

CEN/TC 250/SC 7 - Eurocode 7 - Geotechnical Design
SC7 Experts Meeting 2012 Brussels

EG14: Ground Improvement

First Meeting: Tuesday, October 16th : 9.00 -10.30 a.m.

Philippe Liausu (Cyril Plomteux)	France	philippe.liausu@menard-mail.com cyril.plomteux@menard-mail.com
Norbert Vogt	Germany	vogt@bv.tum.de
Karsten Beckhaus	Germany	Karsten.Beckhaus@bauer.de
Paolo Croce (Conv.)	Italy	croce@unicas.it
Alessandro Flora (Secr.)	Italy	flora@unina.it
Jakub Saloni	Poland	jsaloni@menard.pl
Håkan Eriksson	Sweden	hakan.eriksson@geomind.se
Onur Pekcan	Turkey	opekcan@metu.edu.tr
Barry Slocombe	UK	barry.slocombe@keller.co.uk
Ken Watts	UK	WattsK@bre.co.uk
Beata Gajewska	Poland	bgajewska@ibdim.edu.pl

- a) Which are the objectives of EG14 ?
- b) What do we mean by Ground Improvement ?
- c) How do we correlate G.I. design with G.I. techniques ?
- d) How can we use conventional design models and procedures ?
- e) Expected Products and Time Schedule of EG14 ?

Present State

5.5 Ground improvement and reinforcement

(1)P A geotechnical investigation of the initial ground conditions shall be carried out before any ground improvement or reinforcement method is chosen or used.

(2)P The ground improvement method for a particular situation shall be designed taking into account the following factors where appropriate:

- thickness and properties of the ground or fill material;
- magnitude of water pressure in the various strata;
- nature, size and position of the structure to be supported by the ground;
- prevention of damage to adjacent structures or services;
- if the ground improvement is temporary or permanent;
- in terms of anticipated deformations, the relationship between the ground improvement method and the construction sequence;
- the effects on the environment including pollution by toxic substances or changes in ground-water level;
- the long-term deterioration of materials.

(3)P The effectiveness of the ground improvement shall be checked against the acceptance criteria by determining the induced changes in the appropriate ground properties.

G. Improvement and G. Reinforcement
will be treated respectively by EG14 and EG5

First Step: Definition of Ground Improvement

1.5.2.3

ground

soil, rock and fill in place prior to the execution of the construction works;

G.I. Improving Actions:

vibration, grouting, freezing, etc.

G.I. Effects:

- Type: cementation, densification, etc.
- Geometry: diffused (e.g. grouting), concentrated (e.g. columns), etc.

G.I. Functions:

- permanent, provisional.
- foundations, retaining structures

Second Step: how do we correlate design with techniques ?

We have agreed to consider classes (groups) of techniques.

Which is the most appropriate selection criterion to define classes of techniques?

- the G.I. effect (the shape and/or the mechanical characteristics)
- the G.I. design functions
- others

Expected Products and Time Schedule of EG14 ?

Progress Report end of October 2012 (Start up Report)

Enquiry Report circulated among EG 14 Members (November 2012)

Video Conference

First Draft of Report

Updated Drafts

Proposal for Project Team G.