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# Scaling up finance for Industrial Decarbonization

Implementing Article 2.1c via an integrated  
approach to accelerate industrial  
decarbonization across EMDEs

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## Opportunities

# Rethinking Climate Finance Through Article 2.1(c) and Article 9

### Article 2.1(c):

From project finance to the financing of country-wide transition pipelines.

- A harmonized sector-wide approach reduces risk, attracts investment, and aligns industry transition pathways with national and energy sector goals.

### Article 9:

From a moral obligation, to the economic case of decarbonization.

- Climate finance needs to reach EMDEs with the appropriate quality and volume, together with support for a stronger enabling environment and business case.





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# Industrial Decarbonization

## Current Status



# INDUSTRIAL DECARBONIZATION for SUSTAINABLE FUTURE

INDUSTRIAL EMISSIONS  
account for  
**30%**  
of CO<sub>2</sub> emissions<sup>1</sup>

HIGH-EMITTING SECTORS  
represent  
**70%**  
of this total<sup>2</sup>

For 1.5°C, industrial  
emissions must be **CUT** by  
**95%**  
by 2050<sup>3</sup>

Renewables & energy efficiency  
improvements will continue to be  
necessary, but not sufficient.

**Net zero by 2050 will  
require all technologies  
and all fuels approach.**

**60%**  
of the **cement sector** emissions  
reductions will likely come from  
**CCUS**.<sup>3</sup>

**55%**  
of the **steel sector** emissions reductions  
will come from **electrification & H<sub>2</sub>  
based DRI**.<sup>3</sup>



**70%** of  
global CO<sub>2</sub> emissions comes from  
cities, with **transport & buildings**  
among the largest contributors.<sup>4</sup>

**75% of  
GLOBAL URBAN  
INFRASTRUCTURE  
for 2050 is yet to be built.**

<sup>1</sup> Including indirect emissions from electricity use, UNIDO, 2025 <sup>2</sup> Achieving Net Zero Heavy Industry Sectors in G7 Members, IEA, 2022

<sup>3</sup> Net Zero by 2050 A Roadmap for the Global Energy Sector, IEA, 2021 <sup>4</sup> IPCC, 2022





# FOSTERING SUSTAINABLE INDUSTRIES IN EMDEs

## THE FINANCING GAP

### Transition to net-zero industries requires massive investment

#### DECARBONIZING STEEL

requires up to **USD 335 billion** of cumulative investment by 2050.<sup>1</sup>

#### DECARBONIZING CEMENT

requires **USD 30 billion** in additional capital expenditure and **USD 300 billion** for infrastructure by 2050.<sup>1</sup>

#### DEVELOPING COUNTRIES

will need up to **USD 2.5 trillion annually** for climate-related investments by 2030.<sup>2</sup>



### Investment needs are not yet investment opportunities

**Limited market readiness** of breakthrough technologies and related infrastructure.

**Long lifetime of assets**, high investment costs and technology risks.

**Insufficient policies** and low demand for low-carbon industrial products.

**66%** of business executives report that investment and infrastructure are the most **urgent barriers** for net-zero transition.<sup>3</sup>

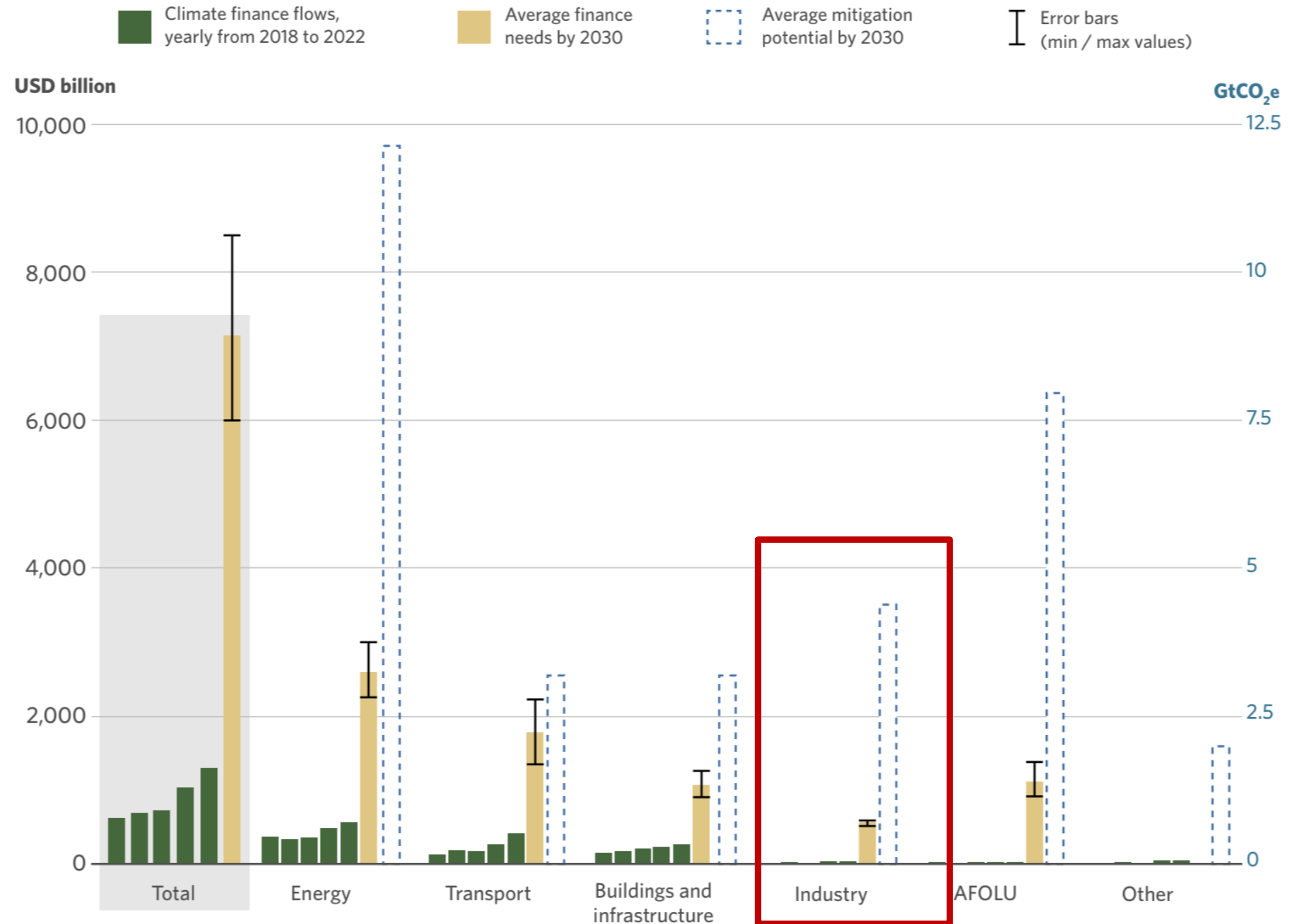
**90%** of businesses say they would invest more if governments **implemented policies** to address sector specific barriers.<sup>3</sup>





**Climate finance flows:**  
Industry is among the  
sectors with high  
mitigation potential but  
remains underfunded.

**Opportunity:**  
Ensure maximization of  
decarbonization for  
every \$ invested.

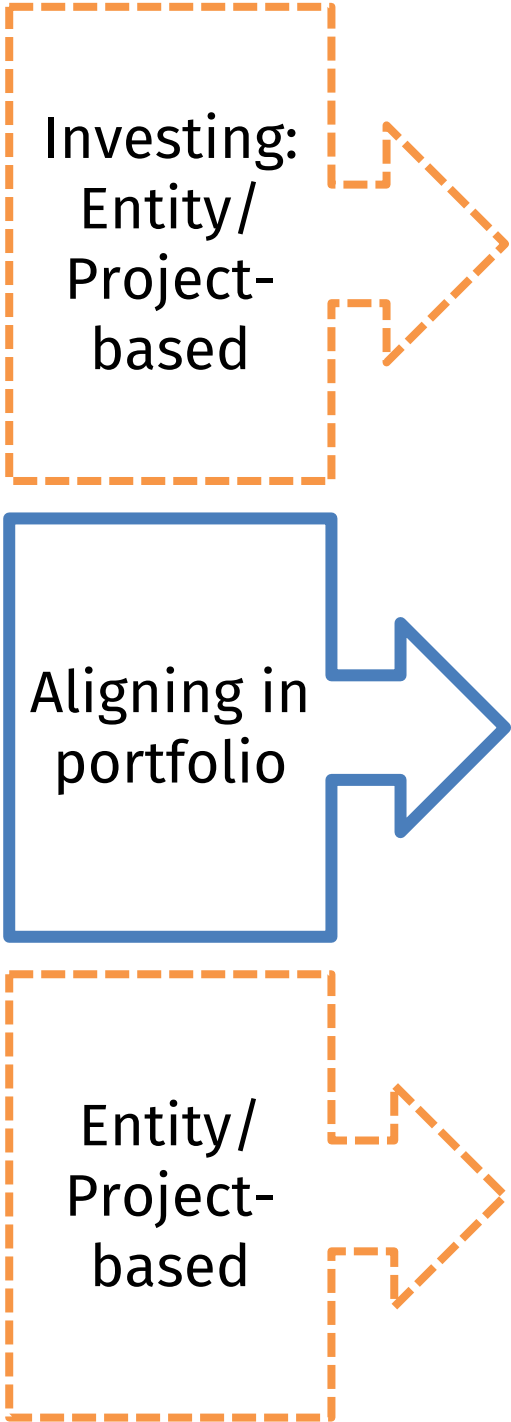






**Financial system:**  
**Overarching**  
**strategies with**  
**Article 2.1(c)**

**Opportunity:**  
Stronger focus on  
transition  
(decarbonization  
projects, phase-out  
commitments).



GFANZ four transition financing strategies	Categories for activities and entities	Key considerations when screening opportunities			
		Science-based taxonomy tool	Feasibility assessment	Use-of-proceeds criteria	Transition plan assessment
Climate solutions	Sustainable and enabling <b>activities</b>	✓		✓	
	Sustainable and enabling <b>entities</b>	✓		✓	
Aligned	Aligned <b>entities</b>		✓		✓
Aligning	Aligning <b>entities</b>		✓		✓
	Transitional <b>activities</b>	✓	✓	✓	
	Managed phaseout <b>activities</b>	✓	✓	✓	



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# UNIDO

## Case Studies

### From Policy to Action

### From Project to Finance

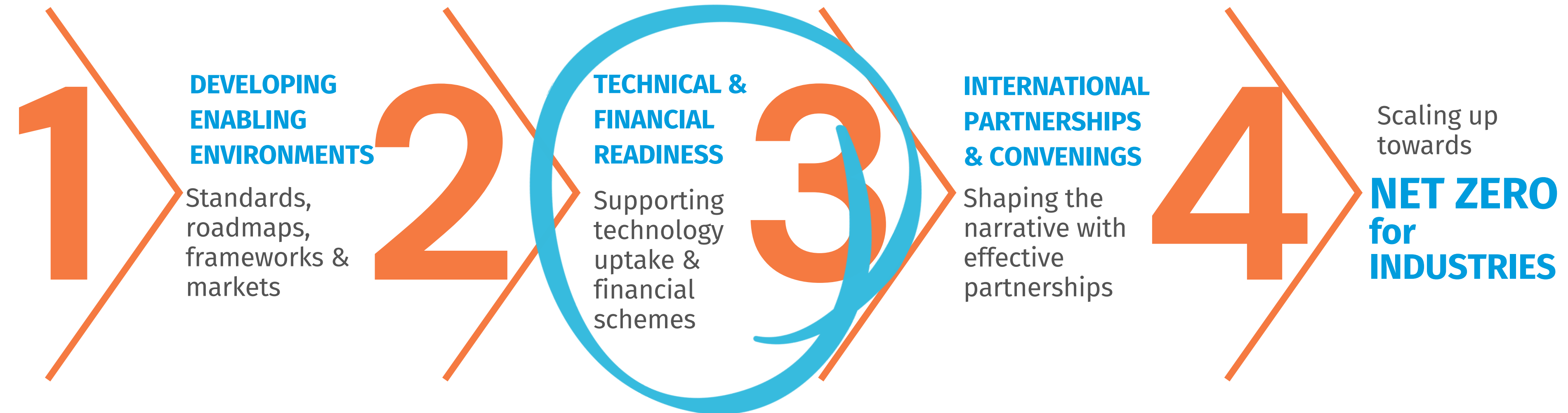




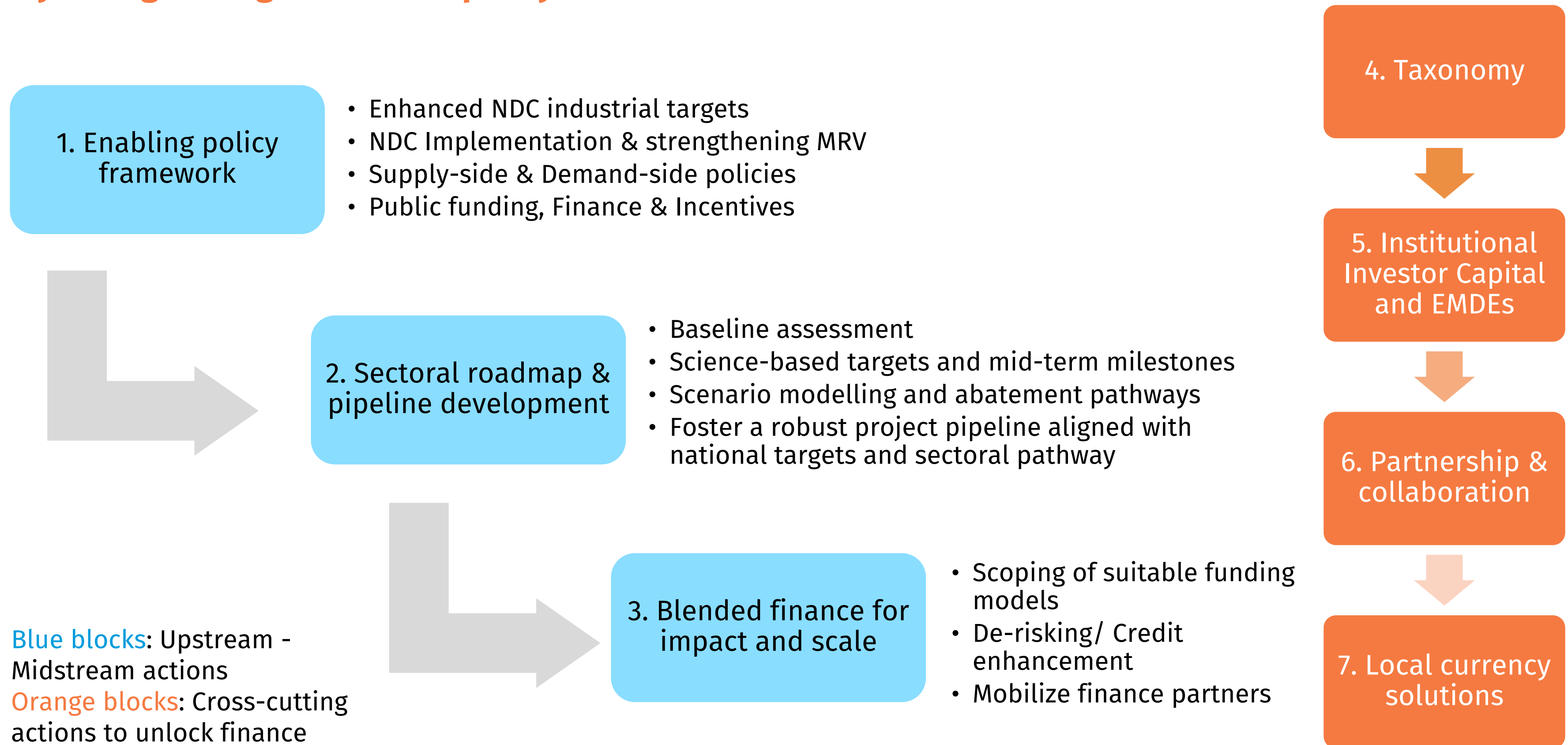
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## OUR CHAIN OF SUPPORT

HOW UNIDO TURNS STRATEGY INTO ACTION



# Mobilizing finance for industrial decarbonization across EMDEs by strengthening domestic capacity





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## UNIDO CASE - KENYA

# From NDC Commitments to a Pipeline of Bankable Projects

### NDC 3.0 Ambition:

Bringing together government and industry to decide on the sector commitments for the NDC

### Cement Decarbonization Roadmap - Development:

With and for the industry, bottom-up approach, national pathway

### Cement Decarbonization Roadmap - Implementation:

- **With Government:** the enabling environment, supporting policy and regulations for technologies and financing
- **With private sector:** developing a pipeline of decarbonization projects with initial investment preparation support (TA)
- **With financiers:** aligning investments and risk sharing instruments







## UNIDO CASE – KENYA, deep dive

# Development of a pipeline of investment-ready projects in the cement sector in Kenya

**Objective:** transform an initial package of decarbonization solutions and technologies for cement and concrete industries into **bankable proposals for financing**

Stage	Project Identification	# Proj	Baseline Analysis and Pre-FS Studies	# Proj	Business model & Finance	# Proj
Activities	Awareness raising to cement firms  Short list of pilot cement projects		Company –level transition roadmap  Pre-feasibility reports for selected solutions		Business Model  Financial de-risk  Market sounding	



## UNIDO CASE – Sri Lanka

# MRV - Tracking Progress to Unlock Finance

### MRV System:

- Develop and implement industry sector Measurement, Reporting and Verification System (MRV)

### Policy Support:

- Industry sector NDC implementation plan
- Policy and regulatory frameworks related to energy, climate change and industrial development

### Industry Support:

- Knowledge and capacity of industries to mitigate GHG emissions by optimizing energy systems and energy management
- Pilot low carbon technologies & methodologies to improve energy efficiency and mitigate GHG emissions

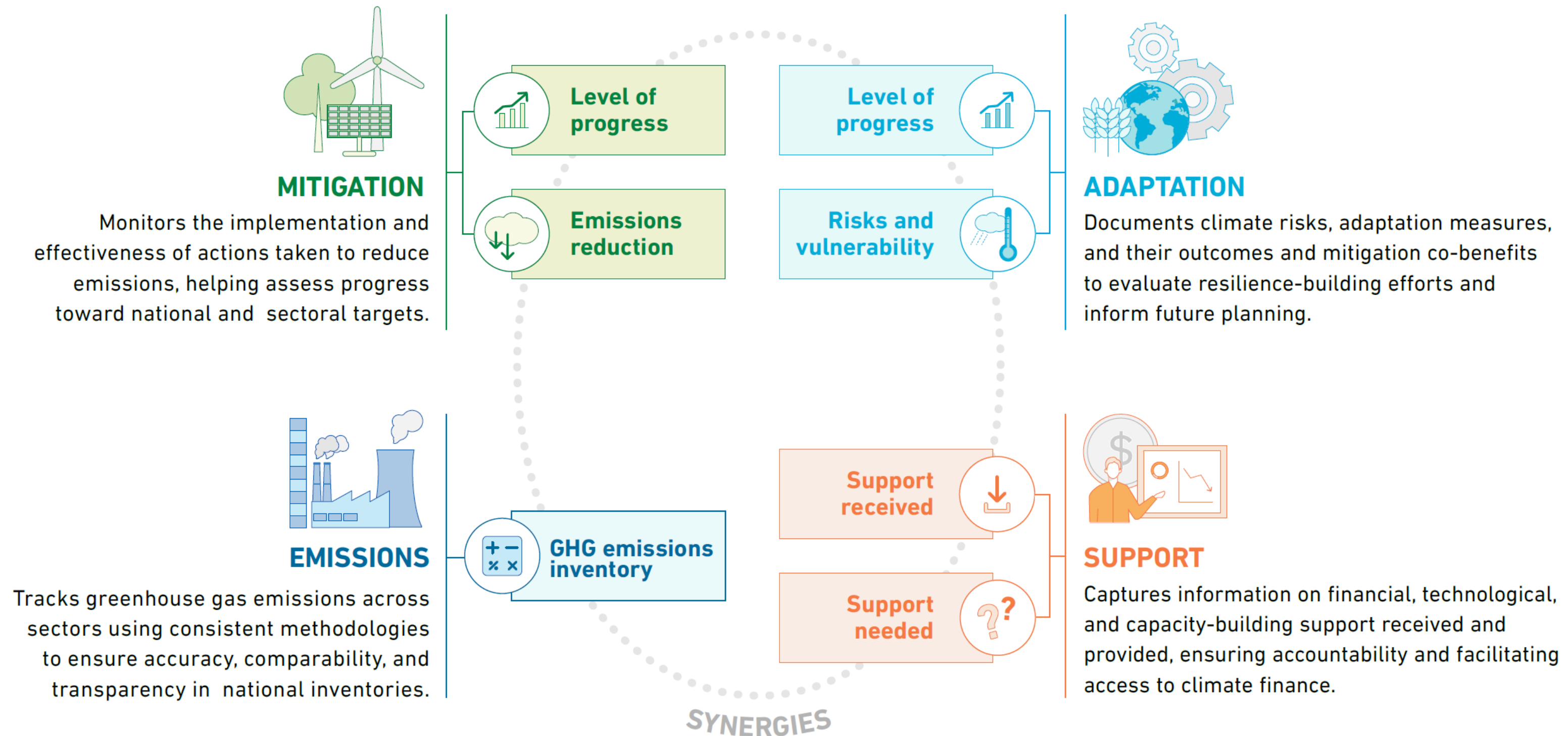




## UNIDO CASE – Sri Lanka, deep dive

## Dimensions of MRV

Enhanced Transparency Framework







## UNIDO CASE – Brazil Hubs

# Coordinating Finance and Policy for Sector-Wide Industrial Transition

### Identification and selection of pipeline of projects

- Brazil Investment Platform (BIP) and the Industrial Transition Accelerator (ITA) joint call for expression of interest (EOI)

### Project preparation and stakeholders' engagement

- Government prioritization of pre-screened projects based on NDC commitments, climate ambitions, and strategic priorities
- Conceptual and pre-feasibility study (PFS) technical support and climate frameworks/taxonomy advice

### Financing support

- Mobilization and Matchmaking via Accelerate-to-Demonstrate (A2D) Facility, Mitigation Action Facility (MAF), Global Matchmaking Platform (GMP)





## UNIDO CASE – Brazil, deep dive

# Industry Decarbonization HUB in Brazil

### Pillar 1

#### Institutional Frameworks

Coordinated portfolio of strategies, policies, incentives and regulatory frameworks to build Brazil's

- Identifying opportunities to improve enabling environment –spanning **upstream (strategic) and downstream (specific policy instruments)**
- Advise on the **coherent development of complimentary policies**, tailored to Brazil's governance processes and rooted in socio-economic and geographical realities
- Support **robust stakeholder engagement** throughout policy development, including with domestic industries and international investors

### Pillar 2

#### Project Preparation & Delivery

Mobilize private investment and concessional finance at scale to for relevant pipeline of projects.

- Progressing the enabling environment needed to unlock a pipeline of projects
- Identifying the most promising Industry Decarbonisation projects, aligned with Brazil's Ecological Transformation Plan and Industrial Decarbonisation Strategy
- Project Preparation Support to accelerate development of high-priority projects
- **Facilitating Finance: Identification and development of financing mechanisms, and access to blended finance**

### Pillar 3

#### Research & Innovation

Link Brazil's green ind. ecosystem with int. partnerships and technical cooperation programmes.

- Identify key RD&D stakeholders in Brazil and beyond
- Comprehensive sectoral innovation needs assessments, with whole-systems approach
- Launch Challenge Calls to surface most promising technologies
- Develop proof of concepts, pilot projects and partnerships between Brazilian and global innovators
- Enhance commercialization of promising technologies
- Leverage international assistance initiatives



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# Reconfiguring Finance

Implementing Article 2.1(c)

Mitigation Aspect

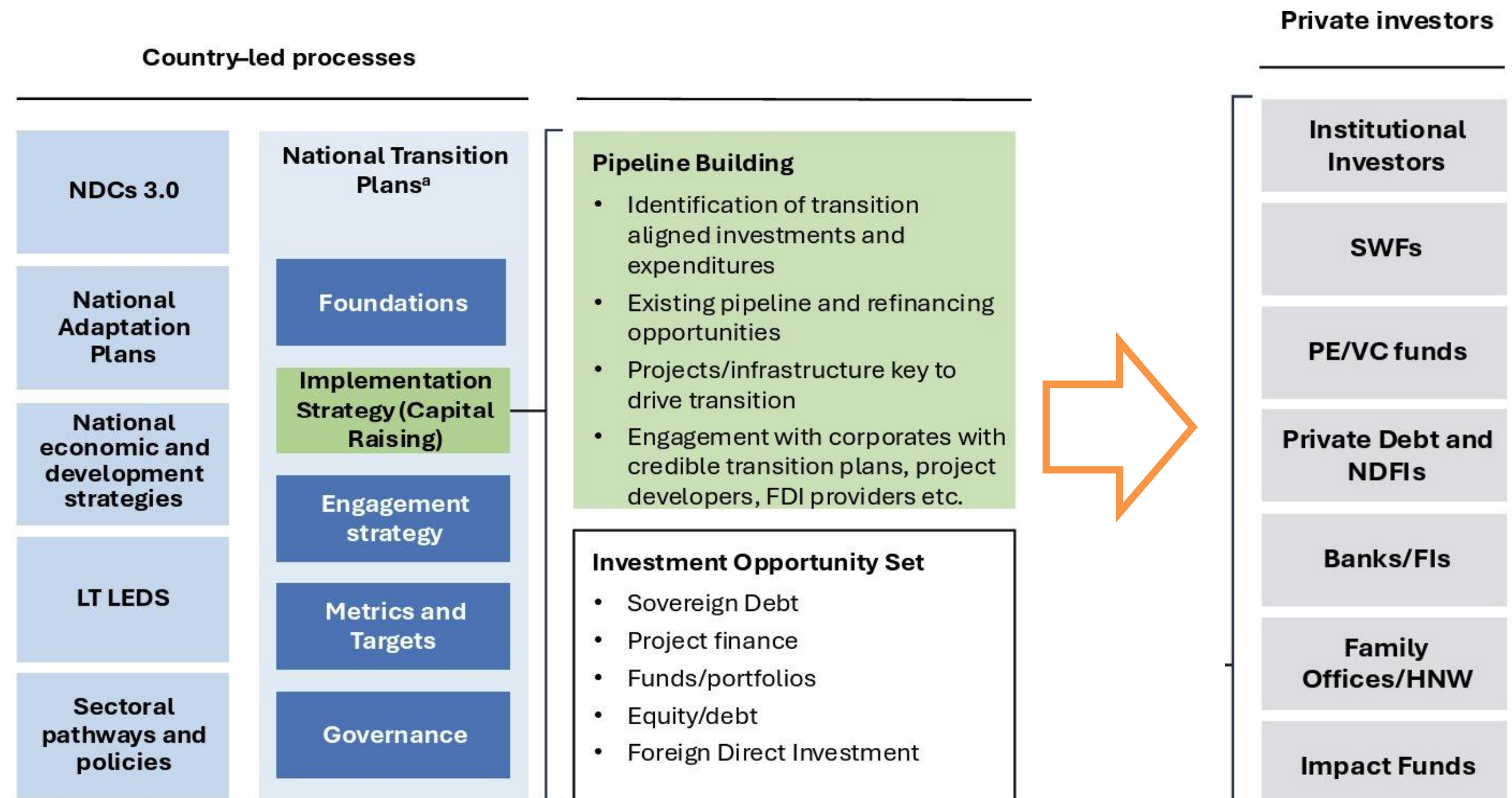




## Reconfiguring Finance to Implement Article 2.1(c)

### A paradigm shift: from project finance to the financing of country-wide transition pipelines

- Current approaches are fragmented
- Public and private sector need to strengthen collaboration to co-create sectoral pipelines of transition projects (considering phase-out and growing demands)
- Blended finance at the country level to support transition pipelines
- Maximize decarbonization potential per \$ invested







## Rethinking Climate Finance Through Article 2.1(c) and Article 9.

# What needs to happen and who needs to act locally

- Country-wide transition pathways with:
  - committed pipeline of projects (phase-out/phase-in, hard-to-abate decarbonization)
  - credible implementation,
  - transparent MRV system,
  - risk-sharing instruments and
  - de-risking climate finance.
- Enabling:
  - private investment at scale, for
  - national strategic transformation.





## Rethinking Climate Finance Through Article 2.1(c) and Article 9.

### What the global international community can do

- Annex II Parties should provide grant-equivalent finance to:
  - cover phase-out costs (closures, worker compensation, re-skilling...)
  - offer catalytic capital for phase-in infrastructure (grids, storage, renewables...)
  - de-risk investments in hard-to-abate sectors (e.g. cement, steel, chemicals)
- International entities (e.g. UNIDO, IFIs, MDBs) to:
  - support planning & coordination with country priorities
  - assist with project pipelines & implementation
  - maximize decarbonization potential for every \$ invested

#### Financial Assistance

MDBs

Philanthropies

Climate funds

Bilateral and  
multilateral  
finance

Commercial  
and private  
finance

Institutional  
investors





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# Why?



# Money flows at scale...

- with **incentives** and **strong economic case**
- when **risk is shared** and managed
- when there is confidence in **implementation capacity**  
and
- towards **financial returns**.





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# Thank You

UNIDO stands ready to partner with you,  
ensuring finance, policy, and industry work together  
toward a climate-resilient and inclusive future,  
balancing moral duty with economic opportunity.





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## Get in touch

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