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Car sharing. A new solution for historic cities?

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RENAISSANCE e l'innovazione nei sistemi di trasporto

Share Transport as a new way of getting around in cities

Car Sharing belongs to the broader concept of shared transport is at once old and new, formal and informal, but above all it is one that is growing very fast.

Actually at international level something important is clearly going on, and it is fundamental to advance not just the individual shared modes (e.g, car-share, bike-share, street-share, taxi-share, etc.), important as they are -- but of combining them in concert with strategic advances in the traditional modes and practices -- to advance the sustainable transport agenda of our cities more broadly.



Transport sharing is not only car sharing but also.....

- Bike/sharing
- Fleetsharing
- Ride/sharing (carpools, van pools, - organized and informal).
- Taxi/sharing
- DRT and paratransit
- Shared Parking
- Truck/van sharing (combined delivery, other)
- Street/sharing
- Public space sharing
- Work place sharing (neighborhood telework centers; virtual offices; etc.)
- Sharing SVS (small vehicle systems: DRT, shuttles, community buses, etc.)
- Cost sharing
- Time sharing
- Successful integration of public transport within a shared transport
- Team sharing
- Knowledge-sharing (including this conference)



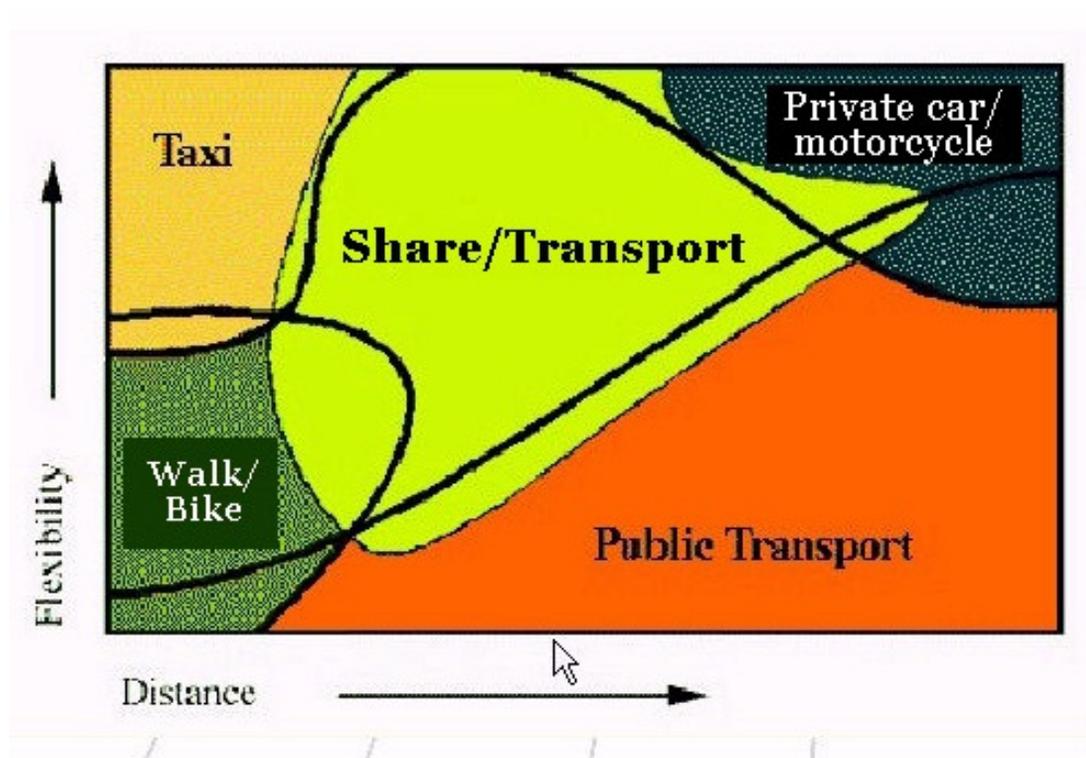
Share Transport as a new way of getting around in historical cities

- "Share transport" is the largely uncharted middle ground between the familiar mobility poles of private transport and mass transport (scheduled, fixed-route, large vehicle services) at the two extremes.
- It needs to be far better understood by policy makers, researchers and practitioners alike. In most cities it is a missing opportunity that deserves a far closer look.
- The international dimension of RENAISSANCE conference is important, since the experience and lessons of share transport are very widely distributed on the world map, extremely diverse, and often not very well understood, so it is important to be able to learn from all of them.



Sharing in Transport

Here is a quick concept diagram which is intended to give a first idea about how Share/Transport as a broad class fits in with the other more traditional mobility options.



What is a car sharing system

- Car sharing is a system in which a number of cars are put at the members' disposal on several locations in the city (or cities).
- Car Sharing is an automobile-rental service conceived as a valid alternative to private-vehicle ownership.
- Car Sharing emphasizes affordability and convenience: vehicles are located near residences, rented by the hour, and requires minimal effort to check in and check out.
- A well-developed, professional car sharing concept can appeal a broad audience.
- A private car needs maintenance and when used, user might have a hard time finding a parking space,...
- Car sharing offers the solution: as a member, user pays membership and monthly receive a bill according to own use. The car sharing organisation takes care of all the rest.



Which potential for car sharing

- Carsharing is not an isolated commercial or neighborhood activity. It is part of a much greater whole and to fully understand its prospects for the future it is necessary to have command of this bigger picture as well.
- Why does the Municipality support a concept that may to some appear to be so off-beat and marginal as carsharing? Because it is a great, sustainable, practical mobility idea whose time has come and whose potential impact is quite simply huge.
- Once mainly isolated local projects doing their best to survive under tough conditions, the institutions concerned with car sharing, local government, entrepreneurs, other transporters, public interest groups - are consolidating and now reaching out.



A background scenario in Perugia

- In Italian middle size medieval cities the levels of pollution is directly connected with the high number of vehicles circulating
- Recognizing car sharing add value, Perugia Municipality included a preliminary executive planning in its Urban Mobility Plan (PUM).
- Car Sharing in Perugia aims to compete especially against the second car and to be integrated into the local public transport offering a higher level of flexibility and comfort compared to traditional public transport.
- Car Sharing in Perugia has as primary objective the reduction of private vehicles use and a stable improvement of urban environment conditions on medium term.

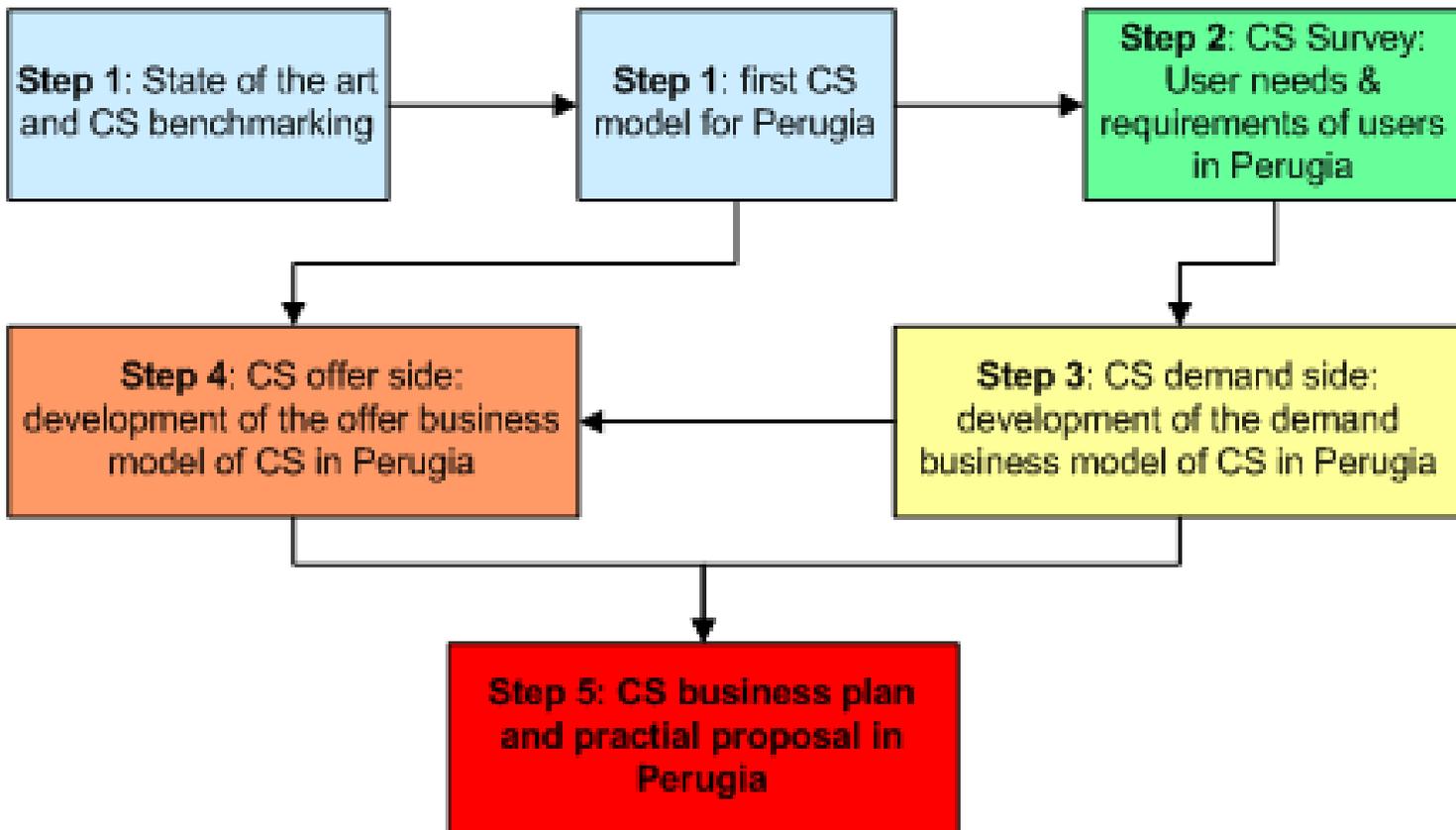


The Car Sharing Initiative in Italy

- The Italian Car Sharing is mainly based upon public initiatives with the overall aim to promote sustainable mobility in cities.
- Car Sharing services have been activated in some Italian cities within the frame of a National public organization - ICS (Car Sharing Initiative) - in order to ensure interoperability and same service standards.
- Perugia Municipality joined ICS programme in January 2000 signing a memorandum of understanding with the Ministry of the Environment.



Renaissance car sharing (measure 6.2)



Service scenario

- The proposed vehicle fleet is composed of 3 classes of vehicles (city, comfort and cargo car) fuelled by methane, LPG or at least Euro 4 emission standards vehicles.
- The location of car sharing points has been designed to maximize co-modality between public transport systems (including the railway station and Minimetrò stations) and guarantee a high level of user accessibility to the service.
- Hypotheses for technological solutions for vehicles fleet management have been proposed according to good experiences in Italy.
- The proposed tariff structure has been defined in line with policies adopted in other Italian and European cities, including two different profiles (“private” and “business”).



Some forecasted figures

ASSUMPTIONS	Year 1	Year 2	Year 3	Year 4	Year 5
CLIENTS					
Average monthly client growth	15	5	16	14	14
Client growth by year end	180	60	190	168	168
Total clients at end of year	180	240	430	598	766
Average number of clients	90	210	335	514	682
USAGE					
Journeys per month per client	1,3	1,3	1,4	1,5	1,5
Average journey distance	25	30	35	45	45
Average journey duration	3	4	5	6	6
VEHICLES					
Nett vehicle growth	8	2	12	4	5
Total vehicles by year end	8	10	22	26	31
Average number of vehicles	6	9	16	24	28
Average number of clients per vehicle	15	23	21	21	24
Journeys	1.404	3.276	5.628	9.252	12.276
Total kilometers	35.100	98.280	196.980	416.340	552.420
Total hours	4.212	13.104	28.140	55.512	73.656
Number of journeys per day per car	0,6	1,0	1,0	1,1	1,2
Average km per vehicle per year	5.850	10.920	12.311	17.348	19.383
Percentage time utilization (%)	8	17	20	26	30
Average km per client per year	390	468	588	810	810



Economic forecasts

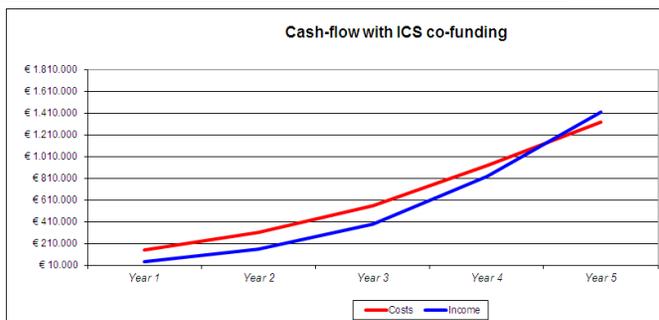
Year	Year 1	Year 2	Year 3	Year 4	Year 5
Income	€ 41.594	€ 111.164	€ 231.429	€ 442.515	€ 587.151
Costs	€ 242.780	€ 233.025	€ 371.508	€ 368.923	€ 405.228
Annual result	-€ 201.186	-€ 121.862	-€ 140.079	€ 73.592	€ 181.923
Cumulative result	-€ 201.186	-€ 323.048	-€ 463.126	-€ 389.534	-€ 207.611

Economic forecast



Year	Year 1	Year 2	Year 3	Year 4	Year 5
Income	€ 41.594	€ 111.164	€ 231.429	€ 442.515	€ 587.151
Costs	€ 146.140	€ 162.705	€ 244.268	€ 368.923	€ 405.228
Annual result	-€ 104.546	-€ 51.542	-€ 12.839	€ 73.592	€ 181.923
Cumulative result	-€ 104.546	-€ 156.088	-€ 168.926	-€ 95.334	€ 86.589

Economic forecast with ICS co-funding



Perugia, 10 Settembre 2010



Preliminary conclusions

- Car sharing is not economically self sustainable in short term.
- Car sharing is recognized as a sustainable model in long run (reduction in average journey distances, in number of private vehicles circulating, in pollution emissions and in urban parking spaces use).
- Start-up upfront public (or PPP) investments needed.
- Car sharing addressed must be “complementary to public transport”.



Support from local partnership requested

- Municipality: to support the service guaranteeing favorable conditions for parking and circulation of the car sharing vehicles in ACZ.
- APM: to guarantee interoperability with the Local Public Transport, the Minimetrò through combined tariffs and tickets and strong intermodal transfer points.
- SIPA: to give access to some dedicated areas in the historic center for picking up and leaving car sharing vehicles.
- To establish complete interoperability with the other car sharing services in Italy and in Europe.



A way to develop further the service

To develop, as evolution of traditional car sharing service, an innovative mode of car sharing use addressed to tourist segment (not systematic users) able to overcome some limitations of existing procedures such as:

- prepaid card valid in all cities which have set-up interoperable car sharing service allowing to have an variable value (€) for service use (e.g. metro card, etc.);
- availability to buy this card online by providing both driving license and credit card data as well as to require interoperability according with city to be visited;
- tariff integration (including economical incentives) of car sharing with tourist supply in cities (es. museum, hotel, cultural heritage areas, etc.) to be promoted by travel agencies;
- development of car sharing parking areas close to main tourist points of interest to increase transport/tourist accessibility.



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