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Expert meeting: The role, state and future development of EU ETS

Policy options for EU ETS discussed in Europe

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Ministry of Environment and National Center for Emissions Management
Warzaw, 11.7.2012

1 The role of EU ETS in Europe‘s Industry Strategy

2 Objectives that have to be considered

3 Options discussed

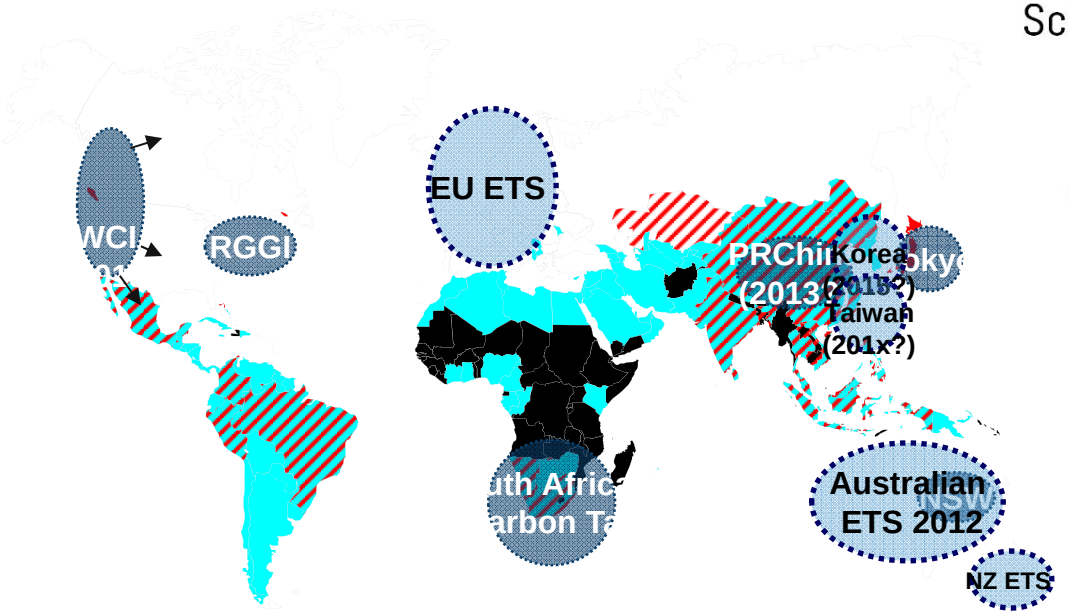
1 The Need for European Action

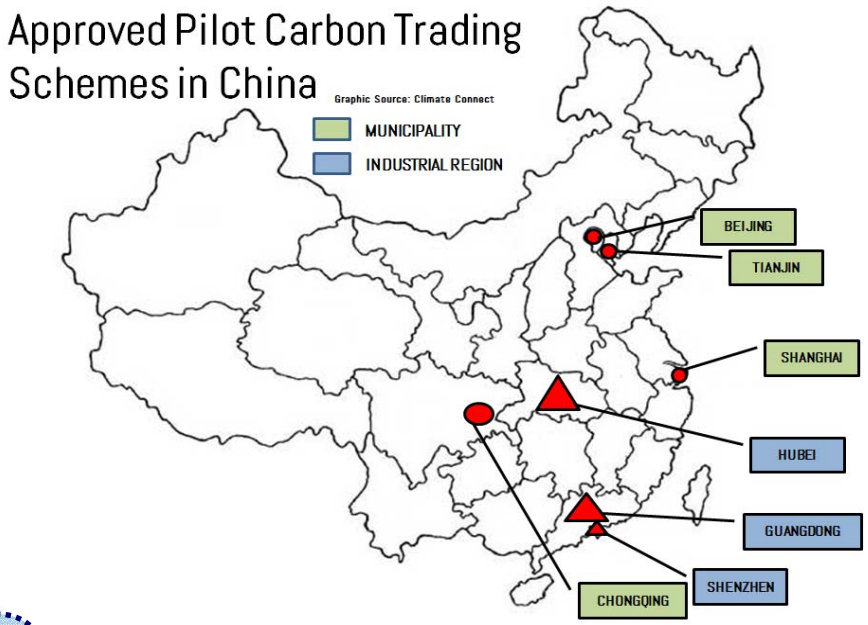
- Europe spent 400 billion Euro for fossil-fuel imports in 2011

-> lost European investment and jobs opportunities

- Other regions accelerate implementation of carbon pricing

Climate Strategies





Graph: Left: Michaelowa et a., right: Andreas Türk, Sonja Klinsky, Michael Mehling, Xin Wang 2012, Climate Strategies

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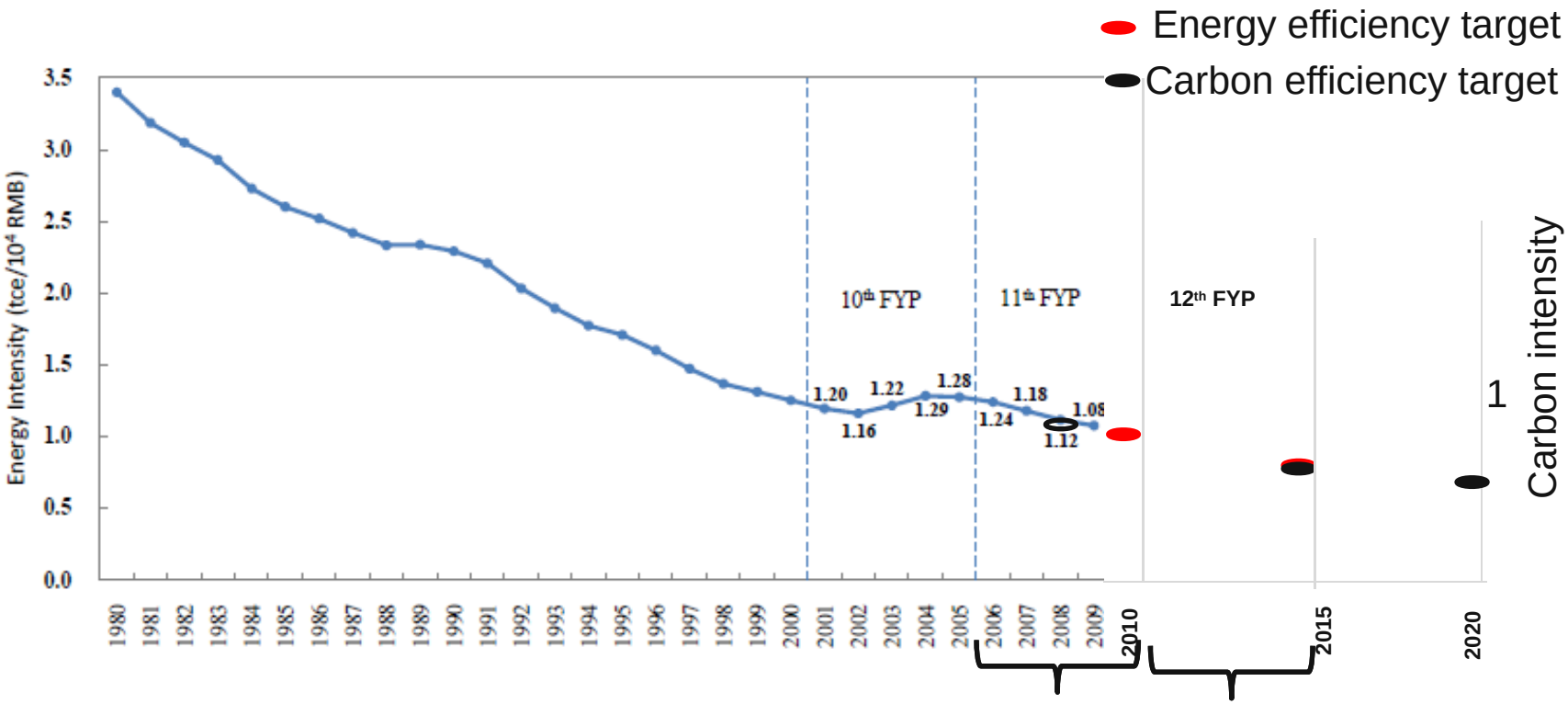
1 Example: Chinese energy & climate policy targets



Chinese commitments to
energy & carbon intensity improvements:

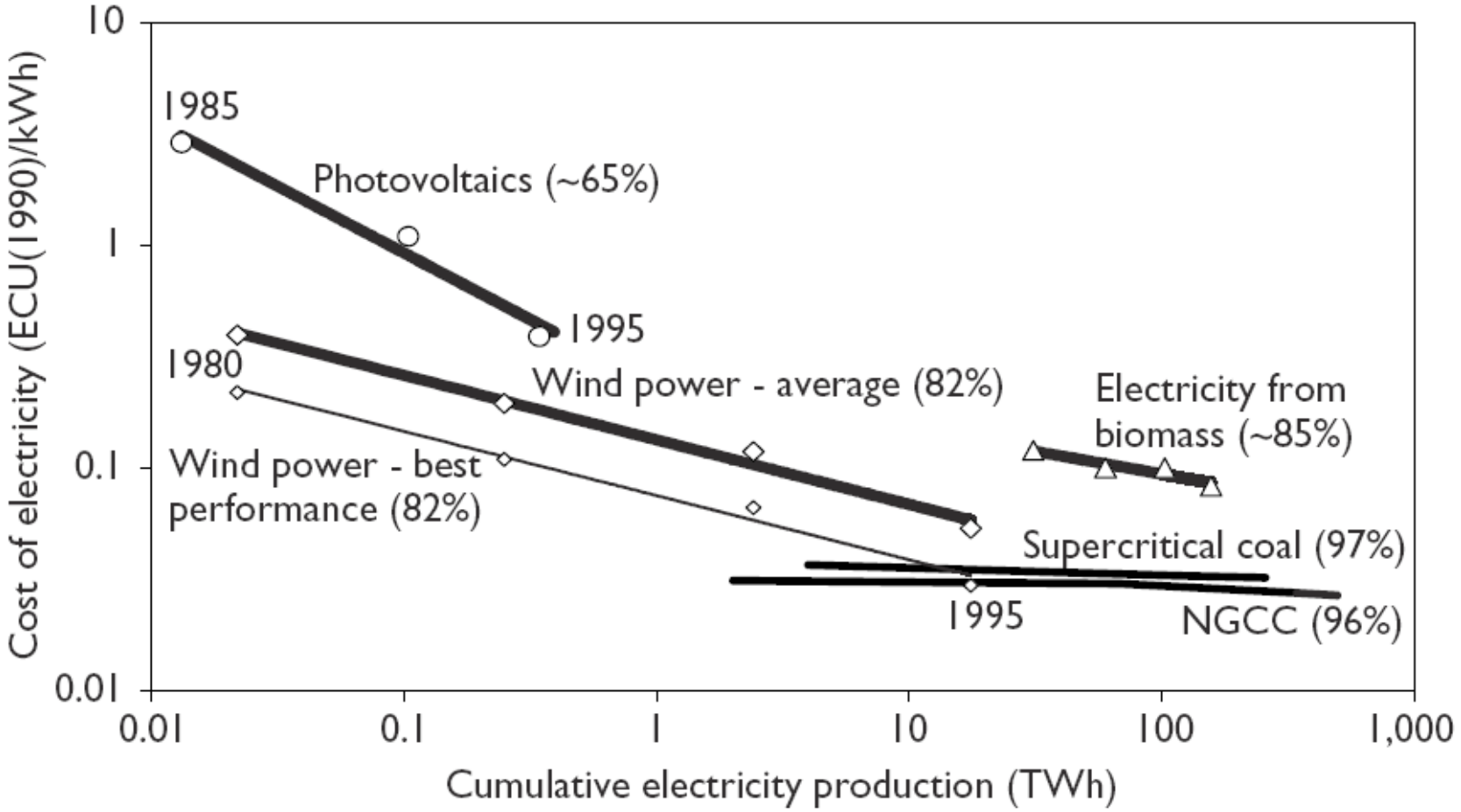
20% Energy intensity

16% Energy intensity
17% Carbon intensity

45-50% Carbon intensity

Based on Review of Low Carbon Development in China, 2010 and early reports of 12th FYP

1 Experience curves – from innovation to diffusion



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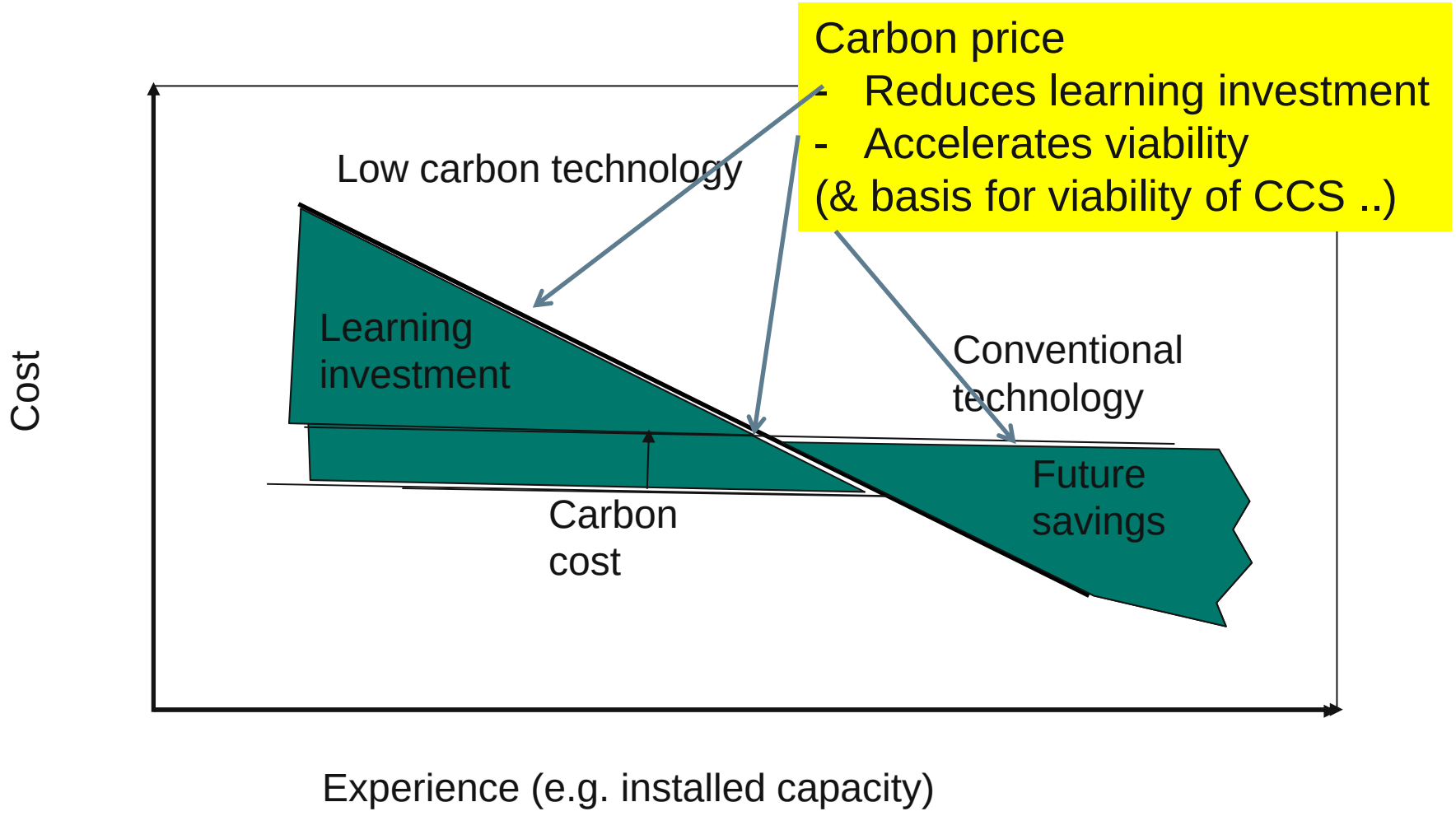
Source IEA

1 Experience curves – from innovation to diffusion



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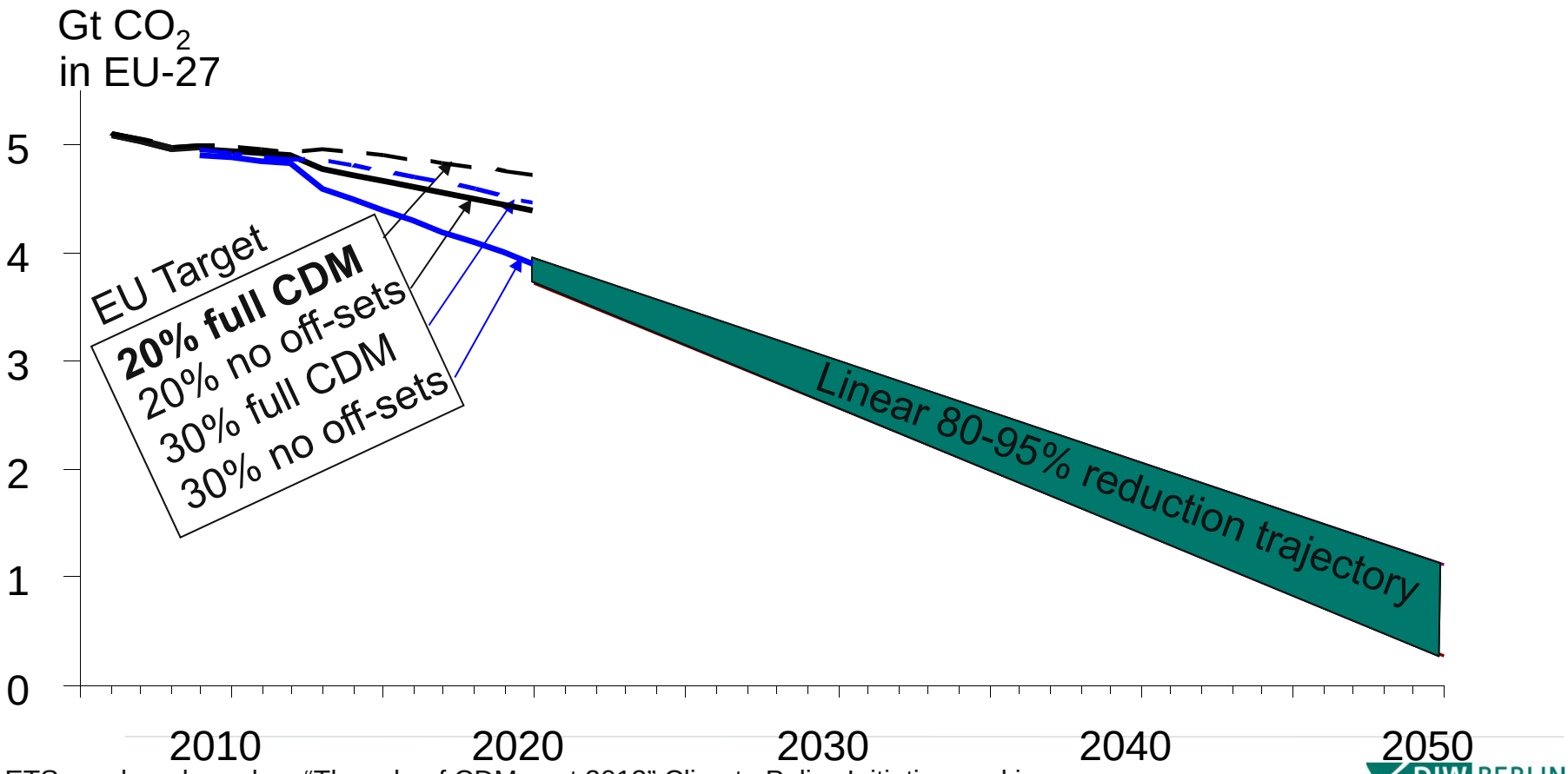
2-1 Objective 1: Environmental objective



ETS numbers based on "The role of CDM post 2012" Climate Policy Initiative working paper

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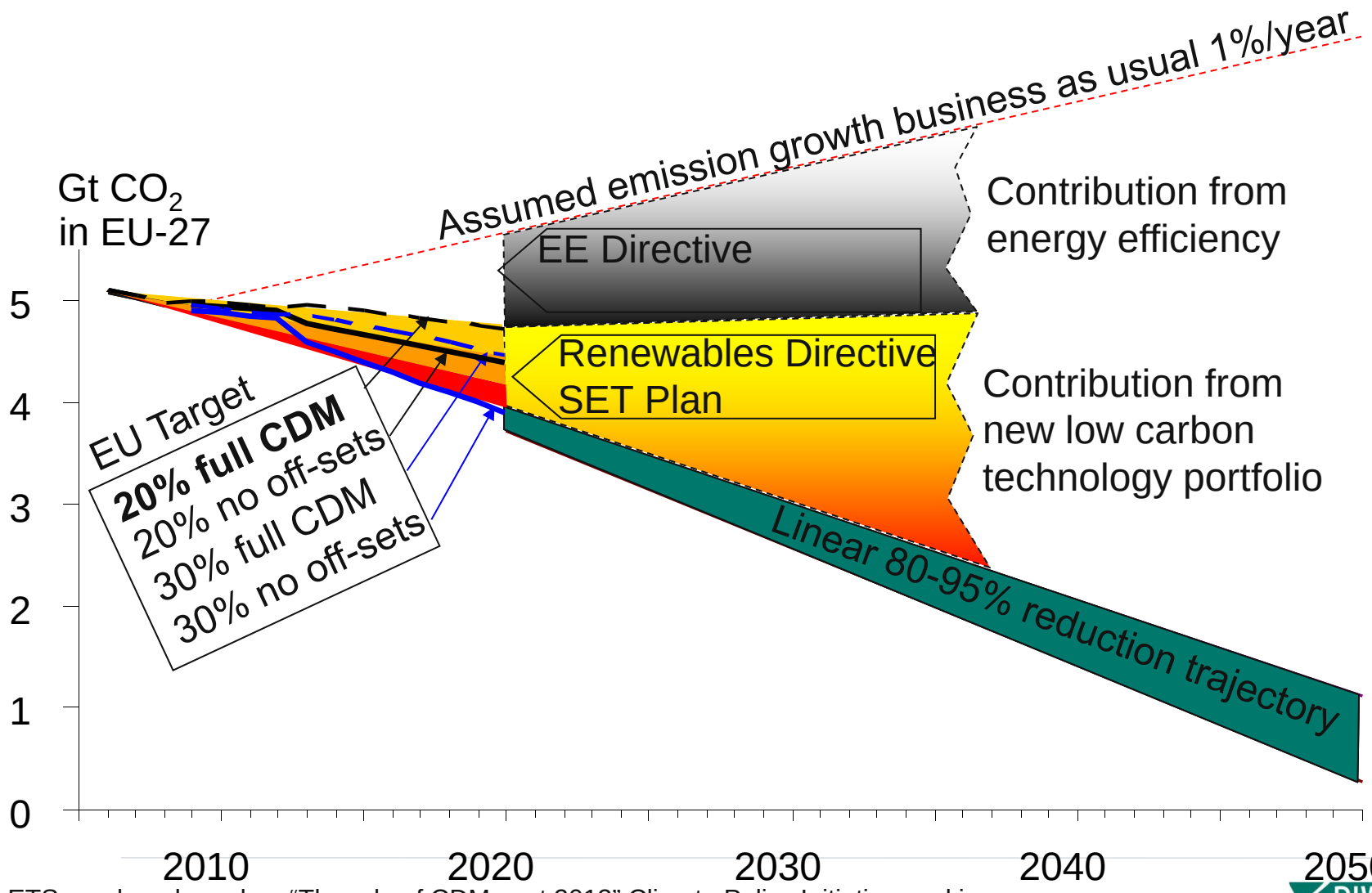
2-2 Objective 2: Coordination for policies and supply chain



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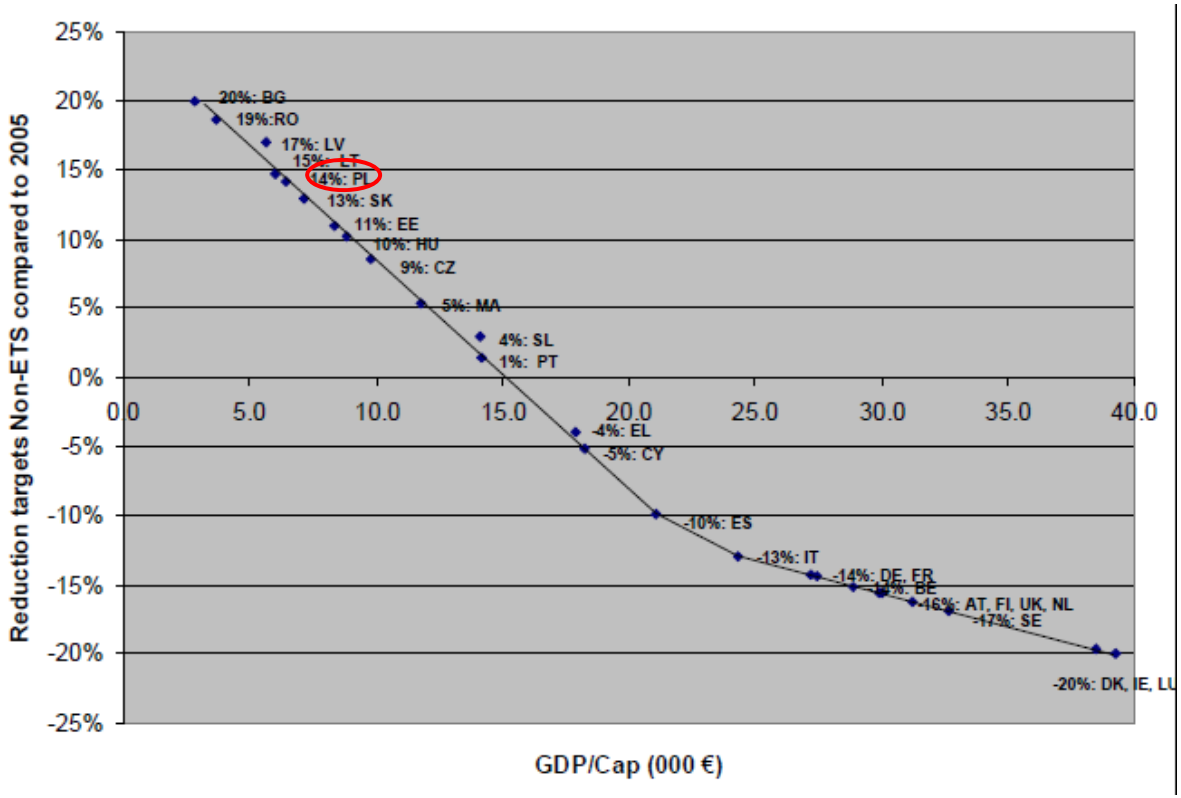
2-3 Objective 3: Low-carbon investment framework

- Capture attention
- Provide clarity for strategic choices
- Contribute to enabling environment

2-4 Objective 4: Fair effort sharing

- Energy and Climate Package
  - Renewable Energy
  - Non ETS
  - ETS



- Finance to support climate action in developing countries

Source: EU Impact Assessment to energy and climate package

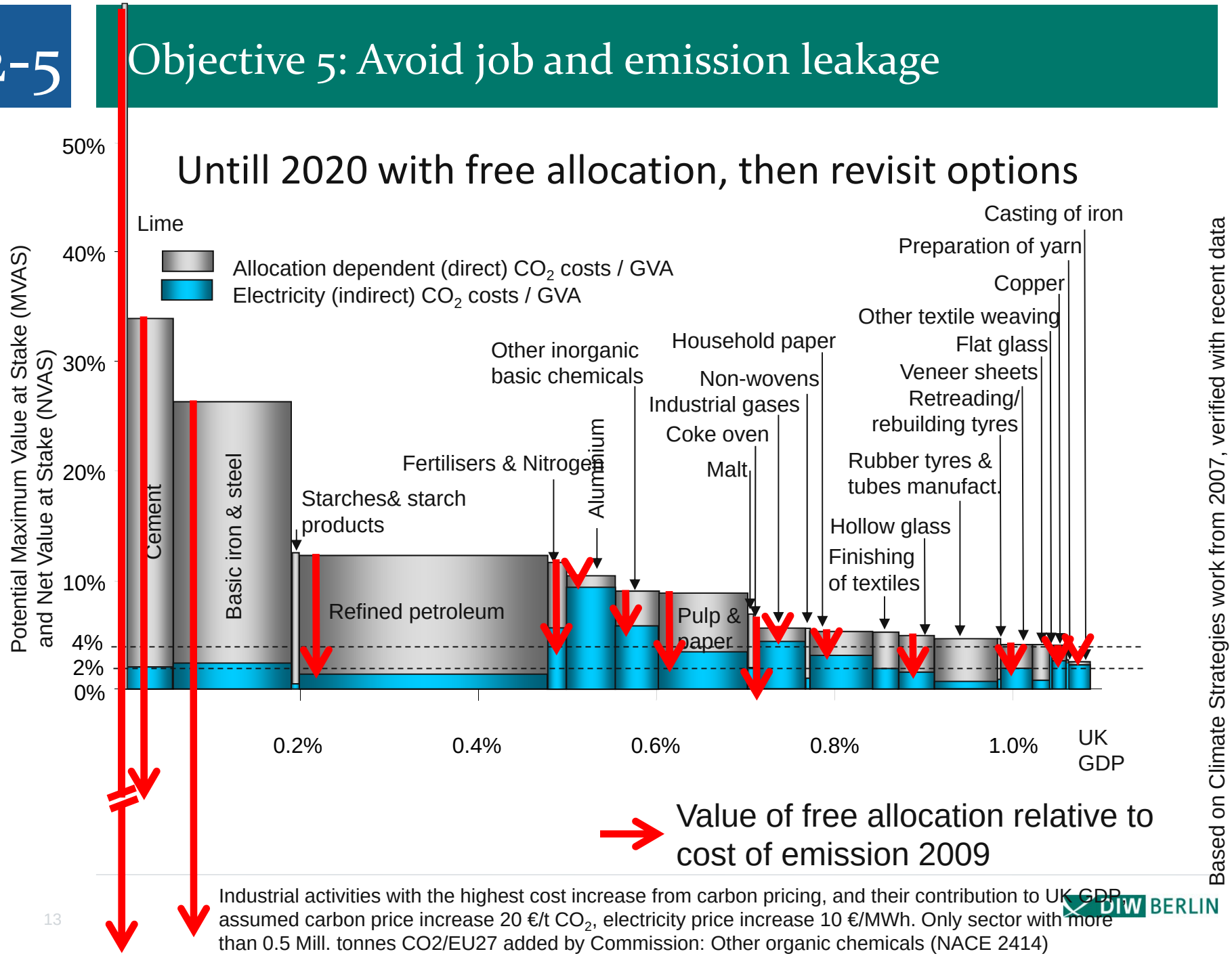
2-4 Evaluated across energy and climate package

Table II Economic impact of the building blocks of the proposals in terms of increased direct costs

Cost as % of GDP 2020	**Cost efficient reference option**	**Redistribution of Non ETS targets, no CDM**	**Redistribution of Non ETS targets, no CDM** **+ Partial redistribution of auctioning rights EU ETS**	**Redistribution of Non ETS targets** **+ Partial redistribution the auctioning rights EU ETS** **+ with CDM**	**Redistribution of Non ETS targets** **+ Partial redistribution auctioning rights EU ETS** **+ with CDM** **+ Redistribution of RES targets and full RES trade**
	Option 1	Option 2	Option 3	Option 4	Option 5
EU27	0.58	0.61	0.61	0.45	0.45
AT	0.66	0.86	0.82	0.58	0.34
BE	0.76	0.83	0.93	0.69	0.70
BG	2.16	1.09	-0.35	0.14	-1.25
CY	0.09	0.08	-0.04	-0.03	0.07
CZ	1.12	0.49	0.03	0.20	-0.51
DK	0.29	0.57	0.50	0.22	0.11
EE	1.59	1.09	0.41	0.58	-0.53
FI	0.47	0.53	0.56	0.52	0.22
FR	0.39	0.39	0.37	0.32	0.47
DE	0.57	0.47	0.60	0.49	0.57
EL	0.97	0.74	0.53	0.60	0.59
PL	1.24	0.48	0.32	0.38	0.02
PT	0.87	0.48	0.54	0.57	0.51
RO	0.95	0.37	0.29	0.29	0.04
SK	1.17	0.79	0.74	0.60	0.26

2-5 Objective 5: Avoid job and emission leakage

Untill 2020 with free allocation, then revisit options



Industrial activities with the highest cost increase from carbon pricing, and their contribution to UK GDP, assumed carbon price increase 20 €/t CO_2, electricity price increase 10 €/MWh. Only sector with more than 0.5 Mill. tonnes CO2/EU27 added by Commission: Other organic chemicals (NACE 2414)

Based on Climate Strategies work from 2007, verified with recent data

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2-5 Distortions from different C-efficiency in EU countries?

Table 4-3 Energy intensity per country for the production of steel, based on the default energy intensities given in Table 4-2.

	Fuel intensity (GJ/ton)	Electricity intensity (GJ/ton)	Average CO_2 from fuel (kg/GJ)	Average CO_2 from electr. (kg/GJ)	CO_2 eff. fuel (kg/ton)	CO_2 eff. electr. (kg/ton)	CO_2 eff. (kg/ton)
European Union (EU27)							
Germany	13.8	0.70	118	50	1618	35	1650
France	12.5	0.78	118	8	1474	6	1480
Italy	8.3	1.04	82	40	685	42	730
Spain	5.5	1.22	85	39	470	47	520
Netherlands	12.3	0.80	123	56	1502	45	1550
Belgium	14.7	0.64	101	24	1490	16	1510
Sweden	12.3	0.80	105	10	1283	8	1290
Poland	11.9	0.82	110	88	1304	73	1380
Czech Republic	12.3	0.80	110	68	1344	54	1400
Romania	12.6	0.73	115	48	1439	35	1470
Hungary	12.3	0.80	118	48	1450	38	1490

Source: TNO – Greenhouse gas efficiency of industrial activities in EU and Non-EU

4 Summary : Are the objectives achieved?

- Environmental objective
  - 2020 EU OK, but not with 2050 target & North-South finance
- Coordination for policies and supply chain
  - Accumulated surplus creates uncertainty and reduces credibility
- Low-carbon investment framework
  - Declining carbon price interpreted as lack of commitment
  - Reduces viability for short-term and clarity for long-term investments
- Fair effort sharing
  - Ensure it is maintained with potential intervention
- Avoid job and emission leakage
  - Secured with free alloc & state aid, revisit alternatives for post 2020

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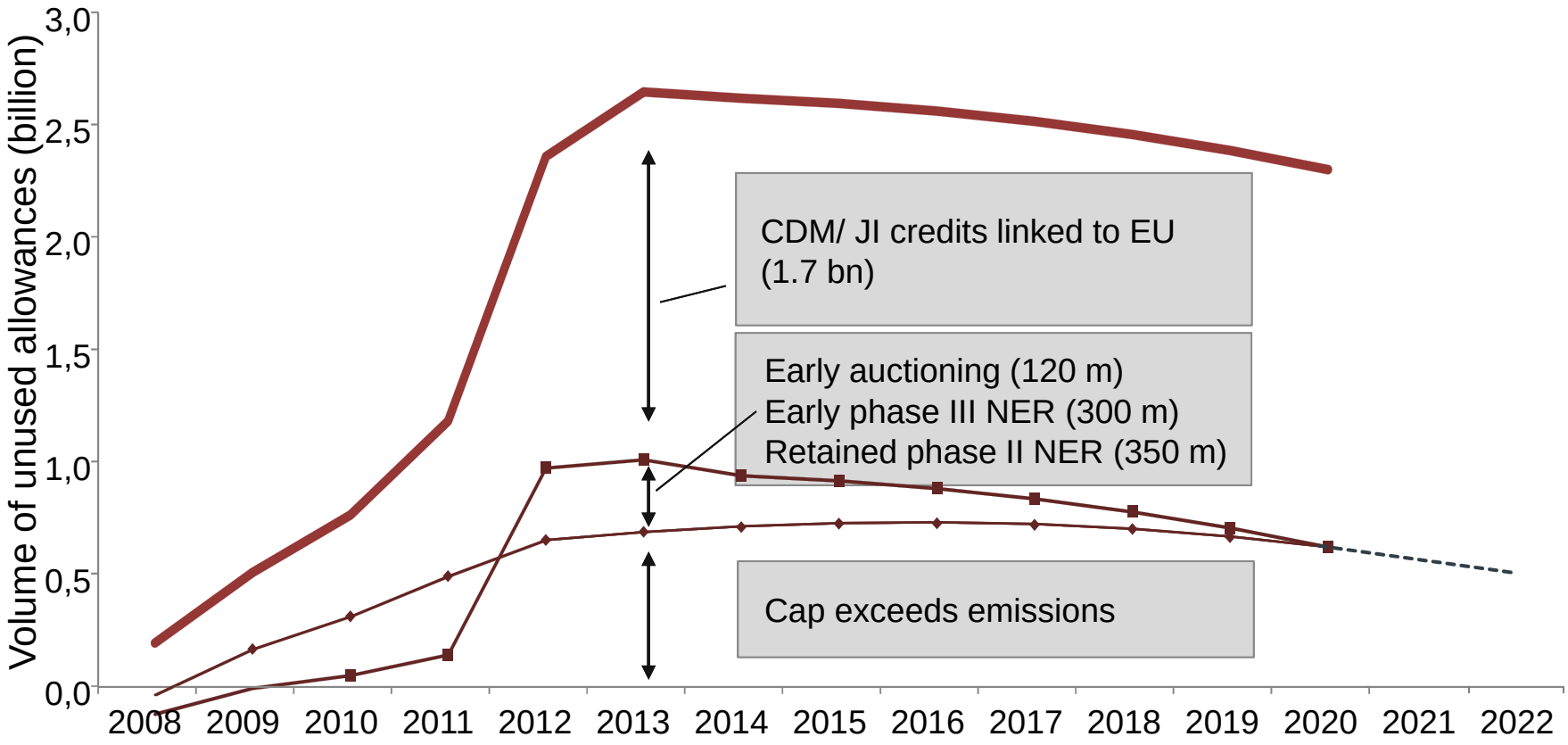
2 The surplus of unused allowances is „piling“ up



Source: Banking of Surplus Emissions Allowances: Does the Volume Matter? DIW Discussion paper 1196

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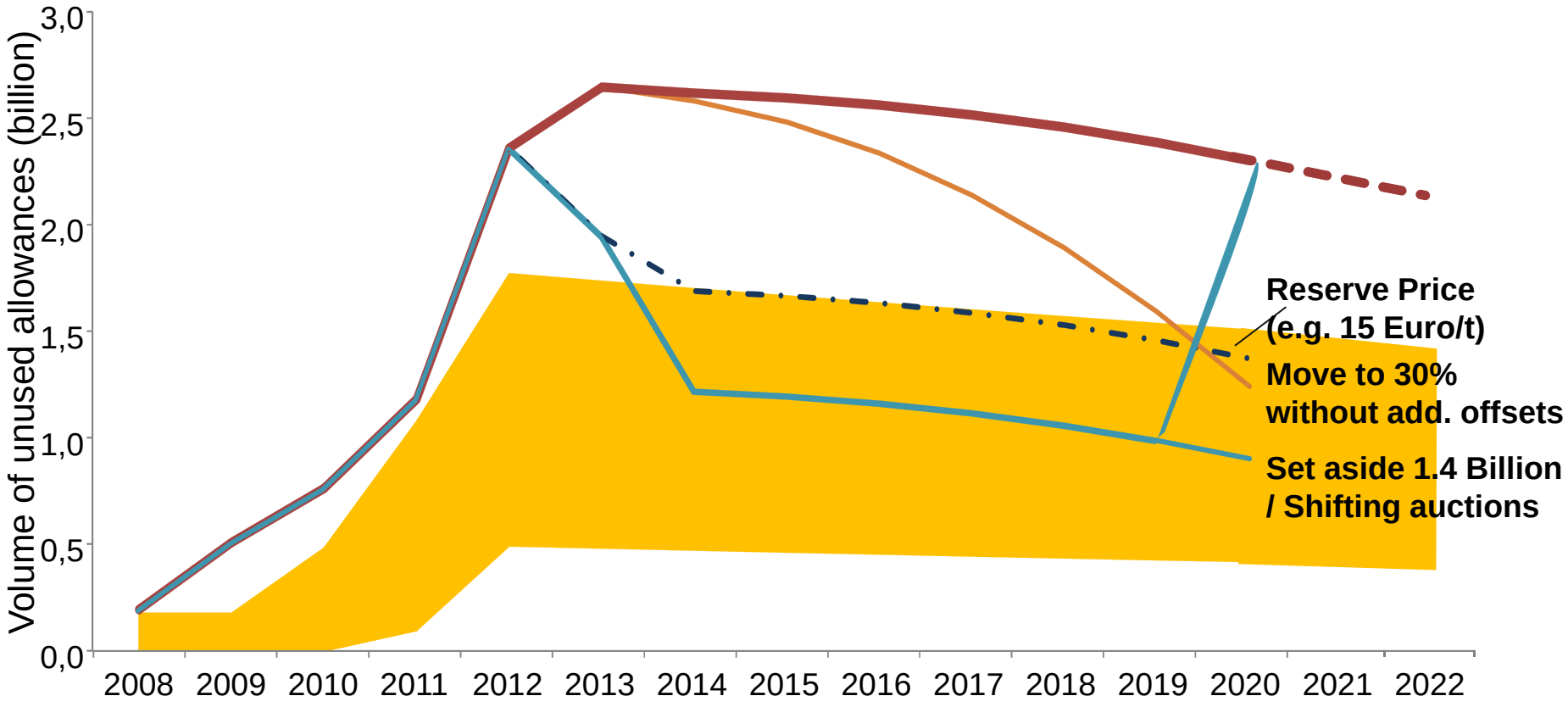
3 What are implications for timing and scale of policy?



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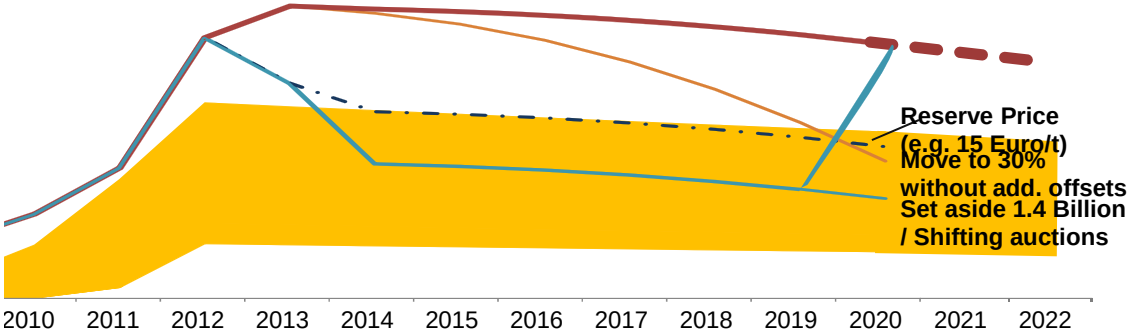

	Environmental	Coordination	Investments	Effort sharing	Avoid leakage
Shift to 30% target	X	X		X+	X
Review post 2020 trajectory				X+	X
Permanent set -aside	?*	X	?*	X+	X
Shift auction time-frame	X	X	X	X+	X
Review post 2020 trajectory					
Potential additional components: (not standing alone)					
Carbon price floor			X	X+	X
Carbon bank			X	X+	X

** Due to delay in implementation*
+ Subject to implementation details

X Objective achieved

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Vielen Dank für Ihre Aufmerksamkeit.

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