



INSTITUTE FOR  
**Industrial Productivity**

Sharing best practices for low carbon enterprises



International  
Energy Agency

# Energy Management Programmes

*IEA Policy Pathway Series*

Workshop 30 Sept. 2011  
IEA, PARIS





## Presentation overview



- What the Policy Pathway is not about
- Definitions used in this Policy Pathway
- Overview of Energy Management Programmes (EnMPs)
- *Towards* EnMS and EnMPs
- Examples of country programmes
- Policy Pathway Steps
- Stakeholders
- Issues covered in this workshop
- Key questions for discussion



## What the Pathway is NOT about

- Whether standardised EnMS is preferable
- Which standard is best
- Energy manager or energy audit programmes
- Energy savings or GHG policies in general

**==> This policy pathway focuses on policies that stimulate the uptake of EnMs in industry**





# Energy Management – key definitions



- **Energy management system (EnMS):** a means by which organisations establish the systems and processes necessary to achieve operational control and continual improvement of energy performance
  - EnMS standards e.g. ISO 50001, EN16001
  - EnMS specifications: Netherlands' energy management specification, Finland's Energy Efficiency System
- **EnMS components:** the various energy management activities that all together make up the EnMS, e.g. energy audit, energy manager, reporting.
- **Energy management programmes (EnMP):** government-led initiatives to promote effective EnMS.
- **EnMP elements:** different initiatives developed or supported by the government, that, all together, make up the EnMP and serve to encourage enterprise adoption of effective EnMS.





# Overview of Energy Management Programmes



- Importance of country context:
  - Objectives of the programme
  - EnMS standards or specified
  - Policy packages
- SMEs vs. large companies



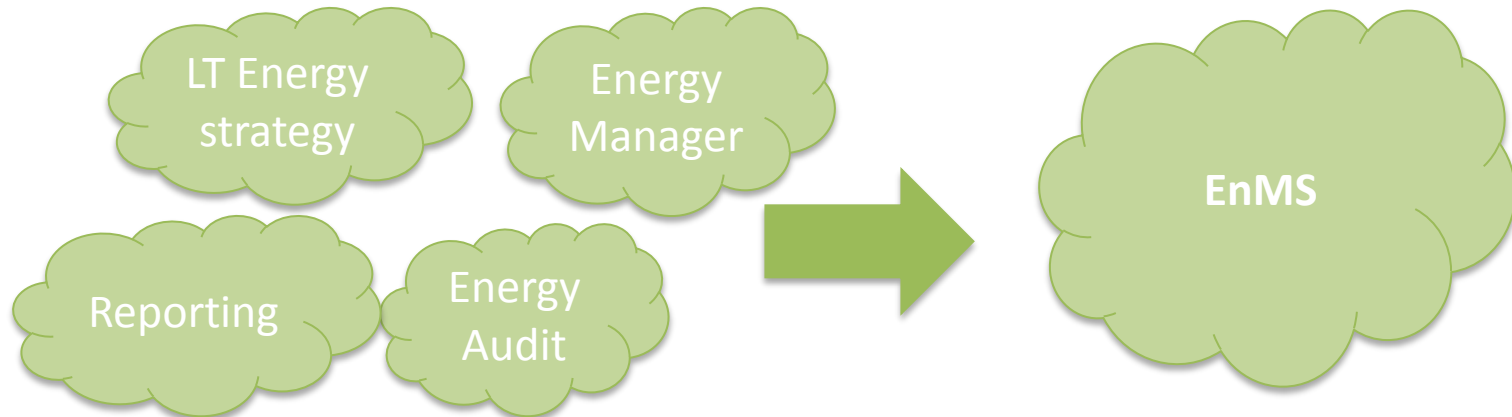
**IMPLEMENT &  
ACHIEVE ENERGY  
SAVINGS & CO-  
BENEFITS**



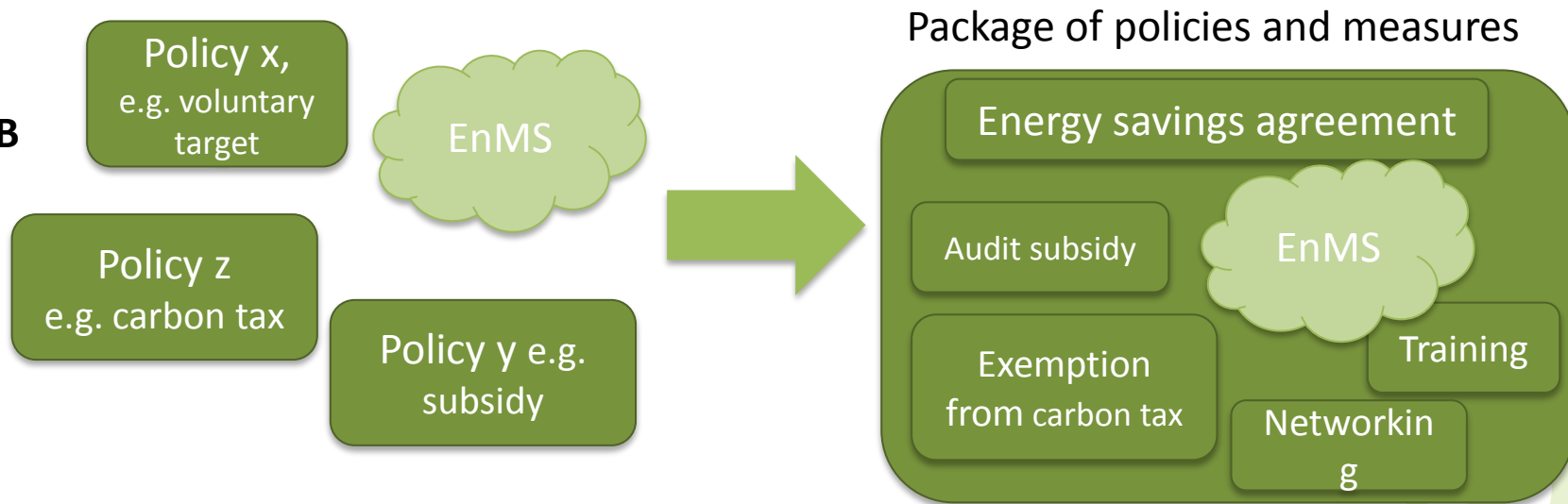
# Defining the Objectives



A



B



How to integrate EnMS within the existing policy package?

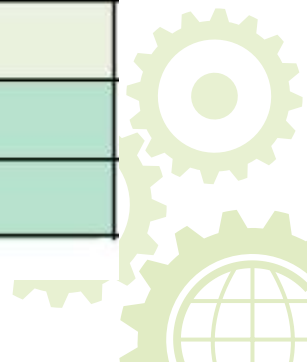
# Country examples

- **Countries that promote standardised EnMS:**
  - Ireland
  - USA
  - Denmark
  - Sweden
- **Countries that promote specified EnMS**
  - Finland
  - Netherlands
- **Countries that promote EnMS components**
  - Australia
  - India
  - Japan



# Policy Pathway: Steps

Four phases	10 Critical elements
Plan	Define the programme
	Establish the policy framework
	Define the action plan and secure necessary resources
Implement	Provide institutional assistance and training for the programme
	Promote the programme and recognise achievements
Monitor	Collect and analyse data
	Assess compliance
	Communicate results
Evaluate	Evaluate the impact of the EnMP
	Revise and adapt the programme as needed





# Stakeholders

- **Companies**
  - Leading or pilot companies can play an important role in demonstrating the benefits of the EnMP e.g. case studies and networking opportunities
  - Introducing EnMS within their supply chain
- **Government and energy efficiency agencies**
  - Responsibility for creating an effective mix of incentives, guidance and support to encourage EnMS adoption
  - Verification role greater for non-standardised EnMS
- **Certification and accreditation bodies**
  - Ensure the integrity of the EnMS if standardised
- **Industry associations**
  - Can provide interface between companies and government
  - Help establish guidelines for sector implementation of EnMS
- **Independent experts**
  - e.g. engineers may provide independent advice to companies

**==> Involvement and consultation is key at all steps**



# Overview of Workshop

1. Companies needs and perspectives
  - Benefits and co-benefits of energy management
  - Large companies and SMEs
  - Quantifying energy savings in a plant
2. Country approaches to EnMPs
  - Integrating energy management programmes into policy packages
  - Importance of linking other elements, e.g., networks, incentives, external recognition, training, technical expertise
3. Monitoring and evaluation of EnMPs
  - Can we / How to measure its contribution within the policy package
4. The Policy Pathway
  - Key messages from the workshop
  - Discussion on the Policy Pathway steps



# Key Questions For Discussion Today



What lessons learnt from countries' experience with EnMP?

What contributed to successful planning, implementation, monitoring and evaluation?

What are the key lessons learned in the evaluation of energy management programmes? What should policy makers be particularly aware of?

Are the Pathway Steps complete?





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# Thank you!

## IIP

[Julia.reinaud@iipnetwork.org](mailto:Julia.reinaud@iipnetwork.org)

[Amelie.goldberg@iipnetwork.org](mailto:Amelie.goldberg@iipnetwork.org)

## IEA

[Vida.Rozite@iea.org](mailto:Vida.Rozite@iea.org)

[Lisa.Ryan@iea.org](mailto:Lisa.Ryan@iea.org)

[Jungwook.Park@iea.org](mailto:Jungwook.Park@iea.org)





# Appendices





# IIP at a glance....

**OUR MISSION** To significantly reduce GHG emissions by giving business leaders and policymakers access to effective practices, technologies and tools to advance industrial productivity.

## WHO WE ARE

- A non-profit established by the ClimateWorks Foundation in 2010
- Strategically linked to a global network of groups addressing climate change
- Work in partnership with industries, governments, financial institutions etc.

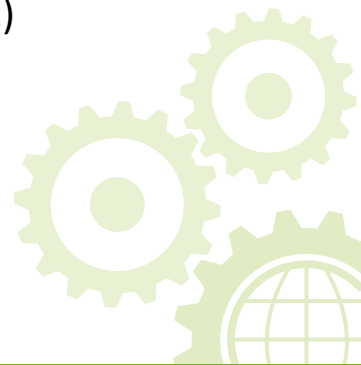
## WHAT WE DO

- Share best practices
- Policy assistance
- Financial expertise
- Technical support
- Research funding



# Countries with EnMS and EnMPs – examples

- Ireland:
  - Voluntary agreement: Energy Agreement Programme (EAP)
  - Requirement to implement EnMS standard EN16001
  - Support: Agreement Supports Manager, Special Initiatives
  - Training: several types tailored to different stakeholders
  - Networking
- USA
  - Superior Energy Performance programme
  - Implementation of ISO 50001
  - Incentives: external recognition through silver, gold and platinum awards
  - Training
- Denmark
  - Voluntary agreement: Agreement on Industrial Energy Efficiency (DAIEE)
  - Requirement to implement EnMS standard EN16001
  - Incentives: exemption from carbon tax
  - Support: subsidises for audits and energy saving equipment
  - Training





# Countries with EnMS Components



- Australia's Energy Efficiency Opportunities (EEO) programme
  - EnMS components: mandatory in-depth energy assessment, mandatory reporting
  - Support and training: Industry Support Officers (ISOs) and annual EEO workshops
  - GHG targets following a carbon tax (discussed)
- Japan
  - EnMS components: mandatory energy managers and energy efficiency and conservation plans
  - Voluntary GHG targets under the Keidanren programme
  - Subsidies and training ?
- India
  - EnMS components: mandatory energy auditor and managers
  - EE targets under the Perform Achieve Trade
  - Trainings

