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► **To cite this version:**

Aurélie Mahieux, Lucia Mejia-Dorantes. The Impacts of public transport policies on a non mobility area: French study case in the north of France. 2013. <hal-01006684>

HAL Id: hal-01006684

<https://hal.univ-lille3.fr/hal-01006684>

Submitted on 16 Jun 2014

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Document de travail

■ [2013-35]

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1 **THE IMPACTS OF PUBLIC TRANSPORT POLICIES ON A NON MOBILITY**
2 **AREA: FRENCH STUDY CASE IN THE NORTH OF FRANCE**

3

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16 **ABSTRACT**

17 Many regeneration projects aim at producing a benefit of the population around them.
18 However, it may happen that the socio-economic problems and needs of the territory
19 involved are not completely understood.

20 This paper reports on a case study of the northern part of France, namely *Bassin-Minier*,
21 which used to be a coal mining area. It is a particular metropolitan area with a specific
22 geography and spatial distribution, which faces different social problems, along with a
23 limited public transportation system.

24 Focus groups were used as a methodology to disentangle the transport behaviour,
25 situation and needs of the people living or working in this specific territory due to the
26 limited availability of other recent sources of information. We have chosen to focus
27 specifically on groups with limited availability of transportation or in risk of social
28 exclusion. This research also aims at contrasting different future and recent transport
29 and regeneration projects with the population under study, to understand whether these
30 projects are found beneficial by them.

31 *Keywords: public transportation, private transportation, focus groups, qualitative*
32 *analysis, household travel survey*

33 1. Introduction

34 Although there are many definitions of “urban regeneration”, they basically agree on the
35 fact that it is a process in which different authorities intend to foster the social and
36 economic development of a certain region (Couch et al., 2011) by bringing back
37 economic activity to the area, and by promoting the enhancement of the urban
38 environment. Our study area is particularly affected by this phenomenon after the
39 decline and closure of the mining industry in the 80s (Conférence Permanente du Bassin
40 Minier, 1998). Moreover, it is widely accepted by researchers that transport
41 disadvantage reduces the opportunities of socio-economic development and may
42 contribute to social exclusion. Among other factors, the lack of an adequate transport
43 provision limits the possibilities to access different basic services {Levitas 2007 #288}.

44 During the last years, different policies have been implemented aiming at regenerating
45 the economic, social and environmental situation of the towns belonging to the *Bassin-*
46 *Minier*, which is the ex-coal mining area in the top North of France, in the Nord-Pas-de-
47 Calais Region. For instance, think of the recently opened of the new museum Louvre-
48 Lens. With regards to transportation, the improvement of public transportation has been
49 deeply discussed by means of one tramway and one Bus with a High Level of Service
50 (BHLS) lines. Unfortunately, to understand the mobility patterns of this area the two
51 only household travel surveys (HTS) available for this region were carried out between
52 2005 and 2006. In general terms, HTS show that the share of public transportation and
53 other sustainable modes is very low. This region is recognized to have had many
54 socioeconomic problems over the last decades. Therefore, one may think that why their
55 mobility patterns and needs are not well understood.

56 The study of mobility patterns is in general made through different types of surveys,
57 such as travel and activity diaries, and time-use surveys. However, many researches
58 have shown the utility of qualitative methods to fill the gap of information, {Jones 2003
59 #601} even if quantitative and qualitative methods have always faced a division among
60 researches. In fact, the integration of quantitative and qualitative research has become
61 more and more common while the utility of both methodologies has been highlighted
62 (Sale et al., 2002) {Crang 2002 #128} {Bryman 2006 #600} {Zolnik 2009 #499}. There
63 has always been a debate on the reliability of qualitative methodologies due to the lack
64 of scientific rigor, however authors such as Clifton and Handy (2003), and Lovejoy and
65 Handy (2008), expose that qualitative studies elicit important information that cannot be
66 obtained by quantitative approaches because of the complexity of studying travel
67 behaviours. In fact, qualitative methodologies may help on the understanding of
68 quantitative results. Besides, methodologies such as focus groups (FGs), may be useful
69 to uncover the uncertainties provided by utility models. Lately, interesting qualitative
70 studies related to transportation have been carried out. For example, Lovejoy and Handy
71 (2008) used FG to study the transportation problems of Mexican immigrants in
72 California. By carrying out this study they obtained important information useful for
73 transport policy. More recently, Lucas (2011) presented the problems of social
74 exclusion in the Tshwane region of South Africa by using a qualitative methodology.

75 She exposes the problems of low income population and present appropriate solutions
76 to address their needs.

77 The objective of this paper is threefold: first, it is to show how people in this specific
78 area in the north of France commute; second, it is to explain their mobility patterns and
79 needs as a result of historical features and current situation; third, it is to propose
80 different policy alternatives aiming at reducing their accessibility problems to improve
81 their social and economic situation, which would contribute to urban regeneration.

82 Herein, we report the answer to questions about the point of view of the population on
83 the living environment, economic activities, transport, services and opportunities for a
84 further development. We chose different segments of population like students, retired
85 people, working population and people in social reintegration. We show that there are
86 important differences in mobility behaviours and patterns which depend on age of
87 population and urban form. The methodology of the FGs helps to fill the gap over
88 uncertainties provided by quantitative analyses and to explain results provided by the
89 two available HTS. It proves to be an important tool for a better understanding of
90 mobility behaviour and finally, it helps to evaluate transport services and to better
91 comprehend the variables which influence the location of inhabitants.

92 This paper is divided into 6 sections. After this introduction, section 2 describes the
93 study area, past and present trends. Section 3 presents the methodology of this study
94 along with the sample. Afterwards, section 4 discusses the main findings of the several
95 FGs conducted. Finally section 5 suggests some policy implications and presents the
96 conclusions.

97 **2. Overview of the case study area**

98 In general, the Nord-Pas-de-Calais region, in the north of France, is a very interesting
99 case study. Located in the heart of Europe, the crossroad of three main European
100 capitals (Paris, Brussels and London), it is benefited by an excellent geographical
101 situation with many different transport infrastructures, such as highways, neighbouring
102 waterways, high speed rail, and dense rail networks. However, these infrastructures
103 have not been enough to promote integration and development. As mentioned by
104 different authors {Di Ciommo 2006 #606} {Laigle 12/2007 #607} different problems
105 related to socio-spatial cohesion still remain. The socio-professional characteristics of
106 the population show the industrial past of the region with only 12.2% of employees in
107 skilled or intellectual jobs in 2006. This area has not really recovered from the past
108 social and economic crises and it is still an area that concentrates different problems
109 such as high mortality, scholar abandon, and unemployment.

110 As explained by Couch {Couch 2011 #588} the conurbations of Lille experienced
111 already in the 50s and 60s a decline of the textile industry, and years later it took the
112 turn to the mining industry. The coal mining industry officially finished its activities in
113 1990 and since then, it has been a territory under regeneration. In general terms it was
114 expected that tertiary sector jobs would take the lead in economic development.

115 Many different measures have been taken as urban regeneration initiatives. As an
116 example, in 2002, the French Government decided to promote the development of
117 Lyon, Lille and Marseille into European cities {Couch 2011 #588}. More recently, the
118 inauguration of the museum of Louvre-Lens, which is linked to the famous Louvre in
119 Paris aims at improving the image of this former coal-mining territory. Couch et al.
120 {Couch 2011 #588} provides a thorough vision of urban renewal adopted by France in
121 the last decades.

122 Nowadays, this territory has two important transport projects, the first is a tramway line
123 from Lens-Liévin-Hénin-Carvin and the second is a BHLS one from Béthune to Bruay-
124 la-Buissière. They concern the most frequent bus routes named “BuLLe” with the
125 highest number of passengers.

126 This coal-mining area has a surface area of 76,115 hectares. It had a total of 594,017
127 inhabitants in 2011. It also corresponds to the urban transport perimeter of the *Syndicat*
128 *Mixte des Transports (SMT) Artois-Gohelle* (Regional Transport Authority) as shown
129 on Figure 1. The *SMT Artois-Gohelle* is the local authority in charge of transport and
130 mobility policies for 115 towns belonging to its territory. Few studies concerning this
131 area with regards to transport issues exist. One study shows a very low household
132 motorization in Lens (Lambert et al., 1988). However, this territory presents special
133 features. It is a polycentric territory with two main centres: Lens (36,120 inhabitants in
134 2008) and Béthune (25,697 inhabitants in 2008). It also presents suburban, peri-urban
135 and rural belts.

136 [INSERT FIGURE 1 ABOUT HERE]

137 **2.1. Understanding former mobility patterns in the Coal Mining area of Lille**

138 Our studied territory is made of 115 towns where each one has a completely different
139 density of inhabitants with different transportation needs. Nevertheless, they are all
140 grouped in one urban transport perimeter.

141 Around 1965, oil consumption exceeds coal consumption. This is the beginning of the
142 decline of the French coal industry. Oil is cheaper than coal. The coal mining industry is
143 less productive in the Nord-Pas-de-Calais Region than in the other French regions. This
144 new source of energy will come to confirm the decline of the industry of coal mining
145 (Langrand and Paris, 1995).

146 During the mining era, services were concentrated around the mine shaft. Miners and
147 their families could access all the services and jobs on foot (Froger et al., 2010). This
148 explained short distances between their homes and workplaces. The social mining
149 system provided many handouts to miners’ families in terms of transport, habitat,
150 healthcare or education. Nowadays, it is more difficult because jobs, services such as
151 education, health and shopping centres are more scattered around the territory. So, it
152 creates many trips, mostly carried out by private car (63% around Lens, 71% around
153 Béthune against 60% for the French average).

154 [INSERT FIGURE 2 ABOUT HERE]

155 **2.2. Current mobility patterns**

156 Table 1 represents the main transport mode used considering the place of residence of
157 the interviewees in the HTS available on the study area. We have identified, by
158 analysing the two available HTS, the need to reduce the number of car journeys and to
159 encourage public transport usage in order to promote a more suitable mobility. The
160 most important result of these two HTS is the 2% of share for urban public transport
161 whatever the place of residence. In other words, it means, for our study area, only 2% of
162 people take the bus to realise their displacement if you live in a rural or a peri-urban
163 zone or in a centre. Surprisingly, it means even in very dense territories (like in centre,
164 urban pole or secondary pole), the market share of public transport is only of 2%.

165 [INSERT TABLE 1 ABOUT HERE]

166 The quantitative results of the HTS exploitation are not satisfactory. For example, it
167 does not explain the weak share of the public transport whatever the place of residence.
168 Qualitative analysis can help to interpret quantitative results more easily and efficiently
169 (Stopher and Jones, 2001).

170 Although HTS intend to provide information regarding the mobility patterns of the
171 population of a certain territory in a representative manner, there are different authors
172 such as Atkinson and Kintrea (2001) and Levitas et al., (2007), that discuss that certain
173 groups are -at least- under-represented in HTS. They may suffer from a high degree of
174 transport exclusion and other related area effects that we are not able to distinguish from
175 the HTS results. A qualitative approach, considering the specificities of the population,
176 can be an interesting thing. So, we choose to realise FGs with different populations in
177 line with the specificities of the territory. The aim of the FGs is to provide a better
178 knowledge of the mobility behaviours and the representation of different transport
179 modes.

180 **3. Methodology and sample**

181 Qualitative analyses have received a lot of criticism. For example, the criticism
182 concerns the small number of participants in a FG, which cannot constitute a
183 representative sample (Linhorst, 2002). Paired with quantitative analyses, FGs can
184 provide more information about the studied topic. Qualitative methods provide useful
185 information, although their representation is by nature biased, they are in fact only
186 considered to be representative of themselves. As noted by Currie and Delbosc {Currie
187 2010 #610}, they are useful to explore causality among transport problems and social
188 impacts.

189 Moreover, as we explained before in the first section, it might happen that certain
190 population segments are not wholly represented in the survey, as explained by Hannes,
191 et al. {Hannes #602}. It commonly happens with young or poor people. Therefore these
192 population segments tend to be underrepresented.

193 The authors used FGs as a means for understanding certain minority groups which are
194 commonly not well represented in the HTS (Lucas, 2011, Lovejoy and Handy, 2008), in
195 order to inform, suggest and offer possible policy recommendations to improve their
196 situation. The information obtained is also useful in order to be compared with the
197 results of the two HTS available in the territory (2005 and 2006).

198 It is worth highlighting that no incentives were given to the people coming to the
199 sessions. Sessions were organised in conference rooms made available by the respective
200 employer or association. Participation was neither mandatory nor rewarded.
201 Beforehand, many meetings were held in order to present the aim of this study to
202 different authorities to allow these sessions to be held at their own center.

203 The sessions were always conducted by at least one of the authors with some external
204 help to note taking. Each group consisted of, on average, 10 participants and the
205 discussion lasted approximately one and a half hours. Sessions were carried out in an
206 informal manner, posing questions about certain topics in order to raise the discussion.

207 Nine FGs were carried out in different towns (Hénin-Beaumont, Carvin, Oignies and
208 Lens in the eastern part of the study area) during the year 2012. They were attended by
209 people coming from many different towns in the region that for any reason had to go to
210 the places where the FGs were realised.

211 We chose to focus on different types of population: Elderly (Retired), University
212 students, unemployed, people enrolled in different social reinsertion programs, people
213 involved in a cycling association and finally, regular workers without socioeconomic
214 problems, in order to contrast their point of view. These different types of population
215 offer a wide range of possible mobility solutions according to the specificities of our
216 study area. To our point of view they all had transport limitations and their point of
217 view about the transport situation of this area could disentangle both the lack of use of
218 public transportation reflected in the HTS and their social exclusion situation. Table 2
219 shows the professional profile of each FG.

- 220 1) Retired people and representatives of civil society from the “*Conseil de*
221 *Développement de la Communauté d’Agglomération de Hénin-Carvin (CAHC)*”: 9
222 people, 1 woman and 8 men.
223 2) Workers from the CAHC: 8 people, 4 women and 4 men.
224 3) Cyclotourists from different biking associations near Hénin-Beaumont: 6 people all
225 men.
226 4) Disadvantaged people from the community center for social action (CCAS) of
227 Carvin: 36 people divided into 4 groups.
228 - The first group was composed of 6 people: 5 women and 1 man. They were
229 mainly adult recipients of social minima and unemployed.
230 - The second group was composed of 10 people: 3 women and 7 men. They
231 were mainly young adults without professional project and too young to benefit from
232 the social minima.

233 - The third group was composed of 12 people: 8 women and 4 men. They were
234 mainly people in situations of illiteracy and who want to learn the basic skills.
235 - The last group was composed of 7 people all women. They were mainly adult
236 recipients of *social minima* (guaranteed minimum income), and unemployed.
237 5) Young people experiencing difficulties from an association of Oignies *Rencontres et*
238 *Loisirs*: 5 people, 2 women and 3 men.
239 6) Students from the Institute of Technology from Lens: 10 people, 6 women and 4
240 men.
241 According to this description, it is possible to assert that we focused on disadvantaged
242 people (5 out of 9 FGs).

243 [INSERT TABLE 2 ABOUT HERE]

244 Participants also completed individual questionnaires, mainly closed ended questions,
245 which main results are presented in Table 3.

246 [INSERT TABLE 3 ABOUT HERE]

247 Figure 3 shows the distribution of the participants of the nine FGs. This figure is just
248 focused on people who lived in the study area. Finally, maps similar to the one in Figure
249 3 were handed out to participants, who used them to answer questions as: Where do you
250 live? / Where do you carry out most of your activities? / Where do you enjoy going to?

251 [INSERT FIGURE 3 ABOUT HERE]

252 **4. Main findings from the BM focus groups**

253 After transcribing the FGs conducted, our qualitative analysis may be summarized into
254 8 points: representations of the study area, job opportunities, driving licence, car, urban
255 public transports, other transport modes, vision of structural planning projects and
256 vision of the sustainable development. The results presented below show the main ideas
257 extracted from the transcript of FGs. The use of a software to analyse the information
258 was tested but it showed no great outcomes. All the sessions were recorded and
259 transcript was carried out by one of the authors in the same language (French).
260 Unfortunately the use of the software is extremely linked with the accuracy of the
261 transcript.

262 **4.1 Representation of the study area**

263 The historical mining culture is still very present. This culture often means proximity
264 (workers from the CAHC). During the mining era, the populations were grouped around
265 the mine shafts. People didn't have to travel, or just a little bit, to go to work or to other
266 places of service. All the services were accessible on foot. Natives are attached to their
267 territory of birth.

268 "Social and family roots have an impact on the choice of place of residence. These two
269 factors may be stronger in this area than anywhere else in France." (Cyclotourists)

270 “We come from here, were born here, we have our roots here so obviously we have ties
271 ... I stand in the neighborhoods where my parents lived, where my grandparents lived. I
272 have a cultural history here.” (Young person from Oignies)

273 There may also have a vision of a region suffered. For major cities of the study area,
274 facilities seem sufficient. This is not the case for the towns of Oignies and Carvin where
275 a lack of services and facilities exist. Most of participants want a larger services supply.

276 “Carvin station closed for twenty years: we had to move to Libercourt.” (First group of
277 disadvantaged people)

278 “The pool burned, we must now go to Courrières by bus.” (Third group of
279 disadvantaged people)

280 The maps handled out to the participants showed us that, especially in the case of
281 people in risk of social exclusion, the knowledge of the region is quite limited. They
282 tend to move in the same area for most of their activities. On the other hand, University
283 students tend to come to the territory to study but many do not live here. They go to
284 other places like the city of Lille for leisure activities. Finally, the groups of people in
285 the biking-group (cyclotourisme) have a more expanded vision of the territory and its
286 opportunities.

287 **4.2 Job opportunities**

288 People who already have a job or who are retired express the lack of activity on the
289 study area. Jobs in shopping centers are only available to very few disadvantaged.

290 “There are no jobs with high added value in the territory.” (Retired people)

291 “There is a lack of voluntarism to work elsewhere.” (Cyclotourists)

292 State handouts offered during the mining period remained rooted in some families. For
293 example, it is common for some people to go see the mayor of their city to get a job for
294 themselves or a family member.

295 **4.3 Representation of the driving licence**

296 Young or disadvantaged people link the access to employment with the possession of a
297 driving license or a private car. To find a job, as in many territories, a driving license is
298 essential.

299 “No job no money, no money no driving license: vicious circle!” “There are many
300 employers who say that without the driving license they do not hire.” (Young person
301 from Oignies)

302 “Now if you do not have a driving license you do not have work. There are many jobs
303 in which it is necessary.” (Second group of disadvantaged people)

304 The first problem is the price of the driving license, around 1,100€. The second
305 problem lies in the acquisition of knowledge of the Highway Code.

306 “I do not have a driving license because it is too expensive.” (First group of
307 disadvantaged people)

308 “I do not have a driving license because I mess with the code.” (Young person from
309 Oignies)

310 **4.4 Representation of the car**

311 The majority of trips are made by car except when individuals do not have a driving
312 license. There are few recreational facilities in the area. The use of a car is essential to
313 have access to these facilities. The car remains the most often used, the fastest and the
314 most convenient transport mode. There is no problem to park in the study area
315 (Workers from the CAHC).

316 “Inevitably for me it is the most convenient way, maybe not in monetary terms but in
317 terms of time.” (Workers from the CAHC)

318 “Before, I had no car, I could not leave my home without my parents.” (Students from
319 the Institute of Technology of Lens)

320 To go to the Institute of Technology, it is more convenient to use one’s own car as train
321 and bus do not always match. Even to eat at the university restaurant which is not in the
322 Institute, it is sometimes necessary to go by car to save time on the often short noon
323 breaks (Students from the Institute of Technology of Lens).

324 The car is seen as used to purchase or carry heavy objects (cyclotourists). However, for
325 the elderly or retired people, the use of the car is not unproblematic (Retired people).

326 “We can no longer drive (aging of the population) ... my housekeeper brings me or my
327 niece because my children live far.” (Retired people)

328 **4.5 Representation of the urban public transport**

329 The problems incurred by the participants about the urban public transports are of 5
330 kinds: the service of the public transport (PT), the timetables, the travel times, the cost
331 of using PT and the other activities do not match properly the PT.

332 “It is for me a kind of concentration of transport of the strong points and other areas are
333 a little left out.” (Workers from the CAHC)

334 There is a clear desire for more PT in rural areas and on Sunday. As the population
335 lives more and more away from the centers, it is not possible to ignore the needs for PT
336 in the most rural areas. In the same way, on Sunday buses do not run except in Lens or
337 in Noyelles-Godault. So it is difficult to move if people do not own a car.

338 “Before there were buses to the Hénin-Beaumont hospital, now there are no more and it
339 is annoying.” (First group of disadvantaged people)

340 “On Sunday, buses do not run so we cannot do anything.” (Young person from Oignies)

341 “On Sunday there is no bus... it is blocked, it is dead.” (Third group of disadvantaged
342 people)

343 Shuttles could be generalized to specific events (markets, spectacles, fireworks).
344 Currently there are shuttles to the Béthune or Lens market organized by the transport
345 authority with a bus every half hour.

346 Timetables and travel times does not seem appropriate. There is a lack of PT during the
347 night for example for an evening out. To make PT more attractive it would be necessary
348 to increase the frequency and expand the timetables. In 2012, the transport authority
349 had made some changes on the organisation of the PT network. These changes in the
350 network of PT do not seem to have an impact on the trips of participants.

351 “If I do not take the bus to work it is mostly because the timetable is not suitable, there
352 is never a bus early in the morning so I take the car.” (Cyclotourists)

353 “The timetable is the problem, the bus runs until 8:00 pm after it no longer passes.”
354 (Young person from Oignies)

355 “It's hard for me to say that I leave the meeting because I have to take my bus.”
356 (Workers from the CAHC)

357 Travel times by bus are perceived as too long, sometimes longer than by car (workers
358 from the CAHC). For disadvantaged women, who live in Carvin, it is possible to
359 perform many activities by walking. Travel times by bus are often very long compared
360 to the travel time on foot (Second group of disadvantaged people).

361 “At least to move further, you must first go to Henin-Beaumont ... or you must take 4
362 buses.” (Young people from Oignies)

363 “There is no culture of PT here.” (Students from the Institute of Technology of Lens)

364 “They tell me all the time that's too long. For example to go from Carvin or Henin-
365 Beaumont to Libercourt you need 40-50 minutes while you could do it in 10 minutes.
366 This is often one of the obstacles to the use of the PT.” (Third group of disadvantaged
367 people)

368 For most of participants, using PT is too expensive. Taking the PT with the family, for
369 example for leisures, can be costly (first group of disadvantaged people). There are
370 special rates for large families or disadvantaged people, but the information is hard to
371 be known and understood.

372 “Going by bus is even more expensive than taking the car.” (Retired people)

373 “It costs me even more to go to Lens and Béthune by PT.” (Workers from the CAHC)

374 Places of employment in the periphery of the study area are often few or not served by
375 PT. PT access is too long when accessibility exists. It is notably the case for the huge
376 shopping center of Noyelles-Godault (retired person). Another difficulty may be
377 transporting purchases when using PT. Difficulties must be an obstacle to the use of PT
378 (cyclotourists). There has been a development of alternatives by the most vulnerable
379 populations such as the use of the pushchair to help transport purchases (First group of
380 disadvantaged people).

381 **4.6 Vision of the other transport modes**

382 Carpooling is practiced by the students of the Institute of Technology of Lens, some
383 young disadvantaged people or workers in a same company. Elsewhere carpooling is
384 non-existent. Sometimes carpooling can be enhanced between participants in the same
385 meeting (cyclotourists). Carpooling is easy with some friends (third group of
386 disadvantaged people). Interestingly, the University of Lens (Institute of Technology of
387 Lens) has put into practice a good example of sustainable mobility with efficient
388 resources. They have implemented a system of car pooling where students are allocated
389 in groups according to their place of residence. Therefore it is easier for them to agree
390 on time-schedules to arrange home based trips to University and back. In the hall of the
391 University, a chart that must be completed is available. Students have to register their
392 name and place of residence as well as the start and the end of their classes. Everything
393 is organised to be easy for carpooling. Students find it advantageous, especially for
394 financial reasons, and do not consider that being classified by place of residence has any
395 negative connotation.

396 “There are systems unorganized, neighbours helping neighbours, illegal parking of car
397 and then make carpooling.” (Retired people)

398 Websites offering this service exist but the reflex is not yet developed. Carpooling is
399 difficult to implement, everyone has different schedules (cyclotourists, young people
400 from Oignies).

401 “We wanted to set up a table of carpooling for students who live in a same area can
402 meet... after free choice to accept carpooling or not.” (Students from the Institute of
403 Technology of Lens)

404 It is common to request the neighbours to be accompanied. Nevertheless, it is more
405 complicated with a large family. As a person in the first group of disadvantaged people
406 said: “it would required a minivan”. Anyway, car loan can not be envisaged.

407 “Asking someone to loan his car is like asking him to lend us € 20,000.” (Third group
408 of disadvantages people)

409 Express Regional Train (TER) seems appropriate for the service to major centers of the
410 study area and the city of Lille. The problem will be in the bus service of the various
411 train stations in the area.

412 “You need 40 minutes to go to Lille. It does not take long to serve Libercourt.” (Third
413 group of disadvantaged people)

414 “I come from Béthune then I take the train, it's simple: Lens-Bethune it's ok!” (Student
415 from the Institute of Technology of Lens)

416 Taking the train without a car is difficult because travel time by bus can be very long
417 (Young people from Oignies).

418 Concerning bike, this is not mentioned as an easy transport mode to use even if 72% of
419 participants have one.

420 “Here you go by bike and you get crushed easily.” (Students from the Institute of
421 Technology of Lens)

422 “People are afraid to cycle because they feel insecure about the car.” (Cyclotourists)

423 Bicycle use is perceived as complicated especially by the younger generations.

424 “We must succeed in getting a place among the cars.” (Fourth group of disadvantaged
425 people)

426 If distances are too small the bike is not used and people walk. If the distances are too
427 large they prefer to take the bus. Moreover, the weather conditions of the study area not
428 seem typically favourable.

429 “In the summer it's great when the weather is good.” (Third group of disadvantaged
430 people)

431 There are problems of connectivity between bike paths that are not continuous in the
432 area and barriers to the use of the paths (retired people). Cycling can be problematic to
433 make trips between home and the workplace (cyclotourists). There are some difficulties
434 to combine cycling and PT. It is not possible to take a bike on the bus and there are no
435 secured locations at the bus stops (first group of disadvantaged people).

436 Walking is practiced especially over short distances and disadvantaged populations.

437 “It saves money!” (First group of disadvantaged people)

438 The lack of pedestrian streets does not make travelling on foot easy. Often cars do not
439 respect restrictions.

440 “Cars are on the sidewalks and we must walk on the road.” (Fourth group of
441 disadvantaged people)

442 The use of walking limits the distances that can be travelled. But for some people this
443 would not be an obstacle to the realization of their activities because they can do many
444 things on foot (second group of disadvantaged people).

445 Concerning the new mobility services, participants to FGs have few or no knowledge of
446 the new mobility services implementing in the territory and proposed by the transport
447 authority and of their specific pricing. Private initiatives are therefore implementing.
448 For example, it is the case for carpooling at the Institute of Technology of Lens,
449 carsharing between the members of a same family or between neighbours. A walking
450 school bus is being tested in the city of Courrieres (cyclotourists). Reflection is ongoing
451 for serving peripheral employment areas, kind of industrial bus (workers from the
452 CAHC).

453 **4.7 Vision of structural planning projects**

454 Four projects were selected: the Louvre-Lens museum, the registration of the mining
455 area to the UNESCO World Heritage, the tramway project on the study area and the
456 project of Lille metropolitan area. All were invited to give their views and rank the
457 projects according to the importance they attached of these different projects.

458 These projects are mainly pointed at the city of Lens or other large centers of the
459 territory. It is difficult for participants to imagine that these projects will affect smaller
460 cities of the study area. Participants have a common vision of a redeveloping territory
461 with major projects. However, their opinions are mixed on these ones.

462 “What concerns me is that we have some projects, but there are no large industrial
463 projects.” (Retired people)

464 Overall, the Louvre-Lens generates excitement. Changes are immediately visible with
465 embellishment work in the city of Lens. For disadvantaged people, it is inconceivable
466 to go to the museum on their own (first group of disadvantaged people).

467 “We do not have the culture of going to the museum.” (Workers from the CAHC)

468 The tramway project set off suspicion: deformity of the landscape, noise from passing
469 trains.

470 The inscription of World Heritage site by UNESCO is increasingly challenged. It is a
471 pride for the children and grandchildren of miners (fourth group of disadvantaged
472 people). For other population groups, the effect of registration is considered as non-
473 existent (students from the Institute of Technology of Lens, second group of
474 disadvantaged people).

475 **4.8 Vision of sustainable development**

476 All participants say they have some ecological sensitivity. However, they lead few
477 actions going in this direction.

478 “I feel concerned with ecology in the sense that I do not want to live in a garbage. [...]
479 Now, ecology is not accessible to any pocket either.” (Young people from Oignies)

480 Some people take on ecology. For example, some people choose to use the bike almost
481 systematically and defend the right of bike users (cyclotourists). Other people
482 participate in the environment committee at the development council of the CAHC
483 (retired people).

484 For all participants, there are no specific actions in favor of sustainable development.
485 These are mostly actions "strained": selective sorting of waste, composting, recovery of
486 rainwater...

487 The application of the ecological sensitivity to individual mobility is not automatic.
488 There is few modal shifts on sustainable modes or PT due to ecological purposes. The
489 use of walking or PT is more constrained than chosen.

490 “I force myself to take the bus from time to time in the interests of ecology.” (Second
491 group of disadvantaged people)

492 There is a need for sensitisation of the population.

493 “Elderly people sometimes also have difficulty to understand.” (Cyclotourists)

494 “Out of school, I see kids who throw their papers down and parents say nothing. Well
495 done!” (First group of disadvantaged people)

496 **5. Conclusions and policy implications**

497 FGs conducted helped to clarify the problems of this particular territory:

498 - The absence of a mobility culture in line with the mining history of study area,

499 - A strong sense of attachment to their territory of birth along with the perception of a
500 suffered territory, especially in the case of more disadvantaged people or elderly
501 people, whereas University students felt like it was not an interesting territory, and were
502 interested to move to other places in France if they had the opportunity.

503 - Vision of a well endowed with various services and equipments area, but stronger
504 need to being turned to Lille particularly in accessing to the labour market,

505 - Possession of a driving license and a private car is extremely needed to access to
506 employment opportunities, with many obstacles (especially financial obstacles),

507 - Problems in the organization of the PT in the territory (cost, opening hours, schedules,
508 frequency, service) but TER appear effective for serving the largest centres of the
509 territory,

510 - Difficulties and lack of culture of using the bike, hence people are forced to walk
511 (especially the most vulnerable population). The former would not be a problem, and

512 rather an opportunity for a healthy living, if only small shops like groceries, butchers,
513 markets, and leisure activities such as cinema, cafes, etc. around their neighbourhood
514 were not closing or moving out of the area. Socially excluded people, had a positive
515 image of the Louvre museum's opening, however, they had no clear intention of
516 visiting.

517 Here are some solutions that could be implemented in the area. First, we can think of
518 some improvements on the PT network (reductions in travel time, conversion of the two
519 main bus routes into BHLS). Then, you can include aid for the obtainment of the
520 driving license or the Highway code to help with search efforts or return to work
521 (financial aids, aids for learning and understanding the Highway Code). There are also
522 social vehicle loans for people wishing to return to employment. Transport authority
523 may choose to provide more and better information about mobility services available in
524 the study area (paper communication, education and learning PT, awareness of the PT
525 network, better communication on specific rates for different populations). Another
526 solution could be the strengthening of economic and leisure activities throughout the
527 area to facilitate their access to the entire population.

528 More opportunities should be given to the people who want (or more realistically,
529 "need") to have their driving license in order to access to employment alternatives. Thus
530 financial support is necessary.

531 Car pooling programs should be better advertised in firms around the territory in order
532 to reduce transport cost of employees. The government should enhance and promote
533 other transport plans for enterprises through different schemes, which have proved to be
534 positive for both the employers and employees. The Spanish publication from the IDAE
535 {IDAE 2006 #577} is an example of how to manage these plans. These options could
536 be better exploited when firms are located in major areas of economic activities.

537 Bike sharing schemes should start operating in this area, such as the one in Lille city
538 (V'Lille), in order to promote soft modes of transportation, especially for younger
539 people.

540 Economic activities, especially for retail shops, should be promoted by the local
541 governments; otherwise people would be in an even more disadvantaged position to
542 access their basic needs.

543 A clear and understandable publicity campaign for the territory regarding sustainable
544 transport should be put into practice. It was astonishing the number of people
545 (especially in a disadvantaged position) that did not use a monthly ticket but a single
546 one every day, even if the former is naturally the cheapest option.

547 Finally, this research is very helpful to understand the territory and it brings about new
548 opportunities, for example to improve public transport services, to improve the
549 questions in the next HTS and finally, to better understand the territory for several field

550 actors. This research also suggests some policy implications to allow an area in urban
551 regeneration to adopt a more sustainable mobility less focused on car use.

552 **6. Acknowledgements**

553 This research has been funded by the Nord-Pas-de-Calais Region and the French
554 Environment and Energy Management Agency (ADEME) within the research project
555 SUIM (Innovative Urban Services for new Mobility). The authors wish to acknowledge
556 these two institutions for their helpful support and Dr Odile Heddebaut, researcher at
557 the French Institute of Science and Technology for Transport , Development and
558 Networks (IFSTTAR), co-ordinator of the SUIM project.

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589 [TABLES]

590 Table 1 – Results from the Household Travel Surveys from the Lens (2006) and Béthune (2005) zones

Place of residence	Main transport mode								Total
	Car driver	Car passenger	Urban public transport	Other public transport	Bike	two-wheeled motorized vehicle	Walking	Other	
CENTRE	0.41	0.17	0.02	0.01	0.02	0.01	0.35	0.01	1.00
URBAN POLE	0.43	0.19	0.02	0.01	0.02	0.01	0.31	0.01	1.00
SECONDARY POLE	0.45	0.20	0.02	0.02	0.02	0.01	0.28	0.01	1.00
INDUSTRIAL SUBURB	0.44	0.21	0.02	0.02	0.02	0.02	0.26	0.01	1.00
MIXED SUBURB	0.51	0.22	0.02	0.02	0.03	0.01	0.18	0.01	1.00
MIXED PERI-URBAN	0.54	0.22	0.02	0.04	0.02	0.01	0.14	0.02	1.00
PERI-URBAN	0.60	0.22	0.02	0.03	0.01	0.02	0.10	0.00	1.00
RURAL	0.73	0.14	0.01	0.01	0.00	0.00	0.05	0.06	1.00

591

592 Table 2 – Professional profile of people participating in the sessions

Focusgroup	Profession						Total
	Retiree	University S	Non-qualif	Qualified	Unemployed		
1	7	0	1	1	0	9	
2	4	0	0	2	0	6	
3	0	0	1	1	3	5	
4	0	0	2	5	0	7	
5	0	10	0	0	0	10	
6	0	0	0	1	5	6	
7	0	0	0	1	9	10	
8	0	0	0	1	11	12	
9	1	0	0	0	6	7	
Total	12	10	4	12	34	72	

593

594 Table 3 – Main characteristics of people attending the sessions

Variable	Description	Obs	Mean	Std. Dev.	Min	Max
Persons		76	5.2632	2.9119	1	12
Sex	Female=1	73	0.5479	0.5011	0	1
Age		70	37.3857	19.3550	17	87
Situation at home	Reference= Mother					
Father		73	0.1644	0.3732	0	1
Son/Daughter		73	0.2603	0.4418	0	1
Couple no children		73	0.0685	0.2543	0	1
Single		73	0.1644	0.3732	0	1
Others (like widow)		73	0.0548	0.2292	0	1
Family situation	Reference=With children younger than 5 years old					
With children between 5-12 years old		43	0.3256	0.4741	0	1
With children older than 12		43	0.1628	0.3735	0	1
No kids		43	0.3721	0.4891	0	1
Number of people at home	Reference=1					
2		69	0.2464	0.4341	0	1
3		69	0.1304	0.3392	0	1
4		69	0.2464	0.4341	0	1
5		69	0.1594	0.3687	0	1
6		69	0.0435	0.2054	0	1
Home property	Reference=Own property					
Rented		71	0.4789	0.5031	0	1
Other		71	0.1690	0.3774	0	1
Monthly economic resources	Per household					
Less than 1,000 €		61	0.2459	0.4342	0	1
1,001 - 2,000 €		61	0.1967	0.4008	0	1
2,001 - 3,000 €		61	0.0820	0.2766	0	1
4,001 - 5,000 €		61	0.0492	0.2180	0	1
More than 5,000 €		61	0.0656	0.2496	0	1
Driving License?	Yes=1	72	0.5139	0.5033	0	1
Car ownership	Yes=1	71	0.5211	0.5031	0	1
Moto ownership	Yes=1	62	0.0000	0.0000	0	0
Bike ownership	Yes=1	65	0.7231	0.4510	0	1
Main transport mode	Reference=Car-driver					
Car-passenger		73	0.0959	0.2965	0	1
Walking		73	0.3288	0.4730	0	1
Public transport		73	0.0822	0.2766	0	1
Bike		73	0.0274	0.1644	0	1
Transport costs per week	In Euro	45	20.1556	15.8171	0	60
Car necessity for activities	Yes=1	57	0.4561	0.5025	0	1
Monthly ticket pass	Yes=1	71	0.1972	0.4007	0	1
Occupation	Retired=1					
University student		72	0.1389	0.3483	0	1
Qualified worker		72	0.1667	0.3753	0	1
Non qualified worker		72	0.0556	0.2307	0	1
Unemployed		72	0.4722	0.5027	0	1

596 [FIGURES]

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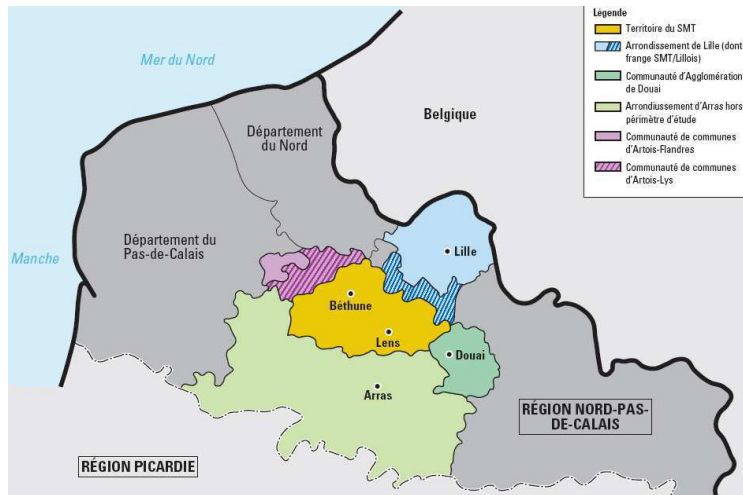
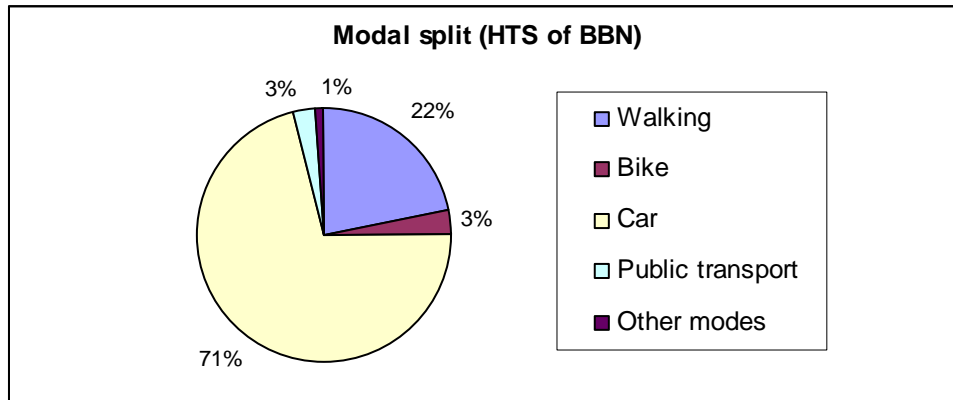
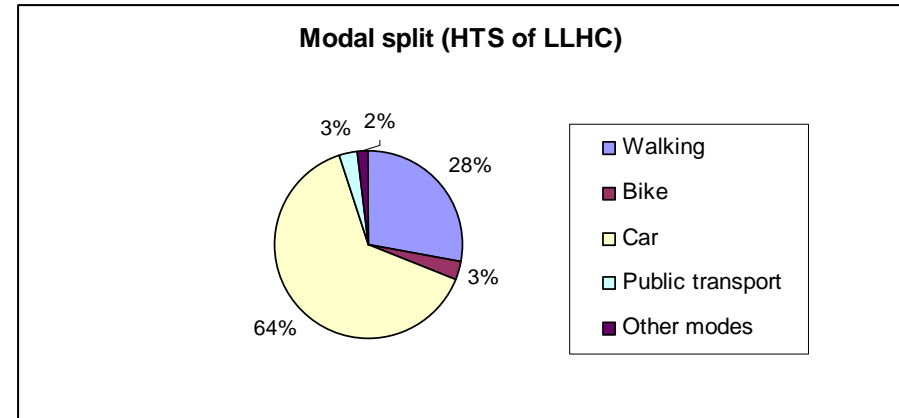


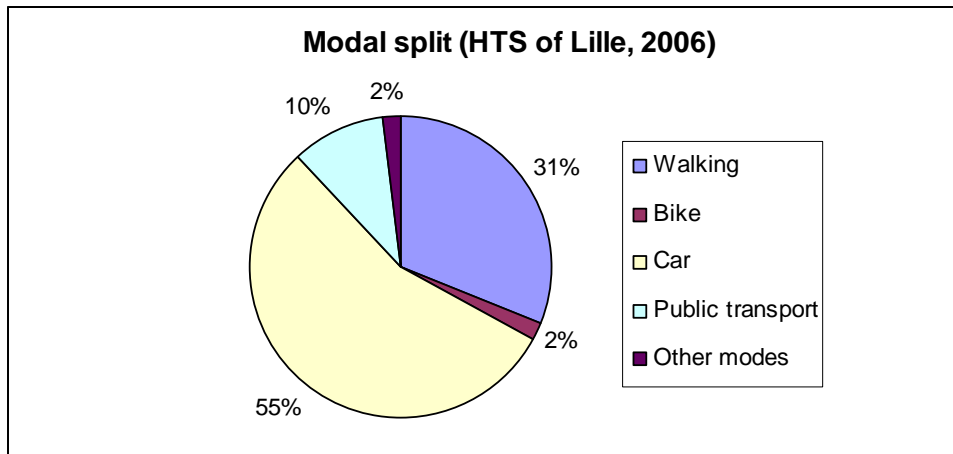
Figure 1 – The SMT Artois Gohelle area in the Nord-Pas-de-Calais Region



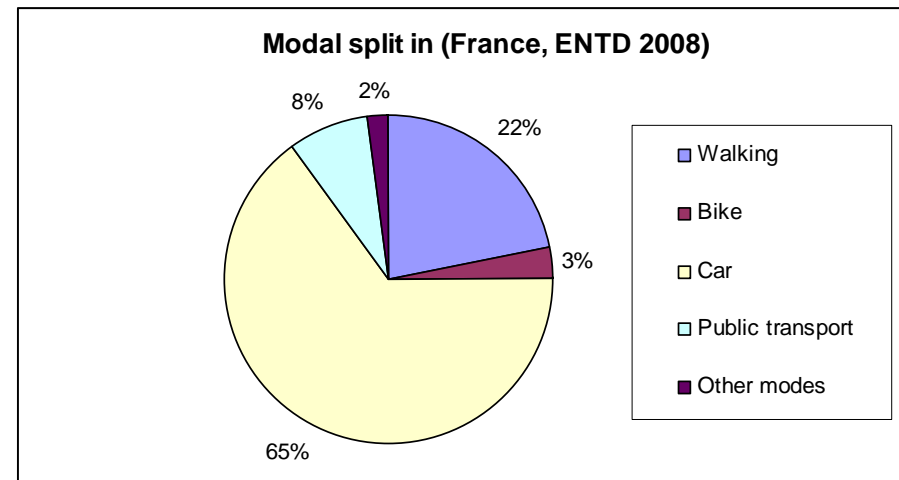
(a) Our study area: HTS of Béthune-Bruay_Noeux (2005)



(b) Our study area: HTS of Lens-Liévin-Hénin-Carvin (2006)



(c) Modal split in Lille agglomeration (2006)



(d) Average modal split in France (2008)

Figure 2 – Modal split: comparison between our study area, the agglomeration of Lille and the French case

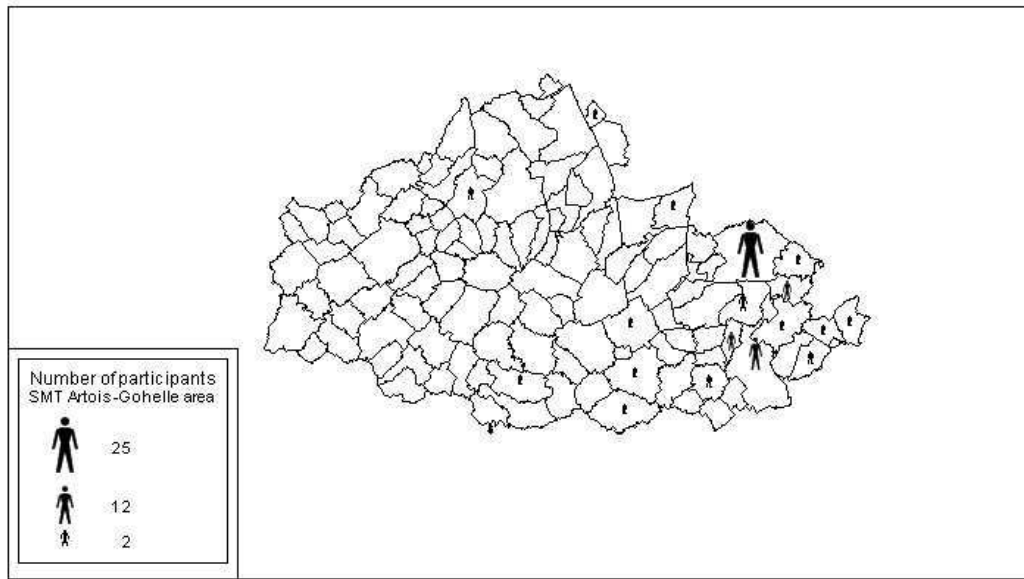


Figure 3: Distribution of the participants of the focus groups conducted

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