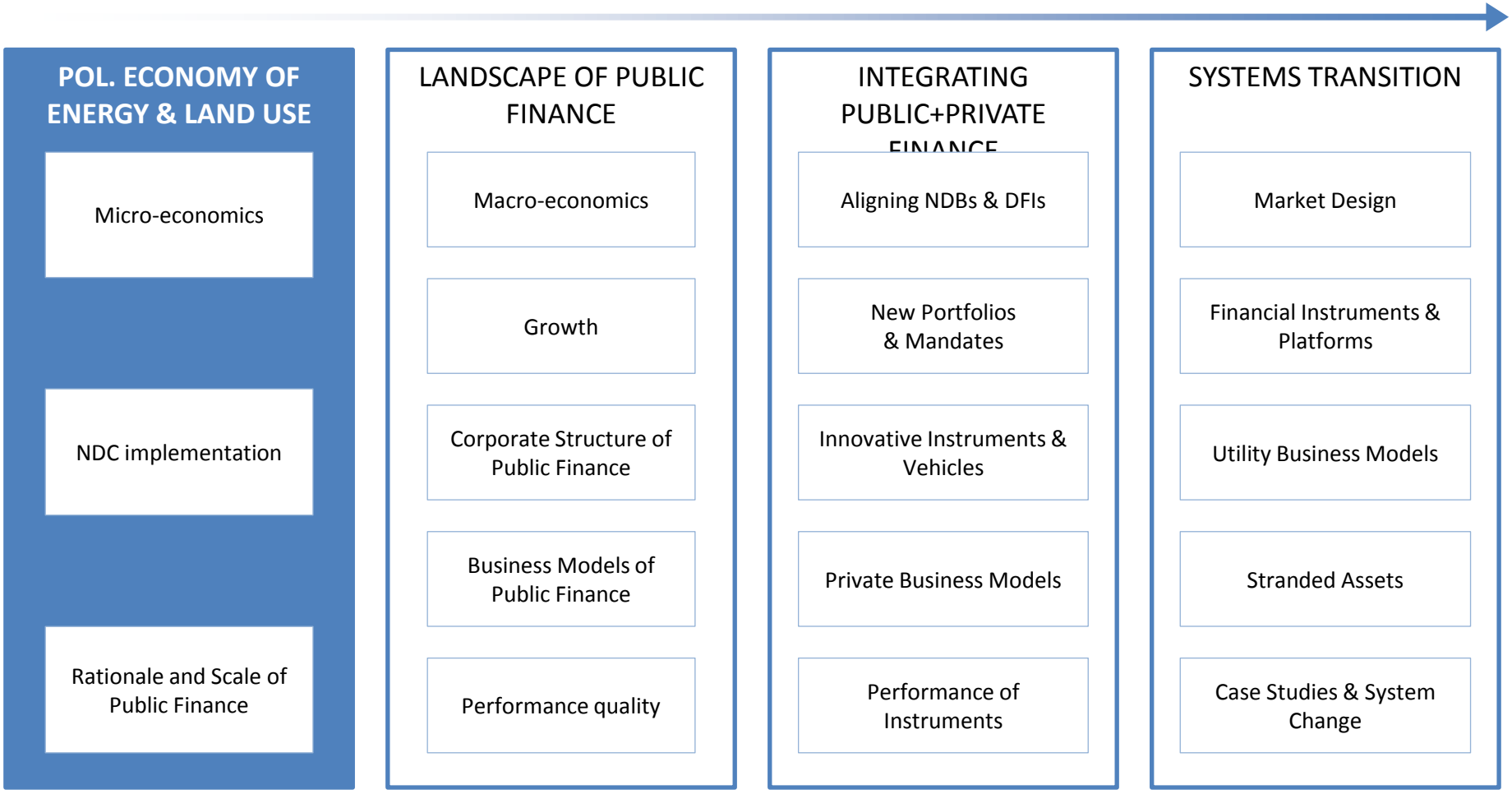
Sustainable infrastructure after Paris

- From Brown to Green
  - Renewable energy at core; capital intensity vs. added cost
  - Uneven by sector, adaptation and stage of development
- From Plans to Deals
  - Going the last kilometer
- From Deals to Systems
  - Inside and outside current margins
- Messages
  - New world from politics to economics;
  - Public remains central; history and risks;
  - Efficient spend (across public finance) is essential;
  - Macroeconomics and growth; TFP and infrastructure

Climate and Finance: A Roadmap

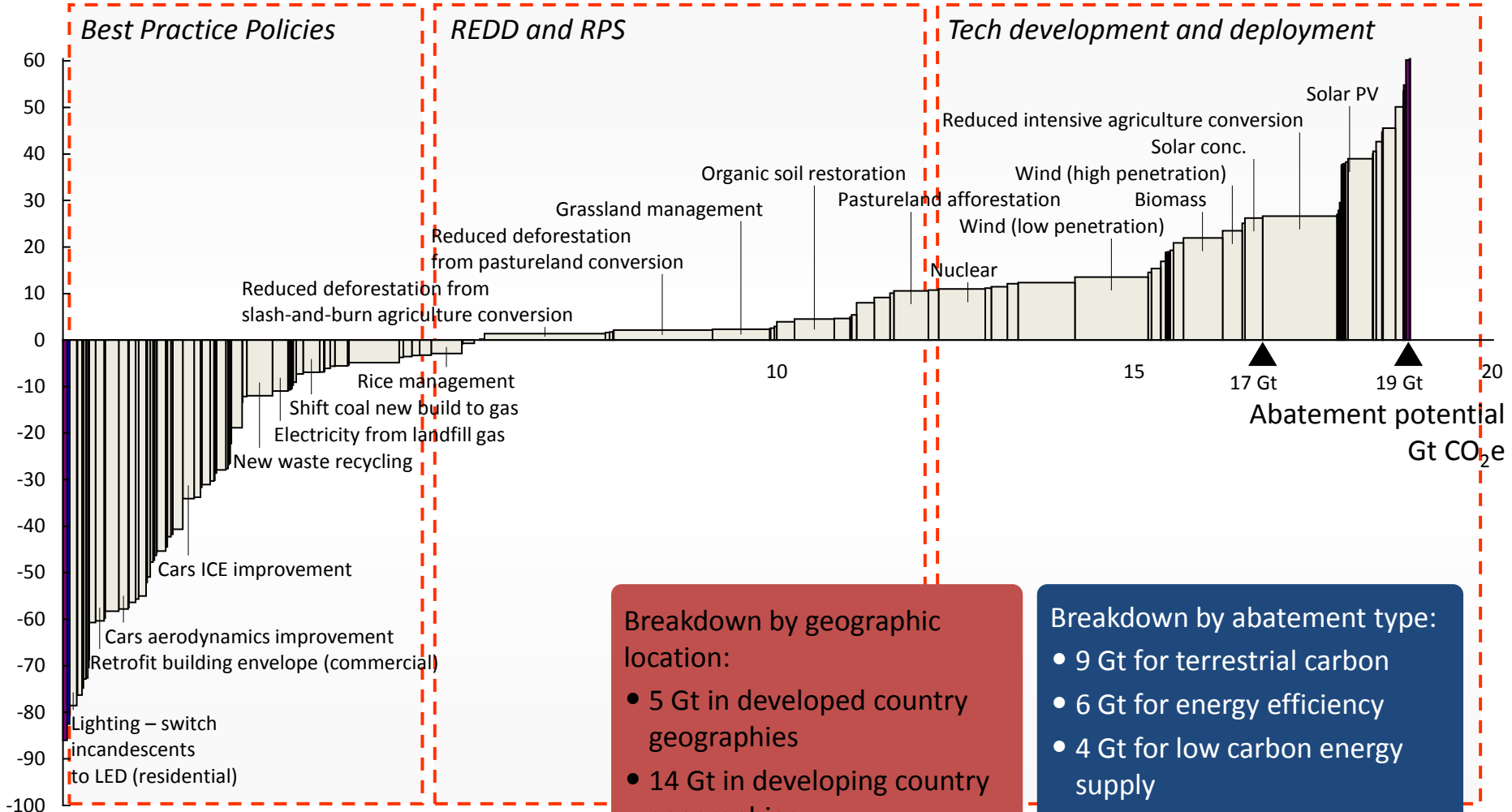


Sustainable infrastructure after Paris

- From Brown to Green
  - Green and brown spreads narrow @ scale
  - Need for public subsidy declines to politically tolerable levels
  - Added capacity is mostly green in 2015
  - Capital costs as key variable with zero marginal costs
  - Within margins of system, but rising costs appear
  - Uneven by sector, adaptation, stage of development
- From Plans to Deals
- From Deals to Systems

The McKinsey Cost Curve identifies 19 Gt of abatements by 2020 making it technically feasible to achieve 450ppm

McKinsey global GHG abatement cost curve, 2020* (up to costs of €60/t, excluding transaction costs, 4% discount rate)



Breakdown by geographic location:

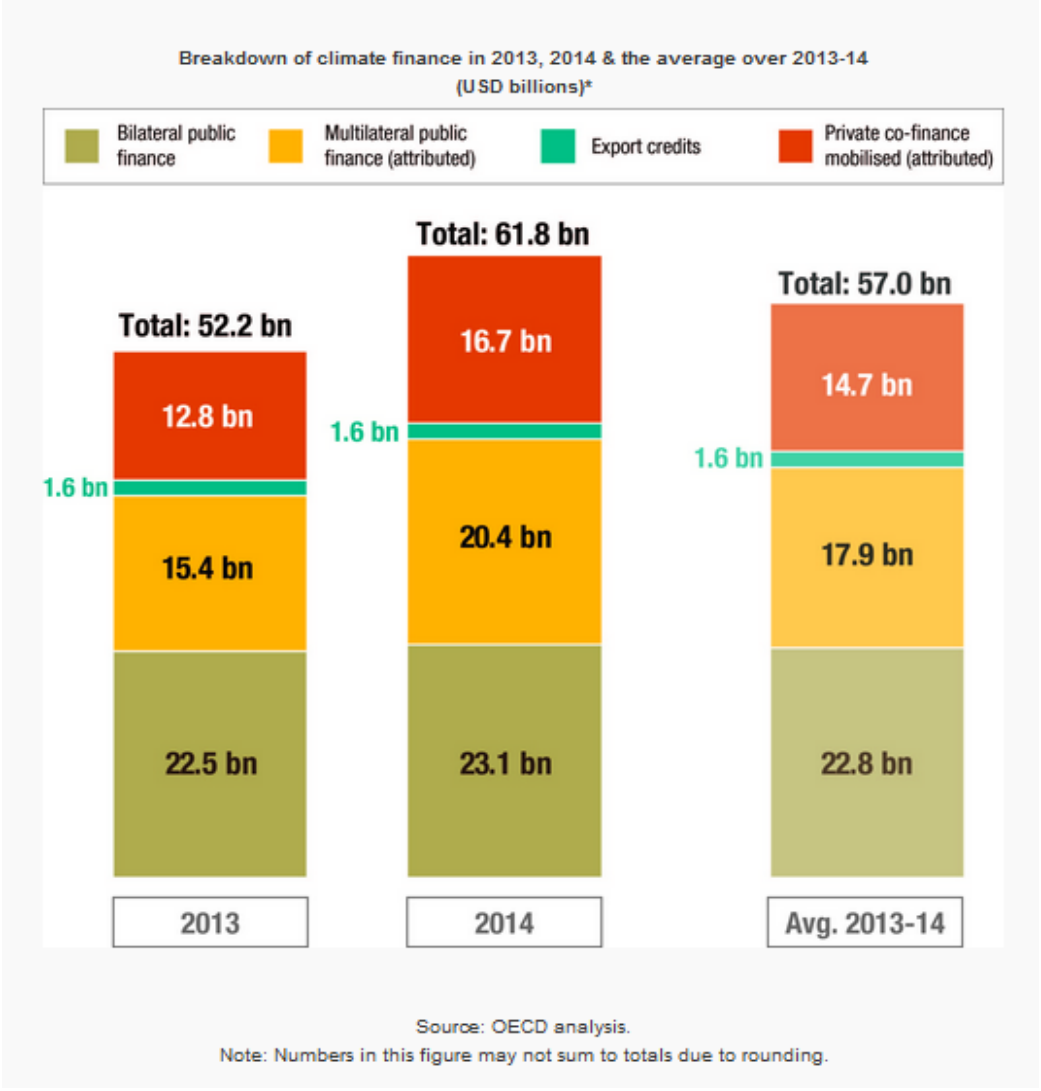
- 5 Gt in developed country geographies
- 14 Gt in developing country geographies

Breakdown by abatement type:

- 9 Gt for terrestrial carbon
- 6 Gt for energy efficiency
- 4 Gt for low carbon energy supply

Source: McKinsey Global GHG Abatement Cost Curve v2.0

Climate Finance 2013-2014



Sustainable infrastructure after Paris

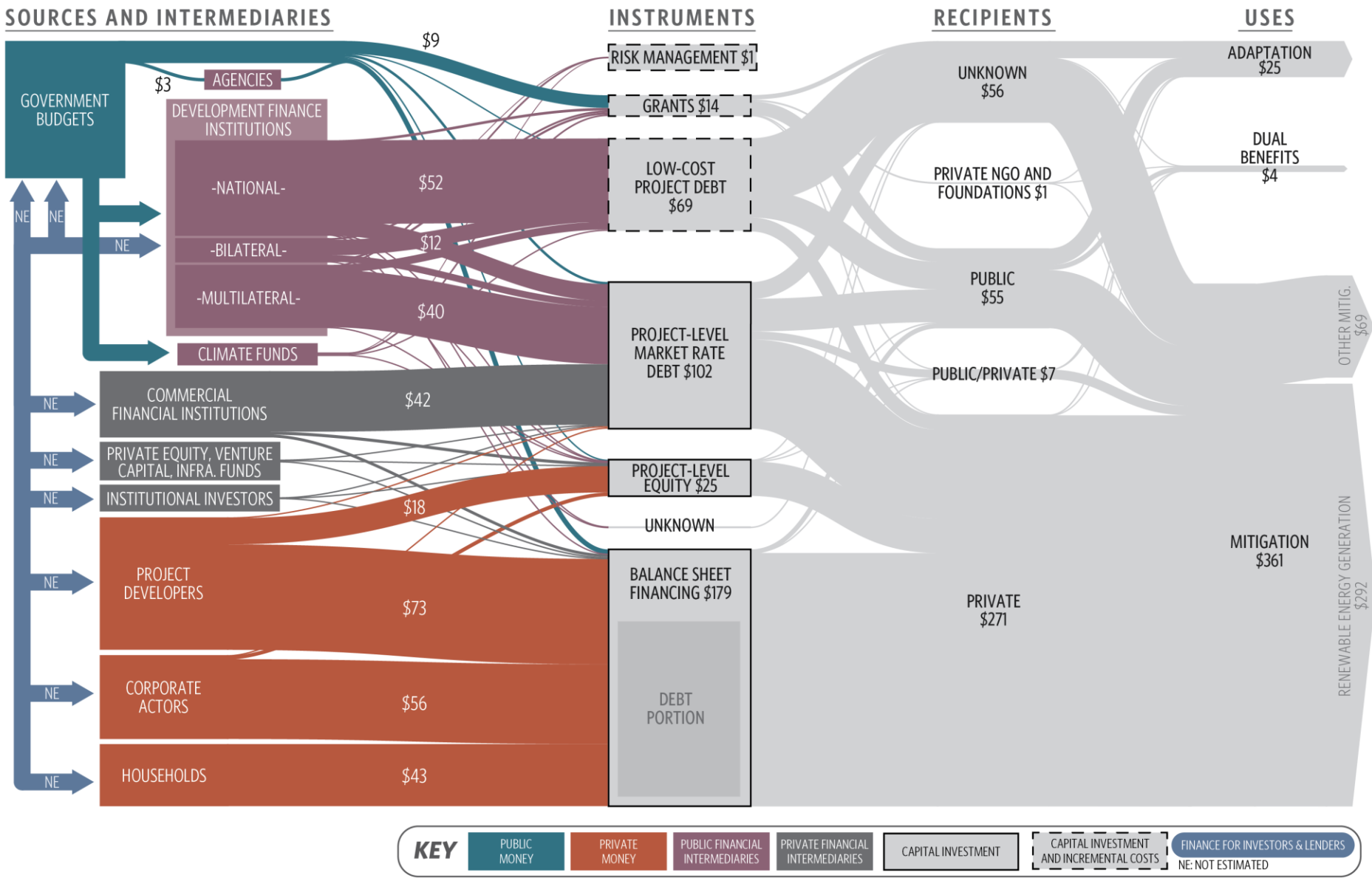
- From Brown to Green
- From Plans to Deals
  - Going the last kilometer
  - Public or private
  - National or international
  - Efficient Public Spending
    - Over full portfolio of funding agents
- From Deals to Systems

GLOBAL LANDSCAPE OF CLIMATE FINANCE 2015

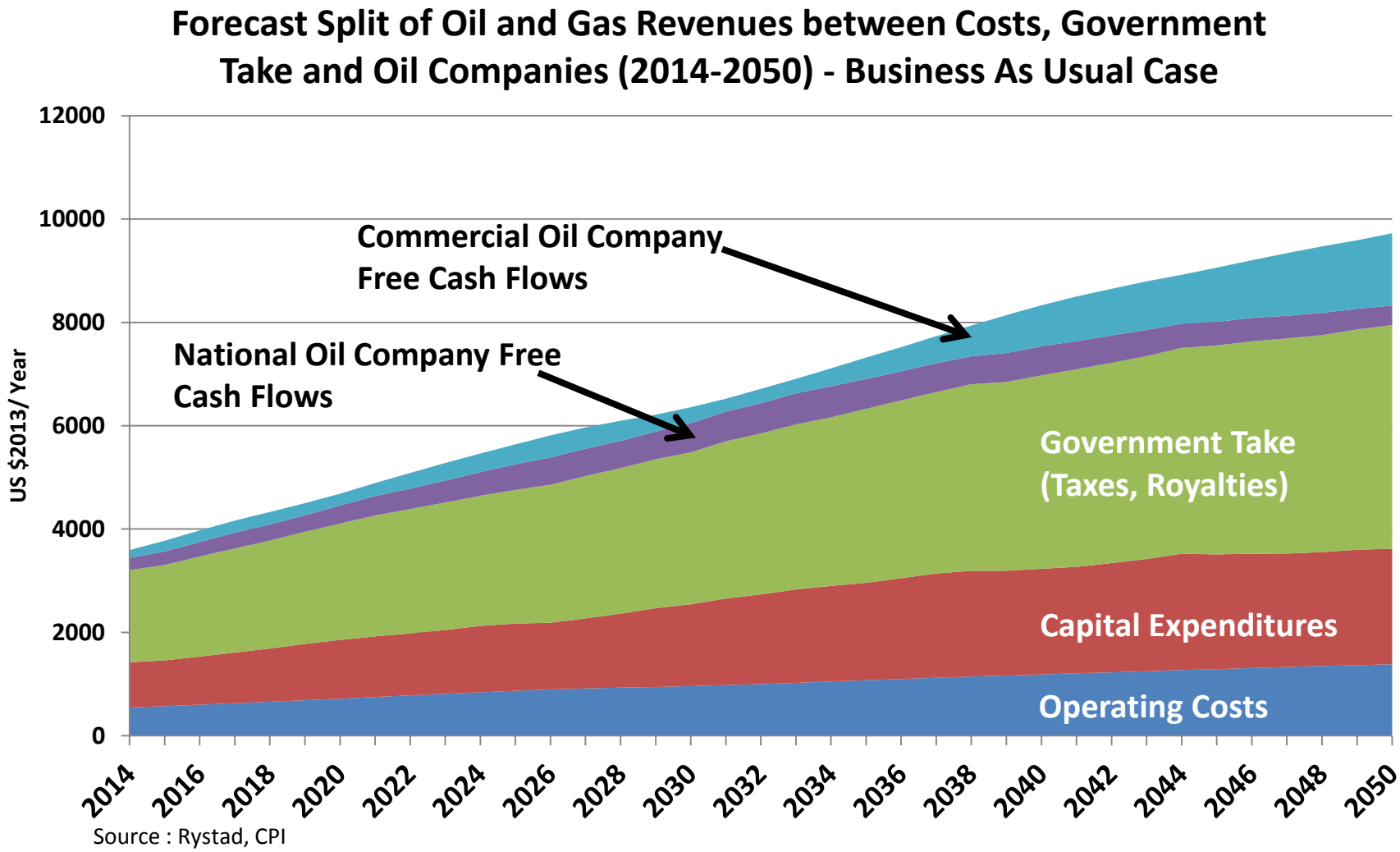
USD 391 BN TOTAL

CLIMATE POLICY INITIATIVE

Landscape of Climate Finance 2015 illustrates climate finance flows along their life cycle for the latest year available, mostly 2014, in USD billions



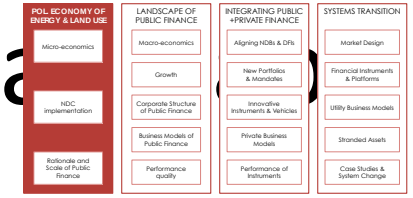
Government budgets face the biggest potential change due to mitigation policies – Oil and Gas is a good example



Source : Rystad, CPI

Governments and Government owned companies will receive close to 90% of the net present value of future oil production between now and 2050

Climate and Finance: A Roa



POL. ECONOMY OF ENERGY & LAND USE

Micro-economics of generation

1. Green and brown spreads narrow @ scale
2. Need for public subsidy declines to politically tolerable levels
3. Added capacity is mostly green in 2015
4. Capital costs as key variable with zero marginal costs

NDC pledges & implementation plans principally renewable energy

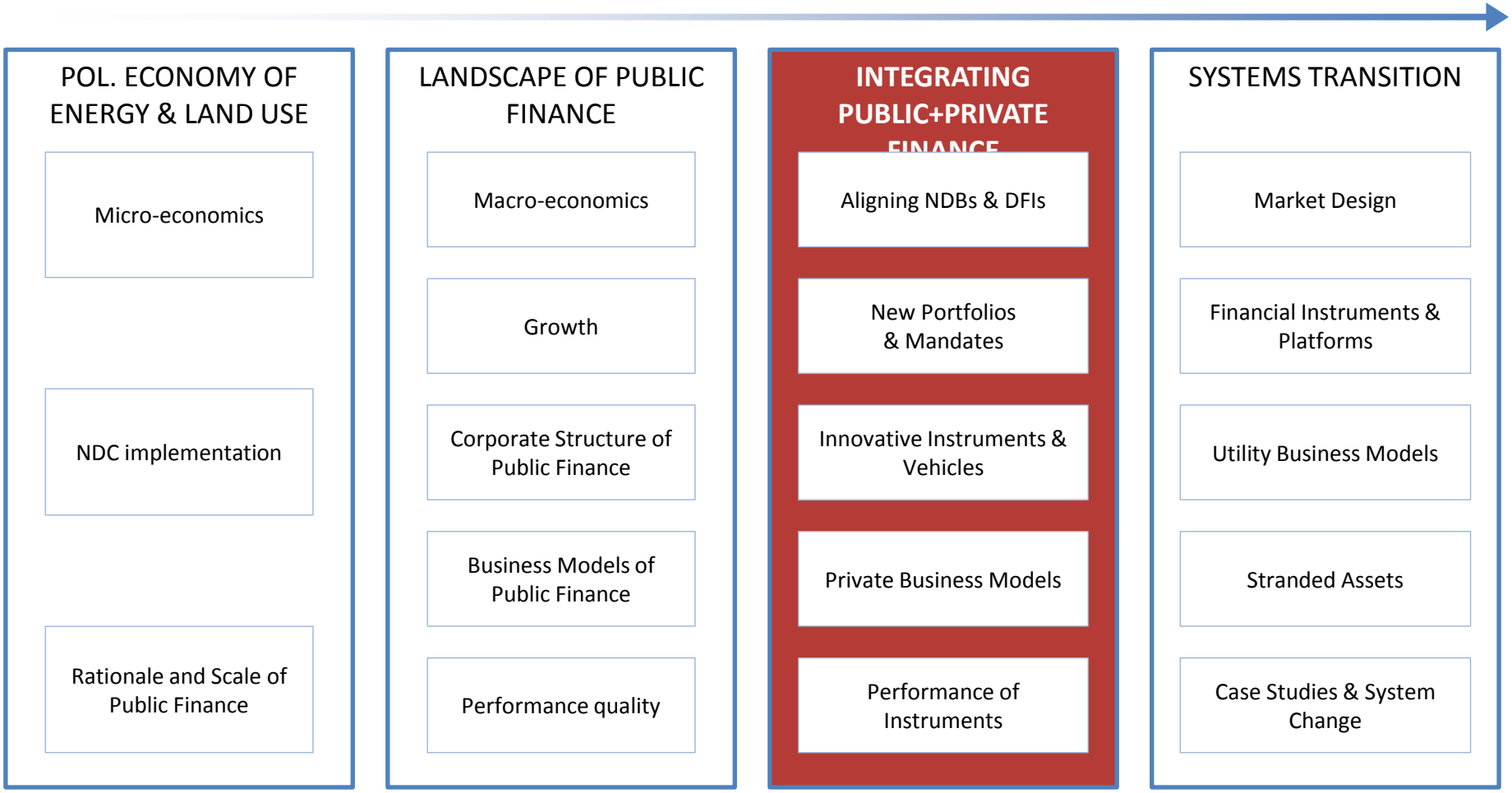
1. Assessment
2. Targets/Commitments
3. Investment needs
4. Last kilometer deal capacity and closure

Rationale and scale of public finance

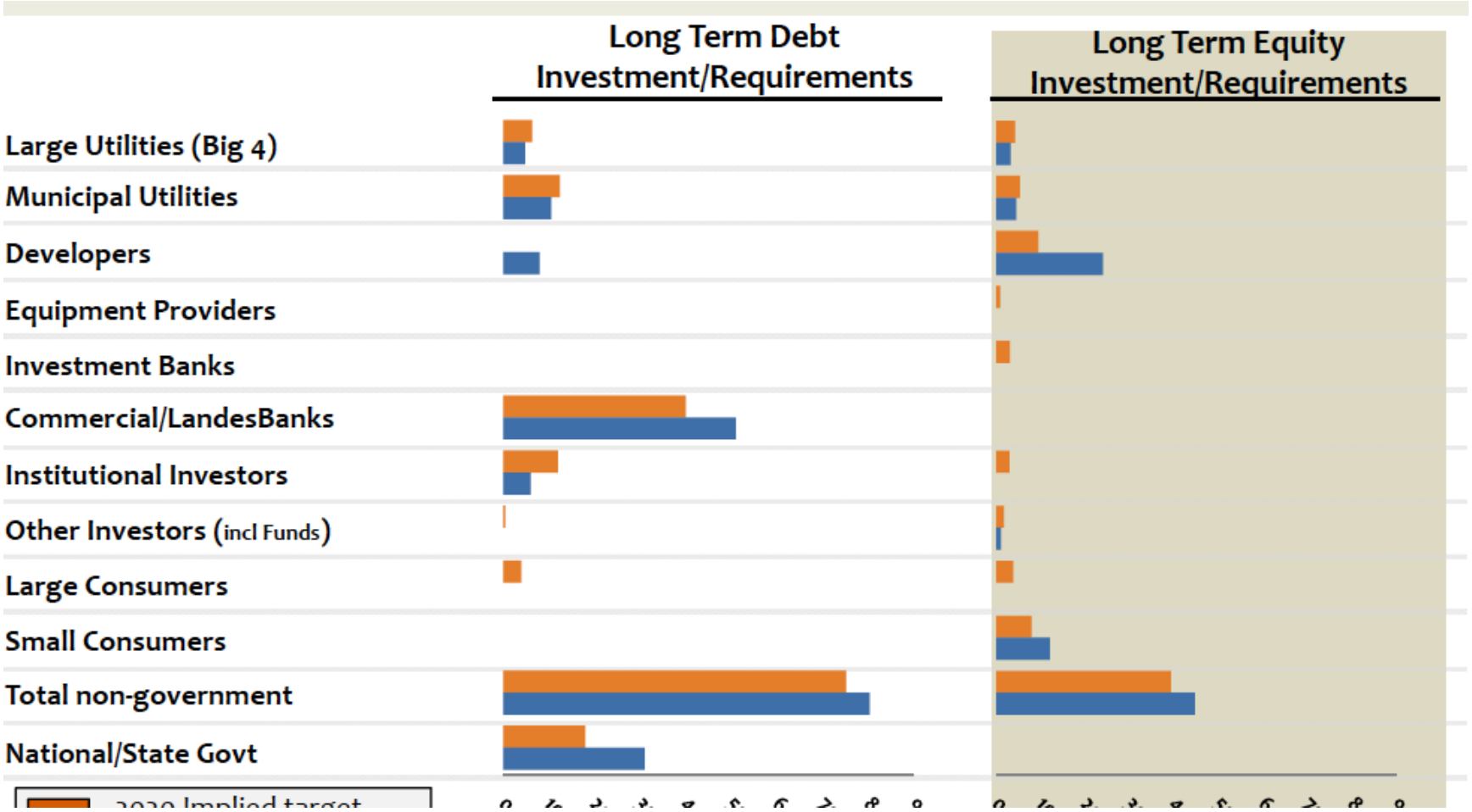
1. Demand projections and methods
2. Infrastructure as public investment
3. Merit goods: quality and price set by policy
4. Market making on unfamiliar risks
5. Direct investment outside private business models

Where we are: climate and finance in the context of global business, politics, and development

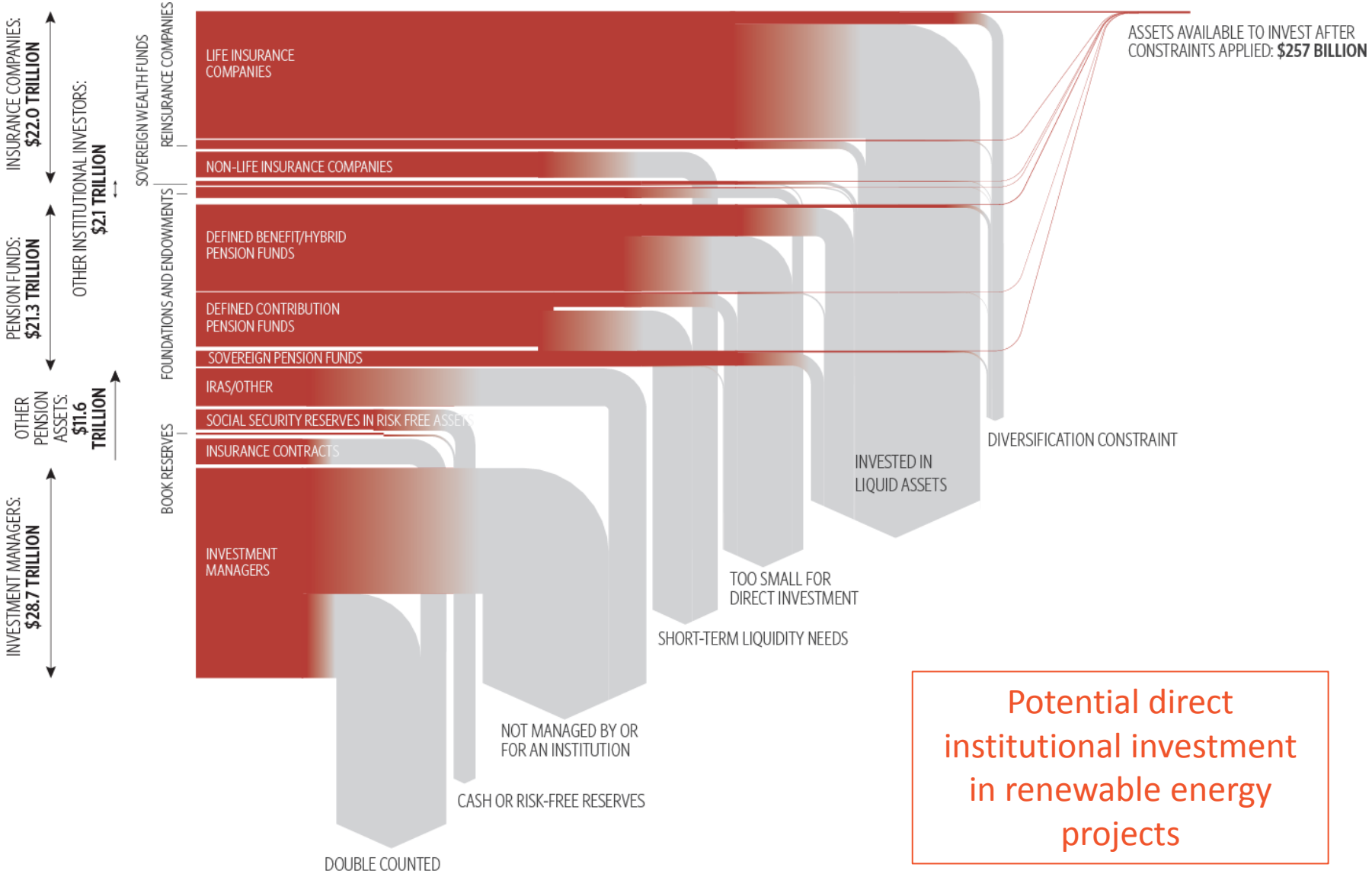
Climate and Finance: A Roadmap



Investor mapping



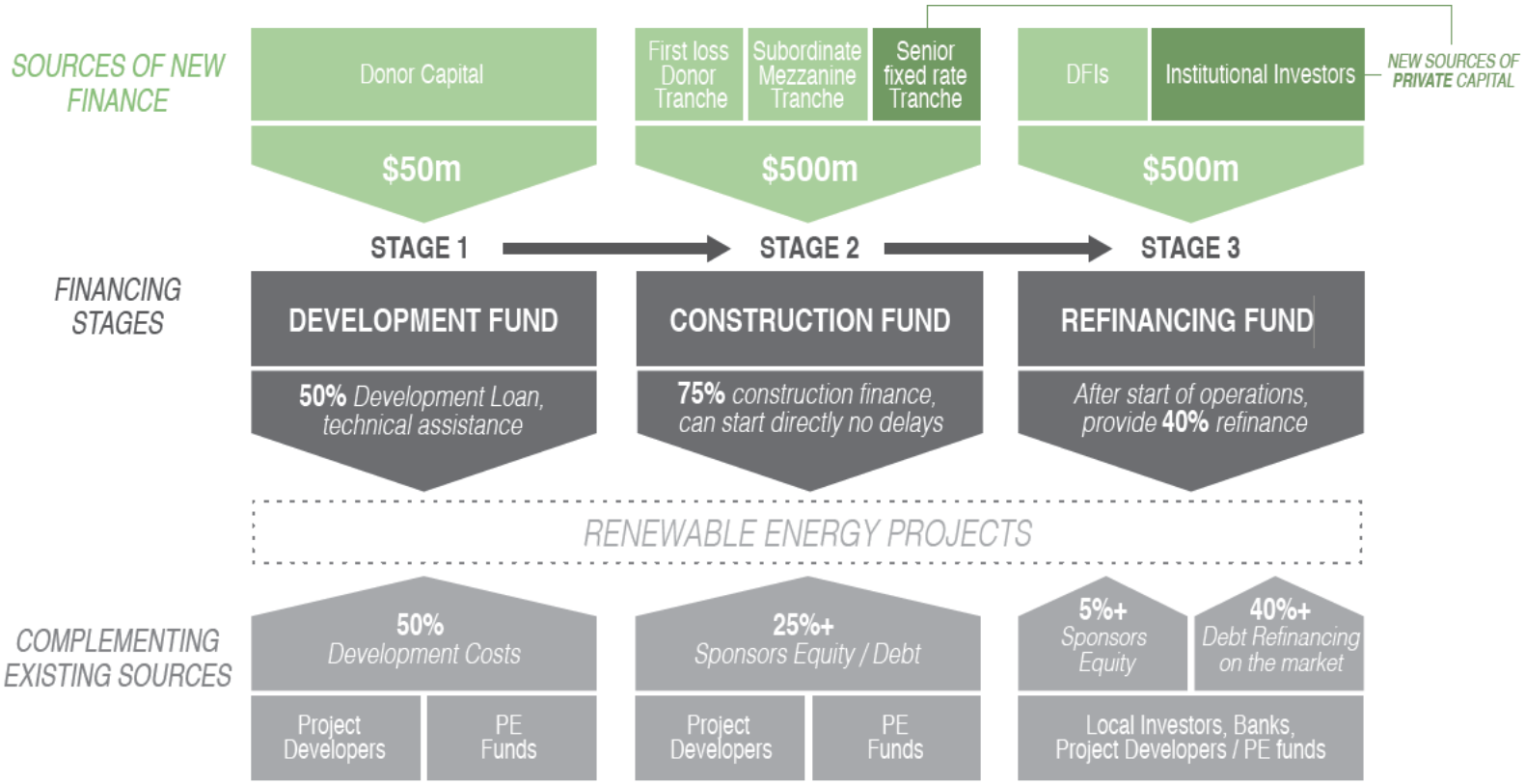
Institutional Investors are well positioned for renewable energy projects but illiquidity, project size constraints, and diversification requirements limit direct investment



Potential direct institutional investment in renewable energy projects

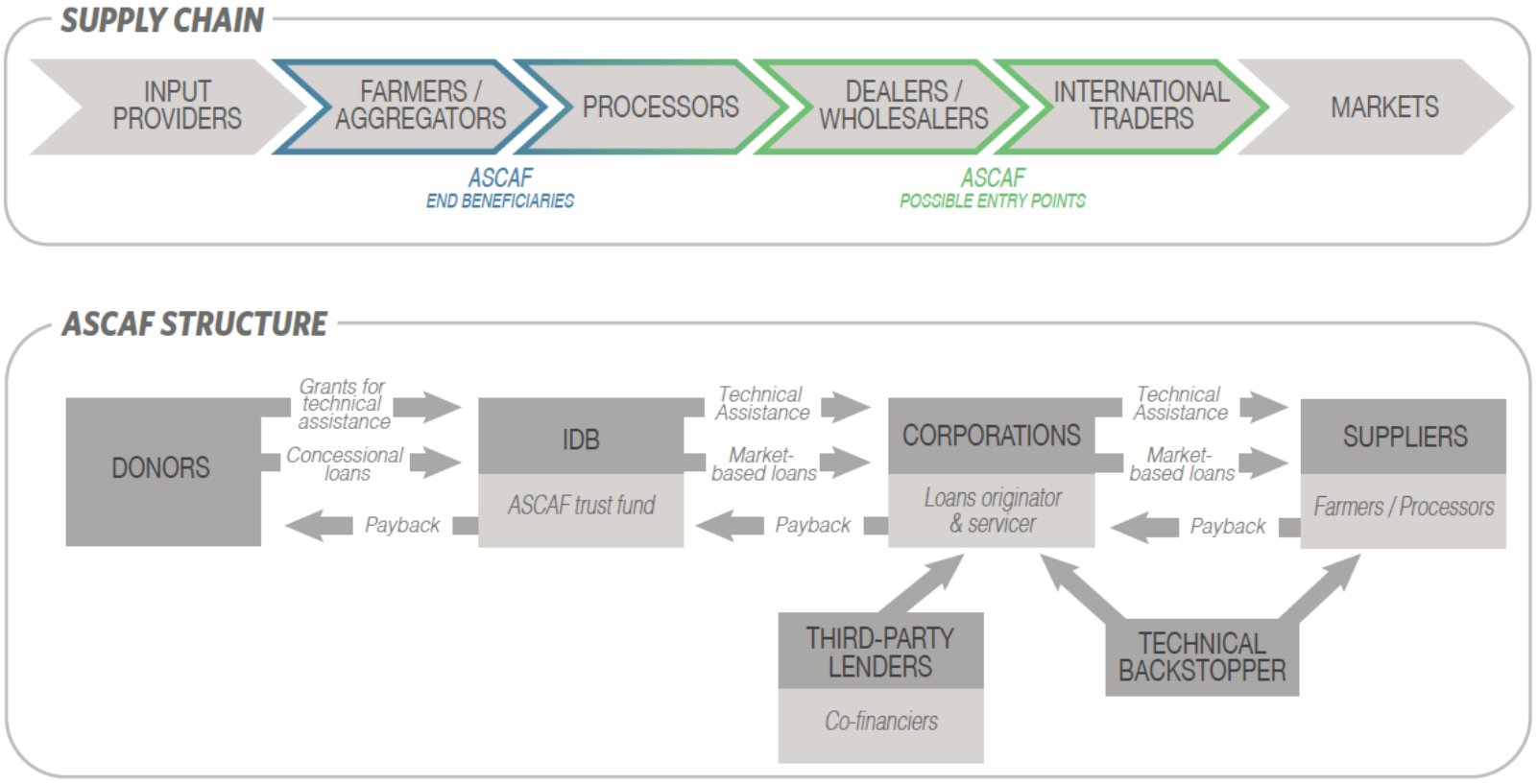
Global Innovation Lab for Climate Finance: Climate Investor One

facilitate early-stage development, construction financing, and refinancing to fast-track RE projects in developing countries



Global Innovation Lab for Climate Finance: Agricultural Supply Chain Adaptation Facility

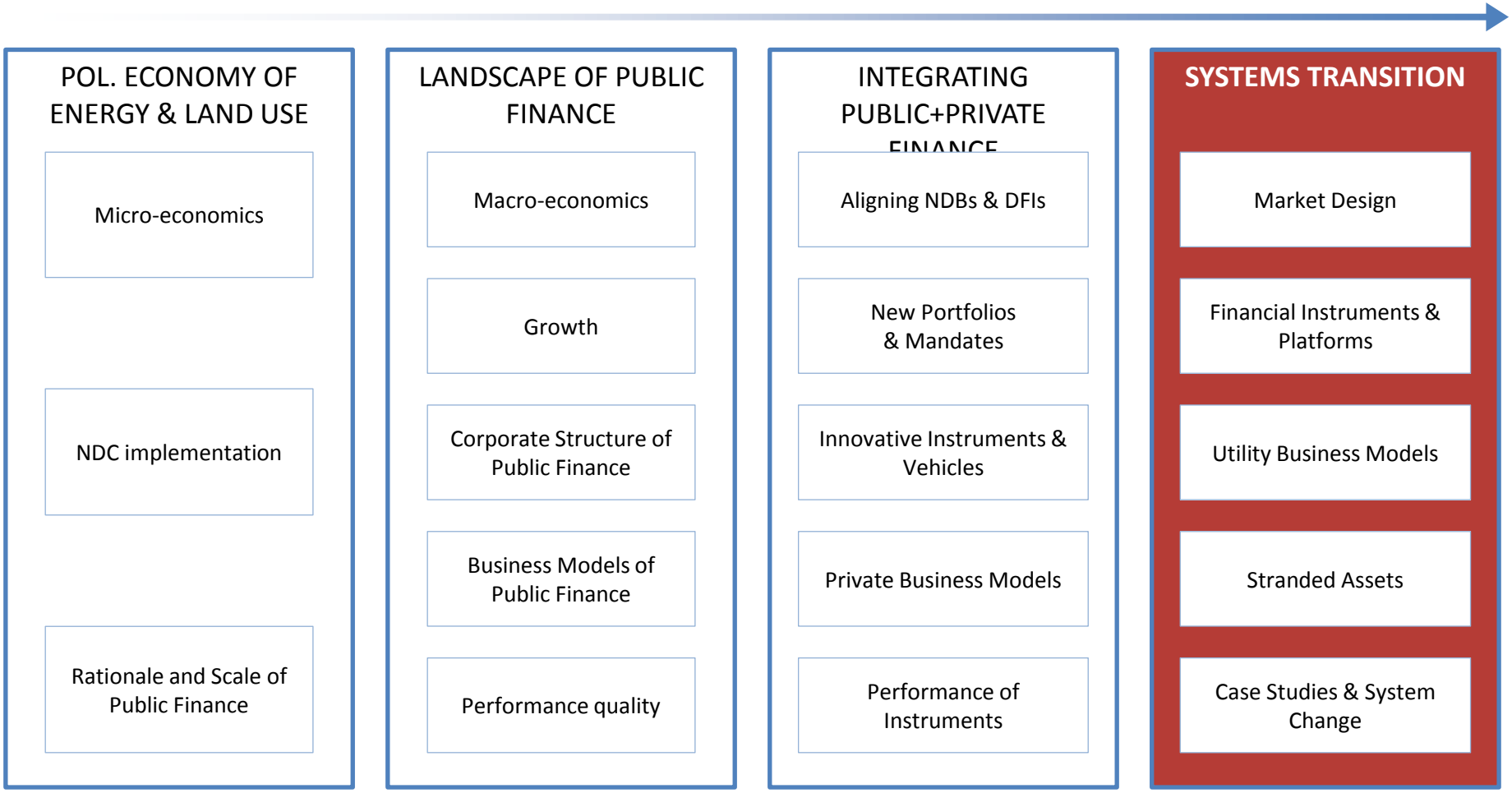
partner with agribusiness corporations to provide farmers with technical and financial support for climate-resilient investments through the corporations' supply chains.



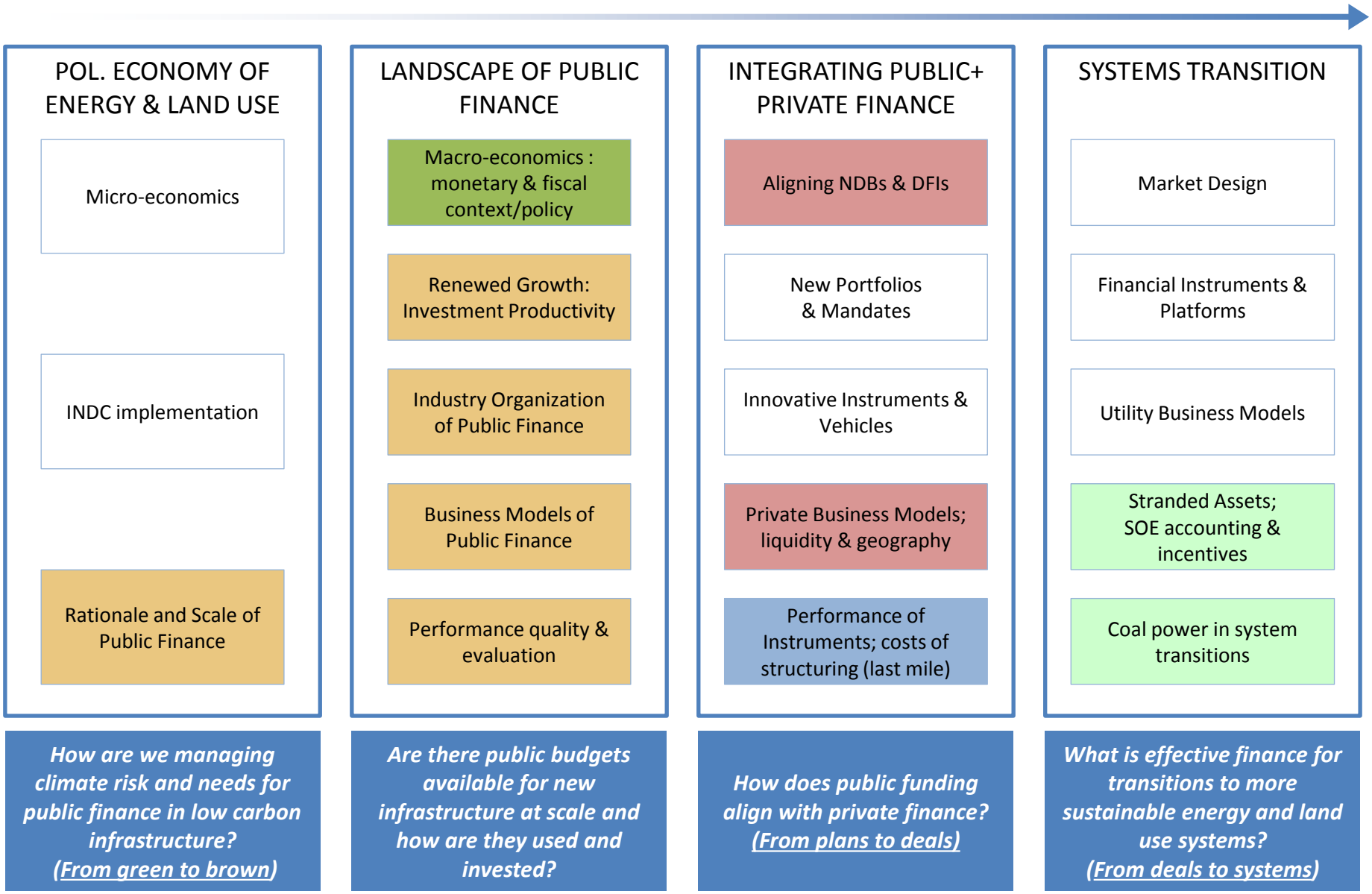
Sustainable infrastructure after Paris

- From Brown to Green
- From Plans to Deals
- From Deals to Systems
  - Costs of blending
  - Transition to adapted systems
  - Macroeconomic and growth:
    - Green and development costs

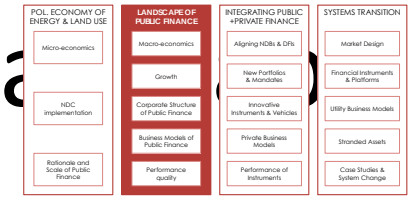
Climate and Finance: A Roadmap



Climate and Finance: A Roadmap



Climate and Finance: A Roa



LANDSCAPE OF PUBLIC FINANCE

Macro-economics

1. Debt deflation
2. Empirics of gov't spending & capital budgeting
3. Sovereign debt costs
4. Effectiveness of Keynes tools
5. Unconventional tools & asset acquisitions
6. Macro-prudential regulation
7. Fiscal tools & constraints

Growth Economics

1. Supply of public investment (pol econ)
2. Special century & TFP (Gordon)
3. Secular stagnation
4. Structural change models
5. Knowledge & capital/resource productivity
6. Coordination between and within systems
7. Scale effects & R&D incentives

Industry Organization of Public Finance

1. Countries as principals
2. Fund of funds model
3. Fiscal & shadow budgets → firms & households
4. Central Banks
5. Domestic Development Banks
6. Multilateral Banks and DFIs
7. ODA Agencies
8. Trust funds/SPVs
9. State Enterprises

Business Models & Public Finance

1. Institutional missions and mandates
2. Corporate strategies
3. Sovereign & private lending internal arms
4. Instruments
5. Portfolios & risk management
6. Scale & local
7. Asset (fund) managers
8. Value chains in practice

Performance (impact)

1. Comparative advantage
2. Economies of scale
3. Competition mechanisms
4. Diligence capacity & process
5. Indices and metrics (M&E)
6. Innovation
7. System paths or project only standards
8. Specialized regulators

The structure and function of public finance