



Faculty of Design

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Analysis of contexts and conceptual variables for a sustainable approach into systemic model

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Analysis of contexts and conceptual variables for a sustainable approach into systemic model

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- Design & Sustainability Context. Preliminary approach · **1**
 - Strategic vision: design for sustainability · **2**



The need of a Systemic Model

- The concept of sustainability embedded in the model · **3**
 - Systems thinking in the proposal · **4**
 - Study Case · **5**
 - Conclusions and future research · **6**

1. Design & Sustainability Context. Preliminary approach

a. Multiobjective design

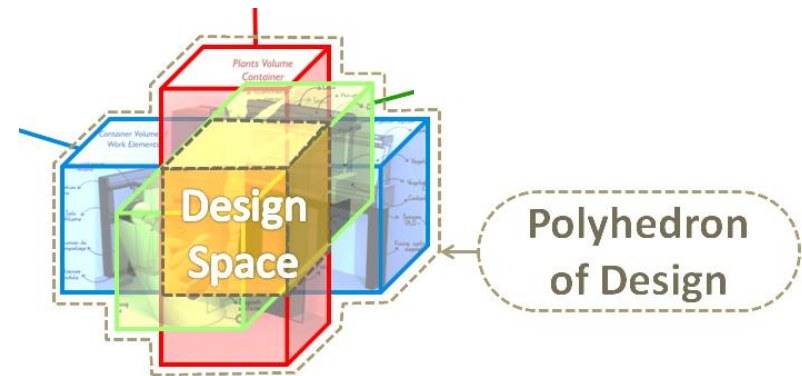
- Physical performance and basic design criteria.
- Sustainability.

b. Considering multiple sources of uncertainty

c. ¿Where? *Early stages.*

2. Strategic vision: design for sustainability

d. The need of a Model

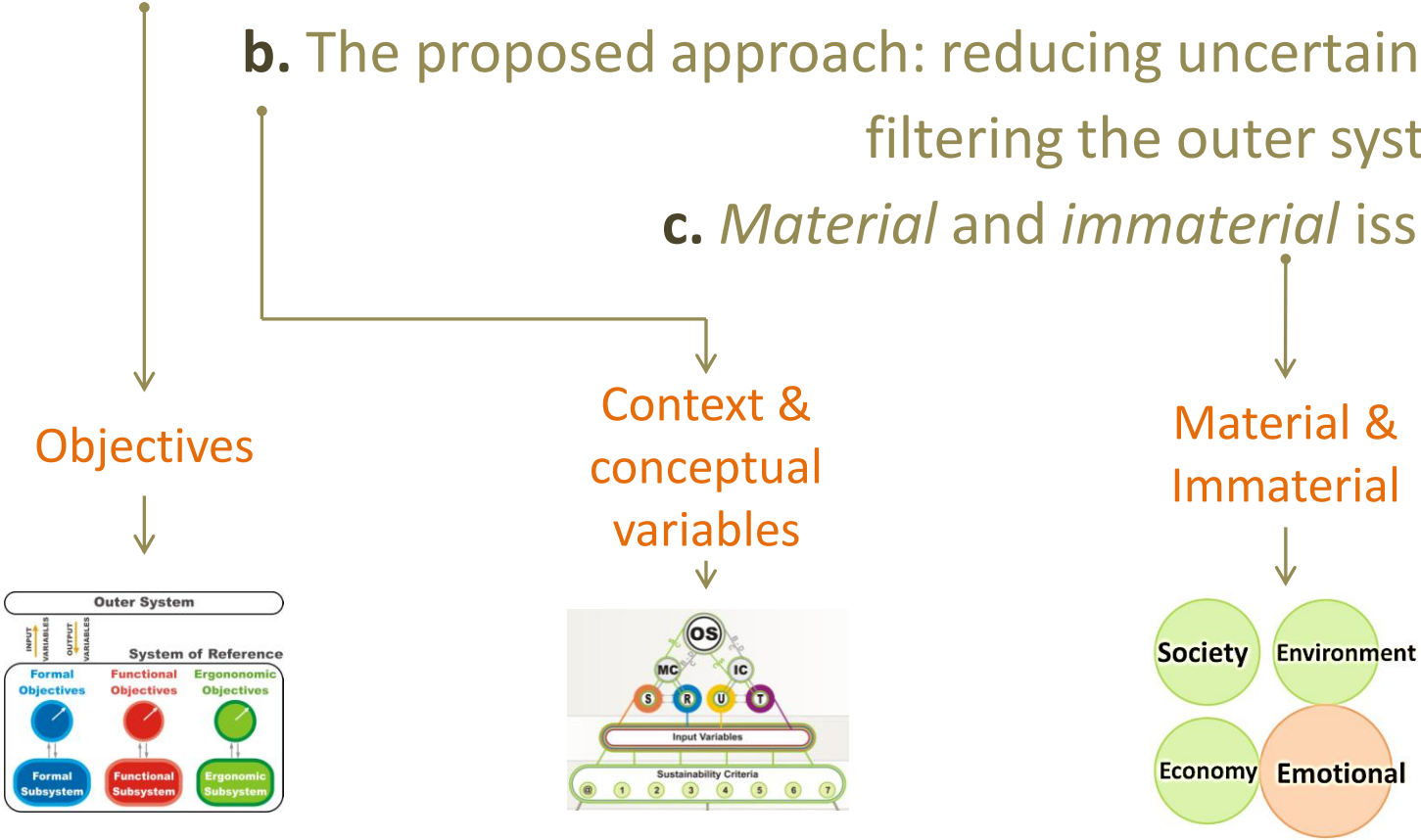


3. The concept of sustainability embedded in the model

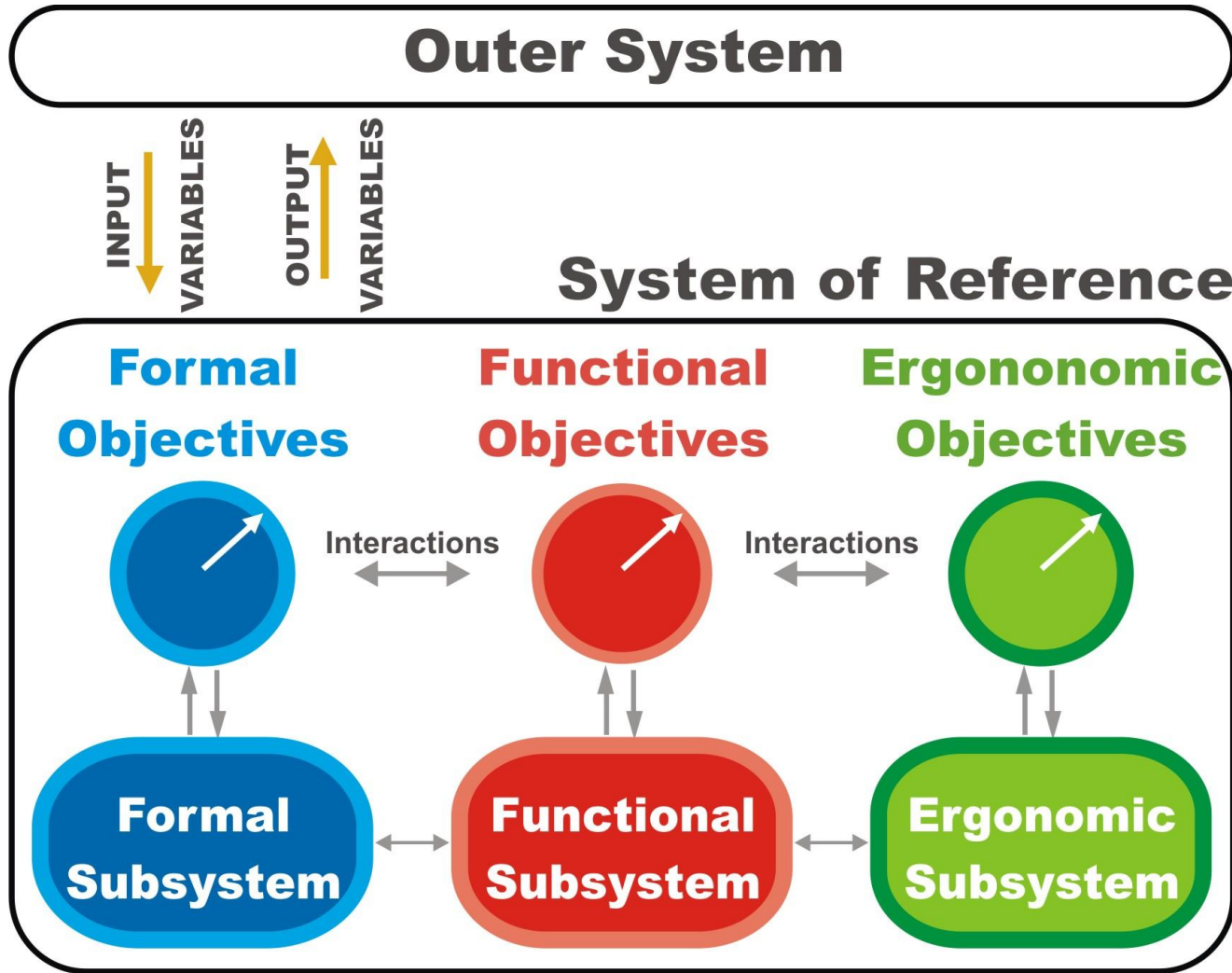
a. The Systemic Concurrent Design Model (Hernandis, 1999)

b. The proposed approach: reducing uncertainty / filtering the outer system

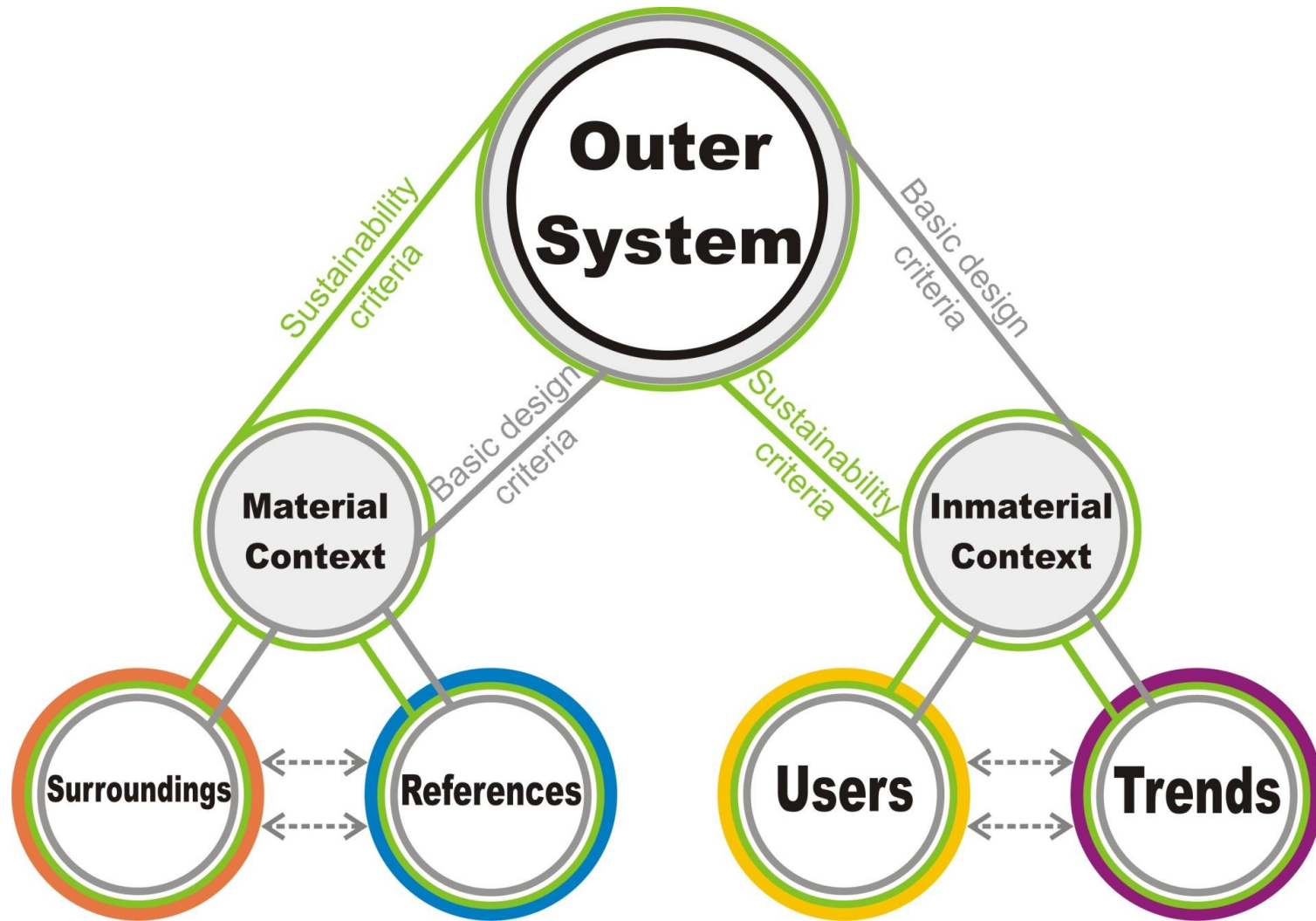
c. *Material and immaterial* issues



4. Systems thinking in the proposal



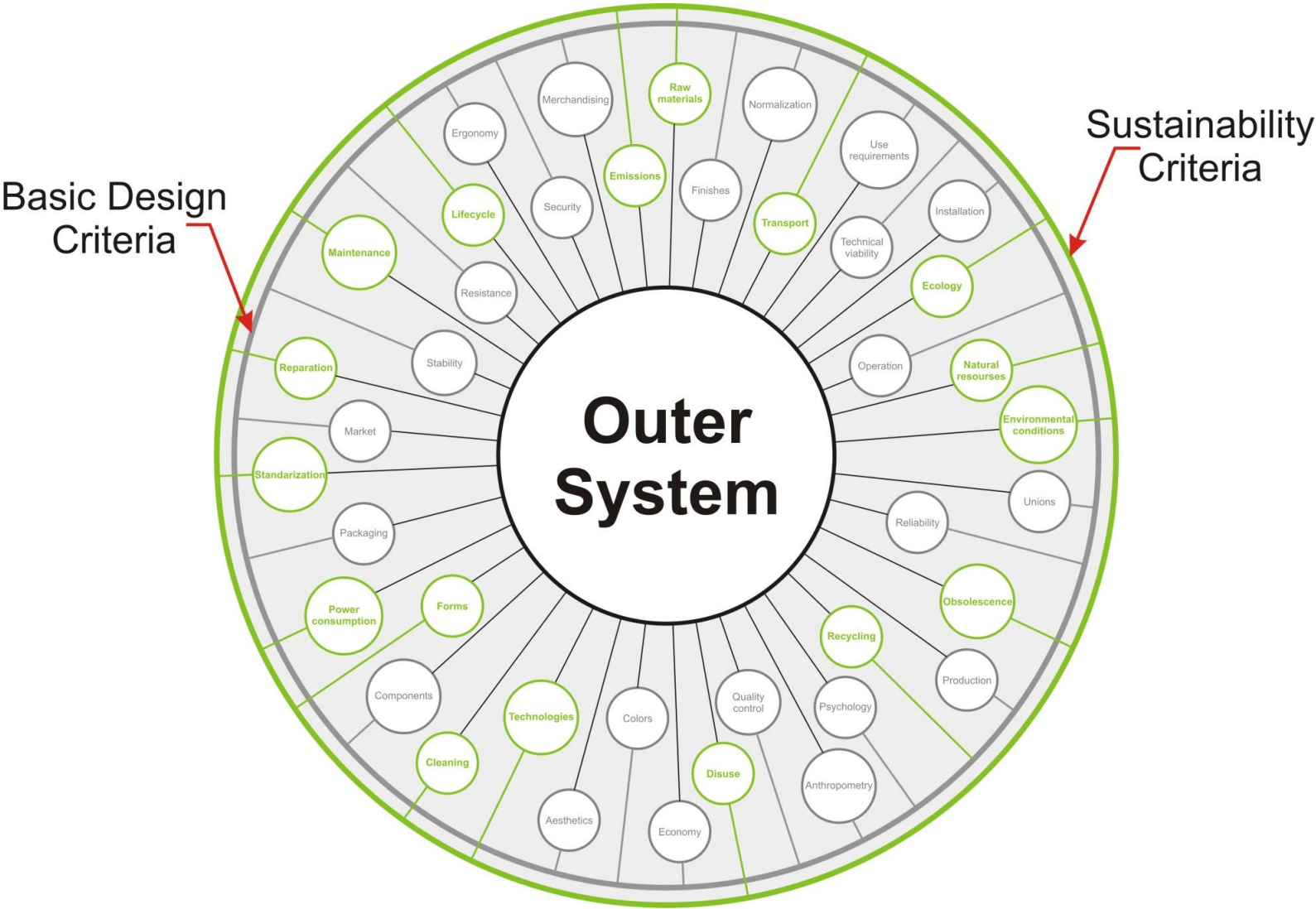
The Systemic Model of Concurrent Design of Hernandis, B. (2003)



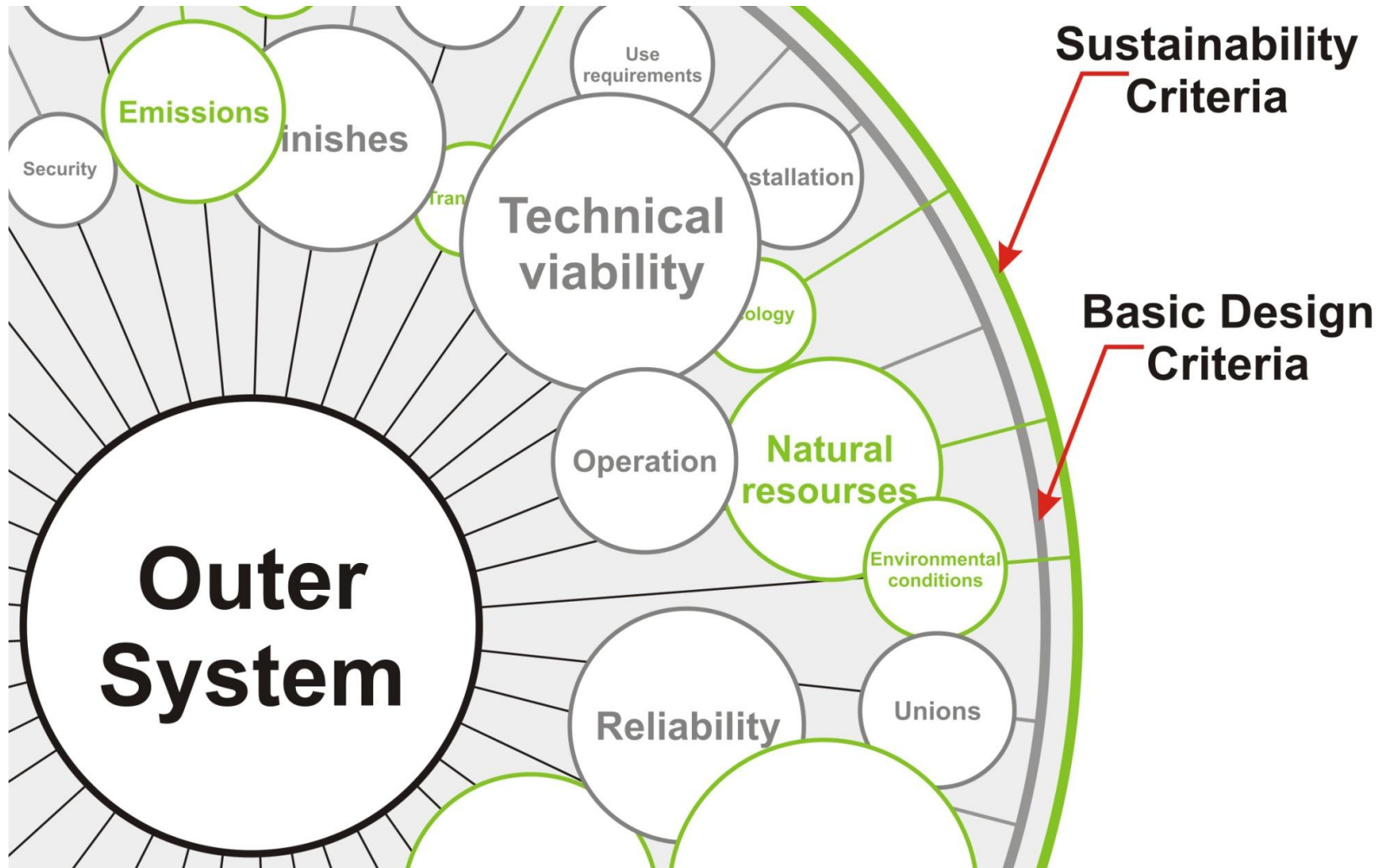
Identifying criteria from the Outer System to validate the assumptions and knowledge about the concepts identified and the perceived reality



The habitable spaces are increasingly smaller and gardens tend to disappear. Vegetable patches and green spaces that were common in other times, are no longer there.



Outer System: the beginning to get external data that affect the problem



Environmental and basic design aspects that provide considerations and constraints that influence the design problem

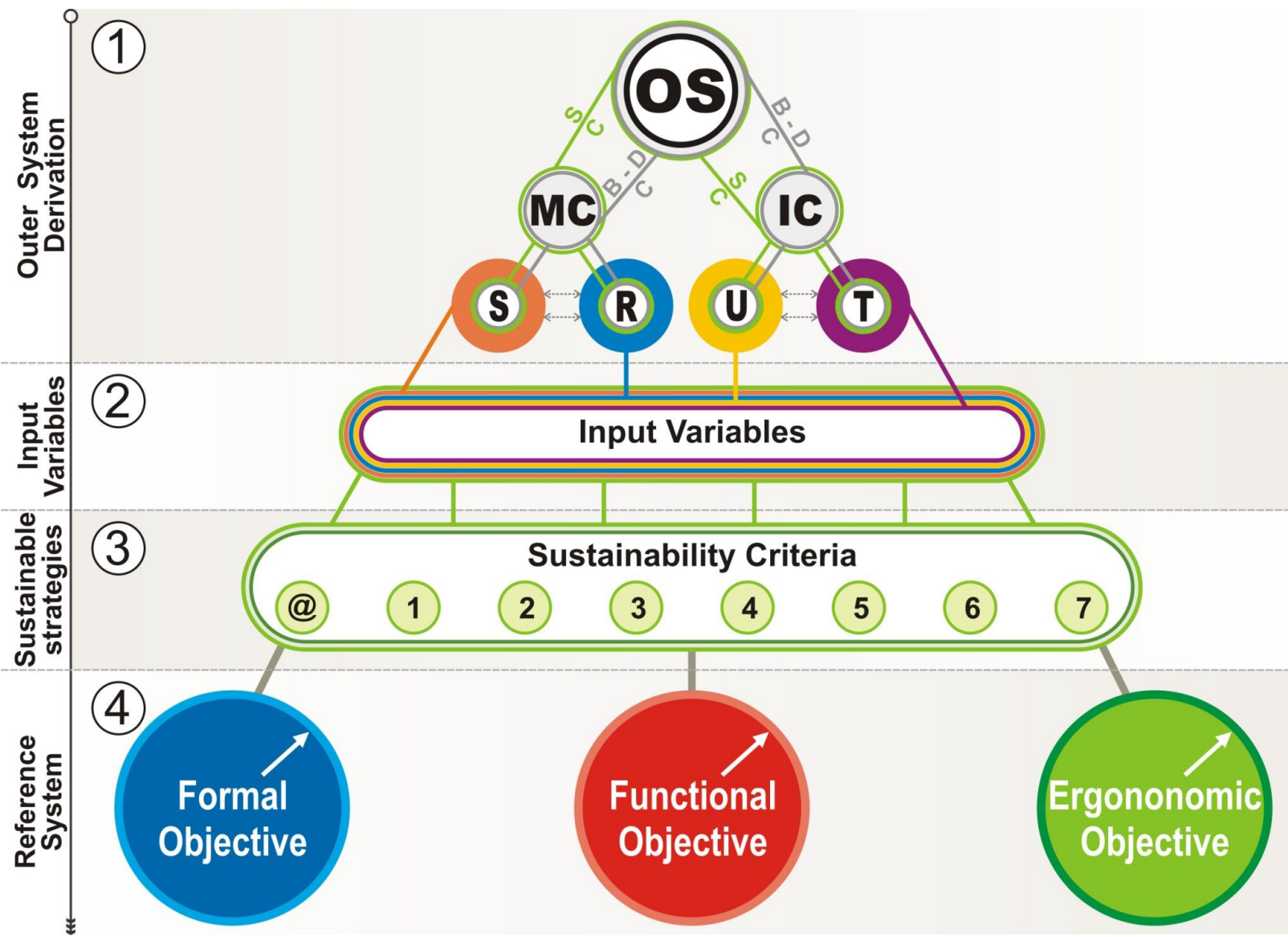


Sustainability

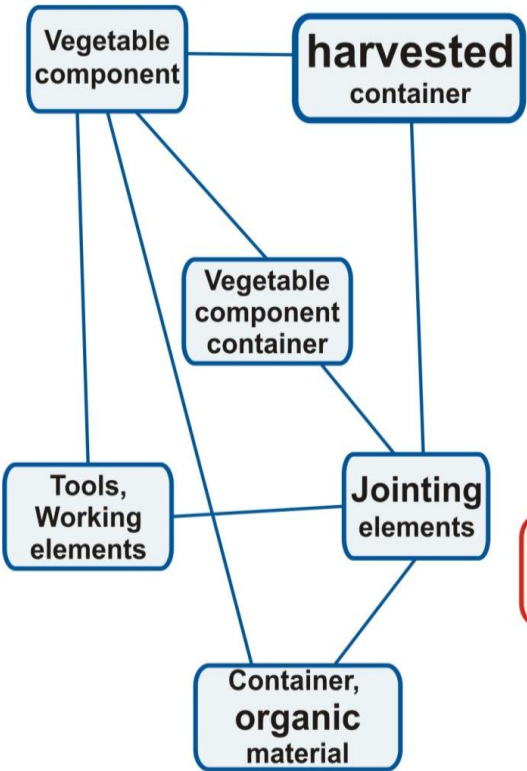
Model

Study Case

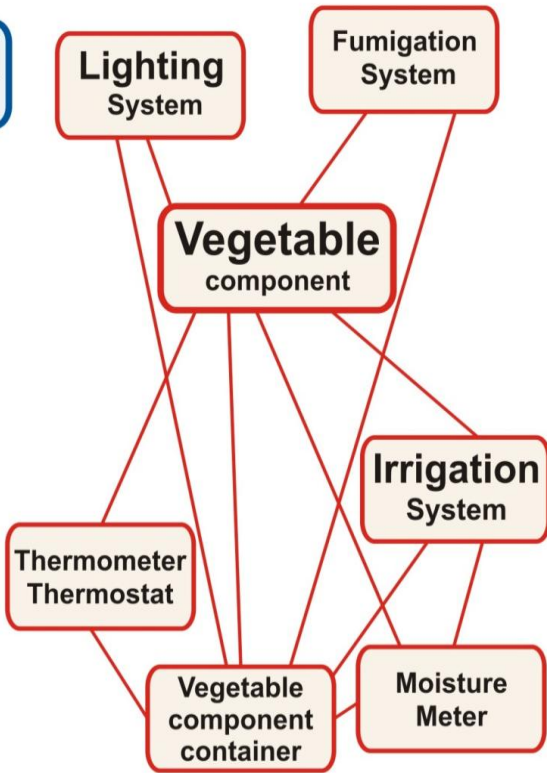
Conclusions



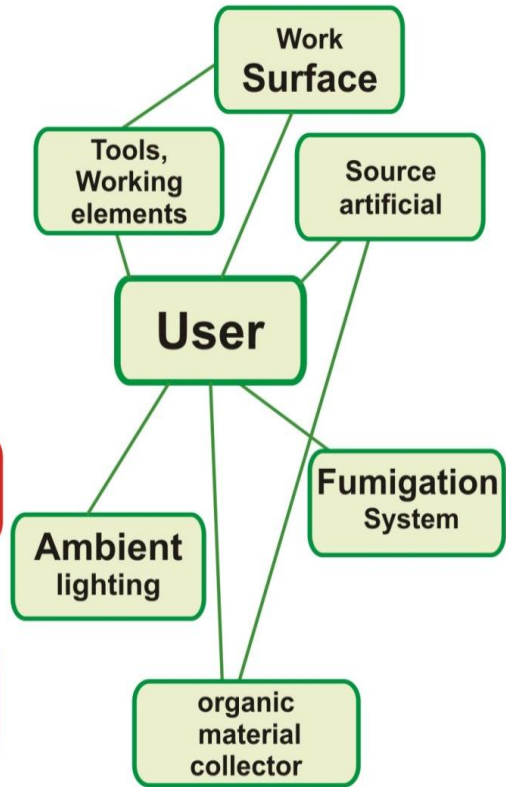
Formal Subsystem

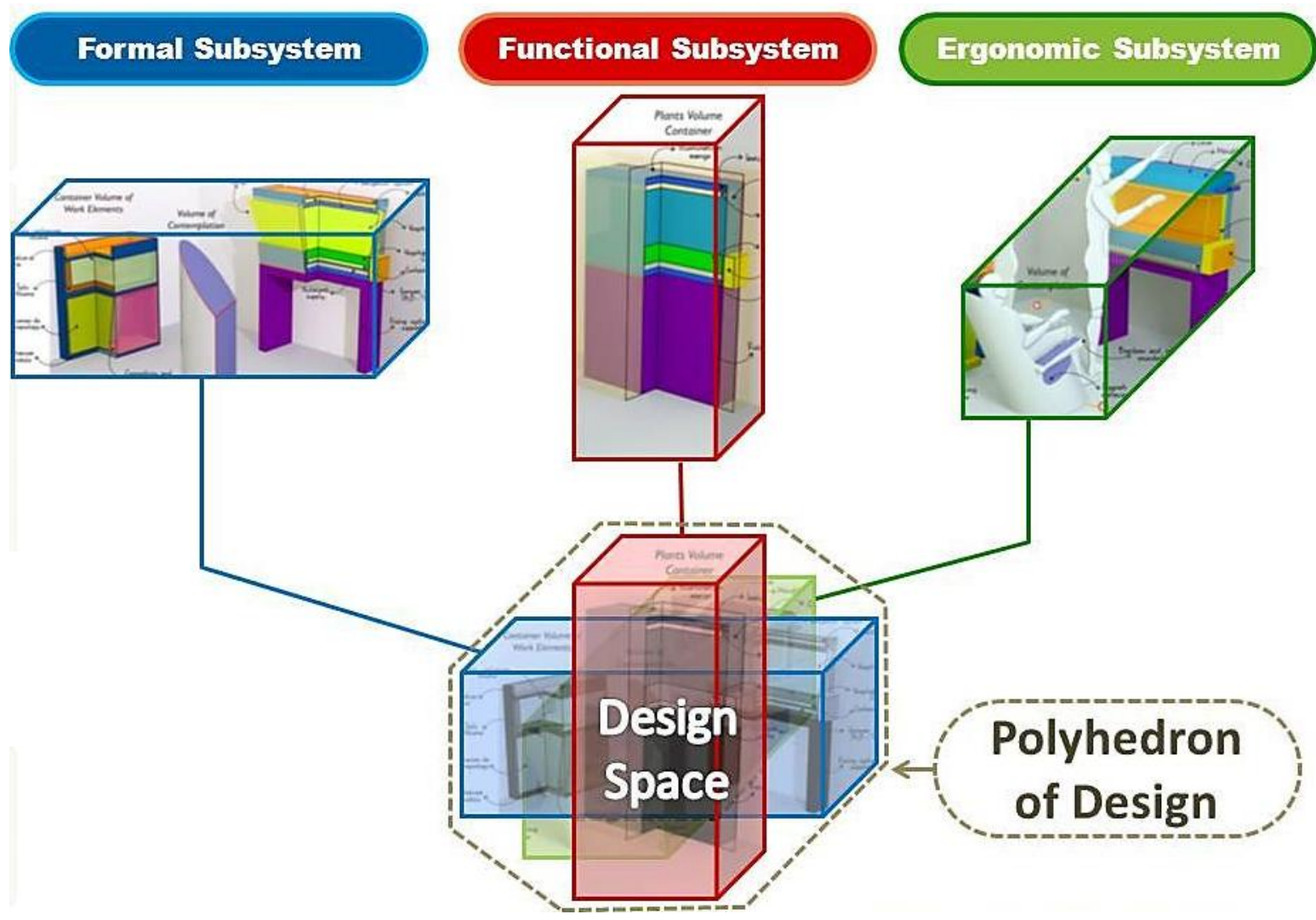


Functional Subsystem



Ergonomic Subsystem





1. Design & Sustainability Context: multiobjective design & multiple sources of uncertainty – *early stages*.

2. Strategic vision: *The need of a Systemic Model → framed*

3. The concept of sustainability embedded in the model

4. Study Case: Getting to the polyhedron of design.

5. Future research: *conceptual variables for a sustainable approach*

5.1. Groups of variables and interactions (Experts, users/people)

5.2. Immaterial issues (Emotional, spiritual, scale of values)



Thank you

Takk

Gracias

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