



FIG/FAO International Seminar on
State and Public Sector Land Management

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Villafranca (VR)

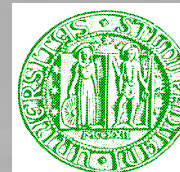
Economical aspects of a correct land management

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Structure

- **Economics and land management**
- **Land use and market failure**
- **Government intervention and failure**
- **Veneto case study:**
 - Land settlement, urban planning and development policies
 - Real estate market
 - Consuming and wasting the land
 - Landscape impact
- **Conclusions**



Economics and land management

- Land utilization and its changes depend on **real estate market trends**.
- From an economic point of view, land demand is a **derived demand** (land is one of the factors of production).
 - ↳ If for some reason the **prices** and their **trend expectation change**, then the "derived" land demand will also change.



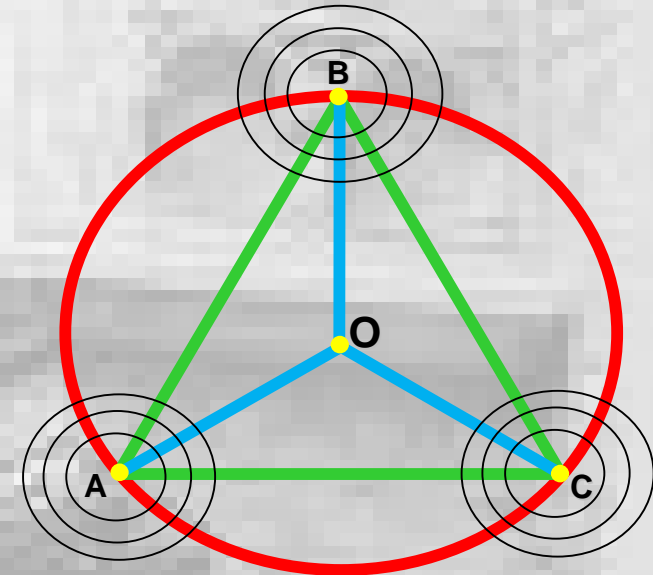
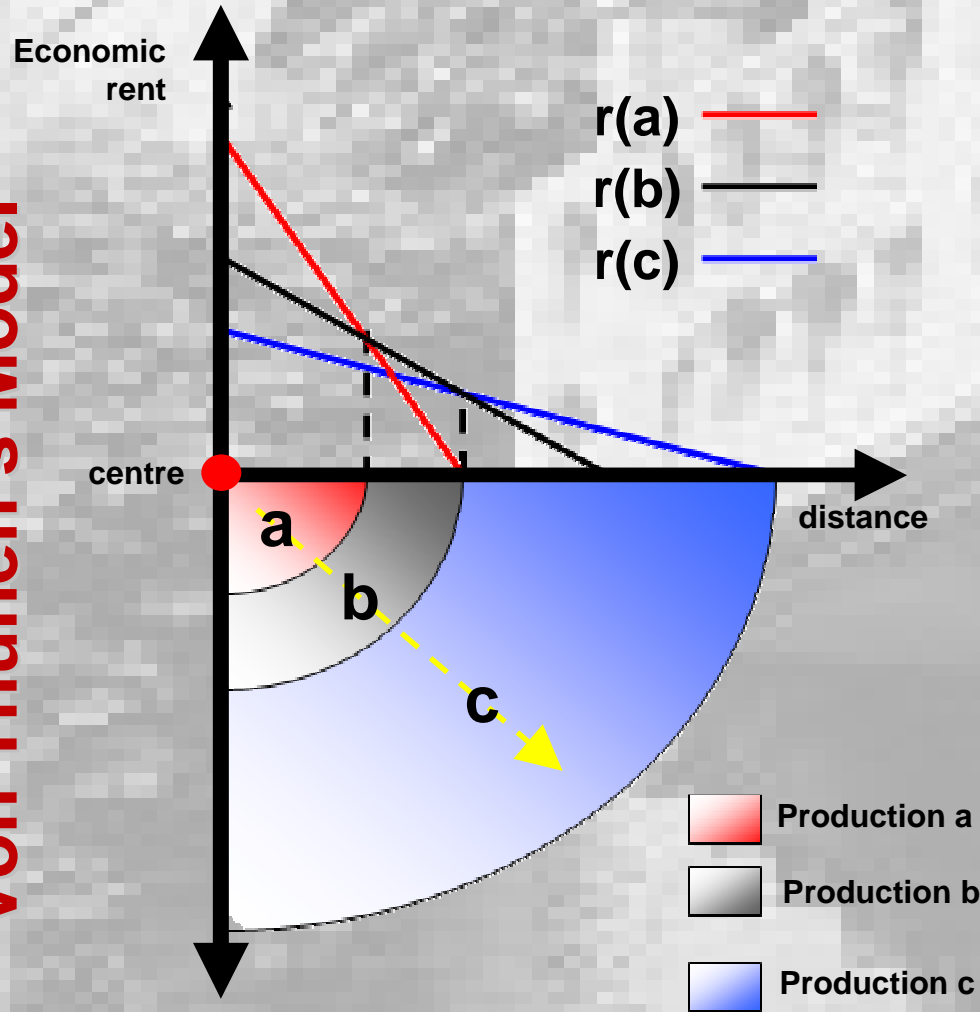
Economics and land management

- In the absence of external interventions, the **territorial structure** will thus be determined entirely on the basis of **markets** whose goods demand for land use.
- The economic theory created several **models** to explain the **land use trends** on the basis of market forces.



Economics and land management

Von Thünen's Model



Network
Model



Spontaneous organization of territorial space

- Polarized urban rent (differentials in property values) with strong **spatial hierarchy** of economic activities.
- With **agglomeration diseconomies** (i.e. traffic congestion, logistic costs):
 - mix of activities;
 - network asset.



Land use and Market failure

- Economic theory underlines that market is not able to determine an optimal social use of resources in the presence of **“market failures”**.
- Referring to land, we have:
 - Non-renewable resources;
 - Externalities;
 - Public goods;
 - Irrationality of economic agents.



Land as exhaustible resource

- Many resources are mixture of **renewable** (regenerate themselves) and **non-renewable** (exhaustible) elements: **soil** and its **over-exploitation** (**unsustainable**) due to free market action.
- **Irreversible** land use and **inflexible** systems (urban **sprawl**).



Externalities

Externalities are usually defined as *unintentional side-effects of production and consumption that affect a third party either positively or negatively*

LAND



Traffic pollution
Hydrogeological asset

Landscape degradation
Urban congestion



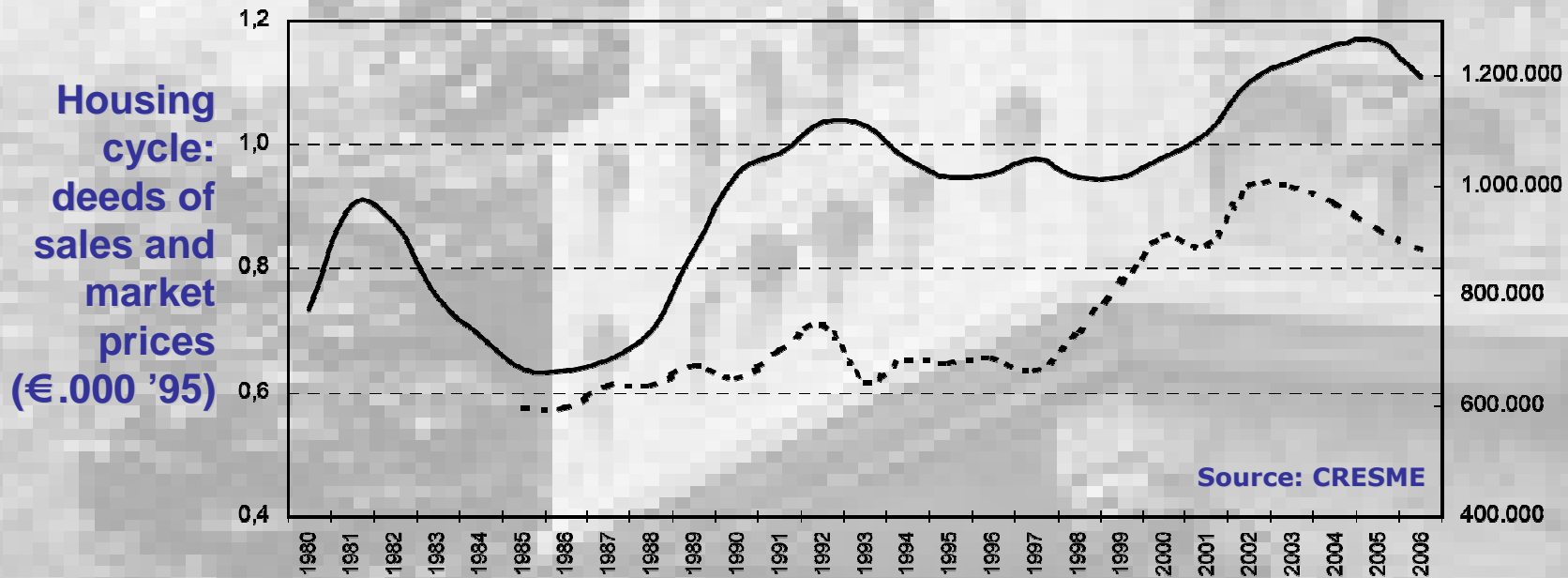
Land(scape) as public good

	NON-RIVAL	Congestible	RIVAL
NON EXCLUDABLE	PURE PUBLIC GOODS Landscape	Open access resources Roads	Open access resources Free parking area
EXCLUDABLE	Toll Goods Natural Habitats	Club goods Highways	PRIVATE GOODS Houses

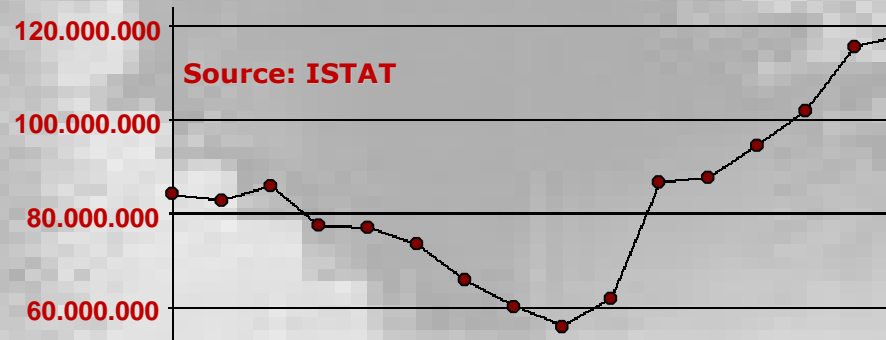




Irrationality in real estate investors

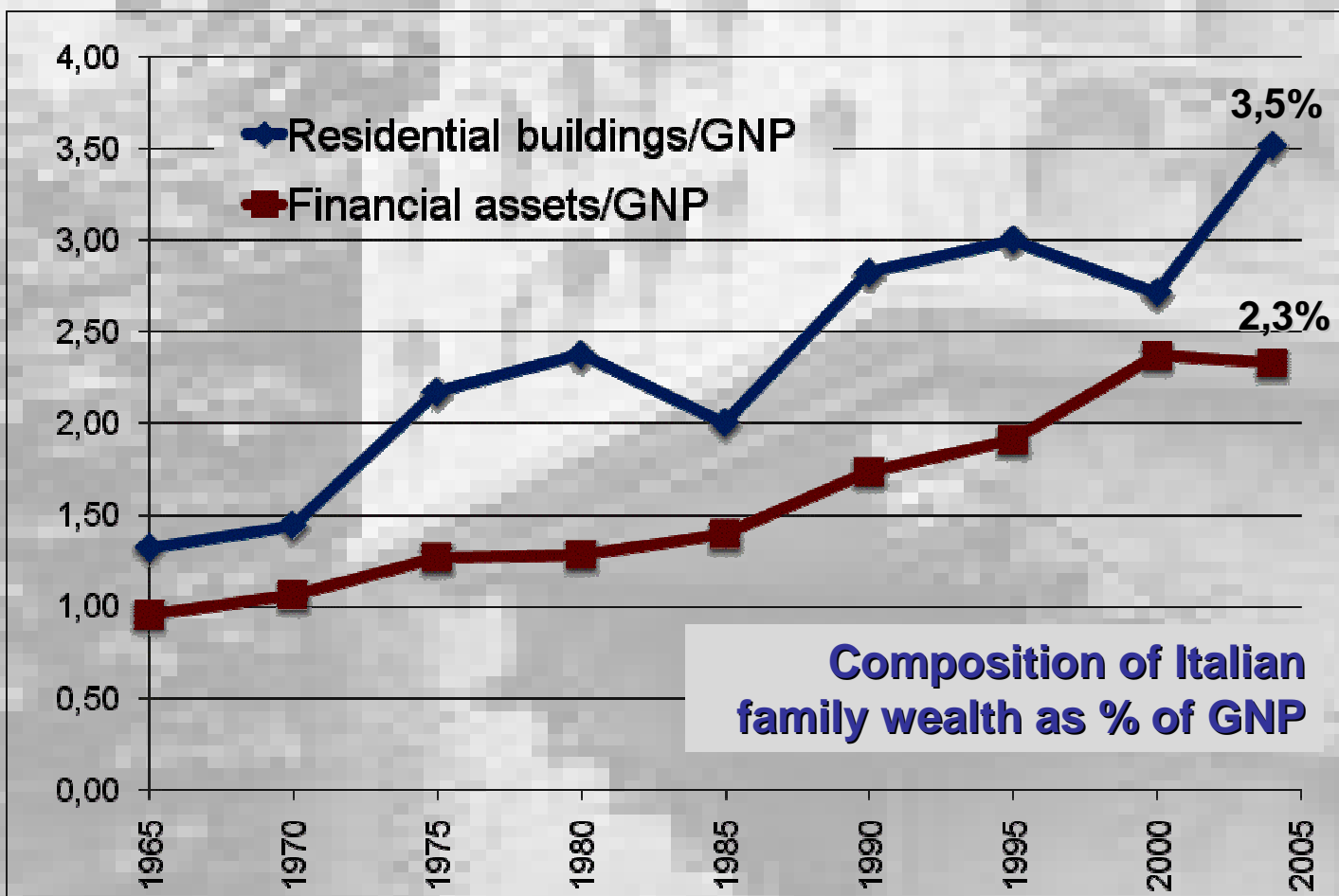


Building permits issued in Italy to realize new houses from 1990 to 2004





Irrationality in real estate investors





How markets use priced and unpriced (environmental) resources

- Market failure calls for **government intervention** to correct inefficiency.
- For example **European Spatial Development Perspective (ESDP)** “*Towards Balanced and Sustainable Development of the Territory of the European Union*” (1999):
 - ↳ recommendation for public intervention and sustainable urban increase.



Why governments fail

Although there are good reasons for governments intervention, unfortunately **they are often no better** at managing natural resources than the free market:

1. We tend to think that the duty and purpose of government is to act in our interests as a **community** rather than as individuals, but this image can be false.
2. Governments may not be very good at getting the right **information** which enables them to trace through the full consequences of a particular action.
3. Government may frame a good environmental law in principle. However, it has to be **translated into practice** by experts who are part of a government bureaucracy.



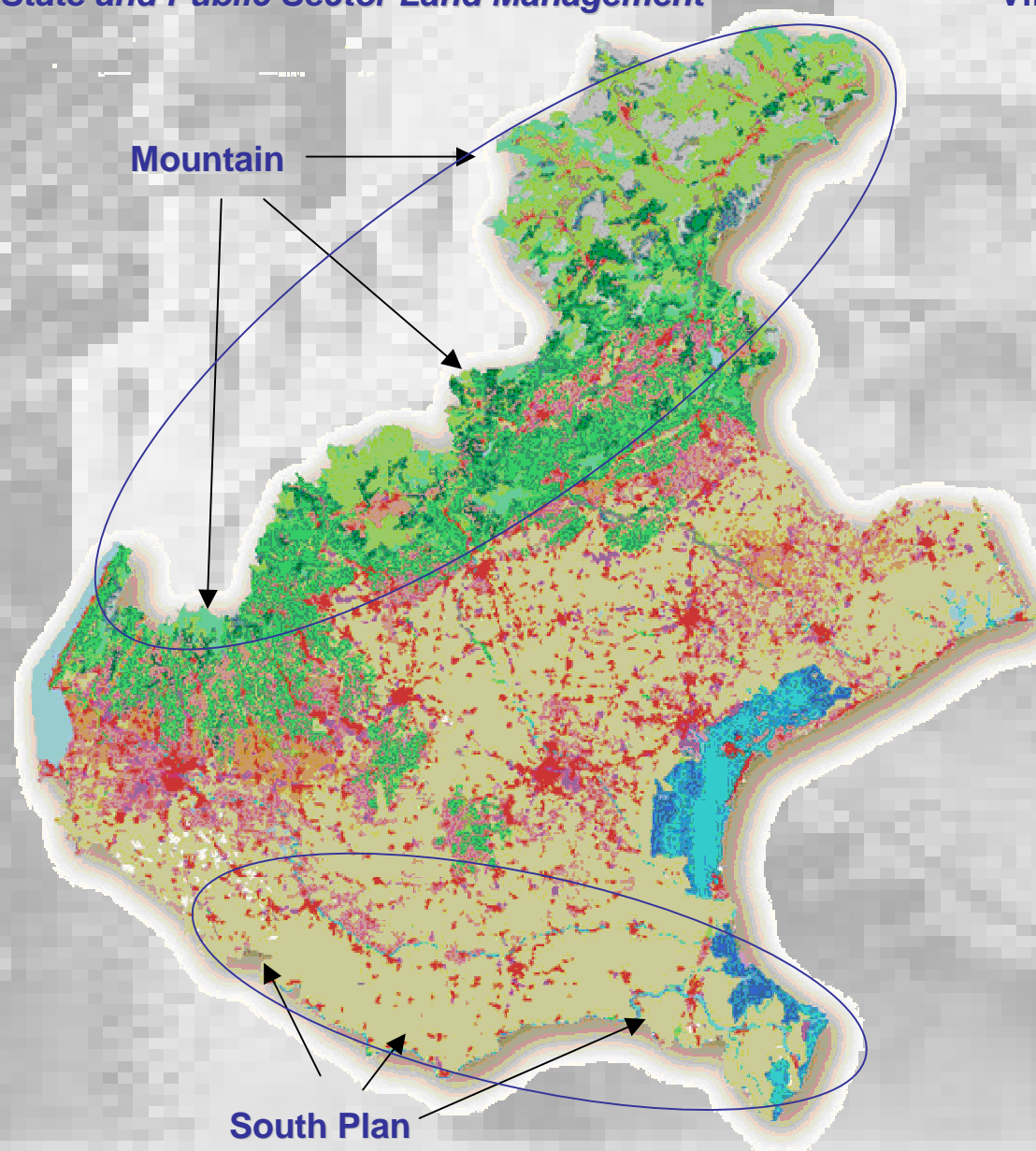
Land Settlement of the Veneto Region

At the beginnings of the Seventies (before the economic boom) the Veneto Region had:

- a polycentric residential and productive settlement (presence of almost 5 cities of small-medium size instead of a big city) and more dispersed than the other Italian regions (urban sprawl)
- a big economic disparity between the central part of the Region and two marginal areas (mountain and south rural)



Marginal Areas





Urban planning and development policies

Since its establishment the Veneto Region tried:

- to reduce the economic development gap
- to reduce the negative effects of the dispersed settlement
- to enhance the positive effects of the polycentrism (less urban and traffic congestion, less criminality, more social cohesion, etc.)



Urban planning legislation

The Veneto Region passed a urban planning law at the end of the Seventies

There are three type of plans

- Regional Master Plan (PTRC)
- Province Master Plan (PTP)
- Municipal urban plan (PRG)



Urban planning legislation

- Almost all the Municipalities enacted a urban plan before the end of the Eighties.
- The Region adopted the Master Plan (PTRC) in 1992.
- The Provinces, despite a great deal of studies and proposals, till today have not adopted the Master Plan.
- The Municipalities were been the principal (but not the only one) actor of the urban growth.



The Real Estate Prices in the Veneto Region

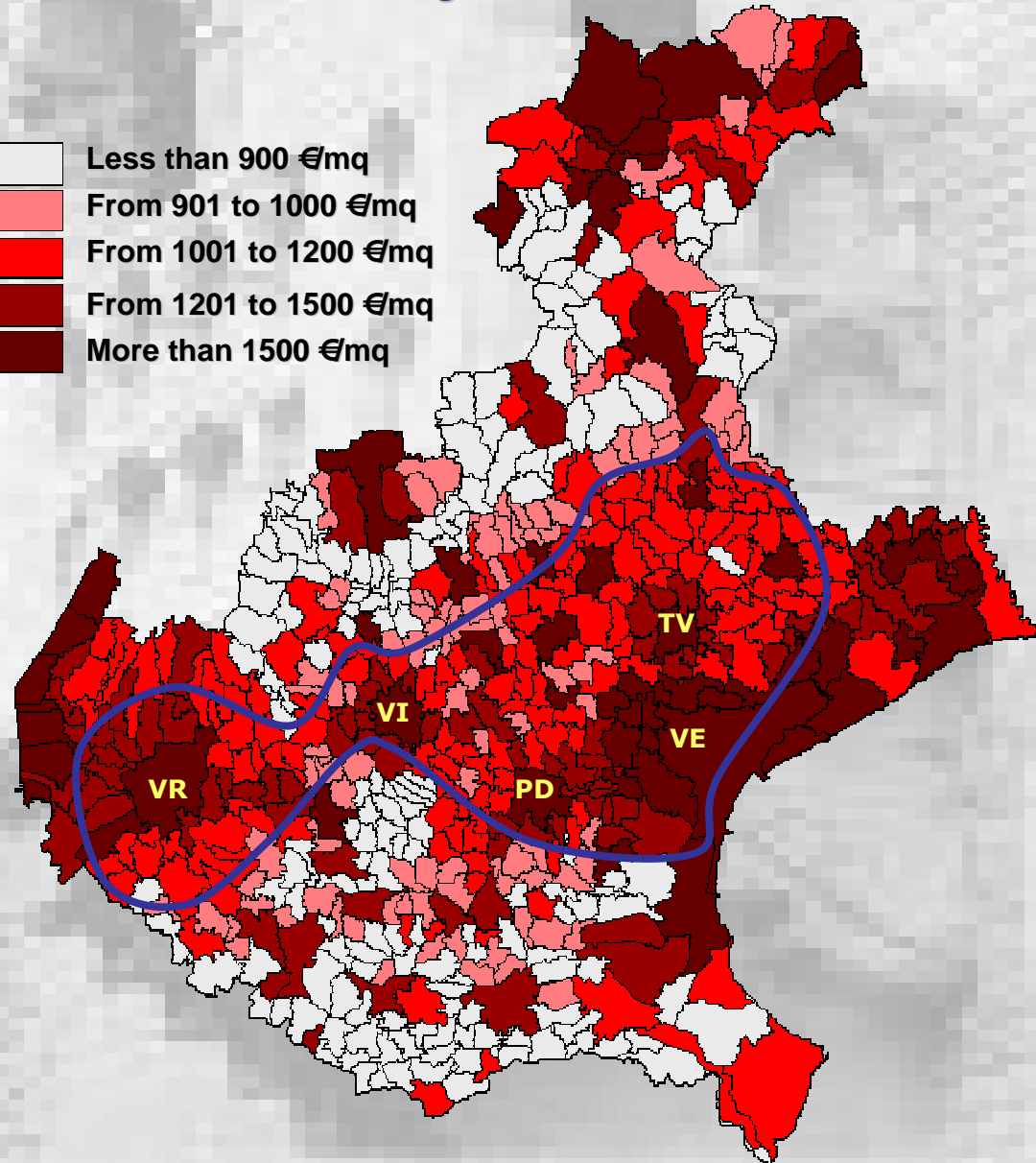
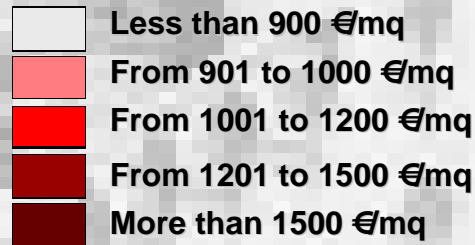
The analysis of the real estate prices permit to highlight:

- The degree of economic development of the different part of the territory
- The role played by the market and by the public intervention in the evolution of the land settlement



Real Estate Prices (€2005/mq)

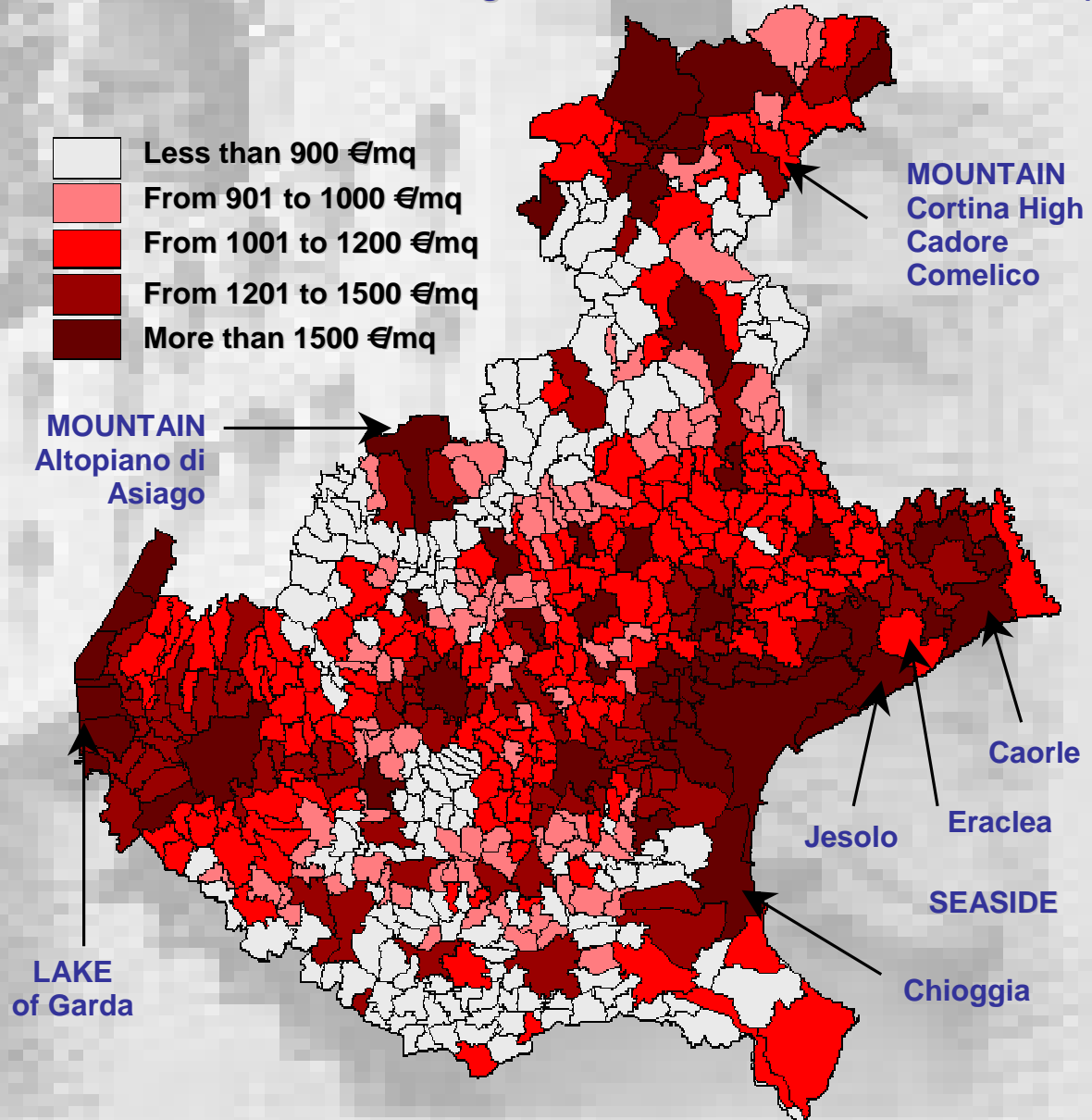
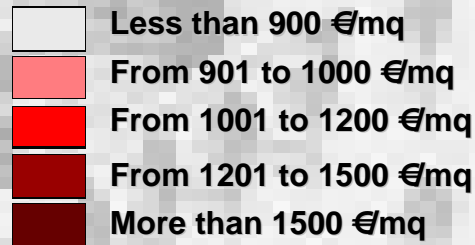
Effect of towns and Central Area of the Region





Real Estate Prices (€2005/mq)

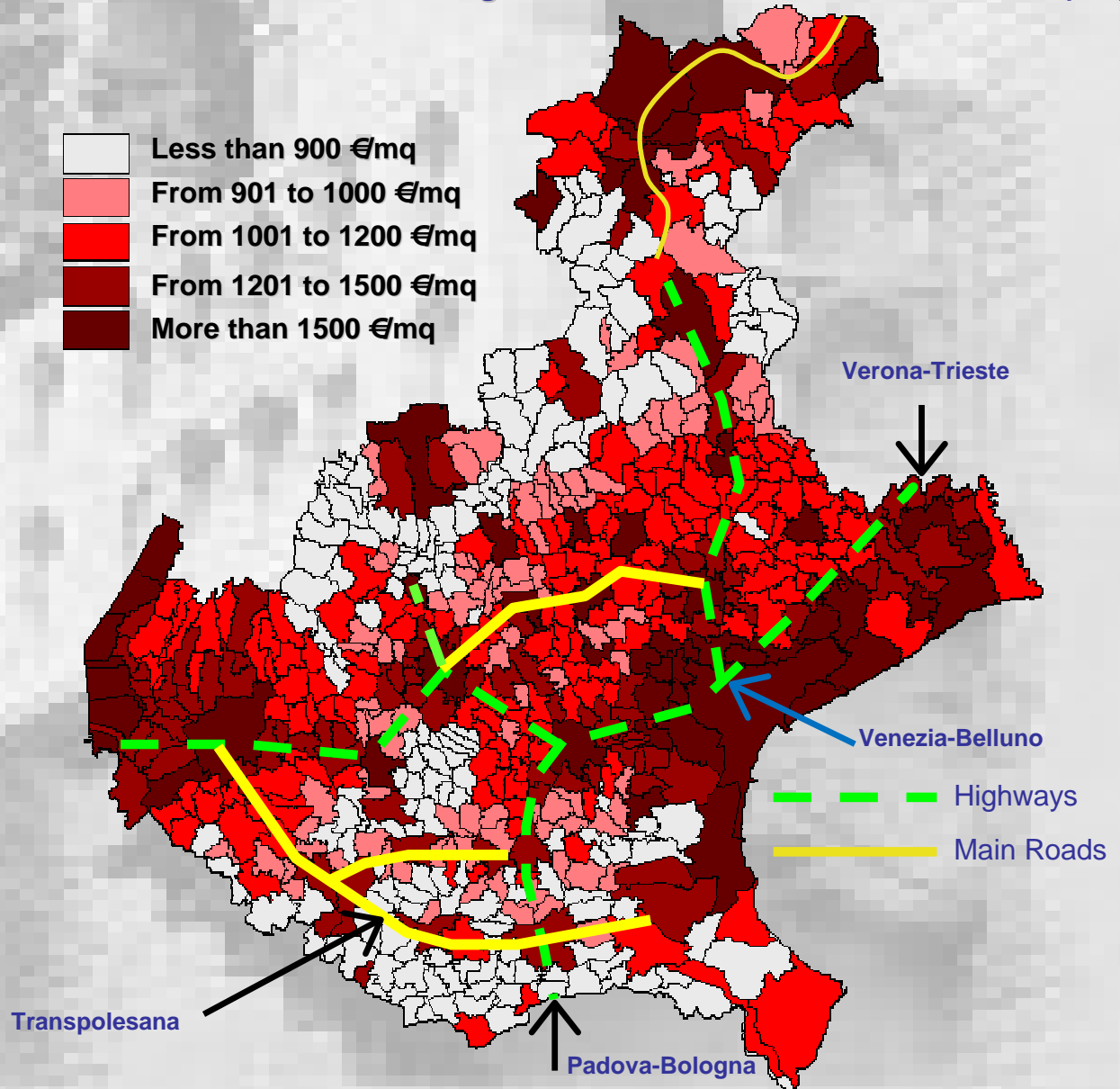
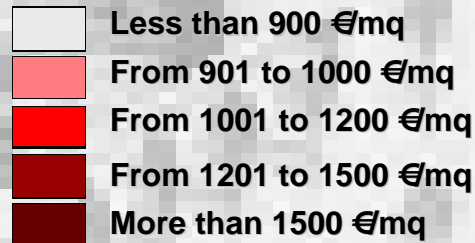
Effect of Tourism





Real Estate Prices (€2005/mq)

Effect of the highways and of the main roads





Real Estate prices in the Veneto Region per socioeconomic areas

Area	Municipalities (Number)	Price Euros 2005/mq	Deviation from the regional mean (%)	
Mountain	not tourist	45	849,2	-21,7
	tourist	67	1.074,6	-1,0
Hill	not tourist	91	1.019,5	-6,0
	tourist (lake)	8	1.905,0	75,6
Plan	marginal	76	853,8	-21,3
	transitional	76	1.004,1	-7,5
	central Veneto	112	1.070,3	-1,4
	metropolitan	50	1.320,1	21,7
	towns 5 level	22	1.420,7	30,9
	towns 4 level	9	1.438,3	32,6
	towns 3 level	9	1.465,6	35,1
	towns 2 level	4	1.946,3	79,4
	towns 1 level	4	2.203,8	103,1
	tourist (seaside)	5	1.600,0	47,5
	total	578	1.085,3	



Consuming and wasting the land

- Following the Corine Land Cover data, in 2000 the **urban areas** covered about the **7,7%** of the surface of the Region
- A recent study of the Magistrato delle Acque pointed out that inside the Basin of the Venice Lagoon the Corine Land Cover data **underestimates the real urban area** (about 60% less)



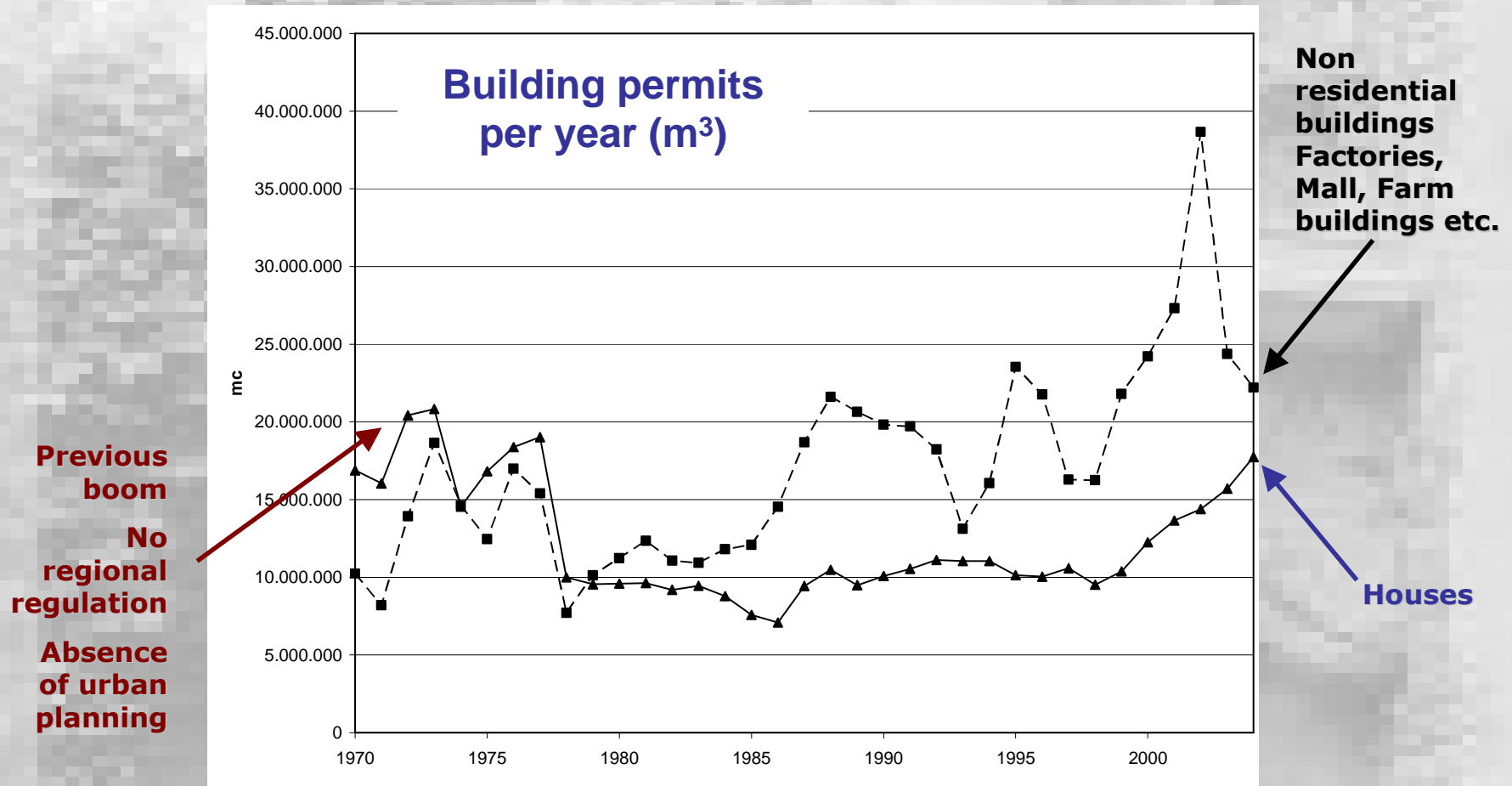
**Starting from the Magistrato delle Acque data,
through a statistical function, we estimated
the real urban area in the Veneto Region plan in 2001**

Areas	Surface (kmq)	Inhabitants in 2001	Estimated urban surface		
			total (kmq)	%	per capita (mq)
Marginal and transitional areas.	5153,1	925.750	566,6	11,0	612
Central part of the Region	2962,1	1.000.537	546,3	18,4	546
Metropolitan areas	858,1	537.267	228,9	26,7	426
Towns	742,2	978.631	214,3	28,9	219
Total	9.715,4	3.442.185	1.556,0	16,0	452

**The land consumption per inhabitant has been about
two times lower in the towns than in the other parts of the plan**



The recent building boom





The recent building boom

The building boom has been a general phenomenon in Italy
... but in the Veneto Region it has been very higher!

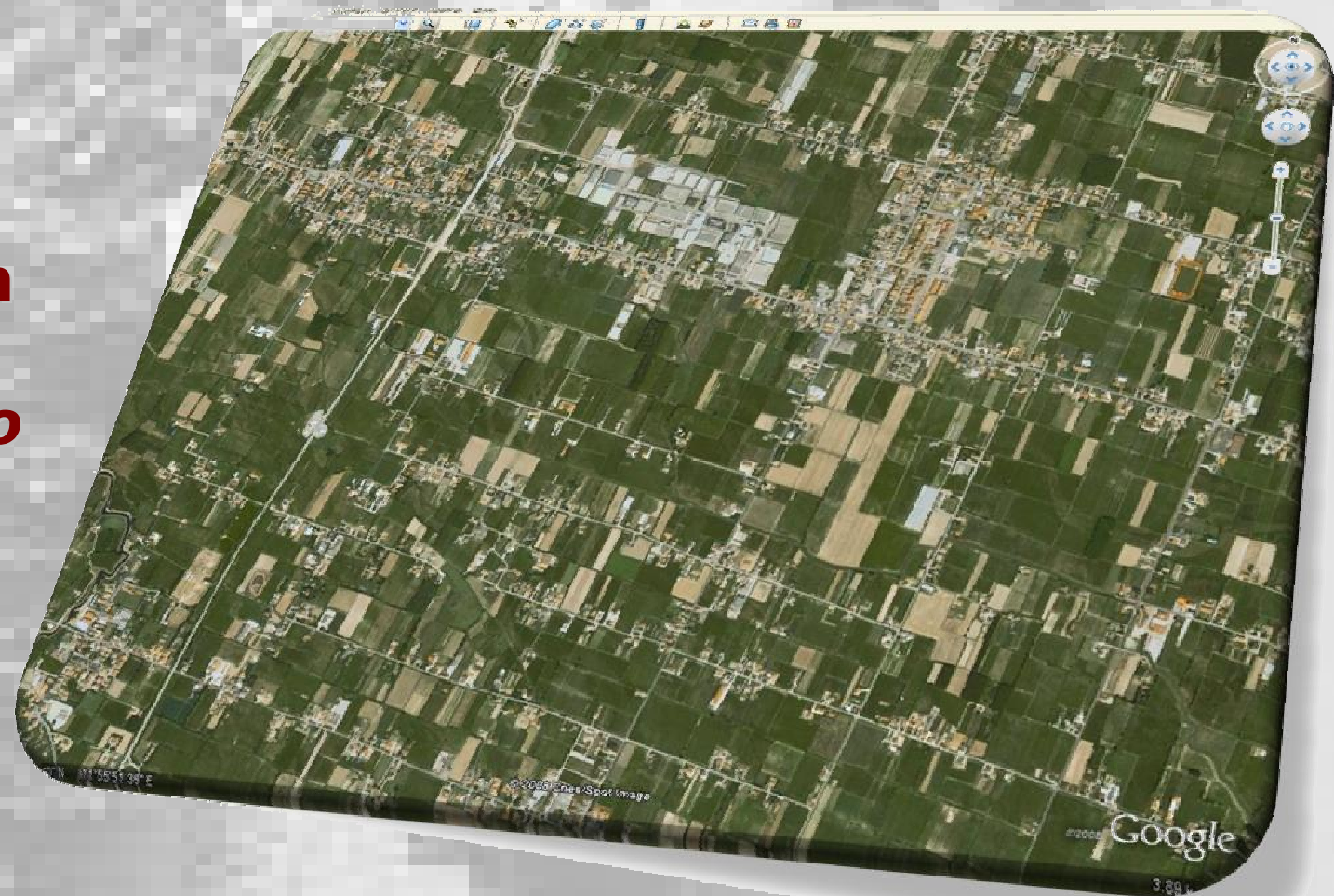
Building permits (cubic meters per square kilometer)

	Veneto	North Italy
Houses	4.204 (second in Italy)	2.602
Non residential buildings	7.791 (first in Italy)	4.612



Land settlement

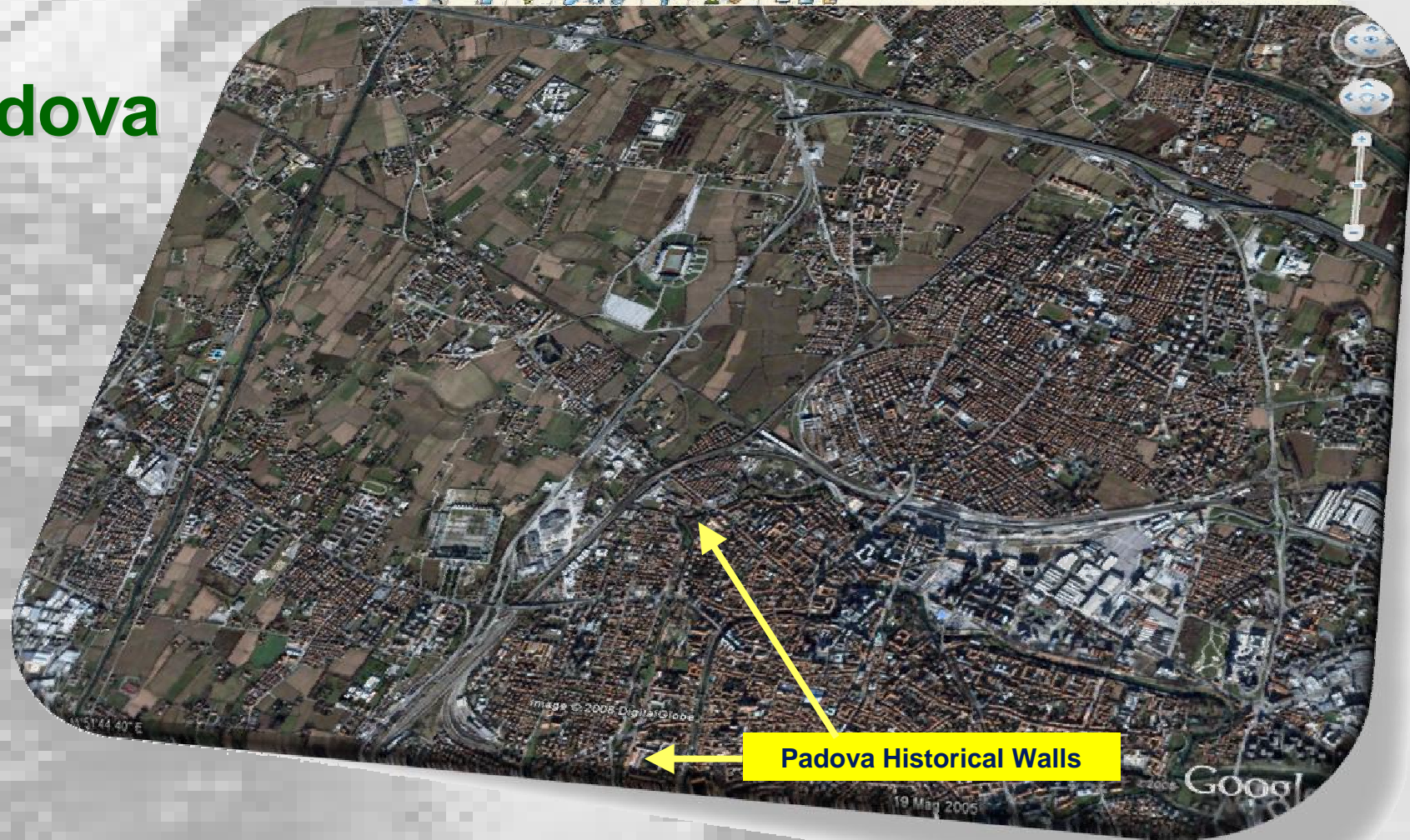
**The
Central
Part of
the Region
(Roman
Graticolato
historical
area)**





Land settlement

Padova





Land settlement

Rovigo



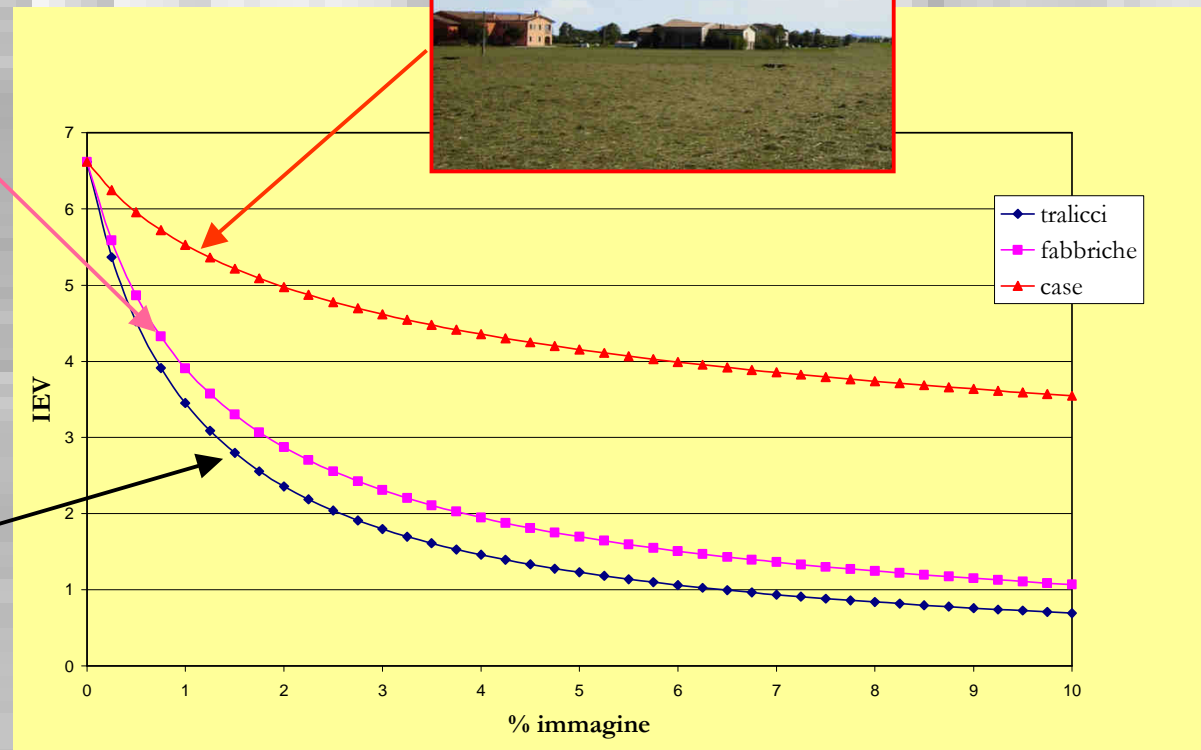


The landscape impact

- The scattered modern buildings can dramatically reduce the **landscape aesthetic** quality and the attractiveness of the territory for the outdoor recreation (both tourists and daily users).
- The landscape quality is the main factor considered by the Veneto inhabitants when choosing a place where make a day-trip.

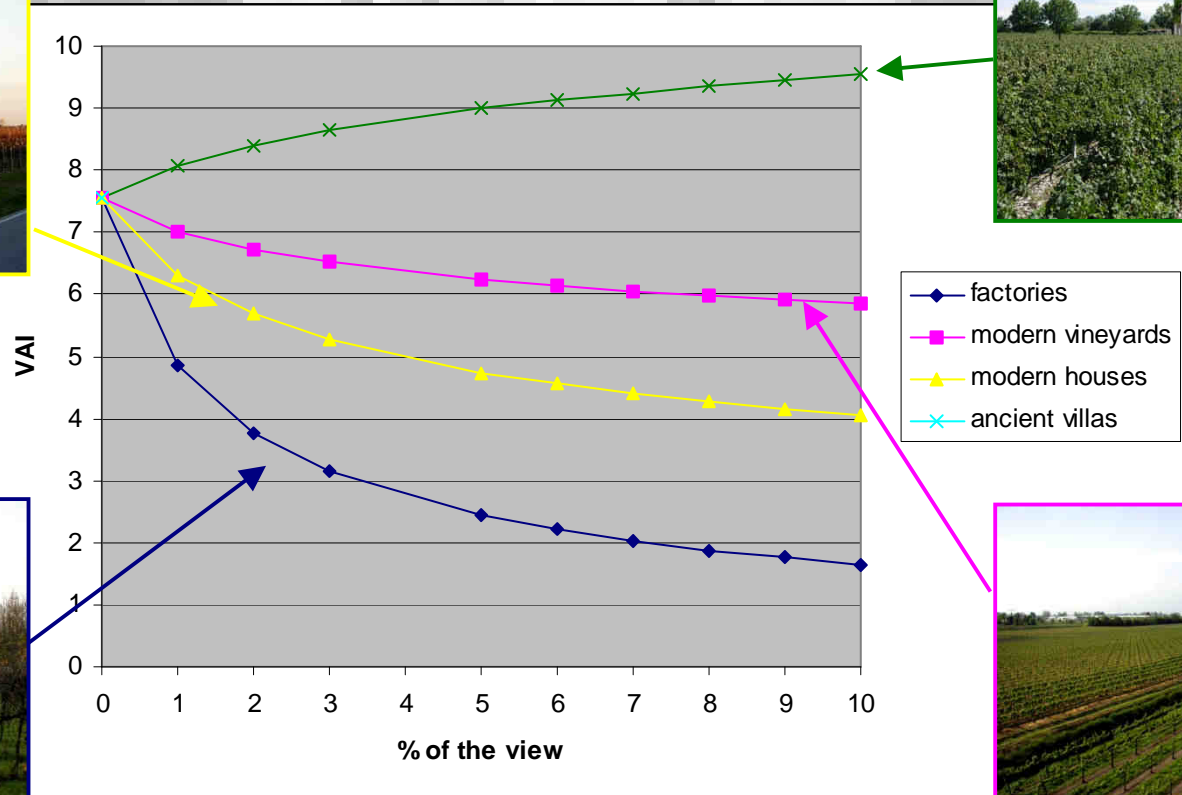


Landscape aesthetic appreciation (scale from 1 to 10) and percentage of a vista occupied by modern houses, factories and pylons



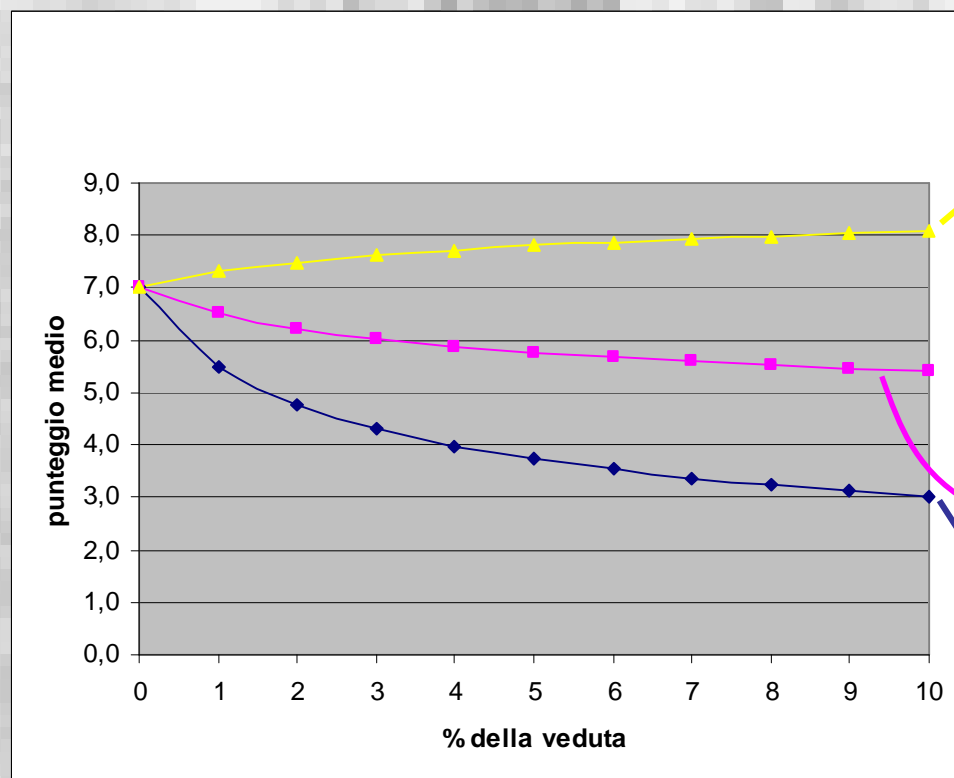


Landscape aesthetic appreciation (scale from 1 to 10) and percentage of a vista occupied by modern houses, factories, modern vineyard and historical villas





Landscape aesthetic appreciation (scale from 1 to 10) and percentage of a vista occupied by factories, modern vineyard and woods and scattered trees





Recreational areas demand

- The landscape degradation is one of the main cause of the recreational demand
- Day-trip in the Colli Euganei Regional Park: 2.5 millions per year
- Day-trip in the Mountain areas of the Region: 7.7 millions per year

The visits are concentrated mainly during the weekend in spring and summer

Increasing Traffic and Pollution problems



Conclusions

- After about 40 years of economic growth the territory (especially on the plain) of the Veneto Region can be considered **deeply compromised**.
- The urban areas are **strongly sprawled**.
- The **urban planning failed** in the attempt to control the sprawl and to reduce the economic gap between developed and marginal areas.



Conclusions

- The growth of urban areas was largely driven by the **choice of agents market** that pursued the increase of the **urban rent**.
- Huge soil consumption, landscape degradation, traffic pollution are on the whole the unsustainable results of such dynamics.
- The public administration has been strongly prone to the **interests of investors** also in recent years.



Conclusions

- The **improvement of the territory will** require a great deal of **time** (inertia of the urban systems) and could be very **costly** from the social point of view
- A **deep change of the urban planning** legislation will be necessary
- Today the building trade is essentially a **financial activity**: how the municipalities will be able to control and to plan in a sustainable ways the territory facing such strong interests?



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**Thank you
for your
attention!**

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