Climate policy databases and their suitability for policy evaluations

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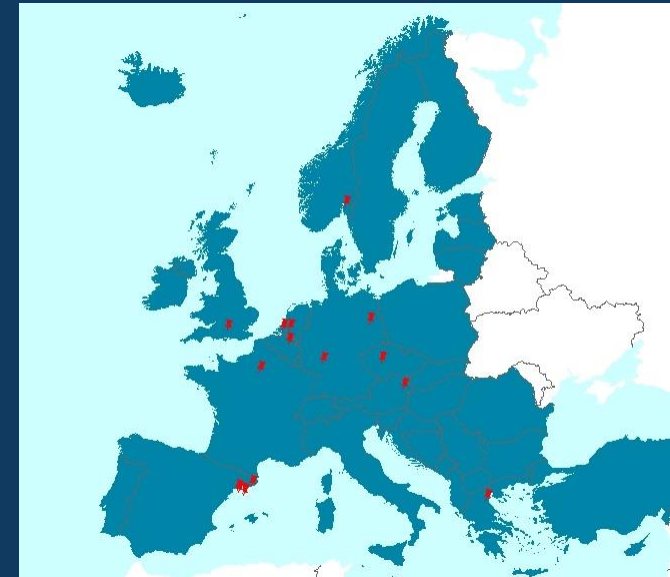European Topic Centre on Air Pollution and
Climate Change Mitigation

Key message:

- There are several policy databases and information sources that aggregate information on climate change mitigation actions.

- These show overlaps, but important information gaps remain.

- The EEA PaMs database is one of the most comprehensive on national actions.

- But while information on the nature of the PaMs is readily available, quantitative information to support policy evaluation is largely missing.

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Introduction

- *The European Topic Centre on Air pollution and Climate change Mitigation*

- Consortium of 14 organisations across Europe

- Assist the *European Environment Agency* in:

  – support to EU policy on air pollution, noise and climate change mitigation;

  – report progress of EU policy;

  – thematic and cross-cutting assessments;

  – support harmonising European monitoring networks and reporting obligations.

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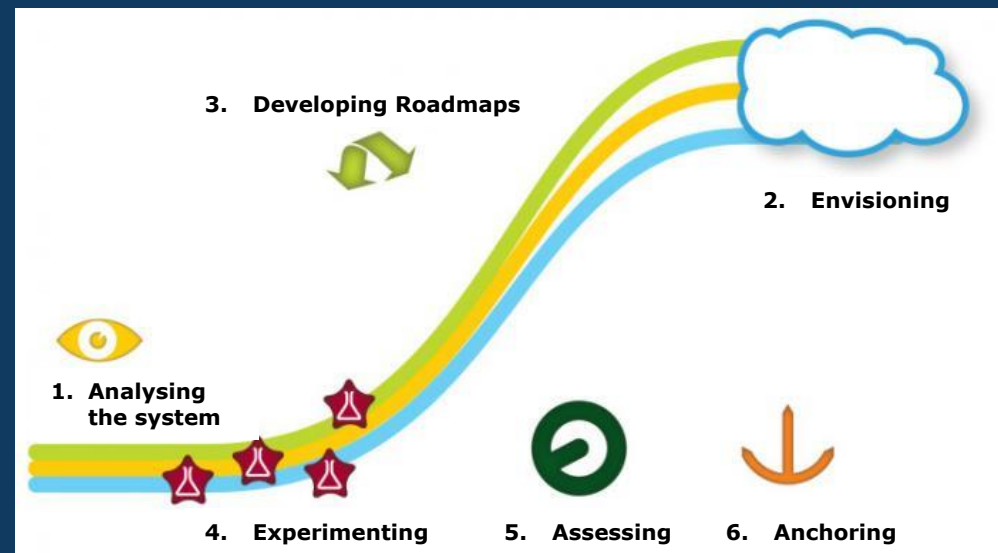Climate Change Mitigation

Introduction

- Presentation today combines results from:

  – reporting on PaMs by countries for the Monitoring Mechanism Regulation (MMR);

  – benchmark study of different PaMs databases;

  – assessment of databases as tool in policy evaluation.

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Setting the scene

- Climate/energy agenda in the EU is important with short and long term objectives to reduce GHG emissions and to ensure the transition to a low carbon society

- Long term perspective requires not only a vision of the future, but also analysing the system, experimenting and assessing.

- Policies are and will be of key importance, but what is implemented?

- … and does it work?

Actions taken by MS

- PaMs databases could be important instruments to show the actions taken by countries.

- EU Member States have several reporting obligations on their mitigation PaMs:
  - EU: climate, renewable energy and energy efficiency policies
  - UNFCCC: National Report / Biennial Report, Paris Agreement
  - Input into IEA, OECD, … policy databases

- For the MMR, Member States have to report biennially on their climate mitigation PaMs

- Aggregated by the EEA in a PaMs database and viewer

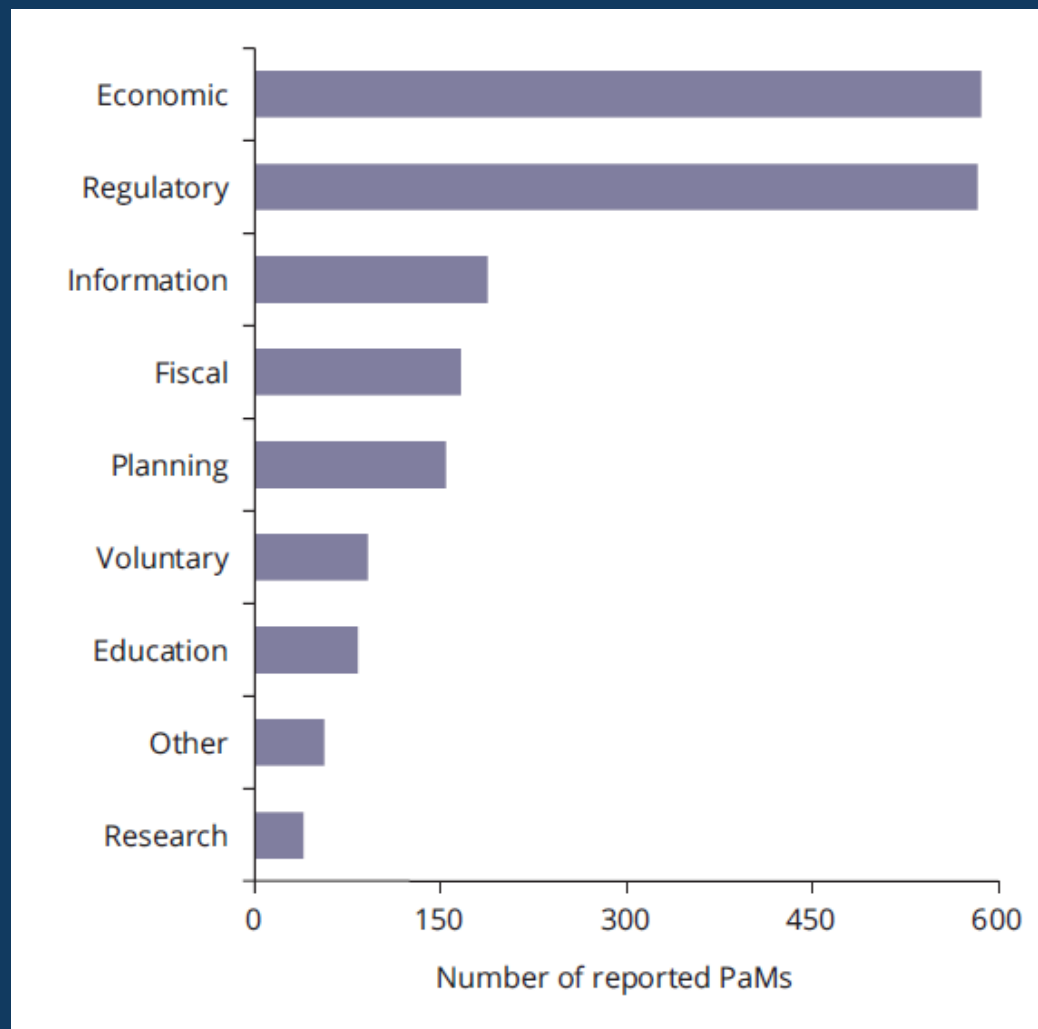|	Austria*	Belgium	Bulgaria*	Croatia	Cyprus*	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece*	Hungary	Ireland	Italy	Latvia*	Lithuania	Luxembourg*	Malta	Netherlands	Poland*	Portugal	Romania	Slovakia	Slovenia*	Spain	Sweden	United Kingdom	EU
Energy consumption	19	32	26	16	38	32	29	16	34	30	44	36	31	53	34	42	7	68	41	34	10	26	23	31	23	20	24	43	29
Transport	32	22	18	15	29	21	23	23	13	28	12	18	15	21	21	16	25	29	16	19	33	29	19	15	21	32	27	16	22
Energy supply	13	15	21	21	14	19	16	21	10	8	10	23	4	17	32	29	21	4	13	13	9	15	24	6	21	7	12	17	15
Agriculture	19	5	14	3	5	9	10	6	9	13	0	14	19	2	5	4	11	0	9	9	22	6	11	15	13	9	6	9	10
Waste	4	2	7	15	14	2	13	10	7	2	15	9	23	2	3	4	14	0	16	3	10	3	10	6	4	8	2	2	7
LULUCF	0	2	11	8	0	6	7	21	3	13	0	0	8	0	0	0	14	0	3	0	4	12	3	8	2	7	8	9	6
Industrial processes	13	9	0	13	0	4	3	3	15	5	20	0	0	2	3	2	7	0	3	0	3	6	3	13	13	8	4	3	6
Cross-cutting	0	13	4	8	0	6	0	0	9	1	0	0	0	2	0	2	0	0	0	22	10	3	6	2	2	8	18	0	5
Other	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	2	0

Note: (*) Member States for which 2013/2014 data were used.

Colours represent the share of policies and measures targeting specific sectors per Member State. The darker green colour, the higher share. The darker orange, the lower share.
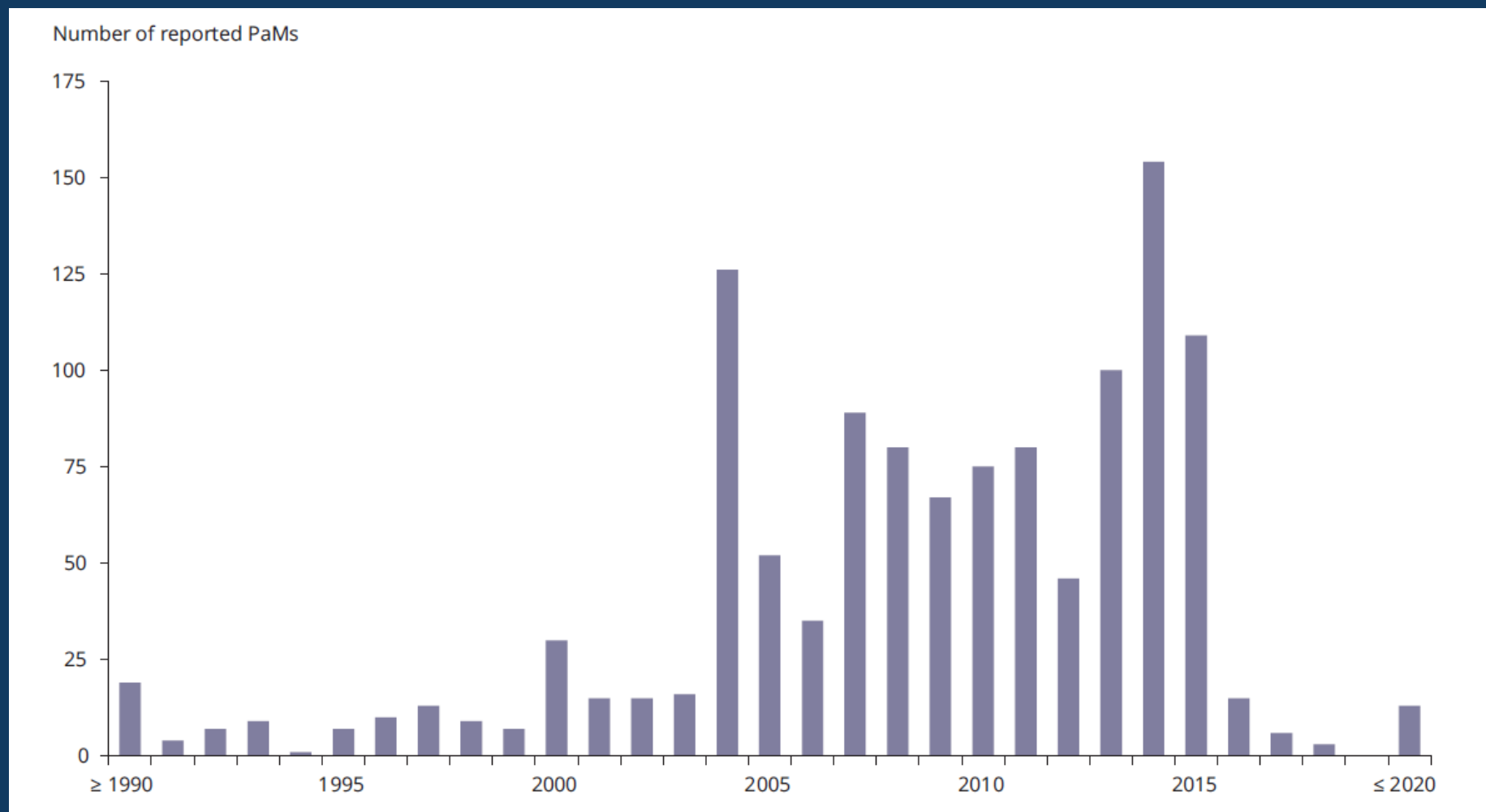
Source: EEA, 2015, 'EEA viewer of climate change mitigation policies and measures in Europe' (http://pam.apps.eea.europa.eu).

http://www.eea.europa.eu/publications/overview-of-reported-national-policies

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Policy instrument types

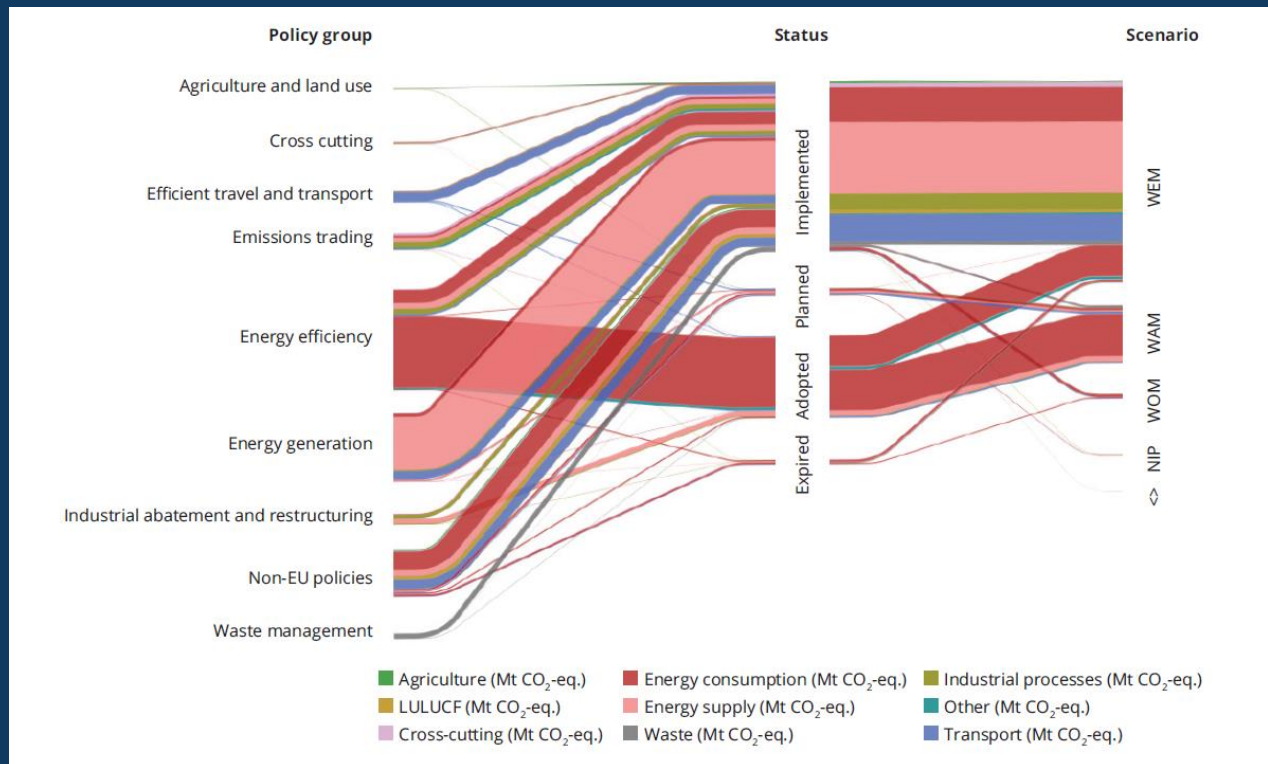# Implementation start year

Number of reported PaMs

What is the effect of these actions?

- Databases, such as EEA PaMs database, provide detailed information about (national) climate mitigation PaMs.

- Useful to monitor climate action across the EU

- But:
  - Are they still relevant?
  - What is the effect on GHG emissions?
  - How efficient are PaMs?
  - Are the PaMs coherent with EU and other national policies?

- Can these questions be answered by policy databases?

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Evaluation of policies

- The MMR: ex-post and ex-ante impact on GHG emissions, indicators and costs and benefits of PaMs shall be reported, *if available*.

Reporting is incomplete

- But reporting on quantitative information is very incomplete by Member States.

- Because:
  - information is not available (on time);
  - sensitive information, especially on costs;
  - methodological guidance is missing;
  - …

- So how does EEA PaMs database compare to other databases?

- Is information readily available in other databases to support policy evaluation?

Benchmark study

- ETC/ACM performed a benchmark study for EEA on 14 policy databases and information sources

- Focus on information sources that covered EU countries

- Criteria:

  - Coverage/scope
  - Completeness
  - Reliability
  - Timeliness
  - Accessibility

  - Evaluate:
    - Effectiveness
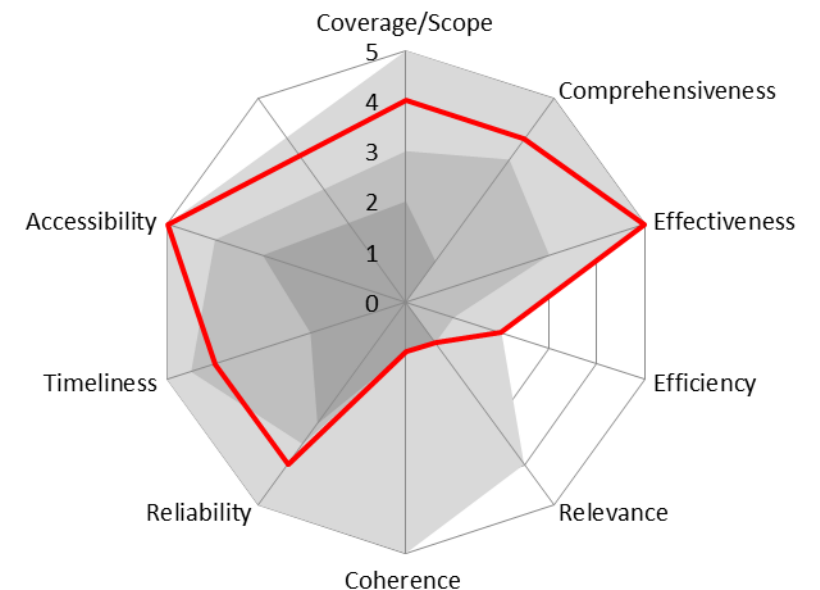   - Efficiency
    - Relevance
    - Coherence

PaM information sources:
- *EEA PaM database*
- *NEEAP*
- *NREAP*
- *CoM*
- *IEA*
- *OECD*
- *Odyssee/MURE*
- *NEC*
- *EURLex*
- *FAOLex*
- *Eur'ObservER*
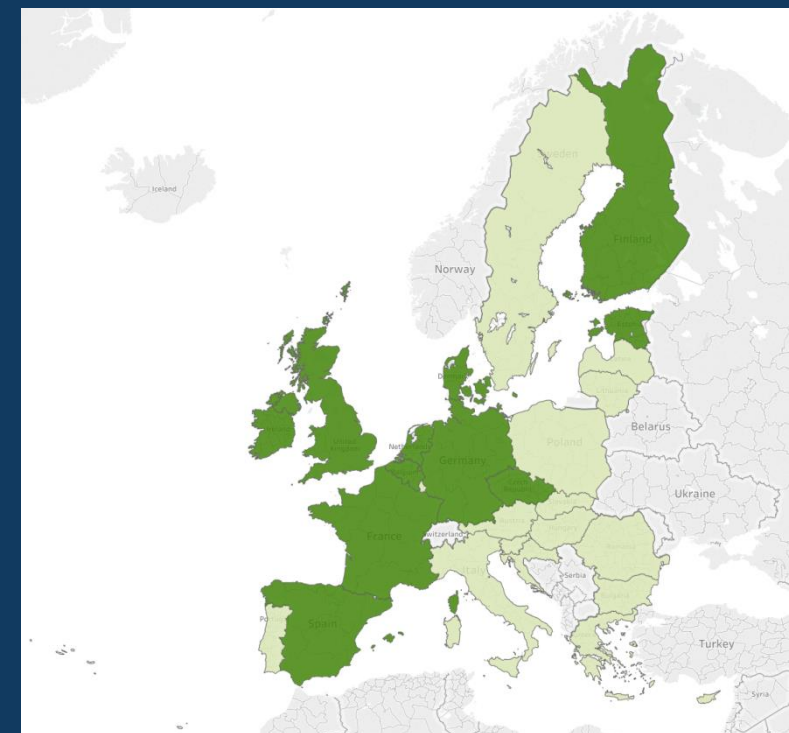- *RES-legal*
- *MMR LCDS*
- *NC and BR*

Benchmark study - results

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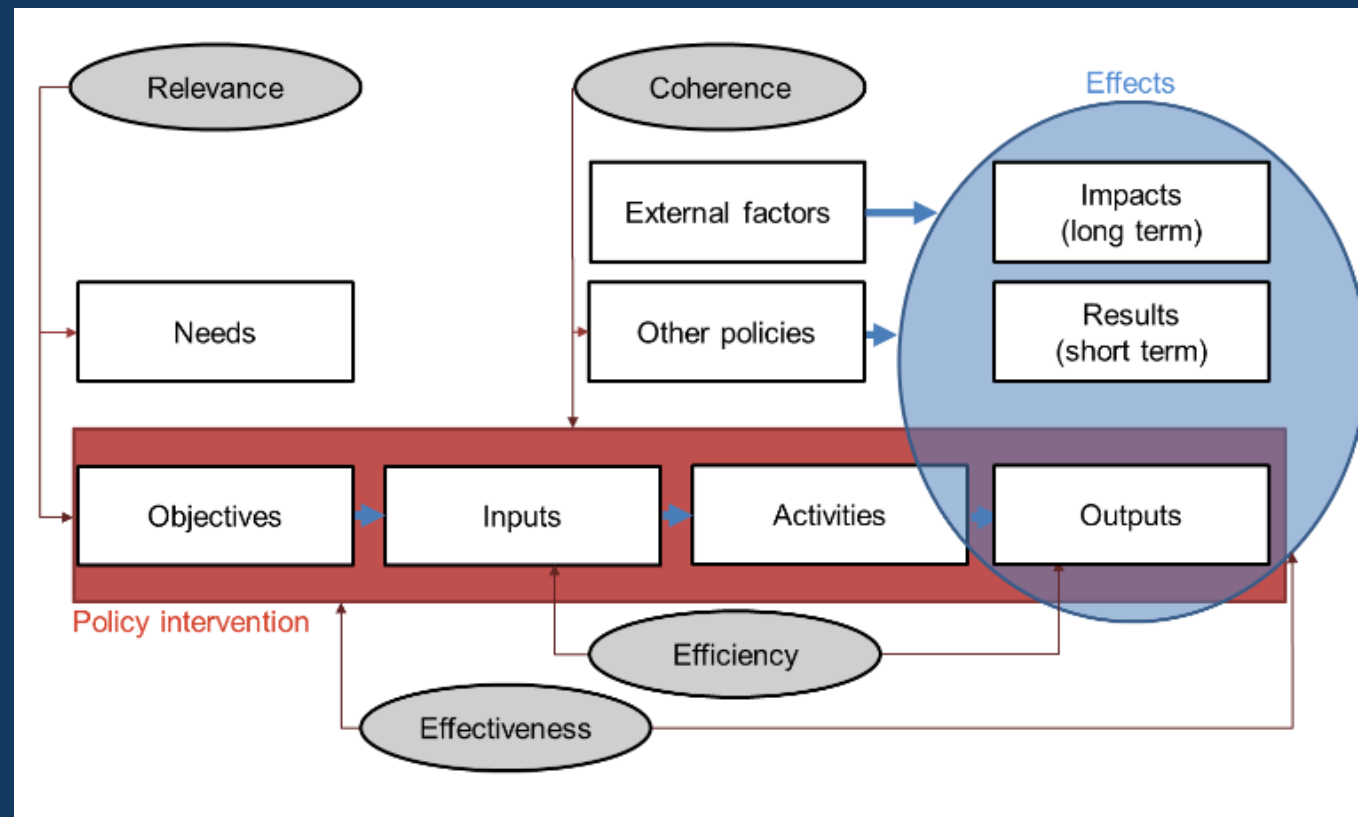   - Efficiency
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Policy evaluations

- But how far can you go based on information from policy databases in policy evaluation?

- Evaluation of 11 national PaMs in the EEA PaMs database.

- Based on information from MMR reporting, other databases/information sources and wider literature search, and interview with one country expert.

- Effectiveness – Efficiency – Relevance – Coherence

Intervention logic

- Intervention logic model as framework to link needs, objectives, actions, results and impacts.

Policy evaluations

	Promotion of car-pooling	Support to fund housing modernization using the building saving	Energy efficiency improvement in public buildings	Tax on HFCs, PFCs and SF6 - equivalent to the CO_2 tax	Carbon tax	Landfill aeriation	Heat Fund	Covenant Clean & Efficient Agro-sectors	Energy Efficiency Agreements 2008-2016	Cursos de conducción eficiente en el transporte por carretera	Energy company obligation & Domestic Green Deal
	BE	**CZ**	**EE**	**DK**	**IE**	**DE**	**FR**	**NL**	**FI**	**ES**	**UK**
	Effectiveness Coherence	Effectiveness Relevance	Effectiveness, Efficiency	Effectiveness, Efficiency Relevance	Relevance	Efficiency	Effectiveness, Efficiency	Relevance	Coherence	Effectiveness Coherence	Effectiveness
EEA PaM database	X	X	X	X	X	X	X	X	X	X	X
OECD	X	0	0	X	0	0	0	0	0	0	0
IEA policy databases	0	0	0	0	X	0	X	0	X	X	X
EurObserv'ER	0	0	0	0	0	0	X	0	0	0	0
NREAP	0	0	0	0	0	0	X	X	X	0	0
NEEAP	X	X	X	0	X	0	X	X	X	X	X
RES legal	0	0	0	0	0	0	X	0	0	0	0
Odyssee/MURE	0	X	X	0	0	0	X	X	X	X	X
NC6 and BR2	X	X	X	X	X	X	X	X	X	X	X
LCDS	0	0	0	0	0	0	0	X	X	0	0

- The objective of the MMR reporting on PaMs is not to provide exhaustive information for evaluation, yet relevant information is available in the database and additional technical reports.

- The EEA PaMs database is a useful resource for evaluation of single policy instruments or policy portfolio of a country.

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- Underreporting of quantitative data however means that this potential is not fully met.

- For some PaMs there is information available relevant to policy evaluation, but this information is not captured in the EEA PaM database.

- Further harmonisation of reporting, e.g. in the context of the Energy Union, could improve data availability and quality on climate mitigation PaMs.

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Thank you for your attention!

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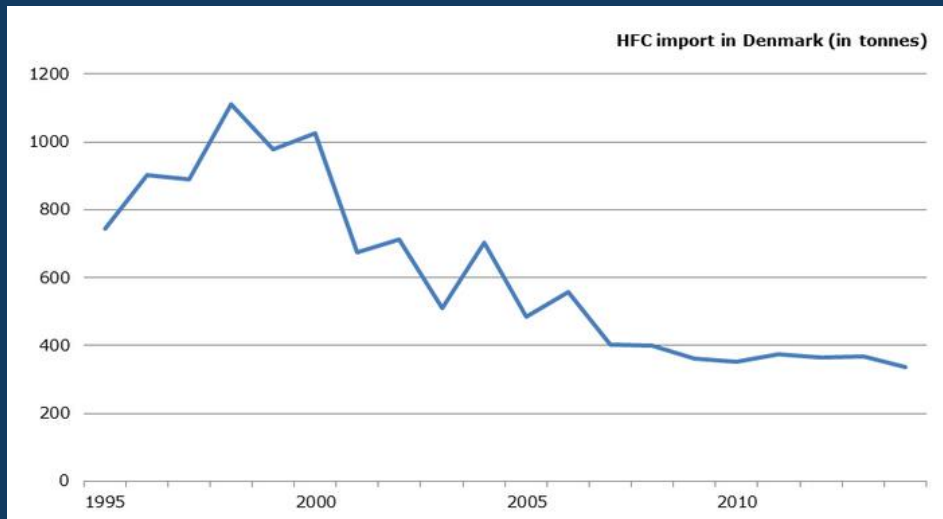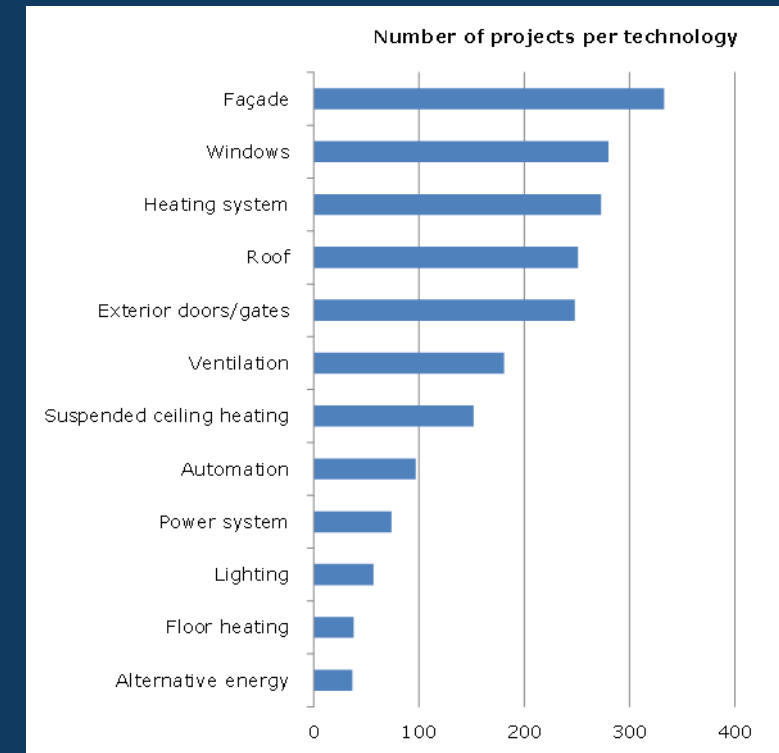Michaela Titz (UBA-V)

Assess the effect

F-gas tax in Denmark:

EE improvement in public buildings in Estonia:

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Coherence

All databases — EEA PaM database