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Investigating “mobility hubs“, and assessing their impacts

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ABSTRACT

Mobility hubs, bring together, connect and provide users with **several modes of transport**. Cities adopt them to help reaching **several objectives**, like the reduction of air pollution, congestion and car ownership. As part of the **Interreg Mobi-Mix** project, we have taken a close look at mobility hubs. Based on **bibliographic research, talks with experts and cities**, we established a **state of the art** that will help to better **understand the concept**. Cities, will benefit from a number of **guidelines for a better** mobility hubs. A **method of estimating the impact on CO2** emissions at each project step has been developed and tested in two partner cities, **Norfolk and Valenciennes**. It is mainly based on **surveys and results from other cities** as well as **multiplicative factors**. The first results point a **reduction in CO2** emissions that is greater than the targeted objectives

MOBILITY HUBS DEFINITION

- A dozen definitions of the mobility hub concept.
- Most authors agree that a “mobility hub” is a single location, specifically designed to be highly recognizable and visible, with some comparing it to an urban “infrastructure”.
- Some differences are based on location, or on the types of users targeted
- The major divergences is whether integrating public transport is a mandatory or not.
- Some definitions that are equivalent to mobility-related facilities that have existed for a long time.

Figure 1: What is a “mobility hub”?; (W,HACHED., 2022)

We consider the barest minimum definition of a mobility hub is: **“an urban infrastructure designed to provide a variety of shared modes (at least 2) in the same place, where integration with public transport is highly recommended”**. The idea is to create a centrality point for the transport network. It can accommodate other modes or provide other services, features as quality factors.

MOBILITY HUBS TYPES

- **Regional** Mobility Hubs or **Community** Mobility Hubs
- **Anchor / Gateway** hubs
- Typologies based on urban context and transport functions: Urban Context (**City Centre, Urban Transit Nodes, Historic Town Centres...**). Transportation Function (**Entry, Transfer, Destination**)
- **Neighbourhood, central, and regional** hubs.
- E-Mobility in Amsterdam, Nijmegen, Leuven, and Manchester : **minimalistic, light, medium, and large**
- **Large interchanges** (city hubs), **transport corridor** (linking hubs), **key destinations** (business parks, hospitals, etc), **mini hubs** (or a network of mini hubs), market towns (**village hubs**)

AUTHORS AFFILIATION:



Download the full report and sources
<https://bit.ly/Source-s-and-Full-Report>

POSTER SESSION

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MOBILITY HUBS OBJECTIVES

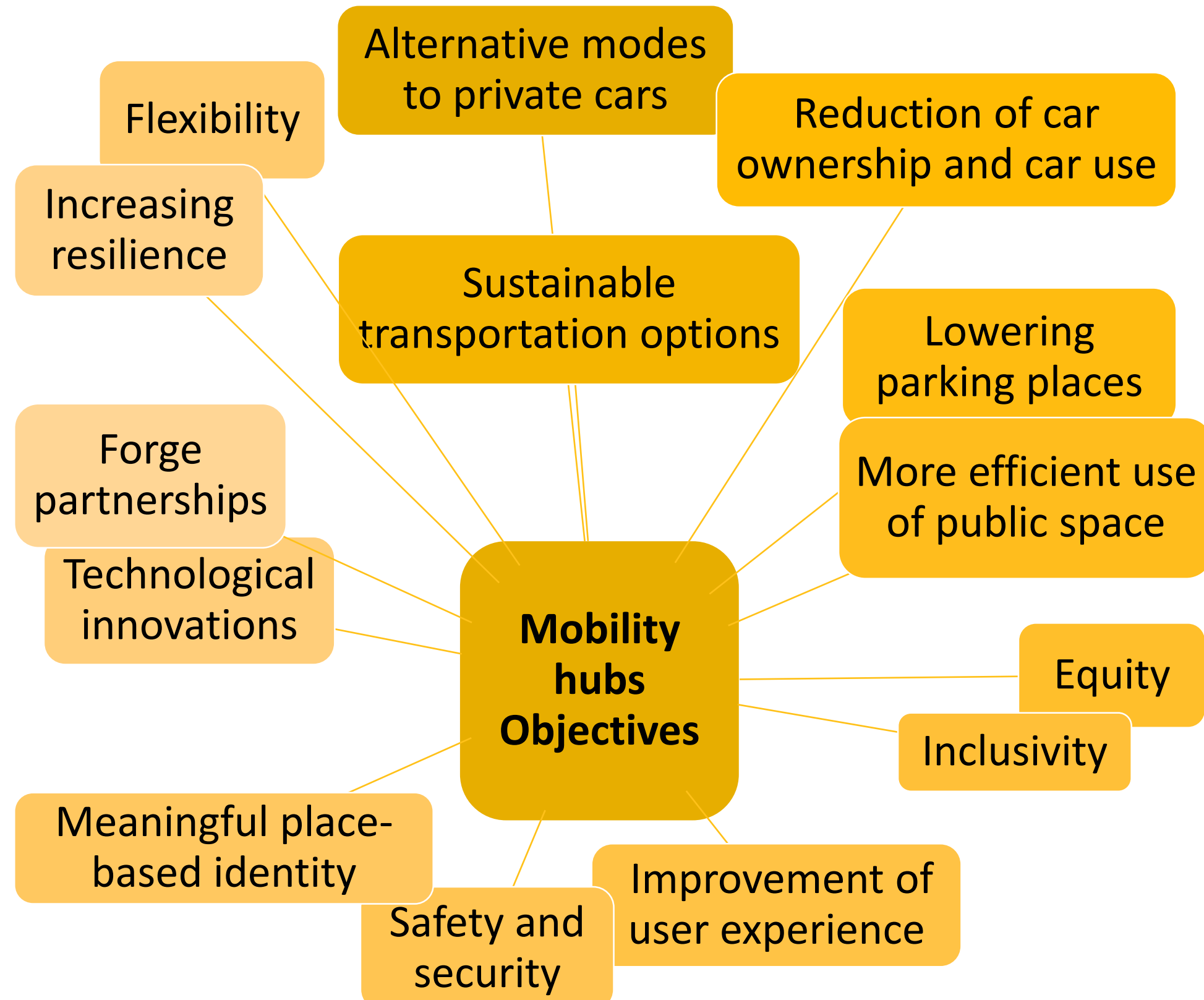


Figure 2: Mobility hubs, more than sustainability and car reduction concerns; (W,HACHED., 2022)

INSIGHTS FOR BETTER MOBILITY HUBS

- Relevant spatial distribution
- Multifunctionality
- Inclusiveness in its broadest sense
- Security and safety
- Comfort and ease of use
- Reliability and resilience
- Adaptation to technology
- Communication

Figure 3: How can cities implement better Mobility hubs (W,HACHED., 2022)

MOBILITY HUBS CO2 IMPACT ASSESSMENT

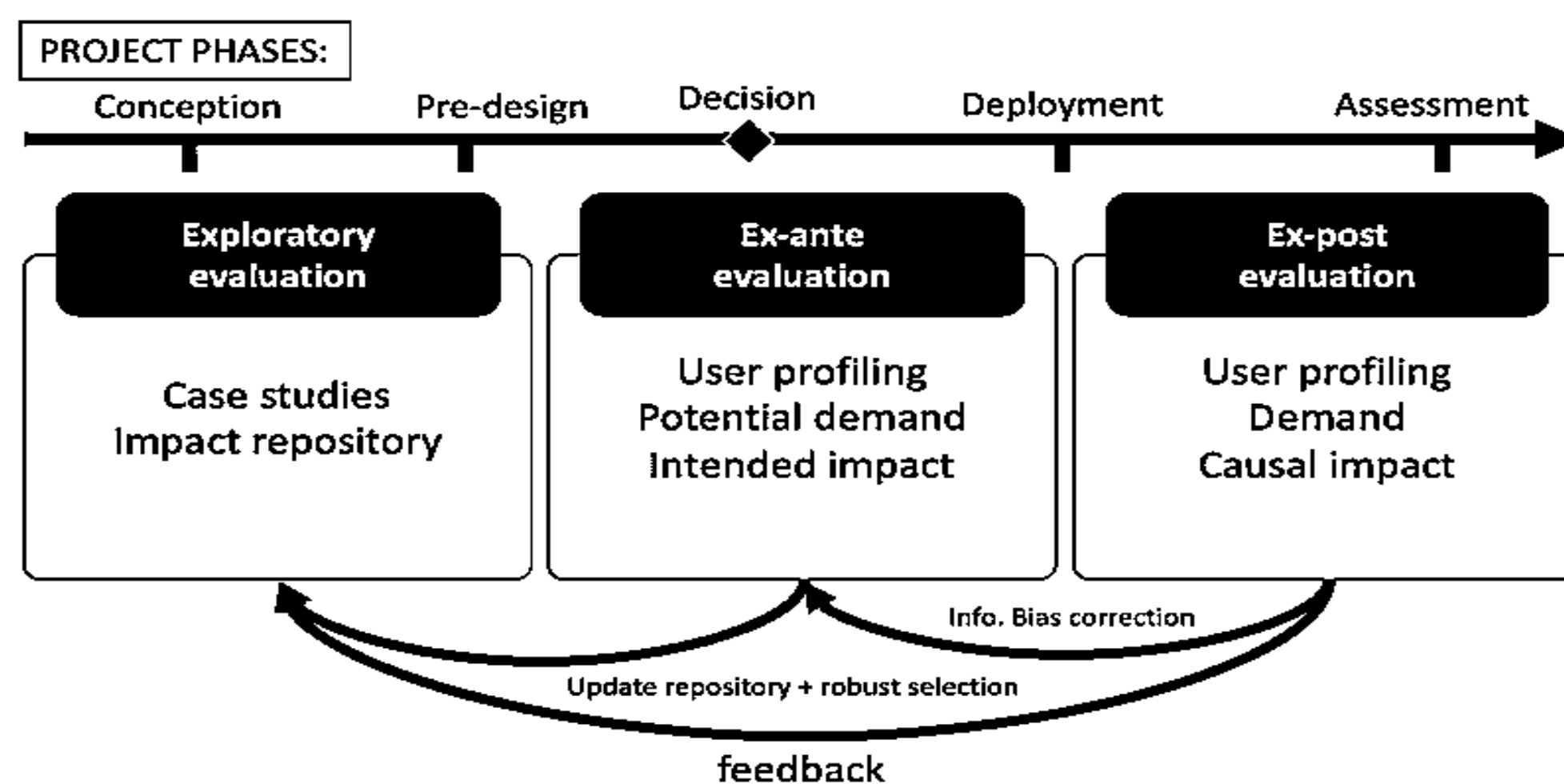


Figure 4: Shared mobility solutions and Mobility hubs CO2 impact assessment method: MODE (BAX & Company., 2021)

FIRST RESULTS

Norfolk -23 CO2 tons per year **Valenciennes** -67 tons of CO2 per year.

