



TCI NETWORK

27TH TCI GLOBAL CONFERENCE

THE COLLABORATIVE FUTURE

AI & HUMAN PROGRESS THROUGH CLUSTERS

OCTOBER 8 - 10 CHIHUAHUA MEXICO

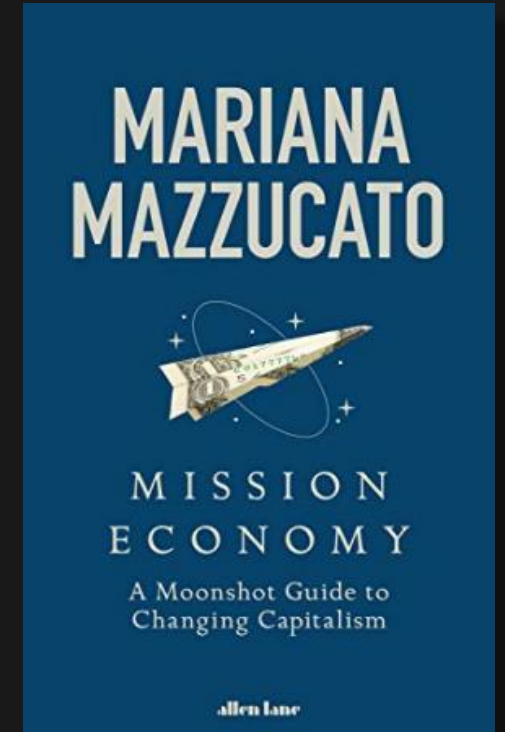
KEYNOTE

MARIANA MAZZUCATO

“Working together to create a more inclusive, innovative and sustainable world”



Institute for Innovation
and Public Purpose



Challenge-Driven Industrial Policy: *directing inclusive and sustainable growth*

Mariana Mazzucato

Professor in the Economics of Innovation and Public Value
Founding Director Institute for Innovation and Public Purpose
University College London

The Planet is boiling



8

IPCC: years left before climate breakdown is irreversible

20%

investment in green energy is only of what it should be

\$123

billion in subsidies to fossil fuel companies in the E.U. in 2022

56%

of the COVID-19 recovery funding allocated to energy companies (G20), has gone to fossil fuel projects (\$151bn)

A wake-up call ?



"We are at a critical moment in the arc of humanity and the planet. The World Bank Group is being asked to lead the way, to **double down on development and climate efforts** and to deliver even more impact and results."

- Ajay Banga, President of the World Bank Group



"Let me be frank: we are not doing well. Our progress towards the SDGs has **faltered and even gone into reverse on some important targets and Goals**, leaving many behind."

- Amina Mohammed, UN Deputy Secretary General



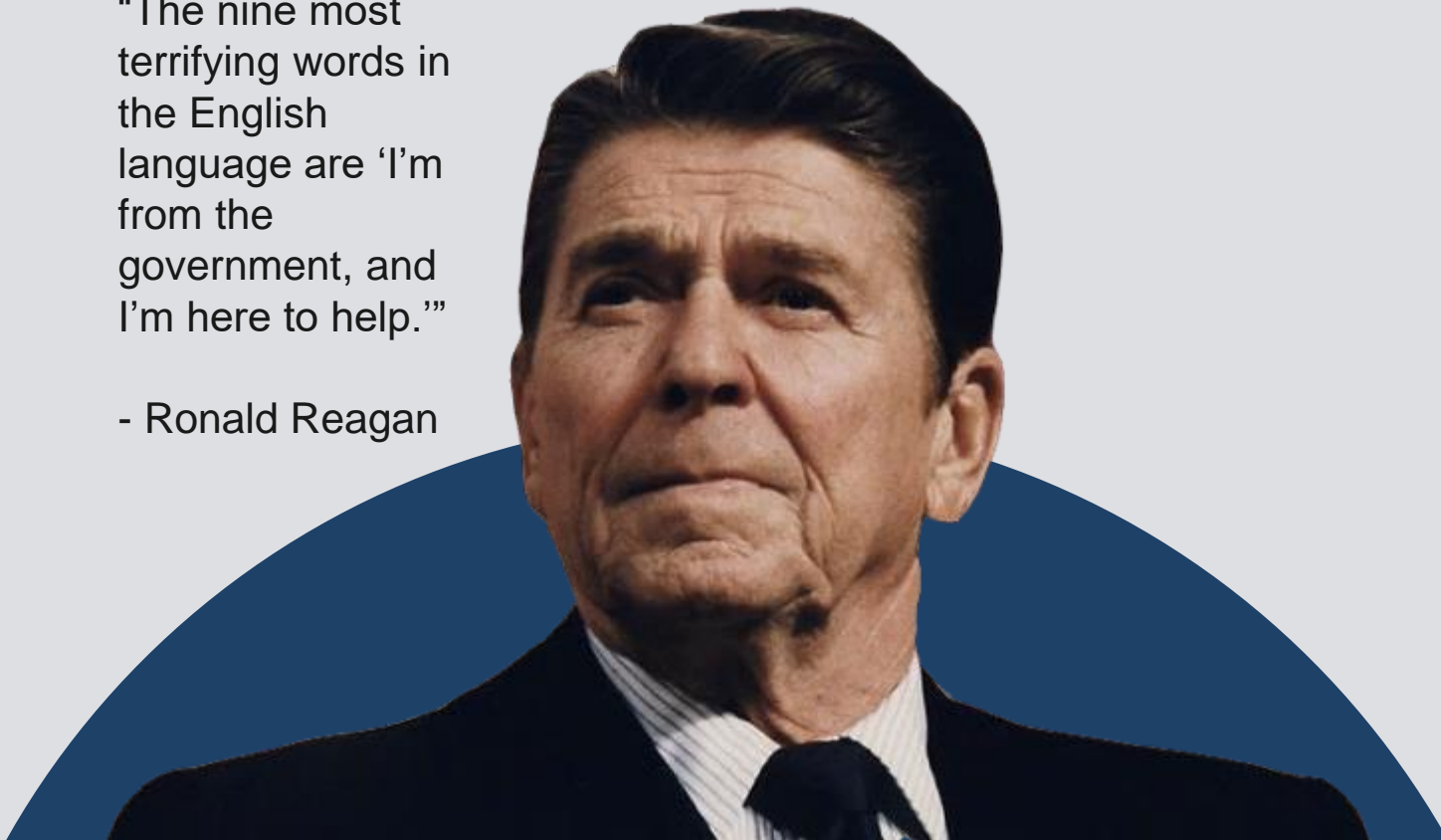
**To change the paradigm, now is the
time to embrace new economics:
from fixing markets to shaping an economy
to be inclusive and sustainable.**

From market fixing to market shaping.

At Worst

“The nine most terrifying words in the English language are ‘I’m from the government, and I’m here to help.’”

- Ronald Reagan



At Best?



Positive externalities

Negative externalities

Coordination failures

Information failures

Imperfect competition

From Shareholder maximization to creation of stakeholder value (for real)



“Without a sense of purpose, no company, either public or private, can achieve its full potential.”

- Larry Fink

The New York Times

Shareholder Value Is No Longer Everything, Top C.E.O.s Say

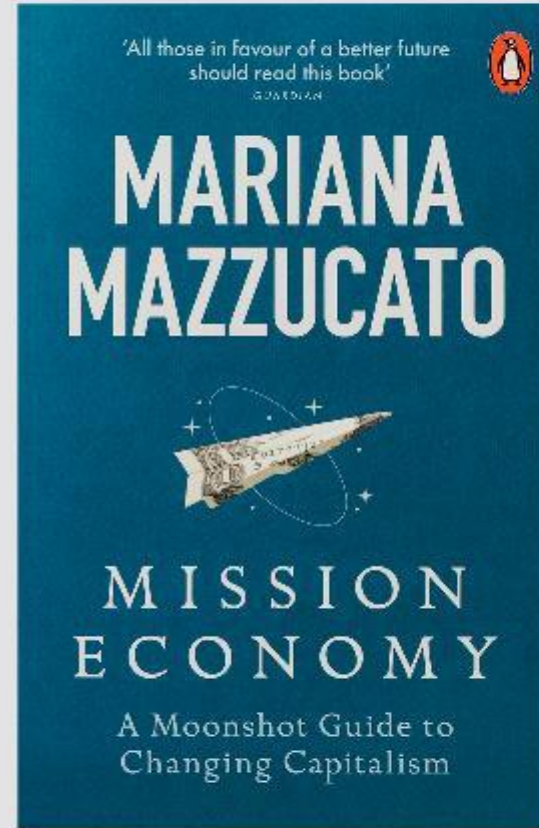
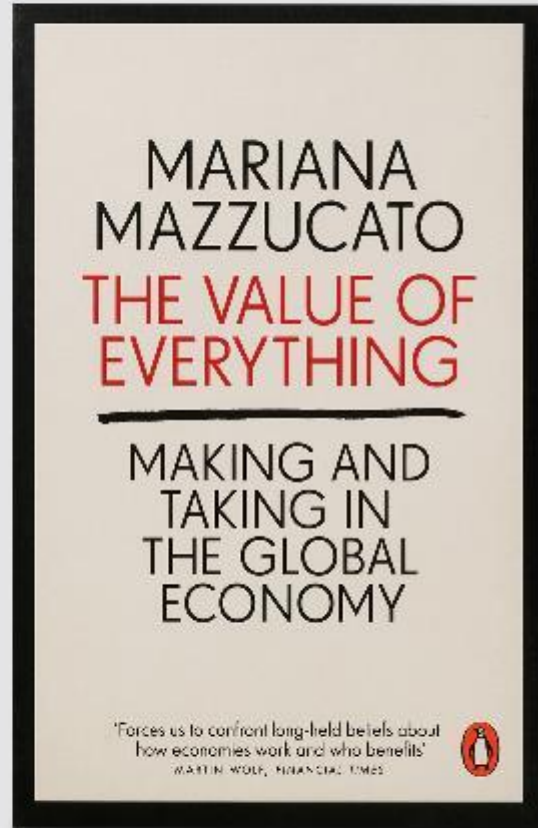
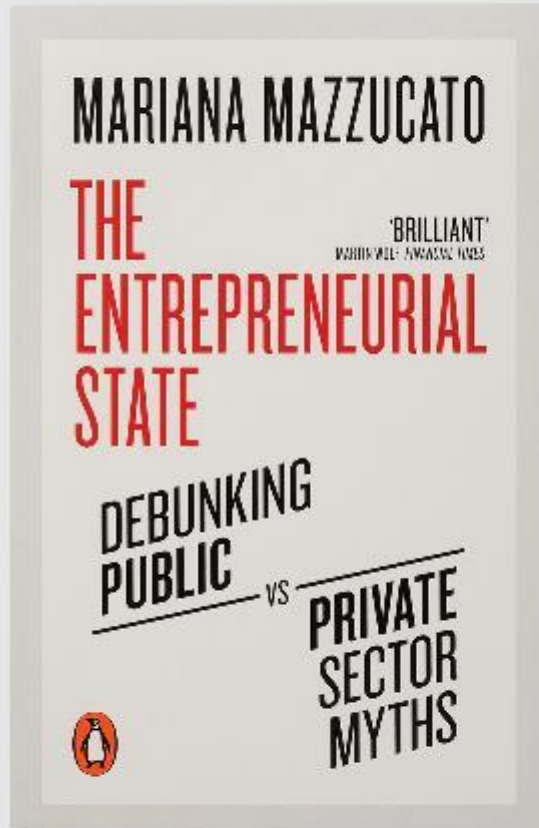
Chief executives from the Business Roundtable, including the leaders of Apple and JPMorgan Chase, argued that companies must also invest in employees and deliver value to customers.



Aug. 19, 2019



Proactive shaping of economy not market fixing



Transformation agendas require rethinking:

Policy design

From market fixing to market co-creation and shaping.

Institution/tool design

Outcomes orientation from procurement to public loans.

New social contract

Symbiotic public-private partnerships guided by purpose.

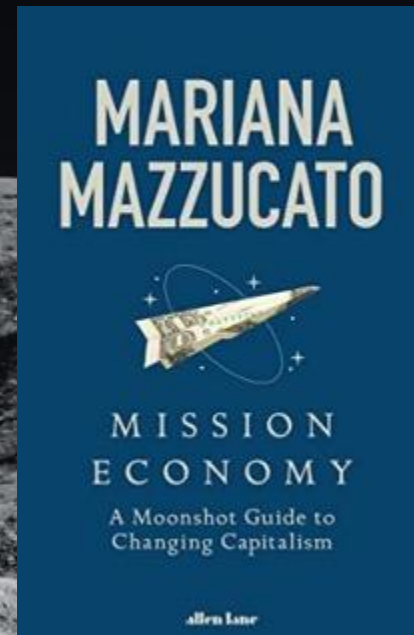
Co-creation and participation

Community engagement and participation.

Dynamic capabilities

Strengthening the ability of government to implement bold policies and be a good partner.

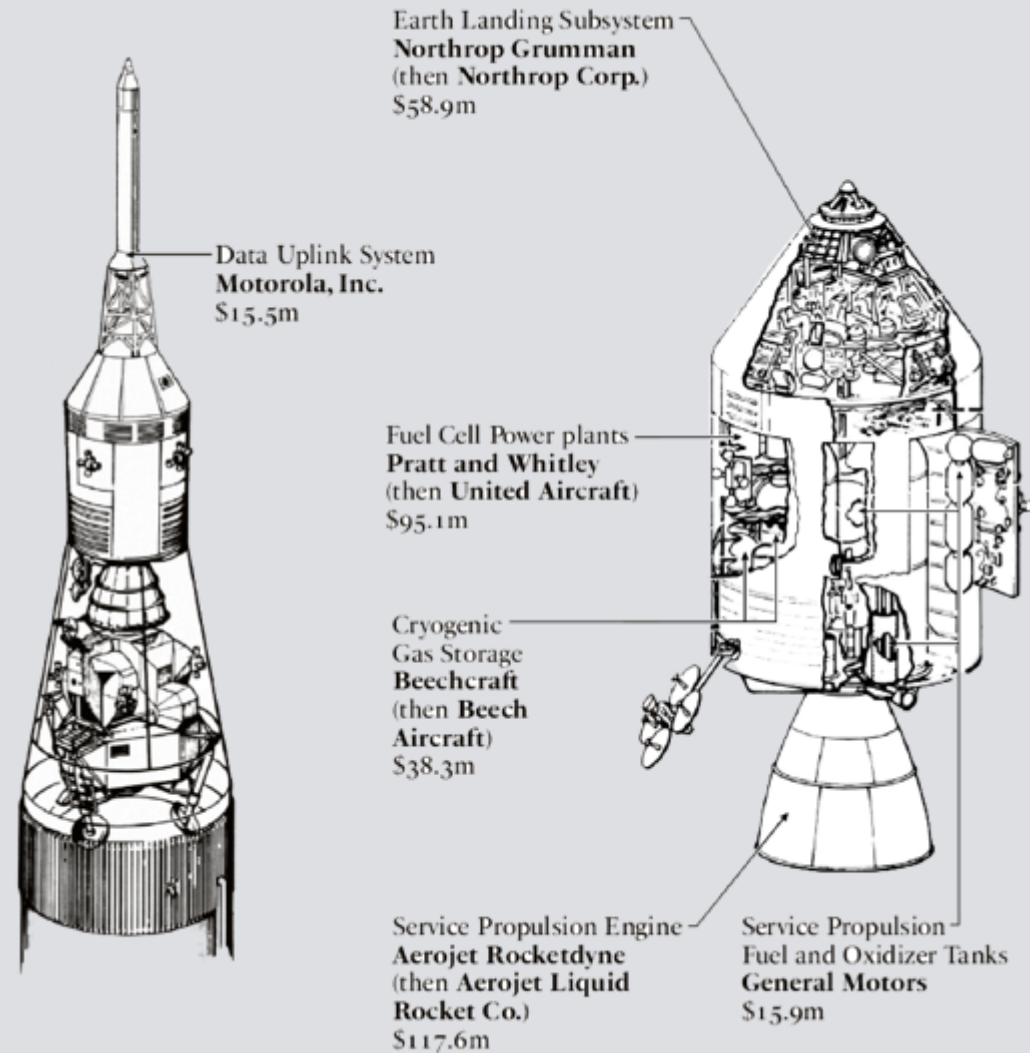
Challenge-driven policy design



Public-Private Partnership with a common purpose

NASA sought to work in partnership with innovative businesses, showing relevant capabilities and experience, searching for the best partners possible not just the least expensive ones
From cost-plus contracts (easily gamed) to fixed price with incentives.

“No-excess profits” clause!



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Spillovers: 20 things we wouldn't have without space travel



Camera Phones



Athletic Shoes



Home Insulation



Adjustable Smoke Detectors



Scratch-resistant Lenses



Foil Blankets



Joys of Life



Baby Formula



CAT Scans



Water Purification Systems



Wireless Headsets



Artificial Limbs



LEDs



Dust Busters



Memory Foam



Computer Mouse



Land Mine Removal



Ear Thermometers

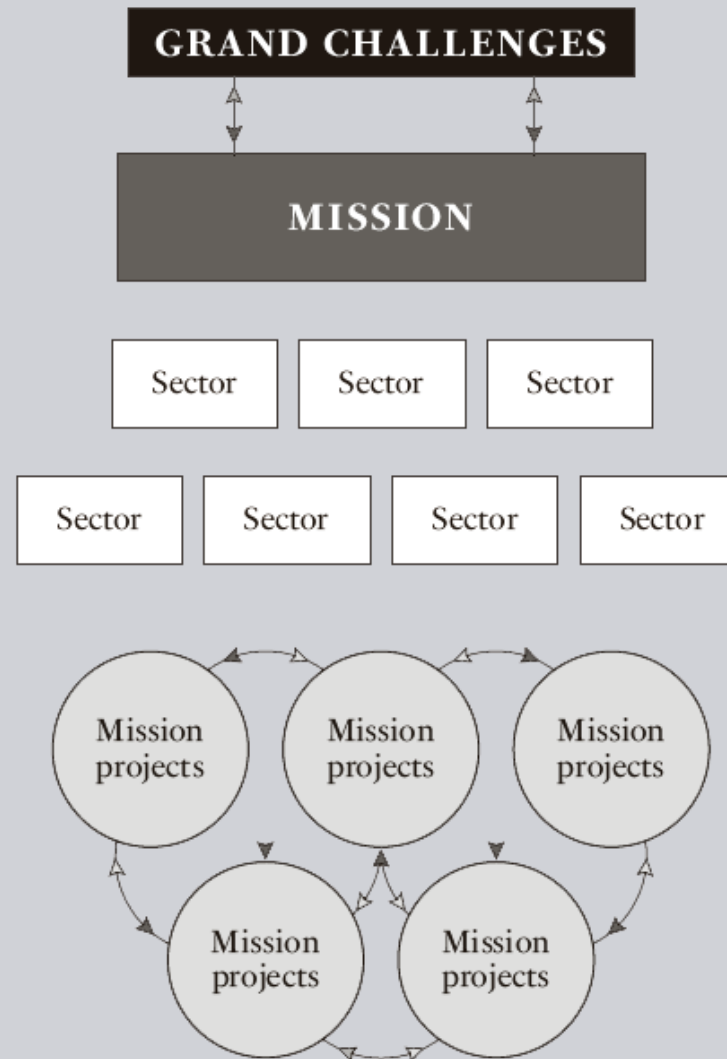


Freeze-dried Food



Portable Computer

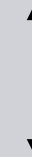
A new approach to policy design



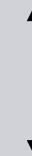
Political agenda setting
& civic engagement



Clear targeted mission



Cross sectoral
innovation



Portfolio of projects
and bottom-up
experimentation

**5 criteria for
missions**

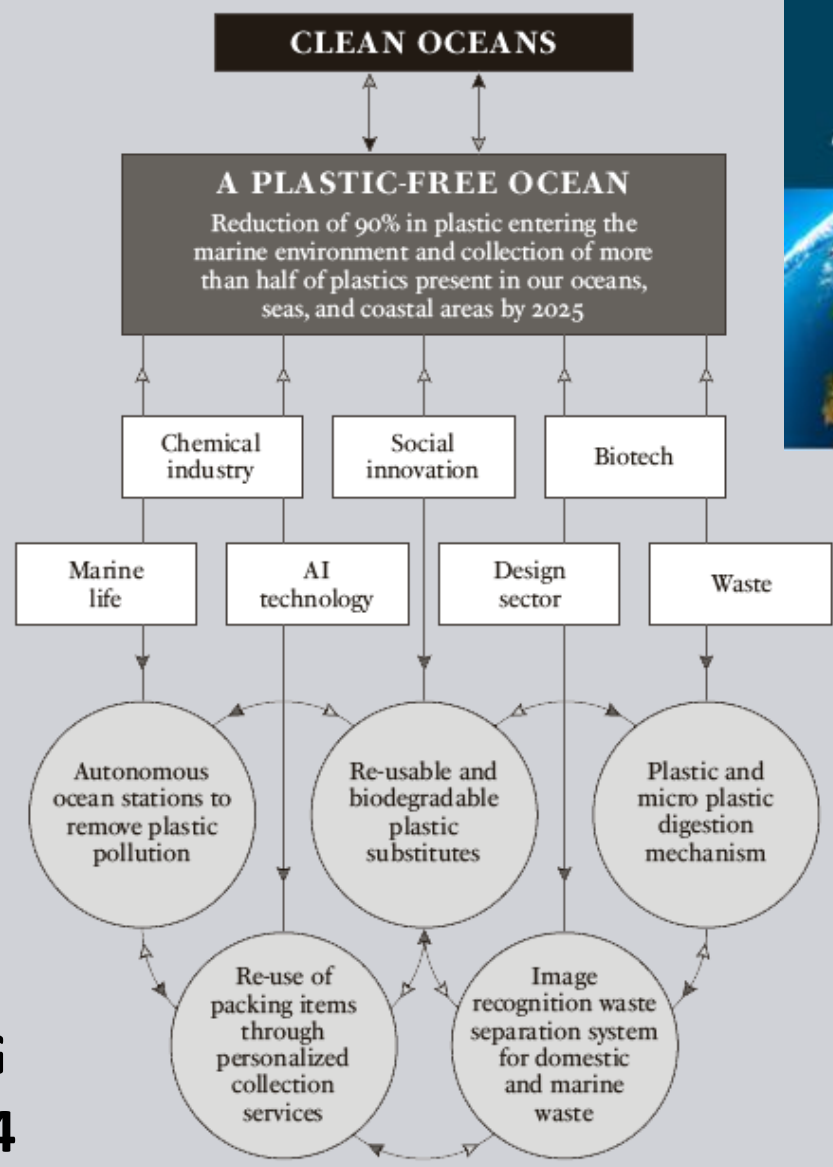
BOLD, INSPIRATIONAL

A CLEAR DIRECTION

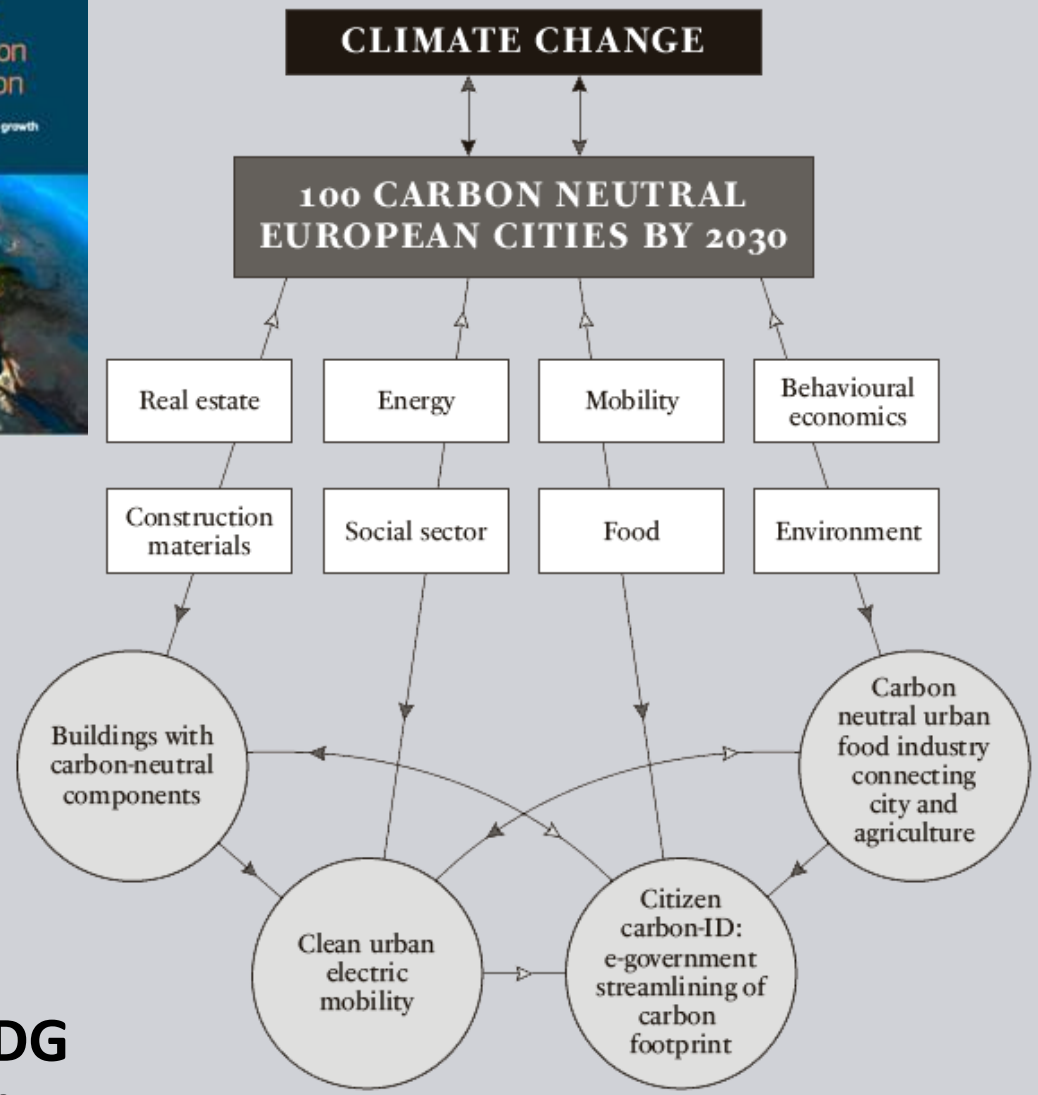
AMBITIOUS WHILE REALISTIC

CROSS-SECTORAL & INTER-DISCIPLINARY

DRIVE MULTIPLE BOTTOM-UP SOLUTIONS



**SDG
n°14**

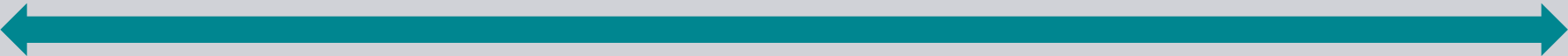


**SDG
n°13**

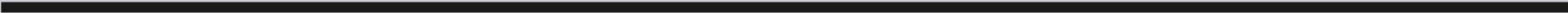
**Where
should
missions
sit?**

“All of government approach”

Mission-oriented policies

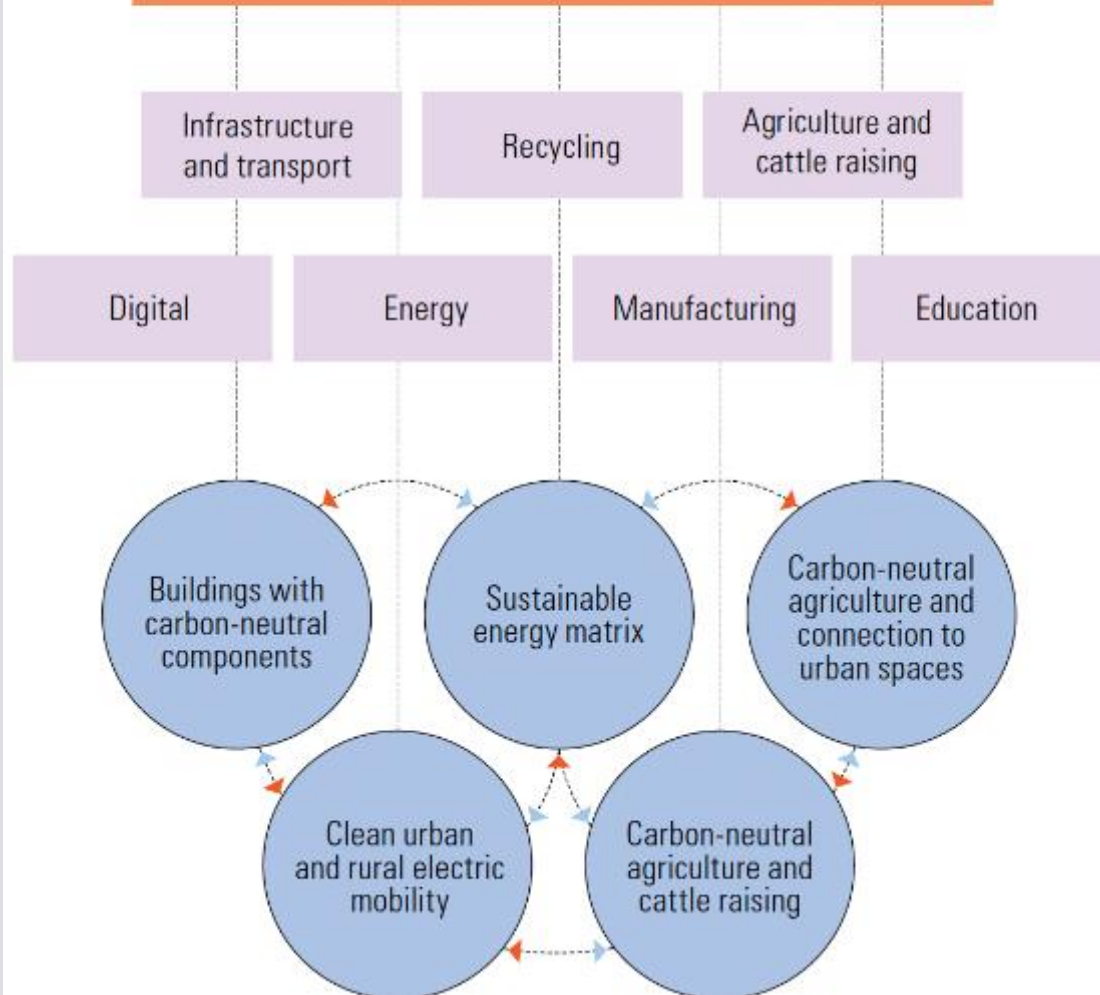


Ministries



Climate change

100 carbon-neutral cities in Latin America and the Caribbean by 2030



Transformational change in Latin America and the Caribbean

A mission-oriented approach

Mariana Mazzucato



UNITED NATIONS
ECLAC



Institute for
Innovation and
Public Purpose



german
cooperation
ZUSAMMENHANG

Changing the focus of industrial policy: from sectors to challenges (for all sectors)

VERTICALS

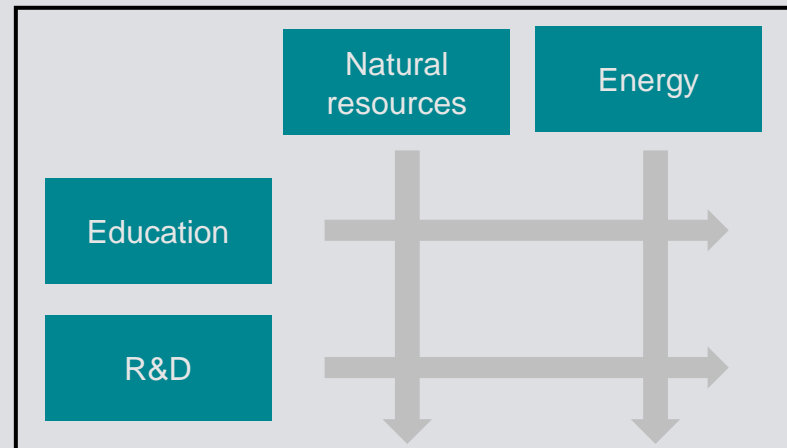
Focus interventions on particular areas/sectors

Past focus on sectors with the blanket provision of subsidies to certain firms and businesses

HORIZONTALS

Improving conditions for knowledge creation

Too little investment in education, and research. Have not often invested in institutions to create dynamic links (science and industry)



From 'critical resources' to mission-oriented resources



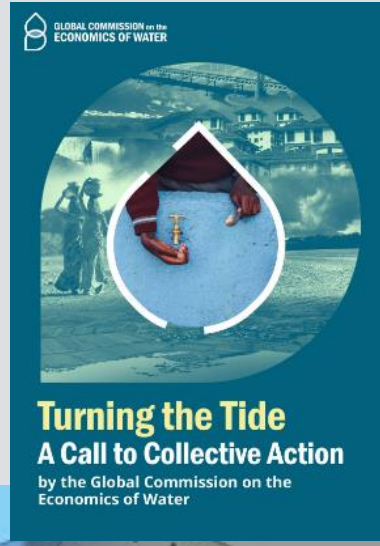
What ambitious policy goals (missions) could innovation and technology in natural resource sectors contribute to?

What are the roles of new technologies in advancing a transformation in these sectors?

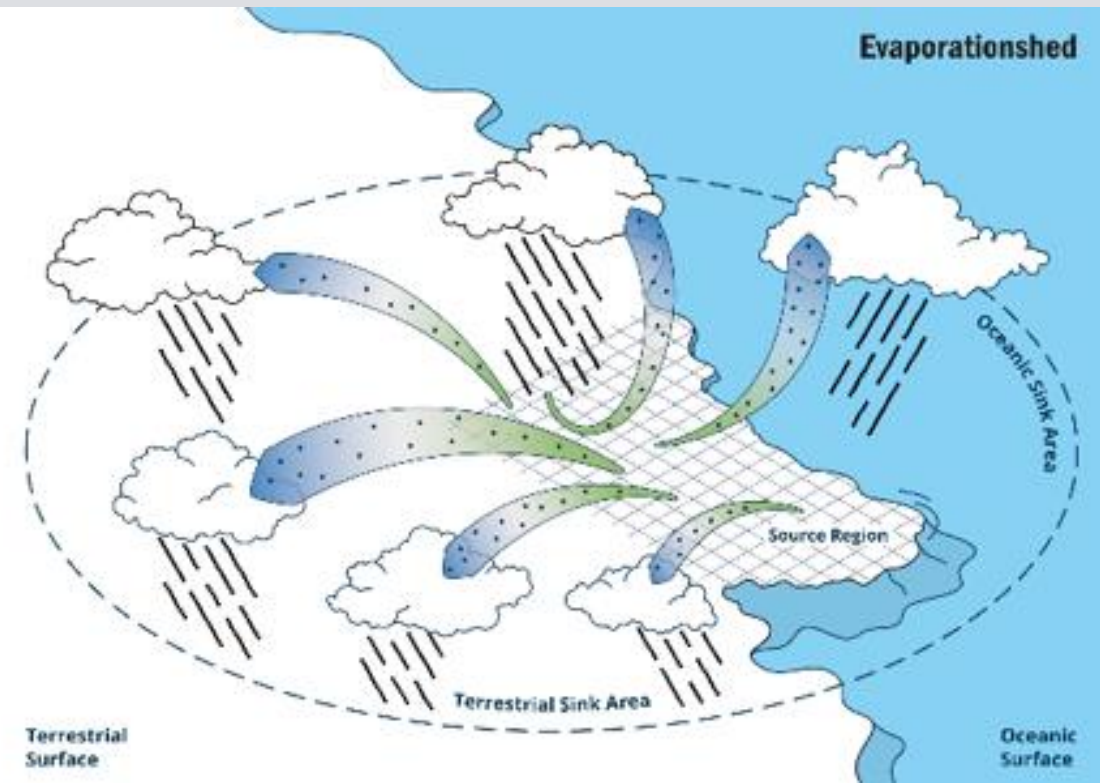
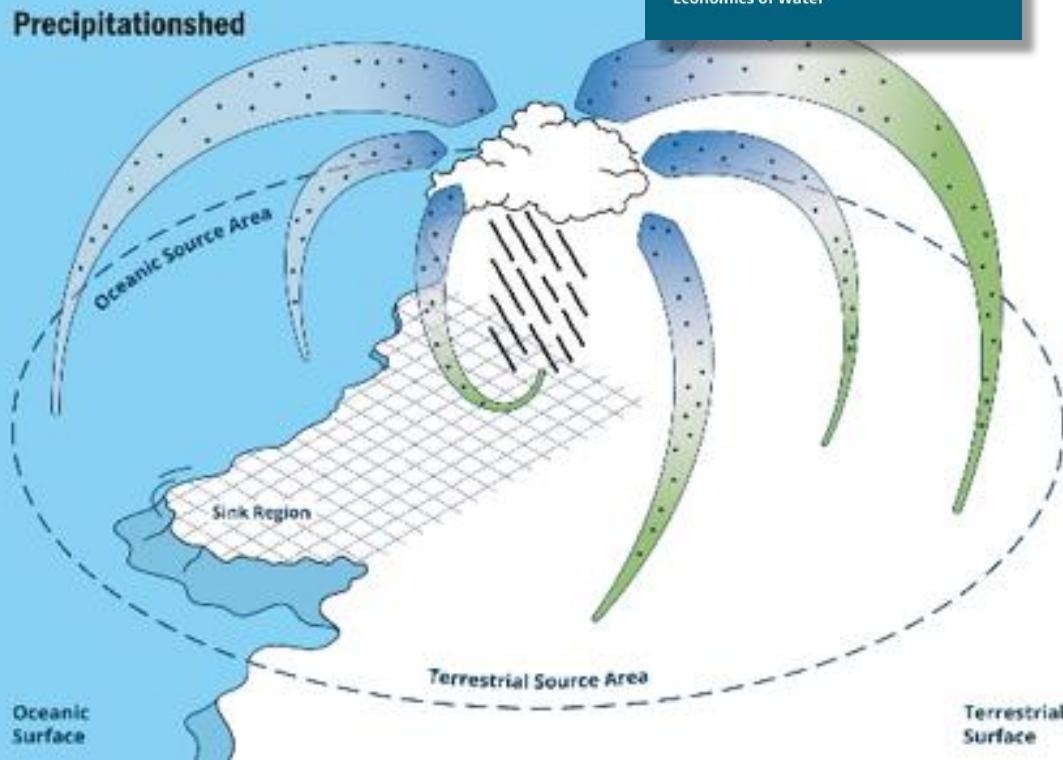
How will the adoption of digital and green technologies affect the demand and supply of natural resources?

What is needed to move up the value chain in natural resources, creating a dynamic ecosystem (e.g. digital services) rather than rents for incumbents?

Governing the hydrological cycle as a global common good



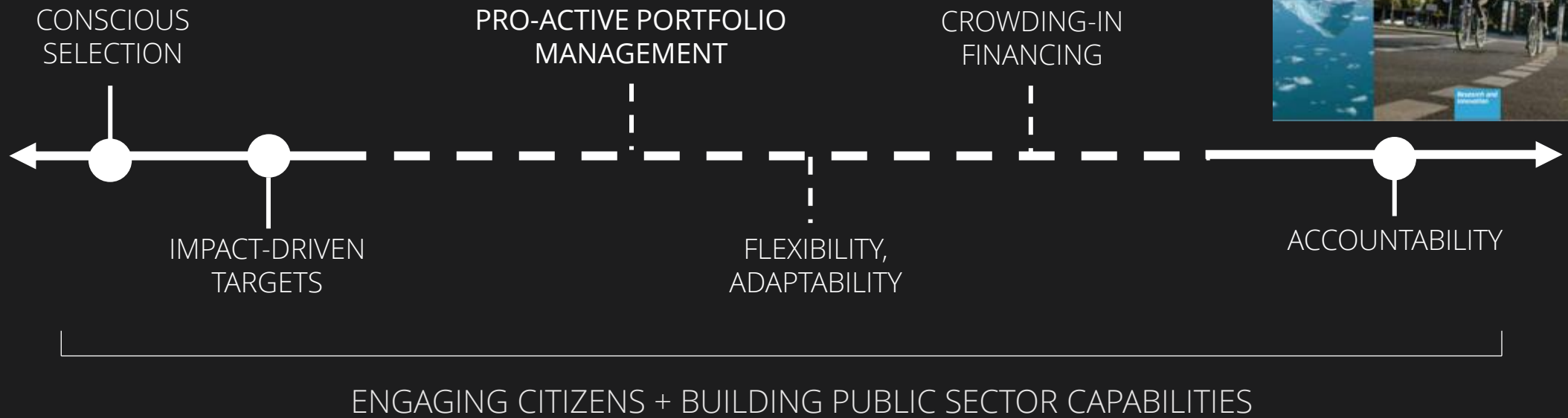
1. Countries and communities are **interdependent**
2. The water crisis, climate change and biodiversity loss are **interconnected**
3. Water impacts and **cuts across all SDGs**



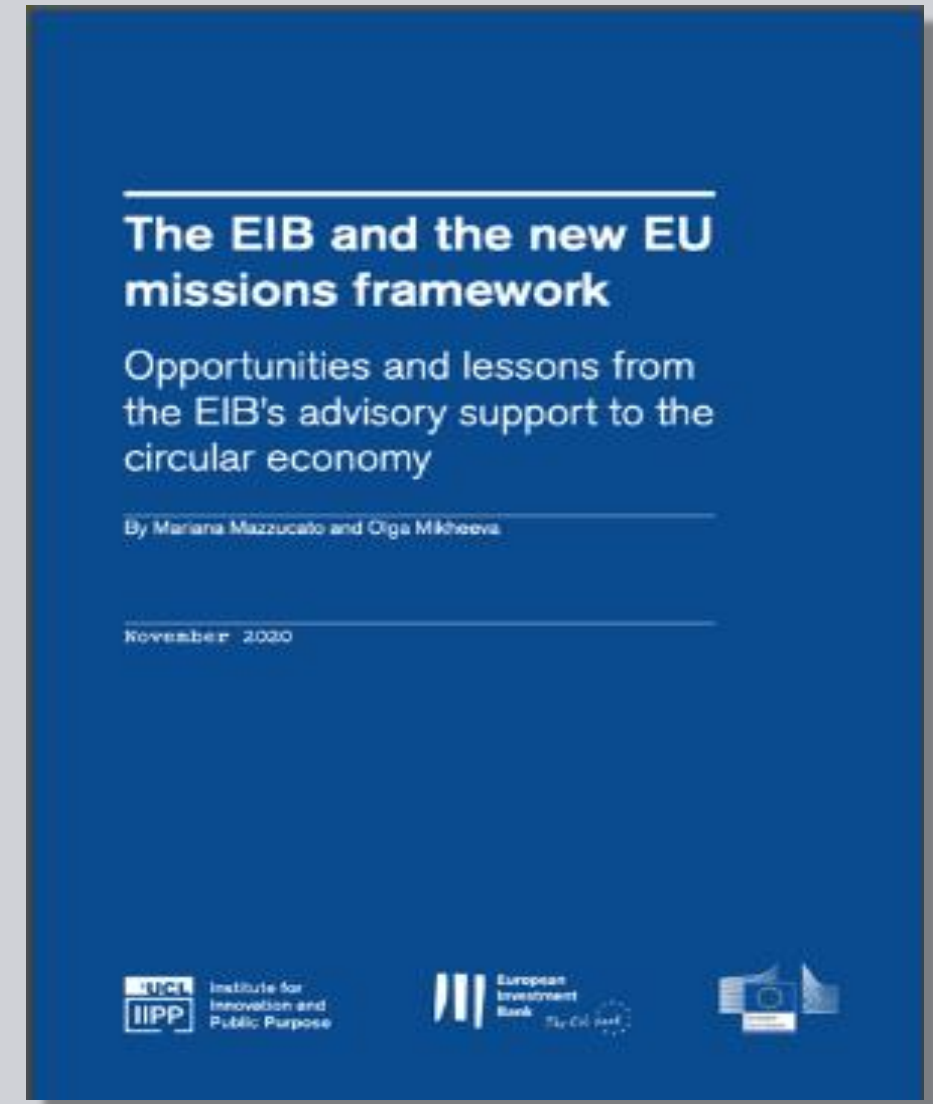


INSTITUTIONS AND TOOLS

Implementing challenge-driven industrial policy



The EIB and EU Missions



BNDES and conditional finance

Profarma program: BNDES's support to the pharmaceutical sector was conditional on recipients developing drugs that are readily available to underserved populations.

Through use of conditionalities, the bank has in the past **succeeded in crowding in business investment.**

Investment multiplier: between 2003 and 2011 the bank successfully generated crowding-in effects in the private sector, **drastically increasing private investment in innovation.**

INSTITUTE FOR INNOVATION
AND PUBLIC PURPOSE

UCL

Mission-oriented development banks: the case of KfW and BNDES

Mariana Mazzucato

Director and Professor in the Economics of Innovation and Public Value
UCL Institute for Innovation and Public Purpose

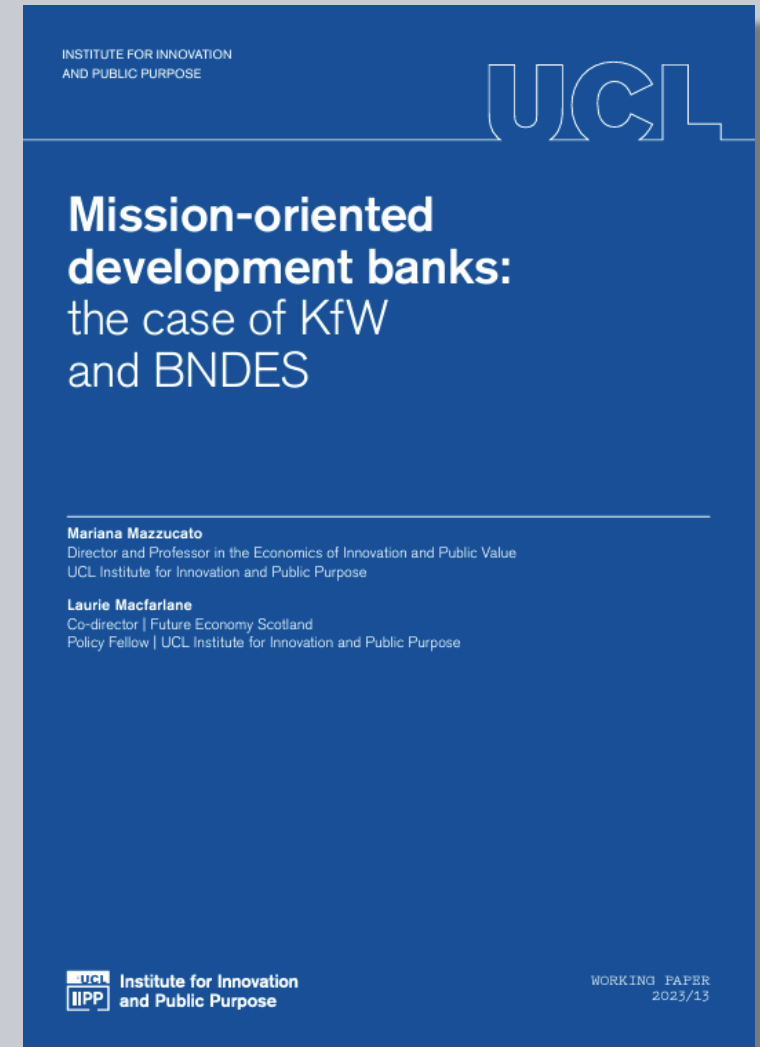
Laurie Macfarlane

Co-director | Future Economy Scotland
Policy Fellow | UCL Institute for Innovation and Public Purpose

KfW and green steel

KfW has set out Paris Climate Agreement-compatible guidelines with minimum requirements for their loans (95% of financing for steel production technologies is reserved only for transformative technologies that directly contribute to GHG neutrality)

This policy has helped German steel remain globally competitive at a time when many countries are shifting production towards low-carbon industrial sectors.



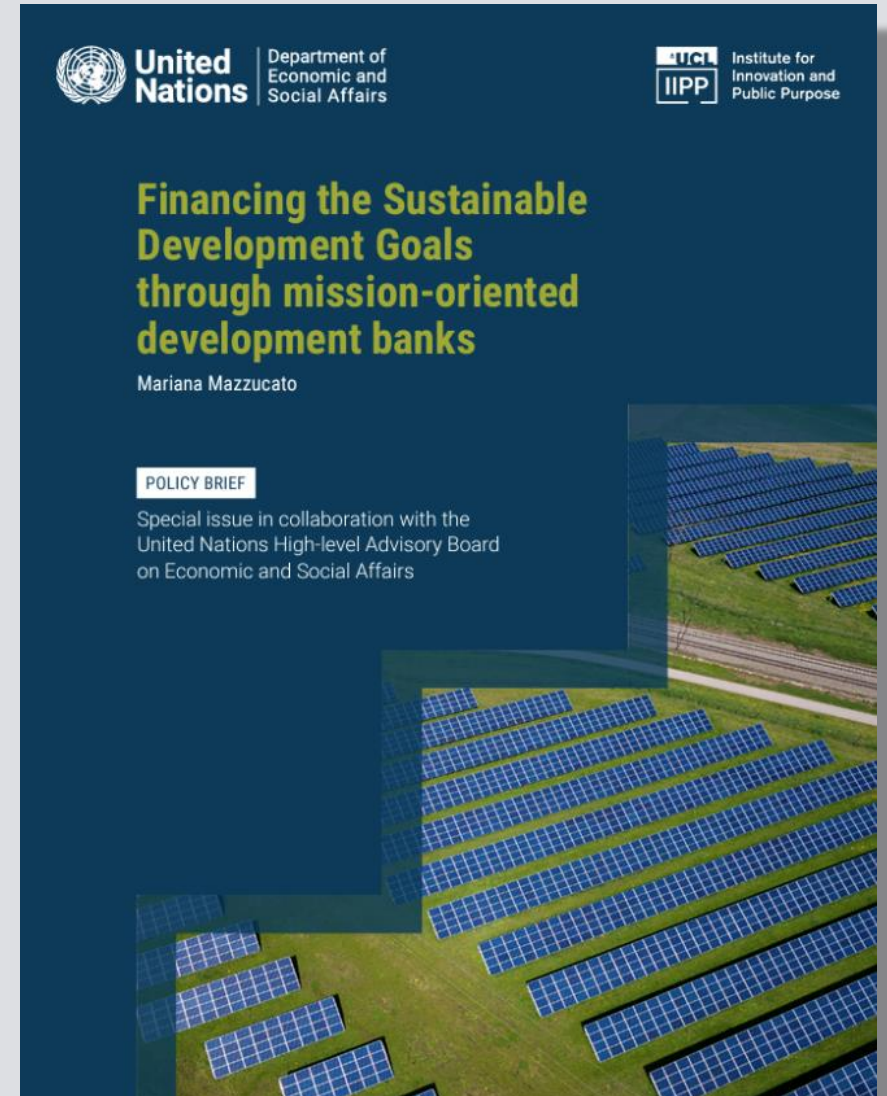
Financing the SDGs through mission-oriented public development banks

\$2.2 trillion

Multilateral development banks (MDBs)
total assets under management

\$20.2 trillion

National development banks
(NDBs) total assets under
management



Compra Pública en América Latina y el Caribe (% del PBI 2018)

\$362 billion

In 2021, Mexico spent 4.5% of GDP on public procurement, significantly lower than the average of 12.9% in the OECD.



Source: OECD (2020)



Mexico's new General Law on Adequate and Sustainable Nutrition, April 2024



- A mission-oriented approach, interventions across the food system.
- Interministerial coordination and governance
- Move from pre-packaged school meals to locally sourced, sustainable, healthy school meals. Currently rolled out to 50% of children in Mexico City (World Food Program)
- Specific goals such as the prevention of diet-related non-communicable diseases (NCDs) and the mitigation of global warming, as well as the availability, affordability, and promotion of nutritious foods



**REWARD SHARING AND
A NEW SOCIAL CONTRACT**

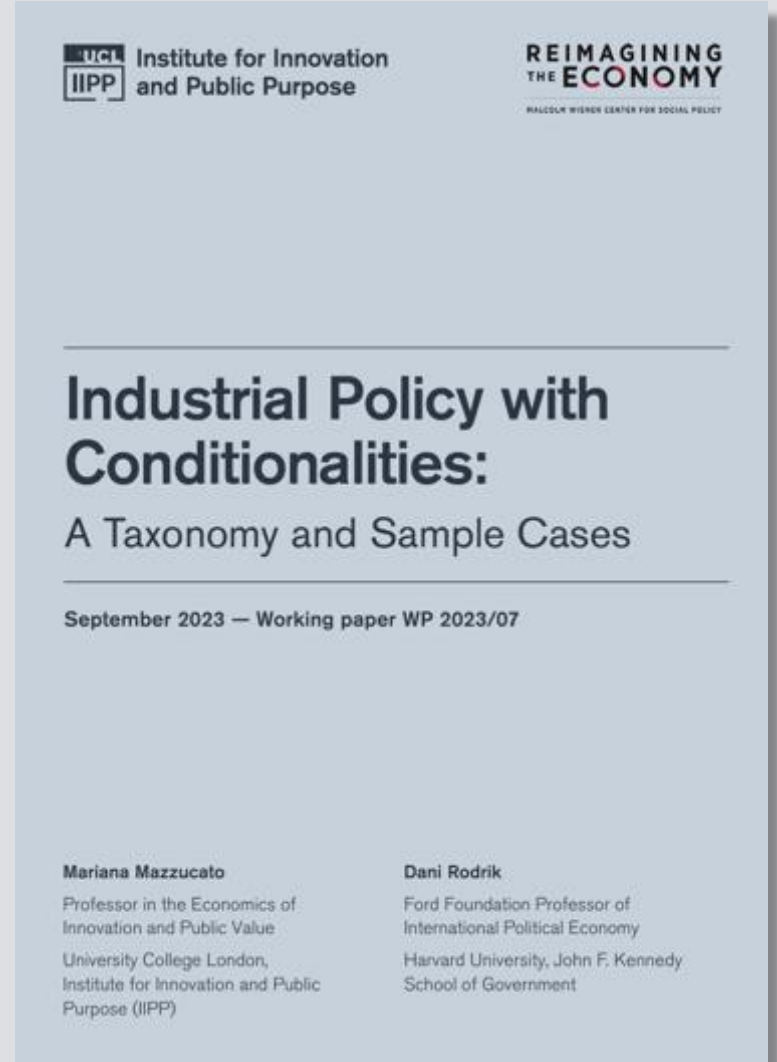
Industrial policy with conditionalities: A taxonomy

Ensure that more citizens and businesses have **ACCESS** to specific goods, services or technologies.

DIRECT investments towards social or environmental objectives.

Include **PROFIT-SHARING** provisions between contributing parties.

Promote the **REINVESTMENT** of business profits into productive activities.



Conditionalities in CHIPS

Considerations:

1. Move towards greater use of **fixed and measurable conditions** – e.g., related to specific decarbonization requirements, neutrality agreements, wage & benefit commitments.
2. Build on CHIPS to **apply conditionality more widely**, including in public financing (e.g., public development bank loans) & procurement.
3. Apply a **wider set of conditions**, e.g., linking equity stakes to public financing, linking IP sharing to R&D investments, embedding access & affordability requirements for products with critical public use cases (e.g., health products)

NOTICE OF FUNDING OPPORTUNITY (NOFO)

CHIPS Incentives Program – Commercial Fabrication Facilities

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce
- **Funding Opportunity Title:** CHIPS Incentives Program – Commercial Fabrication Facilities
- **Announcement Type:** Amendment
- **Funding Opportunity Number:** 2023-NIST-CHIPS-CFF-01
- **Assistance Listing (CFDA Number):** 11.037 – CHIPS Incentives Program
- **Dates:**
 - o Statements of interest from all potential applicants will be accepted on a rolling basis, beginning on Tuesday, February 28, 2023; statements of interest must be submitted at least 21 days prior to submitting a pre-application or full application.
 - o For potential applications for leading-edge facilities, pre-applications (which are optional) and full applications will be accepted on a rolling basis beginning on Friday, March 31, 2023.
 - o For potential applications for current-generation, mature-node, and back-end production facilities, pre-applications (which are recommended) will be accepted on a rolling basis beginning on Monday, May 1, 2023 and full applications will be accepted on a rolling basis beginning on Monday, June 26, 2023.
 - o For potential applications for wafer manufacturing facilities, pre-applications (which are recommended) will be accepted on a rolling basis beginning on Friday, September 1, 2023 and full applications will be accepted on a rolling basis beginning on Monday, October 23, 2023.
 - o For potential applications for semiconductor materials and manufacturing equipment facilities for which the capital investment equals or exceeds \$300 million, pre-applications (which are recommended) will be accepted on a rolling basis beginning on Friday, September 1, 2023 and full applications will be accepted on a rolling basis beginning on Monday, October 23, 2023.
 - o At a later date, CPO expects to launch an additional funding process for applications relating to semiconductor materials and manufacturing equipment facilities with capital investments under \$300 million, as well as an additional funding process for applications relating to R&D facilities. CPO will provide future guidance regarding potential additional funding opportunities.

Conditionalities in South Africa: Example of PepsiCo and Pioneer Foods

“This deal represents a new benchmark in empowering workers with a share-ownership plan as a result of merger conditions and committing a foreign investor to new job-creation.”

– Minister Ebrahim Patel



Terms of the deal:

1. PepsiCo to establish Sub-Saharan HQ in ZA
2. Pioneer Foods employees to receive shares in PepsiCo worth R1,6 billion (over US\$100 million)
3. PepsiCo to invest R6.5 billion in the operations in ZA
4. PepsiCo to create 3 000 direct and indirect new jobs
5. PepsiCo to set up a R600 million Development Fund to support entry of small-scale farmers in its supply-chain

Why not also include conditionalities on water use (recycling) and attention to working conditions and local communities.

Governing innovation for the common good



The WHO Council
on the Economics of
Health for All

RESUMEN EJECUTIVO
Salud para todos:
Transformando la economía
hacia lo que importa

REPORTE FINAL

Organización
Mundial de la Salud

A new social contract with businesses and labour

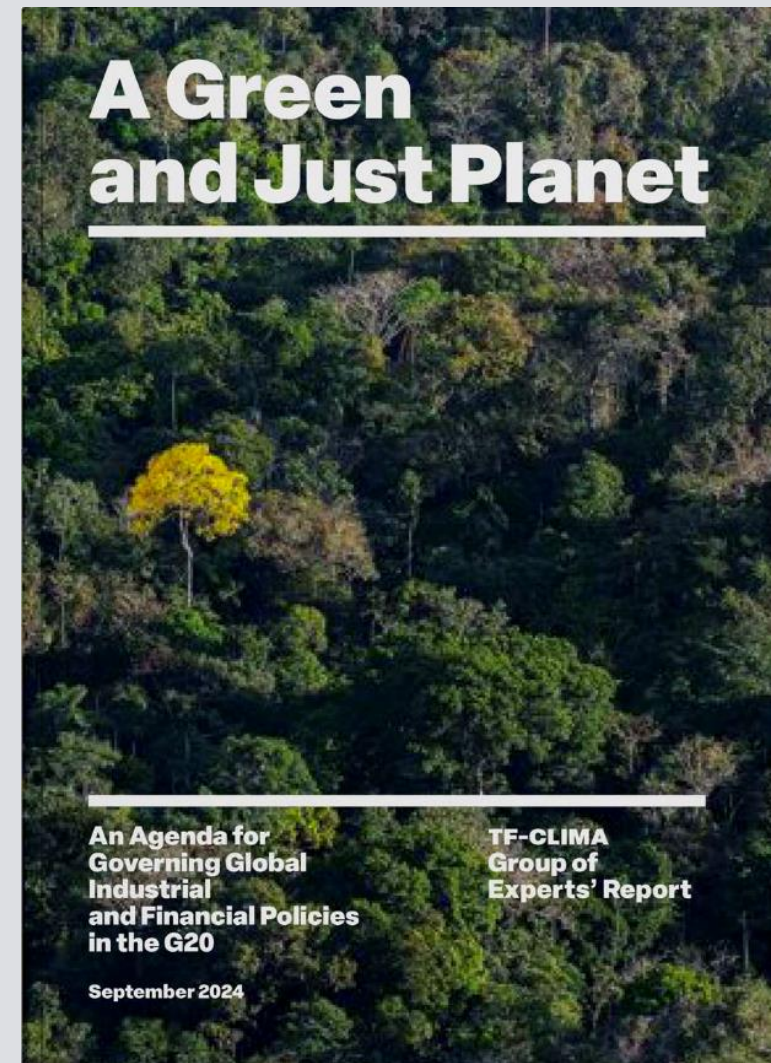




A Global Lens on Green Growth

(G20 launching at WB-IMF October 23rd)

The final report of the **G20 TF CLIMA Group of Experts** (Mazzucato and Songwe Co-chairs) calls on **all G20 countries** to take **urgent** action to adopt **new economic development pathways** that reconcile economic growth with the goal of limiting global warming to 1.5°C above preindustrial levels - through ambitious **green industrial strategies** and **green financial policies** oriented around Nationally Determined Contributions (NDCs), and new approaches to **global governance** that **prioritize equity**.





~~FIXING MARKETS~~ CO-CREATING

~~DE-RISKING~~ WELCOMING UNCERTAINTY

~~PICKING WINNERS~~ PICKING THE WILLING

~~LEVELLING PLAYING FIELD~~ TILTING TOWARD A DIRECTION

~~OUTSOURCING~~ CAPACITY BUILDING

~~COST BENEFIT~~ DYNAMIC SPILLOVERS



Thank you!

Mariana Mazzucato

Professor of Economics of Innovation and
Public Value

Founding Director, UCL Institute for Innovation
and Public Purpose



@MazzucatoM / @UCL_IIPP

