

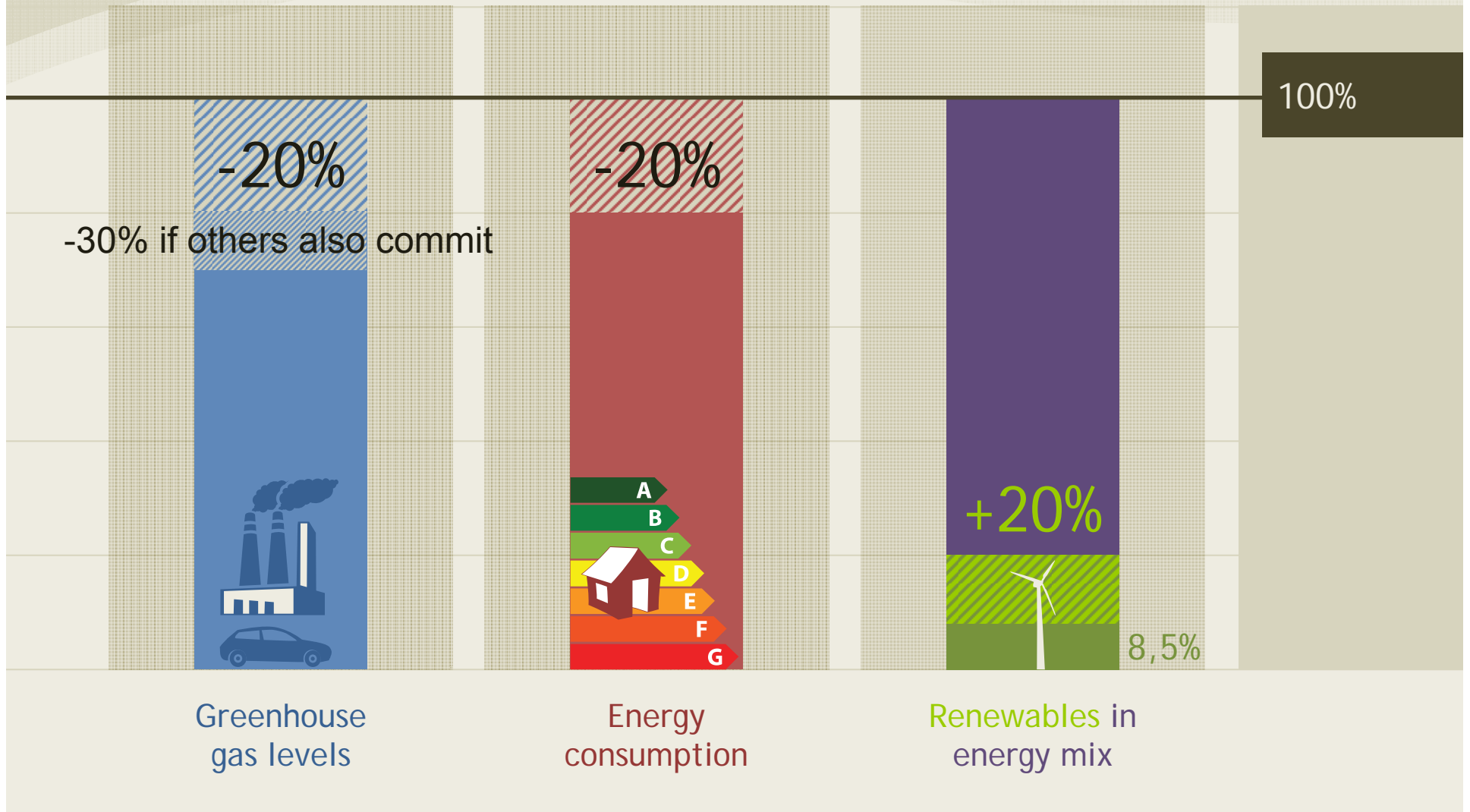


# ● EU Energy Policy for Buildings after the recast

**Unit D4 - Energy Efficiency, DG TREN**

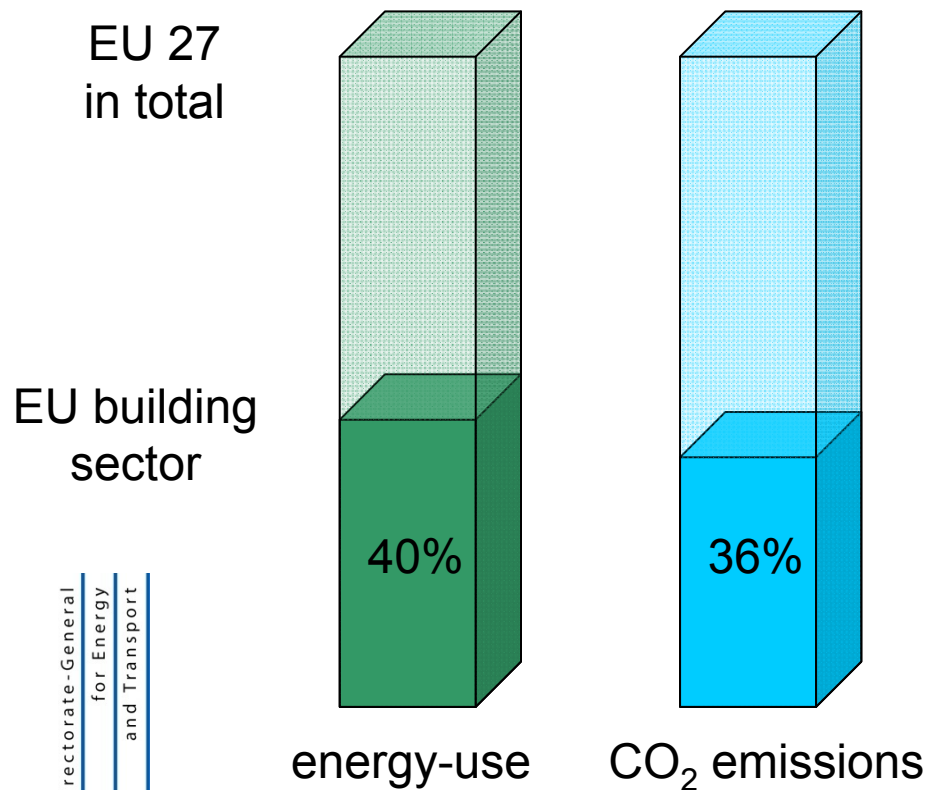


# The 20-20-20 EU policy by 2020



# ● EU Building Sector

- **9% of total EU 27 GDP**
- **8% of total employment**
- **€2 trillion annual turnover**



**... concerns everybody**

# ● Energy Performance of Buildings Directive (EPBD)

- The original *2002/91/EC* Directive offers holistic approach towards more energy efficient buildings
- Member States are in charge of:
  - A methodology to calculate and rate the energy performance of buildings
  - Set minimum energy performance standards for new and existing buildings (useful floor area > 1000 m<sup>2</sup>) that undergo major renovation
  - Energy performance certificates
  - Regular inspections of heating and air-conditioning systems



# ● Overview on timeline and next steps



## Ongoing:

- negotiations between Commission, EP and Council on adjustments to new Lisbon Treaty (legal basis and new *comitology* rules)

## Next:

- Publication of the final text ~ spring 2010
- 2 years MS have to finalise transposition
- 2.5 to 3 years for implementation



**Additional energy savings of 5-6% of total EU energy consumption**



# EPBD recast

## - scope -

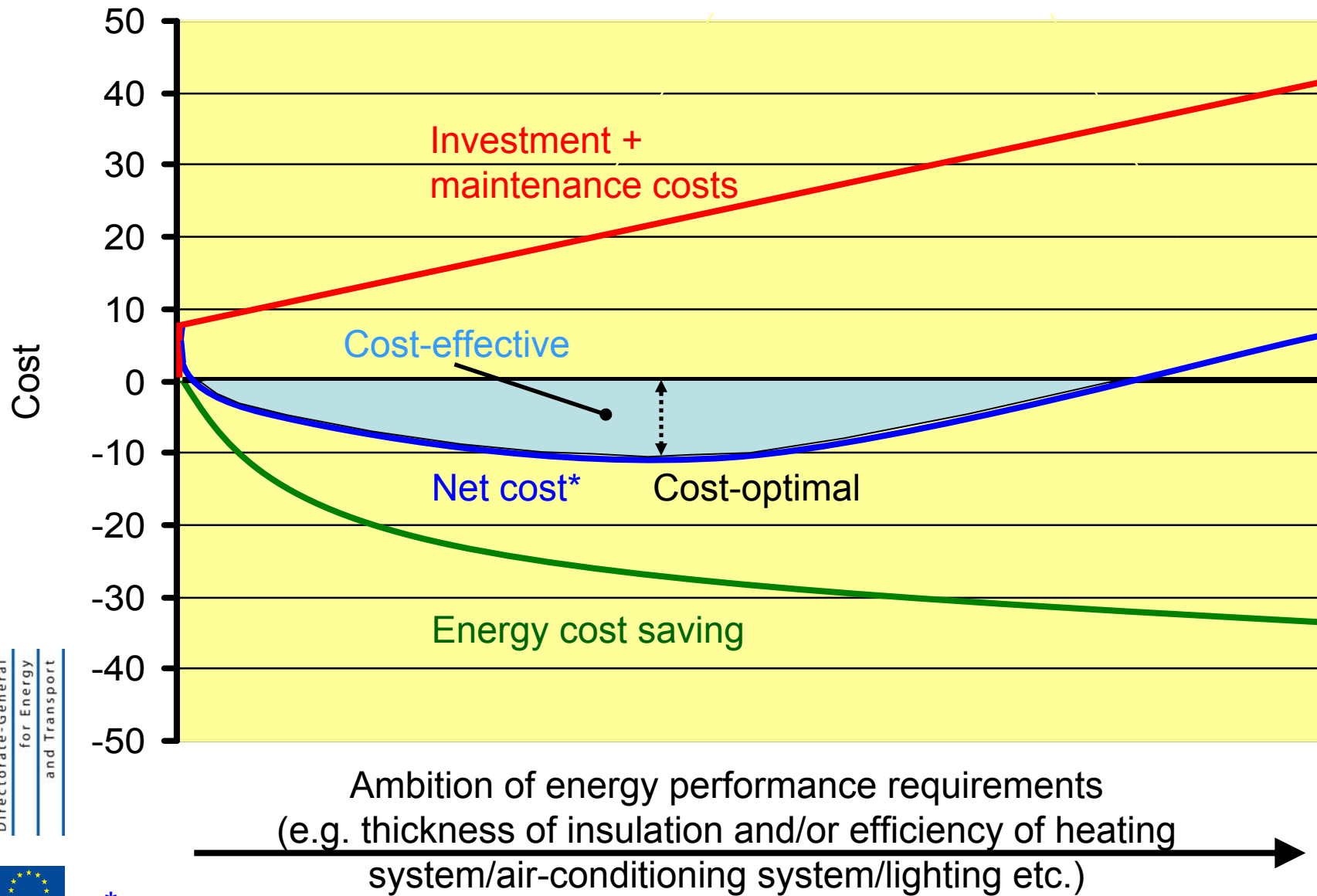
- Elimination of the **1000 m<sup>2</sup> threshold** for existing buildings → minimum energy performance requirements for all existing buildings undergoing a major renovation (25 % of building surface or value)
- MS also to set minimum energy performance requirements **for technical building systems** (large ventilation, AC, heating, lighting, cooling, hot water) for new built and replacement
- *Eco-Design Directive* regulates placing of products on the market, *EPBD* their energy-efficient assembling to technical systems
- MS to set minimum energy performance requirements **for renovation of building elements** (roof, wall, etc.) *if technically, functionally and economically feasible*



## EPBD recast:

### - cost optimal requirements -

- New element in recast: **benchmarking methodology** framework for calculating **cost-optimal levels** of minimum requirements to be developed by the Commission by 30 June 2011
- Cost-optimal level = minimised lifecycle cost (including investment costs, maintenance and operating costs, energy costs, earnings from energy produced and disposal costs)
- Benchmarking methodology shall help MS in setting their requirements, recent EPBD Annex sets basic features
- In case of >15 % gap between cost-optimal and the actual national standard → MS to justify the gap or plan measures to reduce it



\* = sum of (Investment + maintenance costs) and (Energy cost saving)



## EPBD recast: - certificates -

- Better visibility and quality of information provided by **Energy Performance Certificates**: mandatory use of the energy performance indicator in advertisements; recommendations on how to improve cost-optimally/cost-effectively the energy performance, can also include indication on where to obtain information about financing possibilities
- Certificates to be issued to all new buildings/building units and when existing buildings/building units are rented/sold
- Public authorities occupying office space of  $> 500\text{m}^2$  will have to display the certificate (lowered to  $> 250\text{m}^2$  after 5 years)
- Commission to develop a **voluntary common European certification scheme** for non-residential buildings by 2011

# EPBD recast – What shall e.g. happen?

## Energy Performance Certificate



The screenshot shows a real estate website interface. The browser title is 'A vendre - Recherche - Appartements - D - Windows Internet Explorer'. The URL is 'http://www.immoweb.be/fr/buy.Results.gallery.cfm?xmi=&keep=&xcarte=N&xidcategorieprev=5&xidcategorie=5&xtypek'. The page displays a grid of property listings. The first listing in the second row is circled in black, with the text 'Energy Class D' written inside the circle. An arrow points from the 'D' class on the EPC scale to this listing.



## EPBD recast:

### - inspections and independent control -

- MS to establish **regular inspection** of accessible parts of heating system (> 20kW) and of AC system (> 12kW)
- Inspection reports issued after each inspection (includes recommendations for efficiency improvement) and handed over to owner or tenant
- Certificates and inspection to be carried out by independent and qualified and/or accredited experts
- MS to set up **independent control system** with random verification of certificates and inspections reports
- MS to establish penalties for non-compliance



## EPBD recast: - new built -

- Requirement to consider **alternative systems** for new buildings (such as RES, district heating and cooling, CHP....)
- All new buildings in the EU as from December 2020 (2018 for public buildings) will have to be **nearly zero energy buildings**
- the **nearly zero or very low** amount of energy required should to a very significant level be covered by energy from renewable source



## EPBD recast: - existing buildings -

- MS to set Minimum energy performance requirements **for renovation of technical systems**, as well as for **building elements** (roof, wall, etc.) *if technically, functionally and economically feasible*, whenever they are retrofitted or replaced
- MS to **take measures, such as targets**, to stimulate the transformation of buildings that are refurbished into nearly zero energy buildings



## EPBD recast: - financing -

- EPBD recast **underlines crucial role of financing for EE**
- MS to draw up lists of national (financial) measures by 30 June 2011
- COM to present, preferably by 2011, analysis of the effectiveness and appropriateness of the level of EU and other public finance institution's funding and their coordination
- COM to assist MS in setting up national/regional support programmes
- MS to take into account cost-optimal levels of energy performances in funding decisions

# EPBD recast: - expected impacts -

- 5 - 6 % saving of EU's total energy consumption by 2020
- 5 % saving of EU's total CO2 emissions by 2020
- 280,000 – 450,000 potential new jobs
- Low / zero, predominantly negative CO2 abatement costs

