

# Tables

---

1.1	Milestones in the development of automation and autonomous operations technologies towards the introduction of AVs	11
1.2	Automation phases in transportation and communications	18
1.3	The four industrial revolutions and the automation of mobility systems	20
2.1	Personal freedom in personal and public mobilities	30
2.2	Percentage of passenger cars with automatic transmission sold in Europe, 2001–2015	36
3.1	Milestones in the development of technologies for road traffic control	42
3.2	Milestones in the development of train traffic control	48
3.3	Milestones in the development of air traffic control	52
3.4	Milestones in the development of marine traffic control	56
3.5	Mobility modes by year of invention and the beginnings of traffic control and its automation	58
4.1	Milestones in the development of electric rapid transit	67
4.2	Levels of metro automation and autonomy	68
4.3	Milestones in the development of autopilots for airplanes	74
4.4	Milestones in the development of autopilots for ships	76
5.1	Milestones in the automation of fixed and mobile telephones	88
5.2	Milestones in the development of the Internet	90
5.3	Attractions for virtual co-presence and their aspects	96
5.4	Percentage of people pursuing daily activities online in the US	100
6.1	Milestones in the automation of cars	107
6.2	Levels of automation in car driving/operation	112
6.3	Comparative mobility aspects for human-driven cars and AVs	137
7.1	Comparative spatial aspects for human-driven cars and AVs	140
8.1	Automation and autonomy status for mobility media and their controls	166
8.2	Levels of automation and autonomous operation for mobility media and their traffic controls	167