

Contents

Preface	vii
1. Introduction	1
2. Context	5
2.1 Getting the Benefits from ITS.....	5
2.2 Transport in the EU	7
2.3 Transport Policy.....	10
2.4 Socio-economic Trends	14
2.5 IT and Opportunities for Changes	16
3. Traveller Services.....	25
3.1 Passenger Transport Services	25
3.2 Information Services	57
4. Vehicles and Infrastructure	85
4.1 Advanced Driver Assistance Systems	85
4.2 Co-operative Vehicle Highway Systems.....	102
4.3 Human Machine Interaction	112
4.4 Emergency Response	126
4.5 Enforcement in ITS.....	142

5. Network Management.....	149
5.1 Traffic Management and Control.....	149
5.2 Road User Charging.....	166
5.3 Road and Traffic Monitoring.....	177
6. Freight Transport.....	195
6.1 Long Distance Freight.....	196
6.2 Urban Deliveries.....	215
7. ITS Support.....	231
7.1 Architecture.....	232
7.2 Radio-Navigation.....	245
7.3 Education and Training.....	266
8. Conclusions and Recommendations.....	285
Appendices.....	291
A Research Projects related to ITS.....	291
B Acronyms and Abbreviations.....	313
Bibliography.....	319