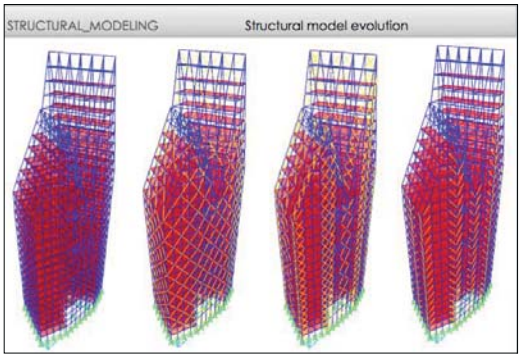
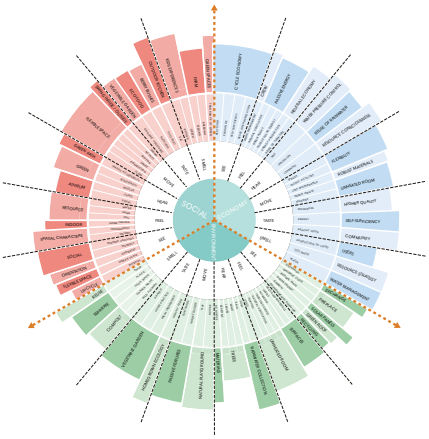
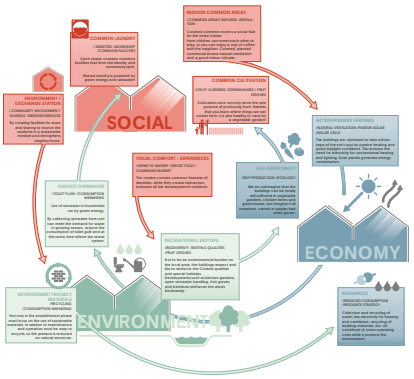
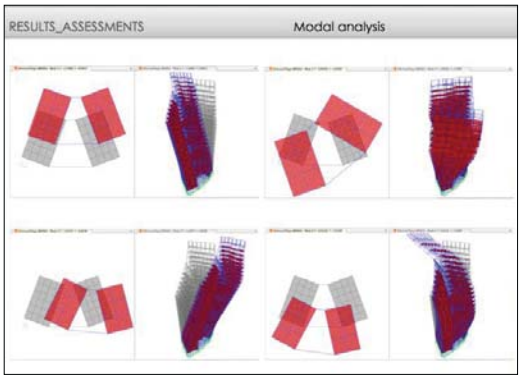
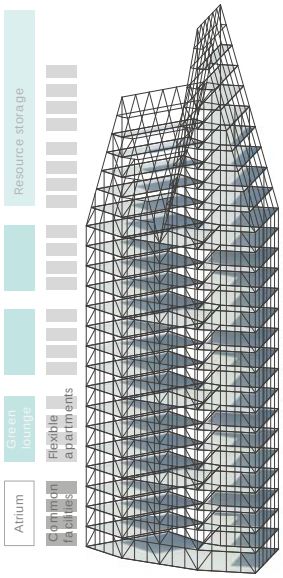


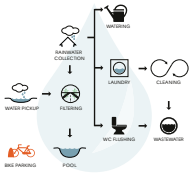


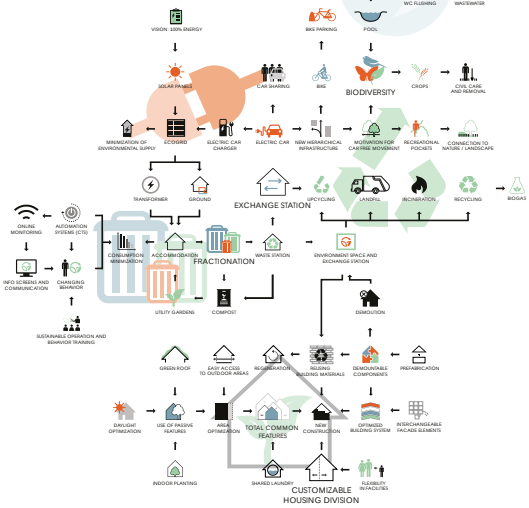


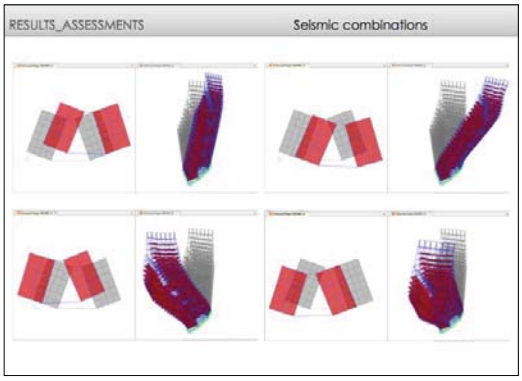


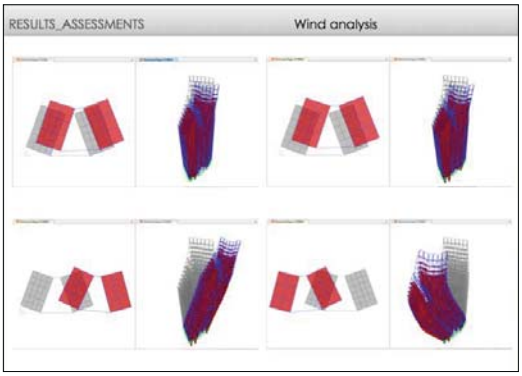


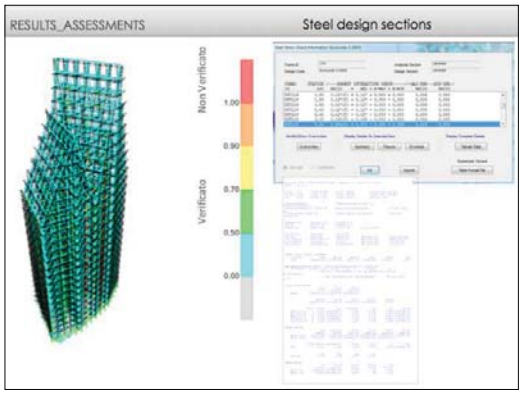
UPCYCLE& SUSTAINABLE: the new frontier











The concept at the base of Lendager philosophy is a keyword: upcycle. Upcycling is inspired by the ideas of 'Cradle to Cradle', which aims to create products that can be taken apart again after use so that the individual material components can be included in the new material circuit. On these bases we can build the future in constructions.

Upcycling covers the process that converts waste or useless materials for new products and materials of higher value.

The modeling of a tall building requires to take into account several aspects. One of these is the optimization in the choice of profiles, due to the height, the weight and the large number of members. In the model is used an iterative method to assign the appropriate profile to each member, according to Eurocode 3.

The building is located in Copenhagen, Denmark. Copenhagen is a windy place, and wind loads become important as the building height increases.
The response of the structure to the effect of wind depends on the size, shape and dynamic properties of the structure.

Model results assessment show that this project want to offer a solution that can integrate all aspects (social, economic, environmental) in a single operation.

This means that there is a minor waste of resources, and therefore economical, as there is also coordination between the various levels of intervention. The proposed solution aims to be food for thought and a model for future interventions, as the theme of building design needs solutions that respect the environment.

UNIVERSITY OF CALABRIA - DEPARTMENT OF CIVIL ENGINEERING
MASTER DEGREE IN BUILDING ENGINEERING - ARCHITECTURE

Ørestad high-rise: sustainability at height of human living.
Architectural design and structural modeling.

Student: Saveria Merandi
Supervisors: Prof. Arch. Roberta Iucente
Prof. Eng. Paolo Lonetti

In collaboration with: Lendager Arkitekter