

# Policy instruments for promoting adaptation to climate change

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# Acknowledgements & Disclaimer

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The views expressed in this report are those of the authors and do not necessarily reflect the position of the European Commission.



# Overview of economic instruments analyzed wrt adaptation

	Policy instrument category	Subcategories
MBIs	Subsidies	Grants; tax reductions; price supports
	Taxes and fees	Carbon taxes; land taxes and fees; energy taxes
	Licences, permits and variations	Tradable units; project based offsets; adaptation market mechanism ; advance market commitment
	Other Market Based Instruments	Payments for ecosystem services; water markets; habitat banking
	Public Private Partnerships (PPPs)	Public contracts; service concessions; joint technology initiatives; financial instruments
RFIs	Risk Financing Instruments (RFIs)	Insurance; catastrophe bonds; weather derivatives

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## Economic instruments suited to promote adaptation

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Policy instrument category	Selected subcategories for further analysis
Subsidies	<ul style="list-style-type: none"><li>- <b>Grants</b></li><li>- <b>Tax reductions</b></li></ul>
Taxes and fees	<ul style="list-style-type: none"><li>- <b>Land taxes and fees</b></li></ul>
Licences, permits and variations	<ul style="list-style-type: none"><li>- <b>Adaptation market mechanism</b></li></ul>
Other Market Based Instruments	<ul style="list-style-type: none"><li>- <b>Water markets</b></li><li>- <b>PES</b></li></ul>
Public Private Partnerships (PPPs)	<ul style="list-style-type: none"><li>- <b>Financial instruments: Loans</b></li><li>- <b>Financial instruments: Guarantees</b></li></ul>

## Criteria for in-depth evaluation

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### **Applicability:**

- Applicability of the EI to incentivize adaptation
- Institutional feasibility
- Consistency with other policy instruments
- Acceptability to interest groups

### **Effectiveness:**

- Effectiveness for incentivising a desired adaptation outcome

### **Efficiency:**

- With what resources can an instrument achieve the objective?
- What transaction costs will accrue?

**Equity:** What distributional consequences will arise?

### **Conditions and barriers**

## Results of evaluation - general level

	Grants	Tax reductions	Land use tax/fees	AMM	PES	Water pricing	Loans	Guarantees
General applicability to incentivise adaptation	Medium	Medium	Low	High	Low - Medium	Low - Medium	Medium	Low
Institutional feasibility	Medium	Medium	Medium	Medium	High	Medium	Medium	Medium
Acceptability stakeholders	High	High	Medium	Medium	High	Low	High	Medium
Little resource requirements (Low = positive)	High	High	Low	Low - high	High	Low	Medium to low	Low
Transaction costs (Low = positive)	High	High	Medium	Medium to high	High	Medium	Low	Low
Distributional aspects (High = positive)	High	High	Medium	Medium to high	High	Medium	High	High
Conditions and barriers (Low = positive)	Medium	Medium	Low	Medium to high	Medium	High	Medium	Medium

## But: applicability strongly varies by sector

	Grants	Tax reductions	Land use taxes & fees	AMM	PES	Water pricing	Loans	Guarantees	RFI
Production Systems	Medium	High	Low	Medium	Low	Low	Low to medium	n.a. to medium	High
Public infrastructure	Low	Low	Low	High	Low	n.a.	Low to high	Medium	High
Private infrastructure	High	High	Low	Medium	Low	Low	Low	Low	High
Health and social policies	Low (social) to high (health)	Low (social) to medium (health)	Low	High (health); n.a. (social)	Low	n.a.	Low to medium	Low	Low
Agriculture & forests	Medium	Medium	Medium	Medium	Medium	High	Medium to high	Medium to high	Medium
Biodiversity, ecosystems, water	Medium	Low	High	Low to medium	High	High	Low to high	Low to medium	Low
Coastal and maritime areas	Low	Low	n.a.	Low to medium	Medium	Low	Low to high	Low to medium	Low

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## (Interim) conclusions

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- A number of interesting economic instruments for promotion of adaptation exists
- All have their individual advantages and disadvantages
- Practical applicability varies strongly by sector and national economic and regulative environment
- Further research is needed to evaluate this
- Recommend “case studies” at the example of selected sectors in some EU Member States



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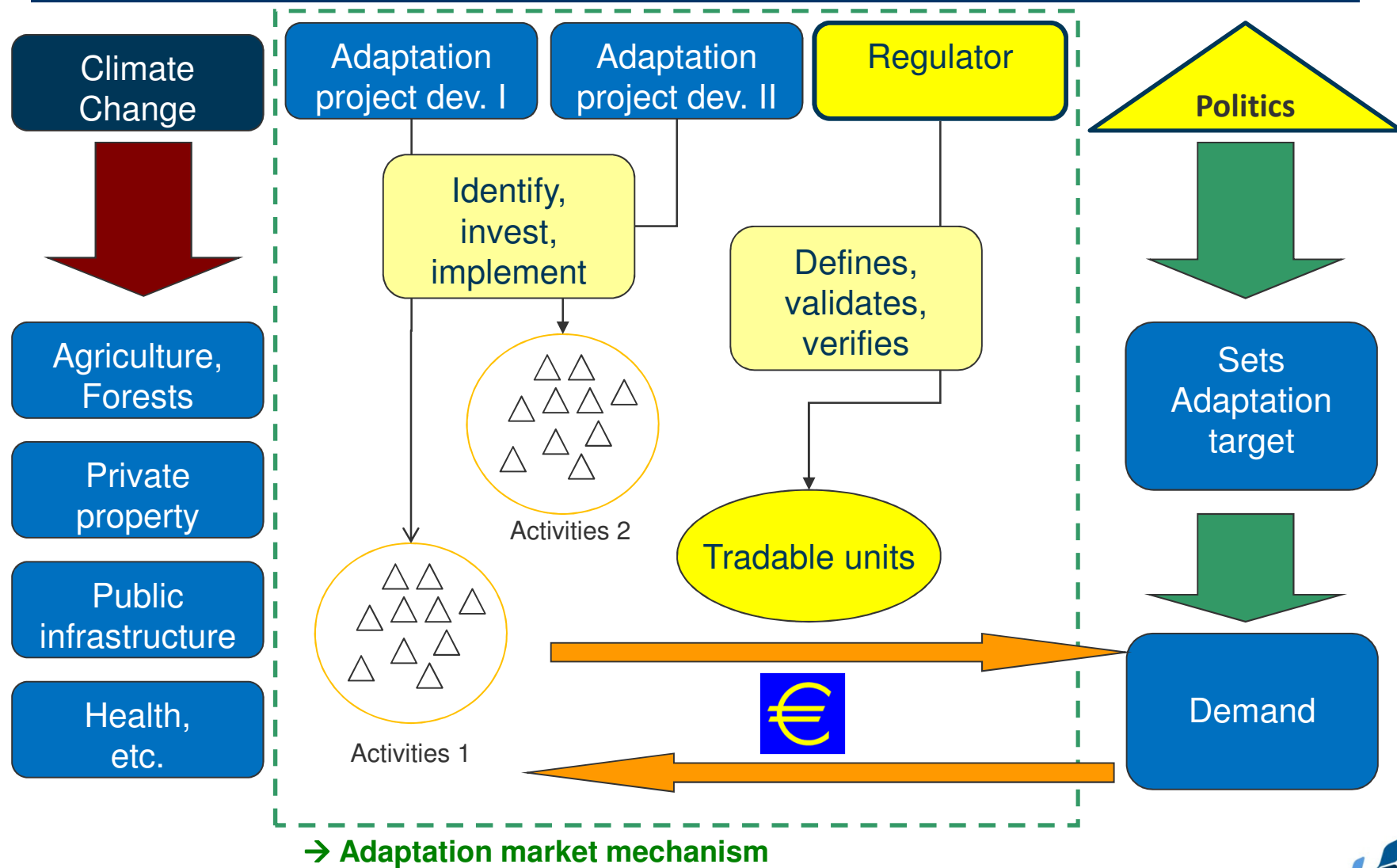
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## Innovative economic instrument: Adaptation Market Mechanism

# General concept of an AMM



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## Task 2 - Instruments to promote adaptation

### Licenses & tradable permits: AMM

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#### **Justification** in the context of adaptation:

- Cost-effective and economically efficient approach: the market identifies the most efficient activities over all participating “sectors”
- Tradable units standardize adaptation benefits and enable comparability.
- Costs can be allocated to responsible actors (public and private).
- Adaptation targets can be set by EU or its member states.

#### **Purpose:**

- Promote efficient adaptation.
- Guarantee transparency.
- Strong involvement of private sector, eventually allocation of contributions according to responsibility for climate change (GHG emissions).