



SUSTAINABLE USE OF RESOURCES

Overexploitation of resources is a reality that is beginning to have tangible consequences for us all. In addition, crises, whether rooted in climate, health or geopolitical issues, all raise the question of resource efficiency.

EFFICIENT USE OF MATERIALS must be targeted via a circular economy, harnessing waste management as a resource. This circular approach is now being implemented under the threat of depletion of certain raw materials, and is based on ecodesign approaches that place an emphasis on the carbon footprint of projects. To use our resources more rationally, the question of resource conservation, bio-based materials and re-use channels, as well as adaptability and reversibility in construction, is becoming more and more pressing.

EFFICIENT USE OF WATER, along with shortage and pollution issues, has long motivated specialists to follow the natural cycle and prioritise sustainable, restrained resource management focusing on reuse.

EFFICIENT USE OF NATURAL AND AGRICULTURAL SPACES requires regional development to meet the challenge of long-term planning, based on a local, circular economy and preservation of soils and biodiversity (including the reuse of industrial wasteland), thus promoting restraint and efficiency and striking a balance between greenfield land loss and rewilding.

The need for change has become an imperative, whilst considering costs, deadlines and ecological and social issues that can sometimes be restrictive and antagonistic. Artelia's offering extends across several scales, from individual buildings to districts to entire regions, including the traditional aspects of infrastructure and networks. The strength of our added value concerning resource efficiency lies in our capacity to mobilise our experts for each of these scales and objectives.

- **Understanding regional issues**, to construct strategies for a regional circular economy or the sustainable management of water resources, map out the urban metabolism, rethink the economy in functional terms, identify resources at a site, etc.
- **Create/rely on an ecosystem of local players**, to construct local channels and resources, build physical or digital platforms for exchanging materials, involve users, develop synergy through initiatives such as the 'Booster' construction materials recovery scheme of which Artelia is a member, etc.
- **Eco-design projects** to re-create the city within the city, plan movements of materials, reuse resources in-situ, optimise performance of the materials used, anticipate future uses (reversibility and adaptability), etc.
- **Work for and with what is "already there"**, to rehabilitate the existing urban environment as sparingly as possible, propose new uses, selectively deconstruct buildings and public spaces, etc.