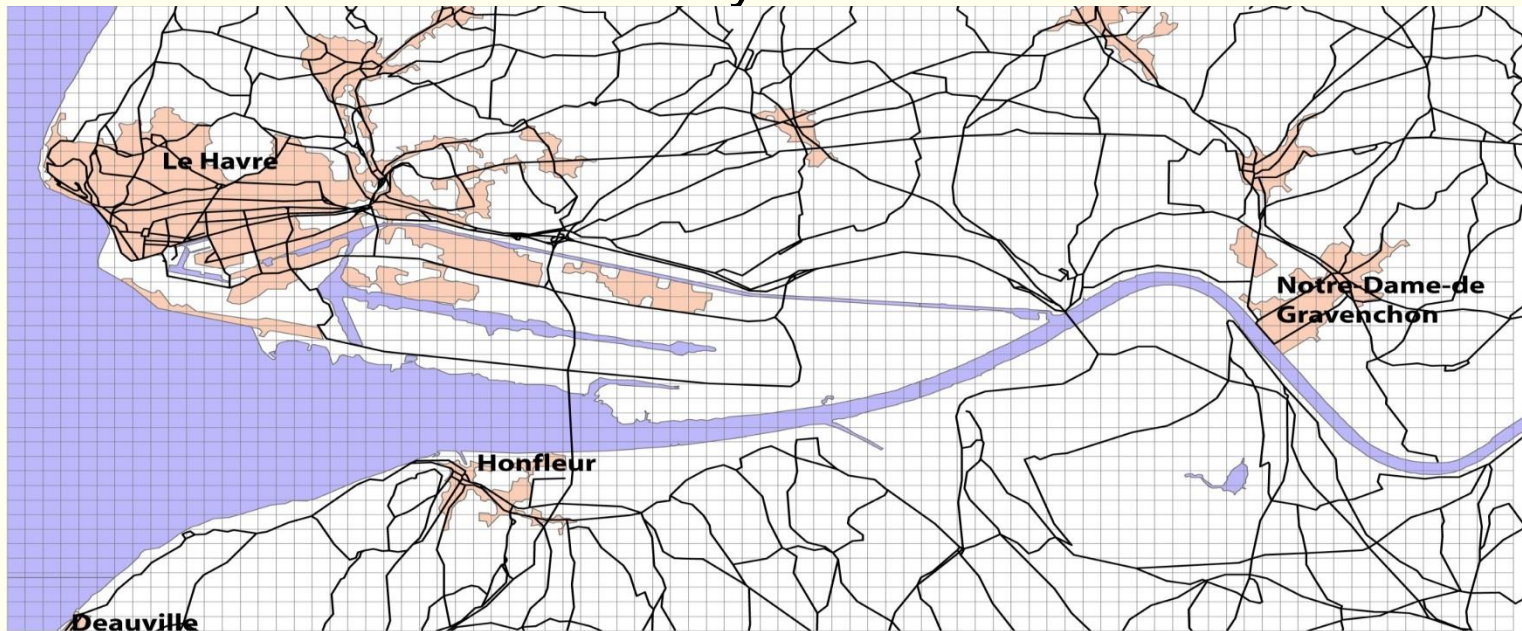




Social Acceptance of Carbon Dioxide Capture, Transport and Storage for Seine Estuary Inhabitants

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A Survey in 2 Parts

- Qualitative Research by Interview:
 - Non profit environmental organisation managers
 - Political elected representatives
 - Professionals in charge

- Quantitative Survey on Questioning Estuary Inhabitants

4 Hypotheses

- **H1:** The population has a low level of information about this issue
- **H2:** There is a potential gap between the reality of the risk and the perception of it, just as much for the inhabitants than for the non-profit organisation members and political elected representatives
- **H3:** The representations of the risk depend on the location of the inhabitants in time and space with regard to a source of possible danger
- **H4:** The level of information, perceptions and representations of the phenomena are determined by the sociological characteristics of the sample population

The Perception of the Estuary Population: Main Results

- 5 sets of interdependent questions:
 - 1. Characteristics of the sample population
 - 2. Knowledge and representations of estuary industrial base
 - 3. Risks and nuisances
 - 4. Environmental problems
 - 5. Capture, transport and storage of CO₂

1. Characteristics of Sample Population

- 588 questionnaires filled at home
- Higher female representation
- Regular distribution by age
- Rather high level of training [graphique niveau de formation enquêté.docx](#)
- Trades of sample population [graphique profession enquêté.docx](#)
- Social membership difficult to characterize
- Rather modest social origins
- Place of residence: 23 townships on the estuary

2. Knowledge and Representations of the Estuary Industrial Base

- Low level of knowledge and deficit of information about the industrial base
- Population strongly concerned with industrial activities
- Split on importance of fighting efforts against pollution
- High level of nuisance
- The most efficient institutions of the economic world to inform population about industrial risks and nuisances
 - The media : 23 %
 - Non-profit organisations : 20 %
 - Companies themselves : 16 %
 - The CCI : 14 %
 - Social partners : 13 %

3. Risks and nuisances

- Society problems: sanitary, social, then environmental risks
- For the French population: environmental and sanitary risks
- Trust in sanitary and social information vs mistrust in the environment information
- Linked keywords: danger / health-disease / accident
- Important health consequences due to industrial activity (air, water, chemical pollution)
- The most efficient public institutions to inform population about industrial risks and nuisances
Those closely located to the population: City hall, community of towns

4. Environmental problems

- Major risks for the environment and nuisances caused by chemical plants
- No differentiation between risk and nuisance
- High sensibility on global warming
 - 1st group: (34%) Air pollution and greenhouse effect
 - 2nd group: (35%) Animal species extinction and decrease of ozone layer and water pollution
- Low information level about environmental nuisances
- Lack of knowledge on the characteristics of CO₂
- Weak knowledge of alternative energies, in particular on storage of CO₂
- In view of global warming:
 - It is necessary to act at once : ~ half
 - It is necessary to plan an action : > a third

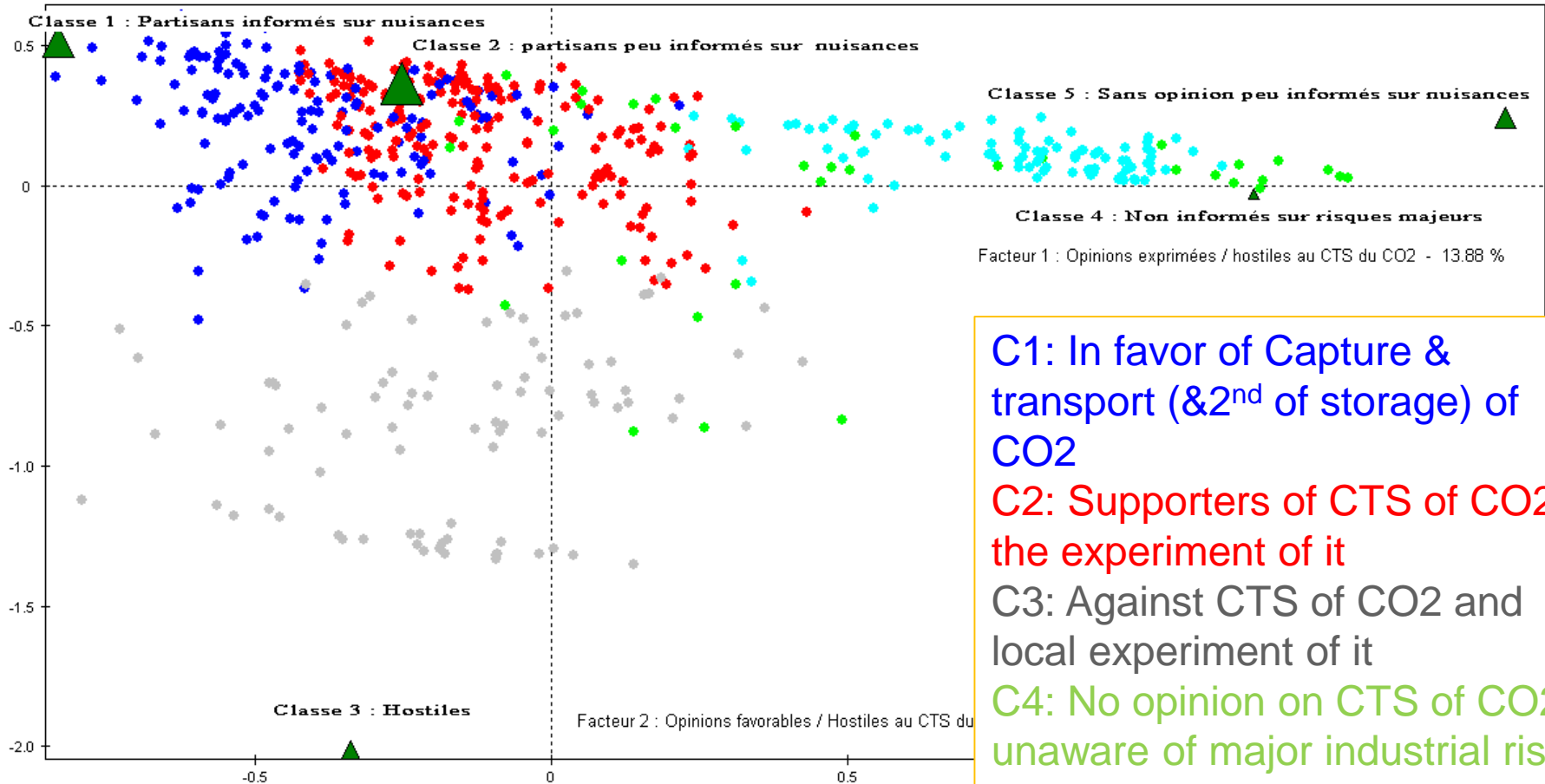
5. Capture, Transport and Storage (CTS) of CO₂ (1)

- Giving a definition of CTS: Non-responses : 55%
Incorrect responses: 27%
- After detailed technical information:
 - Without opinion : 20%
 - Good opinion concerning capture : 62,2%
 - Good opinion concerning transport : 58,3%
 - Less favourable opinion for storage : 48%

5. Capture, Transport et Storage (CTS) of CO2 (2)

- After contextual information, opinion on a local experiment: 4 trends [graph expé locale CTS.docx](#)
 - Without opinion : > 20%
 - Good opinion concerning capture : 57%
 - Good opinion concerning transport : 60%
 - A split:
 - Good opinion concerning an experiment of storage close to the place of emission : 37,2%
 - Bad opinion concerning an experiment of storage close to the place of emission : 35,9%
- « *nimby* » effect about an experiment of storage far from the location of emission = more in favor opinion (42,7%) than defavourable one (27,9%)

Multivariate analysis



C1: In favor of Capture & transport (&2nd of storage) of CO₂

C2: Supporters of CTS of CO₂ & the experiment of it

C3: Against CTS of CO₂ and local experiment of it

C4: No opinion on CTS of CO₂ unaware of major industrial risks

C5: No opinion on CTS of CO₂, limited information on environmental nuisances

Type 1

152 people

~26%

-
- In favor of capture and transport (and secondarily of storage) of CO₂
 - People informed about all the environmental nuisances
 - People informed about solar and wind technologies
 - Male
 - High education
 - Age 31 to 40
 - High social and professional origin.

Type 2

208 people

~35%

-
- Supporters of CTS of CO2 and the experiment of it
 - Not really aware about all environmental nuisances
 - Not really aware about some energy technology processes (solar, wind and biomass energy)
 - Age 40 to 50
 - No university degree
 - Professional categories: craftsmen, storekeepers and business managers

Type 3

88 people

~15%

-
- Against CTS of CO2 process and local experiment of it
 - Consider technology as not being mastered
 - Consider all industries as representing a major risk for the environment
 - Age 50 - 60 and 23 – 30
 - Graduates
 - Professional categories: employees, workers and executives and superior intellectual occupations

Type 4

38 people

~6%

-
- Sample population unaware of major risks of industrial facilities, whichever the sectors
 - No opinion on CTS of CO2
 - Low education
 - Old pensioners
 - Unemployed women
 - Age: more than 70

Conclusion

Opinions on CTS of CO₂ are based on a combination of criteria that integrates:

- Representations of risks and nuisances
- Sociodemographic characteristics of inhabitants
- Perceptions of industrial base
- Perceptions of environmental problems

Consequently a systemic and interactionnism approach could reveal the deep mechanisms of the representations at the origin of the opinions and the attitudes towards these technologies of CTS of CO₂.

THANK YOU FOR ATTENTION

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