



Co-funded by
the European Union



KICK-OFF MEETING

EAST WEST GATE

Grzegorz Bartler, Board Member – CTO, Netia S.A.
Bartłomiej Zaremba, Project Manager, Netia S.A.

30th of September, 2024

Introduction and Welcome

- **Brief presentation – about Netia and Polsat Plus Group**
- **EWG project concept**
 - Project vision and market background
 - Project measures of success
- **Project information and status**
 - General information
 - Project schedule
 - Main milestones and deliverables
 - Project status
- **Project technical solution**
 - Presentation of DWDM technical solution – Nokia
- **Project infrastructure**
 - Presentations of the infrastructure (IRU model) – Contractors
- **NEXT Step**



netia 
telco focused on
fiber connectivity
3.2m Homes Passed

interia
Internet media
>21m real users per month

polsat 
own content production and
broadcasting
39 interiafy produced TV channels



polsat box 
#1 Polish pay-TV platform
32% m/s built on DTH with growing IPTV

polsat box go 
well-positioned for online
video opportunities
>130 TV channels & VOD incl. sports live

plus 
first-to-market 5G
provider
26% m/s in contracted SIMs

THE LARGEST BASE OF CONTRACT CUSTOMERS IN POLAND

46%
of households
have at least
one of our services¹



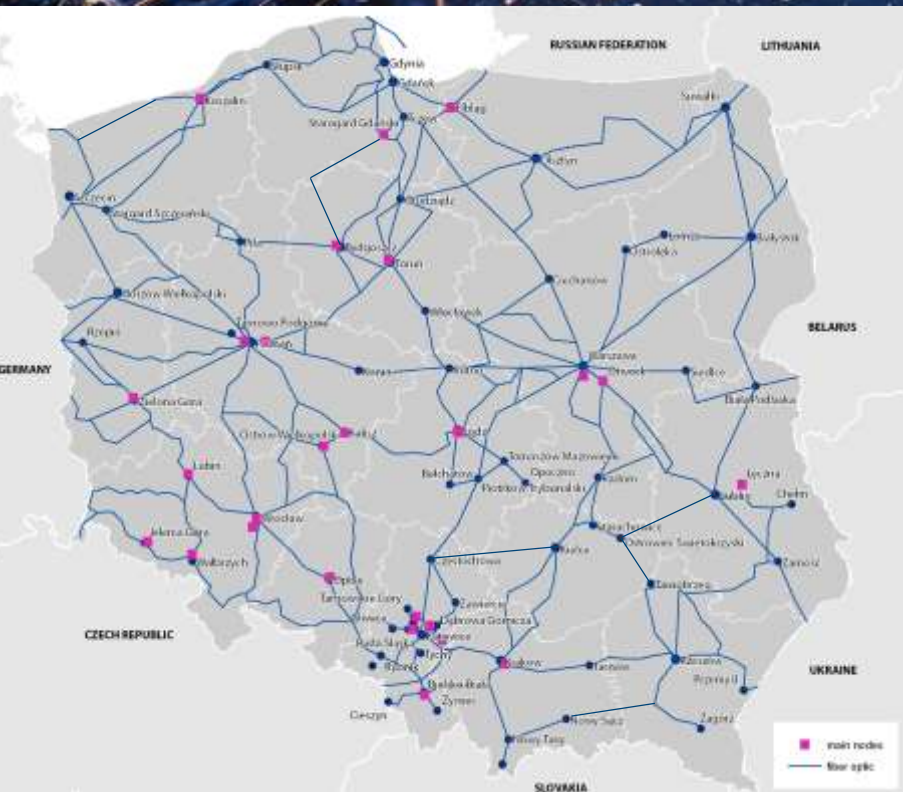
HIGH, STABLE FINANCIAL RESULTS

3.1 bn EUR
in revenues
0.74 bn EUR
of EBITDA²

NOTE:

(1) Source: Market Situation Survey. Representative sample of households in Poland, n= 5,494. Study carried out using the individual CAPI interview method. Study conducted by IQS Sp. z o.o.

(2) Source – [2023 Sustainability Group Report](#)



Technologically most advanced optical network in Poland

- 19 thousand kilometers of fiber optic lines
- 28 thousand kilometers of metropolitan fiber networks connecting more than 100 large cities
- 200+ core nodes of **GMPLS DWDM**
- Fully coherent optical core ROADM network
- Self healing automated network (high SLA)

Over 30 years of experience on the market



PROJECT VISION

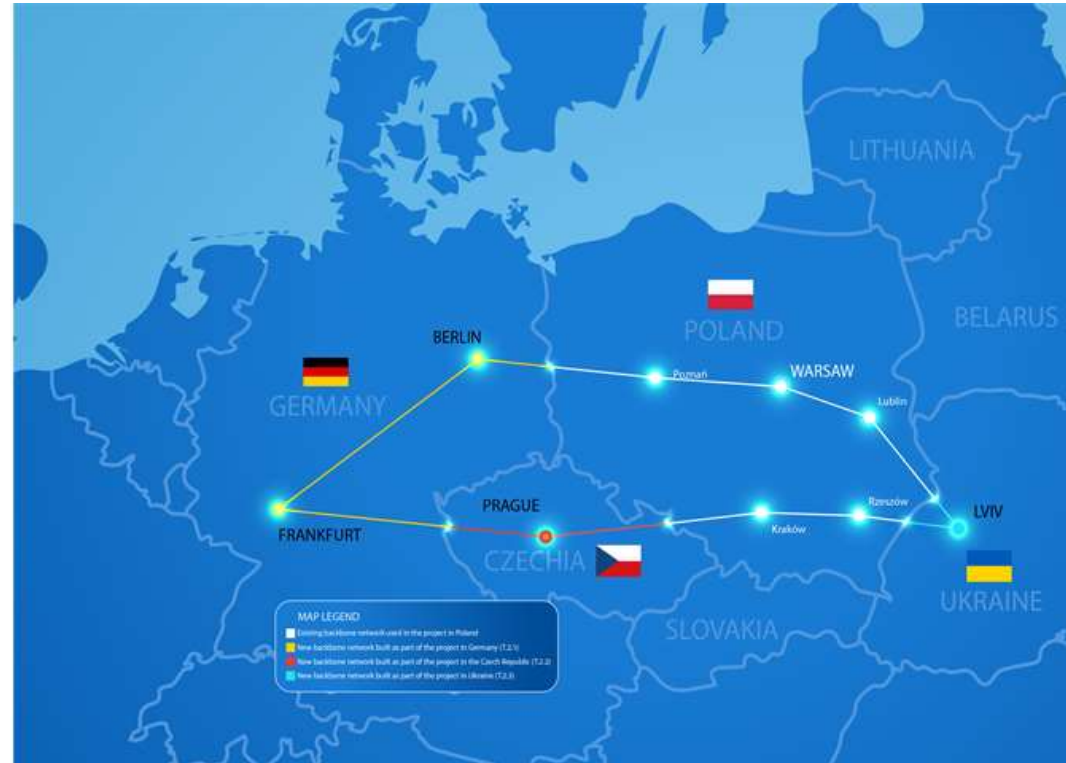
- Realize important aspects of Realize Connecting Europe Facility (Digital) – improve connectivity, digital economy and competitive industry by building cross-border backbone infrastructure

PROJECT MARKET BACKGROUND







- The market is dominated by large corporations that have significant market power and offer suboptimal services and prices
- Current market prices often exceed the economic capabilities of network operators from Poland and Ukraine

The current market situation hinders the full participation of citizens and enterprises in the digital European economy.

- Project aims to support the deployment of DWDM backbone infrastructure to provide increased connectivity to international traffic exchange points (Frankfurt, Berlin, Prague) and access to cloud services of the largest providers of this type of solutions in the world (Google, Microsoft etc.)
- Construction of DWDM backbone infrastructure based on the ASON architecture with the possibility of securing services.



PROJECT BENEFITS

-  Increase in communication possibilities and capacity between EU countries and Ukraine
-  New connections to international traffic exchange points (Frankfurt, Berlin, Prague)
-  Enable the provision of innovate services in Poland and Ukraine
-  New high speed access to cloud services of world's largest providers (Google, Microsoft etc.)
-  Attractive wholesale offer
-  High security of services with a maximum throughput of **13Tb/s**

BASIC INFORMATION

Project name:	EAST WEST GATE
Project number:	101133578
Project acronym:	22-PL-DIG-EWG
Call:	CEF-DIG-2022-GATEWAYS
Starting date:	1st of March 2024
end date:	31st of August 2025
Project duration:	18 months
Total eligible costs: €	9,04m
Grant amount:	€ 4,52m
Granting authority:	European Health and Digital Executive Agency
Grant Agreement date:	14.12.2023

Project: 101133578 — 22-PL-DIG-EWG — CEF-DIG-2022-GATEWAYS

 Associated with document [CEFDIG-2022-0001-2023](#)



EUROPEAN HEALTH AND DIGITAL EXECUTIVE AGENCY
(HADEA)

HADEA.B – Digital, Industry and Space
B.1 – Connecting Europe Facility – Digital

GRANT AGREEMENT

Project 101133578 — 22-PL-DIG-EWG

PREAMBLE

This Agreement ('the Agreement') is **between** the following parties:

on the one part,

the **European Health and Digital Executive Agency (HADEA)** ('EU executive agency' or 'granting authority'), under the powers delegated by the European Commission ('European Commission'),

and

on the other part,

I. 'the coordinator':

NETIA SA (Netia S.A.), PIC 904044560, established in UL POLECZKI 13, WARSZAWA 02-822, Poland,

Unless otherwise specified, references to 'beneficiary' or 'beneficiaries' include the coordinator and affiliated entities (if any).

If only one beneficiary signs the grant agreement ('mono-beneficiary grant'), all provisions referring to the 'coordinator' or the 'beneficiaries' will be considered — *mutatis mutandis* — as referring to the beneficiary.

The parties referred to above have agreed to enter into the Agreement.



PROJECT HIGH-LEVEL SCHEDULE

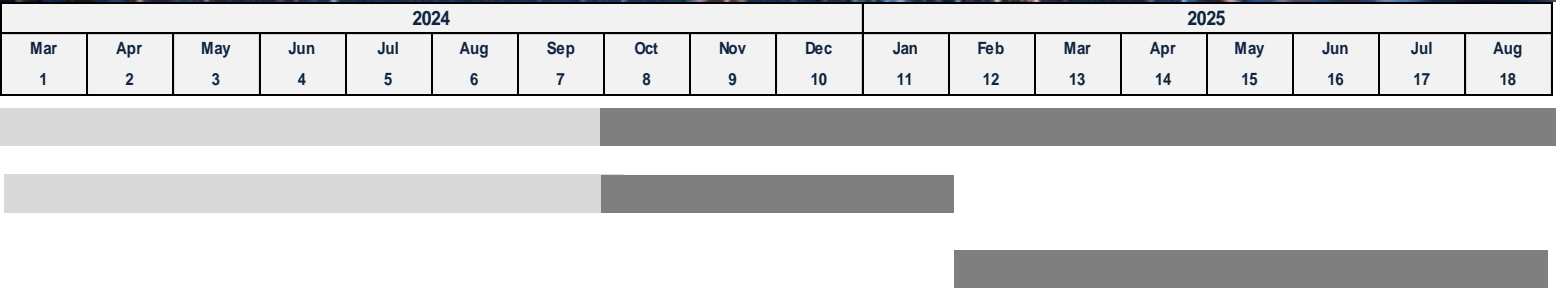


WORK PACKAGES

Project management (WP1)

Preparation works Phase (WP2)

Implementation and deployment (WP3)



WP1 – Project Management

The overall objective WP1 is twofold: to lead the Project according to concept of developing backbone network. Manage the organizational, technical, administrative and financial matters of the project.



WP2 – Preparation works phase

Main objectives: Preparation detailed technical design of the backbone network. Guaranteeing resources necessary for the proper implementation.



WP3 – Implementation and deployment

Implementation and commissioning of a complete backbone network based on the DWDM system

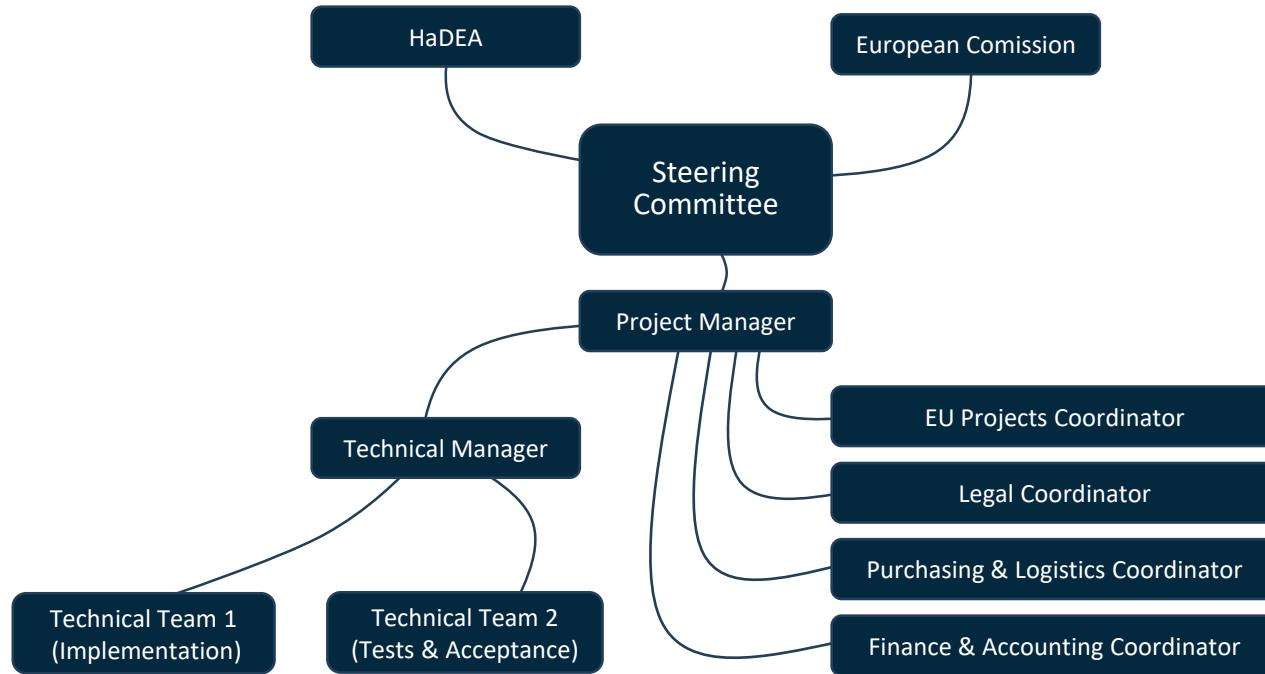
PROJECT MAIN GOALS

MAIN TASKS / MAILSTONES

Project management (WP1)		month
Tasks	Project and grant management	1-18
	Engineering management	1-18
Milestones	Project Management Plan completed	1
	Kick off meeting / Final conference and project meeting	6 / 18
Preparation works phase (WP2)		month
Tasks	Acquiring the necessary infrastructure	1-6
	Detailed network design	7-10
	Optical equipment procurement	10-11
	Software (SDN) with licences procurement	10-11
Milestones	IRU operators selected	6
	Signed orders of DWDM telecom. equipment and SDN and FrontEnd Self Care Portal system and licenses	11 11
Implementation and deployment (WP3)		month
Tasks	Colocation centers / optical equipment deployment	1-17
	SDN functionality implementation	14-18
	System tests (hardware and software) and acceptance	17-18
Milestones	Hardware installed, integrated, tested and accepted	17
	SDN implemented, tested and accepted	18

MAIN DELIVERABLES

Project management (WP1)		month
Final report on the implementation of the project		18
report present all main project aspects		
Final technical report on the project implementation		18
report present main parameters of the DWDM network and also an overview of the actually obtained parameters.		
Preparation works phase (WP2)		month
Detailed Network Design		10
Document describe designed technological solution for the DWDM system with SDN management software.		
Fibres and collocation acceptance report		12
Report describing the fibers prepared along with regenerative nodes and collocation.		
Implementation and deployment (WP3)		month
Report on Installed, integrated and functional DWDM system with the necessary software, licenses and SDN		18
Report containing - confirmation of technical completeness and installation process.		



2024										2025							
Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Work performed and main achievements

- Project information boards displayed
- Project information web site launched on the Netia.pl implementation
- Purchase procedure for IRU fiber lease completed:
 - As a result of the procedure, agreements were signed with 4 selected bidders for sections located in Ukraine (2 sections) and the Czech Republic (2 sections).
 - As a result, agreements were signed with 3 selected contractors for 4 optical routes in Germany.

Project Milestones / Deliverables

Project Milestones achieved	month
Project Management Plan completed	1
Tender documentation prepared/ Tender announced according to T2.1 (Ukraine)	2
Tender documentation prepared/ Tender announced according to T2.2	2
Tender documentation prepared/ Tender announced according to T2.3	2
IRU operators in Germany selected	6
IRU operators in Czech Republic selected	6
IRU operators in Ukraine selected	6
Project Deliverables obtained	month
Displaying public plaques and permanent communicative plaque	1



**EWG PROJECT DWDM NETWORK
TECHNICAL SOLUTION - NOKIA**

Andrzej Kowalski, ON RBC Poland Director, NOKIA

The Nokia logo is displayed in white, uppercase letters on a green-to-teal gradient rectangular background. The logo is positioned on the right side of the slide, partially overlapping the dark blue background which features a network of glowing orange and blue nodes and lines.

NOKIA Optical Networking innovation leadership



Silicon & systems



Software excellence



Automation



Security

Nokia PSE-6s super coherent – The industry's most advanced coherent optical engine (Netia tested as one of first customers)



Nokia PSE-6s



Scale

- 2.4Tb/s capacity in a single linecard
- Up to 1.2Tb/s per wavelength
- Latest 5nm silicon DSP at 130Gbaud+



Performance

- 3x the reach at 800G – up to 2000km+
- Reduce # network optics by up to 50%
- Advanced performance features: Gen3 PCS, tunable baud rate, shaped-QAM



Sustainability

- 40% lower power/bit than prior generation
- Up to 60% less network power
- Simple upgrade to existing 1830 platforms

Service-enabled NaaS

Internal business units, partners, wholesalers, resellers, system integrators, etc.

End customer - Large enterprise, etc.

Service Provider



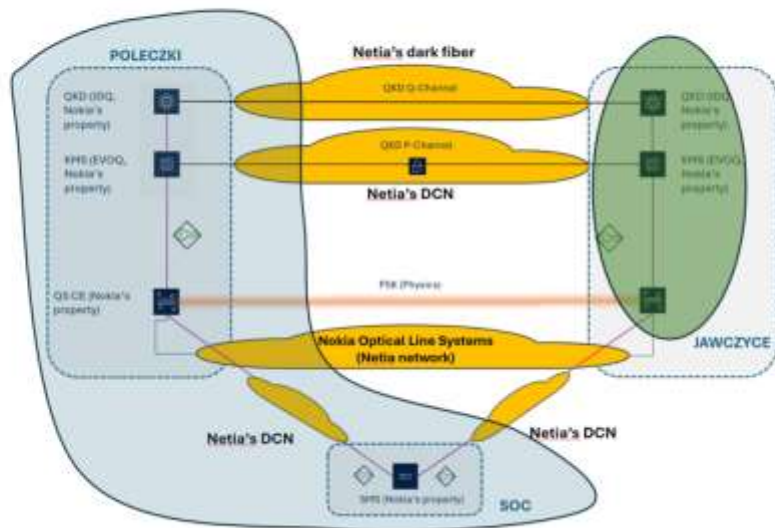
Private, secure virtual slice of the optical networks – optical NaaS

WaveSuite Service Enablement

SLA and business-aware automated connectivity

Essential Components for Quantum-Safe Network Security

QKD – Netia Real Network filed trial (two DCs Poleczki – Jawczyce)



**PROJECT BACKBONE INFRASTRUCTURE
UKRAINE - **STELIT** Ltd**

Oles Girniak, Chief Tech Officer, Stelit

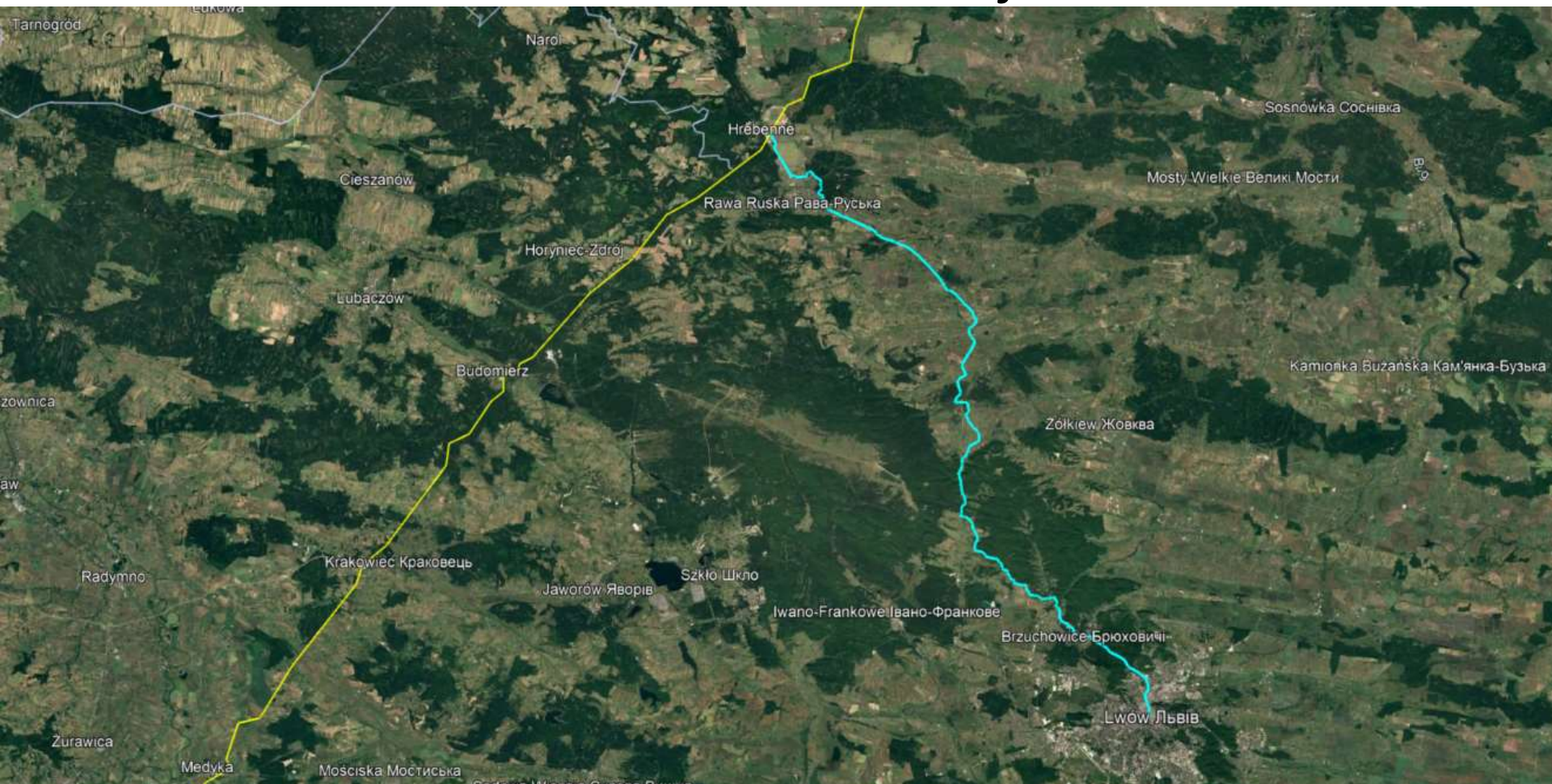
СТЕЛИТ

history

- Stelit was founded at 28.02.1996
- 2005-2006 cable Lviv-Grebenne built
- 2008-2015 near 1000km regional cables
- 2014 Lviv-Korchova built
- 2021 Lviv-Chervonograd-Rivne
- 2023 Rivne-Neteshyn
- 2024 Lviv-If.Frankivsk-Chernivtci

currently ~3000km built

Stelit cable for EWG Project



**PROJECT BACKBONE INFRASTRUCTURE
UKRAINE - OMEGA TELECOM**



Patliatiuk Dmytro, Chief Executive Officer, Omega Telecom
Polishchuk Anna, Account Manager, Omega Telecom

About the Company



Omega Telecom - Ukrainian telecommunications operator, a major player in the wholesale Internet and Data Channel market

Service provider for 300+ ISPs and Telecom Operators in Ukrainian market

Service provider for International Telecom Operators

Service provider for government companies, banks, enterprises, pharmaceutical companies, logistics companies, shopping centers, etc.

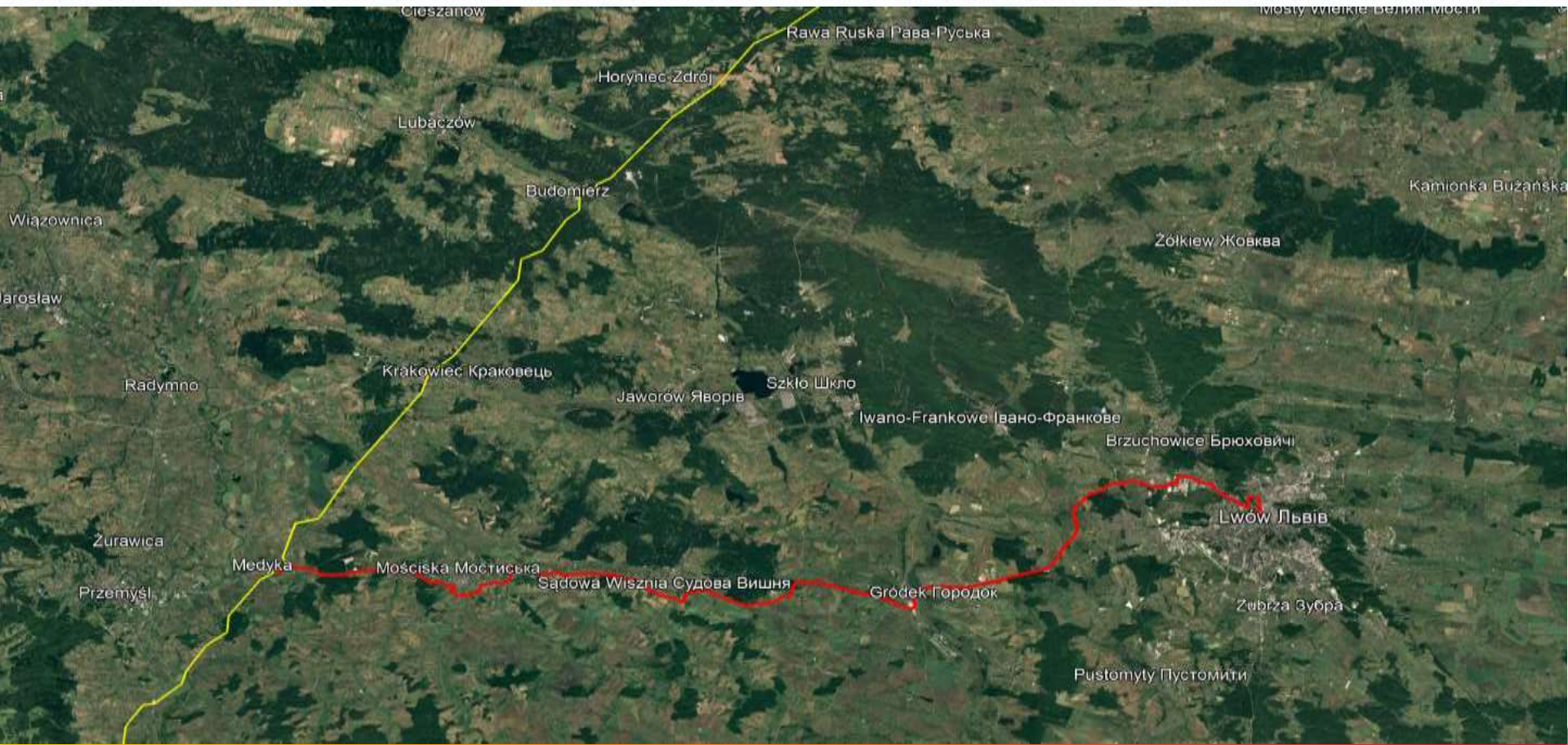
Main Information:

- 19 500km Data transmission network around Ukraine (fibers owner)**
- 1 350km Total length of urban networks (Kyiv and regional city's)**
- 3 Data Cetners – Kyiv, Lviv, Dnipro**
- 200+ PoPs DWDM, IP/MPLS**
- DWDM network – Cisco, Huawei equipment**

Map of transmission network



Route of DF (Netia - Omega Telecom EWG Project)



**PROJECT BACKBONE INFRASTRUCTURE
CZECH REPUBLIC - ČD - Telematika a.s.**

Martin Schwartz, Sales Manager, CD-Telematika
Pavel Dornak, Technical Manager, CD-Telematika





Company background

- ČD - Telematika a.s. is a wholesale provider of telecommunications services in the Czech Republic
- Owner and operator of one of the largest fibre optic networks in the Czech Republic
- We are a state-owned company that has been in business for more than 30 years
- Over 600 employees
- We have geographically independent data centres with a high degree of security.
- We provide monitoring and customer support 24/7
- We have our own NOC and SOC



ČD-TELEMATIKA

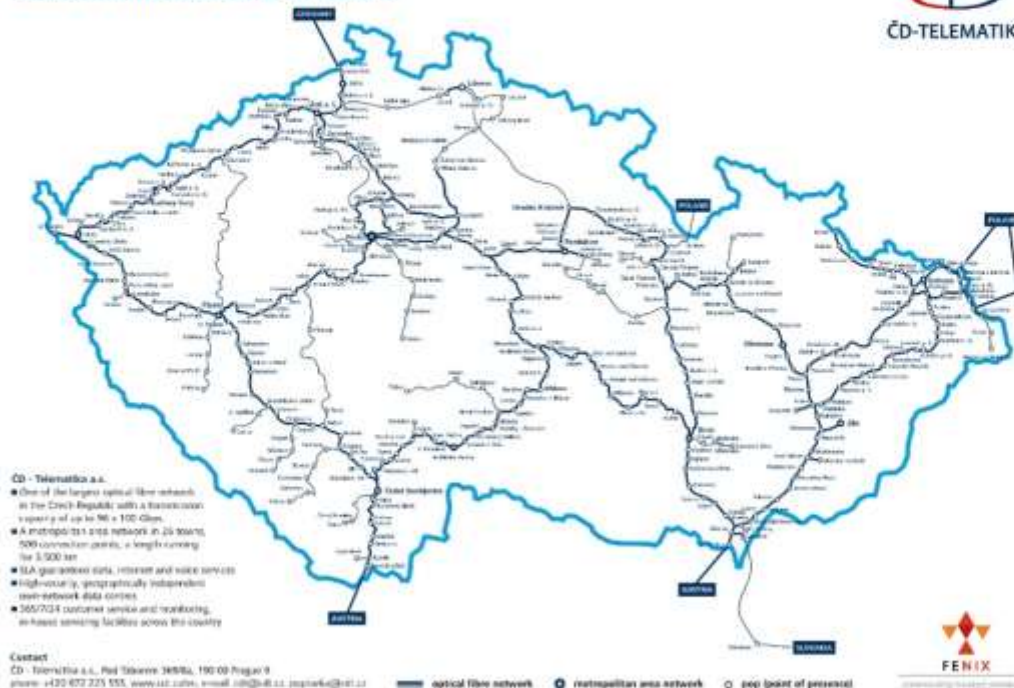




Network, portfolio

- Services in portfolio
 - Fibre optic rental
 - Data services (IP, SDH network)
 - Internet access
 - Data centre services
 - DWDM wavelengths
 - AntiDDoS service
- Infrastructure service
- Implementation of ETCS systems
- Cyber security services

Telecommunications network





FLOODS IN CZECH REPUBLIC





ROUTE

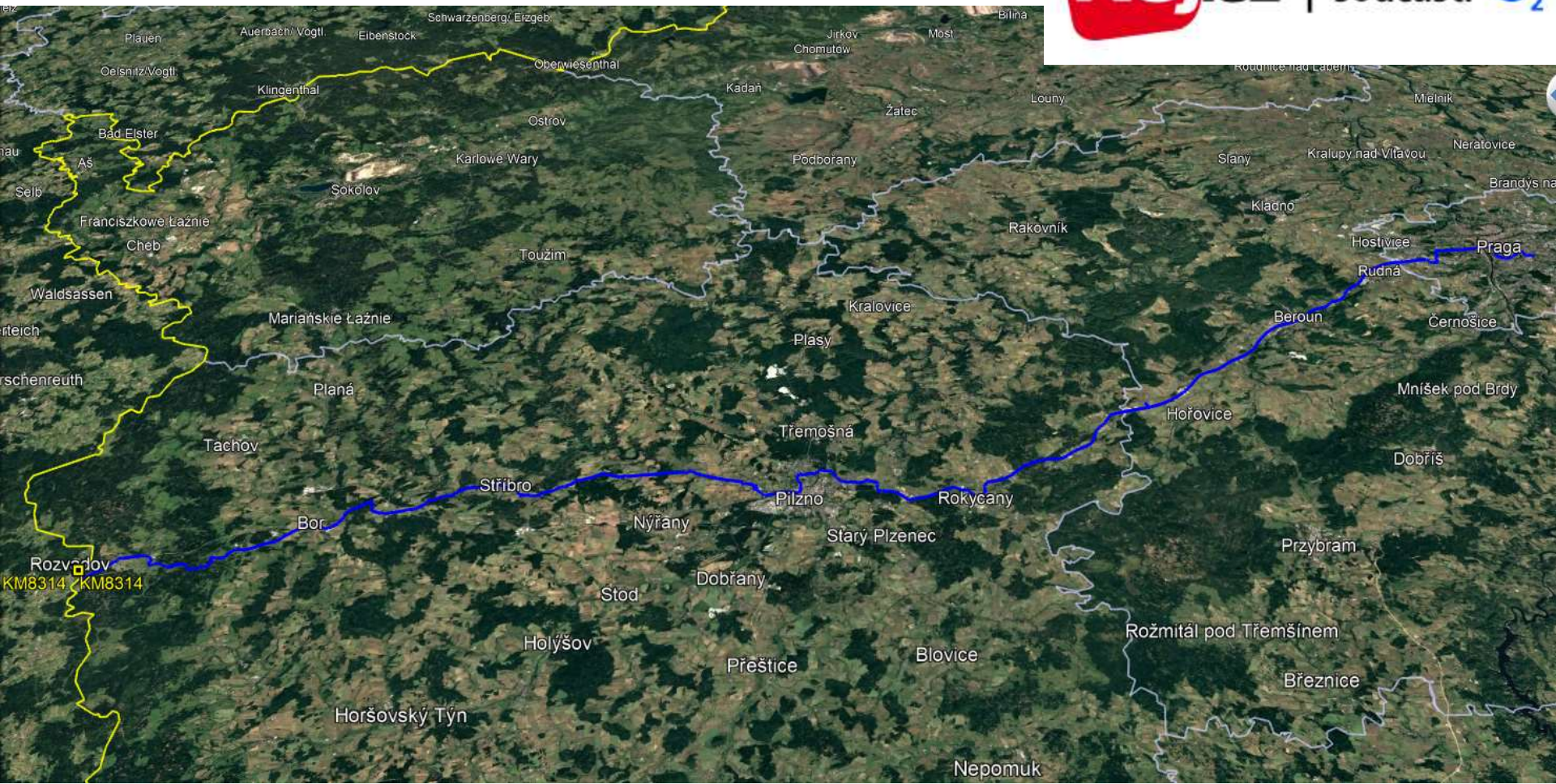
- Renewed railway route
- New route between Poland - Prague
- total length of **492 km**
- 6 segments
- Only 5 facility sites (Kolín, Hradec Králové, Česká Třebová, Olomouc, Ostrava)



PROJECT BACKBONE INFRASTRUCTURE
CZECH REPUBLIC - [NEJ.cz](https://nej.cz)



Route of DF Prague - Waidhaus (EWG Project)



PROJECT BACKBONE INFRASTRUCTURE
GERMANY - EXA Infrastructure

Adam Pytlik, Sales and Development Director, Exa Infra



We build and operate the mission critical digital network infrastructure that enables our customers growth today and in the future.

EXA products & expertise for growth

Infrastructure

- Unique and differentiated routes
- Carrier grade long-haul fibre network
- Over 230 integrated network colocation amplifier sites
- G.652, G.655 and latest specification Low Loss fibre types

Transport

- Largest dedicated transport network connecting Europe to North America
- 10 – 100 – 400G wavelengths
- Timesync and Spectrum options
- Deterministic Ethernet with fixed routing
- Lowest latency route from London to New York
- 6 routes from Europe to America

Colocation

- Fully flexible colocation integrated into EXA network
- Build to suit
- 270+ Edge colocation sites

Technical Services

- +20 years' experience underpinning our customers' growth
- Project and Service Management
- First Line Maintenance and Spares Management
- Network Design and Installation services
- Subsea landing party agreements
- CLS design, build and operate
- Hands and eye services

We enable digital economies by continuous investment in core asset with a long-term view on returns for customers.

EXA Infrastructure by numbers

155,000

Routes km fibre network

2,9+ M

Fibre Km

36

Number of countries

6,000+

Metro route km

300+

Number of cities

6

Transatlantic cables

8

Subsea cable segments

<59 ms

New York to London

18

Subsea cable landing stations

500+

Number of PoPs

13

Tier 3 equivalent datacentres

540+

ILAs

31 MW

Power Capacity

18,000

km of owned subsea cable in operation

25

of the world's 30 biggest Service Providers served

NETIA – EXA Partnership

scalable infrastructure to empower network expansion and growth

- We support the NETIA network expansion for more than 1400 km over Germany
- Our partnership is based on mutual services providing
- Exa has been operating on Netia's routes for many years (thru company transformations from Interoute – GTT to EXA).

Our Partnership is aiming on:

- scalable access network backhaul
- enabling network expansion
- network security and reliability



**PROJECT BACKBONE INFRASTRUCTURE
GERMANY - Relined B.V.**

Lennert Stoter, International Business Manager, Relined



Wie is Relined Fiber Network?

The power behind digital connectivity

For more than 20 years, Relined Fiber Network has been a leading connectivity provider in north-western Europe. We specialize in leasing fiber capacity, building a bridge between commercial and public networks.

Our focus is on providing stable and sovereign networks, essential for the backbone of the digital economy. By exploiting unused fiber capacity, we make optimum use of existing infrastructure, leading to cost efficiency and a lower environmental impact.

With our expertise in connecting fine-grained private networks with the unique routes of public networks, we are able to establish valuable long-distance connections. With strategic and sustainable partnerships in both the public and private sectors, Relined is proving itself as a stable and essential link in the world of digital infrastructure.

Relined Fiber Network: Connecting and essential

Our networkpartners



ProRail



GasLINE

NGN+



ENERGINET

RELINED
FIBER NETWORK



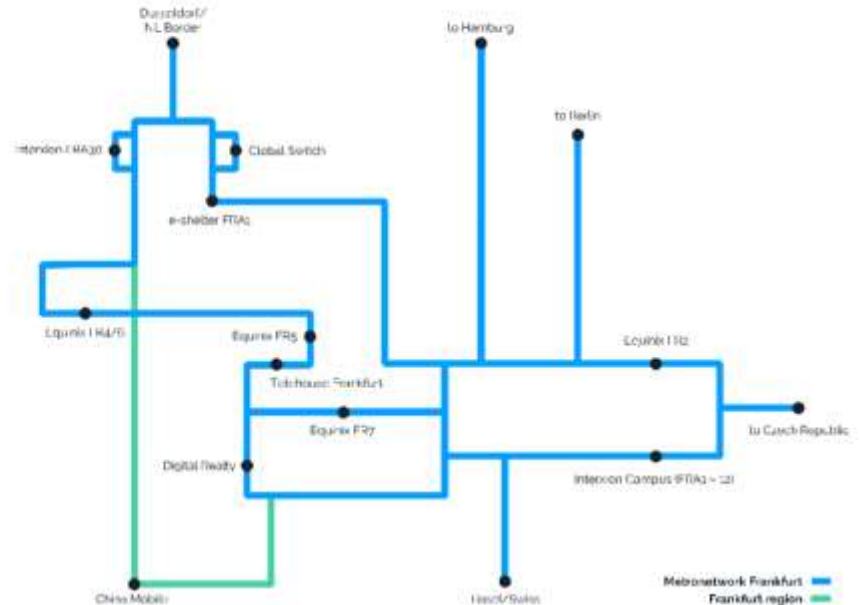
Our network

- Practically any location can be reached in **the Netherlands, Germany and Denmark**
- Roughly **50,825 km** of high-quality fibre-optic infrastructure
 - Netherlands ± 13,825 km
 - Germany ± 32,000 km
 - Denmark ± 5,000 km
- **Unique connection** between the Netherlands and Denmark (COBRA Fiber Optic Cable) and other off-shore facilities to the Nordics:
 - Offshore ± 325 km
- More than **128 (redundantly)** connected carrier-neutral data centres
 - Metropolitan network Amsterdam: 38
 - Metropolitan network Rotterdam: 4
 - Metropolitan network Frankfurt am Main: 21



Metro network Frankfurt

- >20 connected **data centres**
- **High** network standards
- **Fixed** and **competitive** rates
- Fast delivery time of **1 - 3 weeks**
- **Short** distances



East-West Gate Netia

- **Diverse ring connection**
- **Distance:** ca. 17km & 41km
- **Project Delivery Manager:** Marbo Rooseboom
- **General contact:** Lennert Stoter



PROJECT BACKBONE INFRASTRUCTURE GERMANY - **NGN Fiber Network**

Remco Reus, Senior Accountmanager, NGN Fiber Network
Anna Derleder, Head of Sales Support, NGN Fiber Network





NGN Fiber Network

introduction to



30 September 2024

NGN is one of the leading providers of fiber infrastructure in Germany.



>19,000 km fibre infrastructure in Germany



2,200 km metro area fibre networks



>1,500 km infrastructure rollout per year



180 on-net data centers and 1,400 on-net mobile towers



10,000 near-net hospitals, schools, public administration



Own construction capacity



See map of fibre infrastructure on next slide

NGN offers a — unique network in Germany.



Leading fiber network technology

- New:** average age of fiber is 5 years
- Secure:** laid in 1.2 m depth
- Quality:** 6 km without interruption
- Span:** International partnership with Eurofiber



Erweitert um ein eigenes NGN

We serve an excellent portfolio of customers and partners.

Data centers



City carriers & utilities



Network operators



Telcos



Infrastructure offered by NGN
to NETIA within the EWG project

The fiber route between Slubice and Berlin and additional specifications



A: Collegium Polonicum, Kościuszki, Słubice, Poland



Z: DC Speedbone, Alboinstrasse 36–42, 12103, Berlin

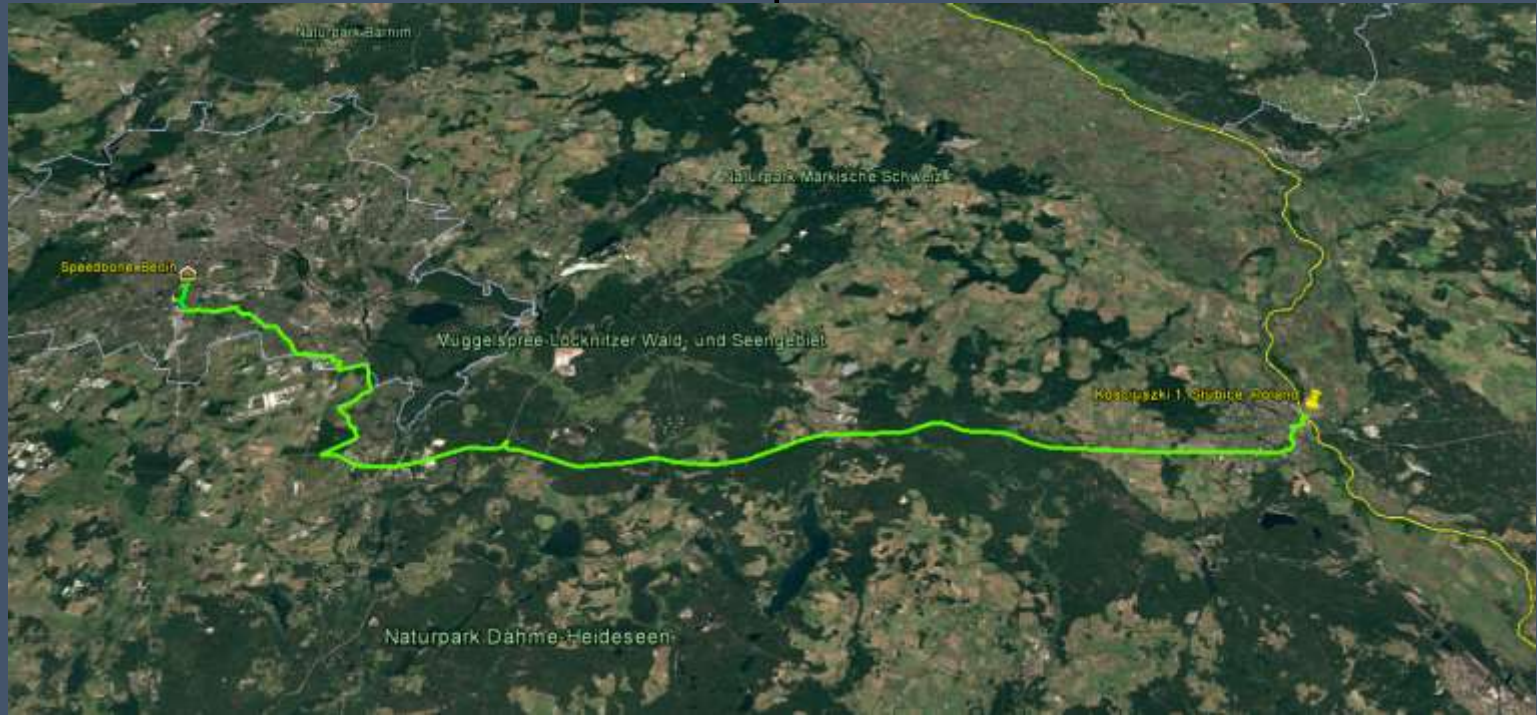


Estimated fiber length of the route is \pm 117,500 meter



Delivery time is 5 months after the signed Agreement

NGN fiber route from Collegium Polonicum, Slubice in Poland to MMR of DC Speedbone in Berlin





Co-funded by
the European Union



EAST WEST GATE – Next Steps

30th of September, 2024

➤ New fiber-optic highway

- New possibilities for telecommunication and other companies
- High-capacity network between Ukraine, Moldova and EU
- More redundant fiber roads

➤ Safe harbour

- Moving of sensitive data to clouds & DC in EU, to protect data storing & processing

➤ Expansion of the Network

- Connection to Kiev, Chisinau, Bucharest, Sofia, Budapest, Vienna, Amsterdam
- Bucharest and Sofia as a gate to Middle-East





Q&A

If you have any questions about network technical solution or other technical details please send your inquiry to:
Arkadiusz Zwolicki
e-mail: arkadiusz.zwolicki@netia.pl

If you have any questions about the process of submitting or preparing an application etc. please send your inquiry to:
Rafal Antczak
e-mail: rafal.antczak@netia.pl

THANK YOU!