"Expanding the policy theory behind the climate and energy package in Greece"

- *Spyridaki Niki-Artemis, University of Piraeus, Piraeus, GR*
- *Ioannou Anastasia, University of Piraeus, Piraeus, GR*
- *Flamos Alexandros, University of Piraeus, Piraeus, GR*

Outline

- Need for our work (1/10)
- Motivation (2/10)
- Content/Findings (3-6/10)
- Conclusive points - Recommendations (7/10)
- Lessons learned (8-10/10)

Why is our work important? (1/10)

"Improved design of existing policy support schemes may be more effective than a switch to a different policy scheme (ECOFYS,2008).

"The 20-20-20 EU targets, and related Directives have been quickly adopted in Greece ➔ structural changes in the country's energy and climate policy.

On a 2030 framework for climate and energy policies, the European Commission recognized the need for clarity regarding the post-2020 policy framework (Green paper. EC, 2013).

Empirical insights on the transposition of European Directives at a Member State level become essential.

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Motivation (2/10)

- **Assumption**: Enabling and constraining factors to policy efficacy* can be attributed to:

  ✓ *unexpected changes in the economic or socio-political context and/or*

  ✓ *causes related to how the policy was designed and implemented.*

- **Aim:** Provide an overview of what enables or constrains indented effects of policy instruments based on

  ✓ empirical results and

  ✓ stakeholder perceptions.

*efficacy: provides information on the general suitability of a policy or measure to reach a specific goal.

- Ex post qualitative policy evaluation on the grounds of: Theory Based Evaluation (Hammerlink et al 2008), Multicriteria Evaluation (Luis Mundaca, 2009, Konidari & Mavrakis, 2007).

Political & Social Acceptance
- Incentive to invest/comply
- Familiarity
- Equity
- Adaptability

Policy Coherence
- Institutional Coordination & Management
- Transaction Costs

Policy Consistency
- Compatibility with national policy strategy

Implementability
- Administrative Set up & feasibility
- Monitoring & Control
- Financial feasibility

	Expected level	Observed level	Impact on effectiv.
Policy instruments	✓	✓	

Unit of analysis:
-**FiT I** (ground-mounted RES projects).
-**FiT II** (small-scale PV rooftop systems).
-**"ESH programme"** (soft-loans)/residential sector.
-**"Economize programme"** (capital grants)/municipalities.

	Intended Effects (Aim)	Actual effects
FiT I	**Objective**: "Enhance RES-E production through the diffusion of RES-E technologies" **Target**: Contribution to national 2020 targets of installed capacity per RES-E technology	**% of target achieved per RES technology (2013):** Wind: 48,73% Biomass/Biofuels: 57,50% PV: 310,93%
FiT II	**Objective:** "the placement of PV systems on ➔ realization of the goal for RES penetration in the country's energy mix with the active participation of the citizens."(JMD: 2009) **Target:** Contribution to national 2020 targets of installed PV capacity	
(ESH*)	**Objective:** "improving energy performance of lower income family dwellings through subsidies/soft loans in residential buildings". **Target:** 100,000 entries to the program reset to 50,000 entries (March 2012).	**Target achievement:** 79,18% (Number of entries to the programme 39,592 /Oct. 2013)
(Economize)	**Objective:** "aid municipalities via capital grants ➔ integrated local plan to reduce GHGs emissions through energy conservation and RES use". **Target:** 11.1 GWh/yr primary energy savings in Municipal buildings.	**Target achievement**: 41% (i.e. 4.55 GWh/yr)

* "Energy Saving in Households" programme

RES policy instruments	Deviations between Exp//Obs. policy performance	Cause of deviation
FiT I scheme	- Incentive to invest	➢ **D:** combination of up-front subsidies and feed-in tariffs, slow phasing-out of rates, holding the tariff for 18-36 months until interconnection. ➢ **C:** steep PV cost decline since 2008
	- Adaptability	➢ **D:** reports on adopting the German "corridor model" made in 2011 and 2012➔ Ministry didn't adopt due to market pressures. - Delayed automatic impairment of the tariffs, ➢ **C:** political pressures from market lobby groups.
	- Monitoring & control system	➢ **D:** "initial planning and operation guided by "rough assumptions" ➔ mechanism with no reflexes to watch reduction of PV investment costs, follow capacity additions and thus protect consumers.
	- Financial feasibility	➢ **D:** slow phasing-out ➔deficit of the Special Account funding RES. ➢ **C:** Inherent Distortions in the electricity market

D: Failure in national policy design
C: Contextual (i.e. exogenous) change

Content/Findings –**EE promotion policies -** overview of performance and impacts on policy effectiveness (6/10)

EE policy instruments	Deviations in Expected/Observed policy performance	Cause of deviation
ESH programme	- Familiarity	➤ **C:** poor environmental awareness despite the Ministry's efforts
	- Policy consistency	➤ **D:** prerequisite for 100% consensus of all owners for interventions considered "communal" in condominiums
	- Financial feasibility	➤ **C:** economic decline ➔ poor end-users' creditability ➔ strict evaluation criteria for loan approval
Economize programme	- Institutional management & coordination	➤ **D:** lack of coordination with Registry of Evaluators, lack of technical expertise of personnel in Municipalities ➤ **C:** individual peculiarities regarding legality and ownership of public buildings
	- Financial feasibility	➤ **C:** inability from municipalities to cover the (initially) 30% contribution

D: Failure in national policy design
C: Contextual (i.e. exogenous) change

◆ **FiT I scheme:** Detrimental reformations in M&C system, distribution principles, **FiT II scheme** of strategic importance ➔enhances the dispersed generation and raises public awareness.

◆ Public policy process: undermined by lobby groups or large (multi-national) companies, ➔ influenced policy ambition level, adjustment process of policy results.

◆ Transition towards '*energy efficient buildings*' highly depends on societal changes (not a technological issue).

◆ Increased efficacy of EE subsidies and soft loans was offset mainly by the recessionary environment that often made investments non feasible.
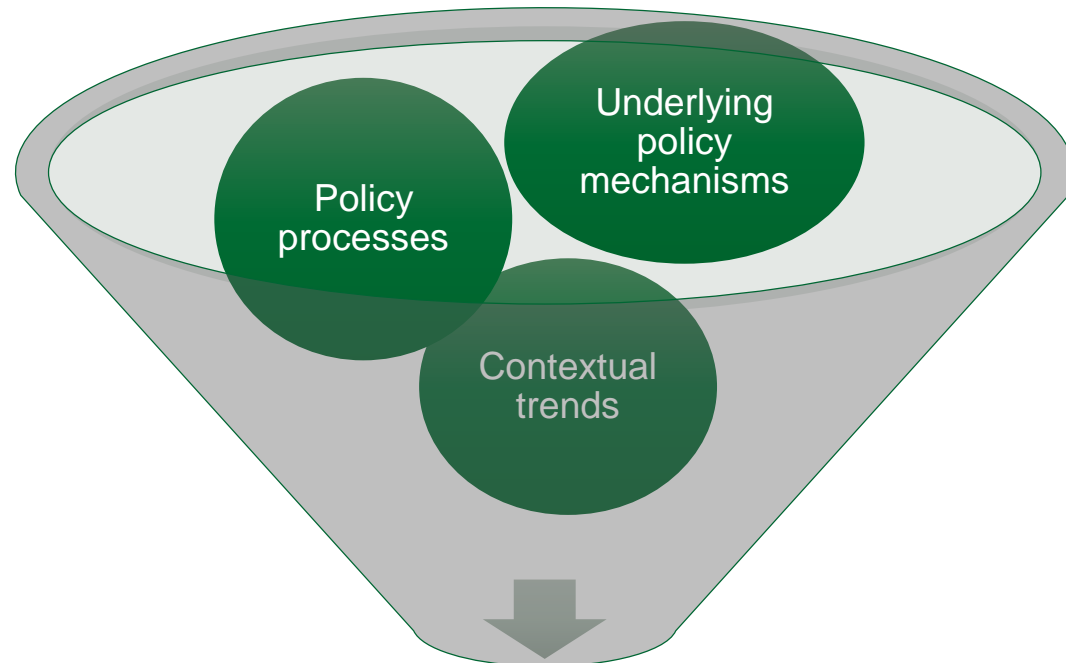
Lessons learned – how to use them? (8/10)

- Ex-post policy evaluation (implementation stage in the policy cycle).

Empirical insights & stakeholder viewpoints on:

Policy processes

Underlying policy mechanisms

Contextual trends

Qualitative factor analysis
(Benjamin K. Sovacool, 2013)

Lessons learned – how to use them? (9/10)

Assessment methodology

- Various overlaps inter se evaluation criteria.

- Detecting causality ➔ proved to be rather challenging.

Outcomes of policy apraisal

- Attention drawn from targets ➔ underlying policy mechanisms, process and contextual trends that affect them.

- Redefinition of policy objectives in a more qualitative way

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Lessons learned – how to use them? (10/10)

➢ Policy appraisal ➔ incentivize policy revision **to meet national implementation needs**, apart from achieving targets set at EU level.

➢ Thorough ex-post policy assessments of MS environmental policies found at:http://apraise.org/content/apraise-case-studies

Thank you for your attention

Contact Details

Ms Niki Artemis Spyridaki
nartemis@unipi.gr
Ass. Prof. Alexandros Flamos
e-mail: aflamos@unipi.gr
Tel: +30 (0) 210 414 2017

Back-up

Evaluation criteria/factors

Factors	Sub-factors (criteria)	Description
Political & Social Acceptance	Incentive to invest/comply (Mot)	Strength of the yielded incentives to invest or comply due to policy intervention.
	Familiarity (Fam)	Public awareness associated with the policy instrument through information/ advertisements/ official websites.
	Fairness in its distribution principles (Eq)	Distributional effects associated with relevant benefits and compliance costs among target groups.
	Adaptability to exogenous changes (Adap)	Flexibility in case of exogenous market signals (required time for adjustment) and available options for participation / compliance.
Policy Coherence	Institutional management & Coordination (Coord)	Management structures existence of oversight bodies, coordination of policy targets, networks of communication and established information flows.
	Transaction Costs (Trans)	Additional costs accruing from potential barriers during policy implementation
Consistency	Compatibility with national policy strategy (Comp)	Addressing relevant market barriers in a way that, synergies and/or lack of contradictions among policies in pursuit of different policy targets and objectives are promoted.
Implementability	Institutional set-up and capacity (Inst)	Capacity (personnel, available technologies and previous experience of associated regulators) of regulatory authorities to administer and support the implementation of the instrument.
	Monitoring & control (MnC)	Sanctions, inspections and monitoring processes to identify barriers during the execution of the mechanism ensuring compliance are considered.
	Financial feasibility (Fin)	The ability of the mechanism to be implemented with low overall costs by regulatory authorities (Konidari & Mavrakis 2007).

T3: Assessment of the effectiveness of the RES support policy framework (i.e. target achievement of the Feed in Tariffs)

- Evolution of installed Wind capacity (MW) as opposed to the estimated capacity
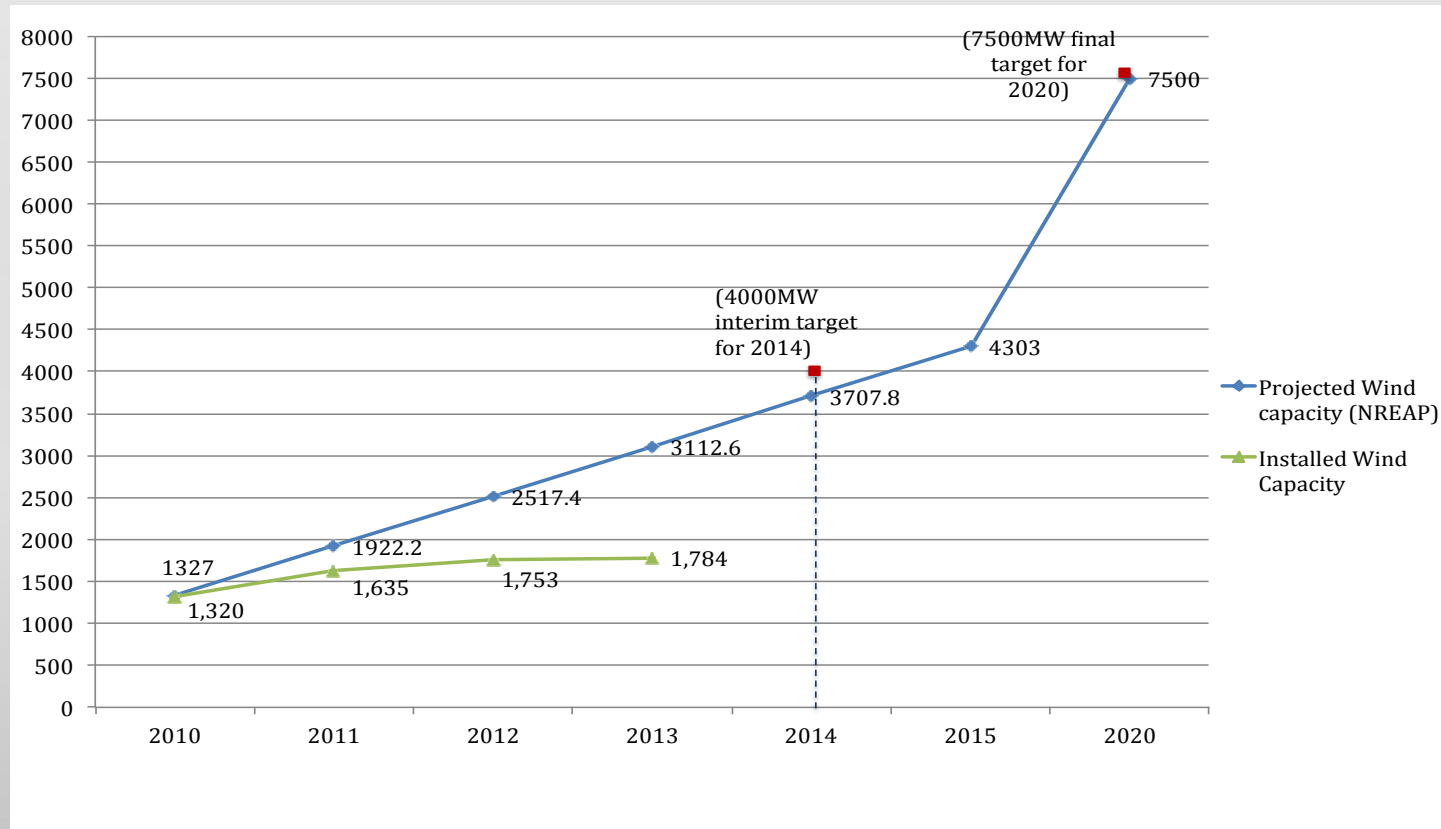
> Interim target for Wind installed capacity in 2014 was more consistent with the previous established trajectory for Wind.
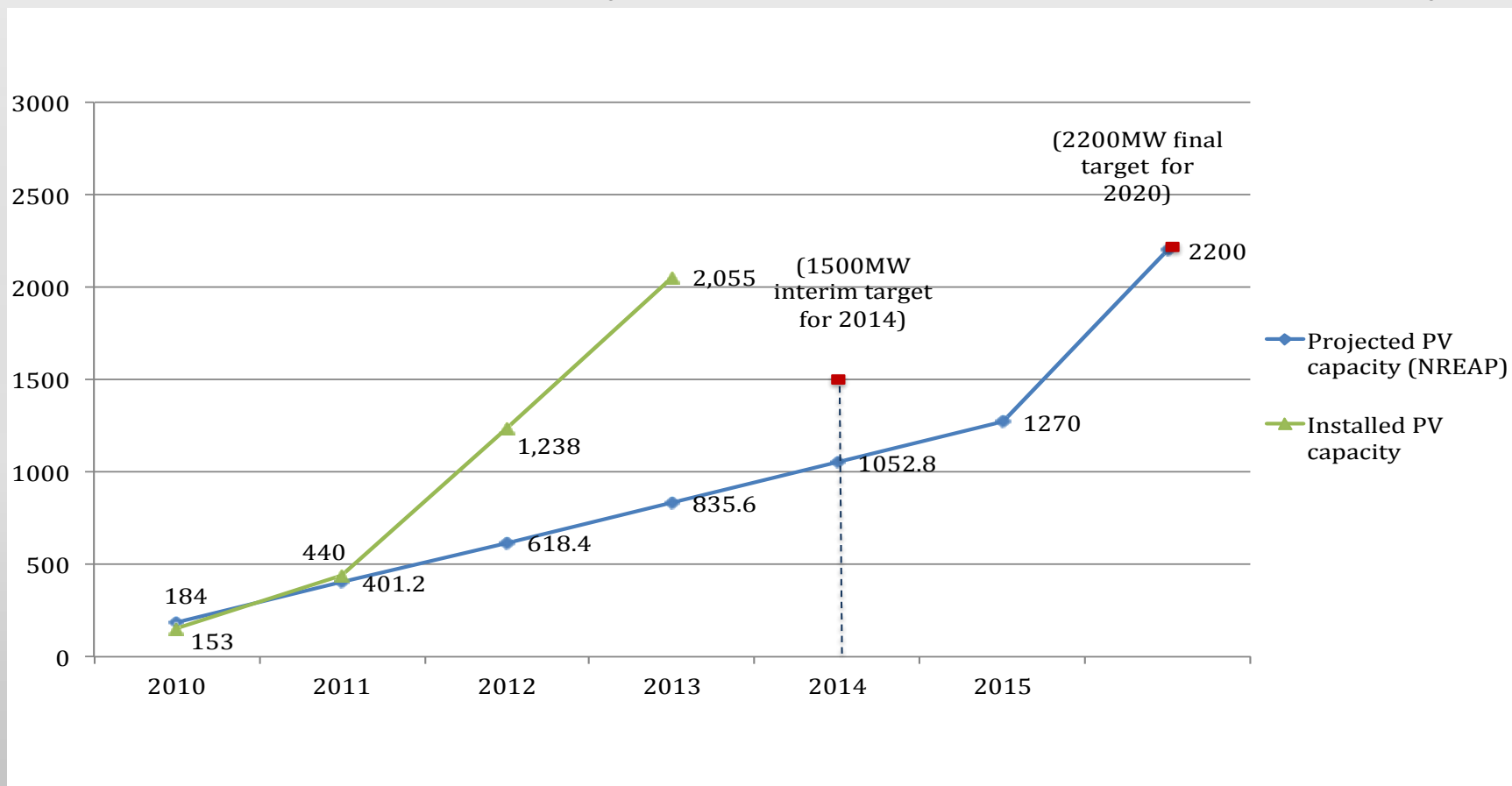
> Divergence between forecasted and installed capacity in 2012 equals to more that 40% (underachievement).

T3: Assessment of the effectiveness of RES support policy framework (i.e. target achievement of the Feed in Tariffs)

- Evolution of installed PV capacity (MW) as opposed to the estimated capacity

- ➤ Installed capacity of PV (including rooftop systems), exceeds the limit of power consumption for 2014 (deviation equal to 112%) and will surpass the limit for 2020.
- ➤ Result of this divergence is the significantly increased weighted average cost of energy from RES.

ESH-programme overview of performance levels and impacts on policy effects
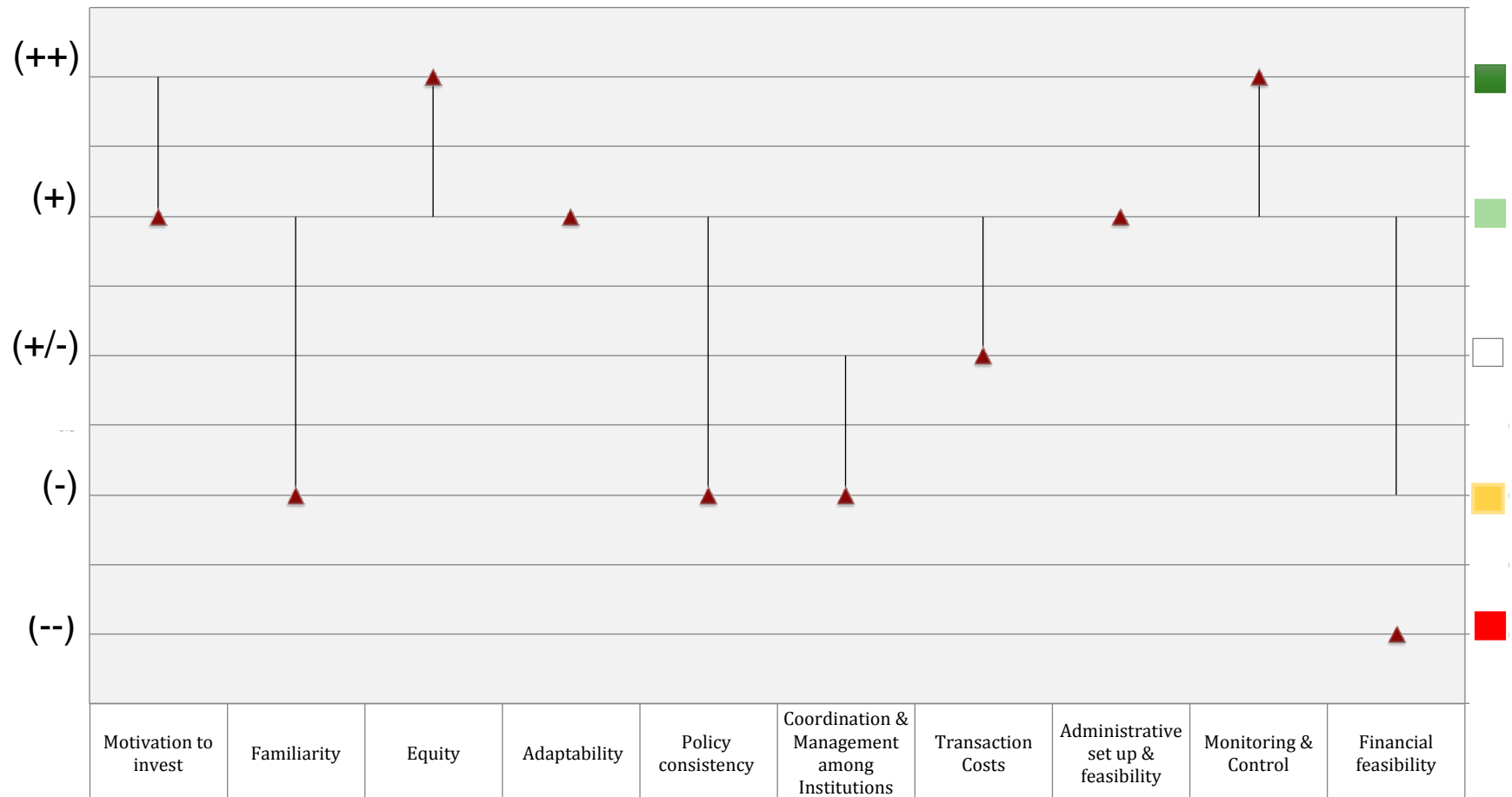
"Reasons for deviations categorized as:
"D": Failure in policy design,
"C": Contextual change

PIs	RES support				EE promotion			
	FiTs I		FiTs II		'ESH' program		Economize program	
Criteria	Performance (Exp) / (Obs)	Cause of deviation	Performance (Exp/Obs)	Cause of deviation	Performance (Exp/Obs)	Cause of deviation	Performance (Exp/Obs)	Cause of deviation
(Mot)	(+) / (++)	D, C	(+) / (++)	D	(++) / (+)	C	(++) / (+)	C
(Fam)	(-) / (-)	No deviation	(+) / (+)	No deviation	(+) / (-)	D, C	(++) / (++)	No deviation
(Eq)	(-) / (--)	D,C	(-) / (--)	D,C	(++) / (+)	D, C	(+) / (+)	No deviation
(Adap)	(-) / (--)	D	(-) / (--)	D	(+) / (+)	No deviation	(+/-) / (+)	C
(Coord)	(--)/(--)	No deviation	(++)/(++)	No deviation	(+/-)/(-)	D	(+/-)/(-)	D
(Trans)	(+/-) / (+)	C	(+/-)/(+/-)	No deviation	(+/-)/(+)	D	(+/-)/(+/-)	No deviation
(Comp)	(-)/(--)	D	(++)/(+)	D	(+)/(-)	D	(+)/(+)	No deviation
(Inst)	(-) / (-)	No deviation	(-) / (-)	No deviation	(+) / (+)	No deviation	(+/-) / (--)	D
(MnC)	(-) / (--)	D	(-) / (--)	D	(+) / (++)	D	(+) / (+)	No deviation
(Fin)	(+/-) / (-)	C,D	(+/-) / (-)	D, C	(+) / (-)	C	(+) / (-)	C

(++): Very High,

(+): High,

(+/-): Neither High nor Low,

(-): Low,

(--): Very Low.

Positive ⬛⬛⬜⬛⬛ **Negative**

Positive ⬛⬛⬜⬛⬛ Negative

Qualitative scale for evaluating policy performance

"Traffic light system" indicates the strength of impact on policy effectiveness

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