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Assessment of financial market gap in the Photonics sector in Europe

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Moving Europe towards a global leader in photonics

Three points to cover today:

1

The role of the EIBG in the EU photonics industry

- EIB Group supporting innovation
- Lending, blending, advisory

2

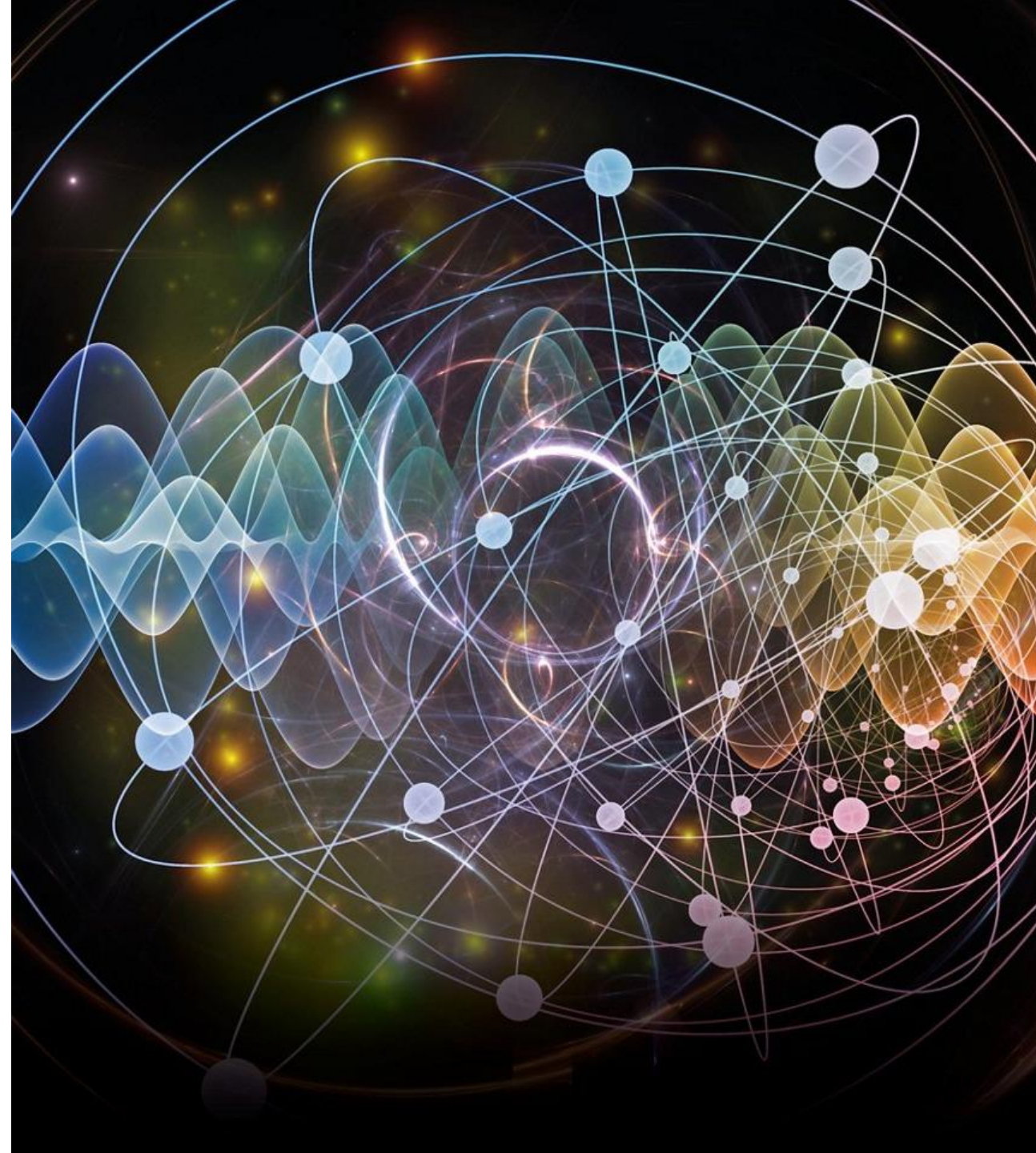
EIB Advisory Services

- Innovation & Digital Advisory Services
- InvestEU Advisory Hub

3

Photonics market study

- Background and Project overview
- Key findings
- Key recommendations





EIB Group supporting innovation in Europe

Largest multilateral lender and borrower in the world

- We raise our funds on the international capital markets
- We pass on favourable borrowing conditions to clients

Over **€1.5 trillion** invested since 1958

- More than **14,400 projects** in over **160 countries**
- Crowding-in bank: **€ 4.8 trillion** overall investment mobilised

Headquartered in Luxembourg

- Around **3,800 staff**: In addition to finance professionals, engineers, economists and socio-environmental experts
- **54 offices** around the world

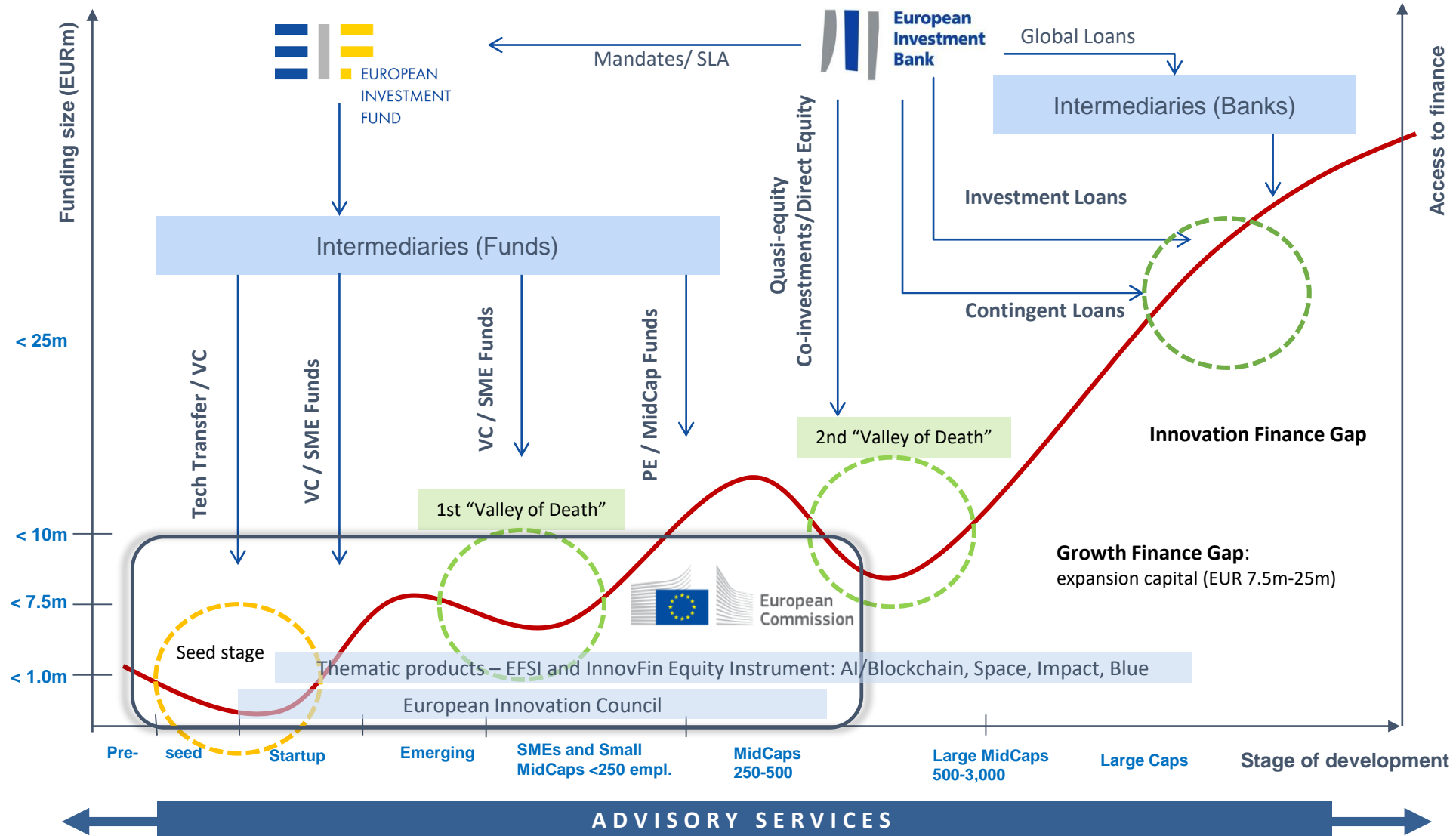
EIB Group financing in 2021 reached **€95 billion**

- .. of which EIF € 30.5 bn
- Leading provider of **green finance** – **43%** of our financing in 2021 supported climate action and environmental sustainability

Support to Innovation, Digital and Human Capital of **€ 20.7 billion**

- Development of new technologies, skills, digital infrastructure
- Deployment and wider adoption

EIB GROUP: Serving companies of all sizes and stages of life



OVERVIEW OF ACTIVITIES: INNOVATION & DIGITAL FINANCE ADVISORY

Advising innovative promoters, supporting new product development and informing policy decisions

Innovation & Digital Finance Advisory

1 Project Advisory

▶ European innovators benefitted from key advisory mandates...

InnovFin Advisory
NER300 PDA programme for RES & CCS
European Investment Advisory Hub
Europe's gateway to investment support

...and improve utilisation of key R&I instruments

...to raise financing... (EIB examples)

	EUR 40m (2018)
	EUR 20m (2019)
	EUR 75m (2020)
	EUR 31m (2021)

InnovFin Energy Demo Projects
EIB Venture Debt

2 New Product Development

▶ Key Flagship initiatives had their origins in IFA work...

ECBCF
European Innovation Council

"Pre-due diligence on ~140 companies"

InnovFin Infectious Diseases
InnovFin Energy Demo Projects
Business case for dedicated CE window

3 Market Assessments

▶ ~25 access-to-finance studies in key sectors

The EIB and the new EU missions framework
Opportunities and lessons from the EIB's advisory support to the circular economy

Includes study with Prof. Mazzucato highlighting:

- Importance of ecosystem building activities
- Role of InnovFin Advisory as change agent

Advisory Hub extended the capacity of InnovFin to deliver market studies and outreach activities

4 Ecosystem Development and Awareness-Raising

▶ Strategic umbrella agreements with key ecosystem players to feed pipeline of projects

▶ Direct market outreach activities in priority areas

5 Strategic Advice

▶ Rapid response tailored to strategic initiatives

Moving Europe towards a global leader in photonics

- Request to **EIB Advisory Services** from the **Lithuanian Ministry of the Economy and Innovation** to undertake a **Photonics market study** – in collaboration with **EPIC**

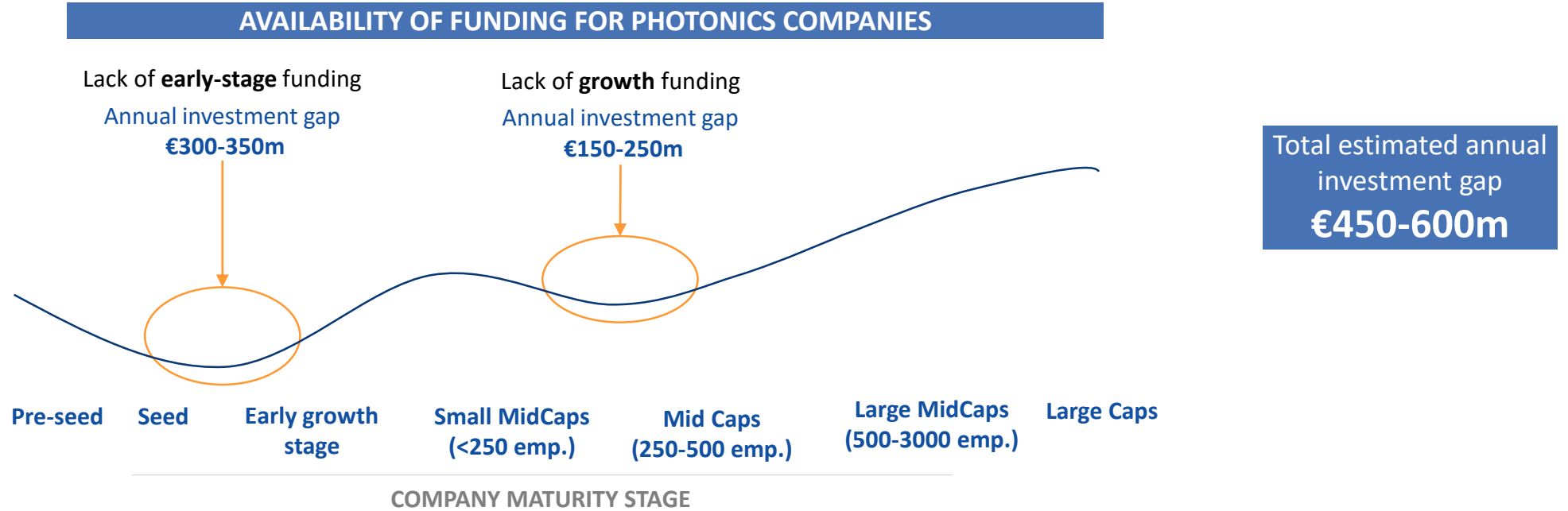


- assess the Photonics market;
- assess the potential need for specific financing instruments to support Photonics companies;
- to define the investment gap; and
- provide guidelines for a successful structuring and implementation of a financial instrument

Major sources of information with great co-operation from EPIC

- Interviews with photonics companies
- Survey of photonics companies
- Dataset of photonics companies
- Interviews with investors
- Financial data of photonics companies
- VC activity in relation to photonics companies

Main funding gaps: most apparent need for early stage and growth equity funding



- **Lack of early-stage capital** to commercialize the prototypes and fund the first stages of business development
- **Growth is the second confirmed funding gap** driven by the lack of investors with both the expertise needed to invest in scaling the photonics businesses and significant resources associated with such investments
- The funding gap is more apparent in **equity funding** (as opposed to debt)

Guidelines for the investment strategy: Recommendations on **early-stage** funding gap

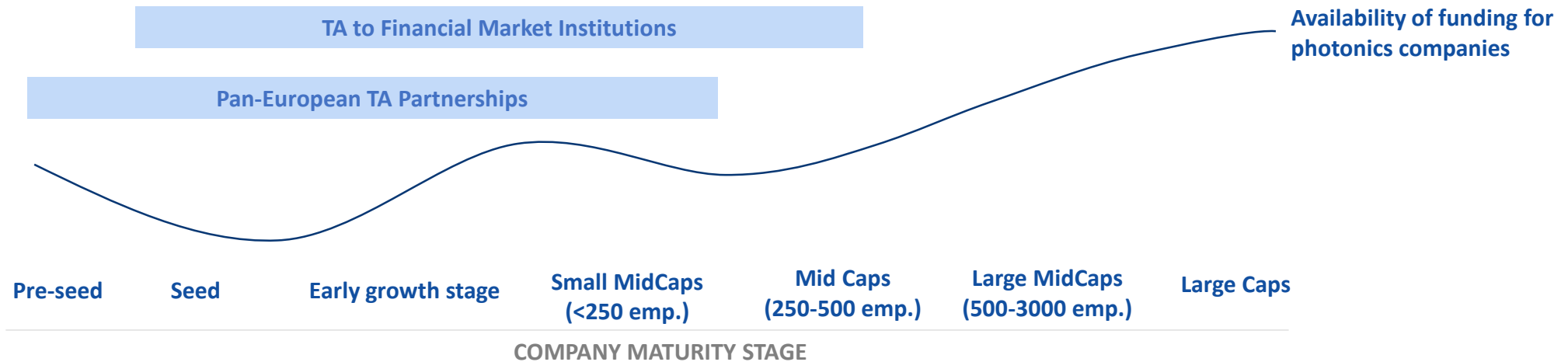
Overview of investment structure	
Investment size	<ul style="list-style-type: none"> ✓ €650 million (over a 5y period) ✓ Combine public (InvestEU, RRF etc.) and private sources
Expected impact	<ul style="list-style-type: none"> ✓ To close around 40% of the total funding gap ✓ Signalling and crowding-in effects ✓ To provide finance for up to 130 early-stage photonics companies
Duration	Investments shall be concluded for 10-15 years
Financial intermediaries	<ul style="list-style-type: none"> ✓ NPIs who can deploy funding programmes on a national level ✓ VC Funds providing capital in the form of equity, with experience of investing in or knowledge of the photonics sector
Investor return	<ul style="list-style-type: none"> ✓ Capped return on EU-backed investment or other form of enhanced return to the financial intermediary
Recommended structure	<ul style="list-style-type: none"> ✓ Investment into VC fund where the EU institution acts as the LP

Guidelines for the investment strategy: Recommendations on **growth-stage** funding gap

Overview of investment structure	
Investment size, participation by EU institutions	<ul style="list-style-type: none"> ✓ €500 million (over a 5y period) ✓ Combine public (InvestEU, RRF etc.) and private sources
Expected impact	<ul style="list-style-type: none"> ✓ To close at least 40% of annual funding gap ✓ Signalling and crowding-in effects ✓ To provide finance for up to 25 growth-stage photonics companies
Duration	Investments shall be concluded for 10-15 years
Financial intermediaries	<ul style="list-style-type: none"> ✓ VC and PE funds providing capital in the form of equity, with experience of investing in or knowledge of the photonics sector ✓ EIBG through enabling traditional debt and/or venture debt funding opportunity would complement the equity round
Investor return	✓ Equal participation principle
Recommended structure	✓ Co-investment into an investment proposal on a case-by-case basis

Technical assistance (TA) facility applicability for photonics companies

- **TA to Financial Market Institutions** would target support to **early-stage and growth-stage investments**, particularly with assessing technology potential, company valuation and risk assessment, serving the reduction of funding gap by reducing the perceived risk
- **TA to Pan-EU Partnerships** would target **early-stage** (and growth-stage to a lesser extent) efforts to support the photonics companies willing to develop and attract funding, increasing the perceived value of external funding and the probability to successfully raise it



Meeting EU's photonics challenge

Conclusions and way forward

What the EIBG can provide

Sectoral development support

- Access to finance studies
- Ecosystem development initiative

Direct corporate lending

- Access to EIB lending where a project has an investment programme of scale
 - Venture Debt finance
 - Corporate loans

Intermediated lending

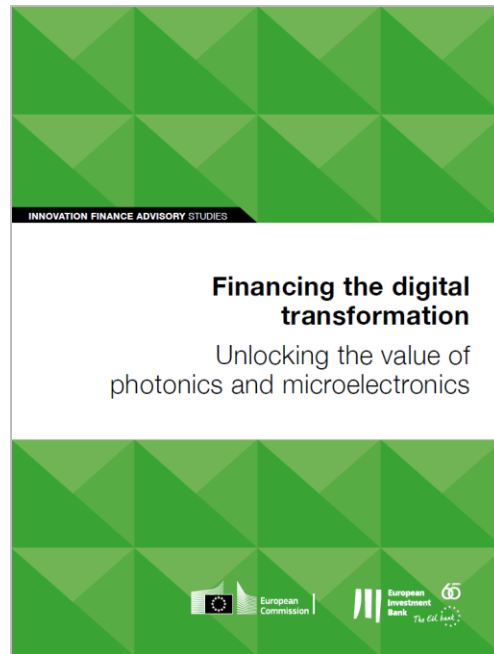
- through Banks, NPIs and Funds

Advisory support

- Provide promoter with guidance and support to review, refine and finalise a business plan to improve bankability

Market intelligence

2018 Financing the digital transformation: Unlocking the value of photonics and microelectronics



Support to specific projects

2021 Lithuania: Long-term support for Brolis EIB venture debt from European Guarantee Fund



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