



## Baltic Ring Consortium Workshop

Network Topology and Link overview around the  
Baltic sea

**Infrastructure for Free Movement of Knowledge in the Baltic Sea Area**

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	Finland FUNet	Estonia EENet	Latvia SigmaNet	Lithuania LitNet	Poland PSNC	Nordic NORDUnet	Russia E-Arena
IP Network							
Transport Network							
Simple DWDM							
Advanced DWDM							
Service offering L0 – L3	1-3	1-3	3	1-3	0-3	1-3	1-3
Int. service self provided							
ISP provided int. service							
GÉANT provided int. service							
Cross boarder connectivity							
Dark fiber marked conditions (1) fair; (2) average; (3) good	3	3	2	2	3	3	3

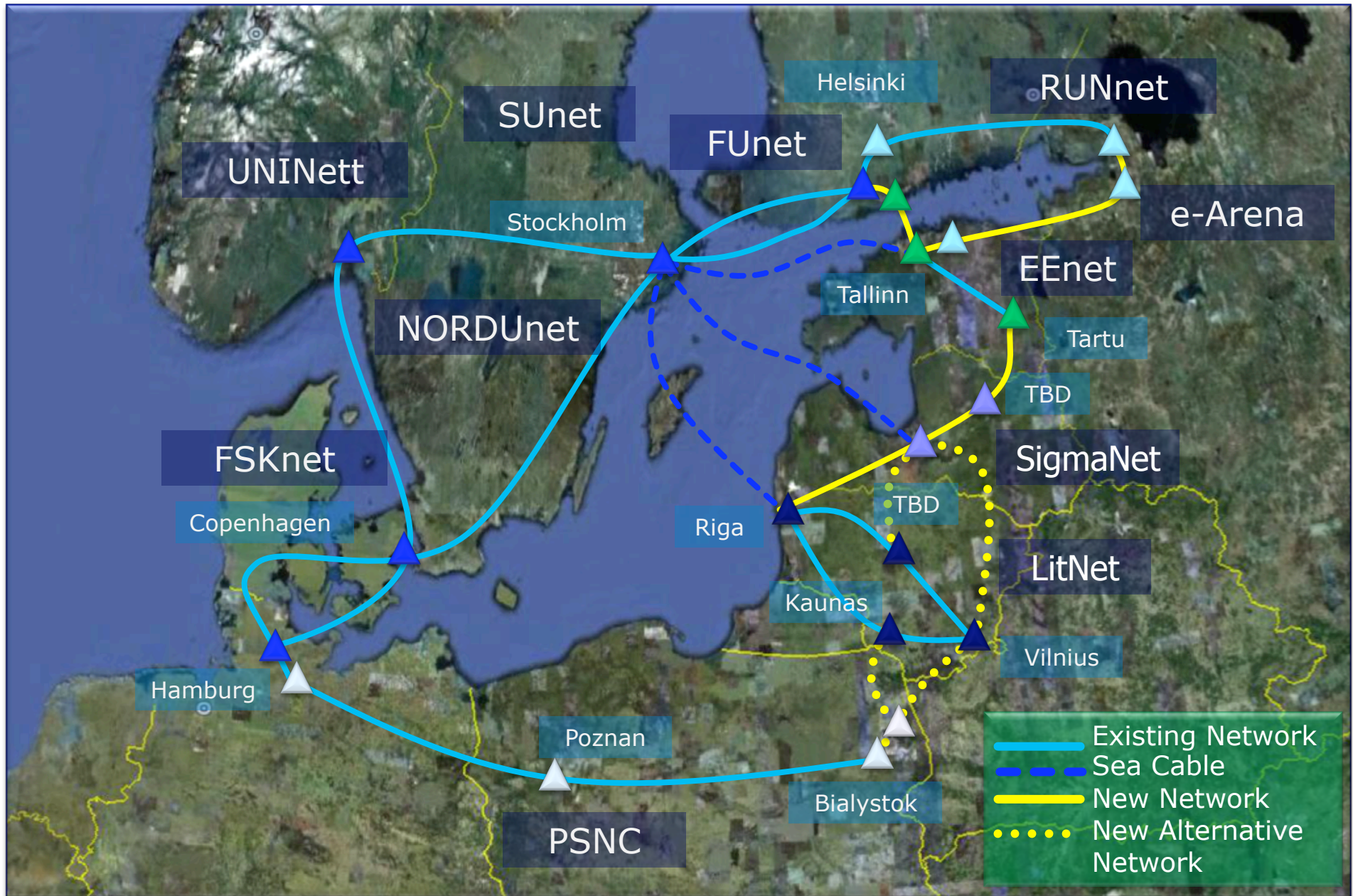


Leased Line



BRAIN Project

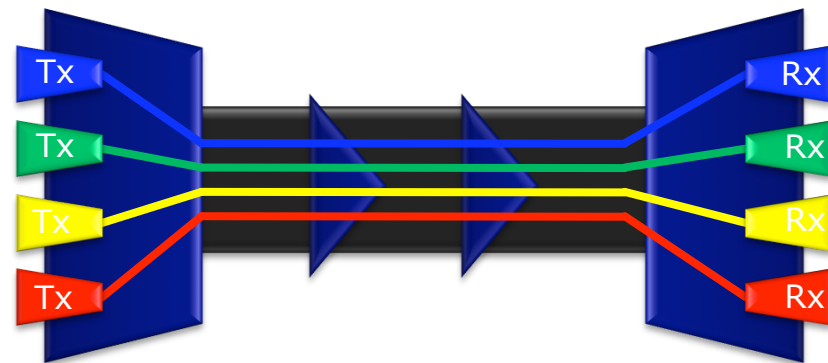




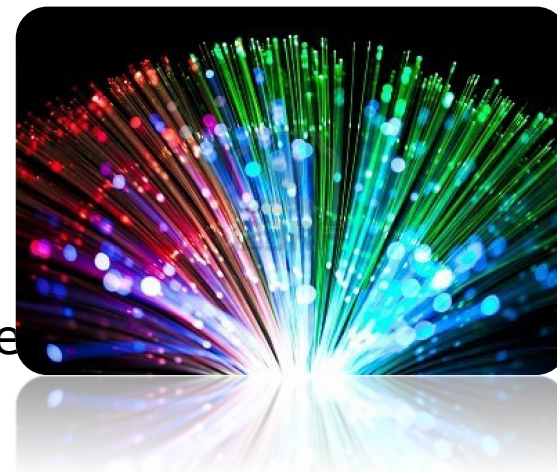
## Baltic Ring Topology Proposal



- Deployment of a new DWDM span (Helsinki – Bialystok)
  - Crossing the Gulf between Tallinn and Helsinki (**BRAIN**)
- Interconnect to PSNC in Bialystok & NORDUnet in Helsinki
- Initial Deployment
  - Dark Fiber
  - ROADM
  - Line Amplifiers
  - Transponders on demand
- Proposed access sites
  - Tallinn and Tartu; Estonia
  - Riga and TBD; Latvia
  - Kaunas and Vilnius; Lithuania
- Prepare for interconnecting e-ARENA
  - Tallinn – St. Petersburg
  - St. Petersburg – Helsinki (RUNnet DWDM network)



- Most cost effective and future proof architecture
  - Dark Fiber lit using DWDM Equipment
- Network Resources
  - Finland, NORDUnet, Poland – ok
  - Estonia, Latvia, Lithuania, Russia – Insufficient
- Baltic Ring Topology
  - NORDUnet DWDM network (Helsinki – Hamburg)
  - PSNC DWDM network (Hamburg – Bialystok)
  - Carrie X Deployment of DWDM span (Helsinki – Bialystok)
    - Crossing the Gulf between Tallinn and Helsinki (**BRAIN**)
    - Two access sites per country in Estonia, Latvia and Lithuania
    - Initial deployment DWDM base network



Thank you



Questions...