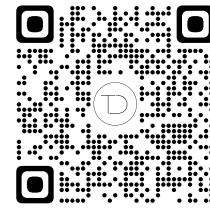


# RECONFIGURING TRAVEL PATTERNS

## A PATTERN LANGUAGE

Thomas van Daalhuizen  
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catalogue

### Introduction

Urban challenges are often characterised by their complexity, making them difficult to understand and address effectively. These challenges are also known as wicked problems (Rittel & Webber, 1973) and require innovative approaches that take into account the complex relationships of various factors. One such approach is the utilisation of the pattern language. 'Reconfiguring Travel Patterns' has been specifically created for sustainable mobility transitions in the old mine district of Limburg in Belgium and the Netherlands.

### What is a Pattern Language?

A pattern language is a method for describing good design practices for a particular problem field, such as addressing mobility transitions in cross-border regions. It is a set of interconnected patterns cards, each of which describes a specific problem and a solution that can be applied in a variety of contexts (Alexander et al., 1977). By creating a pattern language a very complex transition can be broken up into small design interventions that are easily understandable. Each pattern language can be tailored to the goal or vision of the project. The thought behind a pattern language is that the patterns cards can be used to create a coherent and holistic design, rather than just a collection of isolated solutions (Jacobs, 1992). Taking into consideration the built environment, social dynamics, and governance structures. Using a pattern language will help policy makers, urban planners and even citizens to simplify and unpack urban challenges and address them.

### The development of 'Reconfiguring Travel Patterns'

The pattern language is based on theory and a comprehensive analysis of the cross-border region, in this case the old mine district in Limburg in Belgium and the Netherlands. Various types of analysis were done including land use distribution, transport network analysis, policy and governance analysis, and social network analyses. Besides that, interviews with passenger organisations helped to better ground the patterns in the existing context.

All these insights form the basis for developing patterns that reflect the unique characteristics and challenges of this cross-border regions in relation to a mobility transition. The analysis led to the creation of four different categories that group the 29 possible interventions (patterns) that can contribute to realising a mobility transition:



*Using a pattern language is like playing a game. The players, also known as the stakeholders, each have all the patterns in their hand before playing them in the most valuable order. Once a pattern is played it will become part of an active 'deck', still being influential as other patterns will be played after it. Eventually creating the pattern language for a mobility transition.*

1. Governance and Policy
2. Networks and Infrastructure
3. Embracing Heritage (of the Mines)
4. Regenerating the Garden City

The patterns address challenges such as developing new transportation infrastructure, diversifying land use planning, policy integration, actively engaging stakeholders, community building and reconnecting with the lost identity of the region.

### Utilising a Pattern Language: Perspectives of Policy Makers and Citizens

Pattern languages offer valuable tools for stakeholders to navigate the complexities of mobility transitions in cross-border regions. Two types of stakeholders will be used as an example: policy makers and citizens.

From a policy maker's perspective, 'Reconfiguring Travel Patterns' provides a structured approach to understanding and addressing mobility challenges. It facilitates the analysis of diverse factors, enabling policy makers to identify priority areas, formulate effective policies, and allocate resources strategically. Pattern languages also serve as powerful communication tools, allowing policy makers to convey the vision and impact of proposed interventions to stakeholders in a clear and accessible manner. By breaking down complex challenges into manageable components, policy makers can engage stakeholders effectively, create support, and foster collaborative decision-making processes.

Citizens, on the other hand, can benefit from the pattern language by having a clearer understanding of the impact of mobility transitions on their lives. Pattern languages provide citizens with a means to voice their concerns, insights, and aspirations regarding transportation systems and neighbourhood development. By breaking down complex issues into smaller, more tangible patterns, citizens can comprehend the implications of proposed interventions and actively participate in decision-making processes. Workshops, discussions, participatory events, and co-creation initiatives guided by individuals familiar with the pattern language approach can create opportunities for citizen engagement and enable their contributions to the development of pattern languages. This inclusive approach ensures that the resulting patterns reflect the needs and aspirations of the community, leading to more equitable and sustainable outcomes.

### Adding to the pattern language

In addition to utilising existing the existing patterns, stakeholders can and should play an active role in creating their own patterns based on their lived experiences. By drawing on their knowledge and insights, anyone can identify patterns that highlight the unique challenges and opportunities in their communities. The contribution of any stakeholder is crucial in shaping a pattern language that captures the diverse perspectives and concerns of all involved stakeholders ranging from local communities to business and governmental bodies. I therefore invite anyone to add to this pattern language. You can make a pattern by following three easy steps. The first one is to write down the problem and link it to

a solution that would contribute to a mobility transition. The second step involves thinking about the practical implications of using that pattern. Ask yourself question like 'What would be the impact on space?' or 'What policies have to be implemented to support this pattern?'. You can even address which stakeholders are responsible for implementing the pattern you created. The last step involves grounding it in the existing pattern language. Find other patterns that have similar goals or that can be used simultaneously to strengthen one another. These patterns are the connections and show where the pattern fits in the pattern language. Just as any conventional language a pattern language is ever changing and should adapt to the current time and trends. Creating new patterns during the transition is therefore crucial to keep it up to date.

Through participatory processes, stakeholders can engage in discussions, workshops, and co-creation initiatives to refine and expand their patterns. This collaborative approach fosters ownership, empowerment, and a sense of collective responsibility for shaping the stakeholders' built environment.

The template in the pattern catalogue can be used to create new patterns and can help guide the process.

### Conclusion

The 'Reconfiguring Travel Patterns' pattern language offers a powerful approach to addressing the complex challenges of mobility transitions in cross-border regions. By breaking down these challenges into manageable components, pattern languages provide a structured framework for policy makers and citizens to navigate and understand the intricacies of urban problems. It allows stakeholders to formulate effective strategies and empower them to actively participate in the shaping of their built environment. Not only can a pattern language contribute to the process from a design perspective, also in terms of communication it is a useful tool that can help to create a sustainable, inclusive and just multimodal network.

### Want to know more?

Have a look at the thesis report 'Reconfiguring Travel Patterns' as well as the pattern catalogue that can explain more on how the theory and analysis led to the patterns. The original book "A Pattern Language: Towns, Buildings, Construction" by Christopher Alexander et al. (1977) serves as the foundational text on pattern languages, and provides comprehensive insights into the concept and its practical applications. Additionally other pattern languages such as the Cities of Making (Hill, 2020) can give more insight in the use of patterns for other specific urban challenges.