data generated by the replies, we developed a preliminary assessment of the questionnaire results for further discussion within the WG FM correspondence group dealing with the topic.

Is there already a national spectrum regulatory framework (or reports) available on civil UAS?



Is there already a national aeronautical regulatory framework (or reports) available on civil UAS?



It is expected that the follow-up action will be the development of an ECC Report reflecting the results and the assessments of the responses to the questionnaire, as well as any additional information on this issue.

In 2015, the ECO managed 20 questionnaires designed for administrations and, where appropriate, other stakeholders in the 48 CEPT countries. They covered a broad range of topics and have been very helpful in the development of relevant ECC regulations.

The vast majority (18) were developed and processed through the electronic questionnaire tool available on the CEPT portal. We are pleased to observe that CEPT administrations and stakeholders are now quite familiar with this feature, based on the high number of responses submitted for several questionnaires.

ECC Questionnaires managed by the ECO in 2015	Replies received
Electronic questionnaires triggered by ECC groups	
Information about authorisations for the Iridium mobile satellite system and earth stations under control of the Iridium system in CEPT countries	34
Assignment and use of Mobile Numbers for OTT services	26
Fixed Service above 50 GHz	46
Fixed mobile Convergence (FMC)	20
Interference Statistics 2014	40
Use of bands within 7-8 GHz range for PMSE applications	33
Assigning numbering resources directly to M2M end-users	17
Requirements for cognitive radio enabled short range devices (SRDs) and any potential implications in terms of SRD harmonised technical conditions	13
Business customer's specificities in Number Portability processes	18
Charging of calls made by roaming subscribers to national freephone numbers of the their home country	17
Assisted Global Network Satellite System (A-GNSS) for the provision of location information for emergency calls	12
Spectrum and aeronautical regulation for UAS (Unmanned Aircraft Systems)	58
Advanced Numbering Systems for Communications Services in the Digital single Market	29
Electronic questionnaires on numbering and network matters triggered by national administrations	
Process involved in CEPT countries to provision newly-assigned number ranges on networks	23
Mobile Network Code and National Destination Code to Mobile Virtual Network Operators	23
Number Portability between operators on local fixed network	19
Routing of calls made to short codes including 112	14
Review of Number Portability Regulation	18
Paper questionnaires	
Information on the implementation of Number Portability in CEPT countries	31
Transnational emergency calls in Europe	32

2.1.4 Upgrading and maintaining the ECO Frequency Information System (EFIS)

What is EFIS?

The ECO Frequency Information System (EFIS), launched in 2002, is a tool which provides a valuable service to all those with an interest in spectrum use.

With EFIS, users can search for and compare spectrum use across Europe as well as related information such as CEPT activities, radio interface specifications and other national or international regulations.

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).

Some 45 CEPT administrations now publish data in EFIS; the scope of the content is wider and there are many new features and facilities.

EFIS is administered by the ECO and managed under the supervision of the ECC through its ECO Frequency Information System Maintenance Group (EFIS/MG).

EFIS is available to the public on the internet either via the ECO website or directly under **www.efis.dk.**

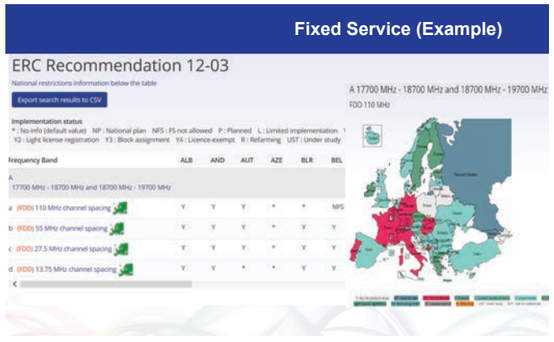
In 2015, we improved EFIS further, working towards our goal of providing stakeholders with a unique and high quality information tool on spectrum use and licensing conditions across Europe.

Most of the new developments in EFIS in 2015 were driven by its central role in the spectrum inventory and by the wish to increase the availability and the visibility of information about radio services and applications in Europe:

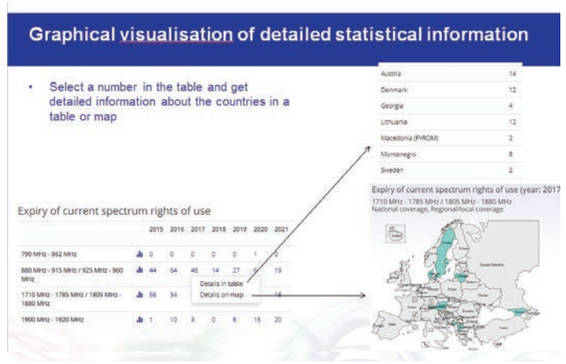
- EFIS has been enhanced with the full inclusion of ECO Report 03, which contains the complete and up-to-date information on licensing of mobile bands in Europe derived from the information provided by 45 CEPT administrations.
- Similarly, ERC Recommendation 70-03, providing comprehensive information on Short Range Devices (SRDs) and related national implementation information, can now be generated through EFIS.
- Another new feature in EFIS is its ability to generate the new ECO Report 04, which is a comprehensive source of information on Fixed Service Implementation in Europe. It covers, in particular, the fixed service channel arrangements, set out in approximately 25 different Recommendations approved by ECC, other relevant deliverables and applicable information on national implementation.

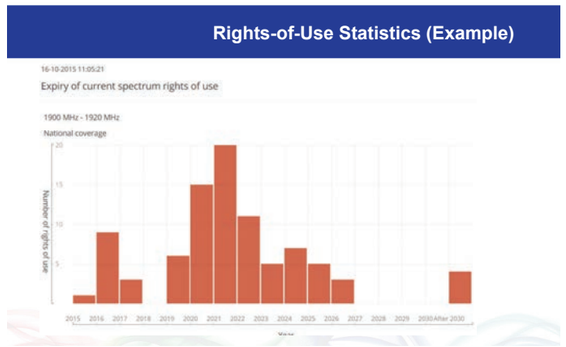
SRDs – Recommendation 70-03 (Example)

Fixed Service (Example)



In addition, major improvements have been implemented with the development of relevant graphical tools to enhance and support the underlying content. Graphical visualisations and formatted matrices are available, with an associated set of selection criteria, which allows the user to flexibly display information and statistics on national implementation, rights of use and channelisation arrangements.





The graphical visualisation tool can now also be separately used outside the EFIS database on other webpages with the allocation and application terminology translated into the user's national language. Consequently, administrations and users can generate images or use a link to the tool for extracts of their national frequency allocations. Alternatively, they can link to application tables and export them, show them on their own webpages or even use them as links in documents.

Additional improvements have been made to the interface in order to help CEPT administrations to upload information to EFIS, and in order to allow all users to extract and export the information available in EFIS, including the European Common Allocations table.

We also developed some guidance material in a new ECO Report 05, which provides information on the application terminology used in ECC deliverables in relation to the terminology used in EFIS.

The EFIS database was visited approximately 180 000 times in 2015 by the interested public (e.g. frequency managers in industry, operators, administrations, test houses, sellers as well as interested users), with a substantial amount of users from outside of Europe.

2.1.5 Developing the SEAMCAT spectrum analysis tool to match users' needs

SEAMCAT in brief

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 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).

SEAMCAT can assess the potential interference between different radiocommunication systems that operate in shared or adjacent frequency bands. It can also evaluate radio equipment parameters (e.g. transmitter emission masks, receiver sensitivity, density of interfering transmitters, etc), taking into account all interference mechanisms.

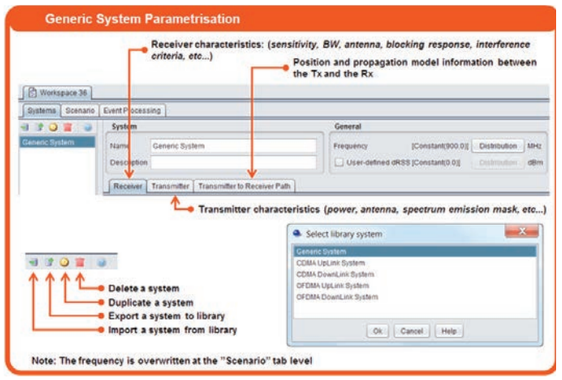
SEAMCAT is a radio spectrum system oriented software tool which allows building customised libraries (such as radio systems, antennas, spectrum masks, propagation models etc.) or use those provided by other users, to ease the effort in building complete scenarios for investigation. SEAMCAT is distributed with a predefined set of libraries, so that the user does not need to reinvent the wheel every time there are studies to perform. It is possible to join the SEAMCAT community to contribute to the development of the software and its libraries.

The tool is updated on a regular basis and is downloadable free of charge at: **www.seamcat.org.**

The overall efforts of SEAMCAT development during 2015 resulted in the release of SEAMCAT 5, which includes the following features:

- Increased computation speed with the introduction of parallel processing, using the full capability in multi-core computers and code optimisation of heavy algorithms, which is a continuous effort in each SEAMCAT release.
- Increased flexibility with the introduction of Event Processing Plugins (EPPs). This new feature, which represents a structural change in how SEAMCAT works, allows users to extend SEAMCAT core functionalities to implement their own algorithms using the SEAMCAT interface. Furthermore, the internal SEAMCAT plugin library is continuously growing, containing Antenna Plugins (APs) and Propagation Model Plugins (PMPs). The practical implementation of two specific propagation models through the plugin approach has confirmed the suitability and efficiency of the new structure.
- Increased transparency and reliability of calculations. It is now possible to extract intermediate results of simulations. With the introduction of the Play / Replay feature, the user can now recall calculations for a specific event, obtaining a detailed list of results (final and intermediate) for the selected event, allowing the user to log-trace the calculations.

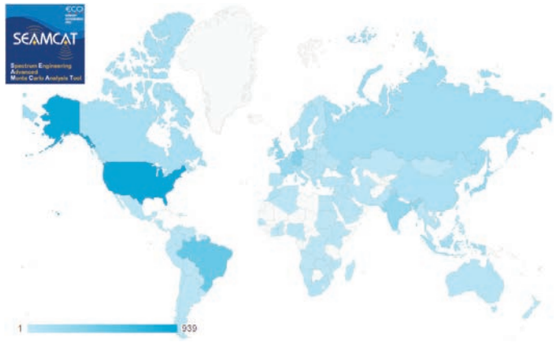
Furthermore, the Graphical User Interface (GUI) has been improved, allowing in particular the separation of scenarios and results so that it is not possible to accidentally change the scenario settings after the results are produced.



In addition, during 2015 further improvements were completed, amongst others, to the batch feature and to general consistency checks (for both the SEAMCAT core and for plugins). The regular maintenance of SEAMCAT was continued, introducing new technical features to respond to the needs of the relevant ECC groups.

The ECO organised two SEAMCAT workshops in 2015: a workshop for advanced users (5-6 March 2015) with the presence of the SEAMCAT software developer with the intention to promote the new EPP feature and the SEAMCAT structure; and workshop for beginners (10 September 2015). These workshops, which the Office organises on a regular basis, are free of charge for administrations, industry and universities. Details on our 2015 workshops are set out on page 33-35.

The SEAMCAT webpage (**www.seamcat.org**) was extensively visited in 2015 by users from both CEPT and non-CEPT countries.



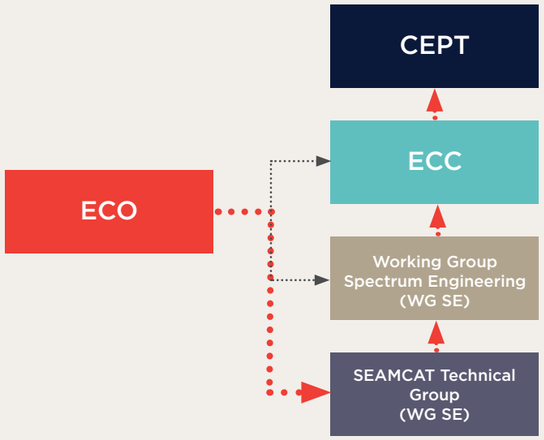
Country	Acquisition	
	Sessions	
	5,544	
	% of Total: 100.00% (5,544)	
1. United States	939	(16.94%)
2. Brazil	486	(8.77%)
3. Germany	350	(6.31%)
4. United Kingdom	254	(4.58%)
5. India	241	(4.35%)
6. Japan	232	(4.18%)
7. France	219	(3.95%)
8. South Korea	201	(3.63%)
9. Russia	180	(3.25%)
10. Indonesia	144	(2.60%)

Overview of the visit per country to the SEAMCAT website page for 2015

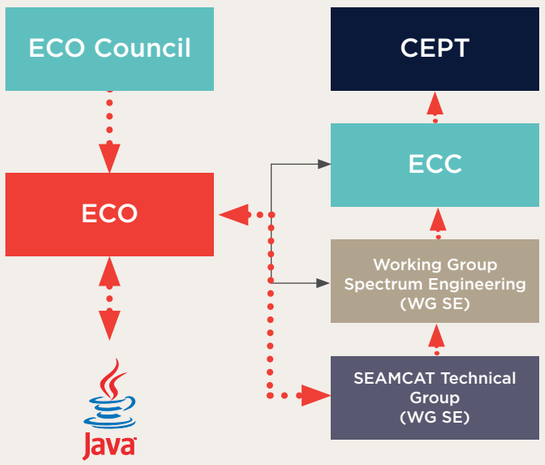
ECO AS FOCAL POINT OF THE SEAMCAT COMMUNITY

The Office plays a key role in the development of SEAMCAT, acting as the focal point of the SEAMCAT community.

From the CEPT point of view, the Office provides the chairmanship of the SEAMCAT Technical Group (STG), under the ECC Working Group Spectrum Engineering (WG SE). STG is the group which provides technical support for the development of SEAMCAT, including the update of the SEAMCAT handbook and cooperation with all relevant groups within the ECC to respond to their needs related to SEAMCAT implementation.

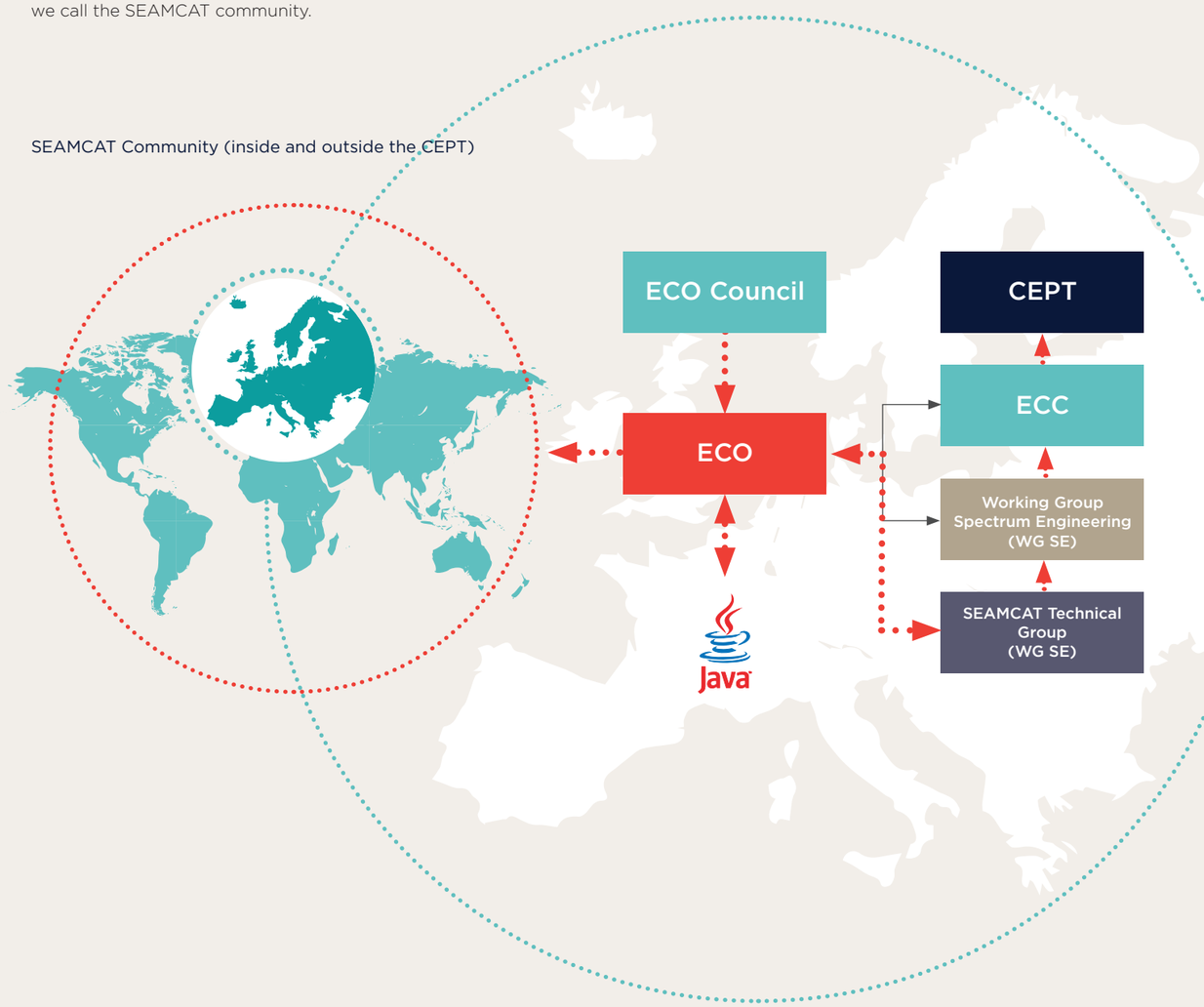


For the development of SEAMCAT the Office provides the project management manpower, linking the decisions taken by STG with their actual implementation made by an expert Java developer. In this role, the Office ensures the continuous maintenance, release and distribution of SEAMCAT.
The Office is responsible for implementing the action points decided by STG on SEAMCAT development, respecting their priority, deadline and scope while also respecting the budget approved by the ECO council each year.



From the user's point of view, the Office is their point of contact when it comes to understanding, using or improving SEAMCAT. The Office receives queries from SEAMCAT users on a regular basis, both related to the use of the tool in general, as well as questions related to their specific needs. For that reason, the Office has set up a transparent interface for all types of users, who can reach the ECO in several different ways, depending on their level of involvement in CEPT activities. When we say 'users', we refer both to those participating in CEPT working groups and project teams, as well as to those who use SEAMCAT outside of the CEPT framework. In fact, SEAMCAT is being used all around the world in administrations, industry and academia. This is what we call the SEAMCAT community.

SEAMCAT Community (inside and outside the CEPT)



2.1.6 Developing an information repository on progress for coordination for the 700 MHz band

In the context of the implementation of a new digital dividend in the 700 MHz band (i.e. change of the use of the band 694-790 MHz from broadcasting to mobile service), it has been identified that CEPT would need to monitor and review the progress of bilateral and multilateral coordination negotiations between CEPT countries. These negotiations seek to enable the migration below 694 MHz of broadcasting assignments when the 700 MHz band is made available to mobile services.

In this respect, the ECO was tasked by the ECC to develop an information repository. This would allow selected representatives from administrations and coordination groups to upload the information they wish to make publicly available on the progress of the coordination in the UHF broadcasting band.

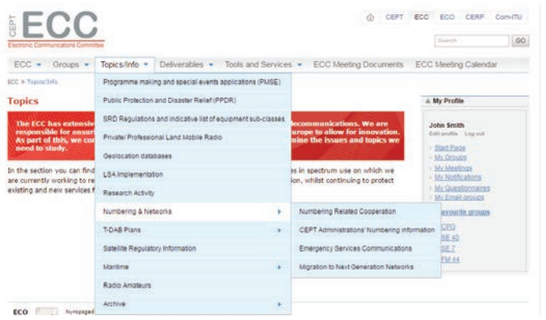
Based on the specifications endorsed by the ECC in July 2015, the Office developed and implemented the repository during the summer and, after internal and external testing, released a first version on the CEPT portal in November 2015. This version includes information from four CEPT countries and is expected to be enhanced in 2016 with additional data, taking into account that provision of information is the sole responsibility of each administration, and that it is on a voluntary basis.

The repository displays, per country, for each of the relevant broadcasting assignments, the transmitter identifier, a set of technical characteristics, when available, and the status of the coordination negotiations with neighbouring countries.

The tool also allows for a graphical visualisation of the information since administrations can submit some associated Google Earth files, as in the example below:

2.1.7 Providing a central source of specialist information

In order to respond to some needs identified within the ECC by CEPT administrations and other stakeholders, the ECO works together to provide accurate and up-to-date operational information on various areas through dedicated pages on the ECC website. The main objectives are to reflect the progress of ECC activities on key topics, such as the ones highlighted in the ECC strategic plan, to develop material which may complement, support or illustrate published ECC deliverables and to make specific information (national contact points, national regulatory information, information not available elsewhere on the ECC website) available to stakeholders.



In 2015, we rationalised and updated the information available on many topics and we also created some new areas, mainly to support and increase the visibility of recent ECC achievements.

More specifically, we updated the relevant information on ECC activities and deliverables, and on the list of contact points in CEPT administrations concerning related activities, on the following topics:

- Programme making and special events applications (PMSE);
- Public protection and disaster relief (PPDR) applications;
- Short Range Devices (SRD);
- Satellite regulatory information;
- Maritime communications;
- Numbering & Networks.

In addition, we created in 2015 a new web page similar to the existing ones to provide additional information to the stakeholders on Private/ Professional Land Mobile Radio (PMR/ PAMR).

In response to requests from groups within ECC, we have also implemented two new pages related to spectrum sharing, one containing background and status of CEPT activities on the use of geo-location databases for spectrum management and the other one related to the Licensed Shared Access (LSA) approach.

Another of our tasks is to act as the management body for two CEPT digital broadcasting plans across Europe and to release the plans on our website. One of these plans addresses a residual 10 MHz (230-240 MHz) used for T-DAB and not covered by the Geneva 06 plan between 174 and 230 MHz. The other is the L Band plan covering frequencies between 1452 and 1479.5 MHz, designated for T-DAB with some flexibility available for variants to this system. In this context, we have been tasked to process the proposals for modifications of the plans submitted by CEPT administrations, such as the one we dealt with in 2015 from the Vatican City state in relation to the L Band plan.

Another illustration of our role as a source of specialist information is the development of bulletins on relevant activities in other regions outside CEPT, which are brought to the attention of each ECC Plenary meeting and then spread within the relevant sub groups. The main objectives are to inform the ECC about new initiatives in other regions of the world, to enable comparisons with the regulatory approach in other regions and to identify issues which could potentially be addressed in Europe in the near future.

In 2015, we produced two bulletins which addressed more than 20 different topics and we extended the scope of the bulletin, to cover not only radio spectrum issues - as was originally the case - but also topics related to numbering and networks.

2.1.8 Providing specialist support to Com-ITU

In the absence of any major ITU Conference falling within the scope of Com-ITU in 2015, our specialist support to Com-ITU has mainly been routine support aimed at providing assistance, both during and between the three Com-ITU plenary meetings, to the Committee and its Chairman in their regular activities.

In order to facilitate cross-committee cooperation within CEPT, we acted as liaison between Com-ITU and the ECC Working Group on Numbering and Networks on a topic of mutual interest: to assess a proposal made at the ITU Council to charge administrations for International Numbering Resources (INRs) administered by the ITU-T, the Telecommunication Standardisation Sector of the ITU. This particular issue was one that had implications for ITU policy, a Com-ITU matter, and for national numbering plan management, an ECC Numbering and Networks matter. It was clear that cross-committee cooperation was required to ensure the best outcome for CEPT member countries. Thus, the ECO coordinated the development of a contribution document with input from both groups to increase understanding of all of the issues from an ITU policy perspective and a numbering plan management perspective. This cross-committee cooperation led to the development of a well-informed multi-country proposal on the matter to be used as a basis for further engagement with ITU.

Concerning the Com-ITU activities related to ITU-T, we have also been involved in providing ad hoc assistance to the Com-ITU Project Team on strategic ITU-T issues, in particular for the start of the European preparation process for the World Telecommunication Standardisation Assembly (WTSA-16) to be held in October-November 2016.

During the year, we have actively contributed on procedural matters such as the development of a Letter of Understanding between Com-ITU and RIPE NCC (Réseaux IP Européens Network Coordination Centre, one of five Regional Internet Registries providing Internet resource allocations, registration services and coordination activities) signed in September 2015 and the organisation of the election of the new Com-ITU Chairman. We also provided assistance and guidance in order to ensure a smooth transition between the outgoing Chairman, Marcin Krasuski, and his successor, Manuel da Costa Cabral.

RIPE NCC Managing Director Axel Pawlik and CEPT Com-ITU Chair Marcin Krasuski signing the LoU between both organisations on 23 September 2015

In addition, we have continued our efforts in maintaining the Com-ITU website. We have published news releases about the main events relevant to the Committee and summarised the main outcomes from the Com-ITU Plenary meetings.

2.2 MEETING THE OBJECTIVES OF THE ECC STRATEGIC PLAN

After a first edition covering the period 2010-2015, the ECC adopted a new **five year strategic plan**, which outlines the policy goals, the key challenges and priorities that constitute the framework for the ECC's activities during the period 2015-2020.

While the ECO contributes to the overall fulfilment of the ECC strategic plan through its specialist support as described in the previous section, it has been explicitly assigned some particular tasks in the context of the ECC's role as focal point in Europe on electronic communications and its cooperation with other bodies.

In this section, we describe our actions performed in 2015 against the following objectives:

- Promote the ECC's achievements through the development of electronic newsletters and communications initiatives;
- Support the ECC through continuous cooperation with other bodies, including the European Commission, ETSI, other external organisations, academia and research programmes;
- Increase the visibility of the ECC through presentations at relevant workshops and events;
- Facilitate the exchange of views through the organisation of workshops on thematic issues and the development of training sessions to increase stakeholders' awareness of ECC activities.


ECC NEWSLETTER November 2015

November 2015 Articles

Supporting European interests at WRC-15

Flexible Harmonisation of Radio Frequencies for broadband PPDR

The eCall numbering challenge

Supporting European interests at WRC-15

At the eighth meeting of the ECC's Conference Preparatory Group (CPG-15) in September, CEPT, the European Conference of Postal and Telecommunications Administrations, finalised its preparations for the WRC-15. The event takes place in Geneva, from 2 to 27 November.

The group prepared and approved 53 European Common Proposals for the work of the Conference, an impressive achievement given the broad range of topics under consideration. The work centred around Europe's common spectrum interests, and has been accomplished through the hard work and dedication of the CPG membership in a spirit of collaboration and compromise.

2.2.1 Promoting ECC deliverables and activities through electronic newsletters and communications initiatives

In 2015, we consolidated the implementation of ECC's communications programme centered around the release of four electronic newsletters, and complemented with the publication of news releases and meeting summaries on the ECC website. The objective was to increase the visibility of ECC achievements.

With the efforts devoted to the World Radiocommunications Conference (WRC-15) and its preparation within ECC and its Conference Preparatory Group (CPG), a special focus has been given to this area. We published two special editions of our electronic newsletter:

- The January 2015 special edition addressed the status of the European preparation 10 months before the Conference. The ECO coordinated with officials from the CPG to issue four articles with one introductory text describing the process and the progress of the ECC preparation for WRC-15. The three other articles focused on specific items which were expected to raise a lot of attention during the Conference: additional spectrum for mobile broadband, regulatory procedures applicable to very small satellites and the debate on the feasibility of achieving a continuous time reference.
- The December 2015 special edition was released shortly after the end of the Conference and offered us the opportunity, with the CPG Chairman, to assess the outcome of WRC-15 from a European perspective, with a short overview of the results and a description of the European process for the preparation and coordination. It also identified follow-up activities within the ECC. In addition, we included a more detailed summary of the results of WRC-15 based on the material developed by the Office during the Conference (see page 17).

We also coordinated and distributed two normal editions of the newsletter containing three articles each on a broad range of topics:

- In July 2015, the ECC Chairman wrote about the ECC's initiatives and plans to support the development of 5G. Our EFIS project manager provided an update of the developments of the EFIS database during the last two years (see also page 21 and 22). The ECO also contributed to an article describing the work carried out within the ECC Working Group Numbering and Networks towards obtaining more accurate and reliable caller location information in Europe.
- In November 2015, our experts reported on the outcome of the spectrum engineering and the frequency management activities for the identification of harmonised spectrum for broadband public protection and disaster relief applications. Our numbering expert elaborated on the technical and regulatory challenges related to the upcoming implementation of the eCall initiative. Since it was released just before WRC-15, we also contributed to an article describing the final steps of the CEPT preparation to support European interests at this major international event.

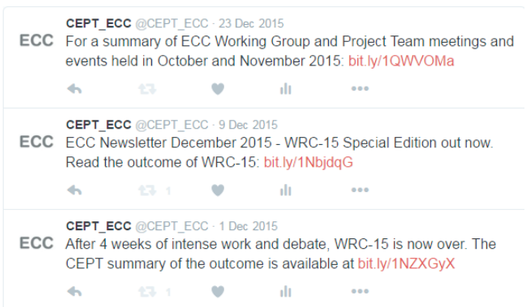
The newsletters were distributed electronically to some 4800 stakeholders and were published on the ECC website.

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

In order to describe the more routine activities within the ECC in greater detail, we have also continued the development and publication of monthly news summaries on the ECC website. These bulletins provide a round up of the main outcomes of ECC Working Group and Project Team meetings and events that have taken place each month. They are developed from contributions of the ECO's experts with responsibility for the various groups. Through the year, 10 monthly summaries have been published in the news area of the ECC main page (**http://www.cept.org/ecc**).

We have also published news releases covering the summary of the outcome from the two ECC Plenary meetings held in 2015 and invitations to, and details of, the workshops organised within the ECC. A special effort was made during WRC-15 when we published, with the assistance of the relevant experts, nine news releases during the four weeks of the Conference in order to inform our stakeholders about progress achieved on the most significant topics.

These publications have been supported by our limited but focused activity 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, to spread the publication of ECC newsletters and press releases and to promote upcoming meetings, consultations, and workshops.


ECC **CEPT_ECC** @CEPT_ECC · 23 Dec 2015
For a summary of ECC Working Group and Project Team meetings and events held in October and November 2015: bit.ly/1QWVOMa

ECC **CEPT_ECC** @CEPT_ECC · 9 Dec 2015
ECC Newsletter December 2015 - WRC-15 Special Edition out now. Read the outcome of WRC-15: bit.ly/1NbjdqG

ECC **CEPT_ECC** @CEPT_ECC · 1 Dec 2015
After 4 weeks of intense work and debate, WRC-15 is now over. The CEPT summary of the outcome is available at bit.ly/1NZXGyX

2.2.2 Supporting the ECC through continuous cooperation with other organisations

The ECO plays a fundamental role in helping the ECC extend its reach beyond CEPT member administrations. During the year, we continued to build and enhance effective business relationships with a broad range of external organisations and to act, as appropriate, as a point of contact on behalf of the ECC. We participated in a significant number of meetings and events outside of the CEPT framework with the aim to promote the views and results reached within the ECC.

ETSI

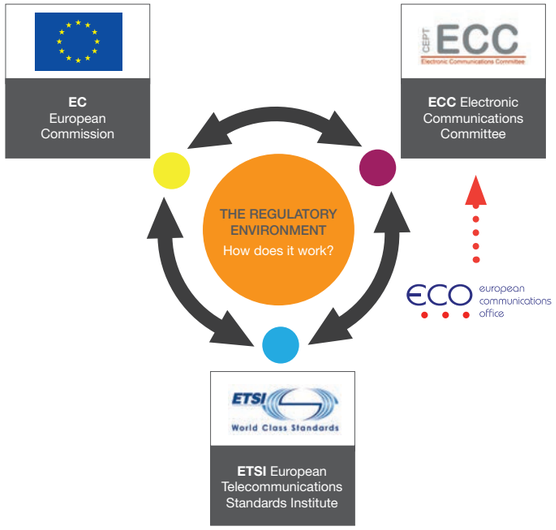
ETSI is an essential partner of the ECC, and the ECO plays an important role in this fruitful cooperation through a diverse range of activities.

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. This dedicated page contains tools to strengthen the synergy between both organisations and highlights relevant information related to ETSI.

The prime objective of our involvement in ETSI activities is to ensure that the regulations and studies developed by the ECC are understood and properly taken into account in the related standardisation activities within ETSI.

Regarding radio spectrum issues, our primary focus is the ETSI Technical Committee on EMC and radio spectrum matters (TC ERM), which is responsible for ETSI's interface with ECC on radio matters. In 2015, we attended all three meetings of ETSI TC ERM held at the ETSI Headquarters in Sophia-Antipolis. At these meetings, we submitted information documents on recently approved ECC deliverables and provided, when appropriate, the necessary explanations to support ECC activities and outcomes. This activity was particularly significant in 2015 because of the extremely intense efforts put in by ETSI to respond to the need to update all its Harmonised Standards relevant for the implementation of the new Radio Equipment Directive in 2016. In this regard, we contributed to the workshop organised by ETSI on the Radio Equipment Directive through a presentation on the ECC-ETSI cooperation process (see page 35).

Acting as focal point on behalf of ECC, we have also initiated, together with the ETSI secretariat and the relevant ETSI officials, a review of the cooperation framework between ECC and ETSI, in particular to reflect the recent changes in the European regulatory environment for radio equipment and spectrum. This activity is expected to be completed in the first half 2016.



We also worked with the ETSI secretariat to ensure that the information related to ETSI (System Reference Documents under development and relevant ETSI Harmonised Standards) in our EFIS database was up-to-date.

With regard to numbering and networks matters, the ECO worked with ETSI's Technical Committee Network Technologies (TC NTECH) to foster even closer cooperation on issues of common interest. NTECH is ETSI's centre of expertise on network technologies, which provides architecture and protocol specifications for network interoperability and interconnection. NTECH is also active in the areas of numbering, naming, addressing and routing. During 2015, the ECO liaised with ETSI to organise the hosting of the 10th meeting of the ECC's Working Group Numbering and Networks at ETSI's headquarters in Sophia Antipolis.

We also actively participated in NTECH's work on completing Stage 2 of a standard in response to a mandate from the European Commission on caller location information for emergency calls originating on IP-based networks. In December 2015 we delivered our now annual presentation to the NTECH meeting on related activities of the Working Group and its Project Teams. This helped to identify a number of opportunities for collaboration that could affect future standardisation work.

European Commission

The ECO continued its task of providing regular support to the ECC by attending, as an observer representing the ECC, all the meetings held in 2015 of both the Radio Spectrum Committee (RSC) of the European Commission (EC) and of the Radio Spectrum Policy Group (RSPG).

In particular, the ECO prepared in conjunction with the ECC Chairman the summary report of ECC activities for each RSC meeting. We have also participated at the ECC-EC consultation meeting as part of the ECC delegation.

We also further developed our working relationships with the Joint Research Centre (JRC), the European Commission's in-house science service, on issues of mutual interest such as the spectrum inventory, technological developments related to 5G and studies on spectrum sharing. This resulted in a closer involvement of the JRC in ECC activities.

In 2015, the ECO participated in TCAM (Telecommunication Conformity Assessment and Market Surveillance Committee) activities, in particular, to assess the implications of the changes in the European regulatory framework with the new Radio Equipment Directive. This will repeal the R&TTE (Radio and Telecommunications Terminal Equipment) Directive as of June 2016.

We attended various events organised by the European Commission and, more significantly, as reported on pages 33-35, we have delivered presentations to workshops organised by the European Commission in order to promote ECC activities and deliverables.

With regard to numbering and network issues, we performed a range of actions to support the ECC interests within various EU initiatives or institutions:

- In June 2015, the European eCall Implementation Platform (EeIP) established a task force to look at the numbering and network needs of the eCall in-vehicle system over the course of the vehicle's lifetime. In addition to a presentation delivered to the task force (see page 34), the ECO actively participated, on behalf of the ECC, to ensure that the best interests of Europe's national numbering plan administrations were reflected in the discussions. As a result of the task force work, a Report is expected to be published in 2016.
- In September 2015, the European Commission launched a public consultation to gather views on possible adaptations to the European regulatory framework for electronic communications in light of market and technological developments, with the objective of contributing to the Digital Single Market (DSM) Strategy. To further inform this consultation process, we helped to co-organise a workshop on 7 December 2015 in Brussels between CEPT administrations, market players and the Commission to facilitate an exchange of views on the regulatory requirements of the DSM. Those attending the workshop considered it to be a great success.
- The ECO also assisted the ECC Working Group Numbering and Networks to foster a closer working relationship between the CEPT and the Body of European Regulators for Electronic Communications (BEREC) through closer collaboration at the working group level. We wanted to leverage the different skillsets of both groups and to avoid duplication of effort.

ADCO R&TTE and R&TTE CA

Following the agreement of June 2010 between the ECC, ETSI, the Administrative Cooperation in R&TTE (ADCO R&TTE) and the R&TTE Compliance Association (R&TTE CA), the ECO continued in 2015 to provide the interface to bridge the relevant processes in the ECC and other organisations in the radio equipment compliance area. Specifically, we provided updates to both ADCO R&TTE and R&TTE CA on the ECC's regulatory activities.

Our involvement in ADCO R&TTE, the major group of the European regulators in the R&TTE compliance area, has continued in 2015 due to a number of topics of mutual interest between ADCO and the ECC. We have in particular presented the ECC's views and positions, when appropriate, with regard to ADCO's market surveillance campaigns and we have brought to ADCO's attention relevant information on ECC activities on various subjects, including interference statistics, EFIS, questionnaire on spectrum and aeronautical regulation for UAS (Unmanned Aircraft Systems) and compliance issues related to maritime communications systems.

ITU

As part of our support to the ECC, we have also been involved in relevant ITU-R (Radiocommunication Sector) and ITU-T (Telecommunication Standardisation Sector) activities. 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 significantly enlarge our range of valuable contacts.

Our involvement in ITU-R in 2015 was mainly centred around our support to ECC for the World Radiocommunications Conference (WRC-15). In addition to our actions during WRC-15 (see page 17 for details), our expert responsible for WRC matters, Stella Lyubchenko, provided the same level of assistance to the ECC during the Conference Preparatory Meeting (CPM-15, Geneva, 23 March – 2 April 2015). As advised by the ECC Steering Group, we responded favourably to a request from the CPM-15 management to provide, with our expert José Carrascosa, the chairmanship for a drafting group on an important agenda item (WRC-15 Agenda Item 1.2) dealing with the use of the 700 MHz band.

In addition, we continued our participation in the spectrum management ITU-R working groups (WP 1B, and SG 1), mainly to support the ECC's work on short range devices (SRD) and to promote the EFIS and SEAMCAT tools. Based on a CEPT proposal, WP 1B continued to work in a correspondence group on SRD classification, chaired by Thomas Weber, our expert on SRD issues. The target is to harmonise the terminology for SRD applications in the ITU-R as a pre-requisite for further regional/global harmonisation efforts.

We also contributed to the work of the ECC Working Group Numbering and Networks (WG NaN) through our participation in ITU-T Study Group 2, the lead study group for service definition, numbering and routing of electronic communications traffic. In March 2015, we presented to ITU-T Study Group 2 proposals developed by CEPT to amend the existing E.212 Recommendation on the international identification plan for public networks and subscriptions. Again in October 2015, at a special Rapporteurs meeting, we successfully argued the CEPT position for change in support of an evolving market for mobile services resulting in a revised ITU-T Recommendation, which is proposed for approval in 2016.

Other organisations

In 2015, we continued our cooperation with various other organisations, 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.

Specifically, in the context of our role of focal point with regard to the CEPT regulatory framework on amateur radio aspects, we hosted at the Office a bilateral meeting with representatives from the International Amateur Radio Union (IARU Region 1).

We also participated in the International Railways Union (UIC) working group on frequency management, where we reported on the relevant activities in the ECC with regard to railway communications.

Promoting the exchange between the ECC and the other Regional organisations

In order to guarantee a better and continuous information exchange between the ECC and other regional organisations, in particular in the course of preparations to the World Radiocommunication Conferences (WRC), the ECO has been tasked to act as a permanent point of contact with these other regional organisations.

In this context, during the last stages of preparation for WRC-15, we coordinated a large exchange of information between the ECC Conference Preparatory Group (CPG) and the other regional organisations, covering in particular the participation from CEPT representatives to other regional organisations and vice-versa and the establishment of bilateral meetings when approaching WRC-15. We also actively contributed to the development and the exchange of relevant documentation, such as the presentations providing CEPT positions to other regional organisations.

Another area of exchange, in which the ECO was involved, was the consultation meeting held in May 2015 between members of the ECC Steering Group and government officials from Canada and the United States to informally discuss spectrum management issues of mutual interest. During this meeting, the ECO delivered presentations on the status of ECC work on three topics: the long term use of the band 470-694 MHz, the studies on possible extension bands for RLAN at 5 GHz and the implementation of the Licensed Shared Access approach in the band 2.3-2.4 GHz.

Collaboration with research programmes

As a continuation of an effort started in 2010, in its latest strategic plan in 2015, the ECC has assigned the ECO with the task of further strengthening collaboration with universities, relevant scientific institutes and research programmes. In addition, the Office was further advised by the ECC Steering Group to focus on monitoring the relevant developments on 5G and to strengthen the cooperation with the European Commission Joint Research Centre (JRC).

In this context, the Office attended and delivered presentations to the second JRC Seminar on 5G held in Ispra, Italy, 19 May 2015 (see also page 34).

We have also collaborated with the Wireless World Research Forum as part of their preparation for the 5G Huddle which took place in Copenhagen, 13-14 October 2015 and helped in setting up a session devoted to spectrum challenges for 5G, where the ECC Chairman, Eric Fournier, reported about the spectrum regulations and initiatives relevant to 5G development. This event gave us the opportunity to acquire information on the most recent activities, including research programmes related to 5G.

The ECC Chairman, Eric Fournier, right and ECO staff during the 5G Huddle, Copenhagen, 13 October 2015

2.2.3 Increasing the visibility of the ECC through presentations at events

During the year, ECO experts have maintained their high level of involvement in the promotion of ECC activities and deliverables through presentations at key events or at specialised workshops. The aim is to share information and increase awareness and understanding about the ECC's areas of expertise, its policies and regulations.

INTERACTIVE WORKSHOP ON SCALABLE ACTIVE SENSOR ARCHITECTURES

Ulm, Germany – 24-26 February 2015

This workshop was organised by the International Wireless Industry Consortium in order to address technologies for automotive applications.

Thomas Weber reported on CEPT activities relevant for applications in transport and traffic telematics including sensors. It covered automotive radars, intelligent transport systems (ITS) at 5.8 GHz and 63 GHz and described the worldwide situation of the 76-81 GHz range.

EC WORKSHOP ON 'SPECTRUM SHARING BY USING GEO-LOCATION DATABASES'

Brussels, Belgium – 20 March 2015

In this workshop organised by the European Commission (DG CONNECT) to discuss the advantages of introducing geo-location databases as an instrument to support efficient use of spectrum, Bruno Espinosa presented the ECC findings and studies on the topic.

He covered in particular the relevant deliverables on TV white spaces and Licensed Shared Access. He also introduced a range of studies under development considering the potential use of geo-location databases for spectrum sharing and spectrum management.

INTERNATIONAL CONFERENCE 'IN FLIGHT ENTERTAINMENT & CONNECTIVITY'

Hamburg, Germany – 24-25 March 2015

During this conference addressing technological and regulatory developments applicable to air to ground connectivity and wireless avionics intra-communications, Thomas Weber presented an overview of the latest relevant ECC activities, focusing in particular on Direct-Air-to-Ground communications and the initiatives related to the mobile-satellite systems aeronautical complementary ground component at 2 GHz.

ERTICO - ECALL INTER-OPERABILITY WORKSHOP

Brussels, Belgium – 14-15 April 2015

ERTICO - ITS Europe is a partnership of around 100 companies and institutions involved in the production of Intelligent Transport Systems (ITS). ERTICO co-ordinated the European Union funded HeERO project which was conducted in 15 European countries from 2011 to 2014 to test and validate in real conditions the eCall standards defined and approved by the relevant European Standards Developing Organisations.

Freddie McBride made a presentation on the numbering options for eCall and the competition and resource management challenges associated with those options.

6TH INTERNET OF THINGS ANNUAL EUROPEAN SUMMIT

Brussels, Belgium - 11-13 May 2015

This summit examined the current Internet of Things (IoT) ecosystem in Europe and explored the role of IoT in helping to make Europe a world leader in this area. Participants also discussed the various opportunities and challenges that different industries face, and were encouraged to examine the role of IoT in the key sectors.

Speaking in a session dealing with smart transportation solutions, Thomas Weber made a brief overview of the relevant ECC activities, covering a broad range of topics such as ITS, transport and traffic telematics, Direct-Air-to-Ground communications, earth stations on mobile platforms and railway applications.

INTERNATIONAL SYMPOSIUM ON ADVANCED RADIO TECHNOLOGIES 2015

Boulder, USA – 12-13 May 2015

The International Symposium on Advanced Radio Technologies (ISART) is a US government-sponsored conference that brings together government, academia, and industry leaders for the purpose of collaborating on groundbreaking developments and applications of advanced radio technologies.

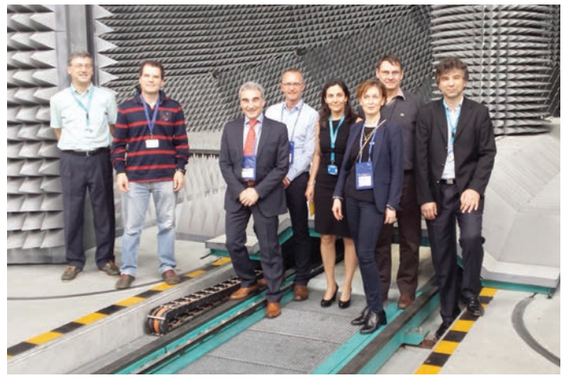
Jean-Philippe Kermoal was invited to give a tutorial on the spectrum engineering analysis tool SEAMCAT developed by the Office. It included an in-depth technical overview of the methods and processes employed in SEAMCAT. As part of a panel dedicated to Modelling and Simulation, he also delivered a short presentation on the European regulatory processes.

JRC SEMINAR ON 5G

Ispra, Italy – 19 May 2015

The aim of the seminar organised by the European Commission Joint Research Centre was to collect information on the relevant initiatives within ITU-R and CEPT which deal with 5G in order to be ready to respond to the EC Digital agenda.

Stella Lyubchenko provided an update on the status of ECC activities related to 5G, and she also delivered two general presentations about the ECC and its processes.



Stella Lyubchenko, 3rd from the right, and other participants of the JRC Seminar on 5G

EUROPEAN ECALL IMPLEMENTATION PLATFORM, TASK FORCE ON LIFECYCLE MANAGEMENT

Brussels, Belgium – 16 June 2015

The European eCall Implementation Platform (EeIP) is a European Commission-led initiative which brings together representatives of the relevant stakeholders associations and of the National Platforms supporting the implementation of pan-European in-vehicle emergency calling in Europe.

Within the task force for numbering and network needs of the eCall in-vehicle system over the course of the vehicle's lifetime, Freddie McBride delivered a presentation, which highlighted the options and challenges associated with numbering for eCall devices.

THE SECOND ANNUAL MIDDLE EAST & NORTH AFRICA SPECTRUM MANAGEMENT CONFERENCE

Rabat, Morocco – 28 August 2015

For the second consecutive year, the Middle East and North Africa Spectrum Management Conference provided a meeting point for spectrum stakeholders to come together and discuss topical issues relating to the management and co-ordination of spectrum policy across the region.

In a session devoted to policy positions ahead of the World Radiocommunication Conference (WRC-15), the ECO Director, Per Christensen presented, on behalf of the ECC, the status of CEPT preparations for WRC-15 with a special focus on the most critical agenda items.

EENA MEMBERS WORKSHOP

Brussels, Belgium – 19-20 October 2015

The event, organised by the European Emergency Numbering Association (EENA) aimed to foster the sharing of experience, best practices and ideas in the emergency services field.

As part of a workshop devoted to transnational emergency calls, Freddie McBride provided a status report of the feasibility study being carried out by the ECC to investigate the possibility of an ECO-hosted database to facilitate inter-PSAP (public-safety answering point) communications in Europe.

BITKOM FREQUENZEN

Munich, Germany – 30 October 2015

Bitkom is Germany's Digital Association, representing more than 2300 companies in the digital economy.

In a workshop devoted to radio spectrum topics, Thomas Weber presented an overview of possible options for the spectrum for Machine-to-Machine and IoT applications and highlighted the related ECC activities.

ETSI WORKSHOP '53 SHADES OF RE-D'

Sophia-Antipolis, France – 4 November 2015

ETSI organised this workshop to discuss the implications of moving from the R&TTE Directive to the Radio Equipment Directive on making radio equipment available on the market with a special focus on the impact on ETSI Harmonised Standards.

Thomas Weber described the ECC-ETSI cooperation process and the impact of ECC activities on the development of Harmonised Standard within ETSI.

2.2.4 Organising workshops on thematic issues and developing training sessions to increase awareness of ECC activities

In 2015, the ECO supported the ECC in the organisation of one specialist workshop devoted to external stakeholders on the extra-territorial use of E.164 numbers.

We have also organised and led two training sessions on the use of the SEAMCAT tool. Some details on these events are given here. Additional information on the workshops is available at: **http://www.cept.org/ecc/tools-and-services/cept-workshops**.

WORKSHOP ON EXTRA-TERRITORIAL USE OF E.164 NUMBERS

Brussels, Belgium – 27 January 2015

The workshop followed the publication of ECC Report 194 on extra-territorial use of E.164 numbers, and its objective was to bring together a broad range of stakeholders interested in this subject to share views and provide insights on how the needs of emerging services, particularly Machine-to-Machine (M2M), can be facilitated in what is fast becoming a global marketplace. The workshop proved to be successful, with 56 participants from public and private entities contributing to identify the future direction of the work within the ECC Working Group Group on Numbering and Networks (WG NaN).

Freddie McBride speaking at the workshop on E.164 numbers

Our expert in numbering activities, Freddie McBride, was heavily involved in the preparation of the workshop and provided one presentation on the recent European regulatory initiatives and their potential impact on extra-territorial use of E.164 numbers.

SEAMCAT WORKSHOP FOR ADVANCED USERS

ECO, Copenhagen, Denmark – 5-6 March 2015

The workshop was organised as a result of the development of the new SEAMCAT v5 (alpha version) and in particular the integration of the Propagation Model Plugin (PMP) and Event Processing Plugin (EPP) features into SEAMCAT. Through presentations and tutorials led by the ECO Project Manager and the SEAMCAT developer, advanced users received a detailed guidance for the development of plugins (PMPs and EPPs) and on the latest features of the software.

Participants to the SEAMCAT workshop, March 2015

SEAMCAT WORKSHOP FOR BEGINNERS

Ficora, Helsinki, Finland – 10 September 2015

Following tradition, the Office organised and drove a one-day workshop for SEAMCAT users who had little or no experience of the software. This workshop, hosted at the Finnish Communications Regulatory Authority, welcomed newcomers who had the opportunity to get acquainted with SEAMCAT and to deepen their knowledge on Monte Carlo simulations using the tool.

2.3 MANAGING OUR OPERATIONAL SERVICES

We are committed to delivering high quality support to CEPT and its committees across a wide range of operational and professional services.

2.3.1 Supporting the CEPT Presidency

In 2015, ECO support to the CEPT Presidency was mainly an administrative activity involving the invoicing and collection of CEPT member financial contributions, correspondence with the CEPT Co-Presidency and maintenance of the part of the website which relates to the Presidency.

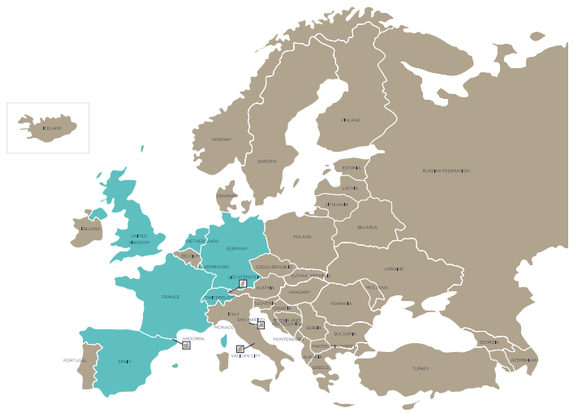
In 2015, ECO also increased its administrative support to CERP and to its subgroups (WG UPU and WG Policy).

CEPT got a new co-presidency when Mr Manuel da Costa Cabral (Portugal) was elected as the Chairman of Com-ITU in September 2015 succeeding Mr Marcin Krasuski (Poland). ECO would like to express its thanks to Mr Krasuski for his work as Chairman of Com-ITU.

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



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.

In 2015, the ECO provided assistance to the Sat MoU in its final evaluation of the study on satellite geolocation which has been carried out to improve the precision of the geolocation results.

The ECO also acts as the interface between the Sat MoU and the ECC. In 2014, the ECO reported to the Sat MoU the status of the activities carried out within Project Team SE40, which may trigger additional satellite monitoring campaigns in the future. In 2015, the ECO reported to the Sat MoU the status of the ECC activities regarding measurements of unwanted emissions from IRIDIUM satellites falling into adjacent radio astronomy band. Those activities may trigger extended satellite monitoring campaigns in the future.

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

2.3.3 Managing CEPT's family of websites

The CEPT portal, launched in 2011, is a key instrument to promote and support the work of CEPT and its three committes. It provides a common platform with harmonised functionalities to the five CEPT family websites (CEPT, ECC, ECO, CERP and Com-ITU).

In 2015, the CEPT portal was kept stable, with only a few minor additional features implemented to respond to relevant requests from users.

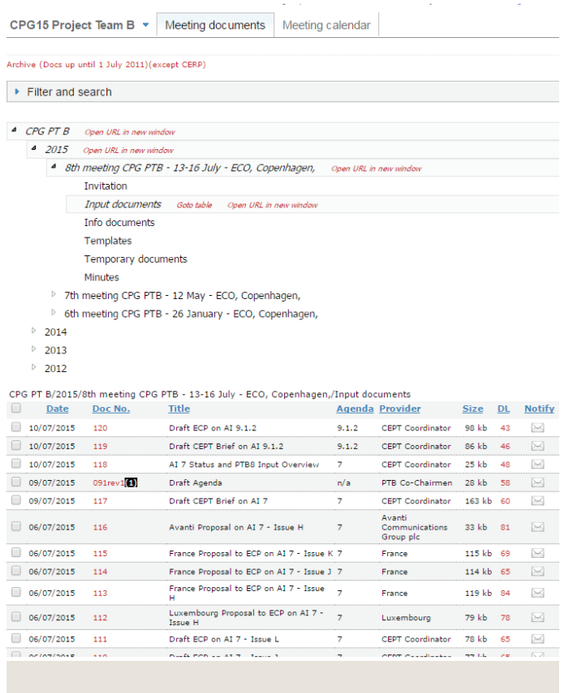
A significant upgrade of the web platform is planned in 2016 together with the implementation of a responsive web design in order to accommodate the evolving user needs, such as tablets and smartphones.

Number of registered users to the systems: 3335

Number of visits for 2015: 1 025 000

Average number of visits per day: 3153

Average visit length: 22.45 minutes.



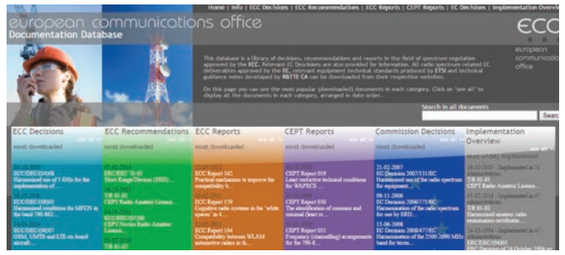
One of the most important sections of the Committees websites is certainly their meeting documents area where the meeting participants can download all the working documents and contributions submitted to each of the groups within the CEPT family.

With the addition of more than 8500 documents uploaded in 2015, it hosts approximately 40 000 working documents.

2.3.4 Managing our online databases

Besides the specialist tools described in section 2.1, the ECO manages and updates other important online information systems on which many of our European stakeholders rely.

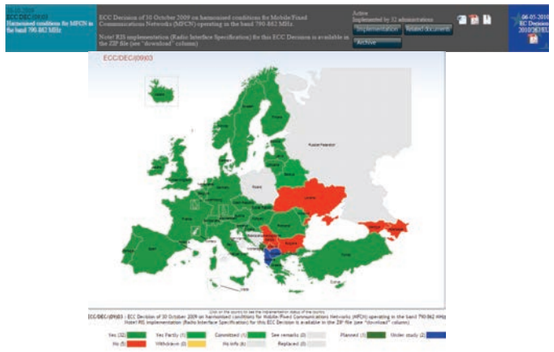
Managing the ECO Documentation Database – ECODOCDB



The ECC's work to consider and develop policies on spectrum and numbering matters and to manage these scarce resources is given effect mainly through its deliverables, namely Decisions, Recommendations and Reports. Once these deliverables are approved by the ECC or one of its Working Groups, we publish them in the ECO's Documentation Database (**www.ecodocdb.dk**). The database also gives access to European Commission Decisions related to ECC activities and includes some helpful information such as related documents.

At the end of 2015, more than 1000 documents were available on ECODOCDB. It includes the 635 ECC Deliverables in force, and many additional informative documents. Withdrawn or superseded deliverables are also stored in the database.

Providing information in ECODOCDB on the extent of national implementation of ECC Decisions, and some Recommendations, is an important part of making the corresponding harmonisation measures effective. In this context, the Office sent in 2015 a Circular Letter to CEPT administrations to encourage them to advise us of any changes to their implementation of Decisions and Recommendations as soon as they are made. Since the information on national implementation displayed on ECODOCDB is based on the data sent by national administrations, the Office relies on them to keep this information accurate and up-to-date.



National implementation information is also increasingly provided in the EFIS database (see section 2.1.4).

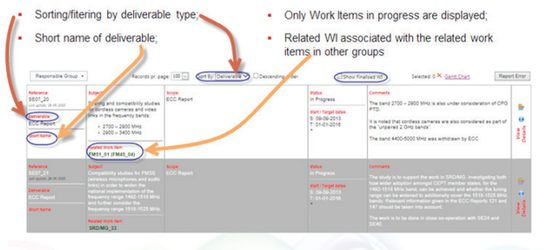
The Office also decided in 2015 to start working on the development of a new modernised ECODOCDB user interface based on a new content management system.

In 2015, there have been around 670 000 visits to the ECODOCDB, representing about 1900 visits per day from users from all over the world.

Maintaining and upgrading the ECC Work Programme Database

The ECC Work Programme Database (ECC WP DB) is part of the suite of ECO software tools that support CEPT. The purpose of the WP DB is to provide the ECC and its constituent bodies with online facilities for maintaining and updating, with the assistance of the ECO team, their work programme on an ongoing basis. It consists of a number of work items, allocated to the various groups within the ECC, with the possibility to filter them according to a set of parameters

In 2015, we upgraded WP DB to increase its usefulness. A new search functionality has been implemented to allow search by key words within the database. In addition, the available fields were improved and rationalised to provide more visibility to the work in progress and the draft deliverables under development (see the illustration of this concept below).



A Gantt chart function has been implemented to allow the user to view the planned key steps in the development of selected work items.

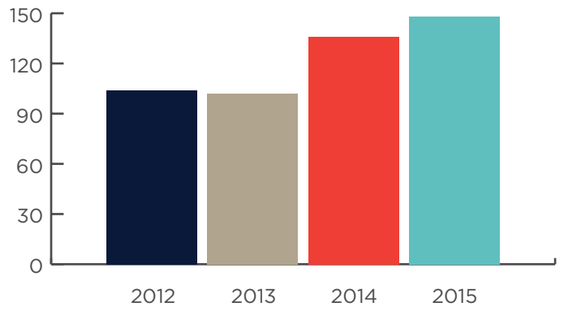
The WP database is available at **http://eccwp.cept.org/** and provides the up-to-date information on the status of approximately 120 work items currently in progress. With the additional feature of archiving the information related to the finalised work items, around 430 ECC Work Items were described in WP DB at the end of 2015.

2.3.5 Promoting electronic working arrangements

There is a general agreement within CEPT and its Committees that the efficiency of the working processes can be increased by making use of the available electronic systems. In this respect, we make available to our stakeholders four main tools and services dedicated to electronic working.

- **Web-meeting facilities:** Fully operational since 2012, our web-meeting facilities are based on the use of the commercial 'GoToMeeting' platform combined with the meeting management features integrated into our portal. They are now part of CEPT's routine in term of meeting management.

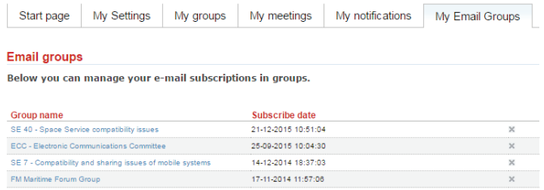
Number of web meetings organisd by ECO



In 2015, the ECO organised approximately 150 web-meetings, generally running for two to three hours and ranging from small meetings of four to five experts in preparation for a physical meeting to larger ad hoc sessions of Project Teams gathering around 25 participants. The average participation for web-meetings organised by ECO is around 10 participants.

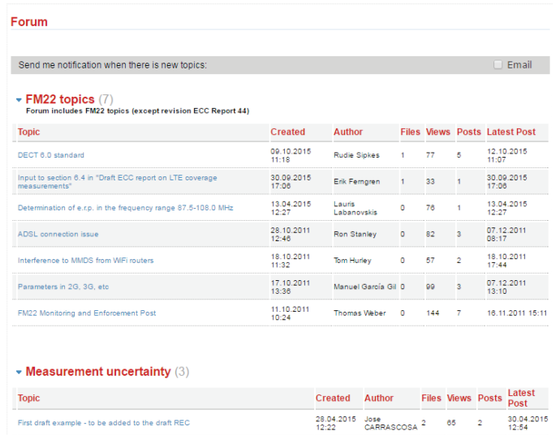
- **Email reflectors:** We provide and manage two types of email reflectors for use within CEPT. The latest feature, implemented in 2014 and referred to as groupmail, is now broadly used as the main email reflector for each of the groups hosted within the CEPT portal and its websites. These reflectors offer the opportunity to users to manage their subscriptions, including a change in email address, through the CEPT portal.

In 2015, 39 groups hosted within the CEPT portal have been using the groupmail feature.



In addition, the traditional email facility provided by the ECO and externally managed without connection to the web-portal is still available on demand for ad-hoc correspondence activities and has been used by 22 email lists in 2015.

- **CEPT Forum:** The forum features have been integrated into the CEPT portal since 2012 and have been further improved and extensively used since then.



In 2015, the Forum facilities hosted within the CEPT portal were used by 13 groups within the ECC and Com-ITU generating 443 posts within 50 different topics.

- **CEPT Chat/messaging system:** This system is designed to facilitate CEPT coordination at major events through two main features: distribution of short messages and emails and availability of a real-time chat function. This system has been extensively improved in 2015 and used during a few CEPT meetings and ITU events. Statistics about the use of the system by CEPT delegates at the World Radiocommunication Conference 2015 (WRC-15) are available on page 17.

2.3.6 Providing facilities for collaborative working

CEPT's work is based on collaboration between regulators and industry representatives coming from different countries across Europe.

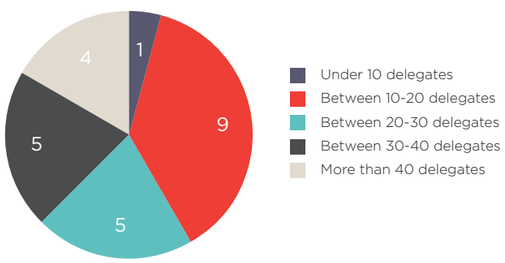
In our premises at Nyropsgade 37, in central Copenhagen, where we have been located since May 2014, we provide facilities for physical meetings.

Our main meeting room has a capacity of approximately 60 seats and can be divided into two rooms of 40 and 20 seats respectively. We also have a second meeting room for approximately 20 seats. Our meeting rooms have internet access for delegates and projection facilities. In addition, the main room has video and audio webcasting features.

In 2015, our meeting facilities have been used during 56 days for 24 meetings, which attracted more than 600 participants, mostly from around Europe, to Copenhagen. These meetings ranged from small working sessions with nine participants to larger events involving more than 45 attendees.

Participants of the Project Team FM54 in our main meeting room in December 2015

Number of delegates per meeting in ECO in 2015



SECTION 3

GOVERNANCE AND FINANCIAL SUMMARY

The 13th ECO Council meeting was held in our premises in December 2015

STRUCTURE AND GOVERNANCE

The ECO is governed by the ECO Council, consisting of representatives of the 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. Lithuania joined in as a contracting Party on 1 February 2015. This means that, in 2015, 34 countries were officially Contracting Parties to the ECO Convention and 35 countries[1] are contributors to the financing of the ECO.

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 Council's preferred method of working is by consensus.

At its 12th meeting in May 2015, the ECO Council agreed to appoint Ms Marta Leandro (Portugal) as new Chairperson of the Council. Ms Leandro succeeded Mr Geir Sundal (Norway), who had decided to retire from the Norwegian Administration.

Dr Samuel Ritchie (Ireland) was appointed to the position of Vice-Chairman at the 13th ECO Council meeting in December 2015.

[1] Belgium is not one of the Contracting Parties to the ECO Convention but contributes to the financing of the ECO.

FINANCIAL SUMMARY

The ECO was approximately 97% financed by the following 35 countries in 2015:

Austria, Belgium[1], Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, 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 2015.

	DKK	EUR
INCOME	18 330 372	2 457 583
EXPENDITURE		
Staff Costs (salaries, pension contributions, etc.)	11 385 510	1 526 474
Running Expenses (outsourcing, projects, professional fees, travel)	3 914 426	524 813
Office Facilities (rent, building related expenses)	1 674 640	224 522
Expenditure total	16 974 576	2 275 809
Operating balance for end of year	1 355 796	181 774

Based on exchange rate of DKK 1 = EUR 0.134

[1] Belgium is not one of the Contracting Parties to the ECO Convention but contributes to the financing of the ECO.

ECO
Nyropsgade 37
4th floor
1602 Copenhagen
Denmark

T +45 33 89 63 00
E eco@eco.cept.org
www.cept.org/eco