# ECC Decision (01)03

ECO Frequency Information System (EFIS)[1]

**Approved 15 November 2001**

Amended 17 November 2017

Annex 2 amended 13 June 2025

Annex 1 amended 2 July 2021

[1] Comparable technical specifications to those given in this ECC Decision are given in EC Decision 2007/344/EC. EU Member States and, if so approved by the EEA Joint Committee, Iceland, Liechtenstein and Norway are obliged to implement the EC Decision.

# EXPLANATORY MEMORANDUM

## 1 INTRODUCTION

Understanding how frequencies are actually utilised is an important step in harmonising spectrum within Europe and beyond. Industry, the European Commission and administrations have expressed a strong interest in having a database containing frequency utilisation information that is comparable across Europe.

Its purpose would be

- to give the CEPT a tool to illustrate the extent of harmonisation within Europe,
- to allow administrations to quickly search for and compare spectrum utilisation information of other CEPT countries, and
- to meet the European Commission and industry requirements that have been made known to CEPT at many occasions.

The ERO made a proposal to develop the ERO Frequency Information System (EFIS), now ECO Frequency Information System that would fulfil this purpose. The development of EFIS takes place in close collaboration with those that have to input information into EFIS (i.e. administrations) and those that will use the information contained in EFIS (i.e. administrations, industry and other interested parties). Comments from EICTA (European Information and Communications Technology Industry association) and ETSI (European Telecommunications Standards Institute) have been received encouraging CEPT to develop EFIS and signalling that industry is willing to support this process with their expertise.

## 2 BACKGROUND

The issue of frequency databases has been discussed for some time and it is evident that there are many different approaches that have been taken on the national level in presenting frequency data. Discussions have also shown that administrations are reluctant to having all national frequency data collected in one central place and to providing additional resources beyond those needed on the national level.

EFIS can basically be described as a search engine that allows the user to search for a specific utilisation in one or more CEPT countries, thus enabling a comparison between the Radio Regulations, the European table (ERC Report 25) and current national utilisations. The result of the search is a list of frequency bands or a frequency range showing the relevant allocations and applications. Further details are not necessarily contained in EFIS, but can be accessed via a link to the relevant national table or to other important documents. The limitation of the actual database to concise information simplifies the task and the expected workload, while providing a commonly accessible search and comparison tool that complements and adds value to the national initiatives.

One of the main objectives of EFIS is to ensure that it provides good quality information, which is regularly updated and maintained. This ECC Decision is the mechanism for ensuring that this objective is met. Furthermore, this ECC Decision provides two lists of harmonised terms, which are essential for making an efficient and meaningful search for frequency information. Especially the List of Searchable Applications in Annex 2, is an important part of EFIS, because it describes the utilisation of a certain frequency band. This is key information that industry is interested in and the terms provide the starting point for a more detailed search in the national frequency tables, which are established and maintained by administrations.

Just like the List of Radio Services in the ITU RR in Annex 1, the List of Searchable Applications in Annex 2 has several layers of detail that allow administrations to choose the level of detail it would like to indicate within a certain frequency band. When searching for and comparing information EFIS makes use of these layers. For example, a search for a specific term in layer 2 will automatically start a search for all terms in layer 3 under that specific term. This functionality allows for an efficient and meaningful comparison, even though each administration has the flexibility to choose the level of detail it would like to indicate in a specific band. Annex 3 contains the list of parameters for radio interfaces in EFIS, developed on the basis of the template and the guide developed by TCAM RIG II and adopted by TCAM. The use of these parameters in EFIS allows an

efficient comparison of interfaces within Europe. In Annex 4 a standard for information on the right of use for frequency bands of high economic interest, where market mechanisms apply, is given.

## 3 REQUIREMENT FOR AN ECC DECISION

Administrations have developed different formats for presenting national frequency utilisation information. Furthermore, it is often difficult to compare the information contained in the numerous national tables, because of different expressions and languages being used. Consequently, there is a need for a tool that provides administrations, industry and the interested public with comparable spectrum information. This information will then lead the user to more detailed information on the national level or it will give a reliable picture of the spectrum harmonisation that has been achieved in Europe. For this tool to be successful administrations must agree upon a harmonised list of terms to be used as well as a procedure that will ensure that the information that has been collected is updated regularly and of good quality.

An ECC Decision will ensure that the harmonised terms and procedures, which are essential for the success of the system, are used by administrations and ECO when entering data into EFIS.

## ECC DECISION OF 15 NOVEMBER 2001 ON ECO FREQUENCY INFORMATION SYSTEM (EFIS) (ECC/DEC/(01)03) AMENDED ON 17 NOVEMBER 2017

"The European Conference of Postal and Telecommunications Administrations,

*considering*

a) that administrations, industry, and the European Commission have expressed a strong interest in having a database containing frequency utilisation information that is comparable across Europe;

b) that EFIS is designed to fulfil this requirement;

c) that the data collected in EFIS is to be used for a meaningful search and comparison of spectrum information available within CEPT member countries;

d) that for EFIS to be successful administrations must agree upon a harmonised list of terms to be used as well as a procedure that will ensure that the information that has been collected is updated regularly and of good quality;

e) the decision taken at the 12th meeting of the ERO Council to make available the necessary resources within ERO in order to fulfil the tasks required under this Decision;

f) that the List of Searchable Applications aims to facilitate an efficient and meaningful search and not a legally binding description of the applications used on the national level;

g) there is a need to administer and further develop EFIS;

h) that there is a need to establish a contact person within each administration for the maintenance of the national frequency information;

i) that the future development of EFIS should take into account the RE Directive (2014/53/EU), the Decision 676/2002/EC of the European Parliament and Council on a regulatory framework for radio spectrum policy in the EC, the ECC/DEC/(03)05 and its future revisions on publication of National Tables of Frequency Allocations (NTFAs) and the publication of national frequency utilisation information;

j) that recital 24 of the RE Directive (2014/53/EU) states that Member States are to use the Frequency Information System (EFIS) of the European Communications Office (ECO) in order to make comparable information regarding the use of radio spectrum in each Member State available to the public via the internet;

k) that there is considerable difference in national licensing, laws and regulations;

l) that the EU Member States and Iceland, Liechtenstein and Norway adopted the EC Decision 2007/344/EC of 16 May 2007 which makes it mandatory for those countries to provide information on the radio interface specifications and rights of use of radio spectrum in accordance with Decides 2, however, the EC Decision does not apply to other CEPT countries which may provide the information on an optional basis;

m) that there is a need to limit the amount of resources needed to update and maintain EFIS as far as possible;

n) that the duplication of information should be avoided as far as possible;

o) that the availability of NTFAs in the English language and in PDF format would be preferable.

*DECIDES*

1. Administrations shall enter and maintain the following mandatory data into EFIS:
   a) Spectrum allocations on a national level according to the List of Radio Services in the ITU RR in Annex 1;
   b) Spectrum applications on a national level according to the List of Searchable Applications in Annex 2;
   c) A Contact Person within the Administration who will be responsible for the maintenance of the national frequency information related to EFIS.

2. Administrations should enter and maintain the following data into EFIS:
   a) Radio interface specifications on a national level according to the template in Annex 3;
   b) Right of use information on a national level only for frequency bands for electronic communication services, where spectrum trading is allowed or where comparative or competitive selection procedures are used according to the model in Annex 4.

3. Administrations may enter and maintain the following optional data into EFIS:
   a) Short comments related to an allocation or application;
   b) Documents or hyperlinks that can be filed within EFIS according to a frequency band, an application or both (e.g. related to Activities or RE interface information).

4. Administrations shall provide ECO with a copy of their most detailed public national frequency table (e.g. NTFA or frequency utilisation table) in a format acceptable to ECO. The table should be sent to ECO no later than one week after publication.

5. ECO shall[1] enter and maintain the data in EFIS related to the Radio Regulations (Region 1), the European Table of Frequency Allocations and Utilisations, and other appropriate tables that are not maintained by an administration.

6. ECO shall[1] administer EFIS and execute further developments of EFIS according to agreements reached in the ECC and the ECO Council.

7. For uploading or downloading data to or from EFIS by administrations, the Harmonised Interface in Annex 5 shall be used. Administrations with a national frequency database are encouraged to develop a software tool that will allow automatic transfer of relevant data from their database into EFIS. This will allow for easy updating and maintenance of allocations, applications, radio interfaces and right of use information.

8. The List of Radio Services in the ITU RR, the List of Searchable Applications and the Harmonised Interface are the valid versions when this Decision comes into force. Depending on regulatory and market developments, the ECC or a delegated subgroup may develop new versions of these annexes subject to positive acceptance by administrations that have committed themselves to this Decision without the need for Public Consultation. ECO shall[2] archive all versions and distribute any new versions to all Contact Persons stating when the new version will come into force. The List of Searchable Applications shall be reviewed at least once a year through a procedure initiated by ECO.

9. that this Decision shall enter into force on 15 May 2012;

10. that CEPT Member administrations shall communicate the national measures implementing this Decision to the ECC Chairman and the Office when the Decision is nationally implemented."

*Note:*

*Please check the Office documentation database https://docdb.cept.org/ for the up to date position on the implementation of this and other ECC Decisions.*

[2] Subject to approval by the ECO Council

## ANNEX 1: LIST OF RADIO SERVICES IN THE ITU RADIO REGULATIONS (RR)

This is the list of services, which have an allocation in Article 5 of the RR.

For the purpose of this decision the List of Radio Services in the ITU RR is divided into three layers of detail in accordance with the definitions given in the RR. When searching for and comparing information EFIS makes use of these layers. For example, a search for a specific term in layer 2 will automatically start a search for all terms in layer 3 under that specific term. If nothing is found in either layer 2 or 3, EFIS also checks layer 1 and informs the user if there is a hit.

**Table 1: Layer 1 to 3 structure in EFIS in the allocations**

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| Amateur | | |
| **Amateur-satellite** | | |
| Broadcasting | | |
| Broadcasting-satellite | | |
| **Earth exploration-satellite** | Earth exploration-satellite (active)<br>Earth exploration-satellite (passive)<br>**Meteorological-satellite** | |
| Fixed | | |
| **Fixed-satellite** | | |
| Inter-satellite | | |
| Mobile | Aeronautical mobile | Aeronautical mobile (R)<br>Aeronautical mobile (OR) |
| | Land mobile | |
| | Maritime mobile | |
| | | Maritime mobile (distress and safety) |
| | | Maritime mobile (distress and calling) |
| | | Maritime mobile (distress, safety and calling) |
| | | Maritime mobile (distress and calling via DSC) |
| | Mobile (distress and safety) | |
| | Mobile (distress and calling) | |
| | | |
| | Mobile except aeronautical mobile | |
| | Mobile except aeronautical mobile (R) | |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| **Mobile-satellite** | **Aeronautical mobile-satellite** | **Aeronautical mobile-satellite (R)**<br>**Aeronautical mobile-satellite (OR)** |
| | **Land mobile-satellite** | |
| | **Maritime mobile-satellite** | |
| | **Mobile-satellite except aeronautical mobile-satellite** | |
| | **Mobile-satellite except aeronautical mobile-satellite (R)** | |
| | **Mobile-satellite except maritime mobile satellite** | |
| Meteorological aids | | |
| Radio astronomy | | |
| Radiodetermination | Radionavigation | Aeronautical radionavigation<br>Maritime radionavigation<br>Maritime radionavigation (radiobeacons) |
| | Radiolocation | |
| **Radiodetermination-satellite** | **Radionavigation-satellite** | **Aeronautical radionavigation-satellite**<br>**Maritime radionavigation-satellite** |
| | **Radiolocation-satellite** | |
| **Space operation** | | Space operation (satellite identification) |
| **Space research** | Space research (active)<br>**Space research (deep space)**<br>Space research (passive) | |
| Standard frequency and time signal | | |
| **Standard frequency and time signal-satellite** | | |

**Note:**
For bolded services it is possible to give additions/attributes (space-to-Earth, Earth-to-space, space-to-space). An alphabetical list of services with all additions as used in the EFIS database, and existing combinations of additions/attributes for allocations is provided below.

## ALPHABETICAL LIST OF ALL RADIOCOMMUNICATION SERVICES, USED IN THE EFIS Database

| Radiocommunication Service | Layer |
|---|---|
| Aeronautical mobile | 2 |
| Aeronautical mobile (OR) | 3 |
| Aeronautical mobile (R) | 3 |
| Aeronautical mobile-satellite | 2 |
| Aeronautical mobile-satellite (OR) | 3 |
| Aeronautical mobile-satellite (R) | 3 |
| Aeronautical mobile-satellite (R) (Earth-to-space) | 3 |
| Aeronautical radionavigation | 3 |
| Aeronautical radionavigation-satellite | 3 |
| Amateur | 1 |
| Amateur-satellite | 1 |
| Amateur-satellite (Earth-to-space) | 2 |
| Amateur-satellite (space-to-Earth) | 2 |
| Broadcasting | 1 |
| Broadcasting-satellite | 1 |
| Earth exploration-satellite | 1 |
| Earth exploration-satellite (active) | 2 |
| Earth exploration-satellite (Earth-to-space) | 2 |
| Earth exploration-satellite (Earth-to-space) (space-to-space) | 2 |
| Earth exploration-satellite (passive) | 2 |
| Earth exploration-satellite (space-to-Earth) | 2 |
| Earth exploration-satellite (space-to-Earth) (space-to-space) | 2 |
| Fixed | 1 |
| Fixed-satellite | 1 |
| Fixed-satellite (Earth-to-space) | 2 |
| Fixed-satellite (Earth-to-space) (space-to-Earth) | 2 |
| Fixed-satellite (space-to-Earth) | 2 |
| Fixed-satellite (space-to-Earth) (Earth-to-space) | 2 |
| Inter-satellite | 1 |

| Radiocommunication Service | Layer |
|---|---|
| Land mobile | 2 |
| Land mobile-satellite | 2 |
| Land mobile-satellite (Earth-to-space) | 3 |
| Land mobile-satellite (space-to-Earth) | 3 |
| Maritime mobile | 2 |
| Maritime mobile (distress and calling via DSC) | 3 |
| Maritime mobile (distress and calling) | 3 |
| Maritime mobile (distress and safety) | 3 |
| Maritime mobile (distress, safety and calling) | 3 |
| Maritime mobile-satellite | 2 |
| Maritime mobile-satellite (Earth-to-space) | 3 |
| Maritime mobile-satellite (space-to-Earth) | 3 |
| Maritime radionavigation | 3 |
| Maritime radionavigation (radiobeacons) | 3 |
| Maritime radionavigation-satellite | 3 |
| Meteorological aids | 1 |
| Meteorological-satellite | 2 |
| Meteorological-satellite (Earth-to-space) | 3 |
| Meteorological-satellite (space-to-Earth) | 3 |
| Mobile | 1 |
| Mobile (distress and calling) | 2 |
| Mobile (distress and safety) | 2 |
| Mobile except aeronautical mobile | 2 |
| Mobile except aeronautical mobile (R) | 2 |
| Mobile-satellite | 1 |
| Mobile-satellite (Earth-to-space) | 2 |
| Mobile-satellite (space-to-Earth) | 2 |
| Mobile-satellite except aeronautical mobile-satellite | 2 |
| Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) | 2 |
| Mobile-satellite except aeronautical mobile-satellite (R) | 2 |
| Mobile-satellite (space-to-Earth) except maritime mobile satellite (space-to-Earth) | 2 |

| Radiocommunication Service | Layer |
|---|---|
| Radio astronomy | 1 |
| Radiodetermination | 1 |
| Radiodetermination-satellite | 1 |
| Radiodetermination-satellite (Earth-to-space) | 2 |
| Radiodetermination-satellite (space-to-Earth) | 2 |
| Radiolocation | 2 |
| Radiolocation-satellite | 2 |
| Radiolocation-satellite (space-to-Earth) | 3 |
| Radionavigation | 2 |
| Radionavigation-satellite | 2 |
| Radionavigation-satellite (Earth-to-space) | 3 |
| Radionavigation-satellite (Earth-to-space) (space-to-space) | 3 |
| Radionavigation-satellite (space-to-Earth) | 3 |
| Radionavigation-satellite (space-to-Earth) (space-to-space) | 3 |
| Radionavigation-satellite (space-to-space) | 3 |
| Space operation | 1 |
| Space operation (Earth-to-space) | 2 |
| Space operation (Earth-to-space) (space-to-Earth) | 2 |
| Space operation (Earth-to-space) (space-to-space) | 2 |
| Space operation (space-to-Earth) | 2 |
| Space operation (space-to-Earth) (space-to-space) | 2 |
| Space operation (satellite identification) | 2 |
| Space research | 1 |
| Space research (active) | 2 |
| Space research (deep space) | 2 |
| Space research (deep space) (Earth-to-space) | 3 |
| Space research (deep space) (space-to-Earth) | 3 |
| Space research (Earth-to-space) | 2 |
| Space research (Earth-to-space) (space-to-space) | 2 |
| Space research (passive) | 2 |
| Space research (space-to-Earth) | 2 |

| Radiocommunication Service | Layer |
|---|---|
| Space research (space-to-Earth) (space-to-space) | 2 |
| Space research (space-to-space) | 2 |
| Standard frequency and time signal | 1 |
| Standard frequency and time signal (10 000 kHz) | 2 |
| Standard frequency and time signal (15 000 kHz) | 2 |
| Standard frequency and time signal (2 500 kHz) | 2 |
| Standard frequency and time signal (20 000 kHz) | 2 |
| Standard frequency and time signal (20 kHz) | 2 |
| Standard frequency and time signal (25 000 kHz) | 2 |
| Standard frequency and time signal (5 000 kHz) | 2 |
| Standard frequency and time signal-satellite | 1 |
| Standard frequency and time signal-satellite (400.1 MHz) | 2 |
| Standard frequency and time signal-satellite (Earth-to-space) | 2 |
| Standard frequency and time signal-satellite (space-to-Earth) | 2 |

## ANNEX 2: LIST OF SEARCHABLE APPLICATIONS

### Explanatory Note

The list of Searchable Applications has been developed in order to allow an efficient and meaningful search for frequency information within Europe. It is based on the following principles:

1. The list should facilitate an efficient and meaningful search and not a legally binding description of the Application terms used;

2. The list should only use unambiguous terms, which give clear guidance for data entry and retrieval;

3. The List of Searchable Applications is complementary to the List of Radio Services in the ITU RR and it is meant to describe the actual utilisation of the frequency bands. In other words, the List of Radio Services in the ITU RR gives the regulatory framework and the List of Searchable Applications gives the actual use;

4. The List of Searchable Applications should allow administrations to associate the terms used on a national level with the terms used in the list.

The List of Searchable Applications is divided into three layers of detail. This allows each administration to choose the level of detail it would like to indicate within a certain frequency band. When searching for and comparing information EFIS makes use of these layers. For example, a search for a specific term in layer 2 will automatically start a search for all terms in layer 3 under that specific term. If nothing is found in either layer 2 or 3, EFIS also checks layer 1 and informs the user if there is a hit. This functionality allows for an efficient and meaningful comparison, even though each administration has the flexibility to choose the level of detail it would like to indicate in a specific band.

Wherever possible administrations should use the highest detail possible (layer 3) when entering data into EFIS. In general, layer 3 only represents a few more specific expressions that do not necessarily cover all possible applications of the relevant term in layer 2. Those applications that are not covered by these more specific expressions are to be associated with the more general term in layer 2 or even in Layer 1, if necessary.

Due to the fact that some detailed applications can belong to 2 or even more general applications, e.g. the detailed application GPS can be regarded as an aeronautical, maritime or military application, they may show up several times in the list when presented in hierarchical mode. In alphabetical presentation mode each term in the list is only mentioned once.

The layer 1 term TRA-ECS is to be used under certain conditions; i.e. notably for EU Member States to be in line with common EU regulatory approaches or by CEPT administrations for frequency bands for which they find the term applicable. In such case and when more detailed information is available, administrations are urged to fill in information in layers 2 and 3 corresponding to the applications currently in use as listed for the layer 1 applications: e.g. Aeronautical, Broadcasting, Fixed, Land Mobile, and Maritime.

When an application term is deleted from this Annex, it is still possible to keep the term in the EFIS database for existing information, but the database will not accept new information with the deleted application term. This can be seen for the editor of the information with an asterisk (*) behind the application term in the EFIS database.

The abbreviations used in the list are described at the end of this annex.

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| Aeronautical | Aeronautical communications | Aeronautical satcoms<br>AGA communications (civil)<br>SAR (communications)<br>WAIC |
| | Aeronautical emergency | ELT |
| | Aeronautical navigation | ASDE<br>Airborne doppler navigation aids<br>Airborne weather radar<br>Altimeters<br>Beacons (aeronautical)<br>DME<br>GBAS<br>ILS<br>Loran C<br>MLS<br>SAR (navigation)<br>VOR |
| | Aeronautical surveillance | ADS<br>ASDE<br>Primary radar<br>SSR |
| | Aeronautical telemetry/telecommand | Aeronautical telemetry<br>Aeronautical telecommand |
| | Satellite navigation systems | GALILEO<br>GLONASS<br>GPS |
| Broadcasting | Broadcasting (terrestrial) | AM sound analogue<br>DRM<br>DVB-T<br>DVB-T2<br>FM sound analogue<br>MWS<br>T-DAB<br>T-DAB+<br>TV analogue (terrestrial) |
| | Broadcasting (satellite) | Satellite radio<br>Satellite TV<br>SIT/SUT |
| Defence systems | Aeronautical military systems | AGA communications (military)<br>IFF<br>JTIDS/MIDS<br>TACAN-DME |
| | Land military systems | Fixed radio relay (military) |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| | | Tactical mobile<br>Tactical radio relay |
| | Maritime military systems | Sonobuoy |
| | Meteorological aids (military) | |
| | Radiolocation (military) | Air-defence radar<br>Tactical radar |
| | Satellite systems (military) | Earth exploration-satellite (military)<br>GLONASS<br>GPS<br>Satellite communications (military) |
| | Telemetry/Telecommand (military) | Telemetry (military)<br>Telecommand (military) |
| Fixed | BWA | BFWA<br>FWA |
| | Point-to-Multipoint | MWS<br>Scanning telemetry<br>FWA<br>Unplanned, uncoordinated fixed links |
| | Point-to-Point | Private fixed networks<br>Public fixed networks<br>Audio links<br>Video links<br>Unplanned, uncoordinated fixed links |
| Land mobile | BWA | |
| | Cordless communications for voice and data | DECT |
| | D-GPS | |
| | RMR | GSM-R<br>FRMCS |
| | Inland waterway communications | |
| | ITS | |
| | Paging | NP2M<br>On-site paging<br>POCSAG<br>Talkback pocket unit<br>Wide area paging |
| | PMR/PAMR | PAMR<br>PMR<br>PMR 446<br>TETRA<br>TETRAPOL |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| | PPDR | BBDR<br>LAES<br>PLB |
| | Telemetry/Telecommand (civil) | Scanning telemetry<br>Telemetry (civil) |
| Maritime | GMDSS | DSC<br>EPIRBs<br>INMARSAT C<br>MSI<br>NAVTEX<br>SAR (communications)<br>SAR (navigation)<br>AMRD Group A |
| | Maritime communications | AIS<br>Inland waterway communications<br>INMARSAT<br>On-board communications<br>AMRD Group B |
| | Maritime navigation | Beacons (maritime)<br>Inland waterway radar<br>Loran C<br>Maritime radar<br>RTE<br>SAR (navigation) |
| | Satellite navigation systems | GALILEO<br>GLONASS<br>GPS |
| Meteorology | Lightning detection systems | |
| | Oceanographic buoys | |
| | Sondes | |
| | Weather radar | |
| | Weather satellites | |
| | Wind profilers | |
| MFCN | Digital cellular | GSM<br>MCA<br>MCV |
| | IMT | |
| Other | Amateur | |
| | CB radio | |
| | GNSS Pseudolites | |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| | GNSS Repeater | |
| | HAPS | |
| | ISM | |
| | Land radionavigation | |
| | MBR | |
| | Meteor scatter communications | |
| | Radiolocation (civil) | |
| | Standard frequency and time signal | |
| | Tracking systems | |
| | UAS | |
| PMSE | Audio PMSE | In-ear monitors<br>Radio microphones<br>Audio links |
| | Video PMSE | Airborne Video Links<br>Cordless cameras<br>Video links |
| | Service links | Talkback |
| Radio astronomy | Continuum measurements | |
| | Spectral line observations | |
| | VLBI observations | |
| Radiolocation (civil) | Aeronautical radar | Airborne weather radar<br>Primary radar |
| | Maritime radar | Inland waterway radar<br>RTE |
| | Weather radar | Airborne weather radar |
| Satellite systems (civil) | Aeronautical satcoms | INMARSAT |
| | Amateur-satellite | |
| | Broadcasting (satellite) | Satellite radio<br>Satellite TV<br>SIT/SUT |
| | Earth exploration-satellite | Active sensors (satellite)<br>Passive sensors (satellite)<br>Synthetic aperture radar<br>Weather satellites |
| | Feeder links | |
| | FSS Earth stations | AES<br>ESIM<br>ESV |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| | | GSO ESOMPs<br>HEST<br>LEST<br>NGSO ESOMPs<br>SIT/SUT<br>SNG<br>VSAT<br>NGSO FSS |
| | Inter-satellite links | |
| | Meteorological satcoms | |
| | MSS Earth stations | AES<br>CGC<br>INMARSAT<br>IMT-2000 satellite component<br>S-PCS |
| | Satellite navigation systems | GALILEO<br>GLONASS<br>GPS |
| | Space operations | |
| | Space research | Active sensors (satellite)<br>Deep space (satellite)<br>Passive sensors (satellite) |
| | Standard frequency and time signal-satellite | |
| | Weather satellites | |
| Short Range Devices | Active medical implants | LP-AMI<br>ULP-AMI<br>ULP-AID<br>ULP-MMI |
| | Alarms | Social alarms |
| | Inductive applications | |
| | Medical Data Acquisition | MBANS<br>ULP-WMCE |
| | Model control | Flying model control |
| | Non-specific SRDs | |
| | Radiodetermination applications | BMA<br>Detection of movement and alert<br>GBSAR<br>GPR/WPR<br>LPR<br>Material Sensing |

| Layer 1 | Layer 2 | Layer 3 |
|---|---|---|
| | | NMR<br>TLPR |
| | Radio microphones and ALD | ALD<br>ALS<br>Radio microphones |
| | Railway applications | Eurobalise<br>Euroloop |
| | RFID | |
| | Tracking, tracing and data acquisition | Animal tracking<br>Asset tracking and tracing<br>Emergency detection<br>LAES<br>LT2<br>Meter reading<br>WIA |
| | TTT | Automotive radar<br>Obstacle detection radar<br>Road tolling<br>SRR<br>Vehicle and infrastructure radar |
| | UWB applications | BMA<br>GPR/WPR<br>LAES<br>LT2<br>Material Sensing<br>SRR |
| | Wideband data transmission systems | RLAN |
| | Wireless audio/multimedia | Baby monitoring<br>LP FM Transmitter<br>Cordless headphones and loudspeakers<br>Narrow band analogue voice devices |
| | Non-beam WPT | |

## LIST OF SEARCHABLE APPLICATIONS IN ALPHABETIC ORDER

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| Active medical implants | 2 | ERC/DEC/(01)17 |
| Active sensors (satellite) | 3 | ECA Table |
| ADS | 3 | ECA Table |
| Aeronautical | 1 | ECA Table |
| Aeronautical communications | 2 | ECA Table |
| Aeronautical emergency | 2 | ECA Table |
| Aeronautical military systems | 2 | ECA Table |
| Aeronautical navigation | 2 | ECA Table |
| Aeronautical radar | 2 | ECA Table |
| Aeronautical satcoms | 3(2) | ECA Table |
| Aeronautical surveillance | 2 | ECA Table |
| Aeronautical telecommand | 3 | ECA Table |
| Aeronautical telemetry | 3 | ECA Table |
| Aeronautical telemetry/telecommand | 2 | ECA Table |
| AES | 3 | ECC/DEC/(05)11 |
| AGA communications (civil) | 3 | ECC/DEC/(06)05 |
| AGA communications (military) | 3 | ECC/DEC/(06)05 |
| Airborne doppler navigation aids | 3 | ECA Table |
| Airborne Video Links | 3 | ERC/REC 25-10 |
| Airborne weather radar | 3 | ECA Table |
| Air-defence radar | 3 | - |
| AIS | 3 | ECA Table |
| Alarms | 2 | ERC/REC 70-03 |
| ALD | 3 | ERC/REC 70-03 |
| ALS | 3 | ERC/REC 70-03 |
| Altimeters | 3 | ECA Table |
| AM sound analogue | 1 | - |
| Amateur | 2 | ECA Table |
| Amateur-satellite | 2 | ECA Table |
| AMRD Group A | 3 | ECC/DEC/(22)02 |
| AMRD Group B | 3 | ECC/DEC/(22)02 |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| Animal tracking | 3 | - |
| ASDE | 3 | ECA Table |
| Asset tracking and tracing | 3 | ERC/REC 70-03 |
| Audio Links | 3 | ERC/REC 25-10 |
| Audio PMSE | 2 | ERC/REC 25-10 |
| Automotive radar | 3 | ERC/REC 70-03 |
| Baby monitoring | 3 | ERC/REC 70-03 |
| BBDR | 3 | ECC/REC/(08)04 |
| Beacons (aeronautical) | 3 | ECA Table |
| Beacons (maritime) | 3 | ECA Table |
| BFWA | 3 | ECC/REC/(06)04 |
| BMA | 3 | ECC/DEC/(07)01 |
| Broadcasting | 1 | ECA Table |
| Broadcasting (terrestrial) | 2 | ECA Table |
| Broadcasting (satellite) | 2 | ERC/DEC/(00)08 |
| BWA | 2 | |
| CB radio | 2 | ECC/DEC/(11)03 |
| CGC | 3 | ECC/DEC/(06)09 |
| Continuum measurements | 2 | ECA Table |
| Cordless cameras | 3 | ECC/REC/(02)09 |
| Cordless headphones and loudspeakers | 3 | ERC/REC 70-03 |
| Cordless communications for voice and data | 2 | ERC/DEC/(94)03 |
| DECT | 3 | ERC/DEC/(94)03 |
| Deep space (satellite) | 3 | ECA Table |
| Defence systems | 1 | ECA Table |
| Detection of movement and alert | 3 | ERC/REC 70-03 |
| D-GPS | 2 | ECA Table |
| Digital cellular | 2 | ECA Table |
| DME | 3 | ECA Table |
| DRM | 3 | ECA Table |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| DSC | 3 | ECA Table |
| DVB-T | 3 | ECA Table |
| Earth exploration-satellite | 2 | ECA Table |
| Earth exploration-satellite (military) | 3 | ECA Table |
| ELT | 3 | ECA Table |
| Emergency detection | 3 | ERC/REC 70-03 |
| EPIRBs | 3 | ECA Table |
| ESIM | 3 | ECC/DEC/(18)04, ECC/DEC/(18)05 |
| ESV | 3 | ECC/DEC/(05)09, ECC/DEC/(05)10 |
| Eurobalise | 3 | ERC/REC 70-03 |
| Euroloop | 3 | ERC/REC 70-03 |
| Feeder links | 2 | ECA Table |
| Fixed | 1 | T/R 13-01 |
| Fixed radio relay (military) | 3 | ECA Table |
| Flying model control | 3 | ERC/REC 70-03 |
| FM sound analogue | 3 | ECA Table |
| FRMCS | 3 | ECC/DEC/(20)02 |
| FSS Earth stations | 2 | ERC/DEC/(00)07 |
| FWA | 3 | ECA Table, ECC/REC/(01)04 |
| GALILEO | 3 | ECA Table |
| GBAS | 3 | ECA Table |
| GBSAR | 3 | ERC/REC 70-03, ECC/DEC/(21)02 |
| GLONASS | 3 | ECA Table |
| GMDSS | 2 | ECA Table |
| GNSS Pseudolites | 2 | ECC/REC/(11)08 |
| GNSS Repeater | 2 | ECC/REC/(10)02 |
| GPS | 3 | ECA Table |
| GPR/WPR | 3 | ECC/DEC/(06)08 |
| GSM | 3 | ERC/DEC/(97)02 |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| GSM-R | 3 | ECC/DEC/(02)05 |
| GSO ESOMPs | 3 | ECC/DEC/(13)01 |
| HAPS | 2 | ECA Table |
| HEST | 3 | ECC/DEC/(06)03 |
| IFF | 3 | - |
| ILS | 3 | ECA Table |
| IMT-2000 satellite component | 3 | ECA Table |
| IMT | 3 | ECC/DEC/(06)01, ECC/DEC/(06)13, ECA Table |
| Inductive applications | 2 | ERC/REC 70-03 |
| In-ear monitors | 3 | ERC/REC 70-03 |
| Inland waterway communications | 2(3) | ECA Table |
| Inland waterway radar | 3 | ECA Table |
| INMARSAT | 3 | - |
| INMARSAT C | 2 | - |
| Inter-satellite links | 2 | ECA Table |
| ISM | 2 | ECA Table |
| ITS | 2 | ECC/DEC/(08)01 |
| JTIDS/MIDS | 3 | ECA Table |
| LAES | 3 | ECC/REC/(11)10 |
| Land military systems | 2 | - |
| Land mobile | 1 | ECA Table |
| Land radionavigation | 3 | - |
| LEST | 3 | ECC/DEC/(06)02 |
| Lightning detection systems | 2 | ECA Table |
| Loran C | 3 | - |
| LP-AMI | 3 | ERC/REC 70-03 |
| LP FM Transmitter | 3 | ERC/REC 70-03 |
| LPR | 3 | ECC/DEC/(11)02 |
| LT2 | 3 | ECC/REC/(11)09 |
| Maritime | 1 | ECA Table |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| Maritime communications | 2 | ECA Table |
| Maritime military systems | 2 | ECA Table |
| Maritime navigation | 2 | ECA Table |
| Maritime radar | 2(3) | ECA Table |
| Material Sensing | 3 | ECC/DEC/(07)01 |
| MBANS | 3 | ERC/REC 70-03 |
| MBR | 2 | ECC/REC/(17)03 |
| MCA | 3 | ECC/DEC/(06)07 |
| MCV | 3 | ECC/DEC/(08)08 |
| Medical Data Acquisition | 2 | ERC/REC 70-03 |
| Meteor scatter communications | 2 | ECA Table |
| Meteorological aids (military) | 2 | ECA Table |
| Meteorology | 1 | ECA Table |
| Meteorological satcoms | 2 | ECA Table |
| Meter reading | 3 | ECC/DEC/(05)02, ERC/REC 70-03 |
| MFCN | 1 | ECC/DEC/(09)03, ECC/DEC/(15)01 |
| MLS | 3 | ECA Table |
| Model control | 2 | ERC/REC 70-03 |
| MSI | 3 | ECA Table |
| MSS Earth stations | 2 | ECC/DEC/(04)09 |
| MWS | 3 | ECC/REC/(01)04 |
| Narrow band analogue voice devices | 3 | ERC/REC 70-03 |
| NAVTEX | 3 | ECA Table |
| NGSO ESOMPs | 3 | ECC/DEC/(15)04 |
| NGSO FSS | 3 | ECC/DEC/(17)04 |
| NMR | 3 | ERC/REC 70-03 |
| Non-beam WPT | 2 | ERC/REC 70-03 (new annex under development) |
| Non-specific SRDs | 2 | ERC/REC 70-03 |
| NP2M | 3 | ECA Table and ECC/DEC/(19)02 |
| Obstacle detection radar | 3 | ERC/REC 70-03 |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| Oceanographic buoys | 2 | ECA Table |
| On-board communications | 3 | ECA Table |
| On-site paging | 3 | ECA Table |
| Other | 1 | - |
| Paging | 2 | ECC/DEC/(19)02 |
| PAMR | 3 | ECC/DEC/(19)02 |
| Passive sensors (satellite) | 3 | ECA Table |
| PLB | 3 | ECA Table |
| PMR | 3 | ECC/DEC/(19)02 |
| PMR 446 | 3 | ECC/DEC/(15)05 |
| PMR/PAMR | 2 | ECC/DEC/(19)02 |
| PMSE | 1 | ERC/REC 70-03, ERC/REC 25-10 |
| POCSAG | 3 | - |
| Point-to-Multipoint | 2 | ECA Table |
| Point-to-Point | 2 | ECA Table |
| PPDR | 2 | ECC/DEC/(08)05, ECC/DEC/(16)02, ECC/REC/(16)03 |
| Primary radar | 3 | ECA Table |
| Private fixed networks | 3 | - |
| Public fixed networks | 3 | - |
| Radio astronomy | 1 | ECA Table |
| Radio microphones | 3 | ERC/REC 70-03 |
| Radio microphones and ALD | 2 | ERC/REC 70-03 |
| Radiodetermination applications | 2 | ERC/REC 70-03 |
| Radiolocation (civil) | 2 | ECA Table |
| Radiolocation (military) | 2 | ECA Table |
| Railway applications | 2 | ERC/REC 70-03 |
| RFID | 2 | ERC/REC 70-03 |
| RLAN | 3 | ECC/DEC/(04)08 |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| RMR | 2 | ECC/DEC/(20)02 |
| Road tolling | 3 | ERC/REC 70-03 |
| RTE | 3 | ECA Table |
| SAP/SAB and ENG/OB | | Not used anymore, replaced by PMSE to be in line with ERC/REC 25-10, existing entries in EFIS will be transferred by ECO to the application term PMSE with comment field entry 'SAP/SAB and ENG/OB' |
| SAR (communications) | 3 | ECA Table |
| SAR (navigation) | 3 | ECA Table |
| Satellite communications (military) | 3 | ECA Table |
| Satellite navigation systems | 2 | ECA Table |
| Satellite radio | 3 | - |
| Satellite systems (civil) | 1 | ECA Table |
| Satellite systems (military) | 2 | ECA Table |
| Satellite TV | 3 | - |
| Scanning telemetry | 3 | - |
| Service Links | 2 | ERC/REC 25-10 |
| Short Range Devices | 1 | ERC/REC 70-03 |
| SIT/SUT | 3 | ERC/DEC/(00)08 |
| SNG | 3 | ERC/REC 13-03 |
| Social alarms | 3 | ERC/REC 70-03 |
| Sondes | 2 | ECA Table |
| Sonobuoy | 3 | ECA Table |
| Space operations | 2 | ECA Table |
| Space research | 2 | ECA Table |
| S-PCS | 3 | ERC/DEC/(99)06 |
| Spectral line observations | 2 | ECA Table |
| SRR | 3 | ECC/DEC/(04)03, ECC/DEC/(04)10 |
| SSR | 3 | ECA Table |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| Standard frequency and time signal | 2 | ERC/REC 70-03 |
| Standard frequency and time signal-satellite | 2 | ERC/REC 70-03 |
| Subscriber access excluding MWS | 3 | - |
| Synthetic aperture radar | 3 | ECA Table |
| TACAN-DME | 3 | ECA Table |
| Tactical mobile | 3 | ECA Table |
| Tactical radar | 3 | ECA Table |
| Tactical radio relay | 3 | ECA Table |
| Talkback | 3 | - |
| Talkback pocket unit | 3 | - |
| T-DAB | 3 | ECA Table |
| Telecommand (military) | 3 | ECA Table |
| Telemetry (civil) | 3 | ECA Table |
| Telemetry (military) | 3 | ECA Table |
| Telemetry/Telecommand (civil) | 2 | ECA Table |
| Telemetry/Telecommand (military) | 2 | ECA Table |
| TETRA | 3 | - |
| TETRAPOL | 3 | - |
| TLPR | 3 | ERC/REC 70-03 |
| Tracking systems | 2 | - |
| Tracking, tracing and data acquisition | 2 | ERC/REC 70-03 |
| TTT | 2 | ERC/REC 70-03, ECC/DEC/(16)01 |
| TV analogue (terrestrial) | 3 | - |
| UAS | 2 | - |
| ULP-AID | 3 | ERC/REC 70-03 |
| ULP-AMI | 3 | ERC/DEC/(01)17 |
| ULP-MMI | 3 | ERC/REC 70-03 |
| ULP-WMCE | 3 | ERC/REC 70-03 |
| Unplanned, uncoordinated fixed links | 3 | - |

| List of searchable applications: | Layer | Comment: (in case of addition of new term, term deleted, indicating reason for change of term etc., example deliverable where used) |
|---|---|---|
| UWB applications | 2 | ECC/DEC/(06)04 |
| Vehicle and infrastructure radar | 3 | ERC/REC 70-03 |
| Video Links | 3 | ERC/REC 25-10 |
| Video PMSE | 2 | ERC/REC 25-10 |
| VLBI observations | 2 | ECA Table |
| VOR | 3 | ECA Table |
| VSAT | 3 | ERC/REC 13-03 |
| WAIC | 3 | ECA Table |
| Weather radar | 2 | ECA Table |
| Weather satellites | 2(3) | ECA Table |
| WIA | 3 | ERC/REC 70-03 Annex 2 |
| Wide area paging | 3 | ECC/DEC/(19)02 |
| Wideband data transmission systems | 2 | ERC/REC 70-03 |
| Wind profilers | 2 | ECA Table |
| Wireless audio/multimedia | 2 | ERC/REC 70-03 |

## ABBREVIATIONS

| Abbreviations | |
|---|---|
| ADS | Automatic Dependant Surveillance (Aeronautical) |
| AES | Aircraft Earth Station |
| AGA | Air-Ground-Air |
| AIS | Universal Shipborne Automatic Identification System |
| ALS | Assistive Listening Systems |
| AM | Amplitude Modulation |
| AMRD | Autonomous Maritime Radio Device |
| ALD | Assistive Listening Devices |
| ASDE | Airport Surface Detection Equipment |
| BBDR | Broad Band Disaster Relief |
| BFWA | Broadband Fixed Wireless Access |
| BWA | Broadband Wireless Access |
| CB | Citizen's Band |
| CGC | Complementary Ground Component |
| CT | Cordless Telephone |
| DECT | Digital Enhanced Cordless Telecommunications |
| D-GPS | Differential Global Positioning System |
| DME | Distance Measuring Equipment |
| DRM | Digital Radio Mondiale |
| DSC | Digital Selective Calling |
| DVB-T | Digital Video Broadcasting – Terrestrial |
| ELT | Emergency locator transmitter |
| ENG/OB | Electronic News Gathering / Outside Broadcasting |
| EPIRBs | Emergency Position Indicating Radio Beacons |
| ESIM | Earth Stations In-Motion |
| ESOMPs | Earth Stations On Mobile Platforms |
| ESV | Earth Stations on-board Vessels |
| FM | Frequency Modulation |
| FRMCS | Future Railway Mobile Communication System |
| FSS | Fixed-Satellite Service |
| FWA | Fixed Wireless Access |
| GBAS | Ground Based Augmentation System |
| GBSAR | Ground Based Synthetic Aperture Radar |
| GLONASS | Globalnaya Navigatsionnaya Sputnikovaya Sistema |

| Abbreviations | |
|---|---|
| GMDSS | Global Maritime Distress and Safety System |
| GNSS | Global Navigation Satellite System |
| GNSS Pseudolites | Global Navigation Satellite System Pseudolites |
| GPR | Ground Probing Radar |
| GPS | Global Positioning System |
| GSM | Global System for Mobile Communications |
| GSM-R | Global System for Mobile Communications on Railways |
| GSO | GeoStationary Orbit |
| HAPS | High Altitude Platform Station |
| HEST | High e.i.r.p. Satellite Terminal |
| IFF | Identification Friend or Foe |
| ILS | Instrument Landing System |
| IMT-2000 | International Mobile Telecommunications-2000 |
| IMT-Advanced | Systems beyond IMT-2000 |
| IMT | International Mobile Telecommunications (includes IMT-2000 and IMT-Advanced |
| ISM | Industrial, Scientific and Medical applications |
| ITS | Intelligent Transport Systems |
| JTIDS | Joint Tactical Information Distribution System |
| LAES | Location Application for Emergency Services |
| LANs | Local Area Networks |
| LEST | Low e.i.r.p. Satellite Terminal |
| LP-AMI | Low Power Active Medical Implants |
| LPD | Low Power Device |
| LPR | Level Probing Radar |
| LT2 | Location Tracking Type 2 |
| MBANS | Medical Body Area Network System |
| MBR | Maritime Broadband Radio |
| MCA | Mobile Communications on Board Aircraft |
| MCV | Mobile Communication Services on Board Vessels |
| MFCN | Mobile/Fixed Communications Networks |
| MIDS | Multifunctional Information Distribution System |
| MLS | Microwave Landing System |
| MSI | Maritime Safety Information |
| MSS | Mobile-Satellite Service |

| Abbreviations | |
|---|---|
| MWS | Multimedia Wireless System |
| NAVTEX | Narrow-band direct-printing telegraphy system for transmission of navigational and meteorological warnings and urgent information to ships |
| NGSO | Non-GeoStationary Orbit |
| NMR | Nuclear Magnetic Resonance applications |
| NP2M | Narrowband Point to Multipoint system |
| PAMR | Public Access Mobile Radio |
| PLB | Personal Locator Beacon |
| PMR | Private (Professional) Mobile Radio |
| PMSE | Programme Making and Special Events |
| POCSAG | Post Office Code Standards Advisory Group |
| PPDR | Public Protection & Disaster Relief |
| RFID | Radio Frequency Identification |
| RLAN | Radio Local Area Network |
| RMR | Railway Mobile Radio |
| RTE | Radar Target Enhancer |
| SAB | Service Ancillary to Broadcasting |
| SAP | Service Ancillary to Programme making |
| SAR | Search and Rescue |
| SATCOM | Satellite Communication |
| SIT/SUT | Satellite Interactive Terminal / Satellite User Terminal |
| SNG | Satellite News Gathering |
| S-PCS | Satellite - Personal Communications System |
| SRD | Short Range Devices |
| SRR | Short Range Radars |
| SSR | Secondary Surveillance Radar |
| TACAN | Tactical Air Navigation |
| T-DAB | Terrestrial Digital Audio Broadcasting |
| TETRA | Terrestrial Trunked Radio |
| TETRAPOL | Digital PMR technology |
| TLPR | Tank Level Probing Radar |
| TRA-ECS | Terrestrial radio applications capable of providing electronic communications services |
| TTT | Transport and Traffic Telematics |
| TV | Television |
| UAS | Unmanned Aircraft System |

| Abbreviations | |
|---|---|
| ULP-AMI | Ultra Low Power Active Medical Implants |
| ULP-AID | Ultra Low Power Animal Implants Devices |
| ULP-MMI | Ultra Low Power Medical Membrane Implants |
| ULP-WMCE | Ultra-Low Power Wireless Medical Capsule Endoscopy |
| VLBI | Very Long Baseline Interferometry |
| VOR | VHF Omnidirectional Radio Range |
| VSAT | Very Small Aperture Terminal |
| UWB | Ultra Wideband |
| WAIC | Wireless Avionics Intra-Communications systems |
| WIA | Wireless Industrial Applications |
| WPR | Wall Probing Radar |
| WPT | Wireless Power Transmission |

## ANNEX 3: SEARCHABLE RADIO INTERFACE SPECIFICATION

### Explanatory Note

The list of parameters for radio interfaces in EFIS is based on the template and the guide developed by TCAM RIG II and adopted by TCAM.

The use of these parameters for entering radio interface information into EFIS allows an efficient and meaningful comparison of interfaces within Europe.

The parameters are divided into normative and an informative parts.

The *normative* part consists of the following parameters:

- Frequency band
- Country
- Application (ref Annex 2 of this Decision)
- Radiocommunication service (Ref Annex 1 of this Decision)
- Channelling
- Modulation/occupied bandwidth
- Transmit power limit
- Channel access and occupation rules
- Direction/separation
- Authorisation regime
- Additional Article 3.3 requirements
- Frequency planning assumptions

The *informative* part consists of the following:

- Planned changes
- Reference
- Remarks
- Notification

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## ANNEX 4: STANDARD FOR RIGHT OF USE INFORMATION

**Explanatory Note**

At its 15th meeting (20 April 2006), the EFIS Maintenance Group concluded that providing information on the right of use was important for frequency bands of high economic interest where market mechanisms would apply, and that it was important to define a standard for the information required. At its 35th meeting (15-16 January 2015), the EFIS Maintenance Group concluded on a revision of this annex in line with the additions made in the EFIS database in the recent years.

The EFIS MG decided to define the standard for right of use information in EFIS as follows:

- Lower frequency (numeric, EFIS format)
- Upper frequency (numeric, EFIS format)
- Simplex/duplex
- License holder name and contact details (free text format)
- Technology in use
- Start and expiry date / duration of the license
- Information on location
  - National (tick box) or
  - Regional or local (free text field, link to national details) or
  - One transmitter (free text field, link to national details)
- Spectrum trading Yes/No (tick box)
- Relevance for ECO Report 03 (opt-out flag)

## ANNEX 5: EFIS HARMONISED INTERFACE

The EFIS Harmonised Interface can be used for uploading or downloading data related to spectrum allocations and spectrum applications only. No other data is included from the start. However, if EFIS is developed further other types of data (e.g. radio interface parameters) might be added at a later stage.

The following Harmonised Interface shall be used:

1. The interface shall be an XML file;

2. The XML file has a defined structure, called the EFIS XML Format, which is defined by the Document Type Definition (DTD) given below;

3. The terms used for allocations and applications shall be taken from the List of Radio Services in the ITU RR (see Annex 1) and the List of Searchable Applications (see Annex 2);

4. All frequencies shall be written in Hertz, i.e. not in kHz, MHz or GHz.

**DTD defining the EFIS XML Format:**

```
<?xml encoding="UTF-8"?>
<!DOCTYPE frequencyInformation SYSTEM "https://efis.cept.org/frequencyinformation.dtd">
<!-- This simple DTD defines the import/export interface for use with the EFIS system -->
<!-- Frequency values are to be specified in Hertz (1 - 999999999999 Hz) -->
<!ELEMENT frequencyInformation (frequencyTable*)>
<!ELEMENT frequencyTable (footnote | frequencyFootnote | allocation | application | document |
radioInterface | Rightofuseinfo)*>
<!ELEMENT footnote EMPTY>
<!ELEMENT footnoteref EMPTY
<!ELEMENT frequencyFootnote EMPTY>
<!ELEMENT allocation (footnoteref)*>
<!ELEMENT application EMPTY>
<!ELEMENT document EMPTY>
<!ELEMENT radioInterface EMPTY>
<!ELEMENT Rightofuseinfo EMPTY>
>

<!ATTLIST frequencyTable
        name CDATA #REQUIRED
>

<!ATTLIST footnote
        number CDATA #REQUIRED <!-- as ID (should be unique) -->
        description CDATA #REQUIRED
>

<!ATTLIST frequencyFootnote
        number CDATA #REQUIRED <!--as IDREF to the footnote -->
        higherFrequency CDATA #REQUIRED
        lowerFrequency CDATA #REQUIRED
>

<!ATTLIST allocation
        lowerFrequency CDATA #REQUIRED
        higherFrequency CDATA #REQUIRED
        term CDATA #REQUIRED
        status (primary | secondary) #REQUIRED
```

```
        shortComments CDATA #IMPLIED

 >

<!ATTLIST footnoteref <!-- this is a child element of allocation -->
        number CDATA #REQUIRED <!--as IDREF to the footnote -->
>

<!ATTLIST application
        lowerFrequency CDATA #REQUIRED
        higherFrequency CDATA #REQUIRED
        term CDATA #REQUIRED
        allocationTerm CDATA#IMPLIED
        shortComments CDATA #IMPLIED
        IDnumber CDATA#IMPLIED <!-- application ID to ensure the right parent application -->→
        l1_parent_term CDATA#IMPLIED <!-- Level 1 parent application term (if applicable) to ensure the
        right parent application -->
        l2_parent_term CDATA#IMPLIED <!-- Level 2 parent application term (if applicable) to ensure the
        right parent application -->
>

<!ATTLIST document
        title CDATA #REQUIRED
        lowerFrequency CDATA # IMPLIED
        higherFrequency CDATA # IMPLIED
        term CDATA #IMPLIED
        comment CDATA #IMPLIED
        type (EC_DECISIONS | ECC_DECS_RECS | ECC_ECO | ETSI_DRAFT | ETSI | EU |
        LICENSING_INFO | NATIONAL | NTFA | OTHER | RIS_MODELS | RTTE |
        RTTE_SUBCLASS | THIRD_PARTY) #REQUIRED
        validfrom CDATA #IMPLIED
        expiry CDATA #IMPLIED
        hyperlink CDATA #IMPLIED
>

<!ATTLIST radioInterface
        lower_frequency CDATA #REQUIRED
        higher_frequency CDATA #REQUIRED
        Allocation_Term CDATA #IMPLIED
        Application_Term CDATA #IMPLIED
        Channeling CDATA #IMPLIED
        TransmitPowerLimit CDATA #IMPLIED
        ChannelOccupationRules CDATA #IMPLIED
        DuplexDirection CDATA #IMPLIED
        LicensingRegime CDATA #IMPLIED
        Art33Requirements CDATA #IMPLIED
        FrequencyPlanning CDATA #IMPLIED
        Reference CDATA #IMPLIED
        Remarks CDATA #IMPLIED
        NotificationNo CDATA #IMPLIED
        OccupiedBandwidth CDATA #IMPLIED
        PlannedChanges CDATA #IMPLIED
        Channeling_notes CDATA #IMPLIED
        TransmitPowerLimit_notes CDATA #IMPLIED
        ChannelOccupationRules_notes CDATA #IMPLIED
        DuplexDirection_notes CDATA #IMPLIED
        LicensingRegime_notes CDATA #IMPLIED
        Art33Requirements_notes CDATA #IMPLIED
        FrequencyPlanning_notes CDATA #IMPLIED
        Reference_notes CDATA #IMPLIED
```

```
        Remarks_notes CDATA #IMPLIED
        NotificationNo_notes CDATA #IMPLIED
        OccupiedBandwidth_notes CDATA #IMPLIED
        PlannedChanges_notes CDATA #IMPLIED
        FrequencyBand_notes  CDATA #IMPLIED
        Allocation_notes  CDATA #IMPLIED
        Application_notes  CDATA #IMPLIED
>

<!ATTLIST Rightofuseinfo
        duplex (true | false) #IMPLIED
        LowerFrequency CDATA #IMPLIED
        HigherFrequency CDATA #IMPLIED
        DownlinkLowerFrequency CDATA #IMPLIED
        DownlinkHigherFrequency CDATA #IMPLIED
        UplinkLowerFrequency CDATA #IMPLIED
        UplinkHigherFrequency CDATA #IMPLIED
        Application CDATA #IMPLIED
        Company CDATA #IMPLIED
        Surname CDATA #IMPLIED
        Firstname CDATA #IMPLIED
        town CDATA #IMPLIED
        Address CDATA #IMPLIED
        postalcode CDATA #IMPLIED
        Faxno CDATA #IMPLIED
        Telephoneno CDATA #IMPLIED
        Email CDATA #IMPLIED
        Website CDATA #IMPLIED
        Country CDATA #IMPLIED
        StartDate CDATA #IMPLIED
        Expiry CDATA #IMPLIED
        Tradable (true | false) #IMPLIED
        Nationalcoverage (true | false) #IMPLIED
        Localcoverage CDATA #IMPLIED
        LONGITUDE CDATA #IMPLIED
        LATITUDE CDATA #IMPLIED
        shortComments CDATA #IMPLIED
        technology CDATA #IMPLIED
```