



# European Systemics Seminars 2013

## Knowledge for the future of the knowledge society

The European Union for Systemics (EUS) aims at disseminating research results and practitioners experiences, as well as promoting international collaborations in the multidisciplinary field of systemics. In addition to the tri-annual congress of the EUS that is being held across Europe since 1989, the Union launches a new initiative: the European Systemics Seminars; a cycle of seminars that focus on bleeding edge topics, investigating the possible and necessary relationships between systems thinking in the broadest sense and the exponentially growing complexity of our modern societies.

Industrialized societies were originally based on human and machine workforce, and on a fundamentally empirical approach to scientific discovery. In those days, knowledge was based on control, planning, optimization, reduction,... Building on these premises has dramatically facilitated the fast technological advances, allowing post-industrial societies to emerge, reaching unprecedented levels of virtualization, communication and interdependency. But these technological evolutions have not been followed at the same pace by the corresponding necessary social changes. As Thomas Kuhn may have put it, had he dared applying his theory to the global society: modern technologies and our exponentially growing interconnectivity reveal an increasing number of “anomalies” in our current worldview, insistently calling for a paradigm shift. The current globalized crisis could consequently be interpreted with Kuhn’s theory in mind, further strengthening the necessity of leaving the concepts of linearity and planning, leading to embrace those

of interaction, interdependence, complexity and convergence. In all disciplines, academic researchers and practitioners alike, are working on building new paradigms that need to be discussed, tested, and confronted. The goal of the European Systemics Seminars is to offer one such convergent point for these important and necessary questionings. We further believe that transdisciplinarity is the fundamental ethic that allows the circular encounter of theory and practice.

A first series of three seminars will be held in 2013 (and possibly early 2014) in Charleroi. This former industrial area for the production of iron, steel and glass is located in the center of a coal basin. The decline of the coal industry in the 1970s has left Charleroi in a bad economic shape: its unemployment and poverty rates were one of the highest in Europe during the 1980s and 1990s. Since the early 2000s, this ravaged area has opened itself to new horizons (health care, transportation and telecommunications) and reinvented itself. Therefore, we believe that Charleroi represents a highly symbolic and inspiring metaphor for the seminars: “Changing our paradigms to open new perspectives in a changing environment”.

The seminars’ main goal is to be a starting point for questionings and to promote new collaborations by bringing together researchers and practitioners with diverse backgrounds and fields of interest, mutually feeding a common reflexion that should make practitioners experiences help theories evolve, and allowing the latter to improve the former.

### Themes for the first cycle of seminars 2013

#### **1. The post-industrial societies dealing with complexity: knowledge to manage the knowledge society**

*In the seminar we consider the conceptual differences between Industrial and Post-Industrial Society and the knowledge used. We discuss the inadequateness of the knowledge used to manage Post-Industrial Society which, by its utilisation of theoretical knowledge as a basic resource, is also termed Knowledge Society. We list specific concepts that, rather than updating, need to be reformulated by using the principia of the science of complexity and then translated into cultural meanings. Examples of such concepts are Causality; Coherence; Completeness; Computing; Decision; Dynamics; Equilibrium; Environment; Foresee as anticipation; Linearity and linear correspondence between micro and macro; Localisation; Measure; Objective; Observer; Openness; Optimisation; Organisation; Precision; Proprieties possessed rather than acquired; Reversibility-irreversibility; Separability; Solve; and Stability.*

#### **2. The research activity on architecture and social systems**

*Architectural studies are also devoted to the description and the analysis of architectural fabrics. Since human settlements and their architecture are the product of human societies, they are mostly built up and developed by a huge number of interacting conscious and unconscious acts over long periods, rather than only by individual, purposely designed acts. Such a vision generates the idea of an implicit project that relies upon processes of emergence occurring within social systems. In a more subtle way, architectural structures even induce collective approaches in social issues. For instance, a school designed with mono-disciplinary teaching in mind will induce the same approach in the general public; and a hospital designed with a limited repairing approach in mind, will induce the same approach in the patients and their families.*

#### **3. The project meta-structure**

*A meta-structure may be tentatively identified with a sequence of structures of interactions establishing the set of the different systems characterizing a Multiple System, together with the relationships between the systems themselves. The project consists on identifying a possible general approach to model processes of emergence of collective phenomena in such a way to allow researchers, for instance, to 1) Recognise a phenomenon as emergent such as collective behaviours acquiring emergent properties; 2) Induce emergence of collective behaviour in populations of agents collectively interacting; 3) Act on collective emergent phenomena with the purpose to change, regulate and maintain acquired properties; 4) Merge different collective emergent phenomena. The core idea of the project is to consider emergence as mesoscopic coherence and collective behaviours as coherent sequences of different systems.*