UNFCCC SB58 - BONN, GERMANY

SIDE EVENT: INFORSE - FRAUNHOFER - REScoop.eu - SE

Saturday, 10 June, 2023

Time: 14:45-16:00 Room: Berlin

RESCOOP.EU

SustainableEnergy

INFORSE

International Network for Sustainable Energy

Sustainable Lifestyles for Climate Action and Policies for ALL

FULFILL

Project Funded by the Horizon 2020 Research & Innovation Programme of the European Union

Fraunhofer

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Wuppertal Institut

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Zaļā brīviba

Side-event at UNFCCC SB58 Conference
Sustainable Lifestyles for Climate Action and Policies for ALL

10 JUNE 2023

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Fundamental decarbonisation
through sufficiency by lifestyle changes

Sufficiency Lifestyles

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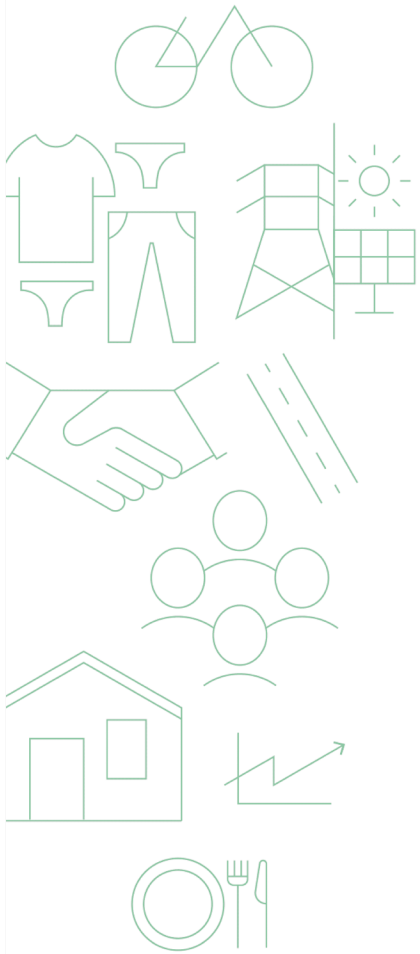

Project Partners

No	Participant name	Short name	Country code	Partners' logos
1	**Fraunhofer Institute of Systems and Innovation Research (Fraunhofer ISI)**	FH ISI	DE	Fraunhofer ISI
2	**Wuppertal Institut für Klima, WI DE Umwelt, Energie GGMBH**	WI	DE	Wuppertal Institut
3	**Accademia Europea di Bolzano**	EURAC	IT	eurac research
4	**Notre Europe - Institut Jacques JDI FR Delors**	JDI	FR	Notre Europe Jacques Delors Institute
5	**Association négaWatt**	NW	FR	Association négaWatt
6	**Politecnico di Milano**	POLIMI	IT	Politecnico Milano 1863
7	**International Network for Sustainable Energy-Europe**	INFORSE	DK	INFORSE-Europe International Network for Sustainable Energy
8	**Zala Briviba Biedriba SA**	ZB	LV	Zaļā brīvība

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Sufficiency as concept

Set of Sustainability Strategies

FULFILL scope: Sufficiency Lifestyles in Europe

Efficiency

Consistency

Sufficiency

...

Minimalism

Frugality

Voluntary Simplicity

Rebound effects

"Sufficiency policies are a **set of measures** and **daily practices that avoid** demand for energy, materials, land and water while delivering **human wellbeing for all** within planetary boundaries" (IPCC, 2022; Summary for Policymakers, p. 41)

Sufficiency in FULFILL

that they are **within planetary boundaries**, and simultaneously **contributes to societal well-being**."
"FULFILL understands the **sufficiency principle** as **creating the social, infrastructural, and regulatory conditions** for changing individual and collective lifestyles in a way that **reduces** energy demand and greenhouse gas emissions to an extent

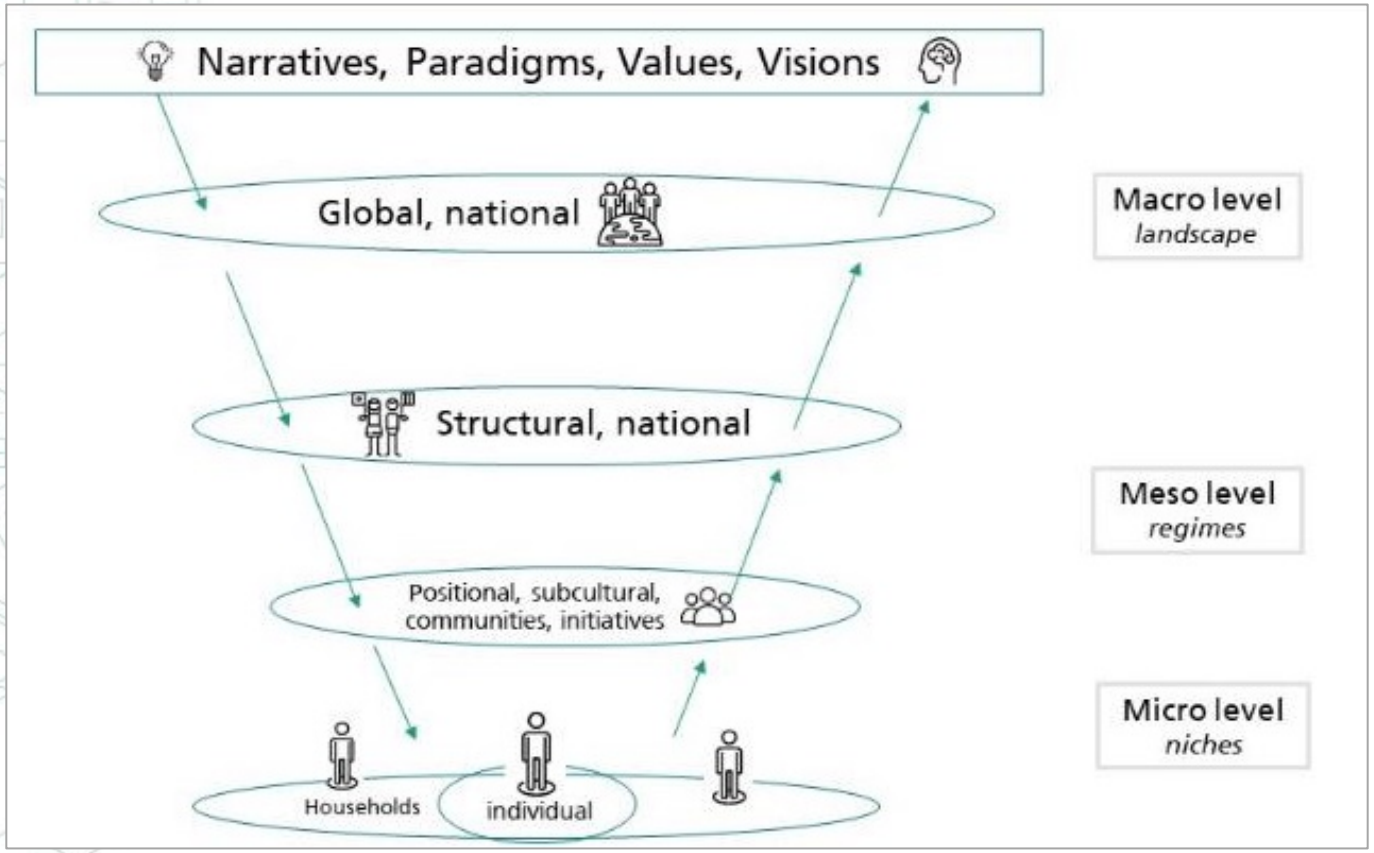
sufficiency principle as enabler for (structural) change – that needs enabling structures

sufficiency as (voluntary) reduction of absolute emissions

assumes that structures enable sufficiency and a 'good life' in line with basic need satisfaction: sufficiency as indicator and driver for individual and societal well-being

Deliverables on conceptual considerations: https://fulfill-sufficiency.eu/publications/

Scope and research questions



see Deliverable 2.3. https://fulfill-sufficiency.eu/publications/

- Multi-level & multi-method approach
- Broad description of sufficiency lifestyles and initiatives (e.g. eco villages)
- Disentengle sufficiency by force (i.e. poverty) from sufficiency by intent
- Explore drivers and barriers for sufficiency lifestyles across European countries (infrastructures, socio-structural variables)

Tasks and respective methods

Micro and meso level perspective

Task 1

- Identifying sufficiency-based lifestyles
- Based on representative surveys

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Task 2

- In-depth analysis of sufficiency-based lifestyles
- Based on qualitative study

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Task 3

- Long-term effects and diffusion
- Based on representative survey, same sample as in Task 1

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Task 4

- Summary and synthesis

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ongoing

Carbon footprint calculations

Space and hot water heating

fuel source , energy consumption , energy costs and/or building characteristics

+

Electricity

electricity consumption in kWh or electricity costs;

„Green“ electricity considered to have no emissions; Electricity produced via PV deducted

+

Motorised transport

distance travelled and fuel source for transport by car and motorbike

+

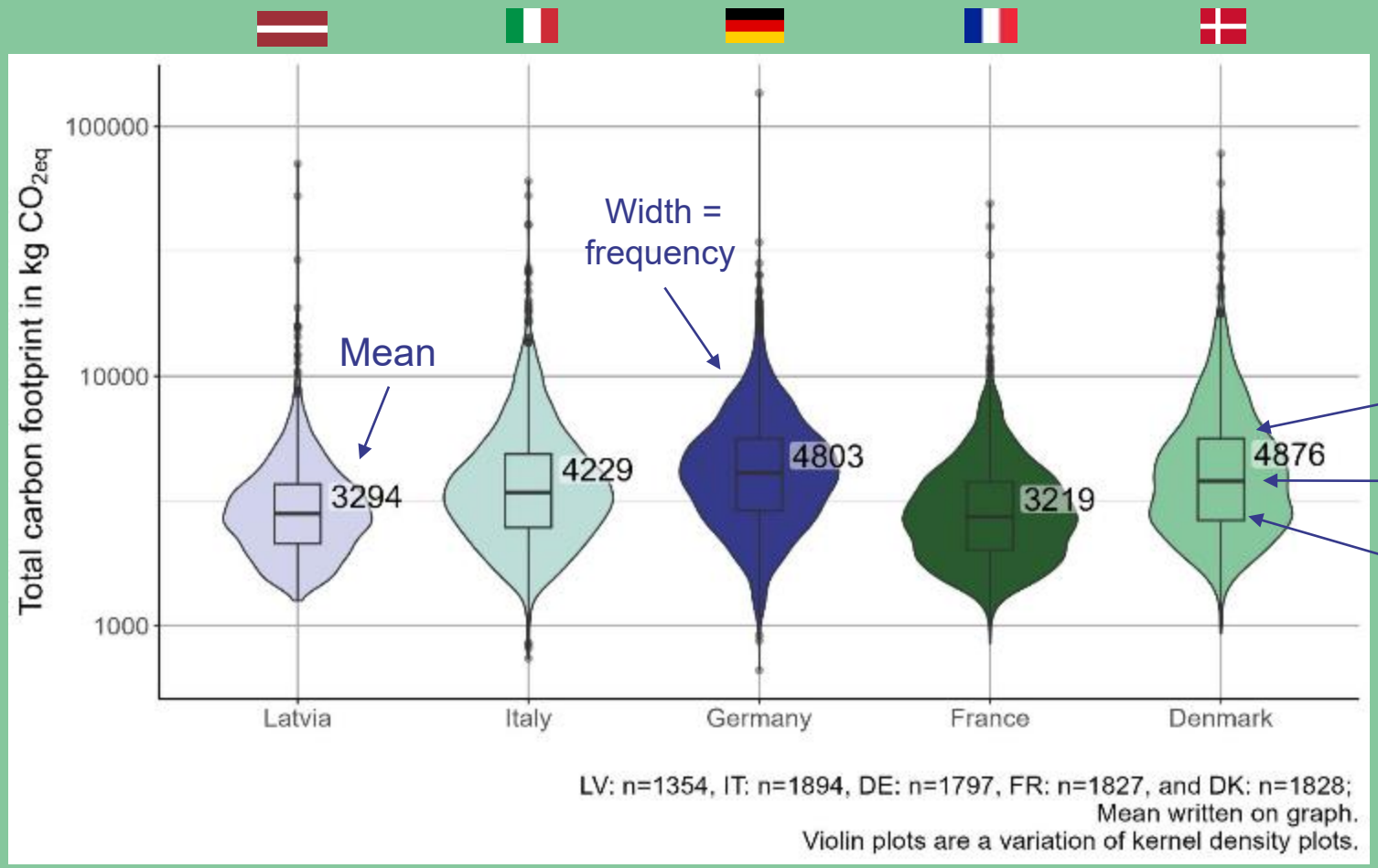
Nutrition

main diet type (vegan, vegetarian, flexitarian, mixed, high meat) and whether food purchased is seasonal and/or regional

=

Total carbon footprint
(CO_2-equivalent in kg per capita per year)

Total carbon footprint



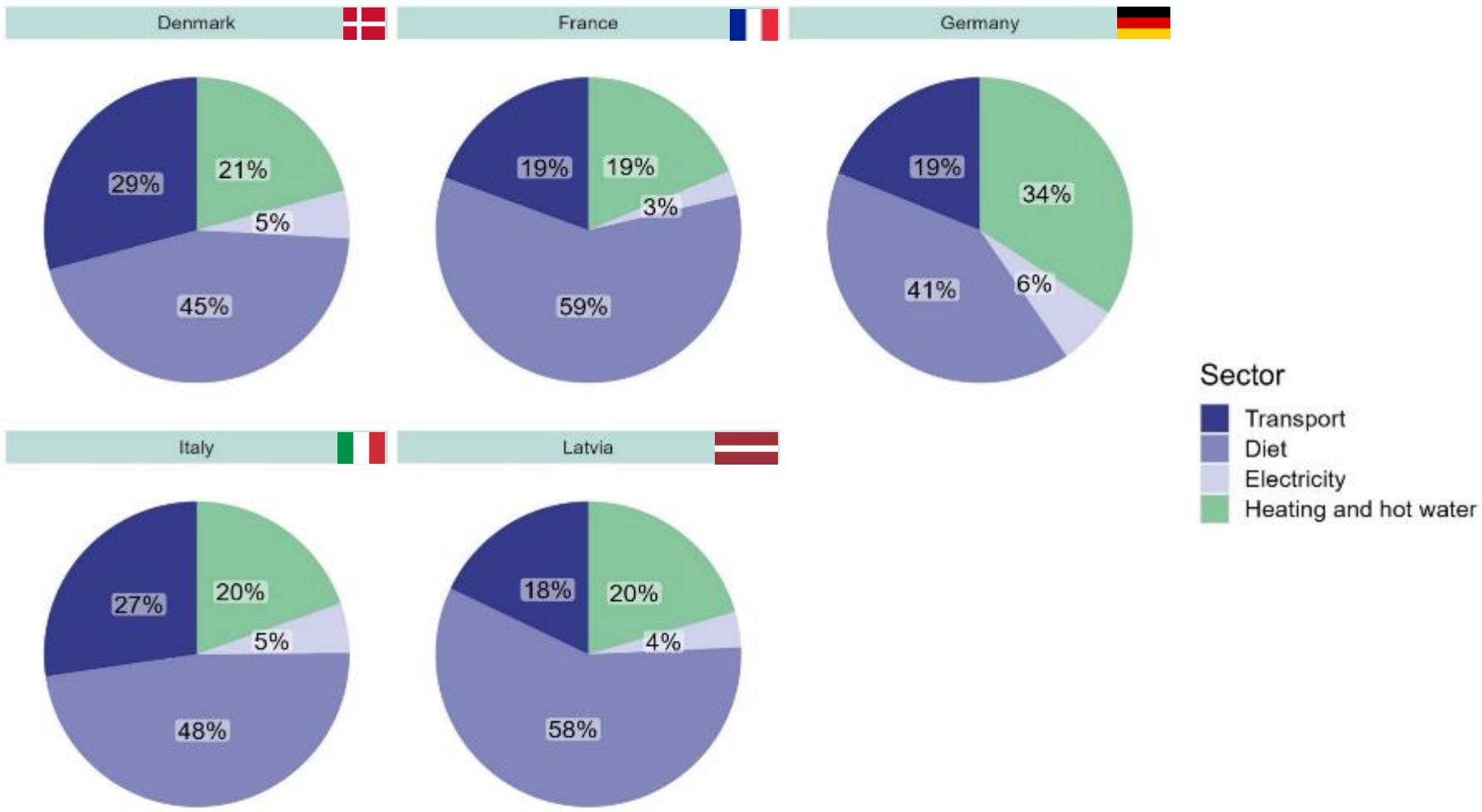
Total carbon footprint of respondents in 2021 without aviation

Third quartile

Median

First quartile

Carbon footprint by sector

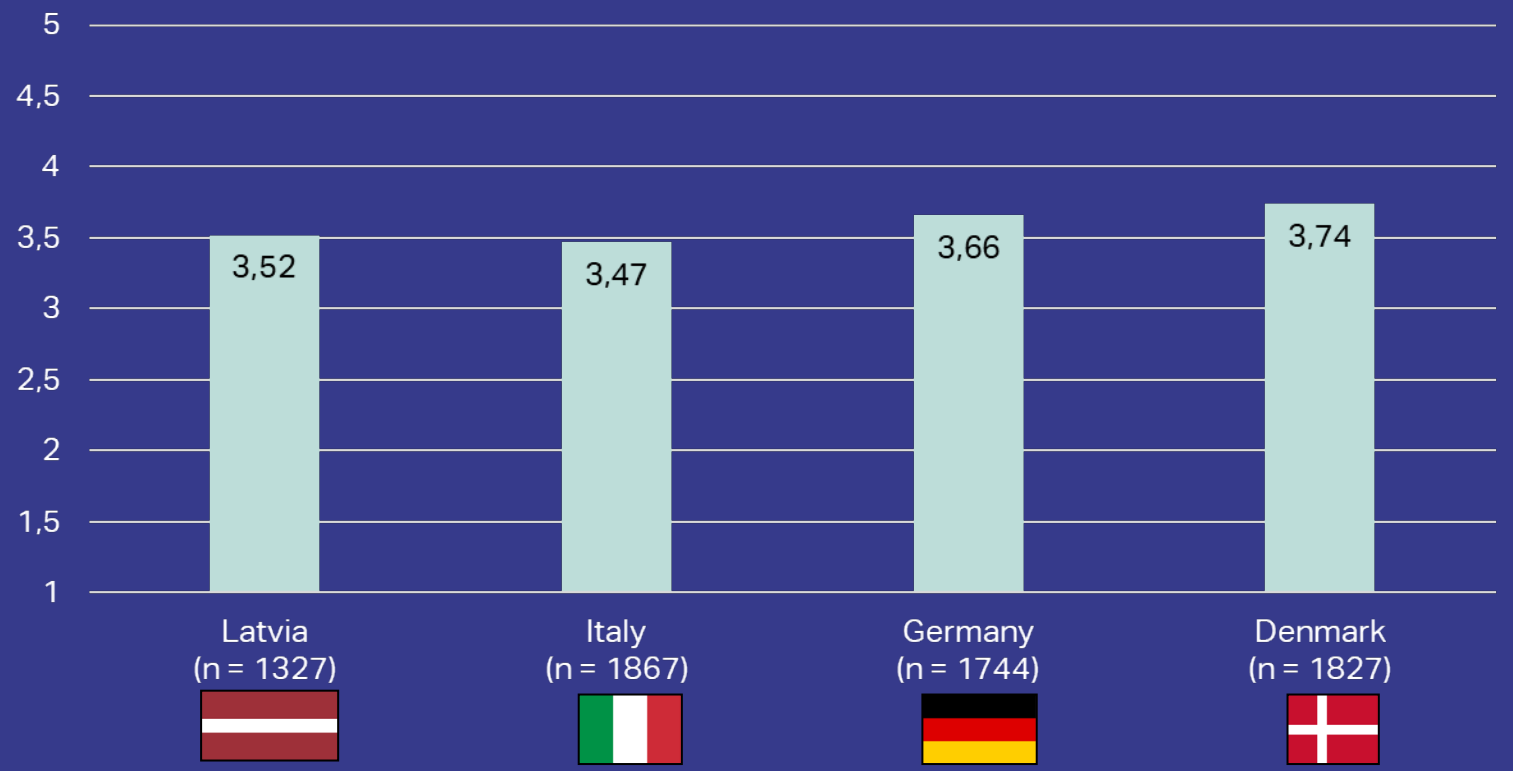


DK: n=1828, FR: n=1827, DE: n=1797, IT: n=1894, and LV: n=1354

Wellbeing & health

programming error in FR

- QOL Scale by WHO, overall score across the 11 items
  - good reliability in all countries
  - one factor solution appears feasible
  - excluded participants who did not answer one or more QOL items



Average scores of well-being across countries.

Correlations: Wellbeing & CO_2

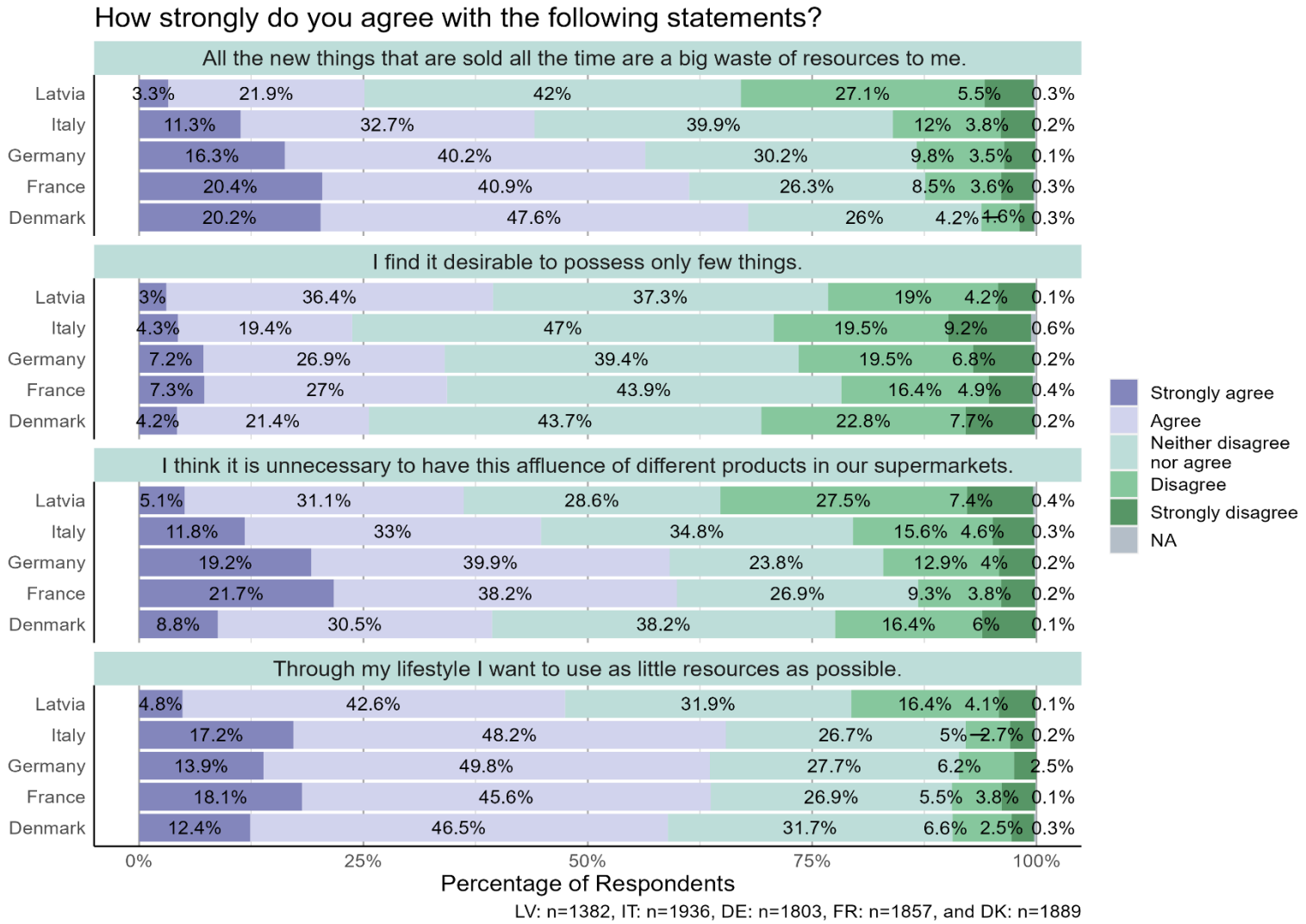
bivariate correlations: *** p < .001 ** p < .01 * p < .05

excluded participants with <0 and >100t carbon footprint (without flights)



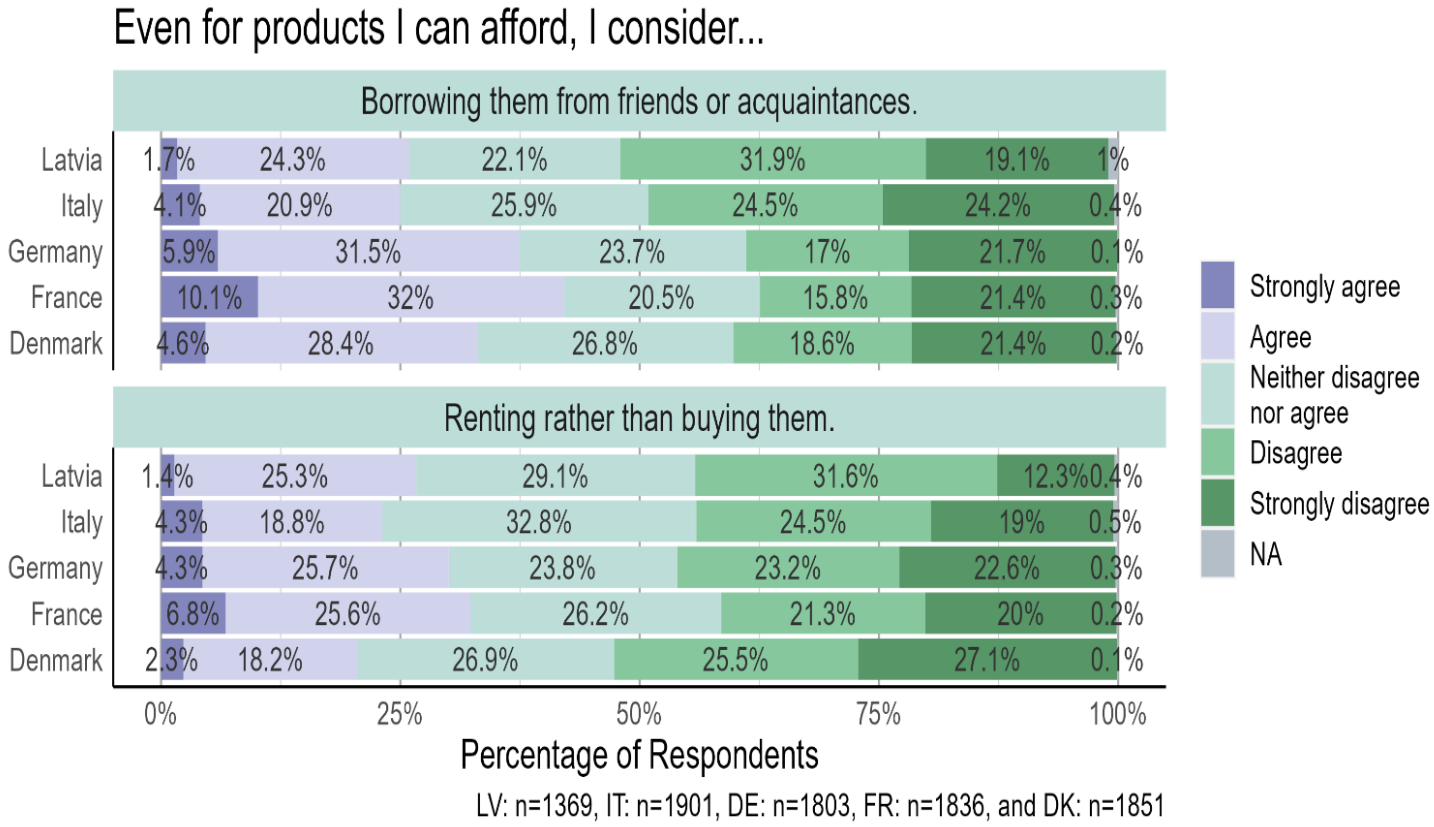

	LV (n = 1300)	IT (n = 1819)	DE (n = 1735)	DK (n = 1735)
TOTAL	**.11*** **	**.06***	.02	.02
Heating	**.06***	.04	-.02	**.06***
Electricity	.02	**-.08 *** **	**-.13 *** **	**-.08 ** **
Transport	**.11***	**.07 ***	**.10 *** **	**.08 ***
Diet	-.02	**.06 ** **	.01	.04

Sufficiency orientation



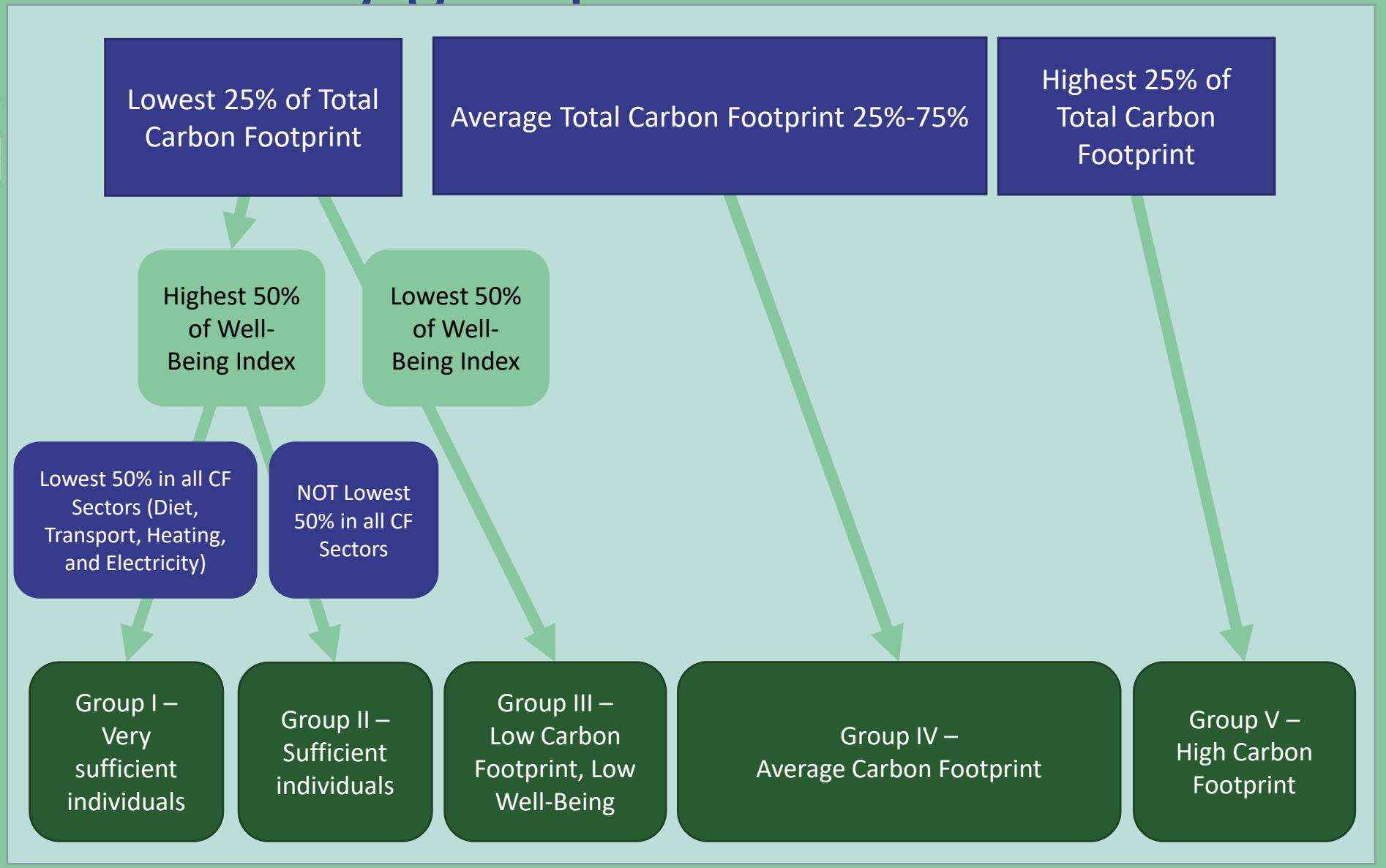
- self-reported sufficiency attitude
- awareness of resource wastage through lifestyle-related consumption at a medium level across countries
- Somewhat more cautious in regard to materialism and material affluence

Sufficiency orientation



- GE & FR show higher awareness and greater openness for renting and borrowing items – but also higher CO_2-emissions

Sufficiency group identification method



Description of groups*

Group I - Very sufficient	Individuals in this group are predominantly **female**, **not deprived** and tend to exhibit **a sufficiency-oriented lifestyle**.
These individuals are **not deprived**, and are **comfortable on their current income**. They tend to support **environmentally oriented policies** and consider themselves to be **eco-friendly consumers.**	**Group II – Sufficient**
Group III – Low Carbon Footprint, Low Well-Being	In this group, individuals are predominantly **female**, tend to have a **low income** and to **not be employed full-time**. They exhibit many characteristics of **deprivation**, including **not having a stable income** and **not being able to afford balanced meals**. They tend to have **unsafe conditions in the winter** months and feel they **require more living space**. They tend **not to support liberal** oriented policies. They are also more likely to **clean**, to do the **shopping**, the **washing**, and to take care of **social life on their own**.
Individuals in this group are not particularily homogenous. They tend to be **male**, and **require more living space**.	**Group IV – Average Carbon Footprint**
Group V – High Carbon Footprint	These individuals tend to be **male**, to have a **high income**, to live in a **house**, and to **not live in large cities**. They tend to be **employed full-time** and do **not display signs of deprivation**. They tend to prefer **conservative policies** and do **not exhibit a sufficiency-oriented lifestyle**. It is more likely that **someone else** in the household does the **cleaning**, the **washing**, and takes care of **social life**.

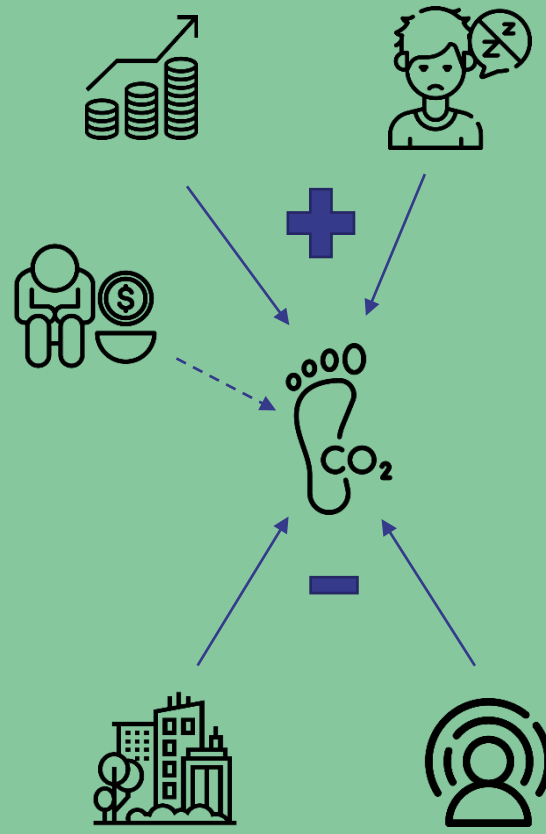
*Denmark, Germany, Italy, Latvia; based on Chi^2 tests and Welch t-tests

Deprivation and sufficiency

Is Sufficiency (partly) a result of (perceived) deprivation?

Based on regression models (ceteris paribus):

- For each **additional 1000€ the respondent earned per year**, their carbon **footprint increased by 44kg CO_2eq**.
- The total carbon footprint of respondents who **could not afford a week's holiday** was **495kg CO_2eq higher** than those who could afford a week's holiday.
- **Respondents who could not afford an unexpected expense** were **5,3%-points more likely** to be in the **high total carbon footprint** group.
- The total carbon footprint of respondents **who were more likely to consider new things to be a waste** was **1100kg CO_2eq lower** than those who weren't.
- Respondents who **like to possess less were 4,4%-points more likely** to be in the **low total carbon footprint** group.
- Respondents who live in **a rural area** compared to an urban area were 14,8%-points **more likely to be in the high total carbon** footprint group.



(Alexander-Haw et al., in prep.)

Wrap up & next steps

Foto von Etienne Girardet auf Unsplash

Sufficiency lifestyles across Europe

- We find people showing high sufficiency and wellbeing across countries and common predictors = good news
- GE & DK with higher awareness but also higher emissions
- Income and deprivation plays a significant role – both contradicts sufficiency
- Sector specific sufficiency and well-being aligns with each other – but detailed exploration needed
- Infrastructures seem to give people the ability to decrease consumption by intent (e.g., electricity)

Next steps:

- Exploring and analysing causality by using data from the second wave (changes in carbon footprint, SO, well-being over time)
- Framing experiments on policy support for sufficiency-oriented nutrition and housing

see Deliverable 3.1. coming soon!

THANK YOU

https://fulfill-sufficiency.eu/

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