



**NSAI**

# ANNUAL REPORT 2018

NSAI TECHNICAL COMMITTEES  
(ETC TC 15 HUMAN EXPOSURE  
TO ELECTROMAGNETIC FIELDS)

## Contents

1	Chairman's Statement .....	3
2	Introduction .....	3
3	Scope of TC.....	3
4	Structure and Membership .....	4
4.1	Members .....	4
5	Summary of 2018 Activities .....	4
5.1	National .....	4
5.1.1	Meetings .....	4
5.1.2	National Work .....	4
5.2	International/Regional .....	4
5.2.1	Meetings .....	4
5.2.2	International/Regional Work .....	5
5.2.3	International/Regional Standards Reviewed .....	6
5.3	Regulatory Development/Update .....	6
6	Irish Publications/Reviews.....	6
6.1	Publications .....	6
7	Work programme for 2019 onwards .....	6
8	Additional Information .....	6

## 1 Chairman's Statement

ETC TC15 continues to function well with good input and participation from our experts for which we are grateful.

The issues with having standards listed as Harmonised in the OJEU continues. This places an additional burden on manufacturers to determine compliance with EU Directives including the Radio Equipment, Low Voltage and Medical Device Directives.

We are hopeful that the appointment of more HAS consultants by the EU Commission will help to alleviate this problem. New challenges for TC15 include the verifying emissions from wireless charging including electric cars.

We look forward to another productive year in TC15.

## 2 Introduction

This TC serves the telecommunication, ICT and power transmission sectors in Ireland. The protection of general consumer and user of electrical products that emit electromagnetic fields or transmit using radio frequency such as mobile phones, laptops, tablets and other transmitting devices is also within the remit of this committee.

The main activity for this committee is to monitor and provide input on the IEC and CENELEC documents. The standards produced are important as they are listed in the OJEU as harmonized standards under the Radio Equipment Directive and Low Voltage Directive.



The industry currently has 5 experts involved in international work

A total of 13 active national members

## 3 Scope of TC

NSAI TC 15 provides a national forum for the review and contribution to the development of standards in the area of Electromagnetic fields and Human Health. The main focus of this committee is the work of CENELEC TC 106X and IEC TC 106.

Members of TC also play a role in promoting best practice nationally in relation to use of appropriate standards to ensure safety for human exposure to electromagnetic fields.

The committee mirrors the following international committees:

Committee Name	Committee Title
<b>IEC TC 106</b>	Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure
<b>CENELEC TC 106</b>	Electromagnetic fields in the human environment

## 4 Structure and Membership

There are no working groups under this committee. See the list of members below in 4.1.

### 4.1 Members

The list below are the members for the year:

Organisation	Name	Role
<b>Compliance Engineering Ireland</b>	John McAuley	Chairman
<b>ESBI</b>	Robert Arthur	Expert member
<b>Johnson Controls</b>	Ian Brooker	Expert member
<b>2RN</b>	Johnny Evans	Expert member
<b>EPA</b>	David Fenton	Expert member
<b>ESBI</b>	Enda Harrington	Expert member
<b>EIR</b>	Mark Kane	Expert member
<b>Dell</b>	Peter Kelleher	Expert member
<b>Apple</b>	Frank Kiernan	Expert member
<b>Intel</b>	Thomas O'Connell	Expert member
<b>Vodafone</b>	Barry Phillips	Expert member
<b>Compliance Engineering Ireland</b>	Paul Reilly	Expert member
<b>NSAI</b>	Linda Hendy	Committee secretary

## 5 Summary of 2018 Activities

### 5.1 National

#### 5.1.1 Meetings

Committee members attended the following national meetings in NSAI as follows:

Meeting No.	Date	Minutes Reference ** optional**
1	24th May 2018	N1016
2	12 <sup>th</sup> Sept 2018	N1019

#### 5.1.2 National Work

There were no national projects assigned to ETC TC 15 in 2018

### 5.2 International/Regional

#### 5.2.1 Meetings

Committee members attended international CENELEC (CLC) and IEC meetings as follows:

Committee Name	Location	Date	No. of Attendees
IEC TC 106 Plenary	Kista, Sweden	28 <sup>th</sup> Sept 2018	1
CLC TC 106X	Brussels, Belgium	11 <sup>th</sup> Oct	2

## 5.2.2 International/Regional Work

Most of the international contributions of ETC TC 15 is focused at the European level. A number of national experts are members of the following CENELEC TC 106X working groups:

WG1 - Mobile phones and base stations. This WG is not active at present.

WG2 – Anti-theft devices - Ian Brooker is currently convenor of this international WG. Other national members include John McAuley and Frank Kiernan. This WG developed EN 50364 addresses EMF & RID. It is a linking standard to IEC 62369-1 for assessment and European recommendations and worker directive for limits. The standard does not specify additional technical requirements. This standard was also published in 2018.

WG3 – Basic standards – Ian Brooker and John McAuley are members. At the international level this WG had been combined with WG4 & renamed to WG 21.

WG4 – Generic standards for workers – This WG has been combined with WG3 and renamed to WG21. EN50499 which covers risk assessment for exposure of workers to EMF is one of the outputs of this WG.

WG7 – Broadcasting – national participants include John McAuley, Ian Brooker and Johnny Evans. EN 50496, addressing EMF exposure at broadcast sites was published in 2018.

WG15 – EMF and implants – national members include John McAuley, Ian Brooker and Johnny Evans. EN 50527 series has been developed by the group with 3 standards published to date. These set out risk assessment to consider for workers with active implants and are aimed at employers. Ultimately Doctors have the final say regarding risks for such workers. There is new work just started to develop a standard for risk assessment for workers with implantable neurostimulators.

WG 17 - EMF Assessment in the electricity supply industry – national members include Robert Arthur. EN 62110 addresses measurement of EMF generated by AC power systems. This standard is published so there is not much activity under this WG over 2018.

WG19 - EMF exposure to electrical welding workers – this group is currently dormant. There are no national representatives on this WG.

WG20 - Reasonable foreseeable use – national members include Peter Kelleher and Ian Brooker. This was a newly established WG set up under CENELEC TC 106X to develop a technical report to provide guidance on “reasonable and foreseeable use” as stated in the relevant directives. Work is underway, and drafts are expected in 2019.

WG21 - Basic standards and generic standards – This group was established towards the end of 2018 and is a combination of WG 3 & WG4. National members include Ian Brooker.

### 5.2.3 International/Regional Standards Reviewed

The work programme of both CENELEC TC 106X and IEC TC 106 were monitored during 2018.

For CENELEC TC 106X see the links below for the full work programme.

List of [Published standards](#)

List of [revisions and new standards](#)

## 5.3 Regulatory Development/Update

The Radio Frequency Directive (RED) incorporates radio equipment, Low Voltage and EMF Directive. These directives do not specify limits and rely on standards to specify correct and safe limits. This Directive also refers to “reasonably foreseeable” conditions. The standards developed by CENELEC TC 106X can be used to demonstrate compliance with these directives. In 2018 a new Working group was established to look at the term “reasonably foreseeable” conditions and work is underway to develop a new Technical Report to address this concept.

## 6 Irish Publications/Reviews

### 6.1 Publications

There were no national projects assigned to ETC TC 15 in 2018.

The Committee did not publish any national deliverables this year.

## 7 Work programme for 2019 onwards

ETC TC 15 plans to continue to monitor the work of CENELEC TC 106X and IEC TC 106. National experts nominated to WG’s under CENELEC TC 106X will contribute to the work programme of this international standards committee.

## 8 Additional Information

In January 2018 NSAI marked the transition of ETCI committees to NSAI by hosting an event in the Helix. This was an interesting evening where the work and contribution of ETCI and the national committees to international standards work over many years was highlighted. John McAuley and Linda Hendy attended the event as representatives of ETC TC 15.