The Southwest Delta is perhaps the most dynamic region in the low-lying Dutch Delta, both in terms of the dynamics of the relationship between water and land, and in terms of the dynamics of urban and economic growth and their consequences for land-use.

The dynamics of the water-land relationship increased at the time when the main stream of the Rhine shifted from the ‘Old Rhine’ to the Lek, Waal and Merwede rivers, around a thousand years ago. This resulted in a process of transformation, in which a coast with a few small estuaries from the Maas and Schelde changed into a landscape of large tidal outlets between islands, sand bars, peninsulas, salt marshes and mud flats. The configuration of this archipelago changed frequently, partly due to the storms and floods that washed away large pieces of land, and partly due to sedimentation, which led to the formation of new deposits. Human interventions, such as land reclamations, the damming of creeks, and salt extraction (achieved by cutting away the layer of salt-saturated peat), contributed to these changing dynamics between water and land. The map of the Southwest Delta changed constantly and therefore had to be re-drawn a number of times every century.

The changed course of the main stream of the Rhine was also the most important driver of the process of urbanisation that occurred in and around the Southwest Delta. Cities such as Dordrecht, Rotterdam, Antwerp and many others were able to develop, relatively safely behind the coast, while remaining easily accessible from the sea and with links to the hinterland via the rivers. By the mid-twentieth century, both types of dynamic were increasingly being perceived as problematic, and attempts were made to regulate and control both the land-water process and the process of urbanisation. After the disastrous storm of February 1953, which flooded a large part of the Southwest Delta and claimed the lives of more than 1900 people, the Delta Works were executed to provide better flood protection for the landscape and urban areas. The same period also saw the development of a national spatial planning policy that aimed to steer urban development more effectively. The rapid development of the region around Rotterdam and The Hague was viewed with particular concern. It was feared that a densely populated metropolis would emerge, characterized by overcrowding, congestion and social inequalities. The government introduced a policy of decentralisation that resulted in new centres of urban growth, such as Hoogvliet, Spijkenisse and Hellevoetsluis.

What is the situation today half a century after the introduction of the Delta Works and the pro-decentralisation spatial planning policy? The Delta Works have led not only to greater security, but also to a drastic change in the natural environment and its various ecosystems. The construction of a storm barrier in the Eastern Schelde (completed in 1982) was the first major adjustment to the Delta Plan, leading to the retention of tidal salt water in this inlet. Since then, plies for the re-establishment of tidal reserves, areas of brackish water and gradual gradients of land and water elsewhere in the region have resulted in numerous initiatives.

There have also been various changes in relation to urban growth. Over the last decade, resistance to metropolitization has turned full circle into arguments for metropolitanization. Rather than encouraging an even distribution of urban growth over the entire Southwest region, greater value is now attached to strengthening, on the one hand, the ‘green-blue’ character of the Southwest Delta itself, and on the other, the ‘horseshoe’ of towns and businesses around this delta.

Such changes do not occur automatically; new spatial design challenges have emerged, and the question remains how sub-regions of the Southwest Delta can be related to the larger whole in future.

Regarding the highly urbanized Rotterdam-Dordrecht region, the question is how a new relationship can be achieved between the ‘delta condition’ and flood security. The main arteries of the rivers run directly along and through the most urbanized areas in this region. On the one hand, this creates fantastic opportunities for new urban waterfronts, which can capitalize upon the disappearance of harbor activities from many waterside locations in these cities. On the other hand, it is these waterside locations that are most exposed to the danger of flooding. The design-driven challenge here is to develop new, attractive urban environments in combination with the lowest possible risk of flooding. This means looking not only at the local, but also at the regional level in question, but also at the water system of the Southwest Delta as a whole. It is a question of whether lowering the flood risk should be addressed on a sub-regional basis, or whether there should eventually be a joint solution for the entire area along the banks of the Nieuwe Maas, Nieuwe Waterweg, Noord and Boezem-Merwede rivers.

There are also design-driven challenges concerning the ‘green-blue heart’ of the delta. How can we strengthen the natural dynamics while maintaining as low a risk of flooding as possible? At the same time, how can we create new economic prospects for this blue-green heart – for the agrarian sector, leisure and tourism, but also for port activities, shipping and energy production? Designing the Southwest Delta in the 21st century is like tinkering with a running engine: the mechanic must constantly pay attention to the smallest parts, while simultaneously keeping an overview of the engine as a whole.