

Understanding the automated driving revolution

ARPA-E | 1 March 2017

Been here, done that | Coping with the 3rd great automotive epoch



Horseless carriage era



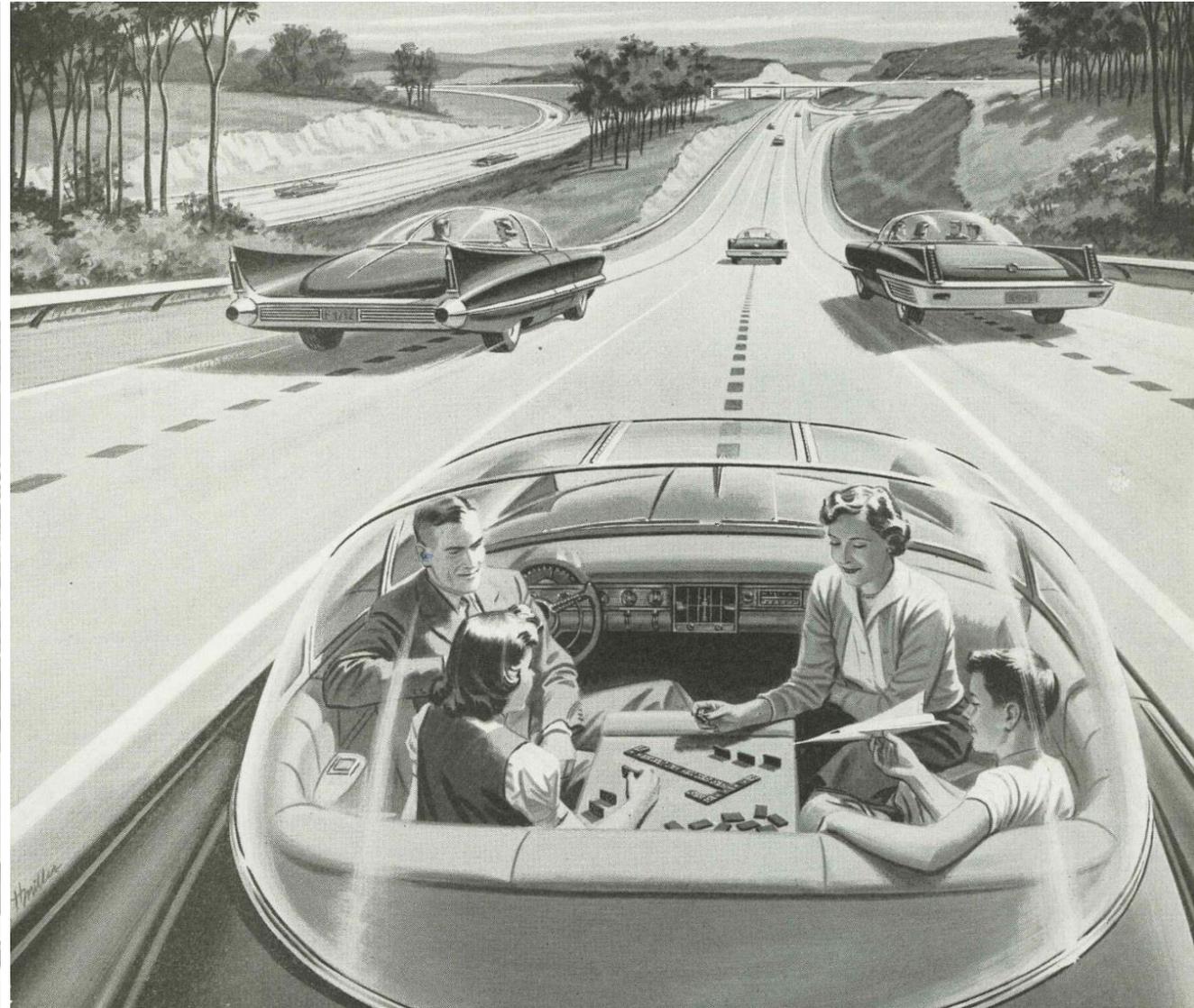
1970s brings oil shocks, new rules on safety and emissions



Today | AV era



Leveling society's levitating expectations



What's coming – really – and its potential impact

2018 | Next-gen Audi A8 – world's 1st Level 3 HAV

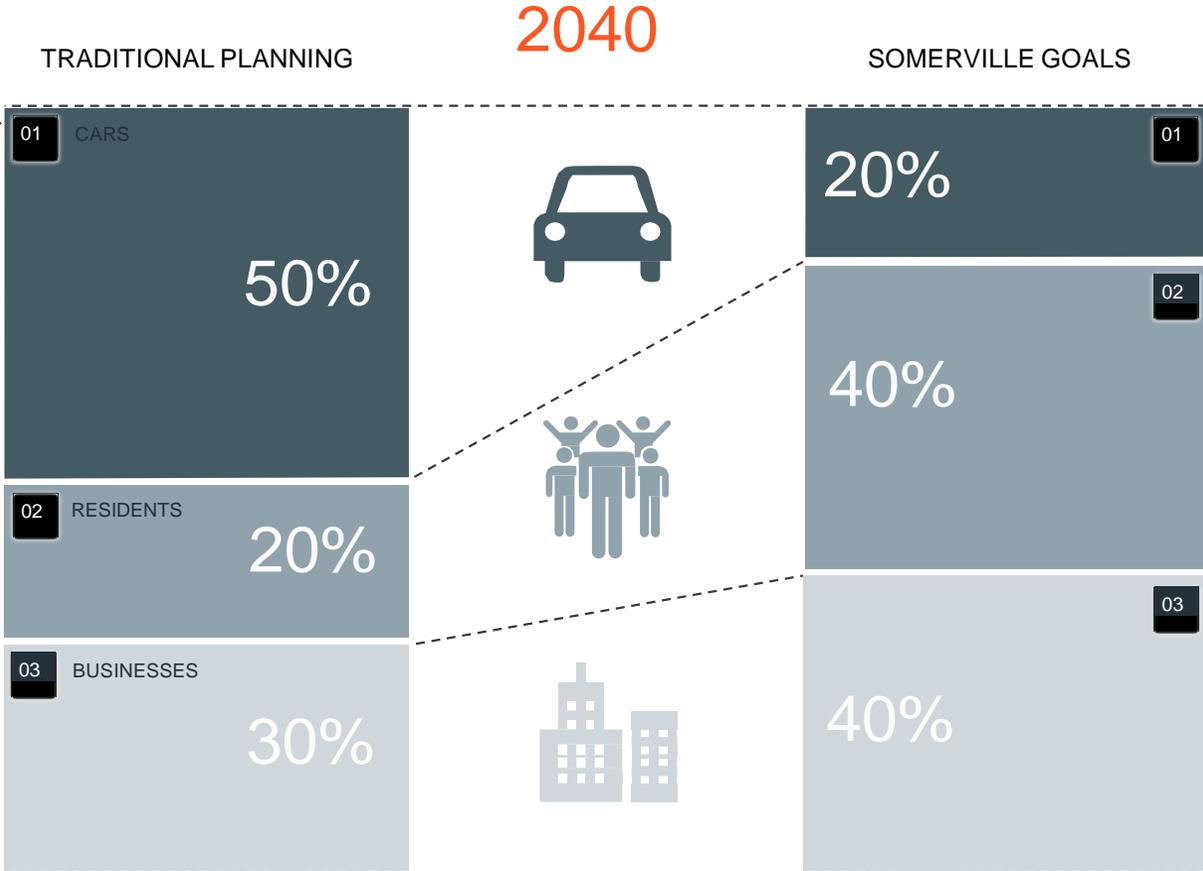
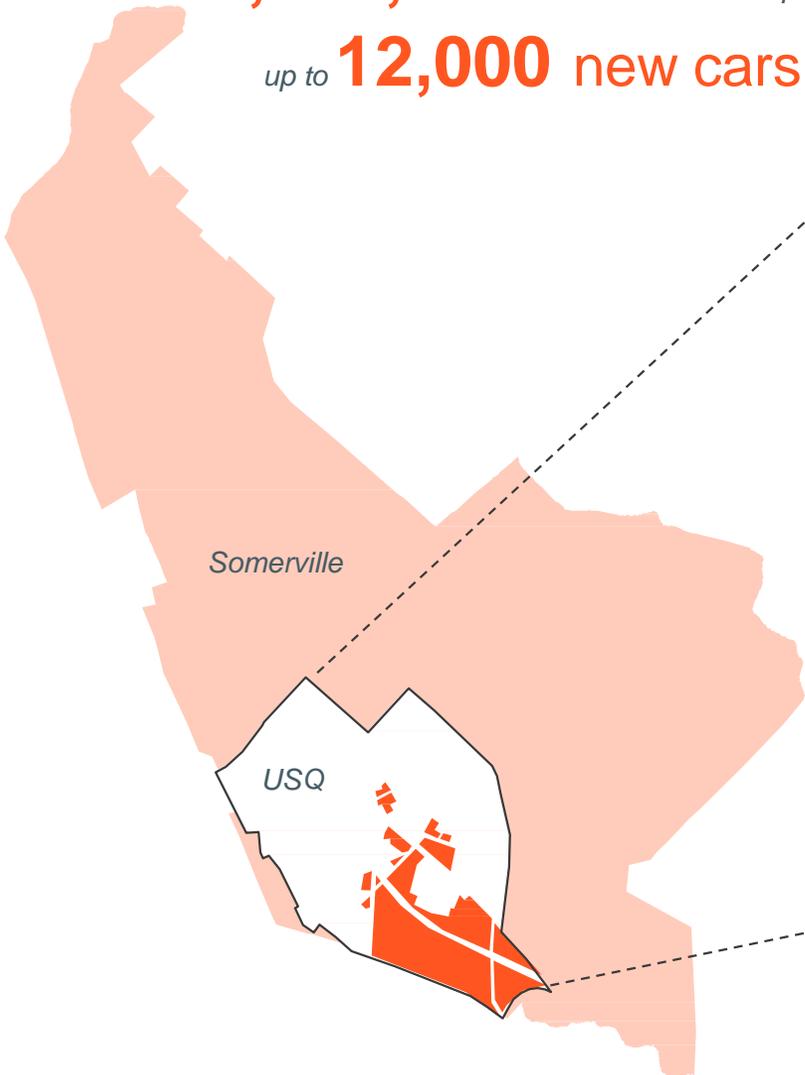


2020(ish) | Multiple versions of Level 4 HAV



Limits to growth | Cars use up to 40% of urban land

6,000,000 sf² of new development
up to **12,000** new cars



City of Somerville Goals

Reduce the footprint of the CAR by **60%**

Adaptive flow | Improving the overall mobility system



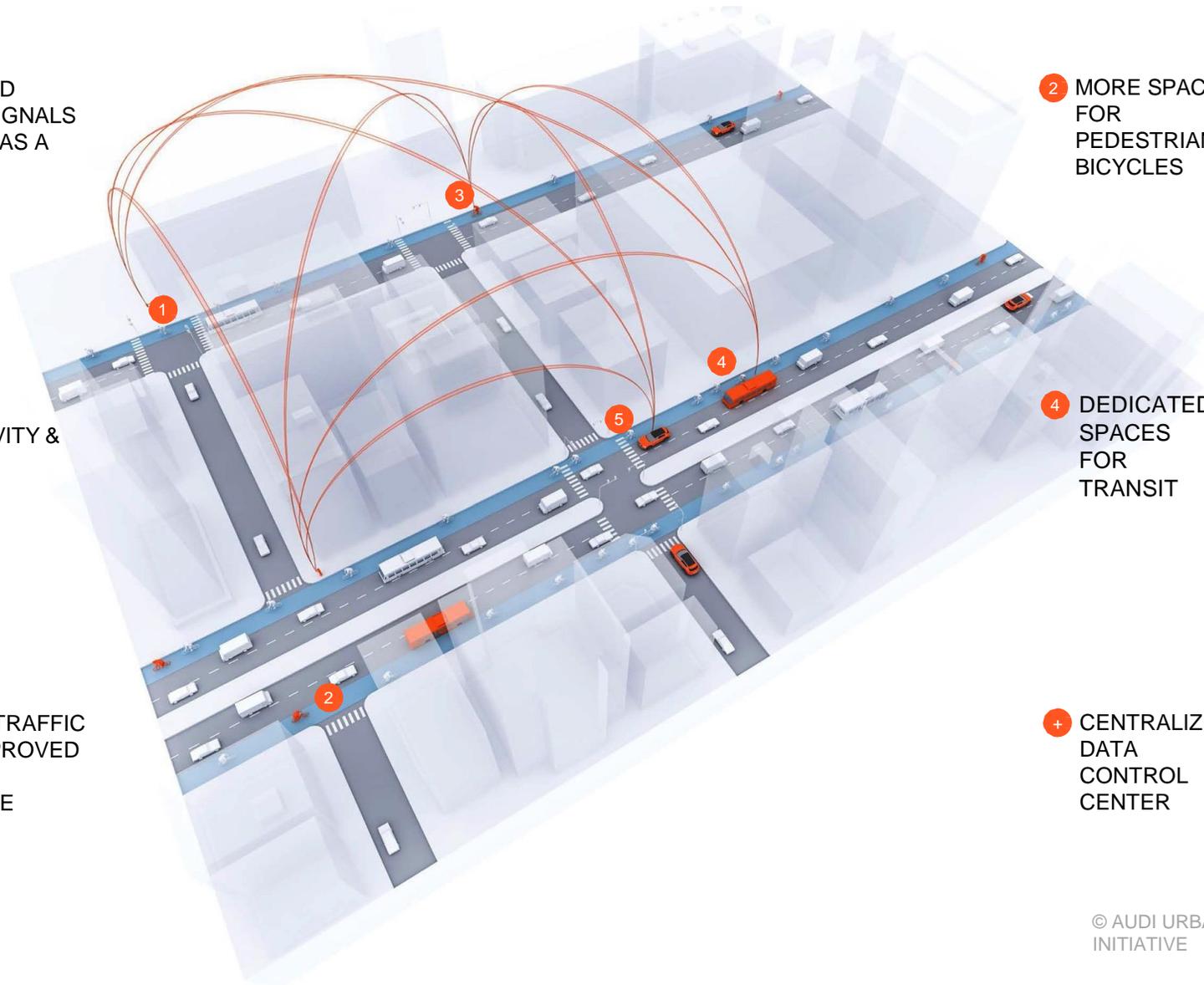
1 CONNECTED TRAFFIC SIGNALS MANAGED AS A SYSTEM



3 INDIVIDUAL CONNECTIVITY & IMPROVED SAFETY



5 EFFICIENT TRAFFIC FLOW & IMPROVED DRIVER EXPERIENCE



2 MORE SPACE FOR PEDESTRIANS & BICYCLES



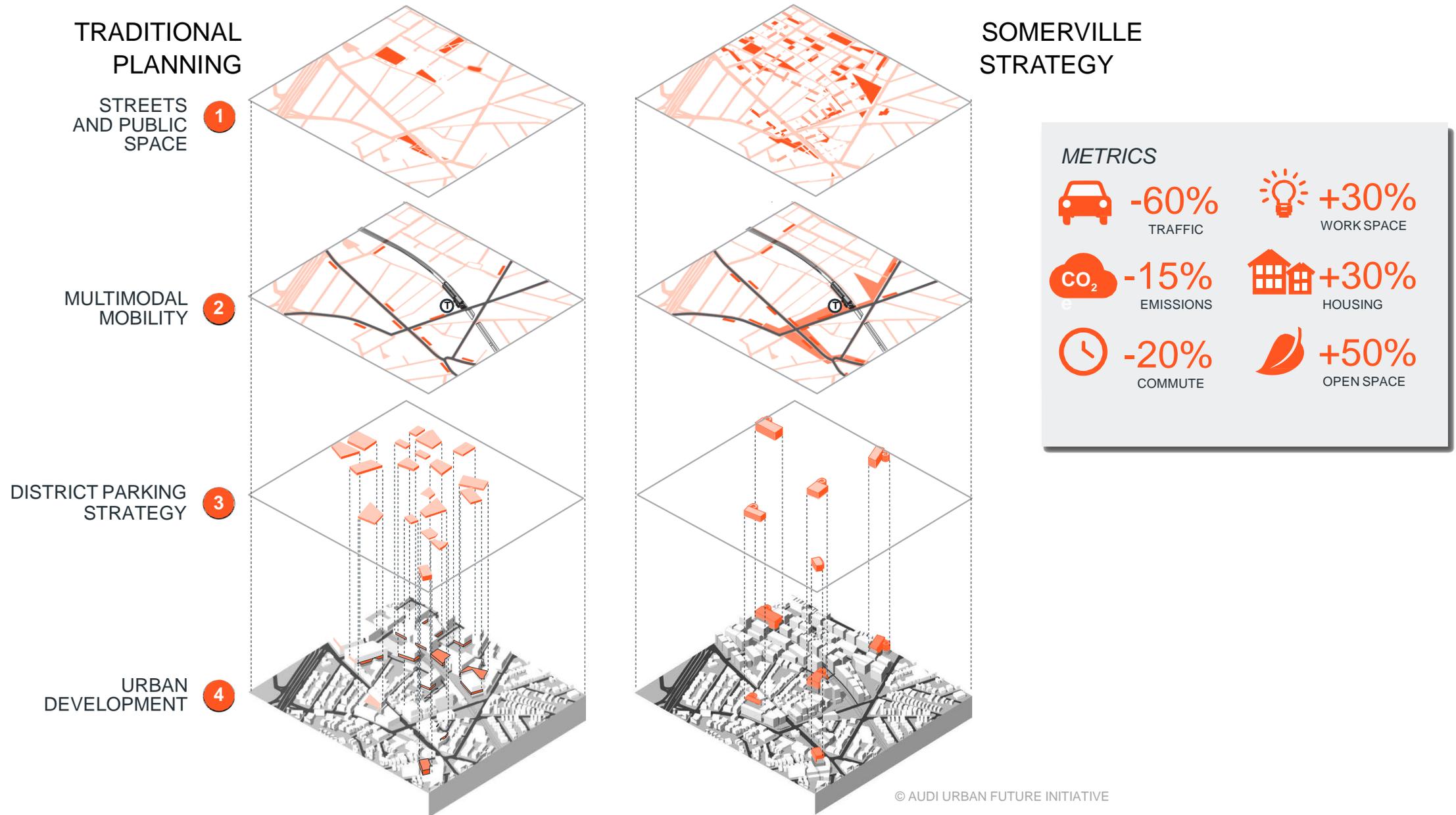
4 DEDICATED SPACES FOR TRANSIT

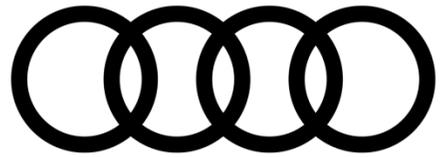


+ CENTRALIZED DATA CONTROL CENTER



Urban solutions | Mobility innovations WILL lead to new a strategy





Thank you!