

Recent Subsea Cable Disruptions: Rethinking Routing and Network Resilience Across Europe and Asia

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What we'll discuss today

- Our network spans between Europe and Asia
- 3 main regions of subsea fiber cuts: Baltic, Red Sea, Asia – and how they affect global transit
- Ukrainian disconnection of Russian 642 ASN – new traffic hubs across Europe?

140.000 km

Total Network Length

970+

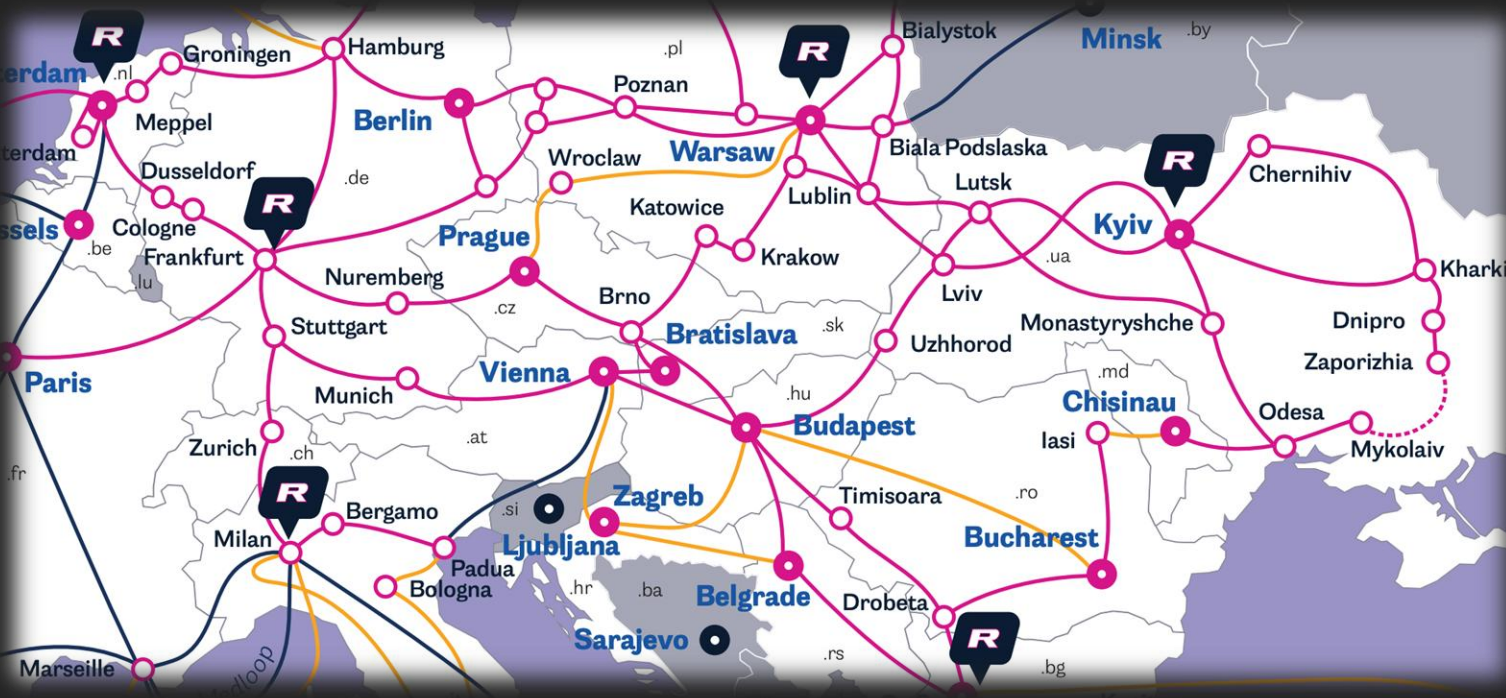
PoPs

99,6 Tbps

IP/MPLS Network Capacity

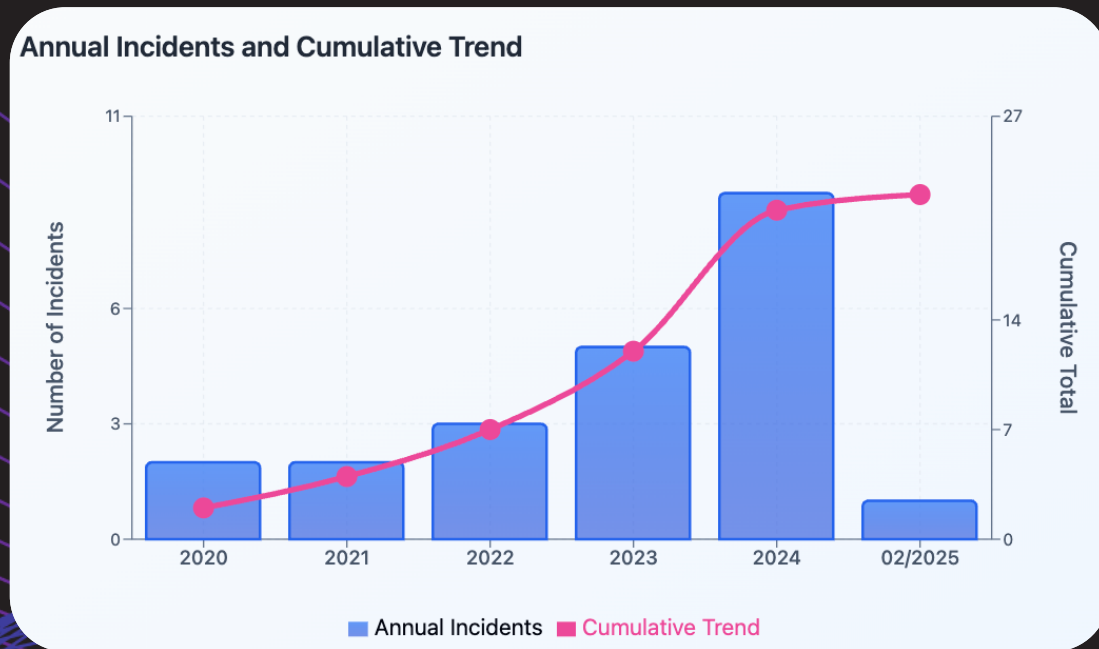
10th

According to
Caida AS Rank*

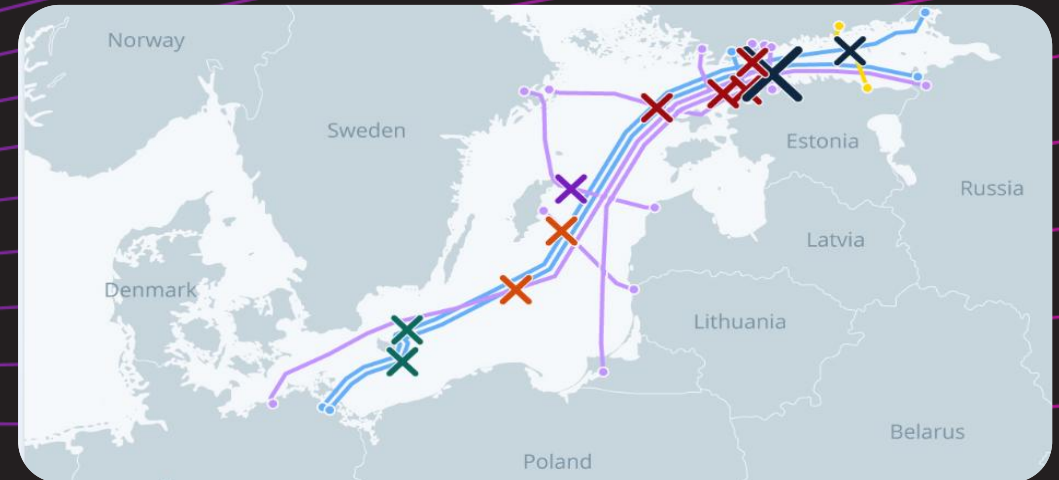


Trend of incidents in the Baltic Sea

The chart shows incidents of damage to underwater cables in the Baltic Sea from 2020 to 2025.

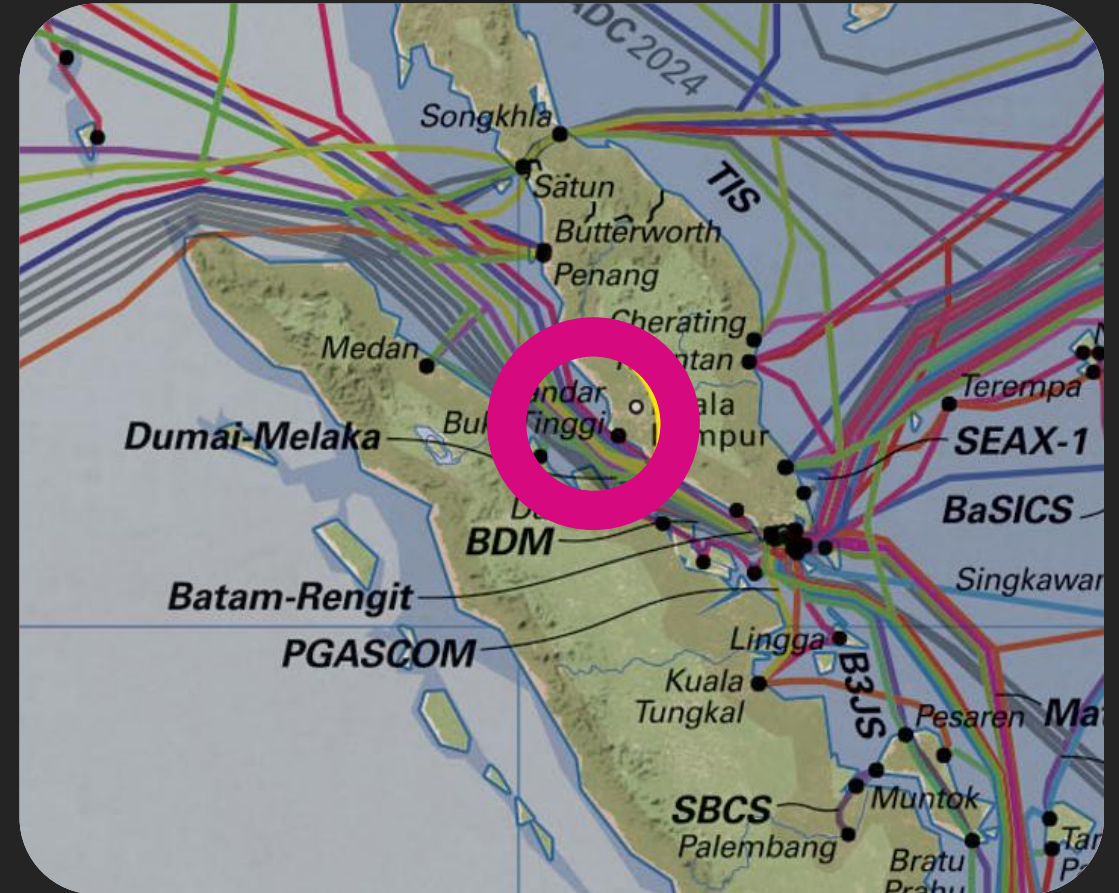


The number of underwater cable interruptions in the Baltic Sea has increased dramatically in recent years. This is a concerning trend, as these cables are critical to our communications infrastructure.



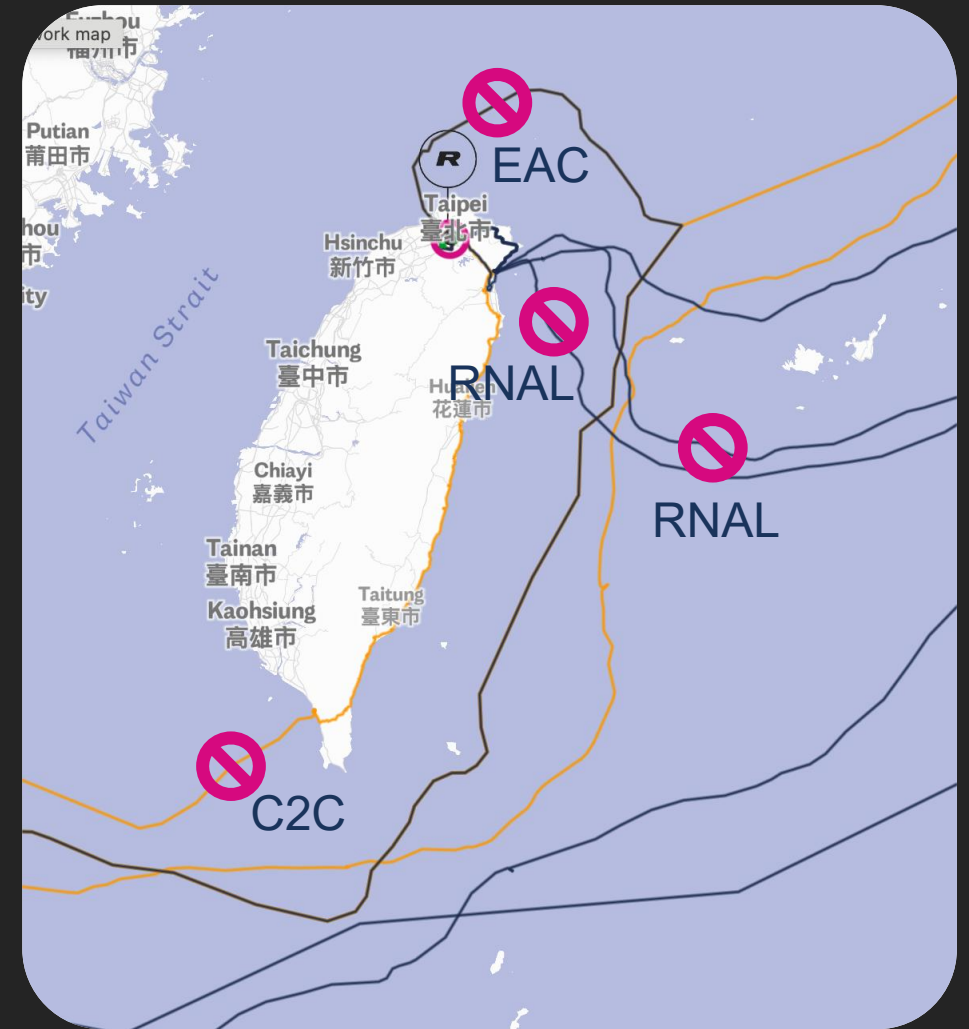
Red Sea: Submarine cable fault on SMW5

- On 19 April 2024, there was another interruption on the cable between Singapore and Europe.
- No more direct submarine cable options between Europe and Singapore with big throughput.
- SMW5 fixed ~ 28 June, 70 days downtime
- AAE1 fixed ~17 July, 146 days downtime



Taiwan cable cuts 2025

- Tokyo – Taiwan **RNAL** cable since 06.01.2025 (fixed 25.08.2025 in **212 days**)
- Hong-Kong – Taiwan **C2C** cable since 10.07.2025
- Hong-Kong – Taiwan **RNAL** cable since 06.07.2025
- Hong-Kong – Taiwan **EAC** cable since 22.08.2025
- Cable maintenance Hong-Kong – Taiwan **APG** cable August 2025
- Cable maintenance Tokyo – Taiwan **RNAL** cable August 2025



Map: www.retn.net/network/network-map

Mitigation strategy for the cable cut impact

MTTR

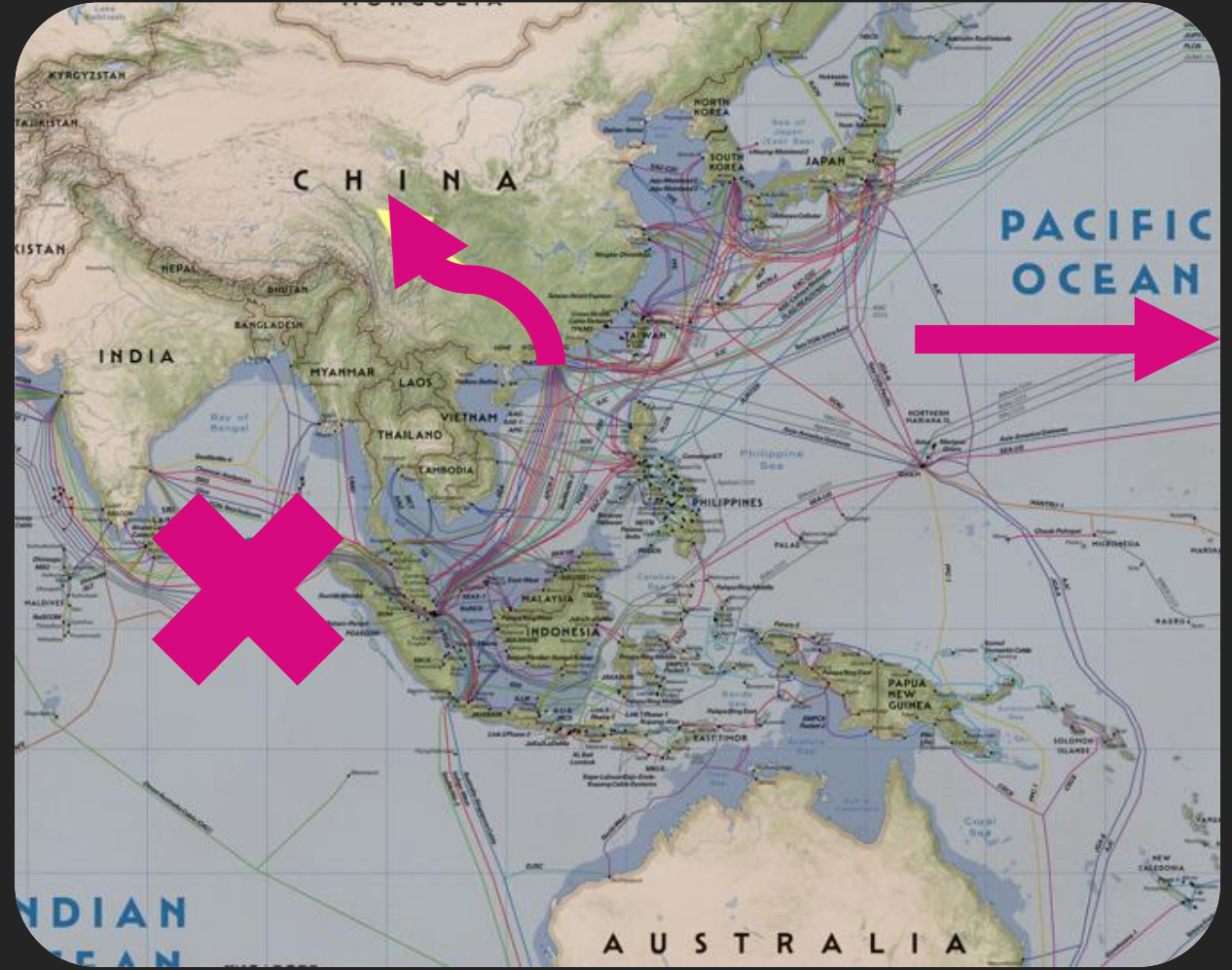
1 subsea fault: 40 days

1 terrestrial cable cut: 4-12 hours subject to severity

- *Option 1 reroute to east direction*
Issue: Double up the RTT compared with normal one
- *Option 2 reroute via terrestrial cable*
This is the option that we are offering to our customers in the end.

Terrestrial cable:

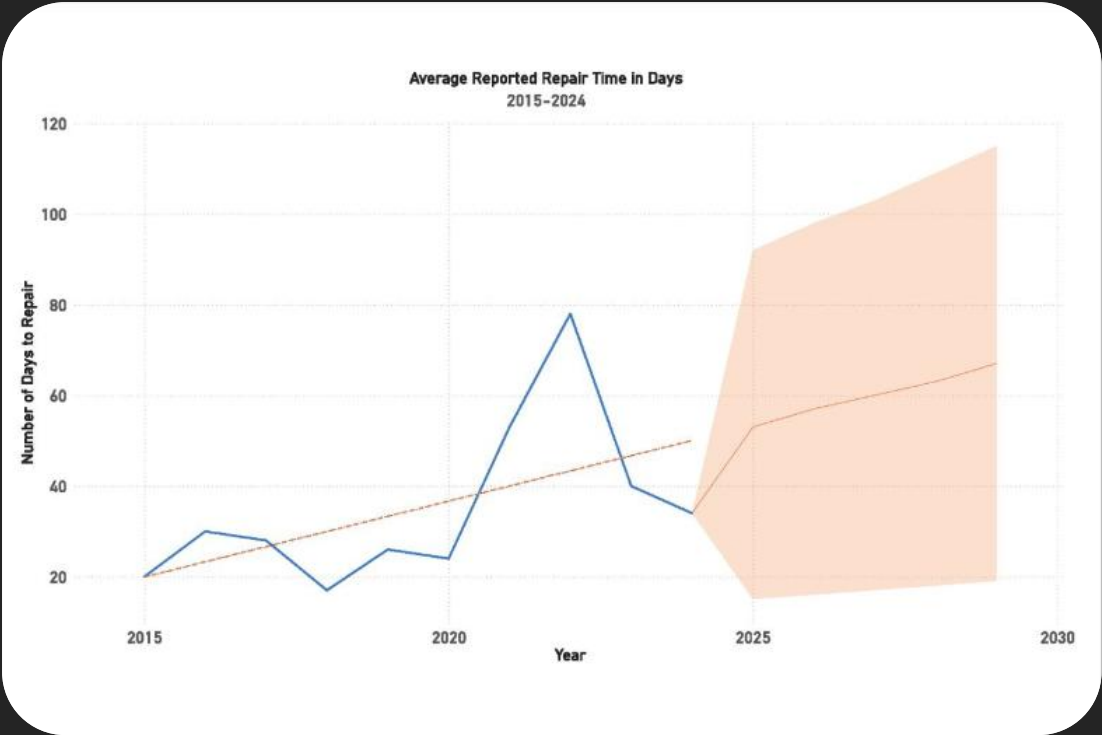
Most of the available Trans-Eurasia terrestrial cable systems are offering protection to minimise the impact of cable cuts due to the long distance.



Terrestrial vs Submarine cable fault management

	Amount of cable faults	MTTR
Terrestrial cable	Often	4-12 hours
Submarine cable	Seldom	Weeks to months

- **MTTR**
1 subsea fault: 40 days (if lucky)
1 terrestrial cable cut: 4-12 hours subject to severity
- **Terrestrial cable:** Most of the available Trans-Eurasia terrestrial cable systems offer **protection** to minimise the impact of cable cuts due to the long distance.
- **Terrestrial routes** offer better **capacity scalability** (HW upgrade, shorter regeneration segments)

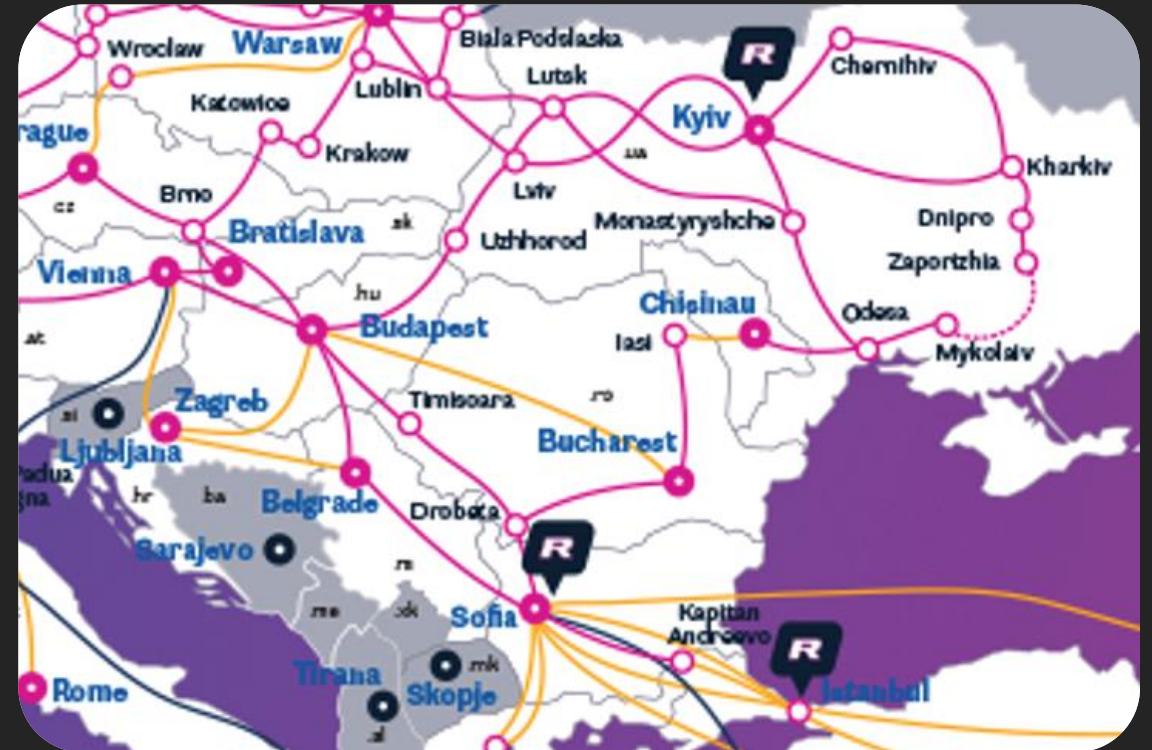


Source: Submarine telecom industry report 2024/25

Terrestrial routes. Geopolitical impact:

UKRAINIAN Experience in creating new traffic hubs

- The cable disconnection between Russia and Ukraine and the blocking of the Russian 642 ASN was the factor in rerouting.
- Sizable increase in internet bandwidth to other European countries—particularly to Poland and Hungary. Route capacity levels have **nearly tripled since 2021** between Ukraine and these two countries.
- As a result, **Poland** has now surpassed **Germany** as Ukraine's primary node of international connectivity with an estimated 3.7 Tbps of international bandwidth.



* Telegeography IP report

Survival tips for DWDM network operators

- Ensure **route**, **PoP** and **vendor** diversity
- Prioritise equipment **interoperability**
- Understand the supporting **infrastructure** (power and environment at ILA PoPs)
- Maintain **spare parts** inventory; plan **logistics** in advance
- Keep operational **teams** engaged and informed

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