



TAKING  
**COOPERATION**  
FORWARD



SMACKER ETP WEBINAR TRAINING  
Online event | 8<sup>th</sup> September 2021

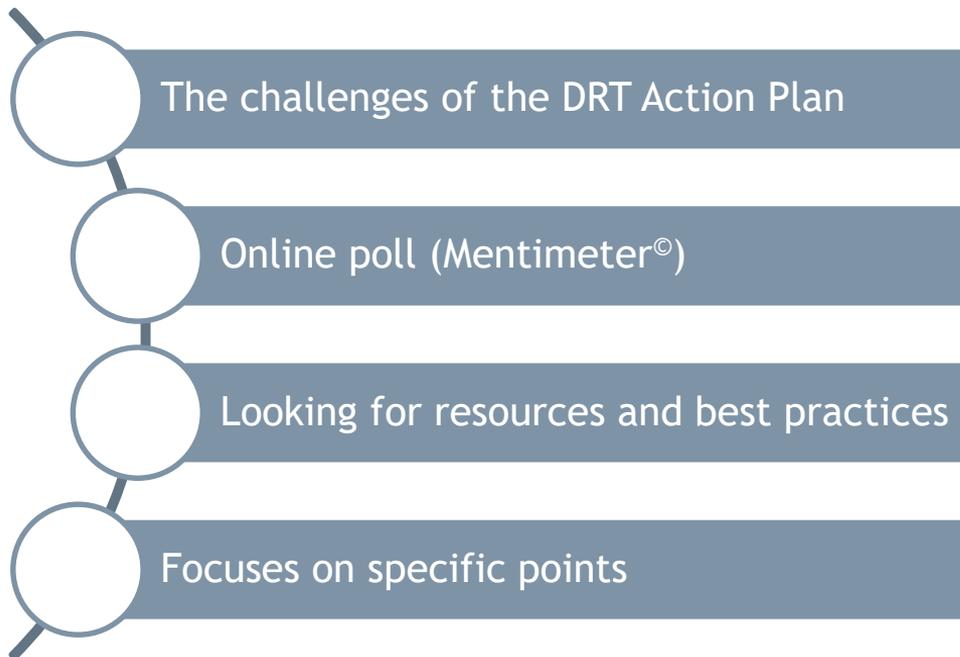


**From the State-of-the-Art to the Action Plan: issues, tools and data**



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# MAIN ASPECTS TO BE HIGHLIGHTED



## ONLINE POLL 1: expected issues at this stage

*With reference to the development of the DRT Action Plan,  
Please rank the following themes from the most challenging/critical (1)  
to the less problematic (5) according to your expectations:*

- stakeholders engagement and involvement
- identification of the most appropriate operational characteristics  
(e.g. routes/area to be served, level of flexibility of the service, vehicles to be used, etc.) for a DRT service effectively meeting with the identified demand and accessibility needs
- understanding which technological ICT tools could be applied
- addressing the theme of funding resources
- other contingencies that could arise from the COVID-19 pandemic

-> [Mentimeter Poll1](#)



## DRT AS COMPLEX AND MULTIFACETED SERVICE

*Different themes/steps for setting up a DRT*

- *Understanding the key drivers of demand -> Area and users characteristics*
- *Choosing the **operating model***
- *Deciding on the **amount of flexibility***
- *Providing a smooth and easily accessible service through **booking system** and **ICT tools***
- *Involving stakeholders and informing (potential) users*
- ***Ensuring adequate resources (funding vs costs)***

*[see also “DRT services feasibility study” by Torbay Council, 2021]*



# UNDERSTANDING AND TARGETING MOBILITY DEMAND & ACCESSIBILITY NEEDS

.. Understanding the needs

- People -> «captive» and «choice» users
- Places -> analysis of your ETP area characteristics
- Activities -> Reasons for the trip

-> different possibility from services with social value esp. for area with limited accessibility esp. for categories not in condition to use the car (e.g. youngsters, elderly etc.) up to “premium” ones

.. Then elaborating on the supply side **focusing on** the specific target

- Elaborate on innovative DRT solutions to **complement the current PT offer**, thus improving multimodal accessibility and addressing the identified **mobility needs of residents/tourists**, especially beyond peak hours and outside the catchment area of existing services.
- Necessarily aiming at **highest possible level of harmonization** of timetables and ticketing systems among different operators and means of transport.



## ONLINE POLL 2: expected approaches on specific themes (at this stage)

*At the moment (on the basis of the understanding achieved at this stage of the analyses), which approach do you deem is most likely/envisaged in the DRT that should be developed as an outcome of your Action Plan with reference to*

- **operating model**
- **amount of flexibility**
- **booking system**

[-> Mentimeter Poll2](#)



## ONLINE POLL 2 - Question 1: operating model

*Which approach do you deem is most likely to be envisaged in your DRT Action Plan? (pick only 1 option)*

### Interchange

- feeding into established fixed route public transport corridors and/or transport hubs from a defined and limited geographical area

### Network

- Enhancing or part replacing existing public transport at times or in areas of low demand

### Substitute

- Completely replacing fixed route public transport in a given area

### Destination-specific

- Addressing a specific generator of demand such as an employment zone



## ONLINE POLL 2 - Question 2: level of FLEXIBILITY

*Which approach do you deem is most likely to be envisaged in your DRT Action Plan? (pick only 1 option)*

### Fully flexible

- providing journeys anywhere within a service operating area

### Semi-flexible

- Setting-up a combination of DRT and fixed route, often associated with interchange and destination-specific services

### Fixed and flexible

- operating mostly fixed route and flexing only at specific points or specific times of day



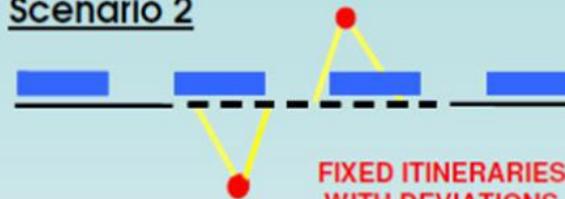
# DRT TYPOLOGIES/ SPECIFIC SCENARIOS

Scenario 1



**FIXED ITINERARIES WITH FLEXIBLE TIME TABLES**

Scenario 2



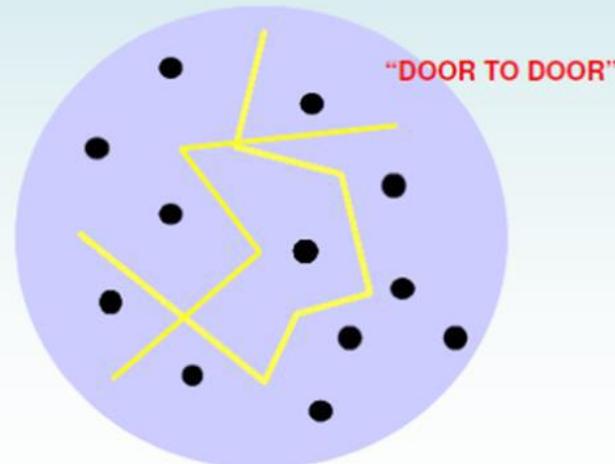
**FIXED ITINERARIES WITH DEVIATIONS ON DEMAND**

Scenario 3



**"MANY TO MANY"  
FLEXIBLE ITINERARIES  
WITH PREDEFINED BUS  
STOPS**

Scenario 4



**"DOOR TO DOOR"**



# INVOLVING STAKEHOLDERS AND INFORMING (POTENTIAL) USERS

- **Involve an adequate number of stakeholders** representing final users' needs, in order to carefully and concretely address the mobility demand of the territory (if necessary, even through direct surveys and interviews) and getting them actively involved (**co-design**)
- Information and availability should be **as accessible as possible**, in order to cater for mobility needs of all categories of users (i.e. people with reduced mobility, elders, youngsters).
- Carefully consider the **necessary timeframe** until citizens and tourists switch away from their cars in favor of a more sustainable mobility option.



## ONLINE POLL 2 - Question 3: booking system

*Which approach do you deem is most likely to be envisaged in your DRT Action Plan?  
(pick only 1 option)*

Phone center

Online (app)

Both



- Information and availability should be **as accessible as possible**, in order to cater for mobility needs of all categories of users (i.e. people with reduced mobility, elders, youngsters).
- Importance of **innovative ICT tools** to provide information about services and their usage.
  - > towards **Dynamic DRT**
- Different software being made available on the market and Open tools
- **Data vs Tools**
  - > exploiting possibilities from GTFS standard



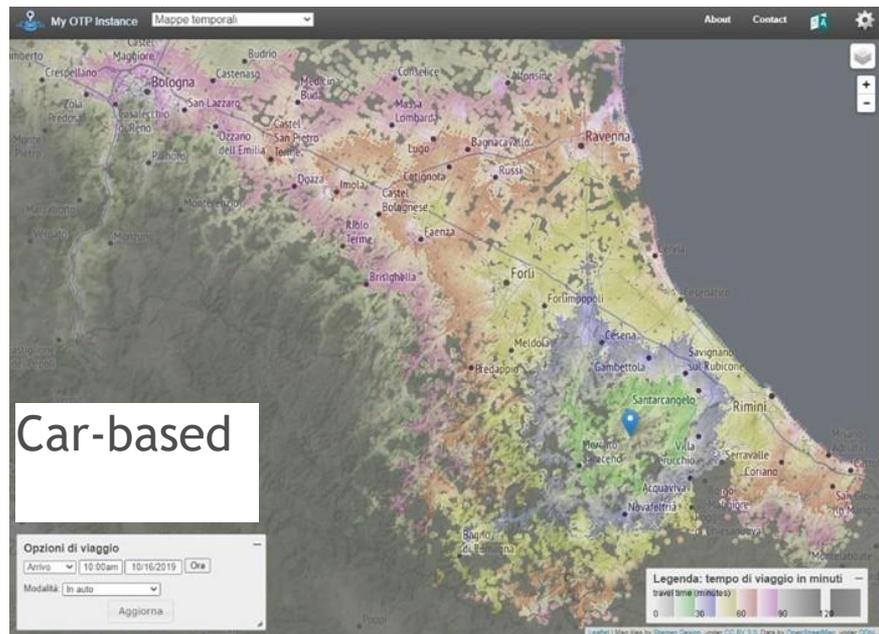
## Assessing accessibility with an Open tool

The accessibility of the analysed area can be represented through an isochrone map

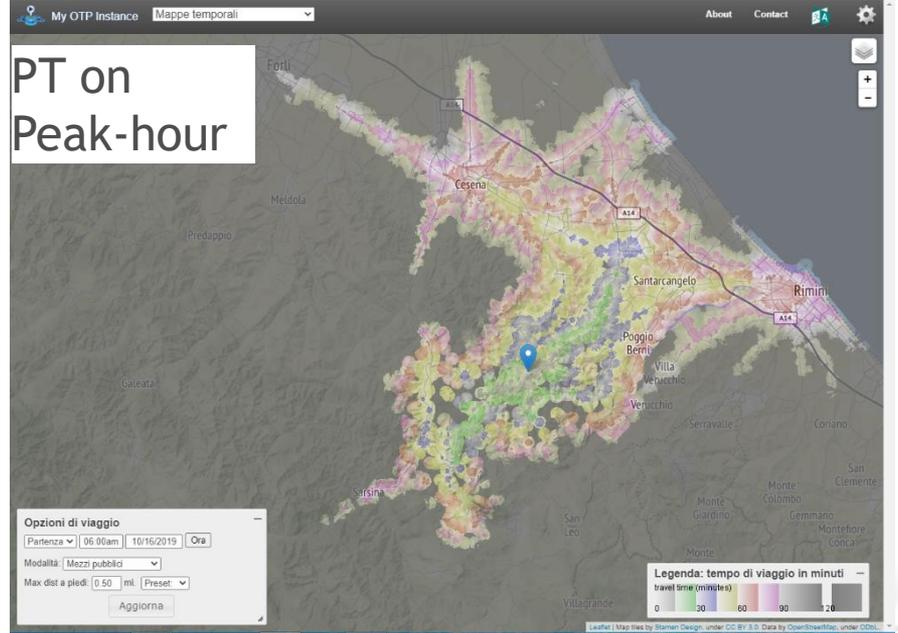
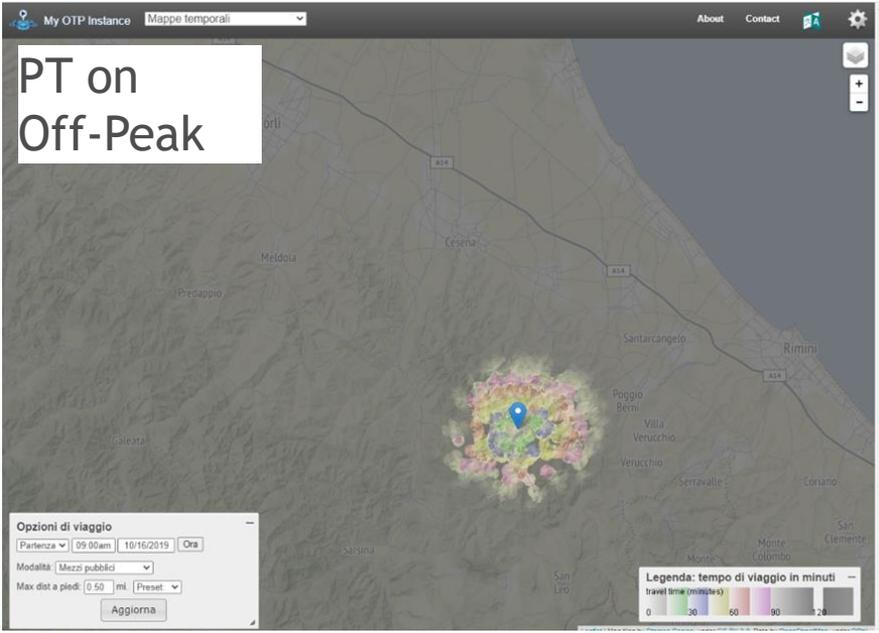
thematic map that shows the areas reachable from a certain point within different time thresholds

Making use of an Open tool (OpenTripPlanner) elaborating on

- Open Data (OSM)
- Available/provided GTFS



## Assessing multimodal accessibility with OpenTripPlanner



# ENSURING ADEQUATE RESOURCES (FUNDING VS COSTS)

- Estimate and consider costs of the service
  - > pay attention to potential rise of costs
- Explore funding options
  - > how to support the social value of the service and special addressed needs (also private contributions in some cases/long-term?)
- willingness to pay vs fare policy
  - > depending also on the specific characteristics of the service



# POTENTIAL UNSUCCESS FACTORS

- Unrealistic expectations about costs  
-> highly depending on the funding in case made available for the start-up
- Lack of understanding of the targeted demand
- Trying to provide very flexible services with small fleet
- Insufficient marketing and awareness among potential users (..and probably engagement of the required actors)
- Competition from other modes alternatives (e.g. taxi)

[ see Enoch et al., 2006]

-> Look also for the lessons to be learned from “bad practices”

e.g. the case of Innisfil (Canada) where the adoption of DRT with good response from the users determined a high rise of costs hampering the economic sustainability of the service



# CONCLUSIONS

- Dealing with the complexity of a multifaceted challenge
- Importance of adequate timeframe (incl. preparation steps)
- Testing and monitoring
- Long-term sustainability
- Looking at the wider picture of mobility in your network
- Importance of paving the way to actual follow-up implementation and further replicability (-> importance of the readability for an external reader)

