



13th ITS EUROPEAN CONGRESS

FULFILLING ITS PROMISES

Brainport Eindhoven, the Netherlands | 3-6 June 2019

Evolution Congress Center
Helmond Automotive Campus

3 years of automated shuttle trials in Austria - Learnings, best practices and next steps

Presentation at ITS European Congress 2019

SIS11 – Automated Shuttle Trials

June, 4th 2019, Eindhoven

Coordinator



Associated Partners



Partners



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3-years of automated shuttle trials

2016



2017



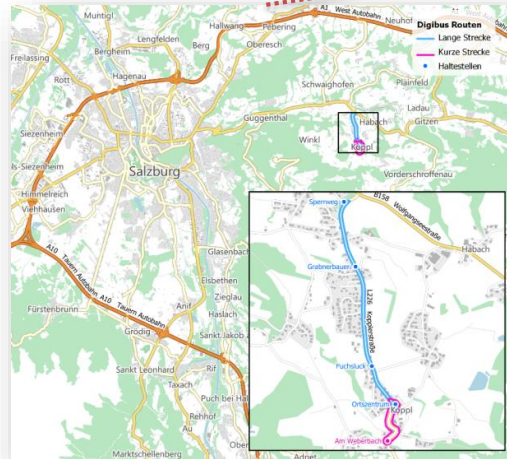
2018 - 2021



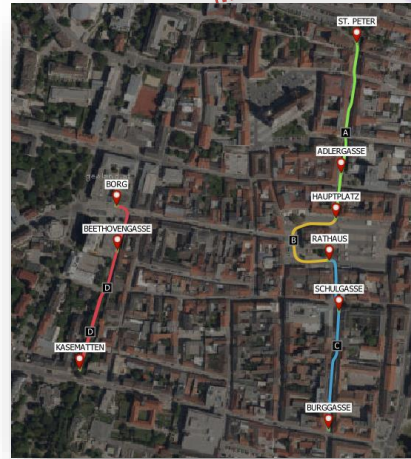
Digibus

Digibus[®]
Austria

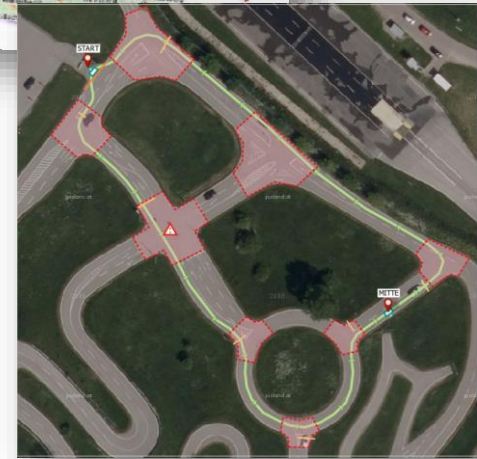
Three test sites



Koppl (near Salzburg) -
last mile to village center
mixed traffic

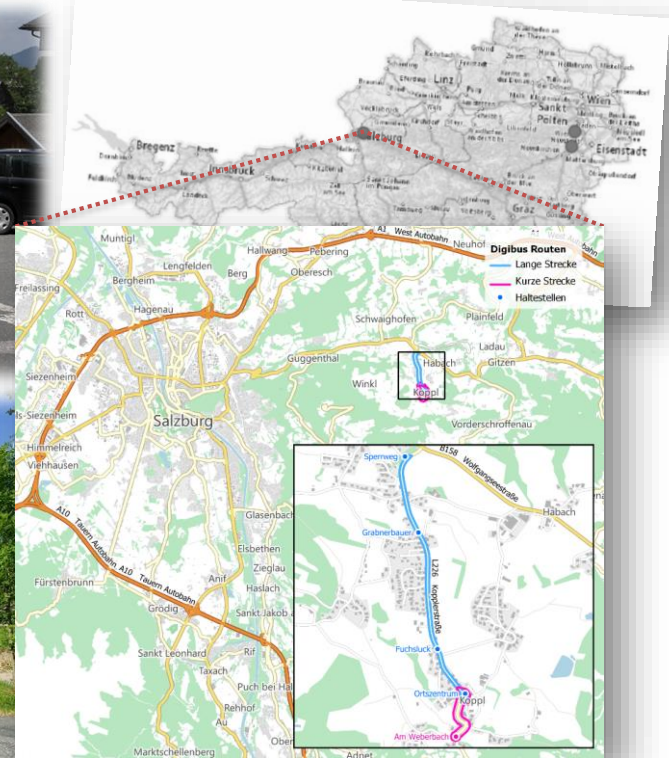


Wiener Neustadt -
4 tracks in town center
pedestrian zone



ÖAMTC Driving Center
Teesdorf – 2 test tracks

Impressions from test site Koppl



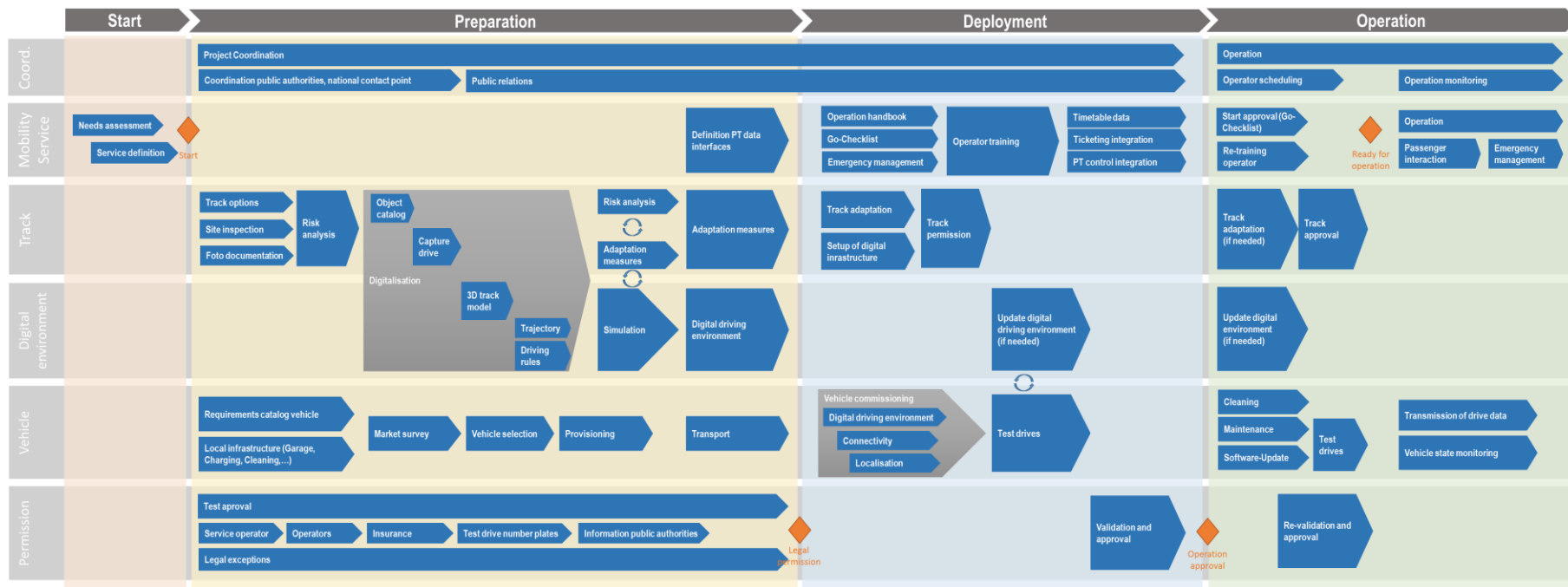
Learnings (condensed)

- Planning/preparation
 - Clear vision and driving factors needed
 - Collaboration of all stakeholders
 - Minimization of risks
 - High personal demand
 - Proprietary methods, missing standards
- Vehicles
 - Prototypes
 - Missing homologation
 - Public transport readiness?
 - High costs
- Test drives
 - Low speed (< 15km/h)
 - High complexity of driving maneuvers
 - Manual interventions needed
 - Highly demanding for operators
 - Mixed traffic as challenge
 - Challenges from environmental conditions
- Passengers
 - Variety of reactions (enthusiastic to denial)
 - 90% of passenger felt safe (most probably because of the operator onboard)



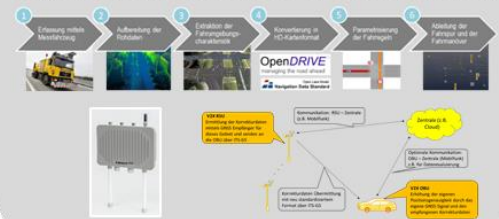
We are at the beginning! Level 2-3

Best practices – Towards a reference model



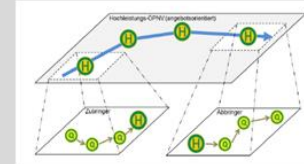
Next steps (2019-2021)

Digital infrastructure & connectivity



Source: Salzburg Research / wildbild

Automated mobility system & passenger interaction



Source: Schnieder et al., 2016



Driving scenarios & interaction with other road users



Reference model for planning, deployment & operation of automated shuttles





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Coordinator



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