



Rijksdienst voor Ondernemend
Nederland



Agentschap NL
*Ministerie van Economische Zaken,
Landbouw en Innovatie*

Energy Efficiency in Industry: What's happening in Europe

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This presentation

- Introduction
- Some industrial energy data and trends
- EU instruments & (national) examples
 - Legislation
 - Collaboration
 - Subsidies
- Some EU results



RVO & IEA

- Netherlands Enterprise Agency (RVO): Part of the Dutch Ministry of Economic Affairs core business is policy implementation.
 - Some activities:
 - (EU)subsidies, sustainable business support & development aid.
 - international collaboration (IEA, EnR with [Odysee/Mure](#), TAFTI)
- International Energy Agency:
 - Multi national collaboration, among the members: Canada & The Netherlands
 - Secretariat in Paris with permanent staff
 - Technology network > 6000 researchers (public and private) working in specific topics like solar, smartgrids, DSM etc.
 - Coordination groups for specific topics like industry: Carol Burelle

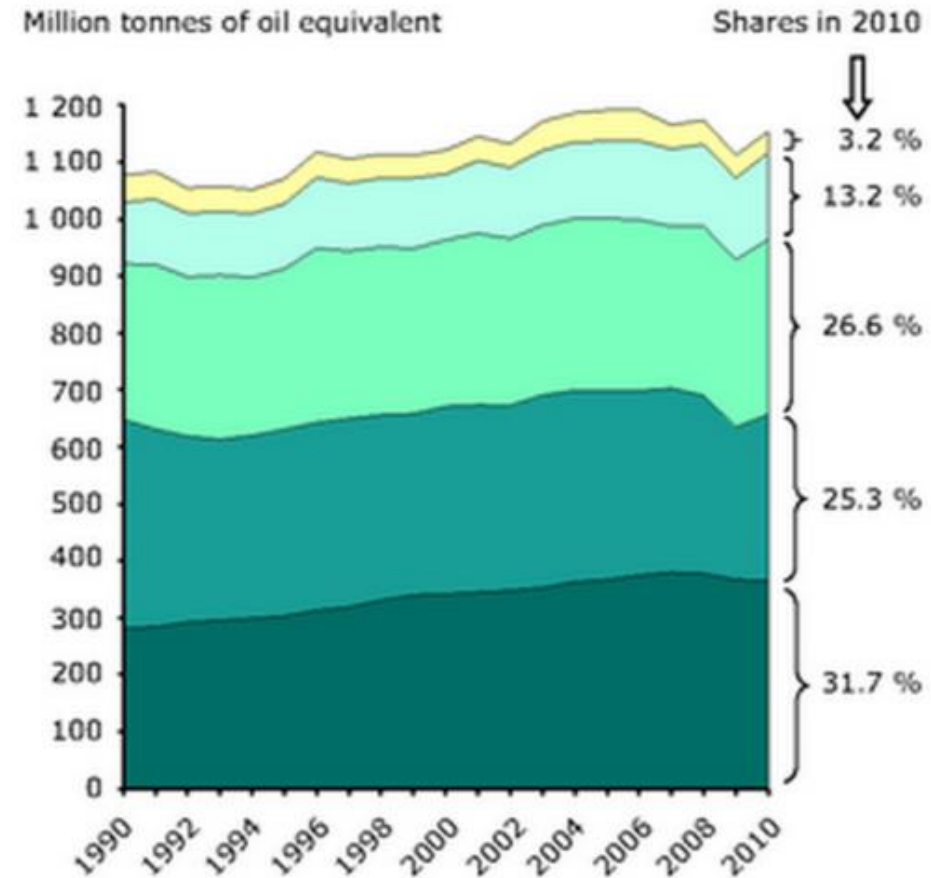


Energy use EU

- Fishing, agriculture, forestry and non specified
- Services
- Households
- Industry
- Transport

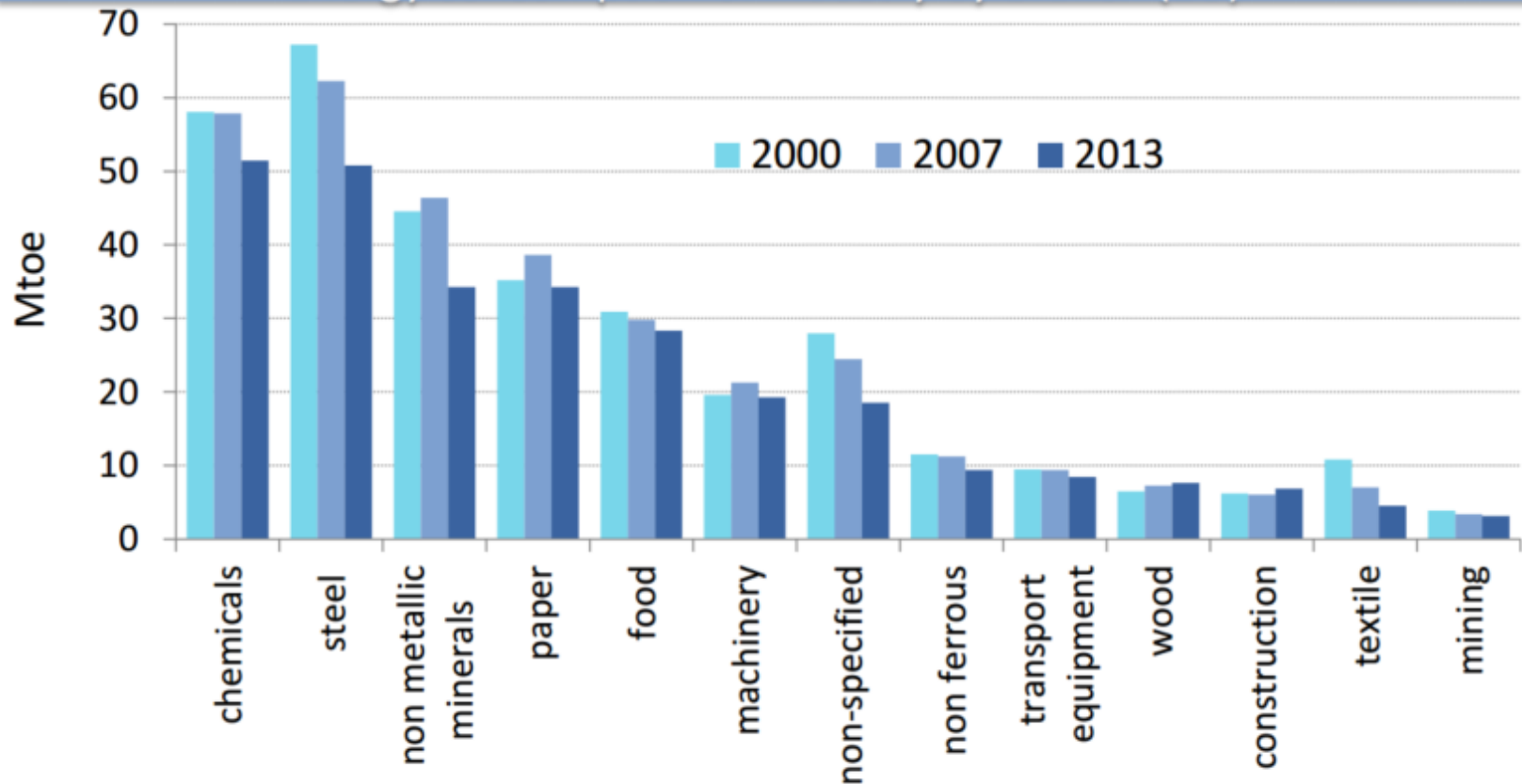
Total final energy consumption by sector in the EU-27, 1990-2010

Total final energy consumption





Energy consumption of industry by branch (EU)



Source: Eurostat / EnerData



EU instruments for Energy Efficiency

- *Legislation*
 - Policy Plan: EU Energy Market
 - Directives:
 - Emissions Trading System ([ETS](#))
 - [Ecodesign](#): minimum mandatory requirements for energy efficiency of these products
 - [Labelling](#) Directive: complements Ecodesign.
 - [EED](#): energy efficiency directive
- *Collaboration*: Concerted Action [CA ESD](#)
- *Subsidized RDD&D projects*: Intelligent Energy Europe / Horizon2020

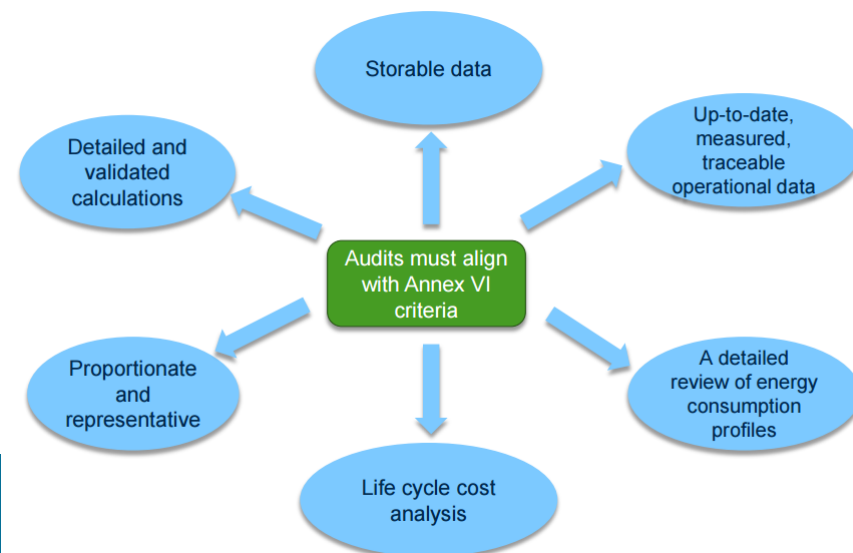


Example legislation: EED & Industry (Article 8)

"To be implemented and supervised by independent authorities under national legislation by the end of 2015"

Energy audits and energy management systems.

- Mandatory for all large enterprises to carry out energy audits (or equivalent).
- Programs to encourage SMEs to undertake audits and implement recommendations.





But there are “always” exceptions/alternatives

Status of Article 8 national level implementation

(Source: Odysee-Mure 2015)





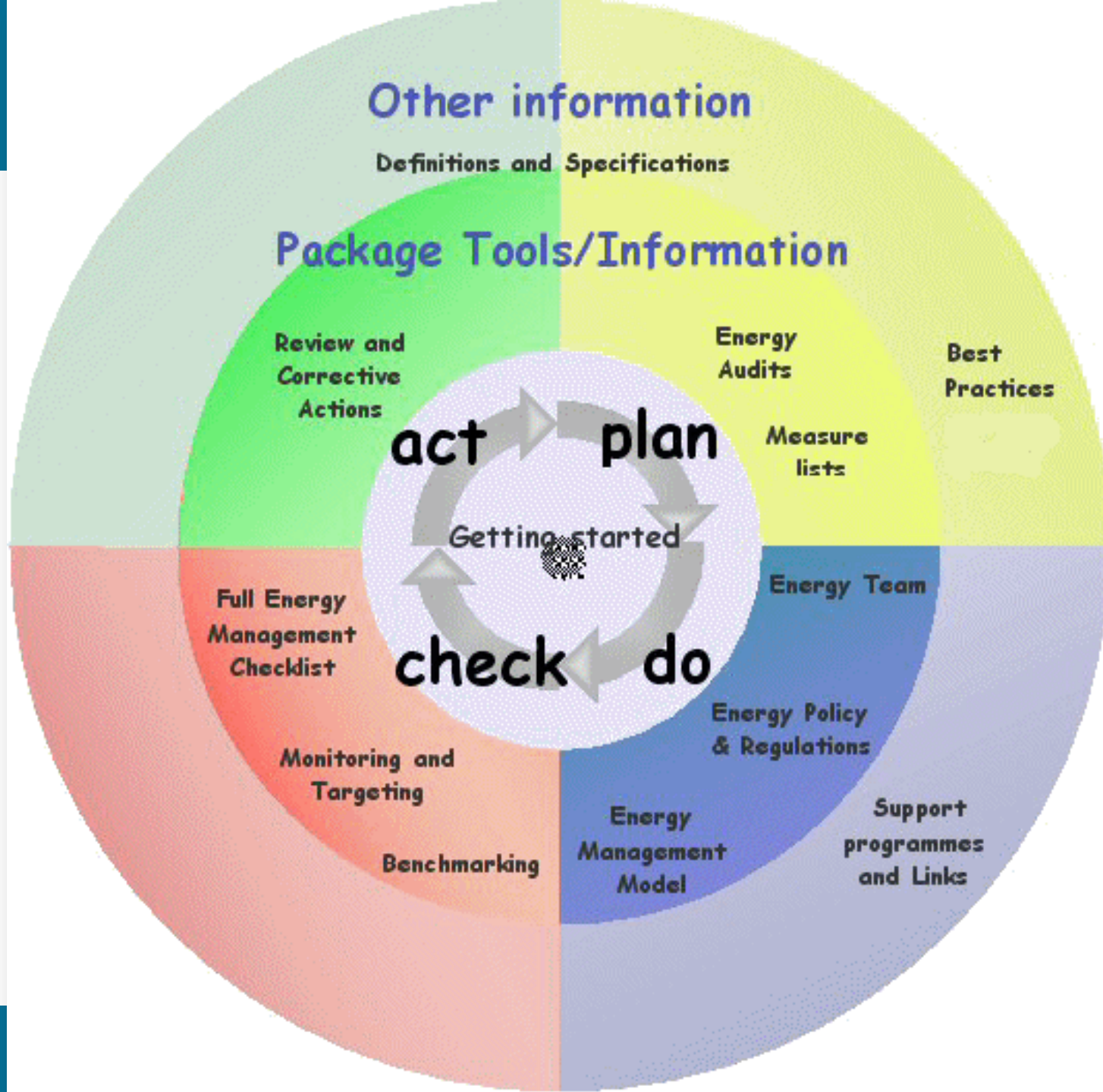
Alternative: long-term agreements in the Netherlands

Agreements with industrial branches since 1999.

The main elements of the LTA3 are:

- An overall goal of 30% energy efficiency improvement in the period 2005-2020;
- Trade branches will produce sector roadmaps aimed at long-term innovation in the field of energy efficiency; and
- The Dutch government supports the private sector with a number of instruments which are developed and maintained by the RVO.nl
- Greentax is refunded
- Green deals as extra support

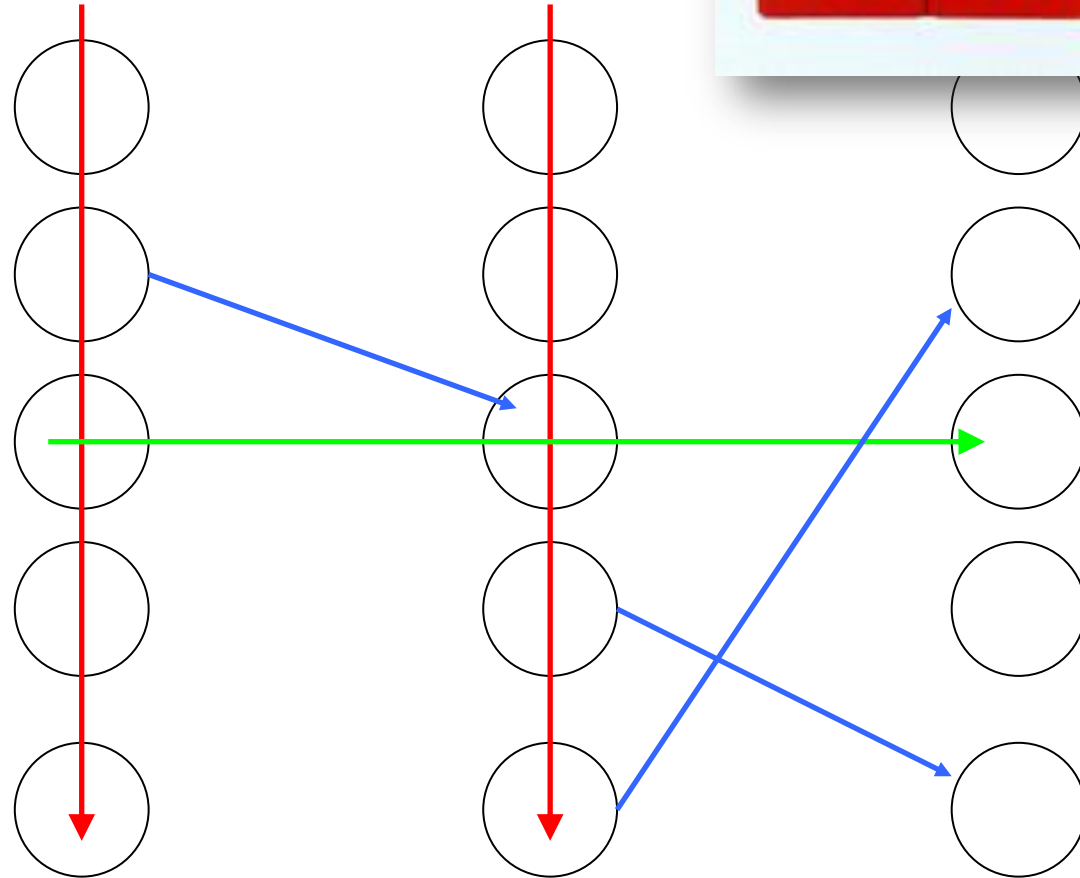






Where are the chances

"I need you to improve our Chain"

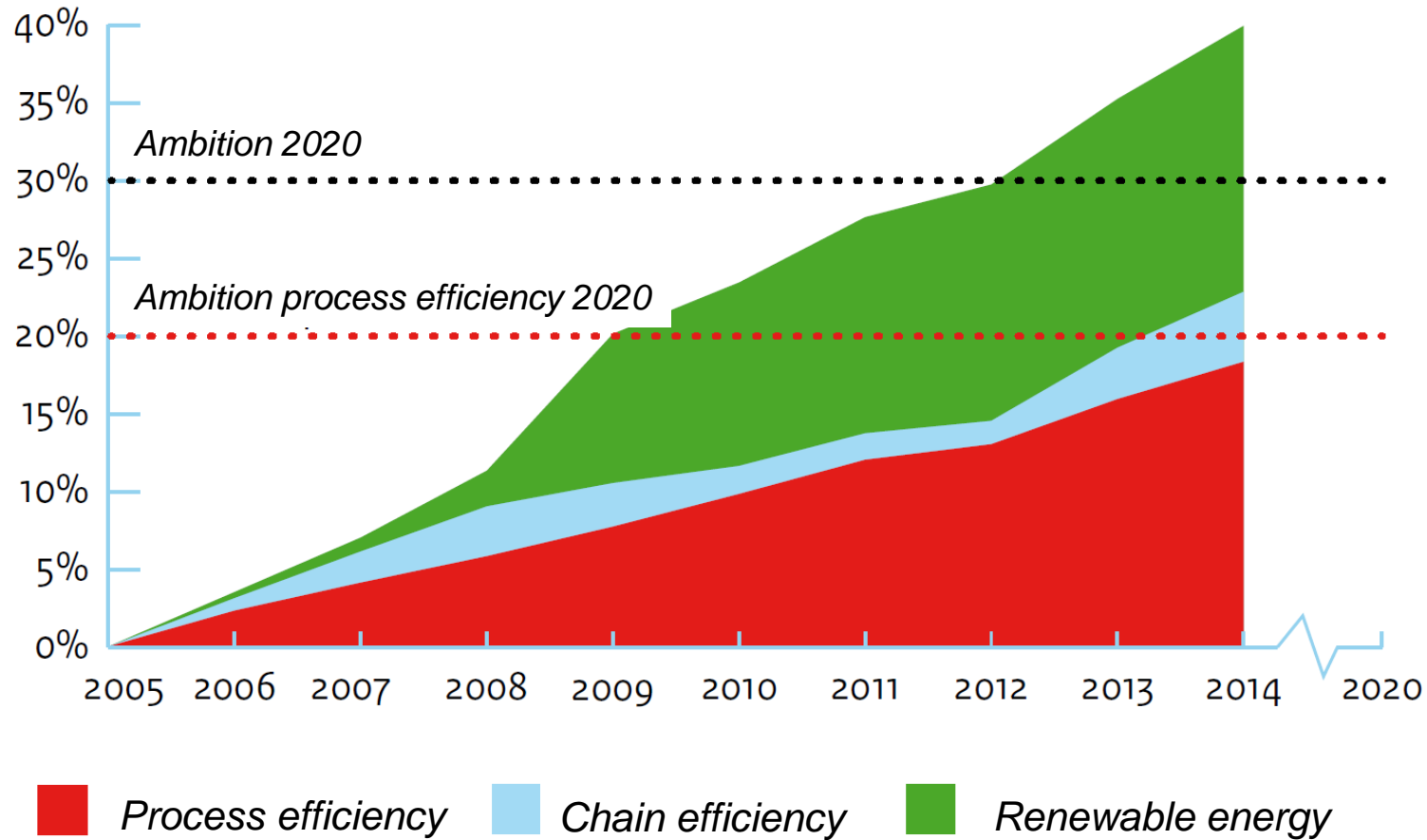


"I can learn from your approach"

"Your waste can be my feedstock"



Results Longterm Agreements 3 2005-2014





Collaboration: Concerted Action

EU subsidises member states meetings/surveys to learn from each other

Main reports are freely available

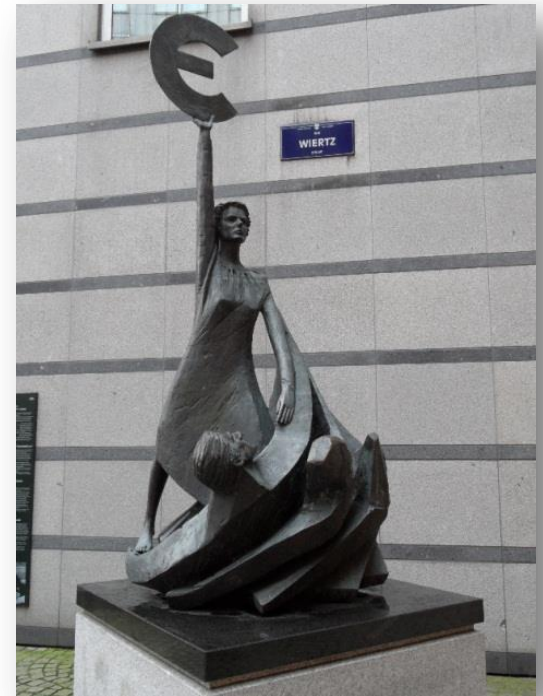
The screenshot shows the website for the Concerted Action Energy Efficiency Directive. At the top left is the logo, which consists of three overlapping ovals in purple and blue. To the right of the logo, the text reads "CONCERTED ACTION ENERGY EFFICIENCY DIRECTIVE". Below the logo and text is a navigation menu with tabs for "HOME", "THEMES", "REPORTS", "GOOD PRACTICES", "USEFUL LINKS", and "CONTACT US". A search bar is located to the right of the "CONTACT US" tab. On the left side of the page, there is a sidebar with a list of links: "EED SUMMARY", "PARTICIPATING ORGANISATIONS", "CONFIDENTIALITY SUMMARY", and "RELATED DOCUMENTS". Below this list is a "NEWS UPDATES" section with a text box for an email address and a "Sign me up!" button. At the bottom of the sidebar is a "RECENT DOCUMENTS" section. The main content area features a large graphic of the European Union flag surrounded by the flags of member states. Below this graphic is the heading "CA EED Introduction" and a short paragraph: "The Concerted Action for the Energy Efficiency Directive (CA EED) was launched in spring 2013 in". To the right of the main content area is a vertical navigation menu with the following categories: "PUBLIC SECTOR", "METERING AND BILLING", "FINANCING", "ENERGY SERVICES", "CONSUMER INFORMATION", "CHP, HEATING & COOLING", and "OBLIGATION SCHEMES AND MONITORING".



Example EU Subsidized RDD&D projects

Horizon 2020:

- 80 billion € 2014-2020
- Several topical sections with dedicated budgets
- “Industrial Leadership” is one item.
- Tender procedure
- Open for multilateral consortia





Example of a running subsidized project.

- [STEAM UP](#) aims to assess the substantial and easy to reach energy-saving potential of steam systems in heavy industries,
- to support the EU objectives for energy efficiency.
- To this end, STEAM-UP is going to present concrete business cases to decision makers, based on 75 detailed audits from several European countries.
- A capacity building program for technical staff and consultancies ensures a good return on investments

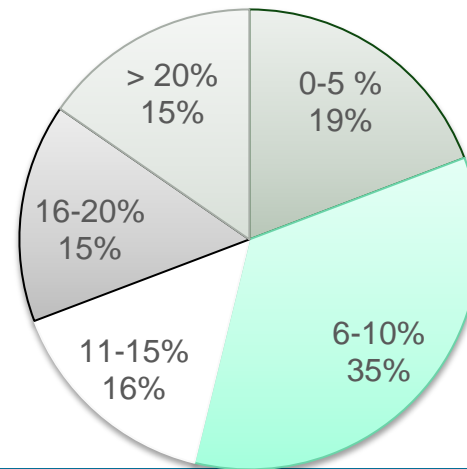




A valuable option

- ✓ **Total cost** of steam operation is known in 31%
- ✓ 77% thinks cost for steam operation can be reduced
- ✓ **Cost saving opportunities:** In 40% known, in 31% also management knows

potential cost reduction

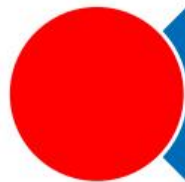




Some results

Status of Article 8 national level implementation

RICARDO-**AEA**



Greece, Hungary, Latvia, Lithuania,
Luxembourg, Portugal, Slovenia

Risk to business & Governments:
Potential that nations will fail to meet
Article 8 requirements, but may have
to comply by 5th December 2015



Belgium, Bulgaria, Croatia, Cyprus,
Czech Republic, Estonia, Finland,
France, Ireland, Italy, Malta, Poland,
Romania, Slovakia, Spain, Sweden

Risk to business:
Some parameters / aspects known
but not fully defined and
implemented. Likely to have to
comply by 5th December 2015

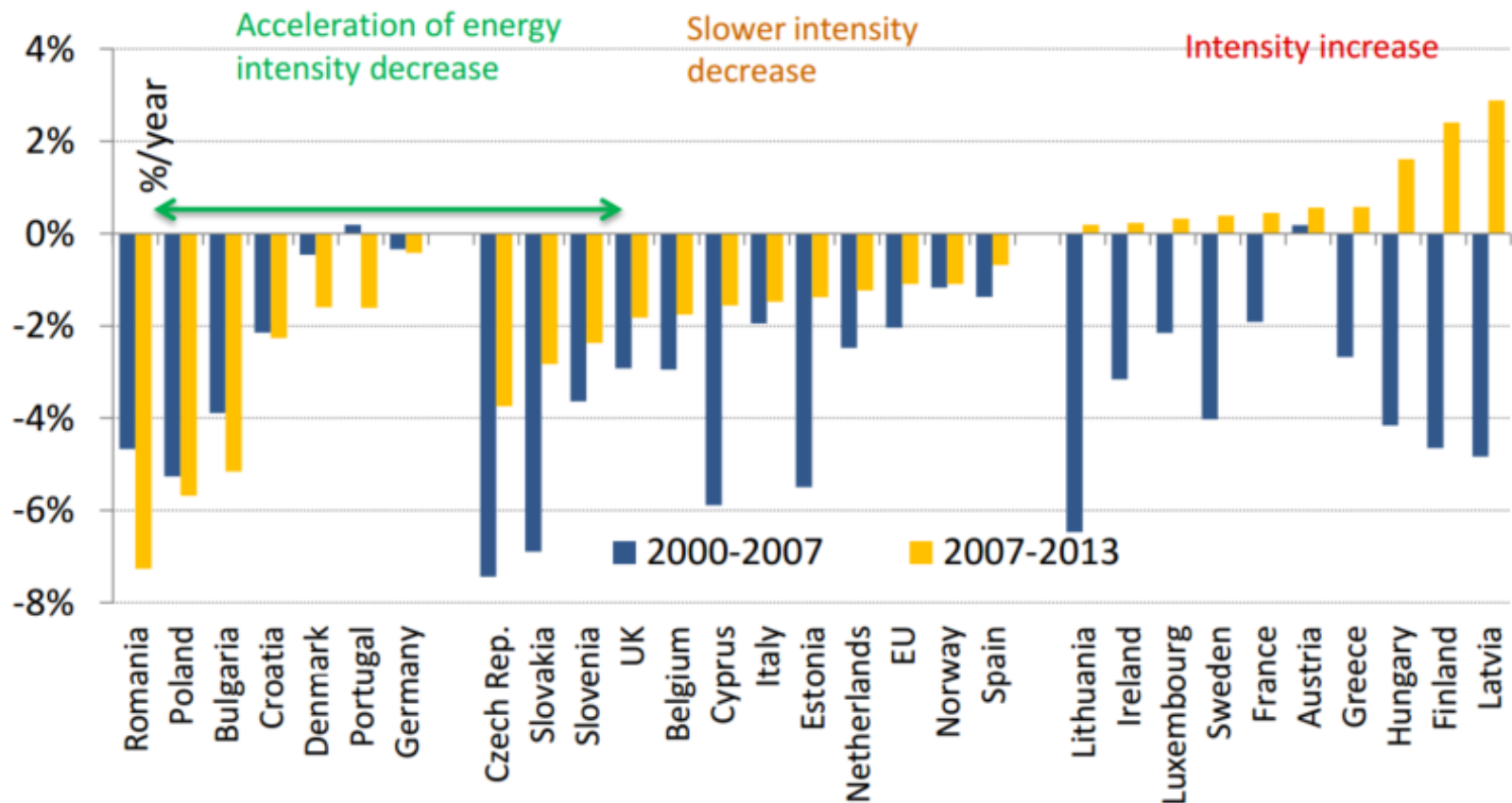


Austria, Denmark, Germany,
Netherlands, United Kingdom

Risk to business:
Parameters / aspects of legislation
known but differ by nation

- Until 2007, energy consumption grew less rapidly than Value Added in all countries → **intensity decrease**.
- This trend continued after 2007 in **17 countries** with:
 - a faster decrease in 7 countries (generally countries with an industrial growth).
 - a slower trend in 11 countries and at EU average (1.1%/yr compared to 2%/yr before).
- In **11 countries**, the intensity **trend has reversed** since 2007, due to the fact that energy consumption did not follow the reduction in activity.

Industrial intensity trends in EU countries



Industry: manufacturing+ construction and mining

(Source: EnerData/Odysee-Mure 2015)



Conclusions

- EU industry improved intensity by almost 19% between 2001-2011
- Reduction is slowing down.
- There is no silver bullet when it comes to an industrial approach.



Q&A

