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Institute for Applied Ecology

The mix of ambitious climate and energy policies

International Conference on
Policy Mixes in Environmental and Conservation Policies

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Energy & climate policy mix
Starting points (1)

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- **Energy & climate policy has always been characterized by a combination of policy tools**
  - by historical reasons: long traditions (and institutional arrangements!) in energy policy and conventional environmental policies and climate policy as a rather young policy track
  - by a variety of targets: energy independence & security, emission reductions, maintaining industrial basis, driving innovation, distributional aspects, etc
- **Emissions trading as a game changer/key challenge – at least for the economic and political discourse**
  - A cap fixes the emission reduction targets and all other policies lose legitimation – at least with respect to emission reductions
  - ETS is however in a deep crisis
    - not (yet) primarily caused by complimentary policies
    - delivering (at the moment) effects only from a holistic perspective (prices vs. long-term caps)

Energy & climate policy mix
Starting points (2)

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- **Empirical evidence underlines the real-world trend towards policy mix approaches**
  - European Union: Multi-dimensional targets, partial ETS and a broad range of additional (complementary?) policies
  - California: GHG reduction target, (almost) economy-wide ETS and a broad range of additional (complementary?) policies
  - Australia (before policy stopped): GHG reduction target, economy-wide ETS and a broad range of additional (complementary?) policies
- **Reasons for these trends**
  - Multi-dimensional targets did not disappear
  - The nature of climate policy is rather transformational than incremental
    - based on rather aggressive emission reduction targets
    - requiring radical innovation
    - reflecting windows of opportunities for (cost-efficient) emission reductions linked to durable capital stocks
  - However, to a certain extent often arbitrary – more foundation needed

Policy mix: The dimension of innovation
Traditional legitimation is still valid: case study PV

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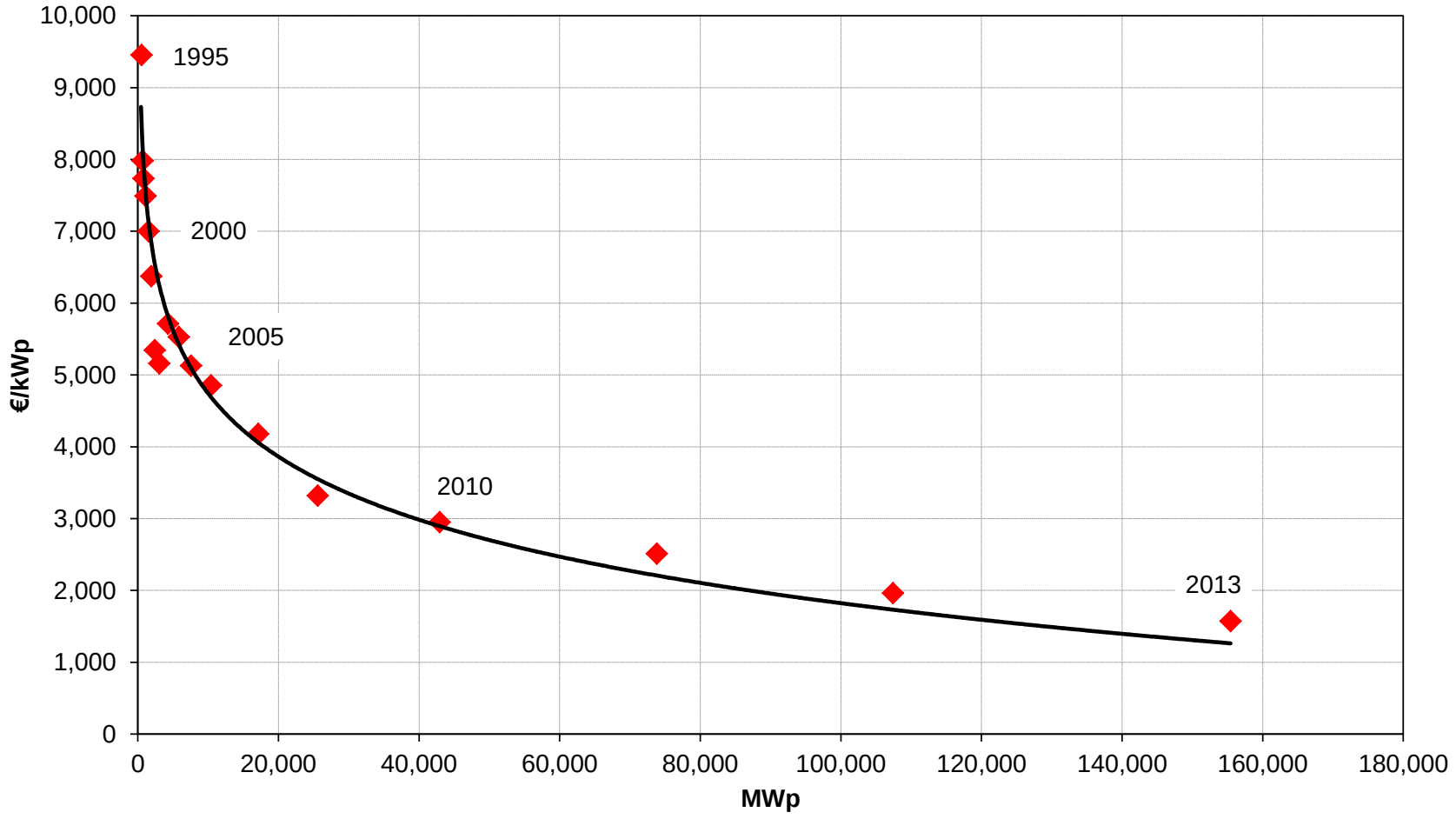
Learning curves worked for PV – but (definitely) not for all other options



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A comprehensive and well-designed policy mix for ambitious, effective & cost-efficient

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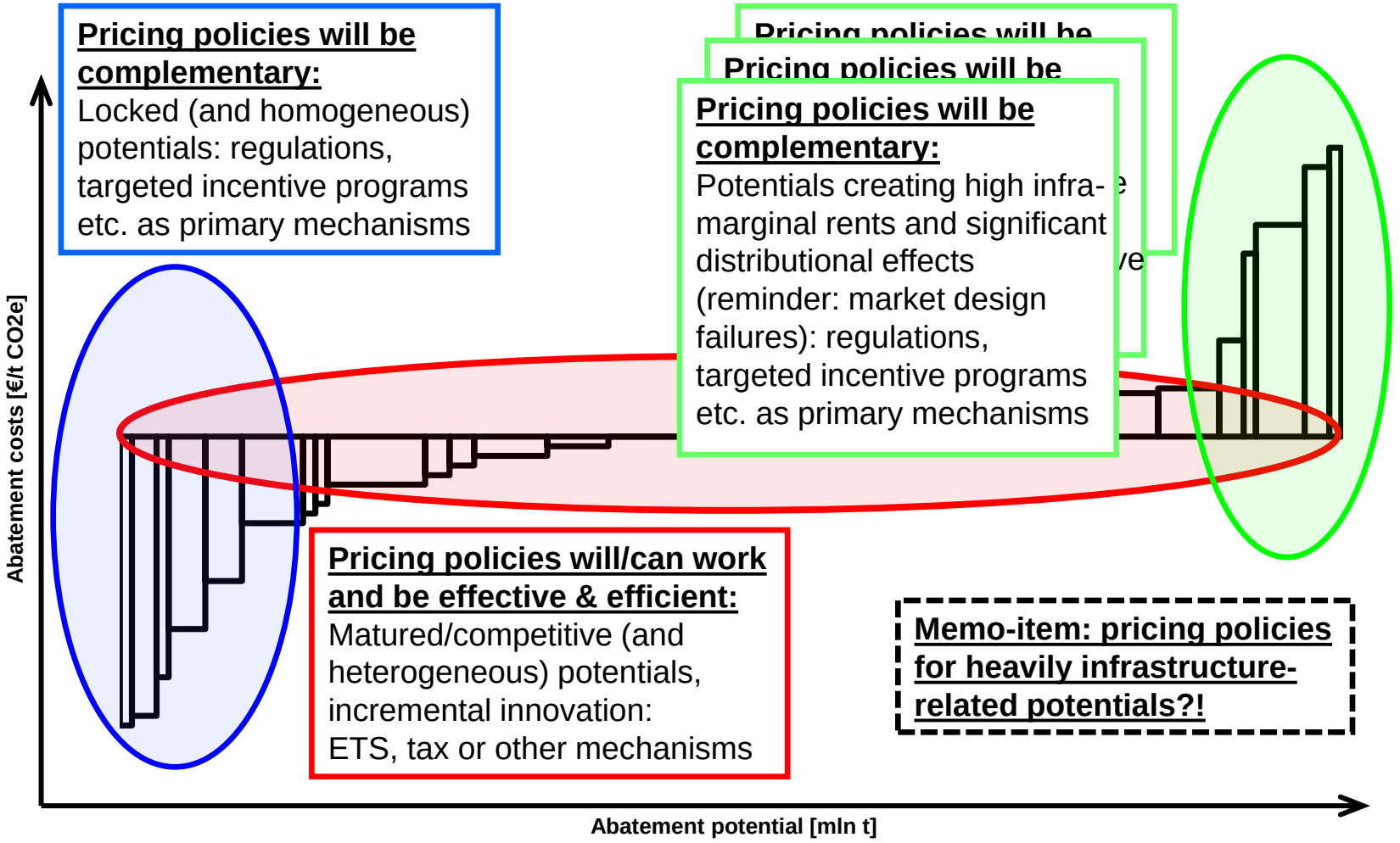

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Current policy is partly on different tracks
Adjustments will be necessary

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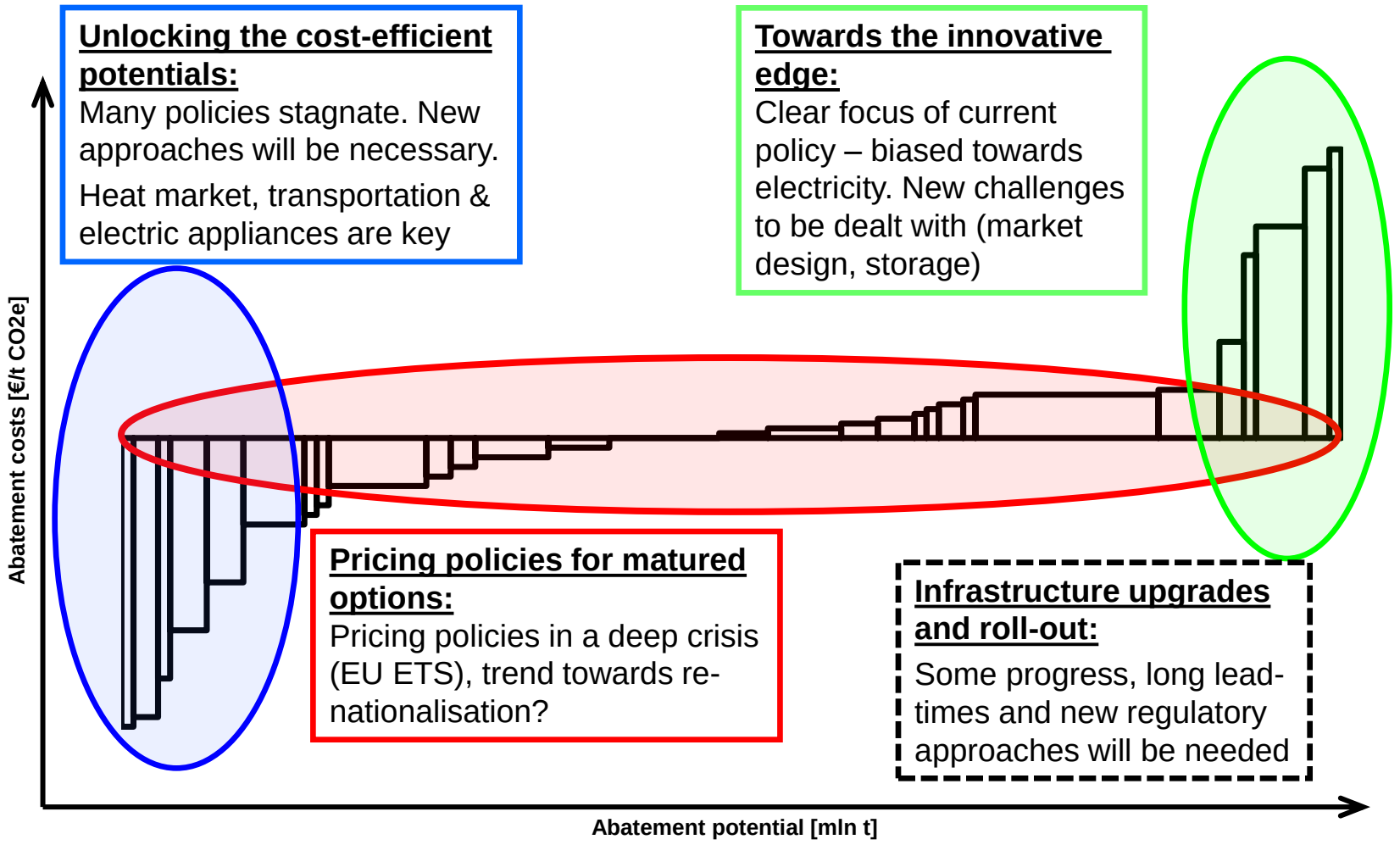

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Climate policy = Carbon pricing & much more

$T \cdot (I^2+C) \cdot I \cdot m\,(F,L,P) + s(B,P,T) + (I_i+M_i)$

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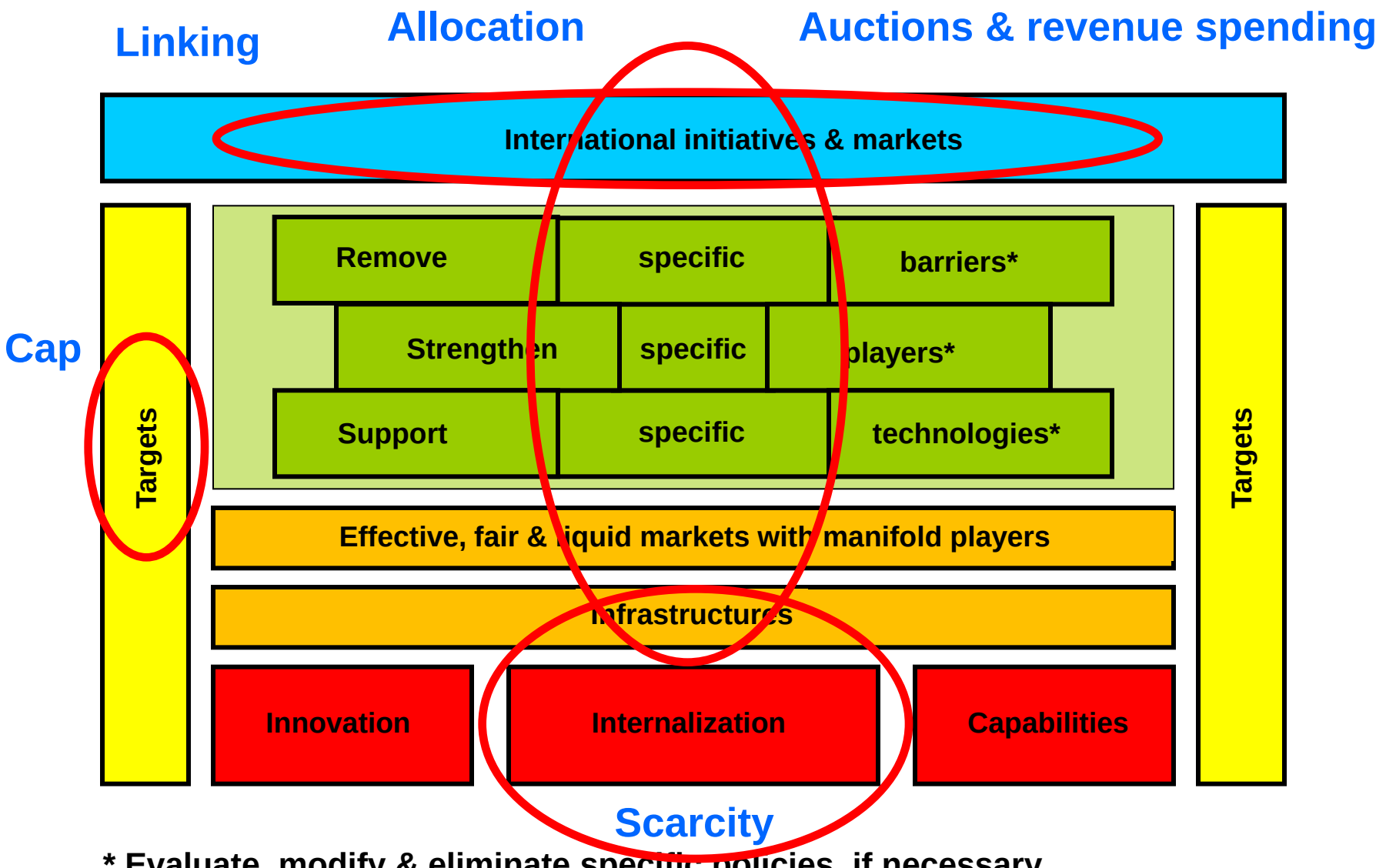

* Evaluate, modify & eliminate specific policies, if necessary

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Energy & climate policy mix
(Some) conclusions

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- **Ambitious energy & climate policies will require a well-founded and less arbitrary policy mix**
  - for certain segments with carbon pricing as primary policy and other complementary policies
  - for other segments with other primary policies and carbon pricing as complementary policy
  - with market design failures as a new challenge
- **The well-designed policy mix needs more analytical capabilities**
  - (more) careful policy mapping exercises needed
  - (more) comprehensive analysis of policy interactions indispensable
- **The trend towards a comprehensive policy mix will – among other reasons – change the design of carbon pricing instruments**
  - reflecting macroeconomic uncertainties
  - reflecting the existence of complementary policies
  - reflecting the outcome of complementary policies
  - resulting in more hybrid-type policy tools (e.g. EU ETS with MSR)

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Thank you very much

Have a look at
http://www.oeko.de/oekodoc/1068/2010-114-en.pdf

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