

## **Workpackage 2 – Task 1 – Competitiveness and Sustainability**

### **The competitiveness effects of the EU climate policy**

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#### Outline

#### **Abstract:**

To “prevent dangerous anthropogenic interference with the climate system” (Article 2 UNFCCC) and to limit the increase of global mean temperature to 2°C relative to preindustrial levels, it is necessary that global greenhouse gas (GHG) emissions have to peak before 2020 and then start to decline continuously. Against this background the EU has recently decided to reduce its GHG emissions by 20% relative to 1990 until the year 2020. These reductions will even rise to 30% “if there is an international agreement committing other developed countries to comparable emission reductions and economically more advanced developing countries to contributing adequately according to their responsibilities and respective capabilities”. At the same time, the European council started in 2000 the so-called Lisbon process which established the issue of competitiveness as a priority area for EU policy.

The aim of this paper is to assess the impacts of the recent EU climate policy proposals for the competitiveness of the European economies and specific sectors. For this, we use the multi-sector, multi-region computable general equilibrium model DART that is characterized by a detailed representation of the EU emissions trading scheme. To analyze relevant aspects of EU competitiveness, specific appropriate competitiveness indicators at sectoral and economy-wide level are implemented in DART. We then define different policy scenarios that differ in the EU GHG reduction target and in the extend of EU-wide and international emissions trading. The different scenarios show the potential trade offs between efficiency and (national and sectoral) competitiveness and the economic effect of EU climate policy.

## Contents

### Introduction

- Post-Kyoto process & Bali; EU climate policy; Lisbon Strategy

### Recent developments in the EU climate policy

- 2020 Strategy, New burden sharing agreements, EU-ETS

### Measuring competitiveness

- Competitiveness indicators; Summary of existing findings for EU policies

### Simulation of policy scenarios

- The DART Model and Policy Scenarios

#### 1) EU: - 20% relative to 1990

- ETS: 2005 – 12: NAPs, 2012 – 2020: reductions that remain from non-ETS targets to reach the -20 % target
- Non-ETS: 2005 – 07: no targets; 2008 – 12: distance to Kyoto; 2012 – 20: targets from EU proposal;
- CDM/JI purchases from EU governments for 2008 - 2012 as announced; then 3% of emissions of non-ETS sectors in 2005
- Limits for CDM/JI purchases within ETS as in the NAPs 2.
- No emission targets for rest of Annex B countries
- No emission target from non-Annex B countries that only participate in CDM.
- 3 scenarios for the ETS: (a) current coverage, (b) extension by transport and chemical industry, (c) full EU emissions trading

#### 2) EU: - 30% relative to 1990

- The other Annex B and all non-Annex B have targets that are in line with a contraction and convergence scenario where per capita emission rights converge until 2050. There is full international emissions trading.

### Simulation Results

- Carbon prices, carbon trade flows
- Competitiveness indicators (Terms of Trade, Rel. World Trade Shares, Rel. Trade Balance, Revealed comparative advantage, sectoral production, welfare)

### Summary and Conclusions