



DELIVER AN **INTEGRATED EUROPEAN RAILWAY NETWORK BY DESIGN**



DEVELOP A **UNIFIED OPERATIONAL CONCEPT AND A FUNCTIONAL SYSTEM ARCHITECTURE** FOR INTEGRATED EUROPEAN RAIL TRAFFIC AND CCS/AUTOMATION



DELIVER A **SUSTAINABLE AND RESILIENT RAIL SYSTEM**



DELIVER A **COMPETITIVE, GREEN RAIL FREIGHT** FULLY INTEGRATED INTO THE LOGISTICS VALUE CHAIN



DEVELOP A **STRONG AND GLOBALLY COMPETITIVE EUROPEAN RAIL INDUSTRY**

# EUROPE'S RAIL: ONE INTEGRATED R&I PROGRAMME

## SYSTEM PILLAR

OPERATIONAL CONCEPTS

FUNCTIONAL SYSTEM ARCHITECTURE

**A SINGLE COORDINATING BODY FOR THE WHOLE SECTOR EVOLUTION**

OPEN INTERFACES TO OTHER TRANSPORT MODES AND BUSINESSES

SYSTEM REQUIREMENT SPECIFICATIONS

## INNOVATION PILLAR

*TECHNOLOGICAL AND OPERATIONAL SOLUTIONS FOR SERVICES OF FUTURE*

FLAGSHIP PROJECTS

LARGE-SCALE DEMONSTRATIONS

EXPLORATORY AND FUNDAMENTAL R&I

1

**EUROPEAN RAIL TRAFFIC AND MOBILITY MANAGEMENT**

Manage and improve rail traffic at EU level

Adjust rail traffic management in function of the mobility demand

2

**DIGITALISATION & AUTOMATION IN TRAIN OPERATIONS**

ATO implementation

Digital train operations

3

**SUSTAINABLE AND DIGITAL ASSETS**

Integrated assets testing & life-cycle framework

Zero-emission, silent rail system

4

**COMPETITIVE, DIGITAL, GREEN RAIL FREIGHT**

New digital customer interaction & innovative rail freight services

Multimodal and rail freight innovation integration

5

**REGIONAL RAIL SERVICES IN LOW DENSITY AREAS**

New system approach to regional rail services in low density areas

## DEPLOYMENT GROUP

FUTURE SOLUTIONS DEPLOYED IN A COORDINATED AND CONSISTENT WAY AT EUROPEAN LEVEL, TAKING INTO ACCOUNT ALTERNATIVE ROLLOUT SCENARIOS, BEHAVIOURAL AND ORGANISATIONAL CHANGES, SYNERGIES WITH OTHER MODES OF TRANSPORT