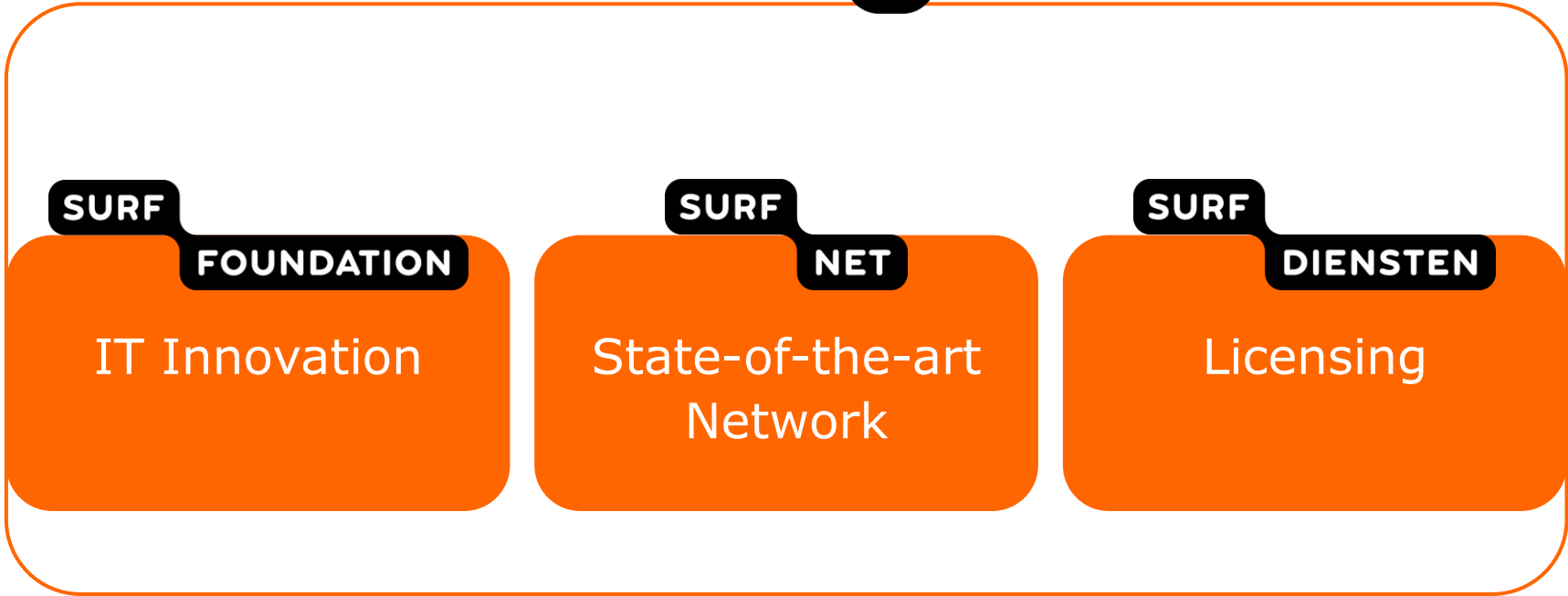


SURF

NET



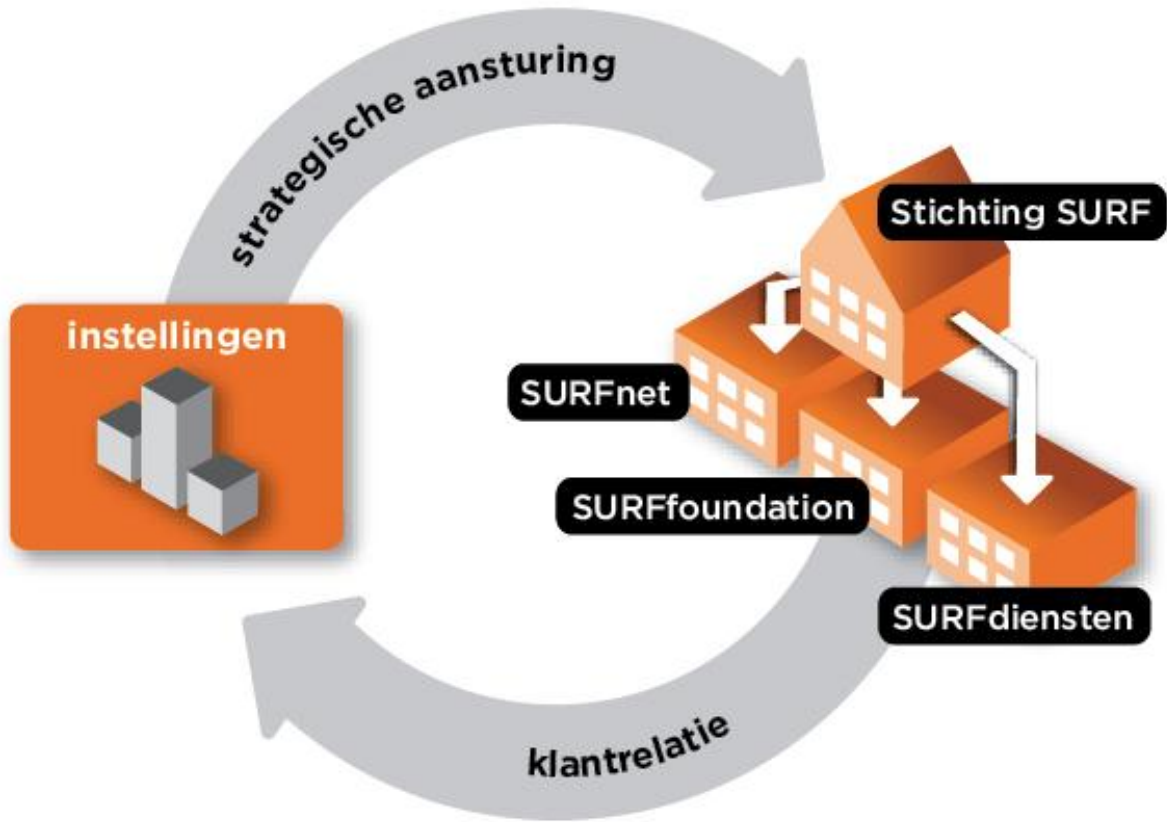
SURF





SURF

SURF
NET





SURFnet



- ❑ Dutch National Research and Education Network (NREN)
- ❑ 180 connected institutions, around 1 million users
- ❑ Not for profit, around 80 employees
- ❑ 'Stichting SURF' owns SURFnet for 100%

Engine for Innovation

Mission

To improve higher education and research by promoting, developing and operating a trusted, connecting infrastructure that facilitates optimum use of the possibilities offered by ICT.

Vision

We make a unique contribution by ensuring that researchers, instructors, and students can work together simply and effectively by linking individuals and teams seamlessly together and by giving them access to services, data, and tools and by encouraging and developing new ICT applications.

Results



Network infrastructure

a hybrid fixed-wireless network as the basis for all collaboration, providing efficient, unlimited data transport.



Collaboration infrastructure

pioneering collaboration environment that seamlessly connects systems, services, tools, and people

Methods

We share knowledge and work with institutions, market parties, and international sister organisations, provide basic services, and create showcases and temporary ICT services

Values

Results-driven
innovator

Reliable
partner

Socially
committed

Our 3 pillars



Network infrastructure

Building block for all collaboration



Trusted identity

To grant access securely and efficiently

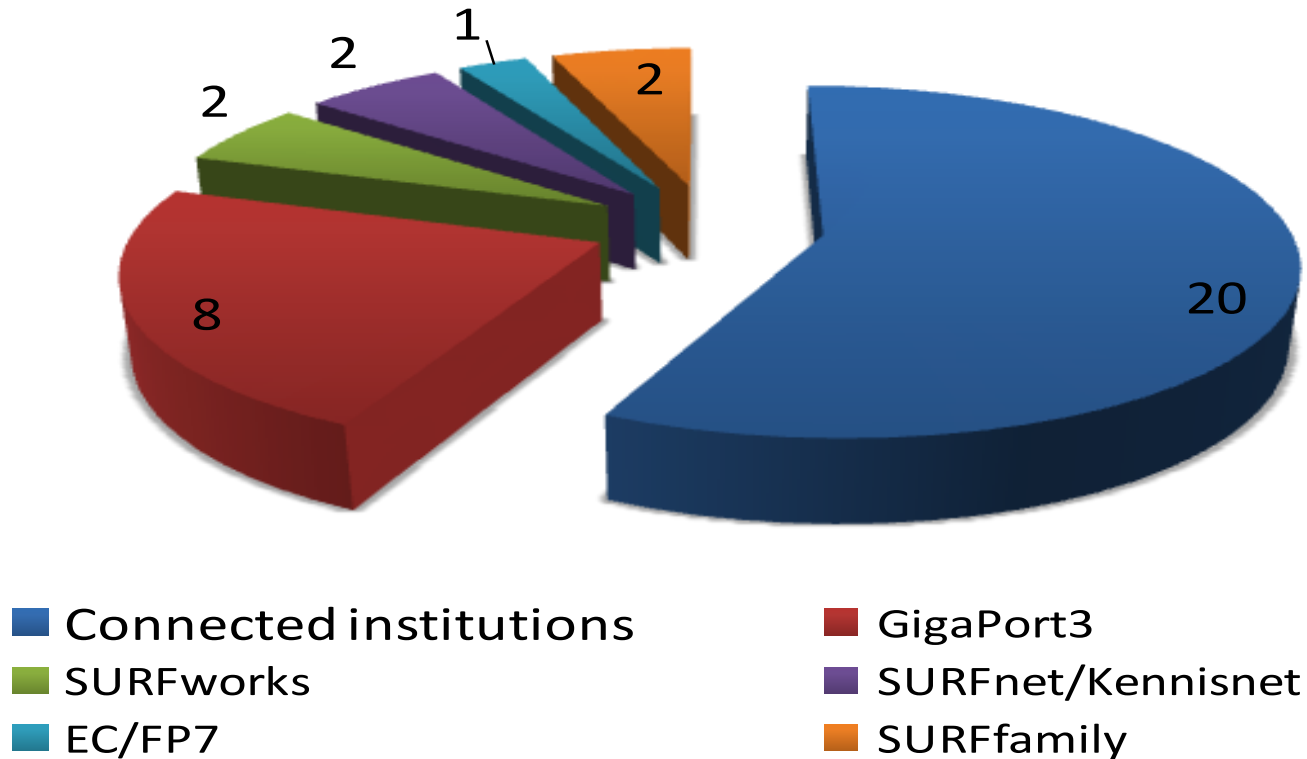


Collaboration environment

Connecting services and scientific instruments




Financing model



Computable magazine

- ❑ Best Business Case Award 2009
- ❑ Best Internet advisor

 Internet	KENNIS/ KNOWHOW	PRIJS	KWALITEIT VAN DE DIENSTVERLENING	BETROUWBAARHEID	NAKOMEN VAN DE TIJDSPLANNING	BINNEN OVEREEN- GEKOMEN BUDGET BLIJVEN	MANIER VAN COMMU- NICEREN MET KLANTEN	GEMIDDELD CIJFER
Surfnet	7,9	7,4	7,7	7,9	7,6	7,6	7,7	7,7
HP	7,4	7,2	7,3	7,4	7,1	7,2	7,0	7,3
VX Company	7,3	7,8	7,4	7,4	6,8	6,7	7,3	7,2
BT	7,6	6,7	7,4	7,3	7,1	7,2	7,1	7,2
IBM	7,7	5,8	7,5	7,9	7,3	7,1	6,8	7,2
Capgemini/Sogeti	7,5	6,9	7,2	7,1	6,4	6,4	7,2	7,0
Simac	7,1	6,5	7,3	7,2	7,0	6,3	6,7	6,9
Compuware	7,1	6,5	6,8	6,9	7,5	6,3	7,6	6,9
Ciber	6,7	6,9	7,0	7,0	7,0	7,0	6,8	6,9
Inter Access	6,6	6,5	6,7	6,8	7,3	7,3	7,5	6,9
Centric	6,6	6,6	7,0	7,0	7,1	6,8	7,0	6,9
Ordina	7,0	6,7	6,6	6,7	7,1	6,6	7,3	6,8
Microsoft	7,4	5,8	6,7	6,7	6,7	6,8	6,9	6,7
Atos Origin	6,8	6,4	6,5	6,6	6,2	6,5	6,4	6,5
KPN/Gefronics	7,0	6,0	6,5	7,0	5,9	6,5	5,7	6,4
Logica	6,7	5,8	6,5	6,3	5,9	5,9	6,1	6,2
Fujitsu Services	6,3	6,1	6,2	6,1	6,0	6,0	6,8	6,2
ICT Automatisering	6,2	6,2	6,3	6,2	6,0	6,3	6,0	6,2
Imtech ICT	6,6	5,9	6,1	6,1	5,6	5,3	5,1	5,9
							Gemiddelde score in dit topic	6,8



Pillars: part 1



Network infrastructure

Building block for all collaboration



Trusted identity

To grant access securely and efficiently



Collaboration environment

Connecting services and scientific instruments

Federated Identity Management



Vision SURF:

Supporting users in securely and easily accessing information

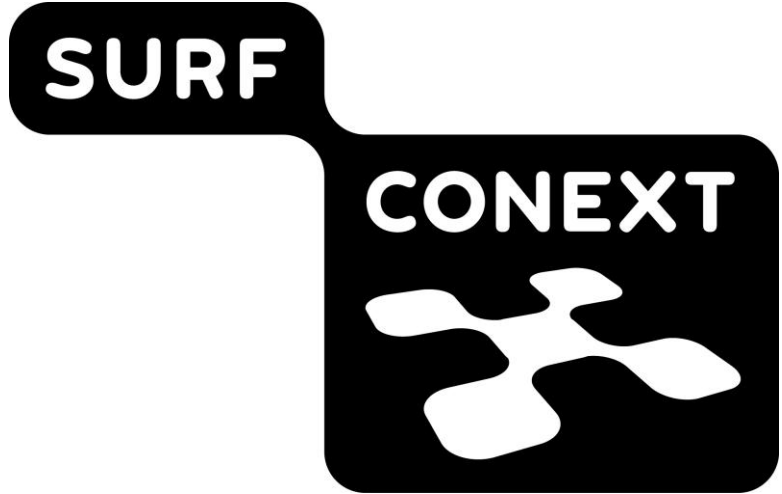


Initiative:

- Access to information from multiple service providers
- User account from own organisation



SURFconext



A next generation collaboration infrastructure that creates new opportunities to collaborate online based on a combination of applications from different providers.

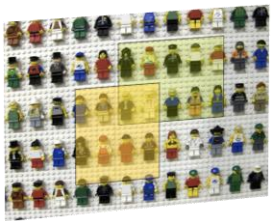
Researchers, educators and students wish to select the tools that best fit their online collaboration needs. Institutions and virtual organizations struggle with the integration of self-hosted services with commercial cloud services and service providers seek for ways to make their services easily accessible for users in higher research and education. SURFconext offers interesting clues to facilitate these needs.



SURFconext



1. Federation SAML



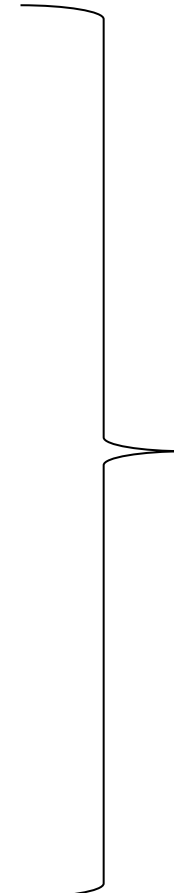
2. SURFteams (grouper)



3. OpenSocial



4. Collaboration tools





Pillars: part 2



Network infrastructure

Building block for all collaboration




Trusted identity

To grant access securely and efficiently



Collaboration environment

Connecting services and scientific instruments



GigaPort3 (2009-2013) ambition



- ❑ **SURFnet7**: The next step in bandwidth and flexibility
 - ❑ New architecture: Next Generation Ethernet
 - ❑ Lightpaths: scalable, controlled by users and applications

- ❑ **Enabling Dynamic Services**: middleware for integration of ICT infrastructure components and instruments

- ❑ Developing **mobility solutions** and the integration with next-gen wireless communications such as LTE and beyond

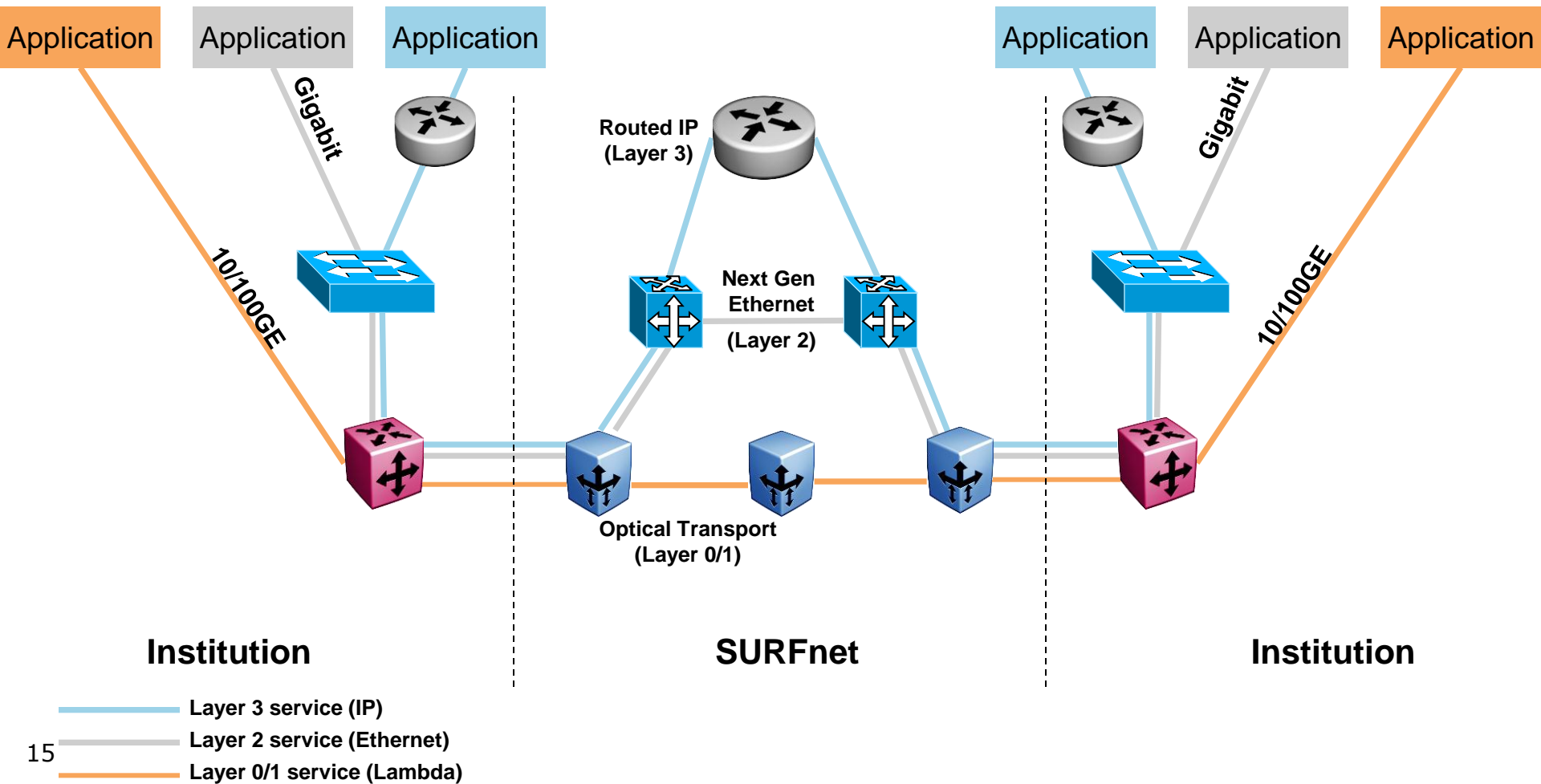
- ❑ **Stimulating the use** of novel and advanced services and knowledge dissemination

SURFnet6: the hybrid network

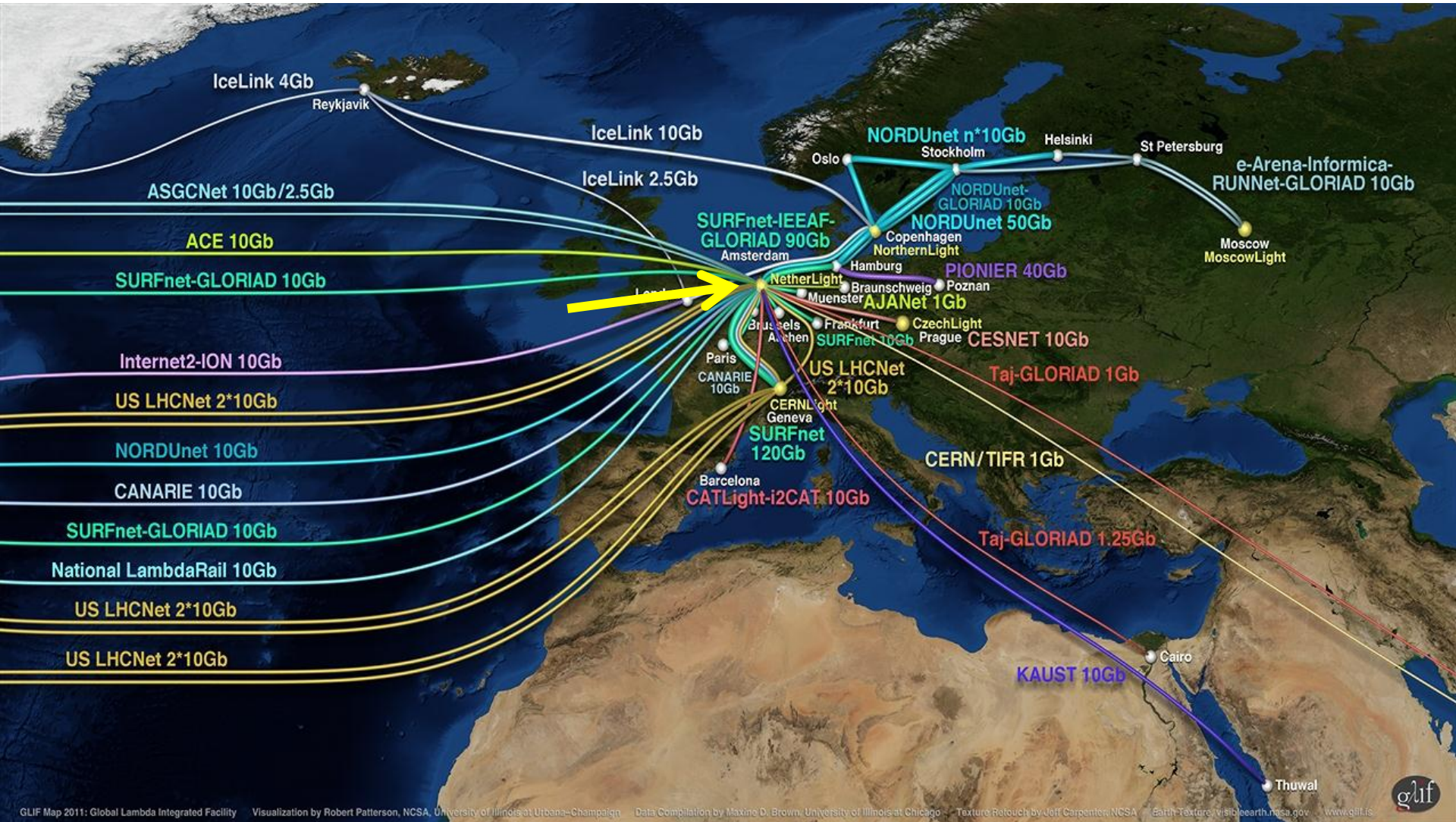


- 11.000+ km dark fiber, into connected institutions
- Cross Border Fibers

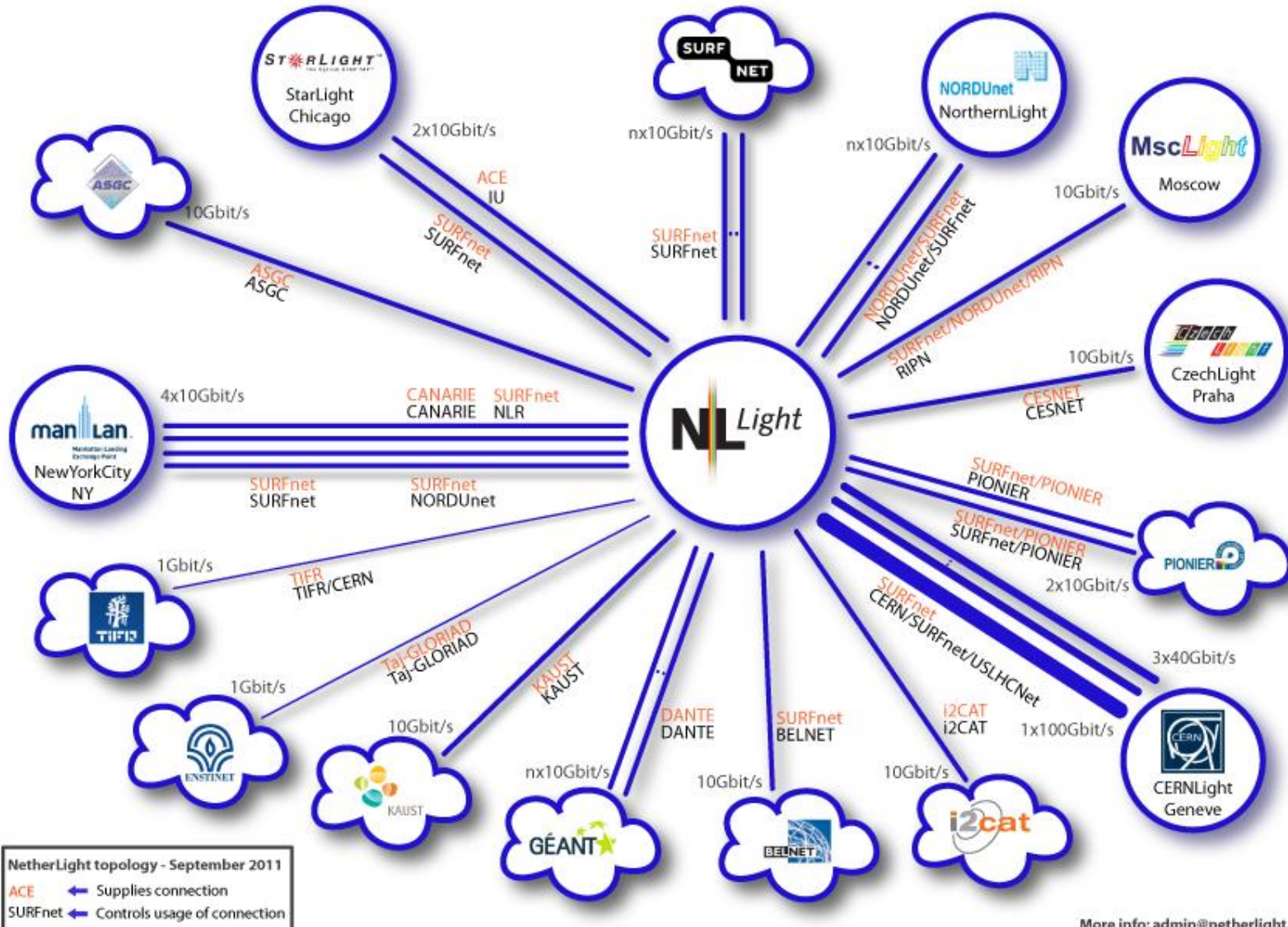
SURFnet7: the scalable hybrid network



NetherLight



NetherLight connectivity





NetherLight: 2012 and beyond



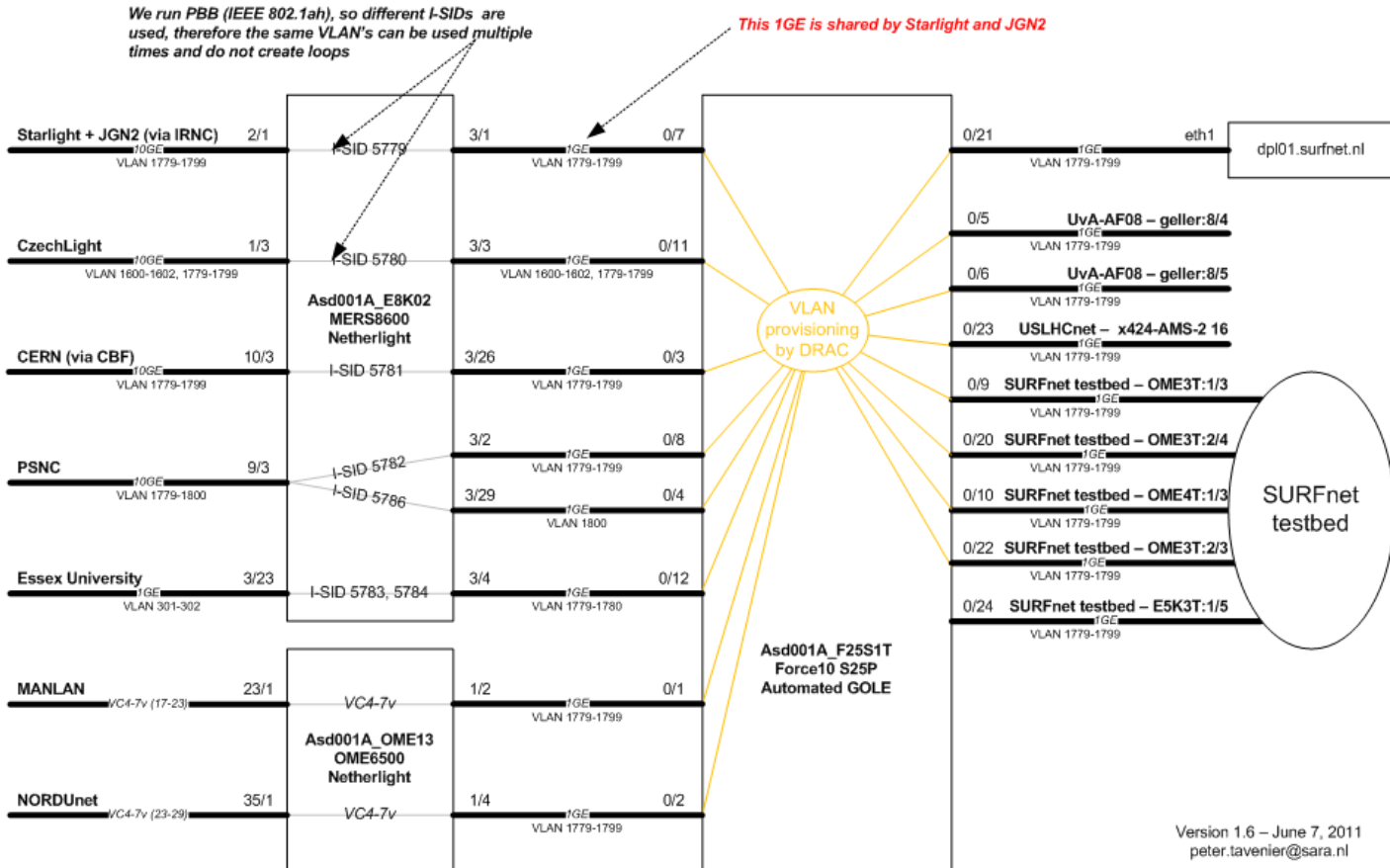
- ❑ NetherLight supporting L2 dynamic services
 - ❑ NGE (PBB-TE, MPLS-TP) as basis

- ❑ NetherLight grows as open platform
 - Service connectors (storage,...)
 - Multi-technology (but no IP)
 - Open connections, global connectivity

Automated GOLE

- Current: Force 10 4810 (48x10GbE) switch
 - NEXPreS (e-VLBI) as application, 4Gb/s x 3 radio telescopes

Automated GOLE topology at Netherlight





Thank you!

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