



" How to Deal with Climate Change and Impact on Foodservice"

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HOW TO DEAL WITH CLIMATE CHANGE AND THE IMPACT ON FOOD SERVICE.



EUROPE – BREEAM.

- Building Research Establishment Environmental Assessment Method
- British system to create buildings with a high environmental aspect in environment, energy, water, waste, ecology and pollution.
- BREEAM certified kindergarten in Sweden and office building in France, equipped with efficient energy saving pot washing systems.



The office property KOGG 2 in the Western Harbou , Malmo, is the first building in Sweden certified to the level Excellent with the British certification system BREEAM .

ELECTRIC CARS – NORWAY.

- More than 8000 electric cars.
- More than 3000 dedicated place to charge the cars.
- 3,5% of all sold cars in Norway are electric cars.
 - No VAT apply for electric cars.
 - No congestion fees
 - They may use bus lanes
 - Free parking.



Reducing pollution is important!

The Key is to make it easy for everybody...

CLEAN AIR – NO POLLUTION, SWEDEN.

- Lillgrundsparken in Öresund, founded in 2008.
(sea between Sweden & Denmark),
- The world's third largest offshore wind farm
with 48 wind mills and 1 sub station.
- The offshore wind farm contributes with
electricity to 60 000 households or 200 000
persons.

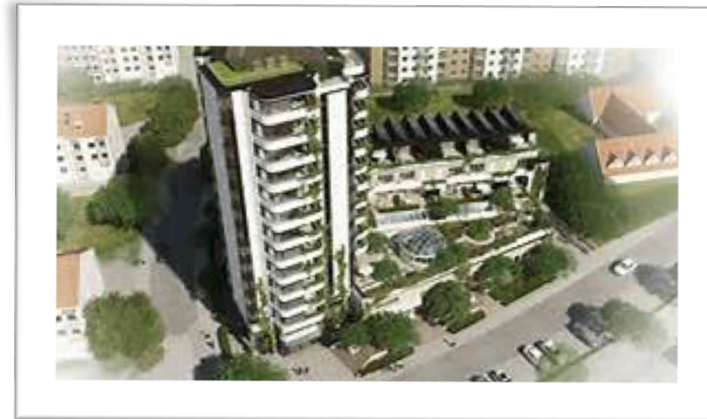


*”Wind turbines provide –
not raise either waste or emissions”*

GREEN PASSIVE HOUSE – SWEDEN.

Greenhouse is one of Sweden's most sustainable building projects.

- Designed to have the lowest possible energy consumption.
- Smart energy. Roofs with solar cells.
- Green roofs with sedum. Improved isolation and noise reduction.
- Hot water is charged separately, residents only pay for the water they actually consume. To get hot water from the tap, you actively need to push the handle and hold – otherwise only 40°C.
- A convenient home/away button on the apartment door can be used to let your home "rest" when you are not there. The ventilation goes down and the lights go out.



"A green, simple and climate smart life"

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BICYCLE CITY – MALMÖ CITY, SWEDEN.

- Safe: Special bicycle lines, makes a great choice together with walking and public transport should be the norm in the city.
- Reducing the pollution.
- Easy: 467 km bicycle paths within the city.
- Encouraging. Malmö citizens are using the bicycle for 23% of their trips. Target for 2018, to increase to 30%.
- Award for best municipality promoting bicycling.



***Reducing pollution by encouraging
to leave the cars at home.***

CLIMATE CHANGE AND THE IMPACT ON FOOD SERVICE.

- **Food waste** – affects the environment
- Swedish restaurants **waste 260 000 tons of food** yearly.
 - * Need for improved prognosis – how many guests will come?
 - * Serve less food on the plate – one more portion if still hungry.
 - * Re-use leftovers for preparing new course next day.
- Trend within restaurants goes on using
 - **organic**
 - **locally produced**
 - avoid transport of food - pollutions.
 - seasonal ingredients.



To produce one hamburger you need 2400 litres of water.

EQUIPMENT AND THE IMPACT ON ENVIRONMENT.

- Food Service Industry is very conservative.
- Old fashion stoves, tilting pans, deep fryers for cooking are very unhealthy.
- Manual washing of all washware is hard and require a lot of water, energy & chemicals.
- Plenty of chemicals needed to ensure hygiene safety of washware, but very aggressive for environment and peoples health.



Many still stay with old habits – like 30 years ago

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IMPACT ON WASHING UP AREA.

- The environment has become increasingly important, both for the public sector and the private restaurants.
- Do not leave the towel on the floor...

But where is most of the water consumed?

- A dripping tap is equivalent to 40 liters of water wasted per day... 15 000 liters yearly.
- The washing up area is a great water waste and specially the potwashing wasting thousands of litres every day...
- Replacing manual Pot washing with a efficient system will reduce the number of sinks needed, or even eliminate the sinks.



Water is a short supply in many countries.

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CASE STUDY SHOWS.



THE SITUATION BEFORE.

Pot and pan washing area:

- Decarboniser and 3-bowl sink.
- Need to soak for hours before the pots- and pans could be scrubbed clean.
- 2, 500 meals per day = approx. 250-300 pans to clean.
- 6,177 litres of water wasted daily =
2, 223, 000 litres of water yearly !



Hotel swimming pool could be filled up 10 times per year instead of wasting the water in the washing up area.

CASE STUDY CONFIRMS.



THE SITUATION AFTER.

Pot and pan washing area:

- Replace with efficient modern Equipment
- Which also eliminate the need to soaking & scrubbing.
- 2 500 meals per day = approx. 250-300 pans
- Now consuming 512 litres of water daily = 184, 320 litres yearly.



= **Yearly savings of 2, 038, 680 litres of water** → **91,7%**

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MANUFACTURER'S RESPONSIBILITY - REDUCING ENVIRONMENTAL IMPACT.

- Predominantly use recyclable materials.
- Optimizing the efficiency of the technology
- Focus on optimising to use even less time, water & energy.

*Modern equipment have more than 70%
in recyclable materials. Target is of course 100%.*



COMPENSATION FOR THE CARBON FOOTPRINT.

- Hard to push through major changes as quickly as the current climate system would require while remaining the business profitable.
- Our company GRANULDISK therefore has chosen to join a tree planting project to compensate for the CO₂ emissions caused by our production, including delivery from factory to end customer.
 - **We are the first manufacturing company, but we hope to see more followers.**



Choose a winning concept for you, and for the environment.

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