



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Denmark: Country Report, from RIPE NCC perspective

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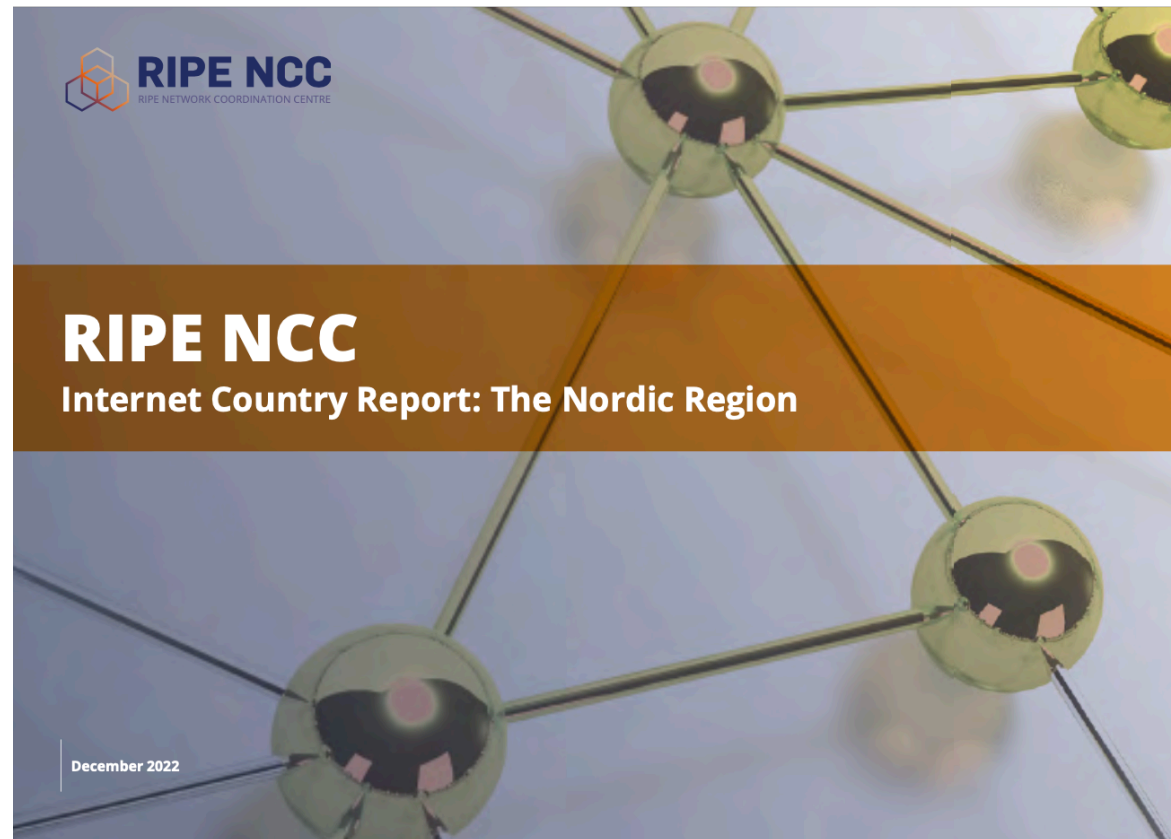
<https://events.dknog.dk/event/21/contributions/159/>

Copenhagen, Denmark | 10 March 2023 | DKNOG 13

“Internet Country Report”: The Nordic Region



https://labs.ripe.net/author/suzanne_taylor_muzzin/ripe-ncc-internet-country-report-the-nordic-region/

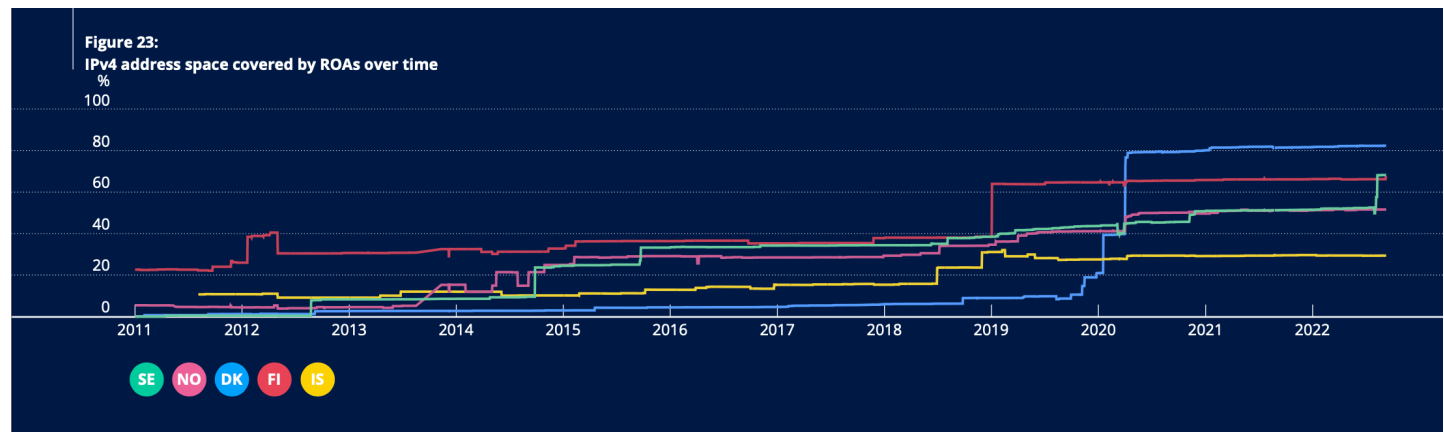
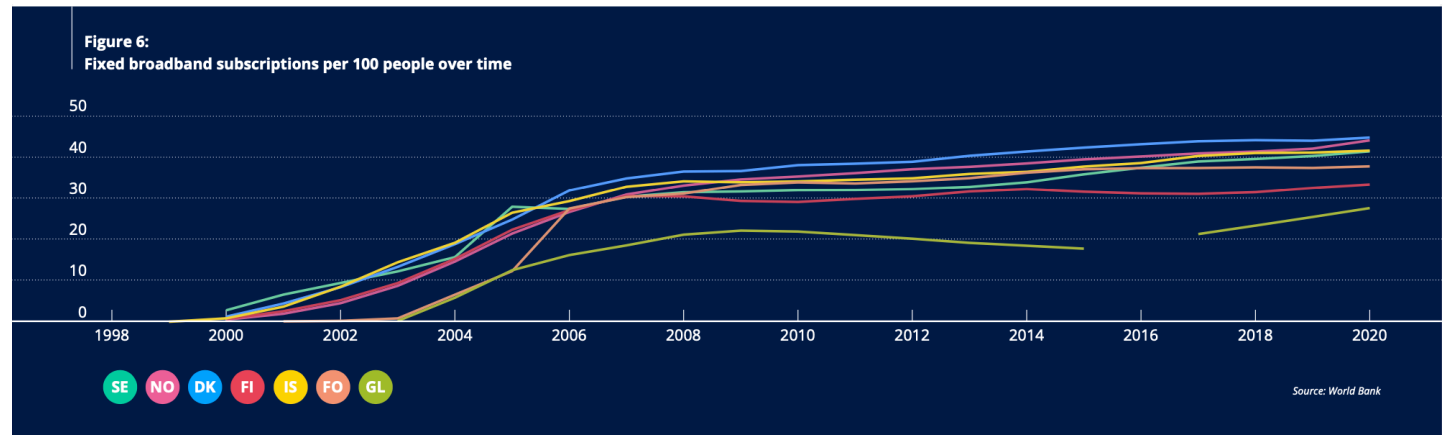


Denmark: First in EU!



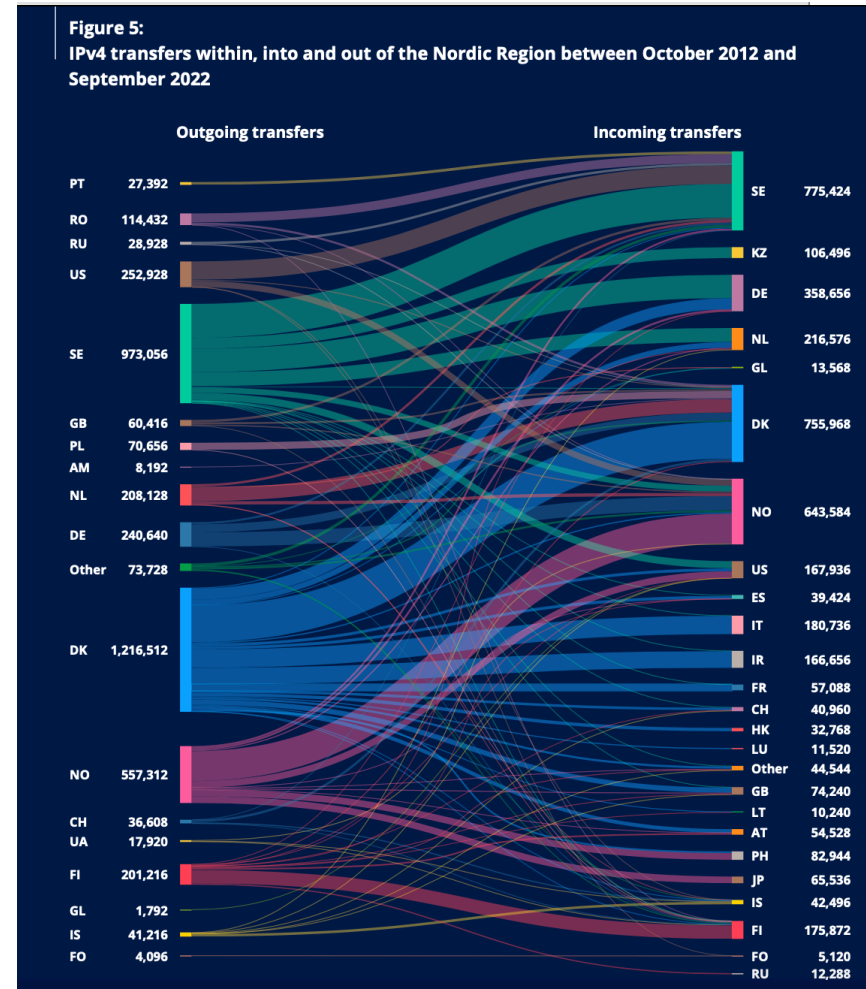
- **First in:**

- broadband
- 5G
- ROAs for IPv4
- connectivity
- & 2nd place overall according to “DESI”

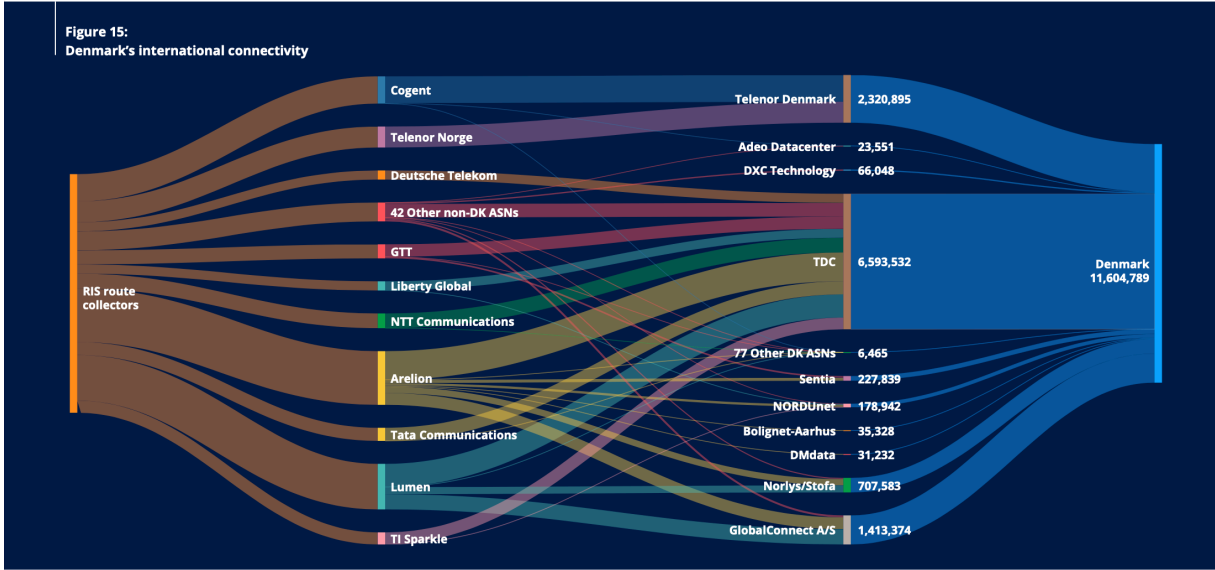
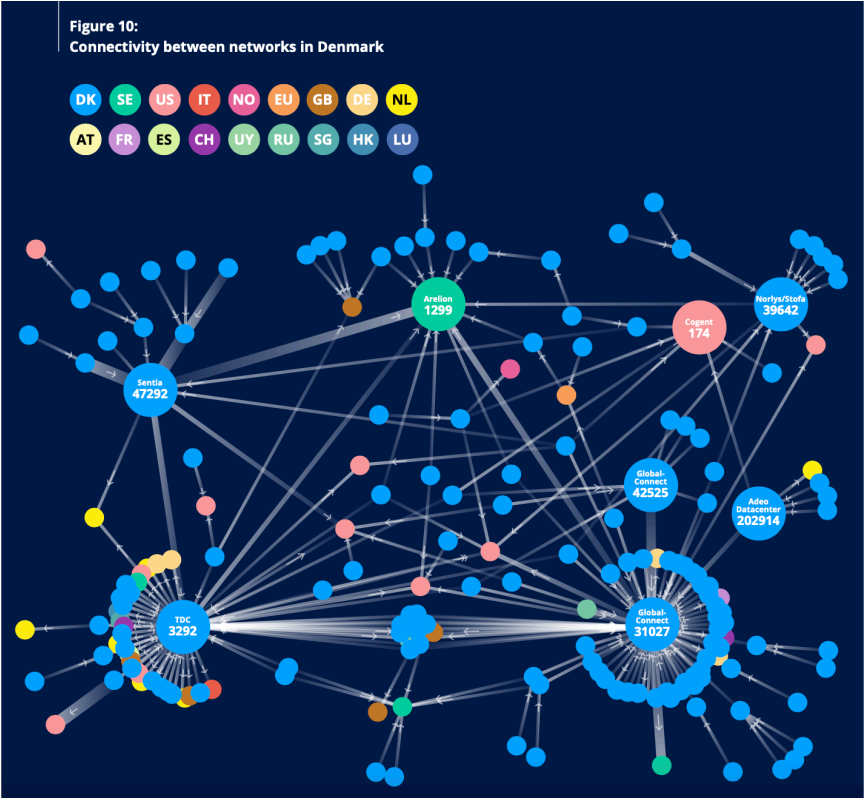


IPv4 Transfers

- Secondary market in IPv4
- Biggest net importers:
 - Fibia (DK): 164,864
 - SEAS-NVE (DK): 65,536
- Biggest exporters:
 - Styrelsen for It og Læring (DK): 736,000
 - Sagitta (DK): 65,536



Local & International Inter-connectivity: PDF

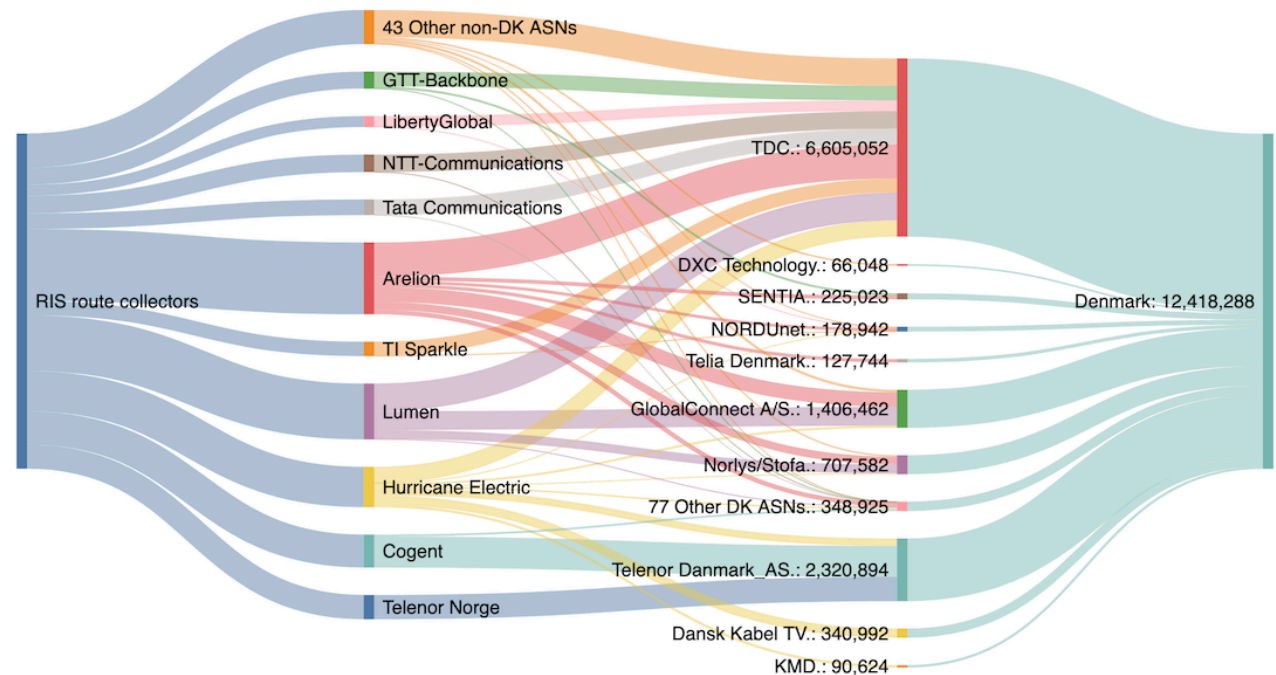
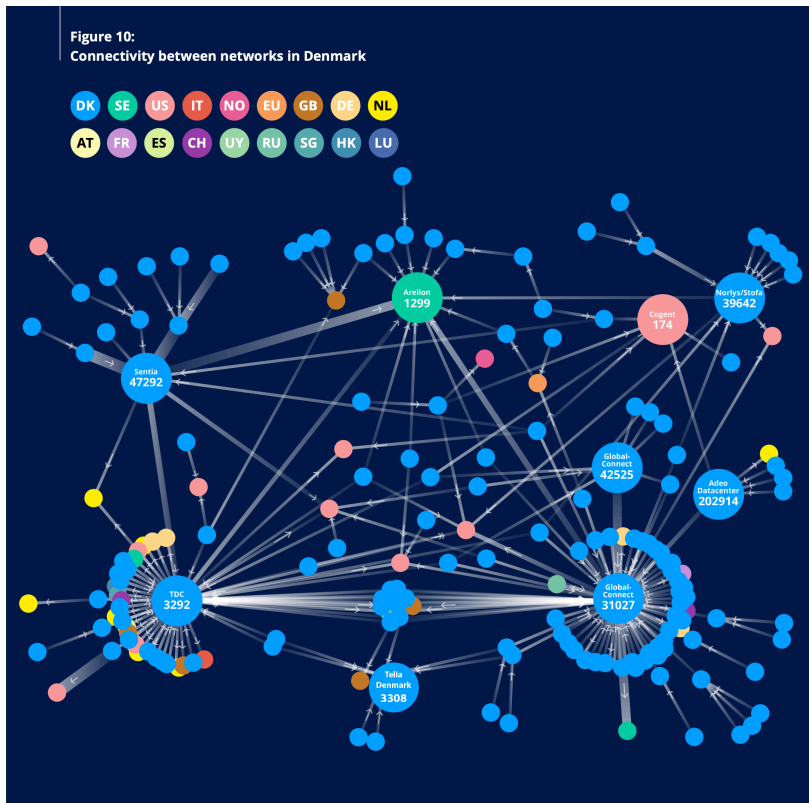


Updated Local & International Inter-connectivity



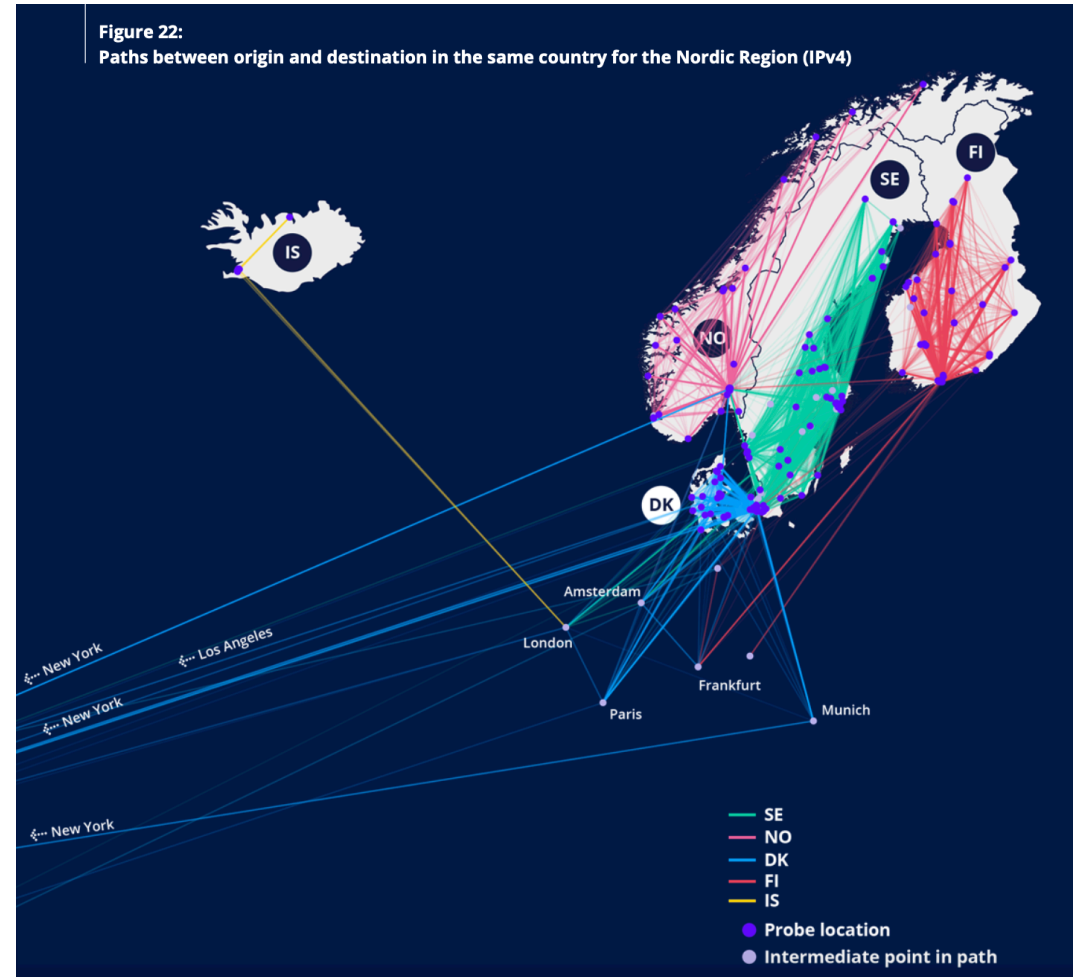
- Based on feedback, we've added Telia DK (AS3308)

Thanks to René Wilhelm & Suzanne Taylor!



Traceroute paths

- ... “tromboning”!
- Many paths go outside DK
 - as seen by RIPE Atlas probes mesh
- Why?
- Explore for yourself:
 - IXP-Country-Jedi
 - <https://jedi.ripe.net/>



IXP & Country Paths Exploration



- RIPE Atlas probes mesh

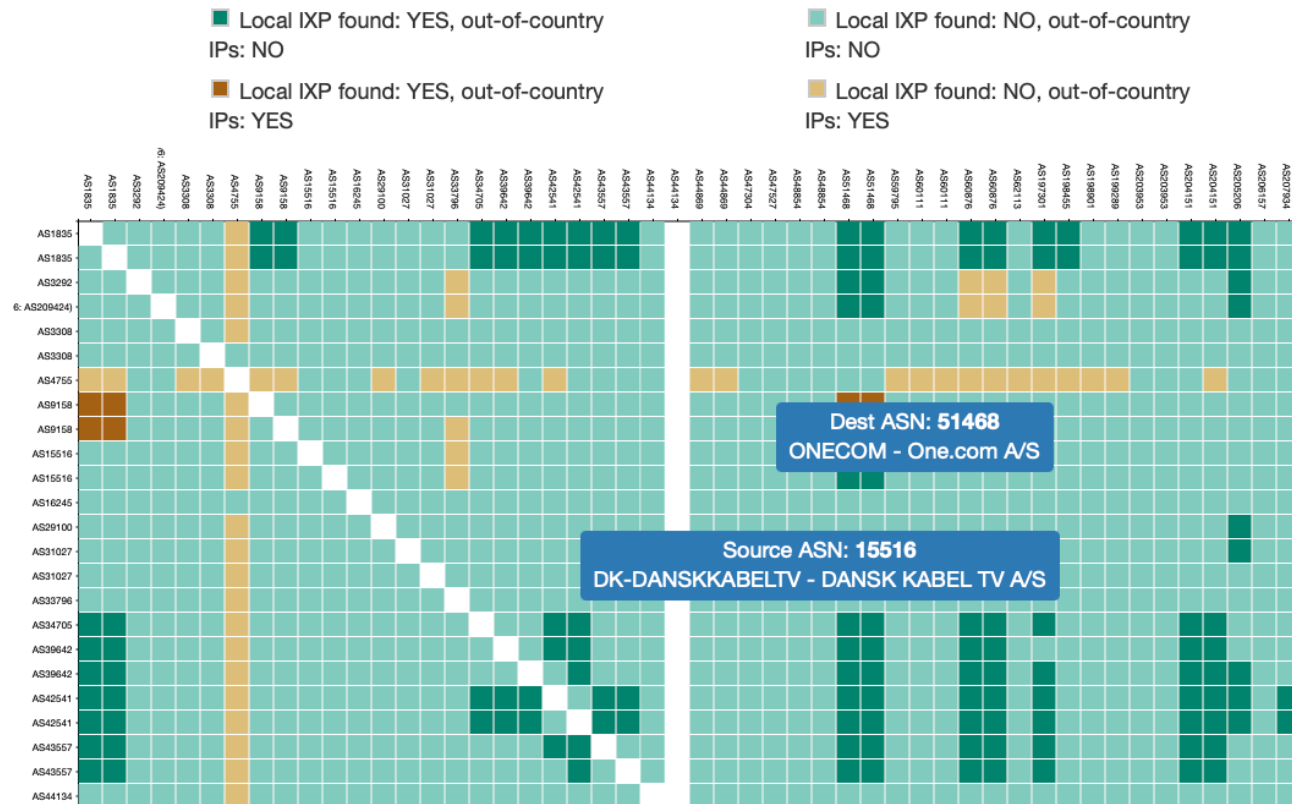
- <https://jedi.ripe.net/latest/DK/ixpcountry/index.html>

- Pairs of ISPs

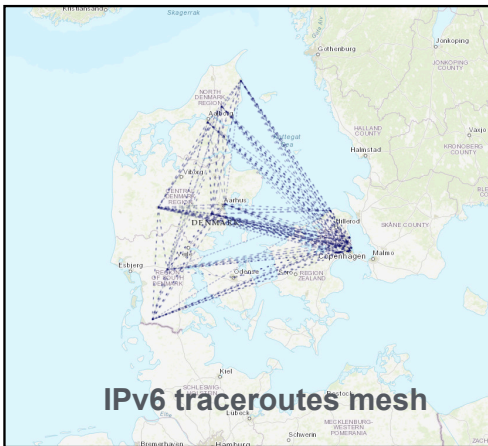
- if the path goes via an IXP

- if the path stays in country

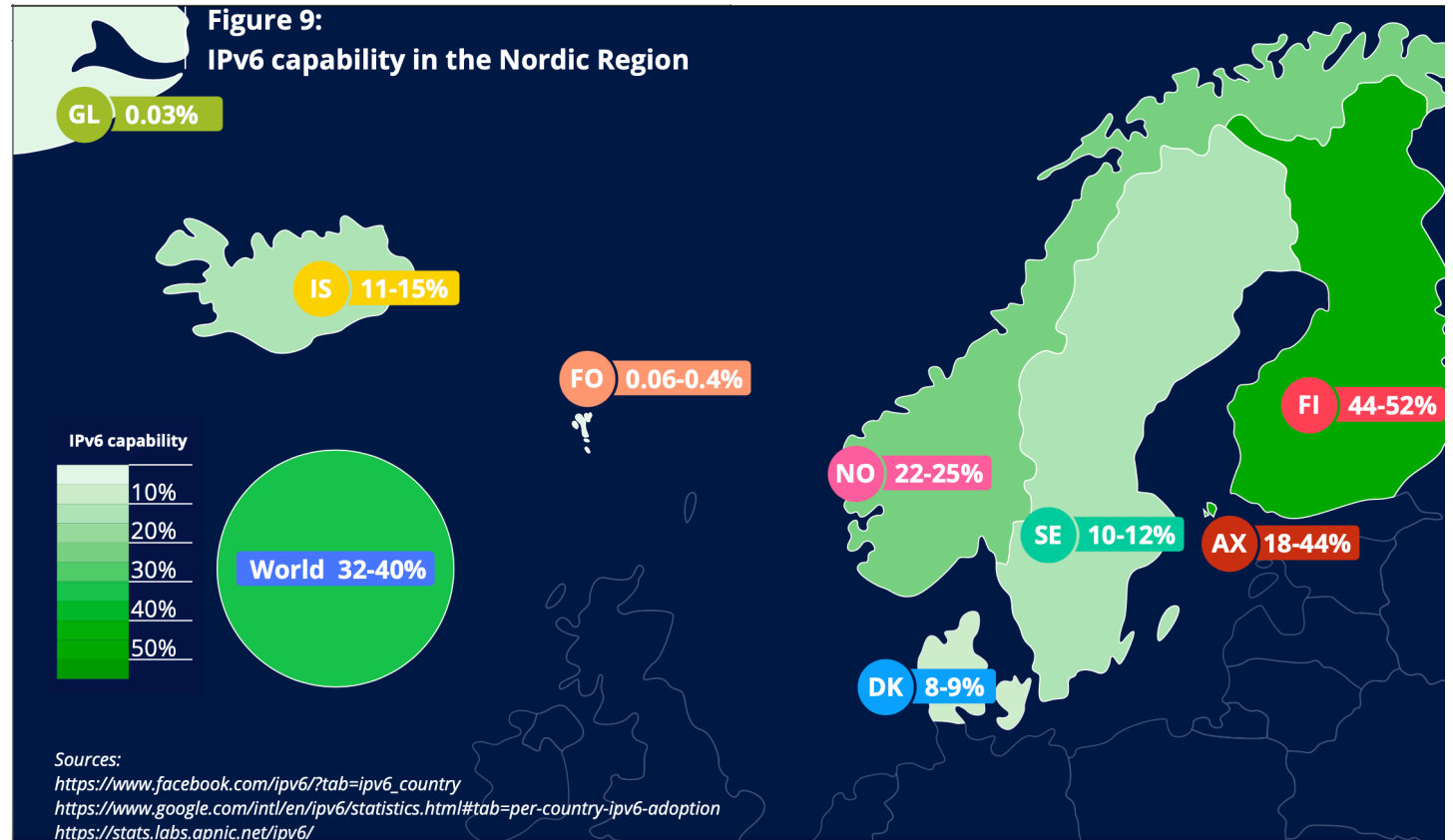
- GeoPath (IPv6/IPv4), RTT Mesh, all IXPs...



DK: Least IPv6 capability of Nordics



- Explained by
 - “no user demand”
 - “no business case”
 - large IPv4 space

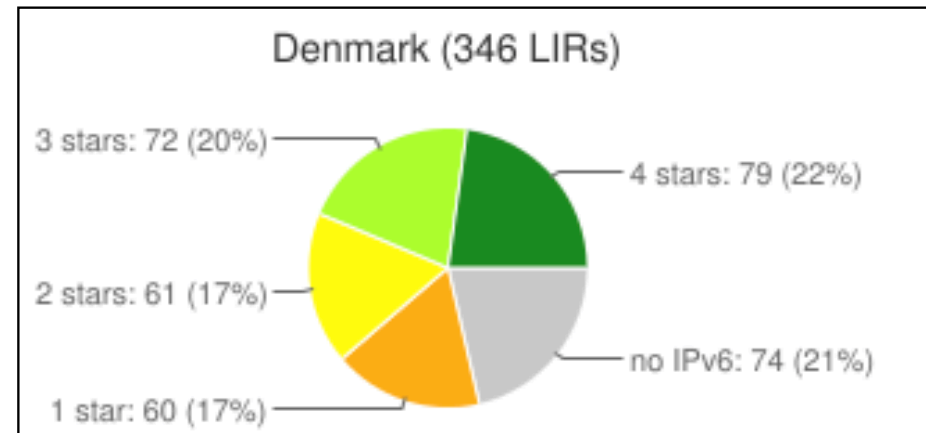


IPv6 RIPEness

- “Stars” for LIRs who:
 - have an IPv6 allocation
 - have route object, reverse DNS, visible in RIS
 - fifth star: actual traffic (access or content)

- <http://ipv6ripeness.ripe.net/>

- <http://ipv6ripeness.ripe.net/4star/DK.html>
- <http://ipv6ripeness.ripe.net/5star/DK.html>



Listing of LIRs qualifying for *all* five stars

Access (last 6 months)	Access (last month)	Content	LIR
		82.6 %	ASERGO Scandinavia ApS
61.1 %			Adeo Datacenter ApS
		100.0 %	Bolignet A/S
		89.6 %	Christian Ebsen ApS
		100.0 %	DK Hostmaster A/S
57.3 %	50.8 %		Dkuug/Dansk UNIX-system Bruger Gruppe
		60.7 %	Hiper A/S
		100.0 %	IT Confidence A/S
		100.0 %	Kviknet ApS
		75.8 %	Lynero ApS
		100.0 %	MH HOLDING AF 1. JUNI 2009 ApS
		100.0 %	NORDUnet
		92.2 %	One.com A/S
		51.6 %	Powerhosting Aps
60.1 %			Skjern Bredbaand
		100.0 %	Zencurity ApS
		100.0 %	evercall ApS

RIPE Atlas



- **RIPE Atlas is the RIPE NCC's main Internet measurement platform.**
- **It is a global network of thousands of probes that actively measure Internet connectivity. Anyone can access this data via Internet traffic maps, streaming data visualisations, and an API.**
- **RIPE Atlas users can also perform customised measurements to gain valuable information about their own networks.**
 - <https://atlas.ripe.net>

RIS & Other Tools & Services



- The Routing Information Service (RIS) has been collecting and storing Internet routing data from locations around the globe since 2001.
 - <https://www.ripe.net/ris>
- Other RIPE NCC Tools and Services
 - RIPEstat: <https://stat.ripe.net/>
 - RIPE IPmap: <https://ipmap.ripe.net/>
 - K-root: <https://www.ripe.net/analyse/dns/k-root>

RIPE NCC “Community Projects Fund”



- Funding up to €250,000 spread across multiple projects
- Projects working for the “good of the Internet” can apply
- Preference to projects within the RIPE NCC service region
- Take a look at the application process and eligibility criteria

ripe.net/cpf



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SOUTH EAST EUROPE (SEE) 11
RIPE NCC Regional Meeting
Split, Croatia | 4 - 5 April 2023



ripe.net/see-11

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labs.ripe.net/hackathons

Join us at
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Rotterdam, Netherlands
22 - 26 May 2023



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Questions



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<https://forum.ripe.net>