

# SOCIAL INFRASTRUCTURE

Sectoral Strategic  
Guidelines



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## THE 10 FIELDS OF ACTIONS OF CDP 2022-2024 STRATEGIC PLAN



ENERGY  
TRANSITION



CIRCULAR  
ECONOMY



SAFEGUARDING  
THE TERRITORY



SOCIAL  
INFRASTRUCTURE



CAPITAL MARKET



DIGITISATION



TECHNOLOGICAL  
INNOVATION



SUPPORT TO  
STRATEGIC SUPPLY  
CHAINS



INTERNATIONAL  
COOPERATION



TRANSPORT /  
LOGISTICS NODES

## KEY MESSAGES

- **Social infrastructure**, understood as the set of **assets functional to the satisfaction of essential collective needs**, especially in the field of **education, health and housing**, plays an important role in the pursuit of the objectives defined at supranational level by the **2030 Agenda for Sustainable Development** and by **European sector strategies**.
- Development objectives emerging from the international framework must be read in the light of two **trends** that affect our country and the demand for social infrastructure as a whole: (i) **the demographic evolution of the population**, characterized by a clear **ageing** process and the **transformation of family structures**, and (ii) the increase in **socio-economic and territorial disparities**.
- Italy suffers from **serious deficiencies in education infrastructure**, as shown by the low rate of coverage of early childhood services and the high percentage of early school leavers, and in **housing infrastructure**, as highlighted by the marked incidence of housing issues, while it registers **virtuous results** compared to European peers in healthcare outcomes, even though **health infrastructure is very heterogeneous** across the country.
- The areas of focus, which direct the priorities for intervention, are as follows:
  - ▶ **education infrastructure**. On the one hand, it is necessary to **strengthen structures for the provision of services for early childhood** and, on the other, the **upgrading** of school buildings in terms of **safety, environmental sustainability, and innovation**, also via the **construction of new buildings** and/or demolition and reconstruction of existing ones, by expanding the **areas used for canteens and sports facilities** to transform schools into aggregation hubs capable of intercepting the needs of students and households beyond the traditional school hours;
  - ▶ **health infrastructure**. Actions must focus, as a matter of priority, on the **reshaping of the supply of hospital and social and health services**, oriented towards the rationalisation of hospital facilities and, at the same time, towards a **greater spread and accessibility of facilities in local areas**. It is also key to promote the **adaptation of the infrastructure** to the **requirements of the ecological and digital transition** and to the **changing needs for care and assistance** linked to the population ageing, through the development, in particular, of long-term care facilities for non-self-sufficient elderly people;
  - ▶ **housing infrastructure**. The increasing incidence of socio-economic hardship and the evolution of housing demand entail, on the one hand, the **strengthening of the supply of social housing at controlled rents** and, on the other hand, **the development of housing solutions addressing the needs of rapidly growing socio-demographic categories** (e.g. out-of-home students, young workers, highly mobile workers), to be included in broader **urban regeneration processes**, especially in the main metropolitan areas where housing pressure is highest, in order to transform vulnerable areas into smart and sustainable urban contexts.
- In this context, CDP can intervene, according to **additionality and complementarity criteria, helping to fill the investment gaps** in sectors and territories where market operators fail to mobilise adequate resources, and **providing support to Public Administrations** in the management of authorisation processes, also in order to contribute to their simplification and/or acceleration, in the planning of actions, and in setting in motion projects.
- To ensure **transparency and accountability** of decision-making processes, CDP will measure the quality and impact of the supported actions. To this end, CDP uses a set of KPIs for monitoring and evaluating each field of intervention.



# 1. Context


**1.1  
International  
Framework for Social  
Infrastructure**


**1.2  
Italy's positioning:  
strengths and gaps**




# 1. CONTEXT

## 1.1 INTERNATIONAL FRAMEWORK FOR SOCIAL INFRASTRUCTURE

 **Social infrastructure** defines the set of **assets functional to the provision of goods and services intended to satisfy the essential community needs** in the fields of education, health, housing, security and justice. In other words, they are the “backbone” of policies constituting the foundations of the European Welfare State model.

 Social infrastructure constitutes a heterogeneous whole. The scope of **CDP’s operations**, in line with its historical mission and the guidelines outlined in the 2022-2024 Strategic Plan, focuses mainly on **three types of infrastructure**:

- **education infrastructure**, which includes facilities housing early childhood education services, preschools, primary and secondary education, and higher education institutions<sup>1</sup>;
- **social and health infrastructure**, which includes facilities for hospital care, district healthcare and social and health care;
- **housing infrastructure**, which includes infrastructure intended for the various housing demands not fully satisfied by the market, in particular in the form of social, student and senior housing.

 When identifying a supranational reference framework, it should be considered that in international policies **social infrastructure is not recognised as a single segment of intervention, nor are objectives defined so as to form an organic and systematic development framework**, for two reasons:

1. social infrastructure, as mentioned, relates to **very different sectors**, for which it is often impossible to establish common development goals;
2. **the development and functioning of welfare systems vary significantly among countries.**

Note, by way of example, the heterogeneity in the functioning of the different European health and education systems, from which important differences in infrastructure result;


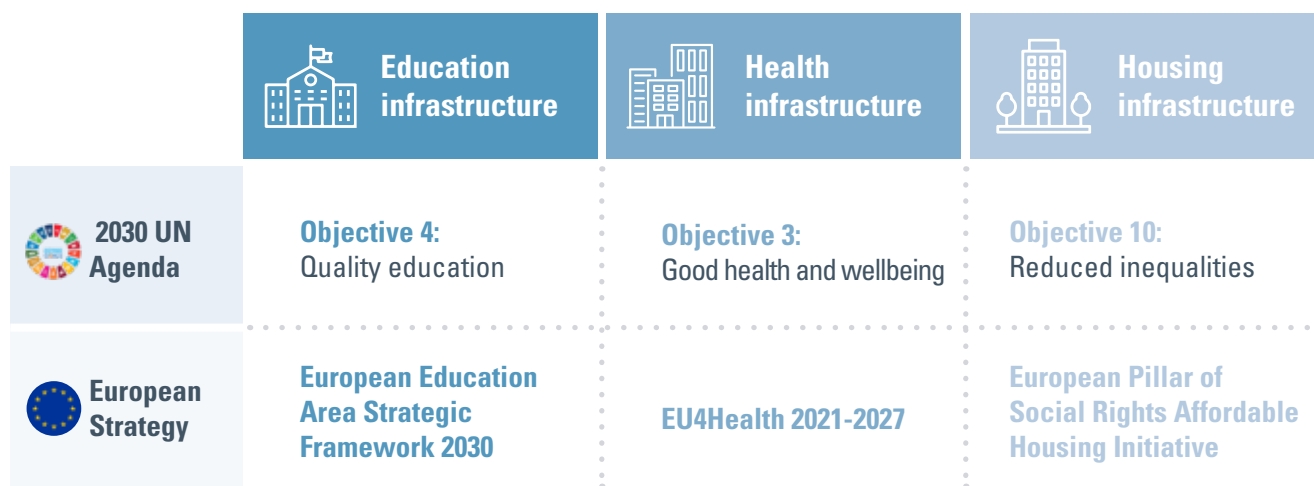
 Development areas for social infrastructure which are of interest to CDP’s operations can be traced, first of all, to the strategic framework defined by the **Sustainable Development Goals (SDGs)** of the United Nations 2030 Agenda. In particular, sustainable development objectives directly related to the identified scope are Objective No. 4 **“Quality education”** for education infrastructure, with reference to the need to implement inclusive and lifelong learning-oriented education systems, Objective No. 3 **“Good health and well-being”** for health infrastructure, with reference to the need to ensure access to quality health services, and Objective No. 10 **“Reduced inequalities”** for housing infrastructure, with reference to the need to promote social inclusion.

FIG. 1 – INTERNATIONAL STRATEGIC FRAMEWORK FOR SOCIAL INFRASTRUCTURE



Source: CDP elaboration

<sup>1</sup> In this document, the infrastructure hosting early childhood education services, pre-schools and primary and secondary education is discussed in detail. For further information on infrastructure for higher education, with reference to both research infrastructure (universities) and training infrastructures (Higher Technical Institutes), see “Strategic guidelines – Technological innovation”.



Three main reference frameworks can also be identified within the **European strategy**. More specifically:

- health infrastructure is part of the **EU4Health 2021-2027** strategy<sup>2</sup>, created in response to the Covid-19 pandemic, which aims to increase **the resilience of European health systems** through investments amounting to more than 5 billion euro targeting four macro objectives (health promotion and disease prevention; prevention, preparedness and response to cross-border health threats; enhancement of availability of medicinal products and medical device; and strengthening health systems by focusing on digital transformation, equity of access and increased cooperation among Member States);
- education infrastructure is part of the framework outlined by the **European Education Area Strategic Framework 2030**<sup>3</sup>, which sets specific EU-wide targets in terms of school performance (percentage of 15-year olds with insufficient competences in mathematics, reading, science and computer science below 15%), combating early school leaving (percentage of 18-24 year olds with less than 9% dropouts) and developing higher education (percentage of the population aged 25-34 with higher education of at least 45%);
- finally, housing infrastructure is among the development priorities identified by the **European Pillar of Social Rights**, which establishes the necessity to give people in need access to quality housing solutions and which is referred to by the most recent **Affordable Housing Initiative** included in the Renovation Wave strategy on the promotion of the energy efficiency of buildings. In recent years, social housing has received increasing attention from European institutions, as demonstrated also by the **European Parliament resolution** of 21 January 2021 on access to decent and affordable housing for all, which has defined five objectives common to the Member States (achieving adequate, energy-efficient and healthy housing; combating homelessness; implementation of an integrated approach to social housing at the EU level; ensuring inclusive housing markets; investing in social housing).



The development objectives that emerge from the context outlined above must be read in the light of two **trends** that affect our country and the demand for social infrastructure as a whole: (i) **the demographic evolution of the population**, characterised by a clear **ageing** process and by the **development of family structures**, and (ii) the increase in **socio-economic and territorial disparities**.

CHART. 1 - LIFE EXPECTANCY AT BIRTH (YEARS, MALES AND FEMALES)

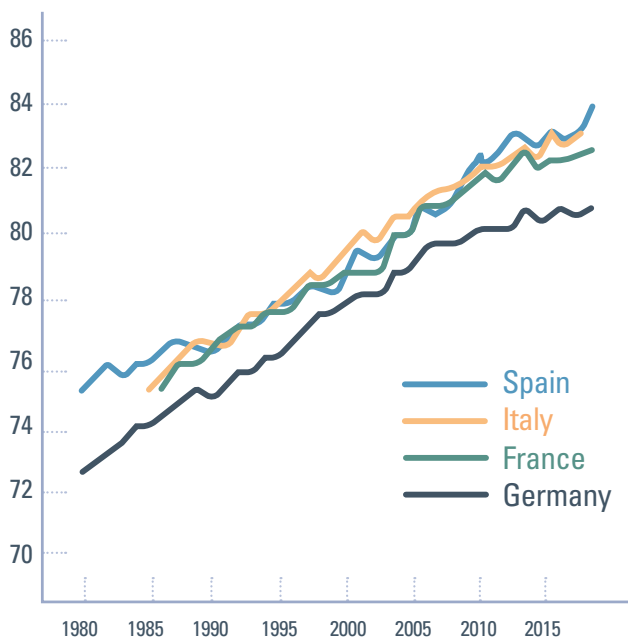
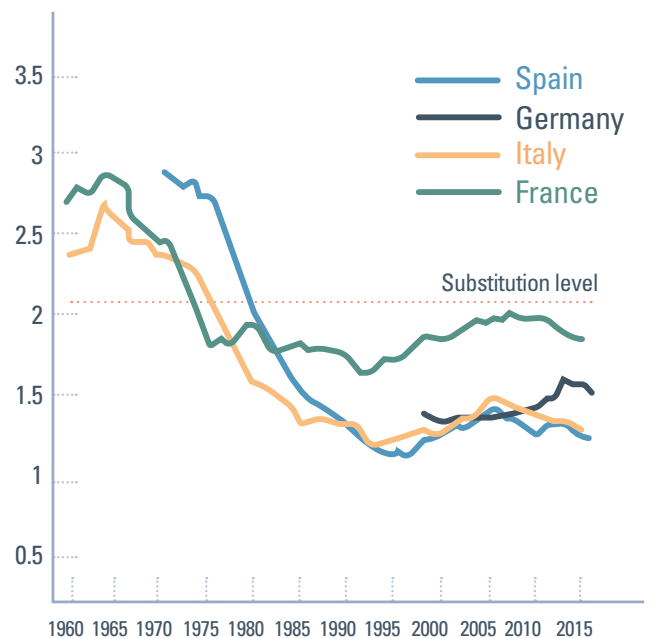


CHART. 2 - TOTAL FERTILITY RATE (AVERAGE NUMBER OF CHILDREN PER WOMAN)



Source: CDP elaboration on Eurostat

<sup>2</sup> See Regulation (EU) 2021/522 of the European Parliament and of the Council of 24 March 2021 establishing a programme of Union action in the field of health for the period 2021-2027 ("EU Health Programme").

<sup>3</sup> See Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) (2021/C 66/01).



**Population ageing** is a phenomenon common to all Western societies, resulting from two dynamics: **increasing life expectancy** and **decreasing birth rate** (charts 1 and 2).

- In Italy, both dynamics are particularly pronounced, being the EU country with the **highest old-age dependency ratio** (36.2% in 2020, expected to rise to 61.5% in 2050, against a European average expected to rise from 32% in 2020 to 52% in 2050<sup>4</sup>) and with **one of the lowest fertility rates** (1.27 children per woman in 2019, against an EU average of 1.53, well below the so-called replacement rate of about 2.1 children per woman<sup>5</sup>).
- Both dynamics contribute to a **profound reshaping of family structures**, which is reflected in the **downsizing of households** (the average number of members fell from 2.7 in 1999-2000 to 2.3 in 2019-2020<sup>6</sup>) and in the **increase in single-person households** (33% of the total in 2019-2020, up by more than 10% compared with 1999-2000<sup>7</sup>).
- These changes translate into a **gradual decline in the ability of households to care for frail groups**, in a context where the **dependent elderly population is expected to increase** from 2.9 million in 2019 to almost 5 million in 2030<sup>8</sup>, while population suffering from multiple chronic conditions will rise from 12.5 million in 2018 to 14 million in 2028<sup>9</sup>.



Demographic change is accompanied by a general **widening of socio-economic and territorial disparities**.

- In Italy, **the percentage of households living in absolute poverty has more than doubled in the last fifteen years** (from 3.5% in 2007 to 7.5% in 2021), with an incidence that remains structurally higher in the South than in the North (10% compared to 6.7% in 2021<sup>10</sup>). The increase in absolute poverty rate was particularly pronounced in the case of **young households** (from 1.9% in 2007 to 9.4% in 2021<sup>11</sup>), also due to **the increase in insecure employment** (fixed-term employment increasing from 9.2% in 2010 to 12.9% in 2021<sup>12</sup>).
- Situations of social and employment weakness refer, in particular, to **female employment**, which in Italy remains over 15% below the European average (52.3% compared to 67.7% in 2021<sup>13</sup>). This is especially true in the South of Italy (where one in three women work) and in the case of **young women with pre-school children**, whose employment rate is more than 25% lower than that of their childless peers<sup>14</sup>. These dynamics are ascribable, first of all, to **difficulties in finding a good work-life balance**, in a context in which care responsibilities still fall mainly on women and the provision of early childhood services is severely limited<sup>15</sup>.
- The increased incidence of socio-economic hardship also intersects with a growing **polarisation of territorial gaps**: indeed, **internal migration flows** towards the northern regions and the economically more dynamic metropolitan areas persist, leading to the **depopulation of rural and peripheral areas** (inland areas are expected to lose a tenth of their population by 2030 compared to 2020<sup>16</sup>), especially in the South of Italy.
- **Social infrastructure is affected across the board by the above-mentioned dynamics** (Figure 2). The planning of actions for the development of structures functional to the provision of services responding to collective needs in the field of education, health and housing cannot in fact be separated from considerations related both to the **demographic evolution of users**, at the national and local scale, and to the **changing needs of individuals and households**.

<sup>4</sup> Eurostat. The old-age dependency ratio is given by the ratio of the over-65 population to the working-age population (15-64).

<sup>5</sup> Eurostat. The replacement level is the average number of children per woman required to keep the population size constant in the absence of inward or outward migration, taking into account the infant mortality rate.

<sup>6</sup> ISTAT, Annuario Statistico 2021.

<sup>7</sup> ISTAT, Annuario Statistico 2021.

<sup>8</sup> Istat, 2019. Presidency of the Council of Ministers, National Recovery and Resilience Plan, 2021.

<sup>9</sup> Osservatorio Nazionale sulla salute nelle Regioni italiane - Università Cattolica del Sacro Cuore, "XVI Rapporto Osservasalute", 2019.

<sup>10</sup> Eurostat, Istat.

<sup>11</sup> Istat. Young households are those in which the reference person is aged between 18 and 34.

<sup>12</sup> Eurostat.

<sup>13</sup> Eurostat.

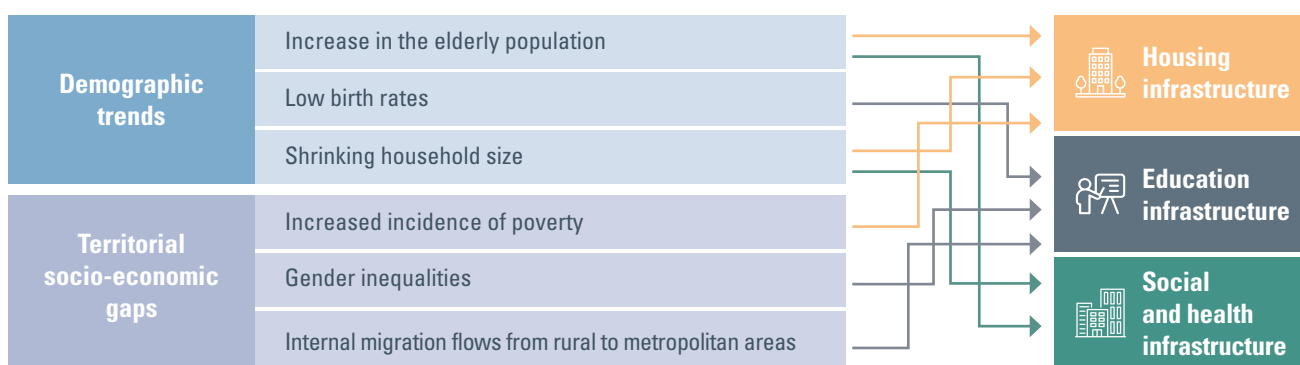
<sup>14</sup> Italian Ministry of the Economy and Finance. "Bilancio di Genere per l'esercizio finanziario 2020".

<sup>15</sup> See Section 1.3.1 of this document.

<sup>16</sup> Istat, "Report Previsioni della Popolazione Residente e delle Famiglie", 2021.

- For example, the **contraction of the youth population** (expected to decrease by more than 1.3 million between 2022 and 2050 in the 0-18 years range)<sup>17</sup> suggests that the **need for new school buildings** in the coming decades **will be modest**, especially in the peripheral areas of the country. This implies that actions should focus mostly on upgrading or replacement projects of the existing buildings. At the same time, however, the **pursuit of gender equality**, in the context of both work and care responsibilities, **makes it essential to develop facilities for early childhood** functional to an easier **balance between work and family**.
- Similarly, **the increase in the elderly population** and the **thinning of family support networks** raise the need, on the one hand, to expand the offer of **care and assistance facilities** for the **treatment of chronic diseases** and **non-self-sufficiency** and, on the other, to **develop housing solutions** aimed at promoting **active ageing** in order to delay or prevent institutionalisation processes. Likewise, the increase in socio-economic weakness and territorial imbalances **feed the need for social housing** in large metropolitan areas, where housing pressure is higher, and at the same time increase the need to develop **forms of residential housing to support new components of housing demand** (e.g. highly mobility workers, out-of-home students, single-person households) that are struggling to find solutions suited to their needs on the free market.

FIG. 2 – SOCIO-DEMOGRAPHIC DRIVERS THAT AFFECT THE DEMAND FOR SOCIAL INFRASTRUCTURE





Source: CDP elaboration


<sup>17</sup> Istat Population demographic forecasts. It should be noted that demographic forecasts present significant margins of uncertainty with regard, in particular, to international migration flows.





## 1.2 ITALY'S POSITIONING: STRENGTHS AND GAPS

 <b>Strengths</b>	 <b>Gaps</b>
<p><b>Strong increase in the school attendance rate</b></p> <hr/> <p><b>Overall efficiency of the healthcare system</b> higher than European peers</p> <hr/> <p><b>Virtuous collaboration between public and private</b> in the field of social housing</p>	<p><b>Childcare facilities:</b> inadequate supply, particularly in the South of Italy</p> <p><b>School buildings:</b> major weaknesses in terms of <b>safety, energy efficiency and availability of canteen and gym</b> space, especially in the South of Italy</p> <hr/> <p><b>Hospital and outpatient infrastructure:</b> strong territorial disparities, poor accessibility in the South of Italy</p> <p><b>Long-term care structures:</b> inadequate supply to meet the increase in the non-self-sufficient population</p> <hr/> <p><b>Social housing:</b> inadequate supply to respond to growing housing issues</p> <p><b>Student housing:</b> supply of student housing below European peers</p> <p><b>Senior housing:</b> poorly developed sector</p>

### 1.2.1 Education infrastructure

 Quantitatively and qualitatively adequate infrastructure for education in terms of local distribution, safety, sustainability and innovation is fundamental for **human capital development from the earliest stages of life**. The development of cognitive and non-cognitive abilities in early childhood, indeed, is crucial for the development of other abilities in the later stages of life<sup>18</sup>.

 While growing, **the provision of early childhood education services is still overall lacking**. At the end of 2019, there were approximately 361,000 places available in childcare facilities in Italy, managed equally by public and private entities, spread over more than 13,800 facilities<sup>19</sup>. **The coverage rate of the 0-2 year range is 26.9%, below the EU target of 33%** that European countries had committed to reach by 2010<sup>20</sup> and, above all, far from the levels recorded by the main peers, such as Spain (57.4%) and France (50.8%)<sup>21</sup>. National data, however, hide a **marked heterogeneity at the territorial level**. Coverage is, indeed, above the European target in Central Italy (35.3%) and slightly below in the North (32.7%), while it is still very far from the EU target in the South (14.9%).

 **Strong territorial disparities** are also recorded on the **school building** front with reference to public childcare and kindergarten, as well as primary and secondary education<sup>22</sup>. **Schools in the South of Italy** have significant deficiencies, especially in terms of the availability of **canteen areas** (present in only 20% of primary education schools, well below the national average of around 50%) and **gyms** (present in only 62% of schools, about 10% below the national average<sup>23</sup>).

<sup>18</sup> Heckman J. J., (2006), "Skill Formation and the Economics of Investing in Disadvantaged Children", Science 312, pp. 1900–1902.

<sup>19</sup> Istat, "Nidi e servizi integrativi per la prima infanzia | Anno educativo 2019-2020", 2021.

<sup>20</sup> The target was set at Community level at the Barcelona European Council in 2002.

<sup>21</sup> Istat, "Nidi e servizi integrativi per la prima infanzia | Anno educativo 2019-2020", 2021; Eurostat, 2019.


<sup>22</sup> Unless otherwise indicated, the school building statistics reported in this document have been prepared starting from the open data of the Anagrafe dell'Edilizia Scolastica (School Building Registry) (AES) relating to the over 40,000 state school buildings present in the national territory (excluding those of Trentino Alto-Adige), made available by the Ministry of Education, updated to the 2020/2021 School Year.


<sup>23</sup> National Recovery and Resilience Plan, 2021

FIG. 3 – THE FIGURES OF THE GAPS IN EDUCATION INFRASTRUCTURE IN ITALY

<p><b>PROVISION OF CHILDCARE SERVICES</b></p> <p><b>24,6%</b></p> <p>COVERAGE RATE ON THE 0-2 YEARS POPULATION</p>	<p><b>SCHOOLS ENERGY EFFICIENCY</b></p> <p><b>&gt;70%</b></p> <p>OF SCHOOL BUILDINGS IN THE LAST THREE ENERGY CLASSES</p>	<p><b>CANTEENS EQUIPMENT</b></p> <p><b>80%</b></p> <p>OF THE PRIMARY SCHOOLS OF THE SOUTH OF ITALY WITHOUT CANTEEN</p>
<p><b>SAFETY IN SCHOOLS</b></p> <p><b>&gt;60%</b></p> <p>SCHOOLS IN AREAS WITH HIGH SEISMIC RISK NON-COMPLIANT WITH ANTI-SEISMIC REGULATIONS</p>	<p><b>SPORTS FACILITIES EQUIPMENT</b></p> <p><b>40%</b></p> <p>OF SCHOOLS IN THE SOUTH OF ITALY WITHOUT A GYM</p>	

Source: CDP elaboration on ISTAT, Italian Ministry of Education, Legambiente

 School buildings in general suffer from a **significant degree of obsolescence** (almost two out of three school buildings in Italy are more than 50 years old), which is particularly evident in terms of **energy efficiency** (less than 60% of buildings have adopted measures to reduce energy consumption<sup>24</sup>, while more than 70% are in the last three energy classes<sup>25</sup>), seismic **safety** (only 35% of school buildings in municipalities located in areas with a high seismic risk in the national territory have been designed or subsequently adapted to anti-seismic regulations<sup>26</sup>) and **digitisation** (currently only 17% of school buildings have an optical fibre connection, capable of guaranteeing 1Gbit/s connectivity as required by the EU-wide digital transformation targets for 2025<sup>27</sup>). The oldness of the buildings also makes it difficult or only partially feasible to implement **innovative didactic** methodologies (so-called “lateral education”), given the prevalence of architectural canons that are not compatible with the configuration of flexible and modern learning environments. Moreover, there are also serious maintenance deficiencies, due to the scarcity of resources available to Local Authorities for current expenses dedicated to the infrastructure management of school complexes.

 The provision of infrastructure affects **the ability of schools to offer services**, such as **full time** (present in more than 40% of schools in the North, but in less than 20% in the South of Italy and in the Islands), which play a primary role in meeting situations of socio-educational fragility in support of households. More generally, the endowment and quality of school complexes and the services connected to them affect the possibility to transform schools into aggregative poles capable of satisfying user demand beyond ordinary school hours, contributing to mitigating the phenomenon of **school dropout**<sup>28</sup>. In the last twenty years, **Italy has seen a sharp reduction in the dropout rate**, from 24.2% in 2002 to 13.1% in 2020. However, it **remains above the European target**, which should have been reached by 2020, of reducing the proportion of young people dropping out of school to less than 10%, a benchmark which in Europe stands at an average of 9.9%<sup>29</sup>.

<sup>24</sup> In the Anagrafe dell’Edilizia Scolastica updated to the 2020/2021 School Year, the field relating to the presence of measures to reduce energy consumption is not defined in approximately 30% of buildings.

<sup>25</sup> Source: Legambiente, “Ecosistema Scuola. XXI Rapporto sulla qualità dell’edilizia scolastica e dei servizi”, October 2021.


<sup>26</sup> Zones 1 and 2 according to the National Seismic Classification are considered to be at high seismic risk. It should be noted that in the Anagrafe dell’Edilizia Scolastica, the fields relating to seismic safety are not defined in more than 60% of the buildings.


<sup>27</sup> AGCOM. The “Connected Schools” Plan, approved in 2020 as part of Italy’s High Speed Broadband Strategy, provides coverage with 1Gbit/s connectivity of all school buildings by the end of 2023.


<sup>28</sup> See National Recovery and Resilience Plan, 2021; Italia Domani, “Futura. Progettare, costruire e abitare la scuola”, 2022.

<sup>29</sup> Eurostat.

## 1.2.2 Social and health infrastructure

 **Social and health infrastructure in Italy is quantitatively smaller than in the rest of Europe.** Italy, indeed, has 18 hospitals per million inhabitants, less than the 25.8 recorded on average in the European Union<sup>30</sup> and well below what was observed in main peer countries, such as France and Germany, respectively first and third in the ranking with 44.7 and 36.4 hospitals per million inhabitants. These figures are reflected in bed supply. In Italy there are 316 hospital beds for every 100,000 inhabitants, a figure well below that of France (584) and Germany (791) and in general lower than EU average (532)<sup>31</sup>. Similarly, in Italy there are 431 beds in long-stay and residential care facilities for every 100,000 inhabitants against 982 in France and 1,167 in Germany<sup>32</sup>. **Strong deficiencies are observed, in particular, in the context of long-term care structures aimed at assisting the non-self-sufficient elderly population:** in Italy, there are only 19.4 beds per 1,000 people over-65, compared to 46.1 in Spain, 49.1 in France and 54.2 in Germany<sup>33</sup>.

 In addition, the country's hospital network is characterized by a high number of small and medium-sized facilities showing volumes of admissions and access to emergency services below the national minimum thresholds (less than one third of small facilities meet the ministerial case-study standards within the scope of "sentinel" services identified by Ministerial Decree 70/2015<sup>34</sup>) and by a high fragmentation of production lines, which are correlated with a higher incidence of adverse outcomes<sup>35</sup>. Despite the lower availability of infrastructure and despite a network characterised by often undersized structures, **the Italian health system nevertheless performs better than its European peers in terms of overall effectiveness**, as evidenced by the **high life expectancy in good health** (68.3 years, almost 4 years more than the EU average<sup>36</sup>). In fact, Italy has one of the **lowest rates of preventable mortality**, which can be attributed to preventable or treatable diseases thanks to improved health care (65 deaths per 100,000 inhabitants due to treatable diseases, compared to an EU average of 92<sup>37</sup>). The Italian healthcare system is **particularly effective in the prevention, management and monitoring of chronic diseases**, as evidenced by the **low incidence of avoidable hospital admissions** (e.g., 39 avoidable hospitalisations for chronic lung diseases per 100,000 inhabitants compared to an OECD average of 171)<sup>38</sup>.

 **However, national data hide important differences in access to care and assistance facilities at the local level.** In this regard, citizens residing in the South of Italy are twice as likely to report unmet medical examination needs<sup>39</sup> and 40% less likely to have access to hospital beds than citizens residing in central and northern regions<sup>40</sup>. **Social and health infrastructure is in fact particularly developed in the North of the country** where there are about 70 beds per 10,000 inhabitants in residential care facilities, compared to 30 in the Centre, 14 in the South of Italy and 9 in the Islands. One aspect of the territorial disparity in the hospital sector concerns, in particular, the **distribution of large hospitals** (the so-called second-level facilities or hubs): while in the North there are 22 large hospitals (51% of the total, in an area that accounts for 45% of the population), in the South there are only 12 (28% of the total, compared to 35% of the population)<sup>41</sup>. A strong territorial polarisation is also observed in the specific area of nursing homes (RSA): while in some northern regions the coverage rate of the over-75 non-self-sufficient population exceeds 20%, in the central and southern regions the coverage rate is between 2% (Campania) and 8% (Marche)<sup>42</sup>.

<sup>30</sup> OECD, 2019. Data only available for 20 EU countries (France, Finland, Germany, Lithuania, the Netherlands, Poland, Latvia, Austria, Greece, Czech Republic, Slovakia, Portugal, Estonia, Italy, Ireland, Hungary, Spain, Luxembourg, Belgium, Slovenia).

<sup>31</sup> Eurostat, 2019.

<sup>32</sup> Eurostat, 2019.

<sup>33</sup> OECD, Health at a Glance 2021. The figures refer to 2019.

<sup>34</sup> "Sentinel" services for which the Ministerial Decree 70/2015 identifies case concentration standards and outcome thresholds include: surgery for breast cancer, laparoscopic cholecystectomy, surgery for fracture of the femur, acute myocardial infarction (AMI), aorto-coronary bypass, valvuloplasty, percutaneous transluminal coronary angioplasty (PCTA), childbirth.

<sup>35</sup> Bobini, M., Furnari, A., Ricci, A. (2020). "Gli ospedali di piccole dimensioni del SSN: mappatura, profilo e prospettive della rete ospedaliera nazionale". OASI 2020 report, Cergas-SDA Bocconi.

<sup>36</sup> Eurostat, 2019. Healthy life expectancy measures the years that an individual at birth can expect to live, on average, in the absence of medium to severe health problems.

<sup>37</sup> Eurostat, 2018.

<sup>38</sup> OECD, Health at a Glance 2021. The figures refer to 2019. The low rates of avoidable hospitalisations recorded in Italy are attributable to the structure of the Italian healthcare system, in which general practitioners act as gatekeepers, effectively filtering access to secondary care.

<sup>39</sup> Eurostat, 2019.

<sup>40</sup> Bucci M., Gennari, E., Ivaldi, G., Messina, G. and Moller, L. (2021). "I divari infrastrutturali in Italia: una misurazione caso per caso". Bank of Italy, Quaderni di Economia e Finanza, No. 635.

<sup>41</sup> Bobini, M., Furnari, A., Ricci, A. (2020). "Gli ospedali di piccole dimensioni del SSN: mappatura, profilo e prospettive della rete ospedaliera nazionale". OASI 2020 report, Cergas-SDA Bocconi.

<sup>42</sup> Perobelli, E. "L'evoluzione della popolazione over-65 e la rete formale dei servizi: fabbisogno, utenza in carico e posizionamento dei gestori". 4th Long-Term Care Observatory Report, Cergas-SDA Bocconi, 2022.

FIG. 4 – THE FIGURES OF THE GAPS IN HEALTHCARE INFRASTRUCTURE IN ITALY

**ACCESSIBILITY OF HEALTH FACILITIES**
**70 v.14**

BEDS IN NURSING FACILITIES PER 10,000 INHABITANTS IN THE NORTH COMPARED TO THE SOUTH OF ITALY


**NURSING HOME DISTRIBUTION**
**9.5%**


NURSING HOMES COVERAGE OF THE NON-SELF-SUFFICIENT POPULATION OVER-75

**ENERGY EFFICIENCY IN HEALTHCARE FACILITIES**
**4x**


ENERGY CONSUMPTION OF HEALTHCARE BUILDINGS COMPARED TO THE BEST EUROPEAN PEERS


Source: CDP elaboration on ISTAT and CERGAS-SDA Bocconi


 Significant room for improvement exists not only in terms of availability and accessibility of services at local level, but also in terms of **energy efficiency**. **Healthcare buildings**, in fact, are **the most energy-intensive asset class** in our country's public service system (the energy consumption of healthcare buildings is three times that of schools), and **Italy is the worst country**, among European peers, **for the level of polluting emissions from healthcare buildings**<sup>43</sup>. The poor energy performance is largely due **to the high degree of ageing of health facilities**: almost 60% of the properties of the Italian national health system were in fact built before 1970 and over 80% before 1990, that is, before Law 10/1991 which established the first significant regulatory framework to rationalize energy use<sup>44</sup>.


 Building obsolescence is also reflected in the structural inadequacy of complexes built on the basis of outdated healthcare models that make them unsuitable - in terms of distribution and function - for modern hospital operations characterised by high intensity of care and strong interdepartmental integration.

### 1.2.3 Housing infrastructure

 The increasing incidence of socio-economic hardship, emerged in the wake of the 2008 crisis and exacerbated by the crisis triggered by the Covid-19 pandemic, and the growing housing pressure in large metropolitan areas, fuelled by internal migration flows, has increased the **relevance of housing as a social infrastructure**.

 In this context, **the issue of housing no longer only concerns the weaker categories of the population, but an increasing number of households and individuals who, despite having a stable income, find it difficult to access housing on the free market**. 15% of the Italian population (about 3 million households) experiences, in fact, forms of housing disruption attributable to the inability to bear expenses for access to homes and/or their maintenance<sup>45</sup>.

 In Italy, the housing cost overburden rate, defined as the percentage of the population living in households where total housing costs represent more than 40% of disposable income, is 8.7% (below the EU average of 9.4%, but well above the 5.5% observed in France)<sup>46</sup>. **Housing issues mainly affect the young population**: in our country the housing cost overburden rate in the 25-34 age group is, indeed, 11.2%, more than double that recorded among the over-65s (5.4%)<sup>47</sup>. A significant aspect of the issue also concerns the **quality of housing**: 5% of the population in Italy, in fact, is in conditions of **serious housing deprivation** (above the EU average of 4%)<sup>48</sup>.

 Still, **the supply of social housing at controlled rents in Italy is overall inadequate**, amounting to about 850,000 housing units, equivalent to 2.4% of the total housing stock. It is three times lower than the EU average (7.5%) and far below the figures reported by the Netherlands (34.1%), Austria (23.6%) and Denmark (21.4%)<sup>49</sup>.

<sup>43</sup> Cusumano N., Furnari, A., Vecchi, V. and Amatucci, F., "Strategie di gestione e valorizzazione del patrimonio immobiliare delle Aziende del SSN". OASIS 2021 report, Cergas-SDA Bocconi.

<sup>44</sup> See previous note.


<sup>45</sup> Nomisma-FederCasa, "Dimensione del disagio abitativo pre e post emergenza Covid-19", 2020. Housing disruption is considered by taking into account potential difficulties in paying the rent/mortgage on the dwelling of residence and the size of the dwelling of residence in relation to the number of household members.


<sup>46</sup> Eurostat, 2019. Low-income individuals are individuals whose income is 60% of the equivalent median income of the country of residence.


<sup>47</sup> Nomisma, "Next Housing", June 2021.

<sup>48</sup> Eurostat, 2019. People in severe housing deprivation are those who, in addition to living in overcrowded dwellings, have at least one of the following four issues: no indoor toilet, no bath/shower, damaged windows, doors, roofs, floors or dampness, and a dwelling considered too dark.

<sup>49</sup> OECD, Affordable Housing Database, 2019. In Italy, the supply of housing at controlled rents includes both housing that falls within the scope of Public Residential Buildings, 75% managed by the Aziende Casa and the remainder directly by the Municipalities, and housing at controlled rents aimed at the so-called "grey population", i.e. the intermediate demand between the market and the housing project one (so-called social housing). To date, according to FederCasa, there are approximately 25,000 social housing units managed by Aziende Casa, to which one must add the housing units included in the projects acquired and approved by the Fondo Investimenti per l'Abitare (FIA) managed by CDP Immobiliare SGR (since the FIA became operational, 255 projects have been launched under the integrated fund system for a total of 20,000 new homes) and those managed by private social entities.

 The centrality of the housing issue is not only due to the increase in conditions of socio-economic hardship, but also **to the emergence of new social categories** (e.g. highly mobile workers, non-resident university students and university researchers, digital nomads, active elderly people, single-person households) and **to the acceleration of certain trends** (e.g. the spread of remote working, co-working) that are profoundly changing the profile of housing demand in the face of a supply that struggles to adapt to the new needs of individuals and households.

 This is the case, in particular, for **non-resident university students**, a segment of the population that has grown steadily in our country in recent years (from 784 thousand to over 830 thousand units between 2015 and 2019<sup>50</sup>) and with a strong housing need. The current supply of housing in university residences, estimated at about 62,000 beds<sup>51</sup>, covers less than 8% of non-resident students, a percentage that is much lower than that recorded in France (23%), Germany (14%) and Spain (11%).

 A similar situation applies to the working-age population, which is characterised by **high geographical mobility** (between 2008 and 2018, mobility within the country for professional reasons remained constant, exceeding 1.3 million relocations on an annual basis<sup>52</sup>) and, in the case of younger people, by the prevalence of **precarious or discontinuous employment**, which **delays emancipation from the family of origin** (more than 40% of young adults aged 25-34 live with their family of origin compared to a European average of 28.6%)<sup>53</sup>. These two categories express a **demand for housing solutions**, which are struggling to find a place in the market, where **housing is no longer seen as an investment**, but rather as a **service to be enjoyed**, not necessarily on a long-term basis.

 The same consideration can be applied to the **growing number of old people in good health** (the over-65 population in good health in Italy increased from 29.4% in 2009 to 35.6% in 2020, while life expectancy without limitations in daily activities at 65 years has improved from 8.8 to 10 years between 2009 and 2019<sup>54</sup>) but that, with the progressive thinning of family structures and multigenerational households, **are often living alone** (one over-65 person in two in Italy lives alone<sup>55</sup>). For the latter socio-demographic category, there is a **need for housing solutions to support active ageing** (senior housing), which aim to improve the quality of life of seniors by promoting their inclusion in society and delaying the resort to institutionalisation paths. Despite the strong growth potential, however, the senior housing sector in Italy is struggling to take off: between 2015 and 2020, our country attracted only 5% of investments in the sector in Europe, where the market was largely driven by the United Kingdom (30%), Germany (28%) and France (10%)<sup>56</sup>.


 In all these areas, the **public-private partnership**, sanctioned by the introduction of the Housing Plan in 2008 with the establishment and progressive expansion of the Integrated System of Funds, is central to supporting the development of supply in line with the changing needs of users, while promoting the economic and financial sustainability of projects and facilitating their setting in motion.

FIG. 5 – THE FIGURES OF THE GAPS IN HOUSING INFRASTRUCTURE IN ITALY

### SOCIAL HOUSING

**2.4%**

HOUSING AT CONTROLLED RENTS (3 TIMES LOWER THAN THE EU AVERAGE)

### STUDENT HOUSING

**8%**

BEDS IN PUBLIC OR AFFILIATED FACILITIES OUT OF TOTAL NON-RESIDENT STUDENTS

### SENIOR HOUSING

**5%**

INVESTMENTS IN ITALY ON THE TOTAL OF THE SECTOR AT EUROPEAN LEVEL IN 2015-2020

Source: CDP elaboration on OECD, Italian Ministry of University and Research, Savills

<sup>50</sup> Italian Ministry of University and Research.

<sup>51</sup> Italian Ministry of University and Research (2021), Scenari Immobiliari (2019), Deloitte (2019). Of the 62,000 beds available in total, over 90% belong to public or affiliated structures (structures belonging to regional bodies for the DSU (right to university education), facilities managed directly by universities or affiliated private facilities, structures belonging to the Conferenza dei Collegi Universitari Statali di Merito (Conference of State University Colleges of Merit) and affiliated structures registered with the Associazione Italiana dei Collegi e delle Residenze Universitarie (Italian Association of University Colleges and Residences).

<sup>52</sup> Istat.


<sup>53</sup> Eurostat, 2020.

<sup>54</sup> Istat.

<sup>55</sup> Istat, Aspects of daily life, 2021.

<sup>56</sup> Savills, 2021.





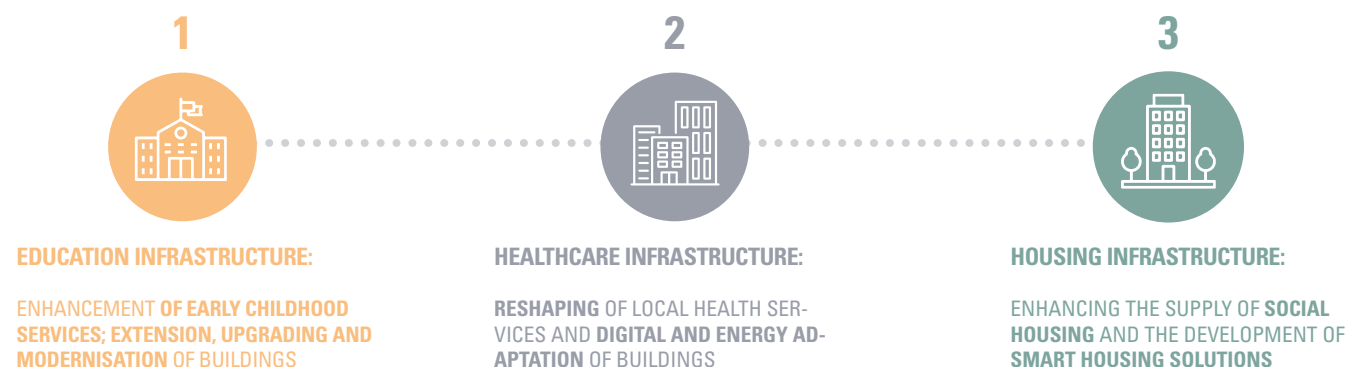
## **2. Areas of focus and strategic priorities**

**2.1  
Education  
infrastructure**

**2.2  
Health infrastructure**

**2.3  
Housing infrastructure**

## 2. AREAS OF FOCUS AND STRATEGIC PRIORITIES



### 2.1 EDUCATION INFRASTRUCTURE

- The implementation of an education system capable of ensuring the adequate development of human capital entails, on the one hand, the **enhancement of early childhood services** and, on the other, the **expansion, upgrading and modernisation of school buildings, also through demolition and reconstruction processes**<sup>57</sup>, so as to intercept environmental sustainability objectives and the evolution of educational and pedagogical needs, pursuing operating methods that integrate the renovation of material infrastructures with that of educational content. It is also necessary that the planning of actions in these areas account for **the demographic evolution of the school population**, which for the age band 3-14 is expected to shrink by about 700,000 (-11%) in the 2020-2040 period<sup>58</sup>, and for the need to favour the **rebalancing of territorial gaps**, with a special focus on inland and peripheral areas that are more exposed to material and education poverty.
- Based on these considerations, **six strategic lines of action** are outlined:
  - 🌀 **strengthening the supply of childcare services.** The National Recovery and Resilience Plan aims to create 152,000 new places in childcare facilities for children up to the age of 3 by 2026<sup>59</sup>, which would bring the overall coverage rate to around 40%, thus meeting the minimum threshold set at EU level. This is an ambitious objective that must be further integrated: in order to achieve coverage in line with that guaranteed by the best European peers (places available equal to at least 50% of the population aged 0-2 years), ensuring a uniform distribution throughout the country, it is in fact necessary to increase the places currently available by about 280 thousand units, of which 160 thousand in the South of Italy<sup>60</sup>. Given the expected reduction in the school population, the strengthening of the supply of childcare services could be pursued, in part, through the re-purposing of existing school buildings, including through changes in their use. To this end, it is necessary to promote a coordinated action between public and private sector, also accounting for the increasing weight of private operators in the overall supply (increased from 48% in 2015 to 51% in 2019)<sup>61</sup>;
  - 🌀 **energy efficiency of school buildings.** In order to meet the national energy saving targets set by the Integrated National Energy and Climate Plan (PNIEC) for 2030<sup>62</sup>, it is also necessary to improve the energy performance of school buildings by aiming at an annual requalification rate of 2.3% for schools<sup>63</sup>;
  - 🌀 **expansion of canteen spaces and multifunctional sports facilities** geared towards transforming schools into aggregation poles capable of satisfying user demand beyond ordinary school hours<sup>64</sup>. To ensure the presence of canteens, particularly functional to the increase of full time, in at least half primary schools in the South of Italy, in line with the national average, works are necessary on over 1,700 buildings<sup>65</sup>;

<sup>57</sup> The replacement of obsolete buildings by demolition and reconstruction is particularly desirable in cases where the starting structural conditions make it particularly burdensome or technically difficult to re-purpose schools to adapt them to the changing educational needs.

<sup>58</sup> ISTAT, Population forecasts (2020-2070).

<sup>59</sup> Italia Domani, Presidency of the Council of Ministers.

<sup>60</sup> CDP calculations based on the population 0-2 years old resident in Italy as of 1 January 2021. The remaining places should be divided as follows: 90,000 in the North and 30,000 in the Centre. It should be noted that part of this need could be met by European structural and investment funds, in addition to the resources made available by the National Recovery and Resilience Plan.

<sup>61</sup> Istat, "Nidi e servizi integrativi per la prima infanzia | Anno educativo 2019-2020", 2021.

<sup>62</sup> To be revised upwards in light of the more ambitious requirements set out in the European "Fit for 55" package.

<sup>63</sup> Ministry of Economic Development, Ministry of the Environment and Protection of the Land and Sea, Ministry of Infrastructure and Transport, "Strategia per la riqualificazione energetica del parco immobiliare nazionale", 2020.

<sup>64</sup> See Ministry of Education and Research, "Linee Guida per l'edilizia scolastica", 2013.

<sup>65</sup> Source: CDP calculations based on Italian Ministry of Education and Research figures. It should be noted that the National Recovery and Resilience Plan provides for the addition of 1,000 rooms used as canteens and 400 buildings (> 230,000 square meters) intended to host gyms or sports facilities by 2026 through new construction or upgrading of existing buildings.

- 🕒 **modernisation of school buildings, with particular reference to the digitisation of educational environments.** Specifically, infrastructural measures aimed at transforming traditional classrooms into innovative, connected and digitally-oriented learning spaces are to be favoured. The National Recovery and Resilience Plan paves the way in this direction, providing for the allocation of 2.1 billion euro of investments for the transformation of 100 thousand classrooms into connected learning environments, the construction of laboratories for the digital professions, and the internal wiring of about 40 thousand buildings;
- 🕒 **construction of school buildings designed according to innovative forms of architecture** (modular spaces, different learning zones, outdoor spaces, etc.) oriented towards the **school community** as a whole (children, young people, parents and teachers) and, **aimed at fostering strong ties with the territory**, in order to develop a school model intended as a centre of services and a centre of attraction integrated into the local community.

## 2.2 HEALTH INFRASTRUCTURE

- The quality of the care and assistance services is linked to the adequacy of hospitals and socio-health infrastructure. Actions must target two needs: (i) the **reshaping of hospital and socio-health services** aimed, on the one hand, at the rationalisation of hospital structures and, on the other, at improving **the distribution and the accessibility of community medicine structures**, also in order to overcome social and geographical disparities; (ii) **the adaptation** of infrastructures to the needs of the **ecological and digital transition** and to the **changing needs of care and assistance linked to the demographic evolution** of the population.
- On the basis of these considerations, investments should be deployed along **five strategic lines of action**:
  - 🕒 **reshaping of the hospital network on the hub & spoke model**<sup>66</sup>, to be achieved through the **creation of geographically concentrated and highly specialised centres** (hubs) and, at the same time, of peripheral **medium-large hospitals** (spokes), limiting the number of basic hospital centres<sup>67</sup>, in line with the direction outlined by Ministerial Decree 70/2015. In the Centre-North, actions should be oriented, in particular, to rationalise the number of small hospitals, while in the South it is necessary to promote the construction of both hub and spoke hospital facilities<sup>68</sup>;
  - 🕒 **implementation of community medicine** through the **development of local structures** geared to the **treatment of chronic conditions** outside hospital facilities, also using the support of telemedicine, in order to prevent, manage and monitor chronic diseases and reduce the incidence rate of avoidable hospital admissions<sup>69</sup>. In particular, it is necessary to **promote the development of Community Houses** (structures designed to provide a single point of access to outpatient social and health services) and **Community Hospitals** (facilities for short-stay, medium/low clinical intensity hospitalisation), ensuring their **homogeneous distribution throughout the territory** (to date, more than a fifth of Community Houses are located in Emilia-Romagna, while more than half of Community Hospitals are located in the North-East)<sup>70</sup>. In this context, actions must be structured in line with the National Recovery and Resilience Plan which allocates 3 billion euro with the aim of tripling the number of both Community Houses and Community Hospitals by 2026<sup>71</sup>;
  - 🕒 **re-purposing of hospitals** by promoting the adaptation of old structures to the operational needs of modern hospital models and, where this is not possible, by replacing them, also through demolition and reconstruction, promoting actions focused on:
    - **safety and accessibility**: it is a priority to ensure the adaptation of facilities to anti-seismic regulations (by 2020 more than 100 actions were necessary<sup>72</sup>) and to improve their accessibility, understood both as overcoming architectural barriers and more probably as strengthening connections to infrastructure and transport networks;

<sup>66</sup> It should be emphasised that the pandemic has opened up a partial rethink on the limits of this approach.

<sup>67</sup> To be understood as hospitals with fewer than 380 beds. See Bobini, M., Furnari, A., Ricci, A. (2020). "Gli ospedali di piccole dimensioni del SSN: mappatura, profilo e prospettive della rete ospedaliera nazionale". OASI 2020 report, Cergas-SDA Bocconi.

<sup>68</sup> See Bobini, M., Furnari, A., Ricci, A. (2020). "Gli ospedali di piccole dimensioni del SSN: mappatura, profilo e prospettive della rete ospedaliera nazionale". OASI 2020 report, Cergas-SDA Bocconi.

<sup>69</sup> For further information on the topic of telemedicine and the digitisation of services, please refer to the Strategic Guidelines – Digitisation.

<sup>70</sup> Giudice, L., Mallarini, M., Preti, L.M., Rappini, V., "Case della salute: evoluzione delle configurazioni tra fisico, digitale e ruolo nella rete", OASI 2021 Report, Cergas-SDA Bocconi; Fattore, G., Meda, F. and Meregaglia, M., "Gli ospedali di comunità in Italia: passato, presente e futuro", OASI 2021 Report, Cergas-SDA Bocconi.

<sup>71</sup> Specifically, the National Recovery and Resilience Plan allocates 2 billion euro for the construction of 2,188 Community Houses (M6C1 – Inv. 1.1) and 1 billion euro for the creation of 381 community hospitals (M6C1 – Inv. 1.3).

<sup>72</sup> Presidency of the Council of Ministers, "National Recovery and Resilience Plan", 2021.



- **digitisation:** on the one hand, actions must aim to improve efficiency in the provision of services and, on the other hand, to foster hospital integration with other social and health facilities and with new hybrid care models, between in-patient services and remote care, enabled by new technologies, with particular reference to **telemedicine**. In this context, actions must aim at adapting the equipment both on the hardware side (e.g. routers, new computers, devices, etc.) and on the software side (e.g. new software, fast connection, etc.). The National Recovery and Resilience Plan moves in this direction, providing 1.45 billion euro for the enhancement of the digitisation level of 280 health facilities housing Emergency and Acceptance Departments (DEA) of level I and II.
- ☉ **energy efficiency of hospital buildings.** In order to meet the energy savings targets set by the Integrated National Energy and Climate Plan (PNIEC) for 2030<sup>73</sup>, it is necessary to provide energy efficiency of 1.9 million m<sup>2</sup>/year of health buildings, corresponding to an annual requalification rate of approximately 4% of the total<sup>74</sup>;
- ☉ **development and expansion of nursing homes**, which remain the only real **long-term public welfare response to non-self-sufficiency**<sup>75</sup> and to the needs of the population with severe disabilities and functional limitations. This is an extremely important issue in a context where the non-self-sufficient population in Italy is destined to grow in absolute terms, given the expected increase in very old people, and the currently prevalent informal care model, based on family members and caregivers, becomes increasingly less sustainable. In order to raise the coverage rate of the need of the non-self-sufficient over-75 population from the current 10% to 30% on a national scale, it is estimated that at least 600,000 additional beds need to be created<sup>76</sup>, the structuring of which must be coordinated, in particular, with the network of home care services and that of housing solutions aimed at delaying the institutionalisation of the elderly<sup>77</sup>.

## 2.3 HOUSING INFRASTRUCTURE

- The creation of housing infrastructure capable of responding to the increase in socio-economic hardships and to the changing profiles of housing demand entails, on the one hand, the **strengthening of the supply of social housing** and, on the other, the **development of housing solutions capable of meeting the needs of rapidly growing socio-demographic categories**, also in the light of trends that have accelerated following the Covid-19 pandemic (e.g. remote working).
- In light of these considerations, it is possible to identify **five lines of action**:
  - ☉ **increasing and upgrading the social housing at controlled rents** with particular reference to **social housing for the so-called “grey population”**. In this context, it is estimated that at least 100,000 housing units need to be added by 2035<sup>78</sup>. It is important that the structuring of social housing takes place in a coordinated manner with that of Public Residential Buildings, respecting the principle of **social and functional balance**, also in order to facilitate the transition of households from one housing solution to another according to socio-economic conditions and their evolution;
  - ☉ **increasing the supply of accommodation in university residences**. In order to bring the supply of student housing up to the standards of the best European peers (coverage rate of at least 20% of non-resident students), it is necessary to increase the current supply by over 100,000 beds, focusing on metropolitan areas (Milan, Rome, Bologna, Turin) and on university cities in the central-northern parts of Italy where the need is particularly urgent. In order to maximise the economic-financial sustainability of the projects, hybridisation models of housing solutions should be favoured, providing for diversification both in terms of target users (e.g., out-of-home students, young workers, digital nomads) and in terms of the duration of rents.
- **Promotion of smart residential forms aimed at meeting new aspects of housing demand.** In particular, it is necessary to promote:

<sup>73</sup> To be revised upwards in light of the more ambitious requirements set out in the European “Fit for 55” package.

<sup>74</sup> Italian Ministry of Economic Development, Italian Ministry of the Environment and Protection of the Land and Sea, Italian Ministry of Infrastructure and Transport, “Strategia per la riqualificazione energetica del parco immobiliare nazionale”, 2020.

<sup>75</sup> See Perobelli, E. “L’evoluzione della popolazione over65 e la rete formale dei servizi: fabbisogno, utenza in carico e posizionamento dei gestori”. 4th Long-Term Care Observatory Report, Cergas-SDA Bocconi, 2022.

<sup>76</sup> CDP calculations on data from the 4th Long-Term Care Observatory Report, Cergas-SDA Bocconi, 2022. For the estimation, data as of 2019 were used for the over-75 non-self-sufficient population (over 2.9 million) and the number of guests in nursing homes (about 281,000).

<sup>77</sup> See Section 2.3.3 of this document.

<sup>78</sup> Fondazione ASTRID-Fondazione Collegio Carlo Alberto, “Rilanciare le infrastrutture sociali in Italia”, 2020.

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- ③ **the development of senior housing** to meet the need for housing solutions supporting active ageing with independent housing organised around a series of common services, able to combine the need for autonomy with those of socialisation and first aid, also in order to prevent and/or delay institutionalisation. The National Recovery and Resilience Plan paves the way in this direction by allocating 300 million euro for the conversion of nursing homes and residential care facilities into independent apartments;
  - ③ the **development of housing solutions**, such as **single housing** and **co-housing**, to meet the needs of heterogeneous categories (highly mobile workers, young workers, young couples, etc.) representing a housing demand in which the house emerges as a service to be used mainly in a short/medium-term perspective;
  - ③ **support for urban regeneration processes** aimed at the creation of neighbourhoods characterised by a functional mix with a high impact on the area, in which the residential component, including social, student and senior housing, is combined with the managerial, accommodation and commercial one. These initiatives, which, by their nature, encompass projects for the development of social infrastructure as a whole, must focus, in particular, on the main metropolitan areas of the country, where housing pressure is most marked, in order to transform vulnerable territories into smart and sustainable urban contexts.





### **3. Enabling factors and CDP's role**

**3.1  
Enabling factors**

**3.2  
CDP's role**

## 3. ENABLING FACTORS AND CDP'S ROLE

### 3.1. ENABLING FACTORS

- The effective pursuit of the strategic priorities outlined above is linked to at least four enabling contextual factors that cut across the three types of social infrastructure considered.

**1. Harmonisation of governance**, to be understood both as a **simplification of sectoral regulatory framework** and as the pursuit of a **unified and integrated vision for the development of social infrastructure** as a whole. The fragmentation of competences and responsibilities, which are spread among multiple institutional stakeholders, even within the same sector, is an important obstacle to the effective use of available resources. Consider, for instance, the case of student residences, whose regulatory framework is extremely heterogeneous, being mainly composed of regional and municipal regulations, in the absence of an unambiguous systemic asset class definition. Consider, likewise, the case of school facilities financing, which is characterised by the extreme fragmentation of both credit facilities<sup>79</sup>, which depend on different Ministries, and of implementing bodies (Municipalities, Provinces and Metropolitan Cities) having different entitlements on school buildings according to their role, which result in considerable criticality in terms of the quality of the processes<sup>80</sup>.

**2. Digitisation of public real estate information and design processes**, in particular through the use of the BIM (building information modelling) methodology. This aspect is particularly relevant for health buildings, for which information on the actual state is incomplete and fragmentary, precluding a precise definition of the actions required<sup>81</sup>.

**3. Strengthening planning, programming, and management skills and administrative capacity of Public Administrations**, in order to strengthen their **spending and project implementation capacity**. Our country, in fact, has particularly long implementation times: the implementation time of infrastructure investments in Italy is 4.4 years on average, with peaks of 15.7 years for projects worth more than 100 million euro<sup>82</sup>. According to surveys carried out over the past decade, the time taken to complete major works was about three times longer than in France and Spain<sup>83</sup>. In the case of healthcare, for example, it takes an average of 10 years to design and build a hospital, with the risk of exposing structures that should be at the forefront to premature obsolescence<sup>84</sup>.

**4. Promotion of public-private partnerships (PPPs)**, which remain less widespread in our country than in other major European economies. In the 2015-2019 five-year period, the volume of PPPs in Italy stood at 3.6 billion euro, down from 5.7 billion euro in the Netherlands and 12.5 billion euro in France<sup>85</sup>. Contractual public-private partnerships, based on an appropriate incentive framework, are tools not only for **speeding up the implementation of projects and ensuring their execution on time and on budget**, in order to respond in a timely manner to the needs of local areas, but also for promoting the **maintenance and enhancement of works** over time and the **innovative and efficient management of services**.

### 3.2. CDP'S ROLE

- In this context, CDP can contribute to bridging the gaps highlighted, intervening **additionally and complementarily** with respect to the market, taking into account the **critical issues** that characterise social infrastructure, such as:
  - ▶ the **presence of positive externalities**, which limit the ability to fully capture the benefits generated by investments, particularly in education and childcare services, and **negative externalities**, which limit the costs associated to unsustainable choices and behaviour (e.g. lack of measures to reduce energy consumption in school and healthcare buildings);
  - ▶ the existence of **information barriers** on the risks and opportunities of investing in infrastructure projects, linked to the lack of data and empirical evidence with respect to costs, return and socio-economic impact, which hinder the deployment of private capital, as in the case of social housing.

<sup>79</sup> The Italian Ministry of Education, which is responsible for the Single Fund for School Building, established in 2012, is joined by the Ministry of the Interior, which is responsible for the Nursery and School Fund, the MEF (Ministry of Economy and Finance), which is responsible for the Infrastructure Fund, and the Presidency of the Council of Ministers, which is responsible for the Fund for extraordinary actions. Source: Research Office of the Chamber of Deputies, "Edilizia Scolastica e sicurezza nelle scuole", 3 March 2022.

<sup>80</sup> The main critical issues are related to the limited planning capacity of Local authorities (especially in the case of small Local authorities, which have limited resources in their technical departments) and the prevalence of low value tenders called for individual works rather than for project portfolios, resulting in the absence of major construction sector players.

<sup>81</sup> See Cusumano N., Furnari, A., Vecchi, V. and Amatucci, F., "Strategie di gestione e valorizzazione del patrimonio immobiliare delle Aziende del SSN". OASIS report 2021, Cergas-SDA Bocconi.

<sup>82</sup> Agenzia per la Coesione Territoriale, Nucleo di verifica e controllo (NUVEC), "Rapporto sui tempi di attuazione delle opere pubbliche", 2018. The numbers shown in this document refer to the overall implementation times, from the design to the end of the works.

<sup>83</sup> IVASS, "Le infrastrutture materiali: solido pilastro di un processo di crescita. Regioni e ostacoli all'investimento in infrastrutture", 2019.

<sup>84</sup> Politecnico di Milano and Fondazione Politecnico di Agenzia per la Coesione Territoriale, Nucleo di verifica e controllo (NUVEC), "Rapporto sui tempi di attuazione delle opere pubbliche", 2018. Milan, "Joint Research Platform – Healthcare Infrastructures", 2021.

<sup>85</sup> CDP calculations on EPEC data. The data refer only to projects with a value of 10 million euro or more that have reached financial close and are financed through project financing.

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- In particular, CDP may intervene - also depending on the degree of autonomy it may enjoy in the various markets/sectors and the specific characteristics of the different counterparties - in order to:
    - ▶ **contribute to bridging investment gaps** in sectors and local areas where market players are unable to mobilise adequate resources, in terms of both volumes and growth rates, also through the use of **blended finance** instruments;
    - ▶ **promote investments** in areas that require **long-term commitment**, acting as a catalyst for private resources (e.g. social housing, hospitals, long-term care facilities), also in order to promote markets that are struggling to develop (e.g. senior housing);
    - ▶ **provide support to Public Administrations** in the management of authorisation processes, also in order to contribute to their simplification and/or acceleration, in the planning of actions, in setting in motion projects and in their monitoring/evaluation;
    - ▶ **improve the technical quality of investments**, with particular reference to school building and social housing, through the promotion of actions linked to facility management plans aimed at ensuring effective management and maintenance of works over the years.
  - To specifically assess the relevance, priority and strategic coherence of actions in the focus areas identified, CDP is inspired by **additionality and complementarity** criteria, identifying the most appropriate operational instruments based on the characteristics of the counterparties (type, geographical location, etc.) and the characteristics of the sector (e.g. degree of maturity, profitability).

A photograph of a modern building facade with a light-colored, textured exterior and large windows with blue frames. In the foreground, there are blue metal railings. The sky is a clear, bright blue. Two large, semi-transparent blue rectangular boxes are overlaid on the image: one on the left containing the text '4. Recommendations' and one on the right that is empty.

## 4. Recommendations



## 4. RECOMMENDATIONS

For each of the areas of focus, the **specific strategic guidelines** to **prioritise** (although not exhaustively) CDP actions in **Social Infrastructure** are summarised below.

AREAS OF FOCUS	EDUCATION INFRASTRUCTURE
STRATEGIC PRIORITIES	<p><b>A.1</b> Developing the provision of <b>childcare services</b>, especially in areas of the country where coverage is particularly limited</p> <p><b>A.2</b> Promoting the upgrading of <b>school buildings</b>, with reference to <b>structural safety</b></p> <p><b>A.3</b> Promoting the <b>energy efficiency</b> of school buildings</p> <p><b>A.4</b> Expanding <b>canteen and school sports facilities</b> areas</p> <p><b>A.5</b> Promoting the <b>modernisation of school complexes</b> with particular reference to the <b>digitisation of educational environments</b></p> <p><b>A.6</b> Constructing school buildings designed according to <b>forms of innovative architecture and spaces open to the territory</b></p>
AREAS OF FOCUS	HEALTH INFRASTRUCTURE
STRATEGIC PRIORITIES	<p><b>B.1</b> Remodelling the hospital network on the <b>hub and spoke model</b>, promoting the <b>creation of highly specialised centres and medium-large hospitals</b>, while rationalising the number of small hospitals</p> <p><b>B.2</b> Implementing community medicine through the <b>development of local structures</b> (Community Hospitals, Community Homes) spread evenly throughout the country</p> <p><b>B.3</b> <b>Modernising and upgrading hospitals</b> in terms of <b>safety, accessibility and digitisation</b>, providing for <b>the re-purposing of obsolete facilities</b></p> <p><b>B.4</b> Promoting the <b>energy efficiency</b> of social and health buildings</p> <p><b>B.5</b> Developing and expanding <b>nursing homes</b> for the non-self-sufficient elderly population</p>





## HOUSING INFRASTRUCTURE

**C.1**

Promoting the **construction of social housing** for the so-called “grey population”

**C.2**

Increasing the **supply of accommodation for university students**, especially in university towns where the need is greatest

**C.3**

Developing **senior housing** to meet the need for solutions to support **active ageing**

**C.4**

Developing **smart forms of housing** (e.g. single housing, co-housing) to support new components of housing demand (e.g. highly mobile workers, young workers)

**C.5**

Promoting **urban regeneration** processes aimed at creating districts characterised by a **functional mix** with a high social impact and promoting **smart and sustainable urban contexts**

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