UIC railway statistics

- ❑ Latest updates

- ❑ Rail traffic trend monitoring

- ❑ Data collected for sustainable development projects

Alice Favre
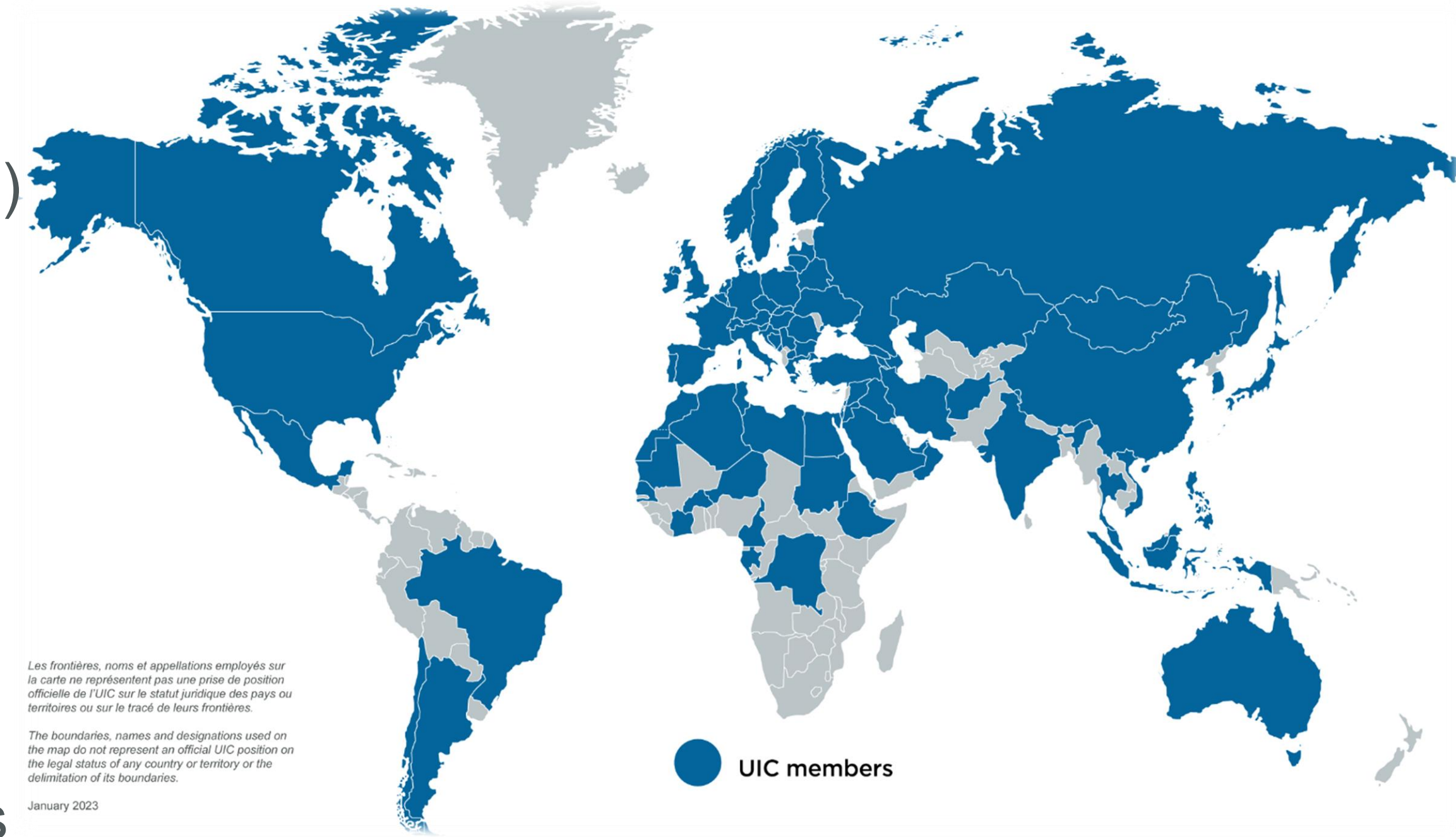
Head of Statistics Unit

- **UIC members**

UIC counts ~**200** members

140 railway companies (heavy rail: tram and metro excluded)

- ✓ Infrastructure managers
- ✓ Passenger operators
- ✓ Freight operators
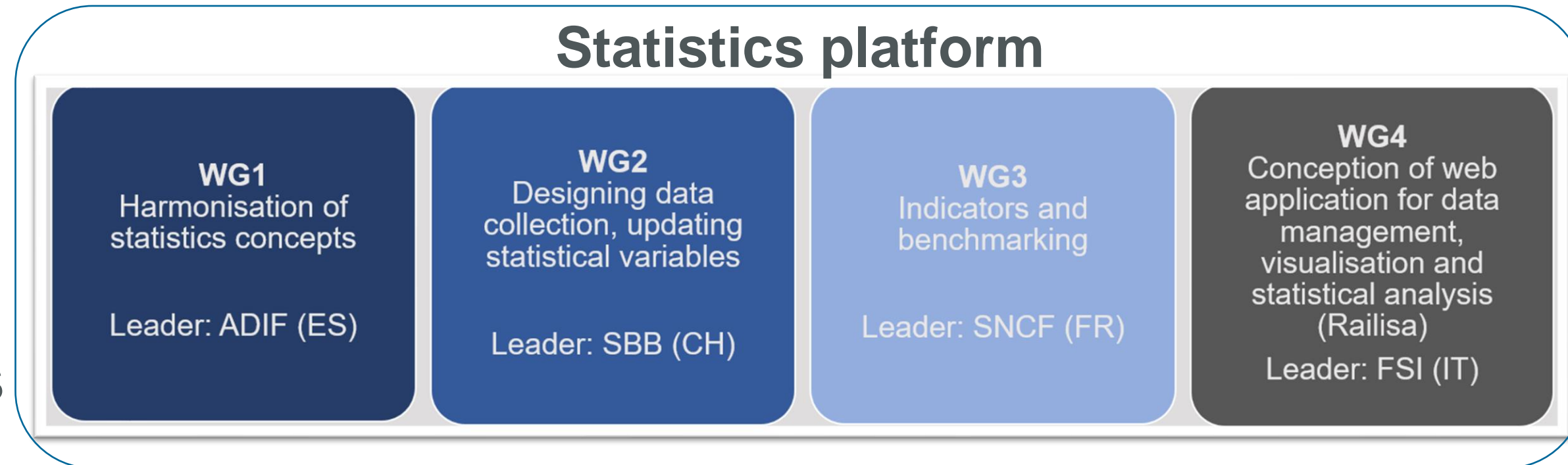
(others >>> engineering groups, research institutes…)

- **Statistics platform** for data exchange between members

Participants are representative of railways

4 permanent working groups

Data collected from operators and infrastructure managers

Les frontières, noms et appellations employés sur la carte ne représentent pas une prise de position officielle de l'UIC sur le statut juridique des pays ou territoires ou sur le tracé de leurs frontières.

The boundaries, names and designations used on the map do not represent an official UIC position on the legal status of any country or territory or the delimitation of its boundaries.

January 2023

● UIC members

Statistics platform

WG1 Harmonisation of statistics concepts Leader: ADIF (ES)	WG2 Designing data collection, updating statistical variables Leader: SBB (CH)	WG3 Indicators and benchmarking Leader: SNCF (FR)	WG4 Conception of web application for data management, visualisation and statistical analysis (Railisa) Leader: FSI (IT)

❑ **Latest updates**

• **Core statistics**

Freight and passenger traffic – Transport stock – Punctuality

Energy consumption – Accidents – High Speed

Financial results – Staff – Network

New data on engineering structures: bridges and tunnels on

conventional and high speed lines

• **3 collections per year**

✓ Provisional data for 2022 KPIs –will be published in June

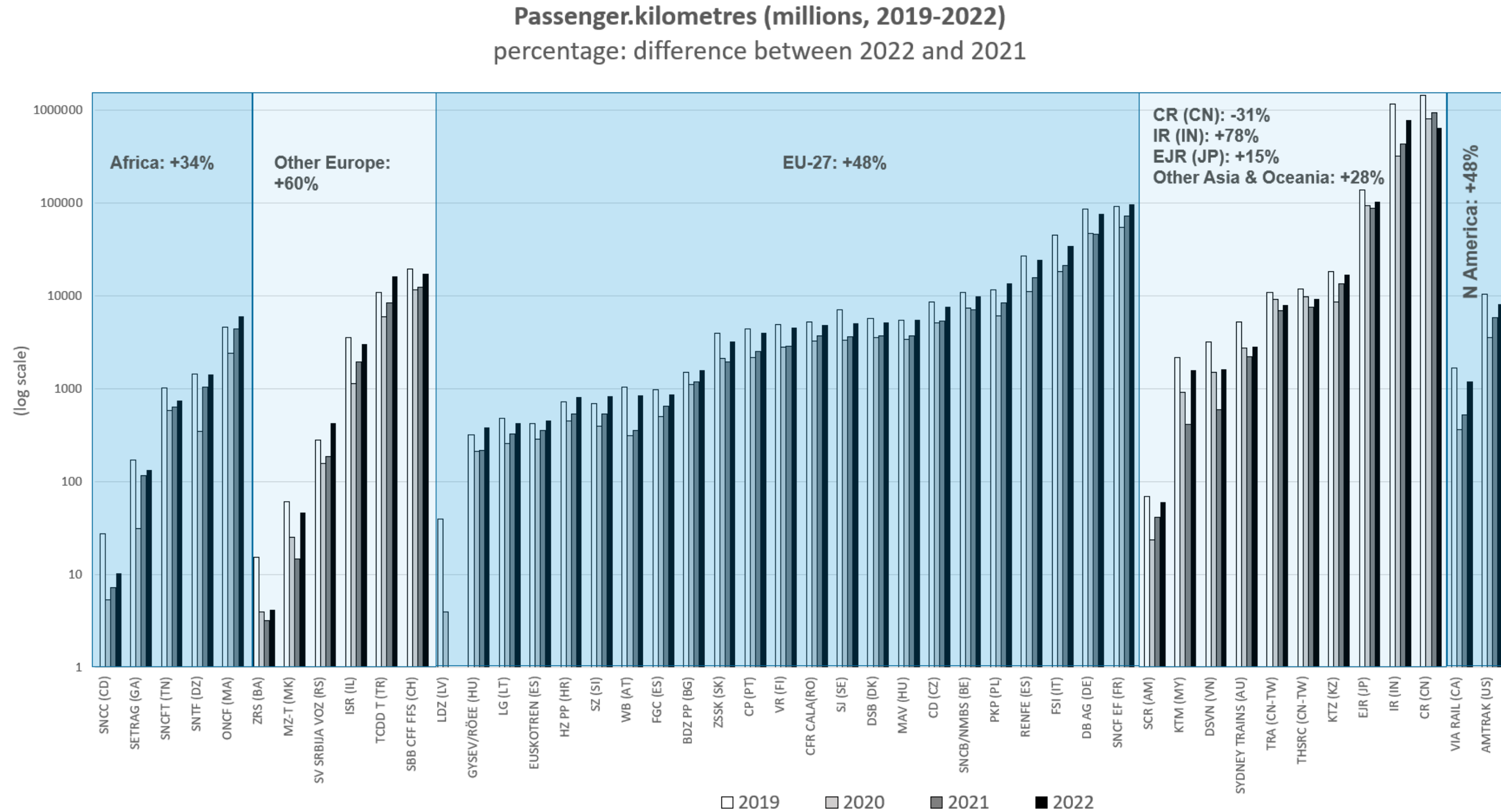✓ Consolidated 2022 data – will be published in November

✓ Monthly traffic

New participants: Trenes de Chile, Egyptian National Railways,

Camrail (Cameroun)

❏ **Rail traffic trend monitoring**

- • Passenger traffic 2019-2022

Passenger.kilometres (millions, 2019-2022)
percentage: difference between 2022 and 2021

Africa: +34%   Other Europe: +60%   EU-27: +48%

CR (CN): -31%
IR (IN): +78%
EJR (JP): +15%
Other Asia & Oceania: +28%

N America: +48%

☐ 2019 ☐ 2020 ◼ 2021 ◼ 2022

Passenger.kilometres Index
January 2019-December 2022
(Reference: January 2019 = 100)

ALL   EU-27   Other Europe
N-America   Africa   CR (CN)
IR (IN)   EJR (JP)   Other Asia & Oceania
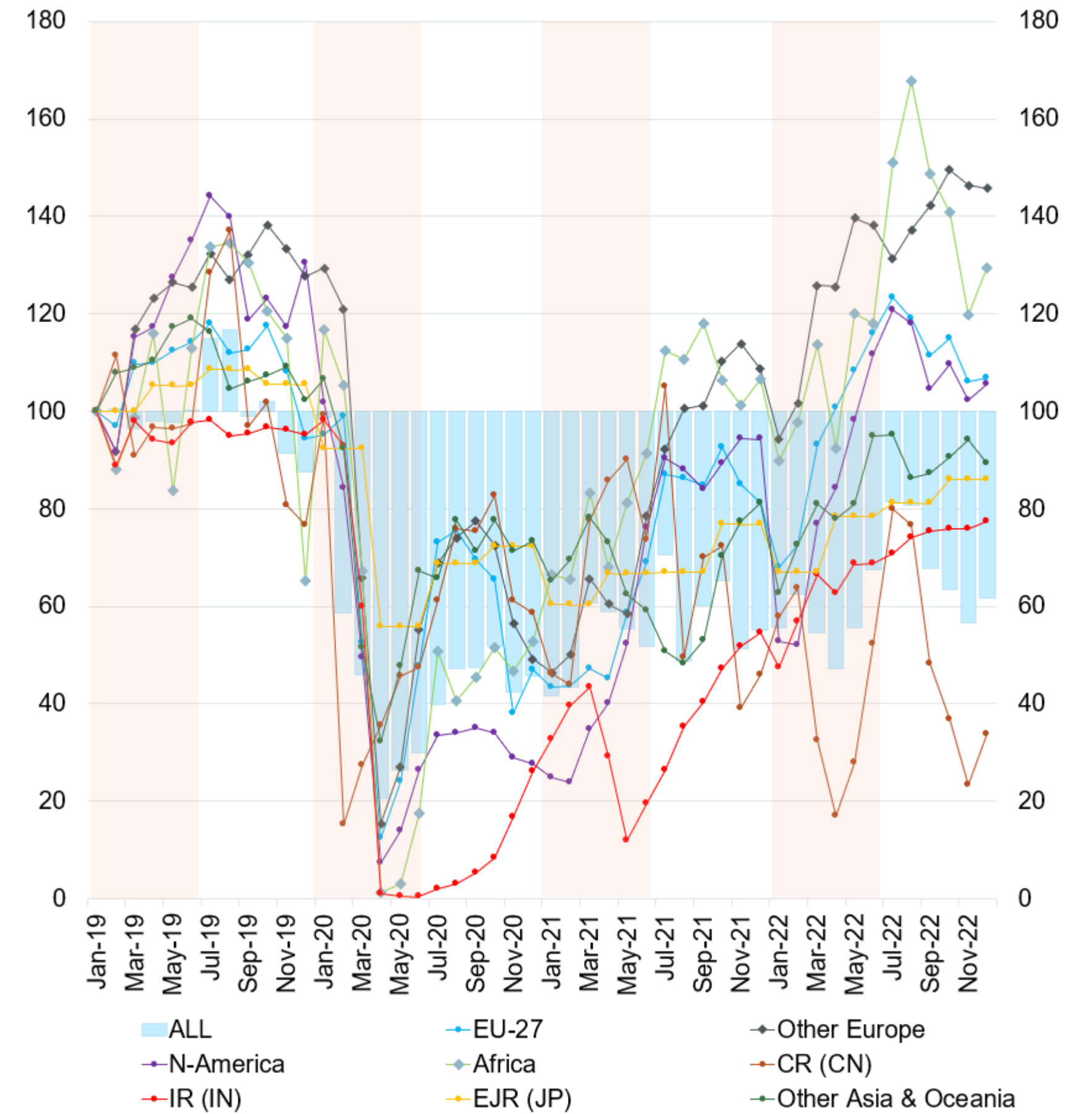
During the second half of 2022, passenger traffic for many companies in Europe is in line with or even higher than in 2019 (pre-covid period)

- Freight traffic 2019-2022

Tonne.kilometres (millions, 2019-2022)
percentage: difference between 2022 and 2021

CR (CN): +7%
IR (IN): +4%
KTZ (KZ): +5%
Other Asia & Oceania: +15%

Africa: -2% Other Europe: -3% EU-27: -5% US: 0%

☐ 2019 ☐ 2020 ▨ 2021 ■ 2022

Tonne-kilometres Index
January 2019-December 2022
(Reference: January 2019 = 100)

☐ ALL — EU-27 — Other Europe
— AAR (Class 1, US) — Africa — CR (CN)
— IR (IN) — KTZ (KZ) — Other Asia & Oceania
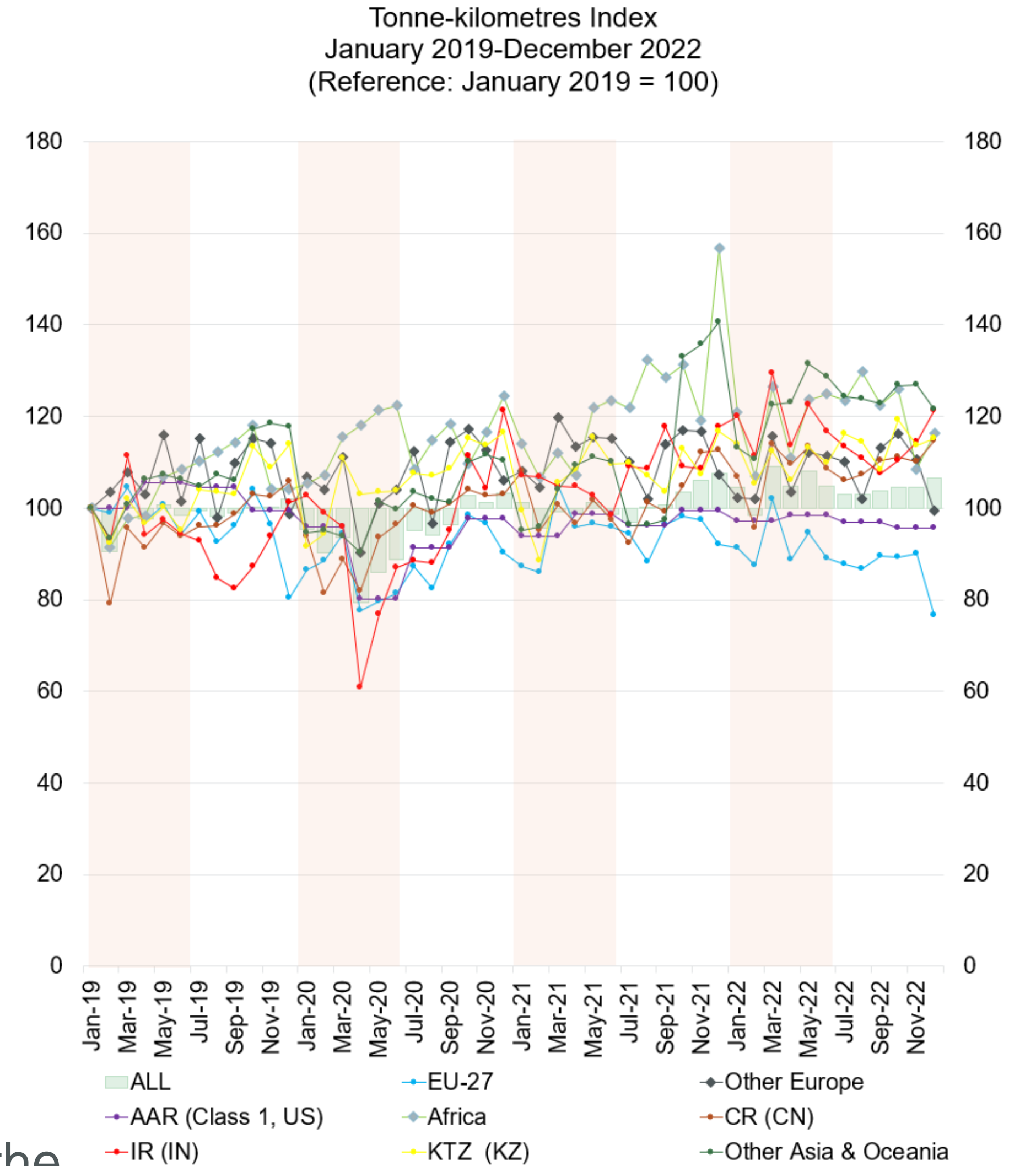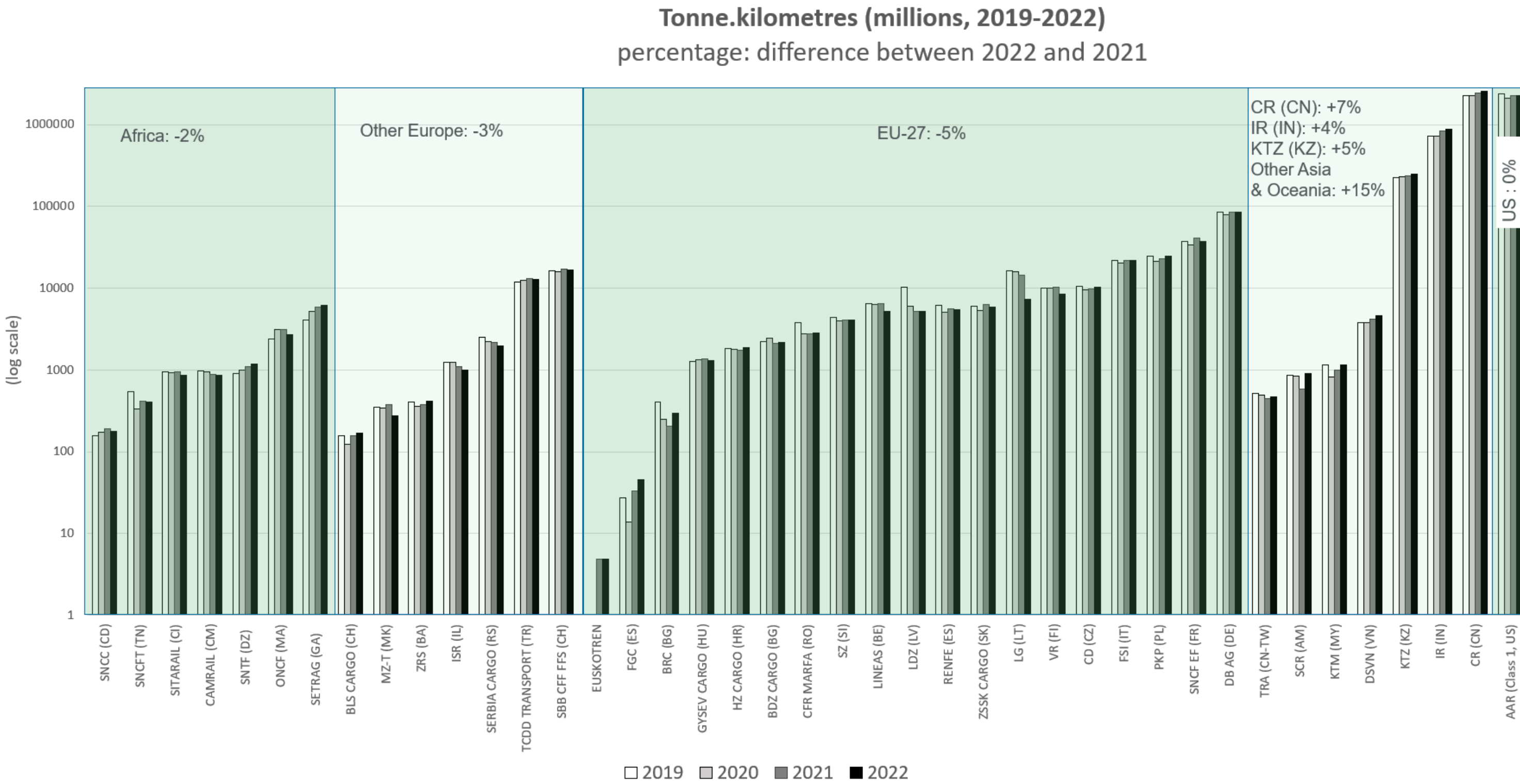
For companies in the EU-27 region
✓ rebound of freight traffic in 2021
✓ but a downward trend in 2022 especially during the second half of the year (contraction of about 5% in tonne-kilometres).

❑ **Data collected for sustainable development projects (1/3)**

• **Traction Energy and Emissions**

Data collected from operators - **Electric** and **diesel tractions**

https://uic.org/IMG/pdf/202102_uic_1990-2030_environment_strategy_reporting_system.pdf

Energy consumption (tonnes of diesel, GWh of electricity)
CO_2-eq emissions (well to wheel)
PM and NOx

✓ Passenger transport according to the type of train service:
- Suburban and regional
- Intercity
- High Speed

http://www.ecopassenger.org/

✓ Freight transport

https://www.ecotransit.org/en/

Performance indicators calculated by train.km, gross tonne.km, net tonne.km, passenger.km

❑ **Data collected for sustainable development projects (2/3)**

• **Rail sustainability Index: data collected for 7 key SDGs**

Qualitative and quantitative data (operators and infrastructure managers)

✓ Non-discrimination framework/code, Women by level of responsibility, Women in Governance bodies

✓ Energy consumption, share of renewable energy, Targets

✓ Total number of employees by employment contract, Health and safety policies/system

✓ Electrified lines, Climate-related risks, Rail infrastructures and climate change

✓ Rail accidents

✓ Sustainable procurement clauses, Hazardous waste, Reused/recycled waste, Sustainability reporting, Environmental management system

✓ CO2-eq emissions direct and indirect, Green bond/debt ratio, Board-level oversight of climate-related issues, Emission targets, Collaborating with governments

❑ **Data collected for sustainable development projects (3/3)**

- **Significant accidents**

https://uic.org/safety-database

Data collected from infrastructure managers

✓ Accidents - fatalities - causalities
25 variables + additional questionnaires

✓ Level crossings (automatic, manual, protection, warning…)
9 variables

Company	Country	Code
ADIF	Spain	ES
Bane NOR SF	Norway	NO
CANADA [3]	Canada	CA
CFL	Luxembourg	LU
CFR SA	Romania	RO
CIE	Ireland	IE
DB AG [2]	Germany	DE
EUSKOTREN	Spain	ES
FGC	Spain	ES
FTIA	Finland	FI
HZ	Croatia	HR
Infrabel [2]	Belgium	BE
Infrakos	Kosovo	XK
IP	Portugal	PT
KRRI	South Korea	KR
LTG	Lithuania	LT
MÁV	Hungary	HU

Company	Country	Code
NRIC	Bulgaria	BG
ÖBB	Austria	AT
OSE	Greece	GR
PKP	Poland	PL
PRORAIL [1]	Netherlands	NL
RAI	Iran	IR
RFI	Italy	IT
RSSB [2]	United Kingdom	GB
SAR	Saudi Arabia	SA
SBB CFF FFS [2]	Switzerland	CH
SNCF Réseau [2]	France	FR
SŽ (si)	Slovenia	SI
SŽ (cz)	Czechia	CZ
TCDD	Turkey	TR
Trafikverket [2]	Sweden	SE
ŽSR	Slovakia	SK

[1] Chair and [2] Members of the Safety Performance Group

[3] All infrastructure managers. Data extracted from the TSB website: www.tsb.gc.ca/fra/stats/rail/data-5.html

✓ 2022 Global Rail Sustainability report

✓ UIC Safety Report 2022

✓ Data provided by railway companies

https://uic.org/IMG/pdf/global-rail-sustainability-report-2022.pdf

https://uic.org/sustainability

https://safetydb.uic.org/IMG/pdf/uic_safety_report_2022.pdf

https://uic.org/safety/safety-performance-group-safety-database/

https://uic-stats.uic.org/select/

https://uic.org/support-activities/statistics/

Contact:
Isabelle De Keyzer
Adviser Rail Sustainability Index & Circular Economy
dekeyzer@uic.org
rsi@uic.org

Snejana Markovic-Chenais
Adviser Rail Sustainability Index & External costs
markovic@uic.org

Contact:
safety@uic.org

Contact:
Alice Favre
Head of Statistics Unit
favre@uic.org
stat@uic.org