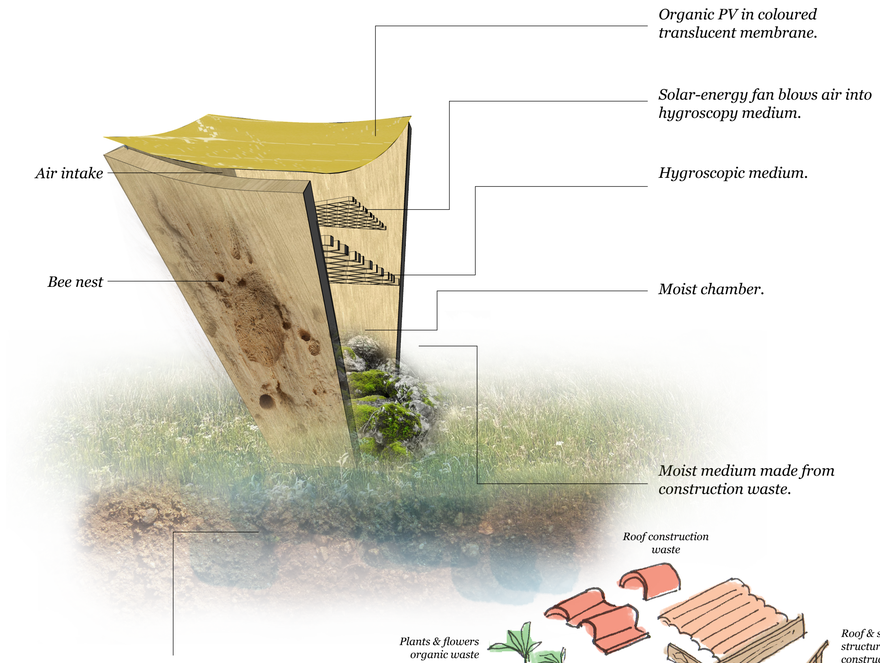
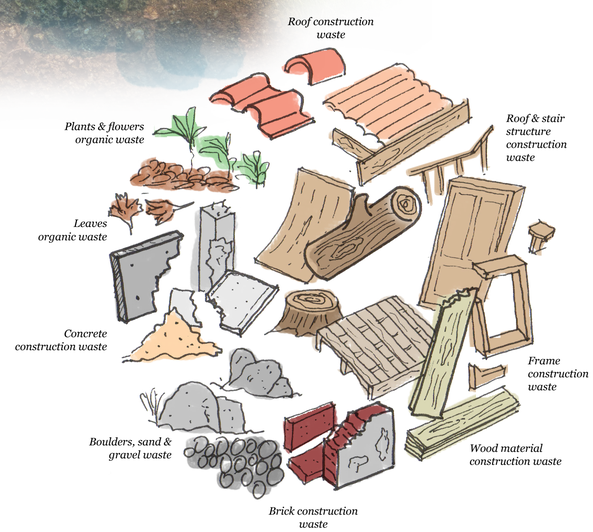
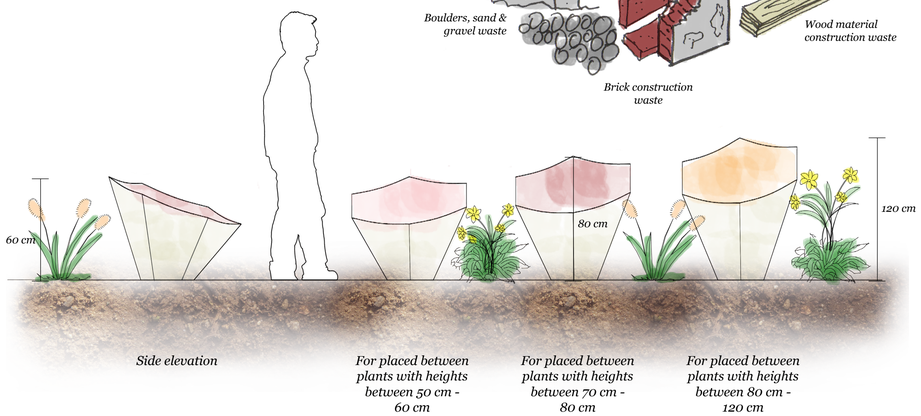
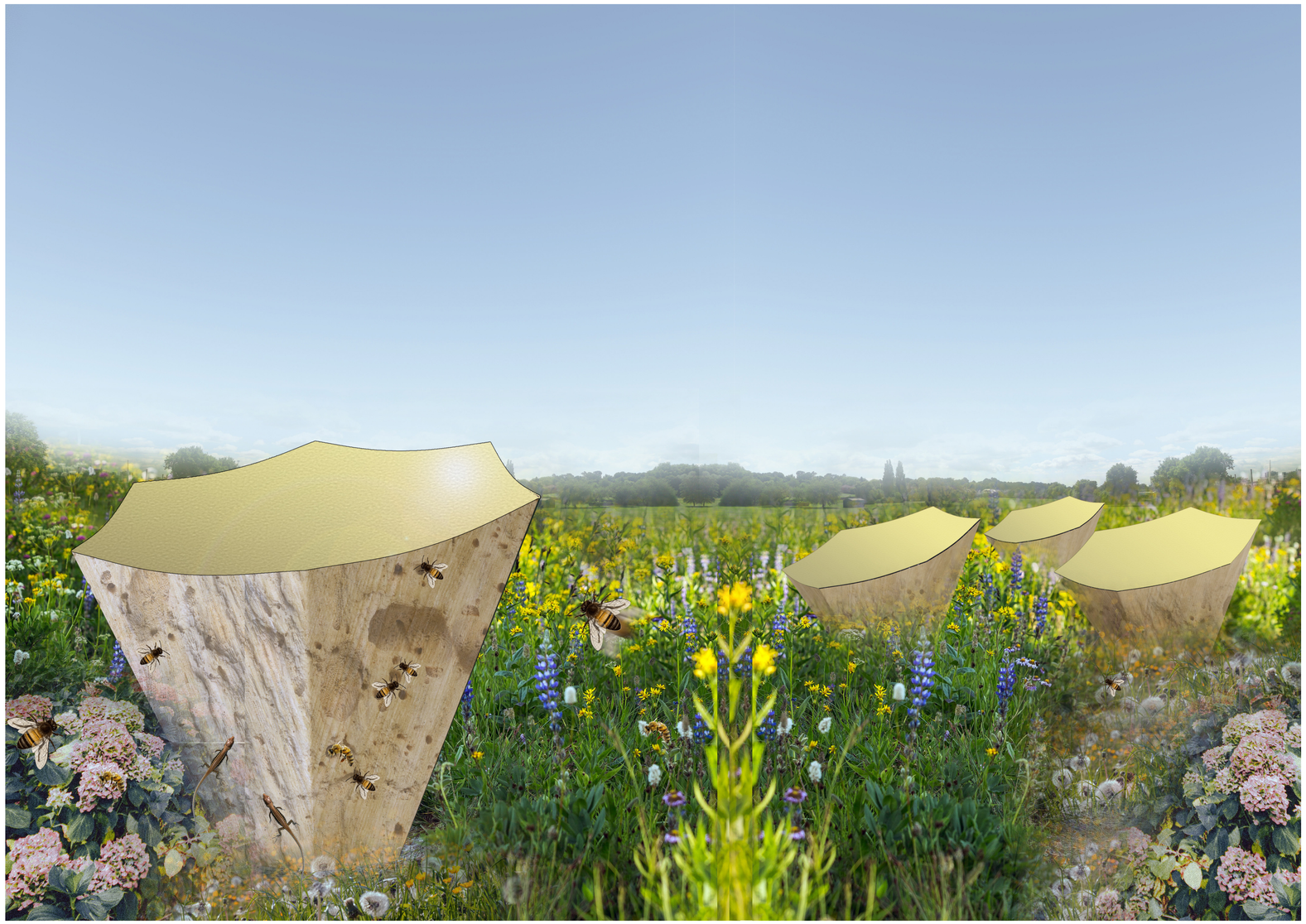
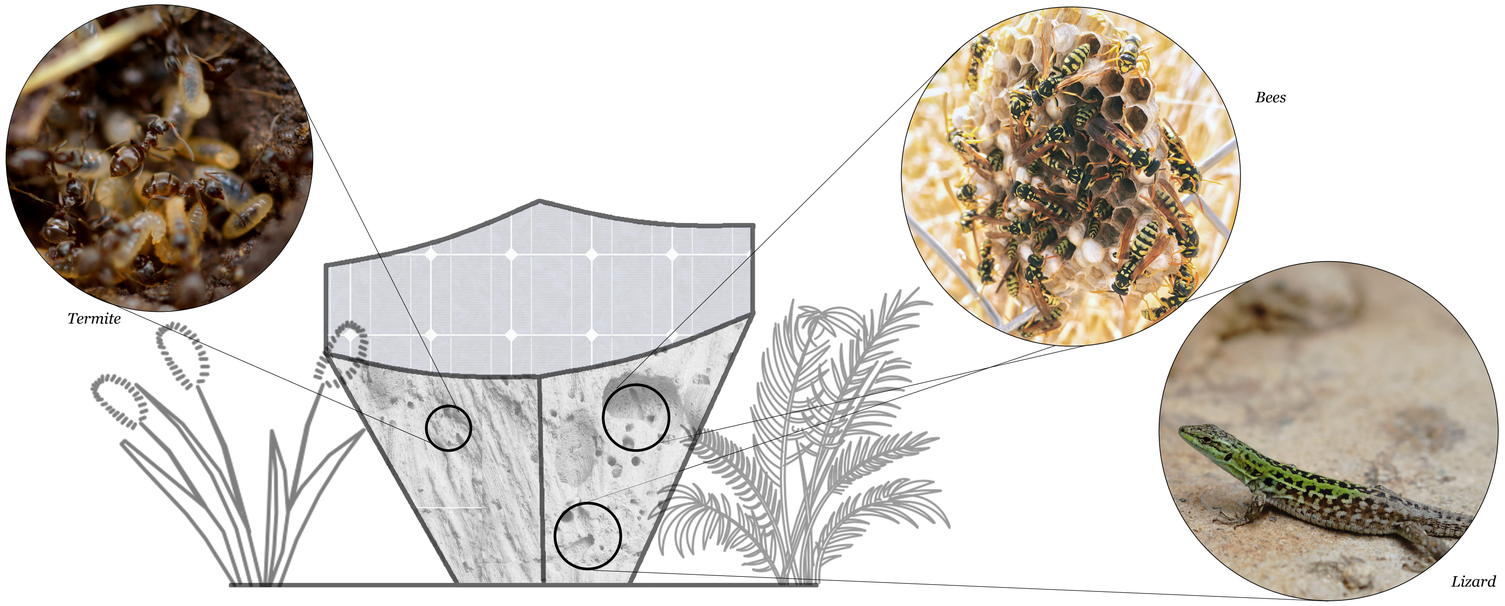
BLOOM

Energy infrastructure as an ecosystem catalyst in a dry land.

Small mobile-unit

The design principle for small-mobile unit adopting the principal of hydro panel PV system with hygroscopic material embedded in the design. It has hygroscopic material placed on the waffle structure with solar-generating fan blows air from air intake into the materials. The moist chamber underneath hygroscopic materials keep water drops and naturally absorbing water to the ground. With the height range between 80 cm until 1,3 meter, the device will have simple structure made from reused wood material from construction site. The photovoltaic made from tensile membrane with colors translucent and photovoltaic embedded and supporting by reused fishing nets. With the implementation of organic PV on translucent membrane on the 10,5 m² surface on top of the device, the small mobile-unit has the ability to generate ***1,6 MWh of electricity per device annually. For the application in 10 Ha land cover with 2100 devices, the energy field can produce up to 3360 MWh annually.*** *Besides the electricity, the canopy main unit can produce 1 litre of water per day per device during a hot summer climate.*