

# ANNUAL REPORT 2022

NSAI TECHNICAL COMMITTEE - NSAI/TC 015

NATIONAL EUROCODES CONSULTATIVE COMMITTEE

# Contents

1	Executive Summary of 2022 activity3				
2	Intro	Introduction3			
3	Scop	Scope of TC			
4	Structure and Membership				
	4.1	Structure	1		
	4.2	Members	1		
5	5 Summary of 2022 Activities				
	5.1	National	5		
	5.1.1	Meetings	5		
	5.2	International	5		
	5.2.1	Meetings	õ		
	5.2.2	International Work6	õ		
	5.2.3	International Standards Reviewed6	õ		
	5.2.4	International Voting Results6	õ		
6	Irish	Publications/Reviews	7		
	6.1	Publications	7		
	6.2	Reviews	7		
7	Work programme for 2023 onwards7				
Q	Additional Information 8				

## 1 Executive Summary of 2022 activity

2022 saw the continued progress in the development of the 2<sup>nd</sup> Generation Eurocodes with the issuing for public consultation of a large number of Eurocode parts, chief among them, the Eurocode 7 Geotechnical design enquiry drafts (prEN 1997).

The new EN 1990 Eurocode - Basis of structural and geotechnical design was ratified in December 2022 and is the core document on which the revised Eurocode parts and the respective Irish National Annexes will be based.

NSAI/TC 15 discussed the most suitable approach to take when adopting the 2<sup>nd</sup> Generation Eurocodes. Development of new Irish National Annexes in support of the 2<sup>nd</sup> Generation Eurocodes got underway in 2022 with the review of Nationally Determined Parameters (NDPs) for the initial set of finalised documents. This work is set to continue over the coming years as more technically stable drafts are made available.

#### 2 Introduction

The Eurocodes are a set of harmonised structural design codes for building and civil engineering works specifying how structural design should be conducted within the European Union and EFTA countries. The National Eurocodes Consultative Committee (NSAI/TC 015) was established in 2013 to monitor work being carried out on Eurocodes at European level. Since its establishment, the work of the committee has increased year on year. The development work on the 2<sup>nd</sup> generation Eurocodes is the main focus of NSAI/TC 015. The initial phase of this large standardisation project was completed in 2022 and the project has reached the next milestone with the phased launch of formal CEN Enquiry (public consultation) drafts for the public to review in Q1 and Q4 each year up until 2025.



## 3 Scope of TC

NSAI/TC 015 is responsible for monitoring the work of CEN/TC 250 and how the 'Structural Eurocodes' design standards are to be implemented in Ireland. In order to do this, there are 9 sub-committees under the remit of NSAI/TC 015, each with its own specific section of the Eurocode suite to monitor, see section 4.1 - Structure.

The Eurocodes Consultative Committee and its subcommittees also develop and update Eurocode National Annexes for Ireland which allow for national choice or NDPs, where such choices/parameters are left open in the Eurocodes (i.e. in the areas of safety of works and environmental conditions).

The committee also mirrors other CEN technical committees involved in the development of execution standards for steel (CEN/TC 135) as well as geotechnical matters related to earthworks and testing (CEN/TC 396 and ISO/TC 182).

The committee and its subcommittees mirror the following international committees:

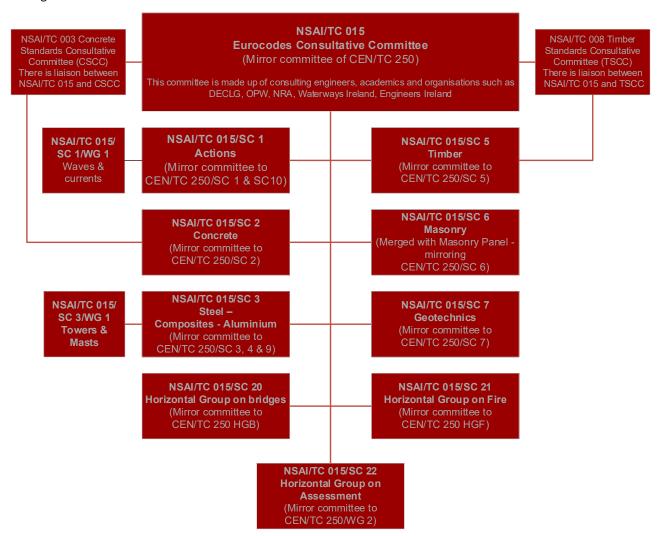
Committee Name	Committee Title
CEN/TC 250	Structural Eurocodes
CEN/TC 250 WG 1	Policy, procedures and links with other standards
CEN/TC 250 WG 2	Assessment and retrofitting of existing structures
CEN/TC 250/SC 10	EN 1990 Basis of structural design
CEN/TC 250/SC 1	Eurocode 1: Actions on Structures
CEN/TC 250/SC 2	Eurocode 2: Design of concrete structures
CEN/TC 250/SC 3	Eurocode 3: Design of steel structures
CEN/TC 135	Execution of steel structures and aluminium structures
CEN/TC 250/SC 4	Eurocode 4: Design of composite steel and concrete structures
CEN/TC 250/SC 5	Eurocode 5: Design of timber structures
CEN/TC 250/SC 6	Eurocode 6: Design of masonry structures

CEN/TC 250/SC 7	Eurocode 7: Geotechnical design	
CEN/TC 396	Earthworks	
ISO/TC 182	Geotechnics	
CEN/TC 250/SC 9	Eurocode 9: Design of aluminium structures	
CEN/TC 250 Horizontal Group Bridges		
CEN/TC 250 Horizontal Group Fire		

## 4 Structure and Membership

#### 4.1 Structure

The Figure below illustrates the structure of the Committee:



#### 4.2 Members

There are currently in excess of 75 subject matter experts participating and monitoring the work of the CEN TCs mirrored by NSAI/TC 015. These members represent all relevant stakeholders within the structural, civil and geotechnical design industries.

The membership of the overarching NSAI/TC 015 committee consists of individuals from the following organisations:

Organisation	Roles
Kavanagh Mansfield & Partners	NSAI/TC 015 Committee Chair & NSAI/TC 015 SC1 Chair
DHLGH	National committee members

TII	National committee member &
· •	NSAI/TC 015 HBG Chair
Waterways Ireland	National committee member
OPW	National committee member
Trinity College Dublin	National committee members
Munster Technological University	National committee members
TU Dublin	National committee member &
	NSAI/TC 015 SC2 Chair
AGL	National committee member &
AGL	NSAI/TC 015 SC7 Chair
ARUP	National committee member
Banagher Precast Concrete	National committee member
Engineers Ireland	National committee member
	National committee member &
Private Consultants	NSAI/TC 015 HGF Chair
	National committee member &
	NSAI/TC 015 SC3 Chair
	National committee member &
	NSAI/TC 015 SC5 Chair

## 5 Summary of 2022 Activities

#### 5.1 National

The implementation timeline for the 2<sup>nd</sup> generation Eurocodes, in particular establishing a Date of Publication (DoP) of the new standards in Ireland was the focus of 2022. It was agreed to adopt all 2<sup>nd</sup> Generation Eurocodes at the same time in Q1 2027 and allow for a 12-month co-existence period and withdraw all 1<sup>st</sup> Generation Eurocodes and the respective National Annexes on the 30<sup>th</sup> March 2028 as required by CEN.

Following the formal Enquiry of a number of key documents in Q4 2020 and throughout 2021, 2022 saw less activity in certain NSAI/TC 15 sub-committees as the work focused on the CEN/TC 250 sub committees and the comment resolution process required to address the substantial number of comments received on Enquiry drafts such as prEN 1992-1-1.

NSAI/TC 15/SC 7 completed its review of the formal Enquiry drafts of prEN 1997 and a significant number of comments were submitted to CEN/TC 250 in relation to the 3 Geotechnical design parts along with votes to approve all 3 drafts as EN standards.

#### 5.1.1 Meetings

Committee members attended the following National NSAI/ TC 015 meeting on-line in 2022:

Meeting	Date
19th Meeting of NSAI/TC 015	19 <sup>th</sup> July 2022

There were an additional 6 meetings of the sub-committees and working groups dealing with work on the Eurocodes in 2022

#### 5.2 International

As key documents have been progressed to formal CEN enquiry stage, CEN/TC 250 International meetings in 2022 have returned to their usual frequency as reflected by Irish experts attendance at meetings in 5.2.1 below. International meetings in 2022 were predominantly held in a hybrid (in-person & virtual attendance) format, with in-person Irish attendance limited to 1 meeting in 2022. In person attendance at meetings is expected to increase in 2023.

#### 5.2.1 Meetings

Committee members attended the following international meetings in 2022:

Committee name	Location	Dates
CENTC 250 SC 1 (X2)	On-line	February & June 2022
CEN TC 250 SC 5	On-line	May 2022
CEN TC 250 SC 5	Zurich (F2F)	September 2022
CEN TC 250 SC 3 (X2)	On-line	March & October 2022
CEN TC 250 SC 2 & WG1 (X3)	On-line	June, August & November 2022
CEN TC 250 (X2)	On-line	May & November 2022
CEN TC 250/SC 1/WG 1 TG MEETING	On-line	March 2022
CEN TC 135	On-line	September 2022
BSI CB 203	On-line	September 2022

#### 5.2.2 International Work

NSAI/TC 015 committee members continued to monitor the development of the 2<sup>nd</sup> generation Eurocode drafts closely with a number of members attending international meetings to discuss the drafts and present Ireland's position while also reporting back to the National committee and its sub-committees on developments and raise potential issues with these drafts. The work of the committee and sub-committees in this regard is of particular importance as CEN/TC 250 look to amend the number of National Choices/Nationally Determined Parameters (NDPs) in the 2<sup>nd</sup> generation Eurocodes which will have a significant impact upon the National Annexes which accompany the Eurocodes.

In 2022, the Irish delegate to CEN/TC 250/SC 5 Timber has been heavily involved in the drafting of a new Timber Eurocode part, EN 1995-3 on execution of timber structures and in editing the English language versions of the EN 1995 suite of Eurocodes.

#### 5.2.3 International Standards Reviewed

CEN Enquiry (prEN) draft Eurocode standards and Formal vote (FprEN) drafts continued to be issued during 2022. There were a number of sub-committee meetings held to discuss and achieve consensus on the comments on these drafts. The CEN Enquiry drafts and Formal vote drafts which were reviewed, commented and voted upon in 2022 were:

1. prEN 1993-1-13 Eurocode 3: Rules for beams with large web openings 2. prEN 1993-1-2 Eurocode 3: Structural fire design 3. prEN 1993-1-3 Eurocode 3: Supplementary rules for cold-formed members and sheeting 4. prEN 1993-1-5 Eurocode 3: Plated structural elements 5. prEN 1996-1-2 Eurocode 6: General rules. Structural fire design 6. prEN 1996-2 Eurocode 6: Design considerations, 7. prEN 1997-1 Eurocode 7: General rules 8. prEN 1997-2 Eurocode 7: Ground investigation and testing 9. prEN 1997-3 Eurocode 7: Geotechnical structures 10. prEN 1998-1 Eurocode 8: General rules, seismic actions and rules for buildings 11. EN 1998-5 Eurocode 8: Foundations, retaining structures and geotechnical aspects 12. FprEN 1990 Eurocode. Basis of structural & geotechnical design 13. FprEN 1993-1-1 Eurocode 3. Design of steel structures. General rules and rules for buildings 14. FprEN 1999-1-1 Eurocode 9. Design of aluminium structures. General Rules 15. FprEN 1999-1-2 Eurocode 9. Design of aluminium structures. Structural fire design 16. FprEN 1999-1-3 Eurocode 9. Design of aluminium structures. Structures susceptible to fatigue 17. FprEN 1999-1-4 Eurocode 9. Design of aluminium structures. Cold-formed structural sheeting 18. FprEN 1999-1-5 Eurocode 9. Design of aluminium structures. Shell structures 19. FprCEN/TS 19101 Fibre Reinforced Polymer Composites

#### 5.2.4 International Voting Results

CEN/TC 250 Structural Eurocodes which is mirrored by NSAI/TC 015 issued 91 ballots in 2022. NSAI actively voted on 72% of these ballots.

# 6 Irish Publications/Reviews

### 6.1 Publications

The committee did not publish any new documents, amendments or corrigenda in 2022.

#### 6.2 Reviews

There were no reviews carried out by NSAI/TC 015 or its sub-committees in 2022.

## 7 Work programme for 2023 onwards

2023 will also see a large release of formal CEN Enquiry Eurocode part drafts for review and comment. The number of  $2^{nd}$  Generation Eurocode enquiry and formal vote drafts to be issued in 2023 are listed below. Reviews of the existing Irish National Annexes to the Eurocode parts listed below will also commence in 2023 to assess the work needed to revise them, to take account of the changes in national choices and NDPs which may arise.

Date of issue	Number of drafts issued	CEN Enquiry & Formal vote draft
	10	prEN 1991-1-1
		prEN 1991-1-3
		prEN 1991-1-5
		prEN 1991-1-9
02/03/2022		prEN 1993-1-10
(CEN Enquiry)		prEN 1993-1-4
		prEN 1993-1-6
		prEN 1993-1-7
		prEN 1993-1-9
		prEN 1998-2
		FprEN 1991-2
06/4/2022		FprEN 1992-1-1
(Formal Vote)	5	FprEN 1992-1-2
(Formal vote)		FprEN 1996-3
		FprCEN/TS 19102
		prEN 1991-1-7
		prEN 1993-1-14
	11	prEN 1993-5
		prEN 1995-1-1
7/09/2022		prEN 1995-1-2
(CEN Enquiry)		prEN 1995-2
(CEN Enquiry)		prEN 1995-3
		prEN 1998-3
		prEN 1998-4
		prEN 1998-6
		prEN 1998-1-2
	6	FprEN 1991-1-2
5/10/2022 (Formal vote)		FprEN 1993-1-13
		FprEN 1993-1-2
		FprEN 1993-1-3
		FprEN 1993-1-5
		FprEN 1993-1-8

The work programme for the development of future National Annexes and business cases in support of calibration and research studies to advise on National choices/values in the coming years is to be finalised in 2023.

NSAI/TC 015/SC 3 – Steel will see its involvement in the CPR Acquis process come to an end in 2023. The process is an initiative of the European Commission which is seeking advice from Member States and National experts on how best to capture the suitable and relevant essential characteristics of products that will be addressed in future Standardization Requests. Once the Acquis process for structural metallic products is completed work on a new Standardization Request for such products may begin.

## 8 Additional Information

A free 2-part webinar on the Eurocodes in Ireland is available on the NSAI website - <u>NSAI Construction Standards - The Eurocodes</u>. The NSAI website has been updated to include new content related to the Eurocodes, highlighting the move towards the 2<sup>nd</sup> Generation Eurocodes.