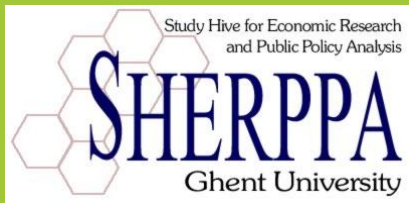




**HIVA**

ONDERZOEKINSTITUUT VOOR **ARBEID EN SAMENLEVING**

**K.U.LEUVEN**



# Evaluating Public Acceptability of Environmental Tax Reforms

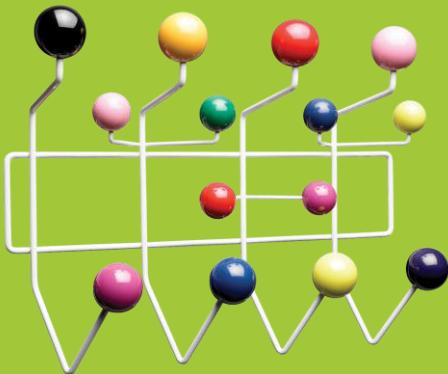
## An Empirical Analysis for Flanders

Kris Bachus, HIVA - KU Leuven

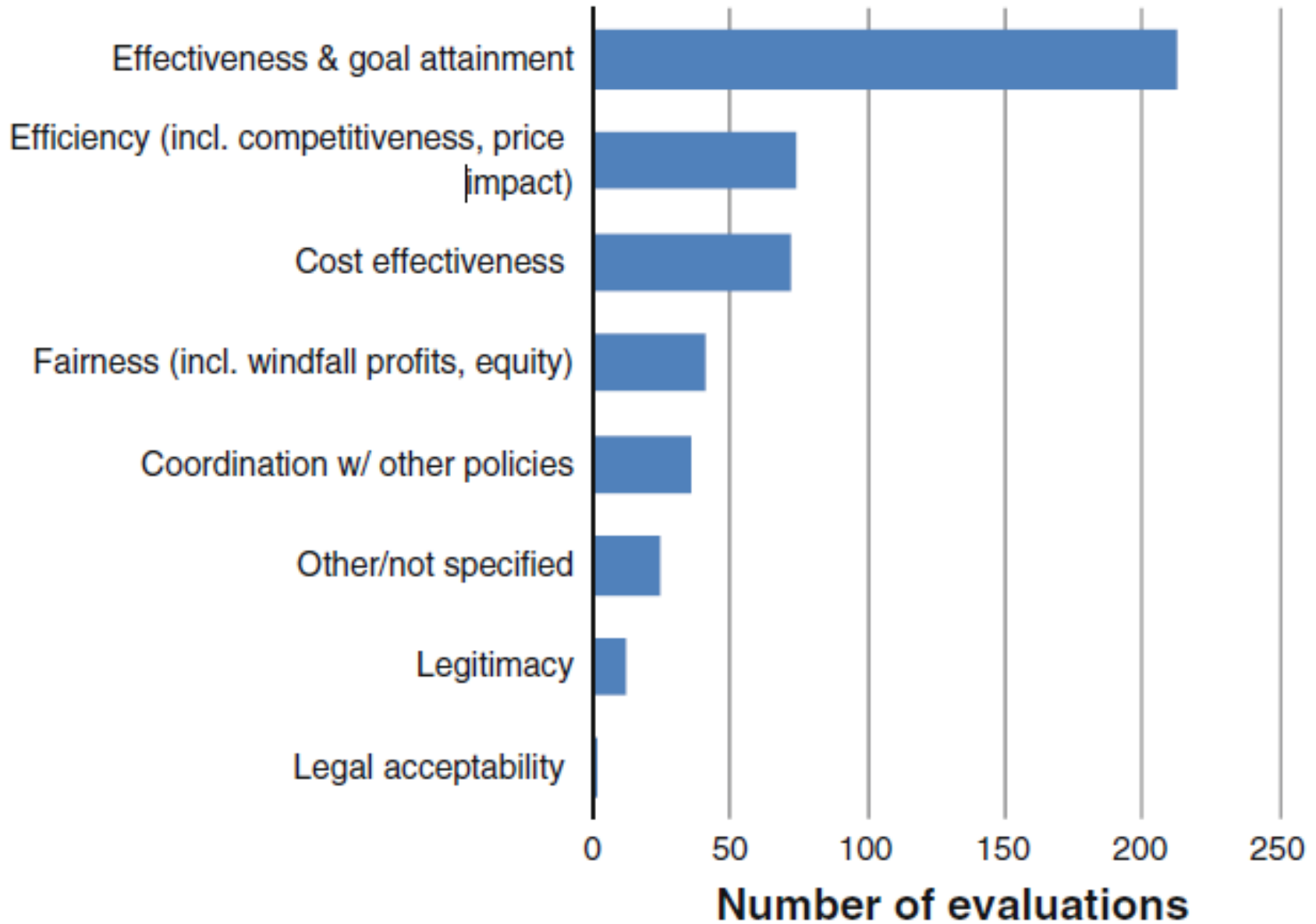
Elsy Verhofstadt, University College Ghent

Luc Van Ootegem, HIVA - KU Leuven

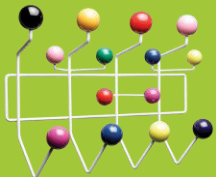
Stockholm, 9-10 April, 2013



# Evaluation criteria

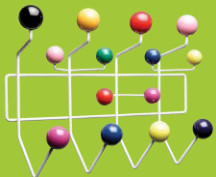


- 1. Support for environmental taxation**
- 2. Support for environmental tax reform**
- 3. The LEVO survey (Flanders)**
- 4. Survey results**
- 5. Conclusion**



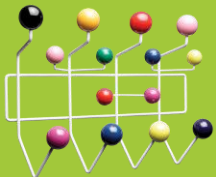
# 1. Support for ET

- Effective and efficient policy instrument
- In general support is fairly low;
- Tax “almost a four letter word”
- “people dislike ET even more than other taxes”
- Socio-economics and demographics indecisive



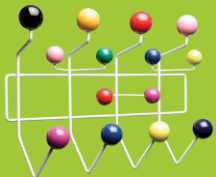
## 2. ETR and revenue recycling

- Acceptability highest for earmarking; ETR low support
- Explanations:
  - Understanding
  - Low trust in government
  - Fear for regressive impact;
  - Infringement personal freedom
  - Endowment effect;
- General ET versus specific carbon tax

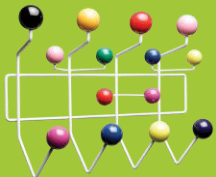


# 3. The LEVO 2012 survey

- ✓ Primary data gathering in Flanders (N=1308)
- ✓ Data are weighted to obtain a representative sample for the Flemish population according to: actual position, gender and age
- ✓ Socio-economics:
  - Age, gender, having a relationship, number of children, being religious
  - Years of schooling of respondent and mother of respondent
  - “I consider myself in good health”
  - “My (household) income is sufficient to live well”
  - Material expectations realized
  - Personality traits



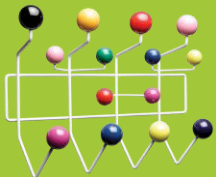
- ✓ Environmental awareness :
  - Is government doing sufficient efforts to remedy environmental problems? (53% more / 42% adequate / 5% too much)
  - Extent to which global warming is a problem (for 72% it is a problem, only 2% denies the issue)
  
- ✓ Support for (or acceptance of) a general environmental tax (ET) and a specific carbon tax
  
- ✓ Willingness to pay taxes: how many Euro would you accept (maximum amount) that your energy bill can rise for this reason (each month)?
  - 30% does not accept a higher bill, 44% is willing to pay (only) 10€



# LEVO 2012: Revenue recycling options

“Introducing ET generates additional budget for the government. What do you think about the use of these resources ?”

- Refund with an equal share for all people living in Flanders
- Refund to those economic sectors that are suffering from the carbon tax to prevent loss of jobs or delocalisation
- Investment in renewable energy
- Other measures to improve the climate or the environment
- Reducing labour taxes such that both employers and employees get half of the advantages
- Reducing government debt
- Reducing corporate taxes

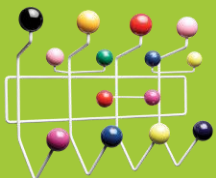




# 4. Survey Results

## 1) Public acceptance of general and specific environmental tax (% opposed or in favour)

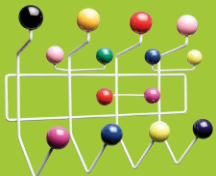
	<b>Strongly opposed</b>	<b>Rather opposed</b>	<b>Rather in favour</b>	<b>Strongly in favour</b>
General ET	14,5	36,1	42,3	7,1
Specific carbon tax	19,2	45,6	30,7	4,5



## 2) Consistency between acceptance of taxes and Willingness to pay taxes (WTP)

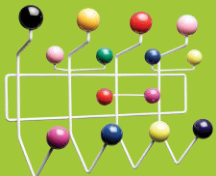
WTP according to acceptance of general environmental taxes and of a specific carbon tax

	%	Mean WTP
low support for both	43,9	6,52
low support for general ET and high support for CO <sub>2</sub>	6,5	12,28
high support for general ET and low support for CO <sub>2</sub>	20,8	11,54
high support for both	28,8	18,00
Total		11,24



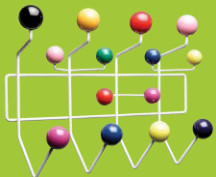
### 3a) OLS estimates for willingness to pay taxes

	Unstandardized coefficients	Significance
(Constant)	-8,422	,000
Schooling	0,558	,000
Income sufficient to live well	0,840	,000
Material expectations realised	0,048	,006
Government_little effort	1,901	,006
Government_much effort	-4,091	,009
Global warming_problem	3,187	,000
R Square	0,130	



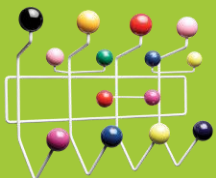
### 3b) Relative importance of the determinants

	Relative Pratt index
Schooling	31,8
Income sufficient to live will	18,2
Material expectations realised	10,9
Government_little effort	10,8
Government_much effort	7,9
Global warming_problem	20,4
	100 = R <sup>2</sup>



## 4) Public support for different revenue recycling options (% opposed or in favour)

	<b>Strongly opposed</b>	<b>Rather opposed</b>	<b>Rather in favour</b>	<b>Strongly in favour</b>
Other measures to improve the climate or the environment	3,3	15,0	54,8	26,9
Investment in renewable energy	4,4	14,0	47,7	33,9
Reducing labour taxes such that both employers as well as employees get half of the advantages	7,1	19,7	42,5	30,6
Reducing government debt	17,0	29,9	36,0	17,1
Refund with an equal share for all people living in Flanders	20,5	27,2	35,9	16,4
Refund to economic sectors that are suffering from the carbon tax to prevent loss of jobs or delocalisation	15,0	35,6	39,4	10,0
Reducing corporate taxes	23,8	39,2	25,2	11,8



## 5. Conclusions

- Support is divided but answers are consistent
- ETR will not win hearts; (partial) earmarking unavoidable
- Education level is important factor
- Worried about climate change
- Design and terminology very important

