









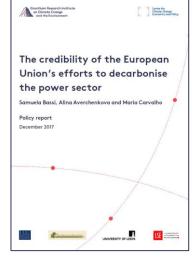




Presentation overview

- Approach to assessing credibility
- Results of EU member states' credibility on decarbonising the power sector
- Future research: robust conceptual definition of policy change vs reversal
- Annex:
 - Policy recommendations from study
 - How other indicators were scored
 - More results





<u>G20 report</u> (2016) link <u>EU report</u> (2017) link





Approach to defining and measuring credibility

Scope: Assessing credibility of countries' efforts to decarbonise the power sector Steps:

- 1. Define credibility: 'the likelihood that policymakers will keep their promises to implement the pledges or policies they announce' (from literature review)
- 2. Identify **determinants** that increase credibility of decarbonisation efforts (based on theoretical and empirical studies)
- 3. Identify **simplified set of indicators and underlying data** for evaluation of the determinants
- 4. Define scoring rules for each determinant: 0-4 scale
- 5. Apply the framework to EU + selected member states:

CZ, DK, FR, DE, IT, PL, ES, UK







The key elements & determinants of credibility

Rules & procedures

1. Legislation and policy: Coherent and comprehensive legislative and policy basis

2. Public bodies: Dedicated public bodies supported by a consultative mechanisms

Players & organisations

3. Past policy reversal: No history of policy abolition

4. Past performance: Track record of delivering on past climate change commitments

Norms & public opinion

5. Decision-making process: Transparent, inclusive and effective decision-making process with sufficient political constraints to limit policy reversal

Past performance

6. Private bodies: Supportive private bodies

7. Public opinion: Climate-aware public opinion





Indicators, data and scoring: example

1. Legislation and policy: Coherent and comprehensive legislative and policy basis

Determinant

High-level vision

- Framework legislation
- **GHG** targets
- **RES-e targets**



		Short term (up to 2020)	Medium term (up to 2030)	Long term (up to 2050) low ambition (<80% RES) or informal	Long term (up to 2050) high ambition (>80% RES)
GHG target	Short term (up to 2020)	Not supportive	Slightly supportive	Slightly supportive	Moderately supportive
	Medium term (up to 2030)	Slightly supportive	Moderately supportive	Moderately supportive	Largely supportive
	Long term (up to 2050) low ambition (<80% decrease) or informal	Slightly supportive	Moderately supportive	Moderately supportive	Fully supportive
	Long term (up to 2050) high ambition (>80% decrease)	Moderately supportive	Largely supportive	Fully supportive	Fully supportive

Low-carbon	
Low-carpon	nolicies
LOW COINCII	Policics

- Carbon pricing
- Fossil fuel subsidies
- Low-carbon subsidies: size, variance
- **WACC RES**

Indicators

Data



Scoring matrix







Summary: MS credibility of decarbonisation policies for power

	. EU	zech Republi	Denmark	France	Germany	Italy	Poland	Spain	UK
10.1	Moderately	Moderately	Largely	Largely	Largely	Moderately	Slightly	Moderately	Largely
Legislation and Policy	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive
Process	Largely supportive	Largely supportive	Fully supportive	Largely supportive	Largely supportive	Largely supportive	Largely supportive	Largely supportive	Largely supportive
Fiocess	Fully	Moderately		Moderately	Slightly	Moderately	Slightly	Moderately	
Public bodies	supportive	supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	Fully supportive
	Moderately	Moderately	Largely	Largely	Moderately	Moderately	Slightly	Moderately	Moderately
Private sector	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive
	Moderately	Not supportive	Fully supportive	Largely	Largely	Moderately	Not supportive	Moderately	Moderately
Public Opinion	supportive	1400 Supportive	r any supportive	supportive	supportive	supportive		supportive	supportive
n	Fully	Fully supportive	Fully supportive	Moderately	Largely	Largely	Moderately	Moderately	Largely
Past performace	supportive		,	supportive	supportive	supportive Moderately	supportive	supportive	supportive
Policy reversal	Fully supportive	Slightly supportive	Fully supportive	Largely supportive	Moderately supportive	supportive	Fully supportive	Slightly supportive	Moderately supportive
1 only reversal	Supportive	эаррогиче		Supportive	Supportive	заррогите	Supportive	эаррогиче	зарроние
Qualitative indicators: key determinants and sub-indicators									
qualitative indicators. Rey determinants and sast indicators	EU	zech Republi	Denmark	France	Germany	Italy	Poland	Spain	luk
	Moderately	Moderately	Largely	Largely	Largely	Moderately	Slightly	Moderately	Largely
1 LEGISLATION AND POLICY: Coherent and comprehensive legislative	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive
	Largely	Largely	Largely	Largely	Fully supportive	Largely	Slightly	Moderately	Largely
High-level vision: climate change framework legislation and targets	supportive	supportive	supportive	supportive		supportive	supportive	supportive	supportive
Policies supporting low carbon generation: carbon pricing and energy subsidies	Moderately supportive	Slightly	Largely supportive	Largely supportive	Moderately supportive	Slightly supportive	Slightly supportive	Moderately supportive	Moderately supportive
Policies supporting low carbot generation, carbot pricing and energy subsidies	Largely	supportive Largely		Largely	Largely	Largely	Largely	Largely	Largely
2. PROCESS: Transparent, inclusive and effective decision making pr	supportive	supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	supportive
	Largely	Largely	Fully some author	Largely	Largely	Largely	Largely	Largely	Largely
Mechanism for building buy-in from stakeholders	supportive	supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	supportive
	Largely	Largely	Largely	Moderately	Largely	Moderately	Largely	Moderately	Largely
Stable, consistent and not easily reversible law and policy-making process	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive
Transparent, consistent and effective administrative and enforcement mechanisms	Largely supportive	Largely supportive	Fully supportive	Largely supportive	Fully supportive	Largely supportive	Largely supportive	Largely supportive	Fully supportive
Trainsparent, consistent and effective administrative and efforcement mechanisms	Fully	Moderately		Moderately	Slightly	Moderately	Slightly	Moderately	
3. PUBLIC BODIES: Dedicated climate change public bodies	supportive	supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	Fully supportive
	Fully	Moderately	Cullinguage action	Moderately	Slightly	Moderately	Slightly	Moderately	Fully average in
Climate change bodies	supportive	supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	Fully supportive
4 DDIUATE SECTOD. C	Moderately	Moderately	Largely	Largely	Moderately	Moderately	Slightly	Moderately	Moderately
4. PRIVATE SECTOR: Supportive private bodies	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive	supportive
Private sector	Moderately supportive	Moderately supportive	Largely supportive	Largely supportive	Moderately supportive	Moderately supportive	Slightly supportive	Moderately supportive	Moderately supportive
i mane sector	Moderately			Largely	Largely	Moderately		Moderately	Moderately
5. PUBLIC OPINION: citizens support for climate action	supportive	Not supportive	Fully supportive	supportive	supportive	supportive	Not supportive	supportive	supportive
	Moderately	Not supportive	Fully supportive	Largely	Largely	Moderately	Not supportive	Moderately	Moderately
Public opinion	supportive	140t Supportive	r day supportive	supportive	supportive	supportive		supportive	supportive
	Fully	Fully supportive	Fully supportive	Moderately	Largely	Largely	Moderately	Moderately	Largely
6. PAST PERFORMANCE: Track record of delivering on commitments	supportive			supportive	supportive	supportive	supportive	supportive	supportive
Paring and house de DE harmate for a service	Largely	Largely	Largely	Not supportive	Fully supportive	Fully supportive	Fully	Slightly	Fully supportive
Performance towards RE targets for power sector	supportive	supportive	supportive	Largely	Moderately	Moderately	supportive Slightly	supportive Moderately	Moderately
Performance towards interconnection	nła	Fully supportive	Fully supportive	supportive	supportive	supportive	supportive	supportive	supportive
	Fully	Fully supposed	Fully supposed		Moderately			Fully	1
Performance in EU ETS	supportive	Fully supportive	Fully supportive	Fully supportive	supportive	Fully supportive	Not supportive	supportive	Fully supportive
	Fully	Slightly	Fully supportive	Largely	Moderately	Moderately	Fully	Slightly	Moderately
7. POLICY REVERSAL: No history of policy abolition/reversal	supportive	supportive	1 day supportive	supportive	supportive	supportive	supportive	supportive	supportive
Ab - 15-1	Fully supportive	Slightly	Fully supportive	Largely	Moderately	Moderately	Fully	Slightly	Moderately
Abolishment of climate change legislation for power sector		supportive	· · · · ·	supportive	supportive	supportive	supportive	supportive	supportive

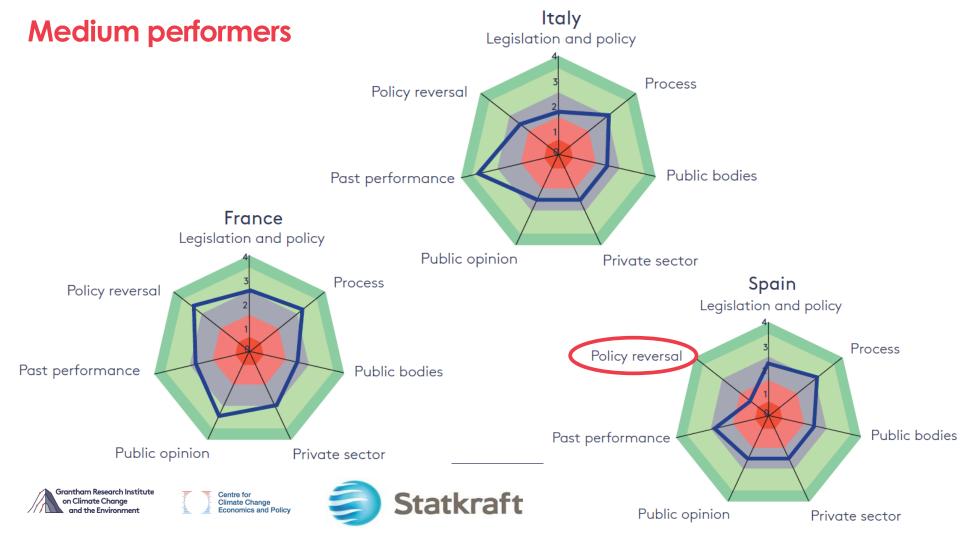


Top performers Germany Legislation and policy **Process** Policy reversal Public bodies Past performance UK Legislation and policy Public opinion Private sector Denmark **Process** Policy reversal Legislation and policy **Process** Policy reversal Public bodies Past performance Public bodies Past performance Public opinion Private sector Public opinion Private sector

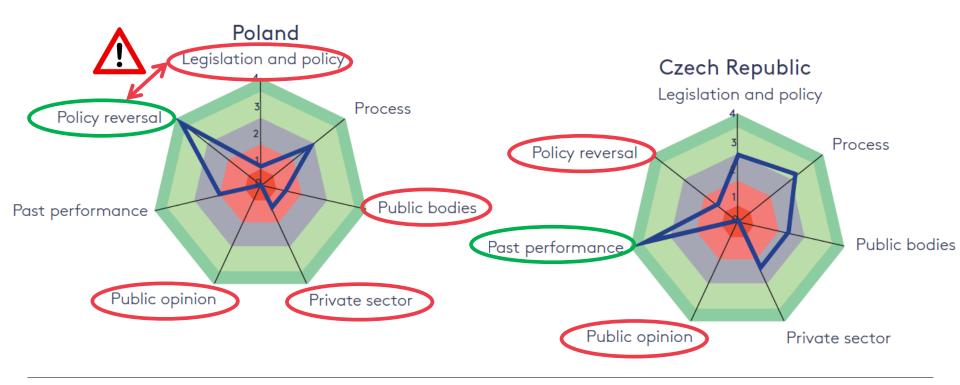








Bottom performers



Scale: 0-0.5: not supportive of credibility; 0.5-1.5: slightly supportive; 1.5-2.5: moderately supportive; 2.5-3.5: largely supportive; 3.5-4: fully supportive

General policy recommendations

- Clear policy and firm legislation are key areas in which policy makers can make immediate gains in terms of credibility.
- Policy makers can further strengthen credibility by improving joined-up thinking and scrutiny of decision-making bodies.
- Commitment devices may be required to ensure policy consistency over time to avoid frequent reversals.
- Dialogue and consultations, together with tailored policy design, should be pursued to generate policy buy-in from the private sector and the general public.

The EU has an opportunity to scrutinise and advise on future policies when MS submit their 'Integrated national energy and climate plans' in 2018





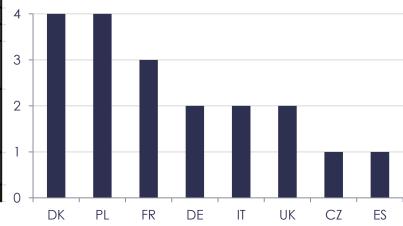
Policy reversal: arbitrary scoring to legal definitions of reversals

Scoring matrix

		Type of policy reversal			
		Framework change?			
		Yes	No		
			At least one (permanent) abolition	Only retrospective or temporary abolition	
Number of Low- carbon technologies/sectors affected	2 or more	Not supportive	Slightly supportive	Moderately supportive	
	1	Not supportive	Moderately supportive	Largely supportive	
	0	Not supportive	Fully supportive	Fully supportive	

Avoiding Policy Reversal Score

(4 = Fully supportive; 1= Slightly supportive)



Considered reversal when:

- Feature changed before end date of policy
- 2. No prior warning that feature change/new feature would occur

Policy features changed:

Time period change; Change level of support scheme; Apply one-off fixed charge; apply new tax/fee





Further research: Policy change vs. policy reversal

1. Academic contribution:

- 1. Conceptually define the difference between change and reversal
- 2. Integrate insights from: law, governance, economics, technological change

2. Methodological and empirical contribution:

- 1. Operationalise definitions to measure from <u>CCLW database</u>
- 2. Measure number of policy changes against reversal
- 3. Connection to litigation cases, and governance implications

3. Policy relevance:

- 1. Consideration of identifying future uncertainties and risks (incl framework for technological change)
- 2. Design of policies to balance flexibility with long-run predictability
- 3. Minimise litigation and enhance credibility





Thank you!



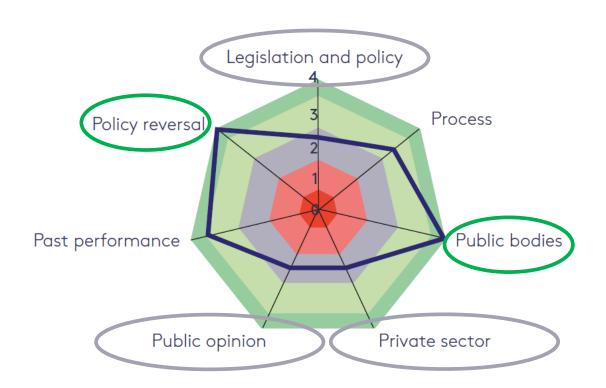


Annex





Credibility scores for the EU as a whole



Key: Degree of support to credibility

3.5-4: fully supportive

2.5–3.5: largely supportive

1.5–2.5: moderately supportive

0.5–1.5: slightly supportive

0-0.5: not supportive

EU average score





Scoring matrix: Policy & legislation, low carbon policies

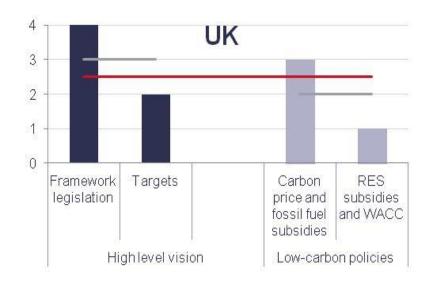
			Barrier: Fossil fuel subsidies		
			Above EU average (>0.14%GDP)	Below or equal to EU average (<= 0.14%GDP)	
Carbon pricing	EU ETS only		Not supportive	Slightly supportive	
	Carbon tax	Low (<€10/t CO2)	Slightly supportive	Moderately supportive	
		Medium (€10- €20/tCO2	Moderately supportive	Largely supportive	
		High (>€20/tCO2)	Largely supportive	Fully supportive	
			WACC		
			> EU average (8.4%)	< = EU average (8.4%)	
Low carbon subsidies	Share < = EU average	Variance > EU average (70)	Not supportive	Slightly supportive	
		Variance <= EU average (70)*	Slightly supportive	Moderately supportive	
	Share > EU average (Variance >EU average (70)	Moderately supportive	Largely supportive	
		Variance <= EU average (70)*	Largely supportive	Fully supportive	

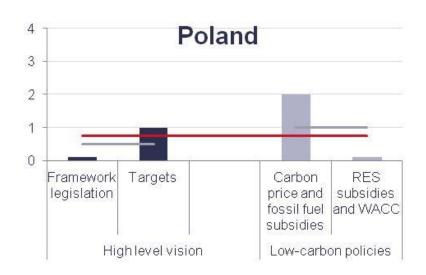




Results by determinant: 1. Legislation and policy

(4 = Fully supportive; 1= Slightly supportive)





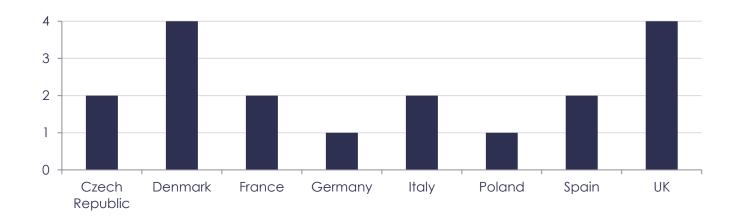
Top performer

Bottom performer





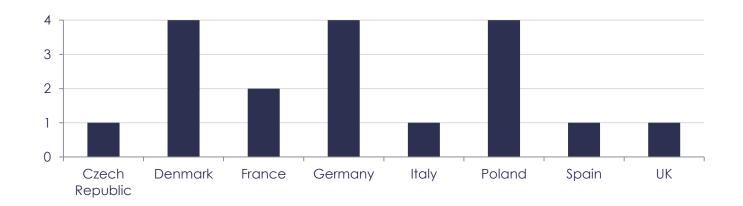
Results by determinant: 2. Public bodies







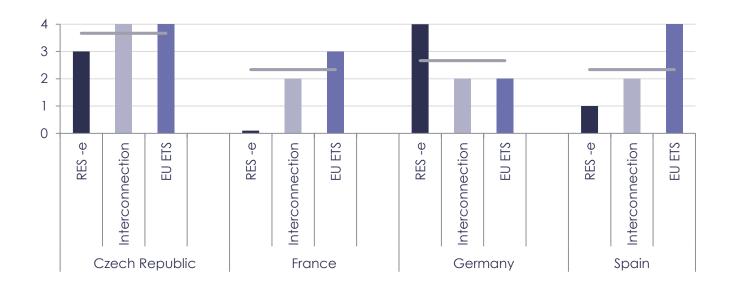
Results by determinant: 3. Past policy reversal







Results by determinant: 4. Past performance (examples)



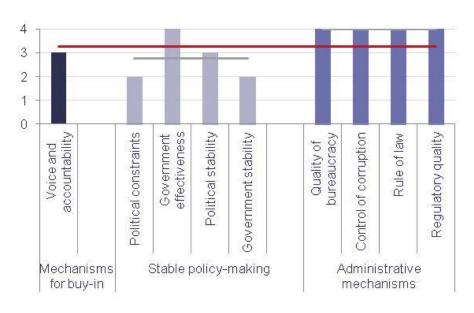




Results by determinant: 5. Decision-making process (example)

(4 = Fully supportive; 1= Slightly supportive)

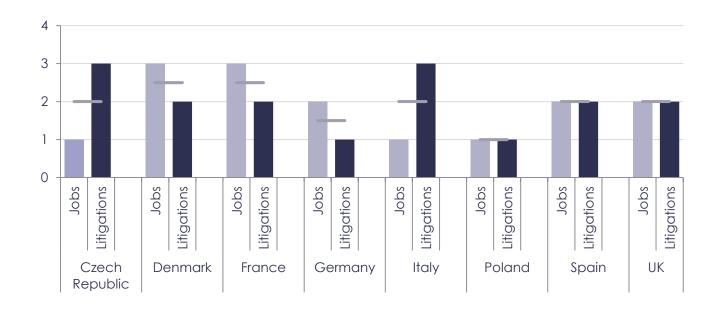
Denmark







Results by determinant: 6. Private bodies







Results by determinant: 7. Public opinion

