Radboud Universiteit

Master Thesis

Does Fare-Free Equal Free-For-All?

A study of fare-free public transport (FFPT) in French cities

By Andrew Gillies

MSc in Spatial Planning

Nijmegen School of Management

Radboud University

December 2019

Master Thesis Title	Does Fare-Free Equal Free-For-All? A study of fare-free public transport (FFPT) in French cities
Author	Andrew Gillies
Student number	s1016788
Email	andrew.gillies@student.ru.nl andrewgillies7@gmail.com
Degree	MSc in Spatial Planning
Faculty	Nijmegen School of Management
University	Radboud University Houtlaan 4 6525 XZ Nijmegen The Netherlands
Version	Final
Date	December 2019
Supervisor	Dr Karel Martens
Word count (Chapters 1 to 6 inclusive)	29,380

SUMMARY

For its proponents, fare-free public transport (FFPT) represents a potential solution to address a variety of urban problems including congestion, air pollution, car dependency and inequality. As of 2019, there are approximately 100 cities worldwide with 'full' FFPT, with France having the most of any European country (at least 20). The aim of this research is to examine the extent to which several elements - 'motivation factors', key actors, the institutional context and local conditions - have influenced the decision of French cities to introduce (or discontinue) FFPT.

This research utilises a cross-case study of six French cities with FFPT, as well as two which have recently discontinued it. Firstly, three key 'motivation factors' and a list of key actors usually involved in the process of introducing (or discontinuing) FFPT are defined. This is followed by a look at the institutional context for public transport in France, as well as the local conditions in the selected cities. For each of the case study cities, an interview was conducted or a written response provided from a person either within the administration of the city or its public transport provider (an elected representative or public servant with responsibility for transport/mobility). In addition to a general discussion about the city and its public transport network, respondents were specifically questioned about each of the key elements, with the aim being to ascertain the relative importance of each. In the results chapter, key findings including quotes are presented firstly by city, followed by an overall summary for each element.

The results showed that, of the three main motivation factors, it was the economic rationality perspective that had the greatest influence on the decision to introduce (or discontinue) FFPT. If it was found that the city could save money through the abolition of fares (and thus related costs of equipment, personnel and fare collection and fare media) this strongly influenced the key decision-makers. Secondly (and related to the economic rationality perspective), France's *versement transport* payroll tax was a key factor that provided a vital source of revenue for each city that could almost always fully offset the lost revenue resulting from fare abolition. Finally, in almost all cases, FFPT was initiated and implemented in a top-down manner by the mayor and a vote of the elected representatives of the city and/or its agglomeration community. It was this combination of the economic rationality perspective and decisions of elected representatives that ultimately had the greatest influence on the decision of the city to introduce (or discontinue) FFPT.

Keywords:
Fare-free public transport
France
Public transport
Transport funding
Transport policy

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

AOM	*Autorité organisatrice de la mobilité* - Urban mobility transport authority
AOT	*Autorité organisatrice de transports* - Transport organising authority
BHLS	Buses with a High Level of Service
CA	*Communauté d'agglomération* - Agglomeration community
CDC	*Communauté de communes* - Community of communes
CU	*Communauté urbaine* - Urban community
CT	*Code des Transports* - Transport Code
DSP	*Délégation de service public en transport urbain* - Public service delegation of urban public transport (operation of a public transport network delegated to a private operator)
EPCI	*Établissement public de coopération intercommunale* - Public institution of intercommunal cooperation
EPCI *á fiscalité propre*	EPCI with taxation powers
EPCI *sans fiscalité propre*	EPCI without taxation powers
FFPT	Fare-free public transport
GART	*Groupement des autorités responsables de transport* - French Association of Public Transport Authorities
La régie	Self-operation of a public transport network by an AOM
LAURE	*Loi sur l'air et l'utilisation rationnelle de l'énergie (1996)* - Air and Rational Use of Energy Act (1986)
LOTI	*Loi d'orientation des transports intérieurs (1982)* - Internal Transports Orientation Act (1982)
LR	*Les Républicains* - The Republicans (political party)
PS	*Parti socialiste* - Socialist Party (political party)
PTU	*Périmètre de transport urbain* - Urban transport perimeter
TCSP	*Transport collectif en site propre* - Public transport in its own site
TER	*Transport express régional* - Regional express trains in France
TGV	*Train à grande vitesse* - High-speed trains in France
UMP	*L'Union pour un mouvement populaire* - Union for a Popular Movement (political party)
UDI	*Union des démocrates et indépendants* - Union of Democrats and Independents (political party)
VT	*Versement transport* - Transport payment (a payroll tax in France)

LIST OF TABLES AND FIGURES

LIST OF CASE STUDY CITIES

City	Intercommunal authority name and (type)	Abbreviation or short form of intercommunal authority name	Public transport network name
With FFPT			
Châteauroux	Châteauroux Métropole (CA)	-	Horizon
Compiègne	L'Agglomération de la Région de Compiègne et de la Basse Automne (CA)	ARCBA	TIC (Transports Intercommunaux du Compiégnois)
Dinan	Communautés d'agglomération (CA) Dinan Agglomération	Dinan Agglomération	DINAMO!
Figeac	La communauté de communes Grand-Figeac (CC)	Grand-Figeac	Le Bus Figeac
Graulhet	Gaillac Graulhet Agglomération (CA)	-	La Navette
Neuves-Maisons	La communauté de communes Moselle et Madon (CA)	CCMM	T'MM (Transport en Moselle et Madon)
Discontinued FFPT			
Arcachon	La communauté d'agglomération du Bassin d'Arcachon Sud - Pôle Atlantique (CA)	COBAS	Baïa
Manosque	Durance-Luberon-Verdon Agglomération (CA)	DLVA	Transagglo

1. INTRODUCTION

1.1 Research problem statement

Urbanisation, congestion and a steady increase in vehicle-kilometres travelled are ongoing global trends (UN, 2017; Handy, 2002; FHWA, 2018). Increased car dependency in particular has resulted in serious environmental (e.g. air pollution, greenhouse emissions) and health impacts (e.g. traffic-related deaths and injuries, obesity), as well as costs for businesses and society (e.g. time lost due to congestion) (Brög et al., 2004) (Cools et al., 2016). As a result, concerns over these issues "have generated particular interest in how transport-planning policies might moderate the pressures resulting from growth in personal mobility and support the principles of sustainable development" (Cools et al., 2016, p. 96).

Furthermore, as Daremas (2018) contends, owning a car has become the default symbol of class status and prestige and private car use as the dominant form of mobility has led to the creation of a two-tiered system of the 'privileged' - who can afford to own and run a car - and the 'underprivileged' who cannot. Attoh (2012) names this second group as 'the transportation disadvantaged' and generally includes the elderly, disabled and poor, as well as children, students and others with less access to the private car. These issues ultimately relate to the concepts of 'the right to the city' (Lefebvre, 1996 [1968]; Kębłowski et al., 2019b), 'spatial justice' (Soja, 2009; 2010) and 'transport justice' (Martens, 2017). Together, academic discourse on these subjects has renewed interest on issues of inequality within the city generally, as well as inequality in the realm of transport more specifically (Attoh, 2012).

To address these various issues, fare-free public transport (FFPT) has been offered by its proponents as a potential solution. Nevertheless, as even Dellheim and Prince (2018) - supporters of the concept - acknowledge, "free public transit, on its own, cannot solve the problems faced by societies and cities as we enter the second quarter of the 21st century" (p. 242). But "what they can do is signal a city's clear intention to prioritise collective means of transportation as an unequivocal response to growing urban poverty, social inequality, and climate change" (p. 242).

As will be described in chapter two, FFPT is a concept that has a history dating back to the 1970s. Cities can decide to introduce FFPT for a variety of reasons. These 'motivation factors' can be broadly grouped into three 'perspectives' (or categories) as defined by Kębłowski (2019) - economic rationality, sustainable development and socio-political transformation. These are not mutually exclusive, and it is almost always a combination of reasons from each of these three perspectives which have lead to a city, its public transport operator and its citizens to make the decision to abolish fares. Furthermore, key actors, the institutional context and local conditions also play a key role in the decision to introduce or - in some cases - discontinue FFPT.

As of late-2019, France is the European country with more FFPT cities than any other - 20 with 'full' FFPT and at least 20 more with 'partial' FFPT (note: see section 2.2 for the difference between 'full' and 'partial' FFPT) (Kębłowski, 2019). Since September 2018, Dunkirk has been the largest city in Europe to offer FFPT to all (not only residents). Between 2017 and 2019, at least five French cities have introduced full FFPT (Dunkirk, Niort, Dinan, Libourne and Villeneuve-sur-Lot), however several have also recently discontinued it (e.g. Arcachon, Cluses, Colomiers and Manosque).

1.2 Research aim and questions

This aim of this research is to identify the relative importance of 'motivation factors', key actors, institutional context and local conditions that has enabled the introduction, continuation or (where applicable) the discontinuation of full FFPT in eight French cities. In order to achieve this aim, the main research question has been formulated as follows:

To what extent do 'motivation factors', key actors, the institutional context and local conditions influence the decision of various French cities to introduce or discontinue full FFPT?

To help answer this main research question, four sub-questions will also be answered:

1. What have been the main 'motivation factors' that have prompted various French cities to introduce (or discontinue) full FFPT?

These 'motivation factors' are first identified through a review of the literature and historical examples of FFPT, both within France and elsewhere. These can be classified into three broad perspectives as defined by Kębłowski (2019) and are detailed in section 2.3. The empirical research will identify which of these factors were present in the selected case study cities, including cities which have recently discontinued full FFPT.

2. Who have been the key actors involved in the process of introducing (or discontinuing) full FFPT, and how have they implemented this policy change?

This will be drawn from a list of actors based on a list developed by Volinski (2012) but also through an exploration of the history of how FFPT has been promoted by its supporters in the past. The key proponents and opponents of the concept will be identified in order to determine which were instrumental in the introduction of FFPT and how they achieved this: either in a 'top down' manner by mayors and local governments or in a 'bottom up' way by others such as citizens or civil society organisations.

3. How has the institutional context for public transport in France - particularly funding - influenced the introduction (or discontinuation) of full FFPT?

This institutional context refers to the specific legislative framework, institutional structures and especially funding arrangements which govern public transport in France (see chapter four) and are considered key in assessing the operation of FFPT in the country.

4. How important have local conditions (e.g. city and public transport network size, transport modal split, socio-economic conditions) been in the decision to introduce (or discontinue) full FFPT?

Local conditions - such as the size of the city or its public transport network, transport modal split, socio-economic conditions, perceptions of transport problems and other factors will always play a part in the decision of a city to introduce or discontinue full FFPT. Thus this research will look at the relative importance of these local circumstances in the decision of the selected case study cities to introduce (or discontinue) full FFPT.

1.3 Societal relevance

The primary societal relevance of this research is to contribute to the current debate on a concept which continues to gain greater attention and is being implemented in a slowly, yet steadily increasing number of cities.

Undoubtedly, the most well-known and largest city to have introduced FFPT to date is the Estonian capital of Tallinn (estimated population 434,562 in 2019), which did so in 2013 (Shearlaw, 2016). While this scheme is for residents only, and the general consensus amongst academics (e.g. Cats et al., 2017; Hess, 2017; Kębłowski et al., 2018a) is that this was done more for political and financial reasons over any more noble concerns for the environment or social justice, Tallinn is still held up by proponents of FFPT as a case *par excellence* of how and why FFPT can be feasible in a larger city. Indeed the city calls itself the 'Capital of Free Public Transport' and uses it as a marketing tool to promote conferences and study tours (City of Tallinn, 2013).

While Tallinn is the most famous and largest city to have introduced FFPT, transport authorities and municipal leaders in cities as large as New York, San Francisco and Paris have also formally explored the feasibility of FFPT in their cities with detailed reports commissioned in each case - in 2008, 2008 and 2018 respectively (SGA, 2008; Kheel/NNYN, 2008; The Local (France), 2018). The case of Paris is described in further detail in chapter two.

Furthermore, in December 2018 the government of Luxembourg announced that public transport across the country would be made completely free by March 2020 (Auxenfants, 2019). It was

originally reported that this has been proposed mainly to address the issue of traffic congestion - given nearly 200,000 people from neighbouring France, Belgium and Germany commute each day into the country of 600,000 inhabitants (Boffey, 2018). However according to the minister for mobility and public works, François Bausch: “It is primarily a social measure. The objective is to stop the deepening gap between rich and poor. For people on low wages, transport expenses matter. Therefore it is easier to make it free for everyone.” (quoted in Auxenfants, 2019). Whether these goals are realised remains to be seen, but nevertheless, this and the other cases demonstrate the increasing attention, discussion and implementation of FFPT and the societal relevance of this research.

Finally, to understand the relevance of this research and focus on France specifically, it is worth quoting Kębłowski (2018b, p. 103), one of the leading academics on the topic who states: “No discussion about the policy of fare abolition can be complete without a discussion of how it functions in France.”

This quote precedes a discussion of implementation of FFPT in 2009 in the small southern French city of Aubagne, near Marseille. This quote - and the analysis Kębłowski makes of that case - demonstrates the importance and relevance of studying FFPT in France. For as will be described in chapter two, the concept of FFPT in France dates back as far as the 1970s; a history longer than any other European country. As previously mentioned, France is now the European country with more FFPT cities than any other (over 30) (Kębłowski, 2018b) with Dunkirk being the largest city in Europe to offer FFPT to all (in contrast to Tallinn which is only for residents). By comparing the selected case studies, this research also aims to make a contribution to society’s understanding of the topic, as few comparisons between cities within a single country have been made, outside of the USA. As such, this research aims to make a new contribution to the discussion on this increasingly popular concept.

1.4 Scientific relevance

The primary scientific relevance of this research is to contribute new knowledge to the relatively undeveloped body of academic literature on the topic of FFPT generally, as well as the concept within the context of France more specifically.

Although the idea of FFPT is nothing new, as will be detailed in chapter two, to date there has only been one book published in English on the subject (Dellheim & Prince, 2018). According to Kebłowski (2019), although FFPT is a topic that generates much debate, “few studies have attempted to closely scrutinise it - they focus on specific regions or countries (e.g. Briche et al., 2017b; Cordier, 2007; Volinski, 2012) or on specific cases” (e.g. Brown et al., 2003; Cats et al., 2017; Fearnley, 2013) - and academics both “within and outside of the field of transport and mobility rarely discuss it” (Kebłowski, 2019, p. 2). Thus it is an under-researched topic and no comprehensive global overview of the concept exists (ibid.). In addition, there has been little

academic research into France's experience with FFPT other than the exception of Aubagne (see Giovanangelli & Sagot-Duvauroux, 2012; Kębłowski, 2018b).

Given these facts, much of the discourse on FFPT takes places in media articles, but the writers of such articles are usually not academic experts and thus often discuss the topic in a superficial way. Comments by the general public in relation to such articles is almost always similar; proponents argue in favour of the concept for social justice or environmental reasons regardless of the cost, while arguments from opponents are almost always due to financial reasons, questioning how the public transport system will be funded and level of service maintained if fares were to be eliminated. Consequently, there is a level of misinformation and dogma around the topic which necessitates further scientific inquiry. This dogma is touched on by Patrice Vergriete, the mayor of Dunkirk (quoted in Wilshire, 2018), who said: "The subject of free public transport is full of dogma and prejudice and not much research. This dogma suggests that if something is free it has no value. We hear this all the time in France."

Finally, as Kębłowski et al. (2019a) note, much academic discourse on FFPT has tended to focus on whether it can promote public transport ridership and modal share at the expense of private car use, with the ultimate aim being to achieve more sustainable mobility patterns. Some academics have also focused on the social benefits, as in Tallinn for example, where FFPT increased public transport access for the poor, unemployed, youth and elderly (Cats et al., 2017). However, as Kębłowski et al. (2019a) note, these interpretations of FFPT have "described rather than analysed the process of policy-making behind fare abolition, and they have not inquired into its wider spatial implications" (p. 2). The authors thus call for what they term an 'urban political geography of transport', which combines urban political geography with transport scholarship to ultimately view urban transport "as a profoundly political issue, rather than merely a technical one" (p. 12). The aim of this research is thus to explore how this 'urban political geography of transport' ultimately led to the selected French cities introducing and maintaining FFPT.

1.5 Thesis structure

This thesis is divided into the following chapters:

Chapter one is the introduction which includes the research problem statement, research aim, main and sub-research questions and the societal and scientific relevance of the research.

Chapter two outlines the theoretical framework, including a conceptual framework which links the various theory and concepts expanded upon in this chapter.

Chapter three defines the proposed methodology including the research philosophy, strategy, methods of data collection and analysis, the selection of case study cities, interviewees and structure of the interviews and validity and reliability of the research.

Chapter four is a short introduction and description of each of the eight case study cities and their public transport networks.

Chapter five includes the results of the empirical research and an analysis and comparison of the different elements of the conceptual framework across the eight case study cities.

Chapter six is the conclusion which answers firstly the sub-research questions, followed by the main research question. It concludes with recommendations for further research and a personal reflection on the whole research project, including limitations of the research.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter details the relevant definitions, history and theories relating to FFPT which are relevant to answering the research questions. It is divided into the following sections:

- Section 2.2 describes the scope and definitions of FFPT
- Section 2.3 provides a selected history of the concept in the USA and Europe.
- Section 2.4 builds upon the selected history of FFPT to define the three main perspectives as per Kębłowski (2019), which are essential to understanding the main 'motivation factors' for why cities would introduce FFPT.
- Section 2.5 outlines the main actors usually involved in the process of introducing FFPT.
- Section 2.6 is an exploration of the 'implementation factors' specific to the French context and are identified by describing the legislative framework, institutional structures and funding arrangements for public transport in France; and
- Section 2.7 is the conceptual framework

2.2 Scope and definitions of FFPT

In order to discuss FFPT it must first be defined. While it may seem like a relatively simple concept, it has been implemented in a variety of ways in a variety of cities. In some cities, it is on a system-wide scale, while in others it only applies to specific groups, routes or areas, or only at certain times. Using a definition from Kębłowski (2018a), a distinction must first be made between 'full' and 'partial' FFPT. Full FFPT is defined as follows:

A situation in which, within a given public transit system, fares do not apply to:

a) The great majority of transport services,

b) The great majority of its users, and

c) Most of the time

Furthermore, his definition for implementation of a full FFPT system is one that has been in place for more than one year and thus excludes trials and experiments with the concept. According to this definition, by Kebłowski's count there were 97 cities and towns worldwide with full FFPT in 2017. More than half (56) are in Europe, with the highest in France (20) and Poland (21). With regards to the number of French cities, at the time of writing in 2019, the number of such cities has remained about the same (a full list is included in section 3.5).

It is also worth noting Kębłowski's (2018a) definitions of 'partial' FFPT:

1) **FFPT systems limited by 'who' can benefit:** Many cities and even countries limit free public transport often to school and tertiary students, the elderly, unemployed, low income or disabled. This type of limited FFPT is particularly popular in Europe such as the free student travel product in the Netherlands on either the weekday or weekend (*Studentenreisproduct*);
2) **FFPT systems limited by 'where' it applies:** A specific service in a specific area may be free but exist within a paid public transport network. Two Australian examples include the Melbourne Free Tram Zone in Melbourne's CBD, and the 'Gong Shuttle' bus, which operates in Wollongong, New South Wales, between Wollongong station and the University of Wollongong; and
3) **FFPT systems limited by 'when' it applies:** This is usually applicable before morning peak periods, such as in Chengdu, China, where all buses are free to ride before 7:00am, or in Singapore, where a Free Pre-Peak Travel (FPPT) scheme allowed free travel for commuters exiting 18 selected metro stations before 7:45am. This scheme was introduced in June 2013 but ended on 29 December 2017 (Metro Report, 2017). The reason for its end was that the Singaporean government's Public Transport Council (PTC) stated "that it found current fares to be generally affordable, after taking into consideration feedback from commuters and focus group discussions" (Choo, 2017).

As Kebłowski (2019) explains, this distinction between full and partial forms of FFPT is important for at least two reasons. Firstly, it demonstrates the variety of ways that FFPT can be implemented - limiting its application in the ways outlined above. While several towns and villages claim to be providing full FFPT, the service they provide are in fact composed of only one or two routes, and due to their limited scope cannot really be considered as full FFPT networks. This is because one or two lines cannot really be considered a public transport network on the scale usual seen in larger towns and cities.

Secondly, in those cities where fare abolition is only partial, it can serve as a practical test of the overall feasibility of full FFPT. They can serve as "a visible example that a 'fare-free city' is not only imaginable as part of some urban utopia, but actually exists - even if it is currently limited in terms of where, how and for whom it is applied" (Kębłowski's, 2018a). This research will thus focus on French cities with full FFPT. For clarity, from this point onwards, when the acronym FFPT is used, it refers to 'full' FFPT unless stated otherwise.

2.3 A selected history of FFPT

A comprehensive account of the history of FFPT is beyond the scope and purpose of this research. Therefore a selected history of implemented or proposed FFPT schemes is provided below, limited to some well-known examples in the United States of America (USA) and Europe,

including France. This is because the USA and Europe have the longest history of FFPT and are most relevant to the current situation in France. This history is useful in understanding the 'motivation factors' for why cities consider FFPT.

2.3.1 USA

The earliest examples of FFPT systems in the USA date from the early 1960s in the cities of Commerce (California) in suburban Los Angeles, and East Chicago (Indiana) in the Chicago metropolitan area. Both systems are bus-only and continue to operate to this day. Further experiments with FFPT systems were trialled throughout the 1970s to early 1990s, the most notable examples being in Mercer County/Trenton (New Jersey), Denver (Colorado) and Austin (Texas). However, these trials were discontinued after approximately a year in each case, despite a marked increase in ridership (of between 30% and 75%) as "there was not enough political support for increasing network capacity" (Kebłowski 2019, p. 14) and responding to security concerns - what Volinski (2012) termed as 'problem riders'.

As recounted by Kębłowski (2019), during this era, "proponents of fare abolition in North America referred to social and political arguments, pointing out anticipated social benefits of abolishing fares, and - signalling what in future would materialise as a call for "sustainable" mobility - claimed that zeroing fares could help to increase the use of PT and offset the high investment in automobile infrastructure" (p. 14). In contrast, opponents of the concept used economic theories to make the argument that the abolition of fares would not significantly alter passenger behaviour.

According to Volinski's (2012) report on all FFPT systems in the USA, there are approximately 40 full FFPT systems in the USA. These can be classified into three broad categories: systems serving 1) small urban and rural communities, 2) university-dominated communities, and 3) resort communities. A systematic list of reasons for introducing FFPT in these communities, cited by those surveyed by Volinski is provided below. It is worth noting that most of these places are small municipalities and counties, with only three having more than 100,000 inhabitants (Kebłowski, 2019).

Table 1: Reasons for implementing FFPT and type of reason

Reasons for implementing FFPT	Type of reason
Costs consume revenue collected	Economic/financial
Taxes already pay for service	Economic/financial
Reduce cost of commuting	Economic/financial
Economic development	Economic/financial
Fare would reduce federal match	Economic/financial

Private service was free	Economic/financial
Accommodate short trips and trip chaining	System efficiency
Reduce dwell time	System efficiency
Administrative difficulties with fares	System efficiency
Reduce traffic congestion	Environmental
Encourage reductions in auto use	Environmental
Preserve the environment	Environmental
Reducing use of oil	Environmental
Reduce need for parking	Environmental
Fare collection distracts drivers	Social
Concerns over crime and robbery	Social
Marketing, increase ridership, convenience	Social
Social equity	Social
Increase liveability	Social
Condition of development approval	Other

Source: Reasons - Table 7 in Volinski (2012), Type of reason - Own work

A final significant event worth noting is the unanimous decision taken by the city council of Kansas City (Missouri) in December of 2019 to introduce FFPT in the city of 491,918 (US Census Bureau, 2018). The measure would make Kansas City the largest city in the USA to have FFPT (Rodriguez, 2019). This would apply to all buses within the city limits and would be in addition to the already free RideKC Streetcar, which has been free to ride since its opening in 2016.

2.3.2 Europe

The earliest examples of FFPT in the 1970s

At the same time various American cities began to experiment with FFPT, a number of notable examples also emerged in Europe. However, unlike in the USA, fare abolition in Europe at that time was often related to the emerging environmental movement (Kebłowski, 2019). “Additionally, in many municipalities with established left-wing traditions, the idea of providing unconditional access to public transport was strongly related to socio-political rationales” (ibid., p. 16).

The city of Colomiers, in the suburbs of Toulouse, France is generally cited as the first example of a full FFPT system in Europe (1971). This system operated free of charge until 2016, when it was subsumed into Tisséo, the regional public transport authority covering the greater Toulouse region

and Tisséo did not wish to expand FFPT to their whole network (FFPT in Toulouse today is limited to children, students, seniors, the unemployed and disabled) (CDH-G, 2017). Colomiers was followed by Rome, where the city's then left-wing government cited economic and socio-political reasons (easing congestion, making access to public transport easier for workers and students) for introducing FFPT. However, "due to economic reasons, fares were reinstated after only seven months" (Kebłowski, 2019, p.17).

Similar reasons were cited in Bologna which "introduced FFPT in 1973 as a free service for local workers and students" (Aftimus and Santini, 2018) (Kebłowski, 2019, p.17). Long a stronghold of the Italian Communist Party (*Partito Comunista Italiano* - PCI), the mayor of Bologna came from the PCI or its successor parties continuously from 1945 to 1999, and thus the implementation of FFPT in 1973 was done under the leadership of the PCI and a coalition of left-wing parties. Bologna during this era was at the vanguard of many progressive ideas, and plans around reducing car traffic and prioritising pedestrians and public transport. FFPT was just one among many then radical ideas proposed to ease chronic traffic congestion in the historic city. Different forms of FFPT were introduced in Bologna in the 1970s, however did not last for more than a few years (Tira & DeRobertis, 2018).

Hasselt, Belgium (1997-2013)

Promoting sustainable mobility was also the overarching goal and reason for launching one of the most well-known European examples of full FFPT in the Flemish-Belgian city of Hasselt in 1997. As recounted by Brie (2018), this was prompted by the concerns of the city's then-mayor Steve Stevaert, who believed that rising traffic levels threatened the quality of life of the city's inhabitants. Accordingly, through alliances with others at both the municipal and regional level, Hasselt cancelled plans for the construction of a new ring road around the city, eliminated fares, reformed the organisation and structure and greatly expanded its bus network. Accordingly, the number of annual bus passengers increased nearly 13 times, from 350,000 in 1996 to nearly 4.5 million in 2012. However because of the economic crisis, the need to cut costs and raise revenue, the city council of Hasselt decided to end FFPT in 2013 (Verachtert, 2013).

Tallinn, Estonia (2013-present)

Tallinn is perhaps the most famous city in Europe with FFPT. As recounted by Hess (2017), after the collapse of the Soviet Union and Estonia regaining its independence in the early 1990s, car ownership and driving rates in Estonia increased dramatically. This growth accelerated in the 2000s to the extent that the modal share in 2003 - 24% for driving and 41% for public transport - almost exactly switched by 2015 - 41% for driving and 23% for public transport (Pöldemaa, 2016) - the balance made up by other modes. Against this backdrop, a non-legally binding referendum was held in 2012 at the initiative of the municipal government, where more than 75% of voters supported the elimination of fares (BBC, 2012). Even though this was only based on a turnout of 20%, mayor Edgar Savisaar (mayor from 2007-2015) and the city council approved the

introduction of FFPT. It was interpreted by many as a populist strategic move to ensure re-election as well as a way to increase the municipal budget (Aas, 2013). This is because in Estonia, a large share of local government budgets comes from local taxes, and the proposal resulted in an addition of between 20 and 30,000 new people officially registering as citizens of Tallinn. While 12 million EUR in ticket revenue was lost annually, 20 million EUR was gained through the increase in citizen registrations; a portion of the 8 million EUR annual surplus is used to finance public transport capital improvements while the balance is used to support non transport-related aspects of the municipal budget (Hess, 2017). Tallinn's FFPT scheme - albeit for residents only - continues to this day.

FFPT in Europe in the 21st century

Since the 2000s, "a plethora of FFPT systems have emerged in Europe" (Kębłowski, 2019, p. 16). Poland and France have the most cities (at least 20 each respectively), with all of the Polish examples having been implemented in the past decade (ibid.). European FFPT schemes continue to be more firmly based on the reasons of sustainability, as opposed to the American examples (Briche et al.,2017; Cordier 2007, 2017; Ramböll 2015). Many European municipalities justify FFPT as a strategy "to reduce car usage" and car-related pollution and noise, thereby "increasing liveability" (Kebłowski, 2019, p. 16). However, socio-political arguments also seem to be key reasons in those municipalities with more left-wing traditions (ibid.). For example, the French cities of Colomiers and Vitré have stated that their decision to introduce FFPT was inspired "not by attempts to reduce car usage and generate a modal shift", but as a social policy to help the 'transport disadvantaged', re-defining transport as common good (Briche et al., 2017; Cordier 2007) (Kebłowski, 2019, p. 17). In many of the Polish FFPT cities (e.g. Lubin, Środa Wielkopolska and Mława) municipal leaders have also expressed a similar desire to promote accessibility for this group (Ługowski 2017).

Germany was previously the home of a well-known trial in cities including Templin, north of Berlin, which had FFPT between 1998 and 2002, resulting in a significant ridership increase from 41,360 to 512,000 by the year 2000 - an increase of almost 13 times (Storchmann, 2003). The German Federal Ministry of Transportation studied the implementation of FFPT in Templin and "found that the vast majority of new transit riders were children and adolescents" (Keuchel et al., 2000; Storchmann, 2003, p. 96). According to Storchmann (ibid.), overall, "the benefits of fare-free transit in Templin could offset the costs". More recently, in the wake of the 'Dieselgate' scandal and continuing concerns about high levels of air pollution in its cities, in February 2018 the German government proposed a trial of FFPT in five cities (Bonn, Essen, Heerenberg, Reutlingen and Mannheim) in order to cut serious levels of air pollution (Dundon, 2018). It would seem however that these trials have not happened, as since the initial announcements there has been almost no mention of the trial.

As previously noted, Luxembourg's government has proposed to introduce FFPT across the entire country by March 2020 (Auxenfants, 2019).

France - Aubagne (2009-present) and proposals for Paris

This diversity of reasons for introducing FFPT can be seen in the city of Aubagne, near Marseille. It forms the centre of the former Agglomeration community of Pays d'Aubagne et de l'Etoile (*Communauté d'agglomération du pays d'Aubagne et de l'Étoile* - CAPAE; population 104,018). Note CAPAE was subsumed into the larger Aix-Marseille-Provence metropolitan region (*métropole d'Aix-Marseille-Provence* - AMP) in 2016. FFPT was introduced by CAPAE in 2009 across the area's 11 regular and 13 school bus lines, as well as its single tram line which opened in 2014. The network is operated by *Façonéo Mobilité*, a local public company (*société publique locale*).

According to Kębłowski (2019), the implementation of FFPT in Aubagne "has an inherently social and political dimension, as it was conceived as a welfare policy conceptualising public transport as a common good, addressing impoverishment of the working class and youth exclusion, as well as the rising socio-spatial inequality within CAPAE" (p. 17). The "estimated cost of FFPT amounts to 1.57 million EUR: 710,000 EUR for the lost revenue from fares and 860,000 EUR for costs related to increased demand for PT. It is covered by an increase of the *versement transport* (VT) (transport tax) (from 0.6 to 1.8%)" (ibid.). As the tax increase generated 5.7 million EUR of revenue, FFPT was accompanied by a comprehensive network modernisation which resulted in a 136% increase in ridership, from 1.9 million passengers in 2008 to 4.48 million EUR in 2011. "Studies conducted by the local authorities show that 63% of new trips generated by fare abolition would otherwise have been performed by a motorised vehicle (Giovanangelli and Sagot-Duvauroux 2012). While prior to fare abolition the PT network was primarily used by the youth and elderly, in the fare-free program passengers are more diverse, as there are more salaried workers (+7%), and less students (–3%) and pensioners (–2%)" (Kębłowski, 2019, p. 17), in terms of the share of total riders (CAPAE 2013).

Finally, it is worth mentioning the case of Paris where, in March 2018, mayor Anne Hidalgo announced the commissioning of a report to consider making public transport free in the French capital. That report was due to be released by early 2019 but had not appeared at the time of writing. However, as reported by The Local (France) (2018), at the same time the report commissioned by Hidalgo was being carried out, a second feasibility study was released, which had been commissioned by Valérie Pécresse - the right-wing president of the Île-de-France (greater Paris) region and chair of Île-de-France Mobilites (ÎDF Mobilités), the body which coordinates public transport in the Paris region. "That study was conducted by a committee of eight experts under the guidance of Jacques Rapoport, a former President of SNCF Réseau (which manages transport infrastructure) and former Deputy Director General of the city's public transport operator RATP Group" (*Régie Autonome des Transports Parisiens*) (ibid.). The report was not in favour of FFPT essentially for economic rationality reasons, which obviously complicates the debate in Paris. Despite this, an increasing number of cities have introduced FFPT in France in

recent years and the concept seems to be gaining momentum in the country. A list of all French cities with full FFPT is contained in section 3.5.

2.4 Motivation Factors - The three perspectives on FFPT

Using a typology developed by Kębłowski (2019), this section introduces the three perspectives to understand the 'motivation factors' that influence why a city may or may not consider introducing FFPT, as well as a way to understand differing views "on the (non-)viability and (non-)desirability of the concept" (p. 7). As Kębłowski (ibid.) notes:

"The diversity of forms of fare abolition and the continuous growth of the number of cities and towns implementing this policy have not yet led to a fervent debate, within and outside academia. Nonetheless, when reviewing arguments in favour or against full FFPT, three main perspectives on this policy can be distinguished.… I summarise them as viewing FFPT from the perspective of - respectively - economic rationality, sustainable development and socio-political transformation."

2.4.1 Economic rationality

The first perspective is economic rationality: "most transport academics and practitioners seem to view FFPT through the lens of utility, efficiency and economic growth" (Kębłowski, 2019, p. 7). The same can be said for many politicians and those involved in the provision of public transport. Such criticisms are essentially based on the belief that the elimination of fares will adversely affect the financial viability of the public transport system, as FFPT will eliminate farebox revenue "while increasing costs for maintenance, security and catering for increased passenger demand" (Fearnley, 2013; Storchmann, 2003) (Kebłowski, 2019). This view can be seen for example by Claude Faucher of the UTP (*L'Union des transports publics et ferroviaires* - the French public transport and railway union) in discussing the introduction of FFPT in Dunkirk: "That it should be free for those passengers with financial difficulties… could be perhaps justified. However, completely fare-free for all users would, we believe, deprive [public] transport of resources that are useful and necessary for development" (quoted in Wilshire, 2018).

To understand this perspective, it is worth noting that most public transport networks originally began as private, commercially-operated ventures but most eventually became public. As Kipfer (2012) notes, "in our age of privatisation, it is easy to forget that public transit was built on the ruins of private transportation networks. Between the late 19th and the middle of the 20th century, it became clear that 'the market' was incapable of organising effective forms of mass transportation. As a result, transportation was organised publicly: private rail, subway and trolley lines were taken over and transformed into transit agencies and railway corporations". Kipfer cites the example of Toronto, Canada, where the Toronto Transit Commission (TTC) was created in 1921 partly due to the fact that private streetcar companies (Toronto's original and primary form of

public transport at the time) were not willing “to expand their routes to support private real estate development” (ibid.). This pattern was repeated in many of the earliest public transport systems of the late 19th and early 20th centuries. Kipfer (ibid.) contends that public, mass transport “is intimately tied not only to the physical form of cities, towns and suburbs… but also profoundly shaped by the deeper social structures of imperial capitalism.”

Given this history, public transport therefore is generally not viewed in the same way that other public goods and amenities are, such as parks, schools, hospitals, clean air and water. So it is understandable why it represents such a drastic paradigm shift for politicians, public transport officials and indeed the general public to make this shift (Kipfer, 2012). Several economic studies have criticised FFPT as a ‘false good idea’ that challenges the logic of the transport market. They argue that while FFPT offers a misguiding “illusion” (UTP, 2011), the hard “economic reality” (FNAUT, 2015) requires that public transport “follows the tenets of urban entrepreneurialism - it should function as a self-funding or for-profit agency subjected to market mechanisms, rather than a publicly subsidised system, or a welfare program in which public transport acts as an element of a social policy” (Kębłowski, 2019, p. 7). A public transport system that is ‘free’ is “claimed to have no value to either the providers or its users, creating “an illusion that there are goods or services that have no cost” (CERTU 2010) (Kebłowski, 2019, p.7).

Furthermore, it is often argued that full FFPT is only viable in small, bus-only public transport systems in which there are already low farebox recovery ratios, lower volumes of passengers and thus infrastructure demands (Pinsker, 2015). Volinski’s (2012) comprehensive study of systems in the USA for example would seem to support this belief, where eliminating fares had the effect of significantly decreasing equipment, personnel and fare collection and fare media costs - all higher relative to overall costs in such lower patronage public transport systems. This same conclusion has been drawn by others who have studied FFPT in the American context (e.g. Perone, 2002). However, the increasing implementation of full FFPT in larger cities like Tallinn, Aubagne, Dunkirk, Kansas City - as well as the aforementioned studies into the idea for cities as large as New York, San Francisco and Paris - demonstrate that FFPT could be financially viable in even larger public transport networks - but only under certain circumstances.

As Fearnley (2013, p. 84) summarises, although FFPT “may seem attractive from economic, social and environmental perspectives, a fully 100 percent subsidised service will lose its focus on cost effectiveness and market orientation”. Modal shift from private car to public transport is minimal, with the majority of patronage growth being at the expense of walking and cycling, or induced demand. He concludes that “successful free public transport schemes are those whose goal is mainly to grow patronage. Congestion relief, social and environmental benefits are best achieved with more targeted measures, or in combination with such measures” (ibid., p. 75).

Thus one of the main reasons why many politicians and public transport providers do not wish to eliminate fares “is because they see FFPT as eradicating the fundamental financial incentive for

public transport operators" (Duhamel, 2004) (Kebłowski, 2019, p. 8). This would ultimately lead to the "symbolic devaluation of transport service in the eyes of its passengers - its clients" (ibid.). It would result in an increase in 'problem riders' - rowdy teenagers, drunks, drug-addicts and others engaging in antisocial behaviour - as was noted in the 1970s examples of FFPT in the USA (Volinski, 2012). However, "Cervero's (1990) claim that this effect may be 'universal' is at least partly refuted by the lack of evidence of such behaviour in the overwhelming majority of more recent FFPT cases in the USA (Volinski, 2012), Poland (Ługowski, 2017), and France (Briche et al., 2017a; b) - the three countries with the largest number of FFPT cities" (Kebłowski, 2019, p. 8).

A final critique is the criticism that FFPT would generate trips that "do not have a clear purpose" (Kebłowski, 2019, p. 8). Since public transport fares "act as a form of 'demand management' that prevents short or marginal trips and controls passenger behaviour" (ibid.) - abolishing them would lead to irregular use of the public transport network and generate more of what Cats et al. (2014) call 'non-productive trips' "that do not derive from actual mobility needs" (ibid.). This is indeed a plausible hypothesis borne out by many studies, because FFPT "is virtually certain to result in significant ridership increases no matter where it is implemented" (Volinski, 2012, p. 2). Many public operators view such travel behaviour in combination "with the problem of overcrowding and decreased trip reliability and punctuality" (Storchmann, 2003) (Kebłowski, 2019, p. 8). Nonetheless, with the exception of three long-discontinued programs in the USA, Kębłowski (ibid.) concludes that "there is no strong evidence that in any of the existing or discontinued cases fare abolition affected public transport network capacity and reliability in a significant and negative way. To the contrary, Volinski (2012, p. 7) demonstrates that in some PT networks the lack of front-door ticket validation can allow for significantly faster boarding, shorter dwell time, and consequently minimally higher commercial speeds".

In conclusion, the economic rationality argument is mainly used as the main perspective to argue *against* the introduction of FFPT, given the loss of revenue from fares and subsequent increase in ridership that would eventuate, given the usual need for more investment in new rolling stock and staff to cater for the increase in demand. On the other hand, it can also be used to justify fare abolition in smaller systems like those in the US, since fare collection represents a higher proportion of expenditure. An understanding of this perspective is therefore important to bear in mind when analysing the reasons why FFPT has or has not been introduced in a city.

2.4.2 Sustainable development

The second perspective as defined by Kębłowski (2019) is sustainable development, and the potential FFPT has, to contributing towards this goal. As previously noted, this perspective has been one of the key guiding principles used by proponents of FFPT, especially in Europe (e.g. Hasselt). Accordingly, several studies have focused on whether FFPT can achieve a modal shift

from the private car to public transport. However, in general, “an increase of public transport usage among car drivers correlates less strongly with a reduction or abolition of fares than with an increase of fuel prices, restriction of parking and road usage, or increase of public transport quality in terms of its speed, frequency and coverage” (Cervero, 1990; Thøgersen & Møller, 2008; Cats et al., 2017) (Kebłowski, 2019, p. 9).

As Cats et al. (2017) highlighted, FFPT in Tallinn only generated a small 3% modal shift from cars to public transport, but also a 5% shift from walking and cycling. In Hasselt, although there was a significant 13-fold increase in ridership, “as many of 63% of the newly-generated trips were made by former bus users. New passengers switched from the car (16% of trips made after the fare abolition), cycling (12%) and walking (9%) (van Goeverden et al., 2006). This indicates that the impact of FFPT on modal split may not be uniform”, and some schemes can result in a reduction in car usage, but only to a limited and minor extent (Kebłowski, 2019, p. 9).

This pattern was also seen in Storchmann’s (2003) study of FFPT in Templin, Germany, where new passengers were mostly former cyclists and pedestrians, not car drivers. However he concluded that since “using public transport is less accident-prone that cycling or walking, most benefits coming from FFPT are safety-related, which in turn translates to economic savings due to fewer road accidents. Nonetheless, from the perspective of sustainable transport, reducing fares has been criticised as an “unsuitable instrument for reducing car use and its external costs” and incapable for substituting trips made by cars” (Fearnley, 2013) (Kebłowski, 2019, p. 9).

As Kebłowski (2019, p. 9) contends, “the capacity of fare abolition to affect modal split undoubtedly relates to the quality of public transport service”. Many believe that when you make public transport free or very cheap, the service quality will suffer (FNAUT, 2015; UTP, 2011). However cities such as Aubagne, Dunkirk and many Polish cities have demonstrated that “somewhat paradoxically, fare abolition can help to increase the quality of collective transport, and generates very high passenger satisfaction” (Kebłowski, 2019, p. 9). This is because “the increased use of the public transport system under FFPT places collective transport firmly on political agendas (Storchmann, 2003), strengthens the public support for higher operation and investment subsidies, which in turn may give local authorities a stronger mandate for renewal of the public transport fleet, design of new routes, and increase of frequencies” (Giovanangelli & Sagot-Duvauroux, 2012) (Kebłowski, 2019, p. 9).

In conclusion, while it would seem that FFPT alone does not generate significant modal shift from the private car to public transport, proponents often use arguments based on the broader idea of promoting sustainable development to support their cause. However, given the ridership increase and increased attention placed on the public transport system that inevitably result from the introduction of FFPT, improvements in service quality, frequency and route coverage usually follow, and these have a greater impact on promoting modal share in favour of public transport.

Thus, arguments in favour of FFPT based on the perspective of promoting sustainable development ultimately do have some merit.

2.4.3 Socio-political transformation

The third and final perspective as articulated by Kębłowski (2019) is socio-political transformation. Rather than assessing the economic viability of FFPT, or its contribution to goals related to the concept of sustainability, this perspective "evaluates the potential of fare abolition to facilitate a profound and long-term social and political transformation" (ibid., p. 10).

In this perspective, the basic value of FFPT rests on how it introduces "a simplified use of public transport" (Hodge et al., 2004), "as anyone can take [it] any time they want" (Cordier, 2007) (Kebłowski, 2019, p. 9). Fare-free systems have been praised "for directly addressing the issue of social exclusion, inequality, and transport poverty by increasing accessibility to public transport" (ibid.) for the 'transport-disadvantaged', especially lower-income people (Larrabure, 2016; Schein, 2011). For example, Cats et al. (2017) found that fare abolition in Tallinn resulted in higher share of public transport usage among a variety of under-privileged groups, including the youth (+21%), elderly (+19%), the poor (+26%), and unemployed (+32%). "Similar observations have been made in the United States (Volinski, 2012) and France" (Briche et al., 2017; Kębłowski, 2018) (Kebłowski, 2019, p. 9). Rather than focusing on potentially negative effects of FFPT, this perspective "asks whether a substantial increase of ridership… caused by reducing fares to zero could under any circumstances be considered as a negative phenomenon, provided that FFPT directly benefits less mobile inhabitants" (Kębłowski, 2019, p. 10).

Accordingly, many proponents of FFPT rely on the argument that it is more socially just; it "shows solidarity with the weak, with those who cannot afford a car, with those who are dependent on public transport, who are particularly affected by its drawbacks" (Brie, 2012). "According to this logic, as public transport passengers do not drive private vehicles, and hence contribute less to traffic congestion and air pollution, they render a service to car users, and therefore their individual cost for accessing public transport should be reduced" (Kipfer, 2012) (Kebłowski, 2019, p.10). This perspective was key in the earliest examples of FFPT in Europe as previously described, including in Rome and Bologna, Italy.

The array of civil society groups and NGOs advocating for fare abolition "further nuance the claim that fare abolition is rarely demanded by passengers" (Cervero, 1990; Yaden, 1998) (Kebłowski, 2019, p. 10). FFPT is acknowledged by academics (Larrabure, 2016; Schein, 2011) and activists (Ariès, 2011; Giovanangelli & Sagot-Duvauroux, 2012; Robert et al., 2015) "for conceptualising collective transport not as a commodity, but as a common good, similar to many other public services including healthcare, parks, roads, sidewalks etc.". (Kebłowski, 2019, p. 10).

Accordingly, FFPT is viewed as a way of transforming the power relationship between the city government and public transport providers on the one hand, and the citizens of the city itself on the other (Kębłowski, 2019). Activist groups such as Planka.nu in Sweden for example believe that FFPT shifts the paradigm for public transport from a focus on the market and making a profit; “it challenges a liberal perspective that “continues to envisage payment as a way of assuring that infrastructure is respected in the case of public transport” (Cosse, 2010) (Kebłowski, 2019, p. 10).

One prominent example of this idea was found in Brazil, where the *Movimento Passe Livre* (‘free fare movement’) emerged during protests against an increase of public transport fares in June 2013 (Larrabure, 2016; Maricato et al., 2013; Verlinghieri & Venturini, 2017). The movement used this event to highlight the stark division in Brazil between richer citizens who could afford to own and run a car and poorer citizens who were reliant on public transport. This envisioning of a battle between what might be termed the ‘transport advantaged’ and the ‘transport disadvantaged’ thus represented an attempt to challenge the prevailing capitalist model of selling cars and building infrastructure for them, and to lead “the struggle for the new commons” (Larrabure, 2016)—away from purely economic or “sustainable” considerations (Kębłowski, 2019). The elimination of fares was conceptualised “as an act of opposition to biopolitical control and surveillance, which is exercised over public transport passengers through ticket personalisation, controls, barriers and identification systems” (Kitchin, 2014) (Kebłowski, 2019, p. 11). FFPT thus allows people to use public transport regardless of legal status or race (Kleiner, 2010; Rice & Parkin, 2010). Finally, this perspective on FFPT “emphasises its potential to improve the working conditions of public transport drivers”, who can focus on greeting and driving passengers, acting as ‘ambassadors’ for their town or city, and can avoid the inherent tensions and insecurity that comes with having to collect fares and deal with fare-dodgers (Volinski, 2012) (Kebłowski, 2019, p. 11).

Finally, a city itself can use FFPT to define itself, often in contrast to a neighbouring city with a very different political context. Aubagne, which has previously been mentioned, has used FFPT “as a unique territorial policy that largely opposes competition-driven agendas of urban neoliberalism” (Kębłowski, 2018b, p. 103) and as a way for it to avoid becoming simply another suburb of the neighbouring, famous, and much larger city of Marseille. Its public transport provider CAPAE has promoted a welfarist agenda and dubbed itself a “cooperative” of municipalities, a hub that wants to “do things differently” (ibid. p. 104). Seen as something of a trailblazer of the FFPT concept in France, Aubagne has accordingly become a well-known example of a city that has introduced a financially viable FFPT system.

In conclusion, the desire to use FFPT as a tool for socio-political transformation - whether by citizens and civil society groups or by a city and its governmental leaders itself - is the third and perhaps most interesting perspective which needs to be distinguished, in order to understand why cities do or do not introduce FFPT. While it would seem that the economic rationality perspective is often the most significant factor, a broader examination and consideration of the

potential transformative impacts of FFPT on a city and its image is very important to come to a full understanding of the many factors at play, when examining the process of decision-making.

2.5 Key Actors

In terms of who have been the main actors involved in the introduction of FFPT, Volinski (2012) came up with the following list, based on his study of American FFPT cities. These have been classified into the classic three-model idea of institutions - state, market and civil society:

Table 2: Key actors involved in the implementation of FFPT and classification

Actors involved	State, market or civil society
Mayor	State
Transit agency executive director or staff	State
City/county council	State
Transit agency board	State
University	State
National park	State
Consultant	Market
Local businesses	Market
Developer	Market
Community advisory board	Civil society
Community / civil society groups	Civil society

Source: Actors involved - Table 8 in Volinski (2012), State, market or civil society - own work.

A simplified table of these actors is presented in Table 3:

Table 3: Simplified list/classification of key actors involved in the implementation of FFPT

State	Market	Civil Society
Mayor, city government and political parties	Local businesses	Residents
Bureaucrats / civil servants	Private public transport companies/operator	Labour unions, environmental groups, chamber of commerce, local business organisations
Local government public transport company and operator		

Source: Own work (2019)

Finally it is worth noting that public transport organisation can vary considerably by location; some public transport is planned and run completely 'in-house', by and within the structure of a local, state or even national government. However many are a hybrid of the public and private sectors - usually a governmental department, agency or company is tasked with the overall planning and organisation of the system and its network, with operations contracted out to private, for-profit operators. This is usually the case in France, where the operation of public transport networks are contracted out to private companies in 86% of cities within GART - the French Association of Public Transport Operators (Rossignol, 2017). It is thus not always easy to clearly separate public transport agencies, departments or operators into either the state or market category.

Kębłowski (2018b) notes that in Aubagne for example, FFPT was essentially instigated in a top-down manner by the city government, as part of its ongoing effort to create its own distinct socio-political identity, in contrast to neighbouring Marseille. And with notable exceptions such as Brazil's *Movimento Passe Livre* as previously described, based on a review of many academic articles and news items, it would seem that in most cases, FFPT in Europe including France has generally been initiated in a similar manner by mayors and politicians of the respective cities. However this research intends to examine whether this has been the case in France in the selected case study cities.

2.6 Institutional Context - Public transport in France

In addition to the motivation factors and key actors involved in the process of introducing (or discontinuing) FFPT, the institutional context for public transport in France is key to understanding FFPT in the country.

Accordingly, this section firstly briefly describes the administrative divisions and intercommunal structures within France. This is necessary to then understand the relevant legislation and concepts and how urban public transport in is organised and operated. This section concludes with an explanation of urban public transport funding in France - in particular the *versement transport* payroll tax. This topic is considered particularly important given the key concern of cities which are considering FFPT is how to cover costs lost if fares were to be abolished.

2.6.1 Administrative divisions

Metropolitan (mainland) France is divided into several administrative divisions as per Table 4:

Table 4: Administrative divisions of metropolitan France

Administrative level (English)	Administrative level (French)	Number	Notes
Regions	région	13	Legal authority
Departments	département	95	Legal authority
Arrondissements	arrondissement	322	Not a public or legal authority
Cantons	canton	1,995	Not a public or legal authority
Communes	commune	34,967	Legal authority

Source: Various - See Appendix A

In terms of public transport, the responsibilities of each administrative level is detailed as follows.

2.6.2 Intercommunal structures

In France, there is a particular administrative structure which groups most municipalities together into what are called **public institutions of intercommunal cooperation** (*établissement public de coopération intercommunale* - **EPCI**).

There are two main types EPICIs; one with the power to levy local taxes (*EPCI à fiscalité propre)*, and those without such powers (*EPCI sans fiscalité propre).* Of these, the former are more common and come in four forms:

- Metropolis *(Métropole)*
- Urban community *(Communauté urbaine - CU)*
- Agglomeration community *(Communauté d'agglomération - CA)*
- Community of communes *(Communauté de communes - CDC)*

The EPCI with their own taxation powers are so-called 'project' (*de projet)* establishments which exercise obligatory competencies fixed by law, as well as optional competencies entrusted to the municipalities, within the framework of a 'territorial project' (*projet de territoire)*. On the other hand, the EPCI without their own taxation powers, are generally called intercommunal syndicates (*syndicat intercommunal*) and are created specifically for the purpose of exercising certain functions, and are therefore called 'technical' (*techniques*) institutions.

The number of EPCI with their own taxation powers is listed in Table 5:

Table 5: EPCIs with own taxation powers in France

Name (English)	Name and abbreviation (French)	Number	Notes
Metropolises	métropole	21	Includes the largest cities in France
Urban communities	commmunautés urbaines (CU)	14	
Agglomeration communities	communautés d'agglomération (CA)	223	
Communities of communes	communautés de communes (CC)	2,397	

Source: Various - See Appendix A

These intercommunal structures are generally the body which coordinates public transport at the local level. These are discussed in further detail in the following section.

2.6.3 Key laws, organisations and terms

A list of key laws, concepts and information on the organisation of public transport in France is detailed below. Both the English and French names are given, with the French abbreviations (where applicable) used for consistency.

Internal Transports Orientation Act (1982)
French: Loi d'orientation des transports intérieurs (1982) - **LOTI**

LOTI is the basic law governing the organisation of public transport services in France. It came into effect on 30 December, 1982 and affirms a right to transport to allow people to move "under reasonable conditions of access, quality and price as well as costs to the community". It was re-codified under the **Transport Code** (*Code des Transports* - **CT**) (2010). The CT is the legal code that groups together the legal provisions relating to transport in France and amended LOTI.

ITF (2017) summarises the responsibilities of each level of government under LOTI as follows:

1. "The **state** (national government) is responsible for national and international rail transport (TGV, Eurostar, Thalys) and interregional passenger services. It has also driven the planning and procurement of new urban public transport systems such as tramways, tram-trains and buses with a high level of service (BHLS).
2. The **regions** are responsible for regional train passenger services (TER) and inter-departmental bus services (since 1 January 2002). Departmental road transport services and school

transport has been the responsibility of the Regions however it is possible for the Regions to delegate responsibility for school transportation to departments.

3. The **departments** are responsible for the organisation of public transport by intercity coaches, buses and school buses (Article 29 of LOTI) within the departmental territorial limits.
4. **Urban mobility transport authorities** (*autorité organisatrice de la mobilité* - **AOM**) are a fourth level of governance at the urban agglomeration or region level. AOMs manage urban public transport for all the travel within their urban transport perimeter (*périmètre de transport urbain* - **PTU**). AOMs can only act within their area which is, in the case of an intercommunal entity, the sum of the perimeters of all the municipal territories that are members of the intercommunal structure. They are responsible for public transport (bus, trams, metro, transport on demand and for people with reduced mobility). However since 2014, are also engaged with car sharing/pooling, active transport (e.g. bike sharing), the organisation of urban goods deliveries and urban logistics to limit congestion and pollution and the application of the ***versement transport (VT)*** (see below) payroll tax"*.*

Air and Rational Use of Energy Act

French: Loi sur l'air et l'utilisation rationnelle de l'énergie (1996) - **LAURE**

Enacted in 1996, LAURE "obliges the AOMs to produce an urban mobility plan for agglomerations of more than 100,000 inhabitants to encourage the use of public transport as a means of addressing air pollution problems" (ITF, 2017, p. 6). The LAURE also allows AOMs to levy the VT to companies of more than 11 employees within their PTU. This has allowed AOMs "to enlarge their PTUs and enabled them to achieve greater autonomy" (ibid.). Since 2004, the French state has ceased the allocation of funds to AOMs for transit projects. But the 'Grenelle' laws (a series of environmental laws with the aim of protecting and restoring the environment, reducing greenhouse gas emissions and improving energy efficiency) "have allowed the State to launch tenders for financing the realisation of new urban public transport systems such as tramways, tram-trains, bus with high level of service (BHLS) (Finn et al., 2011) and light rail" (ITF, 2017, p. 6).

French Association of Public Transport Authorities

French: Groupement des Autorités Responsables de Transport - **GART**

GART has 231 members which are transport organising authorities (*autorité organisatrice de transports* - **AOTs**). The vast majority of AOTs are AOMs (181), with the remainder made up of departments (35), regions (14) and Île-de-France Mobilités (the authority that controls and coordinates the different transport companies operating in the Paris-area public transport network and rest of the Île-de-France region). GART's objective is to promote public transport and sustainable mobility and represent the public transport authorities at a national, European and international level (Rossignol, 2017).

Since its creation in 1980, the GART “has been promoting the development of public transport and alternative modes to the private car. Consisting of a team of elected officials and technicians to carry out its mission of general interest, the association shares the current and future challenges of sustainable mobility with transport authorities of all ranks - AOMs, departments, regions - and accompanies them in exercising their skills” (GART, 2018).

Public transport within its own site

French: Transport collectif en site propre - **TCSP**

TCSP is a term specific to France which refers to a form of public transport infrastructure that utilises its own space or right-of-way reserved only for it. It is defined as a "right-of-way assigned exclusively for the operation of a transport line” (MTES, 2017). An English-equivalent term may be an ‘exclusive lane’ or ‘exclusive way’. It can thus take the form of a separated lane for BHLS or trolleybuses, a tramway, metro or light railway line. By reserving the use of this lane exclusively for the public transport mode, it is thus distinguished from a regular bus lane, which is generally shared with cyclists and taxis. This definition is important because if a city or intercommunal authority has a TCSP within its area, it is entitled to a higher rate of the versement transport. This will be described further in section 4.2.2.

According to Boëdec (2009) (in turn quoting GART), for TCSPs in France, the French state has only committed to funding 20% of the costs of TCSP projects, with the other 80% having to be provided for by the lower level governments, in particular the local municipality or intercommunal authorities. Furthermore, nearly 50% of the investments made until 2009 were funded through the VT. However, according to Roland Ries (then president of GART and mayor of Strasbourg since 2008), "with the crisis, its product tends to stagnate or even regress and it is mostly allocated to the amortization of investments made in the past” (ibid.).

2.6.4 The two models for urban public transport operation

In France, urban public transport services may either be self-operated by the AOM or contracted out to a private operator. These two options are detailed below (ITF, 2017, p.14):

Self-operation

French: La régie

The AOMs have the right to operate public transport services themselves. This kind of operation is called *la régie* in French and can only occur where the AOM has financial autonomy. In this case, it operates the services with its own staff and rolling stock. Revenues and expenses are part of the AOM’s budget. *La régie* can also take the shape of a local public company (*société publique locale* - SPL).

Some AOMs have decided to bring some services back in-house that were previously contracted to private operators. Outside of Île-de-France, the share of self-operation has increased from 9% in 2010 to 13% in 2013 (GART, 2010 and 2015). Some examples include the city of Marseille that operates its public transport with the *Régie Autonome des Transports de Marseille* (RTM). Another is the Métropole Nice Côte d'Azur, which resumed operation of its urban transport services in September 2013 that had been operated by Veolia-Transdev since 2004. Keolis was challenging to operate this network, considered the largest in France (not including Île-de-France).

Public service delegation of urban public transport

French: Délégation de service public en transport urbain - **DSP**

DSP is a very old contractual practice in France which originally allowed the construction of the French railway network in the 19th century, the first tramway networks as well as the electrification of cities (UTP, 2008). It allows the AOM to contract out the management of their public transport network to a private operator, while retaining overall control of the shaping of public transport policy within its territory.

Most urban public transport services in France operated through DSPs. According to Rossignol (2017), 86% of AOMs delegated the operation of their public transport system to a private operator and 82% of DSPs are granted through open tenders (GART, 2011). Two companies operate most of the urban public transport DSPs in France (excluding Île-de-France):

1) Keolis (a subsidiary of the French state-owned railway company SNCF) which operates 28.5% of the total 304 AOMs networks and represents 48.8% of passenger trips.

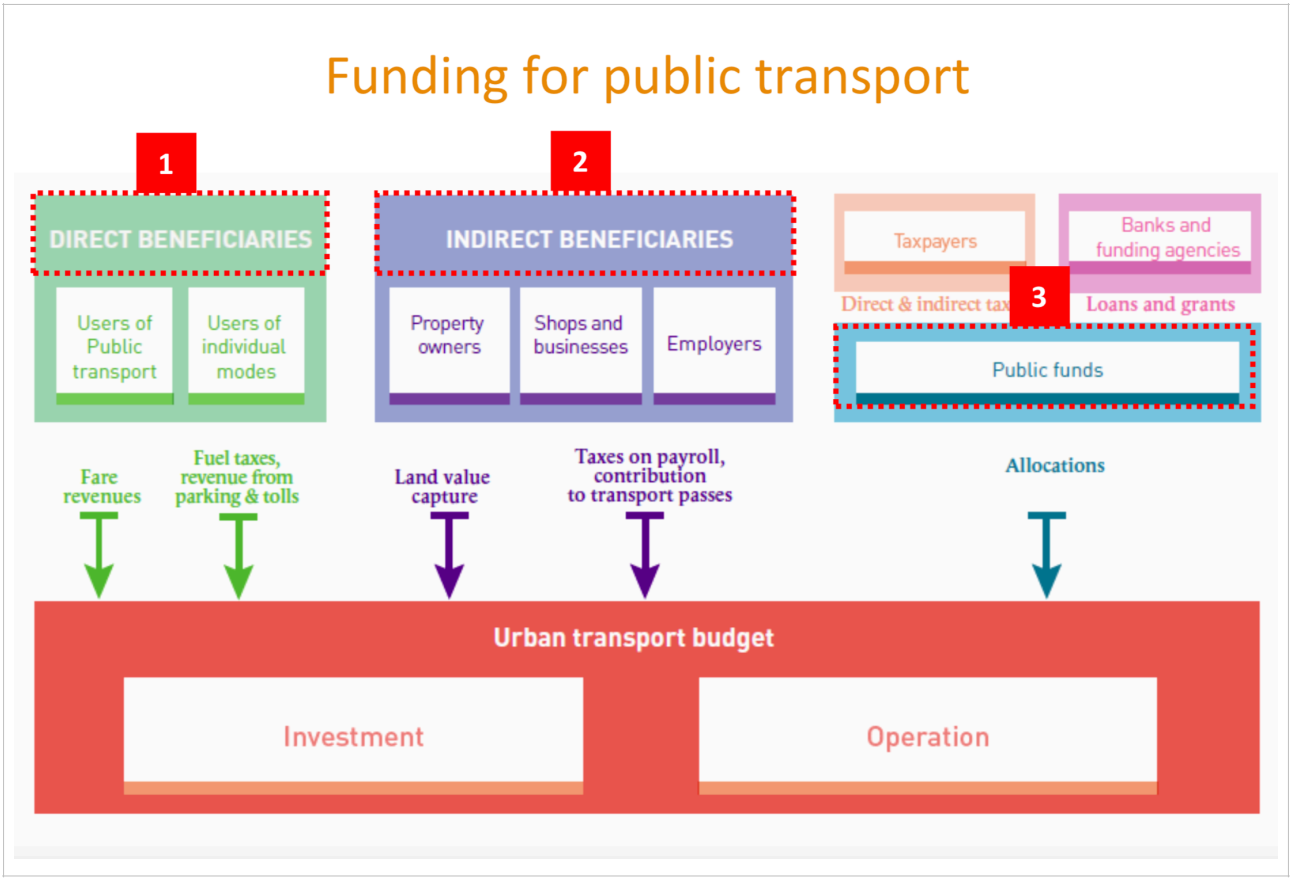
2) Transdev which operates 36.6% of the networks and represents 27.5% of passenger trips (GART, 2015).

The DSP market “is relatively stable” (ITF, 2017, p. 14). For example, “of the 267 calls for tender launched by the AOMs in 2013 over the period 2005-2013, only 25% have not renewed the DSP of the incumbent delegate. In 2013 this rate is 10%” (GART, 2015, p. 10).

2.6.5 Funding for urban public transport

According to Gouin (2016), the cost of urban public transport in France in 2016 was approximately 16.5 billion EUR (approximately 9 billion EUR for the Île-de-France region and 7 billion for the rest of metropolitan France. This included both construction and ongoing operation and maintenance costs. Figure 1 summarises the relationship between beneficiaries, sources of funding and public expenditure on the funding of urban public transport in France:

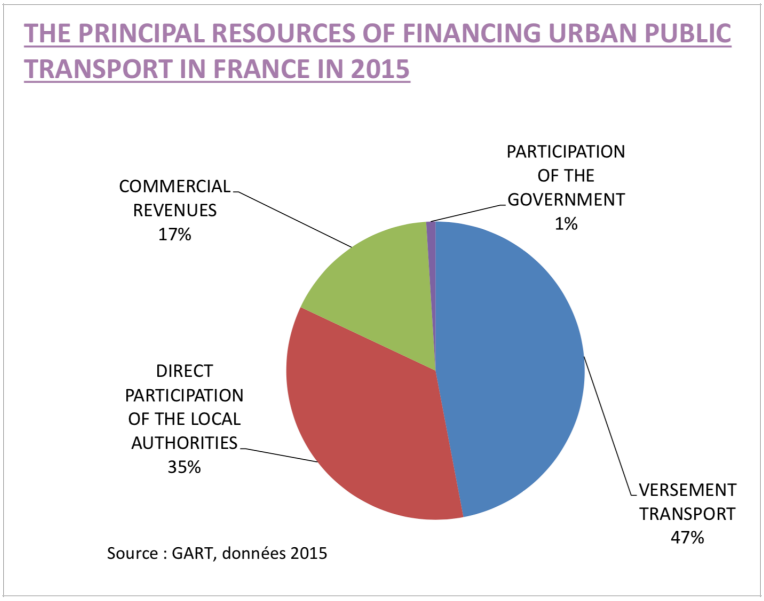
Figure 1: Funding sources for public transport in France and relationship between stakeholders



Source: Gouin (2016)

The principal sources of funding for urban public transport projects in France are as per Figure 2:

Figure 2: Principal sources of funding for urban public transport in France (2015)



Source: Rossignol (2017)

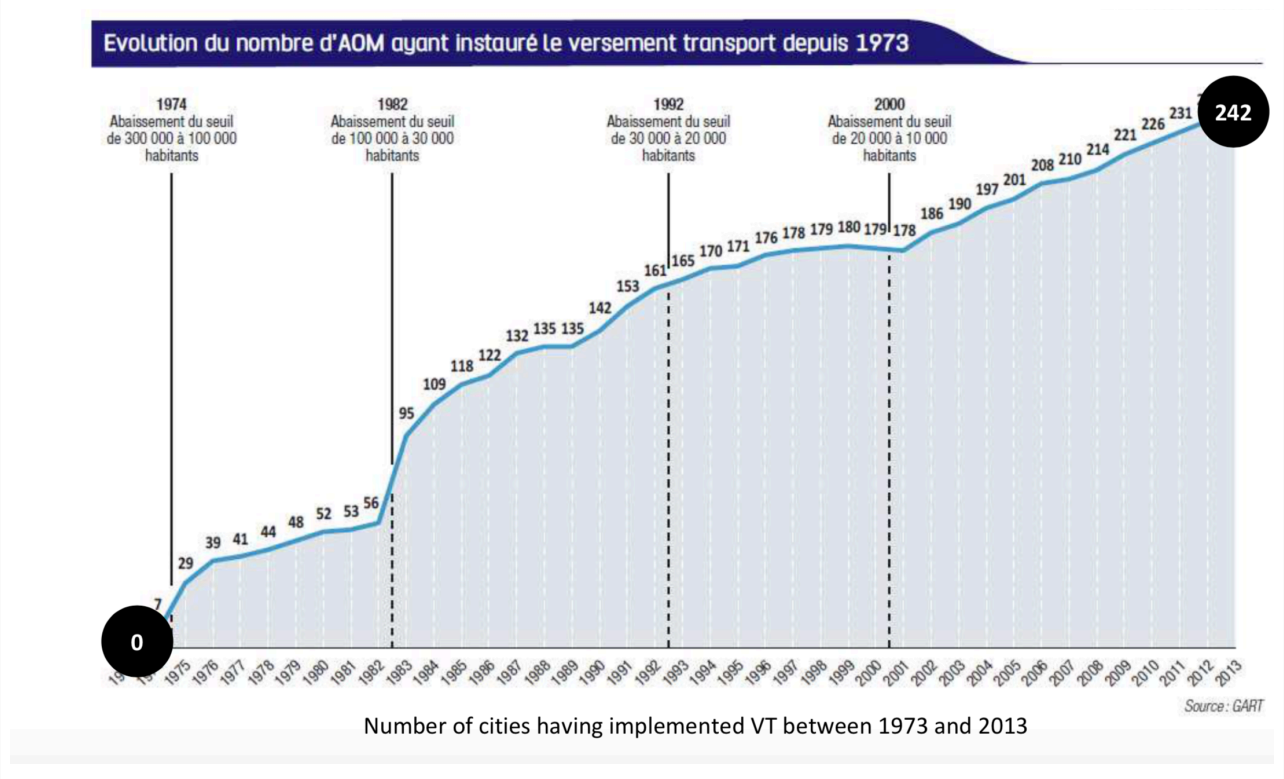
The funding sources for urban public transport in France vary by AOM, and the above graph is only the overall average for the whole country. But in the Île-de-France region for example, the breakdown of sources was (OMNIL, 2015) VT (40%), fare revenue (29%), public authority subsidies - including from the French State (1.4%), employers - repayment of subscriptions (9%) and other e.g. advertising and fines (3%) (ITF, 2017, p. 18).

Versement transport (VT)

Of the various funding sources as listed above, the VT is undoubtedly the most interesting and possibly unique instrument in French public transport funding. The VT is a payroll tax levied on the gross salaries of all employees in companies with 11 or more employees (originally 9 or more).

First introduced in the Île-de-France region in 1971, the VT has gradually been extended to almost all provincial agglomerations in the rest of metropolitan France. As recounted by Richier (2017), "the VT has been the preferred instrument for AOMs to finance urban public transport projects in France for over 40 years". Originally it was limited to AOMs with a population of 100,000 or more, but the threshold has been progressively lowered to the point where this threshold has essentially disappeared: today, the territory of an AOM can cover a population of less than 10,000 inhabitants if the territory includes one or more communes classified as 'tourist communes' (Gallez and Menerault 2005). Figure 3 shows the evolution of AOMs levying the VT.

Figure 3: Evolution of the number of AOMs with the VT from 1973-2013.



Source: Gouin (2016)

Different rates apply depending on the size of the commune or intercommunal authority as well as for the Île-de-France region. Tables 6 and 7 gives an overview of the different rates that apply. The intercommunal bonus is for when the public transport operator covers more than one commune (as is usually the case) and the tourist commune bonus is when at least one of the communes in the area is a designated 'tourist' commune.

Table 6: VT rates outside of Île-de-France

Type of agglomeration		General rate	Intercommunal bonus	Tourist commune bonus
Agglomerations of more than 100,000 inhabitants	With TCSP	1.75%	1.80%	2.00%
	Without TCSP	1.00%	1.05%	1.25%
Agglomerations of 50 to 100,000 inhabitants	With TCSP	0.85%	0.90%	1.10%
	Without TCSP	0.55%	0.60%	0.80%
Agglomerations of 10 to 50,000 inhabitants		0.55%	0.60%	0.80%
Agglomerations of less than 10,000 inhabitants with at least one 'tourist commune'		0.55%		

Source: Rossignol (2017)

Table 7: VT rates within Île-de-France

Area	Rate
Paris et Hauts-de-Seine	2.95%
Seine-Saint-Denis et Val-de-Marne	2.12%
Other communes and departments within the Île-de-France region listed on fixed list by decree (CGCT art. R. 2531-6)	2.01%
Other communes within the Île-de-France region	1.60%

Source: Rossignol (2017)

The VT gives local authorities more direct control over the funding and thus operation of their public transport networks. Businesses and administrators are the main contributors to the VT, providing 47% of the total revenue, while local authorities, users and the state contribute 35%, 17% and 1% respectively. Accoriding to Dobias (1998), the economic justification for the VT is

due to the vital role that public transport plays, as an efficient public transport network facilitates greater opportunities and access to workers by employers and vice versa for employees - access to jobs.

The VT accounts for almost half the total revenues of the AOMs (38% in Île-de-France). 79% of AOMs had established a VT in 2017. The tax is now levied by nearly 250 AOMs and raised 7.66 billion EUR in 2017 (3.75 billion EUR within Île-de-France and 3.91 billion EUR in the rest of metropolitan France). It is thus now the main source of finance for public transport in France (UTP, 2012).

According to Richier (2017), the objective of the VT has also evolved. It was originally intended to fund capital improvements to the public transport network but has increasingly become the main source of funding for other ongoing operating expenses such as the financing of operations aimed at improving transit and bicycle infrastructure. But this evolution raises many questions about its efficiency, and more generally about the French model of financing and governance of urban public transport. While the revenue from the VT has increased by more than 54% in 10 years - representing an average annual growth of 4.4% (GART 2013). However, according to Krattinger (2012), "despite an undeniable dynamic of its product, it is clear that the VT is no longer sufficient to finance the investment and operation of urban public transport networks" (p. 28).

As Richier states, "the VT is strongly defended by stakeholders within the public transport sector, who highlight the fragility of their financing system and the need to find ways to adapt to new challenges in the sector". However, "on the contrary, some from the business sector (e.g. MEDEF - *Mouvement des entreprises de France*, CCI - *Chambres de commerce et d'industrie*) denounce the impacts of the tax burden of the VT on businesses and employment, especially given France's recent economic stagnation" (ibid.).

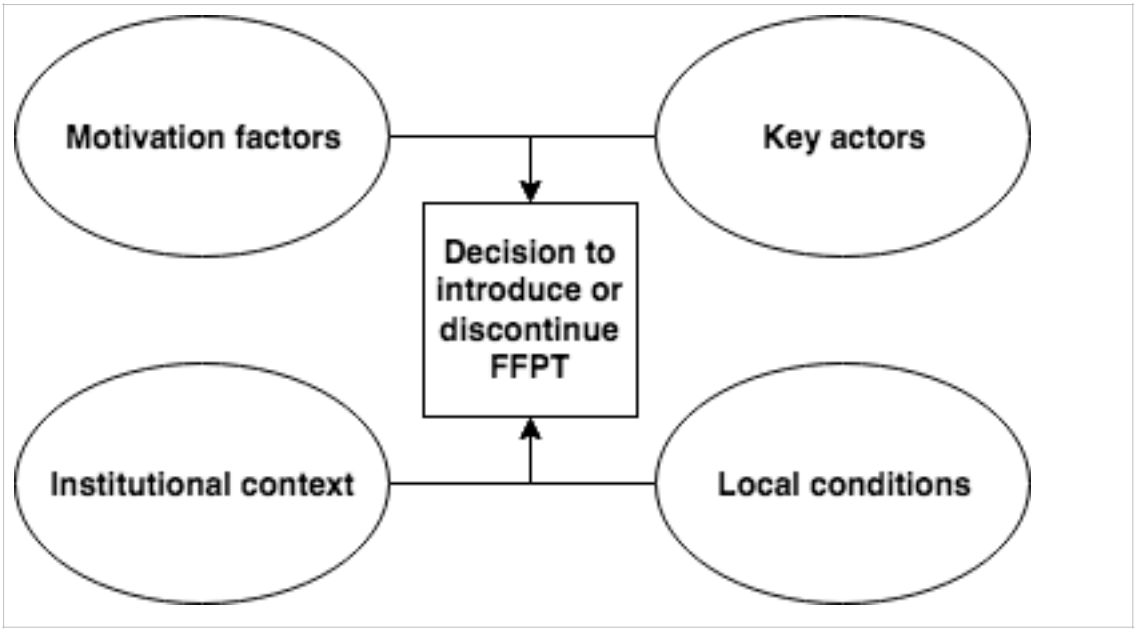
However, after many years of increases, the revenue from the VT seems to have reached a ceiling (ibid.). Small and medium-sized agglomerations still have a slight margin of manoeuvre in moving to higher rates. However for the largest cities, most have already reached the maximum rate. However, in a context of weakening of the wage bill, this ceiling may result in the decline of revenue from the VT, as was found in about forty agglomerations of all sizes in 2012 (GART 2013).

In conclusion, the "conflict attached to the VT is evidence of the complex equation of the financing of urban public transport in France" (Richier, 2017). The mobility authorities are faced with both expanding their skills (car-sharing, carpooling, active modes and urban logistics) and new expectations for the development of their transport offering within this framework (ibid.).

2.7 Conceptual framework

Based on the aforementioned concepts, the conceptual framework for the research is shown below. This applies the above concepts to the research and describes how the main and sub-research questions will be answered:

Figure 4: Conceptual framework



Source: Own work (2019)

The conceptual model shows that the decision to introduce (or discontinue FFPT) is influenced by four key elements. The first is the motivation factors, which refers to the three key perspectives as defined by Kebłowski (2019) - economic rationality, sustainable development and socio-political transformation. Each of these perspectives are useful for broadly classifying the underlying motivation by key actors in the process to introduce (or discontinue) the concept.

Key actors refers to those various state, market and civil society actors who are most influential on the decision. Although these actors always 'carry' the various motivation factors with them, for analytical purposes it is useful to separately map these two elements and the motivations they may or may not invoke. Institutional context - in the France-specific context of this research - refers to the the administrative divisions, intercommunal structure, laws, funding arrangements and operational structure of the public transport system - either under *la régie* or DSP form of operation.

Finally, local conditions includes things such as the size of the city, the size and type of its public transport network (usually bus-only), ridership numbers, farebox recovery ratio and other unique aspects such as the type and extent of industry in the community, or an area having a prominent

tourism sector. Some parts of the local conditions (particularly funding) have an overlap with the institutional context and thus are not as neatly distinct as the above figure might imply.

Clearly, the local conditions and institutional context will also influence the set of actors involved in FFPT debates, as well as the motivational factors on which actors may draw. The interrelationships are not depicted in the figure because they have not been the focus of this research.

3. METHODOLOGY

3.1 Introduction

In this section, the research methodology is described. This includes the research philosophy, research strategy, methods of data collection and data analysis. It explains how the main and sub research questions will be answered and provides an explanation of why the selected data collection and analysis methods have been used. The research has been conducted in a inductive manner i.e. generalisations are drawn from the selection of case studies in order to answer the main and sub research questions.

3.2 Research philosophy

For this research, the constructivist research paradigm has been used. In such a paradigm, constructions are not more or less 'true' in any absolute sense, but simply more or less informed and/or sophisticated. In the constructivist paradigm, learning is an active, constructive process, and the researcher creates their own subjective representation of an objective reality (Guba & Lincoln, 1994).

In this regard, the reason a constructivist paradigm was considered most appropriate was because the aim of the research was to understand why the selected case study cities chose to introduce (or discontinue) FFPT. The research has an interpretative character because it aimed to interpret how and why FFPT was introduced (or discontinued), based on the information gathered. The people interviewed gave their subjective opinion on why they believed FFPT was introduced (or discontinued) in their city and in turn, I as the researcher drew my own conclusions based on these responses, linking this data to the aforementioned theoretical concepts.

3.3 Research strategy

Verschuren & Dorewaard (2007) define five main research strategies in the social sciences: Survey, experiment, case study, desk research and grounded theory. The strategy selected for this research was case study, specifically a cross-case study.

The authors define a 'case study' as an investigation in which the researcher tries to gain an in-depth and integral insight into one or a few time-limited objects or processes. Another definition is given by Gerring (2007), who defines a 'case study' as "the intensive study of a single case where the purpose of that study is – at least in part – to shed light on a larger class of cases (a population)" (p. 20). Accordingly, *case study research* "may incorporate several cases, that is, multiple cases" (ibid). He further notes that a *case study* comprises only one or a few cases, while a *cross-case study* comprises many cases. As Gerring further notes, "researches may choose to observe lots of cases superficially, or a few cases more intensively" (p. 1). He ultimately

recommends doing both. However there are trade-offs in this methodological choice: “In all these instances, the case study… rests implicitly on the existence of a micro-macro link in social behaviour. It is a form of cross-level inference. Sometimes, in-depth knowledge of an individual example is more helpful than fleeting knowledge about a larger number of examples. We gain a better understanding of the whole by focusing on a key part” (ibid).

For this research, *cross-case study research* was selected as the research strategy. This is because studying only one city in-depth would not have yielded as interesting results as a cross-case study. As such, eight selected case study cities representing a variety of characteristics were selected to more broadly understand the FFPT concept in France. The selection of the case study cities is detailed in section 3.5.

3.4 Research method

The primary method of data collection used in this research was the use of a questionnaire which formed the basis of either a semi-structured interview with respondents from four of the eight cities, or the basis of a written response from respondents in the four other cities. As detailed in section 3.6, these respondents were either local elected representatives or public officials within the city or the public transport authority. This was considered the most logical choice of target respondents, given these people would have the necessary insights to understand how and why FFPT was introduced in their respective cities, and where applicable, why it was discontinued. These responses gave both answers to the specific questions asked, as well as a more in-depth understanding of the history of the concept in their city and its specific characteristics.

For the interviews, the questions acted as a guide to keep the discussion on point. However, this method also allowed the interviewees to communicate knowledge which might only be vaguely related to the main topic, but could also reveal interesting and valuable findings which further nuance the core topic. It must be acknowledged that, as can be expected, the written responses generally did not allow such for such a detailed response, given the nature of that form of communication. Nevertheless, all of the four respondents who provided a response in writing provided additional information than just answers to the questions posed.

Finally, it should be noted that interviews with various stakeholders in one case study can unveil different perspectives on the same issue. This circumstance connects well to the definition of a ‘case study’ by Yin (2003), in which one result should be formed by multiple sources of evidence. However as noted in section 3.7, while a richer understanding of each case study would have been gained by interviewing multiple stakeholders, unfortunately this was not feasible due to timing and other constraints, primarily the French/English language barrier. This is further noted in the final section of the final chapter of this thesis (Limitations of the research and personal reflection).

3.5 Selection of case study cities

Through the literature review undertaken, only one comprehensive list could be found of all full FFPT cities around the world (Kębłowski, 2019), 19 of which are in France. Volinski's (2012) study of FFPT in the USA is the only other document which comes close to the comprehensiveness of Kębłowski's list, however is obviously limited only to American examples.

In addition to Kębłowski's list, the article on FFPT on French Wikipedia (entitled '*Gratuité des transports en commun')* was used as a starting point to find further examples of FFPT in France. As of late-2019, the page listed a total of 41 French cities with some form of FFPT. This led to research on the websites of the cities, intercommunal authorities and public transport operators of each respective city, in order to verify the accuracy of the information on Wikipedia.

As such, of the additional 21 cities listed, four more were found to meet Kębłowski's definition of full FFPT (Dinan, Dunkirk, Issoudun and Niort - all of which, except Issoudun, have implemented FFPT more recently). A fifth city (Villeneuve-sur-Lot) was discovered after being mentioned by the interviewee from Arcachon. Three others (Arcachon, Cluses and Manosque) which were included by Kębłowski were found to no longer meet the criteria for full FFPT cities. As a result, the following table has been created which lists the known 20 French cities with full FFPT. This table is followed by a list of selected cities - i.e. only those known - which have recently stopped FFPT. It must be stressed that this is not a comprehensive and definitive list, but is the most accurate list that could be discerned from many months of research on this topic. Cities contacted to request an interview or written response are highlighted in yellow, with positive replies highlighted in green.

Table 8: French cities with FFPT as of late 2019

City	Region	Population	Intercommunal Authority	Population	Year FFPT implemented
Aubagne	Provence-Alpes-Côte d'Azur	45,290 (2016)	Pays d'Aubagne et de l'Étoile (itself within Métropole d'Aix-Marseille-Provence)	103,497 (2012)	2009
Castres	Occitanie	41,388 (2016)	Communauté d'agglomération de Castres-Mazamet	78,244 (2015)	2008
Châteaudun	Centre-Val de Loire	13,567	Communauté de communes du Grand Châteaudun	40,911 (2015)	2009
Châteauroux	Centre-Val de Loire	44,088 (2016)	Châteauroux Métropole	73,617 (2016)	2001

Compiègne	Hauts-de-France	74,075	L'Agglomération de la Région de Compiègne et de la Basse Automne (ARCBA)	97,880 (2014)	1975
Dinan	Bretagne	14,222 (2016)	Dinan Agglomération	96,891 (2016)	2018
Dunkirk	Nord	88,108	Communauté urbaine de Dunkerque	198,341 (2016)	2018
Figeac	Occitanie	10,580	Communauté de communes Grand-Figeac	43,499 (2016)	2003
Gaillac	Occitanie	14,626	Communauté d'agglomération Gaillac-Graulhet	73,521 (2016)	2014
Gap	Provence-Alpes-Côte d'Azur	42,156	Communauté d'agglomération Gap-Tallard-Durance	50,025 (2016)	2005
Graulhet	Occitanie	12,072	Communauté d'agglomération Gaillac-Graulhet	73,521 (2016)	2013
Issoudun	Centre-Val de Loire	11,888 (2016)	Communauté de communes du Pays d'Issoudun	20,126 (2016)	1989
Libourne	Nouvelle-Aquitaine	24,567	Communauté d'agglomération du Libournais (CALI)	90,791 (2016)	2019
Muret	Occitanie	91,632	Communauté d'agglomération du Muretain Agglo	119,336 (2016)	2009
Neuves-Maisons	Grand Est	6,820 (2016)	Communauté de communes Moselle et Madon (CCMM)	28,837 (2016)	2007
Niort	Nouvelle-Aquitaine	59,055 (2016)	Communauté d'agglomération du Niortais (CAN)	120,806 (2015)	2017
Noyon	Hauts-de-France	14,303	Communauté de communes du Pays Noyonnais (CCPN)	22,226 (2015)	2008
Pont-Saint-Maxence	Hauts-de-France	12,827	Communauté de communes des pays d'Oise et d'Halatte	34,189 (2015)	2006

Senlis	Hauts-de-France	16,264	Communauté de communes Senlis Sud Oise	24,821 (2014)	2000
Villeneuve-sur-Lot	Nouvelle-Aquitaine	22,422 (2016)	Communauté d'agglomération du Grand Villeneuvois	48,383 (2016)	2019
Vitré	Bretagne	77,581	Vitré Communauté	80,368 (2016)	2001

Source: Based on a list from Kębłowski (2019) with modifications by the author based on additional sources - see Appendix A

In addition, a list of cities which have recently discontinued FFPT is provided in Table 9. Three of these cities were in Kębłowski's (2019) list as cities with full FFPT, with Colomiers being included given it was the first and most famous city in France to introduce full FFPT across its former bus network (Bus Colomiers) in 1975. The operation of public transport in Colomiers has since been subsumed into the network of Tisséo, the public transport authority for the greater Toulouse Métropole. Tisséo did not want to extend FFPT across the whole Tisséo network and discontinued the operation of full FFPT in Colomiers after the integration. Again, all four cities were approached with a request for an interview or written reply, with those who responded positively highlighted in green.

Table 9: French cities which have recently discontinued FFPT

City	Region	Population	Intercommunal Authority	Population	Years FFPT implemented
Arcachon	Nouvelle-Aquitaine	11,121 (2016)	Communauté d'agglomération du Bassin d'Arcachon Sud - Pôle Atlantique	65,952 (2016)	2005-2016
Cluses	Auvergne-Rhône-Alpes	18,044	Communauté de communes Cluses-Arve et Montagnes (2CCAM)	44,810 (2013)	2008-2017
Colomiers	Occitanie	38,716 (2016)	Toulouse Métropole	762,956 (2016)	1975-2017
Manosque	Provence-Alpes-Côte d'Azur	23,123	Communauté d'agglomération Durance-Luberon-Verdon Agglomération	61,520 (2016)	2010-2019

Source: Own work (2019), population figures - Kebłowski (2019) and see Appendix A

Given the relatively manageable total number of cities (20 with full FFPT and 4 which had recently discontinued it), as the above Tables show, almost all were contacted via email to the city itself, the agglomeration and/or public transport operator. Many did not reply on the first contact and so were contacted subsequent times. Essentially the eight cities that have now been were the ones from whom a response was positive. Six are cities with full FFPT while two - Arcachon and Mansoque - discontinued it relatively recently. Thus despite the relatively un-scientific selection of these eight cities, they nevertheless represent a diverse range of characteristics as described in chapter four. Ideally a third group of cities - those which had considered but then not introduced FFPT - would have added a third category for comparison, however this was not possible to do again due to time and language constraints.

3.6 Interviewees and structure of interviews

The target group of people to be interviewed or surveyed were elected officials or public servants within each municipality or intercommunal structure, as detailed in chapter four. By choosing this target group, it was hoped that a clearer understanding of the individual process for each city could be understood, given the presumption that it was initiated in a top-down matter by local politicians, rather than in a more bottom-up way by citizens and civil society organisations.

The interview questions (see Appendix B) are comprised firstly of some short questions about the person's role and position, followed by more open questions. These questions roughly correspond to each element of the conceptual framework, in order to have a clear and structured response from each respondent.

Although the persons interviewed were dependent on availability and language ability, this research aimed at interviewing people with approximately similar relationships to the public transport system in each city. As previously noted, questioning different actors in the same project would have increased evidence triangulation and stronger validity. Thus while interviewing more than one person from each city would have been ideal, unfortunately this was not possible due to time constraints and the language barrier. As such, all cities involved only one respondent except for Dinan, where originally written correspondence was with Elodie Vidal, however the interview was eventually conducted with Ashvin Daumoo, due to his higher English proficiency.

The guideline questions given to each interviewee and written respondent (one set for cities with FFPT and one for those which had discontinued it) can be found in the Appendix B. Interviews were held over Skype with the respondents from Dinan, Neuves-Maisons and Arcachon and over the phone for Manosque, with written replies and correspondence via email from the respondents in the other four cities. A summary of the respondents is as per Table 10.

Table 10: Summary of respondents by city including position and organisation

City with FFPT	Respondent name	Position*	Organisation
Châteauroux	Emmanuel GERBER	Manager, transport services Mobility department DGA Environment and Public Space	Châteauroux Métropole
Compiègne	Nicolas LEDAY	Vice-President of ARC including delegate for transport Deputy mayor of Compiègne	Agglomération de la Région de Compiègne (ARC) Ville de Compiègne
Dinan	Elodie VIDAL Ashvin DAUMOO	Head of transport mobility services Mobility projects manager	Dinan Agglomération
Figeac	Pascale BELAYGUE	Secretariat of the Directorate General of Services	Ville de Figeac
Graulhet	John DODDS	Municipal councillor for Graulhet	Gaillac Graulhet Agglomération
Neuves-Maisons	Dominique KINDERSTUTH	Director general of services	Communauté de communes Moselle et Madon
City which has discontinued FFPT	**Respondent name**	**Position**	**Organisation**
Arcachon	Maxime LARONDELLE	Director of transport services	Transdev Bassin d'Arcachon
Manosque	Marie-Elisabeth LEVEQUE	Director of transport for DLVA	Durance-Luberon-Verdon Agglomération (DLVA)

Source: Own work (2019)

3.7 Validity and reliability of the research

Traditionally, the term 'validity' in research relates to the question of whether the research undertaken actually measured what the researcher intended to measure, while 'reliability' refers to the repeatability of the findings (Bryman, 2012). However, according to Guba & Lincoln (1985), these are often merely useful for quantitative research designs so they proposed an alternative way of discussing validity and reliability for qualitative research; trustworthiness. Trustworthiness in turn relates to the idea of credibility i.e. how credible are the findings? In this regard, the findings are expected to be credible given the wide variety of literature studied and the persons interviewed.

Validity comprises internal and external validity. They are “concepts that reflect whether or not the results of a study are trustworthy and meaningful. While internal validity relates to how well a study is conducted (its structure), external validity relates to how applicable the findings are to the real world” (Cuncic, 2019) i.e. how they can be extrapolated beyond the confines of the specific study. As Campbell & Stanley (1967) note, there are up to twelve factors which jeopardise both the external and internal validity of experimental designs and these will need to be taken into account in the design of the proposed survey or interview questions.

Thus external validity also relates to the concept of reliability - the repeatability of the findings to be made - external validity and reliability is a key issue for this research. By examining the broader legislative framework, institutional structures and funding arrangements which govern public transport in France, it is ultimately believed that the answer to this question will be one which is reliable and meaningful and can achieve a satisfactory level of external validity.

As previously noted, questioning different actors in the same project increases evidence triangulation and achieves strong validity. As such, while interviewing more than one person from each city would have been ideal and would have increased this stronger level of data validity, unfortunately this was not possible due to time constraints and language barrier. All cities except Dinan thus only had one respondent. Therefore these results must be treated with such caution, clear in the fact that they generally only reflect the opinion of the individual respondent from each city. As previously noted, this is also touched upon in the final section of chapter six (limitations of the research and personal reflection).

4. THE CASE STUDY CITIES AND CONTEXT

4.1 Introduction to the cities and location map

The eight selected case study cities are: Châteauroux, Compiègne, Dinan, Figeac, Graulhet and Neuves-Maisons (all of which have FFPT) and Arcachon and Manosque (which have recently discontinued it). The location of the eight case study cities is shown in the below map of France. The cities with FFPT have a red marker and the two which have recently discontinued it have an orange one:

Figure 5: Map of France with location of eight case study cities

Source: Google Maps (2019) with markers added by the author

The cities represent a diverse geographical spread - from Dinan in the northwest in Brittany to Manosque in the southeast in the region of Provence-Alpes-Côte d'Azur. While it must be said that the selection of these cities was essentially based on who responded to the requests for an

interview or written response, as the table in the introduction to chapter four shows, the final selection of cities have a diverse range of characteristics - geographic location, population of the main city, population of the agglomeration community, number of communes in the agglomeration community, area, density, political 'colour', and when they introduced (or discontinued) FFPT. In this regard, Compiègne was the outlier - having introduced FFPT in 1975 - all others did so in the 21st century; from Châteauroux in 2001 to Dinan in September 2018. The total intercommunal population varies from 28,837 in the *communauté de communes Moselle et Madon* (based on Manosque), to 96,891 for *Dinan Agglomération*.

Half are generally standalone towns and communities in rural areas, with half being located closer to a larger metropolitan area - Dinan, Arcachon, Graulhet and Mansoque being close to Rennes, Bordeaux, Toulouse and Marseilles respectively. Arcachon has perhaps the most unique profile of the eight cities, having a strong resort town character, with people coming there from cities - especially Paris and Bordeaux - during the warmer months to stay at their second homes. Cities like Dinan and Arcachon are very touristic cities, while others are more based on industry and manufacturing, such as Neuves-Maisons (which has long been an iron ore-mining and steel-making community) and Manosque, which has a large number of business parks and industrial estates, as well as *Le centre d'études de Cadarache,* an internationally-renowned technological research and development centre for energy, in particular nuclear energy.

Each of the case study cities and their public transport networks are described in further detail below.

4.2 Châteauroux (with FFPT)

Châteauroux is a city in the department of Indre in in the region of Centre-Val de Loire. The commune of Châteauroux alone has a population of 44,088. It is the seat of the *Châteauroux Métropole,* a *communauté d'agglomération* (CA) which combines a total of 14 communes centred on Châteauroux and has a population of 73,617.

Public transport in the agglomeration operates under the brand name *Horizon* and is operated under a DSP by Keolis Châteauroux, a subsidiary of the Keolis group. The public transport network consists of buses only, including school bus services. It has a total of 15 regular lines, one evening line (called *Flexo Soir*), two Sunday lines (*lignes dominicales*), and a service for people with reduced mobility (*transport des personnes de mobilité réduite - TPMR*) called *Handibus* utilising wheelchair-accessible vans. Finally, there are 36 school services which are outside of the DSP. The city introduced full FFPT in 2001.

4.3 Compiègne (with FFPT)

Compiègne is a city in the department of Oise in in the region of Hauts-de-France. The commune of Compiègne alone has a population of 40,258. It is the seat of *L'Agglomération de la Région de Compiègne et de la Basse Automne (ARCBA),* a *communauté d'agglomération (CA)* which combines a total of 22 communes centred on Compiègne and has a population of 40,258.

Public transport in the agglomeration operates under the brand name *TIC (Transports Intercommunaux du Compiégnois)* and is operated under a DSP by Acary - Transdev Picardie, which is a subsidiary of the Transdev group. The public transport network consists of buses only, including school bus services as well as a transport on demand service. It has a total of 13 regular lines and 2 Sunday lines. The city was the first in France to introduce full FFPT in 1975 and has operated as such ever since, making it the city in France with the longest history of full FFPT.

4.4 Dinan (with FFPT)

Dinan is a city in the department of Côtes d'Armor in in the region of Bretagne (Brittany). The commune of Dinan alone has a population of 14,222. It is the seat of *Dinan Agglomération,* a *communauté d'agglomération* (CA) which combines a total of 64 communes centred on Dinan and has a population of 96,891.

Public transport in the agglomeration operates under the brand name *DINAMO!* and is operated under a DSP by Transdev CAT (*Compagnie Armoricaine de Transports)*, a subsidiary of the Transdev group. The public transport network covers much of the agglomeration and consists of buses only as well as school bus services. It has a total of 4 regular bus lines. FFPT was approved by the city council by a near unanimous vote of 81 (plus 2 abstentions) in September 2018 and began by December that year.

4.5 Figeac (with FFPT)

Figeac is a city in the department of Lot in in the region of Occitanie. The commune of Figeac alone has a population of 9,833. It is the seat of the *communauté de communes (CC) Grand-Figeac* which combines a total of 92 communes centred on Figeac and has a population of 43,499.

Public transport in the community operates under the brand name *Le Bus Figeac* and is operated under *la régie* form of management with the actual buses operated by a local private company *Cars Delbos*. The public transport network consists of buses only as well as transport on demand and school bus services. It has a total of 12 regular lines. The regular bus lines are short lines which operate mainly on loops to and from the city centre, in order to ensure better geographical

coverage and shorter travel times. Most operate along a common trunk route through the city centre, with an interchange location (*Les Jardins de l'Hôpital*) in the centre of the town. Several lines serve two light industrial areas to the southwest and south of the city (La Farrayrie and Aiguille), which are places of significant employment. The city introduced full FFPT in 2003.

4.6 Graulhet (with FFPT)

Graulhet is a city in the department of Tarn in in the region of Occitanie. The commune of Graulhet alone has a population of 12,542. It is the seat of *Gaillac Graulhet Agglomération,* a *communauté d'agglomération (CA)* which combines a total of 61 communes (of which Graulhet is the second-largest, just behind Gaillac with 15,254 inhabitants) and has a population of 73,521.

The free bus service serving Graulhet operates under the brand name *La Navette* and is operated by liO (*Lignes intermodales d'Occitanie*), which is an authority of the region of Occitanie. The public transport network consists of buses only as well as transport on demand and school bus services. It has a total of 4 lines. The city introduced full FFPT in 2013.

4.7 Neuves-Maisons (with FFPT)

Neuves-Maisons is a city in the department of Meurthe-et-Moselle in in the region of Grand Est. The commune of Neuves-Maisons alone has a population of 6,820. It is the seat of the *communauté de communes (CC) Moselle et Madon (CCMM)* which combines a total of 19 communes centred on Neuves-Maisons and has a population of 28,837

Public transport in the community operates under the brand name *T'MM (Transport en Moselle et Madon).* The majority of services (approximately 75%) are operated by the community itself under *la régie* form of management, with the remaining school services operated under a DSP by Transdev Grand Est, a subsidiary of the Transdev group. The public transport network consists of buses only as well as transport on demand and school bus services. It has a total of 5 regular lines. The city introduced full FFPT in 2007.

4.8 Arcachon (has discontinued FFPT)

Arcachon is a city in the department of Gironde in in the region of Nouvelle-Aquitanie. The commune of Arcachon alone has a population of 11,121. It is the seat of the *communauté d'agglomération (CA) du Bassin d'Arcachon Sud - Pôle Atlantique, (COBAS),* which combines a total of 4 communes centred on Arcachon and has a population of 65,952.

Public transport in COBAS operates under the brand name *Baïa* and is operated under a DSP by Transdev Bassin d'Arcachon, a subsidiary of the Transdev group. The public transport network

consists of buses, including school services, as well as a transport on demand and a service for passengers with reduced mobility. It has a total of 8 regular lines and 2 which operate just during the summer months. The city introduced full FFPT in 2005 but discontinued it in 2015.

4.9 Manosque (has discontinued FFPT)

Manosque is a city in the department of Alpes-de-Haute-Provence in in the region of Provence-Alpes-Côte d'Azur. The commune of Manosque alone has a population of 21,868. It is the seat of the *Communauté d'agglomération (CA) Durance-Luberon-Verdon Agglomération (DLVA)* which combines a total of 25 communes centred on Manosque and has a population of 61,520.

Public transport in the agglomeration uses the brand name *Transagglo* and is operated under a DSP by a subsidiary of the Transdev group. The public transport network consists of buses only as well as transport on demand and school bus services. It has a total of 4 regular lines (plus 1 summer) in Manosque, 3 lines in the resort town of Gréoux-les-Bains (from March to December) and 7 regular interurban (plus 1 summer) lines serving various towns. The city introduced full FFPT in 2010 but discontinued it in 2019.

4.10 Summary

The following three sub-sections present a summary of the geographical, public transport and FFPT and political characteristics of the eight case study cities.

Geographical characteristics - Key geographical characteristics of the selected case study cities are summarised in Table 11.

The table shows that the agglomeration communities vary in size, with the smallest being CCMM which takes in Neuves-Maisons (28,837) and the largest being Dinan Agglomération (96,891). CCMM is also the smallest in area (189km2) while the largest is Grand-Figeac (1283km2). Other than the outlier of Compiègne which introduced FFPT in 1975, all others did so in the 21st century starting with Châteauroux in 2001. Arcachon discontinued FFPT in 2015 and Manosque in 2019.

Table 11: Geographical characteristics of case study cities

	With FFPT	**With FFPT**	**With FFPT**	**With FFPT**
City	Châteauroux	Compiègne	Dinan	Figeac
Region	Centre-Val de Loire	Hauts-de-France	Bretagne	Occitanie
Department	Indre	Oise	Côtes d'Armor	Lot
Commune	Châteauroux	Compiègne	Dinan	Figeac
Communal population	44,088	40,258	14,222	9,833

Intercommunal authority name and (type)	Châteauroux Métropole (CA)	L'Agglomération de la Région de Compiègne et de la Basse Automne (ARCBA) (CA)	Communautés d'agglomération (CA) Dinan Agglomération	La communauté de communes Grand-Figeac (CC)
Number of communes	14	22	64	92
Total intercommunal population	73,617	82,180	96,891	43,499
Area	538km2	264km2	932km2	1283km2
Density	137 people/km2	312 people/km2	104 people/km2	34 people/km2
Introduced FFPT	2001	1975	September 2018	2003

	With FFPT	**With FFPT**	**Discontinued FFPT**	**Discontinued FFPT**
City	Graulhet	Neuves-Maisons	Arcachon	Mansoque
Region	Occitanie	Grand Est	Nouvelle-Aquitanie	Provence-Alpes-Côte d'Azur
Department	Tarn	Meurthe-et-Moselle	Gironde	Alpes-de-Haute-Provence
Commune	Graulhet	Neuves-Maisons	Arcachon	
Communal population	12,542	6,820	11,121	21,868
Intercommunal authority name and (type)	Gaillac Graulhet Agglomération (CA)	La communauté de communes Moselle et Madon (CCMM) (CA)	La communauté d'agglomération du Bassin d'Arcachon Sud - Pôle Atlantique (COBAS) (CA)	Durance-Luberon-Verdon Agglomération (DLVA) (CA)
Number of communes	61	19	4	25
Total intercommunal population	73,521	28,837	65,952	61,520
Area	1195km2	189km2	329km2	839km2
Density	62 people/km2	153 people/km2	201 people/km2	73 people/km2
Introduced FFPT / Years with FFPT	2013	2007	2005-2015	2010-July 2019

Sources: Various - see Appendix A

Public transport and FFPT characteristics - Key characteristics of the public transport network and features of FFPT of the selected case study cities are summarised in Table 12.

In almost all cities, the public transport is operated under a DSP, most frequently by a subsidiary of the two main private French transport companies - Keolis and Transdev. All are bus-only systems including school services and some also include a transport on demand service. The size of the networks vary from four regular lines in Dinan and Graulhet to 13 regular lines in Compiègne or 14 regular lines in Manosque.

Table 12: Public transport and FFPT characteristics of case study cities

City	Public transport network name	Operator	Type of operation	Type of services	Bus lines
With FFPT					
Châteauroux	Horizon	Keolis Châteauroux	DSP	Bus, school	15 regular
Compiègne	TIC (Transports Intercommunaux du Compiégnois)	Acary - Transdev Picardie	DSP	Bus, school, transport on demand	13 regular plus 2 Sunday lines
Dinan	DINAMO!	Transdev CAT (Compagne Armoricaine de Transports)	DSP	Bus, school	4 regular
Figeac	Le Bus Figeac	Cars Delbos	La régie	Bus, school	12 regular
Graulhet	La Navette	liO (Lignes intermodales d'Occitanie)	DSP	Bus, school, transport on demand	4 regular
Neuves-Maisons	T'MM (Transport en Moselle et Madon)	Transdev Grand Est (school services)	La régie, DSP (school services)	Bus, transport on demand, school	5 regular
Discontinued FFPT					
Arcachon	Baïa	Transdev Bassin d'Arcachon	DSP	Bus, school, transport on demand	8 regular plus 2 summer lines
Manosque	Transagglo	Transdev Manosque	DSP	Bus, school, transport on demand	14 regular plus 2 summer

Sources: Various - see Appendix A

Political characteristics - Key political characteristics of the case study cities are summarised in Table 13.

In terms of the political characteristics of each of the eight case study cities, there are several key points worth noting. Firstly, five introduced FFPT while under the leadership of a mayor from a centre-right to right-wing party, while three did so under a mayor from the centre-left to left-wing Socialist Party. For the cities that have discontinued FFPT, the mayors at both the time of introduction and discontinuation were Foulon (Arcachon) and Jeanmet-Péralta (Manosque) - both have been mayors of their respective cities since 2001. Jeanmet-Péralta was (and still is) also President of DLVA (Manosque's agglomeration community) at the time of discontinuation. However the President of COBAS (Arcachon's agglomeration community) at the time of discontinuation was (and still is) Marie-Hélène des Esgaulx of *Les Républicains (LR)*.

Table 13: Political characteristics of case study cities

City	Year introduced FFPT	Mayor of city or agglomeration at time of introduction of FFPT	Political party	Political position of party
With FFPT				
Châteauroux	2001	Jean-François Mayet	L'Union pour un mouvement populaire (UMP)	Centre-right
Compiègne	1975	Jean Legendre	Le Centre national des indépendants et paysans (CNIP)	Right-wing
Dinan	September 2018	Didier Lechien	L'Union des démocrates et indépendants (UDI)	Centre to centre-right
Figeac	2003	Nicole Paulo	Le Parti socialiste (PS)	Centre-left to left-wing
Graulhet	2013	Claude Fita	Le Parti socialiste (PS)	Centre-left to left-wing
Neuves-Maisons	2007	Jean-Paul Vinchelin	Le Parti socialiste (PS)	Centre-left to left-wing
Discontinued FFPT	**Years with FFPT**			
Arcachon	2005-2015	Yves Foulon	UMP (former) Les Républicains (LR) (current)	Centre-right to right-wing
Manosque	2010-July 2019	Bernard Jeanmet-Péralta	Rassemblement pour la République (RPR) (former) UMP (former) Les Républicains (LR) (current)	Centre-right to right-wing

Sources: Various - see Appendix A

5. RESULTS AND ANALYSIS

5.1 Introduction

In this chapter, key findings from the interviews and written responses for each of the eight case study cities will be described and analysed. These findings are presented broken down into each of the eight case study cities, using a similar structure for each city.

The elements of the structure correspond to the elements of the conceptual framework as discussed in chapter 2. For each city, the three perspectives on motivation factors are discussed together, followed by two other sub-sections - one on the key actors and one combining discussion of the institutional context and local conditions. A comparison and summary analysis of each of these elements is included in the final section of this chapter.

5.2 Châteauroux (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Châteauroux are presented below.

Motivation factors

According to the response provided by Emmanuel Gerber, Manager - transport services, from the city of Châteauroux:

“The main goal (of introducing FFPT) was to get the city moving, to allow anyone to move around the city.”

This relates to the socio-political transformation motivation factor and was summarised in the motto used by the city: “Castelroussins (inhabitants of the city) to be mobile people in a mobile city” (“*Des Castelroussins qui bougent dans une ville qui bouge”*). However, the politicians wanted to achieve this without having to raise local taxes. Gerber said:

“The revenue from ticketing was €400,000 per year and the agglomeration, the organising authority for mobility, could do without these ticketing revenues to finance its service. Financing is provided primarily by versement transport revenue (0.60% on the payroll of companies and administrations with more than 11 employees), then by the general budget of the agglomeration community.”

To make FFPT in the city possible, the city needed to find 400,000 EUR in new revenue (as the 2001 deficit was 352,000 EUR). This was achieved by several measures: firstly, extending the VT to new municipalities (+ 92,000 EUR); secondly, increasing the VT rate to the ceiling rate - from 0.55% to 0.60% in 2002 (+ 210,000 EUR); and thirdly, making savings on network operating expenses (106,000 EUR), namely costs related to ticketing validators, costs of publishing tickets, staffing requirements for handling customer processes, management and remuneration of a network of depositaries of tickets and subscriptions. Thus economic feasibility was an important motivating factor to adopt FFPT.

In response to the question about whether promoting a shift away from car use to public transport was a key motivation in the decision to introduce FFPT, Gerber stated the following:

"At the time of the transition to FFPT, there was never any question of restricting the place of the car in the city centre. Furthermore, no restriction of traffic or parking has been implemented at the same time."

As such, it would seem that sustainable development was not a major motivation factor in the reason to introduce FFPT.

As per the response from Gerber, FFPT was introduced under the leadership of a mayor from a centre-right political party, Jean-François Mayet of the UMP, France's main right-wing political party at the time. According to Gerber, Mayet had made campaign promise to introduce FFPT in the lead up to the municipal elections, which took place several months prior to the introduction of FFPT in December of 2001. However Gerber noted support was universal at the next election:

"However, during the following elections, no candidate (regardless of his position on the political spectrum) mentioned the end of this measure… including non-users of the transport network".

Since FFPT was introduced, FFPT has become part of the city's identity (this is something that Volinski (2012) noted in many of the American examples of FFPT):

"The totally free transport has become a symbol of the agglomeration and represents a part of the identity of our territory."

This is a sentiment which has also been expressed in other cities such as Aubagne (Giovanangelli & Sagot-Duvauroux, 2012). It is worth noting that Mayet was mayor of Châteauroux until 2014 and was succeeded by Gil Avérous, also of the UMP (which has since become *Les Républicains)*, under whose leadership FFPT has been continued.

Key actors

As stated above, it was clearly Mayet and his campaign promise in 2001 which was the key decision that led to the introduction of FFPT in Châteauroux by the end of that year. As summarised by Gerber:

"It is above all a decision of elected officials that requires choices and arbitrage, especially for the long-term financing of the measure."

He also did not believe there was any major opposition to the change at the time, to his knowledge.

Institutional context and local conditions

In the case of Châteauroux, it is clear that the ability of the city to raise revenue through the VT coupled with the will of the political leadership of the city has been key to the ongoing existence of FFPT. According to Gerber, the VT rate in the agglomeration is 0.60%. Furthermore, in 2018 revenue from the VT accounted for approximately 70% of the operating expenses of the public transport network. As summarised by Gerber:

"As long as the financing model "à la française" (VT) is preserved and that the local elected officials agree to finance the evolutions of the network by appealing to the general budget, I do not see the agglomeration questioning FFPT given the popularity of the measure."

According to Gerber, the goals of introducing FFPT were to make transport a right for all, improve mobility to the city centre, create a new dynamic within the territory and double ridership to reach at least the national average. Prior to the introduction of FFPT in 2001, the system had ridership of approximately 1.5 million travellers per year, travelling around 1 million kilometres. This was 21 trips per inhabitant, compared to 34 per inhabitant for similar-sized agglomerations. 47% of users were already travelling for free (such as students and job-seekers). Revenue from ticket sales was approximately 400,000 EUR annually, which represented a farebox recovery ratio of only 14%. The fact that the city had such a low farebox recovery rate and already high percentage of users travelling for free is a fact that was clearly favourable towards the introduction of FFPT.

Since introducing FFPT, ridership has increased from 2.757 million trips in 2002 to 5.384 million in 2018. Kilometres travelled have increased as well, although by not as much - from 1.259 million in 2002 to 1.752 million in 2018. A new contract with the operator Keolis Châteauroux was signed for the period 2015-2021, which resulted in (among other things) a new logo, new livery, new visual identity for the whole network (including bus guides, timetables, network plans and at key stops), and the return of a customer service point in the city centre. The goal is to further increase

ridership by 15% for the period 2015-2021. According to a survey of 1200 travellers, a total of 98.7% of those surveyed are either very satisfied or rather satisfied with the quality of the service provided by the public transport network.

5.3 Compiègne (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Compiègne are presented below.

Motivation factors

In the case of Compiègne, it would seem that it was the economic rationality motivation factor which was originally most persuasive, however the sustainable development and socio-political. arguments have become more important in recent years.

According to the response provided by Nicolas Leday, Vice-President of ARC including delegate for transport and Deputy mayor of Compiègne, on the issue of economic rationality and the financial aspect of FFPT, he stated:

"For this (FFPT) *to work, a large economic fabric is needed in relation to the size of the agglomeration. This is the case with us, that's why fare-free has never been questioned. Fare-free also has the advantage of saving tickets and checks. Trips are also a little faster since drivers do not have to devote time to selling tickets."*

He therefore acknowledges that it is the economic base of the city and the revenue from the VT that has allowed the city to continue with FFPT for so long (since 1975), thus underlining the importance of the economic rationality argument in their positive experience with FFPT.

Given the era in which Compiègne made the decision to adopt FFPT (in the early days of the environmentalist movement), as he states, any concerns about sustainable development and promoting a modal shift towards public transport at the expense of cars seemed to have been of only minor importance. However, promoting public transport use at the expense of the car and thus contributing to a more sustainable mobility pattern is now a key motivation for the city:

"In the 1970s, the use of a private car or a second car in the home was less of an issue. The bus was a more necessary alternative than before. Habits have evolved and diverting individual cars from the city is now a key motivation."

As per Table 13, FFPT in the city was introduced under mayor Jean Legendre in 1975. He was from a right-wing party called *Le Centre National des Indépendants et Paysans* (CNIP) (National Centre of Independents and Peasants). Legendre was mayor until 1987 when he was succeeded by Philippe Marini, who has been mayor ever since. Marini is also from a right-wing party, the UMP. Thus Compiègne has had a mayor from a right-wing party for all the time that FFPT has been in place. According to Leday, FFPT has broad popular support not coloured by political leaning, and it has become a part of the city's identity:

"For decades, Compiègne has a habit of electing mayors from the right. But with free buses, that does not prevent the elected officials from having a foresightedness in the ecological, social and economic fields! Sustainable development has long been a reality in Compiègne. It is not based on great opportunistic rhetoric, it has been a reality for more than 40 years."

As such, while sustainable development may not have been a strong motivating factor to adopt FFPT in the 1970s, it has since become an established and broadly-accepted goal of the city and its leadership, regardless of the political party of the mayor and other city councillors.

Key actors

While mayor Legendre was instrumental in the introduction of FFPT, Leday notes that it was not only he who was in favour of the idea; Legendre needed the overall agreement of the municipality:

"Introducing fare-free is the approach of a municipality or an intercommunal authority. The goal of fare-free can be electioneering, it has never been with us. The mayor who introduced this system did not need that to win the elections and today it is still not a campaign issue, the inhabitants are so used to it that they find it normal, and yet it remains exceptional."

Given Compiègne's long history of FFPT, it would seem that although the mayor was instrumental in introducing the concept in 1975, it has just become normalised such that no one really questions its continued existence. As Leday stated:

"Fare-free has worked very well for 44 years in Compiègne, so opponents of the principle are hard to find!"

Institutional context and local conditions

For Compiègne it is a combination of local conditions and institutional context which proved favourable to introducing and maintaining FFPT. As described by Leday, as early as the 1970s Compiègne was a very economically attractive city. But with Compiègne being bordered by both

forest and a river, they had no place to develop their economic activity. Under mayor Legendre, the city wanted to build business parks in the periphery to broaden their economic base. He associated this rationale with the introduction of free transport to bring employees to these areas. This basic principle continues, as it is the companies through the VT that finance the vast majority of the transport budget, in exchange for which the city focuses its free bus services primarily on journeys and timetables for "home-work" trips.

It is clear that the ability of the city to raise revenue through the VT coupled with the will of the political leadership of the city has been key to the ongoing existence of FFPT. In response to the question about the importance of the VT, Leday affirmed the importance of their economic base, the mechanism of the VT to exploit it, and the consequences this has for their continued support for FFPT:

“Yes the VT is the key, if we did not have a thriving economy, fare-free could be questioned.”

As per information from Leday, of the 7.9 million EUR in transport budget revenue, 5.8 million EUR comes from the VT. The city also receives 1.8 million EUR in subsidies from the departmental council and the Region. The involvement of the city’s main budget is thus only 220,000 EUR. Therefore it is clear that this instrument has enabled the continuation of FFPT in the city for over more than four decades. Finally, Leday highlighted that the city’s transport network has expanded to offer other mobility options, and notes the fame it has brought to the city:

“The age and durability of our model are always surprising. In addition to free buses, we also have free school buses, transport on demand at €2 or bike rentals at €2 for 2 days and €70 for the year! We are often taken as an example by the media and other communities.”

5.4 Dinan (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Dinan are presented below.

Motivation factors

For Dinan, it would seem that the economic rationality and sustainable development perspectives were the most important motivation factors in the decision to introduce FFPT. According to the interviewee Ashvin Daumoo, Mobility projects manager from *Dinan Agglomération*, the idea for FFPT began after the agglomeration community was created in 2017. They commissioned a study to assess the overall mobility situation and needs, and included a study into the feasibility and in particular financial consequences of a FFPT system. The results of the study showed that the

public transportation with paid fares would cost more than a fare-free one, mostly because of the cost of the employees, but also the cost of printing and administering all the fare media (tickets, timetables, network maps etc.) and related systems:

"We made a study to understand the financial consequences of fare-free public transportation system and the projections of the study have shown that the public transportation with charges… would cost more than a fare-free public transportation."

This simple but critical conclusion - that a paid system would cost more to run than a free one - seemed to be the deciding factor that ultimately led to the majority of the 64 representatives of *Dinan Agglomération* voting to implement FFPT. Thus the economic rationality perspective was absolutely key in the decision to introduce FFPT.

Daumoo was clear that sustainable development was a key concern for the city when considering whether to introduce FFPT:

"Fare-free public transportation in the case of Dinan Agglomération was a way to promote the public transport use and because one of our goals in the Dinan Agglomération master plan of transportation was to increase the use of public transportation."

He also highlighted the traffic problems experienced in the centre of the town:

"Especially because in the urban area of Dinan, and more in the city of Dinan, we deal with problems of traffic jams, due to the conception of the city. Because Dinan has the particularity to be a very historical city with very narrow streets so there is a lot of traffic jams when people come to work in the morning and when they go out between 5 and 6pm. So we considered that creating a real transportation system in four cities would be a good solution to decrease those traffic jams"

As recounted by Daumoo, support or opposition to introducing FFPT was not necessarily split down political lines:

"The political border of Dinan Agglomération is not directly linked to the choice to put fare-free public transport… because Dinan Agglomération, the 64 cities, are left-wing more, socially, but the vice-president in charge of mobility is centre-right. But most of the elected people - les élus - *agreed to create a fare-free public transportation system. So the political border doesn't really explain the choice to put the fare-free public transportation…"*

Therefore it would seem in the case of Dinan, it was not necessarily for expressly socio-political reasons that this decision was made by the elected representatives, but rather the reasons based

on the economic rationality and sustainable development perspectives which took precedence as described above.

Key actors

When asked about who the main supporters of the introduction of FFPT were, Daumoo reinforced the importance of the study and its findings, over any specific key actor:

"We can't say that we have like, opponents and supporters, but… I would say the idea of creating FFPT changed from the study."

He reaffirmed this view in the following exchange:

AD: "It's not linked to the political border, leader… it's just a big debate and the study permitted a big debate between all the members on the concept.

AG: So it wasn't very like black and white, who was supporting it, and who was against it?

AD: Exactly, this is what I'm trying to explain, exactly."

Thus in the case of Dinan it can be said that there was not one key actor who advocated for this decision, but it was simply a decision of the 64 elected representatives of *Dinan Agglomération*.

Institutional context and local conditions

Daumoo was the only interviewee or respondent to talk about the requirement to levy the VT across their entire territory, even in those which are not served by the bus network:

"AD: …Because of the law - the Martin law - we didn't have a choice, we had to create the VT in the whole are of Dinan Agglomération, but DINAMO! is only for four cities.

AG: Oh OK, so the companies in the other cities are asking why do they have to pay, if they don't benefit?

AD: Exactly, so the question they have to pay, we don't have any choice, so we have a lot of people yelling. But it's the rule. And we can't just say that they don't pay."

This was a key finding which I had not known previously. Although each agglomeration can levy a different VT in a different commune, if a VT is levied at all, it must be levied across the whole

agglomeration, even if they do not directly benefit from a transport service. This obviously has the advantage in a large agglomeration community like Dinan, with 64 communes, as the revenue base for the VT can be drawn from a much larger area than the area served by the transport network. He also stated that they do have plans to expand the *DINAMO!* network in the future, however this would only be possible if additional funding is provided either directly via the VT or indirectly from other sources.

According to Daumoo, one of the responsibilities of an agglomeration is to create an urban transport network and mobility policy, not just public transport but also promoting cycling, car-pooling or car-sharing. This originates from the LAURE legislation mentioned in chapter 2.

In relation to the aforementioned mobility study commissioned by the agglomeration, the results were presented at the meeting of the 64 mayors and councillors. As Daumoo explained, this created a lot of debate and questions among some of the elected representatives, as some were worried that FFPT would mean more damage to the buses for example as people would not respect the service if it was free. Furthermore, they were worried it would create a feeling of inequality, given the regional buses services in Brittany (called *BreizhGo*, which is a network which crosses all the main cities of the region) is paid and it crosses several towns within *Dinan Agglomération* such as Dinan, Plancoët or Caulnes. However ultimately the elected representatives believed the financial savings that could be made by eliminating fares would outweigh such concerns, and they voted in favour of FFPT.

Finally, when asked about the possibility of being able to have a higher VT if they could build a TCSP, Daumoo stated:

"We don't have this (TCSP) yet in Dinan and it's just really impossible to put in place, to create, because the conception of the city doesn't allow something like this…"

And as found in other cities, even despite only being recently introduced, FFPT has already become an accepted part of the community's identity:

"And the other reason to probably maintain the FFPT is that now, it's in the Dinan Agglomération culture. So for the people, now DINAMO! *is just free of charge. So imagine the new political members in 2020 say "no, now we have to pay", I guess we're going to have our own yellow jackets in front of our place!"*

5.5 Figeac (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Figeac are presented below.

Motivation factors

In the case of Figeac, all three motivation factors were at least somewhat important, with economic rationality seeming to be the most important of the three. According to the response provided by Pascale Belaygue, Secretariat of the Director General of Services from the city of Figeac:

"This project (FFPT) was created from the will of the city of Figeac to offer to all of its population an efficient urban transport service."

This can relate to the socio-political transformation perspective, as such an idea relates to the idea of inclusion and fairness, by promoting access for all to the city via its public transport network. It is worth noting that Figeac has had a mayor from a socialist or even communist party since at least WWII and therefore clearly has an established left-wing tradition. One can make assumptions, however given no explicit mention was made of whether this decision was as a way to help continue identity, one cannot assume the decision was indeed for this reason.

Such an obligation falls on AOMs like Figeac and as such, a feasibility study was carried out in 2001 and the principle of creation of the bus network was adopted by the city's municipal council in 2002. The first investments in rolling stock, development of stops, stopping posts etc. was made by the city for approximately 500,000 EUR, however they have benefitted from subsidies granted by the European Union and the French State. The network's annual operating budget is of the order of 650,000 EUR, 90% of which is 90% financed by the VT at a rate of 0.43%. Thus the financials of the proposal made sense and thus enabled FFPT to come to fruition, underlining the importance of the economic rationality perspective.

Belaygue also noted that the city recognised the benefits of promoting public transport in providing an alternative to the private car:

"The growing number of private cars is causing more and more traffic and parking difficulties. A car consumes 20 times more space per person transported than a bus. The bus limits the number of cars in the city centre. It frees up space and is also a way to fight against pollution."

However whether introducing FFPT as a way to encourage public transport use and address this problem of traffic congestion was not explicitly mentioned as a key motivating factor.

Key actors

As noted in the response provided by Belaygue, it was under Figeac's longstanding mayor Martin Malvy (mayor from 1977-2001) that the idea to introduce FFPT was first proposed. However it was under Malvy's successor as mayor, Nicole Paulo (mayor from 2001-2014), that FFPT was ultimately introduced in 2003. No mention of any major activity by residents or civil society groups was mentioned, thus it can be assumed that FFPT was again implemented in a top-down manner due to the political convictions of the two mayors.

Institutional context and local conditions

According to Belaygue, the *Figeac Bus* network was only first created and inaugurated on 1st September 2003. Prior to this, the city had no bus network. However as previously mentioned, with the approximately 500,000 EUR investment including subsidies granted by the European Union and the French State, the city was able to begin its service that year. 90% of the network's 650,000 EUR operating expenses comes from the VT, levied at a rate of 0.43%. Again, it is clear that the economic base in the city and the ability to raise revenue via the VT from that has been instrumental in the viability of the city's transport system.

As recounted by Belaygue, the Keolis group provided the original network concept and prepared the various specifications to ensure the launch of Figeac's network. It also ensured the design and supply of all the accompanying elements of the network, such as the timetables, maps and information at bus stops. *Cars Delbos*, a local private bus operator, is responsible for the operation of the network, including the maintenance of the bus fleet.

Furthermore, the initial goal was to offer 200,000 kilometres of trips per year and transport 200,000 travellers. In 2018, a total of 311,295 passenger trips were made on the network. Belaygue also clarified that the city's network is not operated under a DSP - as is the case with the vast majority of public transport networks in France - but under the *la régie* form of management. The private sector does have an involvement as noted above. However, ultimately the city itself is owner of the city's buses.

5.6 Graulhet (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Graulhet are presented below.

Motivation factors

According to the written response provided by John Dodds, Municipal councillor for Graulhet from *Gaillac Graulhet Agglomération*, when asked whether promoting sustainable development was a key motivating factor to adopt FFPT, Dodds answered as follows:

"The key motivation was to provide simplicity of operation for what is a very limited service mainly used by school children or older persons."

Thus the motivation factor of sustainable development did not seem to be an important consideration. He re-affirmed this in response to question 6 regarding socio-political transformation; it was simply for reasons of practicality rather than reasons of socio-political transformation:

"The decision for FFPT was simply based on practicality for running a small scale public service."

In terms of the economic rationality perspective, in response to question four about whether the city was concerned about the loss of revenue from introducing FFPT and whether this was an important issue, he stated that it was:

"…of no importance. The problem will only arise if the service becomes more extensive which is not envisaged for the next decade or so."

To understand this response, it is worth examining the numbers with regards to annual operating expenses and revenue from the VT. According to Dodds, annual VT revenue is approximately 500,000 EUR from Gaillac, 100,000 EUR from Graulhet plus 100,000 EUR from the other 59 communes in the agglomeration community. The network's annual operating budget is approximately 500,000 EUR, and this is nearly all covered by the VT paid by companies in Gaillac at 0.55%. The cost of *La Navette* services in Graulhet is about 100,000 EUR covered by the VT paid by companies in Graulhet at 0.20%. The other communes in the agglomeration contribute about 100,000 EUR at the 0.20% VT rate. Therefore the system is in a situation where they can cover the cost of their existing service. However as he says, expansion would change this equation, underlying the importance of the financials alone in their ongoing support for FFPT.

Key actors

According to Dodds, the main supporters of the idea of FFPT were:

"The mayor with the town council, local businesses, residents and civil society groups."

However it was ultimately the decision of the town council to actually adopt the policy.

Institutional context and local conditions

As previously stated, the current VT rate is 0.55% in Gaillac (the seat of the agglomeration) and 0.20% in all other communes including Graulhet. The agreement amongst the various communes within the agglomeration community is to reach a uniform rate of 0.60% for all communes by 2023 via yearly increases of 0.20% over three years from 2020 to 2023. As Dodds explains:

"FFPT in our town was initially paid from general taxation. The VT took over the cost when our town became part of an agglomeration which charged the VT. The increase in the rate in the near future is intended for a corresponding increase in funding of several initiatives such as bike paths, car sharing schemes, on-demand transport, etc.. but not to pay for more bus routes."

As such, the increased revenue the community will gain from the VT will not necessarily be spent on expanding the free bus service, but on promoting other forms of mobility as mentioned. The legislation governing the VT allows this, as although a bus service may account for the majority of spending on transport by AOMs, these newer forms of mobility like car-sharing schemes and on-demand transport are increasingly important. It is intended that in 2023, with a uniform rate of 0.60% for all communes, the total VT revenue will be approximately 1,650,000 EUR/year with 1/3rd from Gaillac, 1/3rd from Graulhet and 1/3rd from the other 59 communes. In 2023 the total VT will cover: In Gaillac the whole bus service 500,000 EUR/year. In Graulhet *La Navette* service at 100,000 EUR/year and 300,000 EUR/year investment in cycling and walking paths, cycling facilities etc. The remaining 750,000 EUR will be used to provide agglomeration-wide services of car share schemes, car parks to facilitate car share, hitchhike services, taxi-bus service and inter-commune cycling and walking paths.

5.7 Neuves-Maisons (with FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Neuves-Maisons are presented below.

Motivation factors

In Neuves-Maisons, the sustainable development perspective was most important of the three motivation factors. According to the interviewee from Neuves-Maisons, Dominique Kinderstuth, Director general of services from the *Communauté de communes Moselle et Madon,* achieving a shift in modal share from cars to public transport was strong motivation to adopt FFPT:

AG: "And I guess, number five about promoting public transport use instead of driving, is that also an issue for you?

DK: Yes, it was true, it was definitely a strong motivation. The guy who was then president, he wanted everybody, especially the kids, the teenagers, to get used to taking the bus very easily and freely. So that they would create this habit. So once they were older, their reflex would be to take the bus and not the car. He had a very strong speech about that. So it was definitely a key motivation."

This issue of creating a habit or reflex to take public transport is something that has been cited in other cities not included in the case studies examined here, notably Aubagne (Giovanangelli & Sagot-Duvauroux, 2012).

In terms of the economic rationality perspective, financial considerations were not a major motivating factor, given the very small revenue that was being received from fares:

"We are not in a typical urban area… So there are not so many bus lines and so on. So the fares did not generate very high income for our community. Before, in 2007, the fares brought us only around 15,000 EUR a year, which is quite ridiculous. So it was not a great sacrifice for us to say, all of a sudden, OK, we don't make any fare anymore, you know."

When asked about the potential socio-political transformative nature of FFPT, Kinderstuth stated:

"Well, you know cities are not 100% left or right. But the core of our community is left-wing… it's a traditional, industrial, working class territory. So it has always had a left-wing majority…

"But of course the political connection of the president and the other presidents who came afterwards, of course it is important, the guy who decided to make the transport free, he was clearly in the socialist party. And for him, fare-free transport was a kind of social progress, you know, and it was clearly linked with his political views."

Thus this is one of the few instances where the interviewee or respondent clearly stated that the decision to introduce FFPT was related to the political views of the council president and thus could be classified as important from the socio-political perspective.

Key actors

In discussing the key actors involved in introducing FFPT, it was clear that it was the council president of the agglomeration who was the main proponent:

AG: "But it sounds like something, it was really something that the mayor was the main proponent, or supporter...

DK: Yeah, it was clearly like that… So clearly the political will of the president certainly played a key role in the process."

Nevertheless, the decision was something that was to be decided by the whole municipal council of the agglomeration, and a vote was taken in which 27 members were in favour of FFPT, 15 were in favour of a flat 50 cent fare and only one member was clearly against the proposal. According to Kinderstuth:

"There was a clear majority, but there was a real debate within the council".

Institutional context and local conditions

When asked about the importance of the VT, Kinderstuth noted the following, reinforcing the importance of the VT as a key mechanism in supporting the operation of FFPT:

"Yeah, it's very important. You see our numbers… So without the VT, we could not afford to put 1.6 million EUR a year to fund the public transport network. So we would either have to run less services or to raise the taxes… but this wouldn't really be acceptable or affordable."

In terms of local conditions, as described by Kinderstuth, the core of the Neuves-Maisons community is left-wing. The territory, like many in the Lorraine region or in the north of France was once very much organised around a single industry, in this case with a steel factory in the territory and everyone working in that factory. There was great economic and social upheaval in the 1980s, when most of the steelworkers were laid off. The steel factory is still there, but only employing 400 people now compared to 3,000 people 30 years ago. However, the area is still a traditional, industrial, working class territory and has always had a left-wing majority. Nevertheless, over time, such a generalisation has become less concrete and he thinks perhaps it has become more balanced, due to the community growing larger and absorbing other villages with different voting patterns.

It is also worth noting that school transport has been free across the whole *département* since 1998, which was a clear political proposal. According to Kinderstuth, the *Parti Socialiste*

campaigned in 1998 with this key proposal to make school transport services and they won that election in March 1998, so the year after they made school transport free. But now, because of changes to laws, the *département* are no longer in charge of organising the school transport and it is now the job of the regions. And so so far, the region of Grand-Est has decided not to abolish the free school transport in Meurthe-et-Moselle because it is politically very delicate. But apparently this will be done within two years. As he summarises:

"Each situation is different… So we try to be humble and not to tell everyone you have to make the transport free. I think it was the right decision to make in our case, in our territory, and every territory has its own reflections to do and see whether it's a relevant idea or not."

5.8 Arcachon (has discontinued FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Arcachon are presented below.

Motivation factors

In the case of Arcachon and the COBAS agglomeration it is situated in, it seemed to be a political, rather than financial decision by the COBAS and its new President to end FFPT as per the following exchange with interviewee Maxime Larondelle, Director of transport services from Transdev Bassin d'Arcachon::

ML: I think it is not a question of money in this case, because they can afford it. They are quite a wealthy city, it's more a question of point of view of the politicians. Either they are fond of this idea, it's an ideology you know. You think public service should be free, or not.

AG: Yeah, so it's more a political decision?

ML: Yes. If tomorrow they can put it for free, no problem they can do it. But it's not my choice.

Therefore it would seem that maintaining FFPT would have run against the political ideology and identity of the current politicians who are mostly from the right-wing parties, while FFPT has often been viewed as a particularly left-wing idea in France (Giovanangelli & Sagot-Duvauroux, 2012).

Economic rationality was only a secondary consideration in the decision to end FFPT:

"Yes, yes. It's political ideology of the leader, and the finance will argue, to go for it or not. But the finances are in the secondary degree."

Larondelle noted that there are existing traffic problems in the city, especially in summer:

"*There's traffic problems in Arcachon. Not only in the summer, all year round there are traffic problems… and we have no busway. So the buses are in the middle of the traffic jam, so it is quite difficult. So you cannot use the argument that the bus is quicker than the car in those kind of cities. And it's a real… it is the subject to deal with if you want to increase the* fréquentation *of the network. But there is no space for it."*

However when asked about whether ending FFPT would mean more people driving and more traffic would result, he did not see this as a problem:

AG: "OK. So you know when the decision was made to end the free buses, were some people concerned that that would mean more people would be driving and more traffic would result?

ML: No, no because it was mostly old people who use those lines.

AG: And they don't drive cars?

ML: They don't drive a lot, no. Usually when the come to Arcachon, they have a car park, so they come from Paris, for a weekend, or for the summer, or for six months of the year, usually they come from Paris or Bordeaux, because they have a second house in Arcachon. And they park the car and they go by foot or by bus."

Therefore it would seem concerns relating to sustainable development and public transport use were not very important in relation to the decision to end FFPT.

Key actors

In discussing the key actors in this decision to end FFPT, Larondelle believed it was indeed the decision of the most 'charismatic politicians' who were decisive, with others just following suit:

"No, it's a bit special in these kinds of communities. Usually you have one or two or three, or four in this case, how do you say, 'charismatic politicians'. And the others are more followers. So if the four are more agreeing with each other, all the others will vote the same. So I think it was more this decision. It's not only a question of left or right-wing. The leaders choose and put it to the vote. Most of the time, everyone follows leaders because this is so technical that they can't argue or know how it works. They, in fact, trust the vision and program of their leaders."

Institutional context and local conditions

According to Larondelle, in France there are laws for something to be considered as a public service, and it must be equal for every citizen, including the price, which means that you cannot have one part of the population, or one kind of service free and the other not free:

“As a public service, it must be equal for every citizen, including the price, which means that you cannot have one part of the population, or one kind of service free and the other not free. So the political decision was made in 2016 to put all the network under payment. Going from free to not free is quite a difficult exercise politically.”

He stated that there are three rules in France for a service to be considered a public service. One is *égalité* - equality. Equal means that it is equal for everyone. It’s public. Rich, poor, everyone, they pay the same. Either it’s free and it’s free for everyone, or it’s not free and it’s not free for everyone. The second is *continuity*. So if there is a strike for example, they must ensure a minimum service is continued. And the third is *adaptability*, which means that the service must adapt to changes in demand and desires.

It is worth noting that no other respondent mentioned these things and despite further research, it is unclear whether this is in fact true across France but it would seem to not be the case at least from the *equality* perspective, as almost all cities usually have free or discounted ticketing for certain groups such as children or seniors/pensioners.

According to Larondelle, the VT rate which applies in the agglomeration is 0.5% and the annual operating costs of the public transport system are 5,000,000 EUR with revenues from ticket sales totalling approximately 650,000 EUR.

A notable point made by Larondelle was that despite the decision to end the free buses in COBAS, the mayor of Arcachon has decided to pay for his citizens, thus they can apply for an annual subscription product at the city, submit it to *Baïa/Transdev Bassin d’Arcachon* and still enjoy free bus travel within Arcachon.

"But the city of Arcachon decided to pay for its clients, so it’s the city of Arcachon… if you live in Arcachon, you go to the city hall, you say I want a pass ticket, they will fill a form, give it to me, and I will create your bus ticket for the year, give it to the city, and they will pay it for you. So for the people in Arcachon, it’s still free, because it’s the city that pays for them. Only in Arcachon.”

This thus is only a form of ‘partial’ FFPT. Meanwhile, there is still a very cheap subscription product available for all other non-Arcachon residents:

"So for the people who only use those small lines, the three lines, we crated a special fare which is 20 EUR for 12 months, unlimited on those lines. Which is not free, but it is nearly free."

5.9 Manosque (has discontinued FFPT)

The key findings relating to the motivation factors, key actors, institutional context and local conditions in the case of Manosque are presented below.

Motivation factors

In Manosque, the deciding motivation factor to introduce fares was to gain additional revenue to improve the quality of the service. According to interviewee Marie-Elisabeth Leveque, Director of transport for DLVA (the agglomeration community which includes the city of Manosque), the elected representatives wanted that everyone participate in the cost of the transport, even if it was a small contribution to the cost. She said that *"Free doesn't exist. We pay for the transport"*.

In ending FFPT in favour of a paid system, she believed people were willing to pay a little more if it meant that the overall service could be improved:

ML: "We asked people if it's OK to pay a little part of the transport, and to work on quality… it is not a problem to pay, if there is more quality.

AG: So they were willing to pay for that?

ML: Yes because we had old transport and now we have more services, with more buses and the bus is more comfortable. And we have more buses than before - 24. They say OK, we can pay. OK some people are not OK. But the majority are OK."

This relates to the economic rationality perspective, as it was clearly important to have additional revenue to improve the service. In response to question five about whether ending FFPT would mean more people drive rather than catch the bus, Leveque had the following opinion:

ML: "We don't think that because, we think that, if you have more quality, if you can trust the transport, that the bus comes at 8 o'clock, the bus respects the hour, we think that there is more citizens who will take the transport. We have a problem often that the bus is late. So we think that quality is more of an issue for people than the fee."

As such, like in Arcachon, any worries that introducing fares would lead to more car use were not really a concern, but rather any such loss of patronage could be negated or at least minimised from improving the bus service with the extra funds gained from charging fares.

In response to question 6 about the socio-political identity of the city and whether this was at all linked to the decision to end FFPT, Leveque stated:

"Not really. But as I explained to you, we grew up. Before, everyone thought about Manosque as a village. But now, the majority of people think about Manosque like a city. It is not shocking to pay for the transport."

So as the area has changed, the public transport system has evolved to serve the increased population and therefore most people are now viewing the city as one with a comprehensive public transport system which is worth paying for. Any larger ideas about preserving some kind of socio-political identity seemed to be of little importance.

Key actors

According to Leveque, in the case of Manosque, it was clear that the decision to end FFPT was that of the elected council of the DLVA agglomeration community:

"In our community of towns, we elected our government for the council of community. And they decided they wanted that all the people in the community to participate in contributing to the cost of the public transport. Because we pay the public transport cost through taxes. The élus *wanted that everyone participate in the cost of the transport. Even if it was a small contribution to the cost."*

Like the other cities, this decision was simply put to a vote of the elected representatives, and it was they who made this decision, not simply the mayor alone. This discussion had

Institutional context and local conditions

For Manosque, the revenue from the VT was not sufficient to fully cover the cost of the public transport network in the absence of fares:

"The transport costs about 6 million EUR per year. We are not an urban community. We have some local factories… But we don't have much industry. We have more services… We have farmers. It is not an urban territory. It is rural. We have only a small town and after that we have only village and countryside. We do not have a lot of VT. Because we don't have enough."

Thus it would seem that in their case, introducing fares was more important than the other cities in order to gain much-needed revenue to fund their bus network. The VT rate is 0.5% and it raises approximately 1.4 million EUR annually. The cost of providing the service is approximately 6 million EUR annually. The remaining sum not covered by the VT comes from local taxes.

However the main reason was that, nearly a decade after first introducing the bus service, people thought it was acceptable to pay a little to contribute to providing the public transport network, in order to work on improving its quality. She believed that for most people, it was not a problem to pay a little if the quality of the service were to be improved. However as she highlighted, even with the now fare-paying service, there are still very low prices. There are annual passes available for just 30 EUR for adults, 15 EUR for those aged under 26 or 15 EUR for a school pass. A single ticket costs only 1 EUR and a 12-ticket pass is only 9 EUR. She concluded by saying that:

“Free is really a political idea. When you are a technician, you want to do good work. When you are a politician, you want to make political decisions. Free is a political decision.”

Finally, since the service began, it has also expanded. Originally it was only in Manosque, but now serves 25 of the villages of the agglomeration. Buses and many bus stops have been modernised or upgraded and a smartphone app has been developed to provide customers with real-time information and schedules.

5.10 Comparison and summary of results

In this section, each of the elements of the conceptual framework will be discussed individually. For the motivation factors, a five-point ‘level of importance’ scale has been created in order to classify and assess the relative importance of each of the three motivation factors. This scale is:

Table 14: Level of importance scale for motivation factors

Level of importance	Weighting
Not important	0
Somewhat important	1
Important	2
Very Important	3
Extremely important	4

Based on the responses received from each city, tables for each of the motivation factors with a level of importance is included in the following sections, with a total score for each factor given.

For the element ‘Key actors’, a table listing the most importance parties is included in that section followed by an analysis and summary.

Finally, for the institutional factors and local conditions, given the qualitative nature of the results, it was not possible to compare or classify the responses as easily as for the motivation factors. As such, these are simply discussed and summarised in the final two sub-sections.

5.10.1 Motivation factor - Economic rationality

Table 15: Level of importance ratings for motivation factor - economic rationality

City with FFPT	Level of Importance	Weighting
Châteauroux	Important	2
Compiègne	Important	2
Dinan	Very Important	3
Figeac	Important	2
Graulhet	Somewhat important	1
Neuves-Maisons	Somewhat important	1
City which has discontinued FFPT		
Arcachon	Somewhat important	1
Manosque	Very Important	3
	Total	**15**

As the total score in Table 15 shows, in comparison with the other two perspectives, it would seem that economic rationality was the most important motivation factor for the eight surveyed cities in deciding whether to implement or discontinue FFPT.

All respondents provided information about the purely financial aspect of FFPT, with several key points made on this topic. One was the importance of being able to fund the operation of their public transport systems through revenue received from the VT, in lieu of the lost revenue from the abolition of fares. However this was dependent on whether the city had such a economic base to exploit. Leday from Compiègne for example explicitly acknowledged the importance of having a “large economic fabric” for FFPT to work. However because it was so long ago that the decision to introduce FFPT was made - long before the VT became as an important source of revenue as it is now - it is not possible to say for sure that this was more than ‘Important’ in the decision. Conversely, not having a broad enough economic base on which to draw on via the VT was

something Leveque noted in Manosque, and therefore introducing fares was important to gain vital additional funds to put towards improving her community's public transport offering.

A second key point in relation to the economic rationality perspective was the generally low farebox recovery ratios that existed prior to the implementation of FFPT in the respective cities. Kinderstuth in Neuves-Maisons for example said the 15,000 EUR they brought in each year was "quite ridiculous" and so it was not a great loss to abolish fares. Furthermore, he was clear that without the revenue from the VT, they could not have introduced FFPT unless they were to reduce bus services or raise taxes, neither of which would have been acceptable. Meanwhile in Châteauroux, the farebox recovery ratio was only 14%. This issue also relates to the relative higher cost of collecting fares as a percentage of overall operating costs and the obvious savings that can be made by simply eliminating fares. This is something common to man worldwide examples of FFPT, such as the many American examples of FFPT described by Volinski (2012) for example.

So in conclusion, it was this economic rationality argument which had the greatest influence on the decision of the mayor and/or elected officials of each city to introduce or discontinue FFPT. In almost all cities, it was this factor which led to the elected officials voting to introduce FFPT. The city which demonstrated the most explicit attention to this was Dinan, where the study commissioned into the transport system was presented to all 64 elected representatives of *Dinan Agglomération.* It showed that it would cost more to have a fare-paying system than a fare-free one, and thus the 64 officials voted in favour of the idea, almost on this point alone.

5.10.2 Motivation factor - Sustainable development

Table 16: Level of importance ratings for motivation factor - sustainable development

City with FFPT	Level of Importance	Weighting
Châteauroux	Not important	0
Compiègne	Important	2
Dinan	Very Important	3
Figeac	Somewhat important	1
Graulhet	Not important	0
Neuves-Maisons	Very Important	3
City which has discontinued FFPT		
Arcachon	Not important	0
Manosque	Not important	0

	Total	**9**

The relative importance given to the idea of promoting sustainable development through FFPT yielded quite mixed results as Table 16 shows.

Firstly, a clear distinction needs to be made between the first two cities, Châteauroux and Compiègne - which were the cities which implemented FFPT the longest time ago (2001 and 1975 respectively) - and all the other cities which implemented it more recently. As noted by Gerber from Châteauroux, *"At the time of transition to FFPT, there was never any question of restricting the place of the car in the city centre"* and no restrictions on traffic or parking were implemented at the same time. In Compiègne, Leday noted that *"in the 1970s, the use of a private car or a second car in the home was less of an issue"*, however *"habits have evolved and diverting individual cars from the city is now a key motivation"* and FFPT is part of his city's strategy to do this. However this has happened only recently, compared to the 1970s when FFPT was introduced in that city. Hence the classification for Compiègne in the above table as 'Important' as the relative importance of this factor has evolved over time to become more important than it most likely was in the 1970s.

However for the other six cities which implemented FFPT more recently (and later discontinued in the case of Arcachon and Manosque), it would seem this factor was only very important for Dinan and Neuves-Maisons. Daumoo from Dinan mentioned his city's explicit wish to increase the use of public transport as part of their mobility master plan and also to address increasing traffic jams in the town, while Kinderstuth from Neuves-Maisons talked about the desire of the council president to make catching the bus into a habit or reflex, something they could instil in children and teenagers which they would carry with them for the rest of their lives.

Finally, it is worth discussing the two cities which recently discontinued FFPT - Arcachon and Manosque. When asked if they were concerned that ending FFPT would result in more people driving rather than catching the bus, neither expressed much concern, but for different reasons. In Arcachon it was perhaps a special case because much of their patronage occurs during the warmer months with the influx of tourists from larger cities like Paris and Bordeaux, who Larondelle describes usually park their cars at home or out of town and come by foot or bus into the city centre. While in Manosque, Leveque believed that any loss in patronage from the introduction of fares could be offset by improving the quality of the service, thus encouraging people to keep catching the bus. These were both interesting points however it must be said that given the only recent implementation of these measures and the absence of statistics on modal share and the like, it remains to be seen if these beliefs will indeed prove to be true.

5.10.3 Motivation factor - Socio-political transformation

Table 17: Level of importance ratings for motivation factor - socio-political transformation

City with FFPT	Level of Importance	Weighting
Châteauroux	Somewhat important	1
Compiègne	Somewhat important	1
Dinan	Not important	0
Figeac	Somewhat important	1
Graulhet	Not important	0
Neuves-Maisons	Important	2
City which has discontinued FFPT		
Arcachon	Important	2
Manosque	Not important	0
		7

As per Table 17, socio-political transformation seemed to be a mostly unimportant factor in the decision of most of the cities to introduce or discontinue FFPT.

Firstly, it is worth noting that the socio-political transformation perspective on reasons to introduce or discontinue FFPT is very much related to the 'Key actors' as detailed in the following sub-section. This is because in almost all the cities surveyed, FFPT was implemented or discontinued in a top-down fashion by the mayor and/or local elected representatives. As such, the findings in relation to this perspective generally followed the same theme.

A clear distinction must be made between Compiègne and the other cities, as it is a clear outlier - having introduced FFPT in a different era (the 1970s), compared to the other cities who only did so in the 21st century. Although the idea of introducing FFPT in the past two decades generally seems to be one which has taken place in left-leaning cities, Compiègne is a city that has long had a right-wing leadership. And given the concept's long history in the city, it seems to have continued without challenge for over 40 years, regardless of political ideology (according to Leday, the respondent from the city).

For the other cities with FFPT, it was introduced under leadership from centre-right parties in Châteauroux and Dinan, with mayors from the *Parti socialiste* introducing it in Figeac, Graulhet and Neuves-Maisons. On the other hand, it was under leadership from the centre-right *Les Républicains* (or its predecessor the UMP) that FFPT was discontinued in Arcachon and Manosque. Nevertheless, of all the respondents, it was only in Neuves-Maisons and Arcachon

where political ideology was important in the decision to introduce or discontinue FFPT, in all the other cities the economic rationality argument seemed to trump any ideas about achieving a socio-political transformation, or at least contributing to it, through the implementation of FFPT.

5.10.4 Key actors

Table 18: Key actors in the eight case study cities

City with FFPT	Key actors
Châteauroux	Mayor, elected officials
Compiègne	N/A
Dinan	Elected officials
Figeac	Mayors, elected officials
Graulhet	Mayor, elected officials, businesses, residents and civil society groups
Neuves-Maisons	Mayor/council president
City which has discontinued FFPT	
Arcachon	Mayor, elected officials
Manosque	Elected officials

As the above table shows, it is clear that FFPT was either introduced or discontinued in a top-down manner by all the cities surveyed. All respondents cited the mayor, council president and/or the other elected representatives of their respective agglomeration communities, when asked about who was instrumental in bringing about this policy change.

No respondents mentioned any major action by civil society organisations or trade unions for example, as was the case in Brazil with the *Movimento Passe Livre*. Furthermore, given all cities have varying rates of VT levied on companies with 11 or more employees, it would seem that no businesses were opposed to the idea as the tax they pay was already benefitting their businesses in all cases, allowing their employees to come to or from work via public transport.

5.10.5 Institutional context and local conditions

In terms of conclusions to be drawn on what role the institutional context for public transport in France has played in the implementation of FFPT, a brief review of the laws and concepts explained earlier in section 2.6 is necessary.

As previously described, while France may have the most cities of any European country with FFPT, 20 out of the hundreds of intercommunal authorities (EPCIs)/AOMs who organise public

transport is essentially a drop in the ocean. All these communities - whether with or without FFPT - are subject to the same laws governing public transport organisation and funding in France, namely the original LOTI law of 1982, subsequently re-codified in the Transport Code (CT) 2010. These laws obligate the various urban mobility transport authorities (AOMs) to manage urban public transport within their territory - not just public transport but all forms of mobility including car sharing/pooling, active transport (e.g. bike sharing) and other responsibilities. In addition, for those agglomerations with more than 100,000 inhabitants, the LAURE law further requires the AOMs "to encourage the use of public transport as a means of addressing air pollution problems" (ITF, 2017, p. 6). Almost all these AOMs can and do levy the VT and do so at varying rates depending on a variety of factors including whether they have a TCSP or if they are touristic municipalities. All have the option of operating their public transport systems through *La régie* or DSP form of management.

As such, if all intercommunal authorities/AOMs in France face the same institutional context, what is the difference between these 20-odd cities with FFPT (including the six surveyed) and those without? The answer would seem to be that it is the combination of the economic rationality perspective and the motivation of the mayor and other elected representatives of the agglomeration community that ultimately is the 'formula' that determines whether FFPT is introduced. Conversely, although only two cities were surveyed which had recently discontinued FFPT, it would seem that this decision was simply a decision made by the mayor and/or elected officials to end policy, based on their own political ideology, as well as the desire to gain additional revenue to improve the service, as explicitly noted by the interviewee Leveque from Manosque.

In terms of local conditions, it is hard to isolate the relative importance of local conditions which could have had some effect on each city's decision to introduce or discontinue FFPT.

In Châteauroux, as has been demonstrated in almost every other city which has introduced FFPT, ridership has increased exponentially. The vast majority of passengers are either rather satisfied or very satisfied with the service, and it would seem FFPT is there to stay. In Compiègne, it was so long ago that they introduced FFPT, that they were the trailblazer and really were embarking on an experiment, nevertheless one that has endured for 40 years, as Leday notes. In Dinan, it was clearly the transport study that was the deciding factor to introduce FFPT. In Figeac, the community had no public transport network prior to 2003, and it was decided from the very start not to charge fares to encourage the network's use. In Graulhet, Dodds talked about the desire of his community to increase their mobility service to incorporate newer forms such as car sharing or organised hitchhiking. In Neuves-Maisons, the community's working class, steelmaking roots were highlighted by the interviewee Kinderstuth, and that this no doubt played a role in the community's decision to introduce FFPT as part of the left-wing identity of the community. Furthermore, school transport in the whole *département* has been free since 1998, meaning free transport was not a completely foreign idea.

In the cities which have discontinued FFPT, local conditions of course also played a part. For example, In Arcachon, Larondelle made the point that the city's mobility patterns were different than most cities, given it is a holiday destination, with a higher population and thus traffic and patronage during the warmer months. Furthermore, being a "rich city", the mayor of Arcachon could afford to continue making buses free for his residents, even if the COBAS region itself ended the operation of full FFPT. In Manosque, Leveque talked about the strong desire to improve quality, and the clear political will of the community's leadership to ask residents to contribute to the cost of not only maintaining but also expanding their bus system, even if that contribution is relatively small.

In conclusion, local conditions were of course a factor in the decision whether to introduce (or discontinue) FFPT, however it would seem that the economic rationality perspective and will of the mayor and other elected representatives were more important.

6. CONCLUSION

This section provides a summary of conclusions drawn from the analysis of previous chapters. It begins by answering the sub-research questions individually, after which the main research question is answered. It concludes with recommendations for further research and personal reflections on limitations of the research.

6.1 Answering the sub-questions

The goal of this research was to explore to what extent each of the three 'motivation factors', the role of key actors, the institutional context and local conditions influence the decision of the eight selected cities to introduce (or discontinue) FFPT. As such, each of the four sub-questions are first answered below, followed by the main research question.

1. What have been the main 'motivation factors' that have prompted various French cities to introduce (or discontinue) full FFPT?

Overall, three key motivation factors can be identified based on the three perspectives as defined by Kębłowski (2019). These are economic rationality, sustainable development and socio-political transformation. Through this research, it was found that the primary motivating factor for the eight cities to introduce or discontinue FFPT was economic rationality. Essentially the decision was made to introduce FFPT based on whether this would save the city money (or at least allow them to break even), and thus if abolishing fares would be financially feasible in the longer-term. This was very much dependent on whether the city had sufficient revenue generated by the VT.

Sustainable development was cited as only a secondary factor, while achieving socio-political transformation was mostly not a key motivation. Nevertheless, for the cities with longer histories of FFPT, the concept has become something that can be considered part of the city's identity, allowing it to differentiate itself and positively market itself as a city with a progressive stance on promoting sustainable mobility.

2. Who have been the key actors involved in the process of introducing (or discontinuing) full FFPT, and how have they implemented this policy change?

It was clear that in all eight cases, mayors and the elected representatives of the intercommunal authorities were the key actors who implemented or discontinued FFPT in a top-down manner. It was usually due to the driving force of a mayor with strong feelings - either for or against the concept - that resulted in a decision being made. However the mayor could not act independently, but needed the support of the majority of the elected representatives from their

respective agglomeration community. And such support did not always come divided neatly along left vs right political lines, but strongly influenced by the economic rationality argument.

3. How has the institutional context for public transport in France - particularly funding - influenced the introduction (or discontinuation) of full FFPT?

It is clear that the versement transport (VT) has been the main element of the institutional context in France that has allowed the FFPT cities to introduce and maintain the concept, given the financial control it gives them over their municipality. Where a city has a strong base of businesses which meet the minimum 11 employee threshold to levy the VT, the city will be able to do so and thus gain important funds to put towards their entire mobility offering, not just public transport. However given the institutional context for public transport is essentially the same across France, it is clear that it is the economic rationality argument and will of the elected representatives is the 'missing link' that ultimately combines has led to these cities deciding to implement the concept.

4. How important have local conditions (e.g. city size, transport modal split, socio-economic conditions) been in the decision to introduce (or discontinue) full FFPT?

Clearly local conditions will always be a factor in any decision to introduce or discontinue FFPT. However based on the eight cities studied it would seem that FFPT has succeeded in relatively smaller communities with a more limited public transport network that have a decent economic base to provide revenue via the VT to fund a bus-only system devoid of fares.

6.2 Answering the main research question

This research set out to answer the following main research question:

To what extent do 'motivation factors', key actors, the institutional context and local conditions influence the decision of various French cities to introduce or discontinue full FFPT?

This research began by noting the view of FFPT proponents, who believe the concept can contribute to addressing a variety of urban problems including congestion, air pollution, car dependency and inequality of access to transport. Studies of FFPT until now have generally focused on these results or consequences of implementing the idea, rather than the process that led to the decision to implement it in the first place. This research aimed to look at this process using France as the context, given it has the most full FFPT cities of any European country. It was believed that examining the process through this French-specific 'prism' was not only a realistically achievable research project, but also one which would yield genuinely interesting original research.

In examining the experience of the eight selected case study cities, this research aimed to understand the relative importance of the three motivation factors, key actors, the institutional context and local conditions in the decision to introduce or discontinue FFPT. Based on the answers to the above sub-questions, it would seem that the most important elements in this complex decision-making process were the economic rationality argument, and the conviction of key actors, namely the mayor and elected representatives of the respective communities. In the absence of any major difference in institutional context, and the infinite variables in local conditions particular to each city, this is the key conclusion that can be drawn.

To this end, I believe the following exchange between myself and Kinderstuth, the respondent from Neuves-Maisons, is a good summary of the overall concept of FFPT and the decisions that need to be made for any city considering implementing the concept (underlined for emphasis):

AG: OK and I guess my final question, do you have anything else you would like to add or recommend maybe for other cities?

DK: No, I think we've talked about many things. I think that every situation is specific. My territory's president was interviewed on the local radio three or four days ago and he said, "OK we have fare-free transport and I'm happy with it but we don't say that it's the one and only solution for every territory in France." Each situation is different with many, the travel subsidies for transport are probably not the same in various towns or territories. The financial items are surely not the same and we could financially afford to make the transport free, like I said before, I'm sure that it's much more difficult for many other towns. So we try to be humble and not to tell everyone you have to make the transport free. I think it was the right decision to make in our case, in our territory, and every territory has its own reflections to do and see whether it's a relevant idea or not.

6.3 Recommendations for further research

As the examination of these case studies have shown, conclusions of the viability or otherwise of a full FFPT system is dependent on a variety of elements. This thesis aimed to look at a cross-section of French cities which have or had implemented the idea, aiming to draw conclusions based on this cross-case study. Based on this research, several recommendations for further research on this topic can be made.

Firstly, given the importance placed on the economic rationality perspective by all the cities surveyed, more detailed research into the financial aspects of cities could be undertaken. I was provided with many good figures in terms of revenue and expenditure, however clearly each city has more detailed data than these 'headline' figures, and analysing these numbers in detail to see just how much the numbers 'stack up', would be very interesting subject for future research.

Secondly, more research is needed into the experience of larger cities with FFPT. All of the cities surveyed in this research were relatively small, with the largest being *Dinan Agglomération* with close to 100,000 people. However, the area actually served by the community's *DINAMO!* network is much smaller, limiting the conclusions that can be drawn on the success or otherwise of FFPT in a larger community. Hence research into cities like Dunkirk would definitely add a richness to the relatively scant research (at least from what I could find) on the French examples of FFPT.

Finally, comparing the experience of these French cities with those in another country (say cities in Poland for example, the country with the second-highest number of FFPT cities in Europe) would be very useful. The mechanism of the VT seems unique to France and seems to have played a big part in the proliferation of FFPT cities in the country. Finding out what mechanisms cities in other countries have used to account for the loss of revenue in the abolition of fares would undoubtedly prove to be a very enlightening subject of further research.

6.4 Limitations of the research and personal reflection

While this research endeavoured to achieve academic rigour, there are limitations which must be acknowledged and these are summarised below.

France, the language barrier and the case study cities: Selecting France as the focus of this research ultimately had a significant effect the results obtained. Choosing France obviously meant choosing the French language, and given France is quite well-known for not having the best English skills (as my interviewees themselves noted), this presented a limit on the results of the research, due to the language barrier.

Doing secondary research was not so much of an issue, given I can generally read a lot of French and use Google Translate easily. However it is in the collection of primary data where this language barrier proved to be more problematic. Although I contacted almost all the cities listed in Tables 8 and 9 in French, in my emails I stated that - while written responses could be in either language - interviews could only be in English due to my language skills. Towards the end of this 'contact phase', I did mention a final option of a French interview as a last resort (this would have needed to be done by a French-speaking friend of mine) but no respondent took up this offer.

I believe this language barrier undoubtedly put off more potential respondents and limited my response rate. While the final eight case study cities did represent a diverse selection of cities, I know more interesting results could have been obtained had I spoken better French, and had the option to conduct an interview in French been available. This may have also elicited a response from larger cities like Dunkirk, which would have been especially interesting to contrast with the mostly smaller cities who were ultimately used.

Type of respondents: Qualitative research very much depends on the acceptance, availability and willingness of others to assist in the research. In light of this reality, it must be acknowledged that all the respondents used in this research were from 'the establishment' - i.e. the city itself or its public transport operator, thus representing only this view 'from above', rather than from other key actors within the market or civil society. This limitation was again due to the language barrier but also practical reasons - it was really only possible to contact the cities from afar and not really feasible for me to travel to each to interview other people. Nevertheless, with the exception of Leday from Compiègne - none were elected representatives, they were all public servants/ employees. And I believe their responses generally reflect a balanced view of the subject in comparison to the original target group I had in mind: mayors of the respective cities and/or their agglomeration community.

Number of respondents per city: Related to the above point was the fact that I only had one respondent per city. Having at least two or even three per city would have certainly added to the validity and richness of the results. This was something I optimistically hoped for before contacting all these cities. However, having worked for a local municipality myself, I know how much of an effort it can be to divert yourself from your usual work, for no actual benefit for your employer and the city (other than perhaps good publicity). So I had to settle for one respondent from each city. All the responses I received were extremely interesting and valuable to my research, but they must be treated with caution and the fact acknowledged that it was only the opinion of these respondents on which these conclusions have been drawn.

Lack of third group of cities: A final limitation is the lack of a third group of case study cities - not only those with FFPT and those which have discontinued it, but also those which considered it but then did not implement it, for whatever reasons. Again, due to the language barrier but also time and practicality constraints, incorporating the third group was just not feasible. This would have however very much added to the findings.

Final comments

This research aimed to understand how and why FFPT was introduced (or discontinued) in a selection of eight French cities. In doing so, it has also provided an original, insightful and up-to-date snapshot of the operation FFPT in France today. There were limitations to the results as noted above, but overall it is hoped that this thesis has made a valuable contribution to the literature on this topic. At the very least, it is a good starting point for anyone with an interest in FFPT, inviting them to further explore what is still a relatively unique and novel idea.

7. REFERENCES

Aas, T. (2013, April). Free public transport in Tallinn: financial, environmental and social aspects. Presented at the Union of the Baltic Cities Joint Seminar on Sustainable Transport Solutions. Tallinn, Estonia.

Aftimus, P. & Santini, D. (2018). Brazil: From dream to nightmare. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 169-184). Montreal, Canada: Black Rose Books.

Ariès, P. (2011). Liberté, égalité, gratuité: pour la gratuité des services publics!. Villeurbanne, France: Golias.

Attoh, K. A. (2012). The Transportation Disadvantaged and the Right to the City in Syracuse, New York. *The Geographical Bulletin* 53, 1-19.

Auxenfants, M. (2019, 30 Jan). The cost of Luxembourg's free public transport plan. *BBC Worklife.* Retrieved from: **https://www.bbc.com/worklife/article/20190128-the-cost-of-luxembourgs-free-public-transport-plan**

BBC - British Broadcasting Corporation. (2012, 6 Mar). Estonian Capital to Offer Free Public Transport. Retrieved from: **https://www.bbc.com/news/world-europe-17517106**

Boffey, D. (2018, 6 Dec). Luxembourg to become first country to make all public transport free. *The Guardian*. Retrieved from: **https://www.theguardian.com/world/2018/dec/05/luxembourg-to-become-first-country-to-make-all-public-transport-free**

Briche, H. (2017a). Dunkerque, laboratoire de la gratuité des transports en commun. Retour sur les effets de la gratuité partielle. Agence d'Urbanisme Flandre-Dunkerque, Vigs.

Briche, H. & Huré, M. (2017b). Dunkerque, nouveau laboratoire de la gratuité des transports— Métropolitiques. Retrieved from: **http://www.metropolitiques.eu/Dunkerque-nouveau-laboratoire-de.html**

Brie, M. (2012). Private E-Car vs. Public Transport for free - Real Dystopia versus Concrete Utopia. Retrieved from: **https://www.ssc.wisc.edu/~wright/ASA/Candeia%20&%20Brie%20Real%20Utopias%20essay%20--%20PostfossilConversion.pdf**"

Brie, M. (2018). Belgium: Ending the Car Siege in Hasselt. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 81-88). Montreal, Canada: Black Rose Books.

Brög, W., Erl, E. & Mense, N. (2004). Individualised marketing changing travel behaviour for a better environment. In: *Communicating Environmentally Sustainable Transport: The Role of Soft Measures*. Paris, France: OECD, 83-97.
Retrieved from: **http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.334.9577**

Brown, J., Hess, D. & Shoup, D. (2003): Fare-free public transport at universities. An evaluation. *Journal of Planning Education Research* 23, 69–82.

Bryman, A. (2012). *Social Research Methods*. Oxford, UK: Oxford University Press.

Campbell, D. T., & Stanley, J. C. (1967). *Experimental and Quasi-Experimental Design for Research*. Reprinted from *Handbook of Research on Teaching* (1963). Boston (MA), USA: Houghton Mifflin. Retrieved from: **https://www.sfu.ca/~palys/Campbell&Stanley-1959-ExptI&QuasiExptIDesignsForResearch.pdf**

CAPAE. (2013). Liberté, égalité, gratuité. Aubagne, France: Lignes de l'agglo.

Cats, O., Reimal, T. & Susilo, Y. (2014, Jan). Public transport pricing policy - empirical evidence from a fare-free scheme in Tallinn, Estonia. Presented at the 93rd Annual Meeting of the Transportation Research Board, Washington (DC), USA.

Cats, O., Reimal, T. & Susilo, Y. (2017). The prospects of fare-free public transport: evidence from Tallinn. *Transportation* 44, 1083–1104.

CDH-G - Conseil Départemental Haute-Garonne. (2017). Règlement Départemental de la Gratuite des Transports Publics en Haute-Garonne. Retrieved from: **https://www.haute-garonne.fr/sites/default/files/20170621-reglement-des-gratuites-sociales.pdf**

CERTU - Le Centre d'études sur les réseaux, les transports, l'urbanisme et les constructions publiques. (2010, April). Le débat: la gratuité des Transports Collectifs Urbains?. Retrieved from: **http://docplayer.fr/29335708-Le-debat-la-gratuite-des-transports-collectifs-urbains.html**

Cervero, R. (1990). Transit pricing research. *Transportation* 17(2), 117–139. **http://dx.doi.org/10.1007/BF02125332**

Choo, C. (2017, 30 Oct). No more free travel, but more commuters to benefit from discounted fares for pre-peak travel from Dec 29. *Today Online*. Retrieved from: **https://www.todayonline.com/singapore/morning-pre-peak-travel-fares-be-reduced-ptc**

City of Tallinn. (2013). Capital of Free Public Transport. Summer school organised by Tallinn City government. Tallinn, August 22-24, 2013. Retrieved from: **https://www.tallinn.ee/eng/freepublictransport/capital-of-free-public-transport**

Cools, M., Fabbro, Y. & Bellemans, T. (2016, Apr). Free public transport: A socio-cognitive analysis. *Transportation Research, Part A: Policy and Practice*, 86, 96-107. **http://dx.doi.org/10.1016/j.tra.2016.02.010**

Cordier, B. (2007). La gratuité totale des transports collectifs urbains: effets sur la fréquentation et intérêts. Bureau d'études en transports en déplacements (ADETEC), Agence de l'environnement et de la maîtrise de l'énergie (ADEME).

Cosse, E. (2010). Feu vert. *Vacarme* 2010/1, 50, 42-43. **https://doi.org/10.3917/vaca.050.0042**

Cuncic, A. (2019). Understanding Internal and External Validity. Retrieved from: **https://www.verywellmind.com/internal-and-external-validity-4584479**

Daremas, G. (2018). Greece: Automobiles or Public Transport?. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 169-184). Montreal, Canada: Black Rose Books.

Dellheim, J. & Prince, J. (Eds.). (2018). *Free Public Transit: And Why We Don't Pay to Ride Elevators*. Montreal, Canada: Black Rose Books.

Dobias, G. (1998, June). Urban Transport in France. Japan Railway & Transport Review 16. Retrieved from: **http://www.ejrcf.or.jp/jrtr/jrtr16/pdf/f20_dobias.pdf**

Duhamel, Y. (2004). Gratuité des transports publics urbains et répartition modale. Retour sur rapport final. Axiales/Programme de recherche et d'innovation dans les transports terrestres (PREDIT), Agence de l'environnement et de la maîtrise de l'énergie (ADEME).

Dundon, A. (2018, 19 Feb). These German Cities Are Making Public Transport Free to Fight Pollution. Retrieved from: **https://theculturetrip.com/europe/germany/articles/these-german-cities-are-making-public-transport-free-to-fight-pollution/**

Fearnley, N. (2013). Free fares policies: impact on public transport mode share and other transport policy goals. *International Journal of Transportation* 1, 75–90.

FHWA - Federal Highway Administration. (2018, Dec). Traffic Volume Trends. Washington (DC), USA: US Department of Transportation (USDOT). Retrieved from: **https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm**

FNAUT - La Fédération nationale des associations d'usagers des transports. (2015). La FNAUT: bilan et perspectives d'avenir. Conférence de presse. Paris, France.

Gallez C. & Menerault, P. (2005). Recomposition intercommunale et enjeux des transports publics en milieu urbain. Retrieved from: **https://halshs.archives-ouvertes.fr/halshs-00572380/document**

GART - Groupement des autorités responsables de transport. (2013). L'Année 2012 des transports urbains. Retrieved from: **https://www.gart.org/publication/lannee-2012-transports-urbains/**

GART. (2018). Mobilisés - Rapport annuel 2018. Paris, France. Retrieved from: **https://www.gart.org/wp-content/uploads/2019/05/Rapport-annuel-GART_Ann%C3%A9e-2018.pdf**

Gerring, J. (2007). *Case Study Research: Principles and Practices*. Cambridge, UK: Cambridge University Press.

Giovanangelli, M. & Sagot-Duvauroux, J.L. (2012). *Voyageurs sans ticket - Liberté, égalité, gratuité: une expérience sociale à Aubagne*. Vauvert, France: Au Diable Vauvert.

Gouin, T. (2016). Financing Urban Public Transport in France. Presented at conference Urban Mobility Forum, Cario, Egypt, 19-20 November 2016.

Guba, E. & Lincoln, Y. (1985). *Naturalistic Inquiry*. Newbury Park (CA), USA: Sage Publications.

Guba, E. & Lincoln, Y. (1994). Competing paradigms in qualitative research. In: Denzin, N.K. & Lincoln, Y.S., Eds.. *Handbook of Qualitative Research.* Thousand Oaks (CA), USA: Sage Publications, pp. 105-117.

Handy, S. (2002). Accessibility vs. mobility - enhancing strategies for addressing automobile dependence in the US. Institute of Transportation Studies, University of California, Davis. Retrieved from: **https://escholarship.org/uc/item/5kn4s4pb**

Hess, D. (2017). Decrypting fare-free public transport in Tallinn, Estonia. *Case Studies on Transport Policy,* 5(4), 690-698. **http://dx.doi.org/10.1016/j.cstp.2017.10.002**

Hodge, D.C., Orrell, J.D. & Strauss, T.R. (2004). Fare-free Policy: Costs, Impacts on Transit Service and Attainment of Transit System Goals. Seattle (WA), USA: Washington State Department of Transportation.

ITF - International Transport Forum. (2017, June). The evolution of public transport contracts in France - Discussion Paper NO. 2017-11. Prepared for the Working Group on Public Transport Market Organisation and Innovation. Paris, France: OECD.

Kębłowski, W. (2018a). Free Public Transit: Scope and Definitions. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 1-6). Montreal, Canada: Black Rose Books.

Kębłowski, W. (2018b). France: A "New May 1968" in Aubagne?. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 103-110). Montreal, Canada: Black Rose Books.

Kębłowski, W. (2019). Why (not) abolish fares? Exploring the global geography of fare-free public transport. *Transportation*, 1-29. **https://doi.org/10.1007/s11116-019-09986-6**

Kębłowski, W., Tuvikene, T., Pikner, T. & Jauhiainen, J. (2019a). Towards an urban political geography of transport: Unpacking the political and scalar dynamics of fare-free public transport in Tallinn, Estonia. *Environment and Planning C: Politics and Space 0(0)*, 1-18. **https://doi.org/10.1177%2F2399654418821107**

Kębłowski, W., van Criekingen, M. & Bassens, D. (2019b). Moving past the sustainable perspectives on transport: An attempt to mobilise critical urban transport studies with the right to the city. *Transportation Policy* 81 (2019), 24-34. **https://doi.org/10.1016/j.tranpol.2019.05.012**

Keuchel, S. et al. (2000). Kommunaler Nutzen von ÖPNV- Angeboten am Beispiel fahrscheinfreier Tarif-/Finanzierungskonzepte bei Stadtbusverkehren von Klein- und Mittelstädten, Forschungsbericht FE 70.588/99 im Auftrag des Bundesministers für Verkehr, Bau-und Wohnungswesen, Recklinghausen, Germany: Fachhochschule Gelsenkirchen.

Kheel, R. / NYNN - Nurturing New York's Nature Inc. (2008, Jan). A Bolder Plan: Free Transit and Congestion Pricing in New York City. Prepared for and sponsored by Nurturing New York's Nature Inc. Retrieved from: **https://nurturenature.org/pages/transit-reform**

Kipfer, S. (2012). Free Transit and Beyond. Retrieved from: **https://socialistproject.ca/2012/12/b738/**

Kitchin, R. (2014). The real-time city? Big data and smart urbanism. *GeoJournal* 79, 1–14.

Kleiner, Y. (2010). Racial profiling in the name of national security: protecting minority travellers' civil liberties in the age of terrorism. *Boston College Third World Law Journal* 30, 103–144.

Krattinger, Y. 2012. Rapport d'information n° 319 du Sénat au nom de la délégation aux collectivités territoriales et à la décentralisation sur les collectivités territoriales et les transports, Paris: Senate. Retrieved from: **http://www.senat.fr/notice-rapport/2011/r11-319-notice.html**

Larrabure, M. (2016). The struggle for the new commons in the Brazilian free transit movement. *Studies in Political Economy* 97, 175–194. **https://doi.org/10.1080/07078552.2016.1211135**

Lefebvre, H. (1996 [1968]). *Writings on Cities: Henri Lefebvre*. Introduced, selected and translated by E. Kofman & E. Labas. Oxford, UK: Blackwell.

Ługowski, Ł. (2017, 27 Sept). Renesans komunikacji zbiorowej [The renaissance of public transport]. Lewica.pl. Retrieved from: **http://lewica.pl/?id=31951&tytul=%A3ukasz+%A3ugowski%3A+Renesans+komunikacji+zbiorowej**

Maricato, E. (ed.) et al. (2013). *Cidades Rebeldes: Passe Livre e as Manifestações que Tomaram as Ruas do Brasil* [Rebel Cities: Free Fares and the Protests that Have Taken Over the Streets of Brazil]. São Paulo, Brazil: Boitempo Editorial.

Martens, K. (2017). *Transport Justice: Designing Fair Transportation Systems*. New York (NY), USA: Routledge.

Metro Report. (2017, 1 Nov). Free pre-peak travel in Singapore to end. Retrieved from: **https://www.metro-report.com/news/single-view/view/free-pre-peak-travel-in-singapore-to-end.html**

MTES - Ministère de la Transition écologique et solidaire (Ministry of Ecological Transition and Solidarity). (2017). Transport urbain : appels à projets de transports collectifs en site propre

(TCSP). Retrieved from: **https://www.ecologique-solidaire.gouv.fr/transport-urbain-appels-projets-transports-collectifs-en-site-propre-tcsp**

OMNIL - Observatoire de la mobilité en Île-de-France. (2015). Dépenses de fonctionnement pour les dépenses en transport en commun. 25 November 2015. Retrieved from: **https://www.iledefrance-mobilites.fr/le-financement-des-transports-publics/**

Perone, J. (2002, Oct). Advantages and disadvantages of fare-free transit policy. Center for Urban Transportation Research (CUTR), University of South Florida, Tampa (FL), USA. Retrieved from: **http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.504.198&rep=rep1&type=pdf**

Perone, J. & Volinski, J. (2003). Fare, free or something in between?. Center for Urban Transportation Research (CUTR), University of South Florida, Tampa (FL), USA. Retrieved from: **https://www.nctr.usf.edu/pdf/473-132.pdf**

Pinsker, J. (2015, 29 Jan). Why Can't Public Transit Be Free? *The Atlantic*. Retrieved from: **https://www.theatlantic.com/business/archive/2015/01/why-cant-public-transit-be-free/384929/**

Pöldemaa, K. (2016). Modal split and travel choices of Tallinn residents. Tallinn University of Technology (Master thesis).

Ramböll. (2015). Trafikanalys. Litteraturstudie avgiftsfri kollektivtrafik [Traffic analysis. Literature study free public transport]. Ramböll Sverige AB, Malmö, Sweden.

Rice, S.K. & Parkin, W.S. (2010). New avenues for profiling and bias research: The question of Muslim Americans. *Race, Ethnicity and Policing: New and Essential Readings*. NYU Press Scholarship Online. Retrieved from: **https://nyu.universitypressscholarship.com/view/10.18574/nyu/9780814776155.001.0001/upso-9780814776155-chapter-19**

Richier, C. (2017). 'Le financement des transports collectifs à l'heure de la mobilité durable : quel avenir pour le versement transport?'. Retrieved from: **https://www.metropolitiques.eu/Le-financement-des-transports-collectifs-a-l-heure-de-la-mobilite-durable-quel.html#nb3**

Robert, M. (2015). Transports publics urbains: Textes sur la gratuité, Carfree France Editions.

Rodriguez, L. (2019, 5 Dec). Kansas City Council Unanimously Votes To Get Rid Of Bus Fares. KCUR 89.3. Retrieved from: **https://www.kcur.org/post/kansas-city-council-unanimously-votes-get-rid-bus-fares#stream/0**

Rossignol, F. (2017). The Public Transport and the Role of the Public Transport Authorities in France. Presented at Conference CODATU XVII, Hyderabad, India, 4 November 2017.

Schein, R. (2011). Free transit and social movement infrastructure: assessing the political potential of Toronto's nascent free transit campaign. Alternate Routes. Retrieved from: **http://www.alternateroutes.ca**

SGA - Sharon Greene & Associates. (2008, 28 Jan). Executive Summary: Fare Free Muni System Feasibility Analysis. Prepared for San Francisco Municipal Transportation Agency. Retrieved from: **https://ia800906.us.archive.org/16/items/farefreemunisyst2008news/farefreemunisyst2008news.pdf**

Shearlaw, M. (2016, 11 Oct). The Tallinn experiment: what happens when a city makes public transport free?. *The Guardian*. Retrieved from: **https://www.theguardian.com/cities/2016/oct/11/tallinn-experiment-estonia-public-transport-free-cities**

Soja, E. W. (2009). The city and spatial justice. Paper prepared for presentation at the conference *Spatial Justice*, Nanterre, Paris, March 12-14, 2008.

Soja, E. W. (2010). *Seeking Spatial Justice*. Minneapolis (MN), USA: University of Minnesota Press.

Storchmann, K. (2003): Externalities by automobiles and fare-free transit in Germany - A paradigm shift? *Journal of Public Transportation* 6(4), 89-105.

The Local (France) (2018, 3 Oct). Is free public transport really a possibility in Paris?. Retrieved from: **https://www.thelocal.fr/20181003/is-paris-actually-going-to-get-free-public-transport**

Thøgersen, J. & Møller, B. (2008). Breaking car use habits: the effectiveness of a free one-month travel card. *Transportation* 35, 329–345.

Tira, M. & DeRobertis, M. (2018). Learning from Red Bologna. In J. Dellheim & J. Prince (Eds.), *Free Public Transit: And Why We Don't Pay to Ride Elevators* (pp. 45-56). Montreal, Canada: Black Rose Books.

United Nations (UN), Department of Economic and Social Affairs, Population Division. (2017). World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP/248. Retrieved from: **https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf**

UTP - L'Union des transports publics et ferroviaires. (2008). La délégation de service public dans les transport publics.
Retrieved from: **https://utp.fr/system/files/Publications/maj_fiche_dsp_22_04_08.pdf**

UTP - L'Union des transports publics et ferroviaires. (2011). La gratuité dans les transports publics urbains: une fausse bonne idée. Paris, France: UTP.

US Census Bureau. (2018). Annual Estimates of Resident Population: April 1, 2010 to July 1, 2018, 2018 Population Estimates. Retrieved from: **https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk**

Van Goeverden, C. D., Rietveld, P., Koelemeijer, J., & Peeters, P. (2006). Subsidies in Public Transport. *Rivista internazionale di economia dei trasporti*, 32, 5-25.

Verachtert, M. (2013). Free Public Transport in Hasselt: From the beginning to the end. Presentation at Free Public Transport Summer School, Tallinn, Estonia, 22-24 August 2013. Retrieved from: **https://www.tallinn.ee/eng/freepublictransport/capital-of-free-public-transport**

Verlinghieri, E. & Venturini, F. (2017). Exploring the right to mobility through the 2013 mobilisations in Rio de Janeiro. *Journal of Transport Geography.*

Volinski, J. (2012). *Implementations and Outcomes of Fare-Free Transit Systems*. National Academies of Sciences, Engineering and Medicine. Washington (DC), USA: The National Academies Press. **https://doi.org/10.17226/22753**

Willsher, K. (2018, 15 Oct). 'I leave the car at home': how free buses are revolutionising one French city. *The Guardian*. Retrieved from: **https://www.theguardian.com/cities/2018/oct/15/i-leave-the-car-at-home-how-free-buses-are-revolutionising-one-french-city**

Yaden, D. (1998). Fareless transit in the Portland metropolitan region. Fareless Transit System Research Work Group. Parsons, Brinkeroff, Quade, and Douglas, Inc.

APPENDIX A - Sources of data for Tables 4-5, 8-9, 11-13

Tables 4-5: Administrative divisions of metropolitan France and EPCIs:

Sources of data:

http://www2.assemblee-nationale.fr/decouvrir-l-assemblee/role-et-pouvoirs-de-l-assemblee-nationale/les-institutions-francaises-generalites/l-organisation-territoriale-de-la-france

https://www.lemonde.fr/politique/article/2014/07/23/les-deputes-adoptent-le-projet-de-loi-de-reforme-territoriale_4461747_823448.html

https://www.banatic.interieur.gouv.fr/V5/tableaux-synthese/tableaux-synthese.php#dial_tab_synth

https://www.collectivites-locales.gouv.fr/intercommunalite-1

Tables 8-9 and 11: Geographical characteristics of case study cities:

Sources of population figures, area, density, number of communes

INSEE (Institut national de la statistique et des études économiques). Retrieved from:

Châteauroux: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-36044**

Compiègne: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-60159**

Dinan: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-22050**

Figeac: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-46102**

Graulhet: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-81105**

Neuves-Maisons: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-54397**

Arcachon: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-33009**

Manosque: **https://www.insee.fr/fr/statistiques/3681328?geo=COM-04112**

Châteauroux Métropole: **https://www.insee.fr/fr/statistiques/fichier/3677781/dep36.pdf**

Compiègne (ARCBA): **https://www.insee.fr/fr/statistiques/2011101?geo=EPCI-200067965**

Dinan Agglomération: **https://www.insee.fr/fr/statistiques/3569346?geo=EPCI-200068989**

Grand Figeac: **https://www.insee.fr/fr/statistiques/4177081?geo=EPCI-200067361**

Gaillac Graulhet Agglomération: **https://www.insee.fr/fr/statistiques/3569346?geo=EPCI-200066124**

Neuves-Maisons (CCMM): **https://www.insee.fr/fr/statistiques/3569346?geo=EPCI-245400171**

Arcachon (COBAS): **https://www.insee.fr/fr/statistiques/4177081?geo=EPCI-243300563**

Manosque (DLVA): **http://www.insee.fr/fr/themes/tableau_local.asp?ref_id=TER&millesime=2013&typgeo=EPCI&search=200034700**

Table 12: Public transport and FFPT characteristics of case study cities:

Sources of information (in addition to personal communication):

Châteauroux: **https://www.bus-horizon.com/**

Compiègne: **https://www.agglo-compiegne.fr/transports-collectifs-0**

Dinan: **http://www.dinan-agglomeration.fr/Actualites/DINAMO-generateur-de-mobilites-!**

Figeac: **https://ville-figeac.fr/je-suis-figeacois/vie-pratique/le-reseau-bus-plans-et-horaires**

Graulhet: **https://www.ville-graulhet.fr/transport**

Neuves-Maisons: **https://www.cc-mosellemadon.fr/page/tmm**

Arcachon: **https://www.bus-baia.fr/**

Manosque: **https://mobilite.dlva.fr/**

Table 13: Political characteristics of case study cities

Source: Mayors and political parties:

Châteauroux: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=22070**

Compiègne: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=1014**

Dinan: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=18209**

Figeac: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=798**

Graulhet: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=14253**

Neuves-Maisons: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=4378**

Arcachon: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=9918**

Manosque: **http://www.francegenweb.org/mairesgenweb/resultcommune.php?id=569**

APPENDIX B - Interview/Survey Questions

ENGLISH

Interview questions - Cities with fare-free public transport (FFPT)

Introductory questions:

1. What is your role/position?

2. How is the public transport system operated in your city - By the city itself (*la régie*) or through a public service delegation (d*élégation de service public en transport urbain* - DSP) to a private operator? What is the name of this operator?

Questions about 'motivation factors':

3. Where and when did the idea to implement FFPT in your city originate?

4. Often the main concern for cities considering FFPT is how they would continue to fund their public transport system if fares were eliminated. How important was this issue for your city when deciding whether to introduce FFPT and how have you addressed it?

5. Cities often introduce FFPT as a way of promoting public transport use, including a shift away from private car use. Was this a key motivation in the case of your city? Why or why not?

6. Would you say your city has a distinct socio-political identity or reputation? E.g. does it have a particular history of certain voting patterns (e.g. more left-wing or right-wing)? If so, was introducing FFPT part of a larger process to maintain or transform this identity? If not, do you think the introduction of FFPT has created such a distinct identity or reputation for your city?

Questions about key actors:

The following is a list of main actors who are usually involved in the process of introducing FFPT.

Mayor
Other elected officials
Public servants within the city government
Urban mobility transport authority (*autorité organisatrice de la mobilité* - AOM)
Public transport operator (e.g. Transdev)
Local businesses
Residents and civil society groups
Labour unions
Other

7. From this list, who would you say were the main supporters of the introduction of FFPT? Why do you think this was the case?

8. And who were the main opponents? Why do you think this was the case?

Questions about 'implementation factors':

9. What is the *versement transport* (VT) rate that applies to your agglomeration?

10. Do you know what percentage of funding for the public transport system comes from the VT? If so, what percentage is it?

11. How important is the VT in being able to have more control over the funding of public transport in your agglomeration? Was it key to the operation of fare-free public transport in your city?

Concluding questions:

12. Do you think the agglomeration will continue to maintain FFPT in the future? Why or why not?

13. Do you have any other final comments or recommendations you wish to add?

-

FRANÇAIS

Questions d'entrevue - Les villes avec la gratuité des transports en commun

Questions d'introduction:

1. Quel est votre rôle / poste?

2. Comment le système de transport en commun est-il exploité dans votre ville - par la ville même (*la régie*) ou par *une délégation de service public en transport urbain* (DSP) à un exploitant privé? Quel est le nom de cet exploitant?

Questions sur les «facteurs de motivation»:

3. Où et quand est née l'idée d'implanter la gratuité des transports en commun dans votre ville?

4. Souvent, la principale préoccupation des villes qui envisagent d'utiliser la gratuité est le financement de leur système de transport en commun suit à l'abandon des tarifs. Quelle était

l’importance de ce problème pour votre ville lorsque vous avez décidé d’introduire la gratuité et comment l’avez-vous abordée?

5. Les villes introduisent souvent la gratuité comme moyen de promouvoir l'utilisation du transport en commun, notamment en s'éloignant de l'utilisation de la voiture privée. Était-ce une motivation clé dans le cas de votre ville? Pourquoi ou pourquoi pas?

6. Diriez-vous que votre ville a une identité ou une réputation socio-politique distincte? Par exemple, a-t-il une histoire particulière d’une certain penchant politique (par exemple plus de gauche ou de droite)? Si oui, l’introduction de la gratuité faisait-elle partie d’un processus plus vaste visant à préserver ou à transformer cette identité politique? Sinon, croyez-vous que l’introduction de la gratuité a contribué à créer une identité ou une réputation distincte pour votre ville?

Questions sur les acteurs clés:
Vous trouverez ci-dessous une liste des principaux acteurs généralement associés au processus d’introduction de la gratuité.

Maire
Autres élus
Fonctionnaires de l'administration municipale
Autorité organisatrice de la mobilité urbaine (AOM)
Exploitant de transport public (par exemple Transdev)
Entreprises locales
Résidents et organismes de la société civile
Les syndicats
Autre

7. Sur cette liste, quels sont selon vous les principaux partisans de l’introduction de la gratuité? Pourquoi pensez-vous que c'était le cas?

8. Qui étaient les principaux adversaires? Pourquoi pensez-vous que c'était le cas?

Questions sur les "facteurs de mise en œuvre":
9. Quel est le taux du versement transport (VT) applicable à votre agglomération?

10. Savez-vous quel pourcentage du financement du système de transport en commun provient du VT? Si oui, de quel pourcentage s'agit-il?

11. Quelle est l'importance du VT pour pouvoir mieux contrôler le financement des transports en commun dans votre agglomération? Était-ce la clé du fonctionnement des transports en commun gratuits dans votre ville?

Questions finales:

12. Pensez-vous que l'agglomération continuera à maintenir la gratuité à l'avenir? Pourquoi ou pourquoi pas?

13. Avez-vous d'autres commentaires ou recommandations que vous souhaitez ajouter?

-

ENGLISH

Interview questions - Cities which have discontinued FFPT

Introductory questions:

1. What is your role/position?

2. How is the public transport system operated in your city - By the city itself (*la régie*) or through a public service delegation (DSP) to a private operator? What is the name of this operator?

Questions about 'motivation factors':

3. What were the main reasons why FFPT was discontinued in your city?

4. Often the main concern for cities considering FFPT is how they would continue to fund their public transport system if fares were eliminated. Was this a key issue in the discontinuation of FFPT in your city?

5. In discontinuing FFPT in your city, were concerns raised as to whether this would result in less public transport use and greater car use?

6. Would you say your city has a distinct socio-political identity or reputation? E.g. does it have a particular history of certain voting patterns (e.g. more left-wing or right-wing)? If so, was introducing FFPT part of a larger process to maintain or transform this identity? If not, do you think FFPT created such a distinct identity or reputation for your city?

Questions about key actors:

The following is a list of main actors who are usually involved in the process of introducing FFPT.

Mayor

Other elected officials
Public servants within the city government
Urban mobility transport authority (Autorité organisatrice de la mobilité - AOM)
Public transport operator (e.g. Transdev)
Local businesses
Residents and civil society groups
Labour unions
Other

7. From this list, who would you say wanted to retain FFPT? Why do you think this was the case?

8. And who did not want to retain it? Why do you think this was the case?

Questions about 'implementation factors':

9. What is the versement transport (VT) rate that applies to your agglomeration?

10. Do you know what percentage of funding for the public transport system comes from the VT? If so, what percentage is it?

11. How important is the VT in being able to have more control over the funding of public transport in your agglomeration? Was it key to the operation of fare-free public transport in your city?

Concluding questions:

12. Do you think the agglomeration would consider reintroducing FFPT in the future? Why or why not?

13. Do you have any other final comments or recommendations you wish to add?

-

FRANÇAIS

Questions d'entrevue - Les villes qui ont cessé la gratuité des transports en commun

Questions d'introduction:

1. Quel est votre rôle / poste?

2. Comment le système de transport en commun est-il exploité dans votre ville - par la ville même (*la régie*) ou par une *délégation de service public en transport urbain* (DSP) à un exploitant privé? Quel est le nom de cet exploitant?

Questions sur les «facteurs de motivation»:

3. Quelles sont les principaux facteurs qui ont motivée l'abandon de la gratuité dans votre ville?

4. Souvent, la principale préoccupation des villes qui envisagent d'utiliser la gratuité est le financement de leur système de transport en commun suit à l'abandon des tarifs. Cela a-t-il été un problème clé lors de l'abandon de la gratuité dans votre ville?

5. En mettant fin à la gratuité dans votre ville, des inquiétudes ont-elles été exprimées quant à la possibilité d'un transfert modal de transport en commun vers l'automobile?

6. Diriez-vous que votre ville a une identité ou une réputation socio-politique distincte? Par exemple, y-a-t-il une histoire particulière d'une certain penchant politique (par exemple plus de gauche ou de droite)? Si oui, l'introduction de la gratuité faisait-elle partie d'un processus plus vaste visant à préserver ou à transformer cette identité politique? Sinon, croyez-vous que la gratuité a contribué à créer une identité ou une réputation distincte pour votre ville?

Questions sur les acteurs clés:

Vous trouverez ci-dessous une liste des principaux acteurs généralement associés au processus d'introduction de la gratuité.

Maire
Autres élus
Fonctionnaires de l'administration municipale
Autorité organisatrice de la mobilité urbaine (AOM)
Exploitant du transport en commun (par exemple Transdev)
Entreprises locales
Résidents et organismes de la société civile
Les syndicats
Autre

7. Sur cette liste, qui aurait voulu conserver la gratuité? Pourquoi pensez-vous que c'était le cas?

8. Qui n'a pas voulu la conserver? Pourquoi pensez-vous que c'était le cas?

Questions sur les "facteurs de mise en œuvre":

9. Quel est le taux du versement transport (VT) applicable à votre agglomération?

10. Savez-vous quel pourcentage du financement du système de transport en commun provient du VT? Si oui, de quel pourcentage s'agit-il?

11. Quelle est l'importance du VT pour pouvoir mieux contrôler le financement du transport en commun dans votre agglomération? Est-ce qu'il s'agissait d'un élément clé pour le fonctionnement de la gratuité dans votre ville?

Questions finales:

12. Pensez-vous que l'agglomération envisagerait la réintroduction de la gratuité à l'avenir? Pourquoi ou pourquoi pas?

13. Avez-vous d'autres commentaires ou recommandations que vous souhaitez ajouter?