

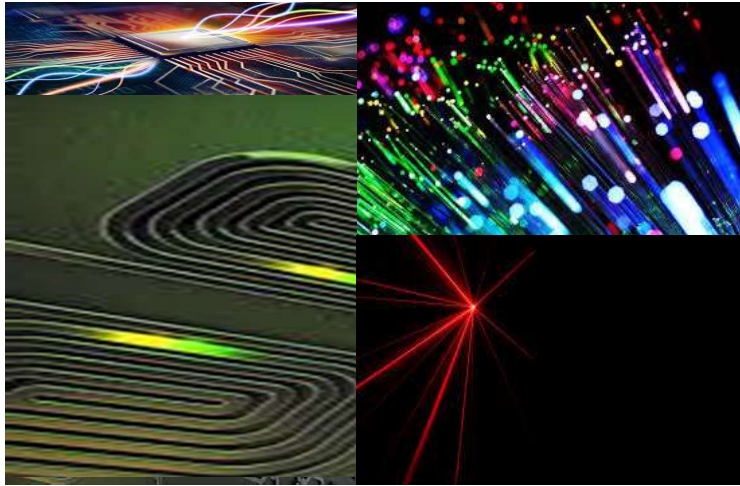
# Tampere University as a unique environment for Photonics studies

*from advanced education to world-class research and wide industrial collaboration*

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Director of International MSc Program in Photonics Tech.  
Director of Flagship for Photonics Research and Innovation  
Professor in Ultrafast Photonics

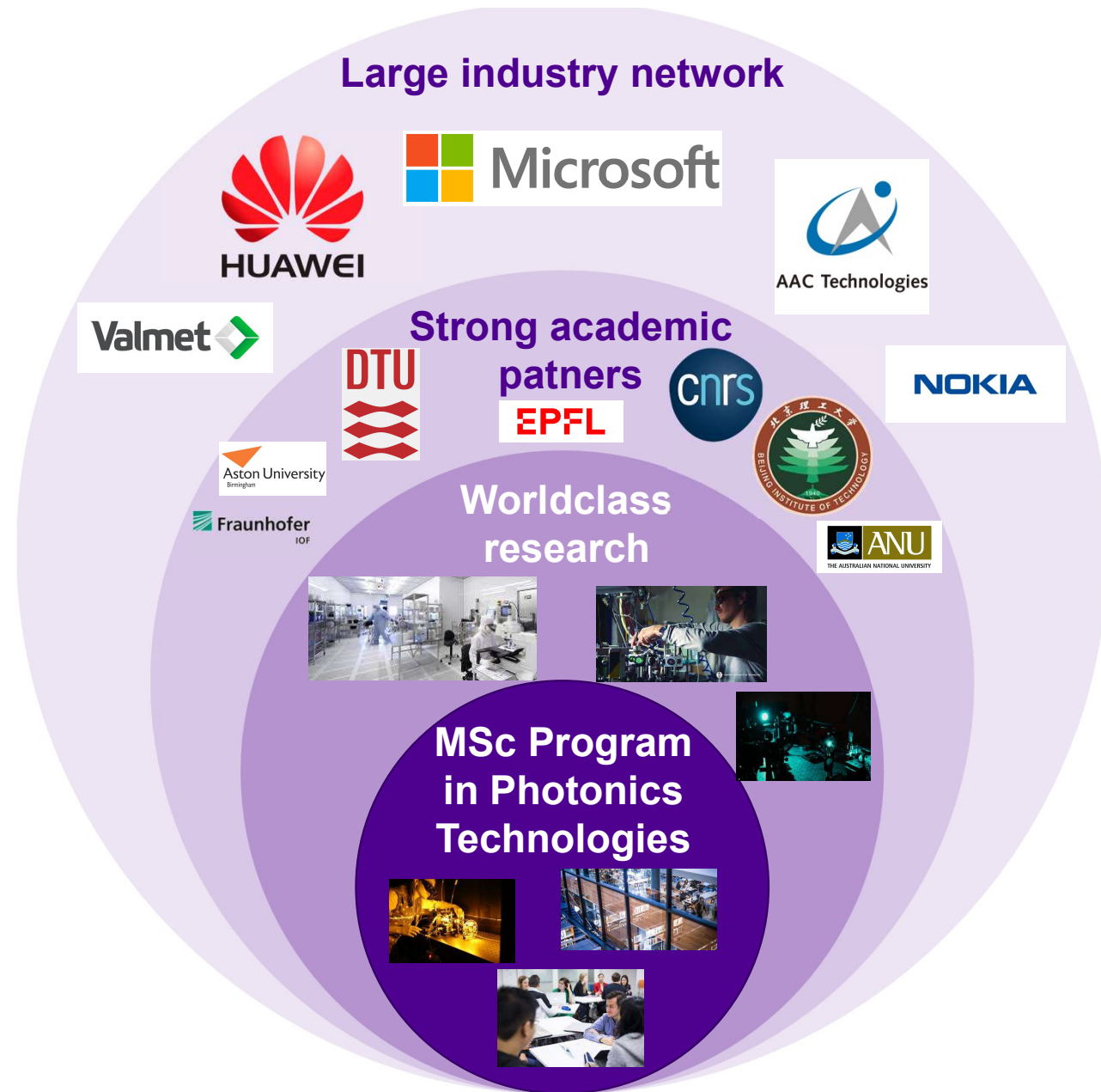
**Photonics is the science and technology of light**  
**It is the technology of the 21st century**



**Study photonics  
=  
broaden your horizon**



# A unique ecosystem





# Master's Programme in Photonics Technologies 120 ECTS

## General studies 10 ECTS

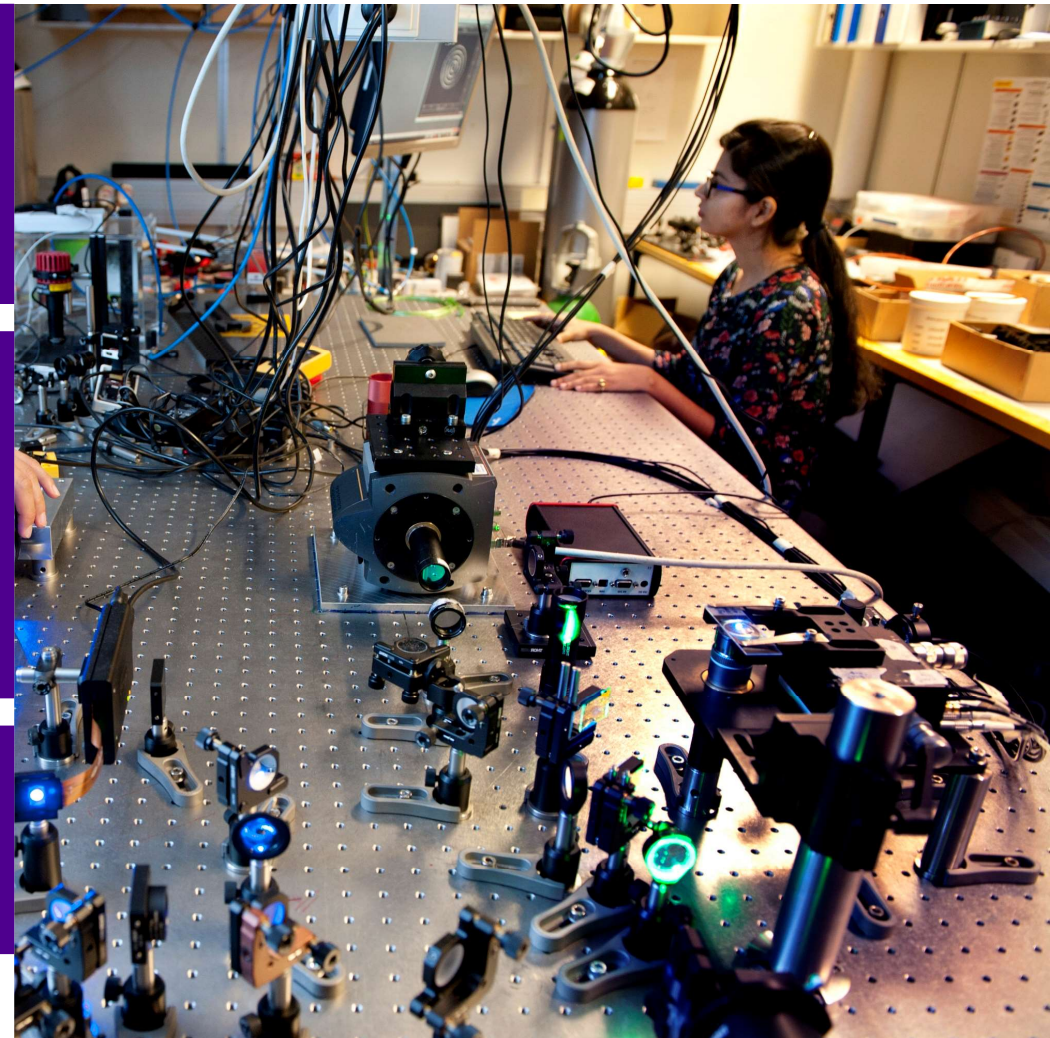
Introduction to Graduate Studies (1 ECTS)  
Finnish language (5 ECT)  
Thesis Seminar (1 ECTS)  
Thesis Writing in English (3 ECTS)

## Advanced Studies in Photonics 90 ECTS

Fundamentals of Optics and Photonics 25 ECTS  
Light-matter Interaction 20 ECTS  
**Photonic Materials (15 ECTS)** or **Ultrafast Photonics & Lasers (15 ECTS)**  
Master's thesis 30 ECTS

## Elective Studies 20 ECTS

Minor (20 ECTS) or elective courses



# International MSc Program in Photonics Technologies

**High-quality teaching**

**Personalized study experience**

**Tailored education**

**Extensive photonics major, also minor of your interest**

**Targeted specialization**

**Photonic materials  
Ultrafast photonics and lasers**

**Research Training**

**Qualifies for competitive PhD program**

**Work in high-tech industry**

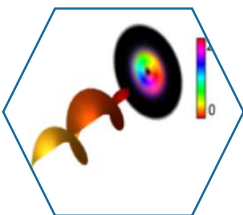


**Our program promotes sustainable development**

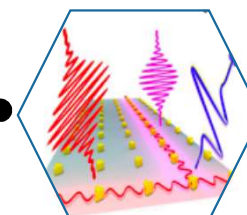
ECONOMIC	SCIENTIFIC	SOCIETAL
<div>8 DECENT WORK AND ECONOMIC GROWTH</div> <div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> <div>11 SUSTAINABLE CITIES AND COMMUNITIES</div>	<div>3 GOOD HEALTH AND WELL-BEING</div> <div>7 AFFORDABLE AND CLEAN ENERGY</div> <div>13 CLIMATE ACTION</div> <div>15 LIFE ON LAND</div>	<div>4 QUALITY EDUCATION</div> <div>5 GENDER EQUALITY</div> <div>10 REDUCED INEQUALITIES</div>
Key Digital Technology	Climate change monitoring	STEM education and careers
Environmental monitoring	Light-based diagnostics and treatments	Promoting equality
Communications	Clean energy	
AR/VR	Quantum technologies	

**At Tampere University  
we do cutting edge  
research in Photonics**

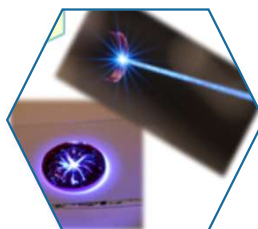
**Quantum  
optics**



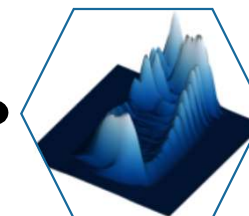
**Plasmonics &  
metamaterials**



**Smart  
materials**



**Ultrafast  
photonics**



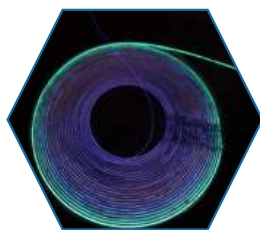
**Semiconductor  
devices**



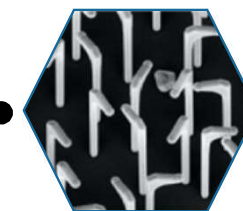
**Sensing  
& monitoring**



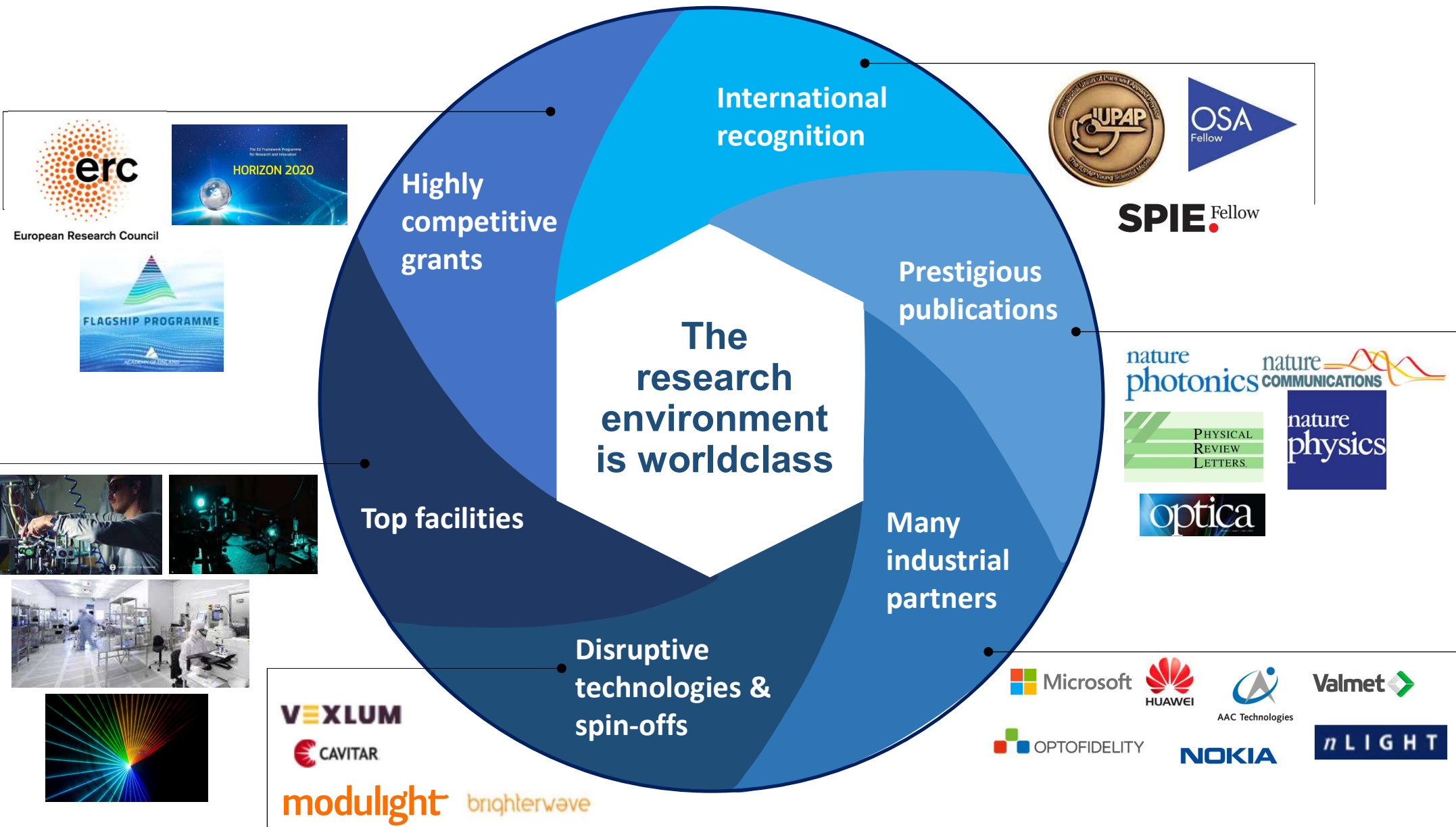
**Light  
sources**



**Nanomaterials  
& structures**







# Program of research excellence



# Tackling important society challenges

- Energy production
- Healthcare
- Environmental monitoring



# Best of Finnish photonics expertise



# Collaboration with more 50 international institutions

