



- 1st Policy Dialogue on EE in L-America and the Caribbean

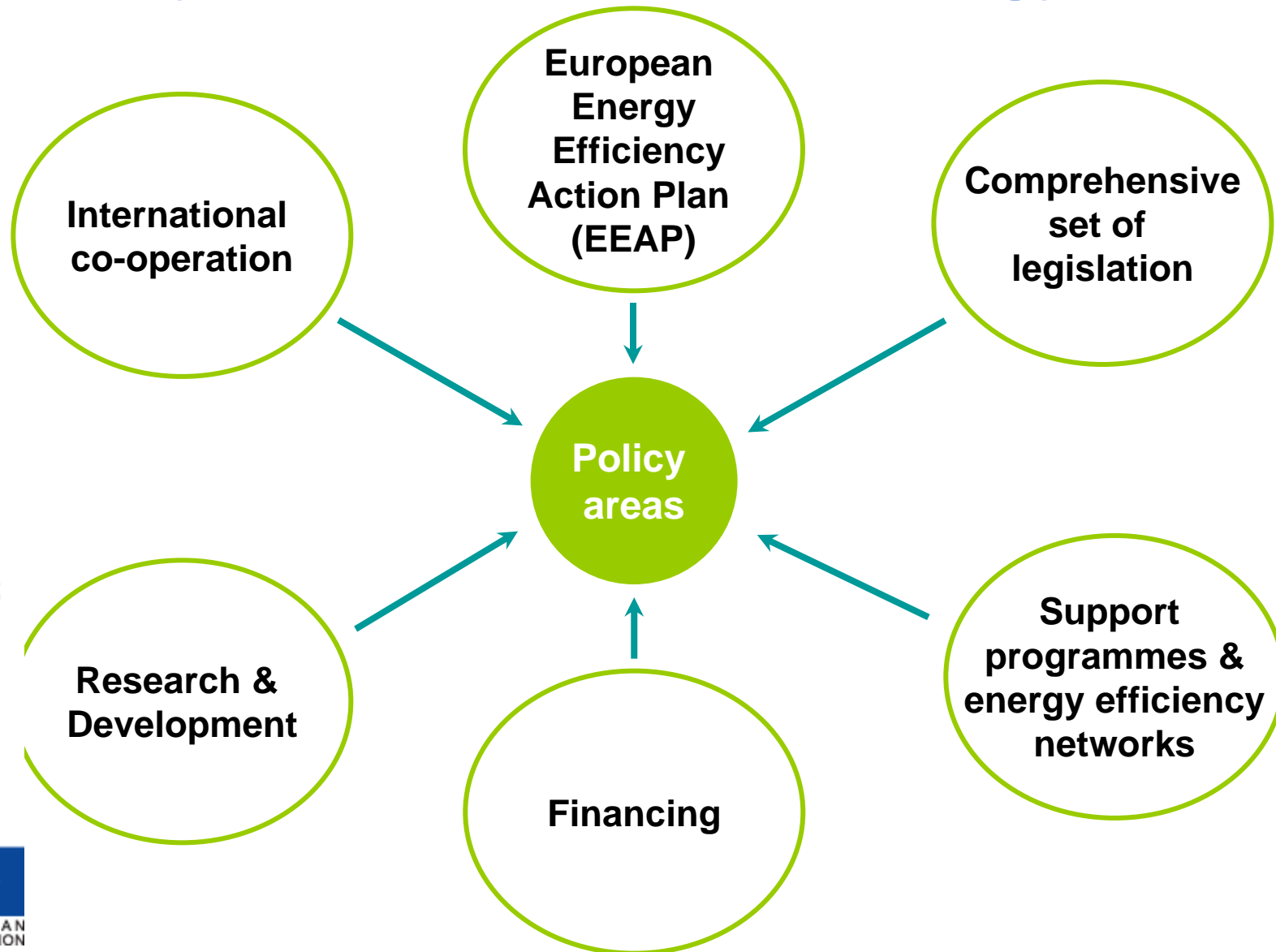
Roderic van Voorst
European Commission

19 November 2010

Directorate-General
for Energy

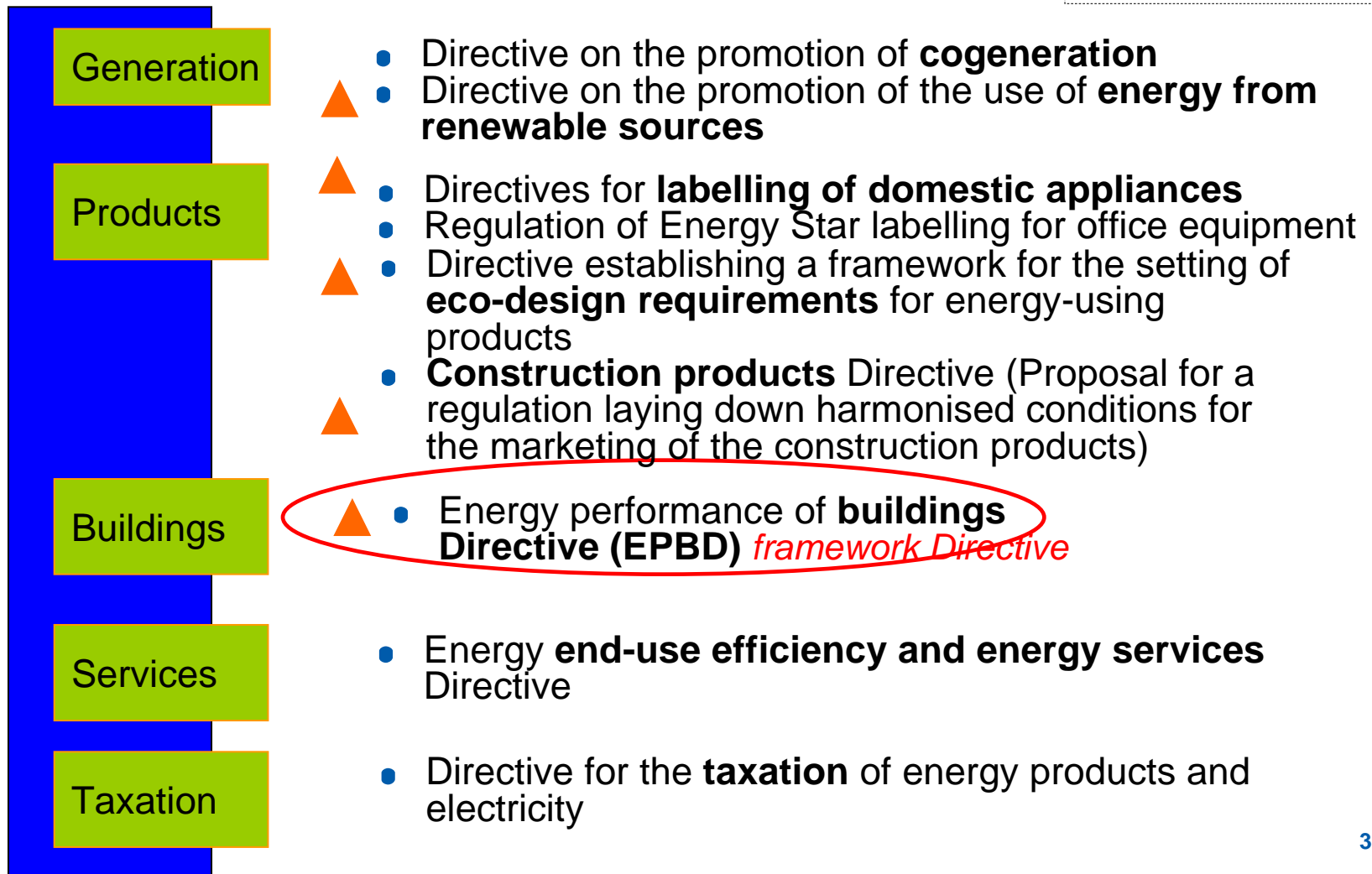


EU policy actions to achieve energy savings



● Comprehensive set of legislation to enhance energy efficiency

▲ Revised 2009/10

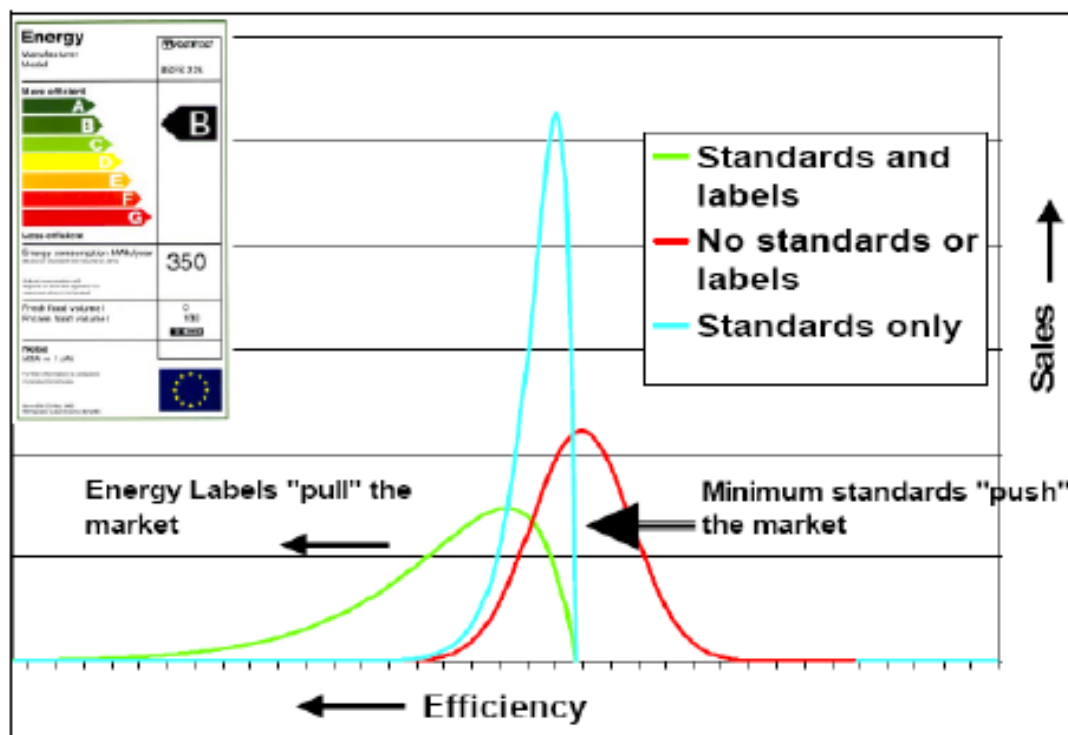


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Interaction between Ecodesign (2009/125/EC) and Energy Labelling Directive (2010/30/EU)

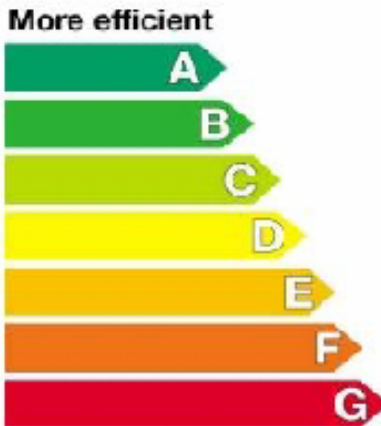


The Ecodesign Directive addresses the **supply side** while the Energy Labelling Directive addresses the **demand side**. It is the **combined** effect of both measures which ensures a dynamic improvement of the market.



Source: IEA, P. Waide, International use of policy instruments, Copenhagen, 05 April 2006

- **Information requirements** on the consumption of energy and essential resources
- Target: **end-users** (public and private demand)
- Label design and layout decided in IMs

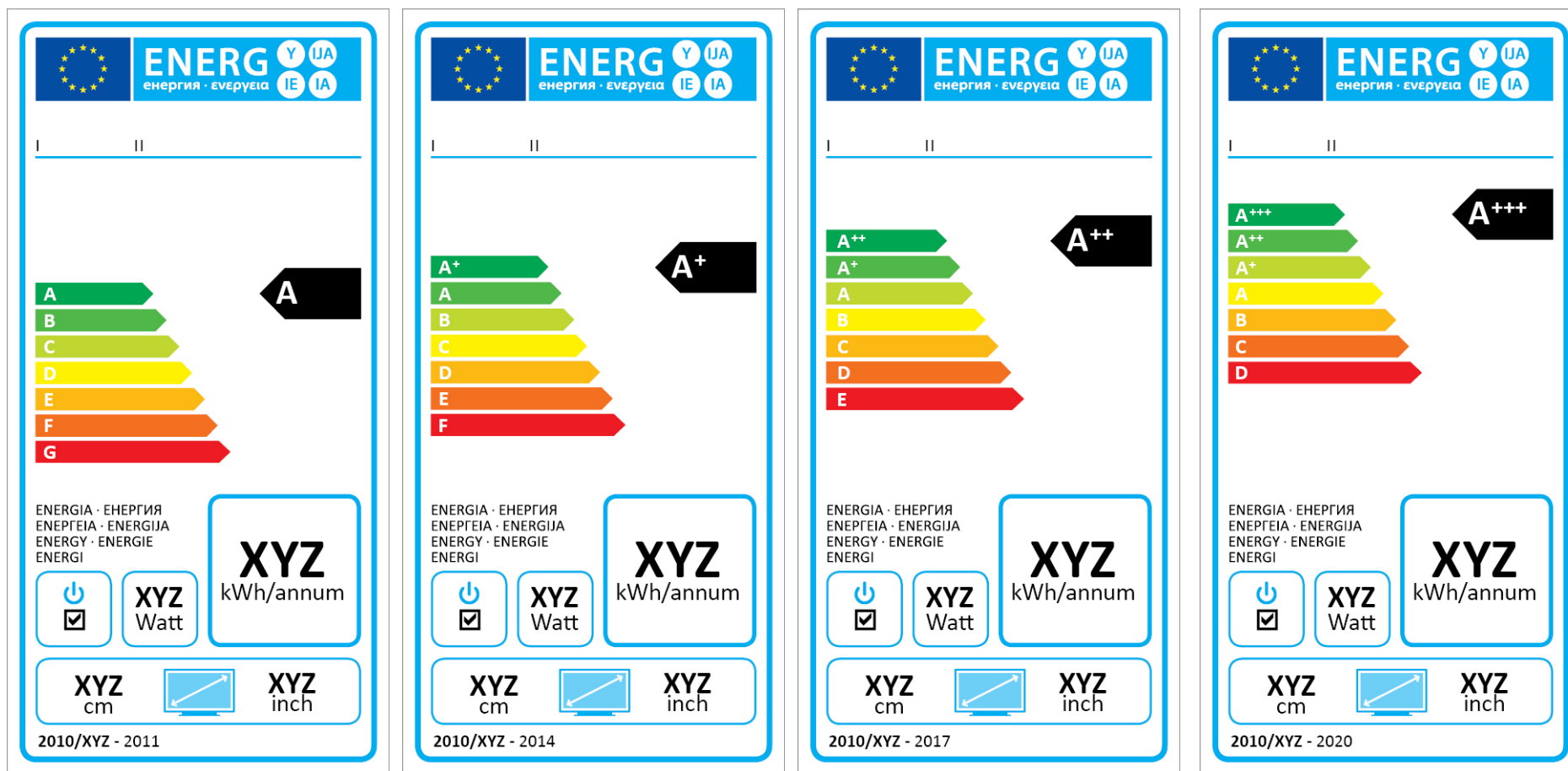


Energy		Fridge-Freezer
Manufacturer Model		
More efficient 	A	
Less efficient Energy consumption kWh/year <small>(Based on standard test results for 24h)</small>	325	
<small>Actual consumption will depend on how the appliance is used and where it is located</small> Fresh food volume I Frozen food volume I	190 126 	
Noise <small>(dB(A) re 1 pW)</small> <small>Further information is contained in product brochures</small>		
<small>Norm EN 153 May 1990 Refrigerator Label Directive 94/CE</small>		

Energy labelling

- main aims: market transparency for consumers, incentives for innovation for manufacturers, market transformation towards highly efficient products/energy savings
- complementary to “minimum” ecodesign requirements
- new « framework » Directive provides that the energy label
 - uses a classification «A» to «G» as basis
 - A+, A++ and A+++ can be used
 - only seven classes are shown
 - colours are dark green to red
- review of classification when A+++ and A++ are significantly «populated» and further room for improvement exists

Example: proposal for TVs - not adopted yet



Direct

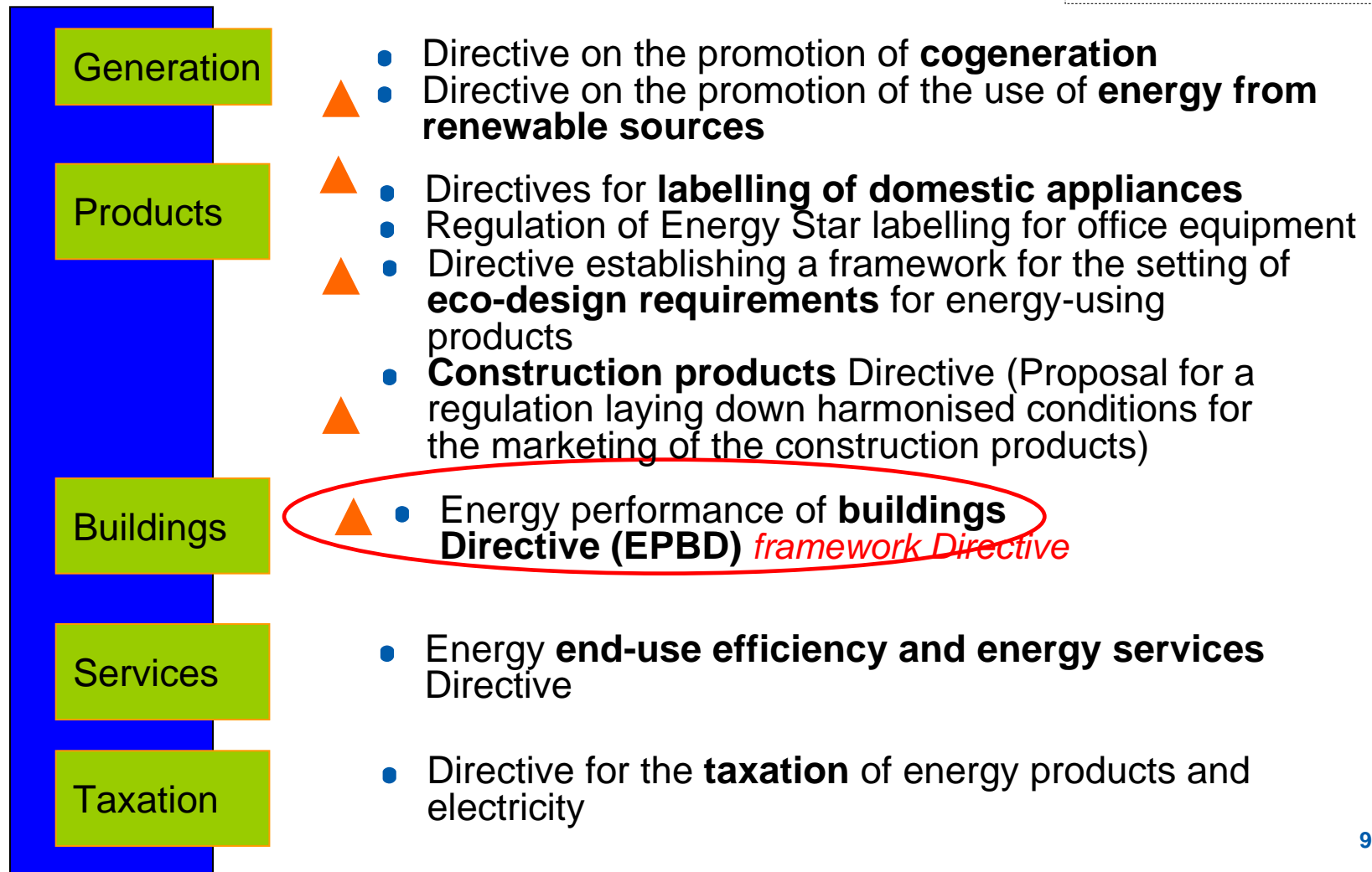


Example: TVs contd.

- A, A+ ... formats become mandatory in three year steps
- manufacturers may use the format in advance for products with efficiency better than a mandatory format, e.g.:
- if a manufacturer is able to produce e.g. an A+ TV, this can be shown immediately, although the mandatory format has a classification from A-G only
- impact of announced label (and ecodesign) on the market can already be observed, as TVs have become significantly more efficient during the last 2 years

● Comprehensive set of legislation to enhance energy efficiency

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The EU Directive on EE on Buildings

- New Directive 2010/31/EU is a recast
- The recast keeps the main features of the previous legislation:
 - MS have to develop a methodology for setting MEPR
 - MS have to set MEPR for new buildings and existing buildings undergoing major renovation
 - MS have to establish a scheme for inspection of air conditioning and heating systems
 - MS have to establish an energy performance certificate
- ‘framework Directive’, no harmonised requirements in EU
- Directive to be transposed by July 2012 in EU MS

● Energy Performance of Buildings Directive – recast (1)

- a) All new build to be “nearly zero energy buildings” as of end of 2020 (public sector: end of 2018). Remaining energy need be covered by RES
- b) Directive covers now all *existing* buildings irrespective of their size both residential and non residential sector (previously only >1000 m²)
- c) Requirement for Member States to lay down minimum energy performance levels for technical building systems and building elements when installed, replaced or upgraded
- d) Level of minimum energy performance requirements
Benchmarking to achieve cost-optimal levels



● Energy Performance of Buildings Directive – recast (2)

- e) **Display of Energy Performance Certificates in public buildings**
(decrease of threshold to 500 m² and 250 m² after 5 years)
- e) **Strengthening the role and the quality of energy performance certificates –**
i.a. by quality checks and obligatory use of the performance indicator in all advertisements for sale or rent
- f) **Strengthening the role and the quality of HVAC inspections**
- g) **Stimulating financing mechanisms for energy efficiency investments in the building sector**
- h) **Exemplary role of public authorities**




EPBD – Energy Performance Certificate

Different formats, layout and rules for advice on energy efficiency improvements in EU Member States

Energy labelling

Energy labelling of the following building:

Address: Storgade 27 A og B
 Postal code/city: 9990 Storstrømen
 BBR-no.: 12345-1
 Energy labelling no.: 122780
 Valid 5 years from: 8. august 2006
 Energy consultant: Jens Pedersen
 Company: Aktuel Energirådgivning



The energy labelling informs about the building's energy consumption, the possibility of obtaining energy savings, the break-down of the building's energy costs and the average energy consumption of individual apartments. The energy labelling is prepared by certified energy consultants for apartment buildings and is required by law.

Reported energy consumption for heating	Energy label
<ul style="list-style-type: none"> Costs including VAT and duties: 293.000 DKK/year Consumption: 526 MWh/year Reported for the period: January 1st 2005 – December 31st 2005 	<p>Low consumption</p> <p>A1 A2 B1 B2 C1 C2 D1 D2 E1 E2 F1 F2 G1 G2</p> <p>High consumption</p> <p>A1 is the best energy label that can be achieved, then A2, then B1, etc. G2 is the worst.</p>

Cost-effective savings

Here are the energy consultant's proposals to reduce the energy and water consumption in the building. There may be more proposals on the next page. The proposals below are elaborated in the building inspection section.

ENERGIEAUSWEIS für Nichtwohngebäude

gemäß den §§ 16 ff. Energieeinsparverordnung (EnEV)

Berechneter Energiebedarf des Gebäudes

Primärenergiebedarf „Gesamtenergieeffizienz“

Dieses Gebäude: kWh/(m²·a)

0 100 200 300 400 500 600 700 800 900 1000 >1000

EnEV-Anforderungswert Neubau ↑ EnEV-Anforderungswert modernisierter Altbau

CO₂-Emissionen * kg/(m²·a)

Nachweis der Einhaltung des § 3 oder § 9 Abs. 1 der EnEV (Vergleichswerte)

Primärenergiebedarf	W(kWh/m ² ·a)	Energetische Qualität der Gebäudehülle	W(m ² ·K)
Gebäude Ist-Wert		Gebäude Ist-Wert H ₀	W(m ² ·K)
EnEV-Anforderungswert		EnEV-Anforderungswert H ₀	W(m ² ·K)

Endenergiebedarf „Normverbrauch“

Energieträger	Heizung	Warmwasser	Jährlicher Endenergiebedarf in kWh/(m ² ·a) für	Gebäude insgesamt
			Eingebaute Beleuchtung	
			Lüftung	
			Kühlung einsch. Beleuchtung	

Aufteilung Energiebedarf

[kWh/(m ² ·a)]	Heizung	Warmwasser	Eingebaute Beleuchtung	Lüftung	Kühlung einsch. Beleuchtung	Gebäude insgesamt

Erneuerbare Energien

Erneuerbare Erzeugerträger werden genutzt für:

Heizung Warmwasser Eingebaute Beleuchtung

Lüftung Kühlung

Lüftungskonzept

Die Lüftung erfolgt durch:

Fensterlüftung Lüftungsanlage ohne Wärmerückgewinnung

Schachtlüftung Lüftungsanlage mit Wärmerückgewinnung weitere Zonen in Anlage

Gebäudezonen

Nr.	Zone	Fläche [m ²]	Anteil [%]
1			
2			
3			
4			
5			
6			

Erläuterungen zum Berechnungsverfahren

Das verwendete Berechnungsverfahren ist durch die EnEV vorgegeben. Insbesondere wegen standardisierter Randbedingungen erlauben die angegebenen Werte keine Rückschlüsse auf den tatsächlichen Energieverbrauch. Die ausgewiesenen Bedarfswerte sind spezifische Werte nach der EnEV pro Quadratmeter Gebäudenutzfläche (A_n), die oben als EnEV-Anforderungswert bezeichneten Anforderungen der EnEV sind nur im Falle des Neubaus und der Modernisierung nach § 9 Abs. 1 EnEV bindend.

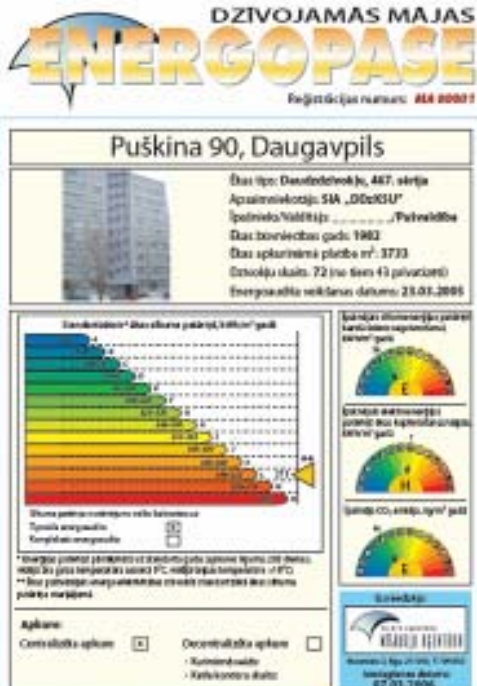
* Heiße-Wasser-Angabe

DZIVOJAMAS MAJAS ENERGOPASE

Reģistrācijas numurs: BA 0007

Pušķina 90, Daugavpils

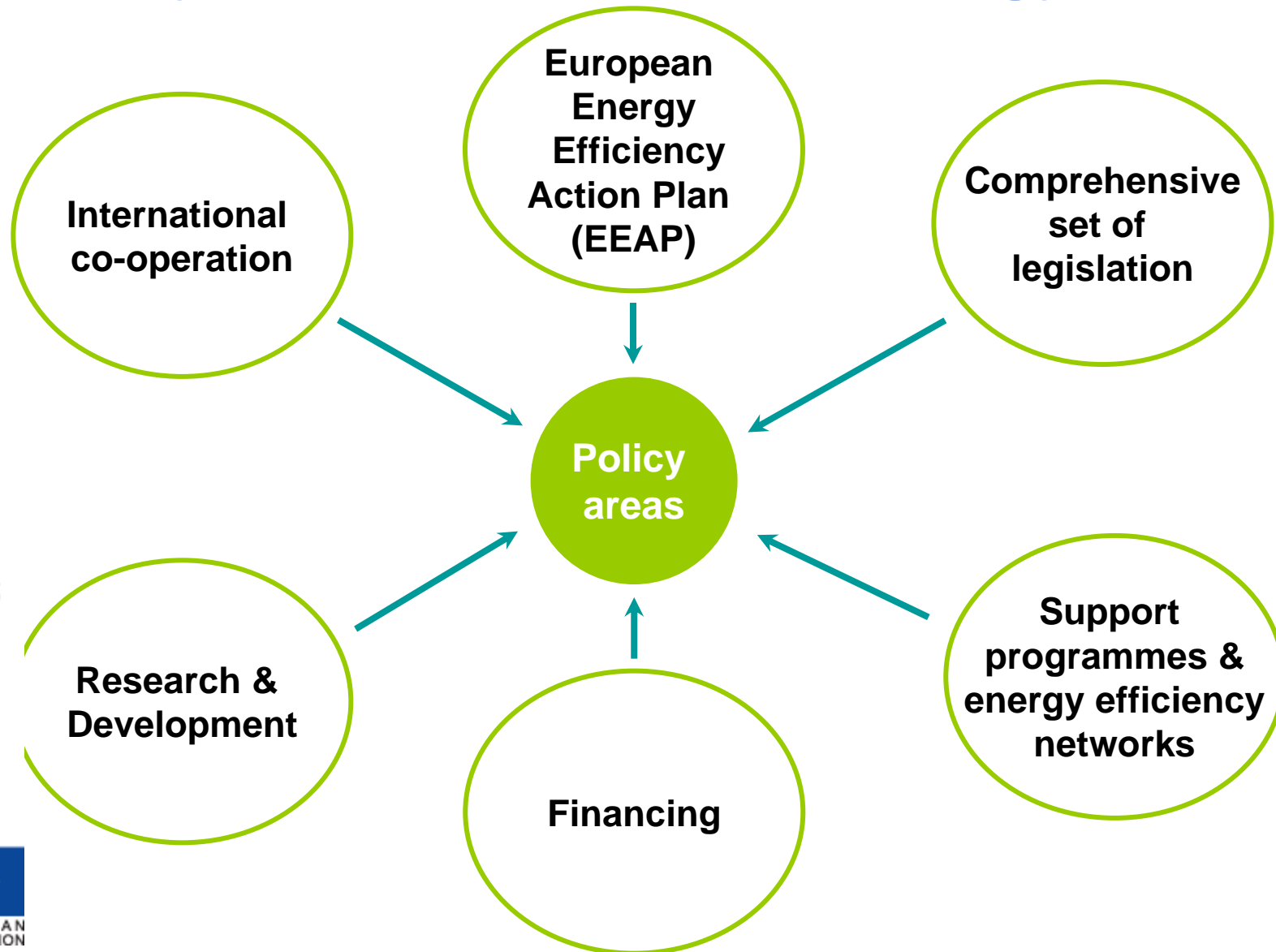
Ģeogr. loks: Daugavpils, 467. ielā
 Apdzinums: SIA „DZĒRSU”
 Īpašnieks/Vadītājs: „Praktiķība”
 Ģeogr. koordinātas: 56° 37' 33"
 Celtniecības gads: 1982
 Celtniecības platība: 72 (no šīm 43 privāts)
 Energoaudits veikšanas datums: 23.07.2006



Šīs ir enerģijas patēriņa un CO₂ emisijas vērtības, kas ir aprēķinātas saskaņā ar EN 15601-2:2006. Šīs vērtības ir jāsalīdzina ar EN 15601-2:2006 prasībām.

Īpašnieks: SIA „DZĒRSU”
 Energoauditors: KĀRVALDĪBA
 Reģistrācijas numurs: BA 0007
 Energoaudits veikšanas datums: 23.07.2006

EU policy actions to achieve energy savings



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International co-operation

- International Partnership for Energy Efficiency Co-operation (IPEEC) - a G8 initiative; presently 15 members
- 'Energy Dialogues'
- Association Agreements
- discussions at expert level



● Thank you !

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Roderic van Voorst
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