

# **EUROPEAN UNION EFFORT SHARING -a perspective.**

***Paule Stephenson***

**Post-2012 Burden Sharing Symposium  
Wellington, 29 July 2008.**



# The European Union- 27 Countries.

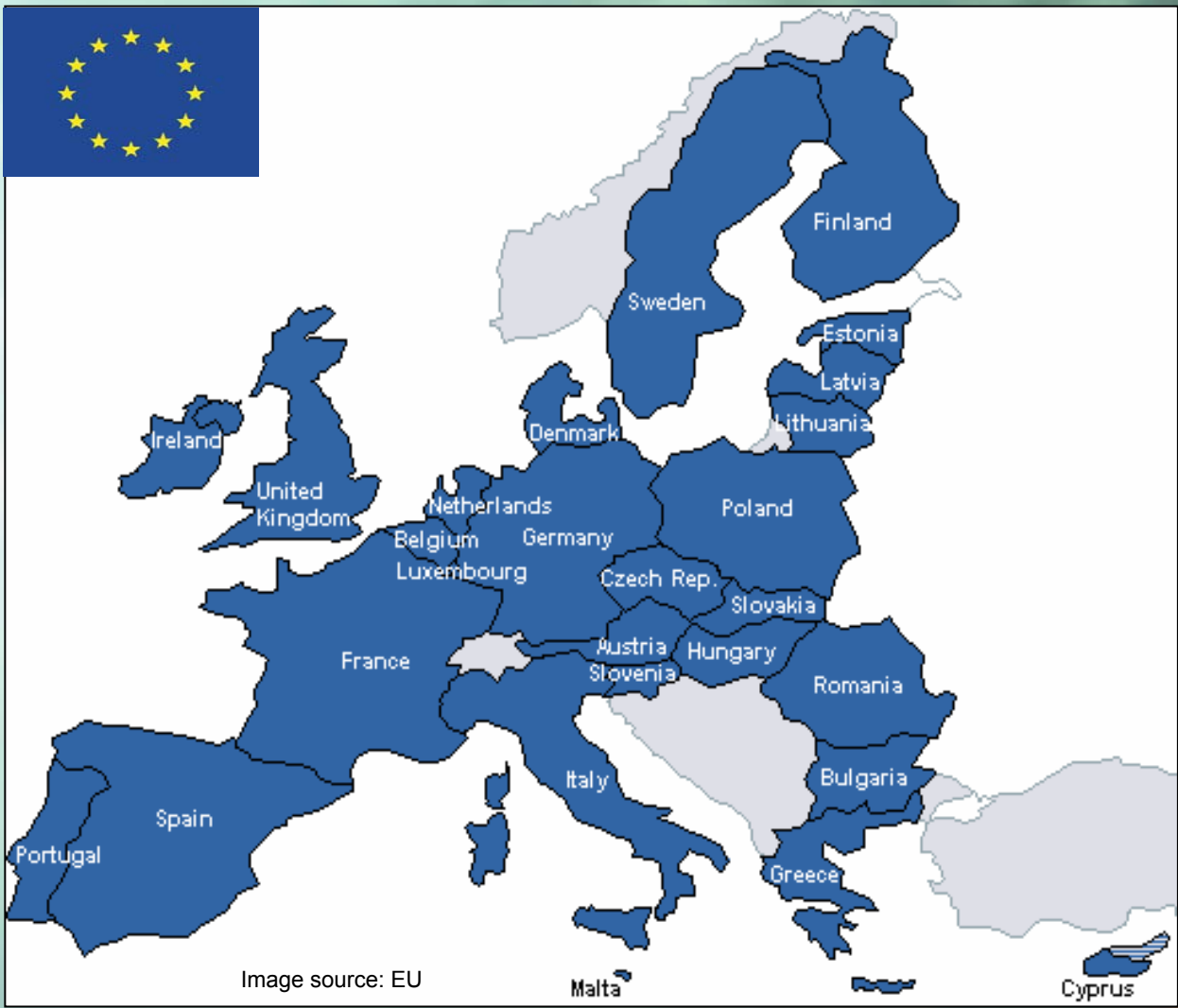


Image source: EU

## Emissions Reduction- Worldwide 'Burden' & EU 'Effort'

- **'Burden Sharing'** is how allocation of greenhouse gas (GHG) emissions reduction targets has been described
- The European Union (EU) has recently developed an **'Effort Sharing' approach** as the means to distribute overall EU targets equitably amongst the 27 EU Member States.

This presentation is about the **EU effort sharing approach** and whether the ideas it contains could be adaptable for other country groups.

## About the European Approach- Unilateral EU Targets 20% by 2020

- Through its **2007 'Energy and Climate Change'** measures the EU will take **unilateral actions** including those to
  - Cut EU greenhouse gas emissions 20% by 2020.
  - Increase EU renewable energy 20% by 2020.
- In January **2008** the **implementation package** for the 20% by 2020 measures was introduced...
  - It included **'effort sharing'** as the approach for setting **differentiated targets** for EU countries for both renewable energy growth and GHG emissions reduction.

## European Union 'Effort Sharing'

EU effort sharing incorporates **equity features** expressing 'fairness and solidarity' between Member States.

*'...sharing efforts and benefits fairly and equitably among all Member States, taking into account different national circumstances, starting points and potentials'*

EU Presidential Conclusions March 2007

**This statement sets out the principle underlying EU effort sharing.**

*It should be noted that EU effort shares are mandatory*

## The EU Approach- Differentiated Effort Shares

- The EU effort sharing approach **distributes an overall EU target, set top down**, between Member States.
- A similar 2-part scheme is used for both renewable energy growth and for GHG emissions reduction
- The national effort required is split into two parts.
  - The first (**solidarity**) comprises a common commitment.
  - The second (**equity**) uses a GDP/capita weighting index to give **less stringent effort for less wealthy countries**.
- EU Member States are assigned **differentiated effort shares (expressed as a % change from a reference year)** according to their **national circumstances**.

## The EU Approach- Two-part Effort Sharing

Two-part Effort Sharing is used for both

**GHG Emissions Reduction**

and also for

**Renewable Energy Growth (RES)**

(which has an additional equity feature)

## EU GHG Emissions Reduction - A New Structure

From 2013 EU **Emissions Reductions** will come from **two sectors-**

- large emitters- the EU Emissions Trading Scheme (**EU ETS**)  
(*SOLIDARITY- all countries participate in EU ETS*)
- smaller emitters- (60% of EU emissions) grouped into a **new non-traded emissions sector (Non-ETS)**.  
(*EQUITY- Non-ETS effort differentiated via a GDP/capita index*)

***BOTH sectors contribute to the overall EU GHG emissions reduction***

# The EU Effort Sharing Approach

Validate Data, Decide Reference Year, Determine Overall EU Target and Period of Time for Delivery



Characterise Country Circumstances in Reference Year particularly GDP/capita ppp and GHG emissions MtCO<sub>2e</sub> (or resource potential)



## **Solidarity-Fixed Effort**

e.g flat rate %increase (RES) for all countries or common participation in EU ETS etc

## **Equity-Weighted Effort**

GDP/capita indexation



**Country Effort Shares**  
as % of national condition in reference year

## Positive Points for EU-style effort sharing

- **A relatively simple way of setting differentiated targets.**
- **Data requirements not too demanding.**
- **Equity** expressed through GDP/capita indices.
- **Solidarity** because all countries take on some commitment.
- **Flexibility** solidarity: equity proportions can be varied and indices can be customised to reflect the circumstances of the country group.

*The EU have set quantitative targets (effort shares) for Member States and will put them into practice to deliver '20% by 2020'*

## Is the EU Effort Sharing Approach Successful?

### The EU Approach –

- Gives realistic, challenging but **achievable effort shares for Member States**, which aggregate to the EU target (for both renewable energy growth and GHG emissions reduction).
- Incorporates ‘fairness between Member States’ (**equity**) -wealthiest countries have the largest effort shares.
- Allows less wealthy countries some **increase in emissions** to ‘catch up’ development.
- Begins in **2013**.

## EU Effort Sharing- some useful equity ideas

### In the Non-ETS sector

#### EU Effort Sharing

-allows some **increase in emissions** for less wealthy countries that need to develop.

### In the Renewable Energy Sector-

#### EU Effort Sharing

-makes allowance for substantial progress **(Early Action/ Prior Effort)** towards meeting the target in the previous policy period.



## The Effort Sharing Approach- An Illustration

This hypothetical example illustrates how variation in the proportions

of

equity component (GDP/capita indexed effort)

to

solidarity component (fixed% effort)

can be used flexibly to provide differentiated effort shares for country groups.

# Two Part Effort Sharing

Validate Data, Decide Reference Year, Determine Overall Target and Period of Time for Delivery



Characterise Country Circumstances in Reference Year particularly GHG emissions MtCO<sub>2e</sub> and GDP/capita ppp



**Solidarity**-Fixed Effort

**Equity**-Weighted Effort  
GDP/capita indexation



Country Effort Shares  
as % of national condition in reference year

# Effort Sharing Approach. Two-part Differentiation- an Illustration

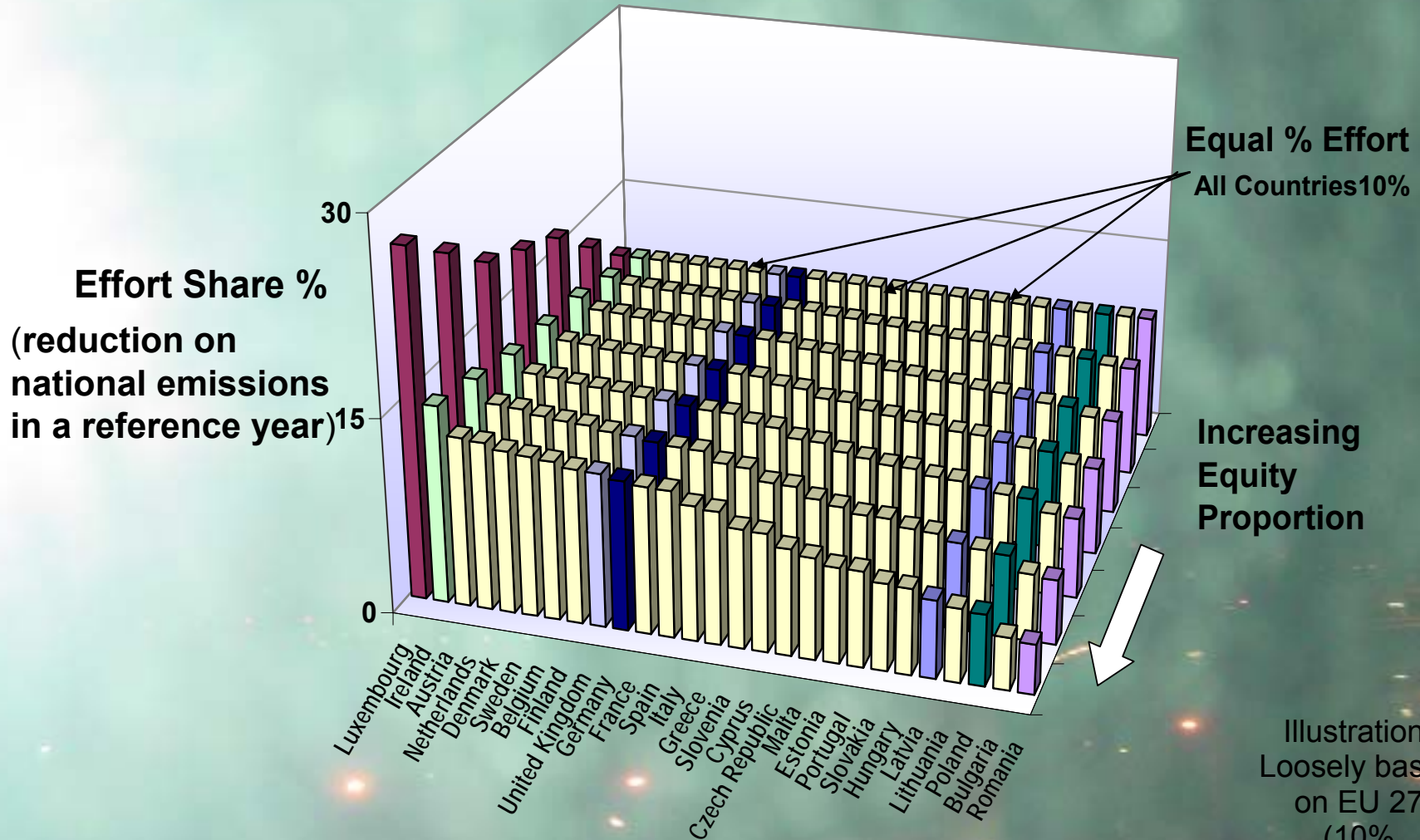
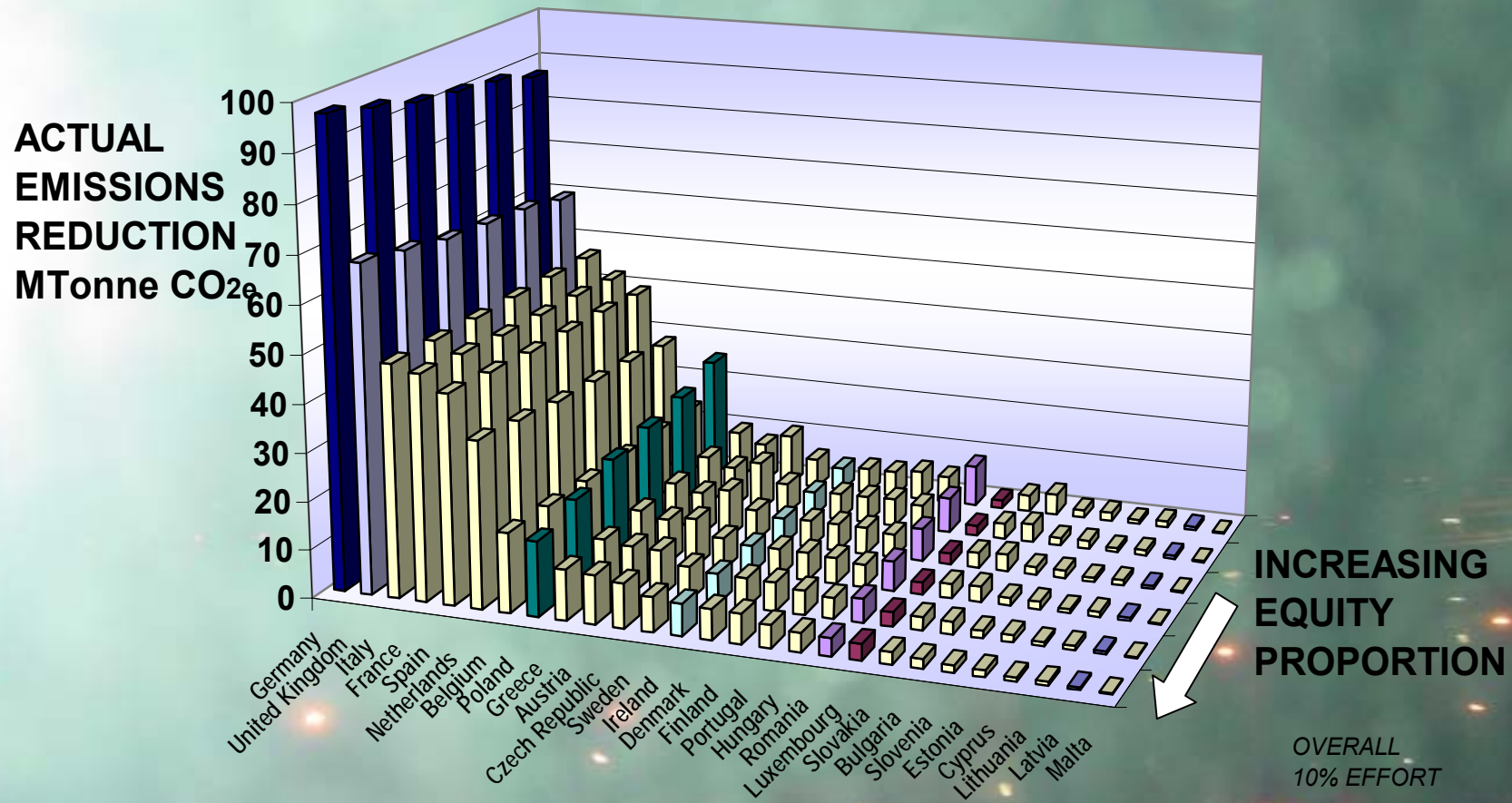


Illustration-  
Loosely based  
on EU 27  
(10%  
reduction  
target)

# Effort Sharing Illustration

## Actual Emissions Reductions from the %Effort Shares



## Effort Sharing for Non-EU Country Groups?

The EU effort sharing approach has features that could, **potentially, be applied to other country groups for emissions reduction.**

- Formulaic target setting incorporating **equity** features and **national circumstances**.
  - **Differentiation of effort** between more and less wealthy countries by GDP/capita indexation for *part* of the effort to be shared.
  - **Solidarity**- All countries contribute.
- Possibility of **increased emissions** for countries with low GDP/capita which need to develop.
  - Mandatory effort shares with sanctions for default.
  - Recognition of prior effort.

# Conclusions

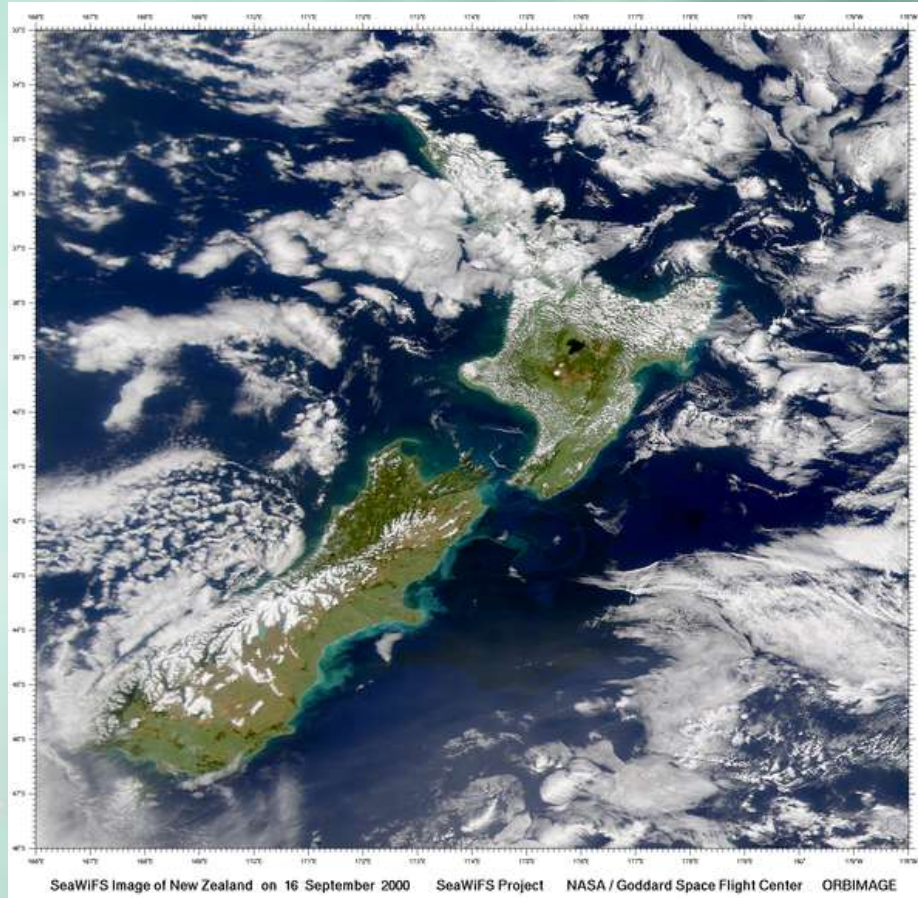
**IF** a country group does not have too extreme a range of GDP/capita and emissions, **and** equity can be interpreted as relative wealth,

**THEN** the **EU effort sharing approach** has the **potential** to be used to develop emissions reduction targets for **various non-EU country groups (developed, developing regional groups etc ...)**.

**Thus the EU approach merits consideration during post-2012 negotiations.**

**ALSO** it might also be argued that the EU has developed a concept of 'comparable effort' for its Member States.

# Thank you very much for your attention



## CONTACTS

[paule.stephenson@vuw.ac.nz](mailto:paule.stephenson@vuw.ac.nz)

[hadrian@gmail.com](mailto:hadrian@gmail.com)

*The views expressed are those of the author and do not necessarily reflect formal EU policy.*