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# LEXAT - Legitimate Expectations and Austria's Transformation to a Low-Carbon Society and Economy

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### Introduction

With the ratification of the Paris Agreement, Austria has committed itself to the realization of a low-carbon or even carbon-free society. The transition toward an emission-free economy will require drastic changes. These changes will not only alter the Austrian economy but are likely to radically affect people's lives, touching basic aspects of daily living from diet to housing, professional life and mobility. More specifically, the required economic and political changes are likely to frustrate the expectations that Austrian citizens have regarding the various aspects of the kind of life they will live. While some of these expectations may be ethically and legally irrelevant, others will be ethically and legally significant and, in this sense, legitimate. The aim of the project is to identify and analyze the set of legitimate, important expectations of Austrian citizens that are likely to get frustrated during the transition to a low-carbon society. By taking into account both the ethical, legal and economic perspective, this will enable us to formulate a set of policy recommendations that aim to minimize the frustration of Austrian's legitimate expectations.

Carbon footprint of Austrian household	Expectations	Legitimacy/ Importance	Transition pathways
0.0 10.0 20.0 30.0	<ul> <li>To be able to choose one's dietary composition</li> <li>To be able to choose the amount of money that is spent on food</li> <li>To be able to choose the supply network of food products</li> </ul>	yes/high 	-
Food and non-alcoholic beverages	<ul> <li>To have a similar supply network of food products</li> </ul>		
Alcoholic beverages, tobacco and	<ul> <li>To have the same variety of food products to choose from</li> <li>To have the option to grow your own food <sup>(2)</sup></li> </ul>	yes/low	+
Clothing and footwear	•		
Furnishings, household equipment	Maintenance and repair of dwellings:	<u>e</u>	Ū
Health	<ul> <li>To be able to choose how and when to refurbish my home</li> <li>To be able to choose how and when to change the heating system</li> <li>Electricity, gas and other fuels: <ul> <li>To have the same thermal comfort at home</li> <li>To be able to choose the size of one's home</li> <li>To be able to choose the kind of housing (flat, single-/multifamily house)</li> <li>To be able to afford heating and electricity</li> </ul> </li> </ul>	at	at
Housing, water, electricity, gas and			
Communication		a Va	a Va
Recreation and culture			
Education			



Figure 1. Methodological approach of deriving a set of (legitimate) expectations, their (potential) importance and frustration in (different) low-carbon transition pathways.

## Method

In order to identify those expectations among Austrian citizens that are likely to get frustrated during the transition period and that are, furthermore, legitimate and important, the first required step is to identify what expectations people in Austria actually have. In the absence of empirical data that could inform this step, our current analysis is based on the carbon footprint of the average Austrian citizen. Given the aim for practically relevant policy recommendations, we are complementing this with an empirically informed approach. To do so, we have initiated a collaboration with sociologists who are already in the field investigating environmental attitudes of Austrian citizens. This twofold approach will allow us to not only stipulate but also empirically validate the relevant set of expectations likely to be affected during the transition to a low carbon society. Specific transition pathways for the evaluation of frustrated expectations will be developed, using the concept of energy related functionalities (cf. [1]) implemented in a macroeconomic modelling framework based on [2,3]. The concept of functionalities allows rethink the energy chain towards energy services being the ultimate reason for activities and to identify different types of provision and technology options. For example, serving the functionality of access, one could use individual passenger transport or use digital communication technology.

#### Tentative Results and Outlook

As a first indication of individual burden, we attributed carbon footprints and emission intensities of consumption to income quartiles [4]. Although we find the emission level of the highest income group to be more than four times the level of the lowest income group, the emission intensity of consumption (CO2 per € spent) is decreasing with higher income. This indicates towards a relatively stronger mitigation burden for lower income households, not yet considering the specific policy design. Finalising the steps as described in "methods", in the next half of the project, we aim to determine citizen clusters based on the different important and legitimate expectations.

that Austrian citizens have. Mapping these clusters onto the various transition pathways will allow us to specify how different groups within the Austrian society will be affected by the transitional changes and, based on this, to formulate policy recommendations to minimize the frustration of legitimate expectations.

#### References

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