"Can Public Procurement be an Effective Tool for Fighting Climate Change?"

- A COP21 side event -

10 December 2015

KEITI Korea Environmental Industry & Technology Institute

GHG emission reduction impacts of Korea's GPP

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Low Carbon Green Growth and GPP

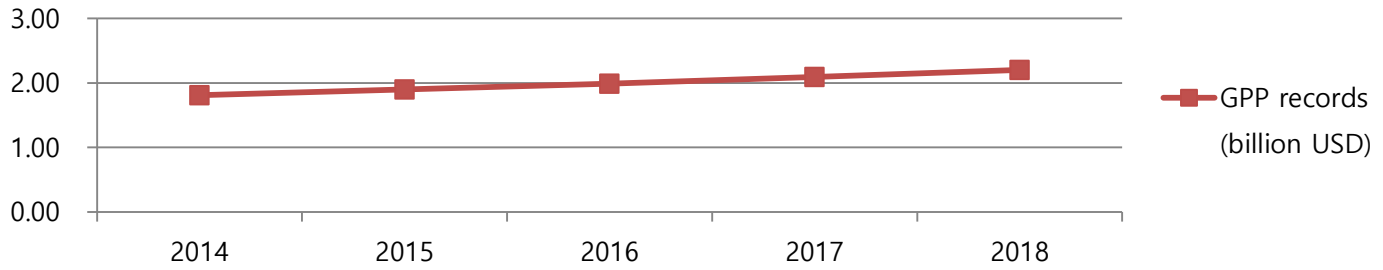
Framework Act on Low Carbon, Green Growth

- Article 32 (Standardization and Certification of Green Technology and Green Industries)

"The Government may grant certification of conformity for green technology, green projects, and green products or accreditation of specialized green enterprises, impose an obligation to purchase on public institutions, or provide technical guidance in order to facilitate the development of green technology and green industries."

Five-Year Plan for Green Growth (2014-2018)

- GPP as a tool to achieve one of the five policy goals – Creation of Green and Innovative Industry
- Key performance Indicator for GPP : The total amount of green procurement by public org.



Overview of GPP in Korea

Act on Promotion of Purchase of Green Products of 2005

- Objective: prevent wasteful use of resources and environmental pollution, contribute to sustainable development by encouraging green purchasing
- The heads of public institutions shall purchase green products, when they intend to purchase any product

State agencies are obliged by the Act to produce and report to MOE

- Implementation Plan with voluntary GPP targets
- Performance Report with the amount of green product purchased

Target organizations

- Central government, Local government, Public corporation, Public insti[illegible] Public educational institutes
- Comprised of about 900 umbrella org. and more than 30,000 [illegible]

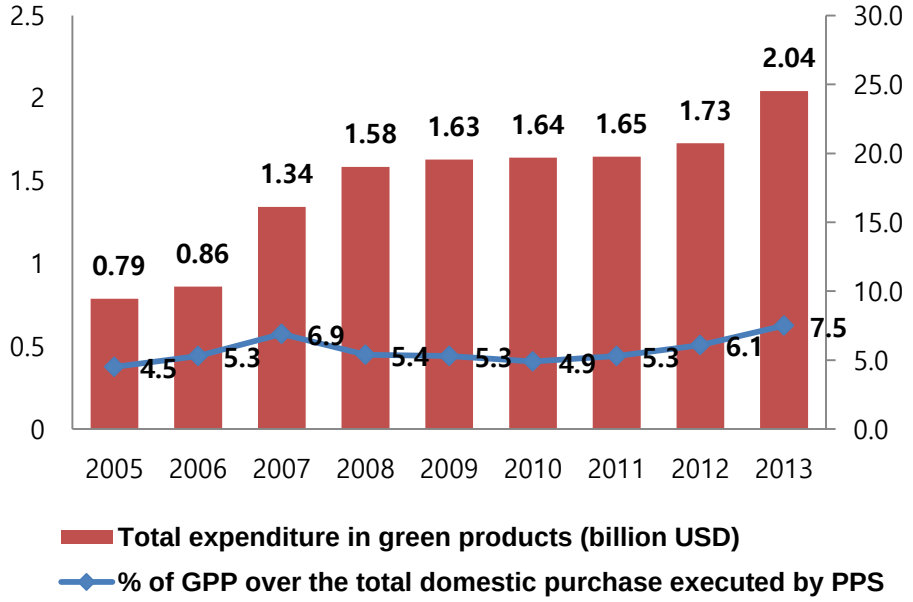
Product categories under GPP

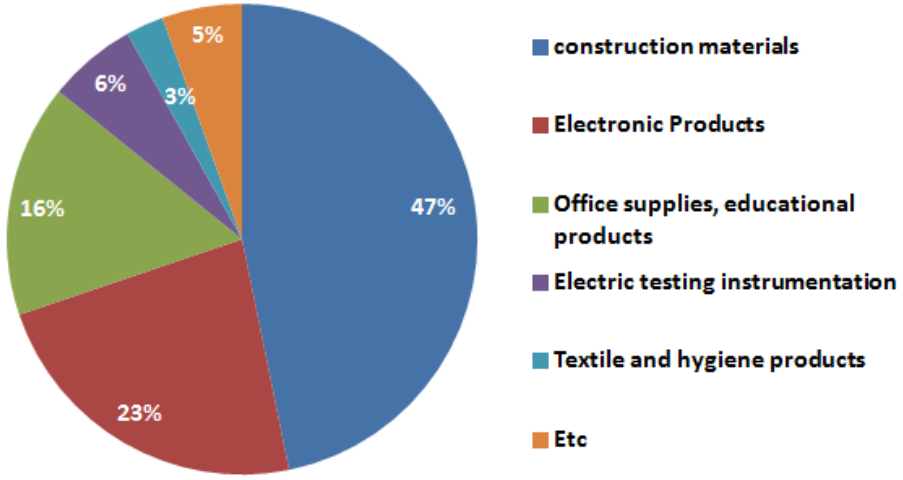
- **Certified or Meet the criteria set either by the Korea Eco-Label or the Good Recycled Mark**
- **Meet other environmental standards set by MOE in consultation with the relevant ministries**

	Korea Eco-Label	***Good Recycled Mark***
Product groups	156 categories including office equipment, construction materials	15 categories including waste paper, glass
Number of Products	2,321 companies, 15,698 products (As of Oct. 2015)	195 companies, 238 products (As of Oct 2015)
Certification Authority	Ministry of Environment	Ministry of Trade, Industry and Energy
Website	http://www.ecoi.go.kr	http://www.gr.or.kr

GHG reduction estimates

What is monitored?





GPP records by category (%)

How the baseline is set?

- The GHG emission of an eco-labeled product is calculated by averaging test results of frequently used products of the product category.
- The GHG emission baseline for an ordinary product is set, in a conservative manner, following the minimum environmental performance requirements of the product category under the Korea Eco-label.

Product categories targeted for GHG reductions

Electric / Electronic Goods





Copying machine, washing machine, dish washer, refrigerator, television, computer, laptop, printer, computer monitor, facsimile, air conditioner

Construction Materials/ Furniture


Desk, bookcase/cabinet, partition, blast furnace slag cement, insulator and sound-absorbing material, floor decoration material

Consumables


Toilet paper, soap

Methods used to estimate GHG reduction

- Environmental performance criteria, which has an impact on Global Warming Potentials of the target products, was identified (e.g. use of electricity/water, emission of ozone depleting substances, waste reduction)
- Environmental impacts were calculated based on unit value of environmental loads provided by national LCI database

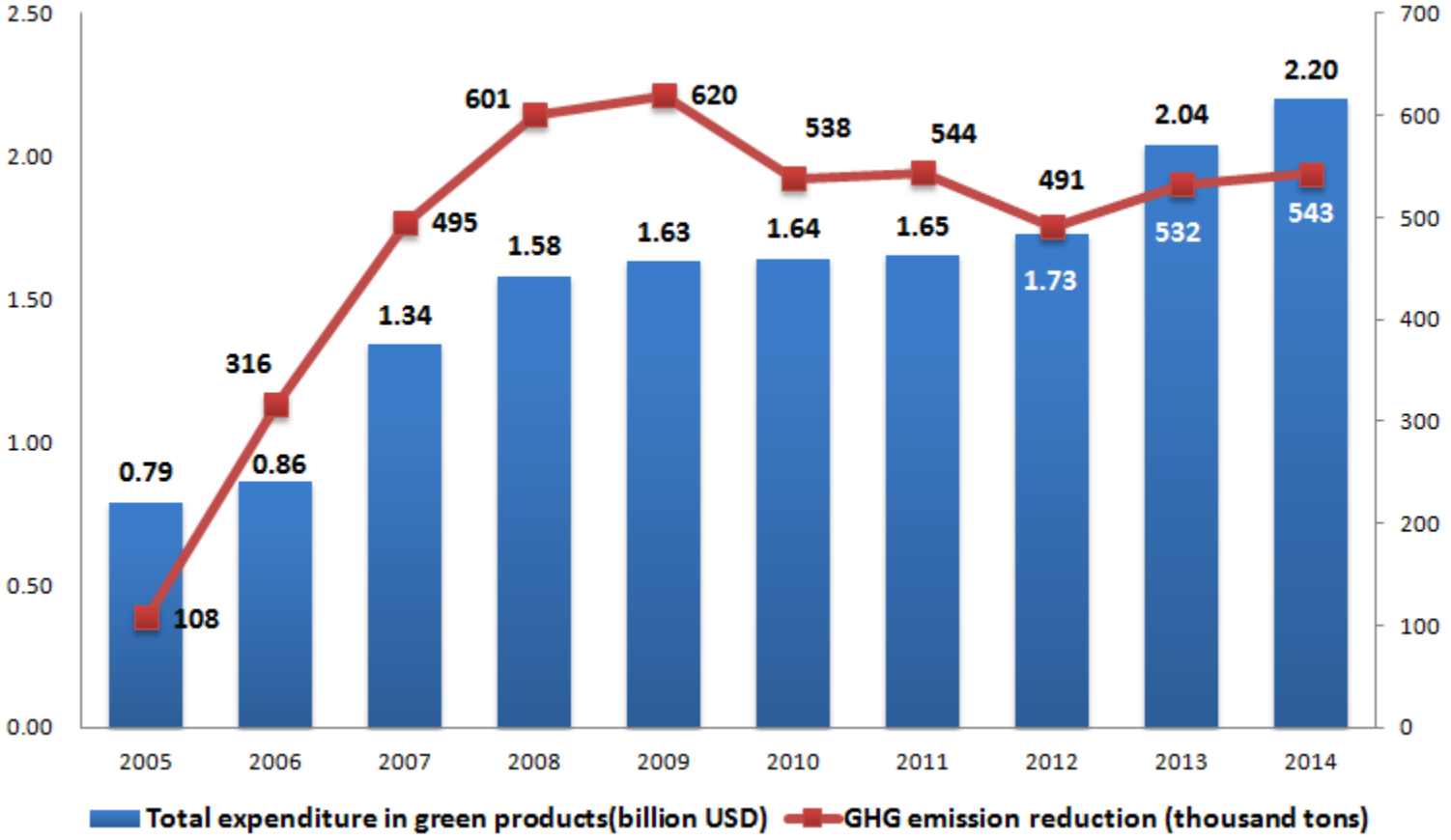
<Table. Annual GHG emission reduction of the Korea Eco-labeled products (%)>

Products	Environmental performances	GHG emission reduction	Relevant Environmental loads
Computer monitor	Monitor for desktop computer	1,000	Electricity use, reduction of solid waste disposal
Desktop computer	Power use of 400W or less	477	Electricity use, reduction of solid waste disposal
Refrigerator	capacity of 500-1,000L used at home	67.1	Electricity use, reduction of ozone depleting substances & solid waste disposal
…	…	…	…

Source: MOE/KEITI, 2007, "Environmental and Economic benefit analysis of eco-products"

GHG reduction estimates outcomes

- For the last 10 years, public sector's green procurement in 19 items resulted in **4.8 million tons of CO_2 equivalent GHG emission reduction**
- More than 90 % of savings are made from the purchase of desktop computer, and computer monitor



Conclusion

Success & Limitation

- **(Success)** GHG emission reduction from GPP is calculated based on the actual green purchase records via online monitoring platform in partnership between MOE and PPS
- **(Limitation)** Public purchase of vehicle, renewable energy, food and energy using products under the other eco-friendly procurement is not taken into account in measuring GHG emission reduction
- The baseline set for both eco-labeled products and ordinary products is outdated

A way forward

- Update the baseline of the target products up to the current market trends
- Monitor other eco-friendly procurement records including purchase of carbon footprint label products
- Develop new product/service category of Korea Eco-label contributing to addressing climate change
- Publicize GHG emission reduction from GPP with targeted messages for different stakeholders

Thank you for your attention!

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Mesure de l'impact climat dans les achats publics

10 décembre 2015

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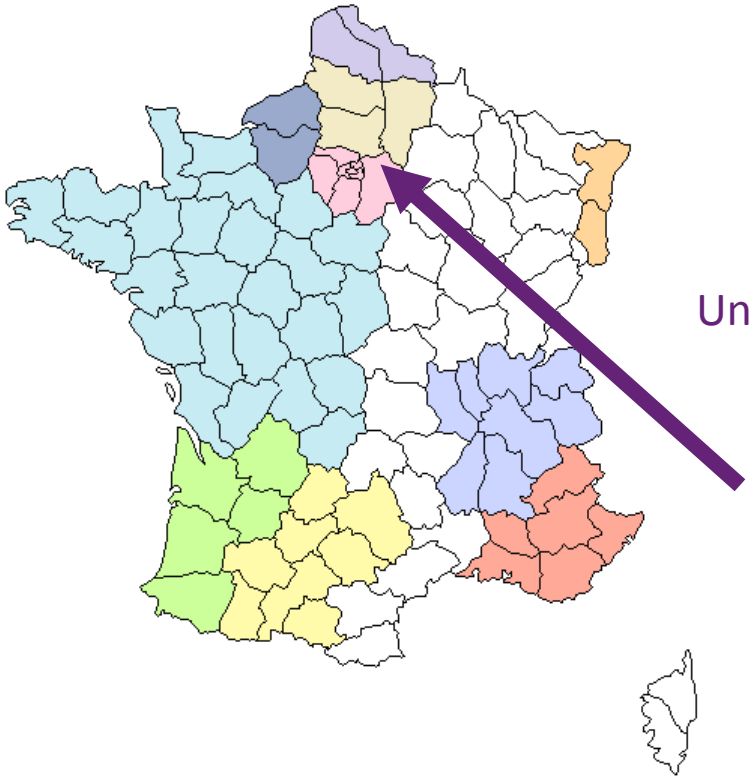
Qui sommes-nous ?

Organisation en France des réseaux « Commande Publique & Développement Durable » :



Initié et soutenu par :

ADEME
Agence de l'Environnement et de la Maîtrise de l'Energie

Coordonné au plan national par :

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE
Ministère de l'Écologie, du Développement durable, des Transports et du Logement

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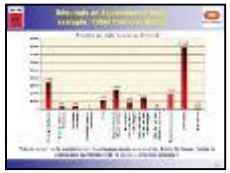
SAE

DIRECTION DES AFFAIRES JURIDIQUES

oeap
OBSERVATOIRE ECONOMIQUE DE L'ACHAT PUBLIC

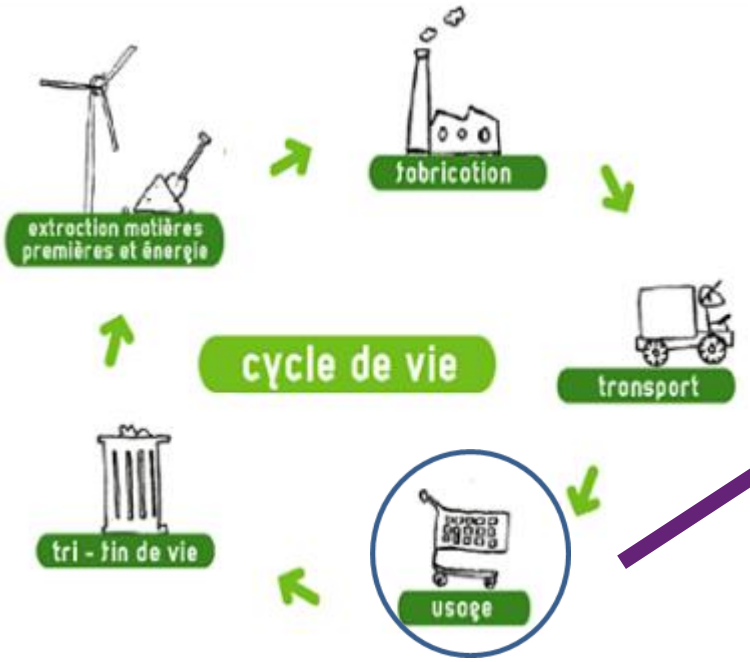
Guide commande publique et climat : méthode en test

1. **Tableau pour hiérarchiser les familles d'achats (démarche globale)**
   - Politique entité
   - Impact climat fort
   - Facilité de mise en œuvre
   - Monétarisation (CO_2 / €)
   - Cartographie CO_2 des achats

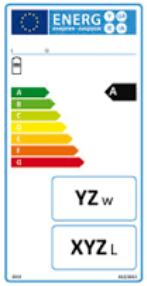


2. **Tableau action par marché :** expériences 20 familles d'achats
   - Pour **toutes** les familles : penser climat & cycle de vie
   - Pour de **nombreuses** familles : label ou solution technique
   - Pour **quelques** familles : quantification

Résultats & évaluation



Achats



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Consommation

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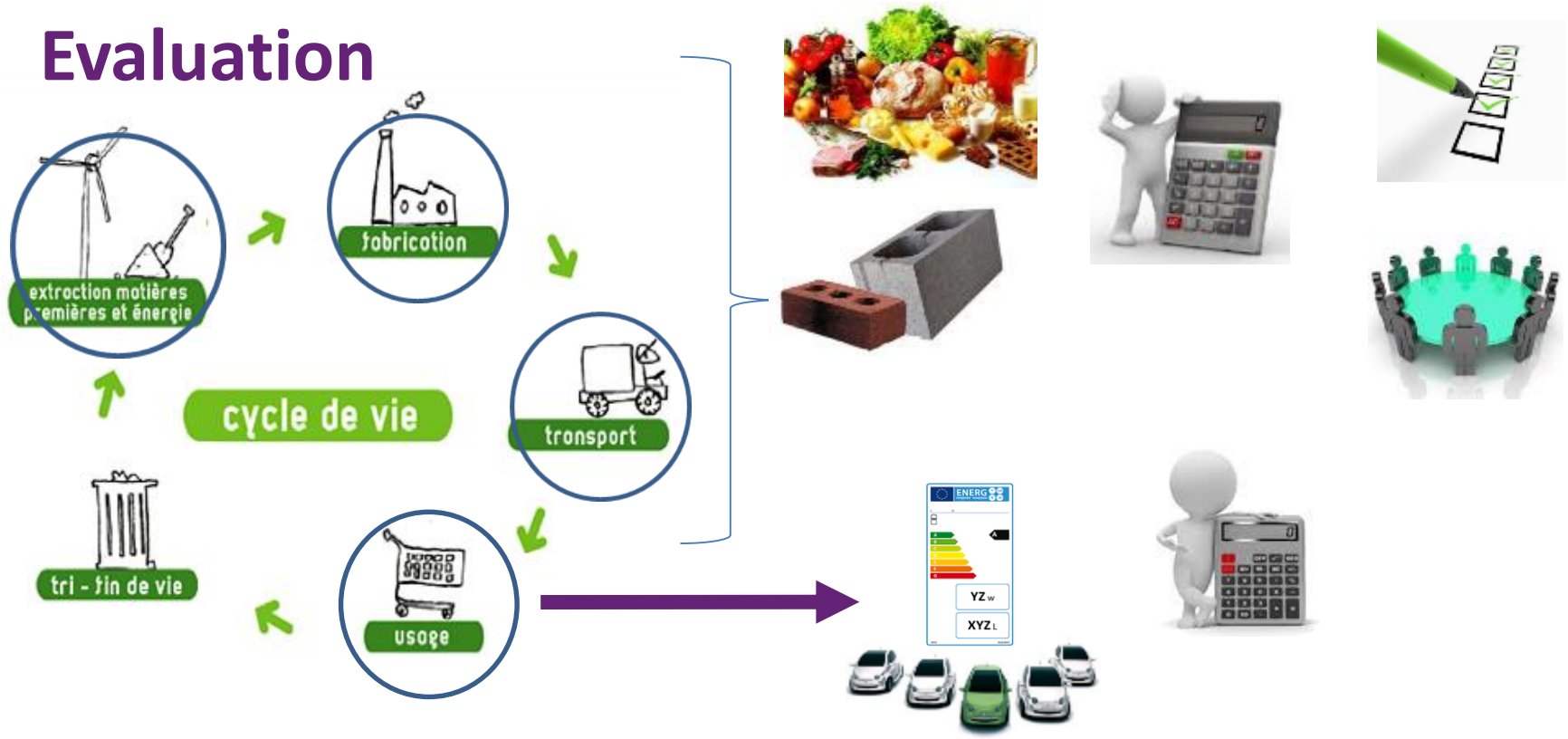
Agence de l'Environnement et de la Maîtrise de l'Energie

Quantification : eco-comparateurs & cycle de vie ?

Prise en compte en amont de l'utilisation : Check liste - ACV – Gouvernance ?

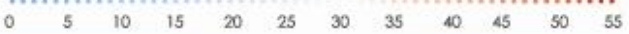


Télécharger la note « Commande Publique & Climat en 10 Questions »

http://www.maximilien.fr/IMG/pdf/note_cop21_cp_climat_10_questions.pdf

La Commande Publique de la Région IDF

Plan régional pour le °Climat



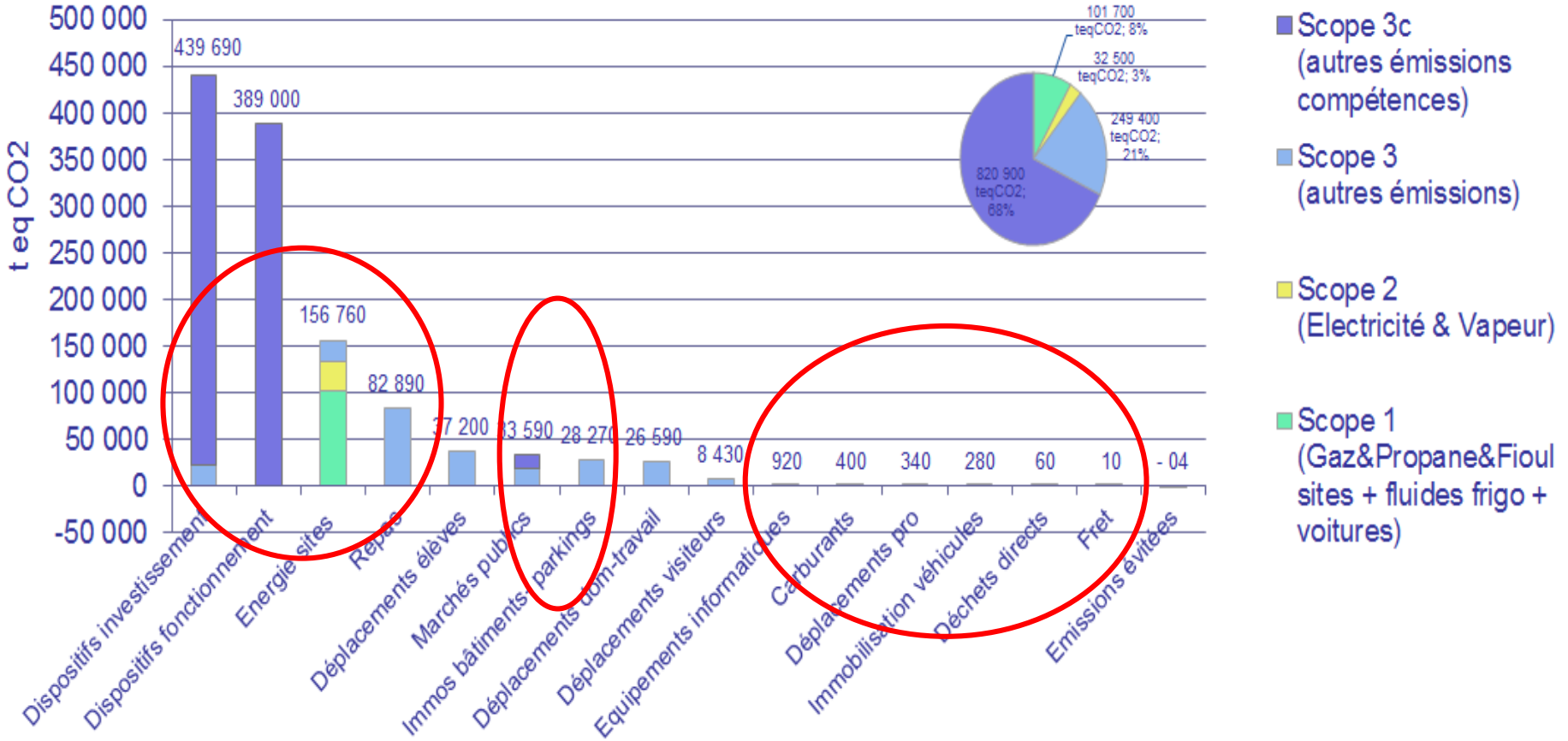
Sylvain COITE,

Officer in charge of climate issues,
Environment Department,
Ile-de-France region

La Commande Publique de la Région IDF

Plan régional pour le °Climat

Marchés publics



The contribution of EU GPP policy to CO_2 emission reduction

François Wakenhut
HoU – Resource Efficiency & Economic Analysis
DG Environment

Cop 21 – Climate Generations Area –
Can public procurement be an effective tool for fighting climate change? (Panel 2)
Paris, 10th of December 2015

Green Public Procurement policy context

- GPP is a policy tool to facilitate a transition to a more sustainable and resource efficient economy
- GPP can play an important role in the circular economy model
- GPP is part of the Sustainable Consumption and Production (SCP) and Sustainable Industrial Policy (SIP) Action Plan

Green Public Procurement legal context

- EC COM 2008/400 "Public procurement for a better environment"
- 7th Environmental Action Programme to 2020 "Living well, within the limits of our planet"
- Public Procurement Directive 2014/24/EU

20 + EU GPP Criteria

- Construction, Electricity, Cleaning Products and Services, Textiles, Food and Catering Services, Furniture, Office IT equipment, Paper, Gardening Products and Services, Transport, Windows, Thermal insulation, Wall Panels, Combined Heat and Power (CHP), Street Lighting and Traffic Signals, Indoor Lighting

NEW: Sanitary Tapware, Toilets and Urinals, Imaging Equipment, Electrical Medical Equipment, Waste Water Infrastructures, Water Based Heaters

EU GPP criteria
Direct contribution to the CO_2 reduction

EU GPP criteria for electricity

Criterion on energy quality:

100% of supplied electricity must come from renewable energy sources as defined by Directive 2009/28/EC.

EU GPP criteria for transport

Criterion limiting CO_2 emission:

According to the vehicle technical sheet CO_2 emissions for vehicles shall not exceed the following values…

EU GPP criteria
Indirect contribution to the CO_2 reduction

- **Criteria on energy efficiency** (e.g. limiting energy consumption)
- **Criteria in distribution and transport** (e.g. for materials)
- **Examples**:

The installation of low or zero CO_2 energy technologies to reduce energy use and CO_2 emissions in Office buildings

Performance requirements for CO_2e emission from materials transportation in Office buildings

EU GPP Criteria for Electrical and Electronic Equipment used in the Health Care Sector (Health Care EEE)

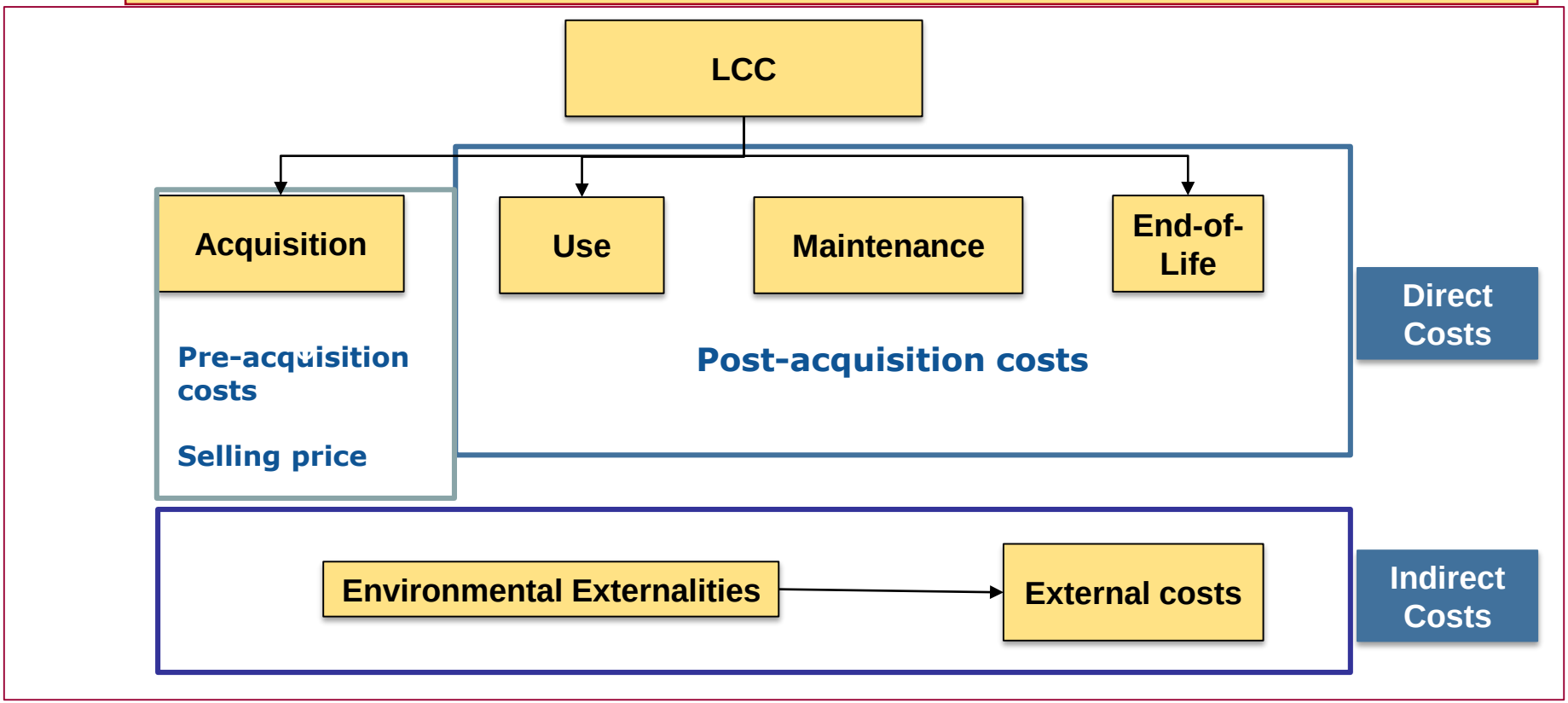
Example of health care EEE	Environmental benefit	Economic benefit
Computed Tomography (CT)	➢ Energy savings of 50 % during thorax examinations ➢ Energy savings of 80 % during cardiac examinations ➢ (Energy savings of 50 % in daily energy consumption) ➢ 33,000kWh per machine annually, 15 tons of CO_2 emissions, equivalent to the annual CO_2 emissions of 4 cars	Annual savings of up to € 3700 per CT system

EU GPP Criteria for Electrical and Electronic Equipment used in the Health Care Sector (Health Care EEE)

Example of health care EEE	Environmental benefit	Economic benefit
Magnetic Resonance Imaging (MRI)	➢ 50% less energy usage (business as usual: operating an MRI can produce about 90 tons of CO_2 annually) ➢ Reduces annual electricity usage by about 60,000 kWh, equivalent to the annual electricity consumption of 5 households, 27 metric tons of CO_2, equivalent to the annual emissions of 7 cars	Annual savings of up to € 6700 per MRI

EC project on Life Cycle Costing calculation tool

Life-Cycle Costing is a methodology where costs of a given asset are considered throughout its life-cycle (2014/24/EU - Art. 67)



Costs imputed to environmental externalities linked to the product, service or works during its life-cycle, provided their monetary value can be determined and verified. (2014/24/EU - Art. 68)

Thank you for your attention!

GPP webpage: http://ec.europa.eu/environment/gpp

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