

E.G.14 - Ground Improvement
First Meeting: Tuesday October 16th : 9.00 -10.30 a.m.

The meeting was attended by the following EG14 Members:

- Paolo Croce (Italy), Convenor
- Alessandro Flora (Italy), Secretary
- Cyril Plomteux (France), substituting Philippe Liausu
- Karsten Beckhaus (Germany)
- Jakub Saloni (Poland)
- Beata Gajewska (Poland)

This meeting is to be considered as the “start up” for the future work of EG14. During the meeting, the following main questions were considered.

a) Which are the objectives of EG14 ?

It was first recalled that, at present, the topic of Ground Improvement (G.I.) is only touched very briefly in point 5.5. of EC7, together with the topic of Ground Reinforcement.

Therefore, it is recognized that the topic of Ground Improvement and Ground Reinforcement should be treated separately: the former by EG14 and the latter by EG5.

Considering also the frequent and extensive use of G.I. techniques, it follows that G.I. design should be treated much more deeply and widely by EC7.

The proposed objective of EG14 is thus to prepare a draft document on G.I. design that could be used as a base for the revision of Eurocode 7.

b) What do we mean by Ground Improvement ?

At present no definition of G.I. is provided by EC7.

Therefore a clear definition of the term “Ground Improvement” is needed first.

Such definition will be searched for by considering the following main aspects:

- G.I. Improving Actions (vibration, grouting, freezing, etc.)
- G.I. Effects on Ground, with regard to type (cementation, densification, etc.) and geometry (diffused, concentrated, superficial, deep, etc.)
- G.I. Functions: permanent or provisional; used for foundations, retaining structures, excavations, etc.

c) How should we correlate G.I. design with G.I. techniques ?

It was agreed to search for a proper classification of G.I. techniques, in order to define groups of techniques that could be subjected to specific design rules.

The most appropriate criteria for grouping should be selected in order to encompass all possible techniques, effects and design functions.

This preliminary classification is of paramount importance for defining more specific and effective design rules.

f) How can we use conventional design models and procedures ?

This topic has been subjected to a very preliminary discussion. It is clearly recognized to be a very difficult task, that will need a careful and detailed study. It is believed however that practical results will be obtained and that more specific design rules can be delivered in reasonable time.

g) Which are the Expected Products and Time Schedule of EG14 ?

Following this first meeting, a tentative work schedule has been proposed as follows:

Phase1:

- Enquiry Report, to be circulated among EG 14 Members, by end of November 2012
- First Video Conference, by end of December 2012

Phase 2 (2013):

- First Draft of EG14 Report
- Video conferences
- Updated Drafts
- Proposal for Project Team G