

# Introduction to European Cluster for Optical Interconnects

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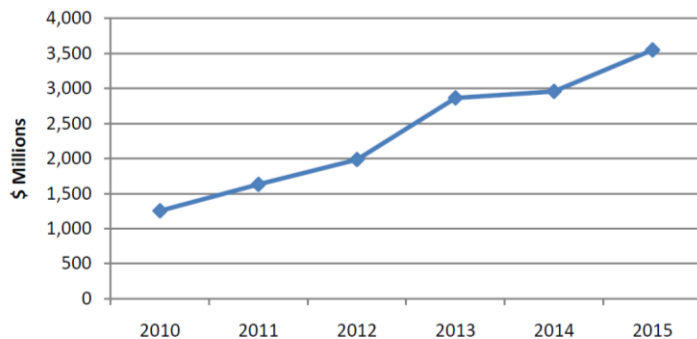


# Outline

- What is ECO?
- Scope – Objectives
- Membership
- Communication tool
- What comes next

# Optical Interconnects

Total Optical Interconnects Market



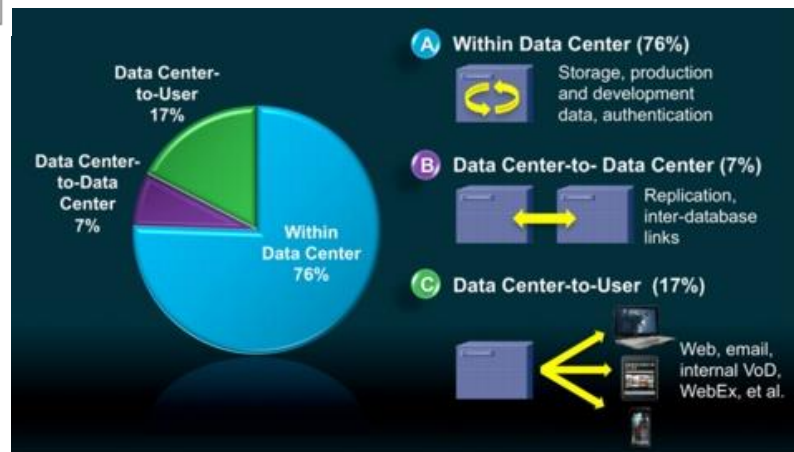
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- Rack-based interconnects market revenues are expected to reach \$3,5 Billions in 2015
- Cumulative AOC revenue for the entire five-year period will be in excess of \$7 billion, with over \$2.4 billion in 2014 alone

## Traffic change 2011 – 2016

- DC to DC: 32%
- DC to user: 31%
- Within DC: 30%

Source: Cisco Global Cloud Index



# Situation in Europe

- Large number of large industrial, SMEs and research institutes that are active in datacom sector
- Weak links between the companies of the sector compared to other sectors (telecom for example)
- Small to minimal working relations of industrials and academia
- Small visibility of the optical interconnection field
- Inability to affect the EC agenda.

# Photonics21

## WG1: Information and Communication

- WG2: Industrial Manufacturing and Quality
- WG3: Life Sciences and Health
- WG4: Emerging Lighting, Electronics and Displays
- WG5: Security: Metrology and Sensors
- WG6: Optical Components and Systems
- WG7: Research, Education and Training

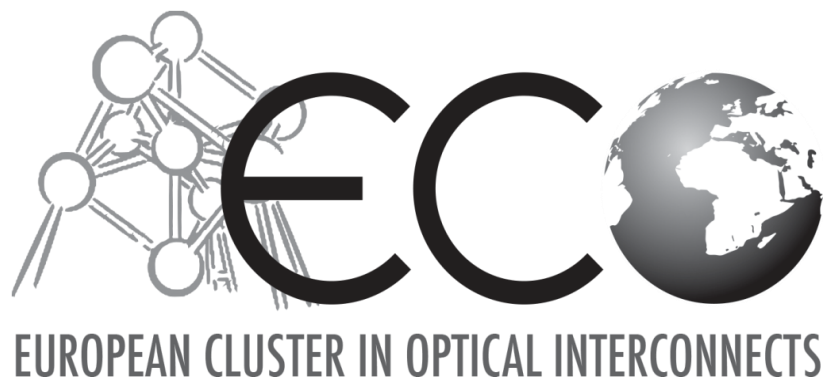
# EC strategic planning

- Total EU contribution ~27 M€
  - 3 projects funded under Obj. “Disruptive Photonic Technologies”
  - 1 project funded under FET Open
  - Only 4 projects funded under Obj. “Photonic Components”
- Non-focused and random approach that cannot support a focused interconnect technology sector

# The need for a cluster

- In this rapidly expanding global market, Europe needs a focused strategy in order to increase its market share.
- Elevate the individual knowledge and expertise of European technology innovators and industrial leading organizations into a collective technology path.
- Increased influence
- A global competitive advantage to the European industrial sector.

# ECO



- The **European Photonic Interconnects Cluster for Optical Interconnects (ECO)** aims to become the first step towards a strategic European roadmap in data communications.



# Who we are

- ECO was formed by the consortia of optical interconnect related EU funded projects
- strong participation of industrial and research organizations from all related datacom and telecom fields and application areas



# ECO objectives (1)

- Create a global forum of stakeholders and beneficiaries of optical interconnect technology spanning a broad application space from chip-level, board-level and rack-level optical interconnect to system integration
- Foster collaboration between European industry and research consortia and global organisations to leverage world-leading expertise in different areas of the optical interconnect eco-system and accelerate wide-spread commercial transition to embedded optical interconnect

# ECO objectives (2)

- Promote global visibility and sustainability of European research and establish synergies between European and global research and development into optical interconnect
- Collectively promote the commercial exploitation of disruptive photonics technologies and thus drive rapid growth in the EU economy in the emerging field of optical datacom and computercom

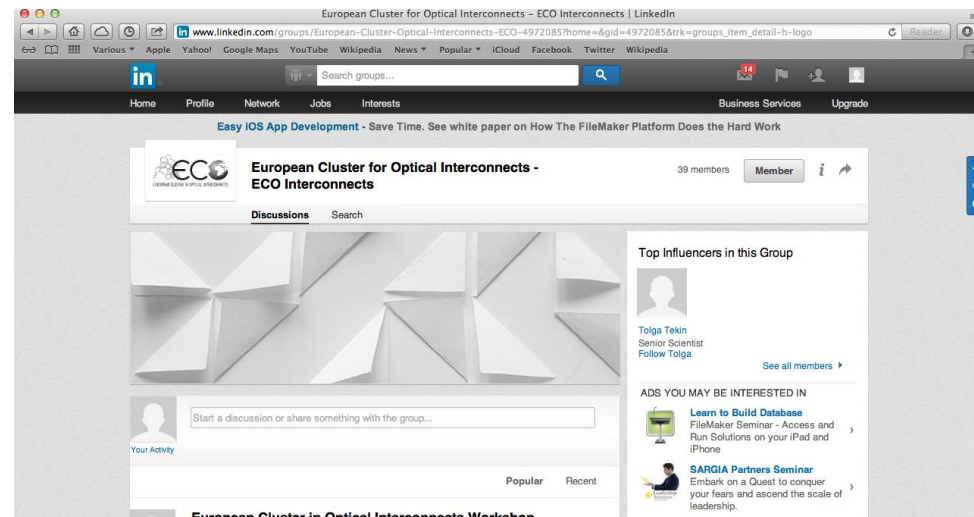
# Expected Members

All the organizations participating in the optical interconnection and the general Data Communication technology ecosystem:

- Technology providers
- Users looking for advanced optical interconnection solutions
- Research centers contributing to optical interconnection research
- Associations involved in Data Communications
- Individuals active in Data Communication
- Related clusters and research project consortia

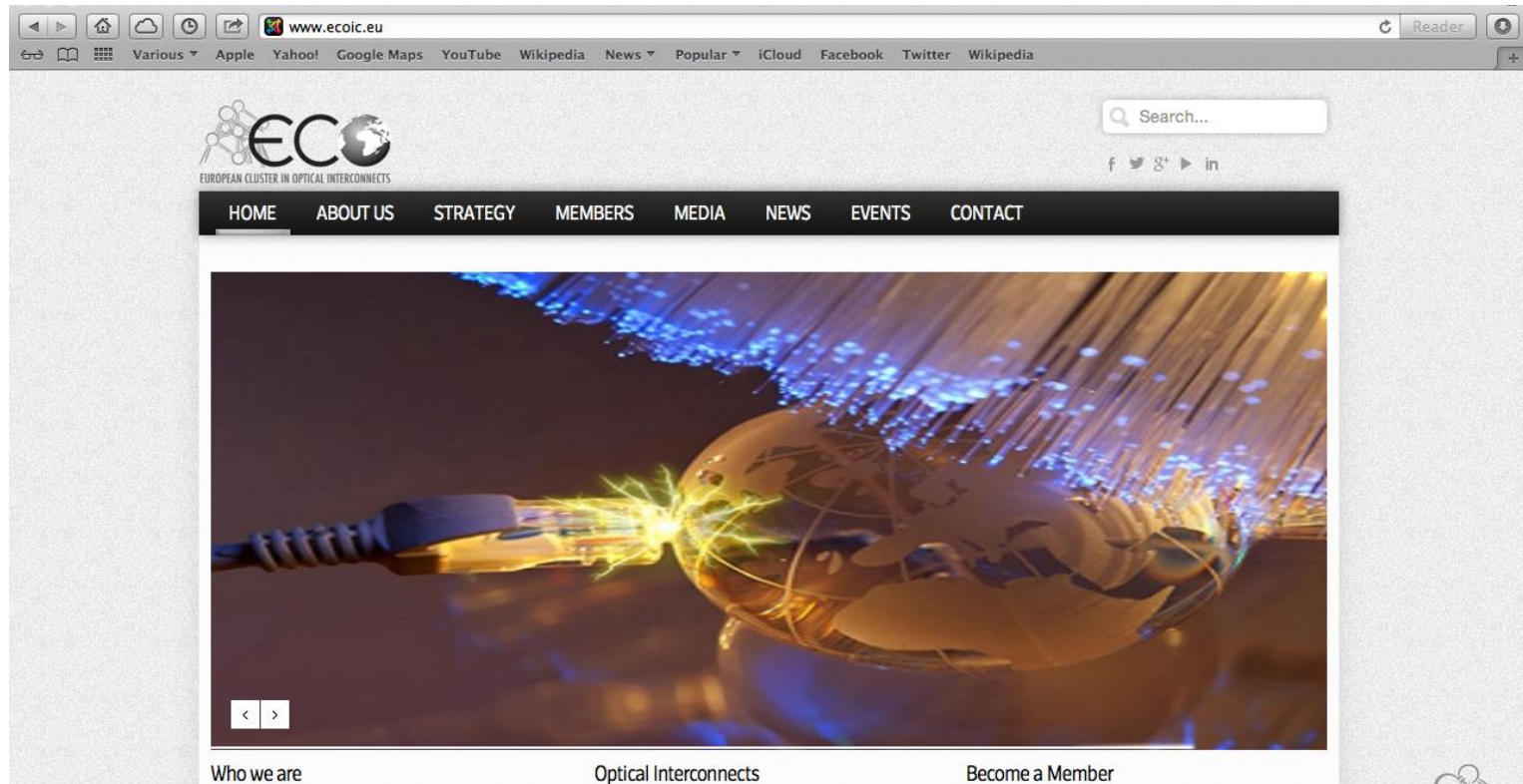
# Communication tools

- ECO website – [www.ecoic.eu](http://www.ecoic.eu) ([info@ecoic.eu](mailto:info@ecoic.eu))
- Social media accounts
  - Linked-In online
  - Twitter, YouTube to follow



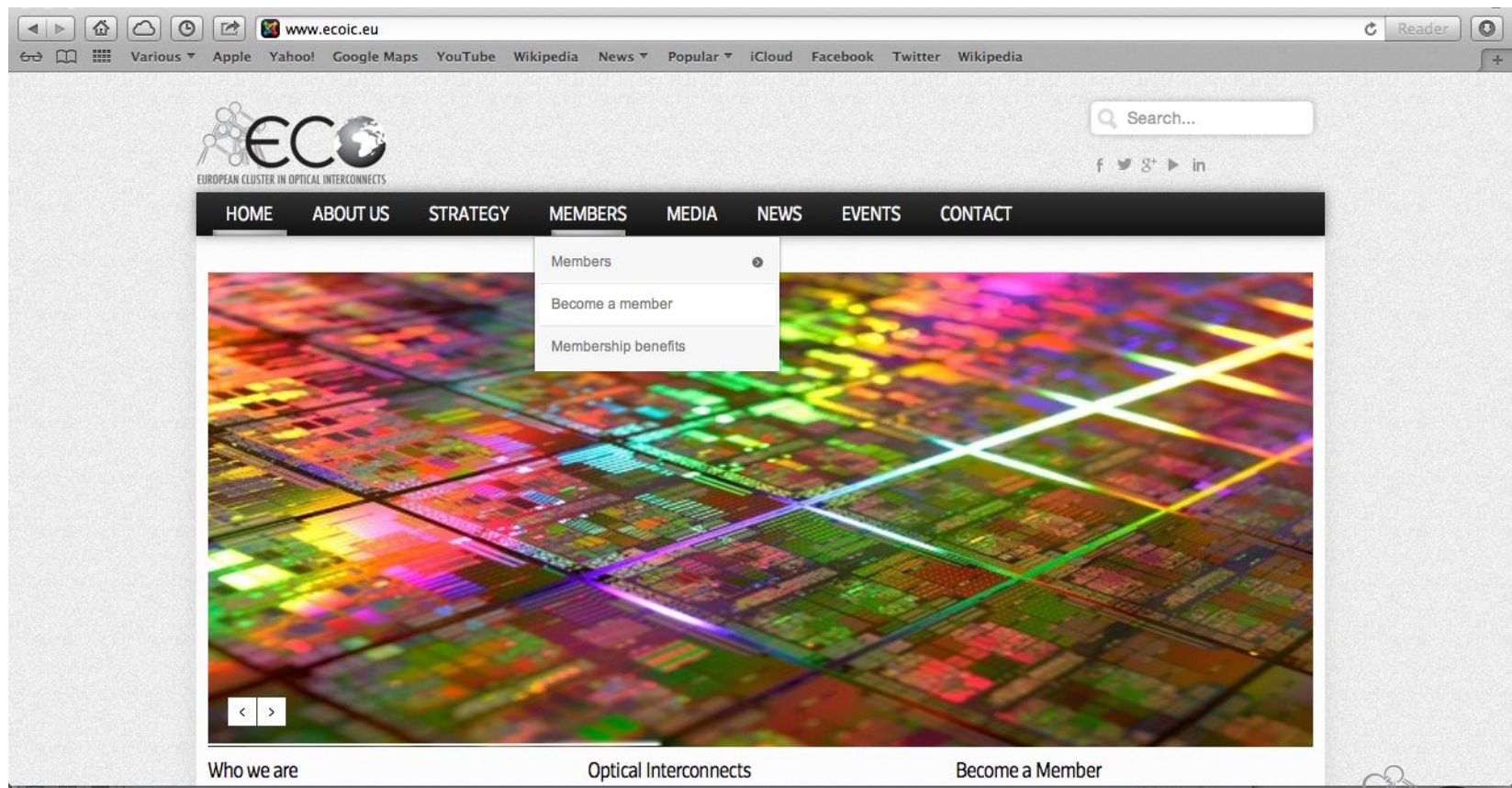
# ECO website

www.ecoic.eu





# Becoming a member



# On-line registration form

ECO Membership Registration Form

Your Organization's name

Contact name

Email

Please specify the type of your Organization

☐ University ☐ Research center ☐ SME ☐ Large industrial ☐ Other

If other please specify

Do you agree that your Organization's name appears on the ECO website? ☐ Yes ☐ No

Do you agree to appear as the contact person on the ECO website? ☐ Yes ☐ No

Please enter the following

Help us prevent SPAM!



# So far

- Successful launch of the European Cluster in Optical Interconnects (ECO) cluster in April 2013
- ECO “kick-off” meeting in Brussels, co-located with Photonics21 Annual meeting
  - More than 20 people attending
  - More than 40 organizations expressed their interest afterwards
- An optical interconnection “strategic agenda” document was prepared and disseminated to Photonics21
- 1st ECO workshop at ECOC’13, supported by ICT-PhoxTrot

# ECO supported activities

Technology Workshop  
“Optical Interconnect in Data Centers

**18-19 March 2014 Berlin, Germany**

*Held in conjunction with Laser Optics, [www.laser-optics-berlin.de](http://www.laser-optics-berlin.de)*

**1<sup>st</sup> European Summer School  
on “Optical Interconnects”**

**3-6 June 2014, Thessaloniki, Greece**

*Co-organized by FP7 PhoxTrot and ECO cluster*

# Future activities

- Next meeting
- Workshops
- Lobbying initiatives
- ...



Thank you !!!!!

[www.ecoic.eu](http://www.ecoic.eu) - [info@ecoic.eu](mailto:info@ecoic.eu)