Short report SynSerre2Meeting1

29-4-11/HH

Present: Piet Sonneveld, Alireza Mahdizadeh Hakak - BK, MarkDavid Hosale, Kas Oosterhuis, Andy van den Dobbelsteen - BK, Patrick Teuffel - BK, Eric van den Ham - BK, Giancarlo Mangone - BK, Ad van Wijk - TNW, Hans Hubers.

Absent: Kees van der Linden - BK (with notice)

For the agenda, presentation of Hans Hubers, result of brainstorm, impression movie see website <http://www.hyperbody.nl/research/projects/SynSerre/>

It was a pleasant meeting and everybody wants to stay involved and continue the project. Next time we should look more closely into data-exchange between the different disciplines.

Decisions:

1. Location for SynSerre prototype is lower wing EWI, near iWEB.
2. Design method is: dynamic functions - point clouds - swarming relations - transfer points to Rhino/Grasshopper - generate global concept - workout with discipline specific software. Decisions by one-man-one-vote.
3. No separate spaces, combine functions.
4. Greenhouse for food, not e.g. bio-fuel.
5. No extra disciplines (e.g. cost advisor) are needed at this moment.
6. Before we continue, find funding partners: Priva, AH, McDonald’s, IKEA.
7. Find out if roof of high-rise EWI is available (in case of restaurant).

Discussion:

1. It should be as much as possible a closed system, use LED, use waste as biomass (Ad van Wijk).

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| **Pro** | **Contra** |
| No loss of heat and CO2 by ventilation. | Need of high quality energy for cooling (electricity for heat pumps with aquifer). |

1. We should use the Near Infrared Radiation (NIR) for Photo Voltaics with system (Piet Sonneveld).

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| **Pro** | **Contra** |
| Generate energy. | PV cells cast shadow and 1% less light is 1% less production in greenhouses. |
| SynSerre is not production greenhouse, but combination of functions. | More efficient to generate electricity elsewhere. |

1. We should use adaptive materials and constructions, adapt space to changing functions, e.g. use nano gels (Patrick Teuffel).

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| **Pro** | **Contra** |
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1. Different functions need different solutions, e.g. place to eat needs shading while plants need sun light (Eric van Ham).

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| **Pro** | **Contra** |
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1. Use zoning and do climate calculations in AIS software (Giancarlo Mangone).

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1. We should aim at a budget of about € 500.000 for 500m2 (Kas Oosterhuis, Piet Sonneveld).

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| **Pro** | **Contra** |
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