



PART OF THE PNO GROUP

# Building a Business case for circular innovations

*Brinc meeting June 13, 2023*



ACCELERATE  
GREEN INNOVATION

# Agenda

- Part 1: Opening and introduction into funding barriers for CE
- Part 2: Introduction into the funding landscape – and the rationale for blended funding strategies
- Part 3: Public & private funding instruments with a blended funding option/requirement
- Part 4: Tools & technical assistance for project development



# 1. Funding barriers

# Funding barriers for CE at the system level

*Research into business models & trends for Circular Economy (Mirpourian, 2023) identified several funding barriers at the system level observed by hub managers:*

## **Lack of funding**

- “Circular economy business models held back by lack of access to finance”
- “Funding is allocated to low TRL thus obtaining finance for a mature project is relatively competitive”

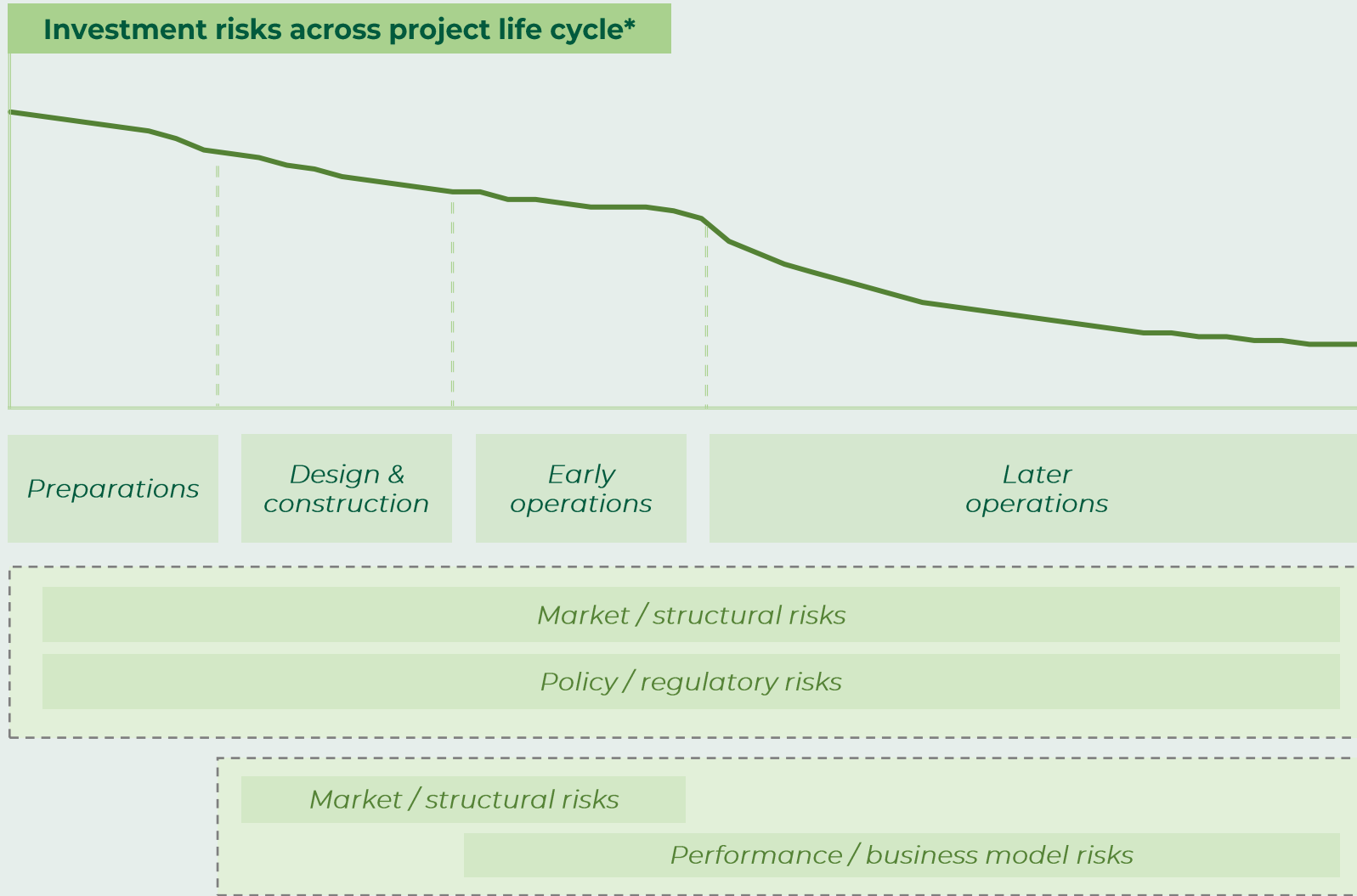
## **Mismatch with funding needs**

- Funding often covers CAPEX, while OPEX costs can also be significant
- Large share of public funding is allocated to low TRL, funding for more mature projects is relatively competitive
- Initial investment in required infrastructure is very high, public funding plays a key role

## **Cumbersome & uncertain process**

- Large upfront effort is required to apply for funding, while outcome is unsure
- The higher the TRL, the higher the investment, the more challenging is capital search

# Funding barriers for H4C in perspective of Net-Zero transition



Development & operating of project with support measures hampered by:

### *Higher structural risks:*

- Large macro-economic uncertainty
- Uncertainty on structural policy support

### *Higher project risks:*

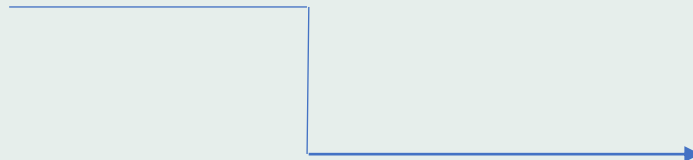
- Technological challenges in technology's deployment
- Novelty of the business model
- Uncertainty on the quality of operational performance















\* Figure adopted from "Financing the transition to a Net-Zero Future" by WEF & Oliver Wyman (2021)



# Funding barriers for CE at the actor level

- Funding is only an afterthought, instead of a core element of fund seeker's strategy
- Focusing on an integral funding solutions for a full circular systemic solution, instead of identifying different funding options for different phases or elements
- Misalignment with applicability of funding instrument and/or objectives



Organisation or project type	Cash flow characteristics / risk assessment	Funding options			
R&D	Pre-revenue / Very high risk	 Alternatives	 Equity	 Grants	 Guarantees
Start-up	Pre-profit / Very high risk		 Equity	 Grants	 Guarantees
Scale-up	Pre-profit to profit / High risk		 Equity		 Debt
Growth	Profit / Medium risk		 Equity		 Debt
Mature	Profit / Low risk				 Debt
Advisory				 Grants	 Debt

CCFG, Funding types and their applicability ([www.circularcityfundingguide.eu](http://www.circularcityfundingguide.eu))



## 2. Overview funding landscape

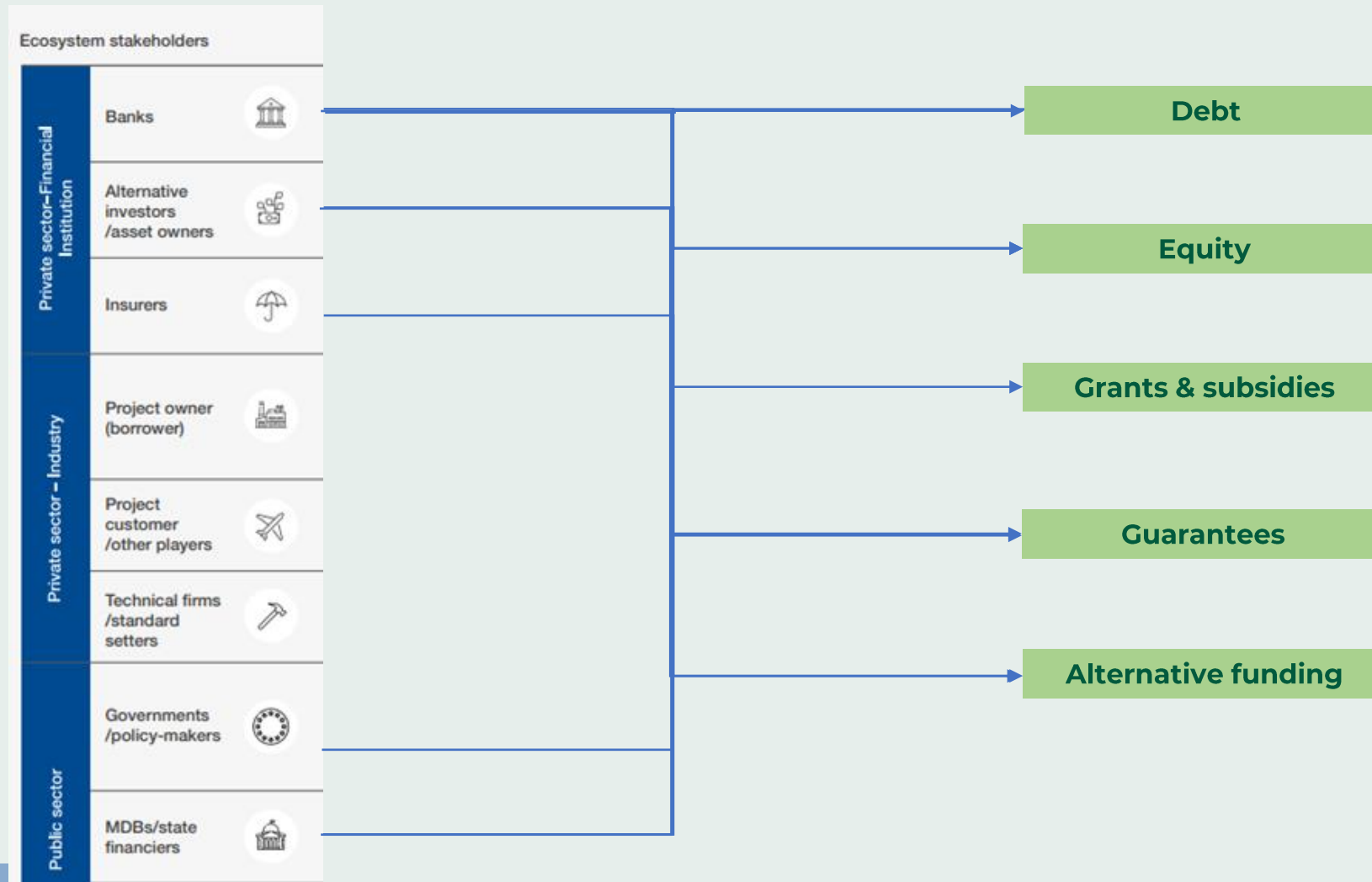
# Financing the net-zero transition: ecosystem stakeholders

Ecosystem stakeholders		Preparation	Design and construction	Early operations	Later operations	
Private sector – financial institutions	Banks		Debt financing (e.g., loans, bond issuance)/refinancing			
	Alternative investors/asset owners		Equity/tax equity investments	Green/sustainability linked bond		
	Insurers		Tech. and other risk measures	Credit enhancements	Green bond investments	
Private sector – Industry	Project owner (borrower)	Equity investments	Warranties, equipment performance guarantees	Sale of by-products		
	Project customer/other players		Equity investments		Portfolio/utility approach to create scale	
	Technical firms		Offtake agreements/green premiums	Tolling structures/lower green premiums		
Public sector	Governments/policy makers		Independent verification of technology	Performance/safety assessment		
			Loan guarantees	Contract for difference/feed-in tariff		
	State financiers		Capex grants	Capital/tax incentives		
				Loan guarantees/blended finance/subordinated debt tranche		
Export credit agencies			Traditional debt financing			
			Debt financing			
			Financial guarantees			
			Credit insurance			

- De-risking measures
- Financing/primary project activities



# Funding actors & different types of funding:



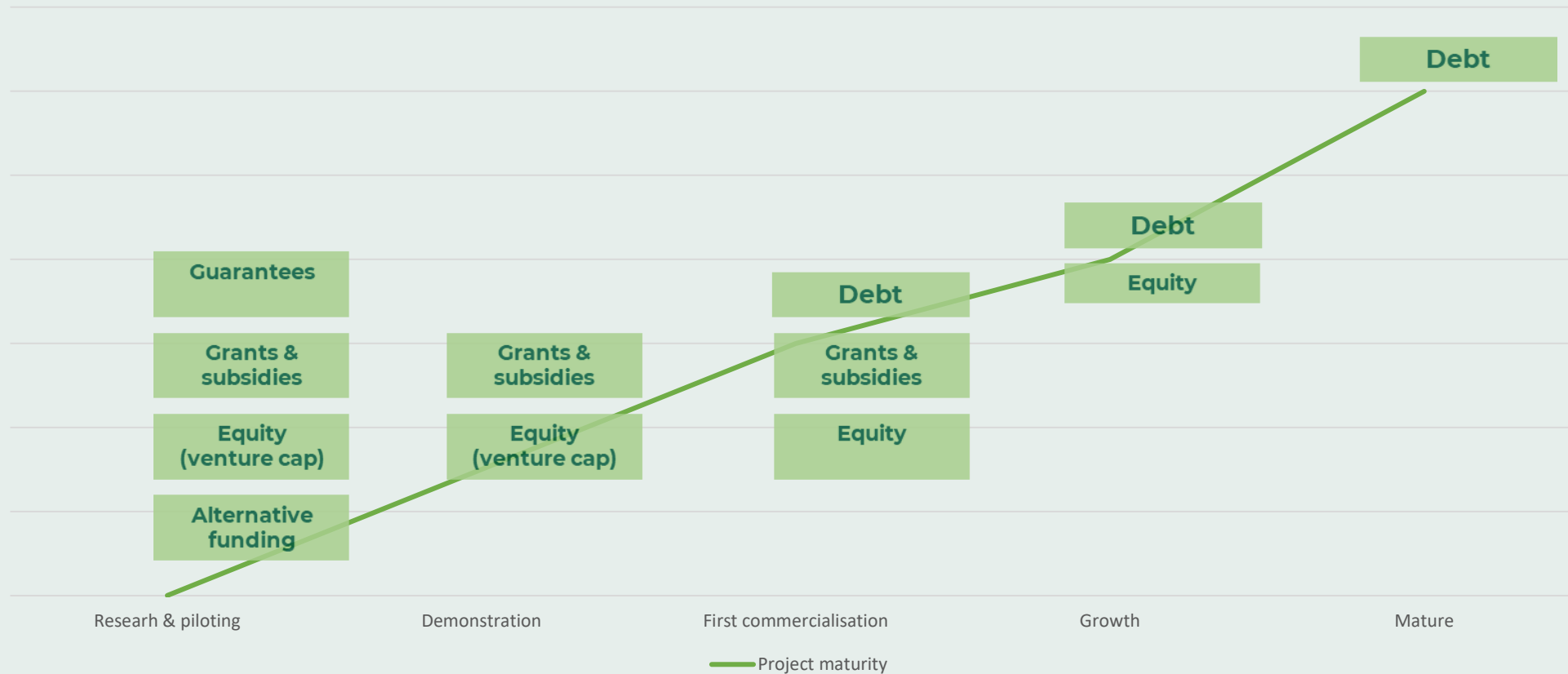
# Project maturity & funding types:

*"Funding & financing instruments can be categorized in six broad funding categories"*

<b>Debt</b>	A contractual agreement between a borrower and a lender. The borrower pays back the loan before a specific date, usually with a specific interest rate
<b>Equity</b>	Equity represents a share of a company. If a company decides to offer equity to finance its initiatives, a part of the company is being sold.
<b>Quasi-equity</b>	Quasi-equity is a hybrid form of finance with characteristics of both debt and equity investments.
<b>Grants &amp; subsidies</b>	Grants and subsidies are offered by governments at several governing levels (local, national, EU) and imply that the funding gives money to support a project stimulating desired developments
<b>Guarantees</b>	Loan guarantees are commitments in which a third party takes over (part of) the debt obligations in the case the borrower defaults (i.e., fails to repay the debt).
<b>Alternative funding</b>	Alternative forms of funding including crowdfunding, lease financing, social impact bonds, etc.

# Project maturity & funding types:

## Project maturity and funding type applicability



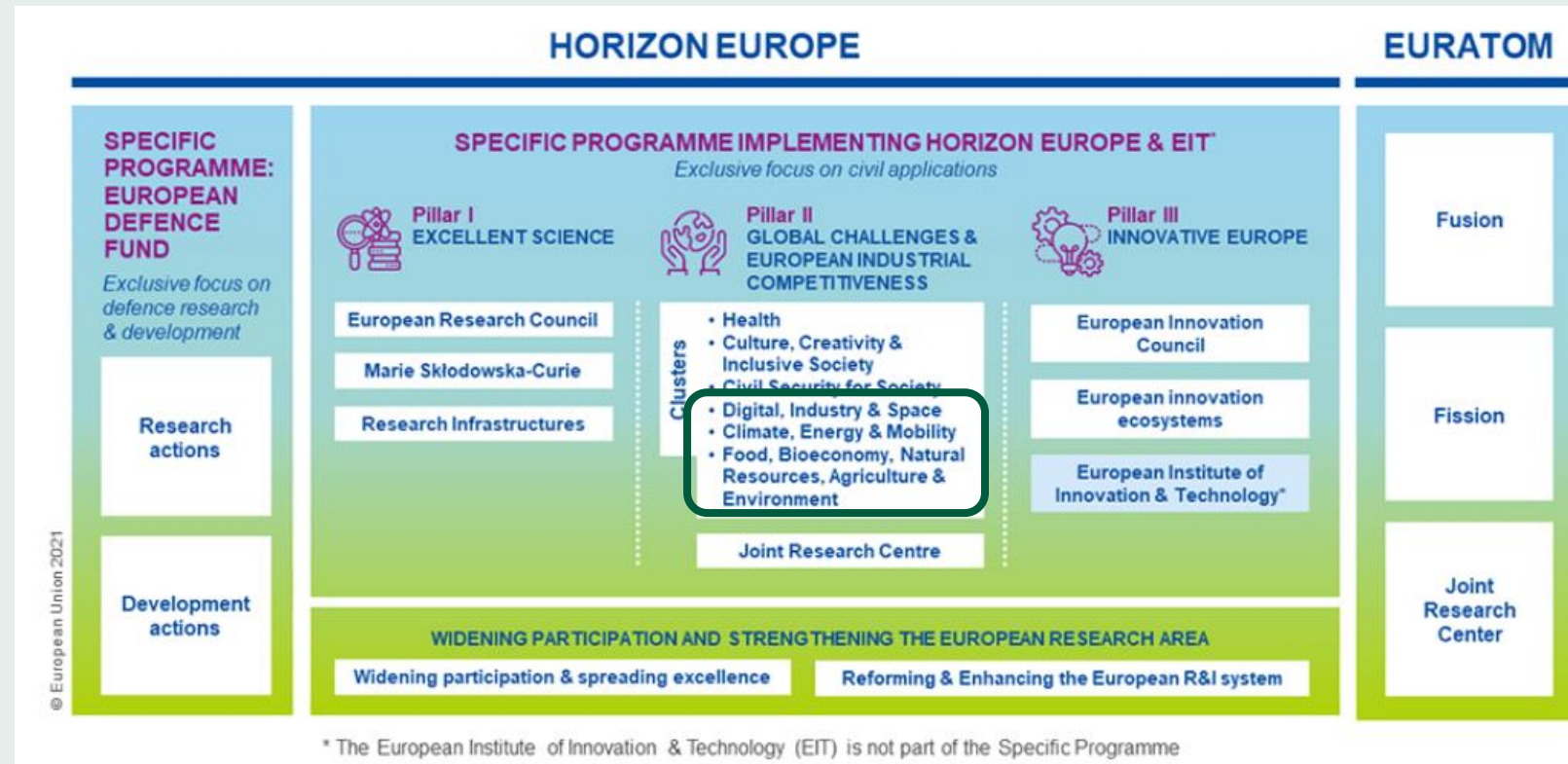


### 3. Blended funding

# Public funding for Circular Economy: Horizon Europe

**Ambition** Strengthen the EU's scientific and technological bases and the European Research Arena, to boost Europe's innovation capacity, competitiveness and jobs, and to deliver on citizen's priorities and sustain the socio-economic model and values.

- Public funding in the form of a grant, as well as Project Development assistance can be received through Horizon Europe.
- Within Horizon the opportunity is provided to combine public funding together with private funding.





# Public funding for Circular Economy: LIFE

**Ambition:** Fund projects that demonstrate or pilot solutions that tackle environmental (including circular economy, nature and biodiversity) or climate issues.

- Through LIFE public funding in the form of a grant can be received
- LIFE is one of the main funding sources for demonstration projects that facilitate the implementation of the EU Circular Economy Package
- In order to be eligible for LIFE it is important to have a solid financing plan. What financial instruments are used in order to cover your own expenses?



**Nature and Biodiversity**



**Circular Economy and Quality of Life**



**Climate Change Mitigation and Adaptation**



**Clean Energy Transition**



**Calls for Proposals**



**Support for Applicants**



# Public funding for Circular Economy: Innovation Fund

**Ambition:** IF is one of the world's largest funding programmes for the demonstration of innovative low-carbon technologies and it will contribute to greenhouse gas reduction.

- Innovation Fund provide financial support in the form of a grant
- The EU Innovation Fund focuses on highly innovative technologies and big flagship projects with European value added that can bring significant emission reductions.
- For Innovation Fund it is required to develop a comprehensive financial model. This financial model describes your funding gap and which financial instruments will be used to cover this. This needs to be supported with official documents.



## Examples of funding instruments where public & private funding are combined

**Ambition:** Aims to build, develop, modernise and complete the trans-European networks for sustainable transport and renewable energy.

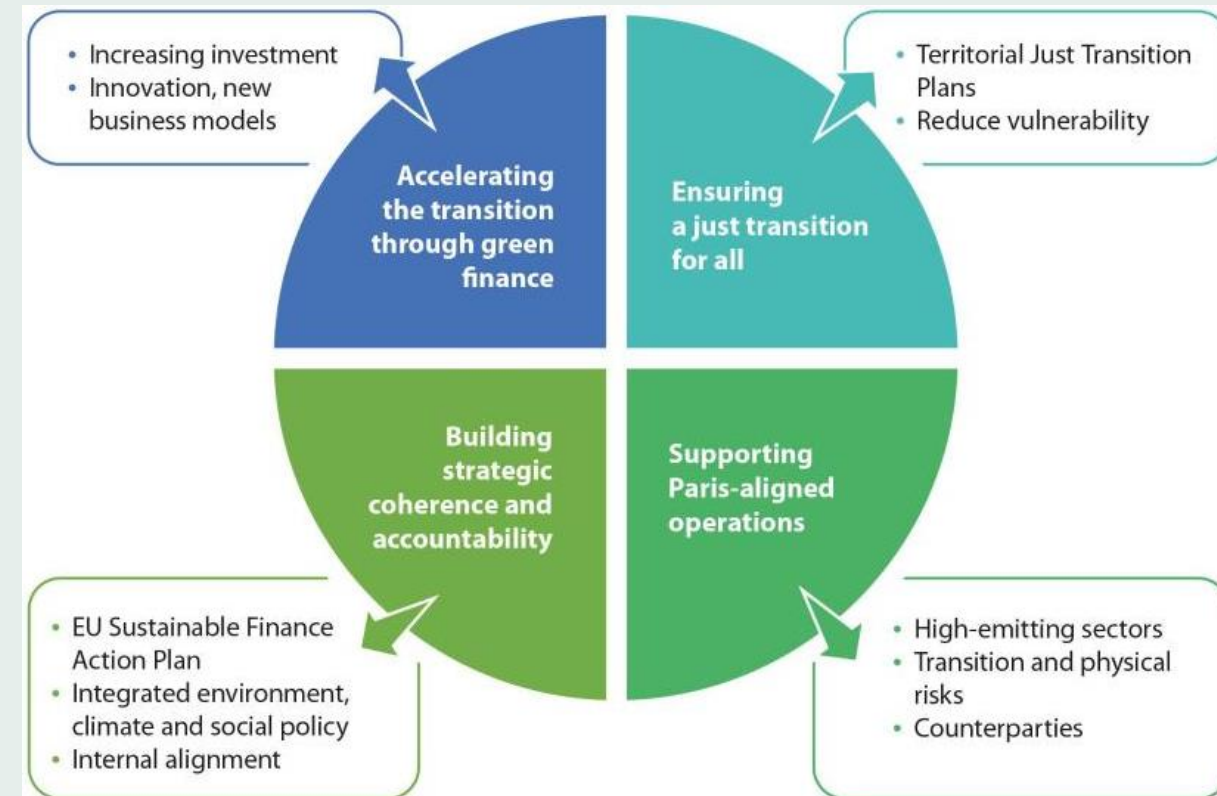
- Provides public funding in the form of a grant, but specifically asks for private funding as well.
- **CEF proposals are required to blend funding:** evaluating the financial gap, the capacity to mobilise different investment sources, the capacity to trigger important overall investments with limited EU support and when appropriate the extent to which externalities justify the CEF financial assistance. It shall assess the catalytic effect of the EU financial assistance and determine whenever possible the actual co-funding rate to be granted.



# Public funding for Circular Economy: European Investment Bank

**Ambition:** The EIB has committed to align all its financing activities with the goals of the Paris Agreement.

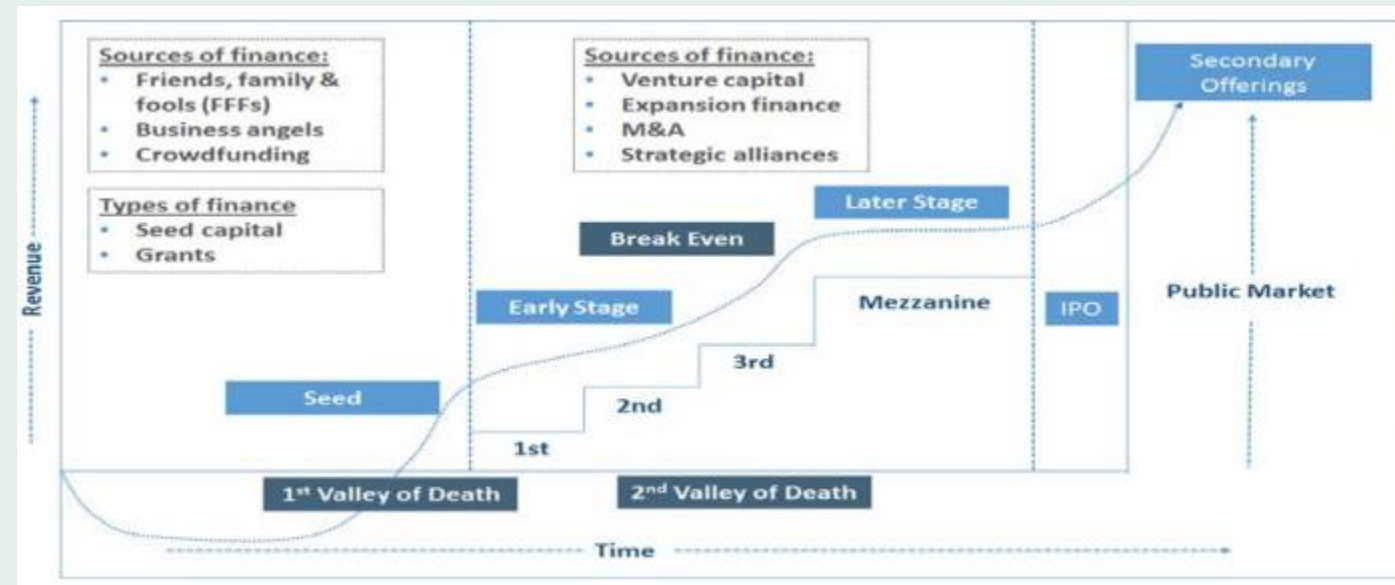
- Increase share of sustainable investments: 50% by 2025!
- The EIB provides loans to private sector entities to finance projects or investment programmes aligned with one or more priorities of the EIB. These products include debt and hybrid debt financing to project finance.
- EIB gives priority to projects that contribute to the circular economy, including **waste prevention, reuse** and **recycling**.
- Finance provided by the EIB can only cover up to 50% of the project costs. As such, blending facilities are often used by the EIB to combine its loans with grants from public bodies:
- “...Blending involves the strategic use of a limited amount of public funding resources to catalyse additional (private) financing for investment projects”



## Public funding for Circular Economy: National Promotional Banks

**Ambition:** National Promotional Banks (NPB) act as co-financiers as they finance important projects that find it difficult to attract finance from the market (address market failure).

- NPBs are thus a crucial actor in order to achieve maximum reach and economic impact, especially in supporting SMEs.
- EIB & NPBs started the Joint Initiative on Circular Economy to support the development and implementation of circular economy projects and programmes in the European Union.
  - Its aim is to prevent and eliminate waste, increase resource efficiency and foster innovation by promoting circularity in all sectors of the economy.



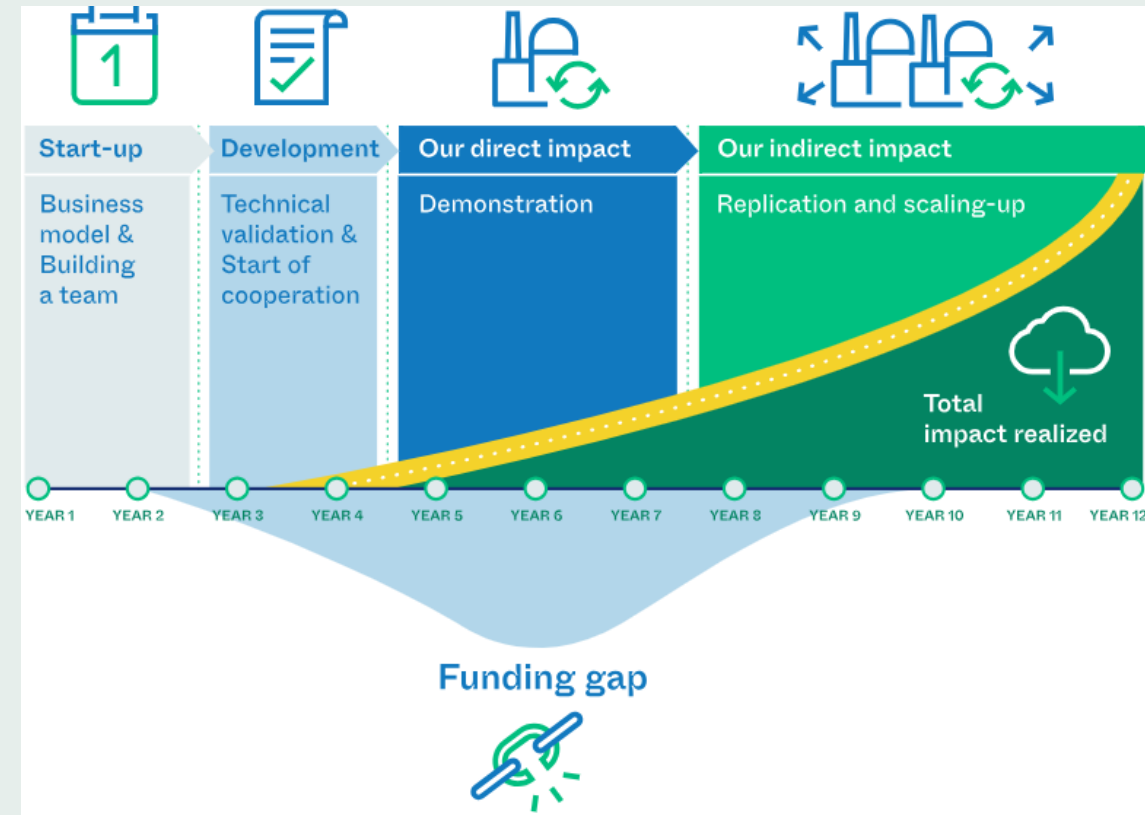


# Private financiers with a specific focus on CE: Polestar Capital

## Polestar Capital – Circular Debt fund

**Ambition:** Solving the funding gap for innovative circular production companies

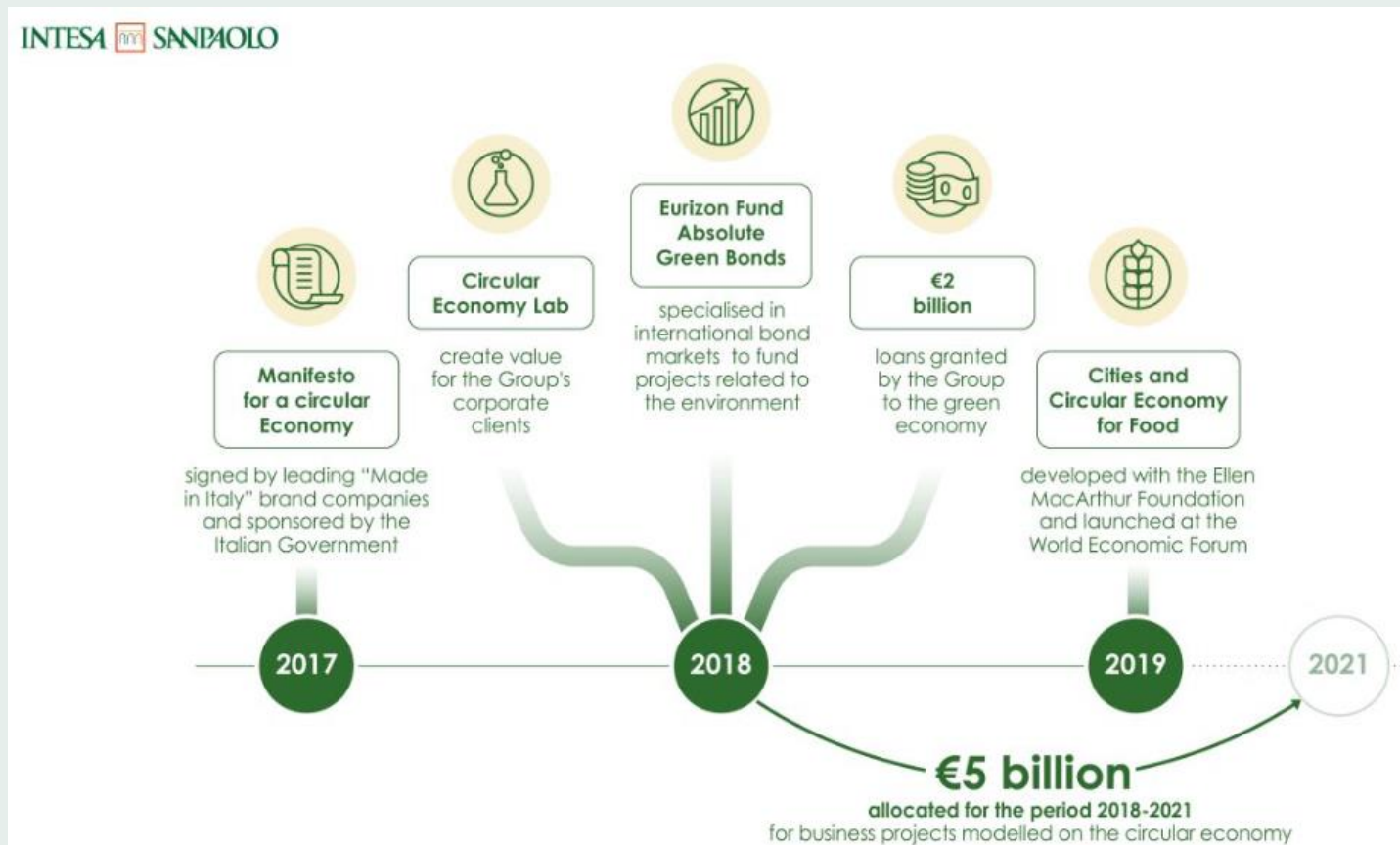
- Polestar aims to provide funding to projects that are too innovative for banks, but too capital intensive for venture capital.
- By supporting innovative circular companies, they are allowed to prove their technology and business model on a commercial scale, leading to further investment, large-scale application and global impact.
- This private funding instrument can be blended with public funding (grants) for innovative, relatively low TRL projects, to cover the entire funding gap.



## Private financiers with a specific focus on CE: Intesa SanPaolo

**Ambition:** Intesa Sanpaolo sees the circular economy as an innovative and strategic challenge that will bring major benefits at a global level and provides an opportunity to create new value and growth.

- Intesa Sanpaolo has created a €5 billion dedicated circular economy credit facility in close partnership with the Ellen MacArthur Foundation
- Intesa Sanpaolo have created a Circular Economy Research Lab
- De-risking finance: Research activities together with Bocconi University specifically focusing on De-risking CE projects
- Intesa Sanpaolo have promoted the circular economy through the CE Startup Initiative



## Private financiers with a specific focus on CE: Dutch financial sector

**Ambition:** Private finance with a favorable interest rate for sustainable investment projects.

- Among others Circular Economy projects focusing on Biobased economy, resource efficiency, and recycling are eligible.
- In order to be eligible for a green loan, CE projects are evaluated by the RVO (Dutch governmental organisation) on their environmental impact, risks and their business case.
- Multiple Dutch banks provide green loans with a favorable interest rate to sustainable investment projects (e.g., Rabobank, ABN Amro, ING).



Groensparen ook fiscaal aantrekkelijk



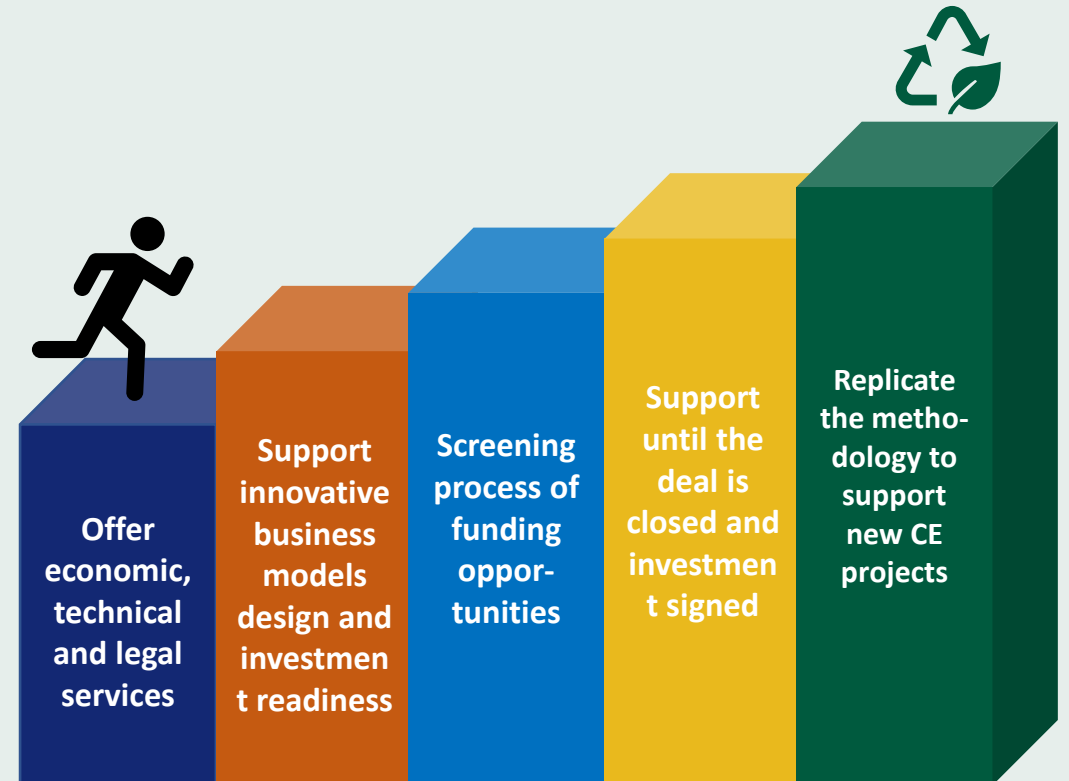
## 4. Tools & technical assistance for project development



## Approach Project Development Assistance (PDA)

**Ambition:** Goal of PDA is to improve the maturity of projects through high-quality technical and financial advisory support, which is tailored to the needs of your project.

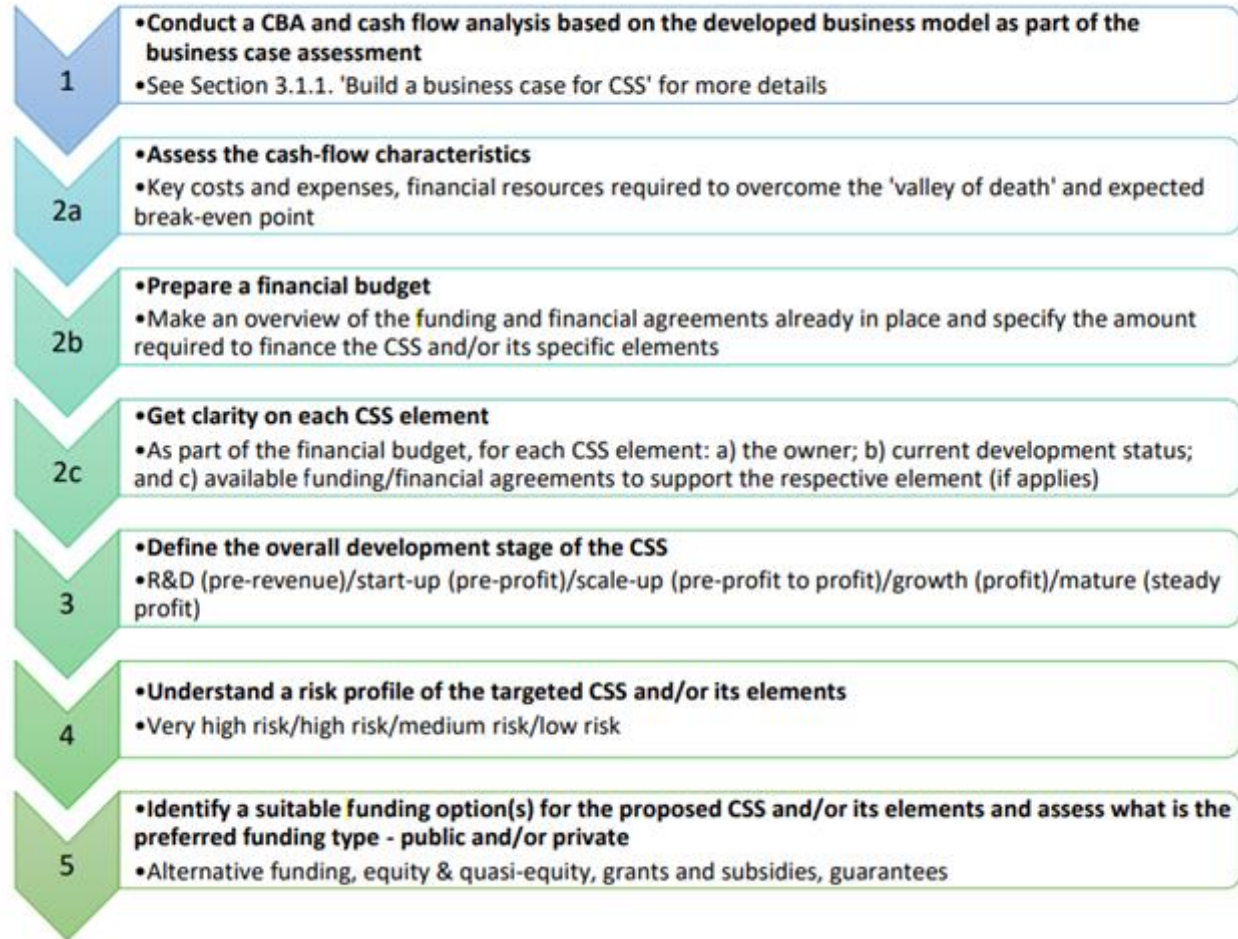
- PDA is available to both large and small-scale projects and can help increase their chances of reaching financial close and entering into operation.
- PDA services help to design innovative business models in order to ensure projects meet investor needs
- PDA is provided by the EIB, European Commission, RESOURCE project, HOOP project, CircularInvest





# Building a business case for funding

Figure 26: Steps to develop the CEIP for the CSS and its elements



CCRI (2022), Methodology for the implementation of a circular economy at the local and regional scale ([op.europa.eu](https://op.europa.eu))