



# SWEET Call 1-2021: SWICE

## Deliverable report

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## Summary

Lifestyle research is rapidly gaining momentum. There is a growing awareness that interventions tailored to a specific target group are more effective than one-size-fits-all interventions, and that lifestyle-based segmentation approaches could be a useful concept for identifying and characterizing these target groups. We conducted a sustainability lifestyle segmentation aiming to explore the differences between lifestyle groups in terms of sustainability-relevant behaviour and underlying drivers. In order to obtain a comprehensive and differentiated picture, we assessed different types of behaviours (sufficiency, efficiency, policy support, environmental action, etc.) in different domains (housing, mobility, nutrition) and different contexts (everyday (private) life, work, leisure, public sphere) as well as lifestyle preferences, and psychosocial behavioural drivers. Running a cluster analysis, six distinct sustainability lifestyle types were identified: the humble environmentalist, the budget-conscious pleasure-seeker, the indifferent hedonist, the socially connected techie, the frugal traditionalist, and the sustainable lifestyle optimizer. These lifestyle types differ in the type, domain, and context of sustainability-relevant behaviour as well as the underlying drivers (e.g., norms, beliefs) and lifestyle preferences (e.g., voluntary simplicity, (radical) hedonism, openness). The descriptions of the six identified lifestyle types indicate different starting points for targeted interventions enabling to achieve the highest possible impact of environmental policies.



## 1 Introduction

Individuals differ in their behaviour, preferences, and attitudes. Nevertheless, parts of society share certain behavioural and motivational elements, so that these individuals can be grouped into lifestyles that provide researchers and policy makers with insights into the preferences and needs of specific social profiles and enable them to develop targeted measures and interventions. Originally rooted in sociology and focused on structural and cultural analyses, lifestyle research is now enriched by psychological elements at the individual level such as motivational and psychosocial factors (e.g., Sütterlin et al., 2011). This approach enables a deeper understanding of individual motivations and decision-making processes and ultimately has the advantage of being able to explain behaviour and behaviour change not only at group level but also at individual level. Particularly in the area of sustainability-relevant behaviour, lifestyle analysis is a crucial method for understanding the various psychosocial and contextual factors that influence individual decisions related to sustainable behaviour. People can engage in different types of sustainability-relevant behaviour (sufficiency, efficiency, policy support, environmental action, etc.) in different contexts (work, everyday (private) life, leisure, public sphere) and within different behavioural domains (mobility, housing, nutrition). However, most studies only focused on one or a few aspects. For example, Axsen et al. (2012) included attitudes and willingness to change in addition to actual environmentally friendly and technological lifestyle practices. However, they do not distinguish between different behavioural contexts, but consider environmentally-friendly behaviours as a whole. Other studies focused specifically on certain behavioural domains, such as mobility (Ohnmacht et al., 2009; Prillwitz & Barr, 2011) or housing (Thøgersen, 2017). Finally, Seidl et al. (2017) concentrated on energy sufficiency behaviour with a focus on the different living and working contexts but without taking motivational factors such as environmentally relevant attitudes or behavioural preferences into account. Thus, none of these studies provides a differentiated and comprehensive insight into sustainability-related lifestyles. One typology that distinguishes between different types and domains of behaviour, while also considering attitudinal factors is that of Sütterlin et al. (2011). They collected data on curtailment, efficiency behaviour, and policy acceptance related to the domains housing, mobility, and nutrition, and assessed various psychosocial factors. From their results, the authors conclude that a differentiated and comprehensive examination of behavioural data is particularly important to enable an accurate and detailed description of different lifestyles.

Building on these previous findings, the aim of our typology is to capture sustainable lifestyles as comprehensively as possible. Accordingly, our analysis considers sustainability-related behaviours in different domains and contexts, and differentiates between various types of behaviour (e.g., sufficiency, efficiency, smart living, circular economy, policy support, etc.), as these are psychologically different and, consequently, may vary regarding the receptiveness of different lifestyle types (Sweeney et al., 1997; Gardner & Stern, 2002). Furthermore, we focus on general lifestyle preferences and psychosocial behavioural drivers. Based on a representative survey, we identify different lifestyle types related to sustainability-relevant behaviour that can be used by researchers and policy makers to create tailored interventions to promote sustainable behaviour.

## 2 Deliverable content

In our lifestyle typology, we aim to elaborate on the differences between the lifestyles in terms of sustainability-relevant behaviour. In order to obtain a comprehensive and differentiated picture and to be able to distinguish the lifestyle types in the best way possible, we apply an attitude-based segmentation approach that includes behavioural variables, underlying motivational factors, and lifestyle preferences. Thereby, we differentiate between types of behaviour, domain, and context.

### *Questionnaire: Constructs and Variables*

Reported behaviour was assessed within the domains of housing, mobility, and nutrition, as these are responsible for the largest share of negative environmental impacts (Thøgersen 2017, 2018), and within



the contexts of work, everyday (private) life/home, leisure, and public sphere, as sustainability-relevant behaviours and the underlying drivers differ depending on the context (e.g., Whitmarsh et al., 2018; Xu et al., 2020; Holmes et al., 2021). We distinguished between different types of direct sustainability-relevant behaviours: *Sufficiency* (reduced use, smaller dimension, renouncing resource-intensive goods/services, sharing), *efficiency*, *smart living*, and *circular economy behaviour*. These behaviours are psychologically different and thus may differ according to lifestyle type (Gardner & Stern, 2002). Sufficiency behaviours are associated with changes in lifestyle, comfort, and/or everyday life habits, such as reducing car use, choosing a smaller living space or renouncing meat consumption. The latter types of behaviour, such as investment in energy-efficient or smart-living appliances, only require one single action that has a long-term effect on resource consumption and does not require a change in everyday use behaviour or might reduce comfort. Moreover, we assessed indirect sustainability-relevant behaviour through *support of environmental policies*, given their large decarbonisation potential (Sütterlin et al., 2011), and *engagement in environmental activities* (e.g., taking part in protests), as civic engagement has great social potential to reduce carbon emissions (Alisat & Riemer 2015; Roser-Renouf et al., 2014). Finally, *participation in social activities* was assessed, as this is widely regarded as an important prerequisite for sustainable development (Musch & von Streit, 2020) and as membership in groups can have a major impact on personal sustainable behaviour, for example, through group-specific social norms (Frick et al., 2017).

To explore the *lifestyle preferences* that drive the behaviour of different lifestyles types, the questionnaire comprised items assessing constructs related to different sustainability lifestyles, such as voluntary simplicity, smart living, and lifestyle of health and sustainability (LOHAS), but also other lifestyle preferences that were found to be relevant in other segmentation studies (e.g., privacy) or that were identified as important indicators of needs, values or wellbeing (e.g., hedonism, openness to new experiences) (Steg & Gifford, 2005). The term lifestyle preferences is used as a collective term for preferences relating to different lifestyles. These general preferences were complemented by other psychosocial constructs that were found to be crucial predictors of sustainability-relevant behaviour in social and behavioural research. We included *personal and social norms*, as they reflect the perceived individual and social pressure to act pro-environmentally, and thus affect behaviour as stated by the norm activation theory (Schwartz, 1977) and findings within the sustainability domain (Cialdini & Jacobson, 2021). In addition, we assessed various efficacy beliefs (*self-efficacy*, *collective efficacy*, *personal efficacy*, *outcome efficacy*), which have been shown to have a positive influence on sustainability-relevant behaviour (e.g., Axelrod & Lehman, 1993; Gilg et al., 2005; Chen, 2015). Finally, we examined the strength of individual *pro-environmental identity and social identity* as determinants of environmental behaviour (Dresner et al., 2015; Gatersleben et al., 2014; van der Werff et al., 2013). To complement these constructs with descriptive information, we supplemented the assessment with *socio-demographic variables* ranging from gender over education to elements such as household size, place of residence or sustainability-relevant behaviour related to the workplace.

### *Procedure and Data Analysis*

The segmentation was based on data from a representative online survey in Switzerland. Participants were recruited from an internet panel provided by a commercial sampling service provider (Bilendi Schweiz AG). The final sample of 1,533 people whose data were used for the lifestyle segmentation was representative of the Swiss population and covered the German-speaking (75%) and French-speaking (25%) parts of Switzerland. In the sample, it was controlled for an even distribution of age groups and gender composition. After examining the different items forming the basis of the segmentation by using principal component analysis to see if they could be summarised and reduced, a total of 41 variables/constructs were included (in a standardised format) in the analysis as segmentation variables. Work-related sustainability behaviours were not included as segmentation variables, but were used as descriptive variables, because not all respondents are employed and therefore data related to work is incomplete and cannot be used for segmentation. The segmentation was conducted using a cluster analysis, grouping the variables by means of a hierarchical agglomerative cluster method applying Ward's method and using the squared Euclidean distance as the proximity measure. The agglomeration schedule suggested solutions with five or six groups, whereby the solution



with six groups proved to be more fruitful in terms of both differences in cluster characteristics and group sizes. Furthermore, the segmentation variables differed significantly between clusters and could be meaningfully interpreted. In a last step, we validated our findings of the cluster analysis by means of a discriminant analysis.

### *Identified Sustainability Lifestyle Types*

The cluster solution resulted in six sustainability lifestyle types which are described below.

#### *Humble Environmentalist (26%)*

Humble environmentalists show a high level of sufficiency and efficiency behaviour in the housing and mobility domain as well as at work. They take utmost care to prevent food waste at home, buy food with sustainability labels and are also willing to show some curtailment behaviour (e.g., renounce consumption of meat). Humble environmentalists have highly pronounced altruistic and biospheric values. They see themselves as a pro-environmental person, feel obliged to behave environmentally-friendly, and believe that they can make a positive difference through their environmentally-friendly behaviour. They are also willing to make financial sacrifices reflected in their support of sustainability policies. While they are not particularly interested in technological solutions, they value simplicity and quality. On the same time, however, they have a large living space. Despite living predominantly in urban areas, they tend to be less involved in larger societal and environmental actions, preferring a more contained and private life. This group consists mainly of middle-aged, highly educated women who live alone or in a partnership.

Policy recommendation: Policymakers could engage this lifestyle group by keeping them informed about the topic of sustainability and providing them with action-related knowledge and recommendations (e.g., information about sustainable holidays in Switzerland, exciting recipes for vegan menus, or upcycling shops in the vicinity). In addition, humble environmentalists could be provided with behavioural feedback (e.g., reporting of energy consumption on a regular basis) to visualize the effectiveness of their, for example, energy saving efforts and to motivate continuing and, potentially, increased conservation efforts.

#### *Budget-Conscious Pleasure-Seeker (28%)*

Budget-conscious pleasure-seekers highly value personal enjoyment and self-indulgence. They are very cost-conscious which may be reflected in their moderate sufficiency efforts in the housing domain, their engagement in food management (e.g., use up leftovers), and their low acceptance of sustainability policies with financial implications. Their eating habits at home and at work are conventional, with average meat consumption and little interest in meat substitutes or the conscious avoidance of animal products. Moderately open-minded, they show no interest in new technological solutions nor in participating in social activities in their neighbourhood. In general, they show low efforts to engage in pro-environmental behaviour, as they do not feel obliged to behave in a sustainable way and do not care about conscious consumption. However, besides the car they also use public transport or go by bike, which may be due to the fact that this segment is predominantly young and has a low to medium income. The level of education of this segment is low to medium.

Policy recommendation: This lifestyle group could be targeted by policy makers through price incentives such as deposit refund schemes and subsidies, or through government advice on energy saving opportunities that result in financial savings, but do not involve changes in daily consumption behaviour or interfere with their pleasure-oriented lifestyle (e.g., efficiency measures).

#### *Indifferent Hedonist (7%)*

Indifferent hedonists are the least invested in sustainable behaviour. Mainly concerned with personal enjoyment of life, they are not interested in conscious consumption neither at home nor at work and they are strongly opposed to any form of restrictive regulation that might affect their current way of living.



They show little openness to new experiences or new challenges. While they do not feel obliged to act pro-environmental, they perceive their ability to engage in effective environmentally-friendly behaviour as low and they lack the belief that people, in general, can bring about environmental change through pro-environmental behaviour. Having a low social and environmental identity, they remain largely detached from community and environmental engagement. They are heavy car users and are reluctant to use environmentally-friendly means of transport. However, they are generally less on the move than the other segments and also fly less. Their satisfaction with life is mediocre. Overall, they are comparatively more strongly represented in rural and intermediary areas, they are middle-aged, have a modest level of education and income, and are less willing to adopt new work practices such as home office or co-working.

Policy recommendation: Policy makers could address this lifestyle group through media campaigns addressing their hedonistic orientation, for example, by highlighting increased riding enjoyment and comfort when using an E-Bike or an E-Car. Furthermore, given that they do not feel obliged to engage in sustainable behaviour, regulatory instruments would be of use, such as the introduction of environmental quality or emission standards but also nudging strategies (focussing on decision structure or assistance).

#### *Socially Connected Techie (10%)*

Socially connected techies are open minded with a marked interest in technological solutions, including smart applications at home. They aim to maintain a good work-life balance and are socially well connected. Furthermore, it is important to them how they are perceived by others. Accordingly, they are strongly involved in society and take part in activities for the environment. With regard to sustainable behaviour, however, they are rather unwilling to behave sufficiently, for example, to carefully control the heating and washing temperature. Open to new experiences, they are willing to break new ground. This is reflected in their high and multimodal mobility, characterized by travelling by public transport and bike but also frequent flights, and their car use, driving electric or hybrid cars. It also shows in their trying of alternatives to conventional food, their occasional use of sharing options, and their adoption of home office and co-working practices. However, their satisfaction with life is rather moderately pronounced. Overall, socially connected techies are young, predominantly male, have a small living space, a moderate income and a high education or are still in training.

Policy recommendation: This lifestyle group could be targeted by policy makers through opinion leaders, e.g., through peer group marketing on social media where innovative vegetarian or vegan recipes are showcased or by subsidising combined offers for various environmentally-friendly forms of mobility, for example, by including the use of e-scooters in train tickets.

#### *Frugal Traditionalist (23%)*

These individuals are not very open for new experiences and prefer traditional over new innovative and technological options. They live a rather frugal life, do not care about social status and possession and are not eager to participate in social activities. Although they believe that their behaviour as individuals and as part of society can make a positive difference, their energy-saving behaviour is rather low and somehow inconsistent. They moderately engage in pro-environmental behaviour in terms of sufficiency at home and at work, but they are hardly willing to buy products made from recycled materials. Their food management is very considerate, but they rarely share leftovers and are not very willing to renounce from certain food products. Given their rather reduced mobility behaviour, they tend to spend time at home in their large living space. But if they are on the road, they clearly prefer to use the car. Overall, they rarely fly, consume little meat, and support pro-environmental policies even if they involve a financial effort. They are middle-aged, have a middle to high level of education and a moderate income.

Policy recommendation: Policy makers could target this lifestyle type through information campaigns, explaining the benefits of efficient household appliances, or pointing out the cycle network in the area and the advantages of using a bicycle rather than a car for short journeys.





### *Sustainable Lifestyle Optimizer (6%)*

These individuals are very involved in the topic of sustainability and are constantly optimizing their environmental impact by drawing on innovative and technological as well as conventional behavioural options. They show high engagement in terms of sufficiency, efficiency, smart home appliances, circular economy, and sharing but also in terms of indirect pro-environmental behaviour (i.e., acceptance of policies and environmental action) at home and at work. However, despite their environmental consciousness, they fly frequently. They are very open-minded, which is reflected in a strong interest in new technologies, a high level of mobility, openness for a variety of diets (e.g., meat replacements), and high activity within the community. They spent a lot of time in green spaces and are characterized by a high satisfaction with life and subjective wellbeing. Given their strong personal norms regarding environmental behaviour, as well as their aspirations for a high social status and cost-consciousness, their motives appear to be driven by a desire for optimisation and not purely by idealism. Generally well educated, they represent the highest income group.

Policy recommendation: This lifestyle group could be targeted by policy makers with information on the benefits of changing behaviour, such as the advantages of staying in the country for holidays or supporting popular social events such as the “Critical Mass” cycling event.

## **3 Conclusion**

For the development of the lifestyle typology, we combined sociological with behavioural and (social) psychological approaches and methodologies within an interdisciplinary approach. Doing so, differences in terms of sustainability-relevant behaviour become recognizable as characteristic features of socio-cultural groups. The results highlight the importance of including behavioural, behaviour-related attitudes and beliefs as well as psychographics into the segmentation and to differentiate between type of behaviour, domain, and context.

We analysed a wide range of behavioural and attitudinal variables to distinguish different lifestyle types with regard to their engagement in sustainability-relevant behaviours and to draw conclusions on how to approach these groups. As expected, parts of our typology reflect and expand earlier findings in the literature on consumer segmentation. For example, similar types as the socially connected techie, the indifferent hedonist or the frugal traditionalist also emerged in previous studies. However, we refined these insights by providing differentiated information about behavioural types, domains, and contexts. What is particularly interesting, is the absence of a pure idealist. None of the lifestyle types holds strong environmentally-friendly and selfless attitudes and consistently exhibit environmentally-friendly behaviour across all behavioural types, domains, and contexts. Even the humble environmentalist only partially fits this description. Thus, either the inclusion of more differentiated and comprehensive behavioural and psychosocial variables reveals that the pure idealist does not exist, or this type is only little represented and absorbed by the other types. Another interesting result is the emergence of the sustainable lifestyle optimizer. This type represents a new group of individuals - that of the hip, open-minded, multimodal performers who embrace sustainable behaviour as a 'new standard of living' (or lifestyle trend), but still have self-serving preferences that lead, for example, to frequent flying. This behaviour may be a result of the recent integration of the topic of sustainability into the daily reality of society. In conclusion, the segmentation study provides clear insights into different lifestyles and highlights the importance of including both behavioural and attitudinal factors, as it is the combination of both that provides such a detailed picture. Finally, in the light of these differences between lifestyle types, we suggest that interventions to foster sustainable behaviour indeed benefit from a targeted approach to motivate individuals to act in a sustainable way.



## 4 References

- Alisat, S., & Riemer, M. (2015). The environmental action scale: Development and psychometric evaluation. *Journal of Environmental Psychology*, 43, 13–23.  
<https://doi.org/10.1016/j.jenvp.2015.05.006>
- Axelrod, L. J., & Lehman, D. R. (1993). Responding to environmental concerns: What factors guide individual action? *Journal of environmental psychology*, 13(2), 149-159.
- Axsen, J., TyreeHageman, J., & Lentz, A. (2012). Lifestyle practices and pro-environmental technology. *Ecological Economics*, 82, 64-74.
- Becken, S. (2007). Tourists' perception of international air travel's impact on the global climate and potential climate change policies. *Journal of sustainable tourism*, 15(4), 351-368.
- Cialdini, R. B., & Jacobson, R. P. (2021). Influences of social norms on climate change-related behaviors. *Current Opinion in Behavioral Sciences*, 42, 1–8.  
<https://doi.org/10.1016/j.cobeha.2021.01.005>
- Chen, M. F. (2015). Self-efficacy or collective efficacy within the cognitive theory of stress model: Which more effectively explains people's self-reported proenvironmental behavior? *Journal of Environmental Psychology*, 42, 66-75.
- Dresner, M., Handelman, C., Braun, S., & Rollwagen-Bollens, G. (2015). Environmental identity, pro-environmental behaviors, and civic engagement of volunteer stewards in Portland area parks. *Environmental Education Research*, 21(7), 991–1010.  
<https://doi.org/10.1080/13504622.2014.964188>
- Frick, V., Seidl, R., Stauffacher, M., & Moser, C. (2017). Promoting energy-saving behaviour: formal social groups as promising middle actors for municipal interventions. *Energy Efficiency*, 10(6), 1539–1551. <https://doi.org/10.1007/s12053-017-9543-2>
- Gardner, G. T., & Stern, P. C. (1996). *Environmental problems and human behavior* (pp. 205-252). Pearson Custom Publishing, Boston, MA (2002)
- Gatersleben, B., Murtagh, N., & Abrahamse, W. (2014). Values, identity, and pro-environmental behaviour. *Contemporary Social Science*, 9(4), 374–392.  
<https://doi.org/10.1080/21582041.2012.682086>
- Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, 37(6), 481-504.
- Holmes, M. R., Dodds, R., & Frochot, I. (2021). At home or abroad, does our behavior change? Examining how everyday behavior influences sustainable travel behavior and tourist clusters. *Journal of Travel Research*, 60(1), 102-116.
- Hunecke, M., Haustein, S., Grischkat, S., & Böhler, S. (2007). Psychological, sociodemographic, and infrastructural factors as determinants of ecological impact caused by mobility behavior. *Journal of Environmental Psychology*, 27(4), 277-292.
- Musch, A.-K., & von Streit, A. (2020). (Un)intended effects of participation in sustainability science: A criteria-guided comparative case study. *Environmental Science & Policy*, 104, 55–66.  
<https://doi.org/10.1016/j.envsci.2019.10.004>





- Ohnmacht, T., Götz, K., & Schad, H. (2009). Leisure mobility styles in Swiss conurbations: construction and empirical analysis. *Transportation*, 36(2), 243–265. <https://doi.org/10.1007/s11116-009-9198-8>
- Prillwitz, J., & Barr, S. (2011). Moving towards sustainability? Mobility styles, attitudes, and individual travel behaviour. *Journal of transport geography*, 19(6), 1590-1600.
- Roser-Renouf, C., Maibach, E. W., Leiserowitz, A., & Zhao, X. (2014). The genesis of climate change activism: from key beliefs to political action. *Climatic Change*, 125(2), 163–178. <https://doi.org/10.1007/s10584-014-1173-5>
- Schwartz, S. H. (1977). Normative Influences on Altruism. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 10, pp. 221–279). Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60358-5](https://doi.org/10.1016/S0065-2601(08)60358-5)
- Seidl, R., Moser, C., & Blumer, Y. (2017). Navigating behavioral energy sufficiency. Results from a survey in Swiss cities on potential behavior change. *PloS one*, 12(10), e0185963.
- Steg, L., & Gifford, R. (2005). Sustainable transportation and quality of life. *Journal of transport geography*, 13(1), 59-69.
- Sütterlin, B., Brunner, T. A., & Siegrist, M. (2011). Who puts the most energy into energy conservation? A segmentation of energy consumers based on energy-related behavioral characteristics. *Energy Policy*, 39(12), 8137–8152. <https://doi.org/10.1016/j.enpol.2011.10.008>
- Sweeney, J. L., Socolow, R. H., Ruttan, V. W., Dietz, T., & Stern, P. C. (Eds.). (1997). *Environmentally significant consumption: Research directions*.
- Thøgersen, J. (2017). Housing-related lifestyle and energy saving: A multi-level approach. *Energy Policy*, 102, 73–87. <https://doi.org/10.1016/j.enpol.2016.12.015>
- Thøgersen, J. (2018). Transport-related lifestyle and environmentally-friendly travel mode choices: A multi-level approach. *Transportation Research Part A: Policy and Practice*, 107, 166–186. <https://doi.org/10.1016/j.tra.2017.11.015>
- Whitmarsh, L. E., Haggard, P., & Thomas, M. (2018). Waste reduction behaviors at home, at work, and on holiday: What influences behavioral consistency across contexts? *Frontiers in Psychology*, 9, 417854.
- van der Werff, E., Steg, L., & Keizer, K. (2013). The value of environmental self-identity: The relationship between biospheric values, environmental self-identity and environmental preferences, intentions, and behaviour. *Journal of Environmental Psychology*, 34, 55–63. <https://doi.org/10.1016/j.jenvp.2012.12.006>
- Xu, F., Huang, L., & Whitmarsh, L. (2020). Home and away: Cross-contextual consistency in tourists' pro-environmental behavior. *Journal of Sustainable Tourism*, 28(10), 1443-1459.



## Appendix

*Table 1: Means of Segmentation Variables of each Sustainability Lifestyle Type*

	Humble Environmentalist	Budget-Conscious Pleasure-Seeker	Indifferent Hedonist	Socially Connected Techie	Frugal Traditionalist	Sustainable Lifestyle Optimizer
Conscious consumption	3.896b	2.926d	2.321e	3.493c	3.401c	4.309a
Interest in new technology	2.157c,d	2.292c	2.658b	3.265a	2.034d	3.401a
High standard of living	3.678b	3.574c	3.646b,c	3.753b	3.418d	4.069a
Social consciousness	3.219b	2.537d	2.518c,d	3.338b	2.714c	3.849a
Health consciousness	4.248b	3.831c	3.405d	3.762c	3.777c	4.552a
Pref. for privacy	4.605a	4.491b,c	4.36c	3.967d	4.388c	4.589a,b
Material simplicity	3.777b	3.574c	3.081d	3.391c,d	3.563c	4.083a
Ressource simplicity	3.646b	3.157c	2.919d	3.523b	3.03c,d	4.24a
Work-life balance	3.301b,c	3.065d	2.658e	3.523a,b	3.121c,d	3.729a
Price consciousness	3.823a,b	3.942a	3.536c	3.646b,c	3.668b,c	3.953a
Openness	3.616b,c	3.477c,d	3.333d,e	3.705b	3.122e	4.266a
Social status	2.581b	2.588b	2.52b,c	3.311a	2.356c	3.385a
Hedonism	3.215b	3.812a	3.856a	3.659a	3.204b	3.661a
Home sufficiency behaviour	4.073a	3.547b	2.815c	3.45b	3.539b	4.215a
Home efficiency behaviour	3.954b	2.977d	2.311e	3.132c,d	3.241c	4.307a
Use of smart home technology	2.592c	2.038d	1.811d	3.043b	1.957d	3.672a
Sharing of goods/rooms	2.29c	1.976d	1.662e	2.877b	1.76e	3.391a
Purchase of recycled goods	3.281b	2.532c	1.982d	3.152b	2.601c	3.812a
Living space (m <sup>2</sup> /HH member)	56.842a	51.285a	51.225a	42.498a	62.549a	45.841a
Food curtailment behaviour	2.725b	2.105d	1.562e	2.715b	2.471c	3.396a
Food product choice	3.583b	2.779e	2.078f	3.035d	3.216c	3.806a
Food management	4.477a	4.115b	3.426c	3.638c	4.165b	4.378a
Food sharing behaviour	2.58c	2.01d	1.757e	2.864b	1.813e	3.203a
Meat consumption (portions/mth)	12.42c	15.153b	16.613b	39.656a	12.598c	15.062b,c
Meat/milk replacement consumption (portions/mth)	6.922b	4.644c	3.892b,c	27.894a	6.695b,c	20.896a
Collective efficacy	3.492b	2.49e	2.027f	3.333c	2.965d	4.167a
Self-efficacy	3.984b	3.2e	2.697f	3.382d	3.537c	4.319a
Personal/outcome efficacy	4.306a	3.325d	2.533e	3.505c	3.914b	4.427a
Neighbourhood identity	3.266b	2.692e	2.411d	3.245b	2.955c	4.038a
Proenvironmental identity	4.105b	3.127d	2.514e	3.536c	3.612c	4.535a
Personal norm	3.762a	2.545c	1.842d	3.245b	3.177b	3.956a
Social norm	3.323b	2.576d	2.045d	3.232b	2.863c	3.927a
Mobility sufficiency behaviour	3.609a	3.161b	2.613c	3.18b	3.196b	3.495a
Use frequency of cars (times/y.)	143.018c	206.954b	295.459a	215.861b	211.931b	190.979b,c
Use frequency of public trans. (times/y.)	154.752a	116.775b	31.748d	144.887a,b	90.316c	117.375a,b,c
Use frequency of (e-)bikes	92.486a,b	75.234b	19.937c	105.391a,b	32.534c	133.667a
Flight frequency (flights/year)	1.21b	1.419b,c	1.036a,b	1.669c	0.819a	1.542b,c
Policy support	3.879a	3.031d	2.515e	3.236c	3.614b	3.85a
Social cohesion (events/year)	2.423a,b	1.299c	1.252b,c	3.046a	1.264c	4.964a
Environmental action	1.45b	1.179c	1.198c	2.751a	1.209c	2.802a
Raising awareness	1.914b	1.359c	1.387c	3.046a	1.437c	3.26a

Note: Different letters indicate significant differences between particular sustainability lifestyle types,  $p < 0.05$ , using the Games–Howell post-hoc test. Answers for lifestyle preferences and psychosocial behavioural drivers were assessed on a Likert-scale ranging from 1 (does not apply) to 5 (does apply). Engagement in behaviours related to sufficiency, efficiency, smart living, sharing, circular economy, product choice, and food management was measured using a frequency scale ranging from 1 (never) to 5 (always). Living space was assessed in m<sup>2</sup>. Food frequency related to meat and replacements was measured on a frequency scale ranging from 1 (I never/rarely eat this) to 9 (4 or more portions per day), was converted to portions per month and, subsequently, the monthly portions were summed up per product category (meat: beef, poultry, pork; replacement: meat replacement, milk replacement). Mobility frequency was assessed asking participants to indicate the use frequency of the means of transport in the last 6 months using a scale ranging from 1 (never) over 4 (1-2 times a week) to 6 ((almost) daily) and subsequently calculating use frequency (use number) per year. Flight frequency was measured as number of flights in the last 12 months (outbound and return flights counted as one flight). Environmental action and raising awareness were assessed on a frequency scale ranging from 1 (never) to 5 (very frequently), policy support on a scale ranging from 1 (against) to 5 (in favour), and social cohesion as the number of participation/involvement in neighbourhood events in the last 12 months.



*Table 2: Sociodemographics of each Sustainability Lifestyle Type*

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
<b>Gender</b>						
Female	58%	52%	41%	38%	53%	49%
Male	42%	48%	59%	62%	47%	51%
<b>Age (in years)</b>						
	49.09	43.51	44.71	35.80	49.45	48.43
<b>Region</b>						
Urban	67%	62%	46%	65%	56%	60%
Intermediate	17%	20%	32%	20%	22%	19%
Rural	16%	18%	22%	15%	22%	21%
<b>Income Class</b>						
Below CHF 3'000	13%	15%	14%	15%	9.5%	8.4%
CHF 3000-7000	42%	43%	45%	36%	48%	39%
CHF 7000-11000	26%	30%	33%	33%	29%	31%
CHF 11'000-15'000	13.3%	8.5%	4.5%	10.7%	10.3%	14.8%
Above CHF 15'000	5.6%	4.2%	3.6%	5.3%	3.2%	7.4%
<b>Education</b>						
No complete education	0.3%	0%	0%	0.7%	0%	0%
Compulsory school (primary, secondary, district school)	5.1%	8.6%	11%	11%	3.7%	6.3%
General Education without Baccalaureate (Vocational intermediate schools, specialized (intermediate) school or similar)	2.3%	2.3%	1.8%	2.0%	3.2%	5.2%
Vocational Education and Training (VET) (Vocational school, commercial apprentice- ship, business school or similar)	32%	46%	49%	36%	45%	36%
Baccalaureate Schools	14%	11%	5.4%	12%	11%	11%
Higher vocational education (with federal vocational certificate, with federal diploma/ master's diploma), higher technical college (HTL, HWV, HFG, HFS, higher technical college for technology TS, for economics HKG)	13%	16%	15%	13%	16%	13%
Bachelor's Degree	13%	6.7%	12%	15%	11%	11%
Master's Degree	16%	7.9%	5.4%	8.6%	8.9%	16%
Doctorate/Habilitation	3.5%	1.2%	0.9%	1.3%	1.1%	1%
<b>Language Region</b>						
German	288 (73%)	341 (79%)	86 (77%)	104 (69%)	272 (78%)	63 (66%)
French	107 (27%)	91 (21%)	25 (23%)	47 (31%)	76 (22%)	33 (34%)



*Table 3: Work-Related Characteristics of each Sustainability Lifestyle Type*

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
Employed (% of cluster)	66.33%	68.99%	<b>81.98%</b>	76.82%	66.09%	70.83%
Training (but not employed)	3.54%	5.56%	0.90%	<b>11.92%</b>	3.74%	2.08%
Co-Working (days per year)	17.36	15.20	12.22	<b>44.75</b>	20.77	<b>45.12</b>
Home Office (% of working time)	22.54%	18.69%	13.54%	<b>24.65%</b>	18.11%	<b>25.81%</b>
<b>Behaviour at Work</b>						
Sufficiency behaviour	<b>4.23a</b>	3.61b	2.93c	3.60b	3.75b	<b>4.43a</b>
Sust. product choice	3.70b	2.52e	1.87f	3.38c	3.16d	<b>4.28a</b>

Note: Different letters indicate significant differences between particular sustainability lifestyle types,  $p < 0.05$ , using the Games–Howell post-hoc test. Behaviour at work was measured using a frequency scale ranging from 1 (never) to 5 (always). Highest values in bold.

*Table 4: Additional Mobility-Related Characteristics of each Sustainability Lifestyle Type*

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
Conventional car use (times per year)	117.52	182.45	<b>268.75</b>	146.40	174.15	134.45
ECar use (times per year)	11.97	10.71	12.44	<b>30.66</b>	16.28	20.25
Hybrid car use (times per year)	13.53	13.80	14.27	<b>38.81</b>	21.50	<b>36.28</b>
EScooter use (times per year)	6.96	7.46	14.57	<b>24.97</b>	2.29	14.32

Note: Highest values in bold.

*Table 5: Values of each Sustainability Lifestyle Type*

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
Altruistic values	<b>4.13a</b>	3.77b	3.41c	3.70b	3.85b	<b>4.20a</b>
Biospheric values	<b>4.34a</b>	3.64c	3.05d	3.65c	4.01b	<b>4.45a</b>
Hedonistic values	<b>3.89a</b>	<b>3.99a</b>	<b>3.87a,b</b>	3.69b	3.71b	<b>3.90a,b</b>
Egoistic values	2.68c	2.89b	2.95a,b	<b>3.18a</b>	2.56c	<b>3.17a</b>

Note: Different letters indicate significant differences between particular sustainability lifestyle types,  $p < 0.05$ , using the Games–Howell post-hoc test. Answers were assessed by asking to indicate the importance of the listed values as guiding principle in life on a scale ranging from 1 (not important) to 5 (extremely important). Highest values in bold.



**Table 6: Household-/Home-Related Characteristics of each Sustainability Lifestyle Type**

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
<b>Household Type</b> (% of cluster)						
Single person	<b>25%</b>	20%	22%	15%	<b>24%</b>	18%
Single parent	5.6%	6.3%	8.1%	6.0%	5.2%	5.2%
Couple without kids	35%	33%	32%	23%	34%	33%
Couple with kids	23%	29%	32%	39%	29%	36%
Adult living with parents	7.1%	7.4%	3.6%	<b>14%</b>	4.1%	6.3%
Flat Share	4.3%	3.9%	1.8%	3.3%	3.5%	1.0%
<b>Home Ownership</b> (% of cluster)						
Tenant	61%	68%	<b>74%</b>	<b>70%</b>	61%	47%
Owner	37%	28%	26%	28%	35%	<b>51%</b>
Living in a housing cooperation	2.5%	<b>3.9%</b>	0%	2.6%	<b>4.0%</b>	2.1%

Note: Highest values in bold.

**Table 7: Time Spent in Green Areas of each Sustainability Lifestyle Type**

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
Around residential building (days per year)	172.57b	157.55b,c	122.93c	157.85b,c	150.62b,c	<b>222.84a</b>
In neighbourhood (days per year)	145.87b	132.26b	106.70b	149.09a,b	133.96b	<b>194.56a</b>
In city/municipality (days per year)	151.15a,b,c	118.90c	115.98a,b,c	152.95a,b,c	128.46b,c	<b>193.07a</b>

Note: Different letters indicate significant differences between particular sustainability lifestyle types,  $p < 0.05$ , using the Games–Howell post-hoc test. Highest values in bold.

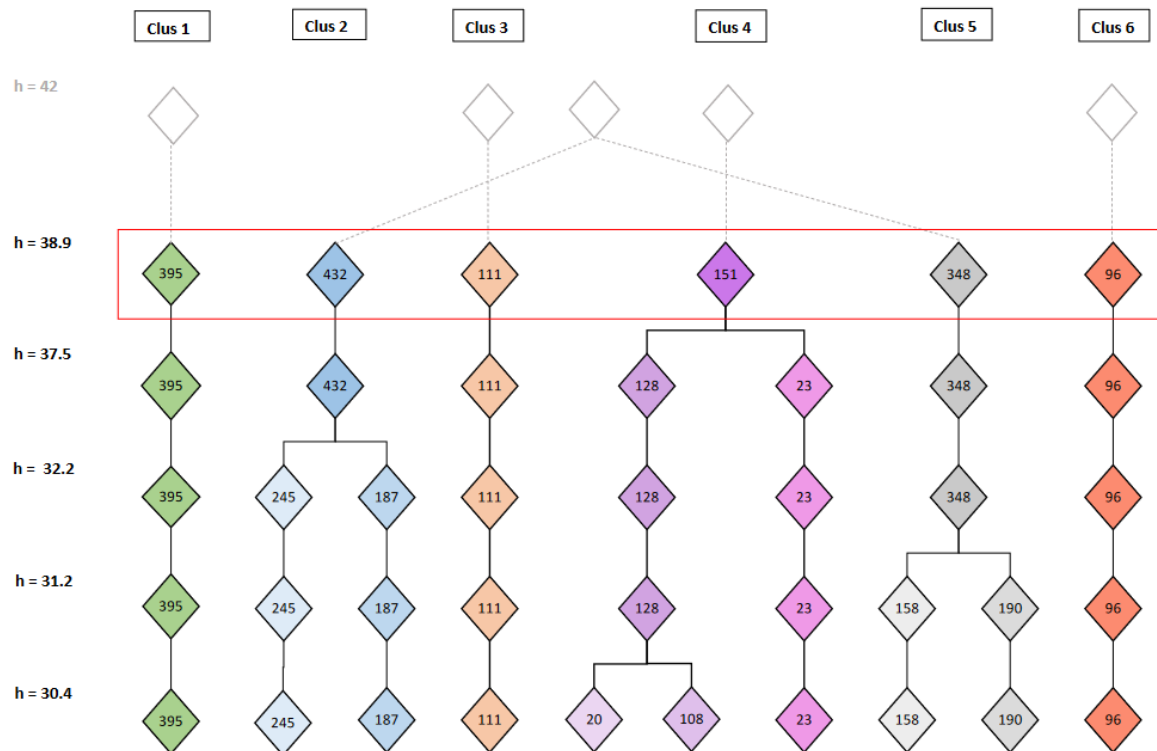
**Table 8: Wellbeing-Related Variables and Concepts of each Sustainability Lifestyle Type**

	Humble Environmentalist (N=395)	Budget-Conscious Pleasure-Seeker (N=432)	Indifferent Hedonist (N=111)	Socially Connected Techie (N=151)	Frugal Traditionalist (N=348)	Sustainable Lifestyle Optimizer (N=96)
Satisfaction with life	5.13b	4.74c	4.60c	4.67c	4.95b,c	<b>5.62a</b>
Satisfaction with life in neighbourhood	5.39b	4.95c	4.65c	4.83c	5.18b	<b>5.89a</b>
Cantril Ladder	7.06a,b	6.72b	6.53b	7.01a,b	7.00b	<b>7.57a</b>
<b>Need satisfaction</b>						
Health	5.38b	5.28b	5.17b	5.34b	5.37b	<b>5.82a</b>
Participation	4.37b	3.91c	3.81c	4.57b	3.98c	<b>5.25a</b>
Autonomy	<b>5.67a</b>	5.48a	5.38	5.06b	5.46a	<b>5.69a</b>

Note: Different letters indicate significant differences between particular sustainability lifestyle types,  $p < 0.05$ , using the Games–Howell post-hoc test. Answers for satisfaction in life in general and in neighbourhood were assessed on a scale from 1 (does not apply at all) to 7 (does completely apply). For the Cantril Ladder, answers were indicated on a scale ranging from 1 (worst possible life) to 10 (best possible life). Satisfaction with health was assessed on a scale ranging from 1 (very bad) to 7 (very good) and satisfaction with participation and autonomy was measured on a scale from 1 (very low) to 7 (very high). Highest values in bold.



## Analytic Clustering Steps



*Figure 1:* Excerpt from the dendrogram used for clustering the individuals. The letter h indicates the height of a link at which two clusters were first merged, representing the cophenetic distance between the two subclusters that are merged by that link. Thus, the height indicates the (dis)similarity/distance between two clusters (The higher the height of the fusion, the less similar the clusters). The final number of clusters used in our analysis is 6, which was achieved at a height of h=38.9. The numbers in the squares indicate the number of individuals assigned to each cluster.