SENDATE Closing Event

Towards the all aware optical network

Bernd Sommerkorn-Krombholz, Optical Technology & Performance

Infinera
Subproject FICUS

FICUS: Flexible Infrastructure for data center Communication providing Unique Security

- Future Networks are Reconfigured Frequently and Automatically According to Demand

FICUS lead by Infinera®
Industry-first multi-vendor SDN field trial

© 2019 Infinera
Autonomous Intelligent Transponder

- Maximize Link Capacity
- Without Knowledge
- For any Link
- On-the-Fly

- DSP Channel Sensing
- Link Quality Estimation
- Adaptive Optimization
- DSP Feedback

© 2019 Infinera
Autonomous Intelligent Transponder Field Trial in Telia Network
**Ficus & Infinera - Part of a Changing Network Environment**

**Ficus:**
- secure operations (Infinera Lisbon)
- phys. layer security
- QKD using today’s HW

**Improved DCI optimized platforms**
- Flexible
- Agile

**Improved Infinera DWDM**
- designed & developed in Germany

**Autonomous Intelligent Transponder**
- multiple modulation formats
- flexible baud rate
- several FEC options
- flexible channel grid

**Payload encryption**

© 2016 Coriant. All rights reserved.
FICUS Consortium

- Coriant R&D GmbH - Part of the Infinera Group
- VPIphotonics GmbH
- Helmut-Schmidt-Universität Hamburg
- TU Dortmund
- TU München
- Universität der Bundeswehr München
- RISE AB
- Finisar Sweden AB
- PacketFront Software Solutions AB
- Proximion AB
- Telia Company AB
Summary

- Ficus focuses on relevant areas for efficient, flexible, reliable and secure communication networks
- Ficus strives for innovative solutions at the technological edge
  - Research challenges are afflicted with significant risks
  - High R&D invest with RoI only many years from now

Continued support from European institutions and German government is required in order to keep the European telecommunication industry
- competitive in a global business environment and get it back into a leading position
- rebuild trust in communication networks
- foster collaboration in an international network of research and industry partners
- maintain and create jobs
- But also because Government support is very common in other parts of the world
supported by
Thank You