trAILs
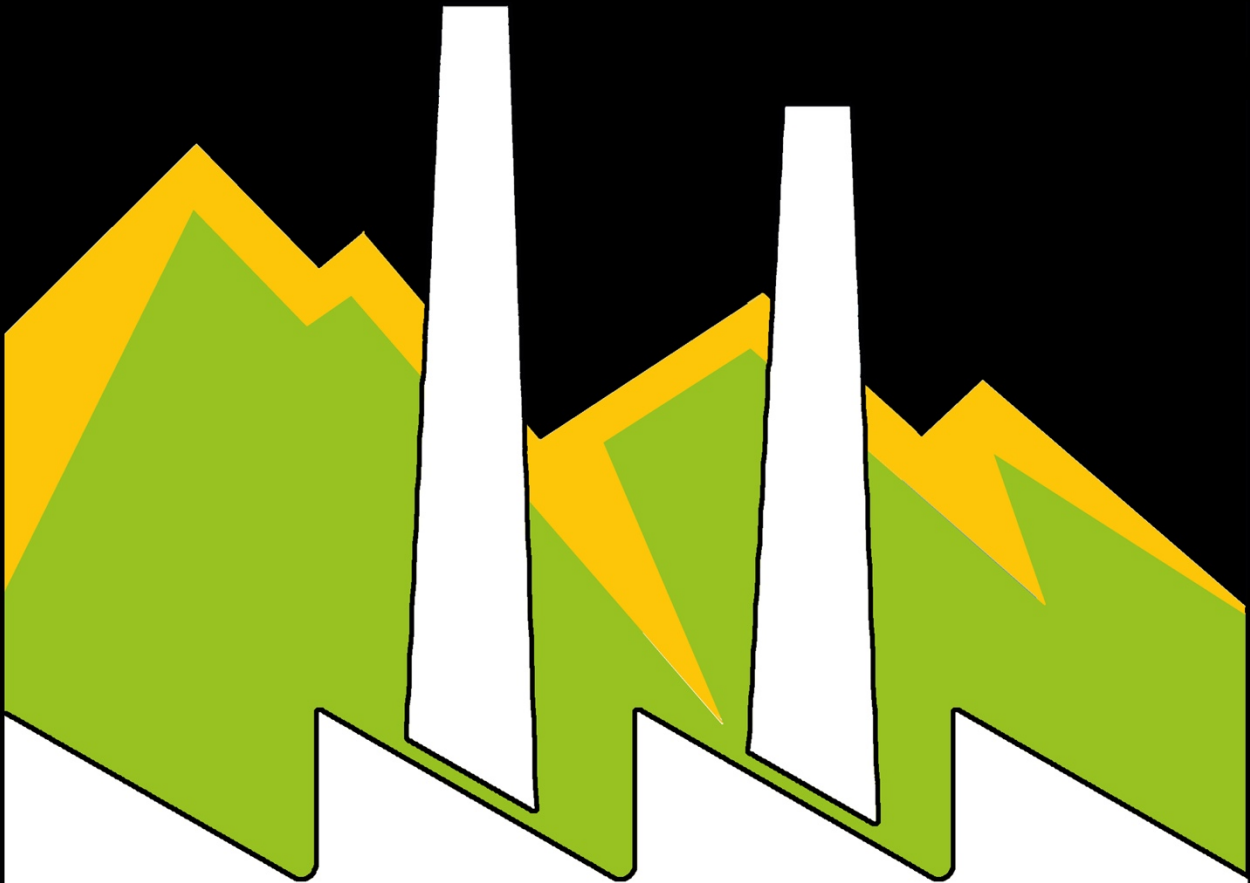# learning
lab

Transformation
of Alpine
Industrial Landscapes

online course

About the trAILs learning lab

The Alps, covering a terrain of 200.000 square kilometres, are a very powerful and energetic landscape with a long history of heavy industrial activities. This mountain range is a highly dynamic energy landscape, but the decline of traditional heavy and manufacturing industries is occurring nowadays even here, in the so-called "green heart of Europe". This is leaving behind impressive former productive landscapes: Alpine Industrial Landscapes (AILs). The potential value of AILs is strongly connected to Alpine-wide environmental, economic and social key challenges, such as the regeneration and improvement of blue and green infrastructures, the reactivation and upgrade of regional economies and the promotion of local identity and cultural heritage.

In this trAILs (Transformation of Alpine Industrial Landscapes) online learning lab, hosted by the trAILs research group, you will discover how to strategically deal with the transformation of complex industrial brownfields in the Alps, based on a specific landscape approach. You will find out how to convert industrial brownfields into good working and living environments, based on a rich multidisciplinary approach.

What the program covers

With a focus on specific landscape-based problem solving methods, using multi-disciplinary and multi-scalar planning strategies like co-creative test planning and test design, supported by GIS technology, this program will expose you to current trends in landscape transformation combining the expertise from spatial planning, socio-economic sciences, restoration ecology, landscape architecture and urban design.

You will have the chance to examine issues surrounding landscape ecology, urban planning, regional planning, water management strategies and cultural landscape development, while discussing the relationship between ecological, economical and social developments in the Alps.

In addition to learning about the transformation of Alpine brownfields, you will explore the social, cultural, political, and economic forces affecting the development of inner-alpine landscapes, and consider flexible ways of responding to them. In doing so, you will discover how research by design, for example, can be harnessed as a meaningful tool to tackle both local and regional challenges, and ultimately serve as a means of delivering a better quality of life for the local inhabitants, adapted to new challenges in this region, caused for example by global climate change and demographic change.

This program is for you if…

- You are looking for advanced multidisciplinary planning strategies to transfer industrial brownfields in the Alps by applying design methods based on a current understanding of "landscape".
- You are interested in learning about multi-scalar transformative design methods, supported by GIS in close cooperation with experts in sociology, regional planning, landscape ecology, urban planning and landscape design.
- You want validation of your knowledge in the form of a certificate from the trAILs Learning Lab, hosted by the Technical University of Munich (TUM) in cooperation with the University of Verona (UNIVR), the Polytechnic University of Milan (POLIMI), Vienna University of Technology (TUW) and the University of Ljubljana (UL-BF)

Who should take this course?

This program is designed for anyone interested in cooperative design and planning of Alpine landscape, seeking ways to transform brownfield areas for a more sustainable and vibrant future. With a focus on classical and creative analysis methods as well as a specific landscape approach, the program is particularly relevant to those who are interested in designing, investing in and delivering smart brownfield transformation solutions.

This program is relevant to master students and young professionals in the fields of urban, regional and landscape planning, landscape architects and neighbouring design and planning disciplines. If you are a young planning expert, working e.g. at a national, regional or local development agency and if you are looking for multidisciplinary methods to solve complex planning problems in the Alpine region, then this program will be relevant to you.

What you will learn

The trAILs online learning lab has a volume of 30 ECTS (900 working hours in 6 months) and integrates rich, interactive media such as videos, infographics and various e-learning activities as well as traditional didactic components such as written study guides (course notes). There are also opportunities for collaborative learning through discussion forums. The following sub-modules contribute to the multidisciplinary approach your learning path will take:

Welcome to trAILs online learning lab
In the first orientation week, you will be welcomed with a personal call and get introduced to your online teaching and technical support network. Begin connecting with fellow participants while exploring the navigation and tools of your online module. Be alerted to key milestones in the learning path, and review how your results will be calculated and distributed.

You will be required to complete your participant profile, confirm your certificate delivery address, and submit a digital copy of your passport/identity document.

All following sub-modules are will be hosted by the five partner universities in Austria, Germany, Italy and Slovenia, supported by experts from France and Switzerland. All sub-modules are closely interconnected – so be prepared for vivid transdisciplinary discourse.

Module 1 (6 ECTS) – hosted by the Technical University of Munich (TUM)
Advanced landscape approach to brownfields
Learn that "landscape" is not just a term but a law and far reaching concept that allows you to tackle complex landscape transformation problems in very innovative ways, from inventive analysis to research by design.

Module 2 (6 ECTS) – hosted by the Vienna University of Technology (TUW)
High end database generation and modelling
Use data to understand the most efficient and sustainable ways for developing and improving a transnational webGIS database covering the Alpine region in order to provide a deeper understanding for the regional and national relevance of AILs.

Module 3 (6 ECTS) – hosted by the University of Verona (UNIVR)
Transformation in mind
Explore how successful transformation projects start in peoples minds and understand how local and regional stakeholders develop a stable communication network, based on collective memory, deeply rooted in the culture of the landscape.

(6 ECTS)) – hosted by the University of Ljubljana (UL-BF)
Development patterns in industrialized rural areas
Learn how to rethink the current predicament about sustainable and flexible industrial development patterns and how to investigate the capacity of morphological fragments to accommodate different claims on a territory, enabling alternative development scenarios.

Module 5 (6 ECTS)- hosted by Polytechnic University of Milan (POLIMI)
Progressive transformation planning strategies
Understand the value of advanced environmental planning strategies, adapting cutting edge research by design approaches and early plan prototyping to establish a multi-scalar and multi-perspective approach to complex planning problems.

How you will learn

The program is broken down into manageable, weekly modules, designed to accelerate your learning process through diverse learning activities:

- Work through your downloadable and online instructional material
- Interact with your peers and learning facilitators through weekly class-wide forums and small group discussions
- Enjoy a wide range of interactive content, including video lectures, infographics, live polls, and more
- Investigate rich, real-world Alpine case studies
- Apply what you learn each week to ongoing project submissions, culminating in an understanding of how strategically oriented planning approaches to brownfields can bring improvements to rural living and sustainability

Each module is released weekly, allowing a flexible but structured approach to learning. You will be supported as you engage in individual activities and group discussions, ensuring you feel confident to submit your best work at each weekly deadline.

Technical requirements
Basic requirements

In order to complete a course, you need a current email account and access to a computer, the internet, and Microsoft Excel. You should be familiar with using a computer and accessing the internet, as you may need to take part in online discussions (e.g. Zoom, GoToMeeting, etc.), read documents in PDF Reader, view Microsoft PowerPoint presentations, and read and create documents in Microsoft Word. You might also need to work with Adobe InDesign and Photoshop in order to create plans and perspectives.

Browser requirements
We recommend that you use Firefox as your internet browser when accessing the Online Campus. Although this is not a requirement, we have found that this browser performs best for ease of access to course material.