

Short Report

Field of research: „Preparation of a guideline for the development of user-friendly and practical structural design codes “

Participating Institutes: Chair of Geotechnical Engineering, RWTH Aachen
Univ.-Prof. Dr.-Ing. M. Ziegler
Mies-van-der-Rohe-Straße 1
52074 Aachen

Institute of Concrete Structures, TU Hamburg-Hamburg
Univ.-Prof. Dr.-Ing. V. Sigrist
Denickestr. 17
21071 Hamburg

Project directors : Dr.-Ing. V. Cornelius
Dr.-Ing. K. Morgen
Univ.-Prof. Dr.-Ing. V. Sigrist
Univ.-Prof. Dr.-Ing. M. Ziegler

Researching Staff: Dipl.-Ing. O. Chyra (TU Hamburg-Harburg)
Dipl.-Ing. T. Krebber (RWTH Aachen)

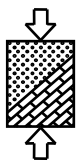
Funding:

Verband Beratender Ingenieure VBI
Budapester Str. 31
10787 Berlin

Bundesvereinigung der Prüfengeieure für Bautechnik e.V. BVPI
Kurfürstenstr. 129
10785 Berlin

The research report has also been financed with capital from the research initiative „Zukunft Bau“ of the Federal Office of Building and Regional Planning.

The responsibility for the content of the report lies with the author.



Aim of the study

The current and in particular the looming situation of design codes is highly unsatisfactory for users and serious for commonality. The increasing number of regulations, which will grow even faster due to harmonization with European Standards, leads to a disproportionate rise of computational effort and moreover, there is the risk of losing track of the code provisions which may cause unsafe and inefficient designs. Most of the problems of standardisation are caused in the way codes are developed.

The first intent of this research project is to evaluate and describe the current status quo with its deficits. This regards the complexity and profundity of the regulations as well as the interdependency of the different regulation systems on an international, european and national level. In addition a survey of standardisation bodies and producers will be carried out.

Following demands will be defined a code has to meet in order to assure a save and state-of-the-art construction, however without losing the user-friendliness and practicability. Thereby, it is essential to define criteria which decide what aspects eighter need to be regulated in the code or can be left out. A user-friendly and practical regulation system can only be established by reducing and adjusting the complexity of the regulations.

Another important intention is the definition of rules, regarding the interaction between the different fields of civil engineering and their respective sets of standards, to prevent conflicts between them.

In that process the current form of organisation used to develop new codes can not be avoided. The aim has to be organising the development of new codes in a way, that allowed all participants to equally take part in the process. The time, necessary to develop a code, also needs to be abbreviated in order to keep up with the development of new technologies and solutions in all fields of civil engineering. Therefore a functioning project- and qualitymanagement needs to be installed, which ensure that technically relatet codes are temporally synchronised and adjusted according to their content so that conflicts or antagonisms between them can be prevented.

With the results, regarding the content and profundity of the codes as well as for the organisational structure for the development of new codes, provided by this research project it will be possible to create consistent, efficient, user-friendly and practical standards in every field.