

The Team

Each resource in the MLab team is characterized by the high level of specialization in specific sectors and cross-cutting themes, offering multidisciplinary consultancy with a strategic vision and supported by the most advanced specialized software for transportation planning and design of transport systems. The consulting activities undertaken in the last decade in Systematica have created a cohesive team and strong synergies to address issues in the field of transport planning in Italy and abroad.



Francesco Sechi (chairman), transport engineer with more than 15 years experience on Transport Planning at every scale, from national to urban and local level, and on feasibility studies for new transport infrastructures.
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Alessandro Coda, transport engineer, over 5 years experience on Transport Planning and Design, specific skills on micro and macrosimulation and on design of cycling infrastructures and stations for shared micro vehicles.
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Who We Are

Systematica Mobility Thinklab, MLab in short, is a consulting company that provides a full range of services in the field of transport planning, road design, logistics, land-use planning and urban planning and in the field of innovative sustainable transport systems. MLab combines in depth expertise in the field of transport with great attention to environmental sustainability, technological innovation and economic efficiency. Its consultants are engineers who attained worldwide experience in the field of transport and possess great energy, dynamism and a strong attitude to problem solving.

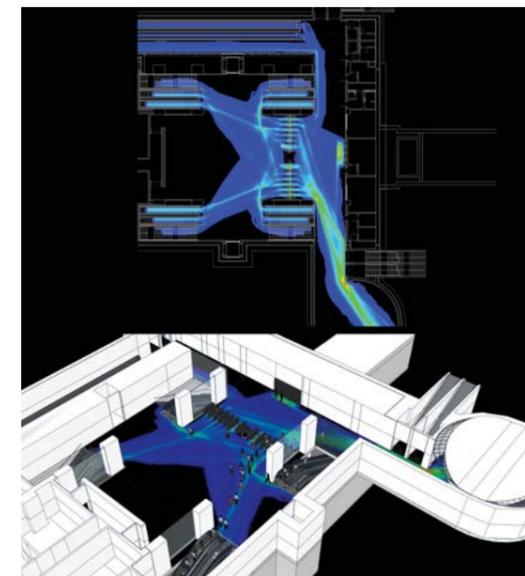
MLab was founded as a spin-off of Systematica SpA (www.systematica.net), a Company with over 20 years of experience in the fields of urban and transport planning. While acquiring independence, MLab and Systematica maintain partnership and close cooperation and continue to work together in several projects and initiatives.

What We Do

MLab provides a full range of consulting activities in the field of transport, land-use planning, management and financial-economic feasibility of transport systems, road design and design of innovative transport systems. MLab provides specialized consulting and planning, assists public administrations in the assessment of transport strategies and in finding solutions for sustainable mobility.



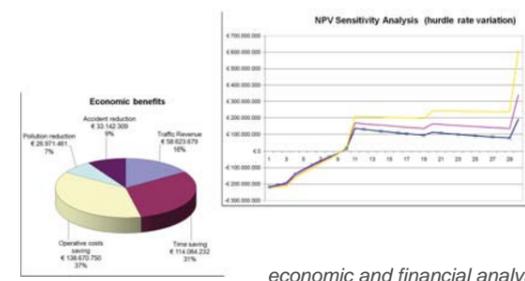
vehicle flows on Cagliari wide area (AM peak hour)



pedestrian microsimulation



vehicular microsimulation

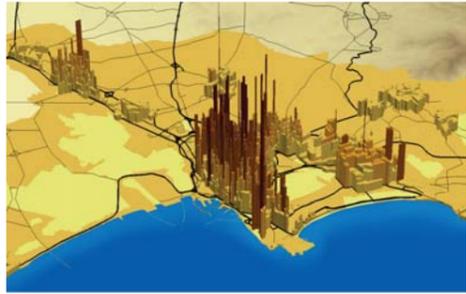


economic and financial analysis

Specialist Software

In addition to the use of traditional software adopted by planners and engineers from around the world, MLab team has developed extensive experience in the use of specialized software that enable increasingly accurate and sophisticated analysis in planning and design. MLab, through its partner Systematica distributes several software programs as well as providing specialized technical assistance and training to their use.

Sustainable Mobility Action Plans



MLab team has extensive experience in producing urban and regional mobility plans and provides consultancy at all levels of the process. MLab supports public administrators and decision makers in the identification of objectives, outlines the strategies and resulting interventions in a consistent framework and assesses their effects, with respect to local or special needs and with respect to general policies and guidelines at national and European level. MLab identifies interventions that best meet the objectives identified by public administrators, identifies the level of priority and quantifies the effects on the basis of economic and energy efficiency, social equity, safety and carbon reduction.

Public Transport Plans and Schemes



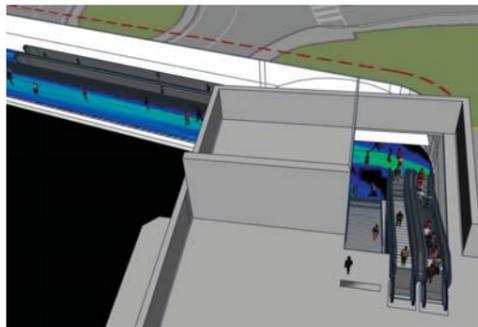
MLab plans and designs public transport systems at local, urban and regional level, taking into great account their economic and energy efficiency, effectiveness and geographic and social accessibility, aiming to attain modal rebalancing, environmental sustainability and pollutant reduction. MLab promotes the introduction of new technologies in public transport and the adoption of integrated public transport solutions able to increase temporal and geographical permeability. Moreover, MLab supports decision makers and public administrations to make people more aware of the environmental impacts of their mobility styles.

Transport Models and Simulations



MLab employs the most advanced simulation models in support of their analysis. Through these, an accurate quantitative evaluation of transport systems in their current state can be made and their performance in the project scenarios can be estimated. Every relevant aspect of mobility within a scenario is accurately described within a transport model built ad-hoc for specific problems and adhering to local conditions. The experience of the MLab team ranges from micro-simulation, which analyzes the movement of every vehicle in sub-second intervals, up to national and continental scale models, which involves the transport of persons and goods, public and private transport, demand forecast and pricing policies.

Pedestrian Accessibility Studies and Solutions



MLab provides efficient and sustainable solutions to make pedestrian spaces comfortable and safe. MLab expertise includes the optimization of every pedestrian space design, vertical connections in high rise buildings, evacuation simulations of large events, layout of large metro stations. All elements of the spatial layout (corridor, escalators, stair, turnstile, etc.) are analysed to attain an overall effectiveness, their most appropriate positioning (paths clearly defined) and correct dimensioning (queuing spaces, corridors, etc.). The effectiveness of the design of pedestrian spaces is assessed on the basis of sophisticated analyses using specific softwares which are able to represent pedestrian behaviour as well as interaction between pedestrians and all elements that define their activities.

Cycling Mobility Plans and Design



MLab plans and designs cycling networks and infrastructures to improve the mobility of cyclists, bike sharing schemes as well as campaigns for the promotion of cycling mobility. As for all MLab activities, cycling mobility is studied systematically and all the elements that make up the mobility system are considered when designing cycling plans, such as existing and potential demand, social and demographic structure of the population, environmental, social, economic and transportation objectives, and coordination with public transport.

Road and Structural Design



MLAB team includes strong expertise in the field of road design and structures, mainly oriented to road infrastructure (bridges and viaducts). The design criteria always include a particular attention to the search for solutions aesthetically valid, low environmental impact and to durability over time, all consistent with high safety level during the construction phase and during operation.

Innovative Transport Systems



MLab team has in depth and pioneering experience in planning and designing innovative and "second tier" transport solutions such as Personal Rapid Transit, Group Rapid Transit or micromobility services. MLab provides consultancy during design and implementation stages of automated transport systems for specific context such as campuses and urban parks, always aiming at systems integration and transport sustainability.

Logistics and Freight Transport



MLab provides consulting services on freight transport by road, ship and rail and on freight logistics issues. MLab analyzes the flows of goods and their supply chains through accurate origin-destination surveys and complex network graph and identifies the most efficient and convenient transport solutions, the possibility of creating intermodal centers and consolidation/ distribution centers. MLab designs efficient, low impact schemes of freight distribution in urban area (city logistics), supports Logistics Agencies, assesses levels of accessibility to the regions and intermodal terminals, including ports and airports, and evaluates the effects of incentives and policies that promote the sustainable mobility of goods (rail and sea).

Parking Plans, Policies and Solutions



MLab team has vast experience on the complex issues related to urban parking and in evaluating the effects that parking policies have on mobility system and on the accessibility of urban tissue. MLab consultancy on parking concerns the assessment of their position, size, estimation of present and future demand and the interaction with the surrounding and their impact on the whole transport system, as well as the definition of internal circulation schemes, of parking management and fare strategies.