Issues faced

The Netherlands is low-lying delta. Over the past 1000 years the rivers have been harnessed between higher and stronger dikes. However, due to climate change, river discharges have increased and extreme high water levels are expected to occur more frequently. After the river flooding in 1995, the national Room for the River programme was initiated. The idea of this programme is to create more space for the rivers in order to reduce the risk of flooding, instead of building even stronger and higher dykes. At more than 30 locations, measures are being taken to create more space for the river to reduce flood risks.

Besides Nijmegen’s historic city centre bordering the river Waal, the city was expanded on the other side of the river Waal. So the river Waal finds itself more and more in the heart of the city. Because the river has a bottleneck at this location it has a high risk of flooding. Therefor the most complex project of the national programme was executed in Nijmegen. Besides the bottleneck, the river Waal bends sharply near Nijmegen. In the years 1993 and 1995 this led to high water and floods. To prevent this from happening again and in order to protect the inhabitants of the city against the water, measures were necessary.

Methods, steps and tools

In the case of Nijmegen, the solution is far-reaching, yet sustainable and safe. By constructing a bypass channel, an elongated island is created, between the historic centre and the river’s north shore. Several new bridges assure the connectivity of the area. The island and bypass channel together form a river park that not only reduces flood risks, but also adds new recreational, ecological and aesthetic values to the city.

During flood periods the lower reaches of the island is engulfed by the water. The new embankments in this lower area are a place where people can sport, relax and enjoy the views of the historic city centre. Additionally, the flooding of these areas is increasing awareness on the changing water levels.

Key success factors

Information and participation

When the plan first was presented it was faced with a lot of resistance among the community. Creating more space for the river instead of fighting it went against centuries of ingrained thinking that dykes and dams provide security. But after a very long careful completed process characterized by thorough stakeholder involvement, sessions with city planners, the national ministry of infrastructure, the regions water board and community groups, all parties involved were convinced that the project was the best solution for the flooding problem.

Ambitious procurement

In the procurement the city council set ambitious goals for spatial
quality. Selection criteria were focused on quality, integral urban design, respect for the river landscape, functionality and sustainability. The city council called for a design competition to select the three necessary bridges.

Restoring natural landscape
The starting point of the landscape design is the natural process of the river Waal. The projects restores the former natural landscape with side channels and sandy ridges, because the natural process is facilitated.

New recreational functions
The River Park is freely accessible and respectfully integrates archaeological and historical elements into the design. The quay is the new waterfront on the north bank of the river is made up of two different levels which are connected by slopes and steps. The central part of the quay is designed as a theatre and offers space to outdoor festivals or concerts. The innovative park and quay design allows for the this new area to be used in different ways, including outdoor (water) sports, cycling, the hosting of events and exhibitions on the new island, or just a relaxing evening stroll.

Lessons learned
The room for the river Waal project is considered as a successful project. It has been realised on time and within budget. Through the broad involvement of stakeholders and serious responses to their inputs, the stakeholders’ doubts and opposition were largely addressed. So there has been multi-level and cross-sector collaboration: The ‘Polder Model’ of compromise and deliberation encourages a coordinated system-wide approach. Engagement of different governmental levels is assumed to be vital institutional conditions for the Room for the River project. Overall there is currently broad support for the project.

Results, achievements, recognitions.
Results so far:
December 2015 - opening River Park
2018: Opening swimming beach
October 2018 - Realisation reconstruction of the historical fortification Fort Knodsenburg
May 2020 - Artwork resembling a Roman mask found in Nijmegen ‘the face of Nijmegen’ was realised on the island
September 2020 (planned) - Recreational route with information and expo Riverpark (planned)
Currently new urban development on the island is in the exploration phase

Recognitions/awards:
International Waterfront Award 2011
Red Dot Award voor de communicatie 2011
Betonprijs 2015 voor de Verlengde Waalbrug
Nationale Bouwpluim 2015
Nederlandse Bouwprijs 2017
NRP Gulden Feniks 2017
References

Results: https://www.youtube.com/watch?v=oBMQoqYeW7E

Landscape change: https://www.youtube.com/watch?v=-2TE2eSV77k