

**BOKU Energiecluster-Veranstaltung  
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# **Steering toward Net Zero – Challenges and Opportunities**



## **Utopia: Creating Effective and Sustainable Demand for Net Zero Solutions**

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# Learnings from 35 Years of Climate Politics

- **Hope for global governance is naïve.**
- **Poorly designed policies shift emissions**, not reduce them globally.
- **Subsidies** are politically popular, but **often inefficient** in practice.
- **Carbon taxes are effective but widely unpopular**, even when accompanied by dividends.
- **Voters tend to move away** from parties advertising climate policies.

Why do we utterly fail to steer toward net zero?

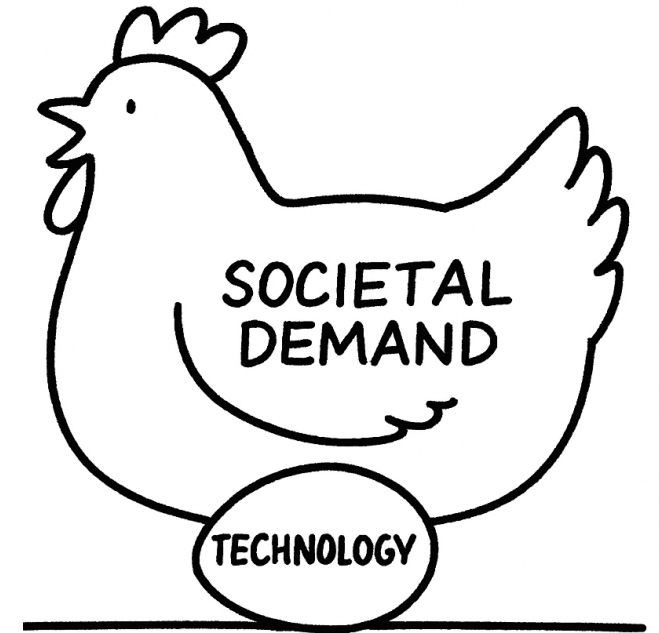
# Learnings from Recent Crises (A Glimmer of Hope)

## 1. COVID-19 Pandemic

- **Politicians can act decisively when needed** — even if measures are unpopular or costly.
- **Technological development accelerated dramatically** when demand created business cases.

## 2. 2022 European Energy Crisis

- **Price signals do work** — high energy prices triggered rapid adaptation and efficiency gains, thus (temporarily) decreasing greenhouse gas emissions.



Any use in this for fighting climate crisis?

# In Theory, Our Approach Should Be...

- a) **Effective** → Capable of reducing emissions deeply and quickly
- b) **Locally Applicable** → Economically work without global governance
- c) **Legally Feasible** → Aligns with established legal standards
- d) **Technologically Open** → Cost-efficient solutions evolve naturally
- e) **Socially & Globally Fair** → Contribute to improving income equality
- f) **Democratically Supported** → Win and maintain majority support

Could such a „*eierlegende Wollmilchsau*“ exist?

# Paradigm Shift

- The **polluters** are *NOT* “the industry” or “China”.
- The **responsible** polluters are **YOU and ME – WE who BUY** carbon-intensive goods and services.
- Dieter Helm: “**Make the Polluter Pay!**”
- Consequence: **Act on consumption directly!**
- Through a **tax on carbon consumption**.

**BUT: How to get the democratic consent to such a measure?**

‘A manifesto for change’ NATURE

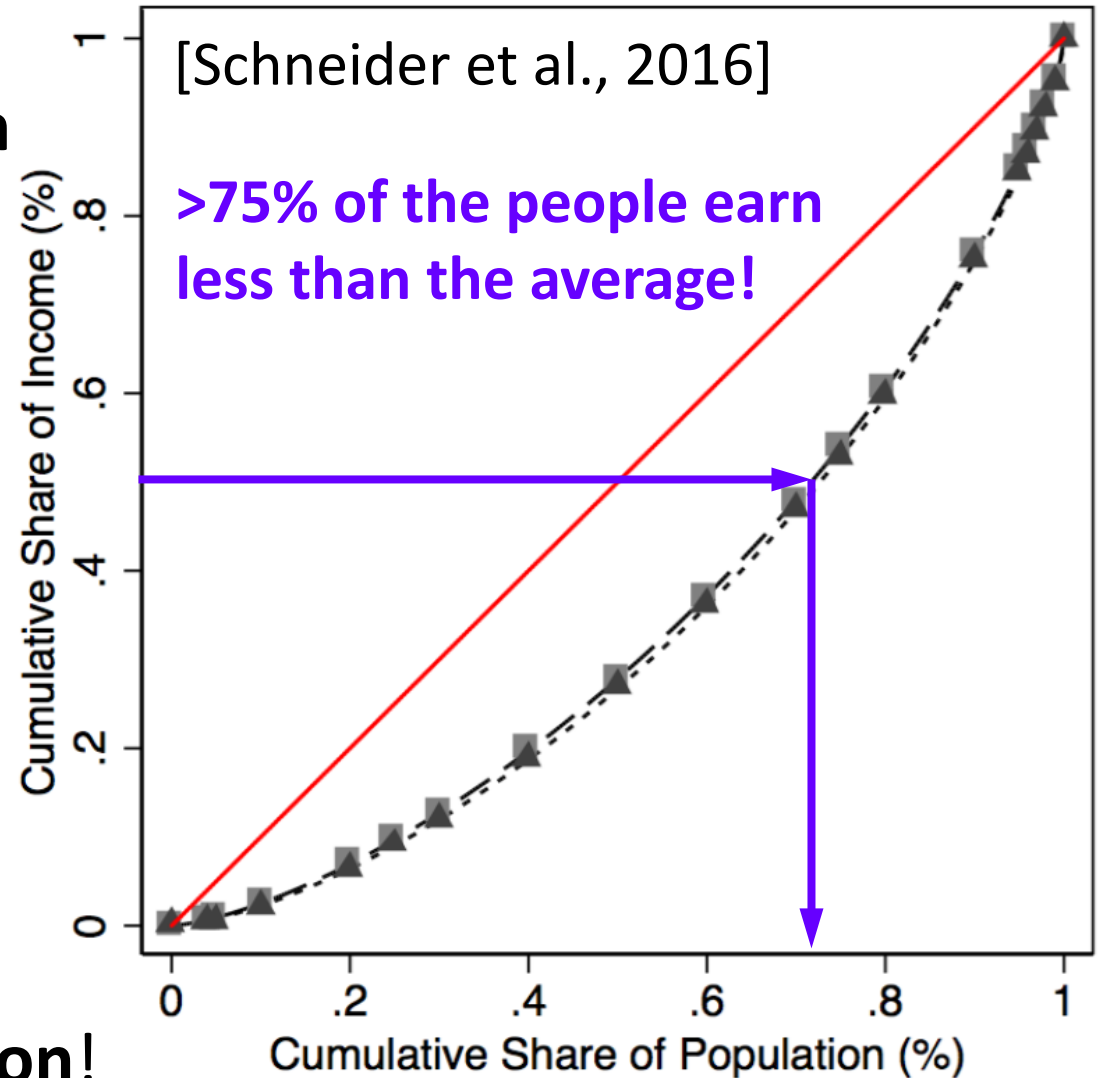
**NET ZERO**  
**HOW**  
**WE STOP**  
**CAUSING**  
**CLIMATE**  
**CHANGE**



**Dieter Helm**

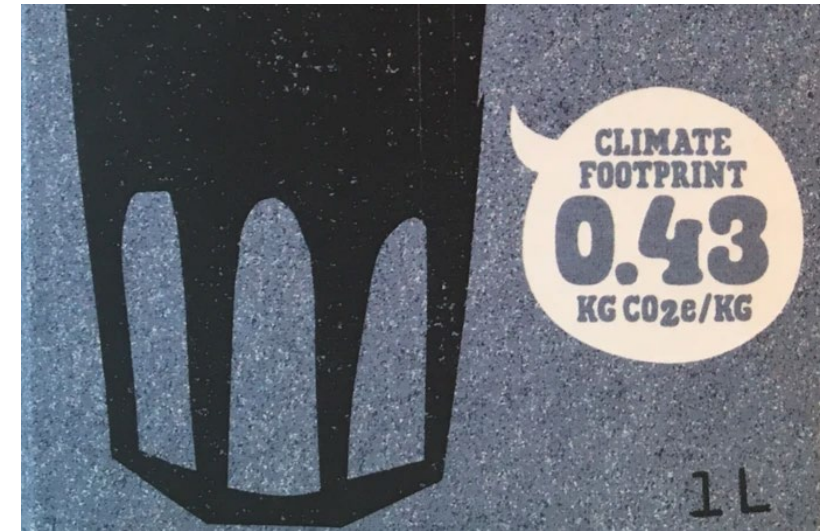
# The Option of Carbon Dividends

- **Aim:** Fair redistribution to maintain purchasing power and to secure democratic backing.
- Emissions **concentrate at the top** of the income pyramid.
- A majority of the electorate rationally benefits from equal per-capita re-distribution.
- Remaining challenge: **Communication!**



# How Could It Look Like?

- Efficiently assess footprints for product categories
- **Consumer-level carbon footprint tax** alongside VAT
- **Fair Redistribution**
  - E.g. tax revenue redistributed equally per capita → the **majority benefits**
- **Competitive advantages for decarbonized supply chains**
  - Companies can claim reduced footprints if produced with lower emissions
  - Verified and approved by authority → competitive advantage
- **No production/import charges** or direct taxing of smokestack emissions
- Transparent, gradual but **ambitious tariff increase** toward net-zero levels
  - The overall purchasing power is not affected. → High tariffs possible



# Expected Results

- **Consumers pushed toward climate-friendly consumption behavior**
    - Including sufficiency! Mechanism works **based on simple emotions**.
    - No reliance on individual goodwill!
  - **Market demand for low-carbon products and supply chains**
    - Low-carbon **business cases without subsidies**
    - **Industry** transforms **without incentive to relocate**
  - Economic redistribution while **maintaining overall purchasing power**
    - **Ambitious carbon pricing possible – €500/ton** levels required for net zero
    - Improved societal resilience through reduced income inequality
- Democratic support possible *IF* adequately **COMMUNICATED**.



# There Is a Moral Duty for Effective Action

- **Science** needs to **take full responsibility** for solving the riddle:  
→ **How** can politicians **be re-elected while driving change?**
- **Leaving the HOW to politicians alone means giving up.**
- **Critical Honesty Required for Credibility**  
→ **Stop supporting pseudo-action** and **inefficient approaches** to avoid loosing public support.
- **Gather across disciplines to develop real, effective solutions:**  
→ **Build a society so good that everyone will want to live in it.**

For reference see: **Steering toward net zero—a plea for a consumer-level carbon footprint tax.** Mitig Adapt Strateg Glob Change 30, 32 (2025). <https://doi.org/10.1007/s11027-025-10222-z>