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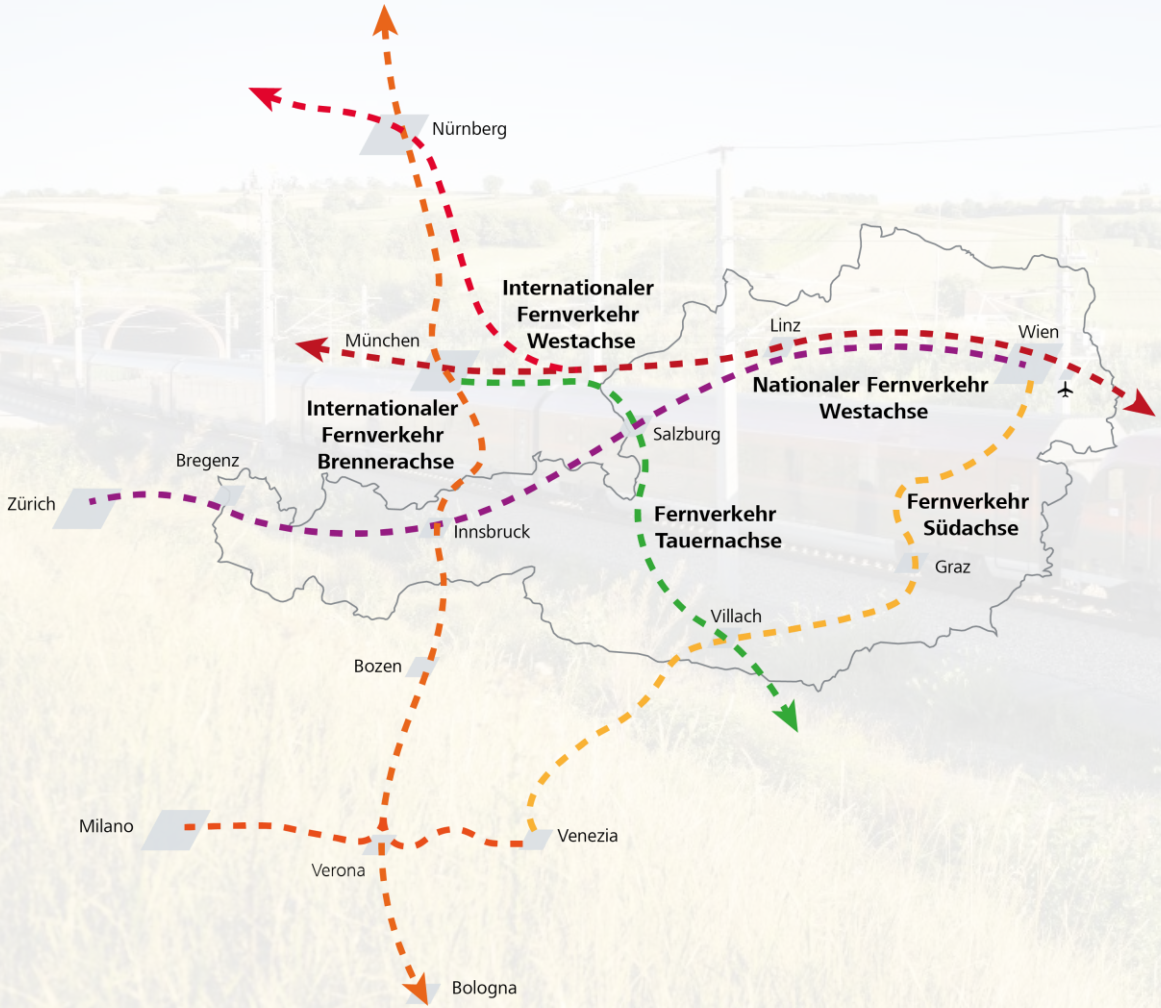
Demand-driven cross-border infrastructure development

June 2024

The Austrian main transport axes
embedded in the European railway network



- Extensive **mixed traffic**
- High volume of **transit traffic**
- Current focus: **infrastructure expansion on the Baltic-Adriatic axis**
- Already high demand for **local transport services** in **metropolitan areas**
- Routes in the **Linz-Salzburg-Munich** area are already at **capacity limits**
  - Extensive mixed traffic
  - Linz – Wels section to be expanded to four tracks by 2031
  - Existing infrastructure does not allow for further significant growth

Growing demand on existing infrastructure
Increase in performance required

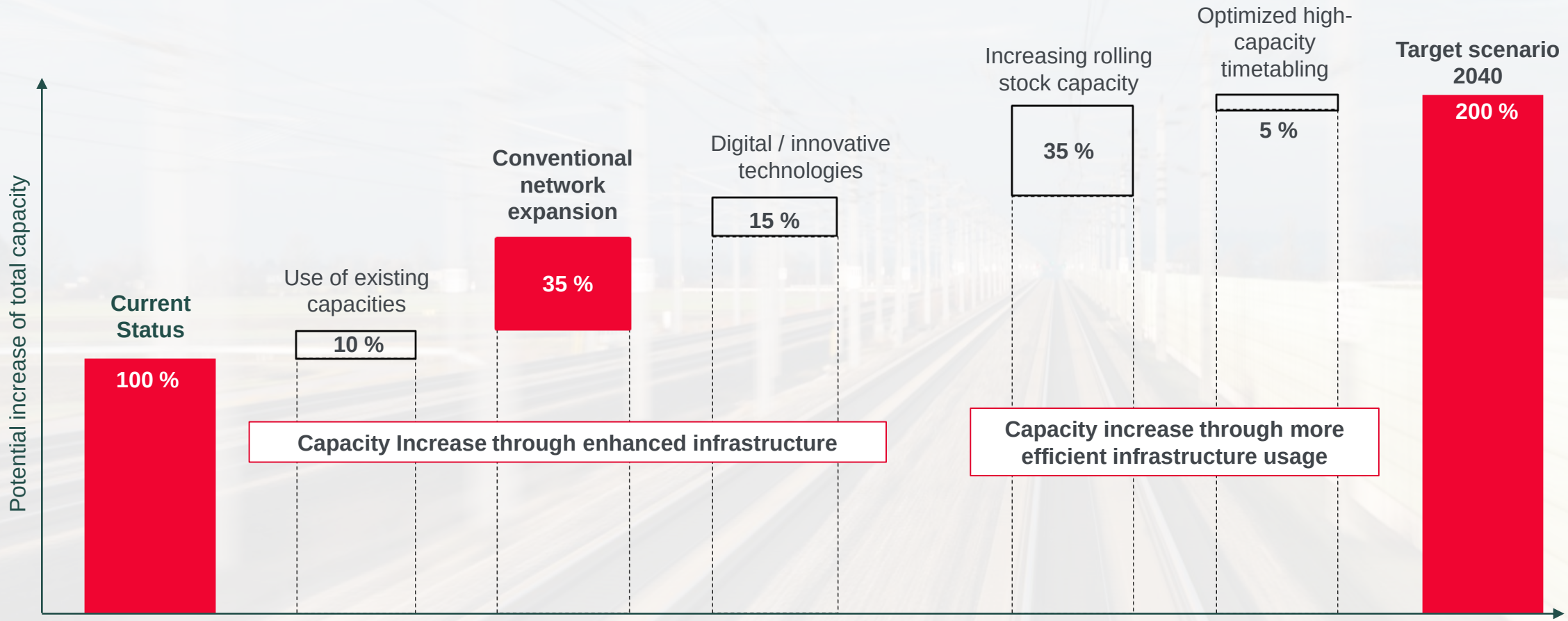
Opportunities

- **Introduction Austrian Network Pass**
- **20% Long-distance-passenger growth** (2023 vs. 2019)
- **Stable politicial commitment** to the rail system
- **Model shift in freight transport**

Challenges

- **Bottlenecks** restrict the availability of train paths
- **Conflicts of use** between different rail segments
- **Declining operating quality**
- **Competitiveness** of rail freight transport

Increasing the capacity of the rail system in Austria up to 2040



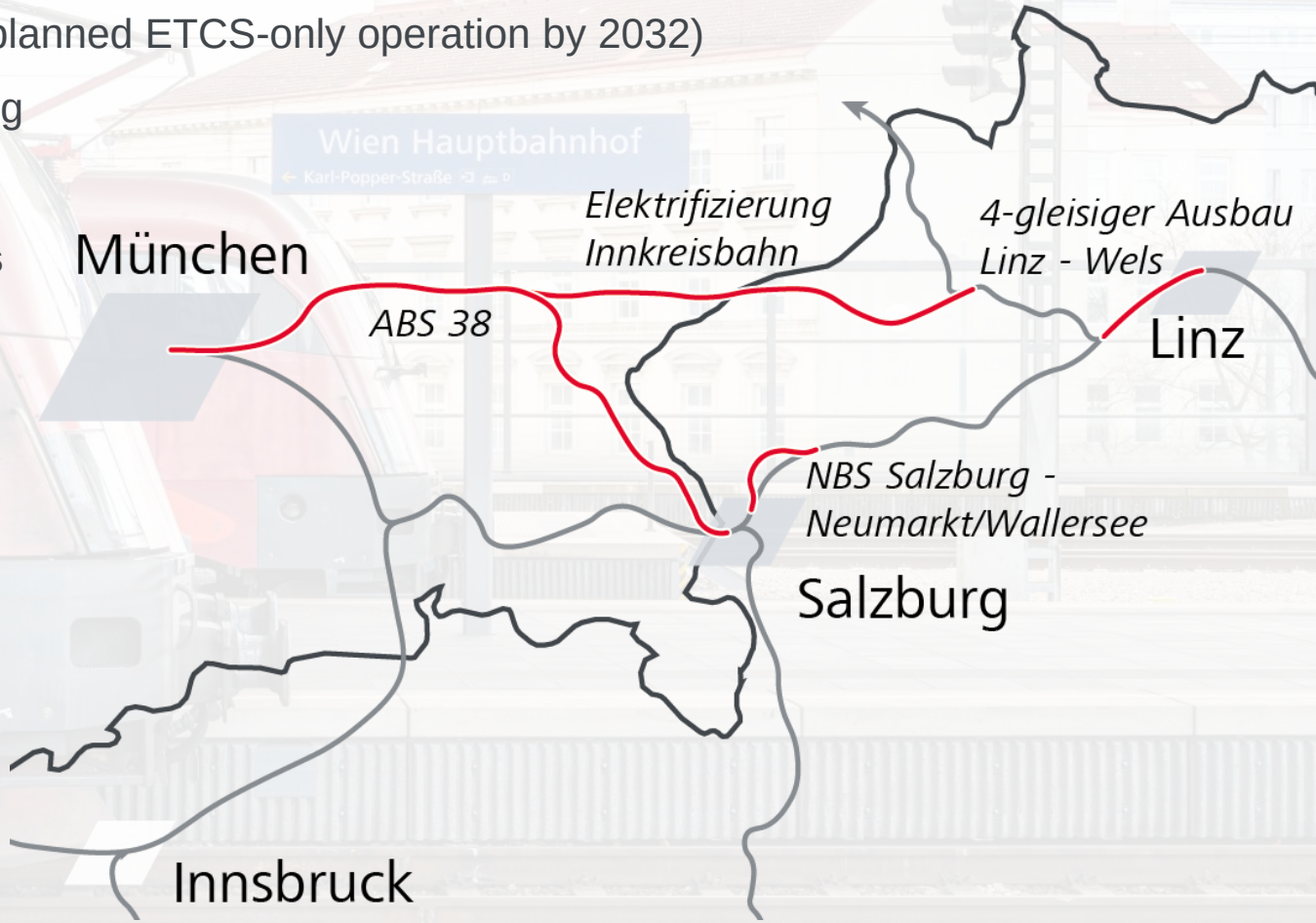
The railway network in the Linz – Salzburg – Munich area
Current expansion plans

Currently in realisation

- **Expansion** Linz – Wels **to four tracks**
- **ETCS installment** on the Austrian Western Railway (planned ETCS-only operation by 2032)
- **Expansion of ABS 38** Munich – Mühldorf – Freilassing
- **New rail line** Salzburg – Neumarkt/Wallersee
- Procurement of **double-deck long-distance vehicles**

Demand

- **Reduce journey time** significantly
- **Create capacities** for further growth
- **Dissolve traffic flows**
- **Increase system resilience**



The New Innkreis Railway
Technical details

- Starting points: **Wels junction** (Austrian Western Railway) & **Mühldorf** (ABS 38 Munich – Mühldorf)
- **Approx. 125 km** long, continuous double-track line with
  - Max. 8 per mille longitudinal gradient
  - 280 km/h design speed
  - Up to 3 regional railway stations possible
- Additional connections to the existing network planned
  - Hausruck railway
  - Mattigtal railway
  - Tüßling – Burghausen (ChemDelta Bavaria)
- Relatively **favourable geographical conditions** with an expected moderate proportion of engineering structures (approx. 20%)
- Compatibility with existing rail expansion projects (especially ABS 38)

The New Innkreis Railway
Immediate effects

Accelerate passenger transport

- **Massive reduction** of the Vienna – Munich journey time to approx. 2.5 hours
  → **Daily commuting distance**
- Resulting pull effect in European east-west traffic
- **Unbundling** of long-distance transport and local / freight transport
- **Shift** from short-haul flights and private transport

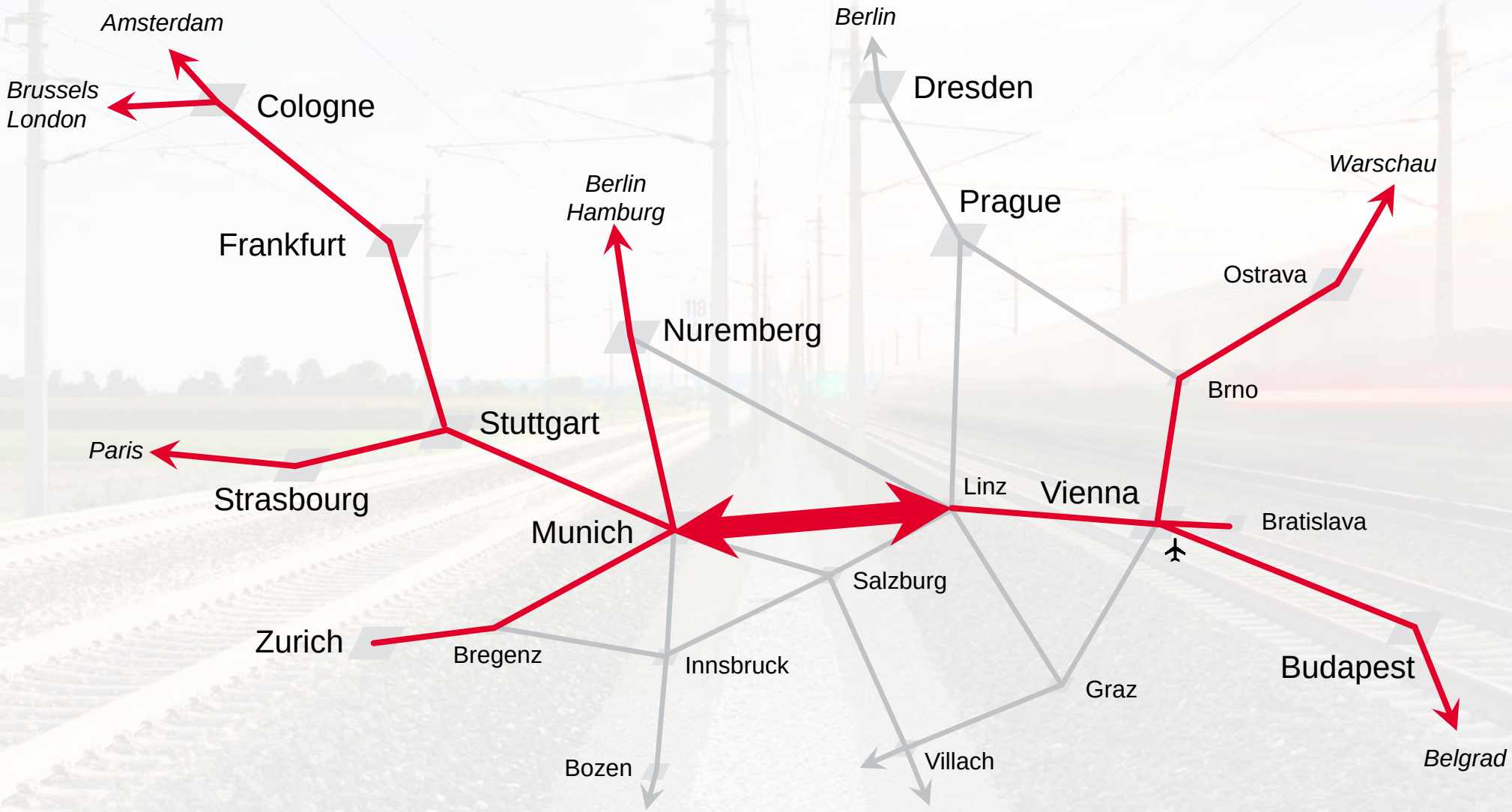
Improve regional connection

- **Cross-border fast regional transport** via the new Innkreis railway
- Additional train paths for local trains on existing lines

Make freight transport more attractive

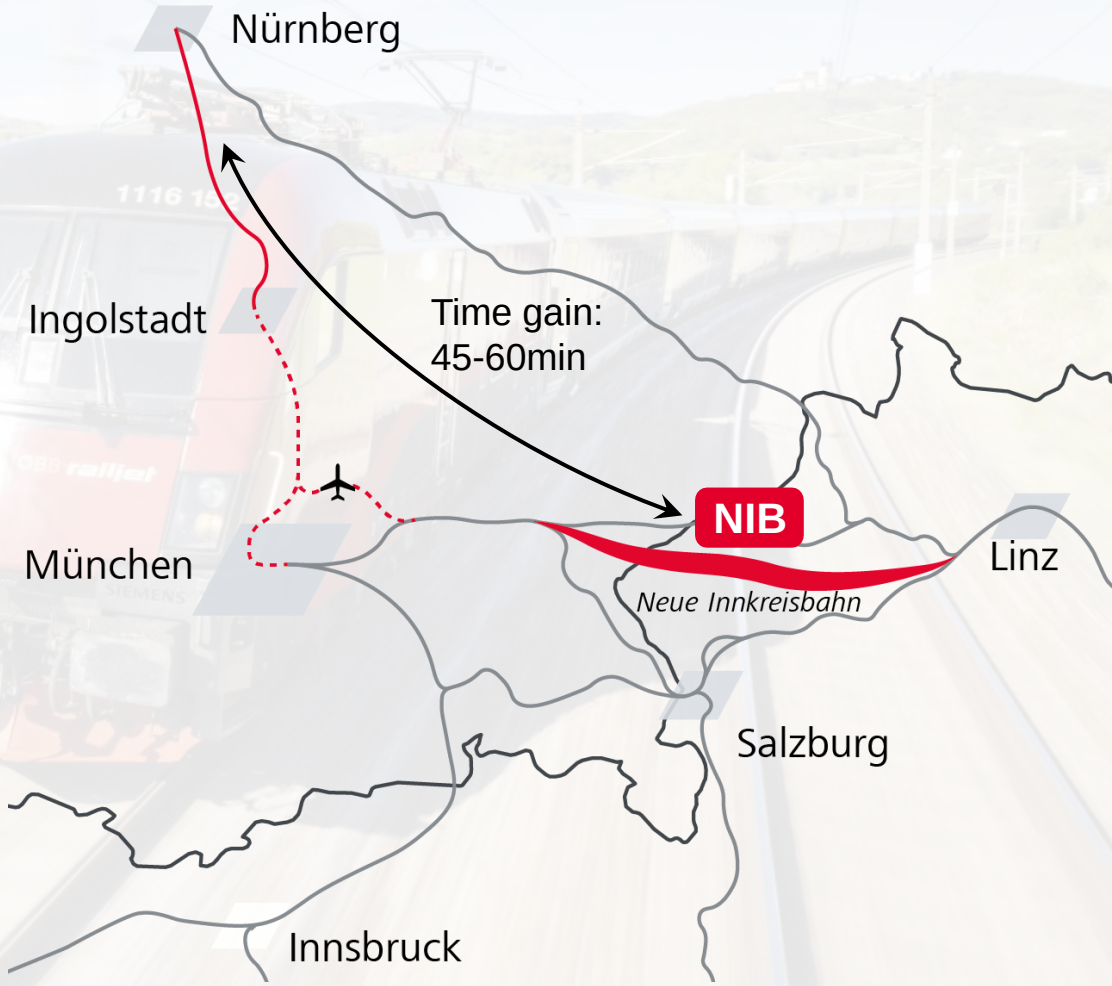
- **Capacity increase** through standardised speed patterns for freight & local trains on **existing routes**, especially on important freight route Nuremberg – Passau – Wels
- **Increased system resilience** through alternative route in the event of disruption
- Improved connection to ChemDelta Bavaria

Closing the gap in the European high-speed railway network
The new Innkreis railway between Munich and Linz



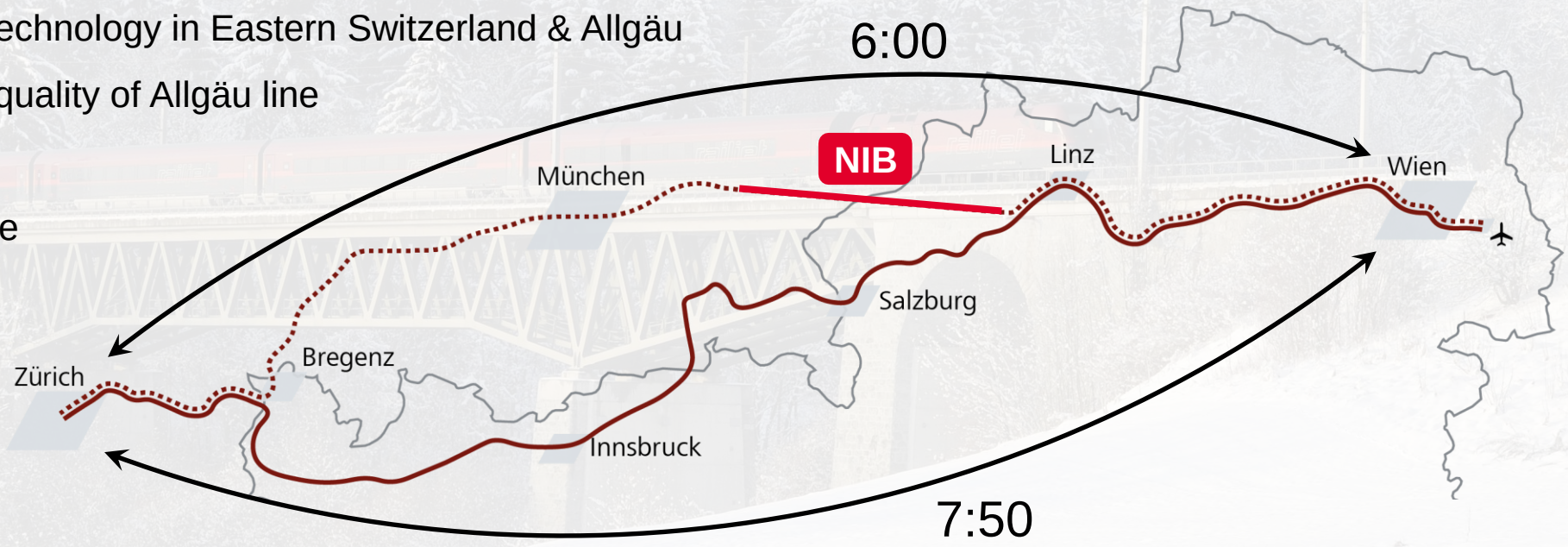
Direct long-distance connection to Munich Airport
Upside potential

- **Direct long-distance railway connection to Munich Airport** from Linz and Vienna via NIB and Walpertskirchner Spange
- **Upward compatibility** with the possible **Munich – Ingolstadt new high speed line** incl. long-distance rail link to Munich Airport
- Through-connection via Munich Airport generates a **journey time gain between Vienna and Nuremberg of 45 to 60 minutes** (vs. actual) with effects among others to Frankfurt, Cologne, Berlin, Amsterdam & Budapest
- **Acceleration of the Salzburg – Nuremberg (– FFM/Berlin) travel chain by around 30 minutes** possible by linking the long-distance lines Munich – Salzburg – Villach and Vienna – Nuremberg – Frankfurt via the Mühldorf junction and/or Munich Airport long-distance station

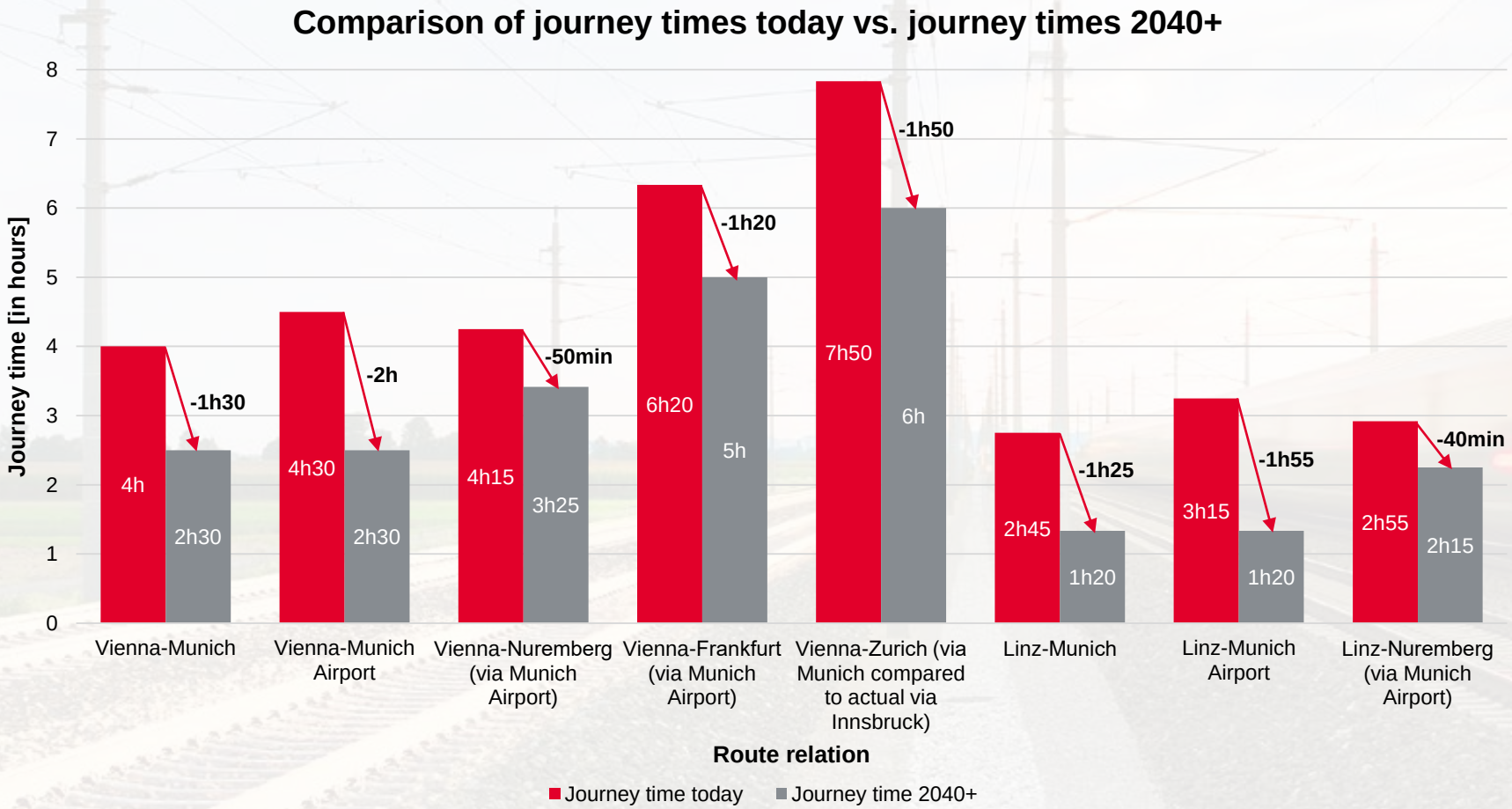


Enabler for Vienna – Zurich via Munich Central Station
Upside potential

- **Europe is moving closer together**: NIB enables **new international, high-performance connections** with neighbouring countries
- NIB as an enabler for possible through-connection **Vienna – Zurich via Munich main station** with a **journey time gain of up to 1 hour 50 minutes** compared to the existing route via Innsbruck
- Supplementary line to the existing route via Arlberg (particularly important for the Tyrol **–** Vorarlberg transport connection)
- Requirements:
  - Compensation for tilting technology in Eastern Switzerland & Allgäu
  - Increase in capacity and quality of Allgäu line
  - 400 metre train length
  - International long-distance train path in Switzerland via St. Gallen



Making journeys more attractive by massively reducing travel times
Goal: very hour from 2040 on all routes

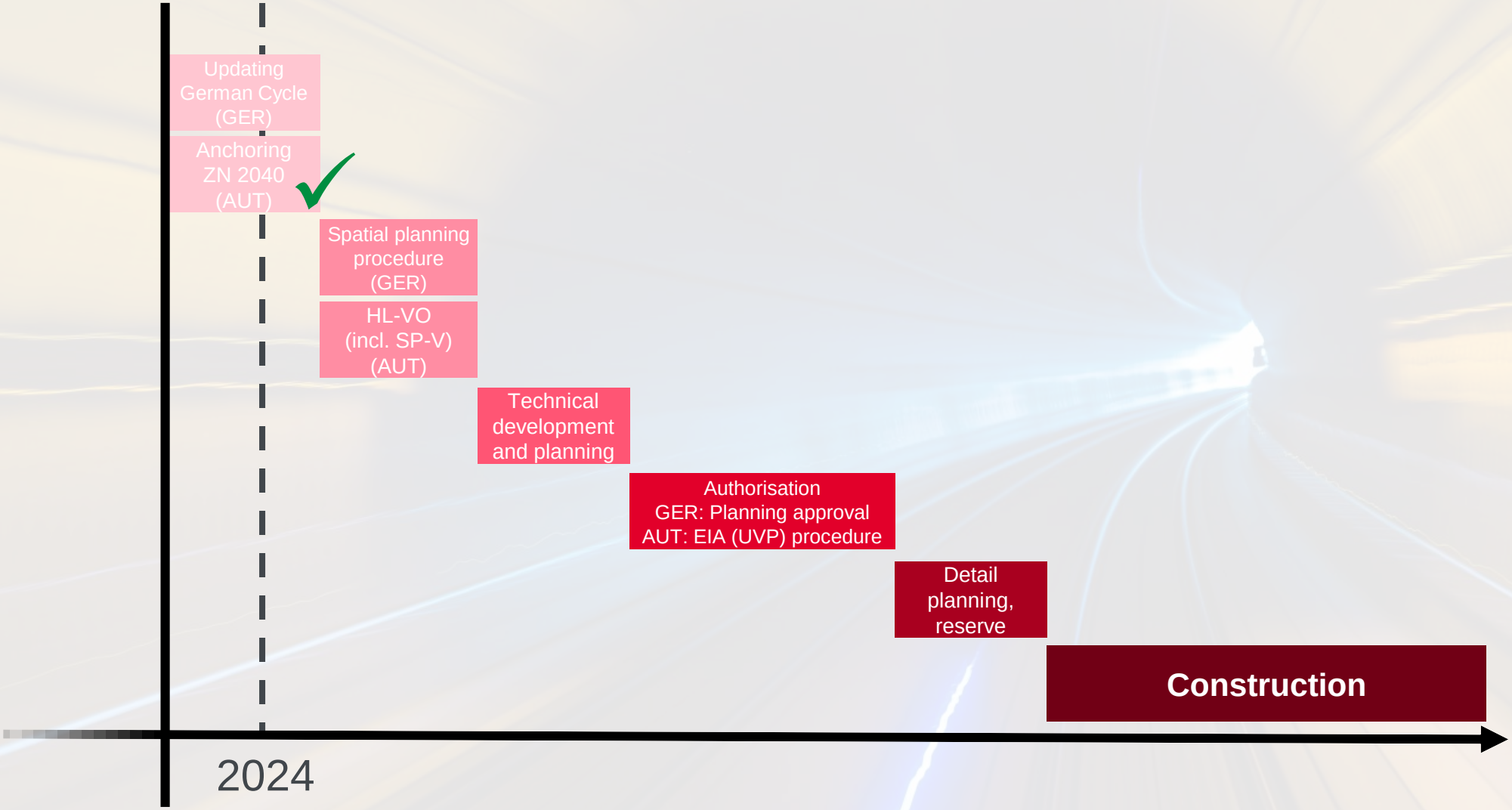


Key findings

- Journey time between Linz and Munich Airport more than halved
- Massive reduction in journey time on the Vienna – Zurich route via Munich (compared to Vienna – Innsbruck – Zurich)

Note: Journey times 2040+ include NIB, new high speed line Munich-Ingolstadt, improved Allgäu line (for the Vienna-Zurich route) and new high speed line Nuremberg-Würzburg (for the Vienna-Frankfurt route)

Outlook
Further planning & implementation (schematic)



NIB New Innkreis railway anchored in the 2040 target network (since January 2024)

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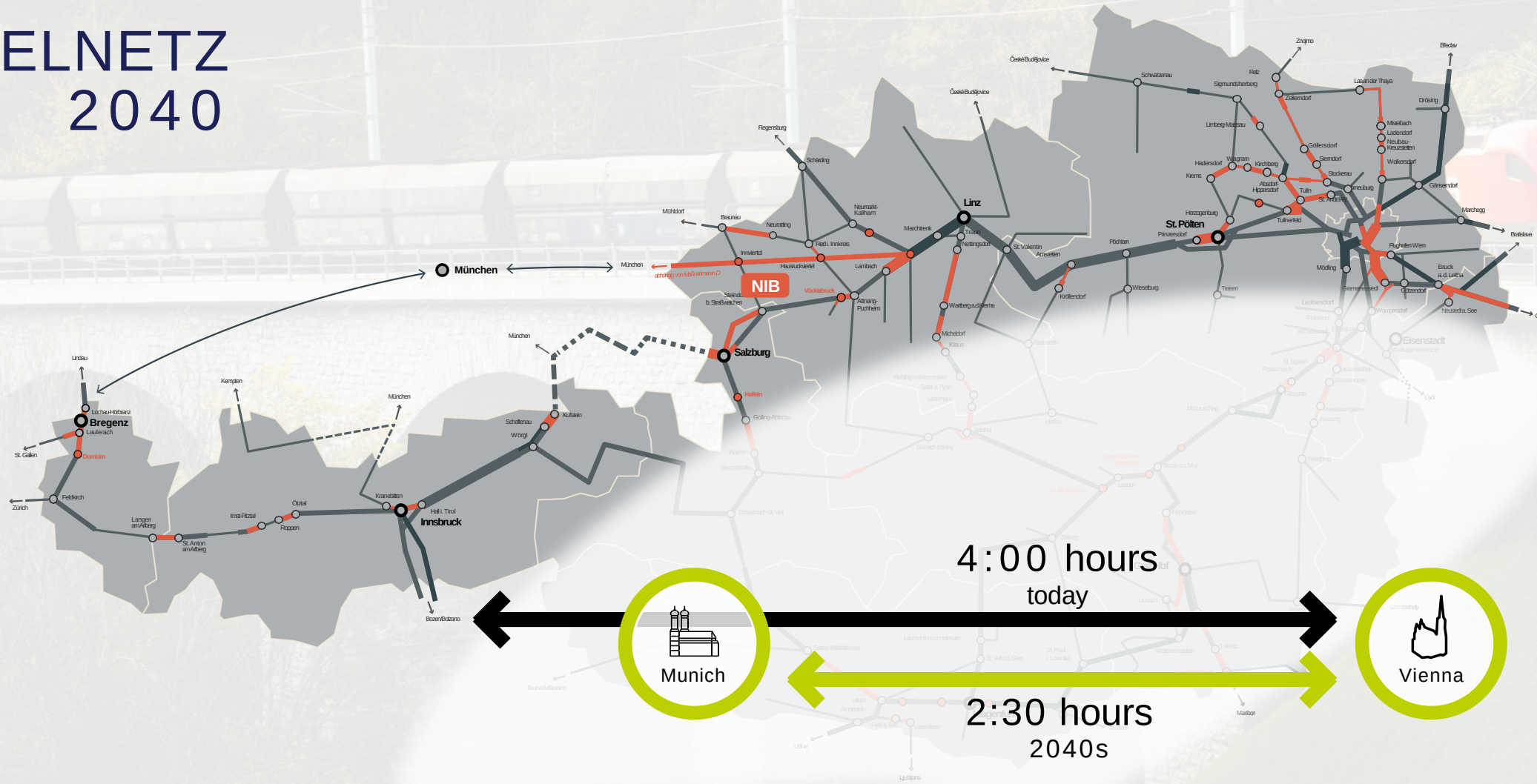
ZIELNETZ 2040



Europe is moving closer together

ÖBB HOLDING

with NIB THE NEW INNKREIS RAILWAY

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