



**WORLD BANK GROUP**  
Climate Change

# The Networked Carbon Markets Initiative

MARCH 2016



# Agenda

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## Linking heterogeneous climate actions

3

- Reviewing the Paris Agreement
- Evidence of heterogeneity in climate actions
- Opportunities for linking climate actions, particularly markets

## Key components of the Networked Carbon Markets Initiative

11

## Next steps

18

# The WBG's long term efforts to promote climate actions, including carbon pricing mechanisms

PROMOTING THE **CASE AND EVIDENCE BASE** FOR CARBON PRICING, MOBILIZING PROGRESSIVE BUSINESS SUPPORTING AND CONDUCTING CONSTRUCTIVE DIALOGUES e.g., Carbon Pricing Leadership Coalition; State and Trends of Carbon Pricing reports

## PLANNING, DESIGN AND PILOTS

**Innovating and building readiness for climate action, including carbon pricing instruments**

Partnership for Market Readiness;  
Pilot Auction Facility

## IMPLEMENTATION AND SCALE-UP

**Enabling scale-up of climate actions such as carbon pricing mechanisms**

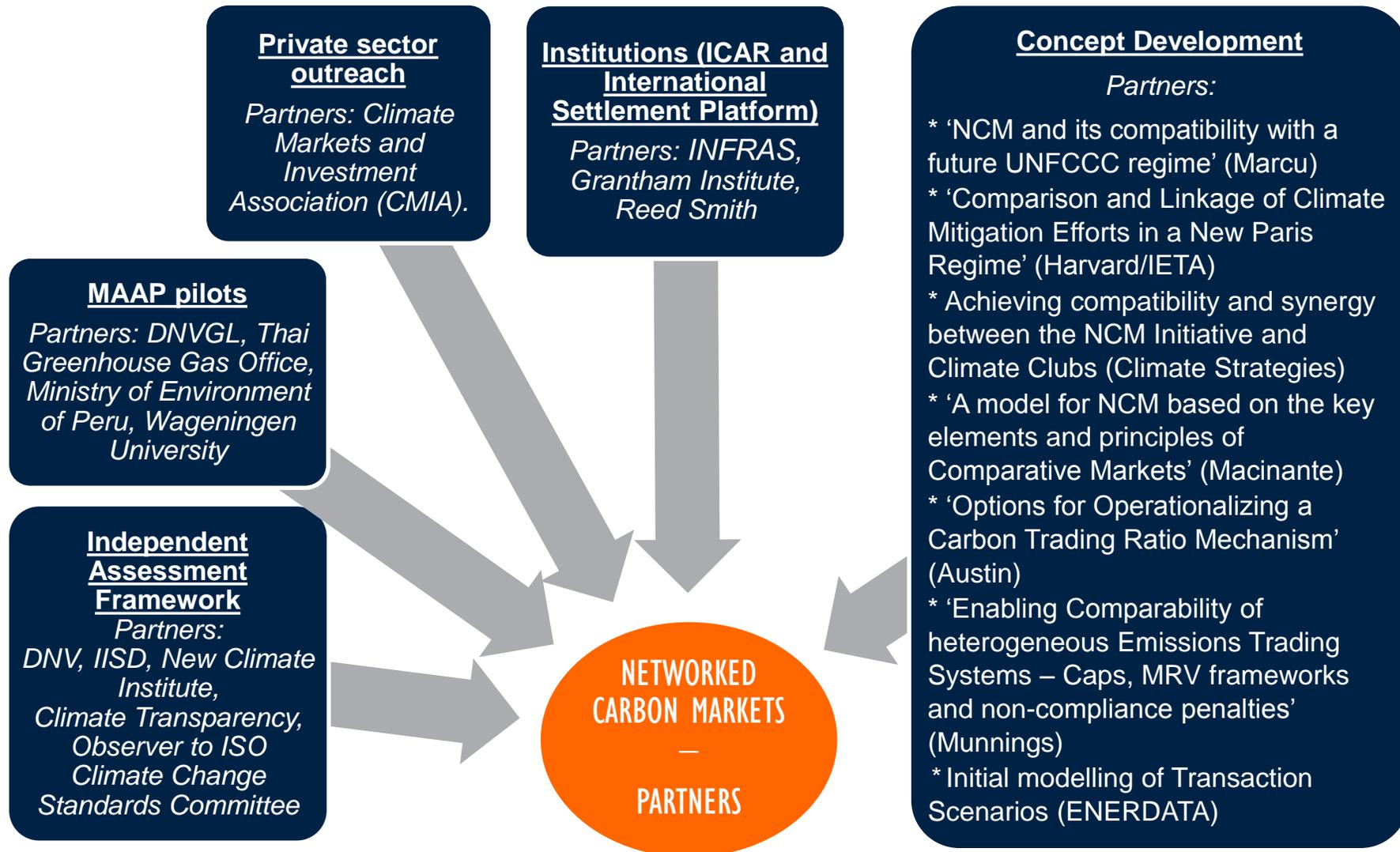
Carbon Partnership Facility; Pilot Auction Facility, Partnership for Market Readiness; TCAF

## CONNECTIVITY AND GLOBAL TRADE

**Exploring the services, institutions and governance structures needed to link all types of climate actions, through internationally connected carbon markets**

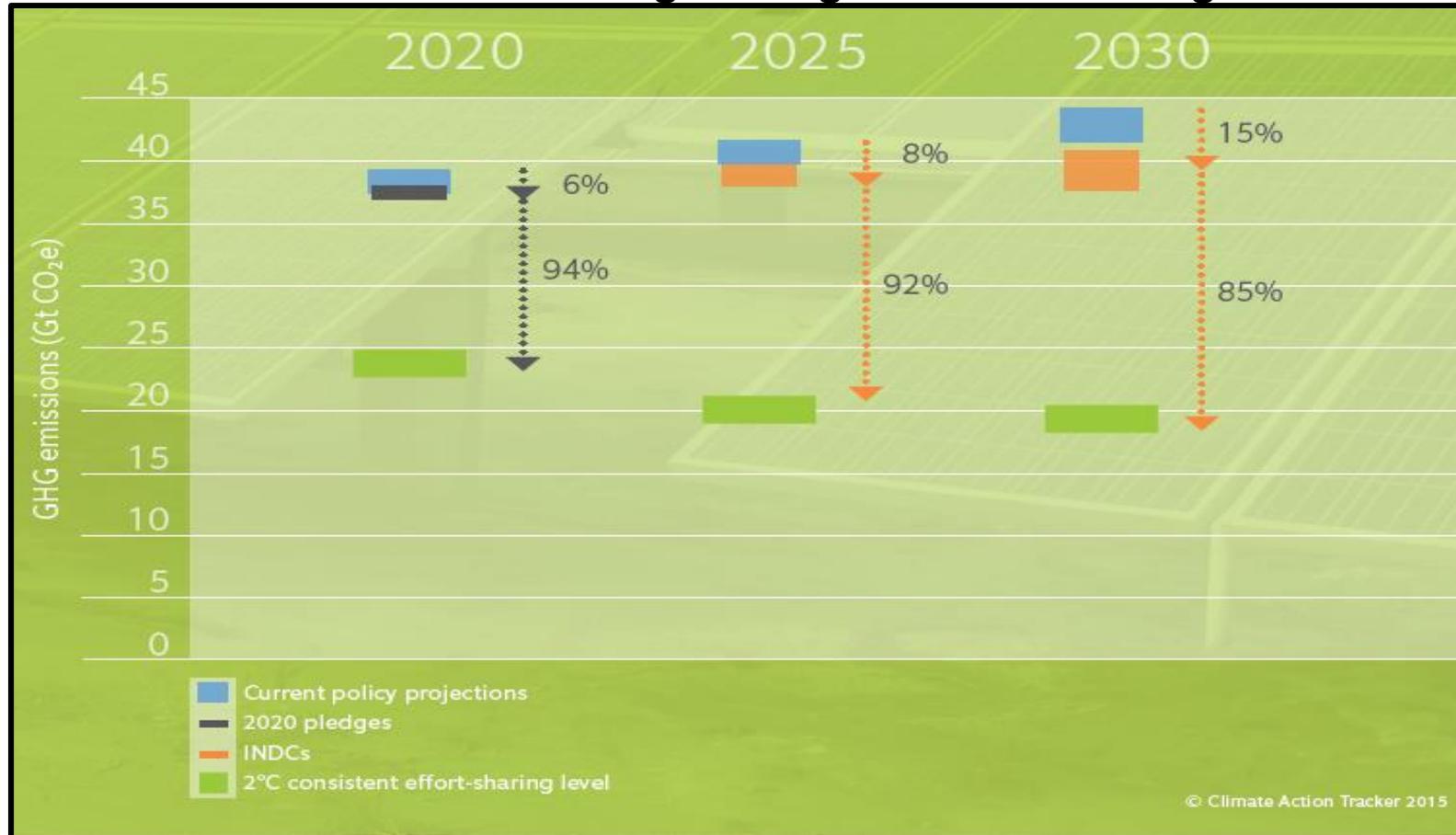
Networked Carbon Markets Initiative

# To achieve its objectives the NCM initiative is collaborating with a wide range of partners



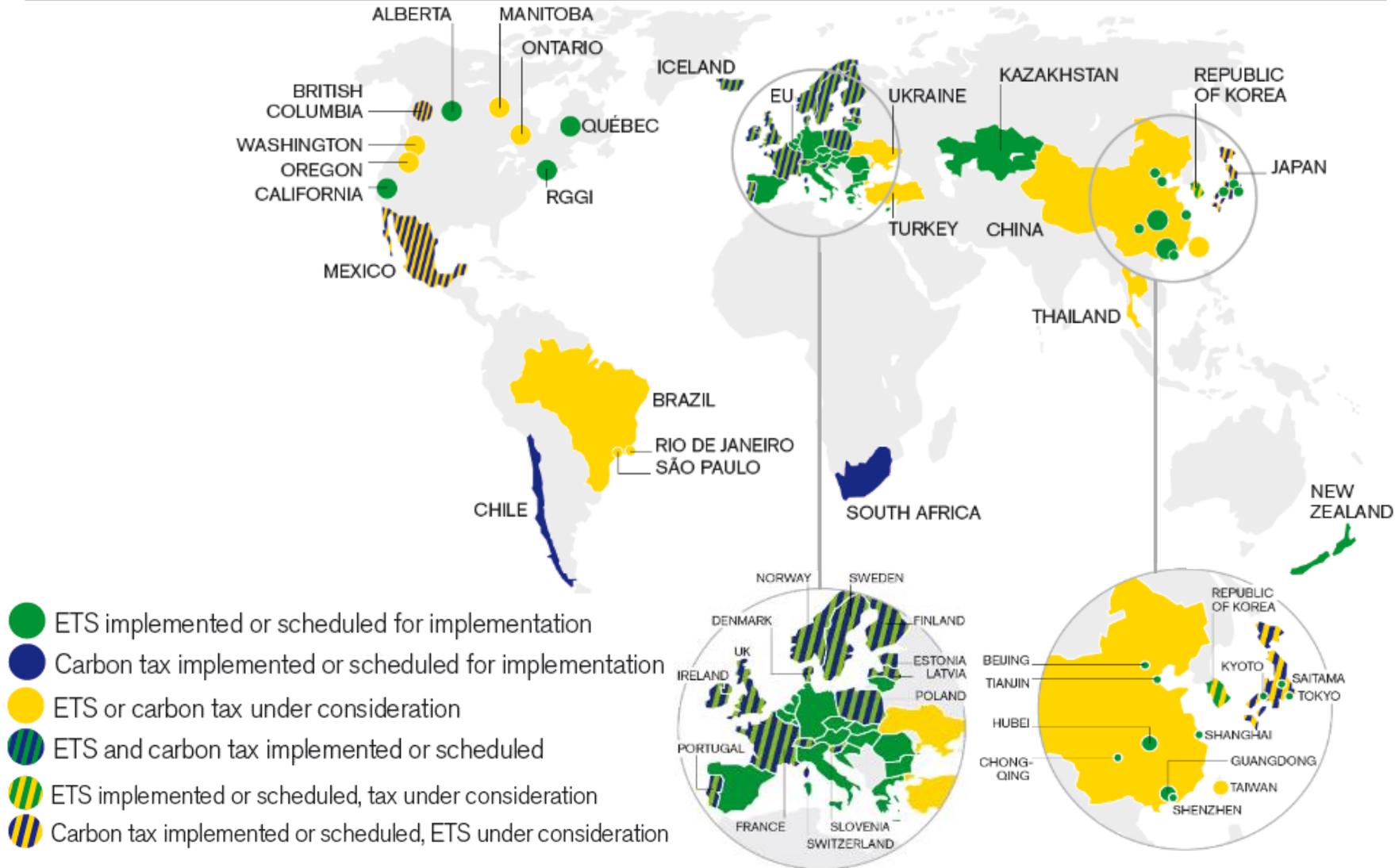
# Why should we strive for a linked international carbon market in the future?

Projections of the G20's GHG Emissions to 2030 - and the Effect of their NDCs in achieving a 2 degree reduction target



Source: Climate Action Tracker

# Over 60 jurisdictions designing or implementing different carbon pricing programs



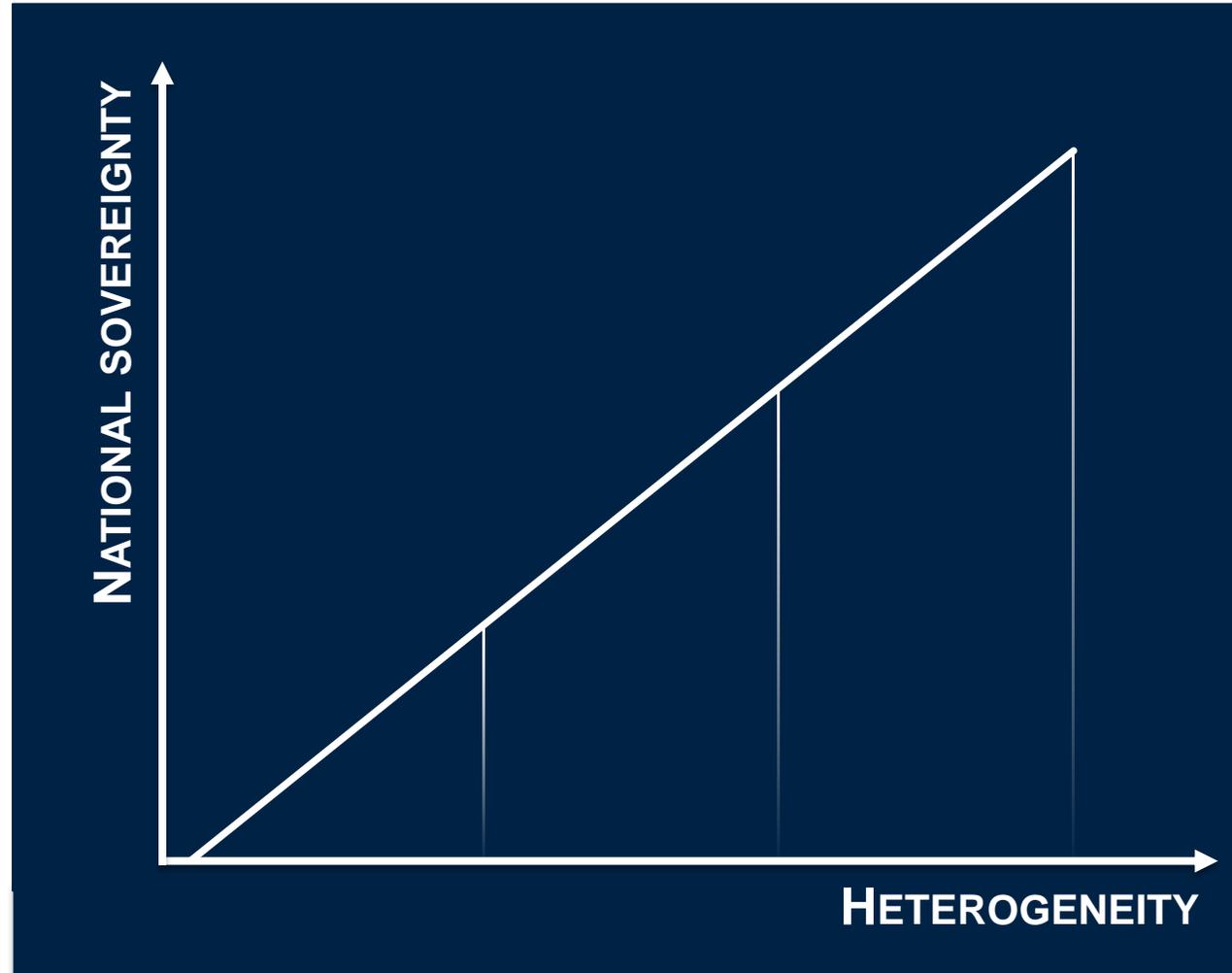
# Variation arises because there are so many policy choices when designing mitigation actions

## There are over 40 key design elements of an Emissions Trading System

EMISSIONS CAP	CAP TYPE	CAP SCHEDULE	CAP FLEXIBILITY
MRV PROTOCOLS	MONITORING METHODS	REPORTING PROCESS	VERIFICATION REQUIREMENTS
SCOPE AND TIMING OF COVERAGE	LENGTH OF COMPLIANCE PERIODS	BREADTH OF SECTORAL COVERAGE	THRESHOLDS FOR COMPLIANCE
ALLOWANCE ALLOCATION	METHOD OF ALLOCATION	USE OF REVENUES FROM AUCTION	TREATMENT OF ENTRANTS / EXITS
AUCTION COORDINATION	THIRD PARTY PARTICIPATION	PURCHASE LIMIT	PUBLIC REPORTING OF AUCTION RESULTS
BANKING / BORROWING	BANKING PROVISIONS	QUANTITATIVE RESTRICTIONS (HOLDING LIMITS)	QUALITATIVE RESTRICTIONS (IS VALUE PRESERVED ACROSS PERIODS)
OFFSETS	QUALITATIVE LIMITS	QUANTITATIVE LIMITS	CREDITING PROTOCOLS
PRICE COLLARS	PRICE FLOOR AND RATE OF CHANGE	PRICE CEILING AND RATE OF CHANGE	
LEGAL CONTINGENCIES	PENALTIES FOR NON-COMPLIANCE	MARKET OVERSIGHT	

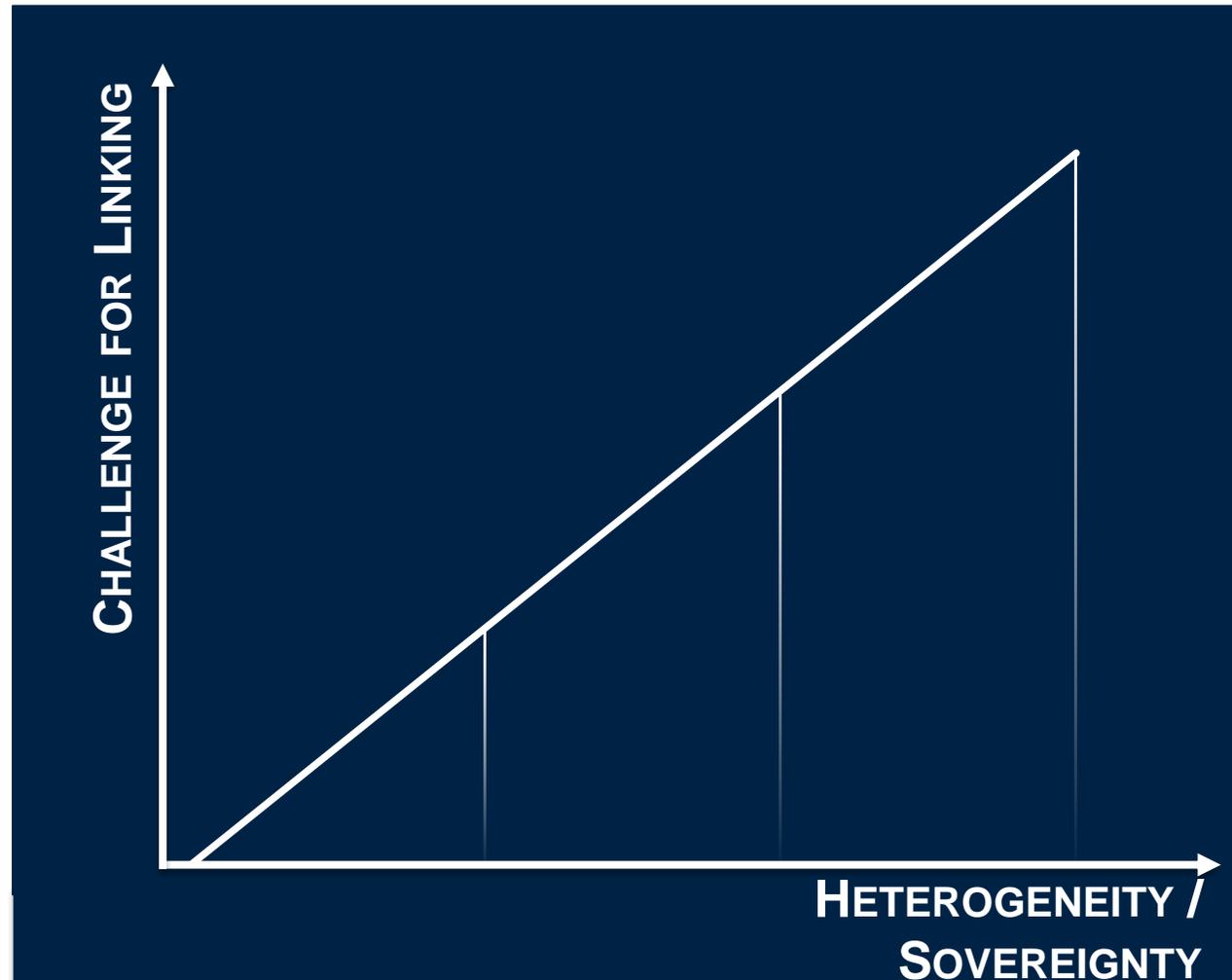
# Heterogeneity is important for ensuring that domestic needs and circumstances are met

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# CHALLENGE: linking is limited by diversity, design and different capacities

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# Considering a new approach to linking

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FORM OF LINKING	DEFINITION
<b>Full</b>	Compliance unit in one jurisdiction is accepted without restriction in the “linked” jurisdiction
<b>Limited</b>	Compliance unit in one jurisdiction is accepted with qualitative/quantitative restrictions in the “linked” jurisdiction
<b>Indirect</b>	Markets are not linked directly, but have access to the same third carbon market.
<b>Networking</b>	Fungibility of carbon assets across schemes facilitated by assessment and discounting.

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## Linking in a New Paris Regime

3

## Key components of the Networked Carbon Markets Initiative

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- Reviewing the Paris Agreement
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## Progress to date and next steps

18

# Key components of the NCM Initiative

1

**Independent assessment framework** to inform the climate change mitigation value of different climate actions.

2

**International Carbon Asset Reserve** to support and facilitate carbon market related functions.

3

**International Settlement Platform** to track cross-border trades and possible clearing house function.

# Types of organizations that could comprise the Independent Assessment Framework

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## Core competencies

**Access to relevant information about programs, policies and pledges**

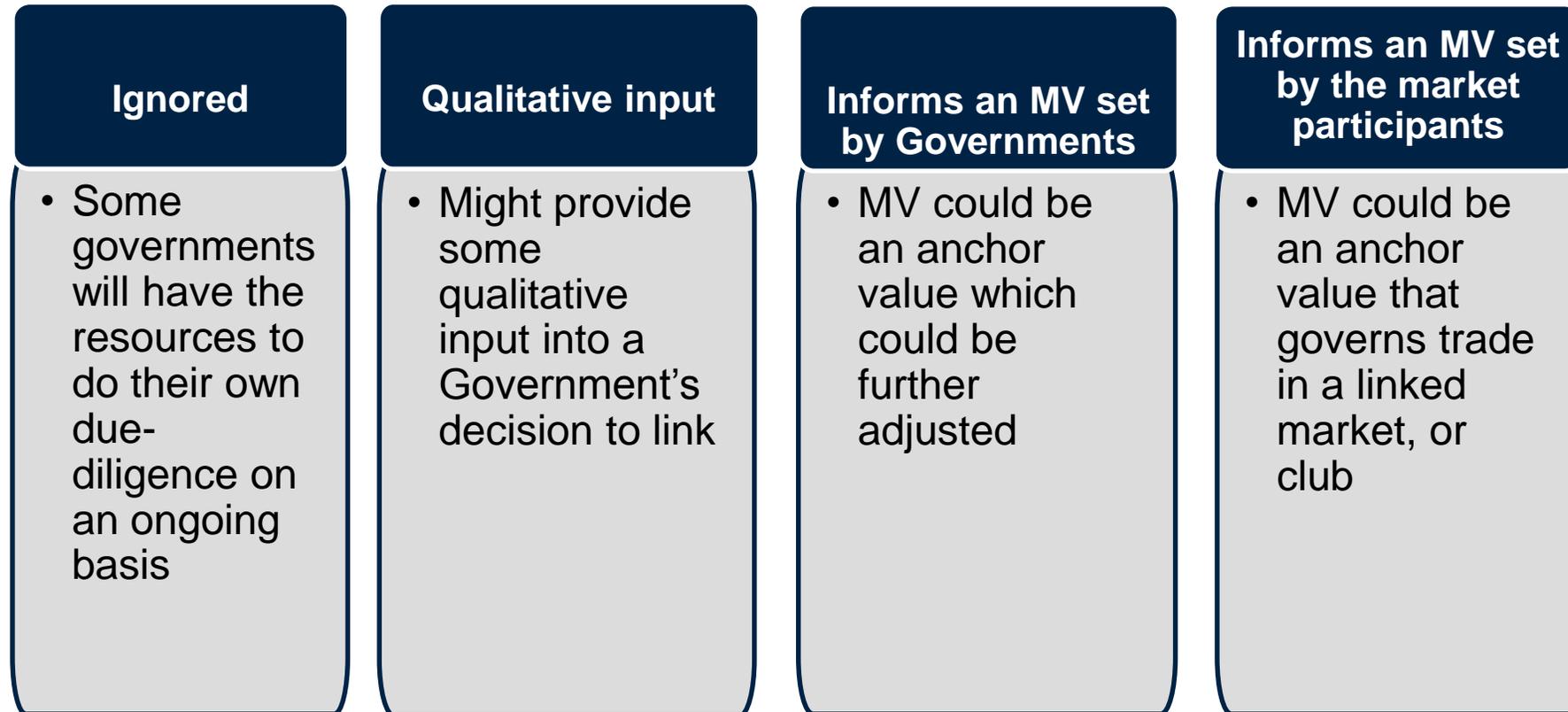
**Neutral**

**Capacity to monitor on an ongoing basis**

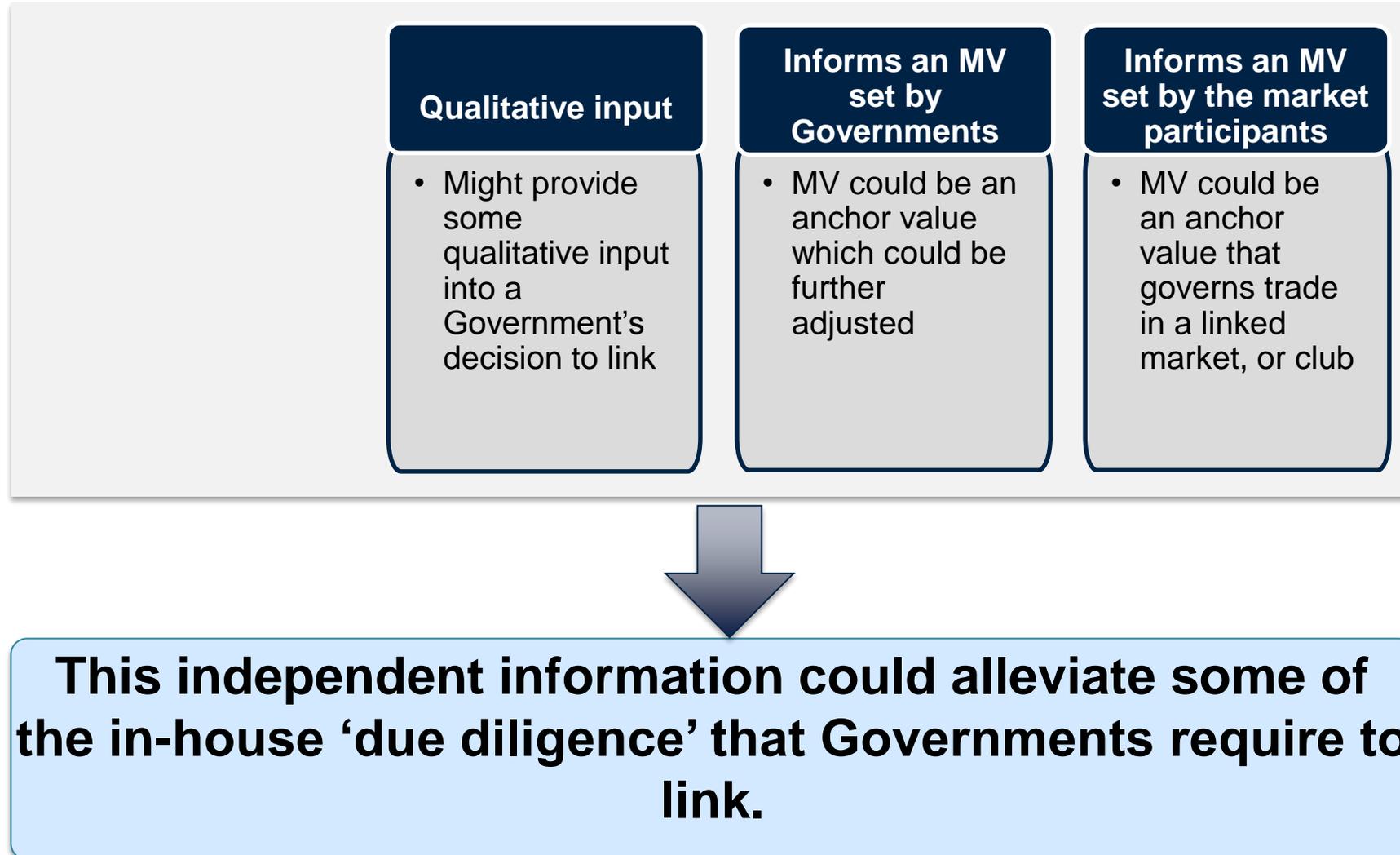
**Governed by Guiding Principles**

# *Range of possibilities of how this information could inform help to linking decisions*

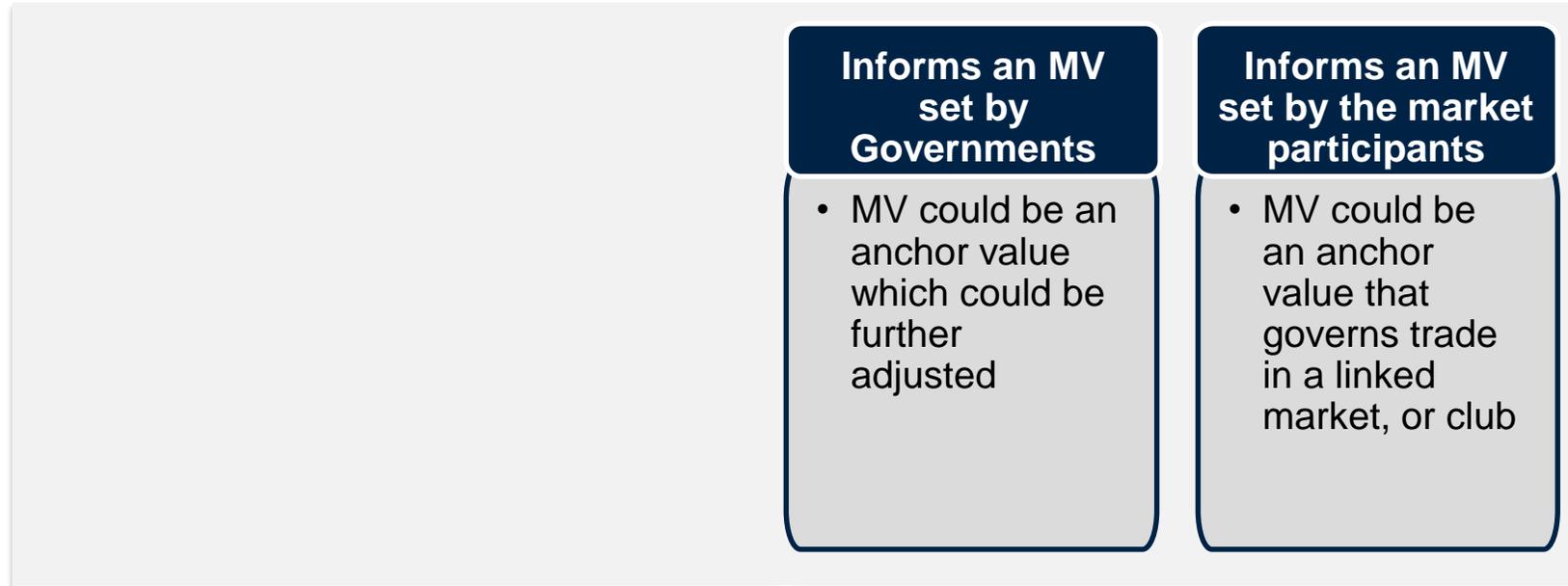
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# Removing barriers to linking



# Removing barriers to linking



**Informs an MV  
set by  
Governments**

- MV could be an anchor value which could be further adjusted

**Informs an MV  
set by the market  
participants**

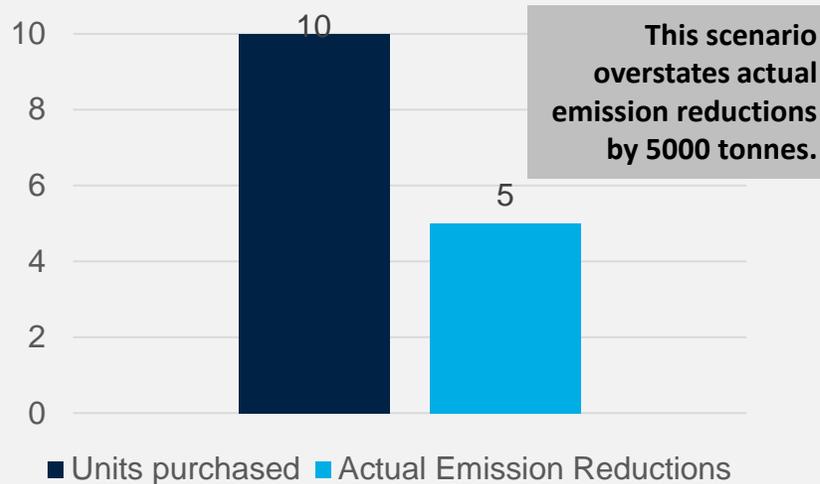
- MV could be an anchor value that governs trade in a linked market, or club

**This independent information could remove the need to make regulatory modifications to harmonize schemes.**

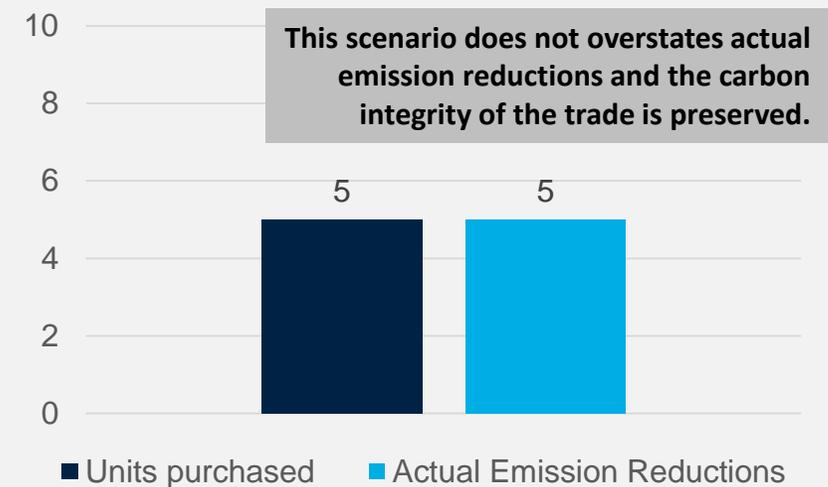
# Mitigation Value helps to preserve the Environmental Integrity of the Trade

**Scene:** 10,000 carbon units are purchased. The actual mitigation value of each unit is 0.5 tonnes.

**Scenario 1:** The actual mitigation value of the carbon units are not accounted for in the trade

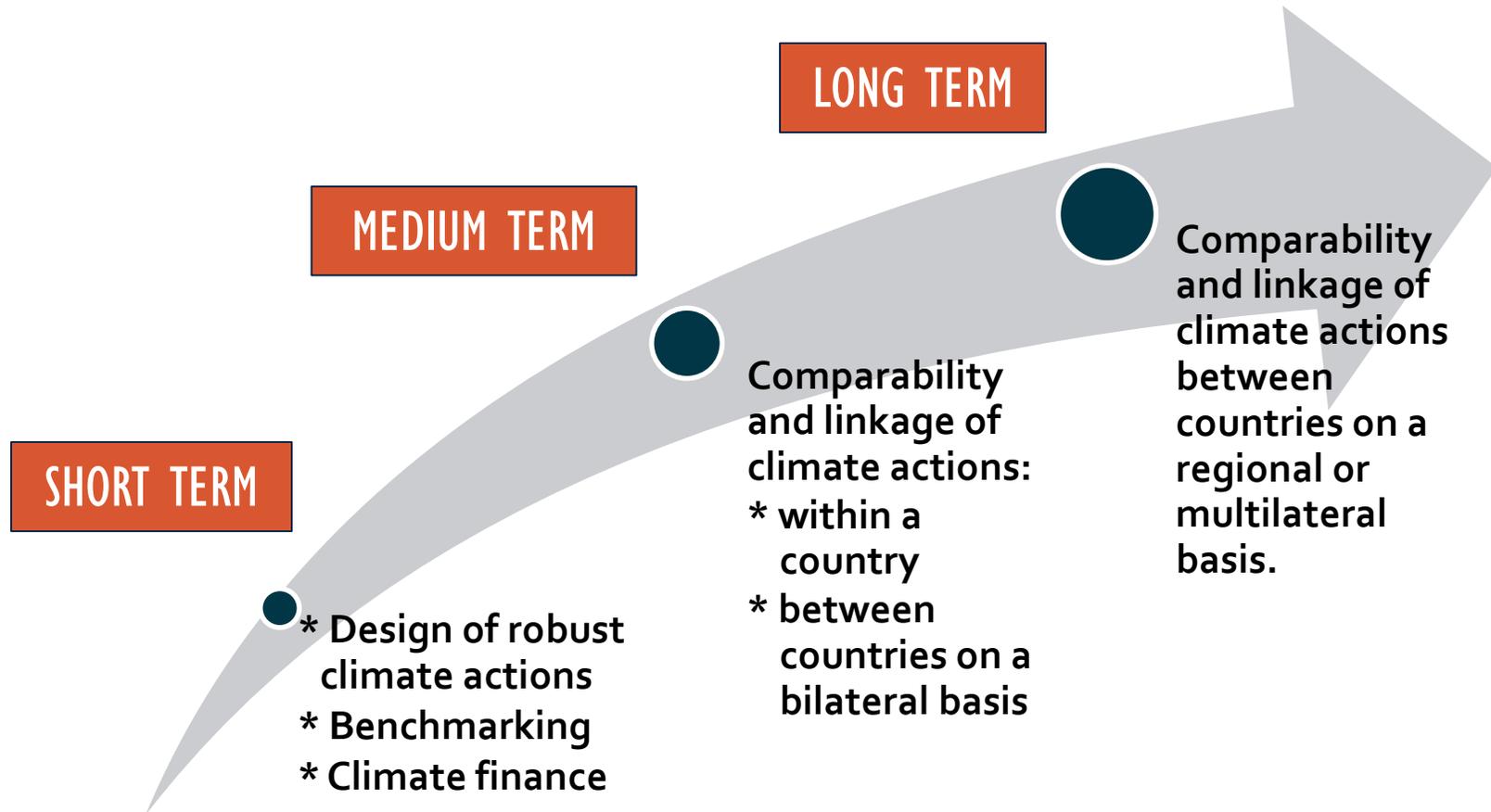


**Scenario 2:** The actual mitigation of the carbon units are accounted for in the trade



**Mitigation Value helps to preserve the environmental integrity of the trade.**

# The 3 key components of the NCM initiative are to be introduced in a phased manner



# Agenda

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**Linking heterogeneous climate actions**

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**Key components of the Networked Carbon Markets Initiative**

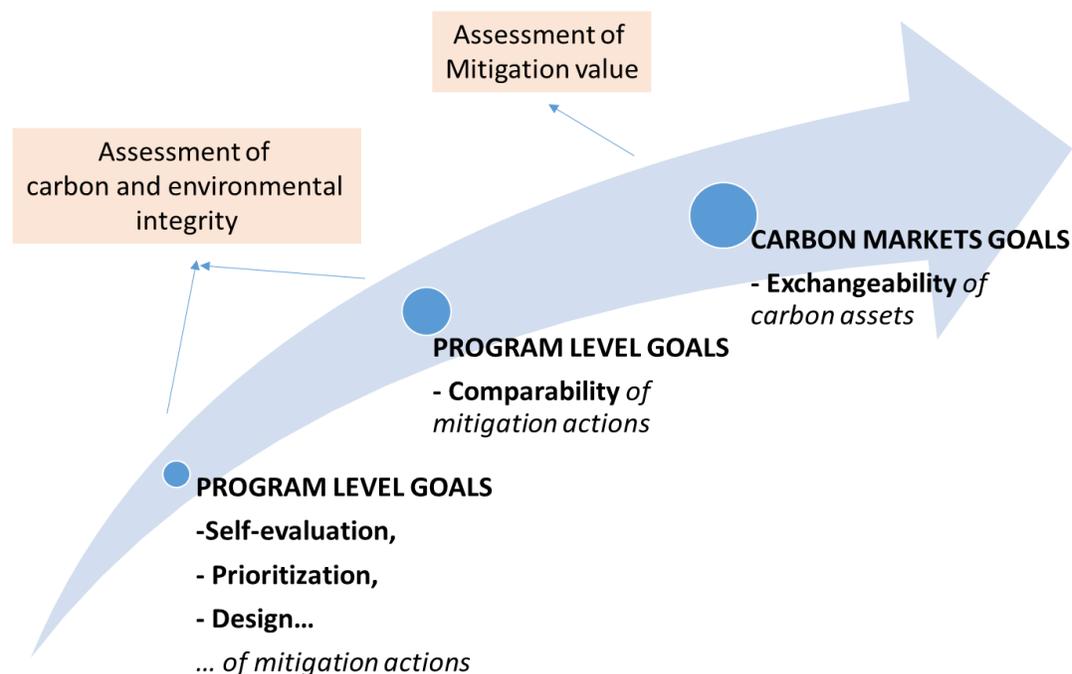
**15**

**Progress to date and next steps**

**18**

# Assessing the Mitigation Value of a crediting program with the NCM Initiative's Mitigation Action Assessment Protocol

- The Mitigation Action Assessment Protocol (MAAP) is a **program level rating of climate actions**.
- It could serve as a **key tool for achieving transparency** in the design of climate actions, how they compare and what their mitigation value is.
- In the long run, the MAAP is intended to **contribute to achieving the goal of an internationally accepted system for comparing carbon assets** and eventually, trade and exchangeability of carbon credits.
- **THE MAAP HAS BEEN PILOTED IN THAILAND (Feb 2016) AND PERU (Oct 2015).**



# Scoping Study in China

## BACKGROUND OF CARBON MARKETS IN CHINA



## NCM ACTIVITIES

- A **scoping study** in China will be led by Tsinghua University, University of Edinburgh, and the China Beijing Environment Exchange (CBEEEX) to explore opportunities for the NCM Initiative to support China's international linkage efforts
- The study will conduct **stakeholder outreach** to explore opportunities for the NCM Initiative to support China's international linking efforts and identify potential for conducting regional pilots

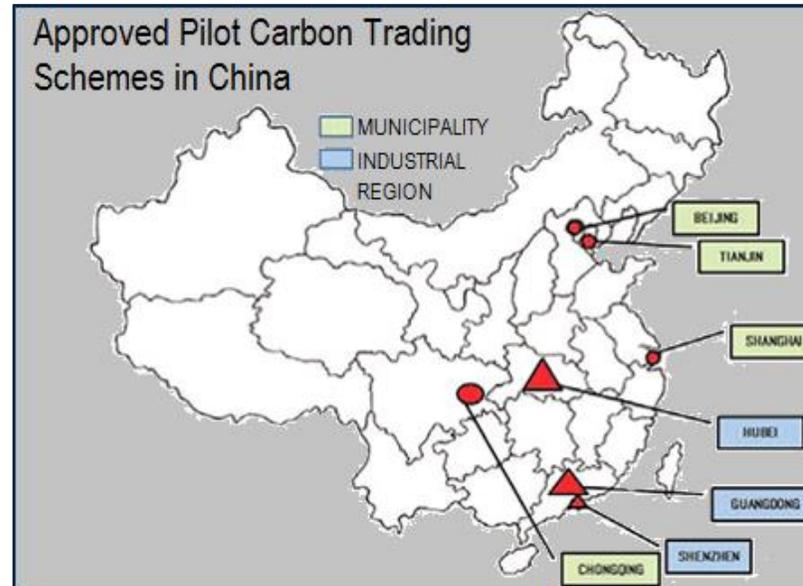


Image source: SEI (2012)

# Data analysis and modelling

## Timeline of Modelling and Simulation exercises

PHASE	DESCRIPTION OF ACTIVITY	PURPOSE/OBJECTIVE	OUTCOMES/DELIVERABLES
I	<ul style="list-style-type: none"> <li>Basic <b>initial modelling of transaction scenarios</b></li> </ul>	<ul style="list-style-type: none"> <li>Design testing</li> <li>Research specific ideas</li> </ul>	<ul style="list-style-type: none"> <li>Devise and run modelling</li> <li>Formulate and test trading rules</li> <li>Report outcomes</li> </ul>
II	<ul style="list-style-type: none"> <li><b>Run and re-run transaction scenarios</b> modelling with rules and MV assessment process and various exchange rate setting processes</li> <li><b>Devise business process flow</b> for trading ensuring market integrity</li> </ul>	<ul style="list-style-type: none"> <li>Design testing</li> <li>Research specific ideas</li> </ul>	<ul style="list-style-type: none"> <li>Formulate trading rules</li> <li>Run modelling</li> <li>Report outcomes</li> </ul>
III	<ul style="list-style-type: none"> <li>Simulation exercise, possibly <b>involving jurisdictions and actual market participants</b> and trading entities</li> </ul>	<ul style="list-style-type: none"> <li>Design testing</li> <li>Research specific ideas</li> <li><b>Outreach and stakeholder engagement</b> involving credit rating agencies and market participants</li> </ul>	<ul style="list-style-type: none"> <li>Test rules with multiple runs</li> <li>Report outcomes</li> <li>Stakeholders are engaged in the simulation process</li> </ul>

# **Paris Agreement Article 6 (markets) & implications for a future international carbon market**

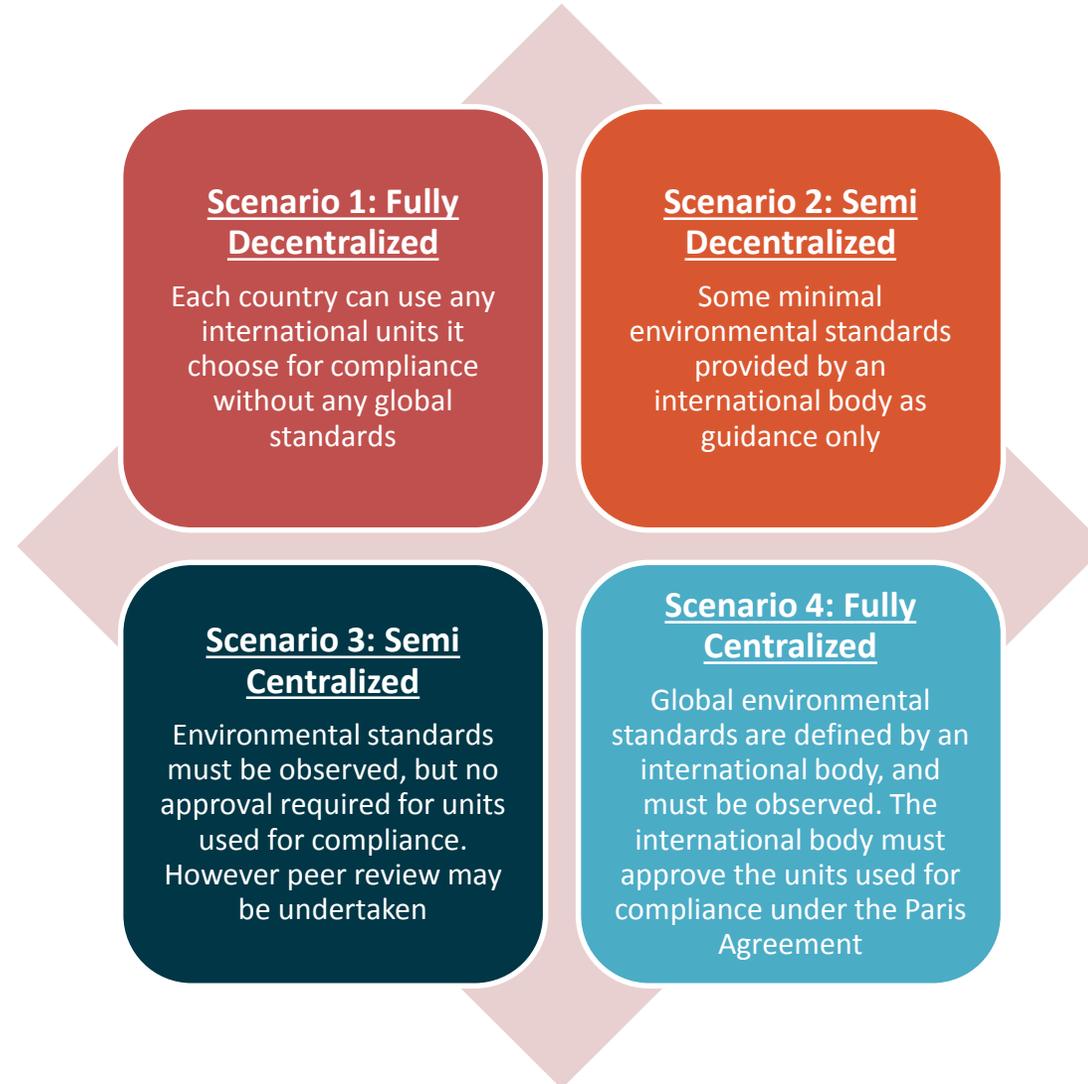
Event on 'Transparency and Linking in a New Paris Regime'  
Zurich, March 9, 2016

Andrei Marcu

# Outline

- **Pre-Paris Scenarios:** from fully decentralized to fully centralized
- **Article 6 in the Paris Agreement**
  - Evolution
  - Scope
- **Cooperative Approaches and Transfer of Mitigation Outcomes**
  - Implications for linking in a future international carbon market
- **Sustainable Development Mechanism**
- **Conclusions**

# 4 Pre-Paris Scenarios



## Article 6 in perspective

Article 6 –last piece in Paris Agreement.

Why?

- Importance to environmental integrity of PA
- Connection to other parts of the PA
- Issues to be « traded »
- Ideological opposition to markets

## Evolution of Article 6

- Article 6 represents a progression especially since the October ADP session
- Important drafts and documents
- November 2014 : Brazil submission
- November 10, 2015: Draft PA
- December 5 – Draft AP, ADP to COP
- December 8: EU-Brazil submission
- December 9: Panama, AOSIS, LMDC submissions
- December 9 & 10: Draft PA, Committee de Paris
- December 12: Final PA

## Scope of Article 6

1. Cooperative approaches: (Paragraph 6.1)
2. Transfer of mitigation outcomes (Paras 6.2-6.3)
3. Mechanism to support SD (SDM) – (Paras 6.4-6.7)
4. Framework for non-market approaches (Paras 6.8-6.9)

## Cooperative approaches (para 6.1)

- Broad article
- Covers markets, non markets and beyond
- Initially merged with « EU article »
- Recognizes cooperation but does not provide permission
- Reference to sustainable development
- « allow higher level of ambition » vs « enhance »
- Voluntary cooperation

## Transfer of mitigation outcomes

- Special case of cooperation involving international transfers
- Recognizes but does not provide permission
- Transfers any outcomes, no special qualifiers (UNFCCC)
- 6.2-6.3 does not create a market or price, creates conditions for convergence
- Play same role as KP Art 3.10-3.12 and Art 17

# Transfer of mitigation outcomes

## ITMOs

- ITMOs are an acronym not a unit
- Reasons from creating ITMOs
  - Resistance to market language
  - No units issued in some cases
  - Non markets and these paras were originally very broad

# Transfer of mitigation outcomes

## Role of CMA

- Role of CMA limited to issuing guidance for accounting
- No CMA approval or conformity check required for a transfer
- Some modulation present ?
  - Promote sustainable development?
  - Ensure transparency including in governance
  - Ensure transparency including in governance
  - Apply robust accounting

# Transfer of mitigation outcomes

## Accounting

- Parties apply the accounting in « accordance » with guidance
- Who decides if guidance observed and what happens if not ?
- Language softer than in previous versions – « in accordance in previous drafts

# Transfer of mitigation outcomes

## SD and environmental integrity

- 6.2 & 6.3 are transfer articles and “product articles”
- What is the meaning of SD and EI?
- Are SD & EI tests to be applied to non UNFCCC (domestic) ITMOs?
- There is no WP in 1/CP.21 to develop such tests
- No institution to operationalize such tests
- Boilerplate language that may add uncertainty in the future ?

# Transfer of mitigation outcomes

## Governance

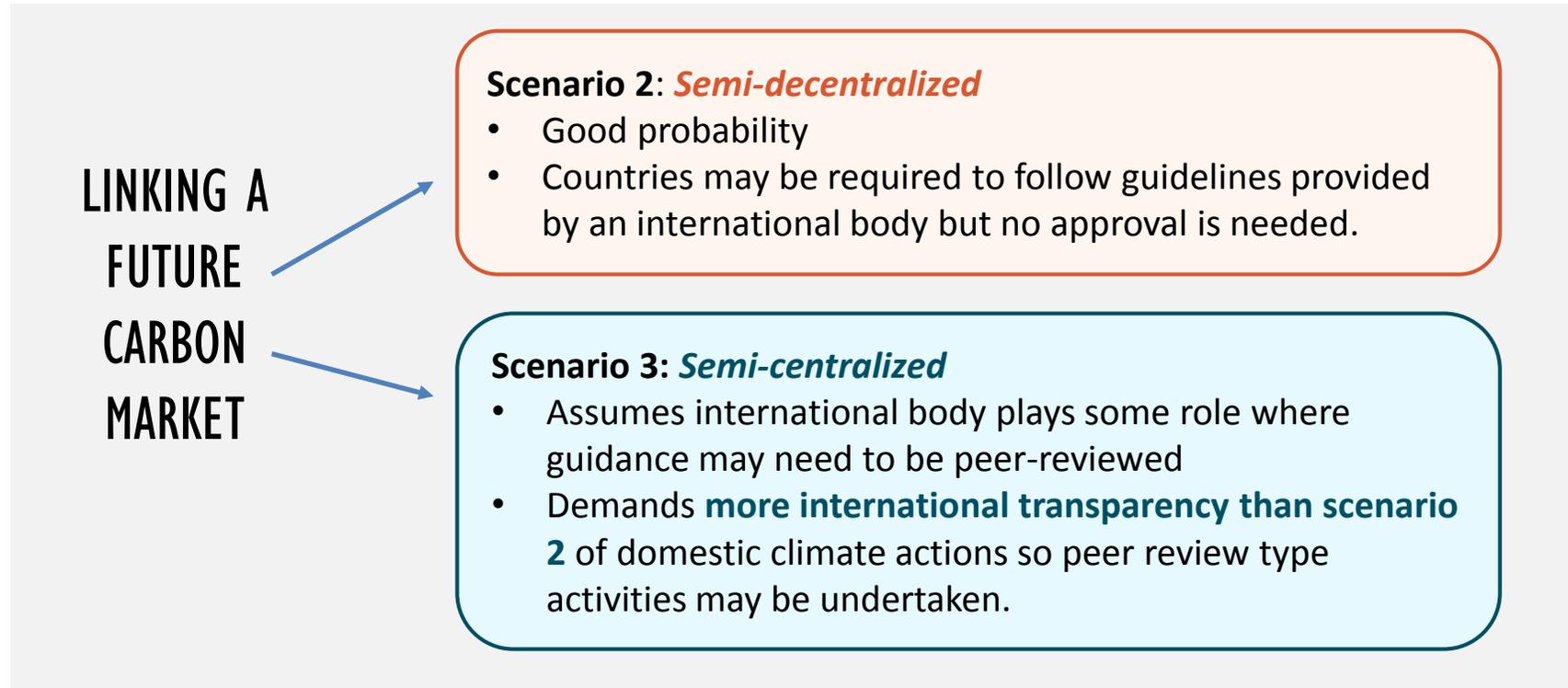
- Promotes Sd and EI including in « governance »
- First such reference in such text
- What needs does it meet and whose needs are they ?
- Some Parties have asked for stronger central governance to test environmental quality of domestics units trasfered internationally for PA compliance (ITMOs)
- This reference goes in that direction but wthat will it buy ?

# Transfer of mitigation outcomes

## Accounting

- How does one operationalize « towards NDCs » and avoid double counting?
- Are ITMOs retired in national registries (if there is one)
- How do you identify an ITMO?
- Will there be serial numbers based on tons?

# What does it mean for a future international carbon market?



**Potential for more heterogeneity, which is conducive to 'networking' as a form of linking**

# Sustainable Development Mechanism (SDM)

Origin in Brazil submission of November 2014

*“The Economic Mechanism shall be comprised of general guidelines related to an emission trading system and an enhanced Clean Development Mechanism (CDM+)”.*

*“The new market mechanism (...), should be established under the agreement, incorporating the modalities, procedures and methodologies of the Clean Development Mechanism, to allow trading of CER among all Parties.”*

# SDM

## Key provisions in SDM

1. Nature and governance of SDM
2. Scope of SDM
3. Overall mitigation
4. Share of proceeds
5. Participation of private entities

# SDM

## Nature and governance

- Mechanism is established
- Output is GHG emission reductions
- Under the authority and guidance of the CMA
- Body designated by the CMA
- It is a « production » mechanism
- Further interational transfers covered under 6.2-6.3
- Supporting SD could again prove to be a subjective clause leading to regulatory instability due to the lack of definition

# SDM

## Scope of the SDM

- Which Parties can host the SDM?
- Which Parties can use the product of the SDM
- SDM one or more mechanisms ?

## Overall mitigation

- Deliver an over all mitigation in global emissions
- Earlier versions included some details to help interpretation
- Who pays the bill – donates to the environment?

# **SDM**

**Share of proceeds**

**Participation of private entities**

# Conclusions

- Prior to COP21 and PA it was unclear which of the four scenarios will be the outcome
- PA has clarified to a larger extent or has changed the probabilities for the different scenarios
- Language is still ambiguous and with hooks that there is no certainty – yet
- Key issues still left to interpretation and possible challenge
- Likely outcome is that 6.1-6.2 will be in Scenario 2/3



**more heterogeneity, which is more conducive for networking**

- For paras 6.4-6.7 it is unlikely that interaction will be as strong as 6.1-6.2