

Applicability of Eurocode 7 to rock engineering design

Dr Andrew Bond (Geocentrix)

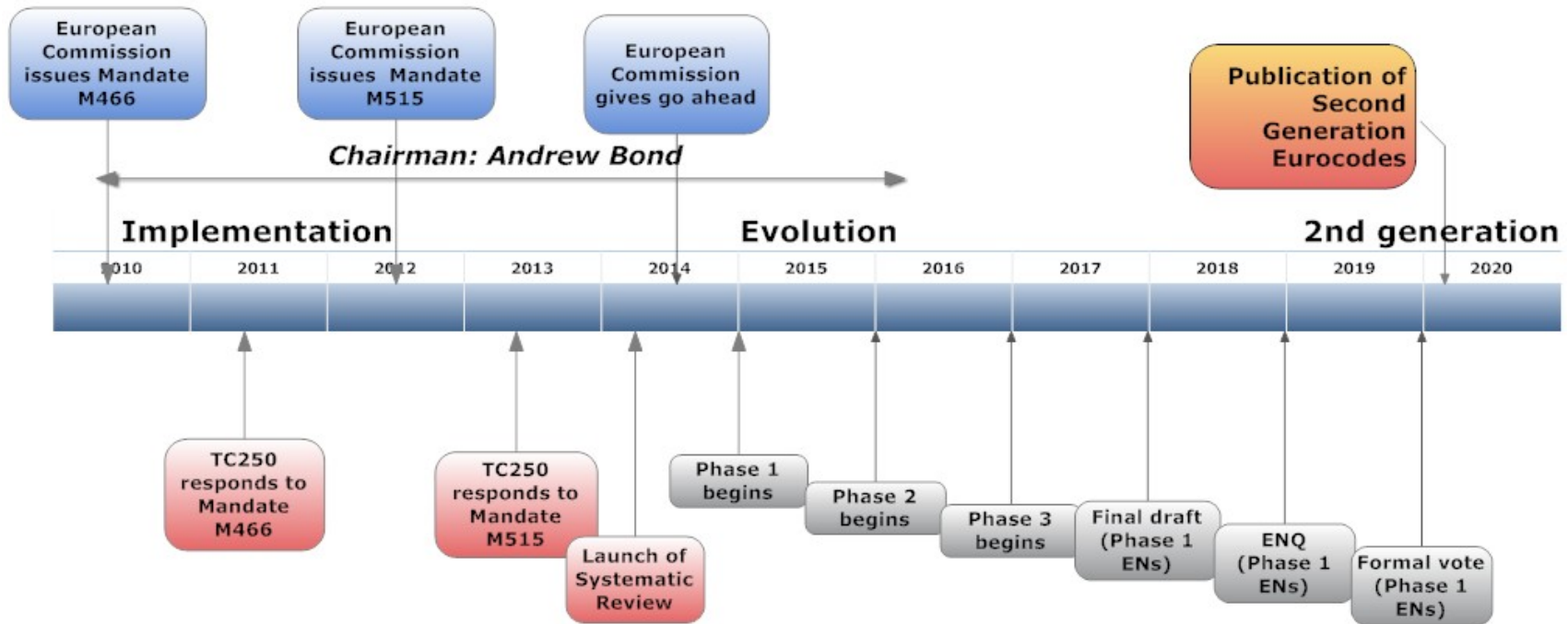
Chairman TC 250/SC 7

Geocentrix – putting you at the centre

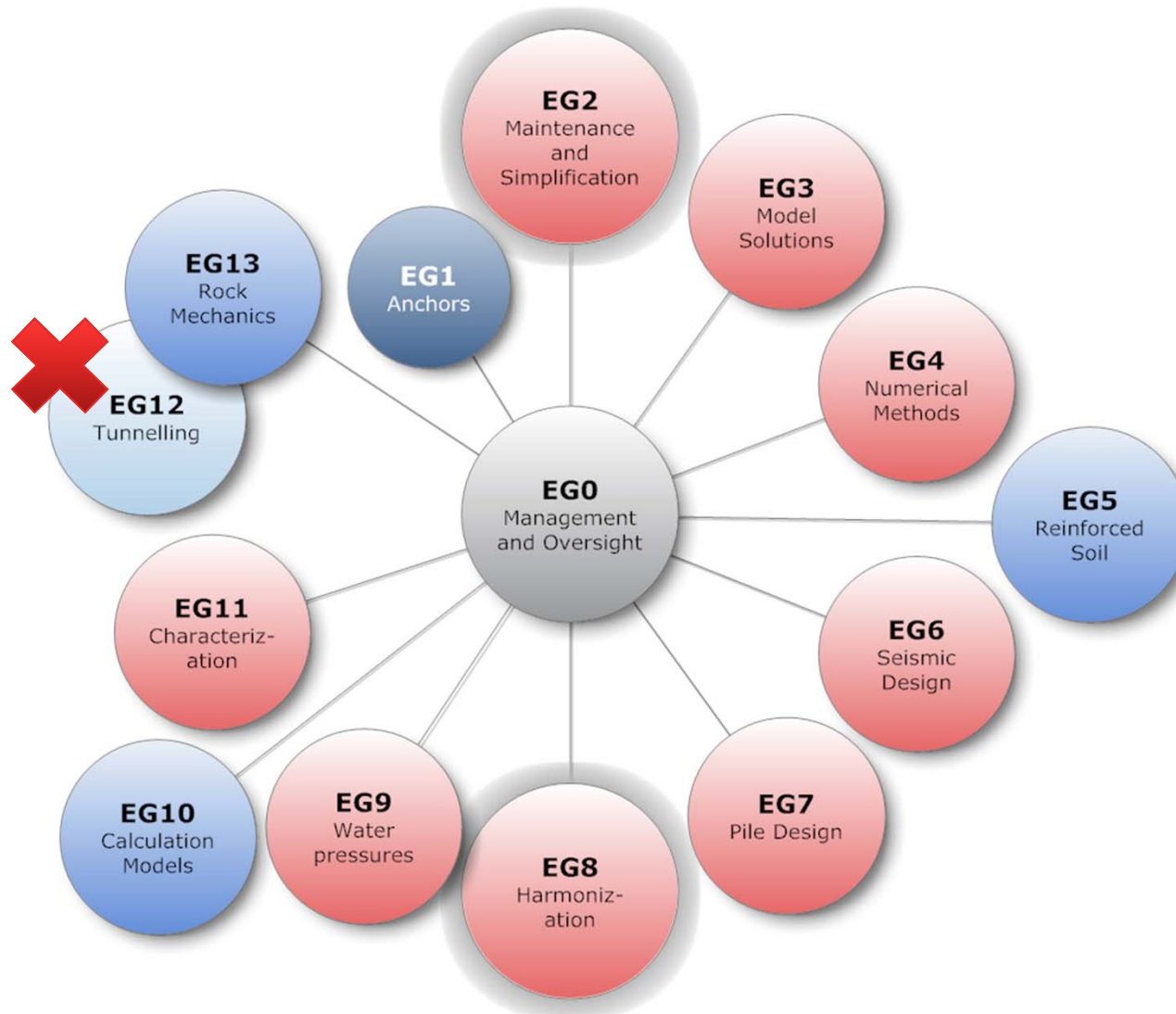


Eurocode 7 timeline 2010-2020

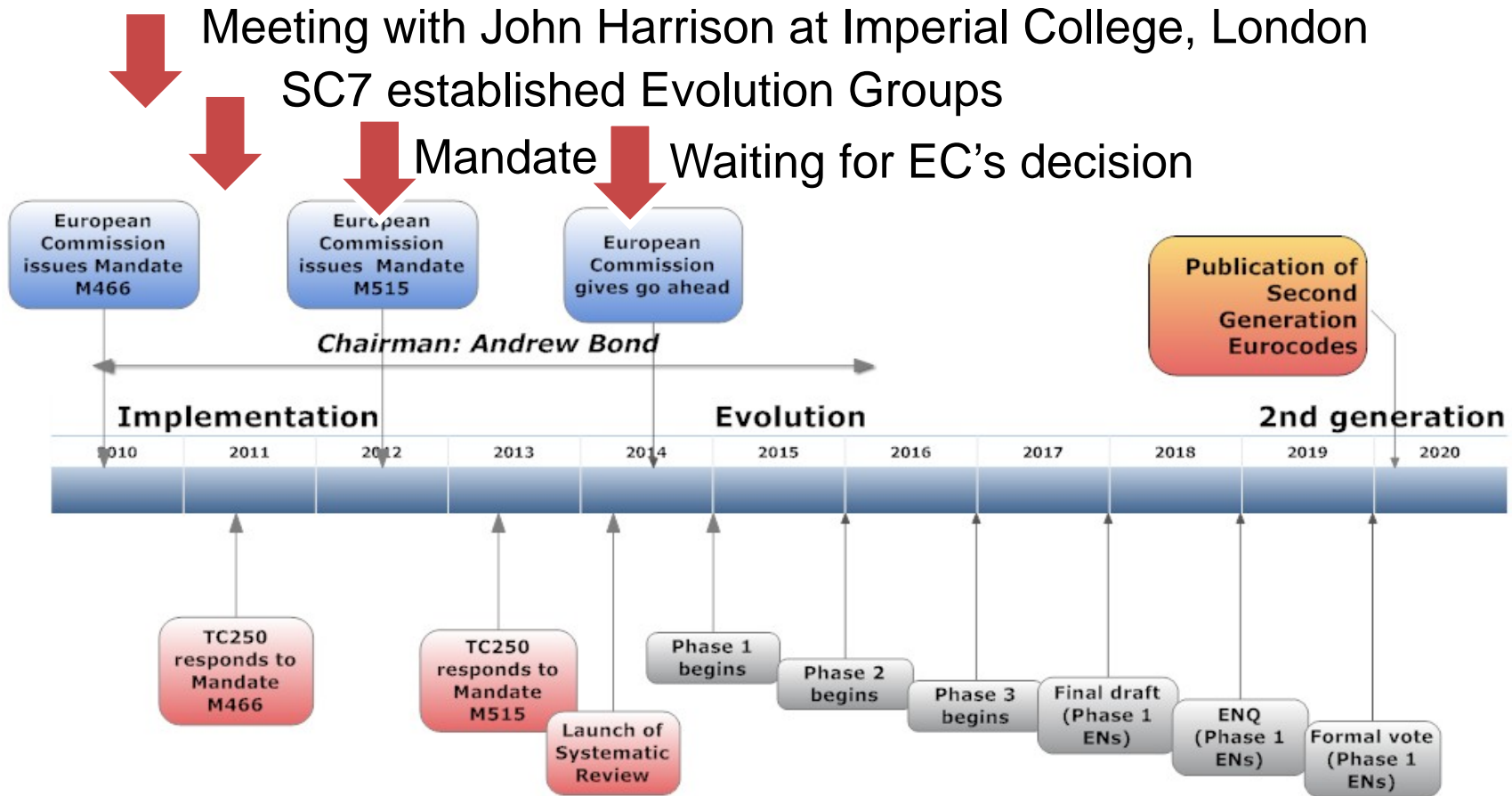
Meeting with John Harrison at Imperial College, London
 SC7 establishes Evolution Groups



SC7's Evolution Groups (established 2010)



Eurocode 7 timeline 2010-2020



Towards a Second Generation of EN Eurocodes

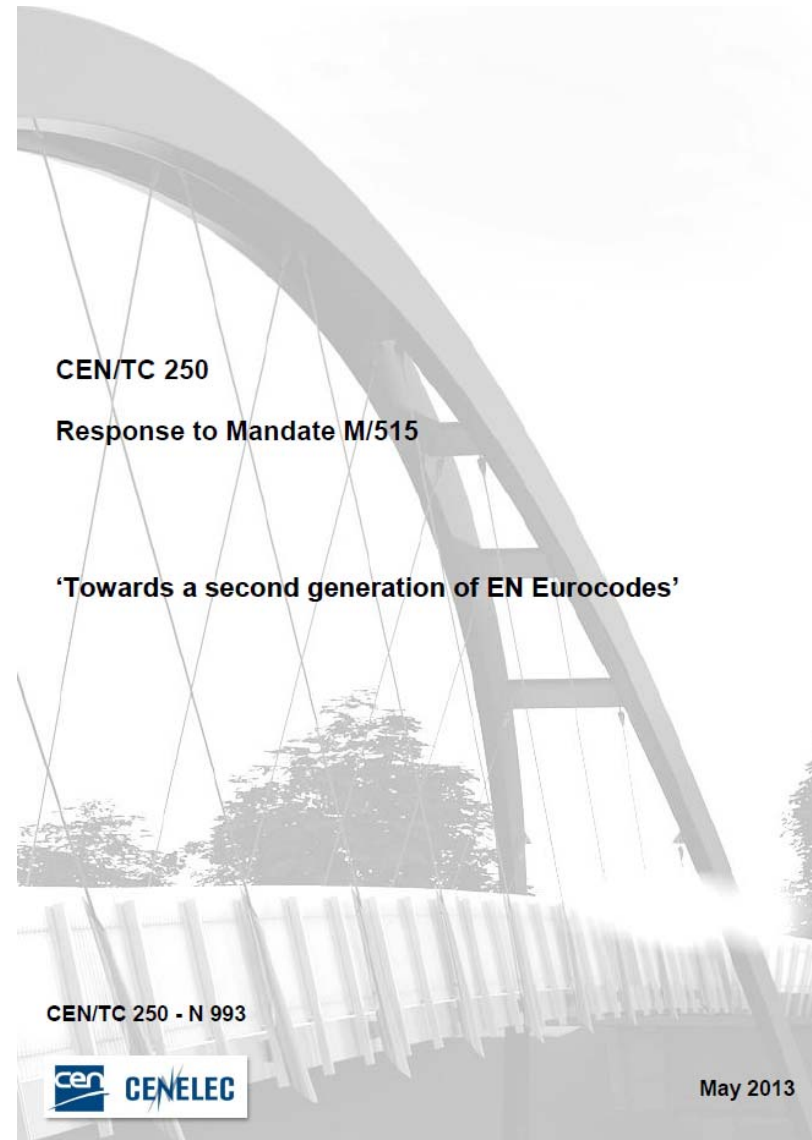
May 2010

European Commission (EC) Mandate M/466 invited CEN to

‘initiate the process of further evolution of the Eurocode system, incorporating both new and revised Eurocodes’

May 2014

TC 250/CEN is waiting to hear European Commission’s decision on technical proposal and financial quotation



TC250/SC7's six tasks in Response to M/515

Phase 1

1. Harmonization and ease-of-use

Reorganized framework for Eurocode 7, to be used as starting documents for Tasks 2-5 below

2. General rules

Revised Eurocode 7 Part 1

Phase 2

3. Ground investigation

Revised Eurocode 7 Part 2 plus new/revised paragraphs input to Task 2

4. Foundation, slopes, and ground improvement

Sections 2-5 and new Annexes in (new) Eurocode 7 Part 3

5. Retaining structures, anchors, and reinforced ground

Sections 6-8 and new Annexes in (new) Eurocode 7 Part 3

Phase 3

6. Rock mechanics and dynamic design

New/revised paragraphs into Tasks 2-5

Proposed structure of EN 1997: 2020

EN 1997: 202x

1. General rules
2. Ground investigation
3. Geotechnical constructions

Part 1 – General rules

1. General
2. Basis of geotechnical design
3. Materials
4. Durability
5. Geotechnical analysis
6. Ultimate limit states
7. Serviceability limit states
8. Execution
9. Reporting

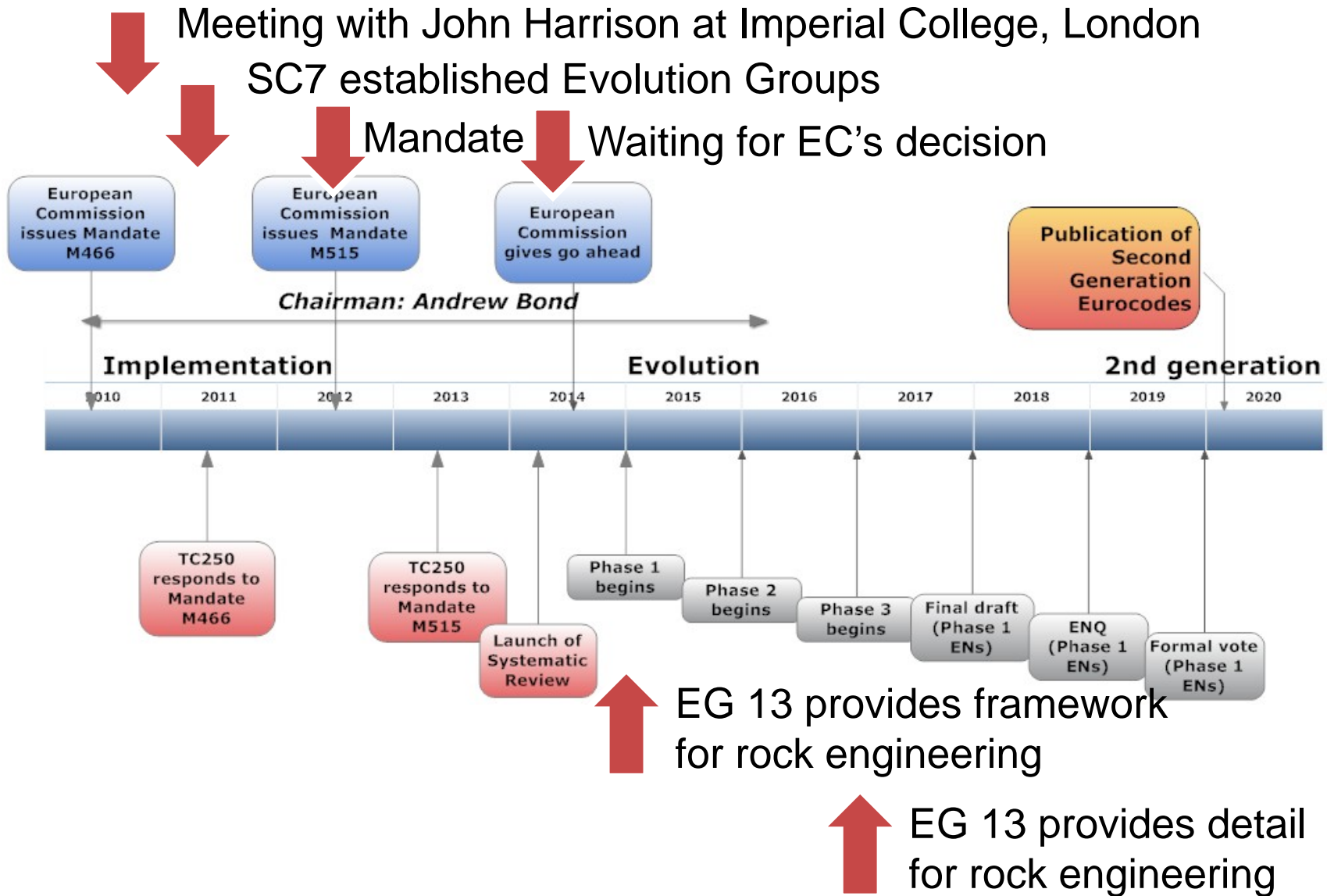
Part 2 – Ground investigation

1. General
2. Principles of ground investigation
3. Planning of ground investigations
4. Sampling and groundwater measurements
5. Field tests
6. Laboratory tests
7. Reporting

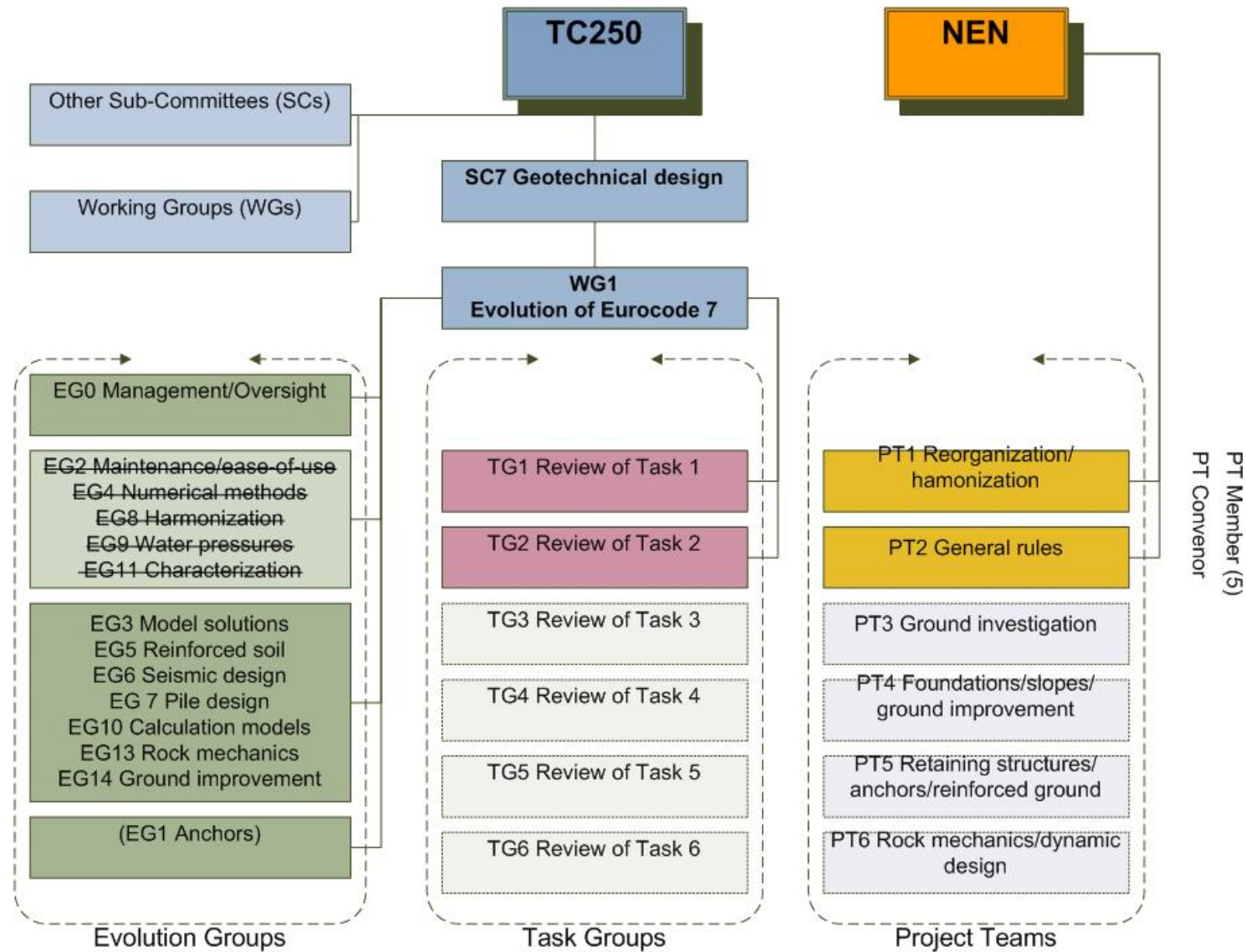
Part 3 – Geotechnical constructions

1. General
2. Slopes, cuttings, and embankments
3. Spread foundations
4. Pile foundations
5. Retaining structures
6. Anchors
7. Ground improvement
8. Reinforced ground structures

Eurocode 7 timeline 2010-2020



Proposed reorganization of SC7 'sub-groups' starting 2014



Systematic Review of Eurocode 7

The Systematic Review of all the Eurocodes in Phase 1 was launched in 1st April 2014
Opportunity for public comments on current Eurocode (Parts 1 and 2 of EN 1997)

Review period ends at end of Sept 2014

It is important that practising engineers have their say!



1. Do any clauses require editorial or technical correction?
2. Which clauses would benefit from improvements in clarity?
3. Where should the scope of the EN be extended?
4. Where could the EN be shortened?
5. *Are there any clauses whose application results in uneconomic construction?*
6. Are there any clauses whose application necessitates excessive design effort?

Applicability of Eurocode 7 to rock engineering design

The 2nd generation of Eurocodes are expected to appear in 2020

TC250/SC7 has opened the door to rock engineering in the next version of Eurocode 7 ... *rock engineering needs to push open that door and make itself at home*

This is **YOUR chance** to influence the future direction of Eurocode 7

Don't miss this once in a lifetime opportunity!

Fitting 'rock' into Eurocode 7: 2020



Decoding the Eurocodes

www.geocentrix.co.uk

www.decodingeurocode2.com

www.decodingeurocode7.com

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