

Digital Innovation Hubs 1st working group meeting

Doing things differently with SME's

Key recommendations to improve effective engagement

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22nd January 2018, Brussels

Our work is
focused here



PhotonDelta
Integrated Photonics Ecosystem

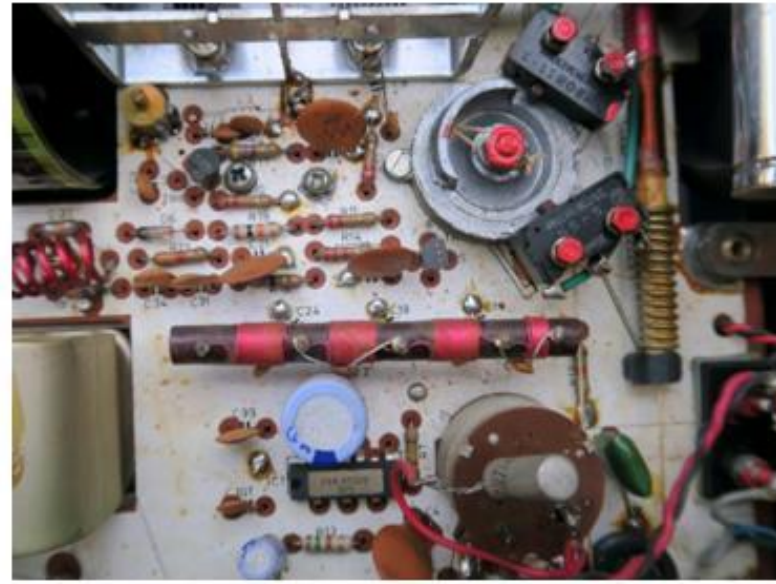


Photonics – without breakthroughs the Internet grinds to a halt by 2023



Google Eemshaven in 2016

- 🌐 Exponential growth in wireless devices is having a huge impact on the mobile networks.
- 🌐 70% of people in Western Europe are accessing information from the Internet on wireless devices.
- 🌐 Global 5G network will be 1000 times faster, reaching 7 billion people while using 90% less energy.
- 🌐 Google, Microsoft, Amazon, Apple are doubling their datacentre capacity (and energy consumption) every year.
- 🌐 Photonics systems on a chip are crucial for the ultra fast rates with low latency which European industry needs – and expects.



1977 Portable Radio. 18 discrete transistors - count them!

Without integration, smart products cannot scale up volume production. From 18 transistors in 1977 to....

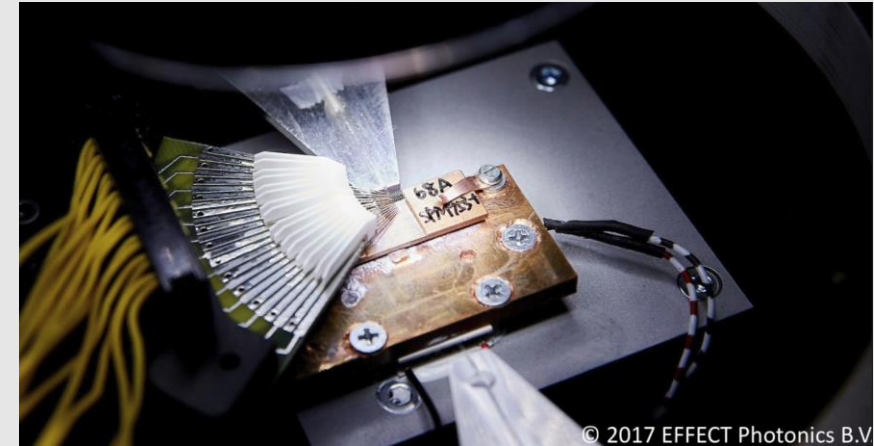
... 4.3 billion
transistors in
the new
iPhone 8.

January 22, 2018



Why Photonics matters

- Photonics is one of the important technology engines driving Europe's lead in high-tech research and manufacturing.
- It is key to the exponential growth of datacentres without an impossible demand on energy resources.



The urgent need for new sensors

- Photonics is providing new sensors to measure what has been impossible to measure so far.
- Accurate Measurements - Climate agreements in Paris are demanding stringent levels of air quality, CO₂ and exhaust particle emissions. How will we monitor compliance? – Photonics is the key.
- Biophotonics - In-situ monitoring and diagnosis of (animal) pathogens.
- Early detection of cancers and improved tools for surgeons has a huge impact on patient recovery rates.
- Photonics plays an important role in bioeconomies. Managing Finland's forests help find replacements for plastics and cotton. New forms of biofuels.



NEWS
SHOW ALL
VaxChip: In-situ photonics for faster food security

Why we believe in a different approach!



- 🌐 Stop duplication of effort. No-one needs more of the same. **Europe has hundreds of physical places trying to do innovation.** But there is no guarantee that any innovation will happen.
- 🌐 SME's are asking for more active collaboration and engagement with non-photonics partners. They want more match-making and less “photonics conferences”, contests and demo-days.
- 🌐 Understand what challenges your SME's are facing. Help them find solutions to accelerate their time to market.

1. Lessons Learned – listen to SME challenges

🌐 Understand what challenges your SME's are facing. Help them find solutions to accelerate their time to market.



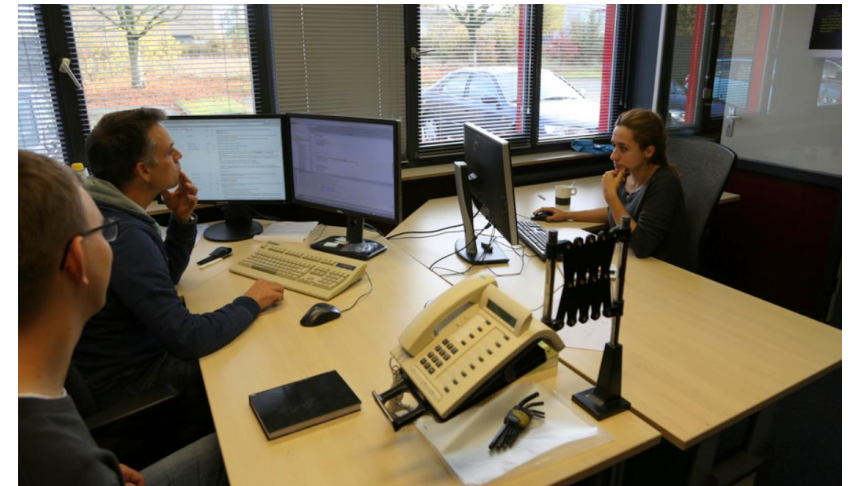
The need for speed

- 🌐 Average lifespan of a US S&P 500 company has fallen from 67 years in 1920 to just 15 years in 2018. Same story in Europe.
- 🌐 Companies die because they fail to adapt to disruptive technologies.
- 🌐 The product lifecycle was 20 years. **Now it is 5 years.**
- 🌐 If you can't get your product development down to 18 months, a company elsewhere may capture your market. You will fail.

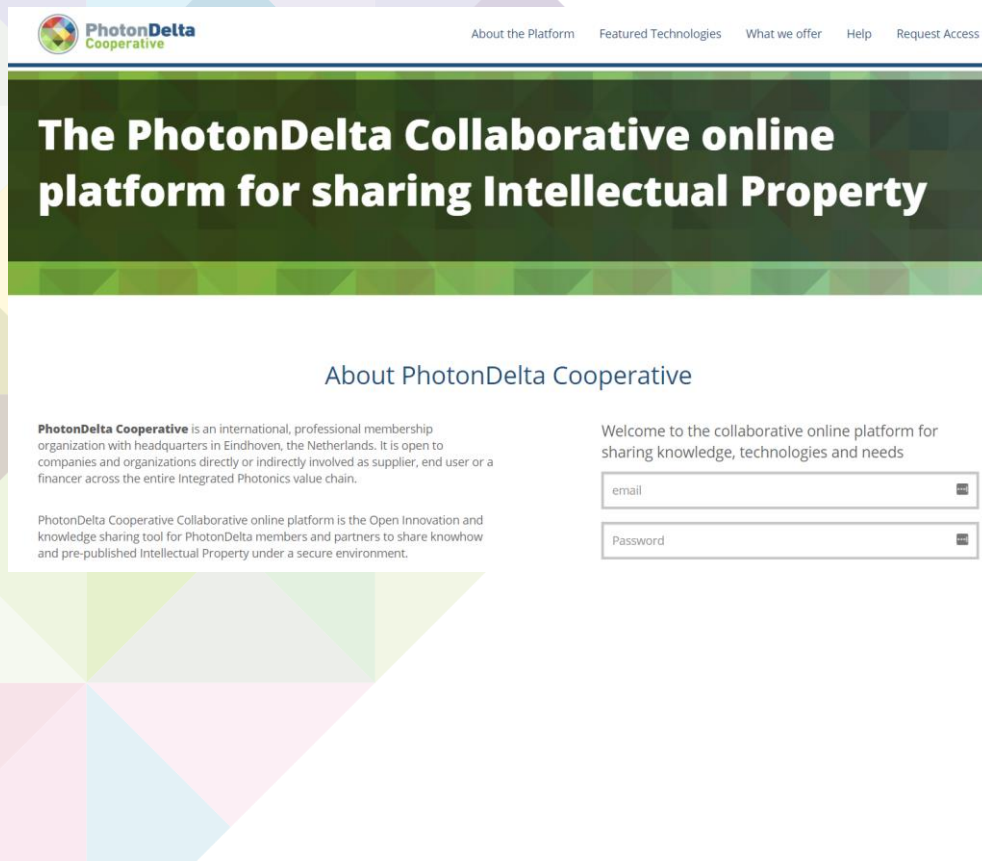


2. Offer relevant help: SME's prosper if they....

- 🌐 Find and hire the right people at the right time. Team dynamics are important. The current talent shortage of engineers is worrying.
- 🌐 Understand the value of their IP and how to keep trade secrets.
- 🌐 Ensure product-market fit as soon as possible. Don't waste time perfecting something customers don't need (and won't pay for).



3. SME's need independent advice in protecting their IP.



The screenshot shows the PhotonDelta Cooperative website. At the top left is the logo. The navigation menu includes: About the Platform, Featured Technologies, What we offer, Help, and Request Access. The main heading reads: "The PhotonDelta Collaborative online platform for sharing Intellectual Property". Below this is a section titled "About PhotonDelta Cooperative".

PhotonDelta Cooperative is an international, professional membership organization with headquarters in Eindhoven, the Netherlands. It is open to companies and organizations directly or indirectly involved as supplier, end user or a financier across the entire Integrated Photonics value chain.

PhotonDelta Cooperative Collaborative online platform is the Open Innovation and knowledge sharing tool for PhotonDelta members and partners to share knowhow and pre-published Intellectual Property under a secure environment.

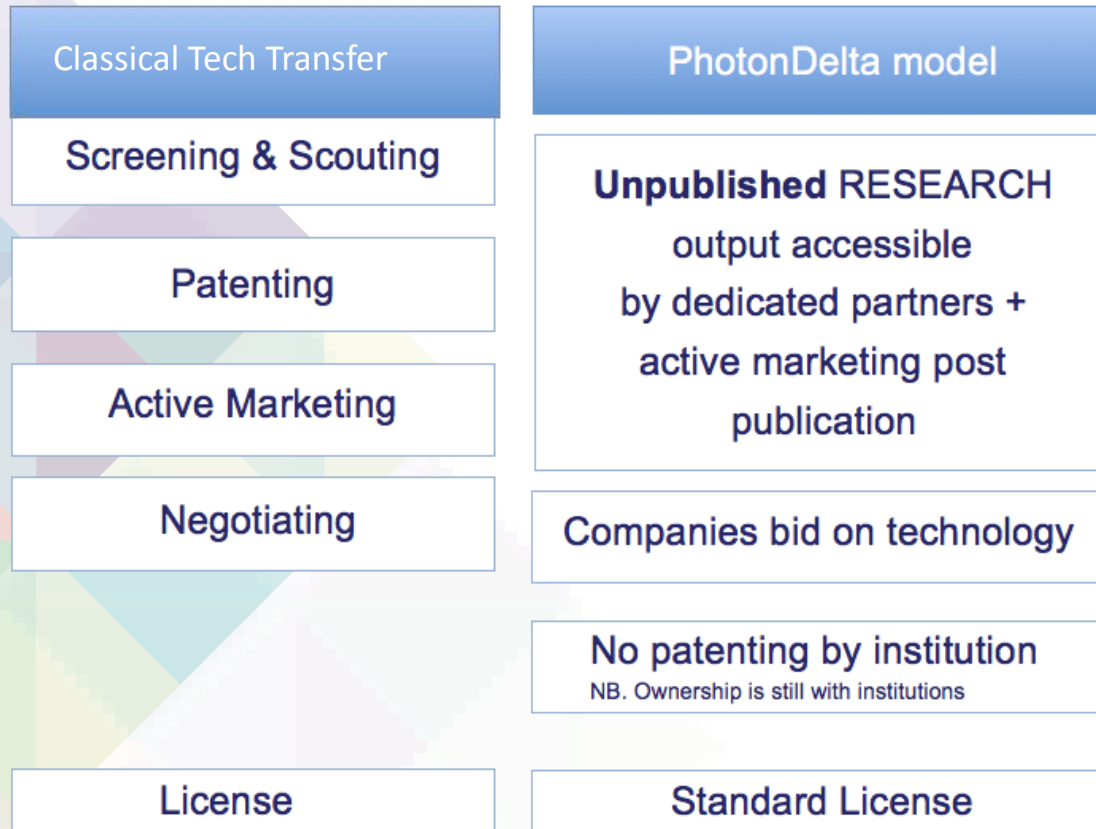
Welcome to the collaborative online platform for sharing knowledge, technologies and needs

email

Password



Fast-track PhotonDelta Innovation Model



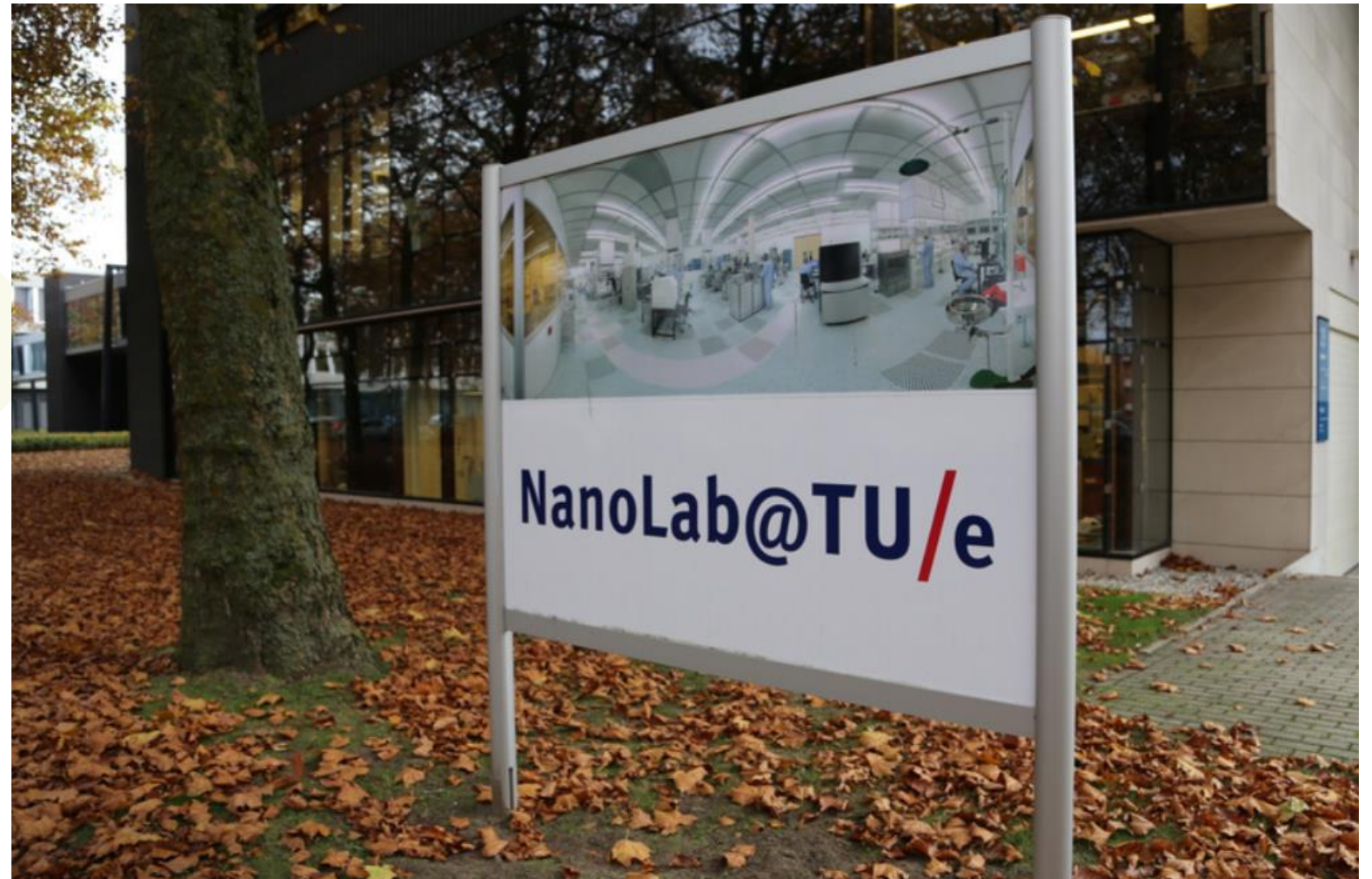
Often take years

- **2 months** for companies to evaluate ideas, discuss with academics and prepare bid
- **1 week** for institution to evaluate bids

4. Work with the willing. Fast-track their needs

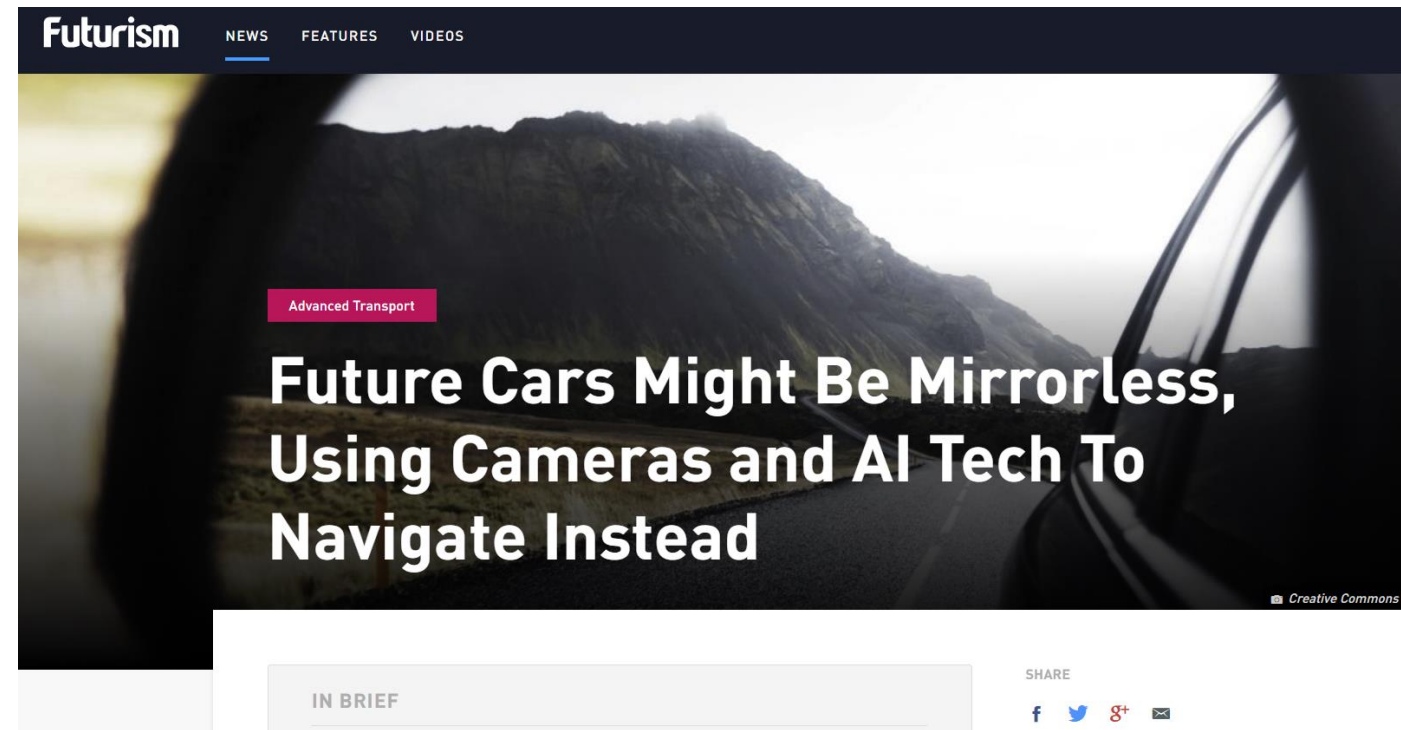


5. Arrange access to facilities and relevant knowledge SME's dream of.



6. Build your own media assets

- 🌐 Learn how to tell the stories about the journeys your SME's are taking.
- 🌐 Traditional media outlets (press, radio, and TV) are only interested in what happened. Never in the questions that investors want to ask.
- 🌐 Emerging media platforms like futurism.com more effective in reaching target audiences.



Let's continue the
conversation.....

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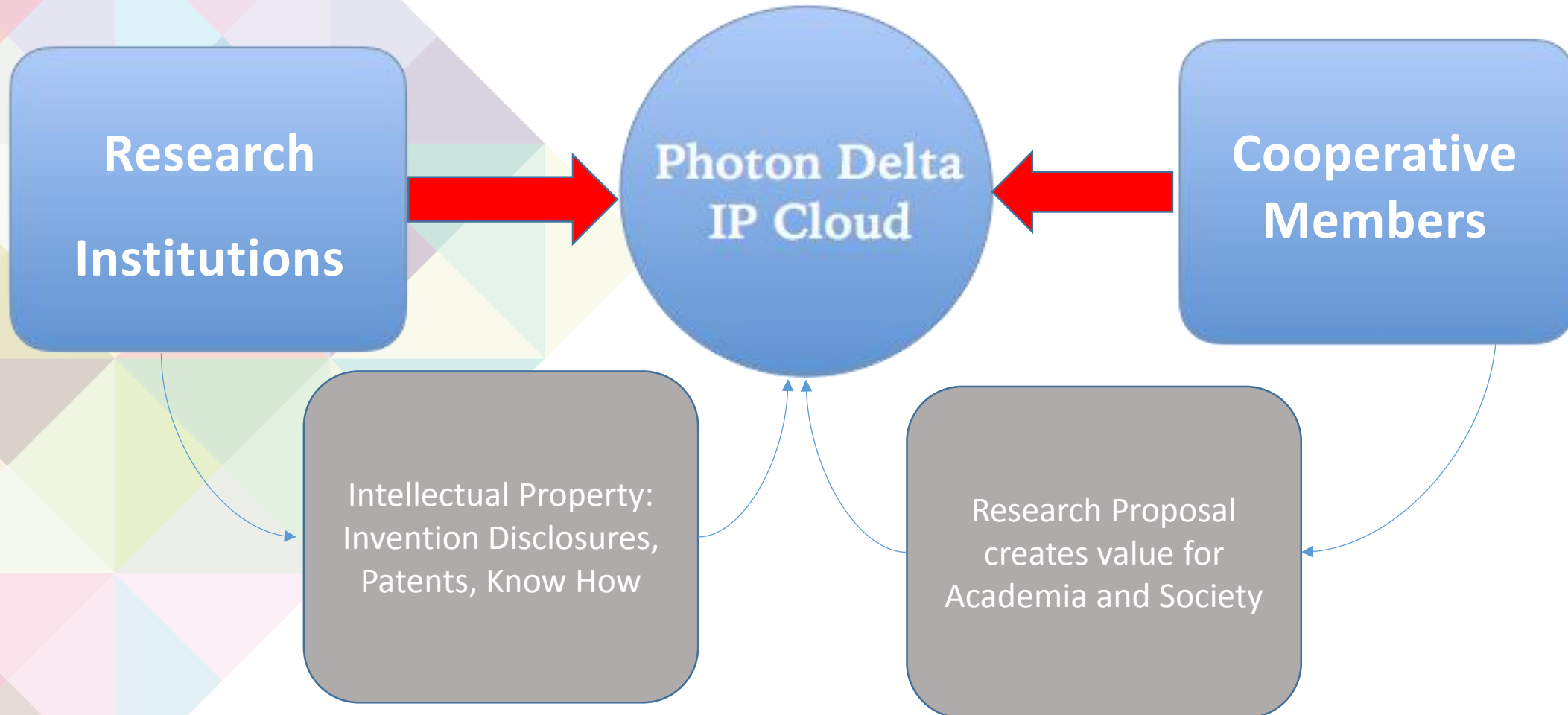
Mobile: Anna Nikiel
+31648514916

(Happy to share these
slides)





Building a trusted network between research and industry





Become the bridge between research and industry



PhotonDelta Cooperative

- We aim to create an academic-industry environment where information and knowledge is shared to increase the development of innovative products.
- We help companies find much faster roads to market, by giving SME's early access to IP within a trusted network (protected by NDA's).
- PhotonDelta enables to quick and easy tech transfer and open innovation.