



**CEDEFOP**

European Centre for the Development  
of Vocational Training



# Skills for a low carbon Europe

Thematic Event of the Mutual Learning Programme

“Pathways to green jobs: strategies and policy options for a sustainable job-rich recovery”

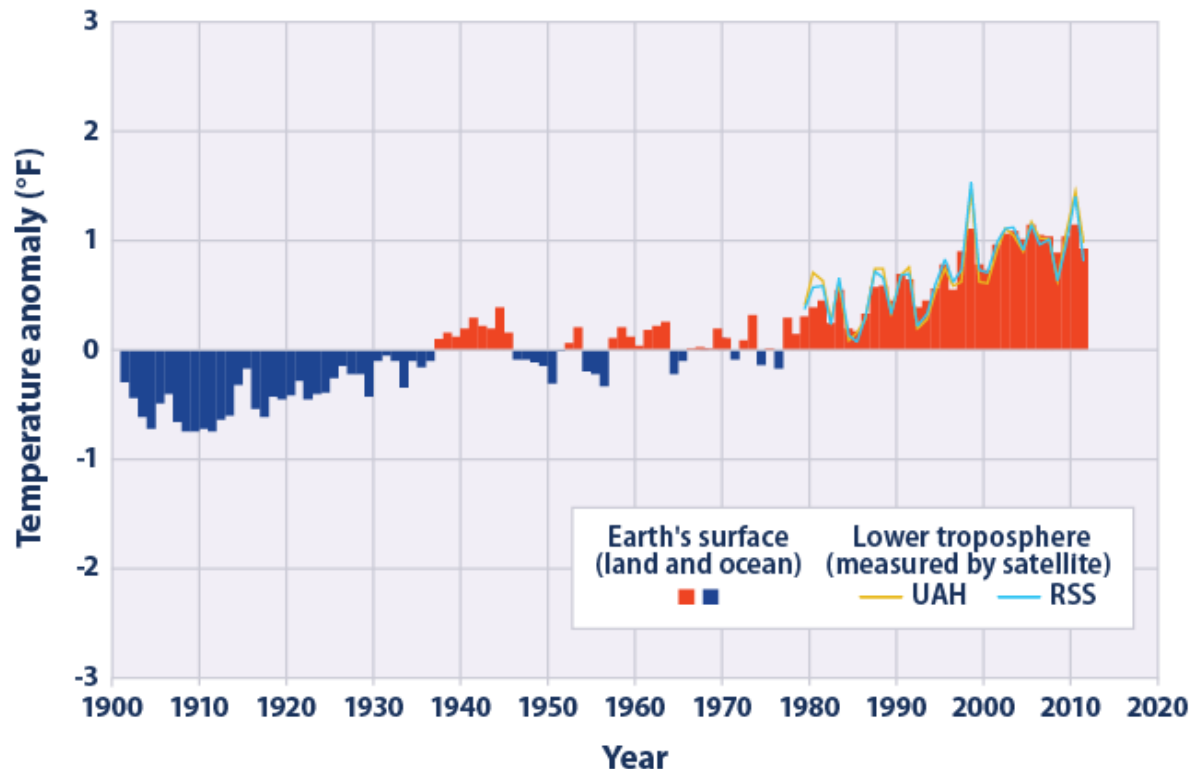
*Brussels, 26 June 2013*

**Antonio Ranieri**  
**Cedefop**



## Is 'GREEN' necessary, feasible, attractive?

Temperatures Worldwide, 1901–2011



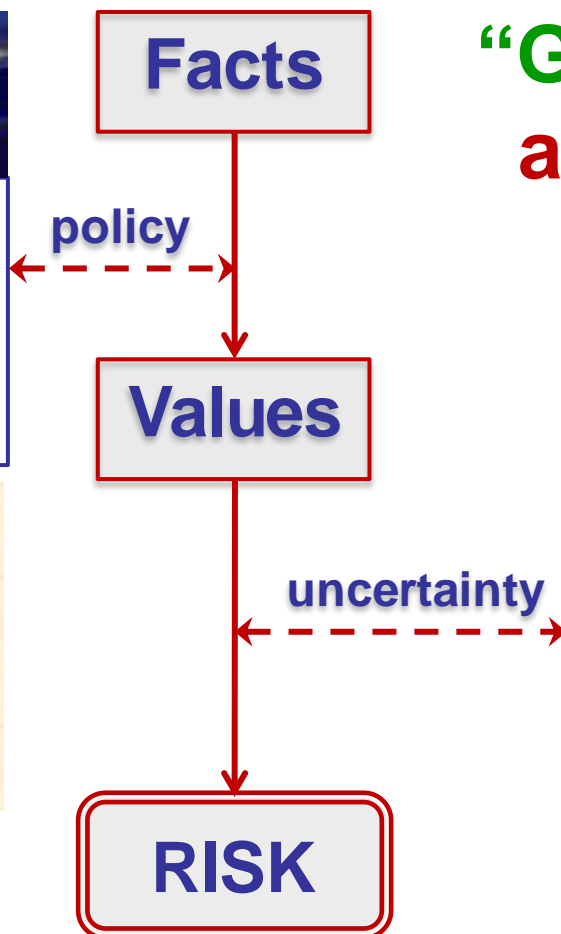
Data source: NOAA (National Oceanic and Atmospheric Administration). 2012. National Climatic Data Center. Accessed April 2012. [www.ncdc.noaa.gov/oa/ncdc.html](http://www.ncdc.noaa.gov/oa/ncdc.html).

### What we know:

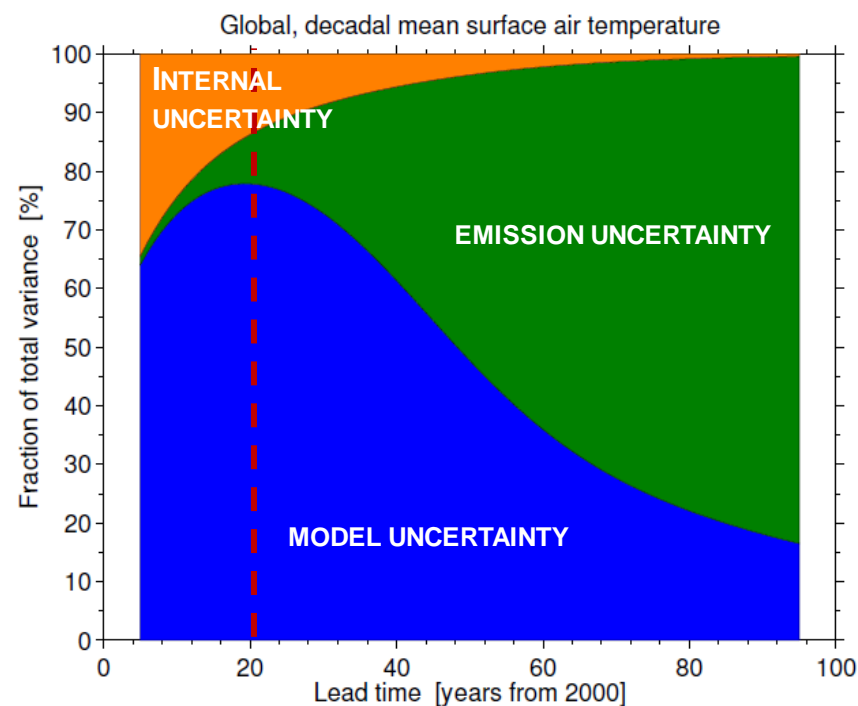
Climate is warming

GHG emissions are increasing

Human activity is heavily influencing GHG growth



**“Green” is a policy and a technical challenge**



Hawkins & Sutton (2009)



## Europe's multiple challenge: goal conflicts?

Recovering from the crisis: **unemployment**, accelerated structural changes

Technological, organisational **changes**

Climate change: **low carbon** economy, sustainable development

**Demographic** change: older workers, migration, activating labour force

Social **cohesion**, poverty

### EUROPE 2020

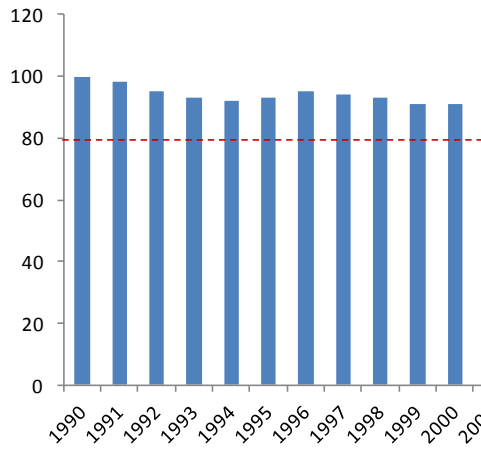
**Smart growth:**  
economy based on knowledge and innovation

**Inclusive growth:**  
high employment, economic, social and territorial cohesion

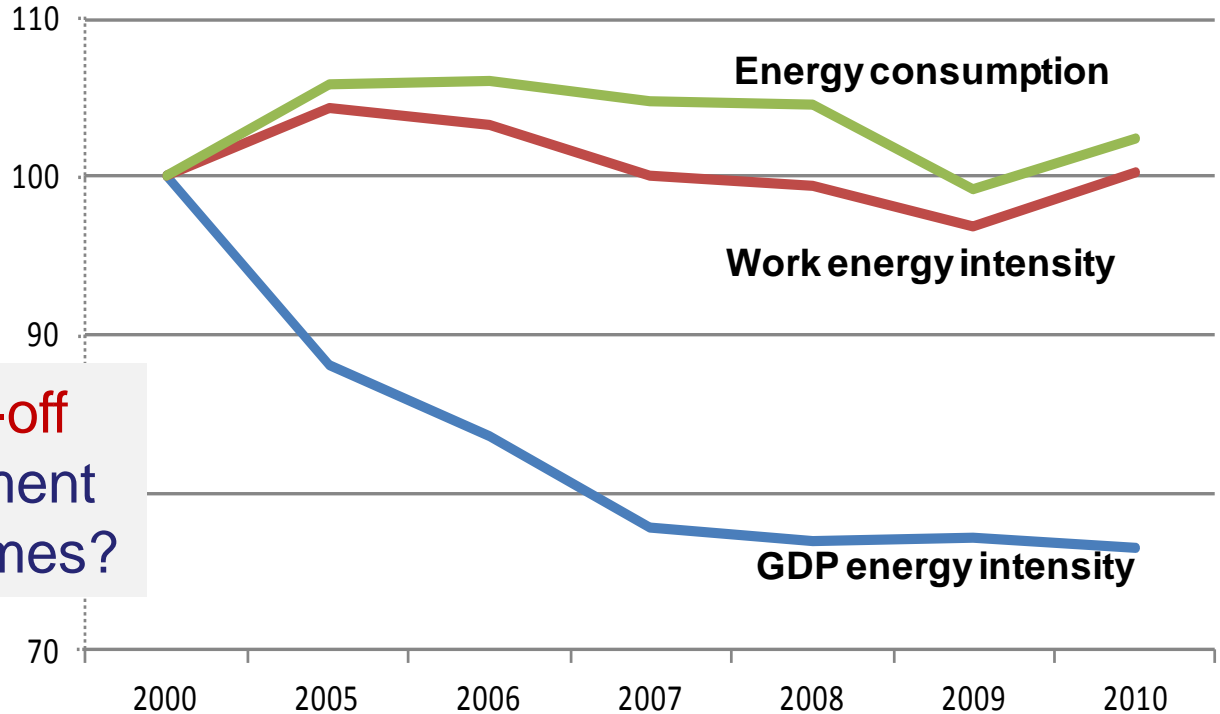
**Sustainable growth:**  
more resource efficient, Sustainable and competitive economy



Greenhouse gas emissions EU-27  
(1990=100)

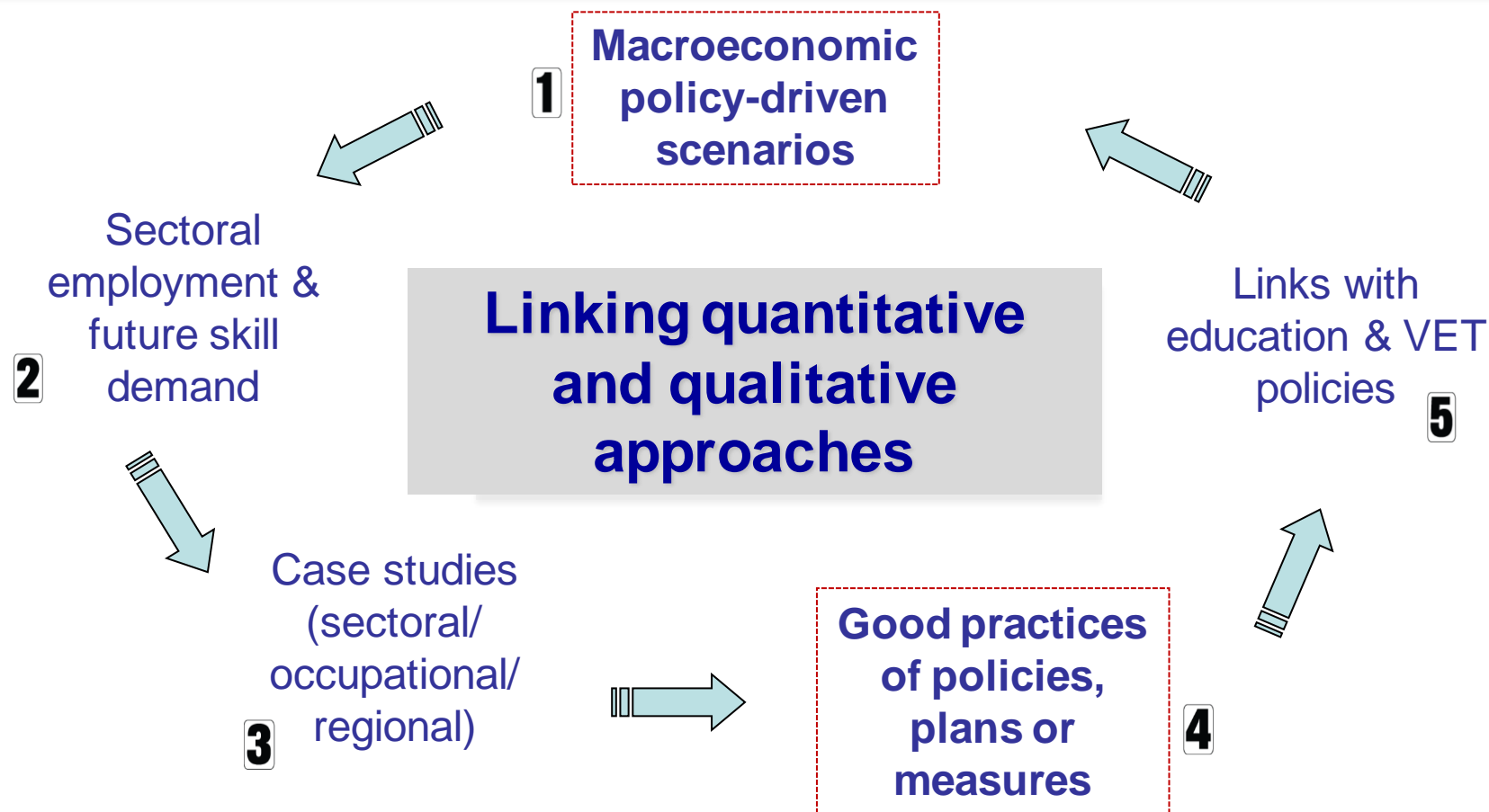


Reducing GHG  
by 20% is  
**feasible**, but...



...possible **trade-off**  
between employment  
and climate outcomes?

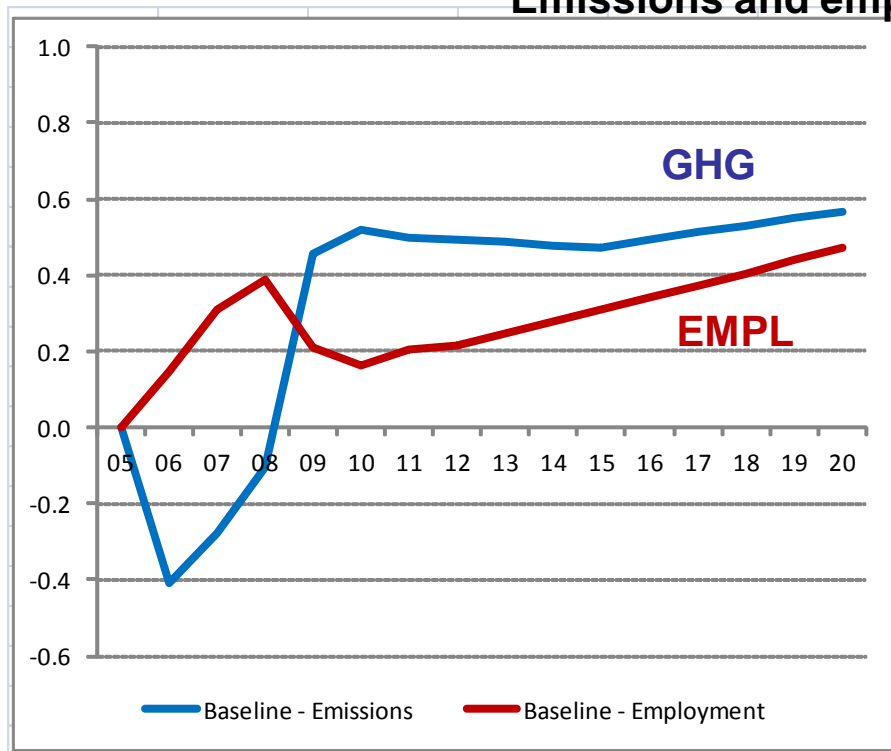
# Cedefop's 'skills for a low carbon Europe' project



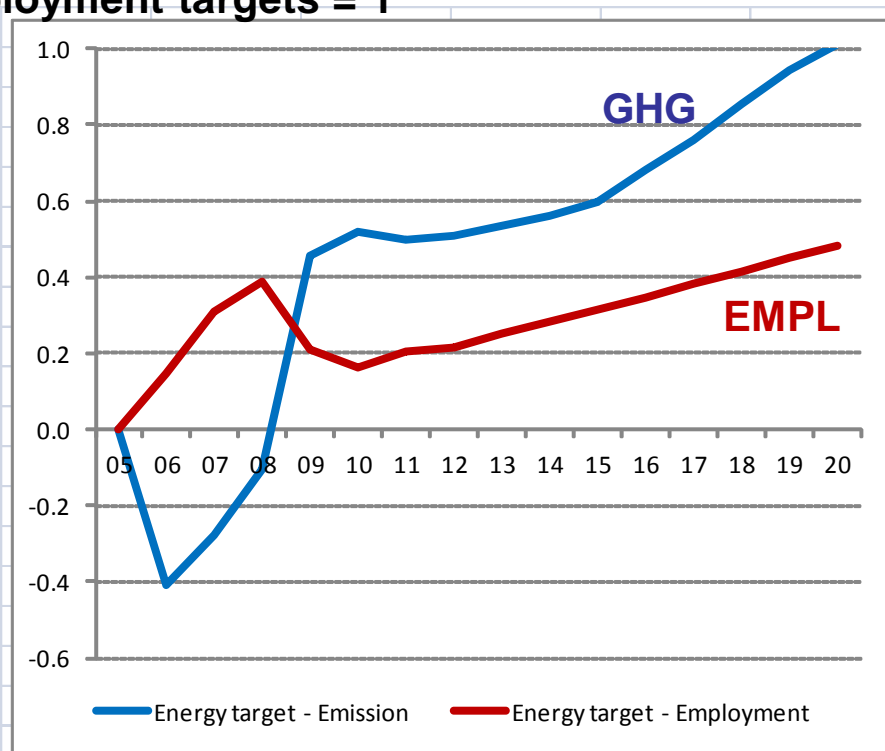
# Greenhouse gas emissions and employment

## Selected policy scenarios up to 2020 EU-27

Emissions and employment targets = 1



**BASELINE SCENARIO**

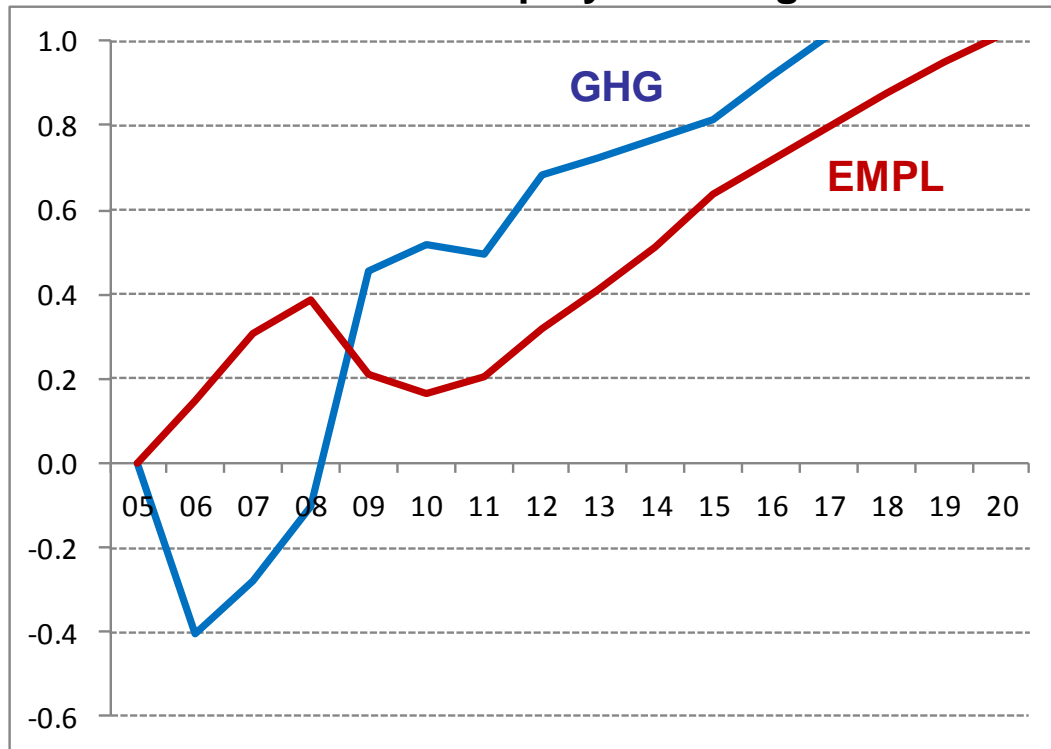


**ENERGY TARGET SCENARIO**



## Selected policy scenarios up to 2020 EU-27

Emissions and employment targets = 1



### Have your cake and eat it?

A sustainable and energy-efficient economy can be achieved at the same time as employment growth...

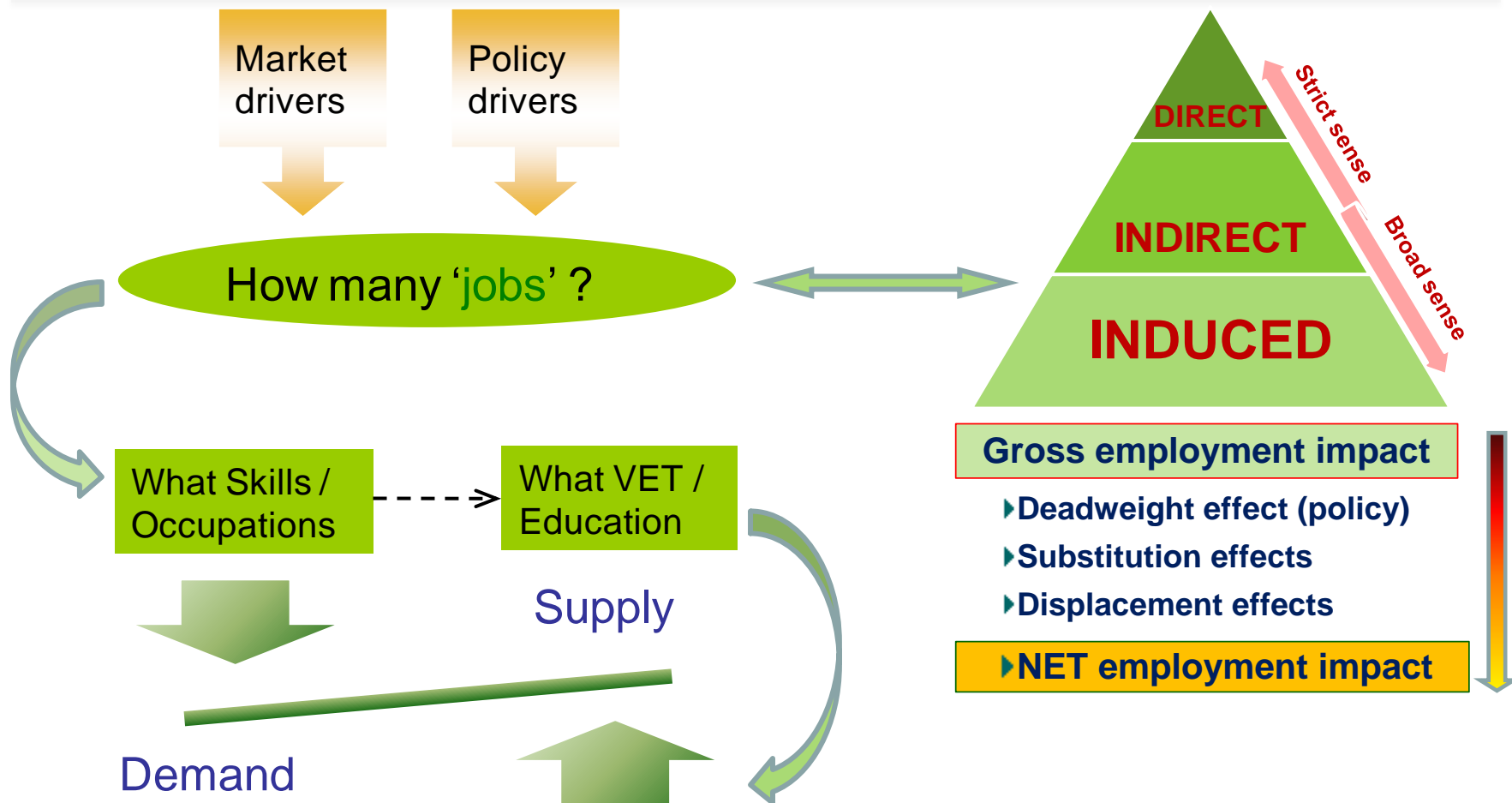
... but a greater integration of climate and energy policies is necessary with measures to support **employment, innovation** and innovative and responsive **vocational education and training**

ENERGY&EMPLOYMENT TARGETS SCENARIO





# Identifying green skills for innovation and growth





# VET challenges and innovation responses

## Case studies and best practices across EU MS

- 16 case studies of VET programmes across the four strategic domains: wind power, solar thermal heating, public buildings and road freight transport and logistics.
- Exploring the scope for the **transferability** of good practice experience to other countries and regions in Europe: *information* available; *relevance* to the green economy; degree of policy *integration*; *effectiveness*; *sustainability*; *innovation*; *replicability/transferability*.

## Different models across Europe... ... but some **common features** are necessary

- a) Integrate low carbon and skills development strategies
- b) Develop joined-up policy responses to meet employment and low carbon goals
- c) Develop new and adapt existing systems of social dialogue
- d) Promote institutional flexibility and qualification reform
- e) Develop and use labour market information to identify skills needs
- f) Establish frameworks to monitor and evaluate new programmes, and to share and disseminate good practice



# Thank you for your attention

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<http://www.cedefop.europa.eu/EN/about-cedefop/projects/green-skills/green-skills.aspx>