

“Optical Access Seamless Evolution”

OASE

Grant agreement no:249025,

ICT2009.1.1:The Network of the Future

OASE consortium.

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Duration: Jan 2010 – December 2012

Total budget: 7,664,241.00€

EU contribution: 4,980,257.00 €

12 partners from 8 countries:

- SME coordinator
- 3 operators
- 2 (3) vendors
- 3 universities
- 2 research institutes



Scope.

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Mission statement: Develop and assess next-generation optical access (NGOA) network architectures for the “2020” time horizon focused on European requirements.

- Technology and architecture evolution focusing on minimized total cost of ownership (TCO)
- Support for new business models
- Next-generation optical access network with the highest potential of enabling
 - ≥ 1 Gbit/s per customer
 - > 1000 customers per fiber feed and
 - ≥ 100 km transmission distance.

Challenges.

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- Evolution from copper to FTTH and NGN
- Business models in multi-service and multi-operator environment
- Optical technologies enabling structural network architecture changes
- Optimal technical solution for NGOA networks
- Optimum topological and functional split of core, NG optical access and home networks
- Simplified network operation
- European vision for requirements and standardization

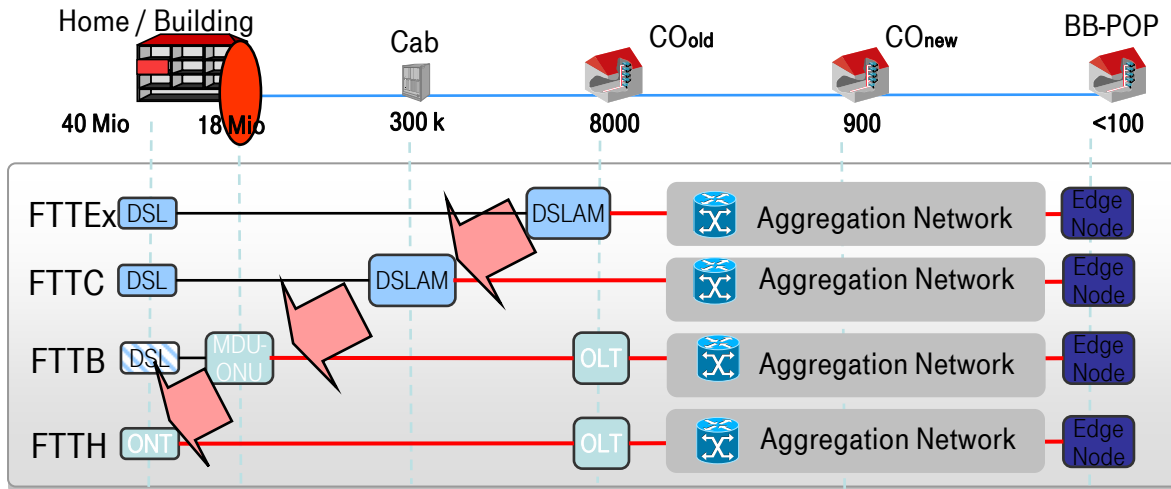
Main Objectives.

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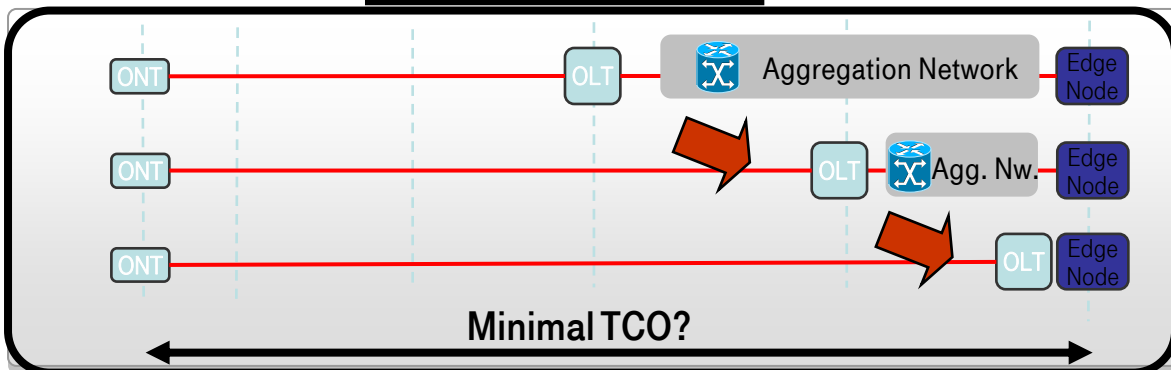
- Define requirements for NGOA networks
- Identify suitable network architectures for optimised TCO
- Identify the network technologies
- Examine the interactions between businesses in an “open network” marketplace
- Validate in a controlled environment via experimental testing
- Define a European vision and standardise it

Optimise TCO. (1/2)

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OASE - time horizon 2020



Step One: Migration to FTTH

Providing Fiber to the home:

- Removes access bottleneck
- Enables full services portfolio
- Is future-proof

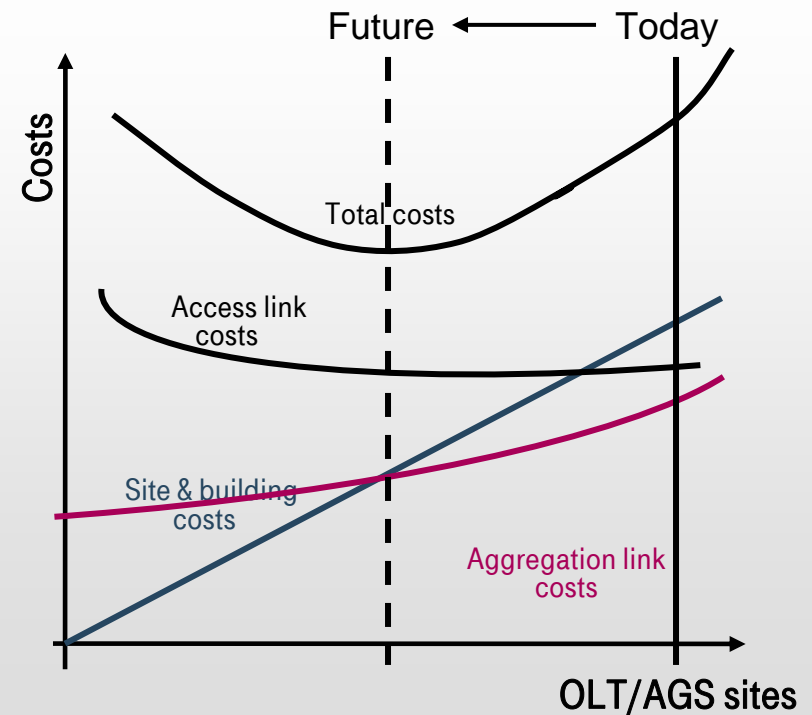
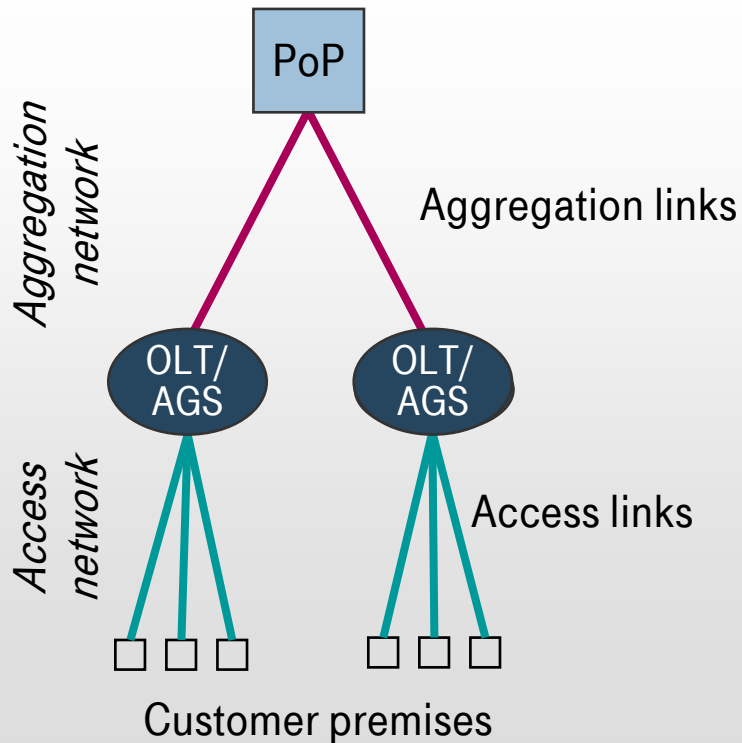
Step Two: TCO optimization

Redesign the whole network by exploiting optic capabilities

- Simplify network structure
- Reducing no. of access nodes, minimizing aggreg. netw. impact

Optimise TCO. (2/2)

Dependency of access / aggregation network structure and total network costs



Phase 1:

Setup of initial OASE requirements

WP 2:	Project internal requirements setup starting from FSAN requirements
	Bilateral workshops with European Operators

Initial OASE (NGOA) requirements

Phase 2:

External collaboration and dissemination

WP 8:	Project external information exchange with operators, EU projects, vendors
	Standardization (FSAN, IEEE)

Validation of OASE requirements

Phase 3:

Review and finalization of OASE requirements

WP 2:	Review of OASE requirements
	OASE final requirements

Final OASE requirements

OASE cooperations.

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- Cooperation with project in same field:
 - Accordance (ODFMA Hybrid/optical access): OFDMA PON assessment and techno-economic analysis
 - SARDANA: WDM TDM/TDMA PON
 - Gigawam: component technologies for WDM/TDM PON
 - ALPHA: transmission solutions involving fiber and wireless
 - FUTON: ROF
- Standardisation: project active in FSAN / ITU-T
- Main operators: set-up of an Industry Board.