



Experiencing Organisational Barriers and Drivers; Reducing Carbon Does Not Stop at the Factory Gates

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To understand

- Drivers for and barriers to reducing emission within the factory (i.e., *vertical relations between managers, trade unions, workers*)
- Drivers for and barriers to transporting emission relevant practices between work and home (i.e., *horizontal*)

- Life history interviews
- In-depth interviews
- Document analysis
- Questionnaire survey
- Observation studies

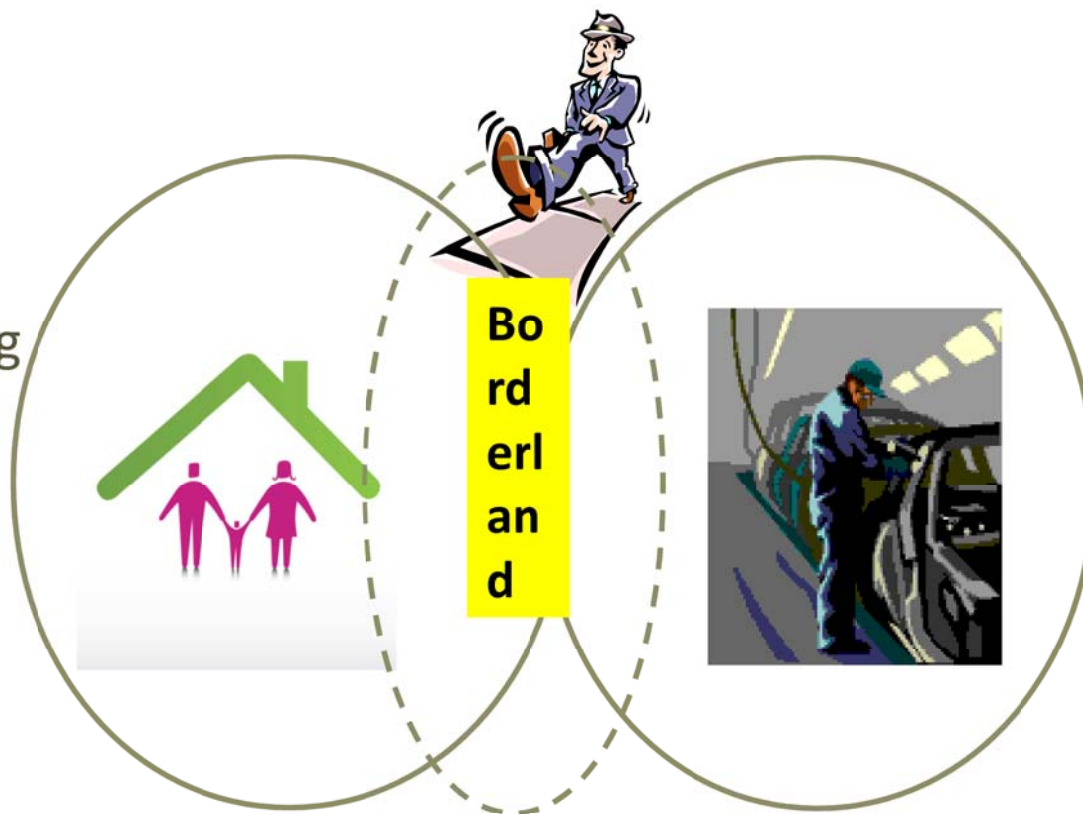
Guiding principles of action:

• **Workplace:** profitability & cost effective service delivery,
Following orders

• **Home:** care and decision making

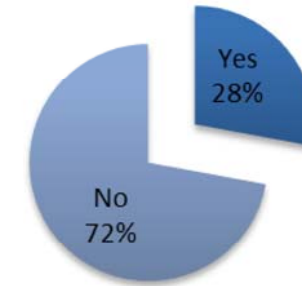
Practices reflect these different guidelines of action

Norms and values differ in both spaces



Does Border Crossing Occur?

Few verifiable examples



- Less likely: from work to home
- More likely: from home to work
- Compensation
- Resentment
- Border crossing in relation to safety

Transfer of management systems across borders mediated through domestic conversations

Kitchen Table Talk: Border-Crossing to other Companies

- Introduced partner to *Sigma Six* (improving industrial processes and reducing defects developed by Motorola and General Electric, led to waste reduction and efficiencies in Shell)
- partner supported training and apply processes to the business
- ❖ Reverse direction - *Kaizen* (*continuous improvement of processes in manufacturing, engineering, and business management*) Worker at Shell saw the opportunity for recycling (rather than landfill) for high density plastics on rigs

Third Spaces

‘Third Spaces’ - spaces which do not function clearly as either home nor work

- a) Factory canteen
- b) nursery facilities at the work place
- c) messrooms or recreation rooms on rigs
- d) the home as workplace
- e) cars
- f) cafes/motorway service stations

**Why are Third Spaces important?
Implications for carbon emissions?**



Third spaces = unmonitored & unregulated carbon emissions

- ✓ The mobile office laptops + hot-desking = driver and barrier for reducing carbon emissions
- × Home working - Transfers *costs* of production from employer to employee, e.g., heating & lighting as well as space
- × Environmental performance, policies and standards enforced and monitored at work, enforced/monitored in homes.
- × Carbon emission audits exclude employees' home/on road carbon emissions, i.e., similar to outsourcing of industrial processes

Drivers for emission relevant practices



Reputation as a self-defined driver

It's incredibly important. We produce tons of glossy documents to help our reputation.

We want to be outstanding, when it comes to the environment. And we want to communicate that as well. After all it is one of our brand's identity, that the environment is one of our central values.



Regulations as external drivers

And the UK has the most things to comply with in terms of permit requirements. So that has driven us, helped us drive improvements this far.

We burn the solvents, since we need to minimise our emission of solvents. Well, what do we use to burn them? Yes, it is diesel, and so the product is CO₂

To date they've never stopped us doing anything, but they do appreciate the fact that we give them a call and let them know what's going on.

Barriers to change



Forms of Individualisation as Barriers

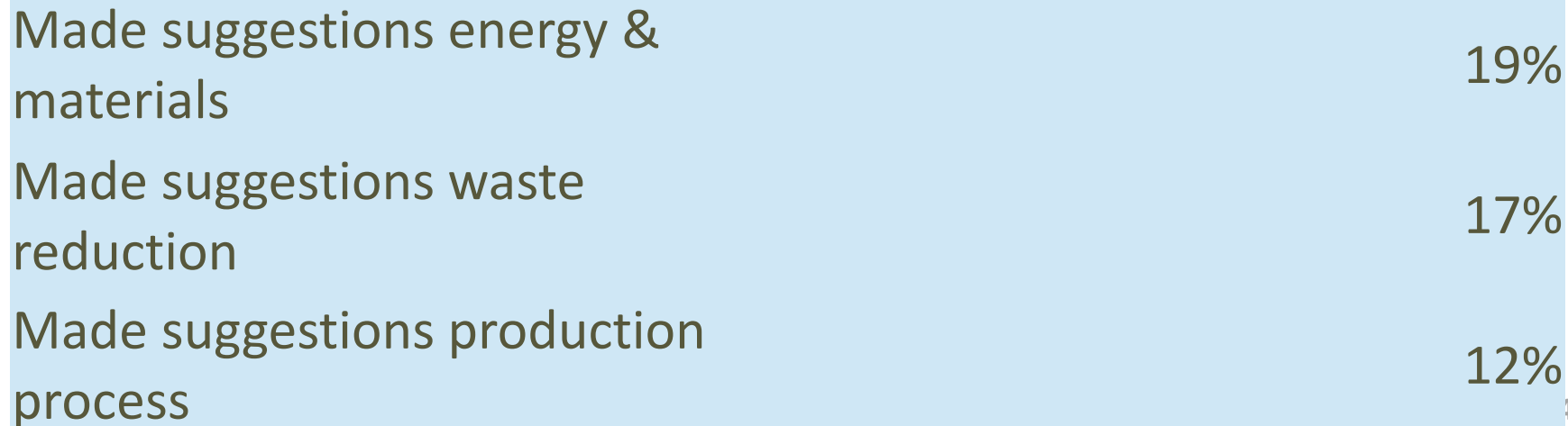
Changing Conditions to Enable a Change in Practices

OK, we have 30 – 40 men for quality and one girl for the environment. What kind of message does that send?

Just Culture: Sometimes it's error-enforcing conditions, where we have a company error which has *forced* the person to do that.

Horizontal and Vertical Barriers

We have an environmental system, then we have a quality system and then we have a system for issues concerning work environment. It is a very segregated system.



Abstraction as a barrier

And I think the work we did on the Gannet oil spill causal learning will be taken forward, and I think will have an effect on the whole company, basically: how we see things and how we operate and how we do things in the future.



Including the Value Chain, Suppliers and Subcontractors

Externalisation of emissions as a barrier

Working with the environment is somehow a part of the everyday. But if, if there is some material that we assemble that is brought by trucks that blow black smoke through the whole of Europe, that is something I don't control, there are other organisations responsible for that.

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De-prioritisation as a barrier

We do not talk about the environment in the everyday, thinking about every action, every step we take, how does that impact on the environment?

If you go in with your primary business case structured around: 'We would like to move all these people from one side to another' (and to piss a lot of people off in the process!) 'Why are you doing that?' 'Oh well, it's to reduce the carbon footprint' – you don't get anywhere.

Necessities: there will always be transport – we will always need energy

Production drives consumption

Converting production can convert consumption

Investment and subsidies for research in alternative production, products and futures should be prioritised

Thank you

