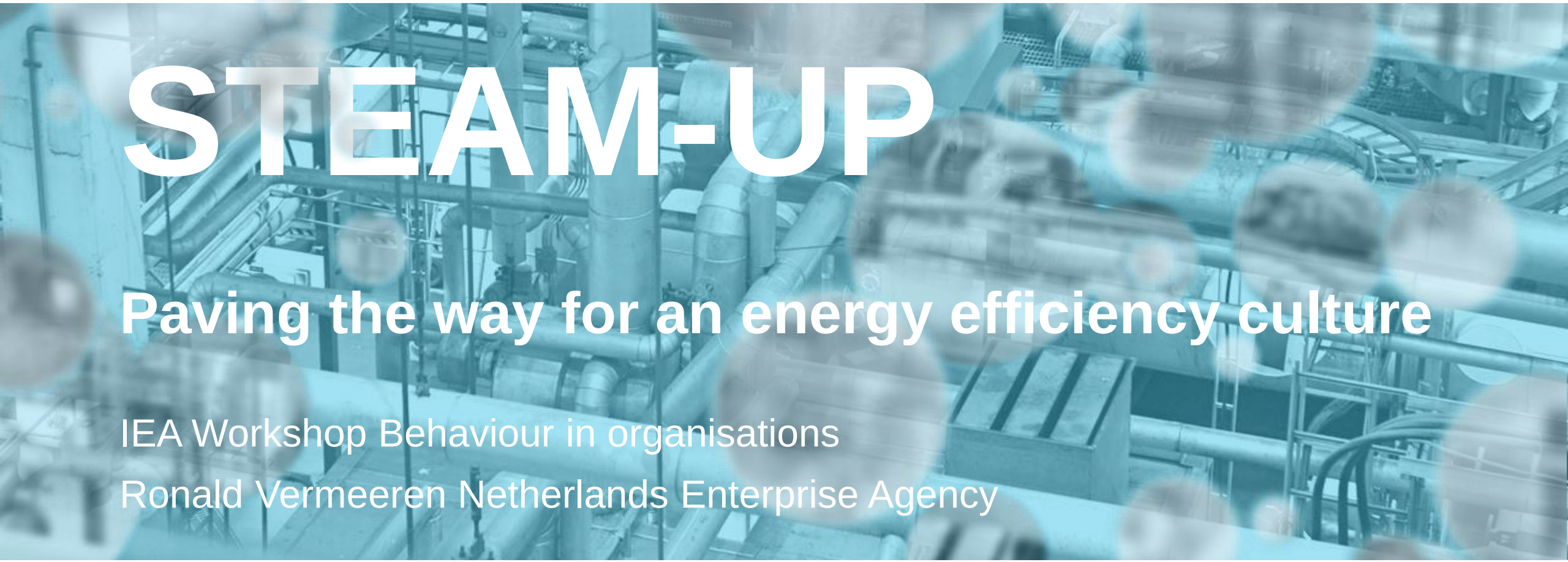


STEAM-UP

Paving the way for an energy efficiency culture

IEA Workshop Behaviour in organisations

Ronald Vermeeren Netherlands Enterprise Agency

Co-funded by the Horizon2020 Programme of the European Union

STEAM-UP: Objective

Closing the gap between energy audit results and implementation

Identified barriers

- ✓ No business case for steam efficiency for enterprise decision makers
- ✓ Lack of steam expertise at energy auditors and enterprises
- ✓ No formal structure for energy efficiency at enterprises

STEAM-UP: Activities

- ✓ Developing of in-depth steam scan covering:
  - State of the art steam expertise
  - Involvement of all stakeholders
  - Non energy benefits
  - Energy management implementation
- ✓ Piloting at 75 enterprises
- ✓ Reducing efforts for measure implementation
- ✓ Building capacity amongst energy auditors, enterprises and trainers

Energy Efficiency Behavior in Industries

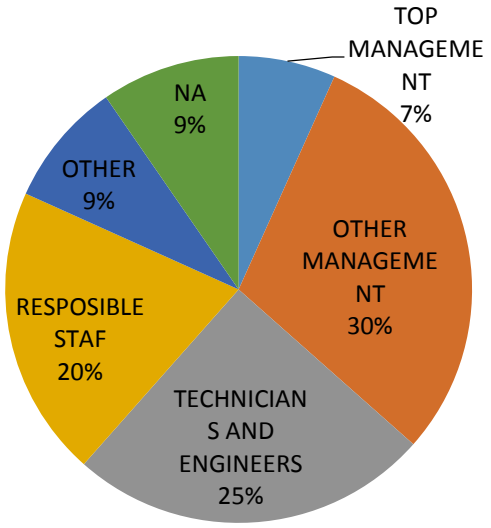
Inventory based on:

- ✓ Interviews at 55 enterprises in member countries (NL, DK, D, E, I, GR, CZ, AU)
- ✓ Survey's at 45 energy auditors in member countries
- ✓ Survey's at Steam-Up partners (energy agencies and consultants)
- ✓ Concise literature search

Energy Efficiency Behavior in Industries

Audit and Reporting:

- ✓ 73% of enterprises performs audits regularly
- ✓ People involved: top management (38%), people influencing EE (29%), other staff (9-14%)
- ✓ Reporting in 48% more than a list of measures



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Energy Efficiency Behavior in Industries

Follow up of Audits:

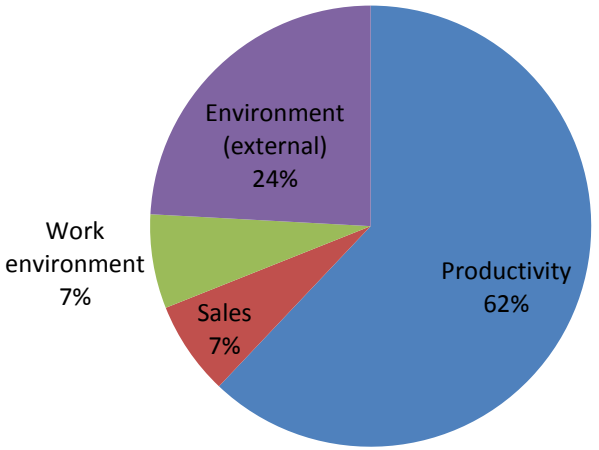
- ✓ In 64% of enterprises audits are being followed up
- ✓ In 60% implementation plans are being made (10% not)
- ✓ In 27% of enterprises resources are being allocated
- ✓ In 46% measures are being verified (41% by monitorig/measuring)

Energy Efficiency Behavior in Industries

Management Practises:

- ✓ In 91% a management system in place (9001, 14001, **50001 (15%)**, 22000)
- ✓ In 47% enterprises EE is a priority but only in 22% EE laid down in EnMs (50001 (15%) or 14001 (7%))
- ✓ Evaluation mainly based on SPP (44%) or combined (20%)
- ✓ NEBs in 53% included (decission phase)

NEB categories



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Energy Efficiency Behavior in Industries

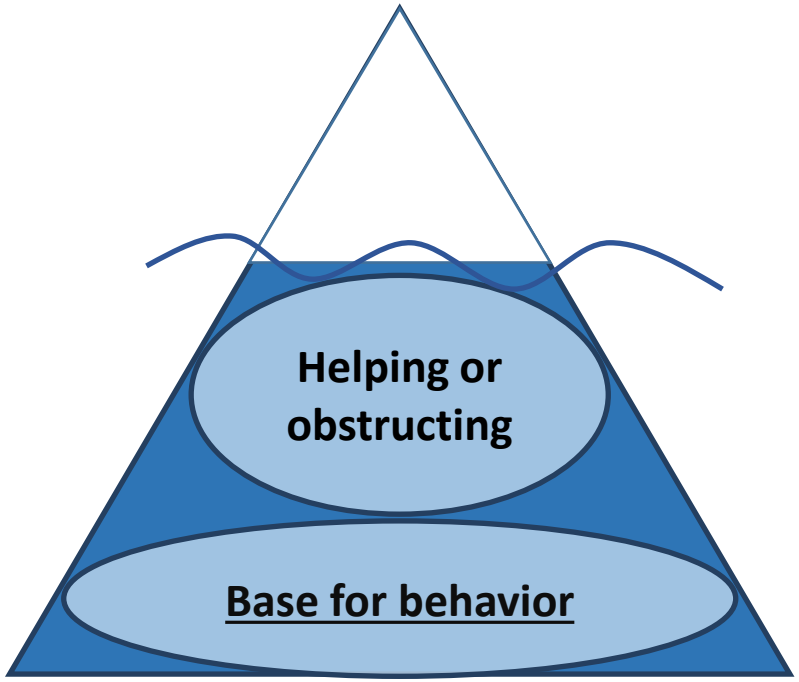
Some Insights from Literature

- ✓ Financial importance EE investement questioned: is **profitability** decisive?
- ✓ High required return rates (50% or more) to cover risks & ‘hidden cost’
- ✓ EE investment considered as **not** strategic
- ✓ Energy efficiency is invisible to senior managers
- ✓ NEBs crucial to raise strategic value EE investments

Three crucial factors: STEAM-UP approach

But don’t forget behavior!

A model for individual behavior and change



McCleland’s Iceberg

What people DO (= BEHAVIOR)

What people THINK - based on a.o. conceptions and norms

What people WANT - motives (based on a.o. values)

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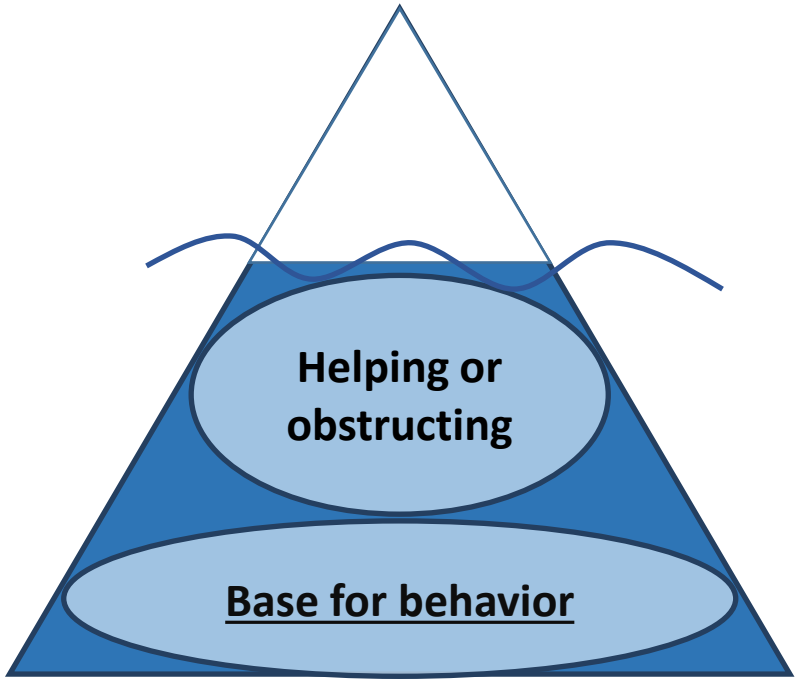
But don’t forget behavior!

The same model for organisational behavior and change



McCleland’s Iceberg

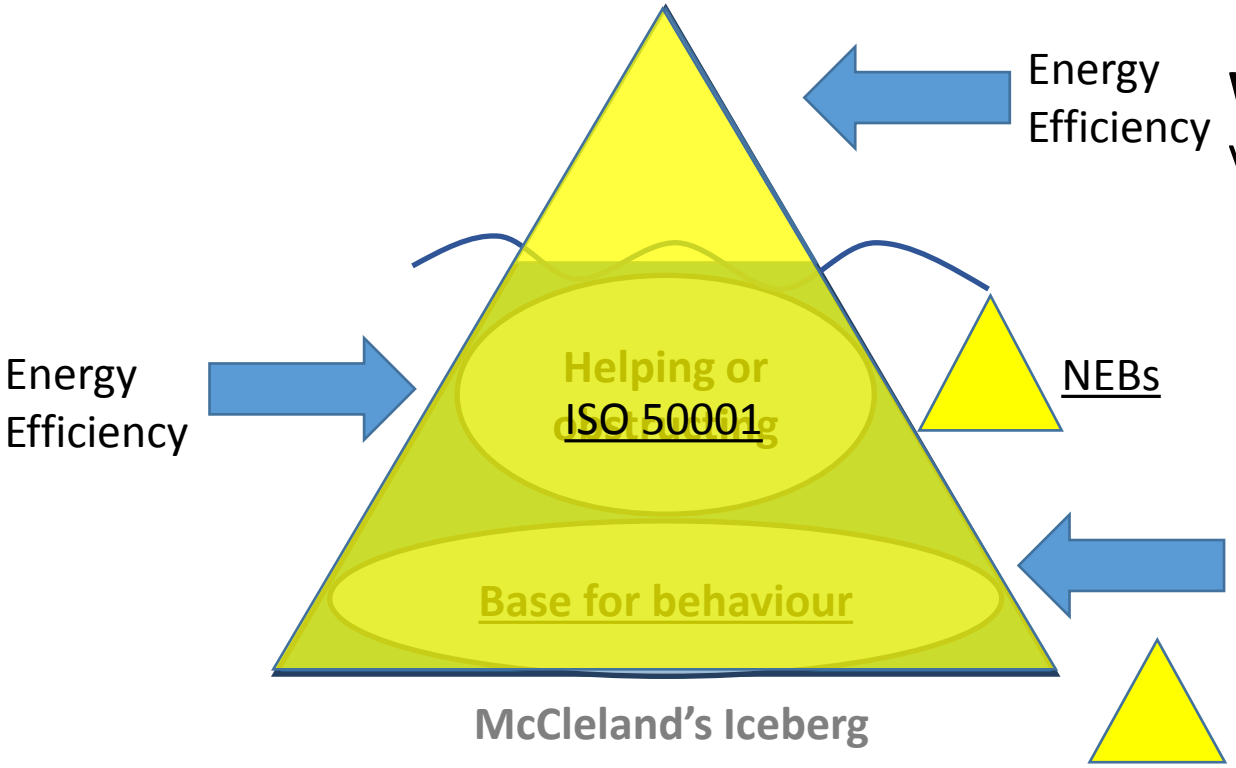
What the organisation DOES – Visible and verifiable actions **(= BEHAVIOR)**

What the organisation ‘THINKS’ – protocols, procedures, working guidelines, instructions and norms (**= CULTURE**)

What the organization WANTS – Policies and strategies

But don’t forget behavior!

How the crucial factors interact with the model



Energy Efficiency **What the organisation DOES –** Visible and verifiable actions **(= BEHAVIOR)**

What the organisation ‘THINKS’ – protocols, procedures, working guidelines, instructions and norms (**= CULTURE**)

Energy Efficiency **What the organization WANTS –** Policies and strategies

Link with Corporate Strategy

STEAM UP

Crucial Steam-Up elements

- ✓ Link with **Corporate Strategy** to connect with what the organisation WANTS
- ✓ Include **NEBs** to influence the THINKING and chance conceptions
- ✓ Build an **ISO 50001** structure to secure energy efficiency culture

This is expecting to contribute to what the organisation eventually DOES

But that's not the whole story!

Something more is needed!

Behavioural change at individual level (Green & Kreuter):

- ✓ Predisposing (build the motivation)
- ✓ Enabling (build the capacity for the behaviour)
- ✓ Reinforcing (positive feed back)

Example: EE isn't reinforced when people are not being held accountable for it!

But that's not the whole story!

Reinforcing ISO 50001 by using the model of Green & Kreuter

ISO 50001 sets the organisational structure, but:

- ✓ How are people (besides their regular duties) motivated to act energy efficient?
- ✓ What skils, capacities and knowledge do they need?
- ✓ How will their energy efficient behavoir be reinforced (by management)?

STEAM-UP aims for:

Strengthen EE culture by ISO 50001 implementation while taking note of:

- ✓ the human factor (individual behavior)
- ✓ the existing organisational structures (organisational culture)

However after STEAM-Up the (behavioral) change might not be fully set, therefore we are allready looking for follow up in HORIZON EE-15-2017.

Care to join?

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Thank you for your attention!

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