
COST C21

Swiss projects (proposals)

University of Zurich - R. Weibel

Swiss Polytechnic School, Lausanne - F. Golay

CRAAL, Lausanne - P. Pellegrino

University of Geneva - C. Metral & G. Falquet

Providing Enriched Spatial Data

Ontology-driven Recognition of Urban Structures from Spatial Databases (ORUS)

Prof. R. Weibel – University of Zurich - Switzerland

Main objective = data enrichment

Make the semantic information implicitly contained in spatial databases become explicit, using ontology-driven automated urban pattern recognition procedures

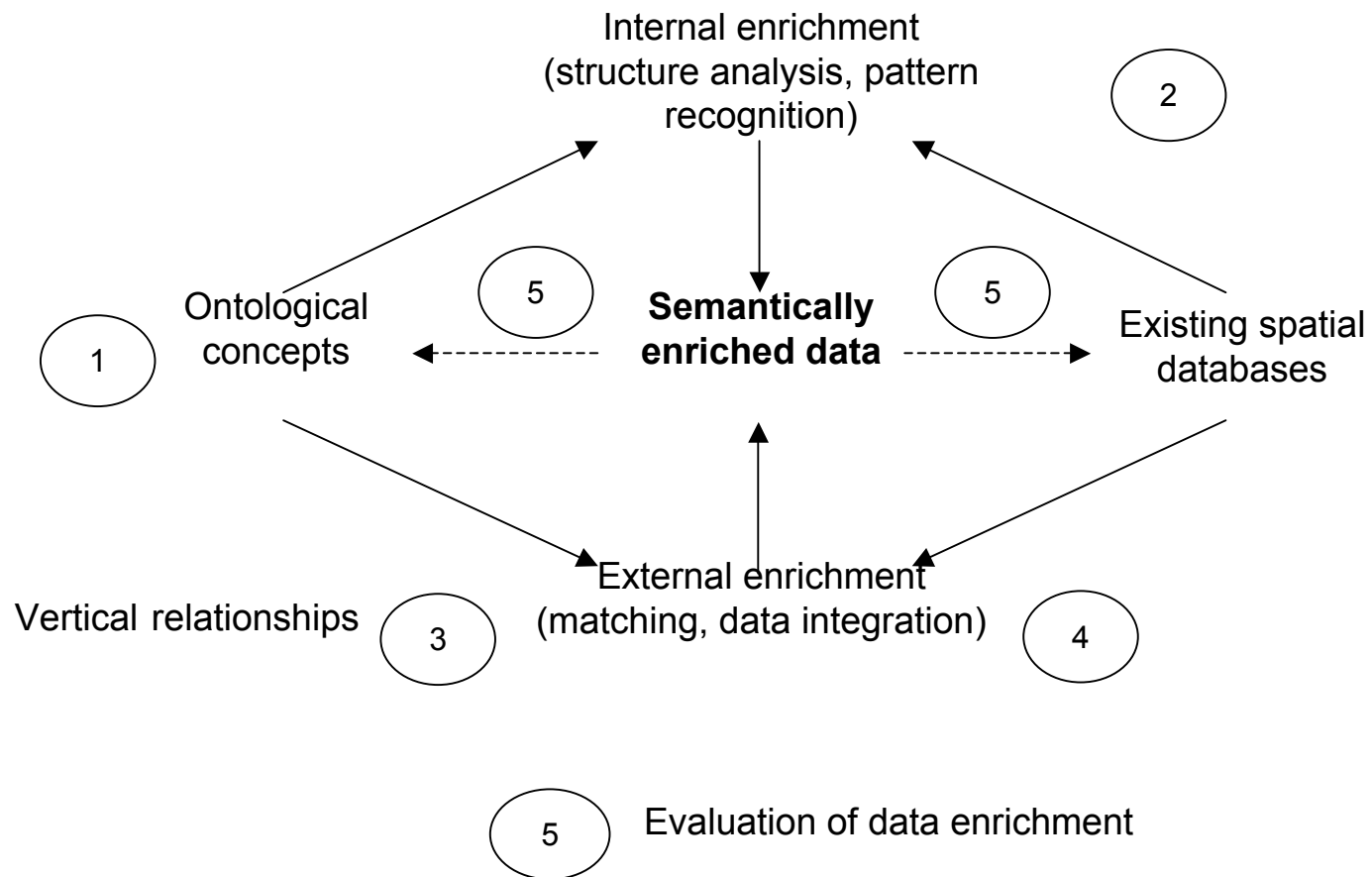
Contribution to COST Action C21

Uses ontologies developed by other projects as a basis for the definition of data enrichment methods and feeds back enriched data to other projects

Contributes to the scale-specific definition of ontological concepts

Maps the concepts defined in urban ontologies to actual data objects in real-life databases

Project ORUS



Integrating Urban Knowledge into 3D City Models

G. Falquet and C. Métral
University of Geneva

Main objectives

Representation and integration of non geometric urban knowledge into urban 3D models

Geometric representation for abstract concepts (e.g. city plans) of urban ontologies

Specification language for the 3D visualization of urban concepts and their relationships

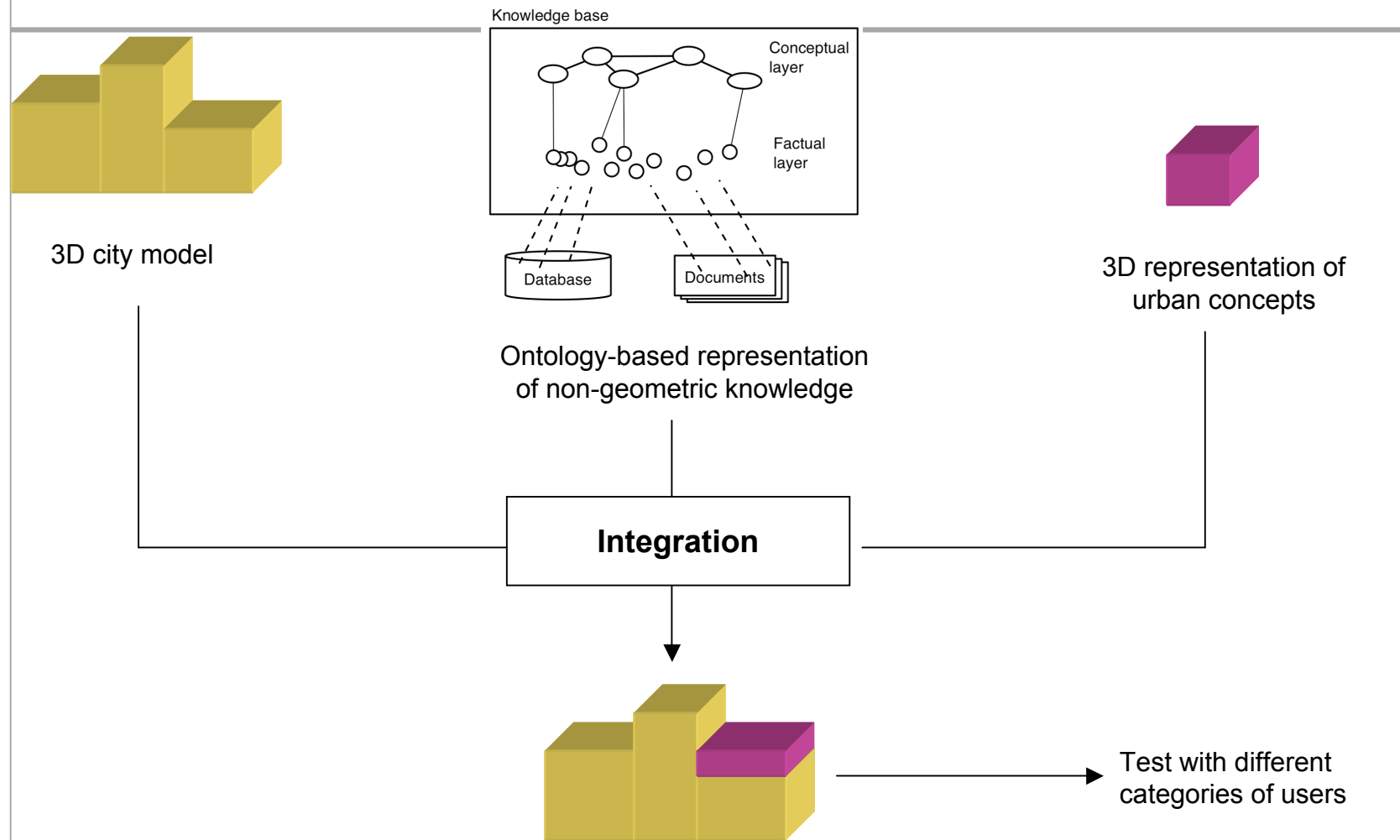
Case study: ontologies developed by other projects

Interaction with other projects

Ontology design and management: evaluation of specific needs

Infrastructure to store and manage ontologies

Project IUK3D



WINDS Concept

Pierre Pellegrino
CRAAL - Lausanne

Integrate course terminologies developed in the WINDS European virtual campus

Build a reference ontology for students in architecture and urban planning

Integrate architectural concepts into urban planning

Articulate spatial, topological and geometric dimensions with argumentative, logical, and semiotic dimensions of the urban project

An Ontology of Morphological Urban Processes

F. Golay

EPFL - Lausanne

Definition of several ontologies

urban form (morphology)

event

scale

morphological process

Toward an automated recognition of urban
transformations

from GIS data