

## Contents

Executive summary		4
Conter	nts	8
Figures		
1 Pr	eface	13
1.1	On this document	13
1.2	The LivingRAIL Project	13
1.3	Why Rail?	14
1.4	Alternative Futures	15
2 M	ethod of the LivingRAIL study	16
2.1	What is a Vision?	
2.2	What is Roadmapping?	
2.3	The LivingRAIL Visioning Process	
	asting back into the Future: the General Picture	
3.1	Living in the Mid 21 <sup>st</sup> Century	
3.2	Time Travel from the 1970s to 2015	
3.3	Lessons for the second Period from 2015 to 2050	
3.4	Key prospects for the Second Period 2015 - 2050	23
4 Vi	ision by Themes	26
4.1	Overall Vision Statement	26
4.2	Norms, Values and Lifestyles	
E TI	he LivingRAIL 2050 Railmap	3(
	Review of Measures for 2050	
5.1		
	.1.1 Rail technology and operation	
	.1.2 Policy and spatial development	
5.	.1.3 The complete measure database	
5.2		
5.3	Railmap by theme	4

	5.4 R	ailmap by type of region	44
	5.4.1	Shifted implementation periods	45
	5.4.2	Later accomplishment in low density areas	45
	5.5 R	ailmap by sector	45
	5.5.1	Urban and rural mobility	45
	5.5.2	Inter-urban passenger transprt	46
	5.5.3	Freight transport	46
	5.6 R	ailmap by actor	50
	5.6.1	The policy sector	50
	5.6.2	The transport sector	50
	5.6.3	The civil society	50
6	lmnac	Assessment	51
•		ethodological approach	
	6.1.1	The ASTRA model	
	6.1.2	The modelling input	
		esults for transport and environmental impacts	
	6.2.1	Changed travel costs scenario	
	2.2	Changed travel speed scenario.	
	6.2.2	Target rail share scenario	
	6.2.3	Overall impacts	
	6.3 E	conomic and external cost performance	
	6.3.1	Background and structure	
	6.3.2	The standard scenario for funding needs and economic performance	
	6.3.3	Sensitivity case of funding needs and economic performance	
	6.3.4	Social costs and benefits	
	6.4 S	ummary of results	74
7	<b>C</b> !1 -	onclusions	7.
′			
		he essence of the LivingRAIL Vision and Railmap towards 2050	
		pecificities by type of region	
		ffective and affordable solutions	
		npacts on demand and on the environment.	
		he business case	
	7.6 T	he essence	/ B
8	Refere	2970	79