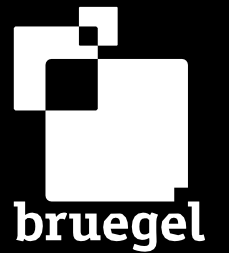


The role of convergence in achieving simplicity and flexibility in the EU's climate policy architecture

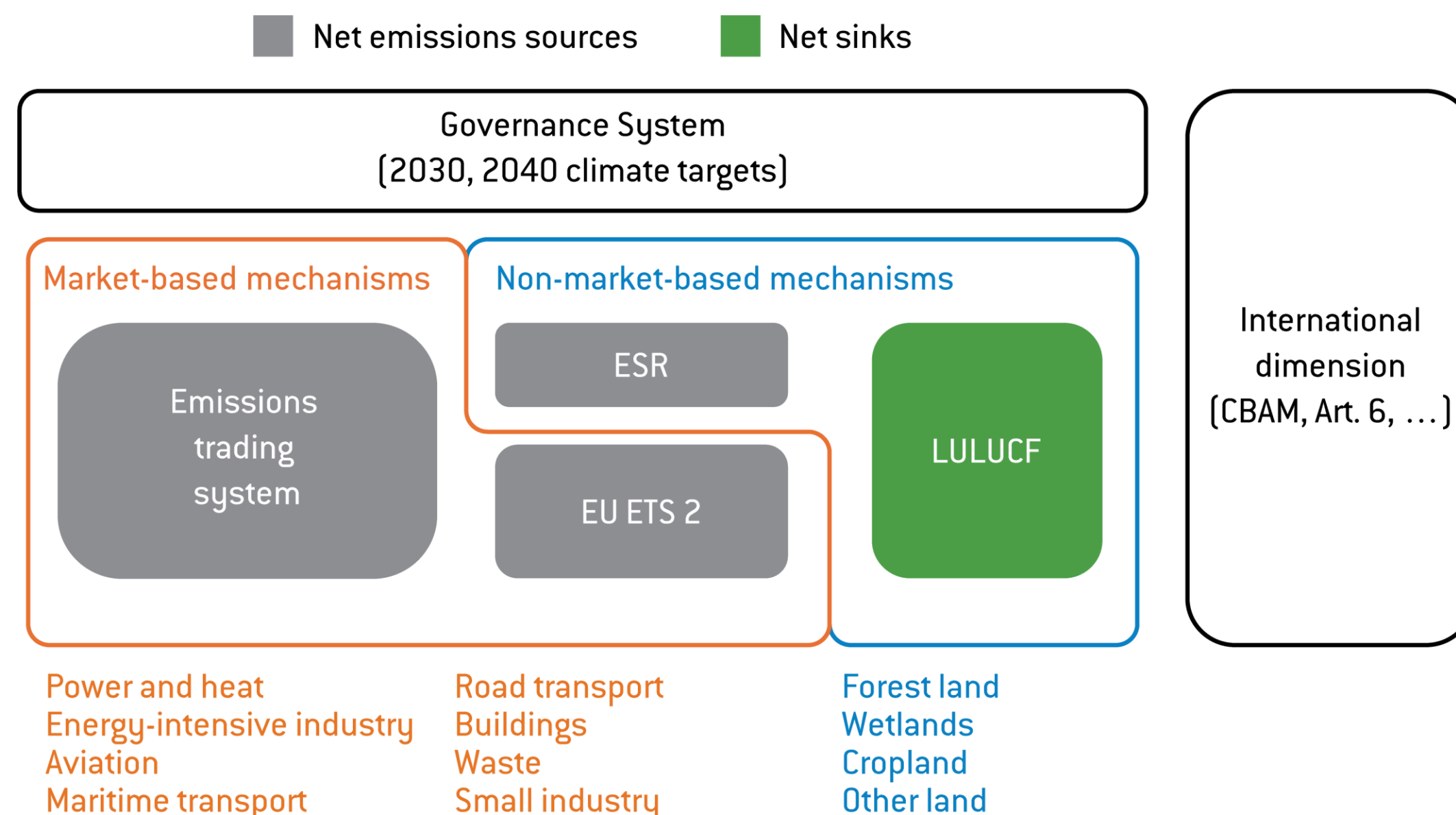


Michael Pahle, Darius Sultani & Georg Zachmann



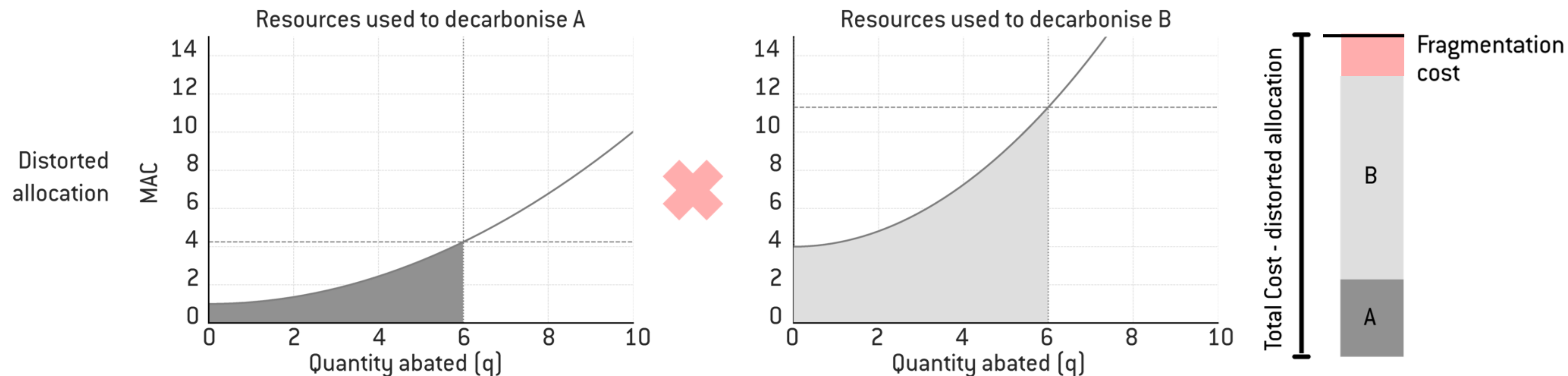
POTSDAM INSTITUTE FOR
CLIMATE IMPACT RESEARCH

The EU's fragmented climate architecture



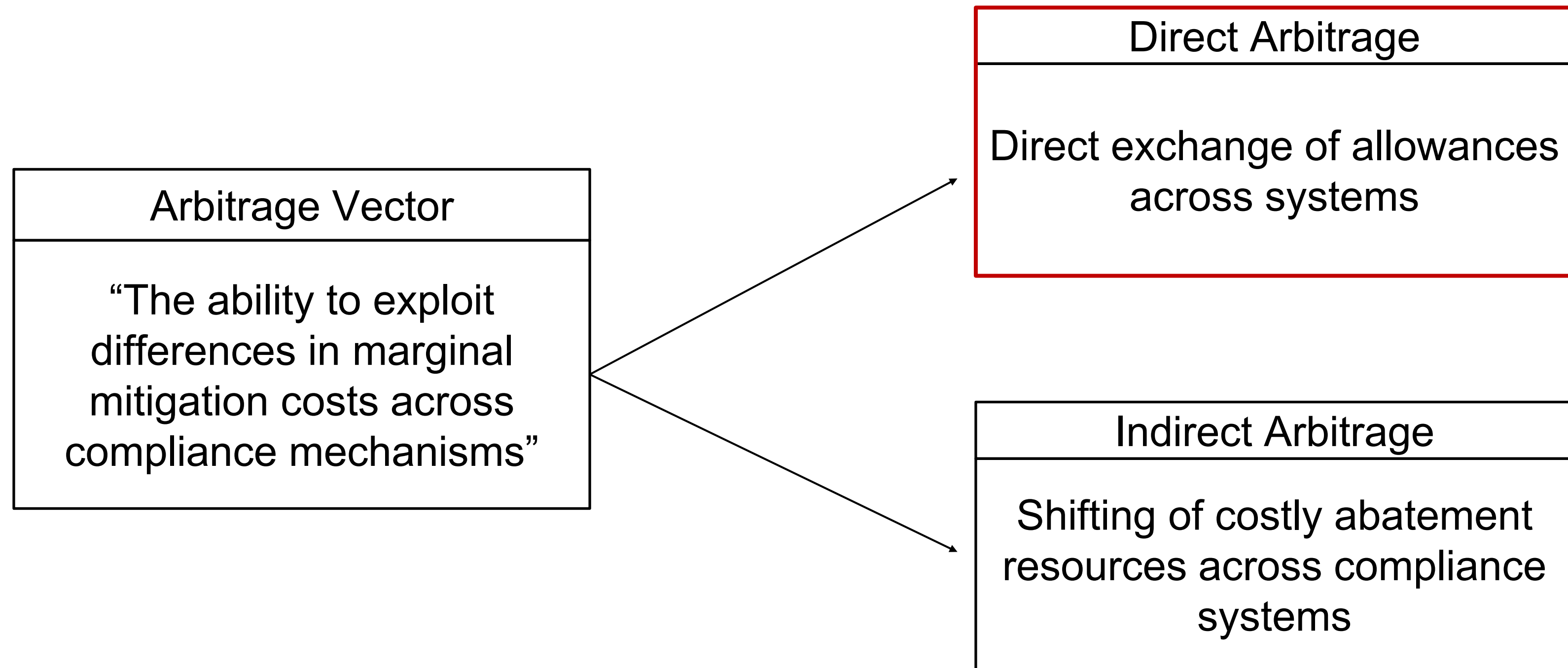
- Separate compliance mechanisms try to ensure that individual emission targets are met
- Differences in cost, targets and rules imply differences in marginal abatement cost
- This shapes how resources are allocated

Full fragmentation causes resource misallocation



1. Total abatement cost is highest
2. Administrative costs associated with maintaining fragmentation

Arbitrage will drive convergence



Examples indicate, that arbitrage is hard to prevent

Arbitrage vectors

Direct exchange of allowances

Using existing infrastructure

Developing novel infrastructure

Exchange of carbon intensive products

Exchange of production factors

Single carbon market

ETS I/II - linking

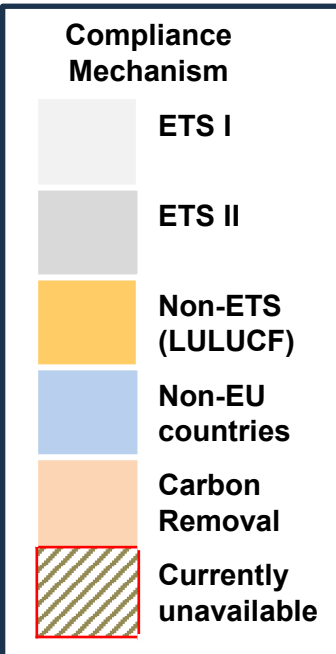
Biofuels (from LULUCF) use in ETS I/II

Clean electricity use in ETS I/II

Hydrogen imports from Ukraine

Steel trade across sectors / borders (constrained by CBAM)

Allocation of capital and labour for mitigation

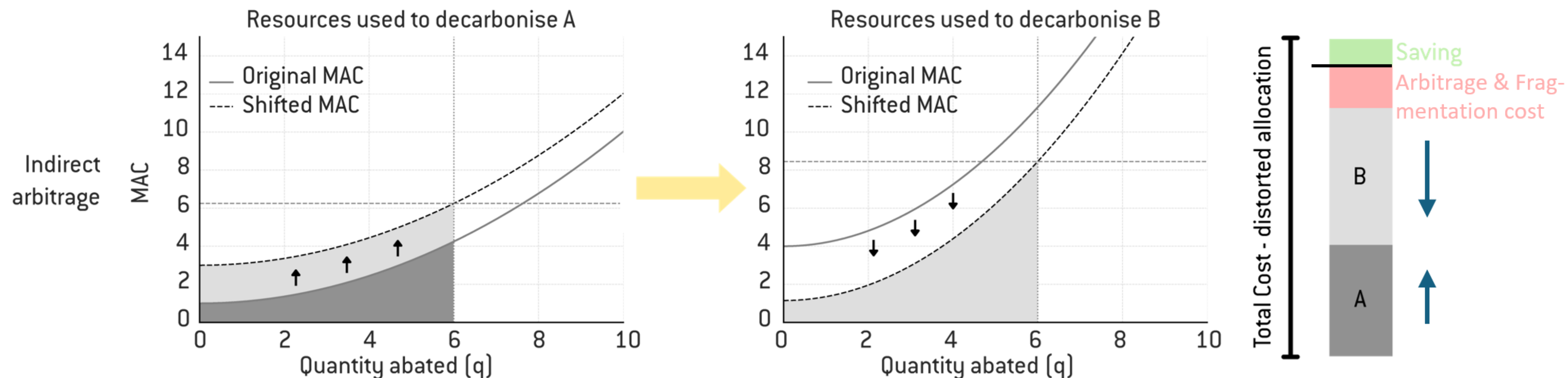


low transaction cost

Fungibility of exchanged factors

high transaction cost

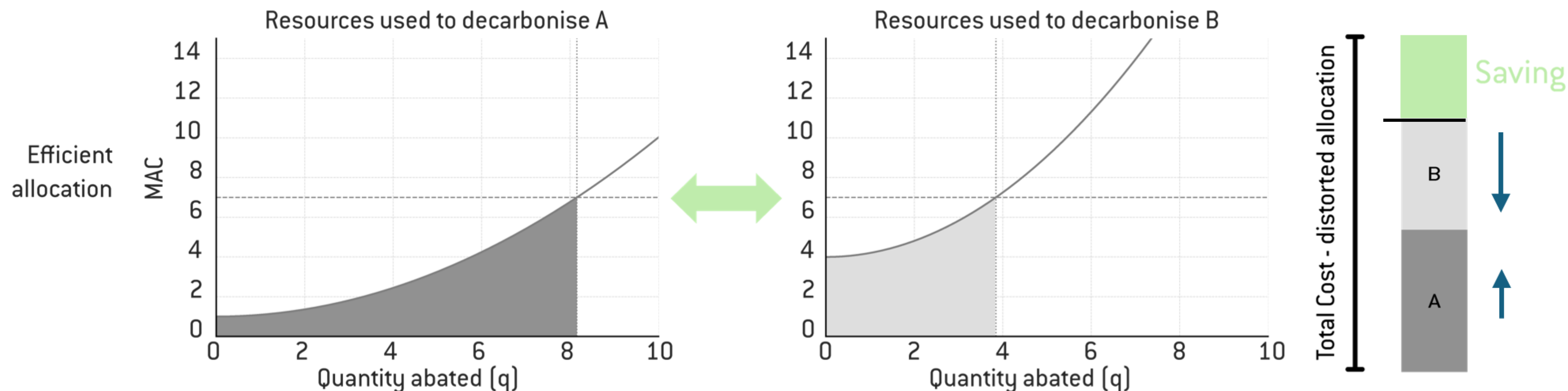
Indirect arbitrage (unintentionally) reduces overall mitigation cost – but remains inefficient



1. Shift of mitigation resources from B to A
2. Lower economic cost compared to full fragmentation
3. Arbitrage costs occur

Uniform compliance mechanism

Uniform compliance mechanisms



1. Fully efficient allocation of abatement resources
2. Lowest cost outcome

Defending fragmentation implies increasing complexity and cost

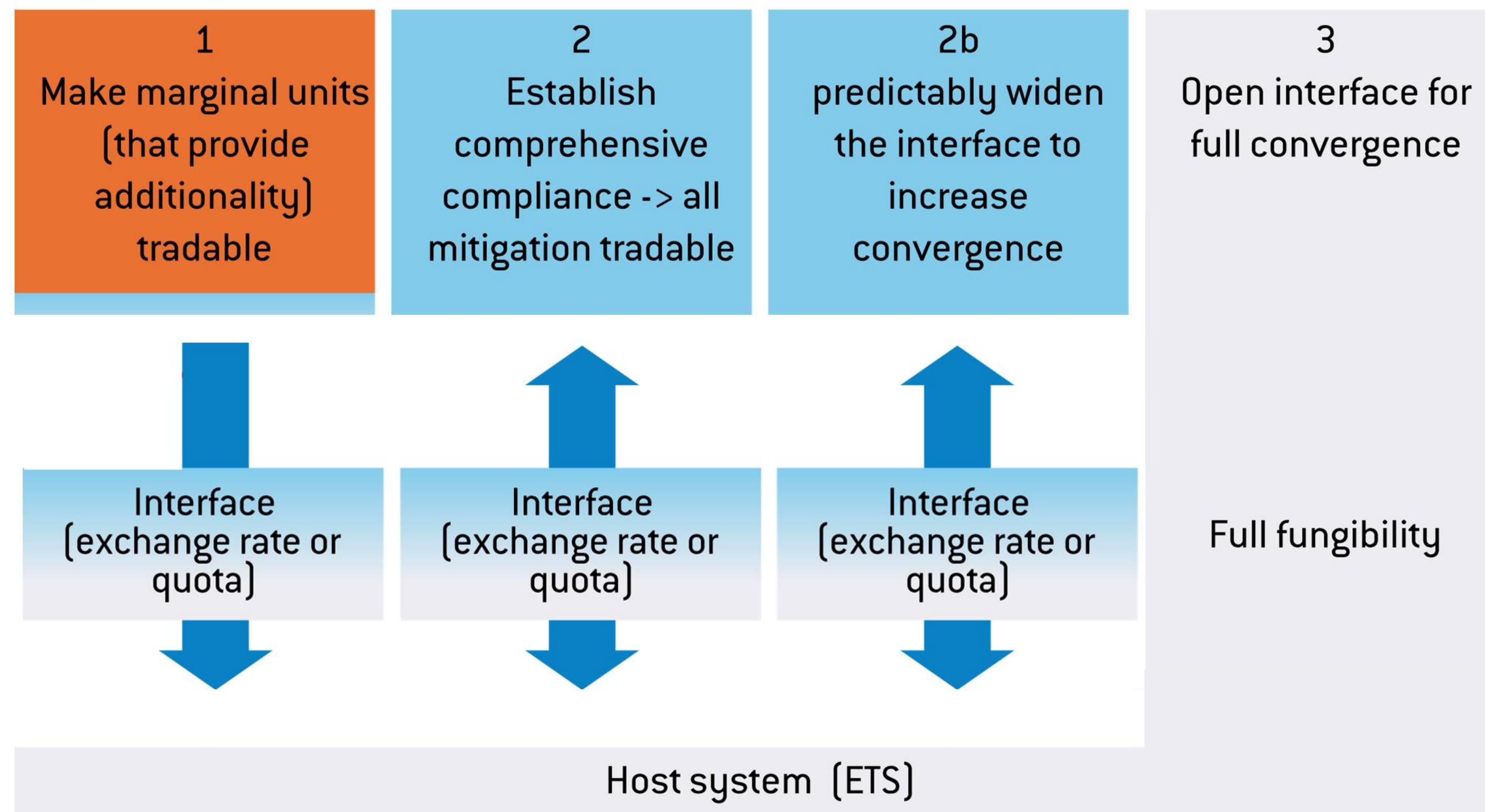
- If markets believe, indirect arbitrage opportunities are going to stay – they will (inefficiently) invest more in circumventing regulatory barriers
- These will have to become more complex and costly
- A policy pathway towards convergence through direct arbitrage could avoid such inefficiencies

Issues with defending fragmentation

Historically, fragmentation was well justified. However, going forward...

- **Credibility:** efficiency losses from a fragmented architecture increase – increasing cost undermine political feasibility of ambitious decarbonisation
- **Competitiveness:** firms struggle when more and more rules make regulation more complex
- **Policy path dependencies:** the more complexity we introduce, the more difficult to steer back towards simplicity and flexibility
- **Institutional blindfolding:** Institutions focused on “their” compliance mechanism, ignore negative spillovers of their decision on efficient mitigation in other segments

A way forward – how to transition to a unified target architecture?



We propose gradual linking of compliance mechanisms to the ETS-system (gold standard) to

- (1) managing distributional consequences and
- (2) not watering down ambition
- (3) Maintain liquidity in the ETS

Policy Recommendations

Convergence will inevitably happen over time

- Leverage **convergence** as a policy design principle
- Use the ETS I as a “gold standard” for emissions abatement
- Commit to structured convergence of compliance mechanisms
 - avoid economic rent seeking through the exploitation of arbitrage opportunities