

Meeting The Green Forts

Foundation Liniebreed Ondernemen

September 30, 12.00u – 18.30u

Workshop 1 Sustainable energy

Foundation The Green Canals ('De Groene Grachten')

16.20u – 17.10u

Present

Marc Hogenboom – Fort de Kwakel
Erik van Tooren – Provincie Utrecht
Henry Wittenberg – Zun International B.V.
Tomi Dijkema – 't Oude Stoomgemaal Asperen
Volker Vlaming – Bunker Q (Fort Vreeswijk)
Goof van Vliet – Fort Giessen
Hans van den Bedem – Habo DaCosta
Ben Spee – Fort Vuren
Robert Pippel – Energie adviseur Fort Vuren
Lodewijk le Grand – Provincie Utrecht
Frank van Deth – Nudge
Timo Spijkerboer – De Groene Grachten
Marjolijn Bonnike – De Groene Grachten

Location: Fort Altena, Tol 8 Werkendam

1. Why renovate energy efficient?

The meeting starts with an introductory round by participants, in which a personal motivation for sustainable renovation is given.

Marjolijn shows three examples with several motivations for sustainable renovation.

Others present the following motivations:

- Economic: save on energy bill
- On the one hand cost-effective exploitation, on the other hand the feeling of a moral duty and the extra comfort gained (architect Fort Vreeswijk)
- Idealistic: to educate (Fort Giessen)
- Preservation of premises together with comfort and idealism (entrepreneur in an old steam pumping station)
- Economic (Fort Vuren)
- Economic reasons for own home, but with possibility to remain flexible ("maybe I will move within 5 years") (Zun infrared panels)
- To improve the profiling/image of sustainability (Province Utrecht)
- Communication, improvement of processes (Nudge)

2. How to renovate?

Participants fill out *The Green Menu* (www.degroenemenukaart.nl) in duo's for one of the premises they work or live.

The goal of this is to find out necessities for a *Green Fort Menu*. What would the entrepreneurs like to incorporate in the menu and would it be of assistance?

3. What should be the future steps?

Feedback on *The Green Menu* is given by everyone. Marjolijn shows three (provisional) scenario's for the sustainable renovation of Fort aan de Klop. This is based on the 'DCBA-method', where the scenarios move up from the current situation (scenario D) to the most ambitious plan (scenario A). So

scenario: C stands for first small improvements in sustainability, scenario B is a leap forward and scenario A goes towards Autonomy.

Forts are very different, so is one tool possible?

The differences between the forts make it hard to form one standardized approach for renovation. The forts are used in different ways, this should be taken into consideration. Permanent or temporary use has an effect on energy consumption.

However, there are a lot of similarities between the forts too: bats, thick walls, surrounding canals, moist. The Menu could focus on these overlapping themes.

What kind of tool is needed?

Best Practices as example projects: indicating the taken measures and the achieved results. The tool should provide in knowledge sharing and monitoring between the different forts and entrepreneurs. The Geofort, Fort Resort Beemster and Fort Vuren could be set as examples. It might be possible to link these forts to the scenarios/typologies (C, B, A).

Practical tips for the tool:

- Quantify and concretize! "Average energy bill per fort, with this package you can save up to 40%, when you invest €10.000, you can save €4.000."
- The tool should be suitable for business application (for instance, a different energy rate), a business tool is needed.
- Fill out an intake form when entering the site, on which goals have to be filled out.
- Don't involve area development, because this would make it more complicated.

Is a market available for such a tool?

The Dutch Waterline exists of 64 forts, of which only 5 can be fully renovated. This doesn't mean it is impossible to improve the others more sustainably. Although a large-scale rebuilding of those forts will be less relevant. Outside of the Dutch waterline other waterlines exist. These face similar problems. The Green Fort Menu can also be relevant for them.

Conclusion: a market is available. And above all, there is demand for knowledge sharing and best practices. A tool which informs and makes sustainability tangible is needed. The wheel shouldn't be reinvented for each fort.

4. The Green Forts conclusions

Focal points:

- Identify leaders/best practices
- Stimulate knowledge transfer
- Gather expertise on different issues like bat management, use of water, regulation of moist.

The communication about sustainable use of the forts can be an opportunity for attracting more visitors. For instance, by actively involving youth, organizing energy competitions or by organizing tours which focus on sustainability. This way The Green Forts can not only save on energy costs, but can also draw more visitors.