



INTERNATIONAL UNION
OF RAILWAYS

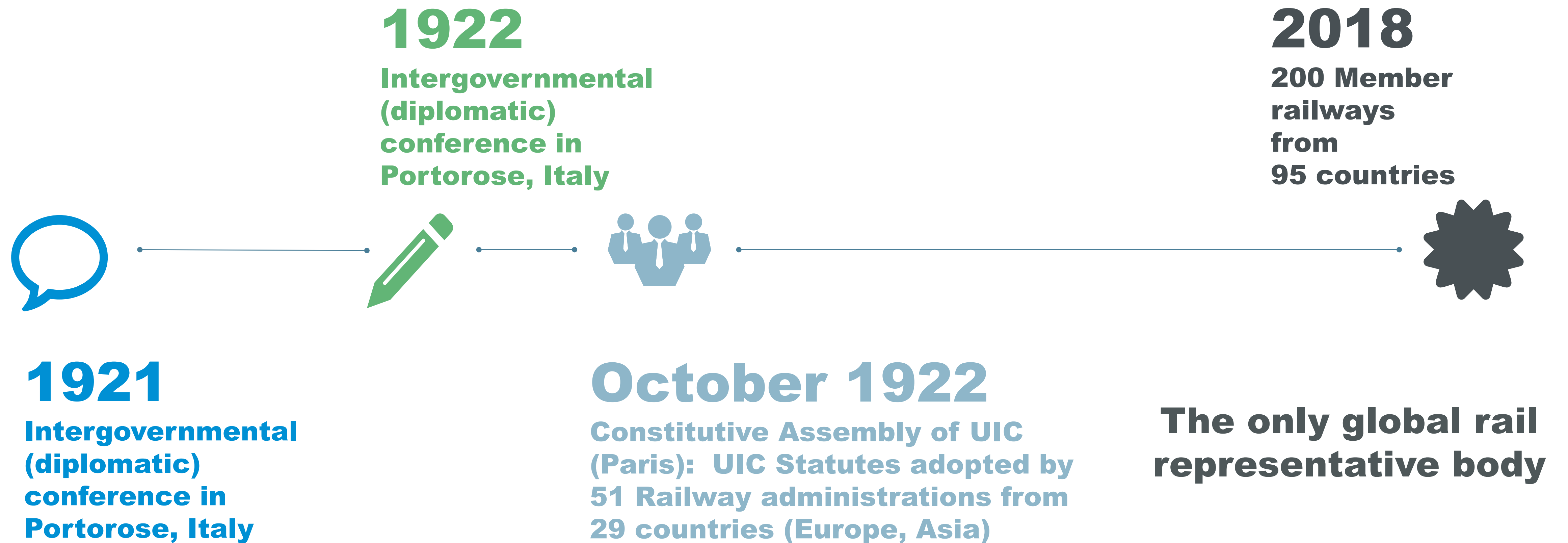
UIC

**The worldwide
railway organisation**

Christian CHAVANEL

UIC Rail System Department Director

UIC, a long history at the service of member railways and international railway cooperation



UIC members today

200
members in 95
countries

3,000
billion
passenger
kilometres

10,000
billion tonnes
kilometres

1
million
kilometres of
lines

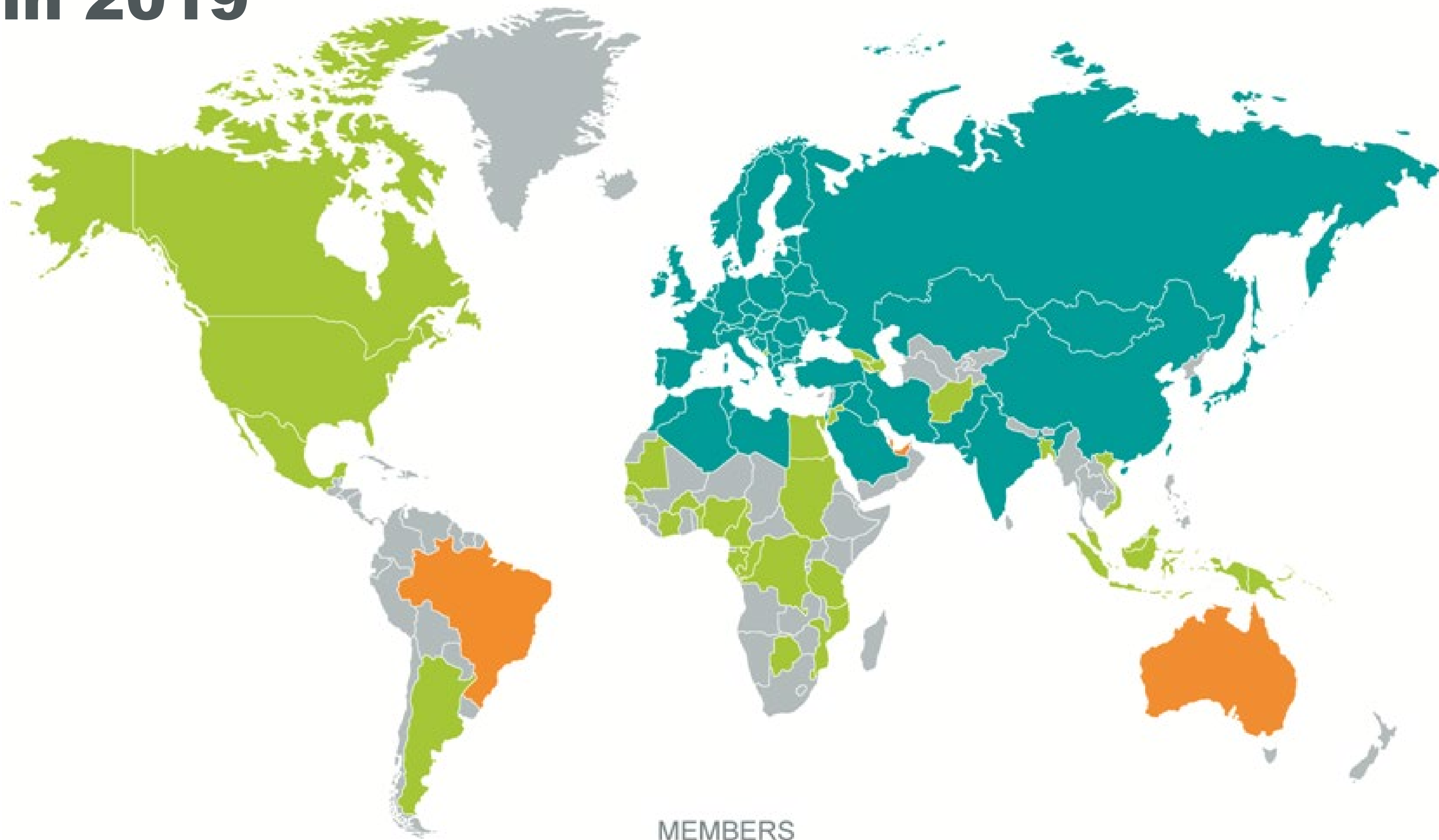
7
million rail
personnel

Cooperation
with over **100**
institutions

700
UIC Leaflets - New
International
Railway Solutions
(IRS)

85
congresses,
conferences,
workshops

UIC in 2019



MEMBERS



Plus a growing network of research bodies and universities

UIC Governance



Ali Ihsan UYGUN
VICE CHAIRMAN
(TCDD)



Gianluigi CASTELLI
CHAIRMAN (FSI)



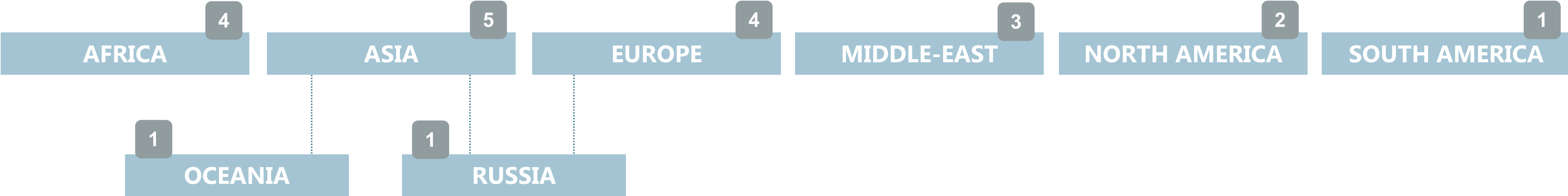
François DAVENNE
DIRECTOR GENERAL

UIC GENERAL ASSEMBLY

200 members

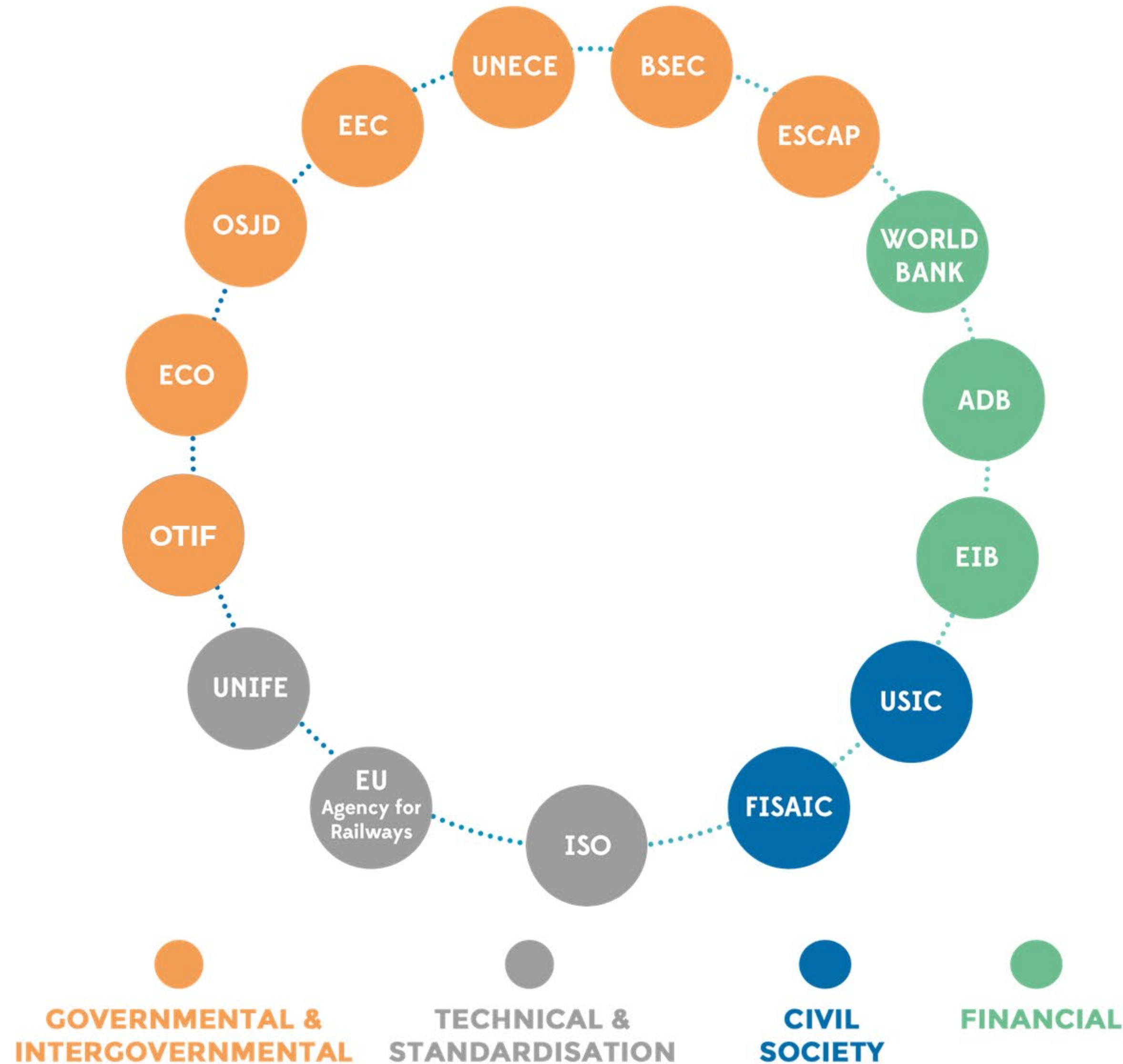
UIC EXECUTIVE BOARD

21 members



UIC HEADQUARTERS TEAM

Synergies developed by UIC with leading institutions



- ADB:** Asian Development Bank
- BSEC:** Black Sea Economic Cooperation
- EEC:** Eurasian Economic Commission
- ECO:** Economic Cooperation Organisation
- EIB:** European Investment Bank
- ESCAP:** The Economic and Social Commission for Asia and the Pacific
- FISAIC:** Fédération Internationale des Sociétés Artistiques et Intellectuelles de Cheminots
- ISO:** International Organization for Standardization
- OSJD:** Organisation for Cooperation between railways
- OTIF:** Intergovernmental Organisation for International Carriage by Rail
- UNECE:** Economic Commission for Europe
- UNIFE:** Union des Industries Ferroviaires Européennes
- USIC:** International Railway Sports Association

UIC's activity

Dialogue platform focusing on members' challenges



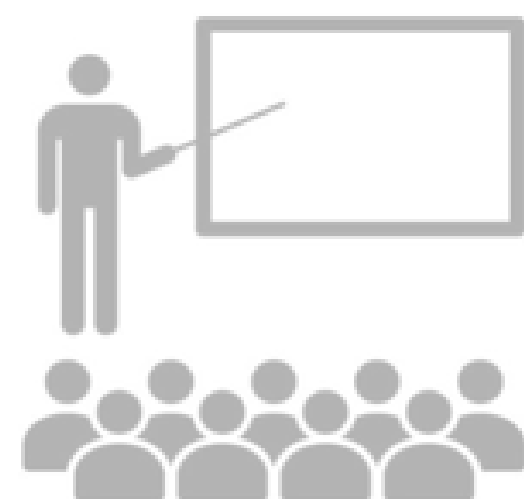
- ✓ Sharing of best practices
- ✓ Exchanges of information
- ✓ Experiments, joint studies, POCs, etc.



International Railway Solutions

- ✓ Contributing to TSIs and standards
- ✓ Railway best practices
- ✓ Application guidelines
- ✓ Online tools and databases
- ✓ 398 UIC Leaflets
- ✓ 36 IRS to date

Training courses and conferences



- ✓ Courses on cutting-edge topics
- ✓ Conferences on areas of interest (Asset Management, GSMR, FRMCS, ETCS, civil engineering structures, railway tracks, etc.)

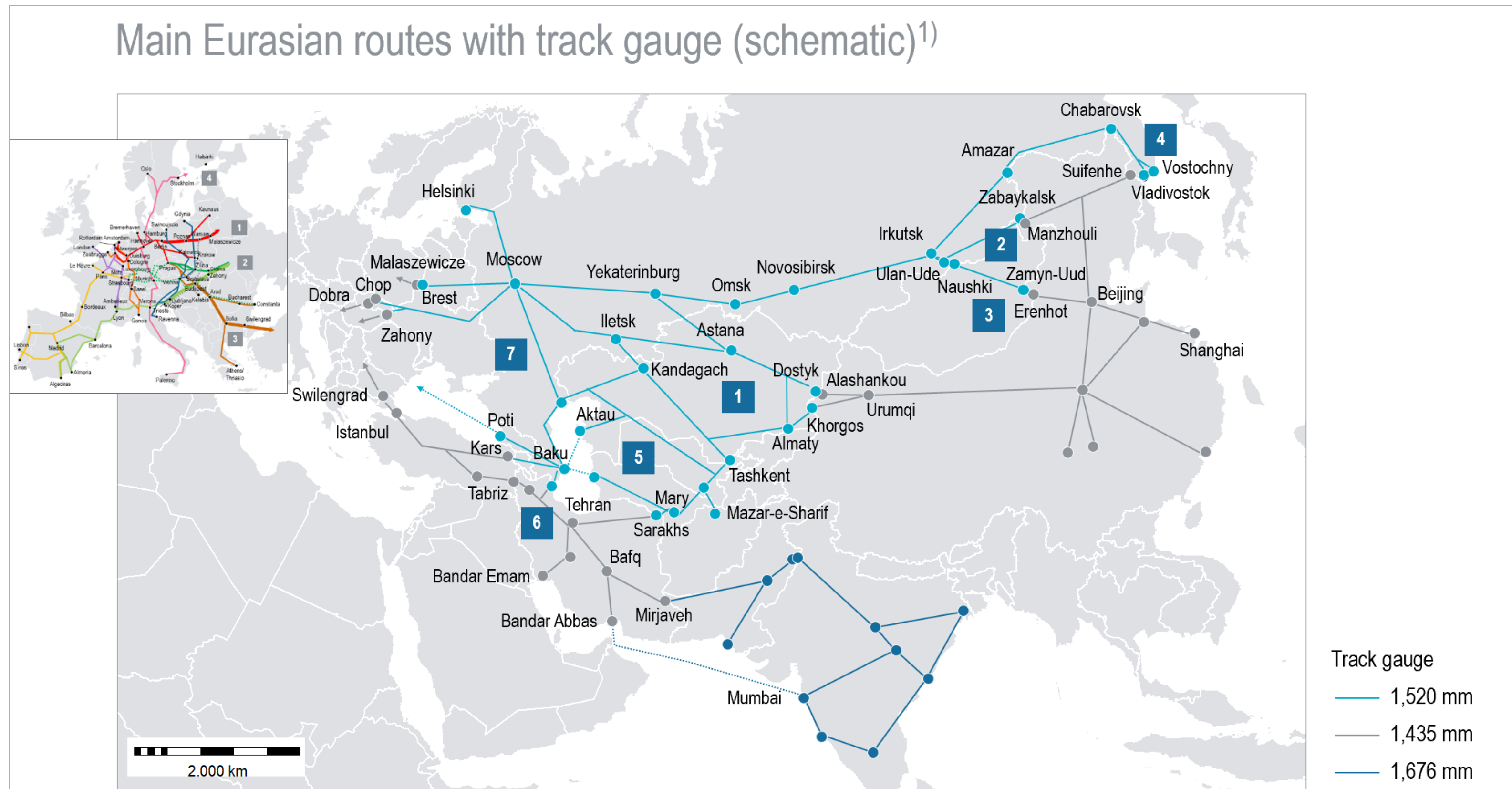


Working groups and joint projects

- ✓ Shared projects to address the strategy defined by the RSF members
- ✓ Internal and external working groups with railway members



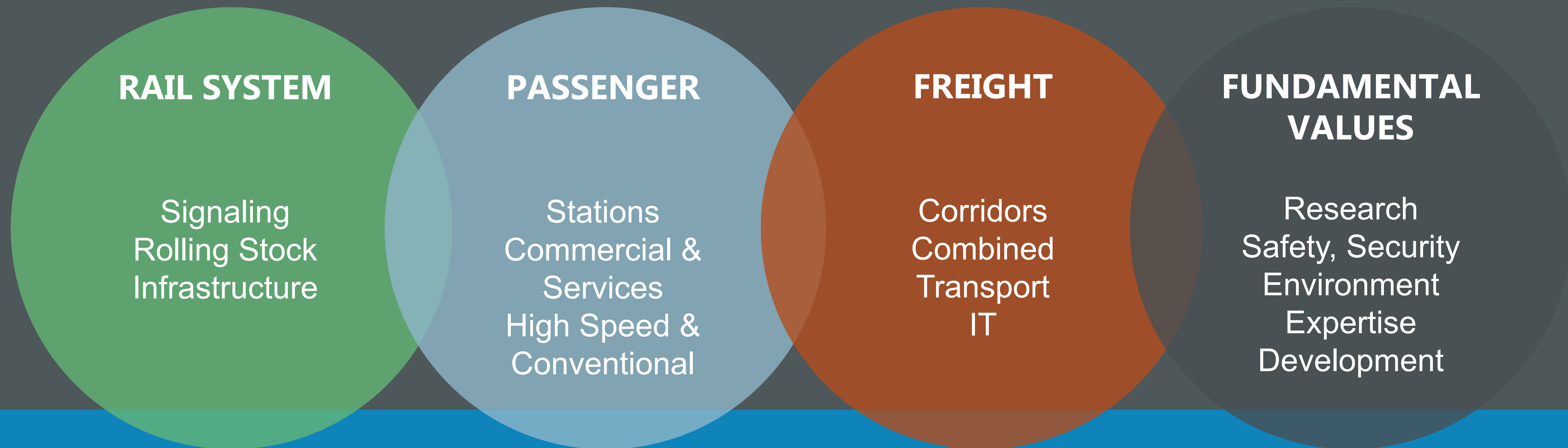
Freight beyond Europe



Sources: Austrian Ministry for Transport, Innovation and Technology, RNE, press research, UNESCAP, Roland Berger

- Market watch/studies
- Partnerships
 - CCTT
 - ESCAP
 - ADB
 - ECO
 - etc
- Project development
 - e-Seals
 - Blockchain

UIC organisation structure



COMMUNICATIONS · INSTITUTIONAL RELATIONS · HR & SOCIAL · FINANCE

Strategic focus areas

1. Promote rail transport globally

- Strategic positioning
- The fundamentals: safety, security, environment and innovation
- Highlight and demonstrate the attractiveness of the railways
- Partnership with relevant organisations (international and national)

2. Further develop UIC as the technical platform to address members' needs

- Embody and convey a system-wide vision and technical positions
- Up-to-date IRSs in line with stakeholders' needs
- Produce specifications/guidelines
- Leverage data and sharing of experience
- Technical policies that serve members' priorities
- Monitor implementation and added value of UIC products

Strategic focus areas

3 - Create innovation through projects

- Become a world forum for innovative projects
- Further develop a shared innovation strategy
- Put digital technologies at the centre of the rail system
- Contribute to accelerating the innovation cycle
- Support European and global innovation programmes for the benefit of the sector

4 - Promote sustainable, carbon-free transport

- Rail as the backbone of mobility
- Convey a multimodal vision shared with public transport and supply chain stakeholders
- Develop innovative projects for better attracting green bonds

5 - Efficient, transparent management for the benefit of our members

- Ethical and transparent governance
- Regular reporting and ongoing assessment of added value from activities
- Ongoing skills development
- Provide the Regions with a vehicle for project development

United Nations

3 categories of participants at meetings and conferences in the UNFCCC & UNSG processes:

- representatives of [Parties to the Convention and Observer States](#),
- members of the [press and media](#),
- representatives of [observer organizations](#).

Observer organisations categorised into 3 types:

- the United Nations System and its Specialised Agencies,
- intergovernmental organisations (IGOs),
- non-governmental organisations (NGOs).

➔ UIC is an “admitted NGO”

- IGOs and NGOs can register delegates to events only when they have received observer status.
- A partnership agreement dedicated to the preparation of the COP is signed yearly with UITP and UNFCCC.
- UIC participates yearly to 3 side events during the COP and shares an exhibition stand with its partners (SLoCaT, UITP, ITDP, etc.)



COP 23 – December 2017



COP 24 – December 2018



Ad Hoc Expert meeting UNCTAD – April 2019
<https://uic.org/com/uic-e-news/643/>



Bonn – June 2019
<https://uic.org/com/uic-e-news/653/#filter=.mot-479>



Climate Summit – September 2019

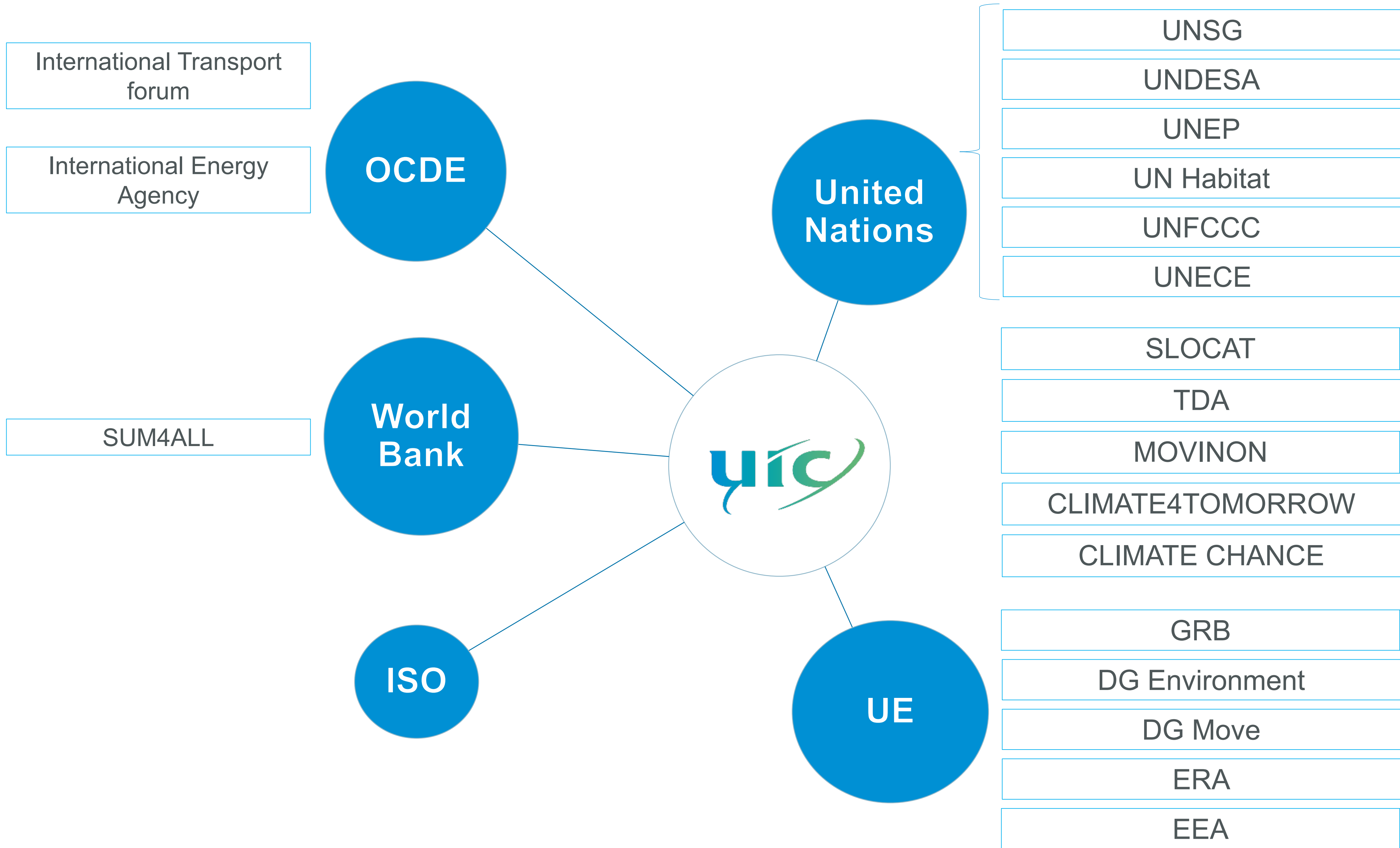


Conferences on Climate change:

- UNFCCC = COPs, Regional Conferences on Climate (Bonn in June)
- UNSG = Climate Action Summit (September)

Ad Hoc expert meetings:

- UNCTAD = Ad Hoc expert meeting on Adaptation to Climate Change



Innovation will install Railway as the backbone of future decarbonised mobility worldwide

Improving connectivity has a strong meaning for the railway and for the public transport sector.

The requirements for low carbon emission transports are more and more stringent and will lead to improve the efficiency of the transport chain.

The evolution of digital applications and the advent of Artificial Intelligence have called for a clear prospect for automation in transport, that would change the whole industry. This evolution is to be appreciated into the wider perspective of sustainable development.

Undergoing technical development are creating enablers that will make this vision possible:

- **The first enabler is that railways are increasingly thinking and designing their services the same way data networks are designed and managed**
- **The second enabler is multi-modality relying on 5G technologies.** Big data management will make multimodality possible to an extent we cannot imagine now, provided that the technical bodies take all their responsibilities to implement a 5G data transmission backbone.
To this end, UIC is working on the **Future Railway Mobile Communication System** that will abolish the boundaries between public transport and railway network.

The combination of those two processes will enable the creation of “**digital twins**” for the **various networks**.

Having the possibility to replicate our networks digitally will lead to a quantum leap in terms of efficiency and reliability.

Indeed, this technology will allow real time simulated based network management decisions which today implies a costly and lengthy coordination process.

It will improve reliability and capacity.

Using and interconnecting digital twins on each transport mode from door to door is certainly the way forward for a massive modal shift to public transport, while reducing drastically the need of investments in CO₂ emitting physical assets.



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Stay in touch with UIC!

www.uic.org



#UICrail

Thank you for your kind attention.