

FEHRL

European R&D&I priorities in road infrastructure for 2021-2024

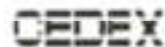
Dr Thierry GOGER
FEHRL Secretary-General



FEHRL is a Forum for R&D&I composed of national research institutes, universities and transport authorities



FEHRL MEMBERS



FEHRL ASSOCIATES



FEHRL

Innovative roads for everyone's mobility

Our mission is to serve society by accelerating the development and facilitating the deployment of collaborative science, technical knowledge and innovative solutions for the road infrastructure sector



FEHRL

We want to co-create a Forever Open and Integrated Transport Infrastructure as a cornerstone for modern mobility

FOREVER OPEN ROAD
Redefining Road Transport for the 21st Century



FEHRL's Flagship Programme



FORx4 - FOREVER OPEN
ROAD, RAIL, RUNWAY AND RIVER
Infrastructure Innovation for seamless mobility



Cross-modal transfer

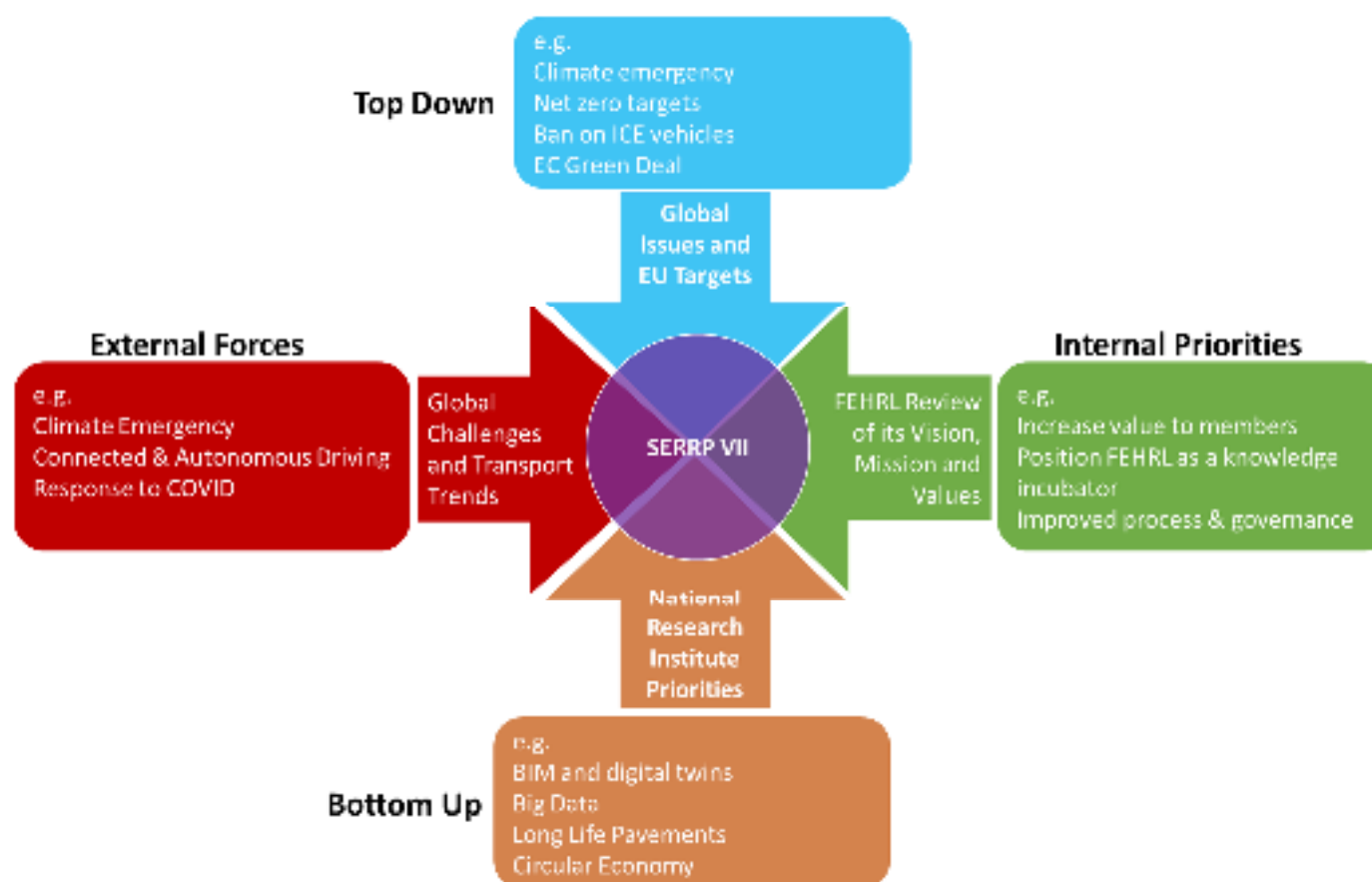
from “limited generation /
harvesting of renewable energy

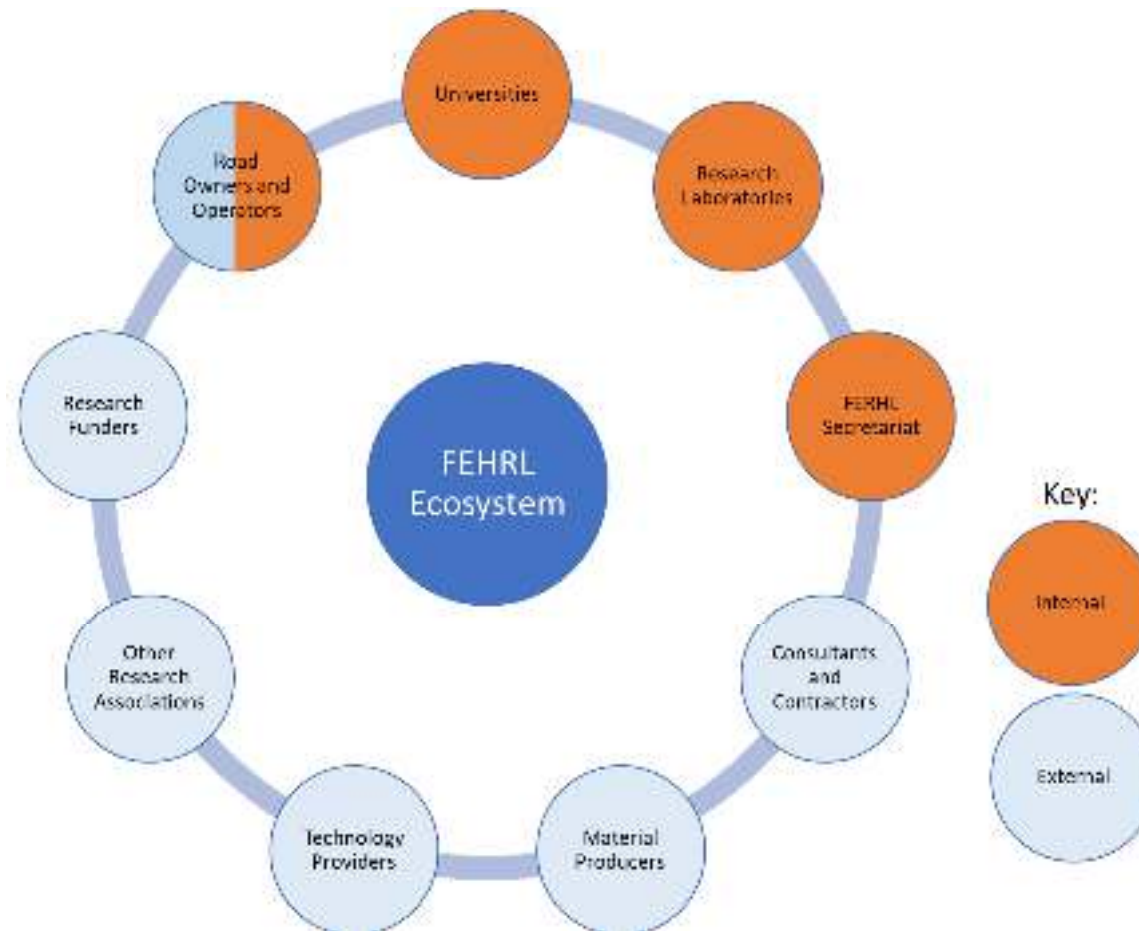
to “widespread generation /
harvesting of renewable energy”

Integration of energy
generation in transport
infrastructure

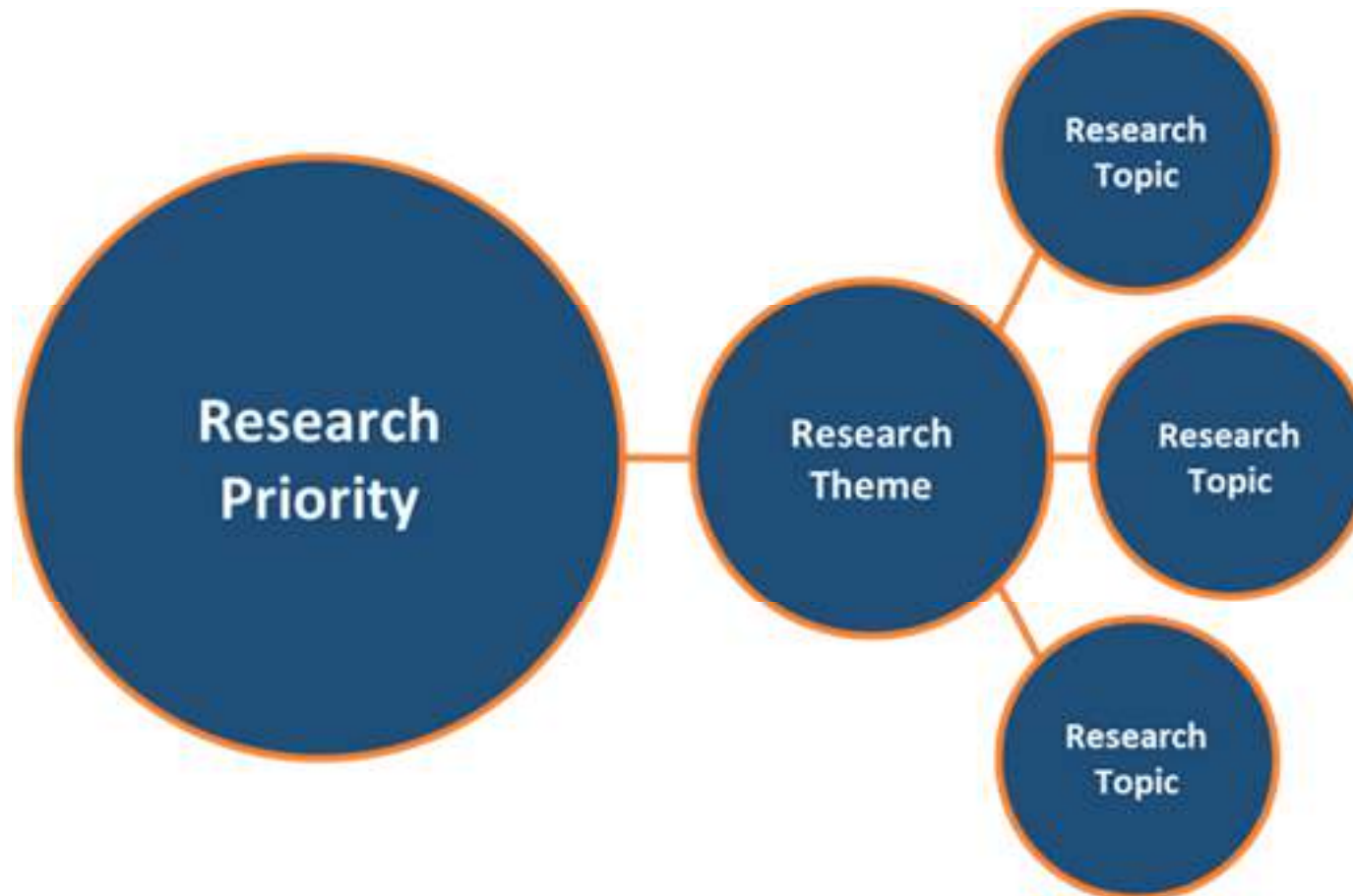


Drivers





Research Priority Hierarchy



SERPP VII - 3 Research priorities



Built Environment

- 9 Research Themes
- 33 Research Topics

Natural Environment

- 6 Research Themes
- 36 Research Topics

Social Environment

- 4 Research Themes
- 14 – 17 Research Topics

Built Environment

Upgrading of
ageing
infrastructure

Asset life
extension

Asset
management

Digital
infrastructure

Resilience to
human
attacks

Resilience to
extreme
weather and
climate
change

Advanced
construction
methods and
materials

Infrastructure
as a Service
and new
business
models

Top Priorities – Built Environment

Theme	Topic
Upgrading of Ageing Infrastructure	New materials, design and technology
Asset Life Extension	Service life prediction of new materials (models)
Asset Management	Embedded sensors in roads and bridges
Digital Infrastructure	Big Data
Procurement for innovation and circularity	Circular infrastructure, repair & recycling
Advanced construction methods and materials	New and newly developed materials

Theme	Topic
Resilience to extreme weather and climate change	Green infrastructure
	Heat resistant pavements
	Definition of vulnerability and risk assessments
	Strategies for mitigation of and adaptation to climate variables

Natural Environment

Enhancing
biodiversity

Decarbonisation
/ climate
neutral
operations

Energy
harvesting

Circular
economy and
resource use

Air quality

Low noise

Top Priorities – Natural Environment



Theme	Topic
Enhancing Biodiversity	Soil quality
Circular Economy and Resource Use	Resource efficiency
	Recycling and 2nd, 3rd, 4th life sustainability assurance
	Life cycle assessment

Social Environment

Road user safety

Road worker safety

Infrastructure for health
(active travel)

Equity

Top Priority – Social Environment



Theme	Research Topic
Road User Safety	Safety for vulnerable road users
Road Worker Safety	Robotics

Road Transport Jobs 2035



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