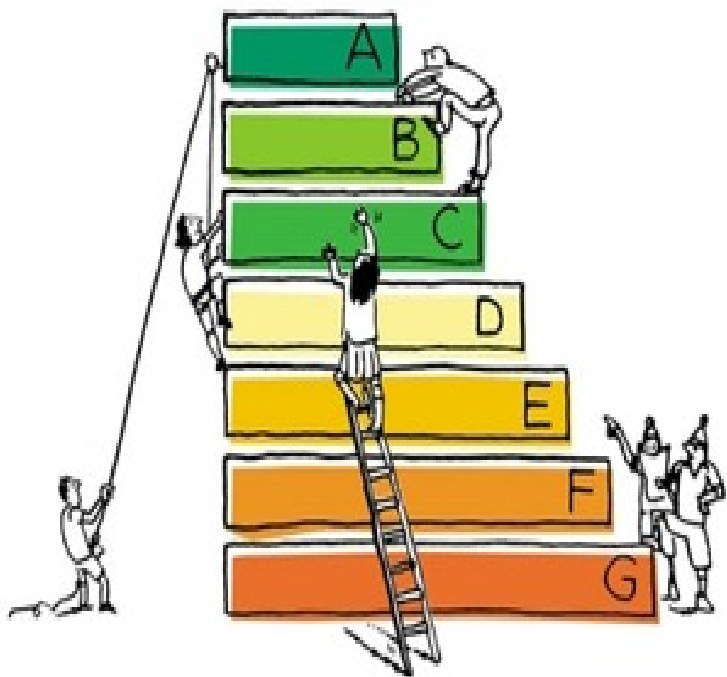




Agentschap NL
Ministerie van Economische Zaken



National Plan

Towards nearly zero-
energy buildings
in
The Netherlands

Ing. Hans van Eck
Unit-Manager Housing sector
NL Agency

13 november 2013

>> Als het gaat om energie en klimaat

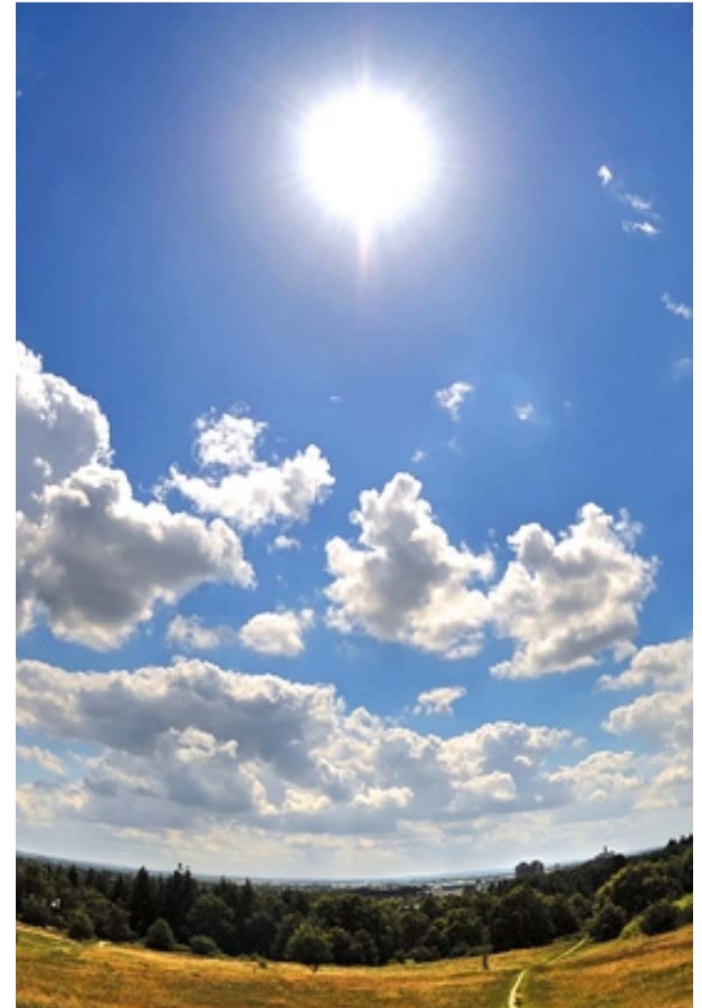


NL Agency

NL Agency is a department of the Dutch Ministry of Economic Affairs.

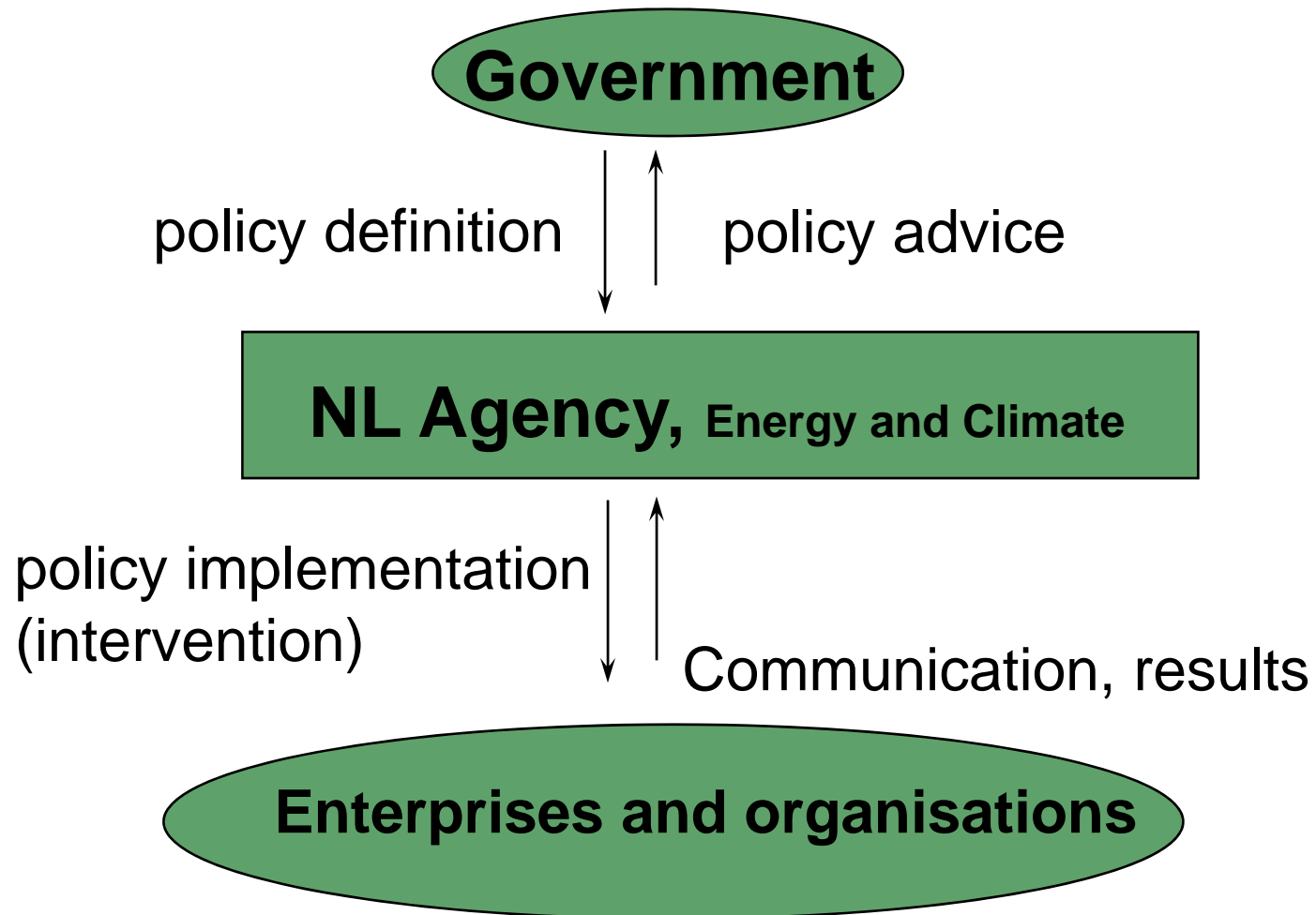
Implementation of government policy for sustainability, innovation, and international business and cooperation.

Contact point for businesses, (knowledge) institutions and government bodies for information and advice, financing, networking and regulatory matters.





Market position

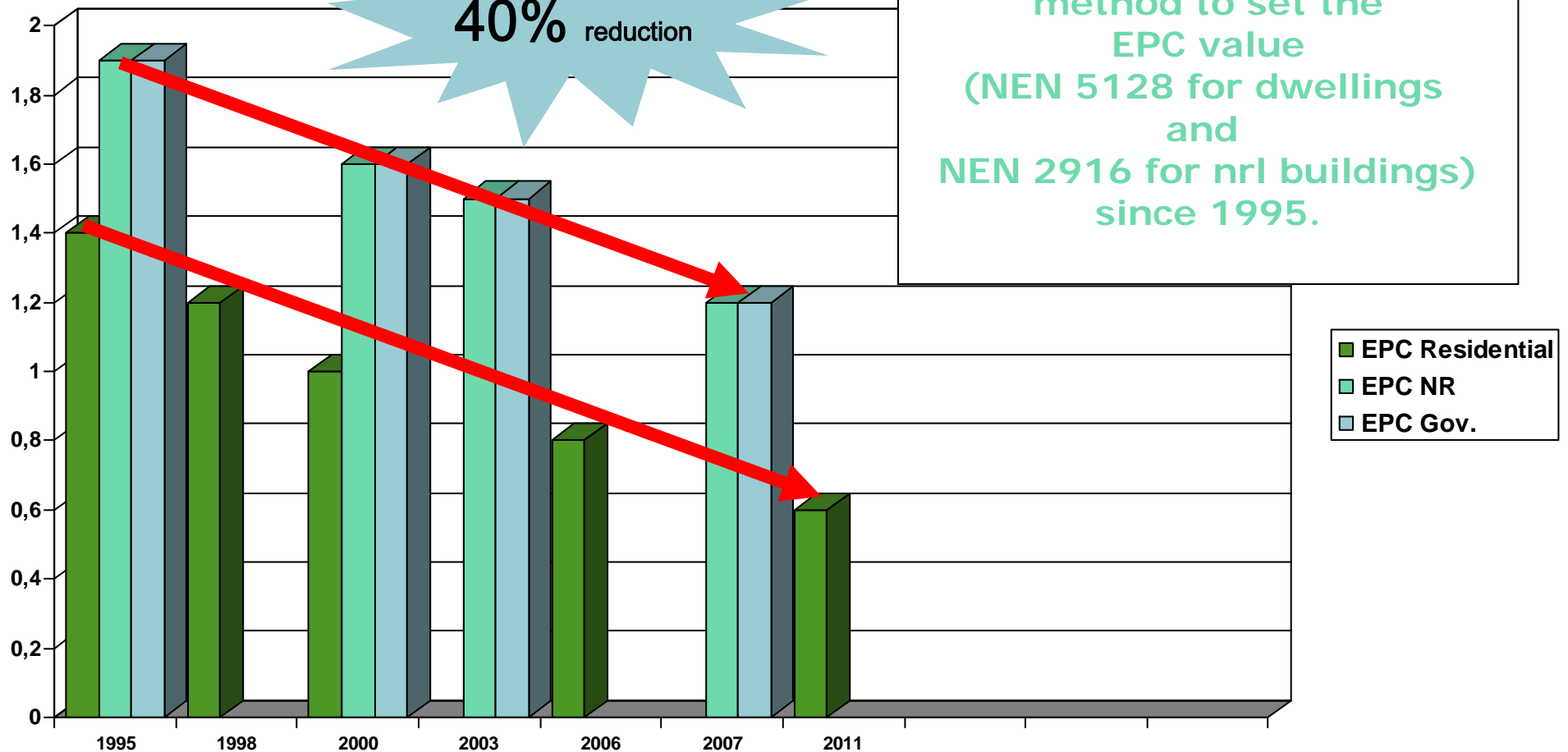


History Building Codes



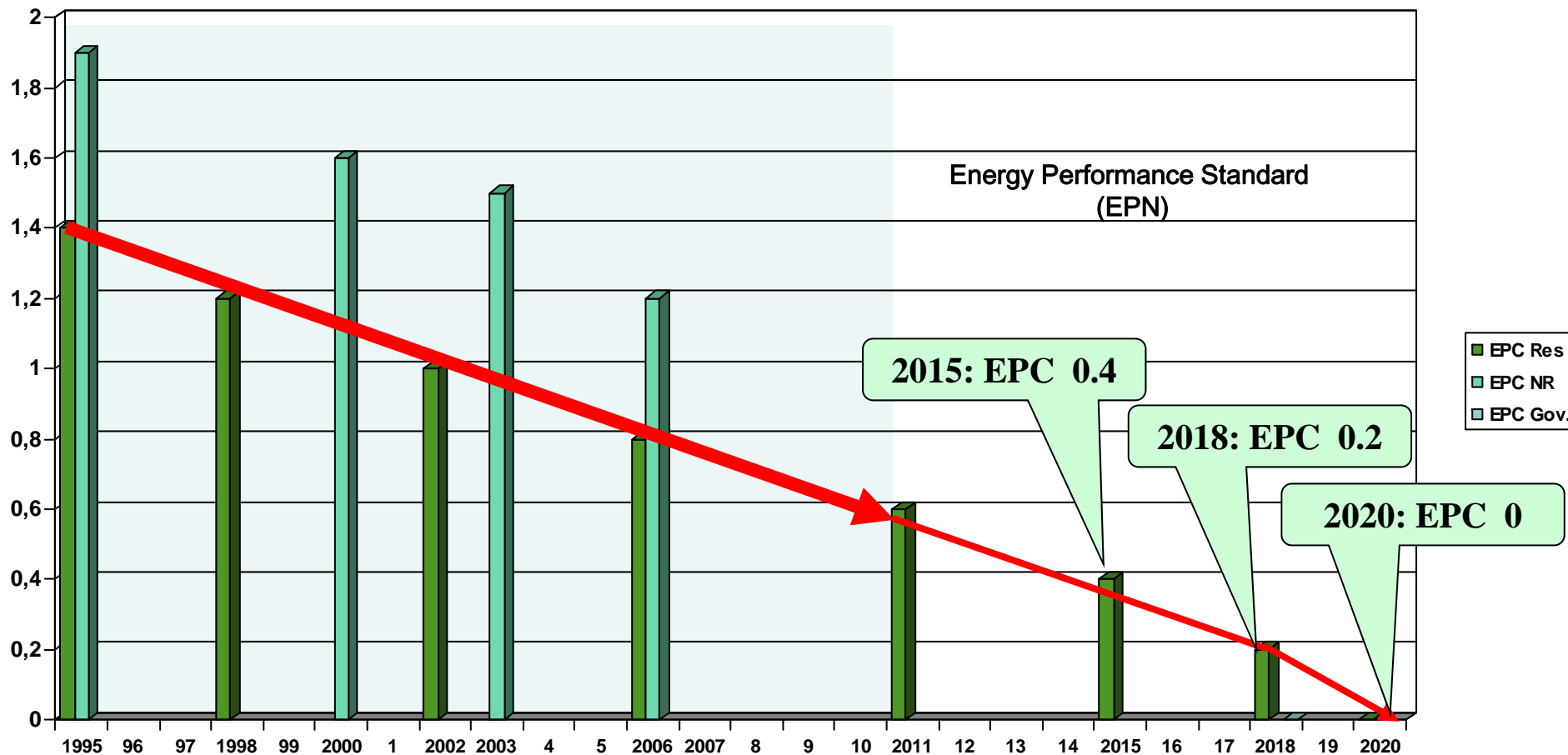
- 1978- 1988 National Insulation Program,
 - 1,5 million existing dwellings (30% stock)
 - requirements thermal insulation in Building code for new buildings
- 1990-1994 EP determination methods (Dutch standards)
 - Update 3-5 Years, new technology
- 1995 EP requirements in Building legislation
 - Update 3-5 year
- 2000 -2003 EP Advice and subsidy program
 - 600.000 dwellings
- 2003-2006 EPBD development tools (EU directive)
- 2006 > Implementation Energy Label
 - 2.300.000 labels on the market (30 % stock)

Energy Performance Standard (EPN)



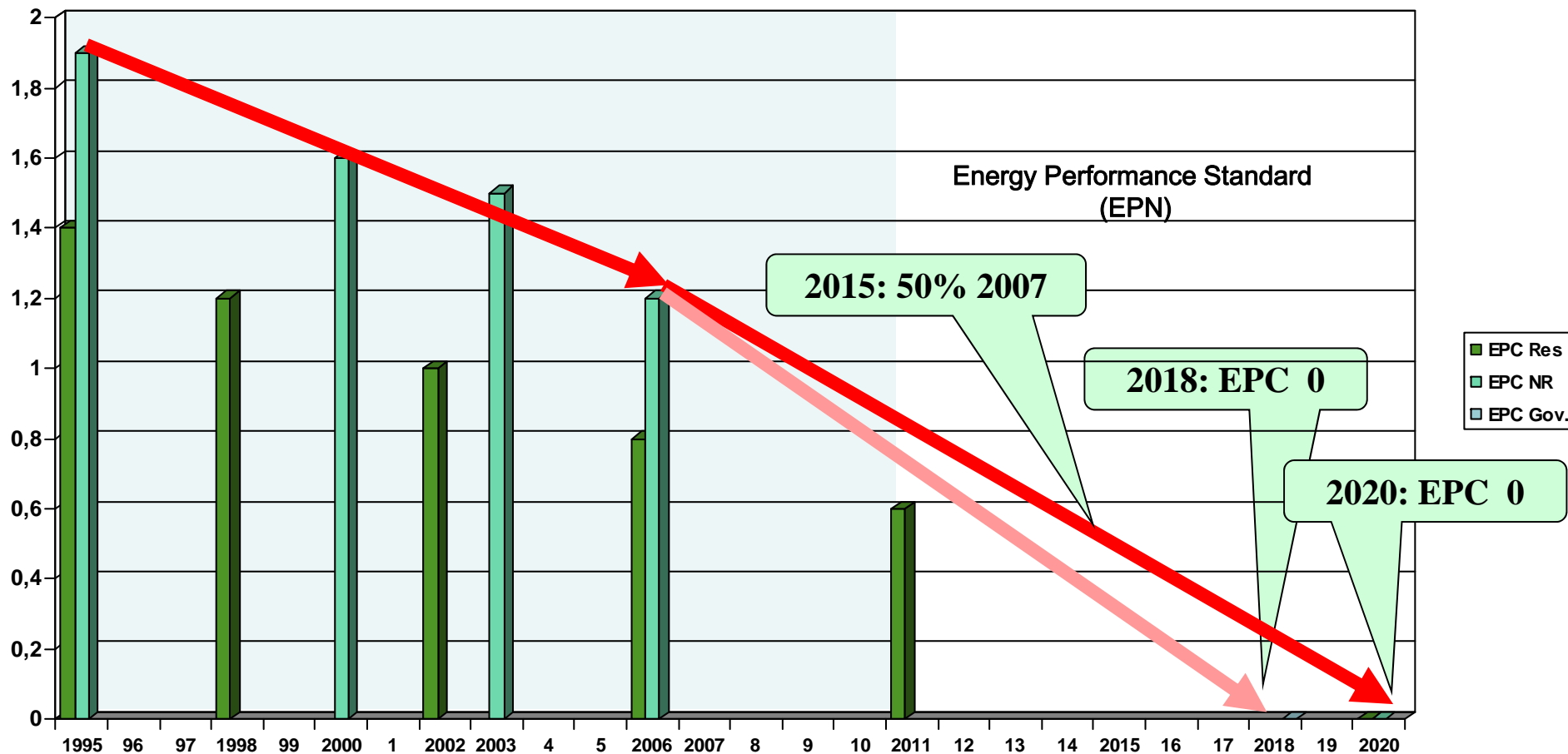
The road to 2020

Residential sector



The road to 2020

Non Residential sector





Feasibility study

- Reference buildings representing buildingstock
- Calculation savings/costs measures (NL pay-back in life time)
- Sharpening EP requirement every 3-5 years depending on new technologies and energy prices



Decision of government (decree)

- Internal document (Feasibility study)
- **Consulting building sector**
- 1 st draft document
- EU judgement if text is according to EU directive
- 2 nd document
- Publication in official governmental newspaper/journal
- Preparation building owners (6 months)
- Operational (implementation in buildingcode)



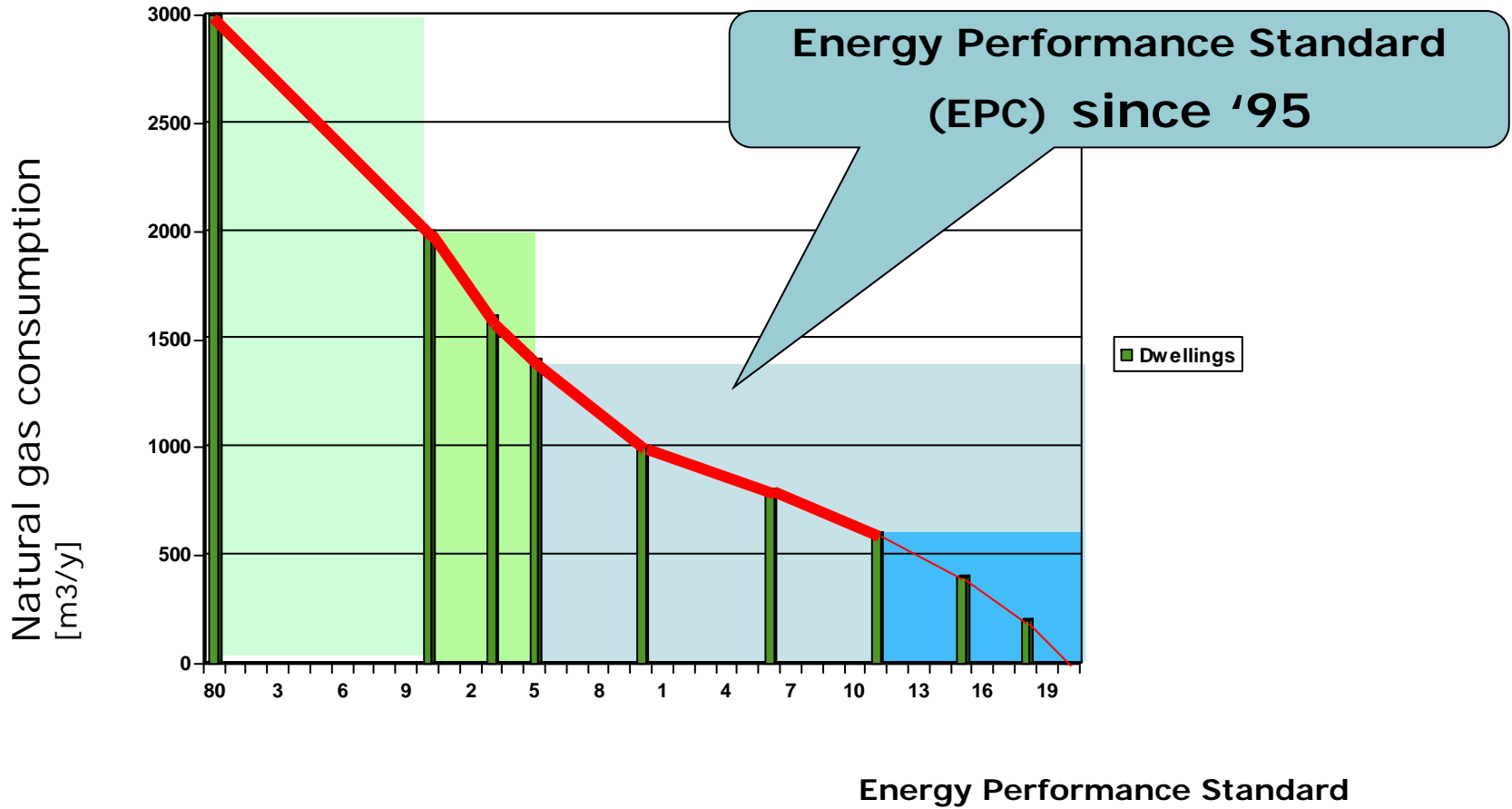
Buildings as energy saver; example of the potential,

A typical Dutch dwelling used in 1980 natural Gas	3000 m ³
In 1990 through obligatory insulation	2000 m ³
In 1993 EPC using full market potential	1600 m ³
In 1995 introduction EPC obligatory 1.4	1400 m ³
In 2000 EPC 1.0	1000 m ³
In 2006 EPC 0.8	800 m ³
In 2011 EPC 0.6	600 m ³
In future EPC 0.4 (2015)	400 m ³

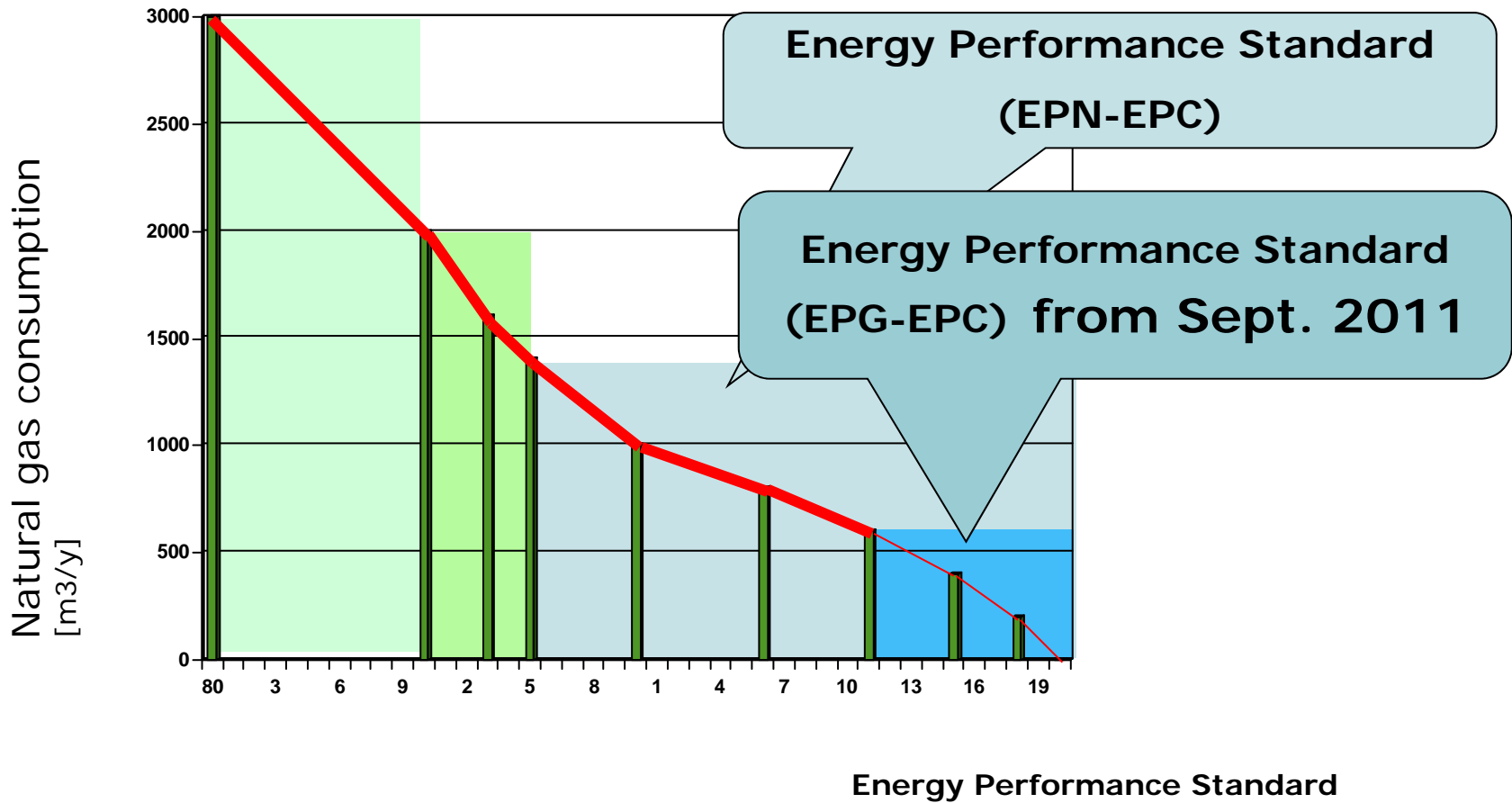
Meanwhile the technology for zero energy buildings is available and being proved in pilots

Energy demand

Space heating



Energy demand Space heating





Improvements EPN > EPG

- Higher degree of accuracy
- New techniques (biomass, micro power, solar,..)
- Power generation by area / zone (including Renewables)
- Additional integrated standard for determining air flow / ventilation
- European standards taken into account

> necessary for calculating NZEB performance



Interim observations and conclusions

- The calculation method is **future proof** and will be implemented Sept. 2011
- The **steps in legislation are set** and communicated to all relevant parties
- **The techniques** to meet the goal near zero energy buildings **are available**
- **The political will is there**

But.....

**Will the market be ready for 2020 on time?
Is it affordable.....?**

Will the market be ready ?



National Programmes and activities on the road to 2020

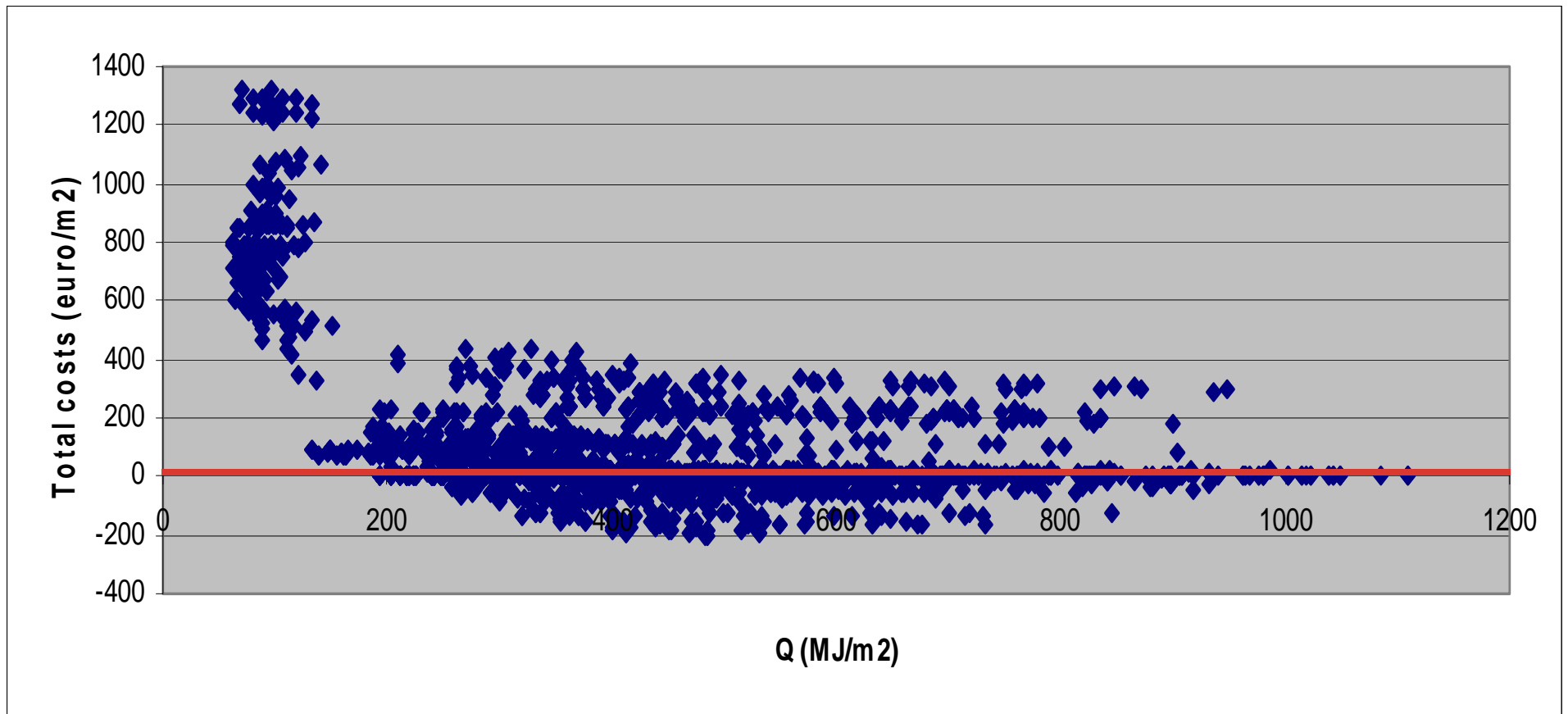
- Energy Saving Programme Build Environment (NL Agency)
- EPBD / recast EPBD (NL Agency)
- Various Renewable Energy Programmes incl. RES (NL Agency)
- Various Innovation Programmes (focussing on product and system innovations) UKS-NESK (NL Agency)
- Innovation Programme “Energie-Sprong” (SEV)
- Kennishuis: Knowledge Centre NZEB (NL Agency)
- Negotiated Agreement Buildings sector “Lente-akkoord”
- Smart metering and smart grids



Is it affordable.....?



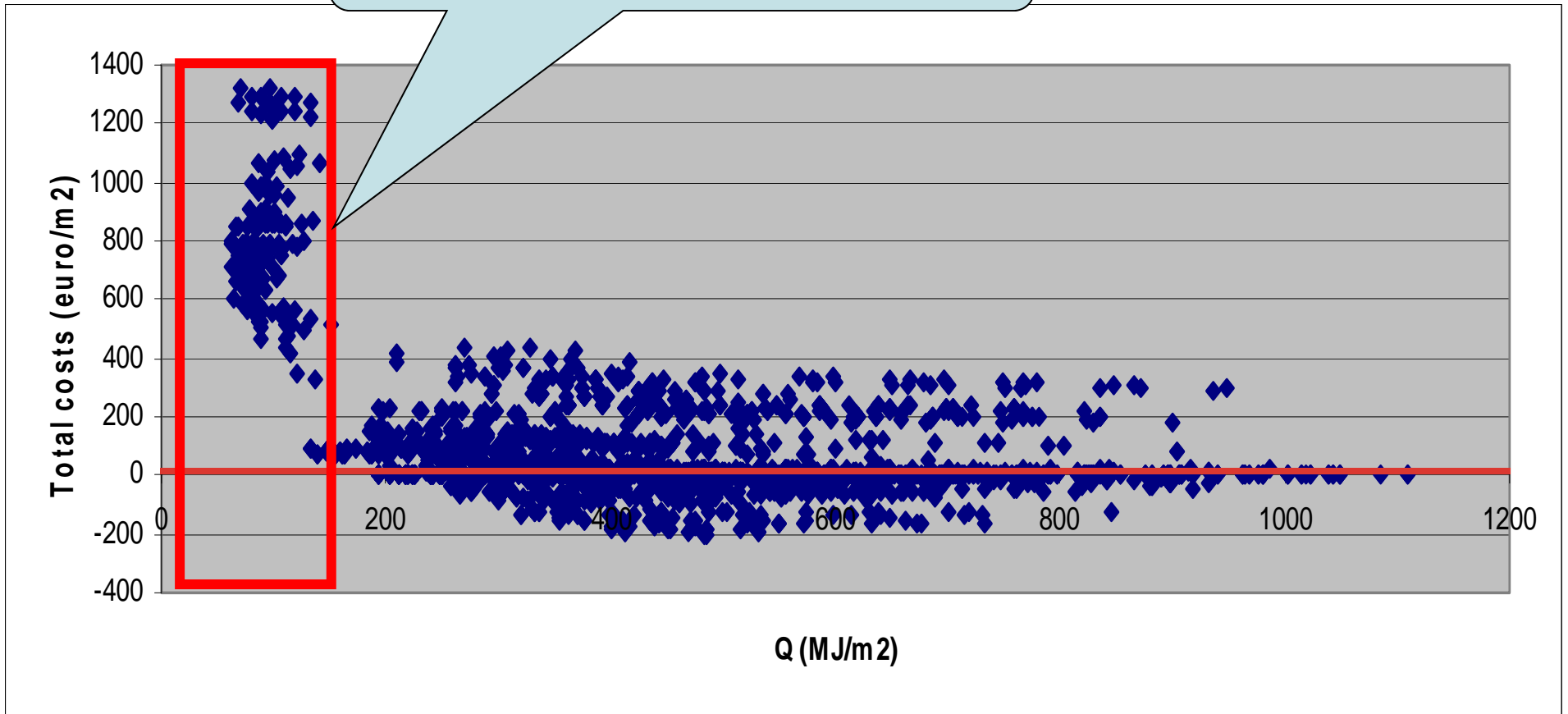
Is it affordable.....?



Is it affordable.....?



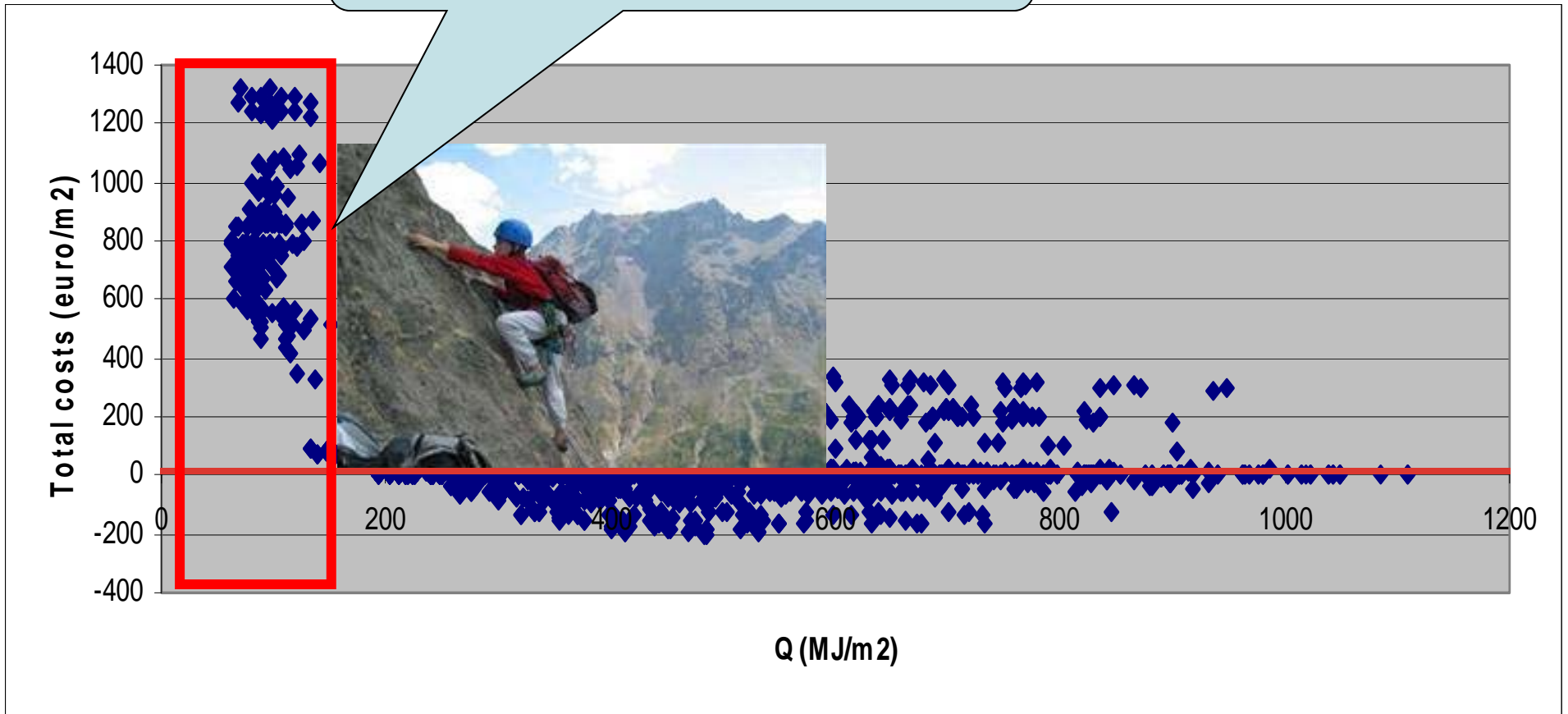
sets of measures NZEB
and total costs



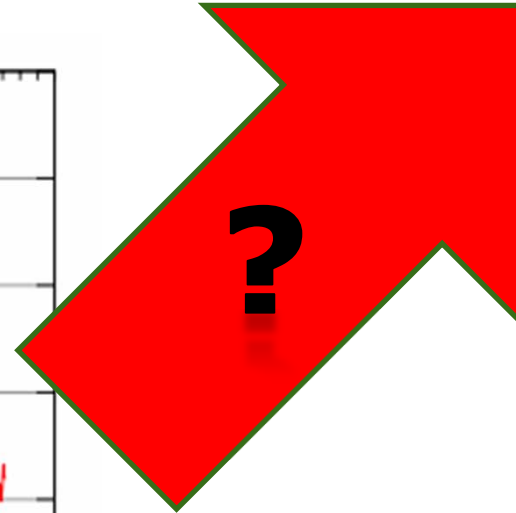
Is it affordable.....?



sets of measures NZEB
and total costs



Is it affordable.....?



Is it affordable.....?



Existing financial instruments in the Netherlands

SDE: Incentive scheme for sustainable energy production

Subsidy scheme Sustainable Heating

Green loans

Subsidy scheme for Energy Performance Advice



Bank guarantees for loans meant for energy saving measures

Lower VAT rate for insulation of roof, wall and floor

Subsidy scheme for pilot projects energy neutral towards 2020

Is it affordable.....?



**Is it affordable.....
not to go for
NZEB's ?**





The Netherlands



In 2020....



Thank you for your attention



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