TLN

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Interreg
Alpine Space
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EUROPEAN UNION

Project Handbook

Alpine Industrial Landscapes Transformation

Project Handbook

Partners and Pilot Sites

1 Eisenerz
Steiermark/AT

2 Borgo San Dalmazzo
Piemonte/IT

3 L'Argentière-la-Bessée
Provence-Alpes-Côte d'Azur/FR

4 Tržič
Gorenjska/SLO

TUM
Technische Universität München

TU WIEN | raum simlab

Steirische Eisenstraße

84 Vaucluse
c|a.u.e
Conseil d'architecture, d'urbanisme
et de l'environnement

Univerza v Ljubljani
Biotehniška fakulteta

BSC
Poslovna podporni center Kranj
Regionalna razvojna agencija Gorenjske

zavod

UNIVERSITÀ di VERONA
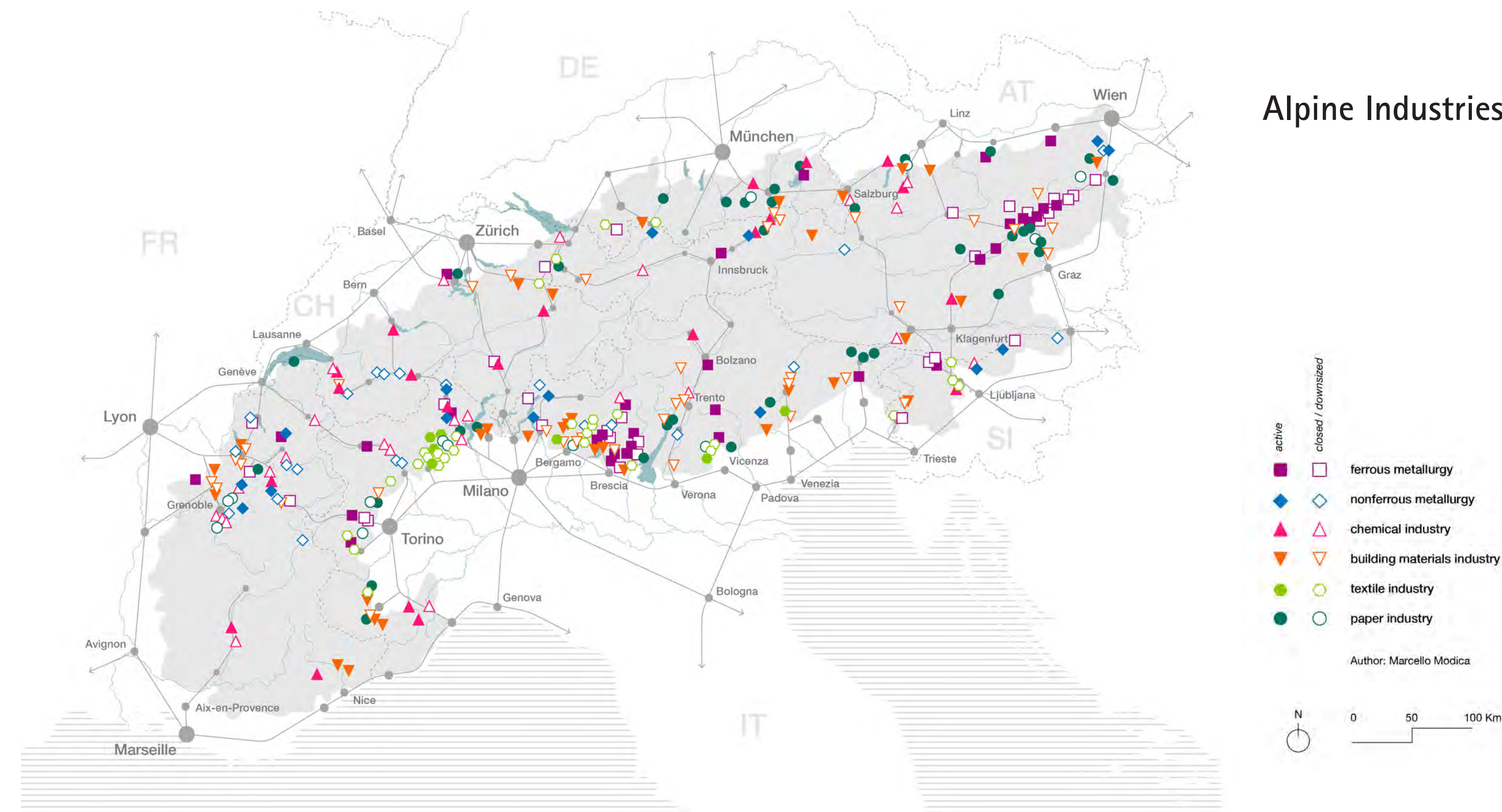Dipartimento di SCIENZE UMANE

POLITECNICO MILANO 1863
DIPARTIMENTO DI ARCHITETTURA
E STUDI URBANI

LAMORO
AGENZIA DI SVILUPPO

Map labels (Partners and Pilot Sites)

GRAND EST *
SCHWABEN
FREIBURG
TÜBINGEN
OBERBAYERN
NIEDER-ÖSTERREICH
OBER-ÖSTERREICH
WIEN
BOURGOGNE-FRANCHE-COMTÉ *
ESPACE MITTELLAND
NW-SCHWEIZ
ZÜRICH
ZENTRAL-SCHWEIZ
OSTSCHWEIZ
VORARLBERG
LIECHTENSTEIN
TIROL
SALZBURG
STEIERMARK
BURGENLAND
KÄRNTEN
RÉGION LÉMANIQUE
TICINO
BOLZANO
FRIULI VENEZIA GIULIA
SLOVENIJA
AUVERGNE-RHÔNE-ALPES *
VALLE D'AOSTA
LOMBARDIA
TRENTO
VENETO
PIEMONTE
LIGURIA
PROVENCE-ALPES-CÔTE D'AZUR

0   50   100 Km

Base map: Interreg Alpine Space
cooperation area

Alpine Industries

Author: Marcello Modica

	active	closed / downsized	
ferrous metallurgy	■	□	
nonferrous metallurgy	◆	◇	
chemical industry	▲	△	
building materials industry	▼	▽	
textile industry	●	○	
paper industry	●	○	

N   0   50   100 Km

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EUROPEAN REGIONAL DEVELOPMENT FUND

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PROJECT HANDBOOK

ALPINE INDUSTRIAL LANDSCAPES TRANSFORMATION

Contents

Assessment : :

Spatial and functional assessment

ELENA SOLERO, GIORGIO VITILLO, PAOLO GALUZZI, JULIA FORSTER, MICHAEL RINNERTHALER

Spatial analysis focuses on the main spatial elements needed as a base for the development of planning pathways on a multi-scale level. The spatial assessment report has two main purposes. First, it is a document providing essential knowledge of a specific AIL pilot area, and second it is a record of reflection on the assessment method performance in the pilot site. With the 'learn-by-doing' approach in four different pilot areas, research project partners identified and gradually specified key elements of individual assessments that work for AILs. The template of the assessment report used in all pilot areas has been structured to facilitate two main parts of the co-assessment of AILs:

Part 1 – Assessment of AILs which constitutes main findings of the AILs actual conditions, results of the assessments, conclusions and recommendations. It is intended to be used for the activities in the next step - workshops with relevant stakeholders.

Part 2 – Performance of the assessment that investigates how the assessment and its parts performed on the given AIL site. It was conducted through a reflection questionnaire for the research partner and regional partner of that AIL. Its purpose is to evaluate the analyses used in the assessment process and to monitor variability of the assessments across the AIL pilot sites.

Territorial and local spatial analysis
Spatial analysis involves a double scale level: territorial analysis in order to give an overview of the location and in-depth analysis more concentrated on the pilot area and its immediate surroundings.

The spatial assessment is structured in four analysis topics:

- the environmental analysis, which covers the analysis of the topographical situation, the landscape and the natural environment;
- the settlement analysis, which contains information on the settlement structure and the existing building stock;
- the mobility network analysis, which covers the analysis of the accessibility, traffic and transport network and public transport services;
- the supply and disposal infrastructure, which covers a description of access to ICT and energy infrastructure, water supply and disposal infrastructure.

In addition to these analyses, spatial assessment has to take into account plans and projects in progress, relevant to mobility, environmental and settlement framework. Understanding these elements and the urban planning rules permits us to understand the direction which future development will take.

Steps of the assessment
The aim of the assessment is to find problems, challenges and potentials regarding the spatial conditions. Following the analysis relevant to the environmental, settlement and infrastructural framework, the potential and challenges were assessed and mapped in order to highlight the main issues to which project must relate. The method used in the research subdivides the assessment into four main steps:

1. Spatial exploration (on and off site) to gain a first overview and impression of the site/region: a site-visit with an inspection of the site. Important was to have contacts with local/regional stakeholders during the site visit and in a roundtable discussion. Inspection of the towns was also important to get to know the settlement structures and to discover potentials as well as problems and challenges. Digital exploration took place via VR (Virtual Reality): "flying" over the region in a 3D-environment (Google Earth VR) and viewing

figure 1: Spatial analysis diagram
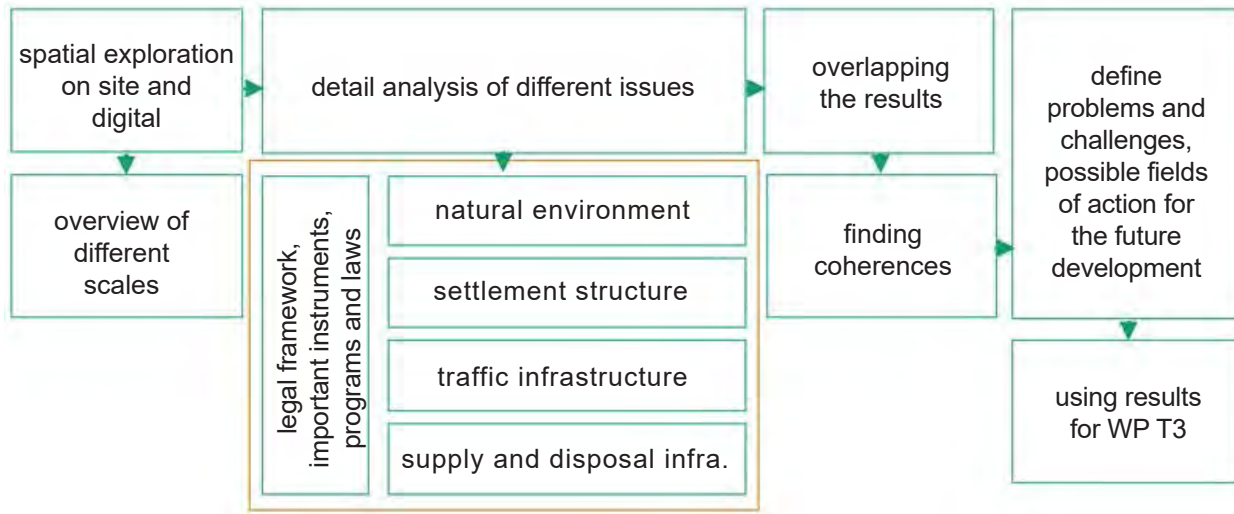
of the local situation with 360° photos taken on the site-visit.

2. Detailed analysis of different issues by means of:
   - on-site research (get to know the region in detail)
   - collecting GIS data and drawing up maps
   - collecting and processing statistical data
   - contacting local/regional stakeholders (interviews, roundtable discussion)

   The collected information was relevant to the natural environment and landscape, the settlement structure, the mobility framework and accessibility as well as the supply and disposal infrastructure.

3. After the collection of all the different materials,

the results were overlaid to find possible coherences between the analysis elements. This step can reveal problems and potentials.

4. In conclusion, problems and challenges were defined, as well as potentials presented by the municipality and the region which also contain some possible fields for action for future development of the site.

Formats used:
   - own GIS based maps
   - existing GIS-based maps
   - VR (Virtual Reality)
   - 360° photos
   - photo documentation
   - diagrams
   - interviews / stakeholder discussion rounds
   - text analysis (of concepts)
   - descriptions (as texts)
   - thematic maps

Analysis elements review

The main elements relevant to spatial analysis can be summarised as below:

Analysis frame	Analysis element	Output description	Output usage	Usefulness for this AIL
Environmental and Landscape analysis	topography and terrain	mapping and qualitative description of the topography via contour lines and terrain base map in GIS; on-site research and photo documentation (+360° photos) of the terrain and landscape; 3D model of the terrain, implemented in the web-visualization – spatial exploration in a digital way	identification of possibilities and limitations. basic preparation work to be able to set urban designs and ideas in a spatial context. Improves quality and professional appearance of project outputs (renderings, models, designs)	evaluation
	location and type of nature protected areas	mapping of the location of nature protected areas in GIS; description of types of protected areas	identification of possibilities and limitations	evaluation
	land use	mapping of the land use (by CORINE Land Cover) in GIS and quantitative interpretation (chart)	basic land use information helps to indicate former usage and illustrates frameworks for future use (sealed or paved soil)	evaluation
	danger zones	mapping of the risk zones (for flood, mountain torrents and avalanches)	identification of possibilities and limitations	evaluation
	visual landscape and landmarks	on-site research (visual impressions, sight axes) and photo documentation of the overall appearance of the landscape and of important landmarks	usage mainly for analysis, preparation and presentation purposes – basic information* to be considered in designs and scenario developments that respect local conditions	evaluation
	green and blue elements	identification of all natural and environmental elements	ecological and environmental network	evaluation
	ecosystem services	mapping and qualitative description of the ecosystem (by selected indicators)	prioritization, definition and problem identification in relation to different synergies	evaluation
	territorial fragilities	mapping of territorial fragilities and risk areas	risk prevention strategies resilience enhancement general awareness and overcoming	

Analysis frame	Analysis element	Output description	Output usage	Usefulness for this AIL
Settlement analysis	typology of the settlements	mapping of the settlement structure and categorisation of different types of structures	basic information to be considered in designs and scenario developments that respect local conditions	evaluation
	historical settlement and cultural heritage	mapping of the historical settlement structure and buildings	area enhancement	evaluation
	industrial settlement and activities	mapping and qualitative description of industrial area (in activity and abandoned)	basic information to be considered in designing scenario development	evaluation
	urban facilities	mapping of facilities	basic information to be considered in designing scenario development	evaluation

Analysis frame	Analysis element	Output description	Output usage	Usefulness for this AIL
Mobility network and accessibility analysis	road network and classes	mapping and categorization of the road network, main road connections	basic accessibility analysis	evaluation
	rail network and classes	mapping and categorization of the rail network, main rail connections	analysis of used and unused rail infrastructures, kind of usage (passenger or cargo transport)	evaluation
	public transport system	qualitative and quantitative description of the public transport system	basic accessibility analysis	evaluation
	reachability, accessibility	qualitative description of the reachability, mapping of distances and travel times	basic accessibility analysis; enables the identification of possibilities and limitations of the existing mobility infrastructure grid	evaluation

Analysis frame	Analysis element	Output description	Output usage	Usefulness for this AIL
Supply and disposal infra-structure	ICT supply	description of the connection to ICT supply (fixed-line, mobile communication network, broadband network)	identification of possibilities and limitations	evaluation

Results of the assessment

In the research, the spatial analysis was carried out both on a territorial and on a local scale. The outcome of this analysis can be summarised in the following three points:

1. According to the major urban systems investigated, such as infrastructures, mobility networks and settlements, the in-depth study of the know-how of the capabilities, values and risks, was beneficial for both the municipal technical offices (specialist-knowledge) as well as the local communities (general-knowledge). Specifically for municipal technical offices, this investigation can be useful for preparing programmes, projects and actions of public policy or according to crowd-funding to benefit public works and infrastructure developments. On the other hand, the same study could increase local competence and responsibility.

2. An initiation of public debates and discussions was crucial for the establishment of an active and innovative participation for the site-visit phase as well as the workshops which followed. These initiatives provided significant aspects for the roundtable discussions and succeeded to organise local networks of social and institutional representatives, which provided valuable insights on how to create a detailed plan for a local development project.

3. Another outcome is to provide the planning recommendations with appropriate elements which can be used as a reference, in order to lay down environmental, infrastructural and settlement frames. Or alternatively, to provide different scenarios, which can be used by local communities for the revision of their planning.

figure 2: Eisenerz, Heritage and urban polarities
figure 3: Road network french pilot region, accessibility of the pilot municipalities by car
figure 4: 3D visualization of the main problems and potential of Eisenerz in
regards to the settlement structure, the mobility framework and the landscape
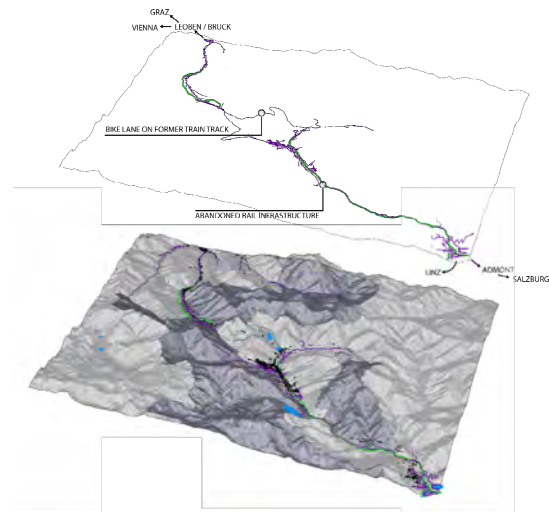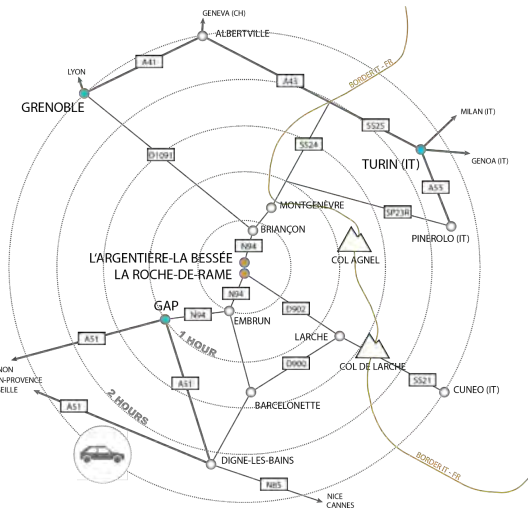and natural environment

Horloge des Hermes

Community of Communes
Du Pays Des Ecrins

railway station

middle school Les Giraudes

city hall

conduite forcée

musée des Mines d'argent

chapelle Saint Jean

old hydroelectric plant

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Du Pays Des Ecrins

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chapelle Saint Jean
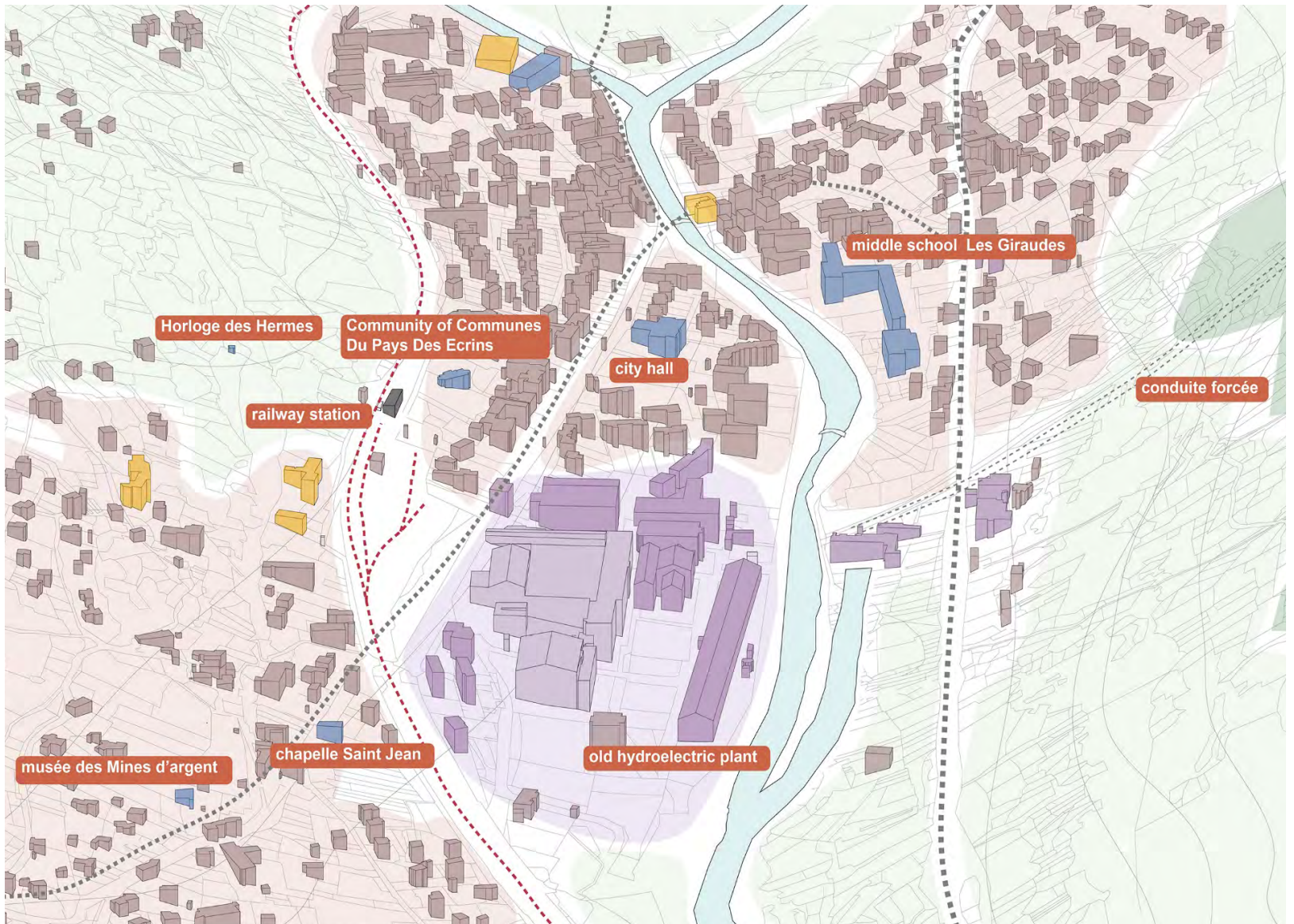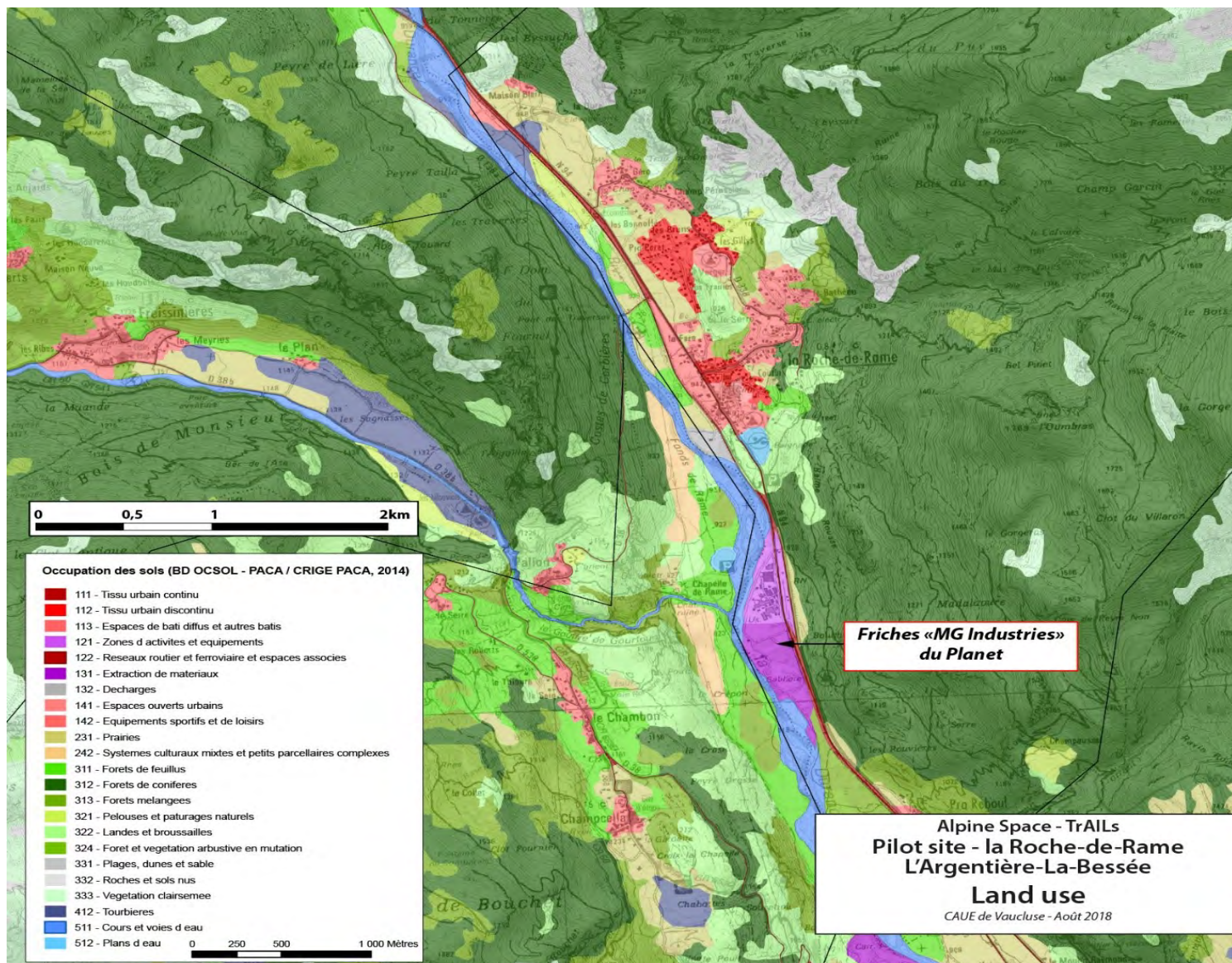
old hydroelectric plant

figure 6: Landuse of the municipalities L'Argentière-la Bessée and La Roche-de-Rame, edited by CAUE84, 2018, Co-design workshop in L'Argentière-la Bessée

Occupation des sols (BD OCSOL - PACA / CRIGE PACA, 2014)

- 111 - Tissu urbain continu
- 112 - Tissu urbain discontinu
- 113 - Espaces de bati diffus et autres batis
- 121 - Zones d activites et equipements
- 122 - Reseaux routier et ferroviaire et espaces associes
- 131 - Extraction de materiaux
- 132 - Decharges
- 141 - Espaces ouverts urbains
- 142 - Equipements sportifs et de loisirs
- 231 - Prairies
- 242 - Systemes culturaux mixtes et petits parcellaires complexes
- 311 - Forets de feuillus
- 312 - Forets de coniferes
- 313 - Forets melangees
- 321 - Pelouses et paturages naturels
- 322 - Landes et broussailles
- 324 - Foret et vegetation arbustive en mutation
- 331 - Plages, dunes et sable
- 332 - Roches et sols nus
- 333 - Vegetation clairsemee
- 412 - Tourbieres
- 511 - Cours et voies d eau
- 512 - Plans d eau

Friches «MG Industries» du Planet

Alpine Space - TrAILs
Pilot site - la Roche-de-Rame
L'Argentière-La-Bessée
Land use
CAUE de Vaucluse - Août 2018

Annex 3 : :

**Partner portraits**

Polytechnic University of Milan

ITALY

The Department of Architecture and Urban Studies is a thematic and interdisciplinary research institution of the Politecnico di Milano, established in January 2013. The DAStU was selected among 180 Italian Departments and funded by the Ministry of University and Research (MIUR) for the period 2018-2022 as part of the "Departments of Excellence" initiative, focusing research on territorial fragilities. The Department carries out research, design experimentation and training activities in the field of architectural and urban design, spatial planning and territorial governance, urban policies, preservation and intervention on the built and natural heritage, historical and critical interpretation of architecture and the city. It is one of the most important research structures in Italy in the field of the disciplines of the city and territory, integrated in a strong international network of centres of excellence and open to different forms of co-operation with institutional and social actors at the local, national and international levels. DAStU is a member, among others, of the Association of European School of Planning (AESOP) and the European Urban Research Association (EURA).

Piergiorgio Vitillo

Architect and Urban Planner,
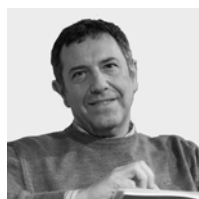Associate Professor, PhD
Team leader POLIMI
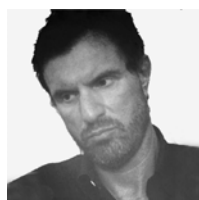
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Economist, Philosopher and Urban
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