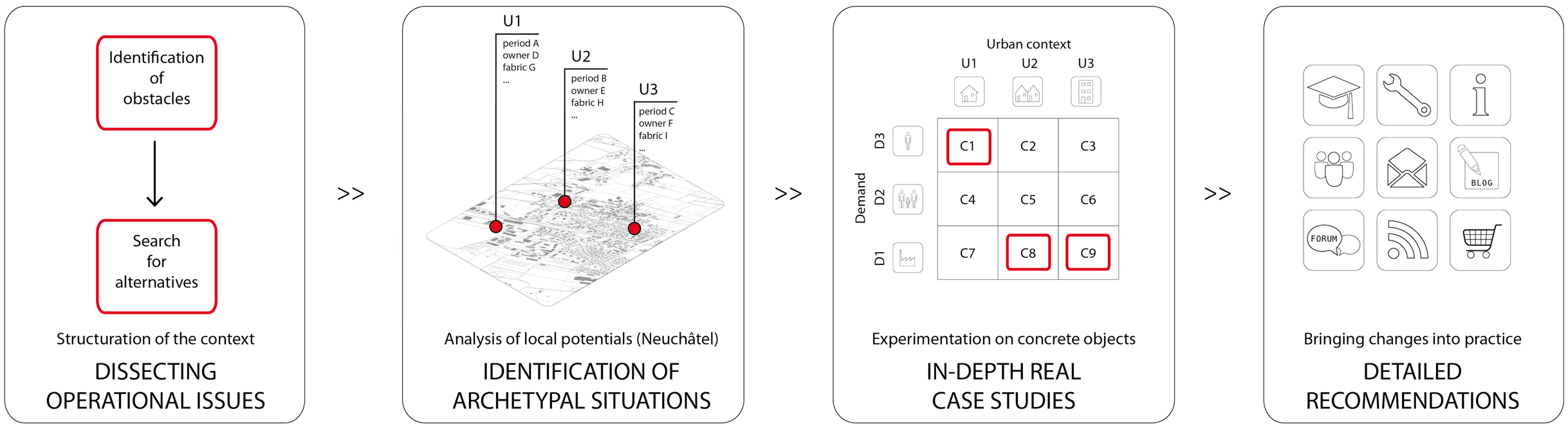
NRP 70 Building and settlement

Joint project: Building integrated photovoltaics | ACTIVE INTERFACES

Overview

Holistic operational strategies crossing over the obstacles for large-scale PV integration into urban renewal processes

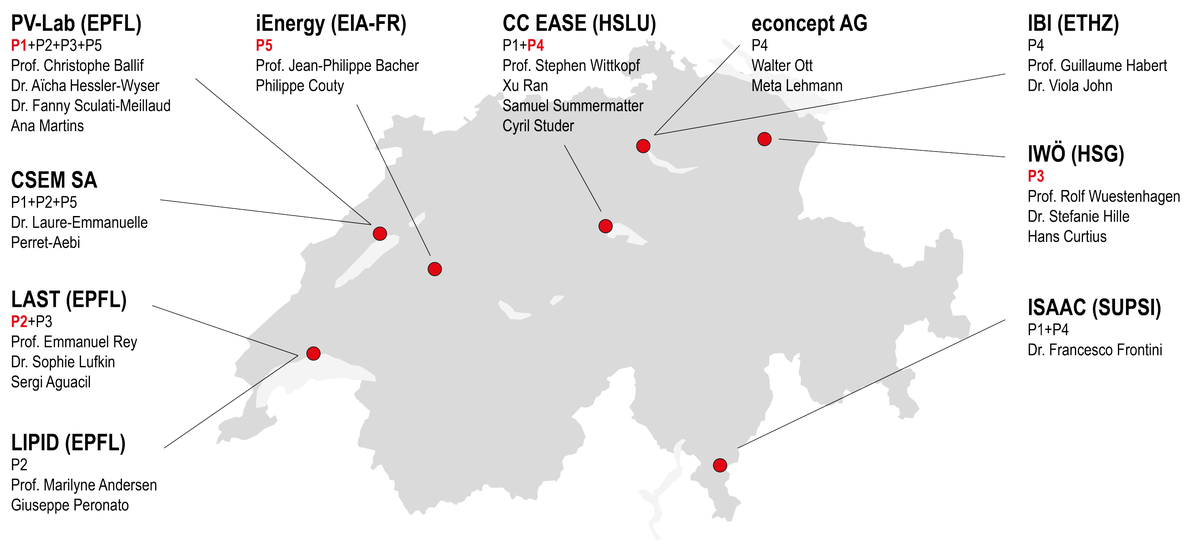


Background and objectives

In spite of technological advances and economic developments of photovoltaic products, only a small portion of the solar electricity potential is currently being exploited in urban areas. Only a clear identification of the operational barriers restricting the implementation of Building Integrated Photovoltaics (BIPV) into renewal processes and the development of holistic strategies can lead to a relevant contribution and a precise prioritisation of the efforts. The main objectives include:

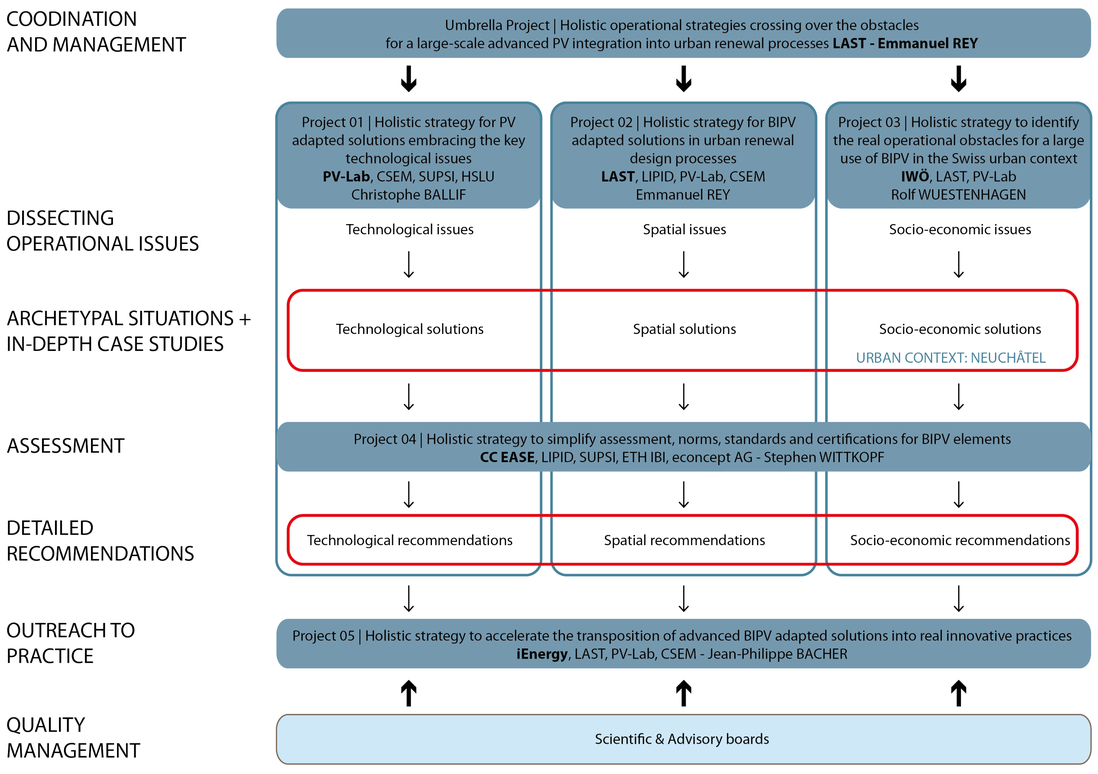
- Identification of the technological, architectural, socio-economic and legal barriers
- Development of alternative and innovative approaches in line with coherent holistic strategies – from industrial production to implementation by end users
- Formulation and implementation of concrete recommendations addressed to 1) legislators and regulators, 2) owners and other decision-makers along the value chain 3) architects, engineering offices, 4) suppliers, integrators, construction companies.

Main partners



Advisory board : Swissolar – Bauart – BCS – ERNE – Pôle suisse de technologie solaire – Retraites populaires – Cities of Neuchâtel & Lucern

Subprojects



Energy Turnaround

The ambition of the ACTIVE INTERFACES project is to bring a relevant contribution to the "Energy Strategy 2050". To reach the energy vision of the Confederation, 10 GW of PV is required. In that perspective, through a holistic approach - from industrial production of photovoltaic building elements to implementation by the end users (house owners, architects, public authorities) - the project will develop operational strategies crossing over obstacles for large-scale advanced BIPV integration into urban renewal processes.

Urban renewal in Swiss cities and urban agglomerations simultaneously reduces end energy consumption, promotes the use of renewable energy and cuts CO2 emissions.

BIPV will directly help to offset the loss in electricity production from nuclear energy by increasing the use of renewable energy while maintaining an acceptable balance between the conservation and use of financial resources. It has attractive potential in terms of transferability and could have positive repercussions for urban, architectural and constructive design practices.

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