

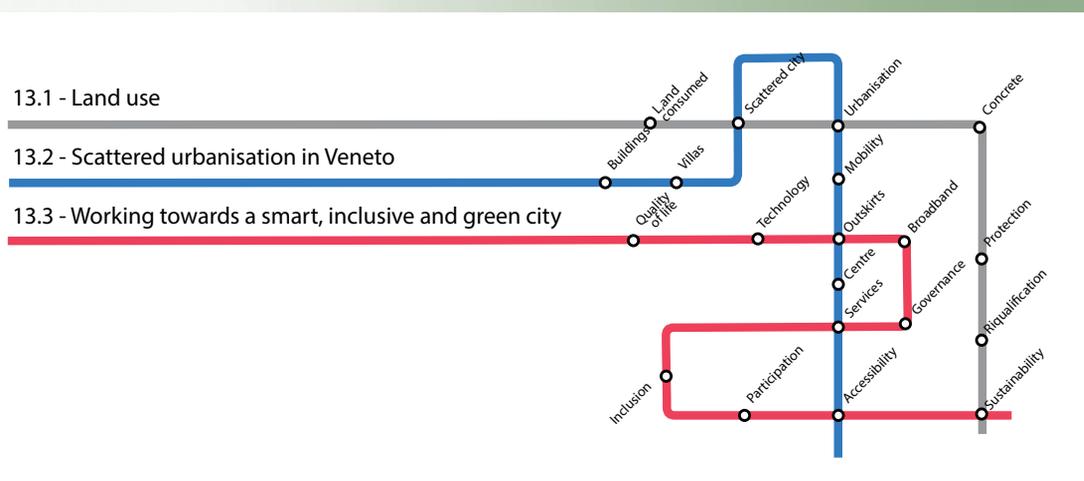


## The local area and the city: resources to be enjoyed

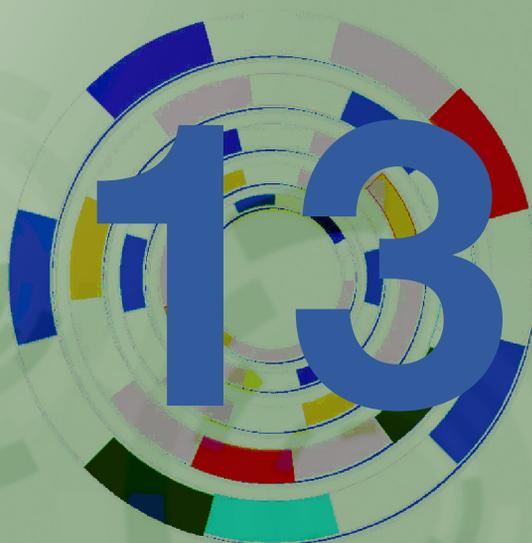
Land has numerous vital functions, making it a resource to be protected, as it is limited and, in fact, non-renewable. Poor management of the local area translates into enormous costs for the quality of the environment and citizens' health and safety, while on the other hand, its enhancement and appreciation is also an economic resource, which is crucial for sustainable development.

One of the major threats is overbuilding for residential and industrial purposes and for infrastructures. The objective to save land is shared with Europe, which recommends achieving zero net land take by 2050. Moreover, saving soil does not contradict the hoped for recovery of the building sector, which should give preference to urban regeneration, development and energy retrofitting of existing buildings and the redevelopment of disused industrial areas.

The level of overbuilding in Italy is among the highest in Europe. The scattering of settlements, which has emerged as the main form of urbanisation, leads to a less than frugal use of the land. Cities have lost their compact structure, taking on a more scattered and dispersive layout. Cities are in fact an important lever for the sustainable growth of a local area and for meeting the objectives of the Europe 2020 strategy, especially if the economic opportunities they offer are fully utilised and there is a planned, integrated approach to urban development. New technologies and innovation may contribute to regenerating the city and improving the quality of life of its inhabitants, with in mind the smart model in accordance with a European vision of the smart city.



# The local area and the city: resources to be enjoyed





## 13. The local area and the city: resources to be enjoyed

### 13.1 Land use

An essential element for the natural balance of the planet and the survival of ecosystems, source of food and renewable materials, platform for human activities, as well as providing a beautiful landscape, soil is an extremely important resource because of its many vital functions. It must be protected and safeguarded, especially as it is a limited resource which is not in fact renewable, given its extremely long formation times. Poor management of the local area translates into huge costs for the quality of the environment, citizens' health and safety, but, on the other hand, appreciation of it is also an economic resource which is crucial for sustainable development. Moreover, protecting the local area does not necessarily oppose the hoped for recovery of the building sector which, rather than consuming new land, should favour urban regeneration, development, renovation and energy retrofitting of existing buildings, the redevelopment of contaminated sites and disused industrial areas.

The soil undergoes a series of degradation processes and is subject to indiscriminate attacks, many of which result from human choices which are not very prudent or far-sighted .

#### Land consumed is lost forever

The biggest threat is from the sealing of natural surfaces,

i.e. permanently covering part of the ground with artificial, impermeable materials to build infrastructures, residential, industrial and commercial areas. Building means losing the soil forever or compromising its vital functions that are essential for the balance of ecosystems, such that its beneficial effects are reduced, if not cancelled out completely.

As well as resulting in the loss of agricultural and natural surfaces, land consumption actually alters the water cycle and has repercussions on climate change.

Just think about the by now frequent extreme weather events, for example, cause of flooding and mudslides

due to the lost ability of the ground to absorb rain water. The resulting damage is often huge and the situation is becoming more and more difficult to handle in an adequate manner, given the growing economic hardship. This too has contributed to placing the management of the local area at the centre of public and political attention, strongly underlining the need to take more careful and sustainable choices in the future in terms of land planning and use of natural heritage.

The land saving objective is shared with Europe: in 2011, the European Commission<sup>1</sup> recommended achieving a zero net land take<sup>2</sup> as an objective to be met by the Union by 2050; this objective was reinforced in 2013 with the approval of the 7th Environment Action Programme by the European Parliament and Council, a decision of a regulatory nature which also requires that Union policies account for the direct and indirect repercussions on land use by 2020. The approach is to favour policies and measures aimed at limiting, mitigating and compensating soil sealing<sup>3</sup>, in that order. Limiting soil sealing means preventing green areas being converted into artificial areas, promoting activities which reuse surfaces already built on or compromised, investing in existing buildings and subsidising urban regeneration. If it is not possible to prevent sealing of new land, it is at the very least necessary to adopt mitigation measures which seek to reduce the negative effects of it, such as using appropriate, permeable materials instead of concrete and tarmac, supporting environmentally friendly infrastructures and, in general, guiding new development onto land of poorer quality. If not even the mitigation are sufficient, then appropriate ecological compensation measures should be considered, or rather operations which, to compensate for the loss of natural functionality of the land in a given area, seek at least to restore functionality elsewhere, while however bearing in mind that it is impossible to restore the effects of sealing completely.

According to the LUCAS survey<sup>4</sup>, the main point of reference in Europe on land use and cover, it is estimated land used artificially in Europe accounted for 4.6% of the total surface area in 2012. It is estimated

#### The surface area used artificially is greater in Italy than in Europe

that in recent years there has been land take of around 250 hectares per day.

<sup>1</sup> European Commission. "Schedule for an efficient Europe in terms of use of resources". Brussels, 2011.

<sup>2</sup> Net land consumption is the balance between land consumption and the increase in agricultural, natural and semi-natural surfaces, due to recovery, demolition, removal of sealing or other.

<sup>3</sup> European Commission. "Guidelines on best practice to limit, mitigate and compensate soil sealing". Brussels, 2012.

<sup>4</sup> The LUCAS survey, conducted at a European level by Eurostat, enables comparison of the general characteristics of land cover and use in the 27 European countries thanks to the direct observation of selected points in the territory using a fine space grid.



The level of overbuilding in our Country is among the highest (fifth place): with 7.8% of surfaces used artificially, Italy is less than frugal in its use of the land resource, also in consideration of the morphological features and the significant altitude of the mountain areas. Only slightly lower percentages are found in Germany, Denmark and the United Kingdom, while land consumption is lowest in Eastern European countries and even more so in Northern European countries (Sweden 1.8% and Finland 1.6%).

Land consumption cannot be justified by the rise in population. Indeed, 65% of the surface area used artificially, in Italy as in Europe, is used for high environmental impact purposes, i.e. all uses of an industrial nature, logistics and infrastructures, whereas only a third is for residential or service-related uses.

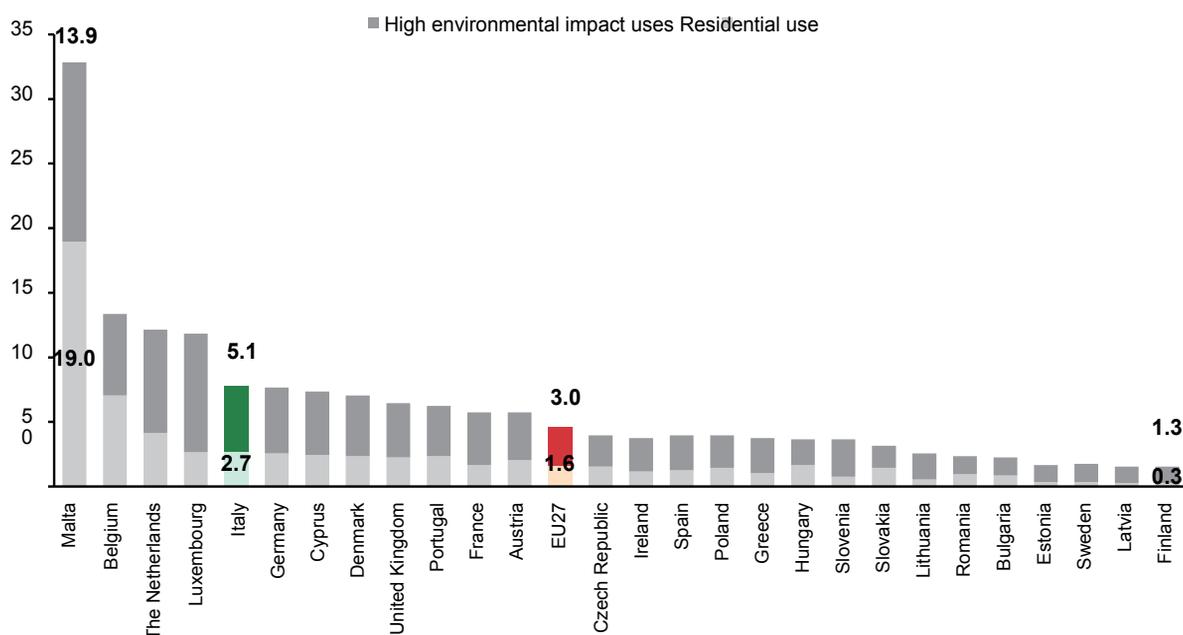
From the post Second World War period to the present day, the incidence of land consumption then rose by over 4 percentage points, at a growth rate which does not appear to be slowing and which is only partly affected by the current economic situation: if between the 1950s and the late 1980s new land was consumed at an average rate of 1,000 m<sup>2</sup> for each new inhabitant, in the 1990s, the ratio rose to 8,000 m<sup>2</sup>; although the indicator has fallen in the last decade, it still hits values of 2,000 m<sup>2</sup>.

**400 m<sup>2</sup> of land is consumed per inhabitant in Veneto**

Land consumption is greater in the North,

mainly due to urban sprawl in the Po/Veneto Valley, one of the areas most heavily affected by human activity, which is spreading westwards towards

Figure 31.1.1 - Percentage of surface areas used artificially by type of use. EU27 - Year 2012



Source: Processing by the Veneto Region - Regional Statistical System Section on Eurostat data

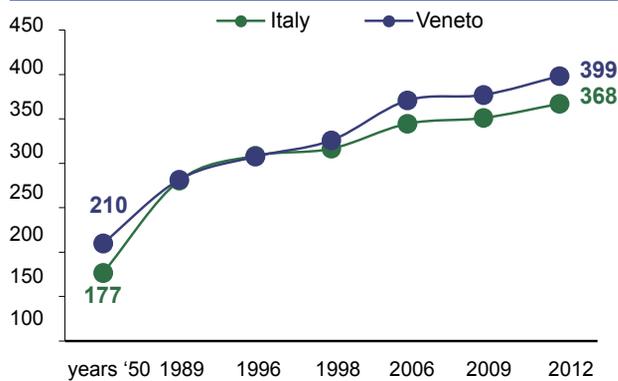
In Italy, especially in the last few decades, urbanisation has not always been well planned and at times has led to excessive development, highlighting a consumerist use of the area, to the point that it has pushed into areas which are not entirely suitable for settlement. According to the survey produced by ISPRA (Italian Higher Institute for Environmental Protection and Research)<sup>5</sup>, the artificial surface area in Italy was 5.4% twenty years ago, whereas in the 1950s it was 2.9%.

the industrial area of Turin and south along the Via Emilia road. Alongside Lombardy, Veneto has always been the region with the highest percentage of land consumption: approximately 4.5% of the regional surface was already consumed in the 1950s and it exceeded 10% in 2012. In absolute value, this is about 2,000 km<sup>2</sup> of our land covered with asphalt, concrete, buildings, warehouses, shopping centres, services, roads and infrastructure, or rather 400 m<sup>2</sup> of ground per resident, 30 m<sup>2</sup> per capita more than the national average; sixty years ago it was 210 m<sup>2</sup>.

<sup>5</sup> Data from the monitoring network realised by ISPRA, with the collaboration of the Regional and Provincial Environmental Protection Agencies, enables calculation of estimated land consumption, including at a regional level, and evaluation of the historical trend of the phenomenon. ISPRA calculated 7.3% of the surface area for Italy in 2012.



**Figure 13.1.2 - Estimated land consumption per resident (m<sup>2</sup> per inhabitant) Veneto and Italia - Years 1950:2012**



Source: Processing by the Veneto Region - Regional Statistical System Section on ISPRA and Istat data and calculations

In particular, the scattering of settlements, which has gradually asserted itself as the predominant form of urbanisation in our country, leads to excessive consumption of land.

### Scattered settlements, a non-sustainable model

The urban and peri-urban borders of many cities

have witnessed considerable urban development, which more often than not is disorganised and unchecked, meaning that low population density settlements are spreading more and more from the urban centre to the outskirts, a detached building fabric, interspersed with rural or production areas (urban sprawl).

This urban sprawl process, which has been underway since the 20th century in cities in North America, is a relatively recent development for European cities: it is estimated that between 2000 and 2006, low-density peri-urban areas in Europe grew 4 times more quickly than high-density close-knit areas.

In Italy, the phenomenon is more deeply rooted and many urban areas have gradually lost their historic close-knit character, taking on a more scattered and dispersive layout. While the expansion of cities, expression of the building boom of the 1960s and 1970s, can be explained by population dynamics, urban sprawl, on the other hand, which is typical of more recent decades, is caused especially by the different expectations of families in terms of quality of

life. People prefer to go and live even quite far from the urban centre, mainly for economic reasons, given the lower cost of housing in peripheral areas, but also to escape the traffic and problems of the city. However, scattered housing is a relatively less sustainable model from an environmental and economic standpoint. The Territorial Agenda 2020 also identifies it as one of the main challenges for the harmonious territorial development of Europe.

Urban sprawl breaks up the local area, leaving spaces landlocked, even if not sealed off, difficult to use, jeopardising their original agricultural and natural function. This leads to impoverishment and reduction of the rural landscape, more often than not without improvement or re-use of the territory in the urban centres.

From the citizens' viewpoint, scattered housing reduces accessibility to the services and opportunities offered by medium-large urban centres. It is also a burden for the community, because it is more costly and difficult to guarantee public services over a widespread network, especially those in connection with mobility. Moreover, the need for connection with cities increases traffic congestion on the road networks and has a negative impact on the environment.

Precisely due to the greater presence of scattered cities, as opposed to compact urban centres, the percentage of the population in Italy living in highly urbanised areas<sup>6</sup> is 32%, compared to the European average of 40%. The percentage of the population living in fairly urbanised areas is, on the other hand, significantly higher: 43% compared to a mean EU value of 32%; after Belgium, Italy is in fact the country with the highest incidence of fairly urbanised areas. This is all the more true in Veneto, where the urban sprawl phenomenon is especially evident and the population in municipalities with an average level of urbanisation rises to 61%.

## 13.2 Urban sprawl in Veneto

At a municipality level, we can estimate the expansion of urban areas, including by evaluating the change in the last 10 years, thanks to the mapping of built-up areas reported in the last two censuses. Built-up areas

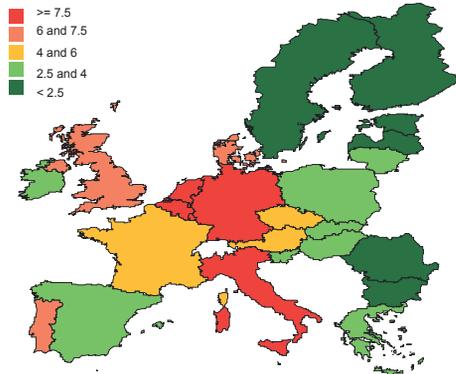
<sup>6</sup> In 2011 the Departments of Regional Policies, Agriculture and Rural Development of the European Commission, Eurostat and OECD revised the degree of urbanisation classification for municipalities, defining a new, shared methodology based on the combination of geographical contiguity and population density criteria. The new classification sets forth three levels of urbanisation: a) thin: rural or sparsely inhabited areas; b) intermediate: cities or small urban areas; c) high: cities or large urban areas. See the document "The new degree of urbanisation", available on the Eurostat website, for a detailed description of the methodology used.



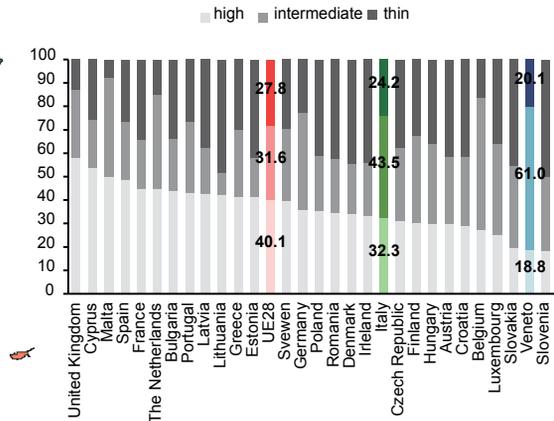
TAKING CARE OF THE LOCAL AREA FOR A BETTER QUALITY OF LIFE

ITALY IS LESS THAN FRUGAL IN ITS CONSUMPTION OF LAND

Artificial surface area as a percentage. EU27 - Year 2012

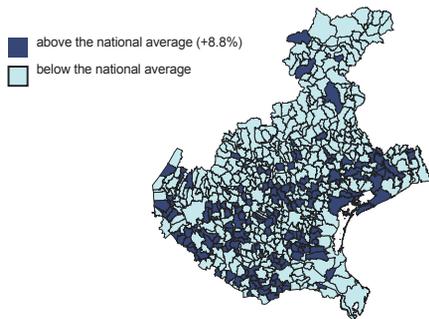


... INCLUDING AS A RESULT OF SCATTERED HOUSING

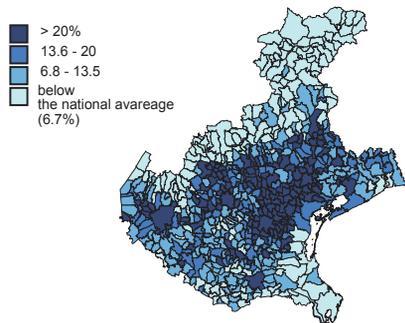


NOT EVEN VENETO USES CONCRETE SPARINGLY

Urbanised surface area as a percentage, by municipality. Veneto - 2011 and 2011 censuses

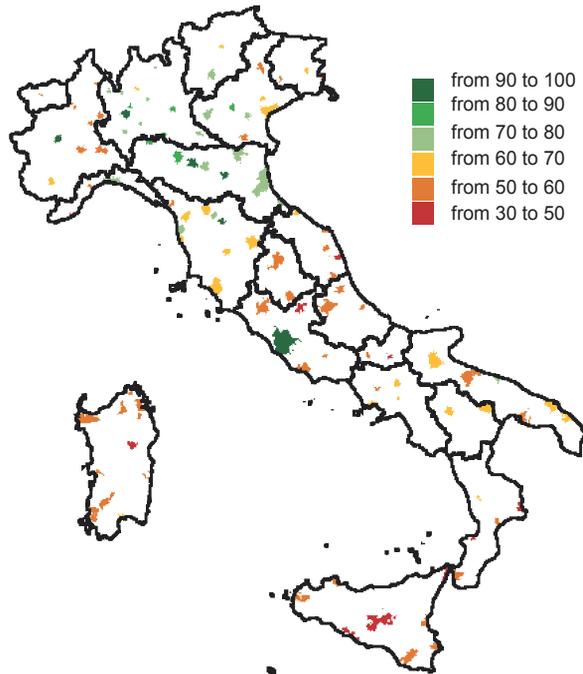


Change % 2011/2001



BUT, TOGETHER WITH EUROPE, IT AIMS FOR SMART CITIES

Smart City Index national league table for administrative centres - Year 2013 (\*)



(\*) The Smart City Index is a composite indicator. It ranges between 0 and 100 and measures the level of smartness of a city, accounting for nine thematic areas.

Source: Processing by the Veneto Region - Regional Statistical System on Eurostat, Istat and Between data



## The local area and the city: resources to be enjoyed

are understood as towns<sup>7</sup>, smaller residential areas and areas of production; on the whole, they undervalue the "urbanised" surface area, because they do not include areas occupied by scattered houses, logistic infrastructures and roads out of the towns.

Based on this methodology, the urbanised surface area in Veneto accounted for 12.9% of the regional area in 2011, which is not that far off the ISPRA calculation stated above, up 5.3% with respect to 10 years earlier. The increase in land consumption is shown to be below the national average (+8.8%) and that of many other regions, since Veneto demonstrated high saturation levels in as early as 2001 (12.2% compared to 6.1% in Italy). The growth is at the expense of "scattered housing", or rather those areas where human activity is of secondary importance or absent, and agricultural

All the other provinces have levels of urbanisation double that, or even more, of those in the rest of Italy: while this is not so much the case in Verona, Padua stands out. Here, the built-up area accounts for over a fifth (22.6%) of the surface area and shows no signs of stopping. Just think that, in the administrative centre of Padua alone, even as much as 80% of the administrative surface area has consumed - one of the highest percentages in Italy. Saturation of the municipal town is coupled with a widespread urbanisation of the neighbouring municipalities, a situation which is unmatched in other big cities in Veneto.

All the administrative centres naturally prove to be more urbanised (28%) compared to the rest of the municipalities (12%), but it is the latter which are expanding the most. The city steps over the

**Table 13.2.1 - Urbanised surface area by province. Veneto - 2001 and 2011 censuses (\*)**

	2001			2011			Change % 2011/2011		
	Urbanised surface area	of which Towns	Scattered housing	Urbanised surface area	of which Towns	Scattered housing	Urbanised surface area	of which Towns	Scattered housing
Belluno	3.5	3.1	96.5	3.6	3.1	96.4	1.5	0.8	-0.1
Padua	21.1	18.3	78.9	22.6	19.8	77.4	7.5	8.3	-2.0
Rovigo	6.9	5.8	93.1	7.4	6.0	92.6	7.7	3.8	-0.6
Treviso	17.8	15.3	82.2	18.5	15.9	81.5	4.2	4.1	-0.9
Venice	14.0	12.7	86.0	15.1	13.6	84.9	7.7	6.7	-1.2
Verona	12.2	10.5	87.8	12.9	11.0	87.1	5.5	5.2	-0.8
Vicenza	14.0	12.2	86.0	14.4	12.5	85.6	2.4	2.1	-0.4
Veneto	12.2	10.7	87.8	12.9	11.2	87.1	5.3	5.0	-0.7
<b>Italy</b>	<b>6.1</b>	<b>5.4</b>	<b>93.8</b>	<b>6.7</b>	<b>5.8</b>	<b>93.3</b>	<b>8.8</b>	<b>7.1</b>	<b>-0.6</b>

(\*) Urbanised surface area is understood as the surface area of towns, small residential areas and production areas.

See note 7 for definitions.

Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

and natural areas prevail; towns grow (+5%), but smaller areas (+7.6%) and areas used for production (+7.6%) do to an even greater extent, despite being overall quantitatively less significant.

The drive to consume land is not uniform throughout the regional area, for topography-related matters in the area (mountains account for 29% of the overall regional surface area and completely cover the province of Belluno), and due to the difference in wealth between the various areas. 3.6% of the surface area is urbanised in Belluno, followed by Rovigo (7.4%), which is slightly above the national average and growing rapidly.

administrative borders of the municipality, gradually spreading out into

the surrounding areas, according to a fragmented and sprawling settlement model, not only into the municipalities neighbouring the urban centre, but also into those further away. Urbanisation in first belt areas of administrative centres stands at 17%, which is 4% up on 2001, while it is slightly lower in the second belt, where there is, however, greater growth. This is not the case in Venice, where building continues to take place mainly in the administrative centre, but not in the old town.

<sup>7</sup> A "town" is understood as a group of joined or neighbouring houses with streets, squares and similar in between, or in any case, short solutions of continuity characterised by the existence of services or public businesses (school, public office, pharmacy, shop or similar) which contribute to an independent form of social life. A "residential area" is an inhabited place which does not have the typical gathering point of the town, composed of a group of at least fifteen joined or neighbouring buildings, with at least fifteen families, with streets, paths, squares, farmyards, small vegetable gardens, small areas of uncultivated land and similar in between, provided that the gap between houses does not exceed about thirty metres and is in any case smaller than the gap between the centre itself and the closest of the houses manifestly scattered. "Scattered houses" are those spread over the municipal area with spaces in between which do not even allow it to constitute a small residential area.


**Table 13.2.2 - Urbanised surface area in the administrative centre and in the municipalities in the first and second belts, by province. Veneto - 2001 and 2011 Censuses**

	Administrative centre			First belt			Second belt		
	2001	2011	Change % 2011/2001	2001	2011	Change % 2011/2001	2001	2011	Change % 2011/2001
Belluno	8.7	9.6	11.1	8.5	8.6	1.0	6.5	6.7	1.6
Padua	79.8	80.7	1.1	34.9	37.3	6.8	25.9	27.5	6.3
Rovigo	19.5	20.2	3.5	8.0	8.8	9.9	7.2	7.7	7.1
Treviso	42.7	47.8	12.1	28.6	29.4	2.8	17.9	19.0	6.4
Venice	16.5	18.5	11.8	14.0	14.7	5.2	13.4	14.4	7.5
Verona	30.1	30.0	-0.4	15.8	16.4	3.8	7.8	8.6	10.1
Vicenza	35.0	36.4	4.2	22.1	21.5	-2.7	14.5	15.3	5.8
<b>Total</b>	<b>26.2</b>	<b>27.6</b>	<b>5.2</b>	<b>16.7</b>	<b>17.3</b>	<b>4.0</b>	<b>11.8</b>	<b>12.6</b>	<b>6.8</b>

(\*) The first belt is made up of the group of municipalities bordering the administrative centre, and the second belt, by the municipalities on the border with the first.

Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

The urban sprawl phenomenon is especially evident in Veneto, where land consumption is realised mainly through the fusion of adjoining localities (for 4.4% of localities, the second highest value in Italy after Piedmont, with 4.9%), thus closing the interstitial gaps breaking up the spatial continuum of the urbanised area. Lastly, a higher growth rate has been observed in built-up areas in coastal municipalities (up 8.1% on 2001), mainly due to the holiday home phenomenon.

The Region recently adopted a variant of the Regional Territorial Coordination Plan, attributing landscape value, according to which future planning decisions should "identify a new development model aimed at guaranteeing the sustainability and balance between cities and the countryside, promoting reconversions, re-organisation, concentrations and recovery of disused areas of production settlements, subsidising the use of innovative and sustainable energy sources, re-qualifying already urbanised, unused spaces and recovering existing building stock".

### Land of houses... not only of art

With respect to building stock, provisional data from the last Census in 2011 show that more than 1,200,000 buildings stand on built-up areas, up 12% on 2001. 85% are used for residential purposes, up 7% in the last ten years; the increase in the housing offer is even more evident if we consider houses (+16%), which reached a total of 2,332,926 in 2011, with increases of close to 20% in the provinces of Treviso and Padua.

In the same period of time, the population grew by 7.3% and families by 15.9% in Veneto.

Approximately 84% of housing is lived in by residents, and this is currently the only definitive data we have. These houses have an average surface area of 112 m<sup>2</sup>, about 45 m<sup>2</sup> per person; larger houses can be found in Padua and Treviso, while the least spacious ones are in Belluno and Venice.

As confirmation of the greater dispersion of housing

#### Most people live in single or multi-family houses

and the less compact nature of urban centres, in Veneto, more than anywhere else,

the majority of families (65%) live in houses of the "villa, small villa, single- or multi-family dwelling", types, often surrounded by open terrain (lawn, plants, gardens, vegetable gardens, play area), housing types which allow the family more freedom and privacy. Those living in apartments mainly live in small condominiums with fewer than 10 apartments. On the other hand, at the national level, people more frequently live in apartments, which accounts for 53.2% of families, mainly in medium to large sized condominiums.

However, in Veneto, too, due to housing economy and protection of the local area, there are ever more proposals for the construction of high-rise residential buildings; from a quality of life standpoint,



**Table 13.2.3 - Buildings and houses per regions. Veneto Region - Census 2001 and 2001**

	Buildings		Residential buildings		Total houses		Not inhabited houses or houses of not resident people		Not inhabited houses or houses of not resident people		Average surface area per house (m <sup>2</sup> )
	2011 % (a)	Var. 2011/01	2011 % (a)	Var. 2011/01	2011 % (a)	Var. 2011/01	2011 % (a)	Var. 2011/01	2011 % (a)	Var. 2011/01	
Belluno	83.196	6,5	71.445	3,9	151.614	12,6	59.961	24,6	91.832	6,1	101,0
Padua	222.148	12,7	189.423	8,5	401.460	18,3	38.076	34,7	363.482	16,8	117,8
Rovigo	80.649	16,8	68.060	8,2	120.350	11,8	21.628	30,9	99.065	8,7	114,8
Treviso	222.657	12,5	193.495	9,9	387.778	19,7	46.898	41,8	341.173	17,2	116,3
Venezia	185.027	17,3	154.281	7,8	447.135	14,6	95.511	18,9	351.992	13,7	102,5
Verona	196.239	9,5	164.084	4,4	419.358	13,6	56.048	3,5	363.490	15,4	108,5
Vicenza	223.033	10,7	188.051	5,9	405.231	14,9	68.894	19,7	336.780	14,1	114,6
<b>Veneto</b>	<b>1.212.949</b>	<b>12,2</b>	<b>1.028.839</b>	<b>7,1</b>	<b>2.332.926</b>	<b>15,6</b>	<b>387.016</b>	<b>21,7</b>	<b>1.947.814</b>	<b>14,6</b>	<b>111,6</b>

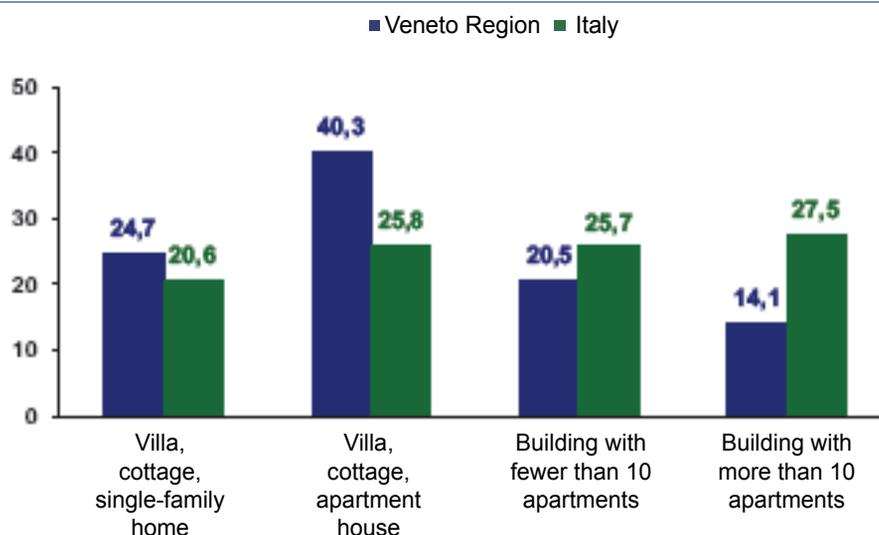
(a) Provisional data. Final data available only for houses of resident people.  
Source: Veneto Region - regional statistical system dtp. on Istat data

the challenge is still that of adopting solutions which can ensure that families have acceptable levels of privacy and good neighbourly relations. Compared to the national situation, housing stock in Veneto appears to be less dated: in fact, 73% of families live in houses built in the last 50 years, while in Italy the same percentage only goes as high as 67%. Most importantly, people more frequently live in houses that were built very recently, in the last 10 years: this applies to 15.9% of families in Veneto, double the national average.

### Centre or outskirts

In general, we say that cities are for residing in and the countryside is for really living in. This seemingly neutral choice of words carries with it the idea that the city is chosen by its inhabitants for essentially instrumental reasons related to the presence of services and job opportunities; staying in the countryside is instead an indicator or a calmer, community-based lifestyle. At the same time, the city is generally synonymous with crowded districts and small houses.

**Fig. 13.2.1 - Percentage of families by type of dwelling. Veneto Region and Italy - 2012**



Source: Veneto Region - regional statistical system dtp. on Istat data



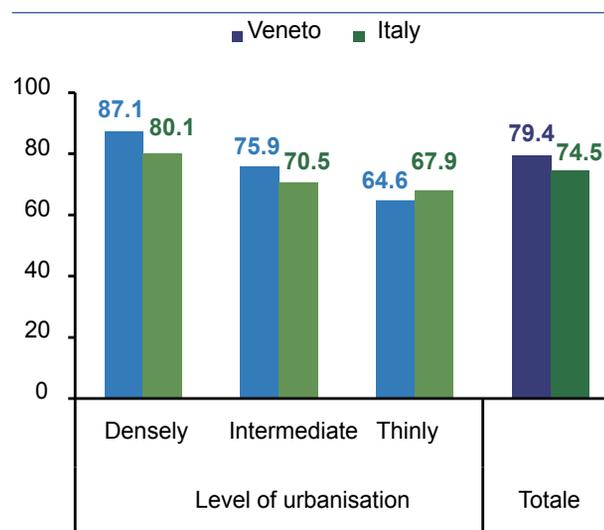
Living, therefore, in everyday language, seems to widen the concept of dwelling, by including an assessment of the conditions of the socio-urban context. The external environment is a factor which has continuously affects the quality of living of families, on a par with the structural conditions of the house. You certainly cannot have a good standard of living in a house which is fully functional, but which however is located in a run down neighbourhood or one which has no links to services. The social dimension of dwelling, or rather the chance to build good relationships with neighbours, to be able to count on friends and family being nearby and to take part in activities in the neighbourhood, also plays an important role in the choice of where to go and live and in the perception of one's own quality of life.

With regard to the various dimensions of living, such as, for example, the structural conditions of the accommodation, the quality of the space available and of the setting of the housing, as well as the financial sustainability of expenses, 92% of families in Veneto state that they are overall satisfied or very satisfied with the house where they live; only the residents of Trentino Alto Adige (94.6%), Umbria and Marche are more satisfied than us.

Both those living in medium-sized municipalities and those living in larger centres express their satisfaction. The level of satisfaction lowers slightly only among those who live in more isolated settings (89.5%). These people are affected mainly by a certain degree of difficulty accessing certain basic services, such as grocery shops, schools, basic health care, post offices or bank branches and public transport. In order to gauge the ease of access to the services expressed by the families, a summary indicator was calculated,

with values ranging between 0, which stands for the worst quality, and 100, when all the families state that they can access the services very easily<sup>8</sup>. In municipalities with low population density, the overall accessibility expressed is 65 points out of 100, 22 points behind with respect to the large centres (87/100). Approximately 30% of families complain of difficulties in accessing the various services taken into consideration, double that of city dwellers. The problem of public transport is particularly acute: 40% of families do not use it, giving preference to private means of transport and almost half of those who do

**Figure 13.2.2 - Synthetic indicator of accessibility expressed on the services in the area of residence, by level of urbanisation. Veneto and Italy - Year 2012**



(\*) See note 8 for a brief description of the methodology for calculating the synthetic indicator.  
Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

**Table 13.2.4 - Synthetic indicator of perception of the quality of the area of residence (0= min - 100=max), by section and population size of the municipality - Year 2012 (\*)**

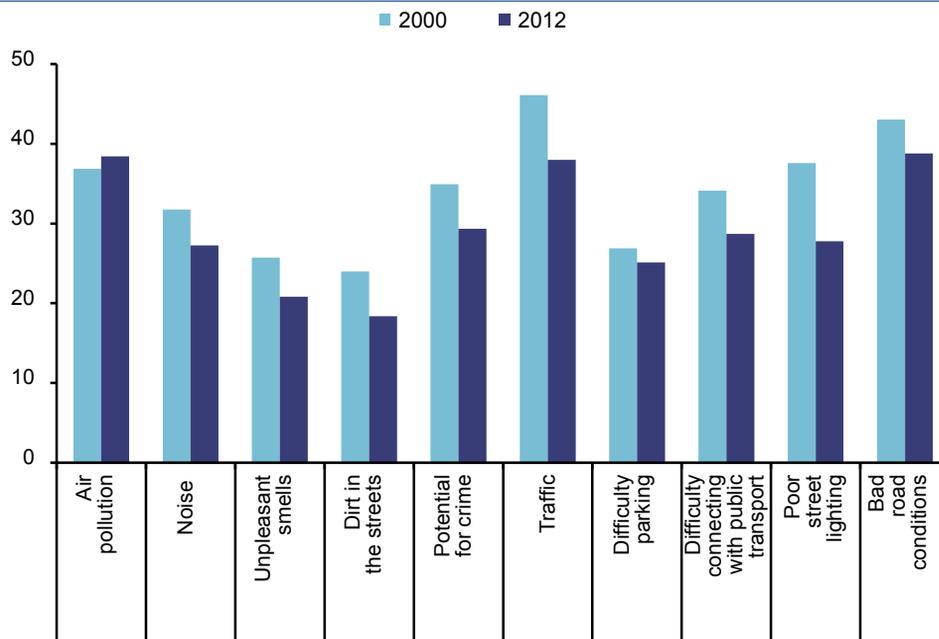
	municipalities up to 2,000 inhabitants	municipalities 2,000 - 10,000 inhabitants	municipalities 10,000 - 50,000 inhabitants	municipalities with more than 50,000 inhabitants	municipalities periphery of the metropolitan area	municipalities centre of the metropolitan area	Total
North-west	76.5	70.9	64.9	62.9	60.5	51.8	63.9
North-east	81.8	72.5	67.4	65.6	68.1	60.7	68.6
Centre	83.5	72.2	65.3	61.0	63.1	53.5	62.7
South	78.4	72.5	61.8	56.6	48.9	49.0	61.8
Islands	78.6	67.5	63.1	55.3	61.5	51.8	61.2
<b>Italy</b>	<b>78.7</b>	<b>71.5</b>	<b>64.5</b>	<b>60.9</b>	<b>59.8</b>	<b>52.7</b>	<b>63.9</b>

(\*) See note 9 for a brief description of the methodology for calculating the synthetic indicator  
Regional data is not available.  
Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

<sup>8</sup> The synthetic indicator expressed on the services in the area of residence ranges from 0 to 100, where 0 is the worst quality (all the families express a lot of difficulty in accessing the services) and 100 is the best quality (all the families express that they do not meet any difficulties). For each service, the following percentage scores of 100, 67, 33, 0 were paired with the modalities "very easy to access", "easy to access", "hard to access" and "very hard to access". The indicator was calculated only for families which answered at least four questions on the accessibility of the six services in the area of residence taken into consideration in the Istat survey "Income and living conditions - year 2012".



**Figure 13.2.3 - Percentage of families that believe that certain problems in the area of residence are very present or fairly present. Veneto - Years 2000 and 2012**



Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

use it express difficulty, with the belief that the service is not convenient or adequate for their needs.

In smaller municipalities, on the other hand, people enjoy more favourable environmental conditions: the larger the size of the municipality, the more problems there are with regard to pollution, traffic and physical degradation. Still on a scale of 0-100, the quality perceived by people in their districts in the North East, on average, due to the absence of problems, takes on a value of 68.6 points<sup>9</sup> (67 in Veneto); this does not go higher than 60 points for those living in very urbanised settings, whereas in small municipalities it exceeds 80.

The problems taken into consideration refer to the local ecology (air pollution, noise, unpleasant smells, dirt in the streets), mobility (traffic, difficulty parking and connecting with public transport, poor street lighting, bad road conditions) and the potential for crime. With reference to the ecological dimension, the biggest problem affecting families in Veneto is air pollution (38.5%); bad road conditions and traffic are on the other hand the problems expressed most frequently in the mobility context.

In the last 12 years, the opinion on the quality of the area of residence appears to have significantly improved, with a synthetic indicator that rose from 62 in the year 2000 to 67 in 2012. This is the result of an improvement in the opinions expressed with respect to almost all the aspects taken into consideration, both those most raised for discussion, such as traffic and bad road conditions, and less critical problems, such as bad smells, noise and dirt in the streets. Dissatisfaction for the state of air quality is instead rising slightly.

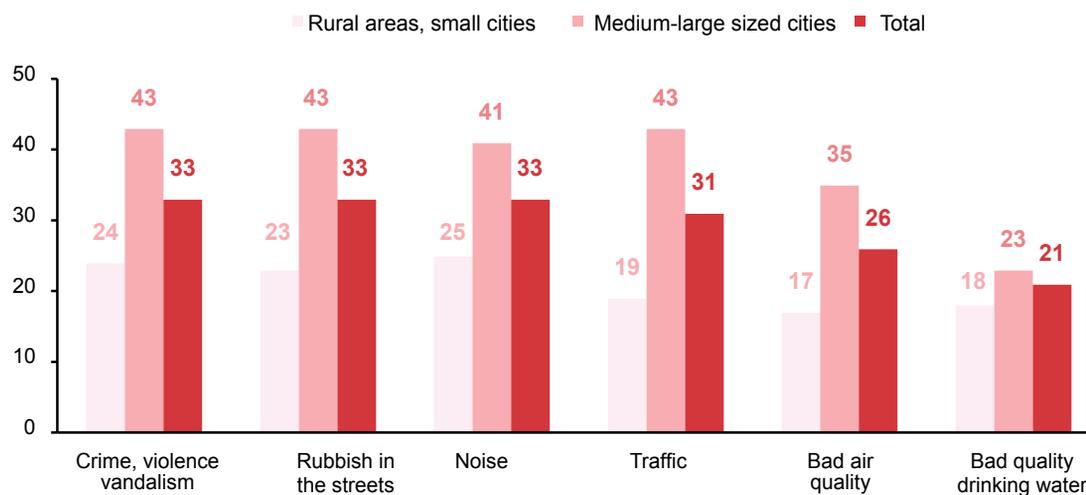
In general, the reduction in the percentage of those dissatisfied is linked to a real improvement in conditions and the greater attention paid to our surrounding environment, especially in recent years.

Duality between urban and rural areas in terms of problems is prevalent, surfacing even at a European level, especially with regard to traffic congestion, physical degradation, due, for example, to the presence of rubbish in the streets, and the potential for crime.

<sup>9</sup> The synthetic indicator of the perception of quality in the area of residence ranges from 0 to 100, where 0 is the worst quality (all families declare that all the problems are very present) and 100 the best quality (no families declare that there are problems). For each problem, the following percentage scores of 100, 67, 33, 0 were paired, respectively, with the modalities "not at all", "a little bit", "rather" and "very" present. The synthetic indicator for each individual family was obtained by calculating the simple mean of the scores associated with each problem. The indicator was only calculated for families which responded to at least six of the questions on the problems in the area of residence as part of the multi-purpose Istat survey "Aspects of daily life".



Figure 13.2.4 - Percentage of people expressing the existence of problems in the area of residence, in rural and urban areas. EU27 - Year 2012



Source: Processing by the Veneto Region - Regional Statistical System Section on Eurofound data

### 13.3 Working towards a smart, inclusive and green city

Cities play an essential role as the driving force of the economy; they are fertile ground for technology, for culture and innovation, for individual and collective creativity. With respect to the environment, cities have enormous potential for energy saving, thanks to their density<sup>10</sup>. However, they are also places where problems arise and where social inequalities, unemployment and discrimination are more acute. Possible social segregation, which is accentuated by the economic crisis, can lead to pockets of poverty, not only material poverty, but also cultural, educational and health-related poverty; the processes of territorial segregation make it increasingly difficult for marginalised groups, or those with low income, to find decent housing at affordable prices. This is why cities necessitate special attention in the government's list of priorities, not only at EU level, but nationally and locally, too. In fact, given the ever rising concentration of population and production of which they are the perpetrators, cities can play a key role in achieving the objectives of the Europe 2020 strategy, especially if economic opportunities are exploited and there is a planned, integrated approach to urban development.

Over half of the world's population today lives in urban areas (52%): urbanisation is growing rapidly in almost all countries around the world and forecasts for the

next 40 years confirm a strengthening trend. It is a global phenomenon which transforms the landscape and re-designs housing settlements, with significant implications on living conditions, the environment and development. It occurs differently in different parts of the world: in richer countries, a good part of the population already lives in urban areas (78%), and Africa and Asia, although still prevalently rural, have also set out on the road to urbanisation in the last few decades.

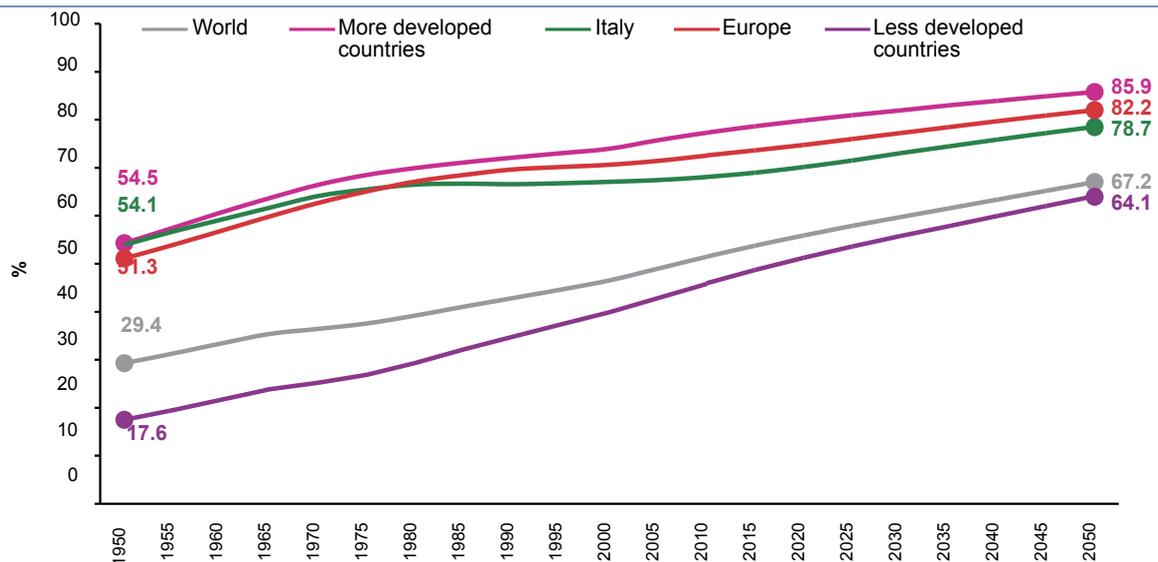
Europe is one of the most urbanised continents in the world. Almost three quarters of the European population live in urban areas, where more than two thirds of European GDP are produced.

Many European cities are finding it difficult to develop in a harmonious and sustainable way; some are at risk due to the economic crisis, and the phenomenon of social and territorial segregation is rising even in the richest cities. For this reason, too, the European Commission has envisaged specific funding for cities and urban development in its 2014-2020 programme. At least 5% of resources allocated at a national level as part of the the European fund for regional development are expected to be used for sustainable urban development. This is because the theme of urban development is not only the competence of Europe, but each country is required to invest to ensure that cities are increasingly depicted as being the economic driving force and socially inclusive.

<sup>10</sup> See the European Union document: "Cities of tomorrow Challenges, visions, ways forward". At: [http://ec.europa.eu/regional\\_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow\\_summary\\_it.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_summary_it.pdf)



Figure 13.3.1 - Percentage of the population living in urban areas. World, Europe and Italy - Years 1950:2050



Source: Processing by the Veneto Region - Regional Statistical System Section on UN Population Division data and calculations

According to the European Urban Agenda, which is currently being finalised, the vision of the city of tomorrow, is that of a place with an advanced level of social cohesion, comfortable and affordable houses and guaranteed education and health. But it is also a green, environmentally friendly place, open to dialogue and discussion, a place of attraction and an engine of economic growth. The European Commission invites each Member State to equip themselves with a national Urban Agenda, based on the EU one, which enables urban authorities to be directly involved in the formulation of development and growth strategies. This Agenda shall aim to promote development of networks between cities and the mutual exchange of best practices, in the context of shared usability.

In March 2013, Barca, former minister for Territorial Cohesion, leader of Cipu<sup>11</sup> (Interministerial Committee for urban policies) approved a document containing "Methods and contents on the priorities of the

### Awaiting the Italian Urban Agenda

Urban Agenda"<sup>12</sup>. One of the requirements refers

to the need to increase the powers of the large municipalities for the definition of national and regional programmes financed with structural EU funds and for the management of related expenses. The text takes into account the different urban dimensions (metropolitan areas, large and medium sized cities,

municipality systems) and the specificity of South Italy and inland Areas, and was created precisely to make recommendations for the planning of an Urban Agenda aimed at developing the country, in terms of policies and measures expressly dedicated to cities. It intends to provide recommendations and operational elements to stabilise urban governance, relaunching the key role of cities and the collaboration between the different institutional levels. The fragmentation of many sector policies in the past has indeed been one of the obstacles preventing definition of a long-lasting urban policy, based on the model of what has instead already been realised in other European countries. Making cities into centres of innovation and attractiveness, by enhancing existing resources, is the wish expressed by the former minister Barca, who recommends "taking action with respect to cities, viewing the territorial and urban space as one big infrastructure" in the context of a "new national policy".

Future urban and territorial development should be based on balanced economic growth and a polycentric urban structure; metropolitan centres and urban areas equipped with affordable and sustainable services should play a key role. The urban space should be characterised by a compact settlement structure with limited growth of low-density urban areas, should be attentive to the protection of the environment and should strive to improve the quality of life of its citizens.

<sup>11</sup> Cipu is set forth in article 12 bis of Law 134/2012.

<sup>12</sup> Interministerial committee for urban policies, *Methods and Contents on the Priorities of the Urban Agenda*, Roma, 20 March 2013. Available for download at: <http://www.coesioneterritoriale.gov.it/metodi-e-contenuti-sulle-priorita-in-tema-di-agenda-urbana-cipu>



The city of tomorrow should therefore be a place which is accessible to everyone, whose public spaces are more focused on people than on buildings, where the levels of pollution are monitored and lowered, resources are used more efficiently, and mobility and public transport are sustainable. To achieve all of this, technological resources and opportunities for innovation must be exploited, complementing them with a more inclusive smart governance. It should also be noted that administrative borders often no longer correspond with the physical, social, economic, cultural or environmental reality of urban development and therefore new, more flexible governance models are needed, which take into account different territorial levels, sub-cities and super cities.

### Metropolitan cities the Italian way

Despite its long rural tradition, even Italy is undergoing a process of growing urbanisation. Already back in the 1950s, half of the population lived in urban areas, and this percentage rose to 68% in 2011, i.e. around 42 million people. It is estimated that it will continue rising, reaching 72% in 2025 and 79% in 2050.

The national debate on the future establishment of a metropolitan city model, intended as a new body which should perform the functions of the metropolitan government in a given number of urban cities, has been growing now for some years.

At an international level, a classification defining urban areas has been devised. In cooperation with the European Commission and Eurostat, the OECD defines an urban area as a functional economic unit characterised by densely populated urban centres and hinterlands where the labour market is a solid part of the nuclei<sup>13</sup>. Functional urban areas are broken down, based on the resident population, into: large metropolitan areas, with a population of more than 1.5 million inhabitants, and smaller metropolitan areas with between 500,000 and 1.5 million inhabitants.

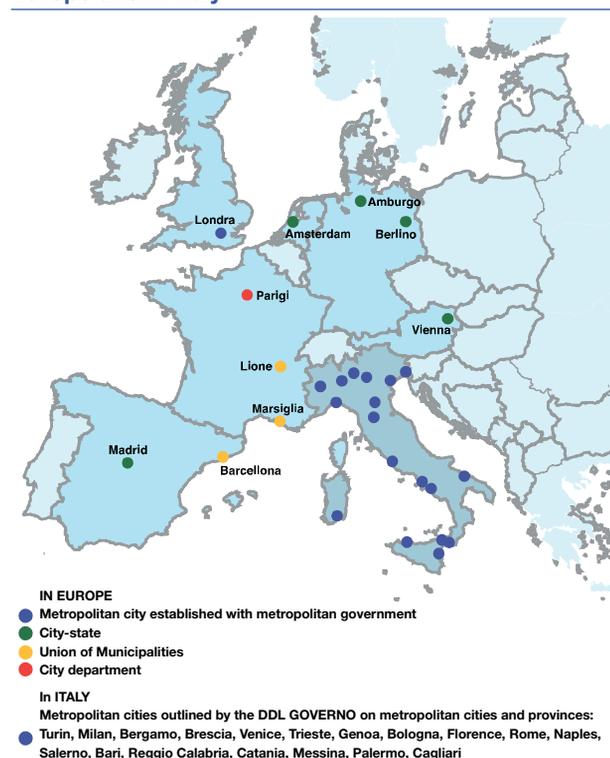
This methodology facilitates comparison of functional urban areas of similar sizes in all countries. We can find Rome, Milan, Naples and Turin among the 31 large European metropolitan areas, while Palermo, Bologna, Florence, Genoa, Catania, Bari and Venice fall within the the second group of the 80 smaller metropolitan areas.

On the other hand, there is no unequivocal EU guidance determining the type of government that these metropolitan areas have to adopt. There are different models in Europe, which are mainly for large

conurbations, such as London, Madrid, Vienna or Barcelona. When developing its metropolitan area model, Italy has drawn inspiration from the EU guidelines, but it appears to be intent upon adopting a specific form of greater council for Italy, with the establishment of a fully-fledged metropolitan body, based on historical reasons, existing administrative layouts and uncertainties of an economic nature, which is being realised today, in the current debate on the reorganisation of the administrative layout, through the establishment of metropolitan cities. In August 2013, Letta's government suggested establishing ten metropolitan cities: Rome, Milan, Naples, Turin, Genoa, Venice, Bologna, Florence, Bari and

Reggio Calabria, and established a fixed model, according to which the mayor of the administrative centre also becomes the mayor of the metropolitan city, which has the borders of the province and replaces it. With the Delrio reform of 2014 of Renzi's government, these metropolitan cities should be established starting from 2015, with the possibility of adding Palermo, Messina, Catania, Cagliari and Trieste in the future. A total, therefore, of 15 new territorial

Figure 13.3.2 - Overview of metropolitan cities in Europe and in Italy



Source: Censis (Centre for social investment studies)

<sup>13</sup>The urban nucleus is represented by high-density cities, with at least 1,500 inhabitants per km<sup>2</sup>, according to a specific criterion for European cities, which is different, for example, from cities of Canada or the United States, characterised by less intensive settlements. Urban hinterland municipalities are those with at least 15% of employed residents, working in the main urban centre.



areas which should replace the provinces, covering their territory and assuming some of their authority, with the guidance of a metropolitan mayor.

Barca's document also refers to the metropolitan city model inspired by Europe, as a horizon to work towards.

In a polycentric territory such as Veneto, development of the metropolitan cities also requires attention to be paid to the complementarity between large conurbations and medium or small sized centres. Prosperous and dynamic small-medium sized cities can play an important role not only for the welfare of the inhabitants, but also for that of the surrounding rural populations. They help to prevent the depopulation of the rural areas and encourage a balanced development of the territory.

### The smart city model

Smart cities are understood as a city model which, through the opportunities provided by information and communications technologies, aims at creating a sustainable urban setting and improving the quality of life of the people who live there.

More than on the tools and means, attention needs to be focused on the objective, which is to improve the quality of life of the people living in a given urban setting.

The objective is to plan urban policies where new technologies can play a key role in growth, using them

**The risk is that of attributing smartness to technologies alone**

for the city, going beyond the naive idea that technologies alone can create welfare and

wealth: innovation, research and technology are useful if directed towards a planned growth objective. The smart city is thus not understood as a product, or a package of predefined practices to be adopted, but is the result of meditated choices by a governance, aimed at inclusive growth, through collaboration with enterprises and analysis of citizen requirements. Reasoning in terms of the smart city is an integrated process and means supporting development of cities in its three main dimensions<sup>14</sup>:

- economic, linked to the existence of innovative and research-based enterprises and the ability to attract economic and professional capital;
- human and social capital, as a city is smart when its inhabitants are smart, in terms of skills, relational abilities, inclusion and tolerance;

- governance, which presupposes adoption of a systemic vision focused on the citizen and favours the culture of civic participation in creating public value.

A long-term vision of the territory is required when setting out to create a smart city: if not thought out in a coherent and integrated way, projects, including those of merit from a technological viewpoint, are at risk of remaining isolated trials that are incapable of affecting the citizens' quality of life.

Veneto, too, is a region undergoing transformation, due both to population flow, especially of foreigners, and the re-planning of spaces, primarily with the thriving nature of associations of municipalities which share services, but also the rethinking of provinces, the creation of metropolitan cities and the proposal of some municipalities to move into another province or even another region. All this has a considerable impact on the evolution of a territory and its planning, including with a view to setting up a "smart" territory. Planning smart cities also means encouraging the active participation of citizens with respect to the decisions in the urban setting where they belong.

#### Working towards active citizenship

Special attention must be paid to the circulation of a new digital

culture, which promotes sharing, collaboration and the creation of communities. Up until now, citizens have often been thought of as the passive users of services. Citizens are now called upon to become active, not only communicating their needs, but also skills and suggestions, with direct involvement in defending the common good. It is a case of putting the recommendation of the Italian Constitution in article 118 in terms of horizontal subsidiarity into practice: "State, Regions, Provinces, Metropolitan Cities and Municipalities favour the independent and collective initiative of citizens for the performance of activities of common interest, based on the principle of subsidiarity":

The smart city takes care of the interaction between citizen and services provided in a context of digital sharing, by focusing efforts on the quality of the services provided and on the ability to interact with its inhabitants.

<sup>14</sup> Gianni Dominici, sociologist, director general of the PA Forum, Censis partner.



For the future, it promises a technology that is ever more at the service of the citizen, where for example an advanced use of apps and social networks shall be able to highlight the needs of the citizens, note where services are lacking and propose innovations. In this way, the same urban space becomes a hybrid place where physical experience and virtual experience merge and complement each other, creating progressive interaction between physical places and networks.

A city is intelligent, or smart, that is, when it is inclusive, cosmopolitan and accessible both physically and digitally. In order to be this, it has to be able to favour broad categories of people, such as foreigners, people with disabilities, the elderly and children. At the other side of the coin from the development of new digital technologies is the risk of a digital divide in smart cities, or rather the gap that there might be, in terms of discrimination, between those who can actually access information technologies and those who are partially or completely excluded for a variety of reasons, ranging from financial reasons to physical reasons related to education, sex and age, ethnicity or geographical

Although Italy was behind with respect to the main European and global cities, it first took the path to smart cities in the large Italian metropolitan areas, which hosted the first trials to be initiated in our country, including thanks to EU projects. Small cities with fewer than 80,000 inhabitants are on the whole further away from being smart. It is also true that urban problems are less present in these contexts, in terms of traffic congestion, social hardship, access to services, and the need to change and innovate is not always felt. This is what was brought to light by the Smart City Index, the indicator conceived by the company Between, which operates in consultancy in the Information & Communication Technology sector, with the sponsorship of the Digital Italy Agency and the Italian Association of Chief Executives of Local Enterprises<sup>15</sup>.

The Smart City Index is a league table which measures the degree of "smartness" of all Italian administrative centres, focusing on what smart things there already are in the city. It is a relative league table, designed not to measure the absolute level of smart innovation in the city, but the distance between

**Table 13.3.1 - People aged 14 and over who have used the Internet in the last 12 months to interact with Public Authorities. Veneto and Italy - Year 2013**

	Using the internet to interact with the PA (a)	Activities (b)							Acquiring information from the websites of the PA (a)	Downloading PA forms (a)
		Paying taxes	Applying for social security benefits	Requesting personal documents	Requesting certificates	Accessing public libraries	Enrolling in secondary schools and universities	Changing place of residence		
Veneto	38.7	26.8	10.4	9.9	5.3	17.3	22.3	1.9	33.1	27.6
Italy	33.1	26.8	12.9	11.1	7.6	18.0	20.7	2.0	28.6	24.2

(a) Out of 100 people aged 14 and over of the same area who have used the Internet in the last 12 months  
 (b) Out of 100 people aged 14 and over of the same area who have used the Internet in the last 12 months to interact for private use with the Public Authorities or with public service providers  
 Source: Processing by the Veneto Region - Regional Statistical System Section on Istat data

origin. Careful development in terms of a smart city must aim to avoid this risk, through digital literacy initiatives and projects and ease of access for users.

**Comparing smart cities**

The ever increasing interest shown by Italian cities in the "smart city"

model highlights how the reorganisation of urban areas is by now a priority which can no longer be put off, especially in this moment of crisis which accentuates the critical issues and the needs to be met, while available resources are diminishing.

the best city (with a score of 100) and the others. The index currently accounts for 9 thematic areas, from broadband infrastructures to digital services (health, school, mobility, government) right through to the sustainable development of the city, such as energy efficiency, the use of renewable energies and management of natural resources. The intention is however to develop it over the years, following the progress of innovation.

<sup>15</sup> <http://www.between.it/ita/smart-city-index.php>



In general, the cities of the North are mainly concentrated in the upper part of the league table, while those of the South bring up the rear. Bologna was the smartest city in 2013, followed by Milan and Rome. People in Bologna have a high level of broadband coverage and schools that are well-equipped with digital infrastructures. They can choose from various alternative means of transport and benefit from the city's district heating network. They interact with the public authorities through many online services, especially smart health: as well as booking medical services or paying for medical reports on the Internet, and they can already activate their personal electronic health records.

Of the seven administrative centres in Veneto, Vicenza, Verona and Padua were among the top 20 cities in the national league table in 2013, Venice and Treviso were in the intermediate bracket (positions 40-78), while Belluno and Rovigno were further down, below position eighty.

Vicenza is still the top city in Veneto, in 12th position in the overall league table of all the administrative centres,

**Vicenza is the smartest**

but 6th among medium sized cities (between 80,000 and 250,000 inhabitants).

It scored very well in as many as five of the nine areas analysed: smart mobility, smart education, smart government, energy consumption and use of natural resources.

In 41st place, Venice is behind the other metropolitan cities of the Centre North, which are instead among the top 20 positions.

The cities of Veneto bringing up the rear of the regional league table are Rovigo and Belluno, which are not very efficient in a number of thematic areas.

Every city has different characteristics and stands out for its special features, which are the result of an historical tradition, but also of political and strategic choices over the years<sup>16</sup>.

This data and the information provided by the Italian Observatory on Smart Cities<sup>17</sup> show that Padua excels for the attention it dedicates to the themes of smart health and smart mobility. The improvement and the replanning of the health network organisation enables citizens to book specialist check-ups, pay prescription charges and collect reports online. The forthcoming creation of electronic health records is also envisaged.

**Table 13.3.2 - Smart City Index: Position of administrative centres in the thematic league tables. Veneto - Year 2013**

	National league table Broadband	Smart health	Smart government	Renewable energy sources	Energy efficiency	Natural resources
Vicenza 12	First bracket	First bracket	First bracket	Second bracket	Second bracket	Second bracket
Verona 18	First bracket	First bracket	First bracket	Second bracket	Second bracket	Second bracket
Padua 20	First bracket	First bracket	First bracket	Second bracket	Second bracket	Second bracket
Venice 41	Second bracket	Second bracket	Second bracket	Second bracket	Second bracket	Second bracket
Treviso 51	Second bracket	Second bracket	Second bracket	Second bracket	Second bracket	Second bracket
Belluno 83	Third bracket	Third bracket	Third bracket	Third bracket	Third bracket	Third bracket
Rovigo 88	Third bracket	Third bracket	Third bracket	Third bracket	Third bracket	Third bracket

First bracket  
 Second bracket  
 Third bracket

(\* The Smart City Index is a composite indicator. It ranges from 0 to 100 and measures the level of smartness of a city, evaluating nine thematic areas. Source: Processing by the Veneto Region - Regional Statistical System Section on Between data

In the area of smart mobility, it aims to publish informative services for the local public transport utility and implement advanced electronic ticket systems.

Verona is mainly aiming to improve its local public transport: as well as an electronic ticket system, a system for planning routes online is being designed. In the area of smart education, it shows good deployment of digital infrastructures available to schools, such as personal computers, wi-fi connection and multimedia interactive boards. It also excels for its use of renewable energy sources, with the power of the photovoltaic installations installed in public buildings amounting to 18.9 KW for every 1,000 inhabitants.

Venice stands out for the implementation of e-government services offered by the Municipality: using the body's website, citizens can consult their records online and check the progress of them, download forms and pay certain taxes.

Vicenza is focusing on the development of digital infrastructures for schools by increasing the amount of IT equipment, while the Province of Belluno is investing in green projects for the generation of hydropower, thanks to the exploitation of the natural characteristics of the local area and the presence of many watercourses.

<sup>16</sup> See the article written by Gianluigi Cogo "Veneto: al via i progetti per un territorio smart" ("Veneto: projects for a smart territory get underway") at <http://smartinnovation.forumpa.it/story/69577/veneto-al-i-progetti-un-territorio-smart>

<sup>17</sup> <http://osservatoriosmartcity.it/>



Rovigo also excels for projects linked to sustainable development: energy saving, air quality and the adoption of separate waste collection by citizens. Smart health services have also been launched in this municipality, too. Treviso is involved in the sustainable development projects and in the provision of smart services with regard to the health sector and urban mobility.

Culture and tourism are to be found along the city's road to smartness. They play a central role in our

**Smart services for culture and tourism**

Country, from an economic viewpoint.

Culture and tourism can be viewed as analogous areas: cultural heritage can act as a stimulant for the supply of tourist services including via the digital sector. These aspects, which have not yet been included in the overall Smart City Index, are evaluated by the same company, Between, in its thematic report "Smart Culture & Travel", dedicated to how Italian cities are becoming more digital in tourism and culture. It analyses, for example, the way in which cities draw upon the Internet for advertising and sales, how they use social networks to classify the clientele and to tether their own services to tourist communities, how they provide digital mobility services, through apps and enhance culture using new technologies (multimedia, virtual museums, eCommerce).

The top places of the league tables in this area in 2014 were also held by metropolitan cities: Rome, Bologna, Turin and Florence. In the summary league table, 6 in 7 cities in Veneto fall within the first bracket, the highest being Verona (13th place), whereas Rovigo can be found in the last bracket (place 104). Among the various services, Venice is the only city which offers three types of tourist card, which allow ease of access to facilities, attractions and transport. Moreover, together with Rome, Venice boast the smartest library system in Italy.

**Smartness and quality of life**

The smart city's objective is to improve the quality of life of

its inhabitants. If we compare cities' level of smartness with the level of quality of life<sup>18</sup>, a certain relation becomes apparent.

In particular, five distinct types of city can be distinguished. Venice and Treviso, but especially Vicenza, Verona and Padua, fall within the category of "smart and livable cities", where quality of life and

inclination towards smartness go hand in hand. Rovigo and Belluno, on the other hand, are "cities of digital welfare", or rather they have quality of life levels that are more than good, but until now they have not shown themselves to be smart enough, in that they still lack innovation in the organisation of the city space.

**Veneto is going digital**

The main players when implementing smart cities will be the individual cities, which, through opportunities, plans and governance measures, will need to invest in projects aimed at the path to smart cities. The Region will have the task of promoting and monitoring the various fulfilment phases, performing inclusive governance aimed at the better use of the funding programmes.

For a few years now, Veneto has been taking measures to enhance the potential for innovation of the Public Authorities and the enterprises, with the aim of coordinating and encouraging initiatives on the themes of digital agenda, broadband and digital

**More than 40 million euros have already been invested for broadband**

literacy in all sectors, from PA to the health, transport and tourism sectors. 40 million euros have already

been set aside for broadband in order to improve connectivity throughout the local area, to which a further 30 million will be added from different European, national and regional sources. Investments into infrastructures to bridge the cultural digital gap in both families and companies are also added on top of this. These measures aim on the one hand at increasing the competitiveness of small and medium-sized enterprises, facilitating their entry into the ecosystem of digital economy and the Internet, and, on the other, at subsidising e-inclusion of citizens, placing them in a position to access and take part in opportunities on the net and to achieve, therefore, fully-fledged e-citizenship. In this respect, support is also given to the opening of digital literacy centres: the Region allocates funding for the purchasing of goods (computers, connectivity, rent, etc.), while the municipalities are free to choose teachers who are nearest to the local area and who are more suited to the needs of the Region. At the same time, monitoring is underway to measure the advantages brought by raising digital skills.

3.5 million euros were recently appropriated<sup>19</sup>: 1.5

<sup>18</sup> Quality of life index proposed by the newspaper Sole 24 Ore.

<sup>19</sup> Regional Council Resolution no. 328 of 25 March 2014.



**Table 13.3.3 - Actions taken by the Veneto Region with respect to the Digital Agenda and the development of Smart Cities: calls for funding proposals activated and in the pipeline - Year 2013 (\*)**

Project	Description	Status	Action (calls for funding proposals)	
			Beneficiaries	Amount made available
P3@ 2.0 Points	Literacy and digital acculturation Upgrading and expansion of the Veneto P3@ network	Set up	Municipalities which have already set up at least one P3@ centre or intend to do so	1,500,000 €
Open Wi-fi® and public Wi-fi® networks	Co-financing projects for the creation and expansion of open public Wi-fi® networks in the local area.	Set up	Individual Municipalities in Veneto, or Consortia and Unions of Municipalities	2,000,000 €
Cloud for SMEs in Veneto	Co-financing projects for the launching of IT services in cloud computing mode.	Set up	Small- and medium-sized enterprises	2,000,000 €
Centres for Digital Artisans (FAB Labs)	Co-financing projects for centres intended for the use of new digital technologies able to make objects (for example, "3D printing") for "digital artisan" and start-up entrepreneurs.	Finalisation in progress		
Digital Angels	Placement in enterprises of young university students studying for degrees in the digital sphere, in order to "contaminate" enterprises with digital skills.	Finalisation in progress		

(\*) Regional Council Decree 1475 of 12 August 2013  
Source: Veneto Region

million euros for the creation and upgrading of public Internet points and digital services of the Public Authorities, called P3@Veneti, the rest as grants to the Municipalities, Consortia and Unions of Municipalities for the creation and upgrading of public Wi-fi networks, thus facilitating equal access to information and technologies through free access. The third call for tenders for the activation and upgrading of P3@ centres expires in June, with funding of 1,500,000 euros. With the 2010 call, 1,362,000 euros were earmarked, while funds provided amounted to 966,000 euros in that of 2012.

To date, 288 centres have been activated overall in 273 municipalities.

Enterprises are instead encouraged to move towards cloud computing, through funding of 23 projects of SMEs in Veneto operating in the field of ICT. The funding aims to push ICT companies towards eCommerce and the globalisation of digital markets.

Lastly, the Open Data project is underway, aimed at data interoperability. A city cannot be truly smart if it does not have free data available, and in Veneto this occurs with the sharing of over 100 datasets in the Veneto Open Data portal.

## What is the housing model in Veneto?

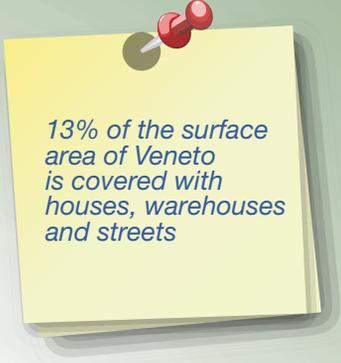
The scattering of settlements, which has gradually asserted itself as the predominant form of urbanisation in Italy, is especially evident in Veneto. This is accompanied by a high percentage of land consumption: approximately 13% of the local area, up 5.3% compared to ten years earlier. Towns may be growing, but not as much as smaller areas. The city goes beyond the administrative boundaries of the municipality and gradually spreads into the surrounding areas, into municipalities neighbouring the urban centre but also into those further away, sprawling in a disorderly and unchecked manner. From the urban centre towards the outside, low population density settlements are created, with a disaggregated building fabric, interspersed with rural and production areas.

Urban sprawl breaks up the local area, making landlocked spaces which are difficult to use and jeopardised. It is also a burden for the community, because it is more costly to guarantee public services over a widespread network, especially those in connection with mobility. From the citizens' viewpoint, while living outside the large centres guarantees better environmental and housing conditions on the one hand, on the other, it reduces accessibility to the services and opportunities offered by the medium and large urban centres.

## How will cities develop in the future?

Cities play an essential role as the driving force are the economy, they are fertile ground for technology, culture, innovation and creativity; however, they are also places where problems arise and social inequalities are sharpened. For this reason, they necessitate special attention in the government's list of priorities, not only at EU level, but also nationally and locally. In the European vision, the city of tomorrow is a place which aims at an advanced level of social cohesion and environmental protection, rather than just a sustained production drive. Current debate is also leading to the planning of metropolitan cities in Italy, too, inspired by Europe; Venice is the candidate for the North-East.

By exploiting technological resources and opportunities for innovation, today's development of cities is moving towards the smart city, with the aim of creating a sustainable urban setting and improving the quality of those living there, facilitating social inclusion and active participation. With the implementation of the regional Digital Agenda, Veneto is investing to guarantee technological standards and development for its cities.



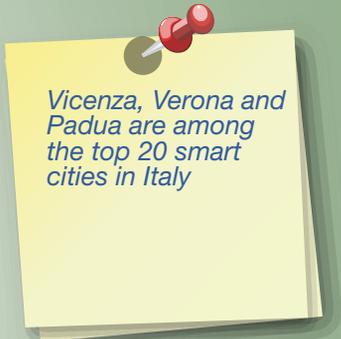
*13% of the surface area of Veneto is covered with houses, warehouses and streets*



*Urban sprawl: 61% of the population in Veneto live in fairly urbanised areas...*



*...and 65% of families live in detached or single-family houses*



*Vicenza, Verona and Padua are among the top 20 smart cities in Italy*



*Venice boasts the smartest library system in Italy*



*Over 40 million euros have already been invested in broadband in Veneto*