



CiViTAS
Cleaner and better transport in cities



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From pilot projects to integrated transport services : La Rochelle, Civitas ...and beyond

Civitas Workshop

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La Rochelle Urban Community



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La Rochelle Urban Community

Population 150,000 inhabitants; 18 towns; 21,000 hectares; around 700 inhabitants/km²

Industrial sector : boat industry, transport (Alstom, Delphi, Rhodia....), commercial harbour ...

Other sectors : tourism & services, leisure harbour, University



La Rochelle and the CIVITAS-SUCCESS project

CIVITAS-SUCCESS Coordinator

- Project between 2005 and 2009
- 3 countries, 3 cities - La Rochelle, Ploiesti (RO), Preston (UK) , 12 Partners
- Specificity : small/middle sized towns

Why did La Rochelle involve in Civitas ?

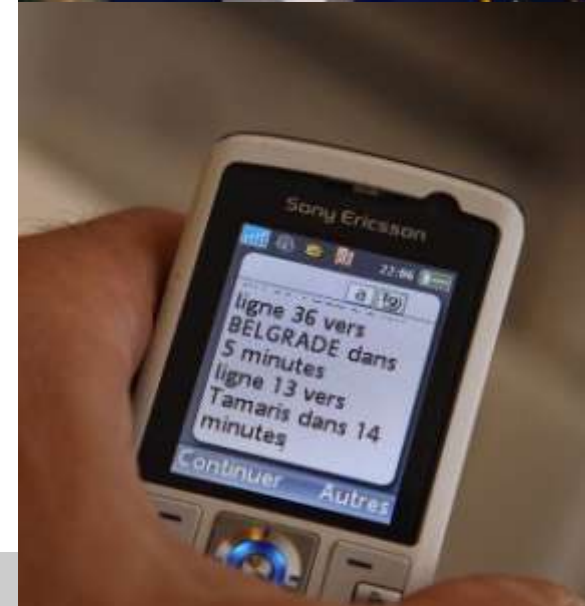
- CIVITAS II more focused on middle-sized cities than Civitas I
- Adequation between the orientations of the EU Commission defined in CIVITAS and the strategy considered at local level in terms of urban transports



Which actions ?

A set of 25 actions :

- Clean vehicles
- Access Control Zones
- Bike-Sharing, bike infrastructures, cycle promotion
- Ticketing
- Real-time information
- Reorganisation of the bus network, of the electromobility services
- Business & Students travel plans ...



For some of the projects, Civitas has made it possible to :

- boost their implementation (eg EEV buses)
- make an in-depth and efficient reorganisation of the bus network (eg new bus network)
- implement more innovative projects (Ticketing integration, real-time information, bike sharing system)

For others, brand new projects (*ex nihilo*):

- Used cooking oils recycled into biodiesel
- Hybrid mini-buses



Towards a more sustainable mobility with “Yélo”



Creation of a coherent image of the PT network through a unique brand called ‘Yélo’

Integrated ticketing : a unique smarcard for all modes of transport



Before Civitas :

A smartcard for several bus networks of the County

Within Civitas :

- **2008/09 : a new step toward sustainable mobility**
- **Beyond the bus, a large range of transport modes and mobility services**
- **To make ALL modes of transport easier & more practical to use. Freedom of choice.**

Beyond Civitas : future integration for regional notably for the mobility services (car-sharing) + new technologies (NFC)



Development of soft modes



Before Civitas : 1976 : 1st public bike loan called 'vélos jaunes' ('Yellow Bikes')

Within Civitas : design, evolution and installation of Bike-sharing system

Beyond Civitas : in 2012 : 310 bikes, 54 stations, 1 300 subscribers

230 kms of cycle paths and lanes



Improve collective transport



New buses complying with EURO 5 and the EEV standards

Buses with a High Level of Service : frequency 10 minutes

Dedicated bus lanes : within Civitas 6 kms, today more than 30 kms



Real time information, ITS Services

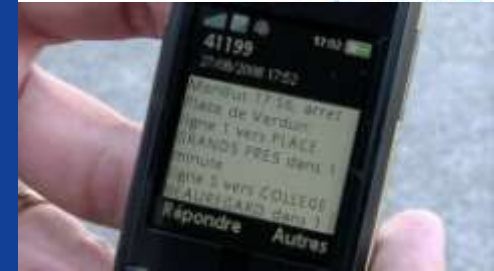
Within Civitas :

- RTI systems : panels, SMS, bus shelters
- Recharging system of Public Transport Season Tickets on the internet



Beyond CIVITAS :

- TFT screens on-board buses
 - Intermodality
 - Accessibility
 - Dynamic System
- Multilingual vocal announcement
- Future : QR codes, Apps



Access restrictions and pedestrian zones



Before Civitas :

1973 Creation of the first town centre pedestrian area in France

...since then, progressive extension of pedestrian zones

Within Civitas :

Access control zones :

- strolling zones in the historical city centre for cyclists, pedestrians
- Automated rising bollards



RUE ST JEAN DU PEROT



RUE ST JEAN DU PEROT



RUE DU BRAVE RONDEAU



RUE GARGOULLEAU



RUE DE L'ECHELLE CHAUVIN



Electro-mobility in La Rochelle: a long-standing story...



Late 80's - Early 90's :

- Vehicles manufactured in La Rochelle and tested by La Rochelle municipality: Volta cars
- Partnership with Peugeot EVs tested by selected households
- the City of La Rochelle buys electric vehicles and scooters for short-duration rental towards inhabitants and companies

Late 90's :

- the City of La Rochelle buys some utility electric vehicles : cleaning vehicles, garbage truck used in the city centre, and electric cars for the municipal fleet

Development of various electric modes : boat, car, truck, micro-buses



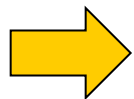
Within CIVITAS-SUCCESS: Find a sustainable organisation for the electromobility services

- Main output : a long-term PPP (2006-2018) : delegated management of public services with Proxiway (Veolia) for three electromobility services

- o Electric car-sharing
- o Urban goods deliveries using electric vehicles
- o Electric / Hybrid Shuttle to the Park-and-Ride



- This organisation could be considered as innovative :
 - o Innovation in the contractual aspects : activities made durable
 - o Innovation in the management
 - o Technological innovation



1st Delegated management of public services in France on new electric and hybrid transport services

- The services have to be financially sustainable by the end of the contract
- The main barrier encountered in the first years : the lack electric/hybrid vehicles available on the market !



Electric car-sharing Yélobobile (1/3)



- 1999 : initiation of Liselec experimentation with PSA + EDF
- Self-service round the clock, 7 days a week – Complement to the bus network
- 7 stations - 50 vehicles (25 Peugeot 106 ; 25 Citroën Saxo)
 - 75km autonomy
 - Ni Cd Batteries
- Temporary / short duration use, short distances (5km/trips av.)
- 1st/2nd car ownership, even as a company fleet
- A simple Procedure : one contract, one pass
- Can be used with the regular PT smartcard



the car... differently!

Electric car-sharing Yélobobile (2/3)



CONTACT

10 VOLTS

50 VOLTS

100 VOLTS

150 VOLTS

250 VOLTS

Beyond Civitas : 13 stations available in 2012

- equipped with slow charging points
- 6 new stations in 2011
- A pricing offer adapted for most of the users

The more you use the service,
the less you pay per hour

subscription

Hourly price

à la carte

7€

10 €/mois*

6 €

50 €/mois*

4,80 €/h

100 €/mois*

4,20 €/h

150 €/mois*

3,60 €/h

250 €/mois*

3,00 €/h



Electric car-sharing Yélobobile (3/3)

Beyond Civitas : new generation electric cars for the car-sharing system

- 4 vehicles pre-selected in July 2010
 - technical performance
 - commercial offer
 - compatibility with the car-sharing management system
- Presentation to the public, press conference : car-free day 2010
- Technical tests on the ground
- Qualitative Analysis : Focus group 50 drivers
- In December 2010 the final cars were chosen :
 - 30 C zero
 - 20 Mia





ELCIDIS : Electric City Distribution

Before CiVITAS : Elcidis project : Reorganizing urban deliveries

- o One central platform strategically located between the centre and surroundings areas operating from 2001
- o Use of electric vans for last miles
 - small/medium Parcels : transferred to electric vans
 - Big parcels and Pallets : electric truck
- o Facilitating traffic fluidity (municipal decree restricting access to the very city centre between 6am and 7.30 a

Within CiVITAS : new delivery services, optimisation of the consolidation centre, coherency with other electromobility services

Beyond CIVITAS : New truck in May 2010 : Modec. New partnerships for new services.

➔ A turnover tripled in four years





Electric shuttle boats

1988 : new route from both side of the Old Port

1998 : 1st solar electric shuttle boat in France

- 30 passengers
- Crossing La Rochelle's channel in a few minutes
- On-demand service; all year long
- Bikes can also be brought on board
- Accessible to people with reduced mobility
- 280 000 passengers / year
- Induction system + night charging



Electro solar « sea bus »



- 2 electro-solar boats from May 2009
- 75 passengers ; full accessibility
- PV panels (26 m²) providing 20 % energy
- Charging to the grid during the night
- Ni-Cd batteries
- Speed 6 knots (13 km/h)
- 170 000 passengers /year
- First electric boats with enough power and range for seagoing navigation



Parking differently



Within Civitas : Park before entering the city

- Removing free parking places in the city
- Work with the stakeholders to accompany the change
- Creation of one park-and-ride

Efficient solutions to reach the City Center

- Bus with a high level of service ILLICO
- Electric/Hybrid shuttles
 - Electric minibuses (2003)
 - Civitas : 2-year experiment of 2 hybrid minibuses
 - 2012 : electric bus Oreos 4X
44 seats ; 140 km range



Accompany the change towards inhabitants and companies : pedagogy, information, services

- Inform on incentives : for electric and hybrid vehicles for the off-street and public parkings
- Public slow or fast free charging points available for electric vehicles when needed
- Inform the inhabitants/companies/local authorities on the possibilities to obtain subsidies for the purchase of Evs

Pedagogy : Citizens / Users / Professionals

- **Continuous public consultation** with stakeholders, with citizens
- **Events:** the car-free day...from 1997
- **Non-profit marketing strategies**
- **Continuous & straightforward information** : « yélo trends »



Perpetuating innovation : cybercars

- New type of e-mobility : electric cybercars without any driver operating on an open and public space
- Technical innovation
- On-demand service
- Anticipate what could be the mobility of the future
- National media coverage for the launch and the conference



Results : a change in the modal split

Bus : from 6 to 7,7 millions trips in three years

Bike : 310 bikes/54 stations/15 000 trips per months/ 600 trips per months/1300 subscribers, 10 % of modal split

Electric car-sharing : 2 millions kilometers in 10 years, 20 T CO₂ saved, 50 cars, 13 stations, 500 subscribers

Electro-solar boats : 450 000 trips / year

P+R : 800 home-to-work subscribers

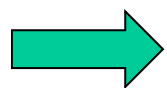
Nearly 150,000 trips per year with EV minibuses



Conclusion on LR's involvement in Civitas

From pilot projects to fully integrated public transport services

- A catalyst for local actions and behaviour change
- A higher visibility of La Rochelle at European level
- Importance of the “integrated” approach (+SUMP)
 - Balance between incentives and restrictions
 - Balance between soft and technical measure
 - A support of the investment but also the engineering, the communication, the evaluation
- Involvement of the politicians is crucial to go further in the behaviour change



Carry on the exchanges with other cities through CIVITAS & CIVINET !



Thanks for your attention !

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