The Carbon Calculator

 REGIONAL REPORT

The First Decade — What an Achievement!

DFI Europe celebrates its 10th Anniversary, having been established in May 2005 by the DFI Board of Trustees. The “idea” began years earlier when DFI conferences were held in Europe, starting in 1987 in Luxembourg and continuing into the 2000s jointly with EFFC (European Federation of Foundation Contractors). DFI’s international efforts were initially forged by William F. Loftus, P.E., L.S., past president of DFI. Later, Richard D. Short, P.E., G.E., DFI past president; Maurice Bottiau, past trustee; Sikko Doornbos, an active DFI member from Europe; and then executive director, Geordie Compton, noticed the increased DFI membership on the continent and brought the idea of DFI Europe to the board. Once the chapter was incorporated in the Netherlands, Henk de Koning, an active EFFC member, was hired to serve as the organization’s secretariat.

The mission was — and continues to be — to provide additional value and benefits of DFI membership locally as well as increase DFI’s international presence while expanding the network of suppliers, contractors, academics, consultants, clients and all others in the deep foundation industry. Many of the founders remain active in DFI on both sides of the Atlantic.

The achievements of DFI Europe are quite impressive. Many workshops have been held, committees have been introduced, an important cooperation with EFFC has grown, a multi-language glossary was developed, and the Carbon Calculator (www.geotechnicalcarboncalculator.com) was developed and is increasingly used throughout the industry.

On-Going Activities

We are part of a large-scale European-funded pile testing research program (PileInspect) and a tremie concrete task group has recently been introduced, funded by DFIs Committee Project Fund and the EFFC. We are also pleased to announce that due to efforts by DFI Europe, the DFI Board of Trustees has approved a plan to offer students a 2-year free DFI membership with online access to all information available through DFI, starting in 2016. Thank you to the board for this supportive decision.

I have not forgotten the strong and time-consuming support for the DFI-EFFC Conferences in Europe, which are always a challenge to get organized. But the last conferences have been successful — 2014 in Stockholm, 2010 in London and 2006 in Amsterdam — and we’re looking forward to the upcoming conference in Rome, tentatively scheduled for May/June 2018.

Concrete Task Group

As mentioned previously, a new task group has been formed to research concrete properties and create a “Best Practice Guide” for tremie concrete. Concrete technology continues to advance rapidly, and modern mixes with five components (cement, additives, aggregates, chemical admixtures and water) often have characteristics that are totally different from the older three component mixes (cement, aggregates and water). Recent trends have favoured higher strength classes and lower water/cement ratios, resulting in greater dependence on admixtures to compensate for reduced workability and to meet the often competing demands for workability, both initial and over time, and setting time. Testing methods have not developed at the same speed as the mixes, and it is still not uncommon for the slump test to be used as the only acceptance test for fresh concrete.
The joint Concrete Task Group was set up after a review by both EFFC and DFI of problems in bored piles and diaphragm walls cast using tremie methods identified that many of the problems were caused by, or were due in part to, incorrect concrete mixes being used.

A research and development project, funded by the sponsors of the Best Practices Guide, is being carried out by the Technical University of Munich in conjunction with the Missouri University of Science and Technology. This project includes desk studies, laboratory testing and onsite testing at worksites in Europe and the U.S. The research work will be completed during 2016.

So looking back over the last 10 years, it has been rewarding to see DFI Europe grow and to see additional outreach by DFI into other parts of the world. We are proud to have been the catalyst for the formation of other DFI regional chapters in the Middle East and India. Everyone at DFI can be gratified with the growing recognition around the world as well as all of the established networks with other organizations within our industry.

Europe Today

Looking into Europe and the foundation market here, investment programs are starting slowly in some regions and large infrastructure projects need longer and longer approval time influenced by public hearings and bureaucratic monsters. The parliaments have not been able to reduce unnecessary approval procedures or show more flexibility in the procurement regulations. In some countries, new forms of contracts on a fair partnering model have been introduced and have been a useful tool to avoid lengthy fights, which mostly end up in court or arbitration and then are very costly and take years to get settled. The result is never a good one as a partnering approach always finds a common solution for both sides. One good example is the Swedish Transport Authorities that have introduced an ECI (Early Contractor Involvement) phase for a large infrastructure project in Gothenburg, the West Link Project (Västlänken). The ECI will go on for more than one and a half years and will be paid to the contractor. During that phase, the project is developed in order to fulfill all requirements within a budget. We think that is a fair approach. There are other clients (mainly in the U.K.) introducing similar forms of procurement rules and partner contracts, which we think is the best approach for a successful project. With many new large-scale projects upcoming, we strongly support the partner approach from the clients.