

LIFESTYLES, CONSUMPTION AND FOOTPRINTS

Using the IELab to Assess the Impact of Lifestyle
Change on Sustainability

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What's it about ?

PROJECT AIMS

To assess the **sustainability impacts** (“footprints”) of broader ***lifestyle*** changes

- ⇒ versus just incremental green consumerism change
- ⇒ utilising the depth of detailed multiregional input-output data (as per the IELab)

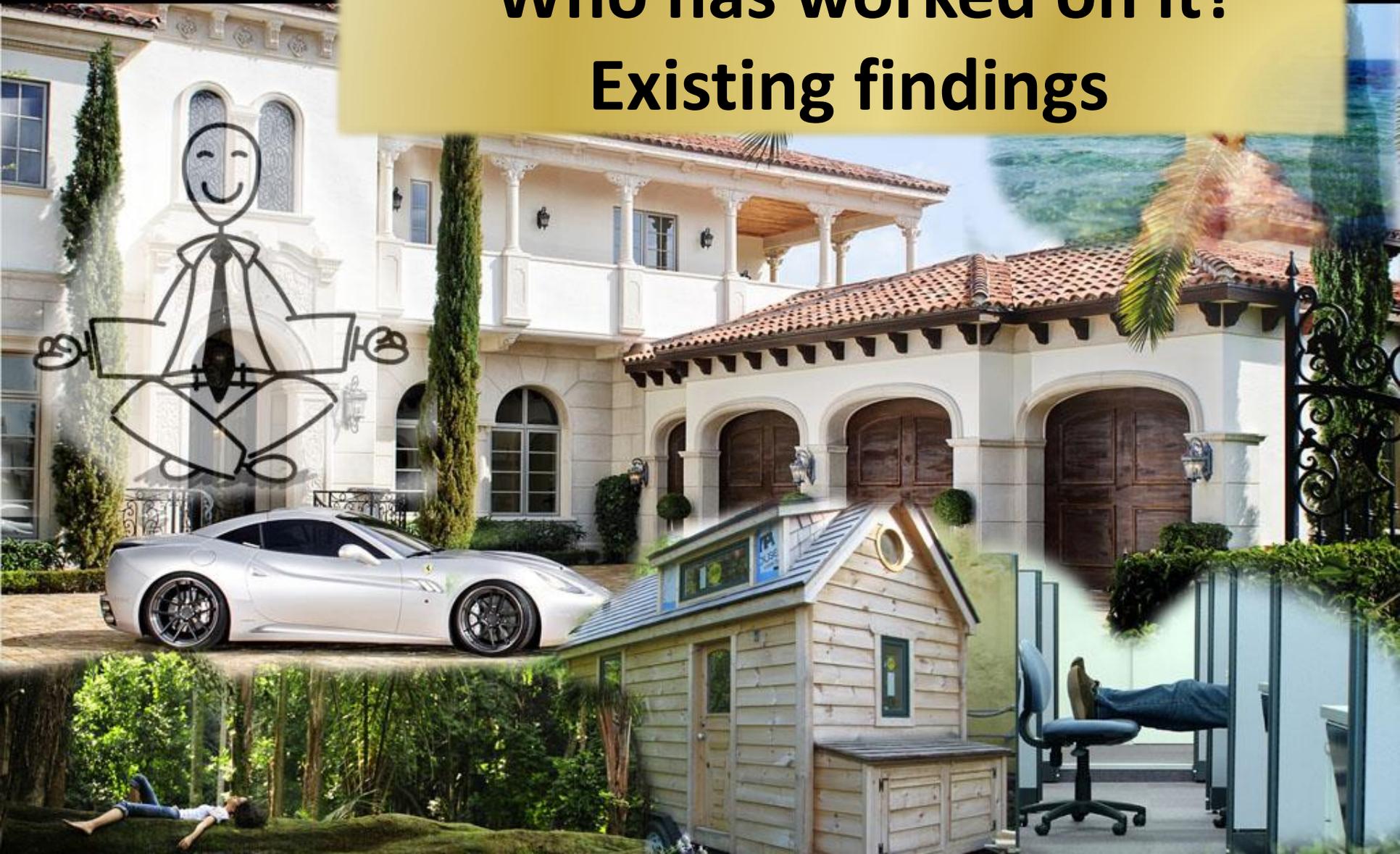
Why do it ?



The links between lifestyle (and economic activity), our impact on our environments, and our well-being (“happiness”) ...

seem vital to assessing the desirability of our individual and collective choices

Who has worked on it? Existing findings



The approach – main explanatory and dependent variables

LIFESTYLE – *The main explanatory variable*

= a consistent, identifiable nature and mix of economic and social activity forming a distinctive “way of life” for a group of people

☞ is likely to have associated and defining =>
**beliefs, attitudes, values, habits, possessions,
time use, travel activity modes and patterns**

The approach – main explanatory and dependent variables

LIFESTYLE – *The main explanatory variable*

We focus mainly upon broad lifestyle change – notably voluntary simplicity and other “degrowth” related lifestyle trends

VOLUNTARY SIMPLICITY (VS) = “simple living”, “downshifting”

A lifestyle that is less pressured due to a focus away from accumulation of goods and more toward non-material aspects of life. Individuals *choose* this lifestyle change in order to attain a simpler but more meaningful life. VS is quite different from those who are forced to spend less and live a more simple life involuntarily, such as those who lose their job and cannot find work.

The voluntary choice to work and spend less than one’s potential (with ramifications for a diverse range of time use and life activity choices and patterns).

VS involves taking stock of one’s material needs, distinguishing them from wants, and evaluating the cost of their acquisition—in terms of time, money, and the feeling it generates—against the non-tangible variables that really define the quality of life and choosing the latter.

The approach – main explanatory and dependent variables

FOOTPRINTS – *The main dependent variable*

Not just the old classic ecological footprints but ...

☯ ENERGY

=> major source of GHGs but also many other external effects



FOOTPRINTS – *The main dependent variable*

ENERGY TYPES

1. Black coal
2. Brown coal
3. Coke
4. Coal by-products
5. Brown coal briquettes
6. Wood, wood waste
7. Bagasse
8. Refinery feed stock
9. LPG
10. Auto gasoline leaded
11. Auto gasoline unleaded
12. Aviation gasoline
13. Aviation turbine fuel
14. Lighting kerosene
15. Power kerosene
16. Heating oil
17. Automotive diesel oil (ADO)
18. Industrial diesel fuel (IDF)
19. Fuel oil
20. Petroleum products nec
21. Solvents
22. Lubricants and greases
23. Bitumen
24. Natural gas
25. Town gas
26. Solar energy
27. Electricity
28. Synthetics biofuels

The approach – main explanatory and dependent variables

FOOTPRINTS – *The main dependent variable*

Not just the old classic ecological footprints but ...

☯ ENERGY

=> major source of GHGs but also many other external effects

☯ WATER – Freshwater scarcity; Emissions to

☯ GHG emissions

☯ MATERIAL FLOWS

☯ WASTE ☯ LAND DISTURBANCE

☯ BIODIVERSITY ☯ Many others

FOOTPRINTS – *The main dependent variable*

The IPANT identity

- a very useful tool for sustainability analysis of lifestyles



$$I = P \cdot (A \cdot T)_{1..N}$$

I = Impact e.g. total CO2 emissions Aust

(same as pressure (P) in the DPSIR framework)

P = Population

A = “Affluence” = level of output (physical units or \$s)

T = Env-intensity or footprint per unit of output (A)

N = Nature of economic activity; field, sector

FOOTPRINTS – *The main dependent variable*

Sustainability impact of LIFESTYLE described by

(A . T) for each type of N

A = “Affluence” = level of output (physical units or \$s)

T = Env-intensity or footprint per unit of output (A)

N = Nature of economic activity; field, sector

*IELab => provides us with T and N, just have to identify A
(using expenditure and other data)*

☹ A complete description of lifestyle needs more ...

OTHER FACTORS IMPORTANT NOT ASSESSING SUSTAINABILITY IMPACT OF LIFESTYLE

(not well-covered in existing I-O economic data)

- ⊙ time use (e.g. working hours, recreation time)**
- ⊙ housing (size, tenure etc)**
- ⊙ diet (not just food type but process and full life cycle; organic)**
- ⊙ number of children**
- ⊙ education**
- ⊙ car ownership**

.....

How can we use the IELab?

IELab provides the factor multipliers needed to create the footprints

- at a detailed functional (sectoral) classes and spatial level (1284 IOPC sectors and 2214 SA2s)

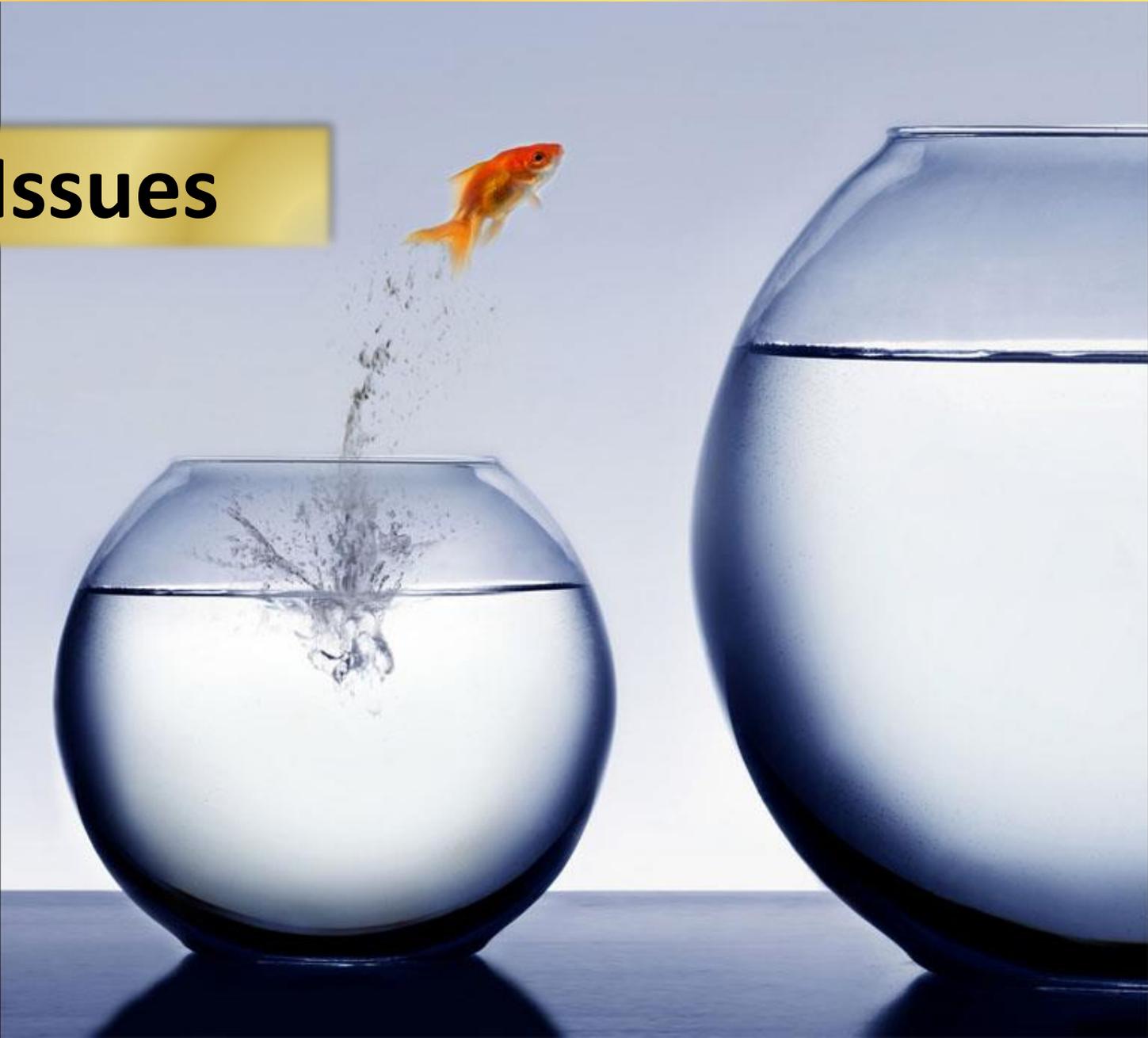
Functionally, we can map the lifestyle direct good and service expenditure patterns to the IELab

=> but also anticipate ways of converting and mapping time use and other lifestyle aspects to the IELab

Spatially, the disaggregated nature of IELab facilitates accounting for lifestyle factors

∴ we get better FOOTPRINTS based on detailed geographic and structural data and relations

Issues





Further questions and research aims

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THANK YOU 😊