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# Raiders of the Eurocodes

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EPFL Library

Coffee Lecture #10

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# Learning objectives

- Understand what Eurocodes are and how they are useful for civil engineering
- Learn how to get access to Eurocodes at EPFL

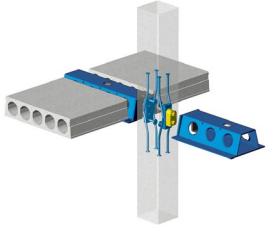
# What are Eurocodes ?

- Eurocodes are 59 European Standards in the field of construction
- Eurocodes are organised thematically (0 for basis of structural design)

Actions on structures

Concrete structures

Steel structures



Composite Structures

Timber structures

Masonry structures

Geotechnical design

Earthquake resistance

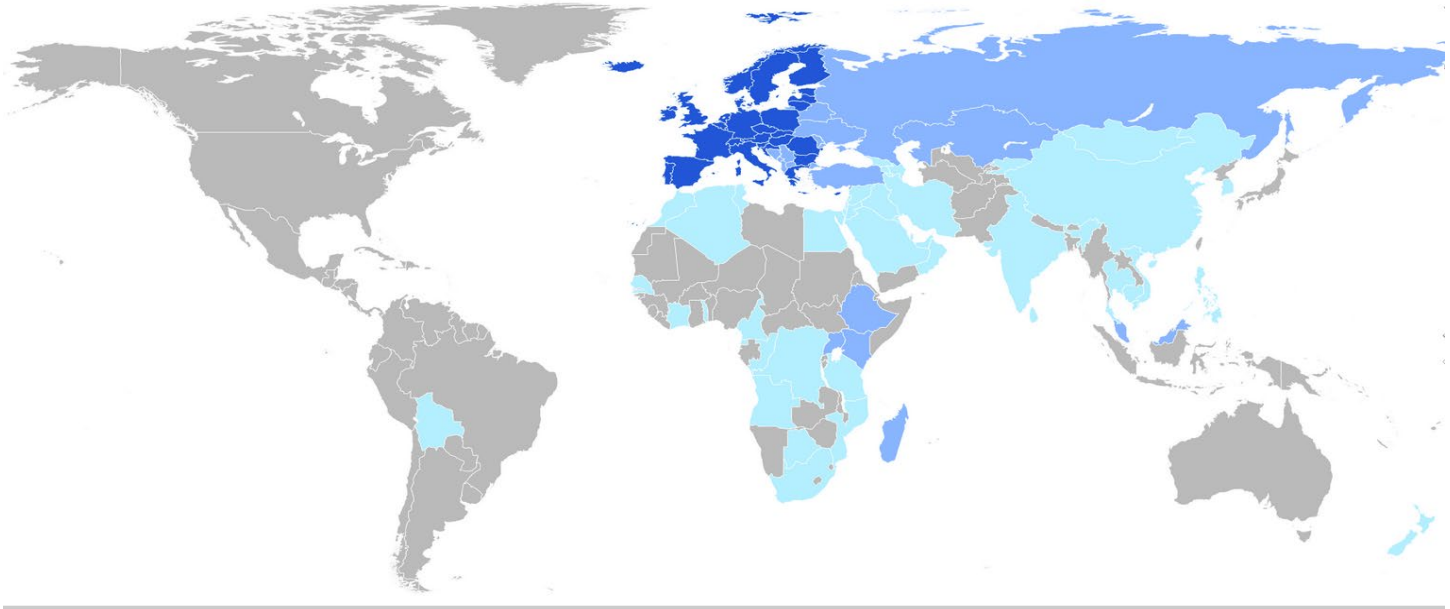
Aluminium structures

# Practically, this means :

- Eurocode 0 = EN 1990
- Eurocode 1 = EN 1991-1 to EN 1991-4 (10 standards)
- Eurocode 2 = EN 1992-1 to EN 1992-4 (5 standards)
- Eurocode 3 = EN 1993-1 to EN 1993-6 (20 standards)
- Eurocode 4 = EN 1994-1 to EN 1994-2 (3 standards)
- Eurocode 5 = EN 1995-1 to EN 1995-2 (3 standards)
- Eurocode 6 = EN 1996-1 to EN 1996-3 (4 standards)
- Eurocode 7 = EN 1997-2 to EN 1997-2 (2 standards)
- Eurocode 8 = EN 1998-1 to EN 1998-6 (6 standards)
- Eurocode 9 = EN 1999-1 to EN 1999-5 (5 standards)

# Why do we need Eurocodes ?

- Elimination of technical obstacles to trade
- Harmonisation of technical specifications



# And the quest begin when you want to find an eurocode

- Each country use the eurocode by converting them in a national standard

- For example : the Eurocode 1 (EN 1991) will be the NF EN 1991 in France, SN EN 1991 in Switzerland, BS EN 1991 in UK, DIN EN 1991 in Germany…

- Each country use the eurocode with NDP : Nationally Determined Parameters

- NDPs could be :
  - values where alternatives are given in the Eurocodes
  - values to be used where a symbol only is given in the Eurocodes
  - country specific data, like climatic or seismic zone maps
  - choices,where alternatives are given in the Eurocodes.

# At the EPFL Library, 2 ways to get the eurocodes

- Online quick access in reading mode only :

- check on our standards webpage under international Standards : (https://www.epfl.ch/campus/library/collections/standards/)
- **access for all EPFL Members**..this gives you an idea on the content of each eurocodes with the FR NDP.

# At the EPFL Library, 2 ways to get the eurocodes

- Online specific **access for ENAC Researchers & Phd** : you have a local access to the SIA reader which include the Eurocodes (all SN EN)

- If you want the Swiss NDP, very easy..Switzerland decided to not fix any NDP as SIA standards 260 to 267 already give the practical application of Eurocodes

# And if you are still lost, contact the library

- https://www.epfl.ch/campus/library/collections/standards/

# Images sources

- Eurocode 1 : Bodträsk järnvägsstation.jpg - Teemu Vehkaoja, CC BY-SA 4.0, via Wikimedia Commons
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# Thank you !

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# Contact & credits

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