LAND BRANDENBURG

be Berlin

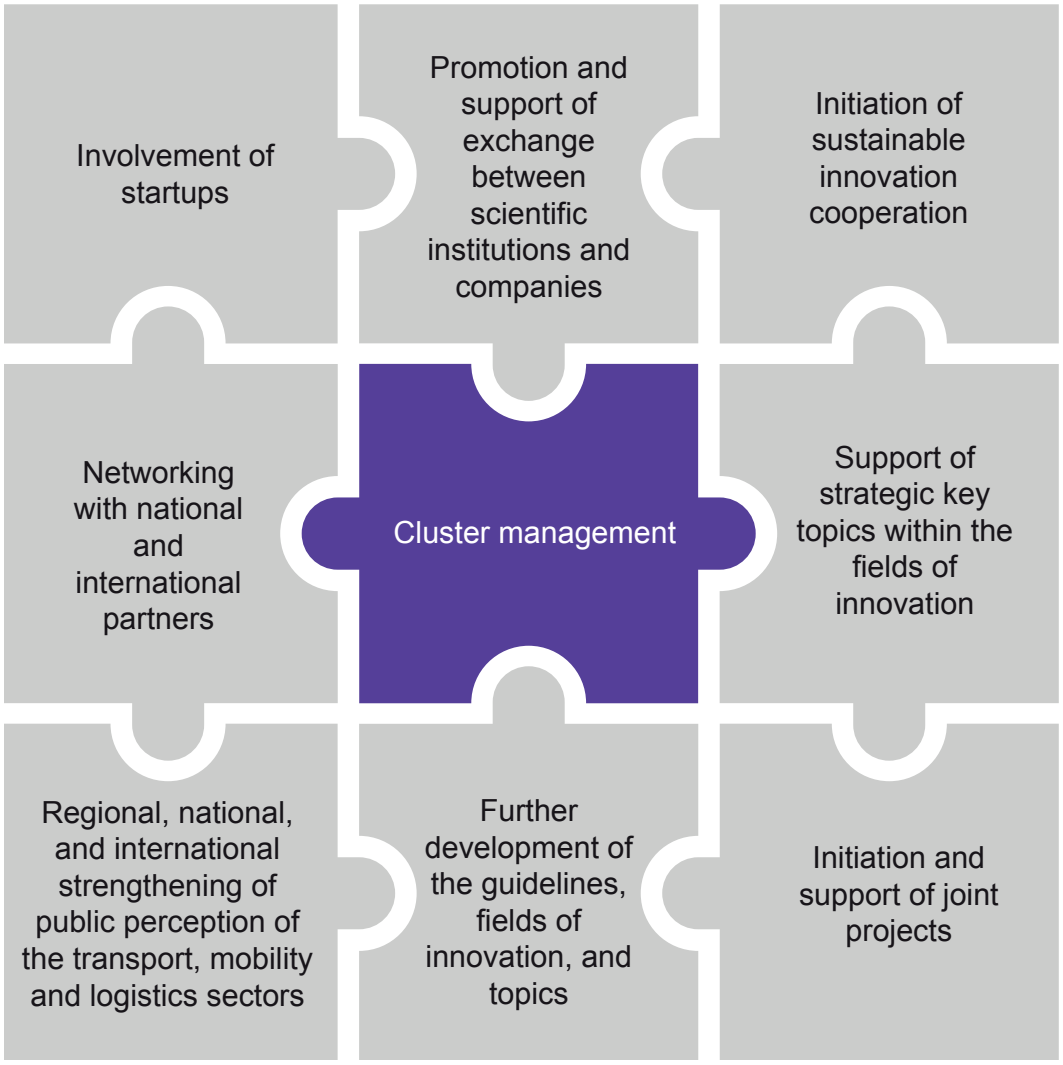
Master Plan
Transport, Mobility and Logistics Cluster
Berlin-Brandenburg

THE GERMAN CAPITAL REGION
excellence in mobility

Executive Summary

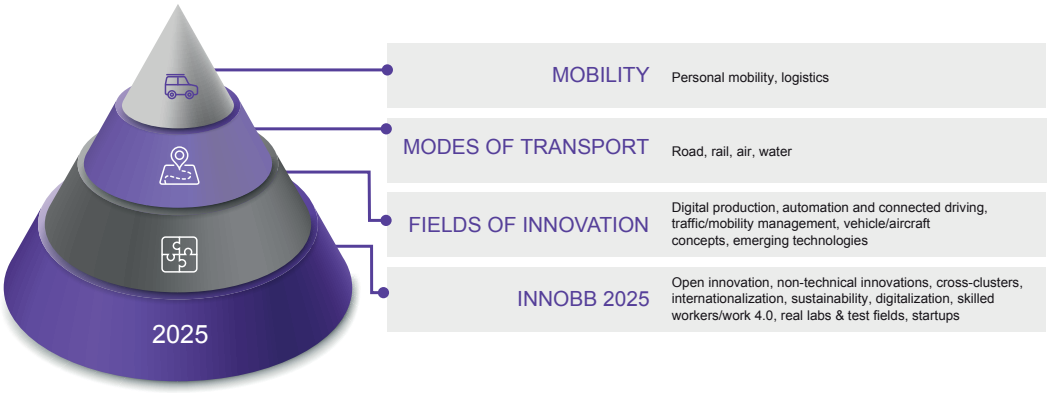
The master plan describes core topics from transport, mobility and logistics and their innovation potential. On this basis, the cluster management develops future activities and projects.

It outlines medium to long-term fields of innovation and within those the innovation topics defined by the cluster stakeholders in varying depth. To accomplish this, the master plan was developed in a participatory process involving the stakeholders of the Transport, Mobility and Logistics Cluster, cluster management, the thematically related clusters of the capital region, and the government of the Federal States of Berlin and Brandenburg. It has been designed as a dynamic document.



The focus is on five priority fields of innovation and three cross-cluster fields of innovation that will advance transport, mobility and logistics in Berlin-Brandenburg in the future. The innovation topics defined for this purpose relate to the region's existing competencies in industry and research and represent current priorities. They are brought up for discussion in regular strategy reviews and adapted to current trends.

The goal is to develop and implement innovative products and services from Berlin and Brandenburg for the transportation systems of the future.



Structure of the Transport, Mobility and Logistics Cluster

PERSONAL MOBILITY LOGISTICS

Road	Rail	Air	Water
Traffic and mobility management			
traffic management	mobility management		mobility services
Automation and connected driving			
infrastructure	autonomous mobility		cyber-physical systems
Digital production			
product lifecycle	engineering, simulation & testing		new production & manufacturing technologies
Vehicle and aircraft concepts			
lightweight construction/purpose design	electronics/software		innovative drive technology
Emerging technologies			
New Space		Hyperloop	

Cross-cluster fields of innovation

IT technologies
renewable energies – new drive systems and fuels
safety & security

Fields of innovation / innovation topics

Fields of innovation for personal mobility and logistics

Traffic and mobility management: The growing availability of data and information, the change in awareness in individual mobility arrangements, and the availability of new forms of mobility form the basis for mobility solutions of the future. The spectrum includes driver assistance systems, fleet management in freight transport, control and information technologies in public transport, as well as mobility management of public spaces and automated driving. Cluster management provides support for research and innovation projects in the field of intelligent transportation systems in order to continuously improve intermodal mobility in the region.

Automation and networking: Automated driving is designed to make passenger and freight transport safer, more efficient and more eco-friendly. The intelligent networking of transport modes and infrastructures is the basis for efficient transport systems of the future. To accomplish this, information and communication systems need to be further developed and optimized. Automated and connected driving in road traffic is already being tested in Berlin and Brandenburg. The gained knowledge should be expanded and consolidated to examine its transferability to other modes of transport.

Digital production: A key challenge is the digitalization of the entire production process in the product life cycle of all modes of transport, irrespective of individual companies or manufacturing steps. In addition to new production and manufacturing technologies and the use of the digital twin as an ´accompanying memory´, this also includes increasing efficiency with smaller batch sizes, which occur in all sectors of vehicle/aircraft production beyond passenger car production.

Vehicle and aircraft concepts: Currently, a qualitative change in requirements can be observed. Today's vehicle/aircraft architectures are increasingly being called into question and new concepts are gaining importance. Key drivers include the future capability of autonomous mobility in passenger and freight transport, changes in delivery relationships and transport, and modified drive concepts to implement low-emission mobility and logistics. In addition to the major innovation topics in hardware and software or alternative drives, user-specific requirements and their platform implementations in purpose design or lightweight construction also play an important role in the cluster.

Emerging technologies: The future technologies in the areas of New Space and Hyperloop, which are currently wrapped up in the term "emerging technologies", are still characterized by a considerable need for research. A large number of innovative companies are already active in this field in Berlin and Brandenburg. In the area of New Space, the cluster management will particularly support research in the use of geolocation in agricultural logistics, swarm flight characteristics of drones, and microsatellites for Earth observation. With the Hyperloop, the focus will be on technology and industry monitoring; in addition, developments with high economic potential for the region will be addressed by defining innovation projects.

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