Design with climate

1. Solar panels
   The solar panels are positioned on the most efficient and esthetic supporting way. The solar power is used for the heat pump and the general building operation.

2. Grey water collecting
   Rain water is collected on the two rooftops and collected in reservoirs on the top level. Due to this, the water can be used straight away without need of a pump.

3. Water buffer
   The configuration operates as an water buffer in times of heavy rain. The will prevent an excess amount of water which has to be processed.

4. Double facade
   The double skin facade prevents the overheating of the interior. It generates an air drag to stimulate the natural ventilation inside the building.

5. Core activation
   The building is heated by core activation. The core activation will maintain the temperature level of the building.

6. Aquifer
   The aquifer is used to heat and cool the building. The heating of the building is in combination with a heat pump.

7. Natural ventilation inlet
   These inlets are providing climate zone 2 fresh air.

Climate zone 1
   This zone is fully natural ventilated and the temperature will not be controlled.

Climate zone 2
   This zone is chosen by an single climate condition. In hot and cold times the air is treated, heated or cooled ventrally. In intermediate periods, the space is natural ventilated.

Climate zone 3
   In this zone the air is centrally treated and locally heated or cooled. By this, different climate zones for different activities can easily been realized. In intermediate periods, fresh air is able to enter via manually opened windows.

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Summer Situation

- Temperature 2-18 °C
- Sun Shading
- Floor Cooling
- Induction unit

Winter Situation

- Temperature 18-21 °C
- Sun Shading
- Floor Heating
- Induction unit

Intermediate Situation

- Temperature 60-2 °C
- Sun Shading
- Floor Heating
- Induction unit