

# **GSS Workshop on: Territorial vs Functional Patterns**

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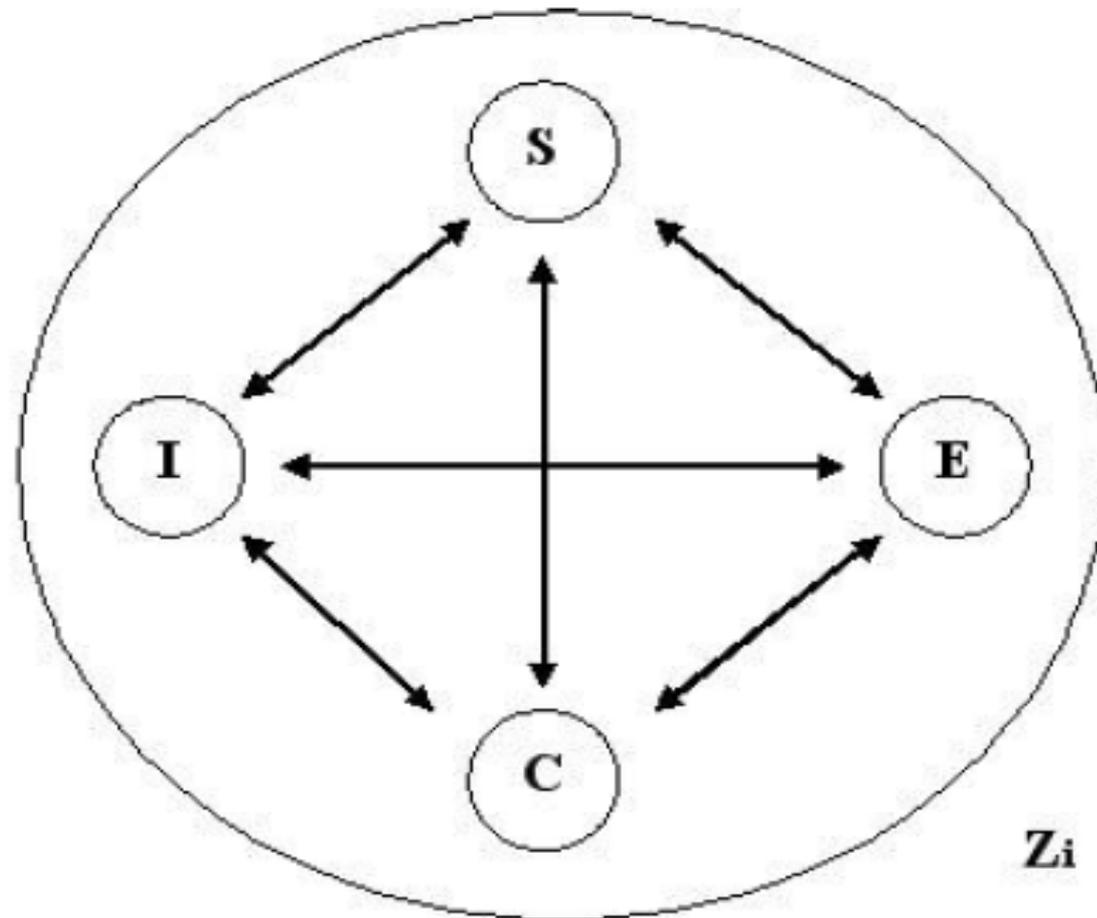
25<sup>th</sup> -26<sup>th</sup> February 2013

**Some social-ecological and ethical issues in  
the face of global sustainability challenges**

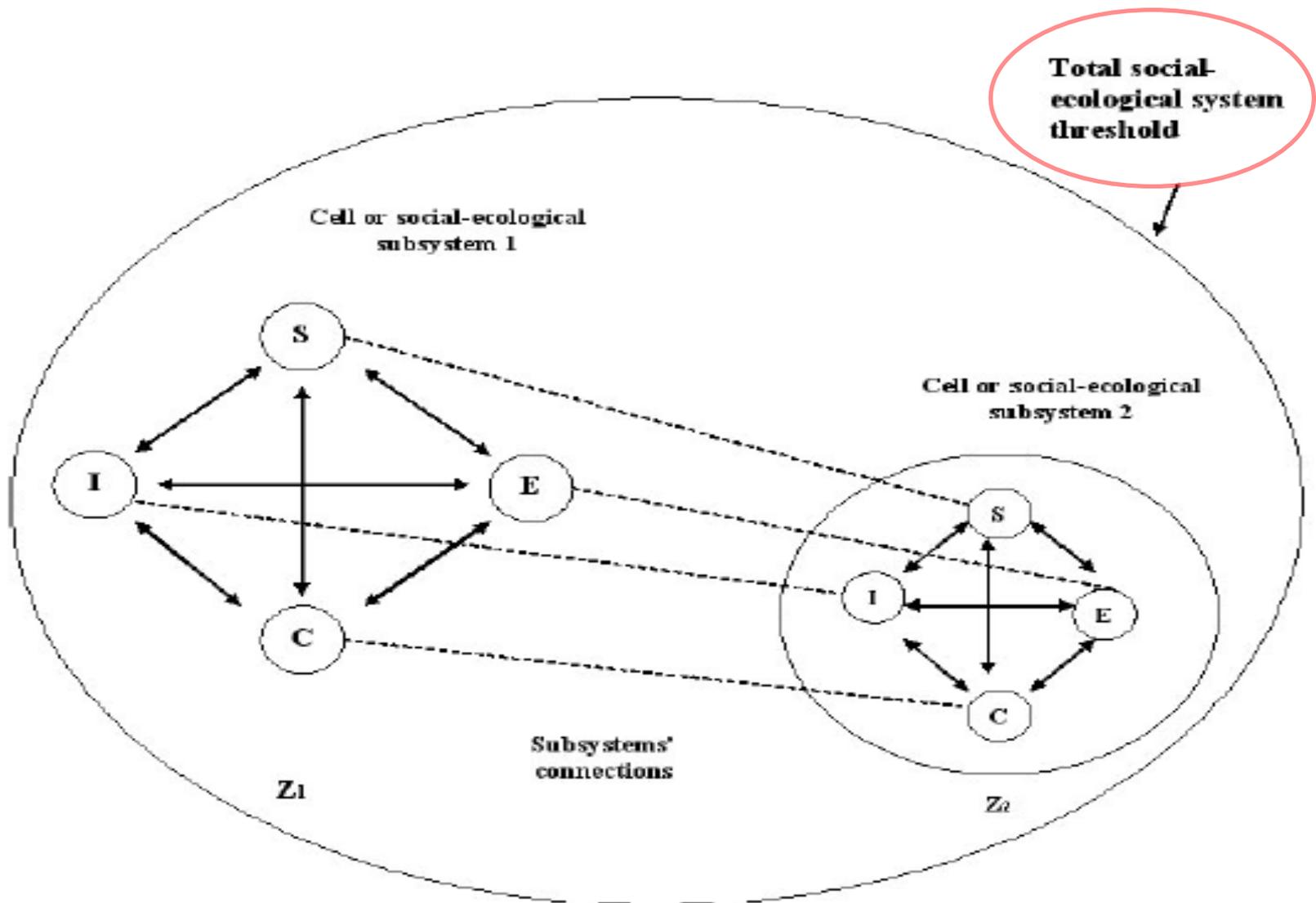
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# Urban systems as coupled social-ecological systems

Fig. 2. The social-ecological system as represented by the SEIC model (Tàbara 2003). S = structure and ruling institutions, E = energy and resources, I = information and knowledge, C = social-environmental change, and  $Z_i$  = size of social-ecological system  $i$ .



# Thresholds and limits as source of sustainability innovation



Over-emphasis in general systems perspectives may...:

- Fail to explain the role **individual motives and human agency** as drivers of global systems dynamics (not in ABM)
- Have difficulties to inform on how to **distribute rights and responsibilities** at the very individual and institutional level (and at various scales) - which is the key to foster sustainability transformation and governance.



# Urban structuration and GSS.

I) It is not fully accurate to talk about 'nations' or 'cities' as 'territorial' entities, but **political** ones...

- They are territorial in their effects, but not necessarily in their ultimate drivers; e.g., the 'region' is a **symbolic power** entity (Bourdieu), 'Paris does not exist' (Latour); 'Cities are the people' (Rousseau)

II) Consider many 'other' **social/cultural aspects** as drivers of urban structuration an from a multi-dimensional perspective:

- As the result of global '**individualisation**' (G. Simmel; 'the Metropolis and Mental life' 1903), opportunities for '**distinction**' (Bourdieu), overcome **relative deprivation**, opportunities for **power** re-structuration, authority and concentration (Weber), 'Gods /**religious** (re-) creation, **sacralisation** and obedience' (Fustel de Colanges) and **natural resource appropriation** (Mumford)...; all this has many consequences regarding **moral assimilation/civic aculturation**, but also create new sources of **anomy** (intensified by the global IT urban society; e.g., what would it be a 'responsible sustainable global citizen?'). Perceptions of the **value of time** are crucial.

*Avoiding single-criterion to understand, model and structure urban complex systems*

# **Global urban structuration, What role for ethical knowledge?**

**Paradox? :**

**Greater systems' transformation power, and greater complexity, but greater systems' ignorance and reduced normative capability?**

- Durkheim's organic / Social Fordism' division of labour yields greater agents' capacity for systems' transformation but it may create greater systems ignorance : **reducing agents' capacity to reverse the unintended, unwanted consequences of our own systemic global urban actions** (manufactured ignorance;
- **Cultural innovation required** (Mumford: we need learn to have an organic intercourse with nature...).

# **From innovation to sustainability learning**

- Global urban sustainability as foci to is to design 'urban sustainability learning systems', e.g., by **coupling Human Information and Knowledge Systems (HIKS; including IT) with SES change**; focus on understanding and connecting PROCESSES, OPTIONS, AGENTS & LIMITS AT MULTIPLE SCALES OF ACTION.
- Learning is not free; there are political, individual, and economic investments and costs to pay; distributional issues are the key ( both in time and space; those more willing to support systems learning and transformation may not be the ones willing to keep status quo or support system ignorance).
- **Risks of collapse of global (SES uncoupled) information and knowledge systems?**

# Implications for GSS, urban growth and sustainability research

- Improving our understanding the motives, interactions and cumulative effects of individualisation and corporatisation dynamics; (its multiple drivers, contradictions and cumulative global SES effects; e.g. innovations created in TNCs; and how they materialise in particular HIKS)
- One possible venue: Research on global sustainability landscapes... merging complexity, public engagement, HIKS and knowledge integration, and cultural diversity, narrative –building and power issues to support global sustainability learning and agents' / institutional transformation (e.g. bottom-up learning with a global perspective).