



COMUNE DI PAVIA



**BOOSTING
URBAN
MOBILITY
PLANS**

Luciano, Bravi – Pavia Municipality / Mobility Service
Stefania Anghinelli – Environmental consultant
Study visits to BUMP pioneer cities
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The city



PAVIA



Population: 72 205 inhabitants

Geographic position



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The city



- **Main territorial features**

Pavia is a town of south-western Lombardy, northern Italy, 35 kilometres (22 miles) south of Milan on the lower Ticino river near its confluence with the Po.

Dating back to pre-Roman times, the town of Pavia, then known as Ticinum, was a municipality and an important military site (a castum) under the Roman Empire. The Roman city, most likely, began as a small military camp, built by the consul Publius Cornelius Scipio in 218 BC to guard a wooden bridge he had built over the river Ticinum.

Pavia's strategic location and the Ostrogoth palaces located within it would make Pavia by the 620s the main capital of the Lombards' Kingdom of Pavia and the main residence for the Lombard rulers.

In the following centuries Pavia was an important and active town.



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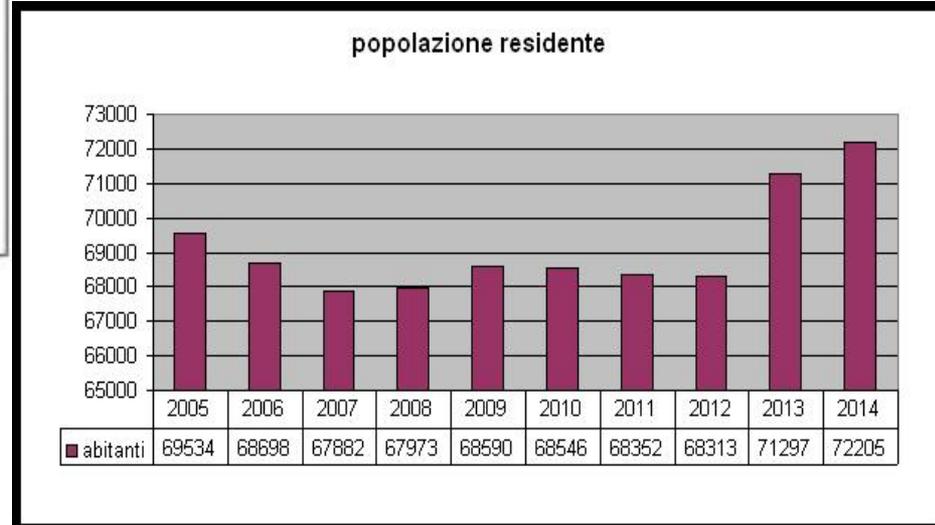
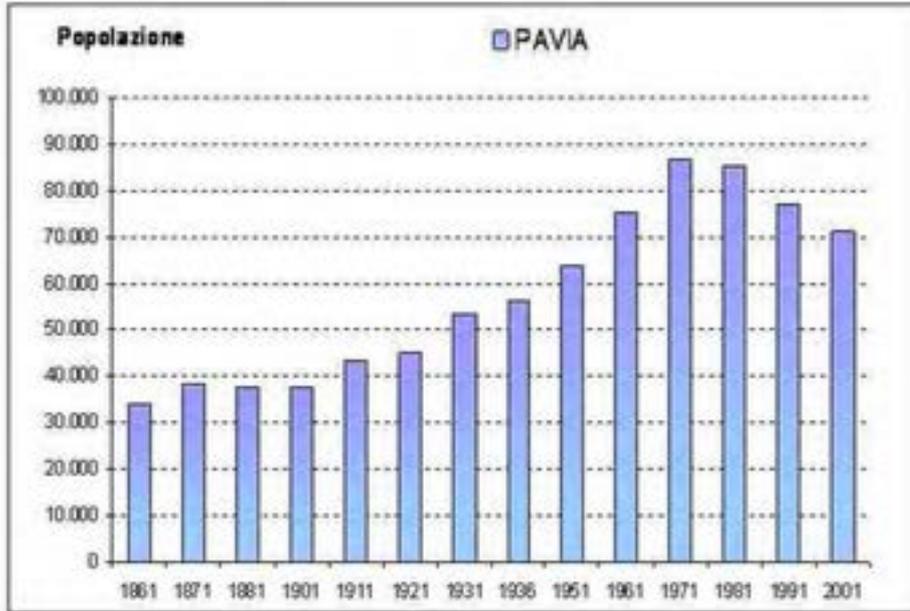


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Pavia and its territory



• Demographic trends



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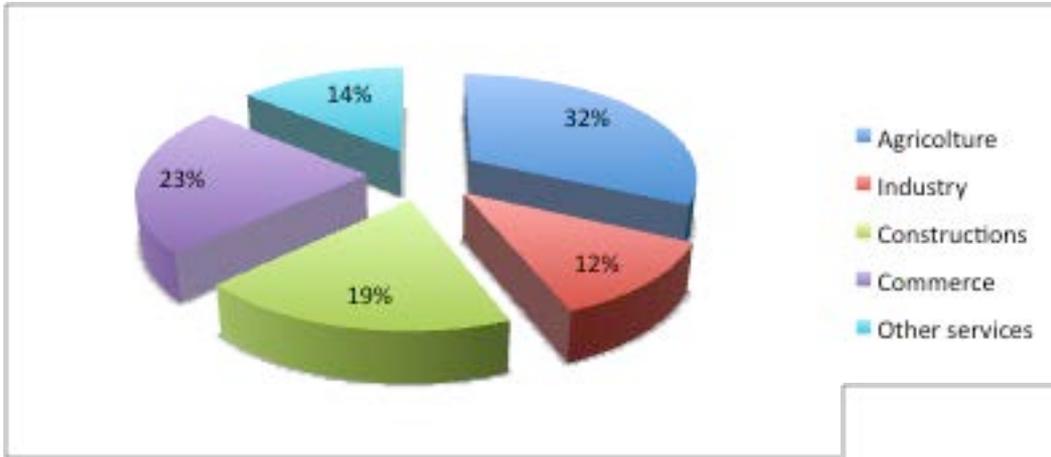


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Pavia and its territory

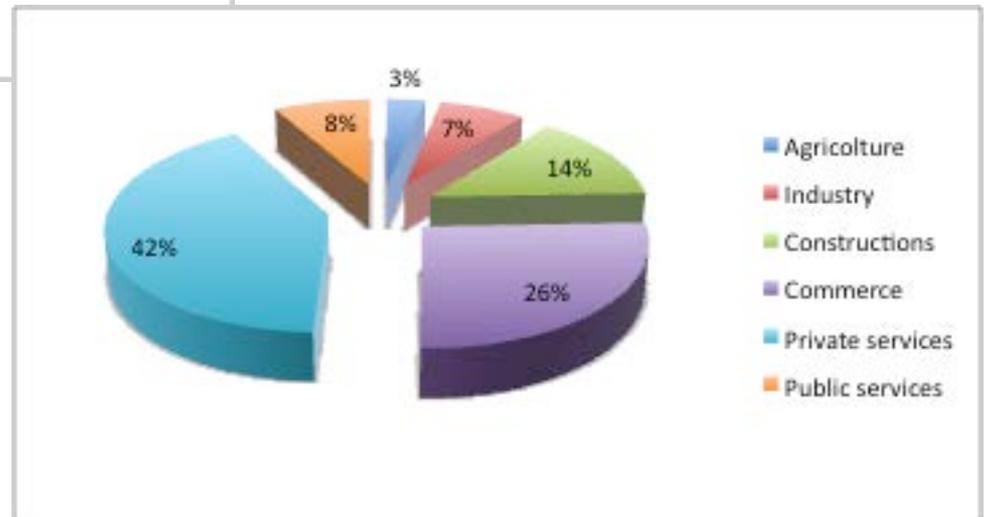


Active enterprises Provincia di Pavia vs città di Pavia



Province of Pavia

Pavia





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Pavia and its territory



- Urban development – Pavia in XVII century



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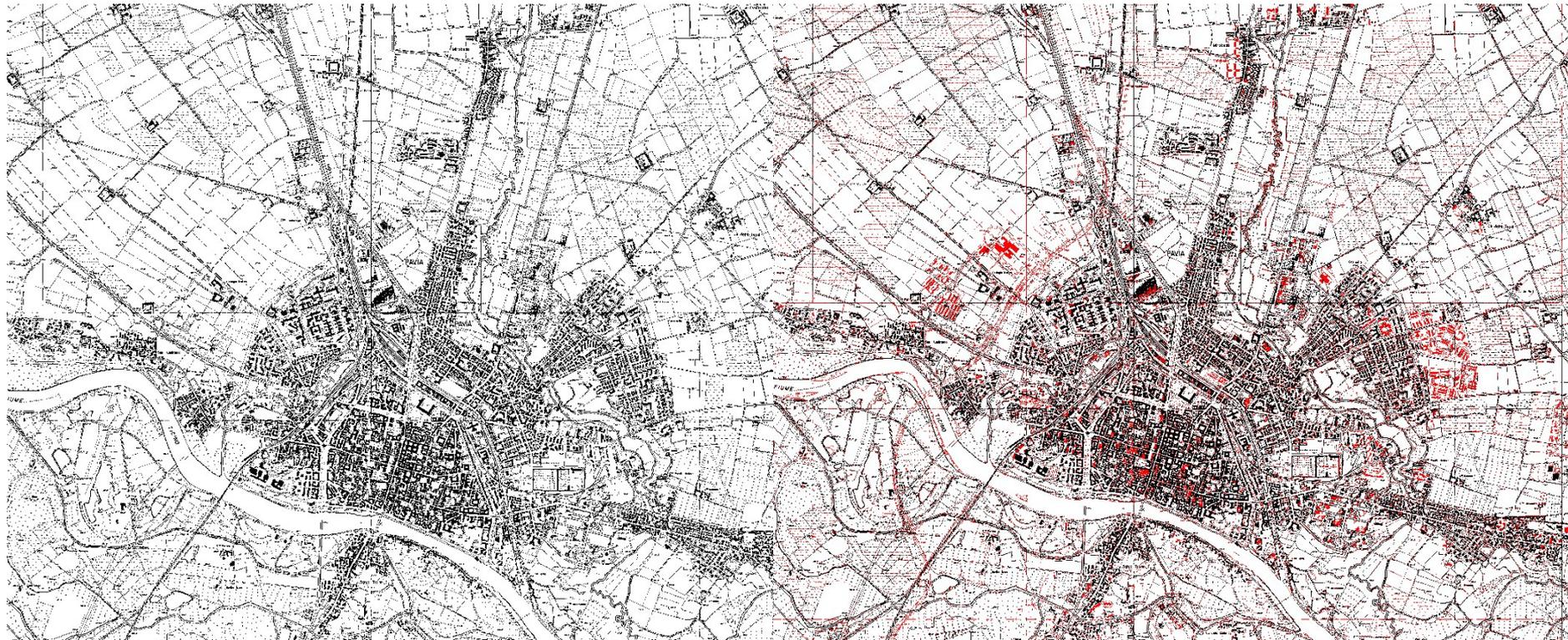


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Pavia and its territory



● Recent urban growth 1981 vs 1994



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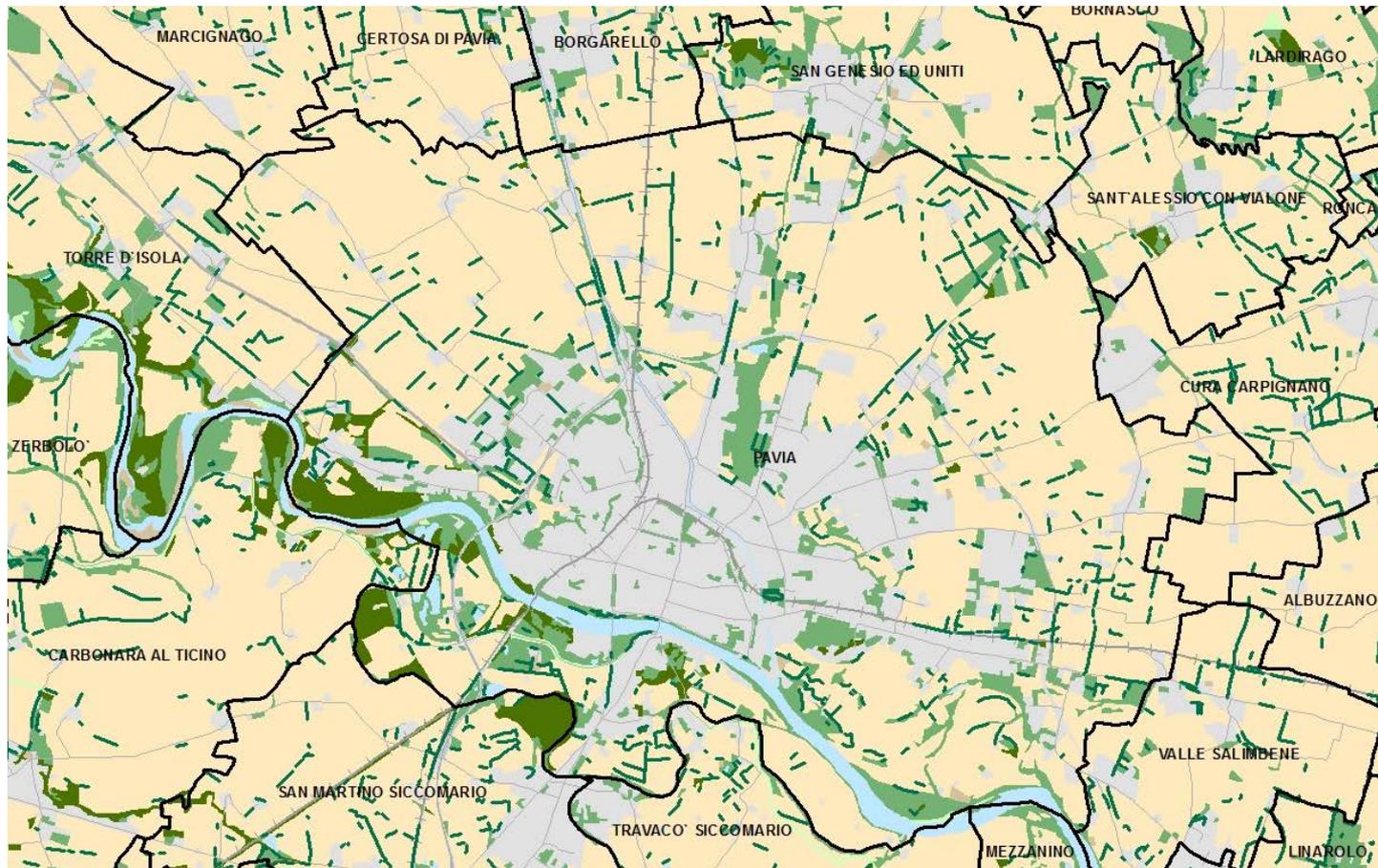


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Pavia and its territory



● Actual land use



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The city



- **Main poles of attraction for flows of people and freight**

University of Pavia and “Pavia System”

Today the University has 24,000 students, both from Italy and from overseas (it is estimated that about 40% of the students live in Pavia without being residents)

Pavia higher education schools

It has been estimated that about 9.000 high school students move every day into Pavia to go to school

Policlinico San Matteo and the other hospitals

In 2009, more than 55.000 people were hospitalized in Policlinico; the average duration of hospitalization is 5,5 days

Administrative and economic centre

Pavia as an art city



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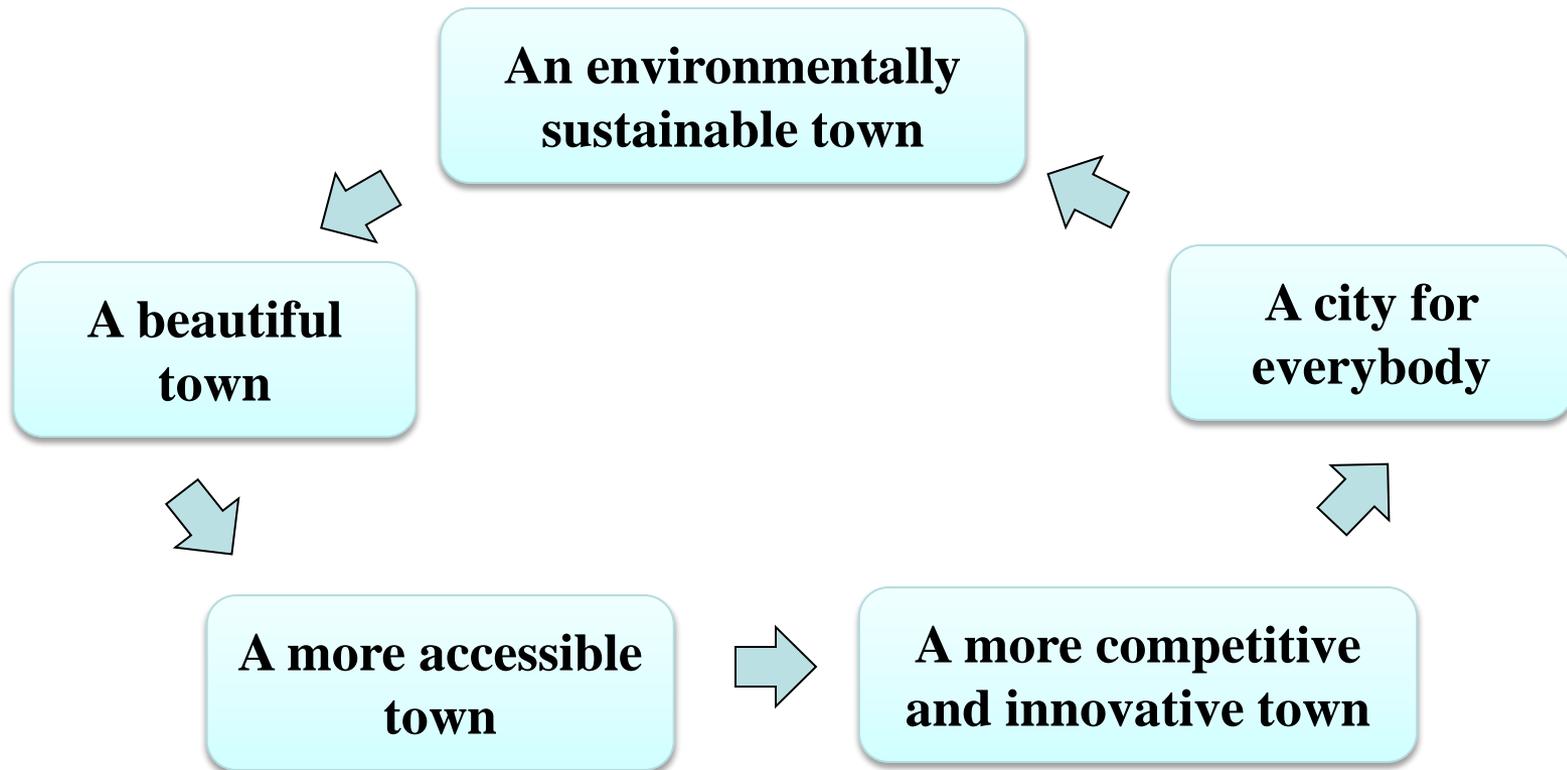


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The SUMP - Vision underpinning the plan



The vision underpinning our SUMP and in general our perception of how we would like Pavia to be in 10 or 15 years is divided in 5 interlocking strategies



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The SUMP



- **An environmentally sustainable city - strategic vision and objectives**

The first strategy focuses on the environmental concerns such as **air quality, noise levels, energy consumption**, water consumption and pollution, soil protection, waste management and **health matters**.

The **environmental impact of transport** is significant because it is a major user of energy. This creates air pollution, including nitrous oxides and particulates, and is a significant contributor to global warming through emission of carbon dioxide, for which transport is the fastest-growing emission sector.

Strategic objectives for Pavia SUMP are

- Reducing emissions from transport
- Reducing noise levels generate by transportation
- Decrease energy consumption (fossil fuels consumption)



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The SUMP



● A beautiful city - Strategic vision and objectives

The second strategy aims at making our town more beautiful or attractive by improving its “urban quality”. Maintenance of public buildings and in particular those with an artistic or historical value, a greening of town squares and a better management of the existing green areas are all objectives of this strategy.

Strategic objectives for Pavia SUMP are:

- Increase/maintain the vitality of Pavia’s historical areas and of the town as a whole;
- Increase green urban areas;
- Rationalize parking places



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The SUMP



- **A more accessible city - strategic vision and objectives**

The third strategy is the one more directly related to the SUMP.

A more accessible town refers to the need to:

- Support a shift toward more sustainable means of transport (i.e. increase the number of people the systematically use a bike or go on foot to their work places or to the university);
- Improve/optimize urban public transport services;
- Increase the importance of car sharing and bike sharing;
- Develop an integrated approach to urban accessibility (railway and long distance busses)
- Optimize the supply of parking areas



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The SUMP



- **An innovative and competitive city – strategic vision and objectives**

The fourth strategy focuses mainly on the importance of making Pavia attractive for new and existing businesses.

Why should a new economic activity choose Pavia as its start up place?

Strategic objectives for Pavia SUMP are:

- Understand strengths and weaknesses faced by new and existing economic activities
- Spread ICT technologies in the transport field (i.e. to easily locate a parking place)
- Organize and optimize city logistics (i.e. last mile deliveries using electric scooters or review the existing regulation for the delivery of goods in the centre of the town and in the suburbs)



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The SUMP



- **A city for everybody - strategic vision and objectives**

Last but not least the fifth strategy targets the social aspects of our vision and, in particular, it deals with older citizens' problems and with the always increasing number of citizens and families that face temporary or permanent economic problems.

Strategic objectives for Pavia SUMP are:

- Complete a Safety and Security Plan;
- Promote 30 km/h zones;
- Completely eliminate architectural barriers that prevent or impair mobility for disabled people



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The SUMP



- **Specific indicators**

Mobility indicators

Average estimate time to travel to work using private or public transport

Coverage of Urban Transport services

Motorized vehicles for 1000 inhabitants

Street congestion

Number of park places in strategical areas

Bike and pedestrian routes network

Car accidents and mortality rates on roads

Environmental impact indicators

Modal shift towards urban transport services and green mobility

Emission rates for noise and air pollutants

Energy consumption in the transport sector

Car sharing/car pooling/bike sharing users

Soil consumption for mobility matters

LTA and pedestrian areas



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The SUMP Main implementation features



- **Measures addressed to secure horizontal and vertical integration and participation of all main stakeholders**

Vertical integration in our SUMP is guaranteed by the analysis of coherence that is being performed both at plan level and in the SEA (Strategic environmental assessment) procedure.

Horizontal integration is viewed both from within the city itself and from the point of view of cities surrounding Pavia.

This means that in a strategic thinking way we have defined (or at least we are trying to define) a vision for the city that will be the framework in which we all will be moving in planning and programming.

The second task we are undertaking to guarantee horizontal integration is to involve other administrations in the planning process.



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The SUMP

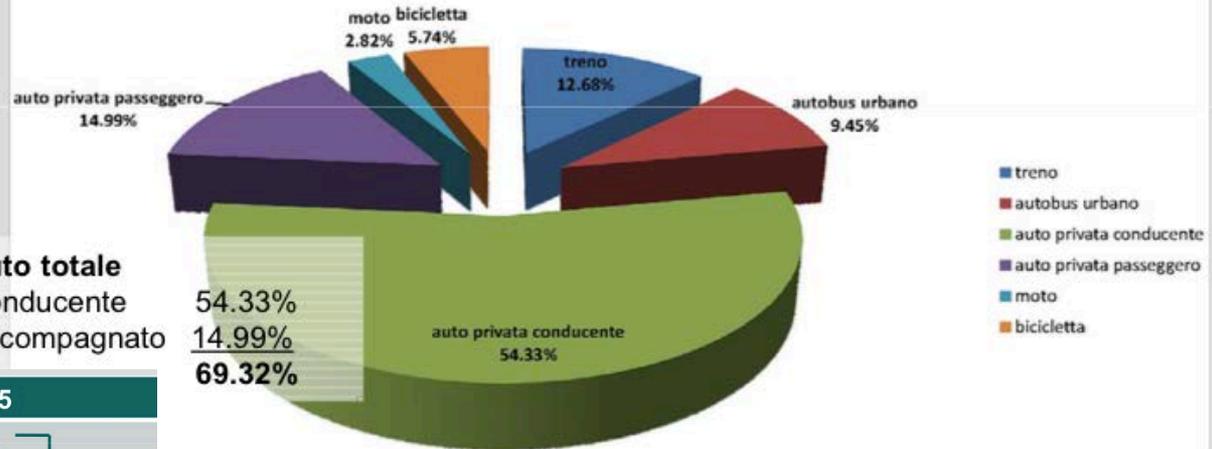
Main implementation features



- Measures and actions chosen in the SUMP to support a balanced development of all transport modes

Treno	7.446	12,68%	Motorizzati	94,26%	Pubblico	22,12%
Autobus urbano	5.549	9,45%				Privato
Auto privata conducente	31.912	54,33%				
Auto provata passeggero	8.806	14,99%				
Moto	1.657	2,82%				
Bici	3.369	5,74%	Bicicletta			5,74%

Riparto Modale Comune di Pavia



Auto totale
 Conducente
 Accompagnato

54.33%
 14.99%
69.32%

LO SCENARIO 2016-2025

Modo	2016	Trend	2025	Target
Autobus urbano	9.45%	→	12%	45%
Treno	12.68%	→	15%	
Bici	5.74%	→	15%	
Moto	2.82%	→	3%	
Auto (conducente e accompagnato)	69.32%	→	55%	



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The SUMP Main implementation features



● Monitoring and evaluation procedures

The monitoring plan involves the following steps:

1. identification of specific monitoring indicators such as the ones previously seen
2. Annual monitoring of the progress of the actions identified in the plan
3. Identification of the “good” and “bad” actions
4. Implementation (if needed) of new and different actions in order to reach the desired target
5. Communication to all relevant stakeholders the progress toward a more sustainable urban mobility



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The SUMP

Main implementation features



- **Special features of Pavia SUMP**

Strategic thinking

Integration of environmental aspects into planning – Strategic Environmental Assessment

Integration of other sustainability plans:

- Sustainable Energy Action Plan**
- Safety and Security Plan**

Information, communication and participation programme



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The SUMP

Main implementation features



● Strategic thinking

Strategic thinking means:

-having a **vision** over long-term objectives (the distant points we want to reach),

-**flexibility** to work with **complex systems** (understanding systems, the links and lock-ins, and accepting uncertainty),

-**adapting to changing contexts** and circumstances (changing pathways as needed)

-be strongly **focused** on what matters in a wider context (time, space and points of view).



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The SUMP Main implementation features



• Strategic Environmental Assessment

Strategic Environmental Assessment is a decision support instrument that can contribute to strengthen society commitments to sustainable development, efficient management of resources and green economy.

SEA, in a strategic thinking approach, has three very concrete objectives:

- encourage environmental and sustainability integration (including biophysical, social, institutional and economic aspects), setting enabling conditions to nest future development proposals;
- add-value to decision-making, discussing opportunities and risks of development options and turning problems into opportunities;
- change minds and create a strategic culture in decision-making, promoting institutional cooperation and dialogues, avoiding conflicts.



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The SUMP Main implementation features



• Strategic Environmental Assessment

The structure of SEA (under the Directive) is based on the following phases:

- "Screening", investigation of whether the plan or programme falls under the SEA legislation,
- "Scoping", defining the boundaries of investigation, assessment and assumptions required,
- "Documentation of the state of the environment", effectively a *baseline* on which to base judgments,
- "Determination of the likely (non-marginal) environmental impacts", usually in terms of direction of change rather than firm figures,
- Informing and consulting the public,
- Influencing "Decision taking" based on the assessment and,
- Monitoring of the effects of plans and programmes after their implementation.



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The SUMP Main implementation features



• Integration with SEAP

A Sustainable Energy Action Plan (SEAP) is the key document in which the Covenant signatory outlines how it intends to reach its CO₂ reduction target by 2020.

Pavia signed the Covenant of Mayors for Climate and Energy on 26th march 2012.

The municipal council approved the SEAP on 16th december 2013.

The document was then submitted to the European approval and, after a request for additional information, Pavia SEAP was approved on 30th november 2015.

Pavia SEAP fixes a target of overall CO₂ emissions reduction of 29% of reduction in comparison to the baseline year emissions. It proposes 14 actions aiming at reducing the CO₂ emission at the local level, concerning different sectors.

The actions concerning public and private transport are: gradual replacement and compression of the municipal car fleet, car sharing and car pooling and development of ciclo-pedestrian mobility.



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The SUMP Main implementation features



- **Integration with SSP (safety and security plan)**

If we target as a long term objective the increase of people going by bike or on foot we have to provide safer street for pedestrians and cyclists.



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The SUMP Main implementation features



● Participation

The engagement of citizens and stakeholders throughout the SUMP development process has been set as a key element.

A wide range of methods are being used:

- public announcements,
- publication in the press,
- public meetings,
- internet surveys and questionnaires.



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The SUMP

Main implementation features



• Participation

Web page devoted to the project



La nuova mobilità a Pavia

In questi mesi, la città di Pavia si sta dotando di un Piano Urbano della Mobilità Sostenibile (PUMS) il cui obiettivo strategico è quello di orientare e gestire il sistema della mobilità urbana dei prossimi anni, con un orizzonte temporale di medio-lungo periodo (10 anni), in un quadro di complessiva coerenza e integrazione dei diversi piani di settore.

Il PUMS si propone di soddisfare la variegata domanda di mobilità delle persone e delle attività nelle aree urbane e peri-urbane per migliorare la qualità della vita nella città.

Con il PUMS si opera un passaggio fondamentale dalla pianificazione dei trasporti alla mobilità sostenibile, in quanto si supera l'approccio ex post che vedeva il traffico come elemento critico su cui operare, a favore della valutazione delle esigenze di spostamento delle persone e della relativa offerta di modalità di spostamento sostenibile.

Il PUMS pone al centro le persone e la soddisfazione delle loro esigenze di mobilità, seguendo un approccio trasparente e partecipativo che prevede il coinvolgimento attivo dei cittadini e di altri portatori di interesse fin dall'inizio del suo processo di definizione.

Proprio per sottolineare la modalità partecipativa di elaborazione del PUMS, è stata realizzata questa pagina che affianca e arricchisce il sito web istituzionale della mobilità, interamente dedicata alla comunicazione e partecipazione.

In tal modo si ritiene di soddisfare l'esigenza di costante informazione sullo stato di avanzamento della pianificazione e quindi sulla possibilità di intervenire efficacemente da parte dei cittadini con proposte o osservazioni.

Buona navigazione.

PARTECIPA AI TAVOLI

E' possibile iscriversi ai tavoli di lavoro [cliccando qui](#). Sarà nostra premura ricontattarti per confermare la tua presenza.



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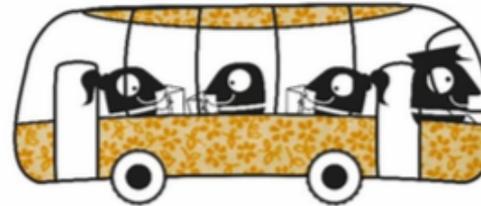


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The SUMP Main implementation features



1 – Trasporto pubblico locale – **Linee efficaci ed efficienti**



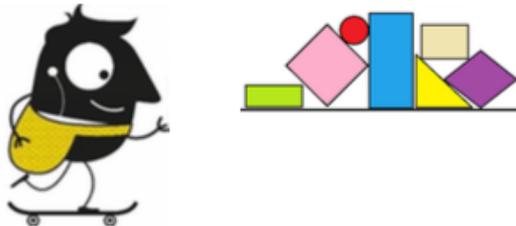
5 – Sistema della sosta – **Parcheggia la tua auto e vivi la città**



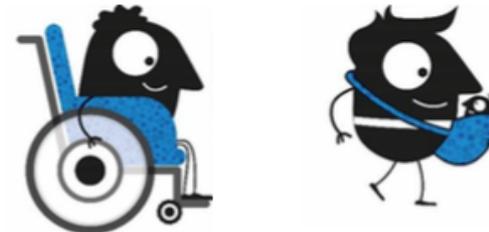
2 – Mobilità non motorizzata - **Pavia a piedi e in bici**



3 – Logistica merci – **Merci e persone una convivenza possibile e necessaria**



4 – Spostamento persone con mobilità ridotta - **Muoversi bene, muoversi tutti**



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