RAIL FREIGHT CORRIDOR Rhine-Danube

RFC Rhine- Danube

Performance of the corridor compared to assigned targets

14. 05. 2025

TEN-T Indicators

European Commission

- Established the guidelines for TEN-T:
  → **network**
  → **requirements** including Operational Priorities (Art. 19)

(EU) No 2024/1679

Article 19: Op. Priorities

European Transport Corridors

- **ETCs are established** and integrate the RFCs.
- **RFC Governance asked to start reporting according to Article 19** - Operational Priorities.

RNE Performance Management Group

- **RFCs asked the PM Group** to set up a platform to **define the calculation and reporting methodology for indicators.**
  (*Dwell Time and Punctuality)*

Calculation & Methodology

Preparation of the reports

- The responsibility for **data sourcing and report preparation is determined by the agreed methodology.** (IMs / RNE TIS ?)
- **RNE and RFC Groups** as platforms for reports **discussions.** (?)

Reports

Final reports

- **Standardised reports to be presented by ETC(RFC)** to the EC.

Legal background

(EU) No 2024/1679

Article 19
Operational Priorities

1. The Rail Freight governance shall make all possible efforts to ensure by 31 December 2030, that, on the European Transport Corridors, the quality of services provided to railway undertakings and technical and operational requirements for infrastructure use do not prevent the operational performance of rail freight services along the European Transport Corridors from meeting the following target values:

(a) for each internal cross-border section, the dwelling time of all freight trains crossing the border between two Member States does not exceed 25 minutes on average, except at the sections where a change of track gauge takes place or where the checks carried out at a border where the controls have not yet been lifted on trains in application of point 1.2 of Annex VI to Regulation (EU) 2016/399 do not allow for this time-limit to be complied with; the dwelling time of a train on a cross-border section means the total additional transit time that can be attributed to the existence of the border crossing, irrespective of procedures or considerations of infrastructural, operational, technical and administrative nature; dwelling time does not include the time that cannot be attributed to the border crossing, such as operational procedures carried out in facilities located in the proximity of the border crossing but not intrinsically related to it; and

(b) at least 75 % of the freight trains crossing at least one border along a European Transport Corridor arrive at their destination, or at the external Union border if their destination is outside the Union, at their scheduled time or with a delay of less than 30 minutes by reasons that are attributable to the infrastructure manager(s) of the Union; delays occurring in and attributable to third countries that are crossed by freight trains shall not be taken into account.

- Draft reports to be present at corridors for in June this year
- Explanation on the used methodologies for indicators calculation
- Same methodology for all ETC
- Start reporting in 2026

Exclusion of non-Member States (e.g., Switzerland, Norway and Serbia):

'…for our reporting, the data concerning third countries should not be included.'

Scope of the punctuality indicator (IM reasons only):

"…MS clearly refused to take responsibility for the delays that stem from reasons that are beyond their control, such as incurred by operations in ports, terminals, RUs, etc. For this reason, our reporting should take into account only the delays that are due to the factors related to the IMs. (…) we can be open to presentation of additional calculations which will take into account broader scope of factors. However, in no way the latter should replace the former methodology and there should be a clear distinction made between the delays due to IMs only and delays caused by other market actors."

Dwell Time: PM Group recommendations and proposed indicator

Dwelling time: Stopping time at measuring locations (where border procedures occur)

- Present a **single figure per border**, based on **freight trains crossing the border**.
- ETC borders must be defined in the RNE Borders Tool to ensure coverage of the ETC network (for TIS members)
- Dwell time calculated for all existing borders → ETC can select the relevant ones (exclude: those that are not between two Member States, involve a change of track gauge or where border controls have not yet been lifted).
- *"…the dwelling time of a train on a cross-border section means the total additional transit time that can be attributed to the existence of the border crossing…"* → **PM Group sees no clear and expedite way to distinguish between border-related procedures and those unrelated to the border.**

Existing indicators are the most meaningful and available

- **Real Dwell Time**: based on Running Information - Total time the train is stopped at measuring locations; (Departure – Arrival time)
- **Clean Real Dwell Time**: based on Running Information - Dwell time but not including any time spent at the station due to early arrival;

→ The majority of the PM group recommends using Real Dwell Time

→ The RFC HLG decided using Real Dwell Time

Pros and Cons – proposed methodology

Use RNE existing indicator

+

- **Comprehensive approach** to dwell time due to all reasons
- **Easily to be adapted to cover ETC network** (TIS members)
- **Automatic calculation** (TIS members)
- KPI is **existing and quickly available**
- **Harmonised process**

–

- **Does not (fully) meet legal definition**
- Does not (fully) meet (political) expectations (?)
- At many borders, **legal aim cannot be reached (25 min)**
- **Further explanations might be needed to characterize the borders**
- Not all ETC network is covered (non-TIS members)

Change to "New" TEN-T Definition

- Meets the legal definition (?)
- Meets (political) expectations from the sector (?)
- Same methodology considered for network (TIS and non-TIS members) (?)

- **Complexity of distinguishing time attributed to the existence of the border**:
  - Very detailed definitions (what is in / out) - same reason may or may not be attributed to the border
  - Agreements might be hard and take long
- **Automatic calculation might not be possible**
- **Not a good basis for PM** with the stakeholders
- **No other methodology was proposed**

Punctuality: PM Group recommendations and proposed indicator

Punctuality: Share of ETC trains arriving the destination with a delay below 30'

- Present a **single figure per ETC**, based on freight trains crossing a border along the ETC.

"…delay of less than 30 minutes by reasons that are attributable to the infrastructure manager(s) of the Union…"

- **Focusing on IM delays only distorts the reality of overall train performance**, as delays are caused by a sum of various reasons. (e.g.: A train with a 200-minute delay might still be considered punctual if IM-related delays are under 30 minutes)
- **Delay coding procedures are not harmonized. Difficult to distinguish IM-related delays and the impact of other delays.**
- **Excluding delays in non-MS** but TIS member countries is challenging and **distort the reality**. (e.g.: Switzerland)
- The relevance and usefulness of the indicator as described in the legislation is questionable.

Two possible approaches were proposed

- **The group advocates for measuring Punctuality at Destination as a comprehensive metric considering all delay reasons,** complemented by the share of delay reasons as additional information.
- An alternative approach aligned with the legislation has been prepared, but the group believes it lacks value from a Performance Management perspective.
  - If **overall delay is >=30'** and **sum of IM reasons since last time the train was on time >= 30'** the train is **unpunctual**.

Proposed indicator - Punctuality at destination: figures

RFC	PUNCTUALITY	IM Reasons	RU Reasons	External Reasons	Secondary Causes
RFC01	**52%**	14%	48%	2%	37%
RFC02	**72%**	8%	59%	3%	30%
RFC03	**66%**	15%	50%	2%	34%
RFC04	**71%**	8%	56%	4%	33%
RFC05	**34%**	7%	39%	39%	16%
RFC06	**40%**	9%	57%	5%	29%
RFC07	**40%**	5%	44%	36%	16%
RFC08	**38%**	6%	50%	17%	27%
RFC09	**45%**	8%	44%	25%	23%
RFC10	**40%**	11%	53%	4%	32%
RFC11	**39%**	4%	42%	38%	16%

Punctuality at destination: Share of trains arriving at their destination with a delay of less than 30'

- The results do not depend on documented delays.
- Is not excluding delays occurring at origin (e.g.: non-TIS members)
- 40,41,70,71 codes are excluded.
- Delays are summed on train level and then allocated per RFC (i.e. if train belongs to two RFC, both corridors will have same delay minutes).

- one month per RFC and RFC trains only
- Groups and codes based on UIC leaflet 450-2

Main Drawbacks

- DQ/missing data issues.
- All delays causes are being considered.
- Not excluding delays occurring in non-TIS members.

RFC	PUNCTUALITY	IM Reasons	RU Reasons	External Reasons	Secondary Causes
RFC09	45%	8%	44%	25%	23%

Non punctual trains rate: 100 – 45 = 55%

Of which the delay caused by IMs: 55% x 0,08 = 4,4%

Theoretically punctuality in this case is: 100% - 4,4% = 95,6%

This data is not indicative of punctuality because it ignores the majority of delays

Proposed indicator - Alternative approach: figures

RFC	**Punctuality** IM Reasons	**Punctuality** RU Reasons	**Punctuality** External Reasons	**Punctuality** Secondary Causes
RFC01	**85%**	76%	99%	74%
RFC02	**86%**	83%	99%	91%
RFC03	**89%**	79%	99%	82%
RFC04	**92%**	84%	99%	92%
RFC05	**82%**	62%	73%	78%
RFC06	**69%**	68%	97%	76%
RFC07	**85%**	58%	72%	71%
RFC08	**84%**	60%	89%	68%
RFC09	**82%**	65%	84%	71%
RFC10	**64%**	62%	97%	63%
RFC11	**78%**	62%	72%	75%

Punctuality (IM-Attributable <30')

Share of punctual trains:

→ If train is delayed at destination over 30' it might be delayed

And

→ If total delay attributed to IM reasons since the last time the train was on time is ≥ 30' then the **train is unpunctual**

- one month per RFC and RFC trains only
- Groups and codes based on UIC leaflet 450-2

Main Drawbacks

- DQ/missing data issues and national rules spoiling the figures (e.g.: ad-hoc trains don't need to be coded / new Timetable on the borders).
- The results rely on documented delays.
- Documented Delay Minutes in TIS for International Freight Trains: 60-70%.

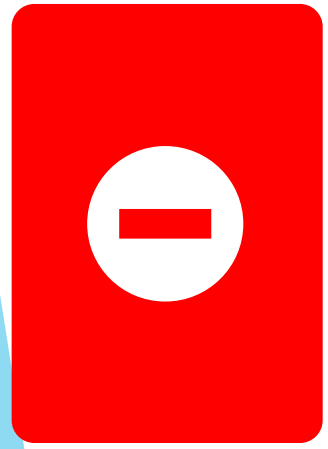
Pros and Cons – Punctuality

Proposed approach (existing indicator)

- KPI is **existing and quickly available**
- **Comprehensive approach** to arrival punctuality due to all reasons
- **Reflects the reality** over the network
- **End-costumer oriented**
- **Greater data accuracy** (not rely on documented delays)

Alternative approach

- **Meets the legal definition**
- Meets (political) expectations from the sector (?)
- **Legal objective (75%) can be reached easily**



- **Does not meet legal definition** - consequences?
- Does not (fully?) meet (political) expectations from the sector
- **Legal objective (75%) it is hard to be reached**

- **Different recording procedures** of delay reasons and **high share of undocumented delays** (e.g.: ad-hoc trains don't need to be coded)
- **Not a good basis for PM** with the sector stakeholders – all delay reasons are relevant
- Automatic calculation is more complex
- **Complete distorted figures**

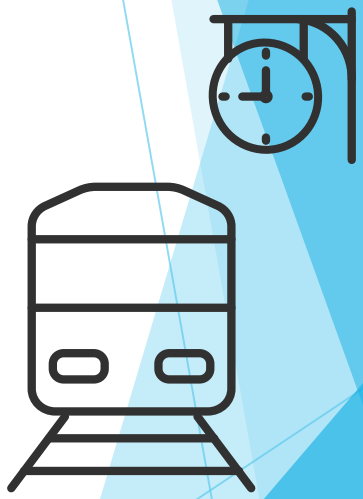
Comparison of Approaches: Punctuality figures

If overall Δ (delay at destination) is < 30' the train is punctual.

If overall Δ is >=30' and sum of IM reasons since last time the train was on time >= 30' the train is unpunctual.

	Proposed approach		Alternative approach
RFC	Punctuality delay at destination (all causes)	Complementary info Share of IM Reasons	Punctuality (IM-Attributable <30' for final delay)
RFC01	52%	14%	85%
RFC02	72%	8%	86%
RFC03	66%	15%	89%
RFC04	71%	8%	92%
RFC05	34%	7%	82%
RFC06	40%	9%	69%
RFC07	40%	5%	85%
RFC08	38%	6%	84%
RFC09	45%	8%	82%
RFC10	40%	11%	64%
RFC11	39%	4%	78%

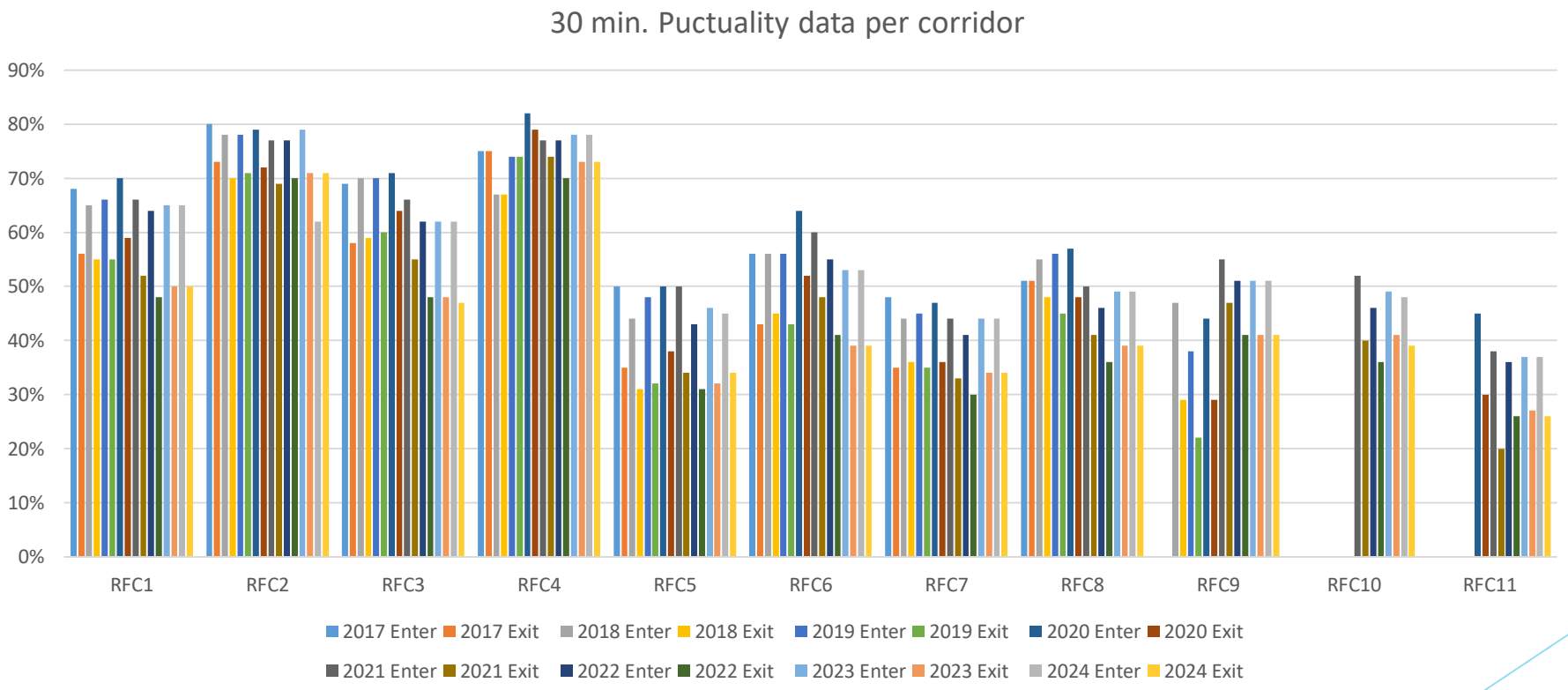
→ The RFC HLG decided using Proposed approach



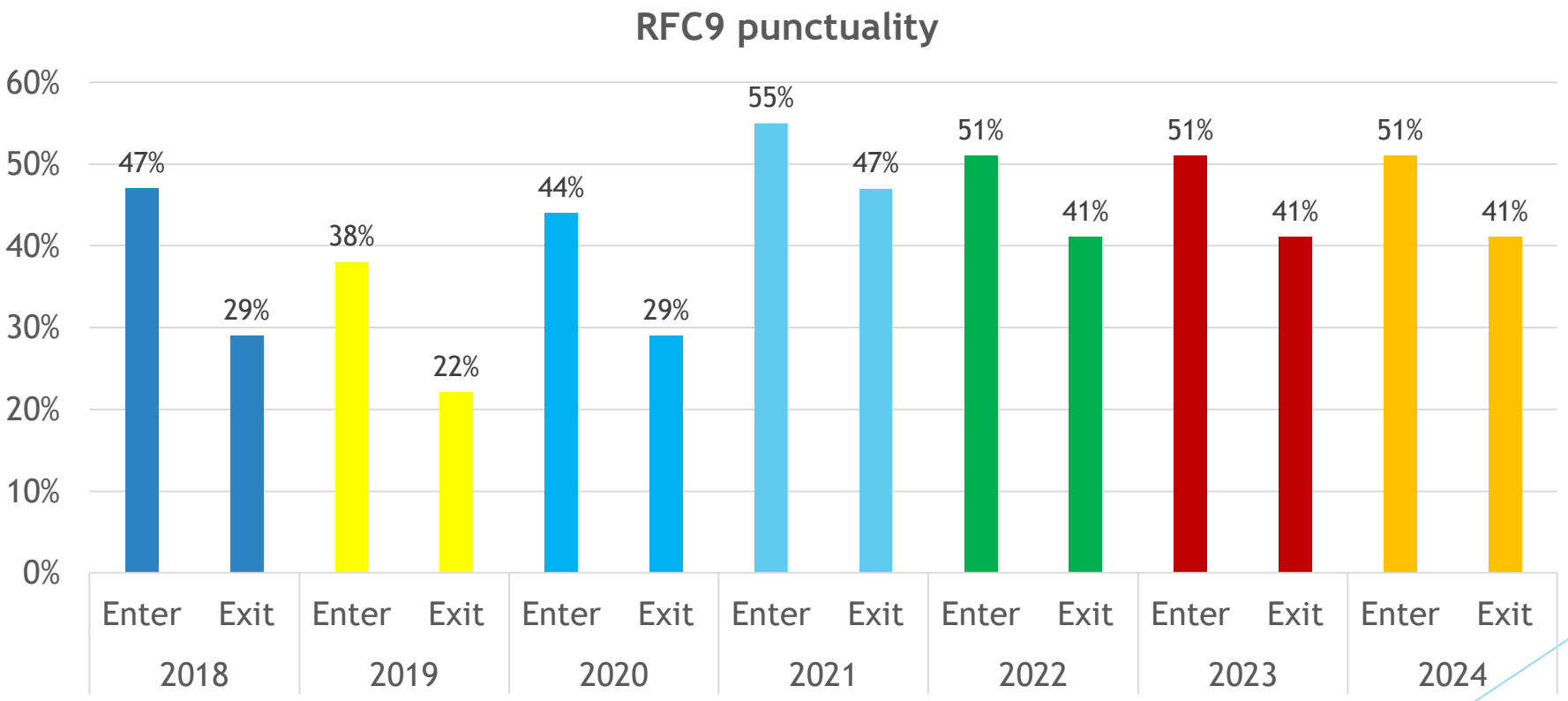
KPIs


Yearly traffic 2021-2024 (trains/year)
110000
100000
90000
80000
70000
60000
50000
106335
102865
102802
97703
2021
2022
2023
2024

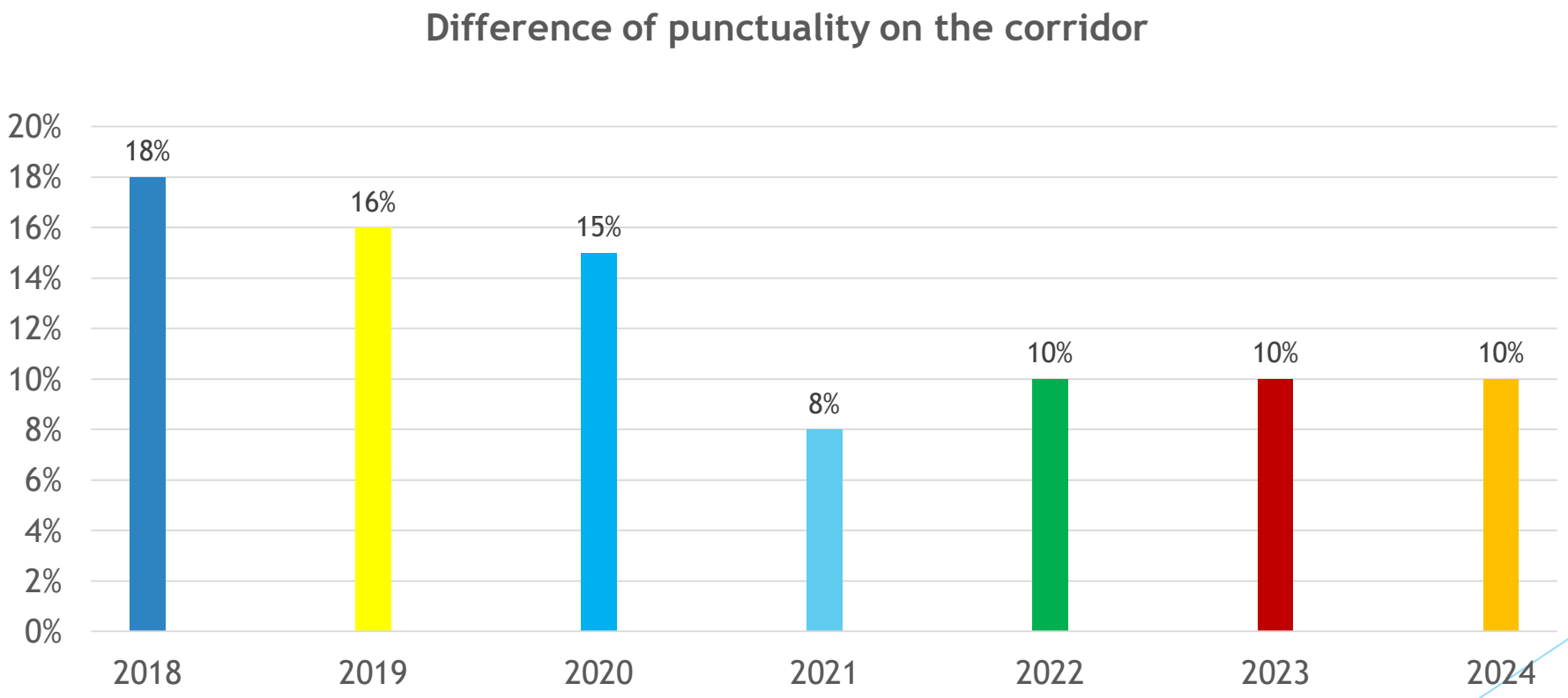
Punctuality on corridors



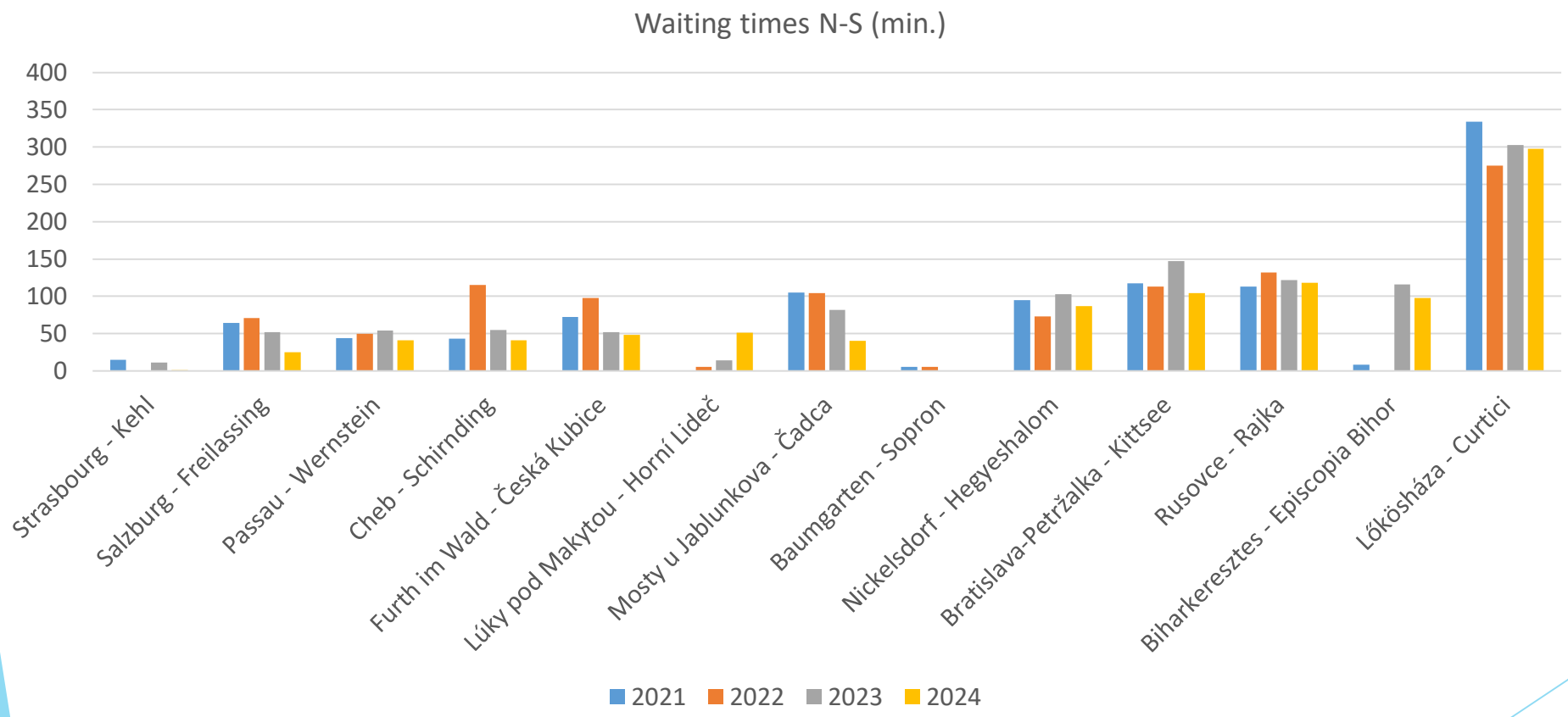
Developement of punctuality on corridor



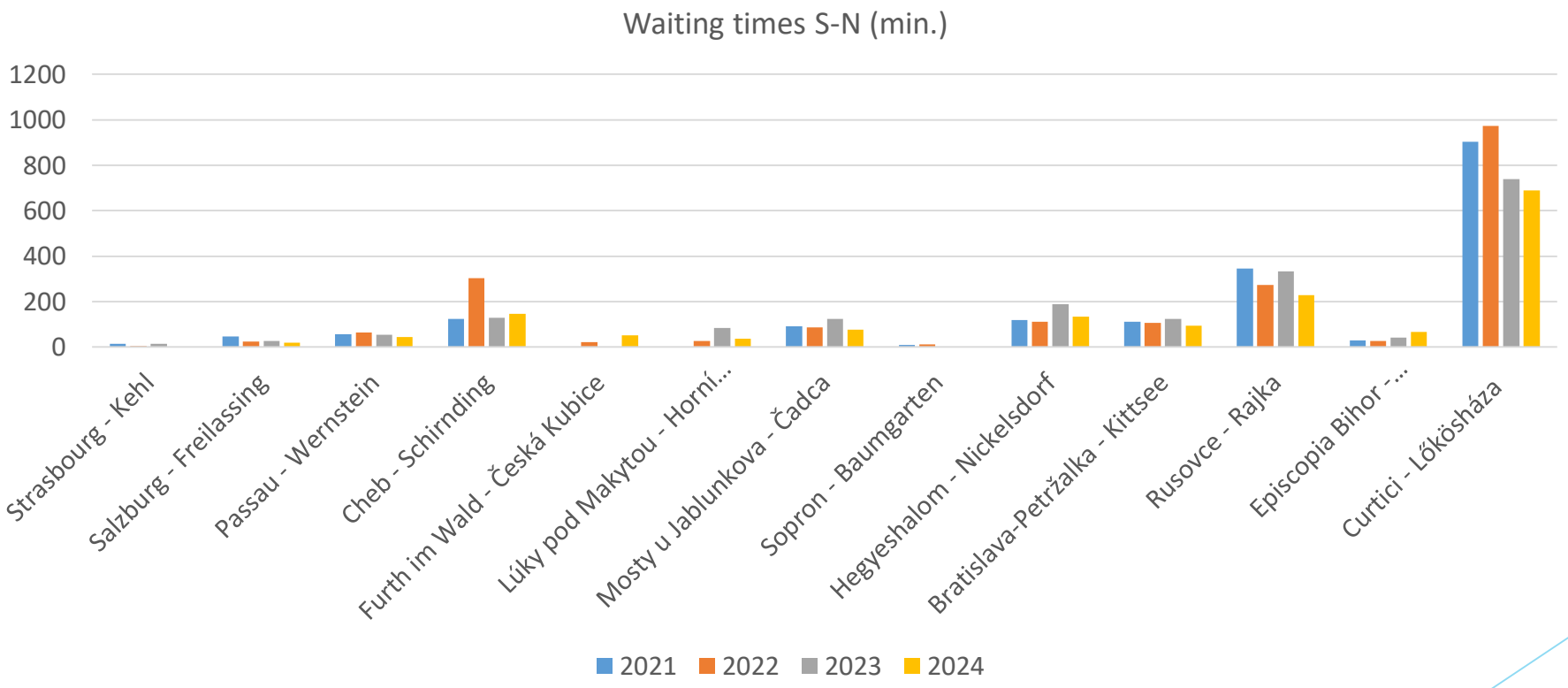
Developement of punctuality on corridor



Waiting time on the corridor



Waiting time on the corridor



Thank you for your attention