"Improving Europe's Climate Policy Toolbox to Reach the 2050 Low-Carbon Targets"

Insights from the CECILIA2050 project

Side Event @ SB42 on June 9, 2015

With Matthias Duwe, Ecologic Institute, Berlin;
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& Benjamin Görlach, Ecologic Institute

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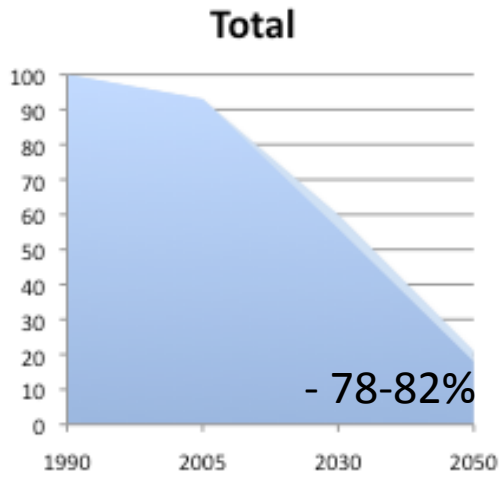
The EU's 2050 target: 80-95% reductions = decarbonisation

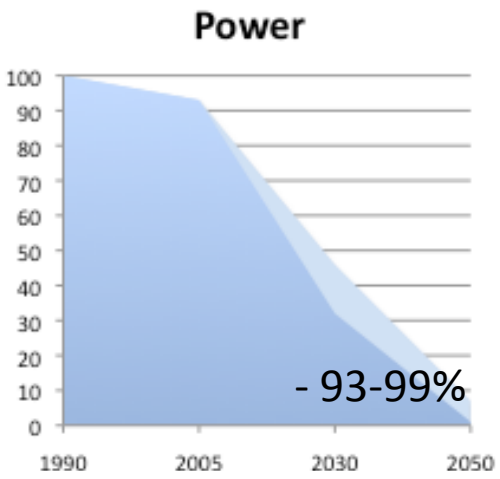
BRUSSELS EUROPEAN COUNCIL
29/30 OCTOBER 2009

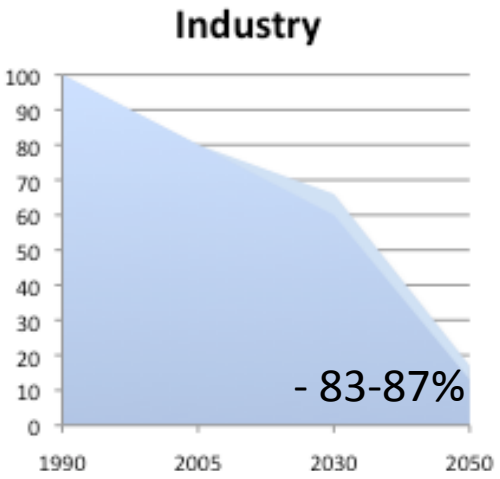
PRESIDENCY CONCLUSIONS

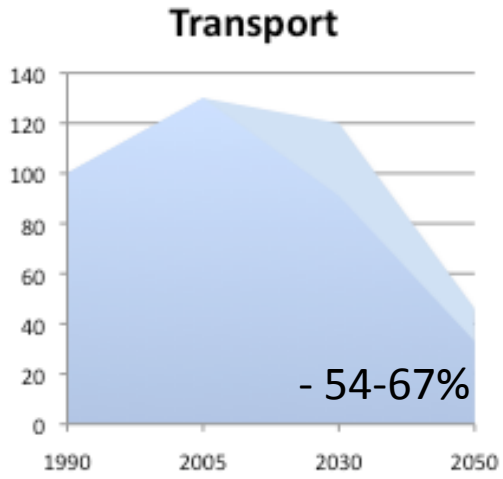
The European Council calls upon all Parties to embrace the 2°C objective and to agree to global emission reductions of at least 50%, and aggregate developed country emission reductions of at least 80-95%, as part of such global emission reductions, by 2050 compared to 1990 levels; such objectives should provide both the aspiration and the yardstick to establish mid-term goals, subject to regular scientific review. It supports an EU objective, in the context of necessary reductions according to the IPCC by developed countries as a group, to reduce emissions by 80-95% by 2050 compared to 1990 levels.

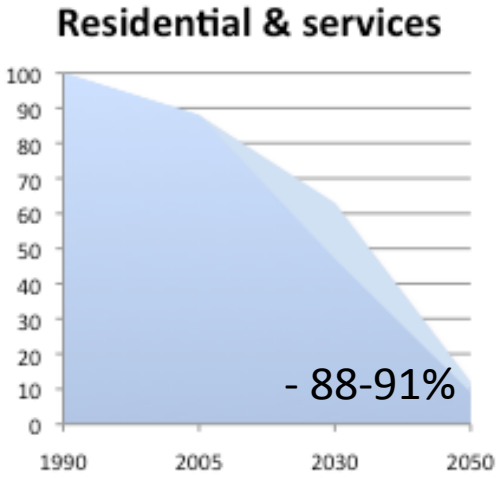
Starting Point: low-carbon economy requires a radical transformation…

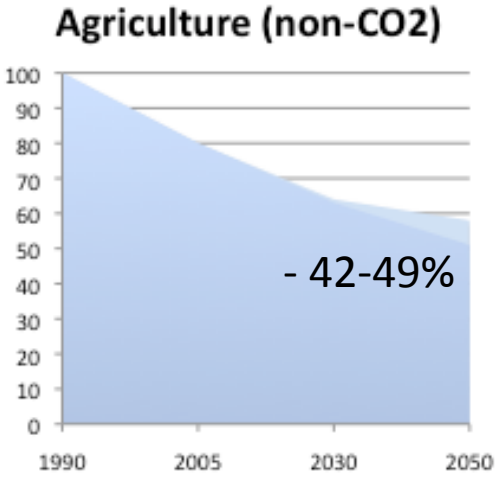










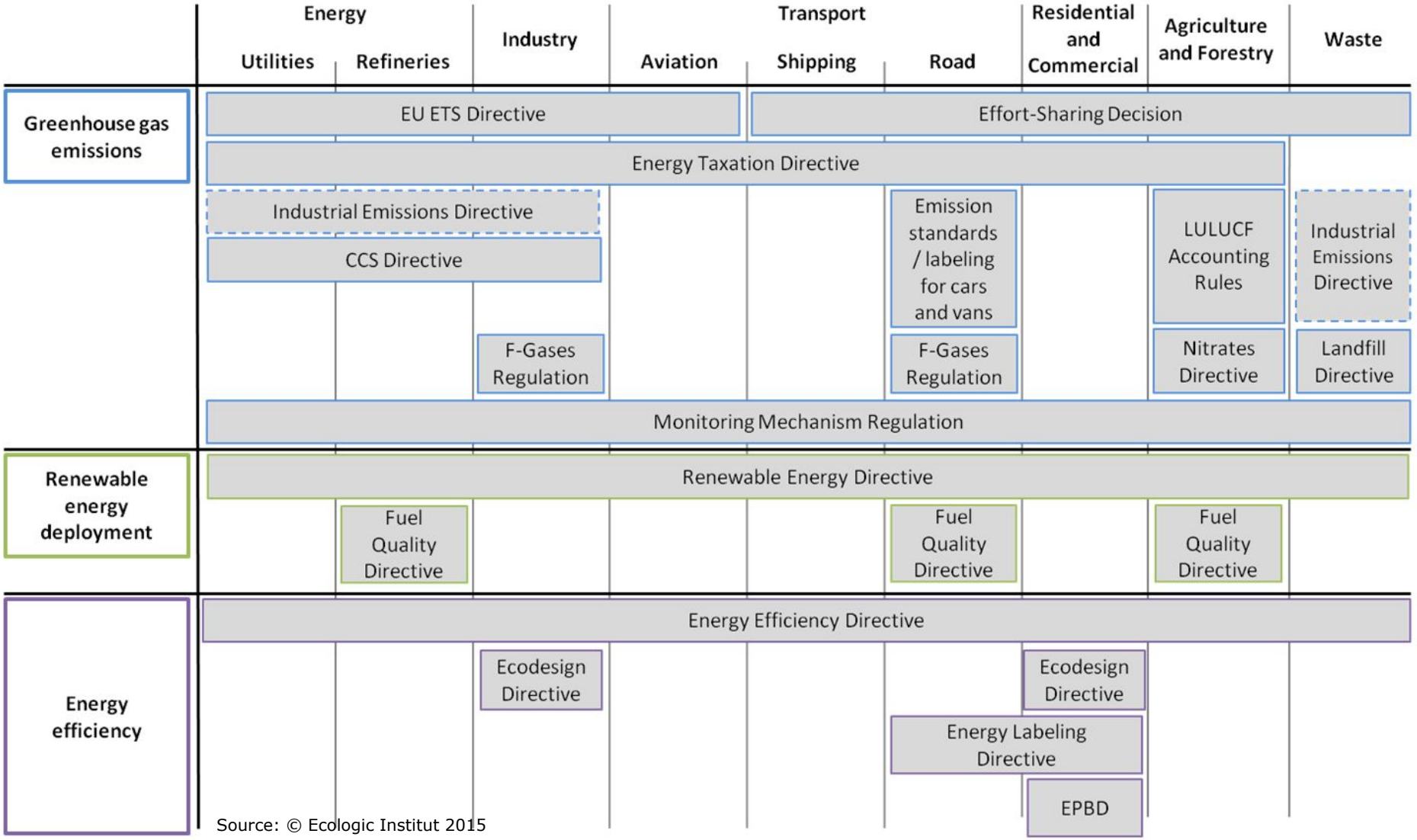


Source: Roadmap Impact Assessment SEC(2011) 288

	Pre-Kyoto (1990–1997) aimed at 2000
GHGs	No European policy (discussion on CO_2 tax, which was not adopted) → Mainly national policies
RES	ALTENER
EEff	SAVE

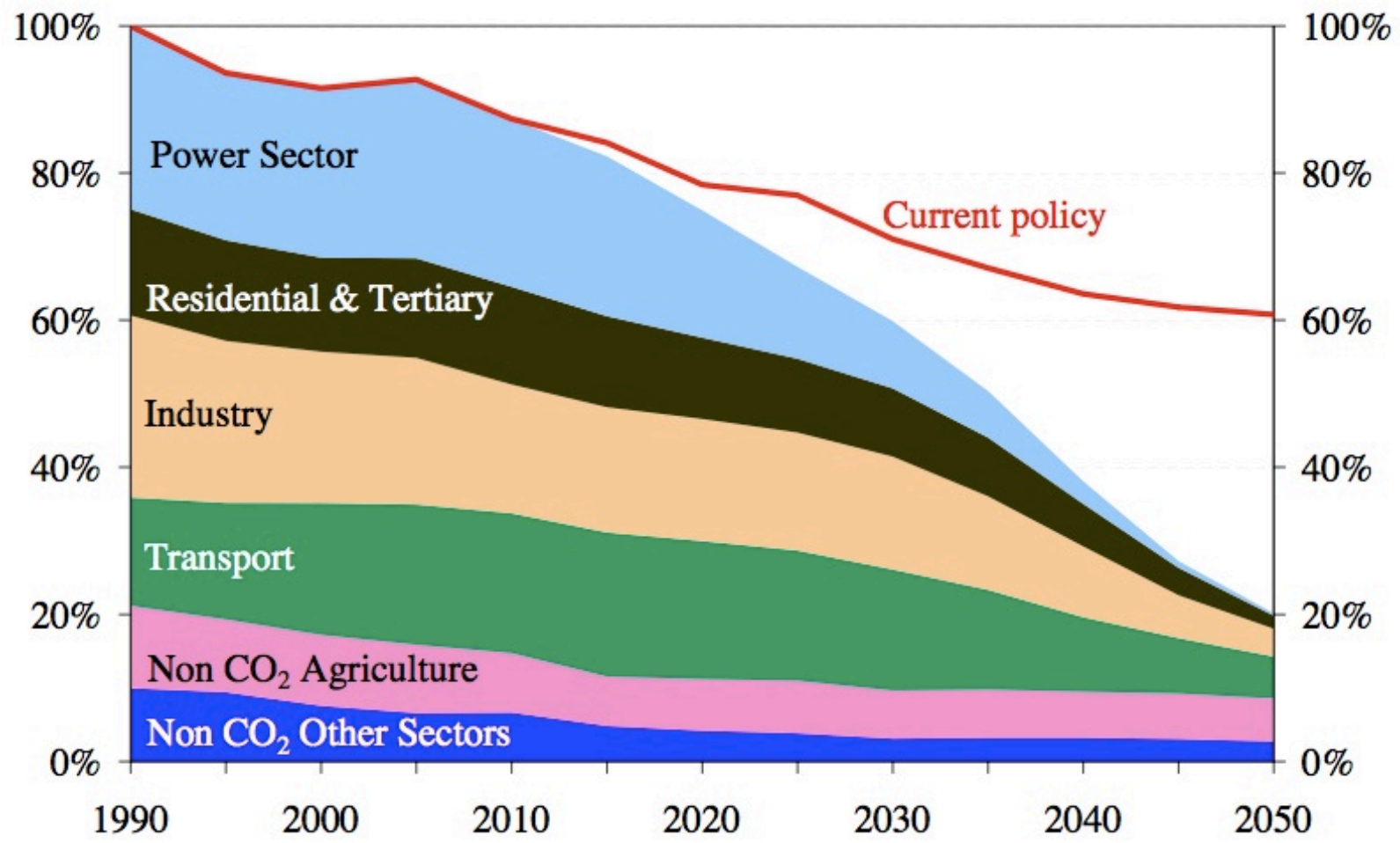
	Pre-Kyoto (1990–1997) aimed at 2000	European Climate Change Programme and additional legislation (1998–2006) aimed at 2010 (or 2008–12)
GHGs	No European policy (discussion on CO_2 tax, which was not adopted) → Mainly national policies	EU ETS (2003)
		Fluorinated Gases Regulation
		Mobile Air-Conditioning Systems Directive
		Voluntary agreement with car manufacturers (1998/1999)
RES	ALTENER	Renewable Electricity Directive (2001) Biofuels Directive
EEff	SAVE	Energy Services Directive
		Combined Heat and Power Directive
		Ecodesign of Energy Using Products Directive
		Energy Labeling Framework Directive
		Energy Performance of Buildings Directive

	Pre-Kyoto (1990–1997) aimed at 2000	European Climate Change Programme and additional legislation (1998–2006) aimed at 2010 (or 2008–12)	Climate and Energy Package and additional legislation (2007–2010) aimed at 2020
GHGs	No European policy (discussion on CO_2 tax, which was not adopted) → Mainly national policies	EU ETS (2003)	EU ETS review (2008, 2009) (One EU-wide ETS target / including aviation)
			Effort Sharing Decision (National non-ETS targets)
		Fluorinated Gases Regulation	Fluorinated Gases Regulation review
		Mobile Air-Conditioning Systems Directive	Further implementation
		Voluntary agreement with car manufacturers (1998/1999)	Mandatory standards for cars and vans
RES	ALTENER	Renewable Electricity Directive (2001) Biofuels Directive	Renewable Energy Directive (RED) & Fuel Quality Directive
EEff	SAVE	Energy Services Directive	Energy Efficiency Directive (EED)
		Combined Heat and Power Directive	
		Ecodesign of Energy Using Products Directive	Further implementation
		Energy Labeling Framework Directive	Energy Labeling Framework Directive review
		Energy Performance of Buildings Directive	Energy Performance of Buildings Directive review



Source: © Ecologic Institut 2015

… but current policies are not equipped to deliver this transformation



Source: "A Roadmap for moving to a competitive low carbon economy in 2050" COM(2011)112

The policy challenge: how to manage the low-carbon transformation?

- EU and MS already employ a variety of climate policy instruments – but **current instruments are not sufficient** to drive the transformation to a low-carbon economy
- **Existing** instruments need to be scaled up considerably, **and new** instruments added to the policy mix
- This raises a number of questions:
  - How is the **current policy mix** performing, and how far can it be scaled up? What constraints need to be addressed? Which new instruments do we need?
  - How to manage the increasing **interactions** and overlap of policy instruments?
  - How to deal with **uncertainties**, where to be rigid and where flexible?
  - What does an **"optimal"** instrument mix for European climate policy look like – taking into account the **real-life constraints** and barriers, and the **lessons learnt** from past successes and failures?
  - In particular – what is the **role of pricing tools** in this mix? How far will they get us?

Tackling the 2050 policy mix – the CECILIA2050 project

Choosing

Efficient

Combinations of Policy

Instruments for

Low-carbon development and

Innovation to

Achieve Europe's

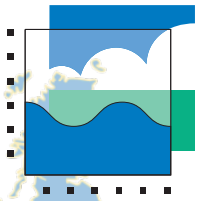
2050 climate targets

Funded by the European Union

CECILIA 2050
OPTIMAL EU CLIMATE POLICY

Who we are: 10 partners from 8 countries

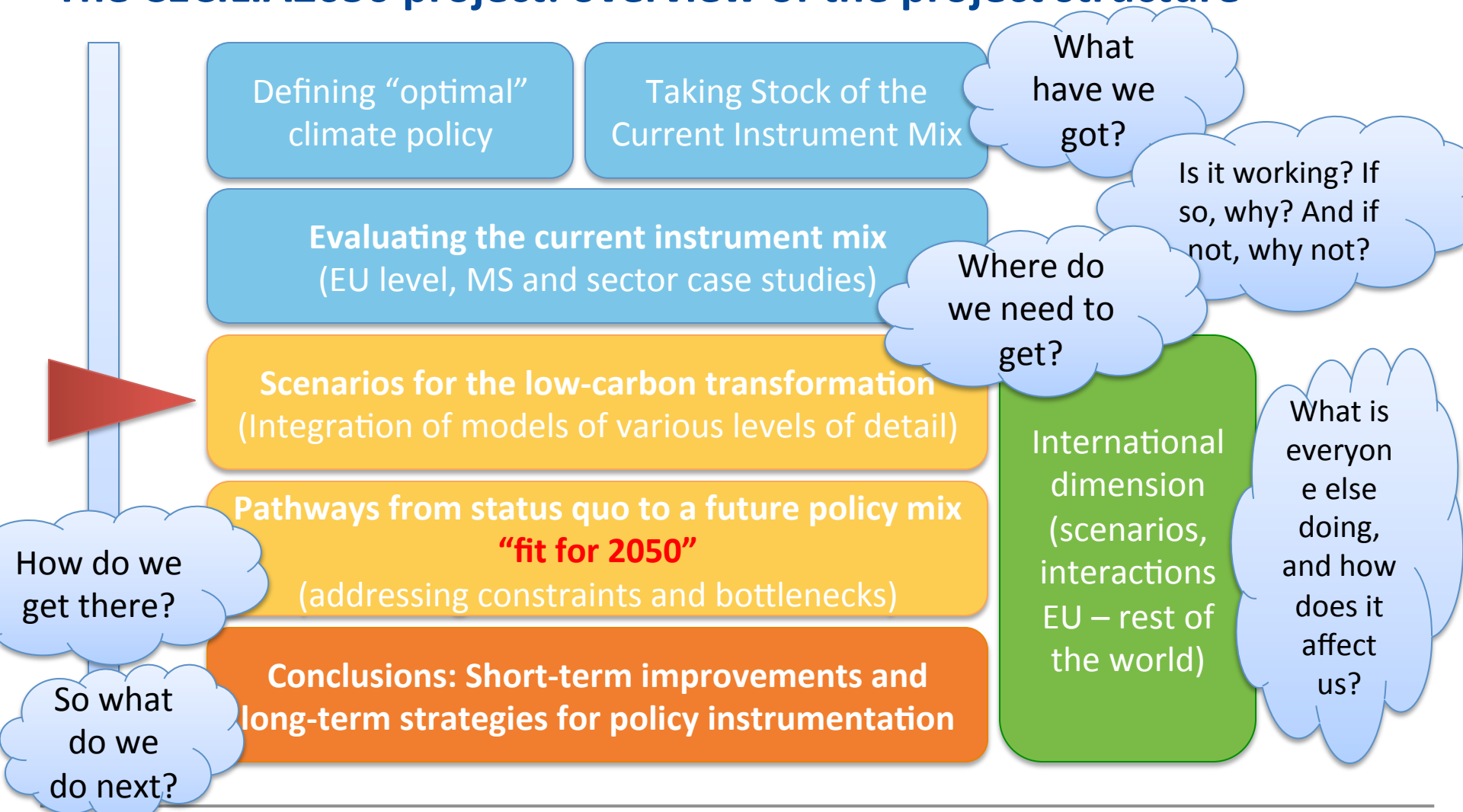
- **NL:** Institute of Environmental Sciences (CML) at Leiden University
- **NL:** Institute for Environmental Studies (IVM), VU Amsterdam
- **PL:** WOEE, Warsaw
- **CZ:** CUNI, Prague
- **IT:** University of Ferrara (UNIFE)
- **ES:** Basque Centre for Climate Change (BC3), Bilbao
- **F:** SMASH-CIRED, Paris
- **UK**: University College London
- **DE:** Institute of Economic Structures Research (GWS), Osnabrück
- **DE:** Ecologic Institute, Berlin

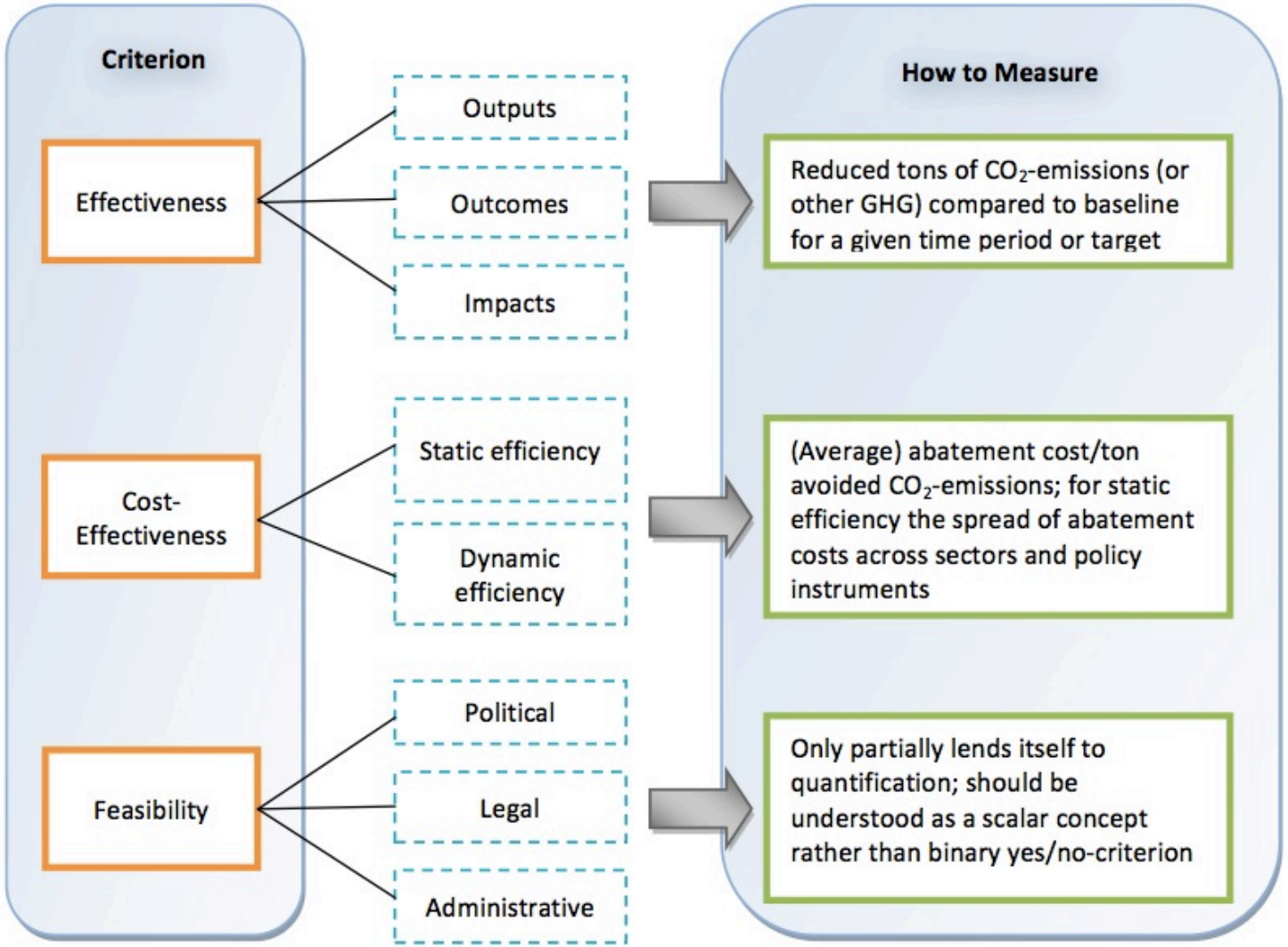






The CECILIA2050 project: overview of the project structure




Criterion
How to Measure
Effectiveness
Outputs
Outcomes
Impacts
Reduced tons of CO_2-emissions (or other GHG) compared to baseline for a given time period or target
Cost-Effectiveness
Static efficiency
Dynamic efficiency
(Average) abatement cost/ton avoided CO_2-emissions; for static efficiency the spread of abatement costs across sectors and policy instruments
Feasibility
Political
Legal
Administrative
Only partially lends itself to quantification; should be understood as a scalar concept rather than binary yes/no-criterion

Identifying the main challenges for the transformation

- Establish a Meaningful **Carbon Price**
- Electricity Market Reform & **energy** market Integration
- Make **Infrastructure** Choices Despite Uncertainty
- Provide **Finance** & Mobilise Investments
- Encourage Low-Carbon **Lifestyles**
- Facilitate Low-Carbon **Mobility**
- Energy Consumption of the **Building** stock
- Address **Non-CO2** GHG/agriculture
- Stimulate **Innovation** in Industry

horizontal dimensions influencing policy choices

- EU **Governance** - centralisation/decentralisation
- **International** - fragmentation/co-operation

Thank you for your attention.

Matthias Duwe, Ecologic Institute

www.cecilia2050.eu