

GigaPort

SURFnet6

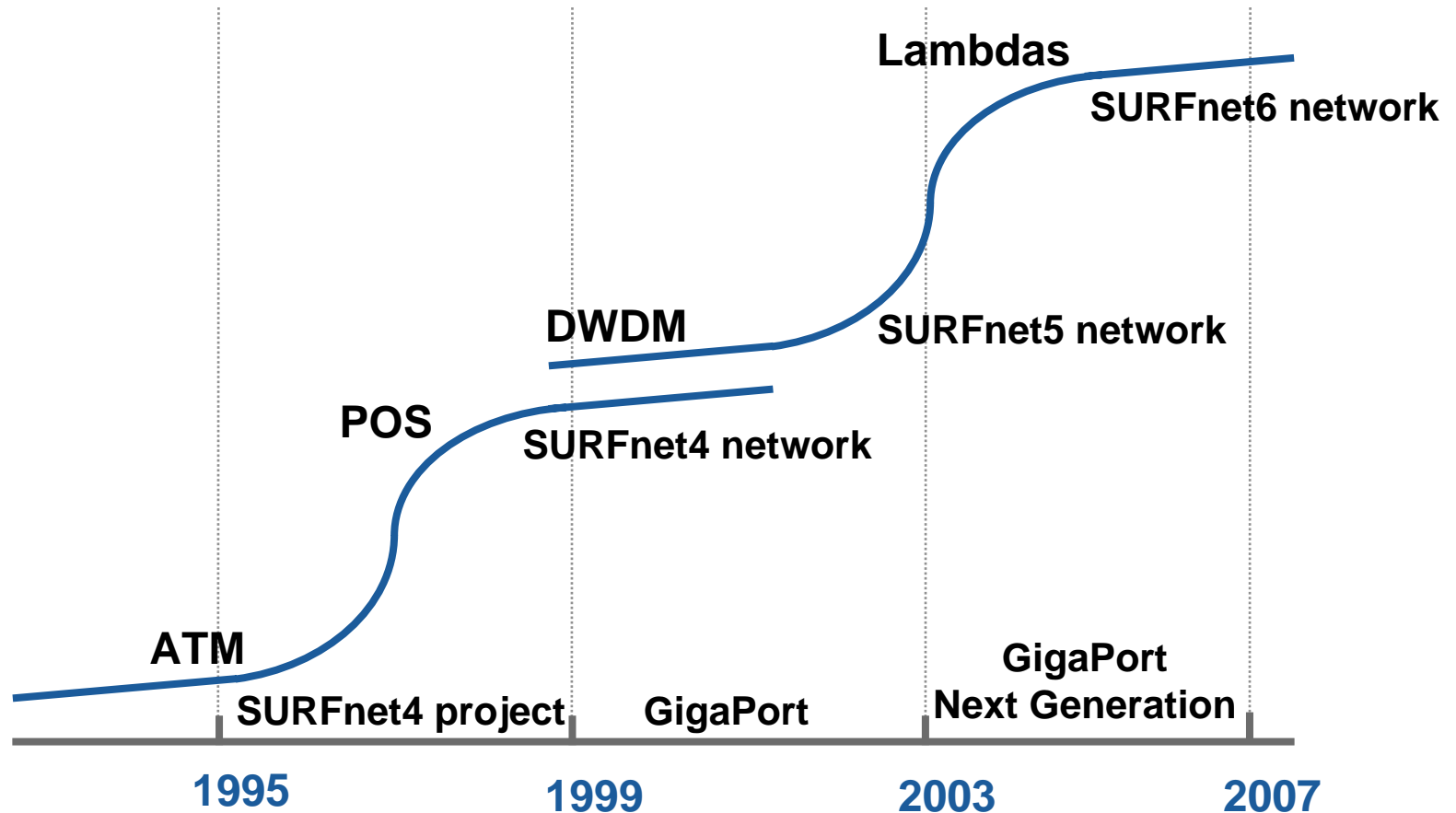
Hybrid Optical and Packet Switching Infrastructure

Erik Radius

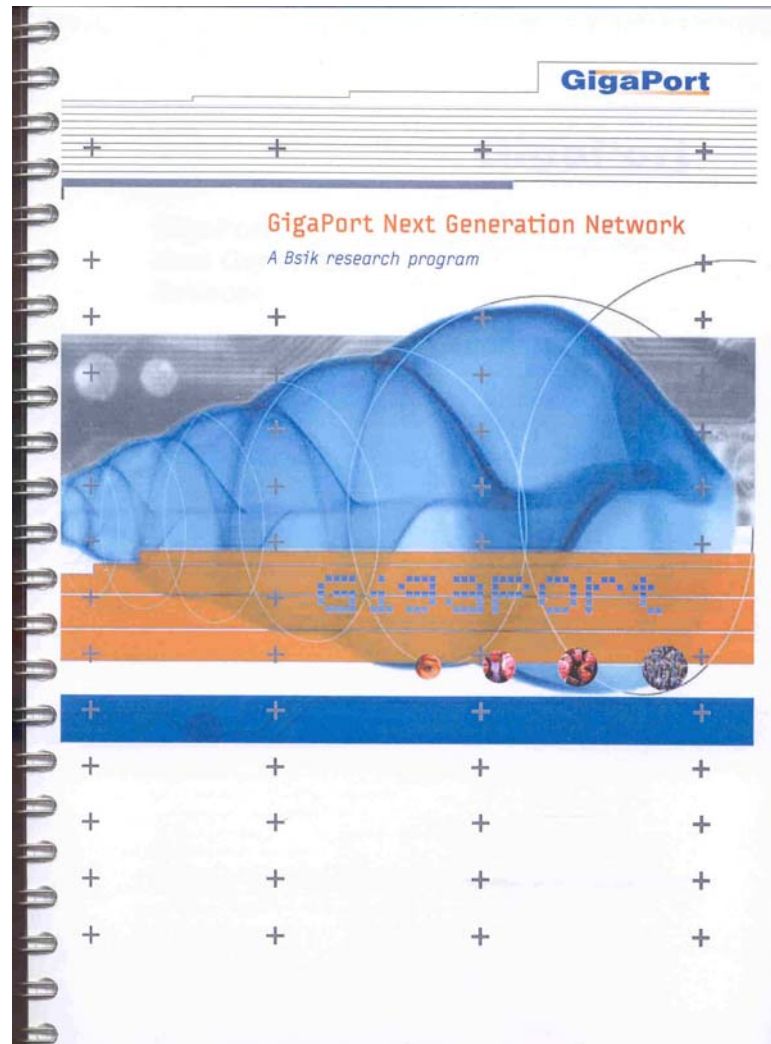
TF-NGN

Amsterdam, 11 May 2004

Paradigm shift

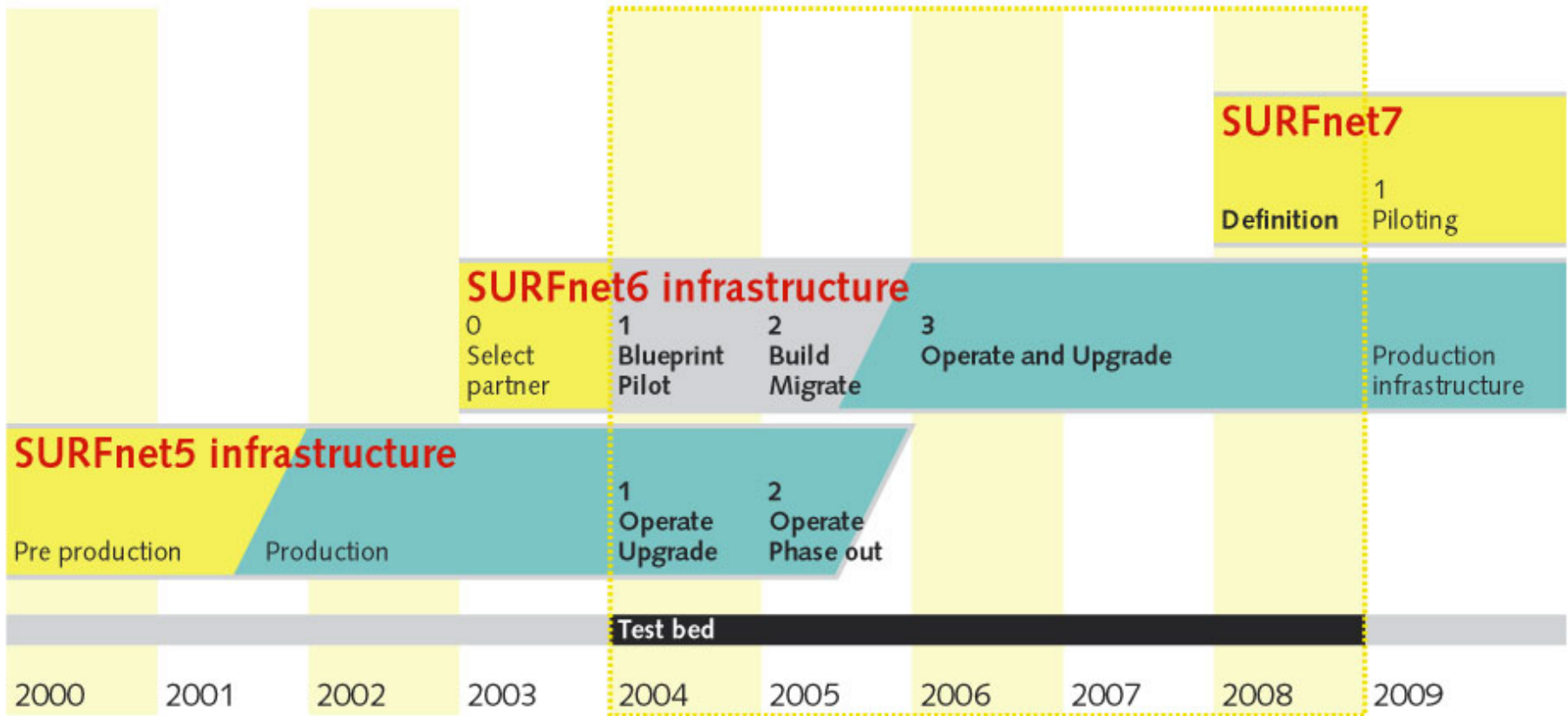


Next generation is not a simple extrapolation of current networks



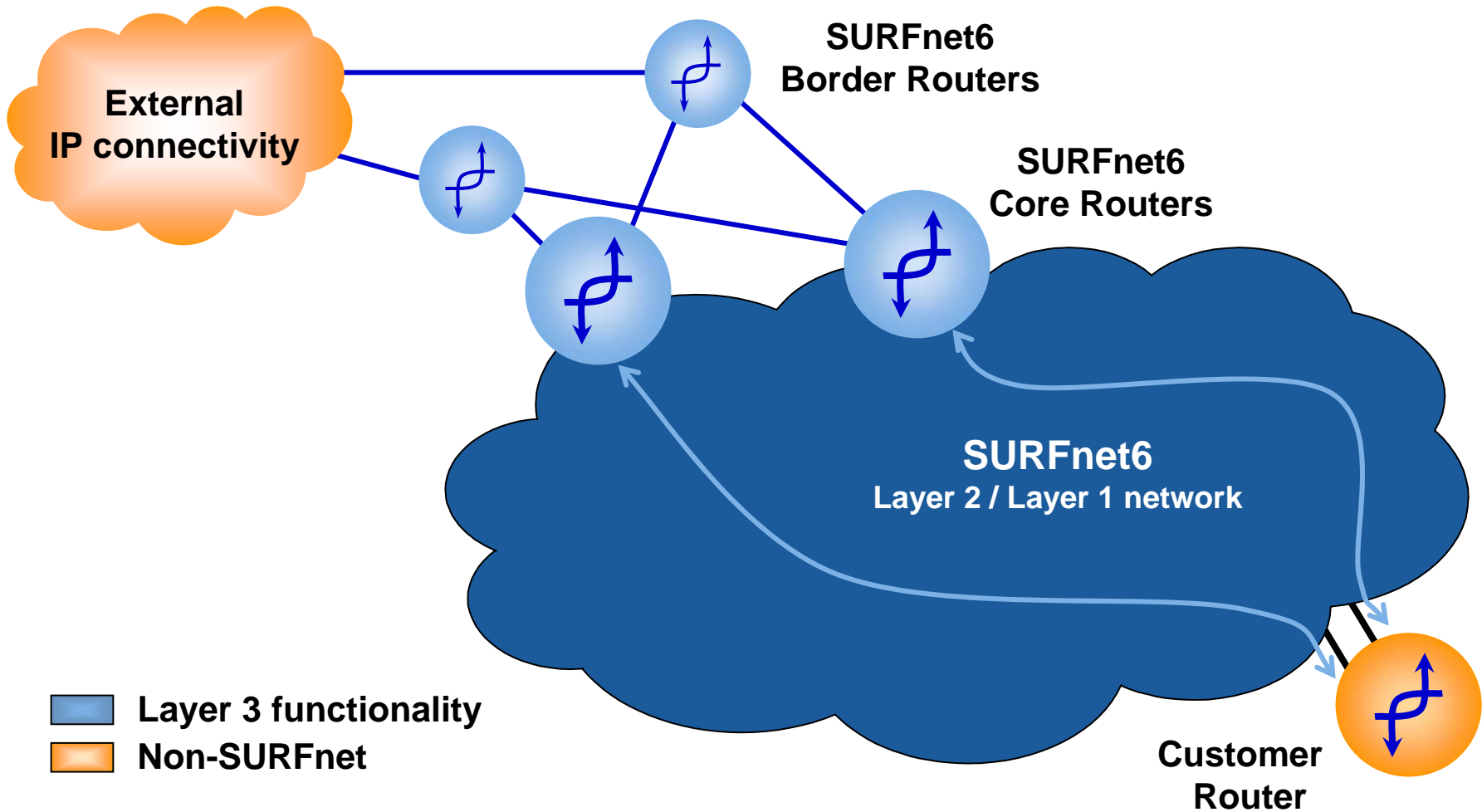
Government Grant: 40M Euro for 5 years

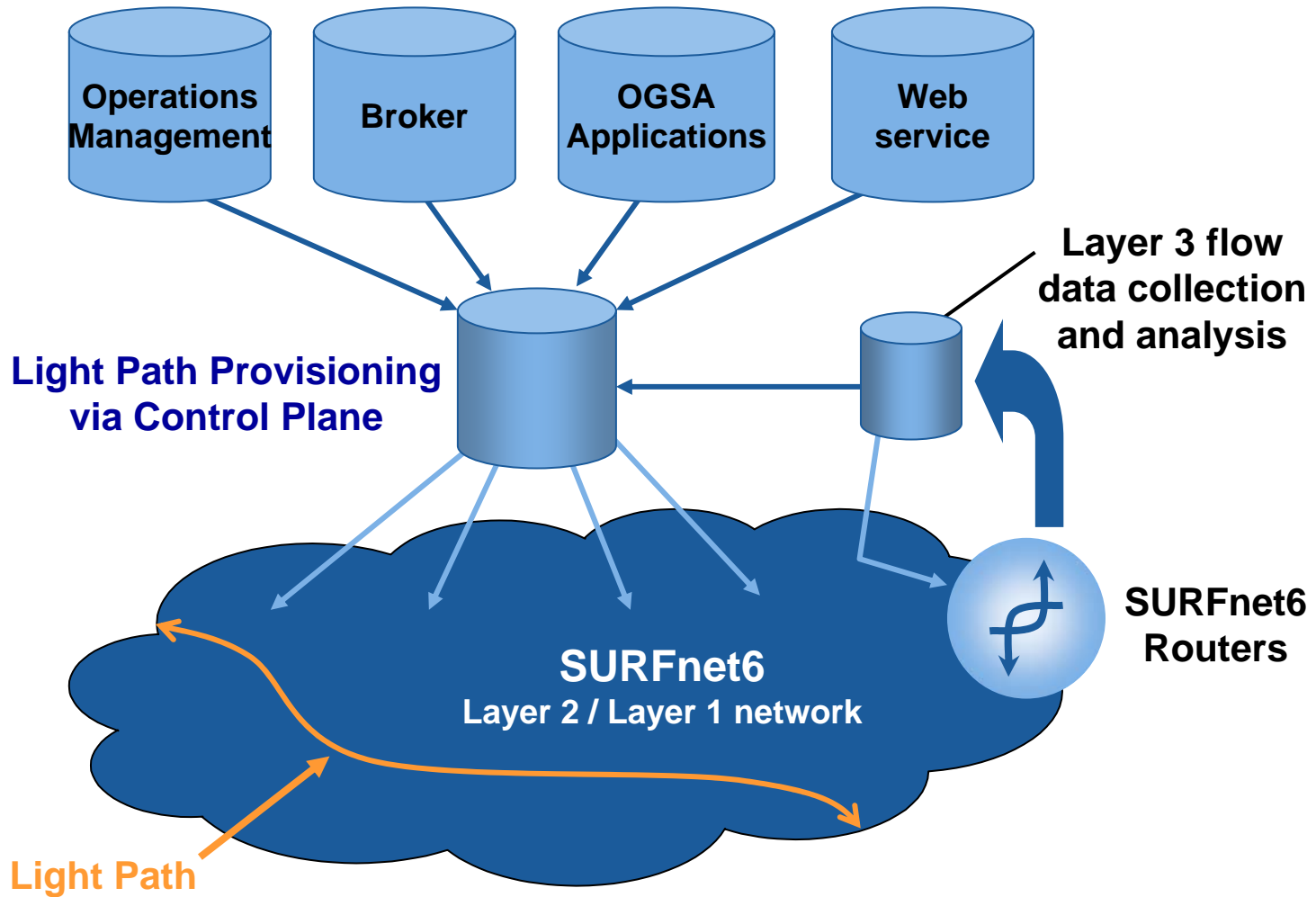
Timelines SURFnet6



- **Realization of a next generation hybrid network with seamless end-to-end communication:**
 - Based on customer-owned managed dark fiber
 - Native IPv4, IPv6 and Lambda Services over a single transmission infrastructure managed via a single control plane
 - Multi-domain networking
 - Ethernet services as part of the WANs
 - Intelligence of networks and the associated responsibilities at the edges
- **Paving the way to a ubiquitous and scalable Services Grid**

Provisioning of IP Services





- **Participates in realization GigaPort NG Network**
- **Supplies, implements, maintains and supports transmission, switching and routing equipment**
- **Provides a major own contribution to the project**
- **Selection via European procurement procedure**
 - **Qualification phase: eight candidates**
 - **Awarding phase: five candidates**
 - **Four consortia submitted a valid proposal**
 - **Negotiations started end of November 2003**
 - **Contract signed March 23rd, 2004**

SURFnet's new Industry Partner (2004-2010) **GigaPort**

NORTEL
NETWORKS™

- Leader of the consortium
- Optical equipment
- Ethernet equipment
- Network management equipment

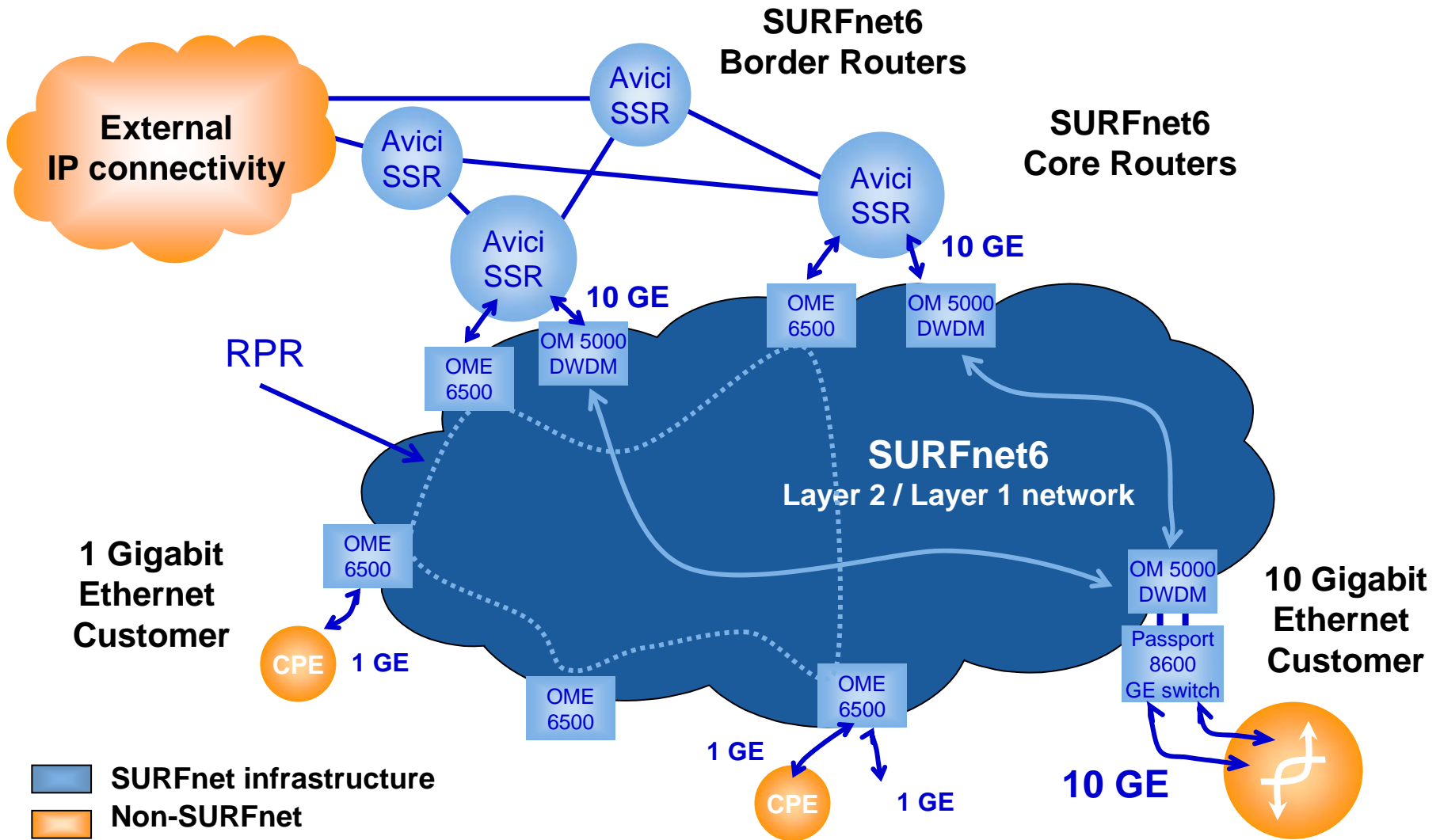
AVICI
SYSTEMS

- Routing equipment

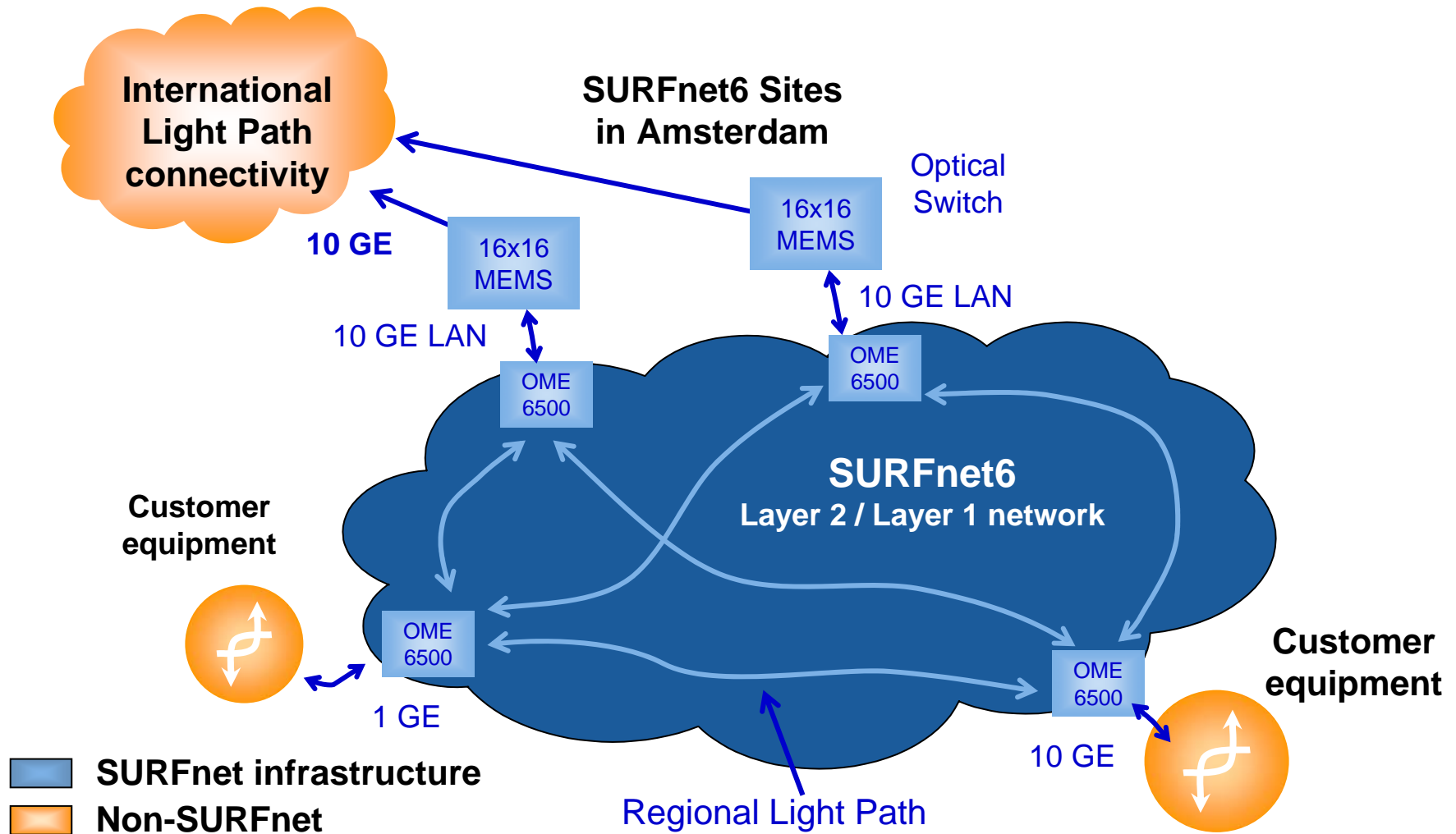
TELINDUS

- Installation services
- Maintenance services

Provisioning of IP Services



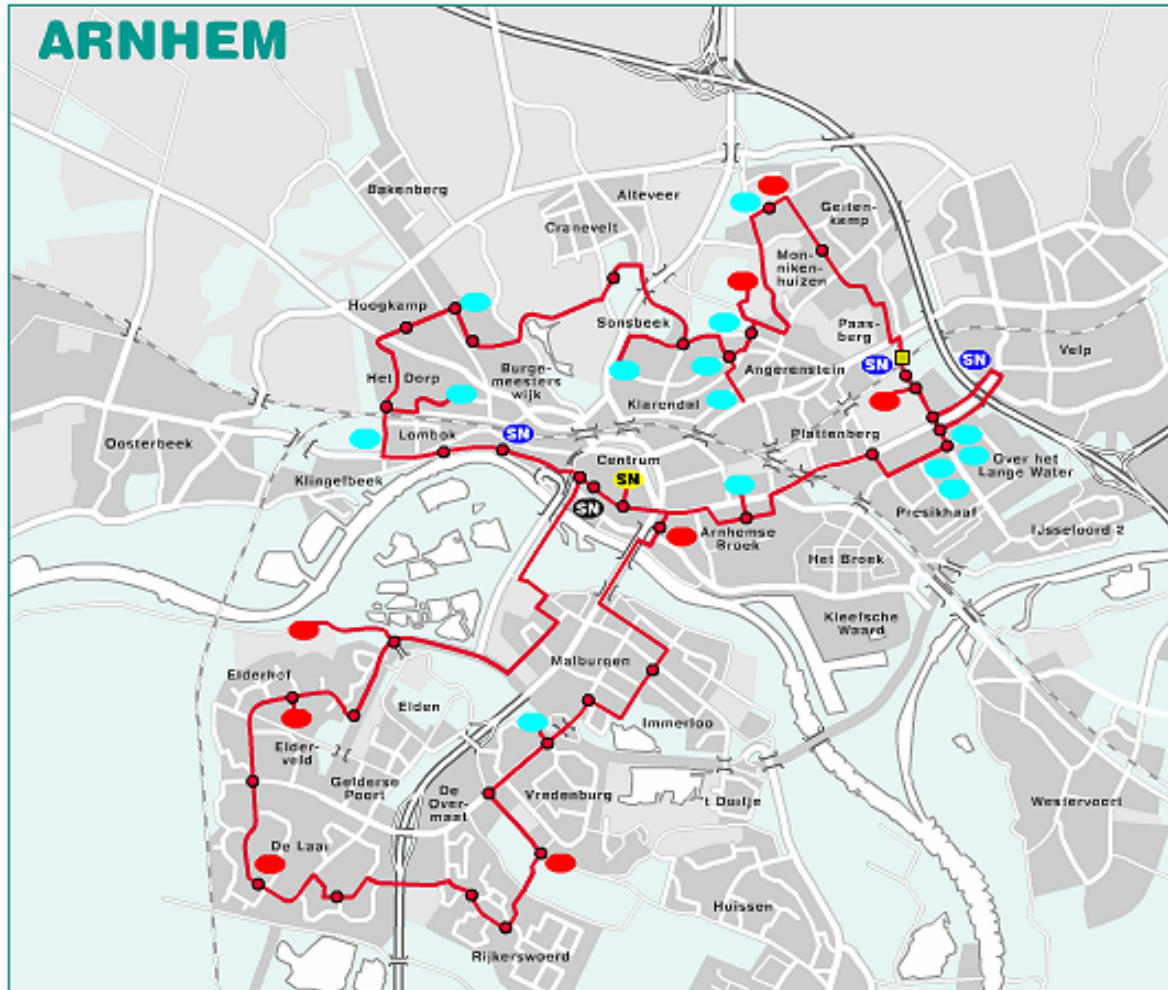
Provisioning of Light Paths



Managed Dark Fiber in the Netherlands



April 2004: over 4000 km of fiber pairs, 15 year IRUs



- **Blueprint: detailed design of SURFnet6**
- **Kick-off Research Program**
- **Tenders for**
 - More managed dark fiber
 - SURFnet6 NOC
 - Global connectivity
- **Build Testbed**
 - Test new hardware and software before introduced
 - Perform beta testing in concert with Industry Partner
 - Act as vehicle for Research on Networks testing

GigaPort

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