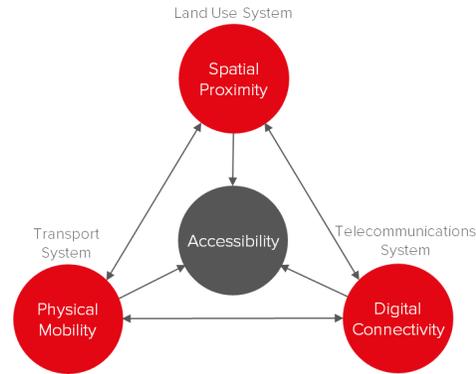


Workpackage 2 – Task 1: Systems Thinking Workshop Series



Workshop 5 – Important and Uncertain Variables

29 June 2021 – 1000-1300 CET (0900-1200 BST)

Agenda (1000-1300 CET)

- 1000 Introduction and scene setting
- 1010 Review of our variables
- 1025 Breakout groups round 1 – relative importance of the variables
- 1100 Feedback session**
- 1130 BREAK
- 1145 Breakout groups round 2 – relative uncertainty of variables
- 1215 Feedback and final discussion
- 1300 Close

Introduction and scene setting

1000-1010

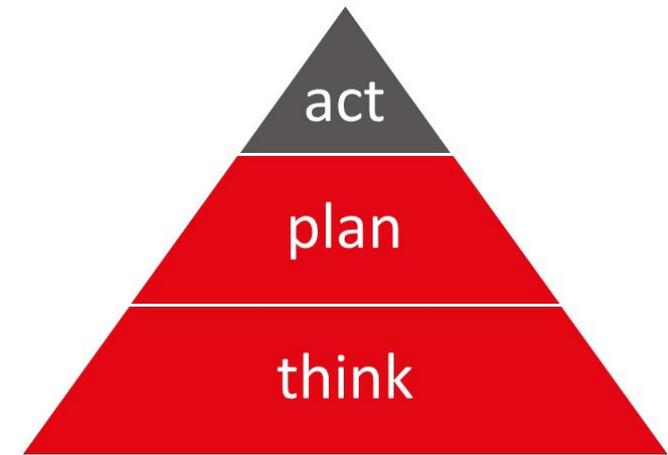
Where we are heading

1

- Three merged Causal Loop Diagrams
 - *Demand for proximate activities*
 - *Demand for digital activities*
 - *Demand for distant face-to-face activities*
- A combined TAS Causal Loop Diagram

2

- Identifying the variables most important and uncertain in relation to **demand for access in a post-COVID more digitalised world**
- A set of plausible Triple Access future scenarios **for a timescale of 2040**

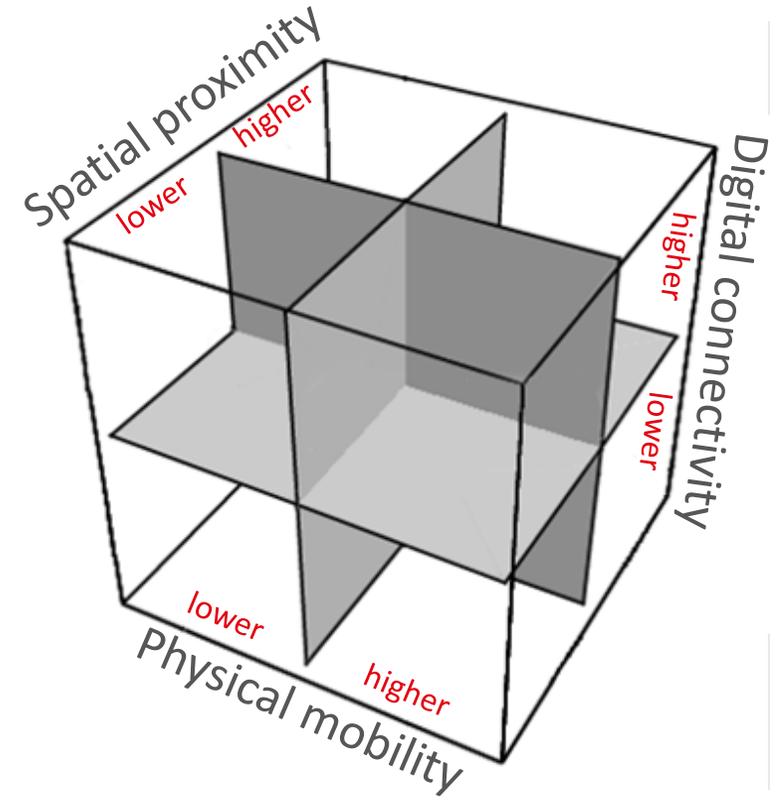
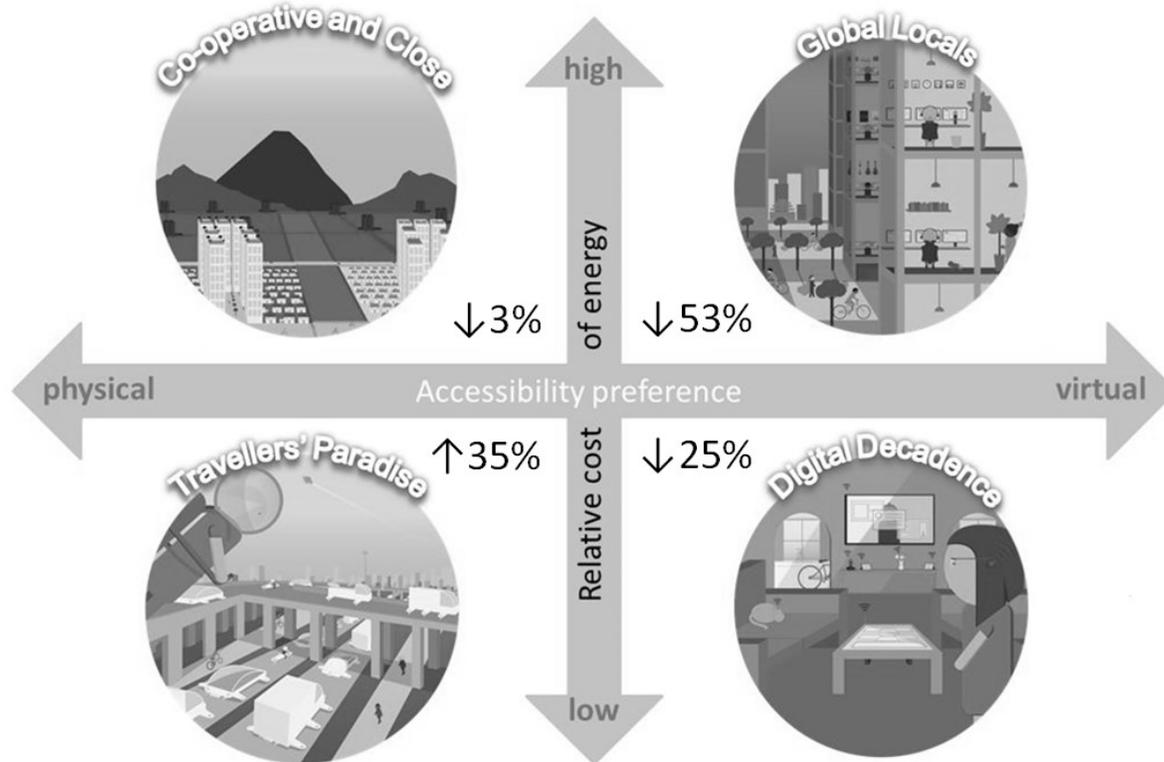


Where we are heading

a scenario can be considered an:

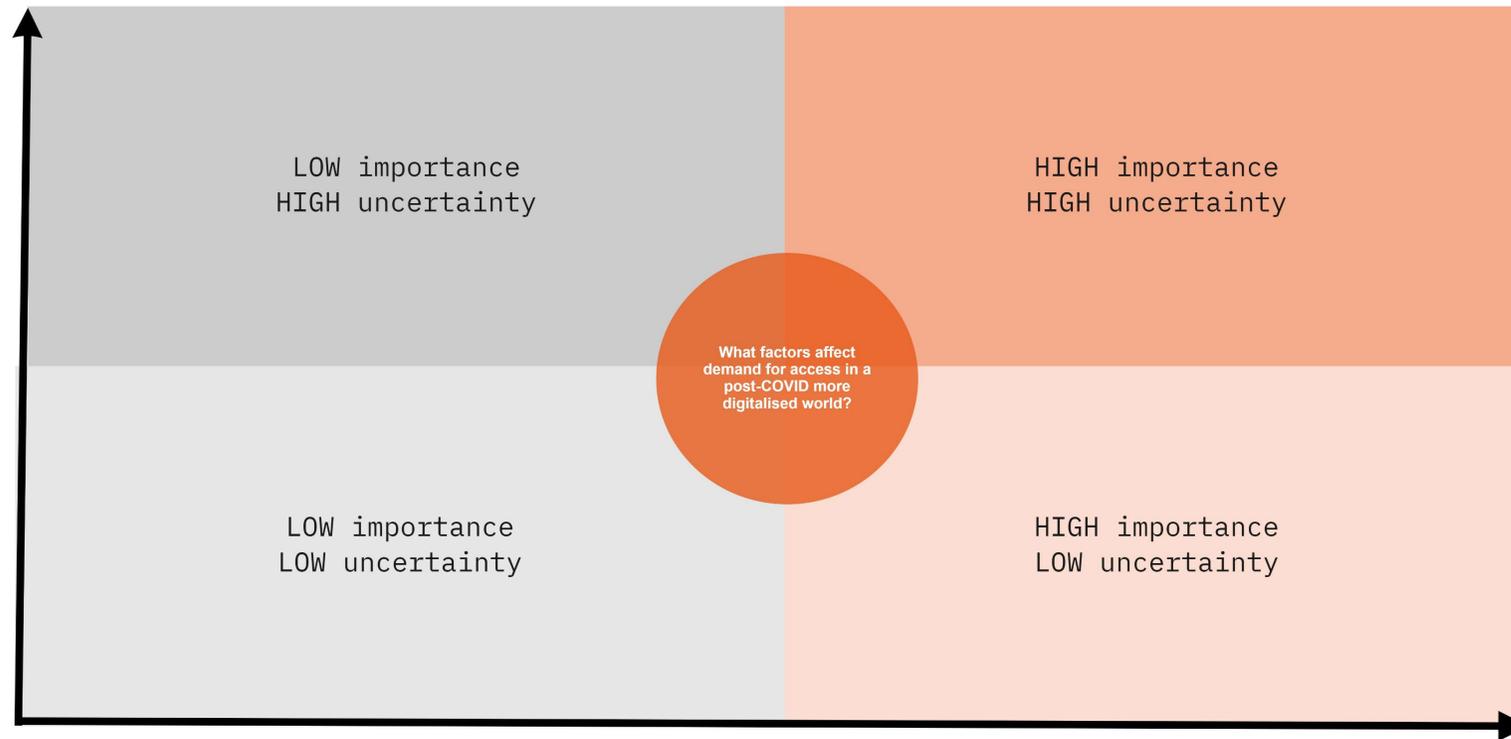
“intelligible description of a possible situation in the future based on a complex network of influence factors”

(Gausemeier et al., 1998: 115)



The purpose of today's workshop

- Identifying the variables most important and uncertain in relation to demand for access in a post-COVID more digitalised world



Review of our variables 1010-1025

Walkability & Cyclability (9, 7, 23) Congestion (8, 14, 15) Homeworking (8, 17, 21) Digital literacy (7, 13, 2) Availability & quality & affordability of internet access (7, 13, 3) Proximity to interested areas (6, 9, 5) Goods delivery affordability for customers (6, 5, 4) Access to private car use (6, 13, 13) Uptake of Mobility-as-a-Service (MaaS) (5, 7, 8) Climate change concern & related measures (5, 6, 4) Extent of online activities (4, 7, 11)

Road capacity (4, 7, 0) Reliability & popularity of Public transport (4, 6, 12) Population density (4, 8, 8) Household size (n. of people living together) (4, 3, 1) Ease & cost of parking (4, 8, 1) Concern about cybersecurity (4, 4, 3) Air quality (4, 8, 7) Affordability of housing (3, 5, 1) Timeliness of deliveries (3, 3, 1) Appeal of proximate lifestyles (3, 2, 4) Resistance to digital dependence (3, 2, 1)

Perceived importance of car ownership (3, 5, 3) Importance of co-presence ('being there') (3, 5, 1) Economic output (3, 2, 8) Disposable income (3, 3, 0) Density of homes (3, 5, 7) Affordability of digital devices (3, 4, 0)

Standardisation of digital payments Resilience of digital infrastructure Extent of New markets/services Social norm of digital activities Digital network coverage Security level of online payment systems Land Use Diversity Physical size of houses Density of working places Density of essential facilities (e.g. schools, post office) Extent of green space Availability of housing

Dispersal of land use Flexibility of planning control Public health Fear of harassment Cultural acceptability of active travel modes Desire to live near green space Social anxiety around meeting in person Public transport crowding Share of car fleet electrified Speed limits on motorised transport Share of goods delivered by e-vans & e-cargobikes (2, 4, 5) Density of goods collection points

Multi-modal tripmaking Relative gen. cost of motorized travel Mobility impairment

Willingness to socialize face-to-face Priority of work-life balance Need for variety / changed milieu Multi-modal lifestyle - flexible choice for a given journey Discretionary leisure travel Extent of activity on the move Trend toward slower pace of life (slow city movement) Level of concern about Covid Public concern about air quality Possibility to work from home - prevalence of knowledge sector Land market supporting density Dispersal of families

Availability of office space Planning supporting density Extent and distribution of green and blue space Availability of land Share of apartment Proximate Land Use Diversity Allocated physical space for digital activities "hubs" Retail floor area (sqm) Extent of public space Productivity/ Efficiency reduced price Economic output/productivity (concentration of) Productivity/ Efficiency reduced price

Level of automation of the labour market Pro-digital conn. policy-making mindset Popularity of new gaming and online leisure Availability of digitally enabled services Affordability of digital services Digital social intrusion Digital communication skills [culture] Demand for digital services Availability of high speed infrastructure Quality of digital services Availability of mobile connectivity (4G, 5G) Digital Connectivity

Costs of physical transport Extent of car-free built environment Safety of private motorised travel Safety of active travel modes Mobility system effects Generalized cost of motorized mobility Extent of distant goods transport Demand on transport infrastructure Demand for active travel Variety of transport modes available Goods delivery margins to providers

Breakout groups round 1 – relative importance of the variables

1025-1100

Relative importance

- You have been allocated 10 variables
- Please **optionally** add ONE ‘wildcard’ variable each
- All participants to use Miro to position variables along importance axis
- Please use full extent of axis (you’re not judging uncertainty yet)
- Bear in mind **future importance** (in 2040) – the **relative influence** of this variable on future urban access
- You have about 30 minutes

Feedback session
1100-1130

Break
1130-1145

Breakout groups round 2 – relative uncertainty of variables
1145-1215

Relative uncertainty

- Review **briefly** the relative importance
- All participants to use Miro to position variables along uncertainty axis – **don't move importance axis position unless well-reasoned**
- Please use full extent of axis
- Review and discuss relative uncertainty and reposition as appropriate
- You have about 30 minutes
- **We aim to identify the four most important-uncertain variables from your group**

Feedback and final discussion
1215-1300

Reflecting upon the exercise and looking forwards

- How did you find the exercise?
- Have we identified 12 most important and uncertain variables that 'make sense'?
- Any concerns, any suggestions?
- Any sense about which might be the most important and uncertain variables of the 12?
- What do you make of the position we have arrived at now we are at the end of the workshop series?

Just before we finish...

- We will now work on developing plausible triple access scenarios as well as refining a combined representation of the causal loop diagrams
- We will be back in touch

Thank you!

Close
1300