

National Centre for Sustainable Mobility

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1. Background











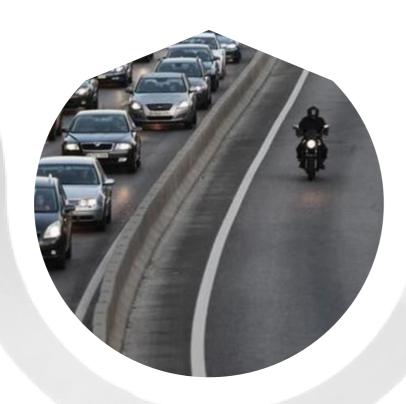
The world is evolving in directions of mobility that are ever more attentive to new needs and aims.



DECARBONISATION

The industrial sector and consumers are continuously more attentive to the problems of sustainability and energy transition and this is leading to initiatives that will guarantee mobility that is ever more green.

DECONGESTION



Urbanised population, in continuous growth, traffic congestion and emissions are only some of the enablers that lead to technological developments for creation of efficient and smart transportation networks.



ACCESSIBILITY

Emerging tehcnologies and booming startups are transforming the world of mobility, rendering its services ever more connected and intermodal, but above all guaranteeing accessibility at all levels of the community.





The great period of uncertainty generated by the pandemic, as well as the advancing levels or transport-related technologies, place stronger emphasis on safety issues, leading to the demand for ever higher guarantees and standards.



TRANSITION AND WORK

The mobility and transport sector is becoming ever more **strategic for Italy,** evolving and changing form, obligating the **introduction** of **new professional profiles and creation of new roles.**



Within this context, there are the national and EU institutions, which push towards the achievement of new sustainable mobility.



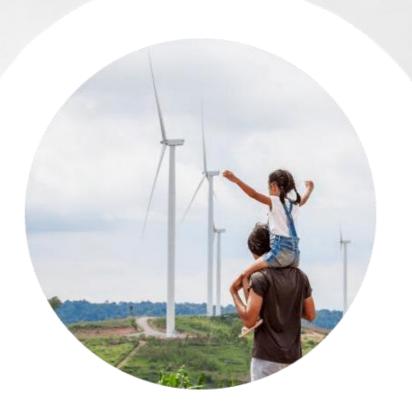
EUROPEAN GREEN DEAL

The Green Deal aims to transform the EU into a modern economy, efficient in resource use, competitive, and guaranteeing that by 2050 there will be net zero emissions of greenhouse gases.

TEN-T TRANSPORT NETWORK



The TEN-T Network favours the integration of EU nations in view of a unified market, in support of a policy of transport decarbonisation and an active role in combatting climate change.



TRANSITION OF LABOUR

Today, Italy is facing a renewed collective need to reposition knowledge and skills in a radically changed scenario of manufacturing and services.

NATIONAL TRAFFIC SAFETY PLAN



One of the objectives is a 50% reduction in fatal accidents by the year 2030, through a series of interventions at the levels of infrastructure, technologies and prevention.



2. A National Opportunity







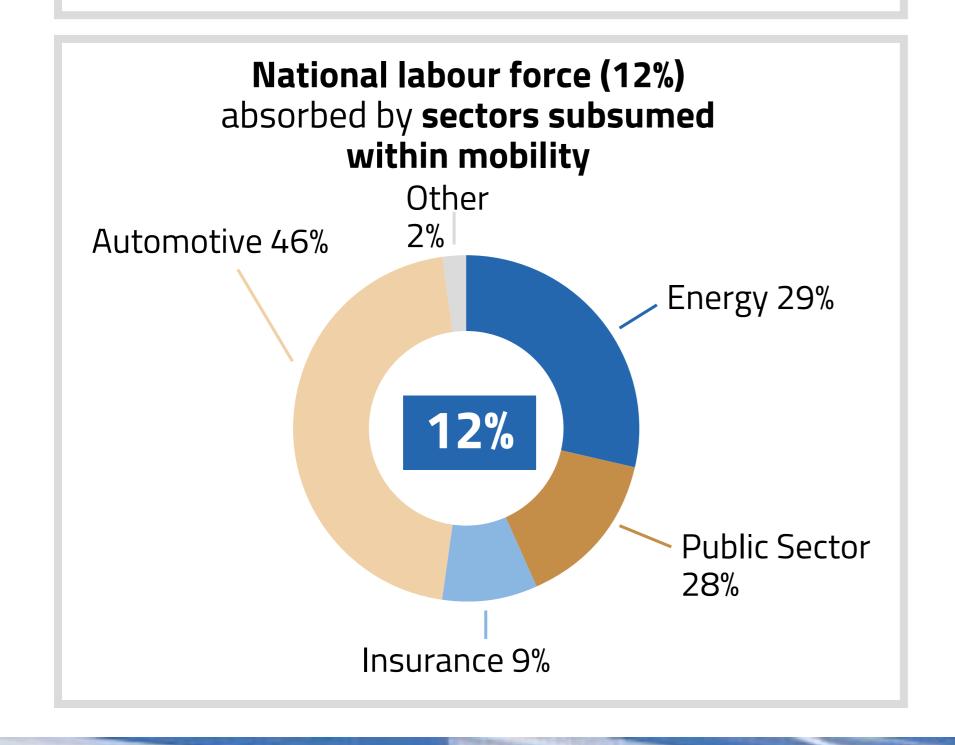




Mobility is a strategic asset for the national system.

Forecast market value of **mobility in Italy by 2030**

220 billion €

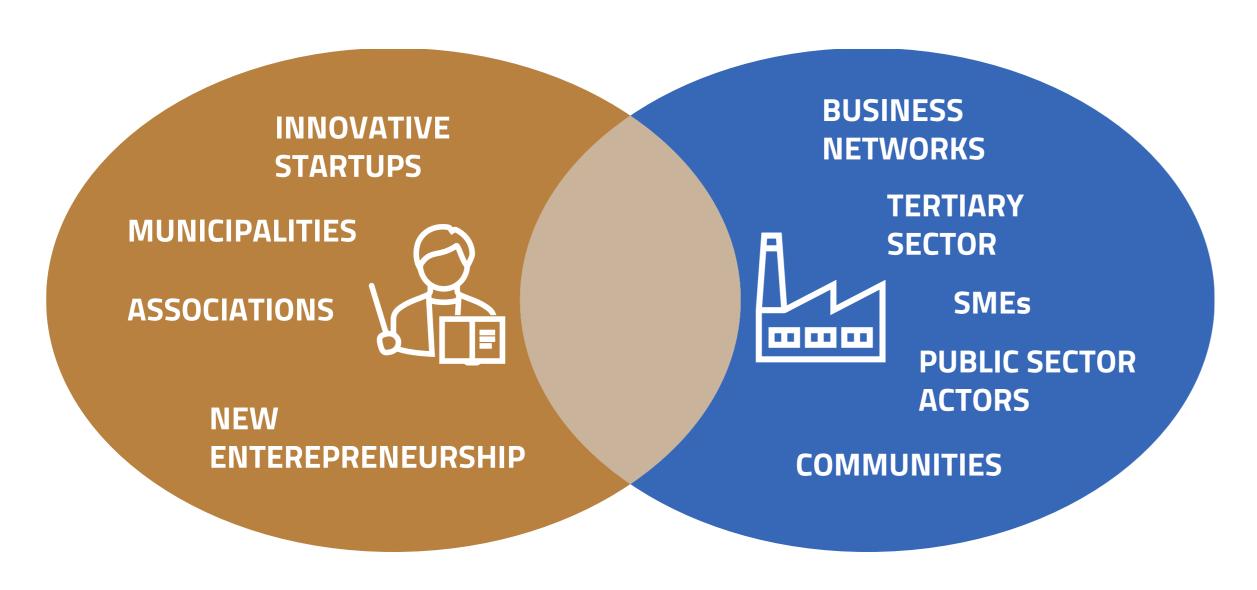






On the digital and green transition themes, the PNRR finances large investments in infrastructure, mobility and new means of transport.

Measure 4.2 of the Ministry for Universities and Research, "From Research to Business", provides for models of collaboration between research and companies and between public and private.



The **National Centres** – or "national samples" of Research and Development – are networks of universities, public research institutions, other private and public actors engaged in highly qualified research activities, and which develop infrastructure, plans and solutions immediately useful and highly adaptable to the entire social context

Five strategic areas:

- high-performance computing
- agri-tech
- gene therapy and RNA pharmaceuticals
- sustainable mobility
- biodiversity



3. National Centre for Sustainable Mobility













The National Centre for Sustainable Mobility was born with the aim of contributing to the creation of demand and offer in sustainable mobility

A mobility that is ...



..."Greener"

Small-scale solutions, new power solutions, combustible hydrogen and electric



...Safer

Digital solutions favouring predictive strategies for the reduction of accidents



...More flexible

Systemic digital transformation of public and private transport



...More accessible

Technological integration and inclusion through digital innovation



...More competitive

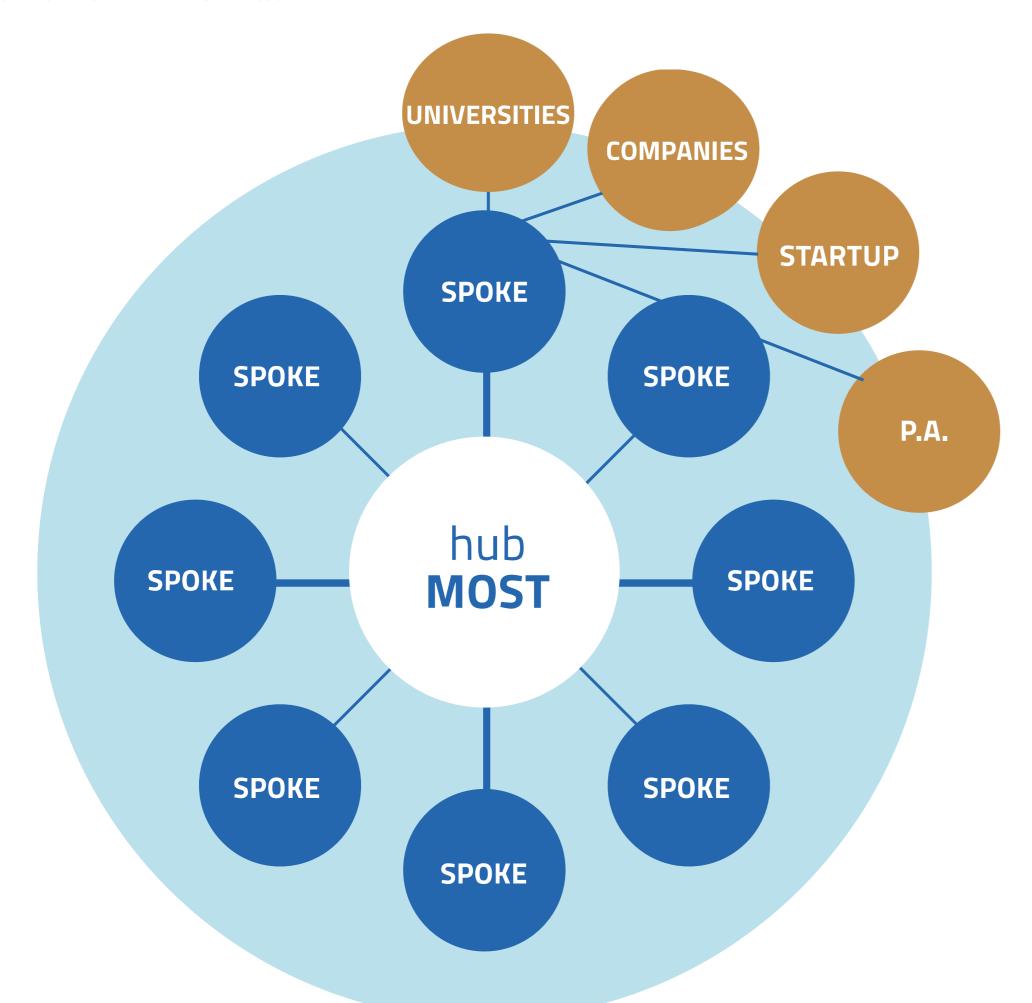
Increase synergy between universities, companies and institutions



... More collaborative

Identification of priorities and strategies for development of research and industrial applications





The National Centre will be characterised by a "Hub and Spokes" structure, favouring cooperation with national and local ecosystems.

The spokes will develop research programmes with high technological relevance (TRL) levels (5-6) thanks in part to their specific infrastructure and laboratories.

The **hub** will promote **diffusion of innovation 326** through solutions of high innovative content, transversal to the different initiatives.

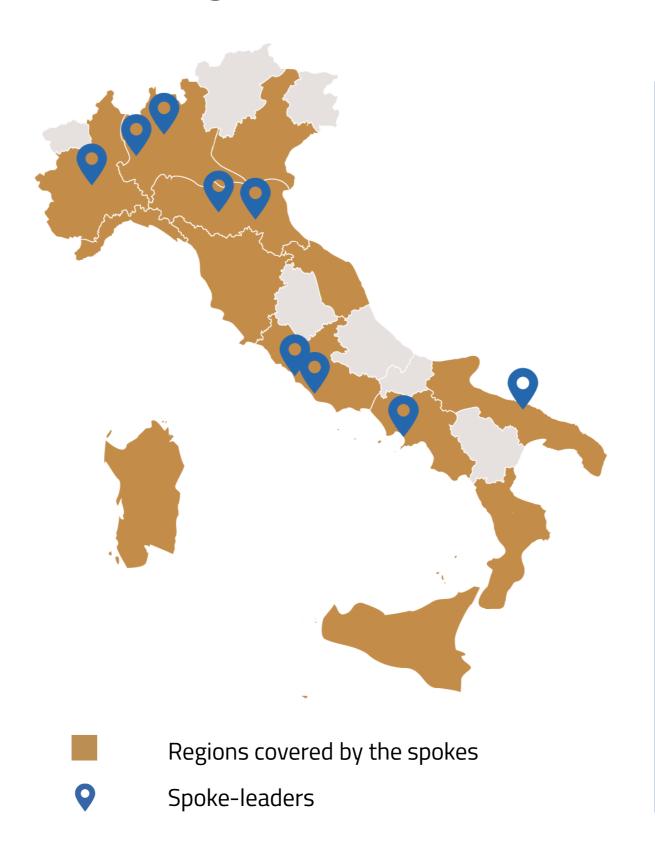


The collaboration between public and private, research institutions and business,

will guarantee thorough and effective national coverage.

25 Universities and Research Centres



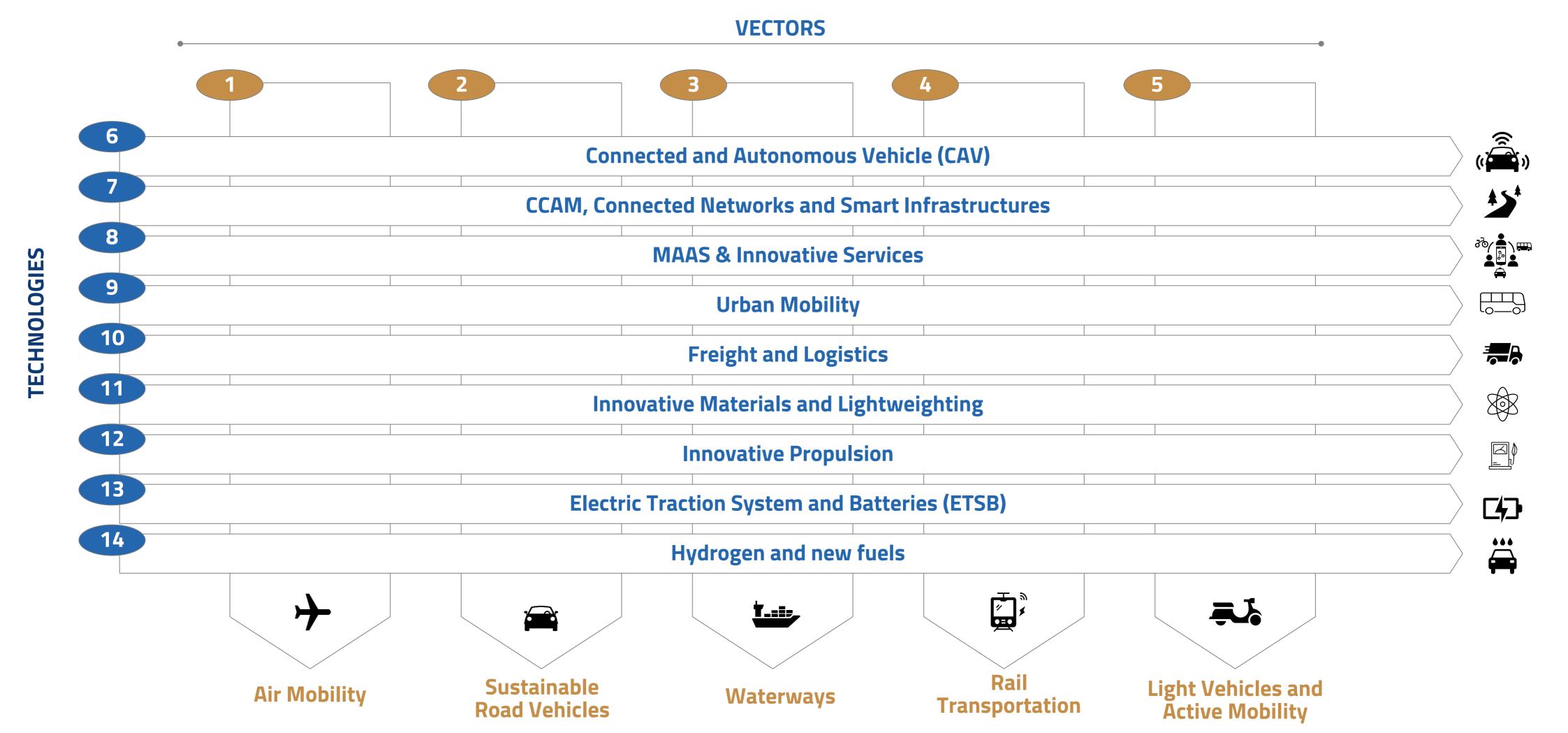


24 Private bodies





Thanks to their specific research, 14 spokes will lead the development of strategic technologies in the sector, over the medium and long term.





The hub initiates a virtuous circle for implementation of the research results, through projects accelerating scalability on the market and in education.





National Centre for Sustainable Mobility

- Development of mobility at the personal level and with high TRL (increase the offer of innovation)
- Grow the demand for sustainable mobility through cases of use and living lab scalability including at international level.





The **numbers** of the National Centre for Sustainable Development

PERSONNEL ON STAFF

696

Dedicated researchers

INVESTMENT

378_{M€}

(2023-2025)

PERSONNEL TO BE HIRED

574

New researchers

INFRASTRUCTURE PROJECTS

147_{M€}

Research projects

OPEN CALL

32м€

External partners

FLAGSHIP PROJECTS

68м€

Flagship projects



Director General Eng. Gianmarco Montanari Via Durando 39, 20158 Milano segreteria@centronazionalemost.it

(+39) 02 9177 3004

(+39) 3343529881







