Report
From IPA's Europe Regional Office

Toshifumi Shiomi

General Manager, Giken Europe B.V.

The IPA Regional Office in Europe is in Giken Europe B.V., the subsidiary of GIKEN LTD. in Japan who is an IPA corporate member. Giken Europe B.V. is currently in the midst of the construction of a new office and factory in order to strengthen its abilities of promotions and total customer support. The completion is scheduled for August 2020 which will allow the activities of the IPA regional office in the region to be boosted along with the completion. In recent years, countermeasures such as reconstruction, reinforcement, and rehabilitation of existing infrastructure have been taken around the world due to rise of the sea level caused by climate change. In the Netherlands, in order to protect the country from the rise of its sea level and flooding, the National Flood Control Program (Delta Program) and bank rehabilitation projects (countermeasures against aging) under the jurisdiction of each local government have been in progress for rivers and canals.

In recent times, reinforcing those earth retaining dykes that are structurally fragile have become an urgent need to prevent natural disasters. There are various reinforcement methods in construction, but steel sheet pile walls are also introduced as a common method. (See Fig. 1). However, due to the rapid urbanization in modern times in the Netherlands, an enormous amount of time is required for construction planning, assessments of various environmental impacts, and consensus forming with neighborhoods and other related procedures before the actual construction works begin if the reinforcement works are planned by conventional structural design and construction methods. This is especially for cases such as dykes that are used as traffic road on their tops, congested areas with housing, and historical buildings. In addition, environmental protection directives under EU law should be considered in actual construction sequences. Various approaches including R.F.P. (Request for Proposals) for a breakthrough solution against the current problems are being examined.

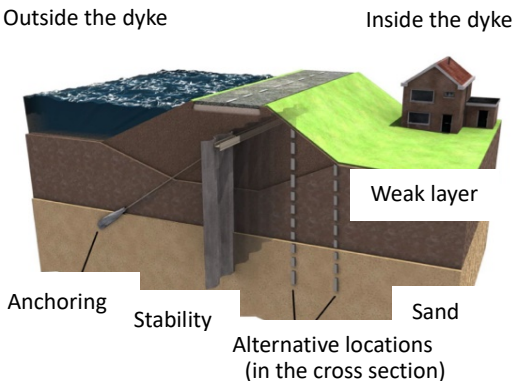

Fig. 1. Steel Sheet Pile Wall

Source:https://www.betonvereniging.nl/media/16090/eemdijkproef-arny-lengkeek.pdf

A new initiative called "Innovation Partnership" was called for tender by the Municipality of Amsterdam in 2018. The municipality owns and manages a 400-year-old network bridges and quays which are vulnerable due to advanced age. Erosion & scouring of wooden piles has led to a number of concerns of dyke stability in recent years and urgent repair is required to keep the city functioning and safe. The municipality, moving away from traditional approaches put a call out for innovations which could shorten construction times and minimize environmental impacts while protecting the cityscape. The Gyropress™ method and GRB™System that was proposed by "G-Kracht Partners" including Giken Europe B.V. have been won high praise and the partners officially awarded the project on 13th May 2020 with highest rating of all the tenderers.

Reference: Giken Ltd Awarded First Place in City of Amsterdam Innovation Partnership Quay Wall Project

The aforementioned case introduced will expand the opportunities for IPA to disseminate press-in engineering, discover new technical issues, and clarify research issues. It is necessary to grow the presence of the IPA in this region with the support of its directors and members and build a common understanding of press-in engineering and its superiorities in the construction industry. In addition, it is expected that more academia and researchers will participate in the IPA which will boost the promotion of press-in engineering, strengthen the dissemination of technical information, and expand the opportunities for research outcomes and case studies in this region.