Sustainable Urban Patterns (SUPat)

"Aim of research

Establishing a collaborative platform for the transdisciplinary development of sustainable urban patterns; tools for evaluating urban quality and visualising urban patterns to promote shared objectives.

Expected output

- Documentation of urban typologies
- Guidelines for formative analysis of scenarios in a functional collaboration between science and practice; development of systematically established, relevant regional scenarios
- Quality indicators for sustainable urban patterns Criteria for urban quality which can be applied to other case studies (procedural modelling)
- Modelling and visualisation tools
- Elaboration of a model for collaborative processes of urban development Preliminary results

Preliminary results

The Limmattal between Zurich and Baden serves as an example of a "normal city" in Switzerland. Green sites in the area are nothing more than space which is not reserved for urban development; there is no productive concept. The "normal city" is defined as non- urban, a fact that is related not only to the actual landscape but also to attitudes: Residents are unwilling to be or become urban. Overall, there is a need for gentle transformation strategies which build upon local patterns and connect the numerous spatial and functional fragments in a plausible way.

SUPat scenarios describe four perspectives focusing on design, technological, economical and ecological aspects of urban development in the Limmattal region. The scenario "City with Character" presents the Limmattal as a valley with a strong identity, created by a clear sequence of centres and a good mix of land use and architecture. In the scenario "Smart City", the valley positions itself as a cleantech pioneer; it boasts the greatest possible energy efficiency, a high density of services and an optimum modal-split- infrastructure design.

The scenario "Pure Dynamics" does without a joint regional development concept. The valley is shaped by a vaguely defined mix of

industrial areas, housing developments, green sites and transport infrastructures with no character of their own. The scenario "Charming Valley" presents the valley as a human ecological system with a strong mix of concentrated developments (informed by modern small-town values) and a productive and resource-rich agriculture.

The research project defines new urban quality as the interaction between human behaviour and the built and non-built environment. The needs and objectives of the population are linked to urban structures (e.g. sufficient open spaces) and their functions (e.g. recreation)."

New Urban Quality. *Sustainable Urban Patterns*. [online] Available at: http://www.nfp65.ch/E/projects/> [Accessed 16 September 2014].