



**Key Partners**

**Nordicflexhouse**  
[www.nordicflexhouse.dk](http://www.nordicflexhouse.dk) is system owner of the BioPod Container (BC), that can be integrated with restaurant. Nordicflexhouse is also key contact to emerging markets in Asia and Scandinavia market.

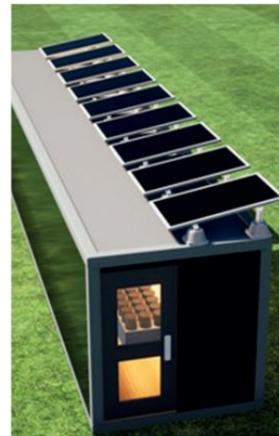
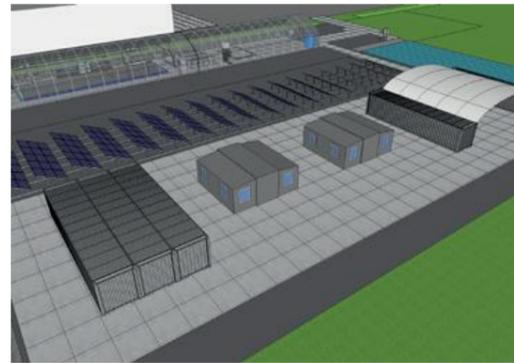
**Bugging DK**  
[www.Buggingdenmark.dk](http://www.Buggingdenmark.dk)  
 Production of insect protein as feed for aquaponics and as food products, feed blend for insects and insect frass as fertilizer for hydroponics in aquaponics unit

**Water ApS**  
<https://water.dk>

Install aquaculture tanks and necessary fittings for aquaponics unit to facilitate water recycling between hydroponics and aquaculture tanks in aquaponics

**Key Activities**

The BIOPOD Container (BC) is a food production ecosystem where only energy, food waste and water are necessary value resources to produce healthy and nutrient-rich microgreens, vegetables, fish and insects. The BC is an energy and water efficient solution, that supports the principles of circular economy (recycling of waste streams).  
 The BC solution is a closed food production that operates at the household or urban level, establishing a food production based on aquaponic solution (water borne solution) and vertical farming, consisting of two 40' shipping container, one container refitted with biogas unit and one with aquaponics/insect unit. We call the production platform BioPod Farm as shown in Figure 1 below.



**Value Propositions**

**The first 40f container** contains a MGS plant in 4 floors, which grows lettuce/ herbs/microgreens  
 Lettuce: There are 4 MGS floors in each 40f container, each with 108 rows of each 11 plants = a total of 4968 plants in each container (the figure is 8%-10% larger if you grow herbs). Since the growing time of a plant in the MGS plant is 22 days, 226 plants can be harvested every day (the figure is 8%-10% greater if you grow herbs). The weight of each lettuce is 200 gram. That means 16.272 kg of lettuce pr year. If you prefer to produce cucumbers and tomatoes, the BC can produce 1,680 kg of tomatoes and cucumbers per year. A mix of salads, herbs, tomatoes and cucumbers can also be produced in the container.

The container also consist of insects. The container can hold mealworms in 8 layers of rearing boxes with a total maximum of 338 kg of larvae biomass (at the end of a 10 week production cycle). The container is fully equipped for breeding and harvesting of mealworms.

The container consist of two fish tanks and a filter system. It produces 500 kg of fish every year. It is a Recirculating Aquaculture Systems [RAS]. Discharges from these facilities can be solid and liquid fraction. The solid fraction can be redigested in anaerobic unit whereas the liquid fraction can be used as biofertilizer in hydroponics unit

**The second 40f container** is a biogas container. It provides an unique combination of waste disposal solution designed through high-efficiency digesters and software platform. A convenient source of organic fertilizers and biogas while disposing of waste. We offer modules that channel the energy from the biogas towards creating hot water, cool water, steam, or electricity. The Biogas container can produce electricity at 135kwh/day and net heat produced at 115kwh/day. It has a processing capacity of 800 kg organic waste/day.

A single person can maintain and plant/harvest at this BioPod Farm, with

**Customer Relationships**

The core around BioPod Farm is a 400m2 green-house integrated with Biopod containers (fish, vegetables, water, biogas) and a restaurant. The target group is Eco villages, Restaurants, Active roofs/green roofs in apartment projects in cities. BioPod Farm can be expanded to contain BioPod container production (license production), 3000m2 BioPod greenhouse production, BioPod fertilizer production, using insects and organic waste. BioPod Farm can be offered to municipalities in Denmark and abroad, based on their local resources, like organic waste collection and reuse of waste.

**Customer Segments**

We create value to:  
**Restaurants** by recycling and reuse the organic waste and supply local produced and healthy vegetable with reduced waste to the restaurants and their customers.  
**Municipality** by recycling and reuse the organic waste in the city and deliver local produced vegetable to the city. The BioPod container can be placed in food streets or near supermarket.  
**Eco village** with the BioPod as a shared resource facility to be used by the residents. The Eco village can also sell the produced vegetables to surrounding cities, and thereby create a business for the community.  
**Developer/real estate**, that plan green apartment projects or refurbishment to existing apartments in cities (food cities). The BioPod will be established on the roof or street as a shared resource facility for the residents.



	<p><b>Key Resources</b></p> <p><b>Organic waste/sidestreams</b> from restaurants (small scale), supermarket or from city (large scale).</p> <p><b>Rain water/public water</b> for the water circulation solution.</p>	<p>approximately 1-2 hours of effort each day.</p> <p>ROI: 4 years. The use of indoor vertical agriculture (like our BioPod container) is growing globally by 24 per cent. annually. The market is expected to reach \$6.4 billion by 2023.</p> <p><b>BioPod container value proposition</b></p> <ul style="list-style-type: none"> <li>• High yield of vegetable/micro green and saves a lot of land and labor</li> <li>• 95 pct circulation of water</li> <li>• 100% renewable energy (Biogas or PV, heat pump with ventilation)</li> <li>• Vegetable: Salat, microgreens, tomato, chili and bell pepper</li> <li>• Cost effective (28 time more effective compared to field and 80 pct saving in labor cost) and reduced carbon foot print (farm to table)</li> <li>• Organic waste to nutrients and energy</li> <li>• Healthy indoor climate</li> </ul>	<p><b>Channels</b>  <b>B2B</b> directly with Danish and international customers.</p> <p>Through <b>partnerships</b> with the whole supply chain of companies through current strategic partnerships.</p> <p><b>Licensing</b> with Asian markets (OEM production, distributor). Marketed through <b>tradeshows</b> and specialized <b>journals</b>.</p>	
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