TRAM
Interreg Europe

European Union
European Regional
Development Fund

The TWIST project

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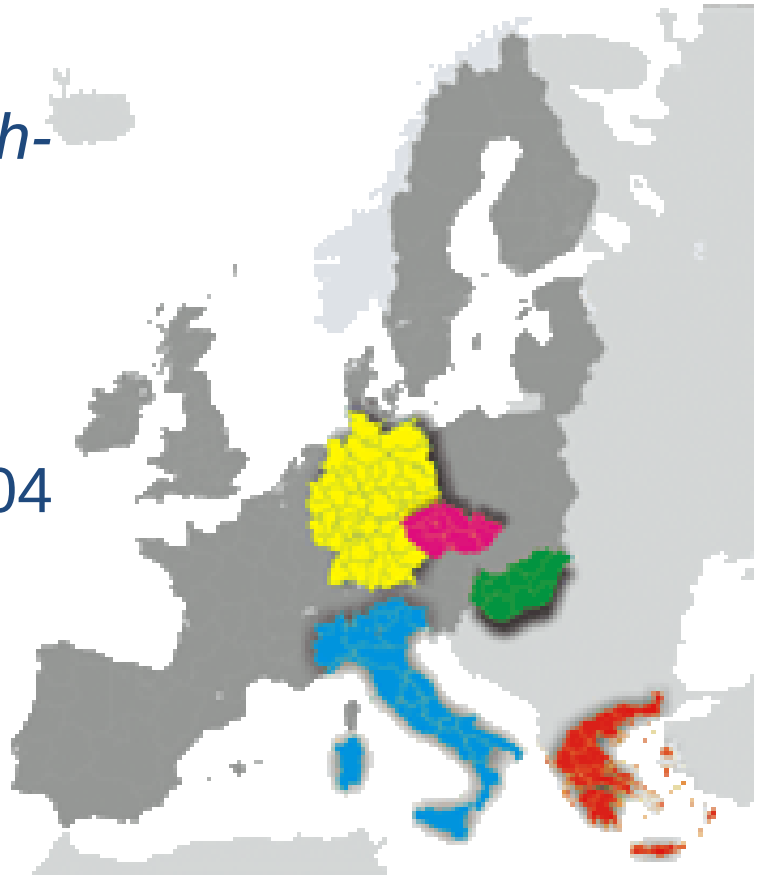
TWIST

Transport **WI**th a **S**ocial **T**arget

INTERREG III B - CADSES
(*Central Adriatic Danubian South-Eastern European Space*)



Starting date: 01st January 2004
Closing date: 30th June 2007
Duration: 42 months
Budget: € 2.059.376,00

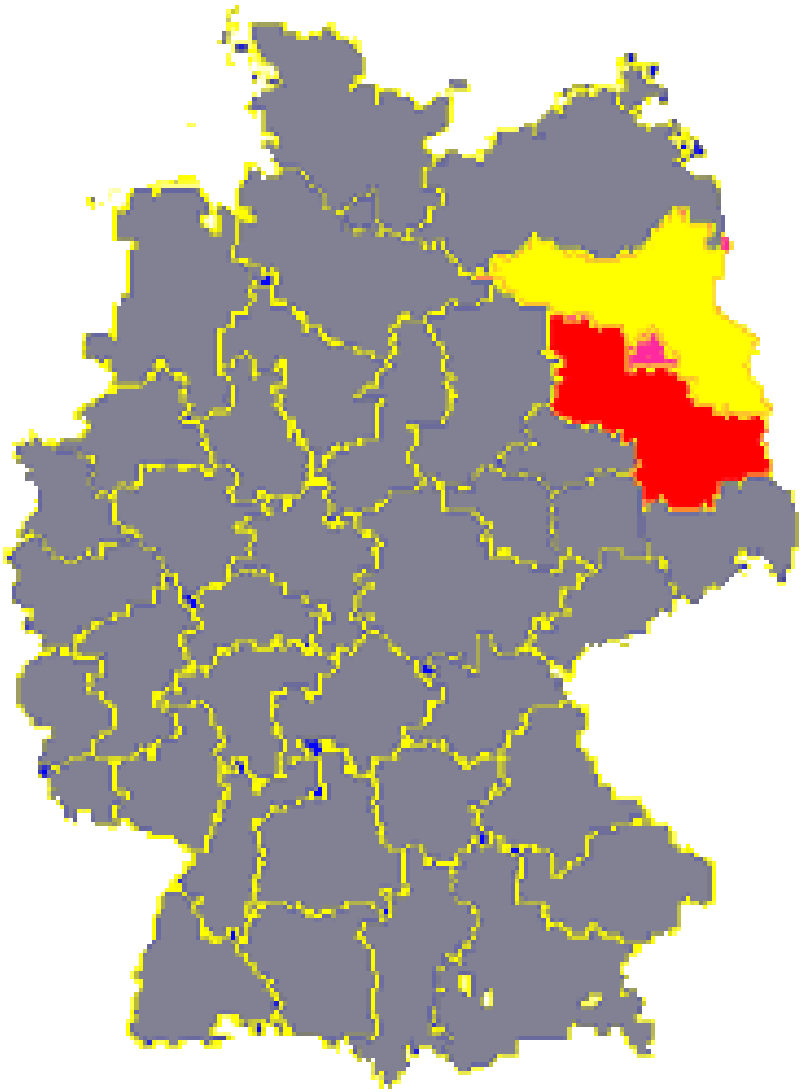
The Partnership

The Partnership

ITALY

ABRUZZO
MARCHE
MOLISE
PUGLIA

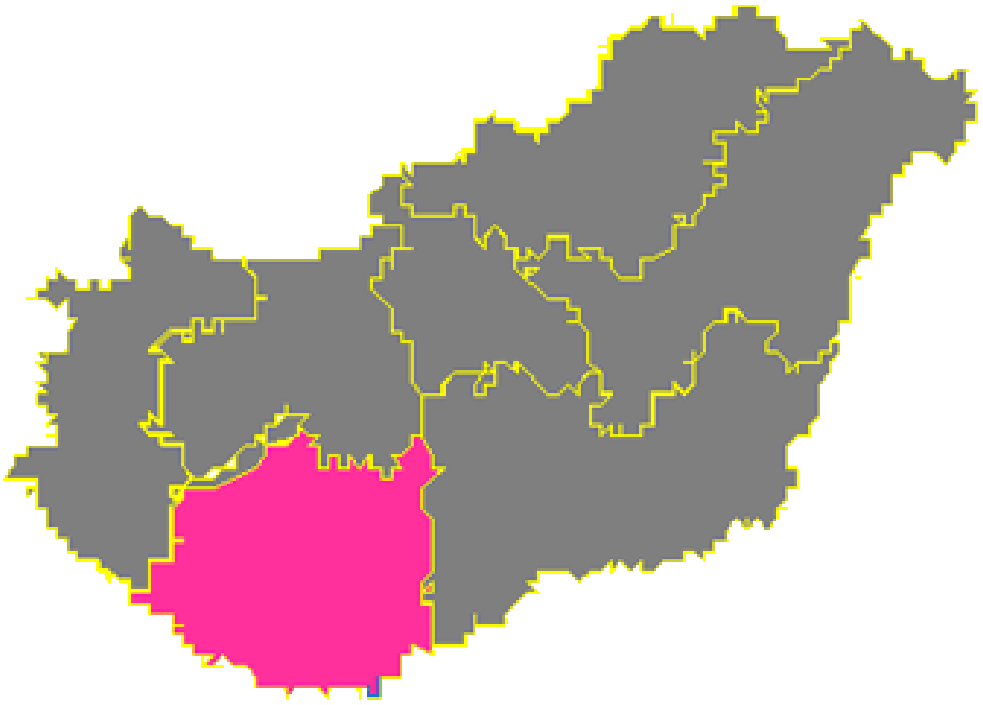
The Partnership



GERMANY

BERLIN
BRANDEBURG

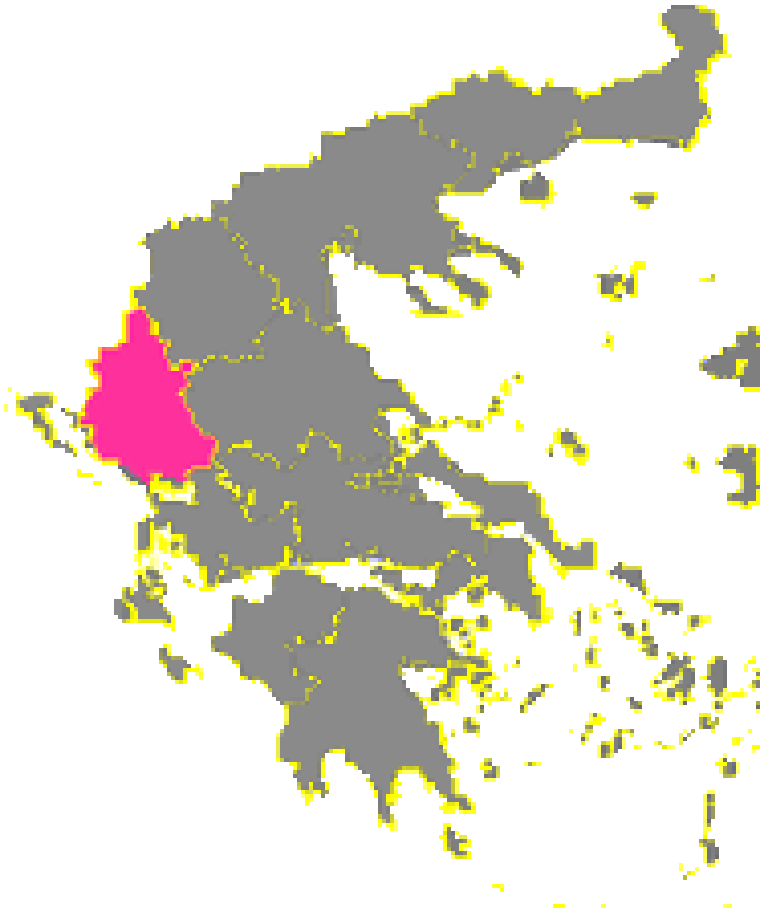
The Partnership



HUNGARY

PECS

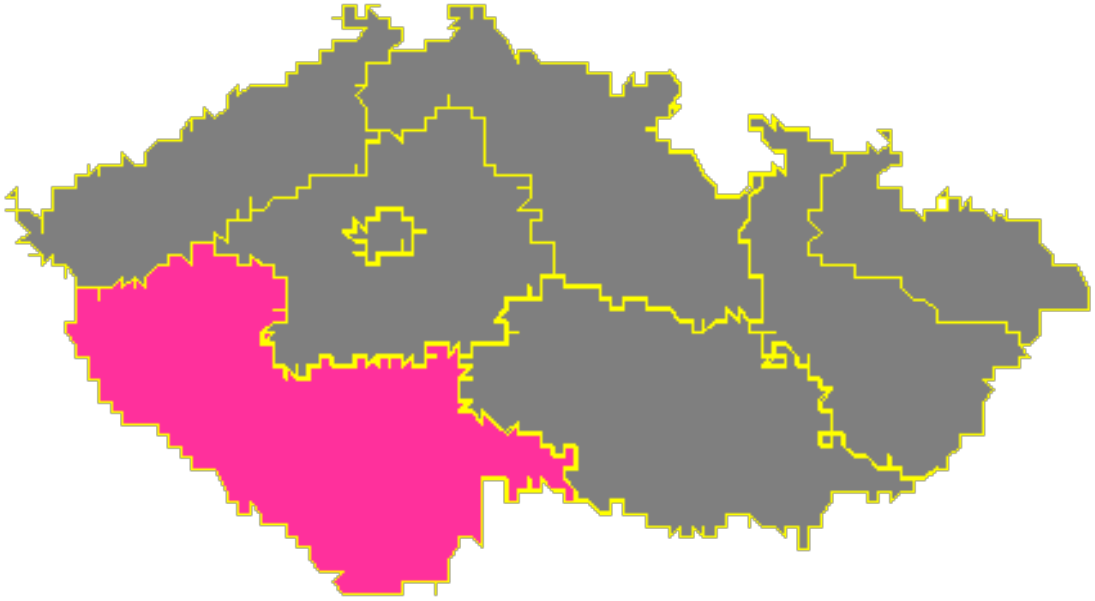
The Partnership



GREECE

PROVINCE OF IANNINA

The Partnership



Czech Republic

Ceske Budejovice

Aims of the project

The project was oriented towards the promotion of the mobility in underprivileged areas by experimenting a Demand ResponsiveTransport (DRT) system.

The project's objective is the encouragement of the mobility of people and goods from remote to urban areas, the promotion of economic and cultural exchanges in the hinterland and the reduction of the social and economic exclusion of the local population.

The reactivation of mobility processes in the areas involved is an essential condition for the economic development especially in the inland (mountain and rural) areas

Target and Beneficiares

The areas of the project are mostly montain areas, with low density population and characterized by weaker social groups (90% of the public transport's users).

These target groups can benefit of an innovative organization of transport services and network development supported by ICT tools

Hidden and unsatisfied transport demand, especially from unprivileged social classes, should and can be satisfied with "non ordinary" managerial solutions offering a more flexible service.

Project Objectives

Analysis of the socio-economic gap between the hinterland (rural and mountain areas) and the urban areas

Re-organization and development of a network of transport services, with the support of Information Technologies aimed at reducing the socio-economical gap between the hinterland (mountain and rural areas) and the urban areas

Razionalization of the cost management

Sustainability

The TWIST project has been implemented in rural and mountainous areas whose infrastructure and service systems were found to be unbalanced.

It was necessary to provide these territories with proper transport and communication facilities capable of satisfying the customer's needs, in accordance with social, economic and environmental sustainability.

The re-organization of the systems of transport and the introduction of innovative local services has promoted the competitiveness of these areas.

DRT Demand Responsive Transport

	CONVENTIONAL BUS TRANSPORT	DEMAND RESPONSIVE TRANSPORT
Advantages	Economies of scale and costs. Predictable service (when operated well).	Freedom of Routing, Timing and Vehicle assignment. Responsive to customer's needs.
Disadvantages	Fixed Route, Schedule and Destinations. "Take it or leave it" offer not adaptable to daily needs. The demand may be insufficient to achieve the necessary level of service.	DRT costs may be higher than Conventional Bus Transport. Acceptable subsidy level and commercial viability is achieved as schemes mature.

Typologies and models of DRT

INTERCHANGE DRT – This DRT system provides links to conventional public transport, such as interchange at a rail station or into a bus route.

NETWORK DRT – This DRT system provides additional services or replace uneconomic services in particular place or time.

DESTINATION-SPECIFIC DRT – This DRT system serves particular destinations such as airports or employment locations.

SUBSTITUTE DRT – This DRT system totally replaces the conventional bus services.

Typologies and models of DRT

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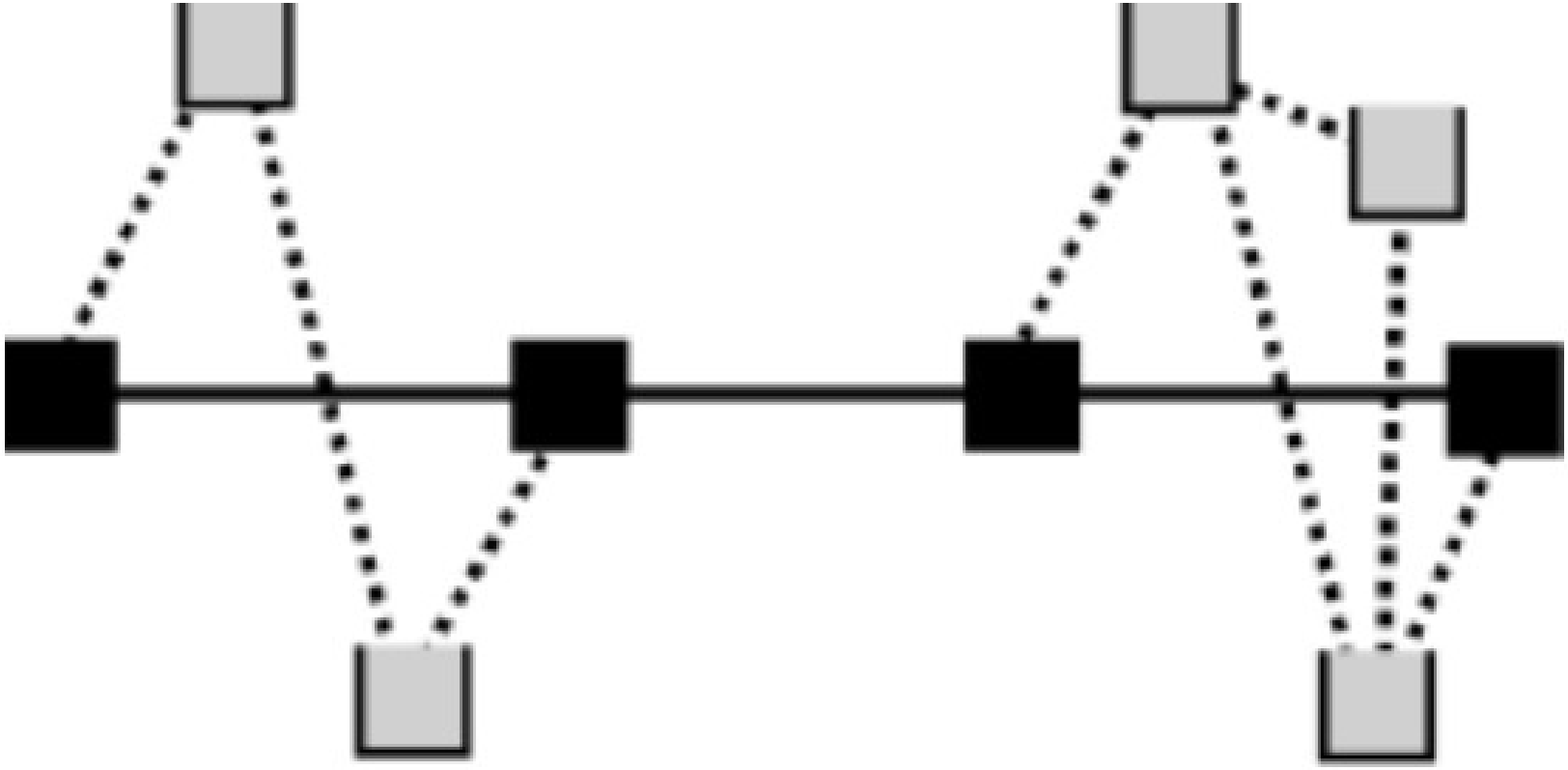
1. Fixed routes and partially fixed timetables

Typologies and models of DRT

TRAM
Interreg Europe

2. Service planned with detours from fixed routes along a corridor



Typologies and models of DRT

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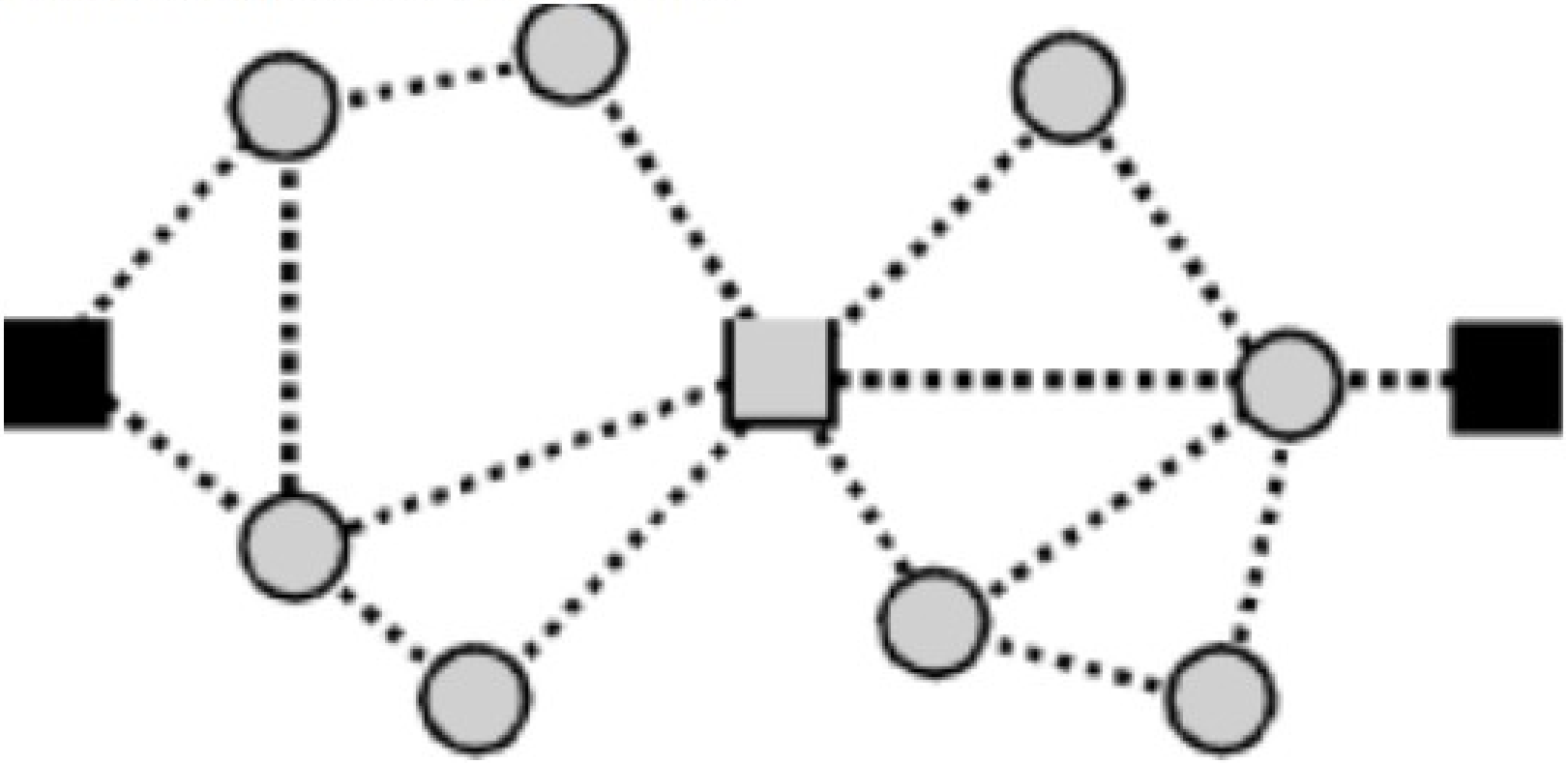
Interreg Europe

3. Fixed stops within a corridor



Typologies and models of DRT

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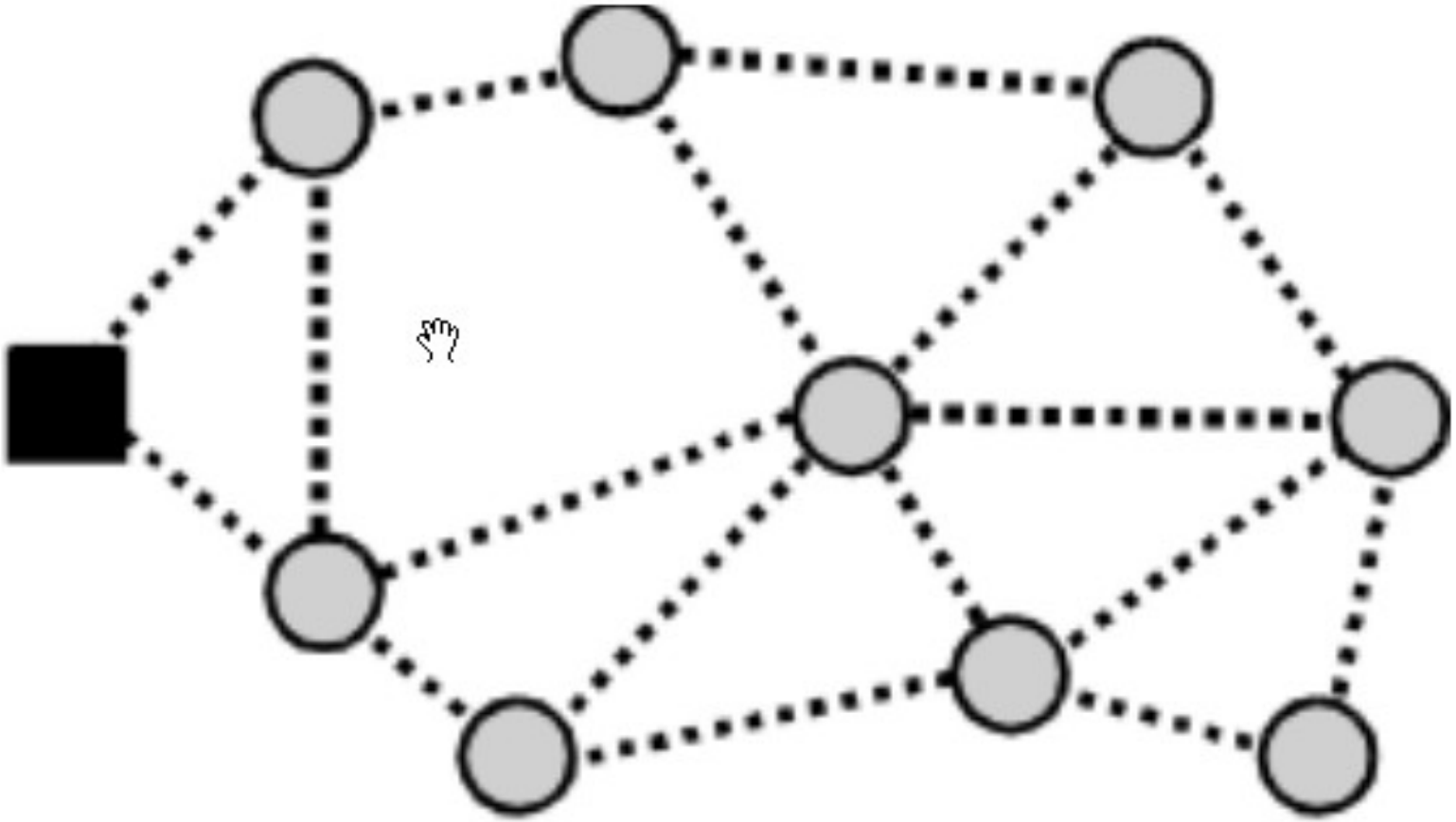
4. Fixed stops within a given area



Typologies and models of DRT

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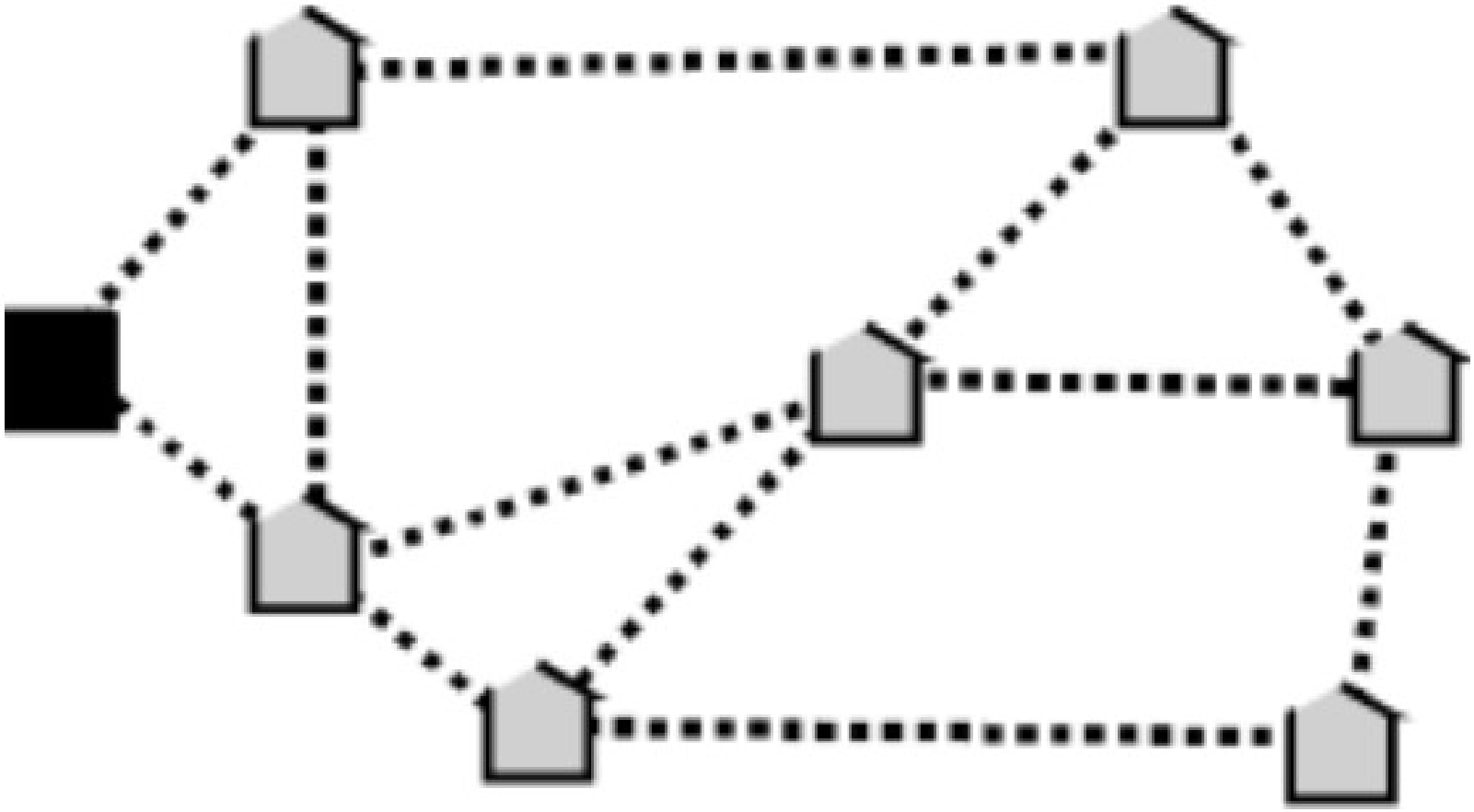
5. Departure points/destinations within a given area

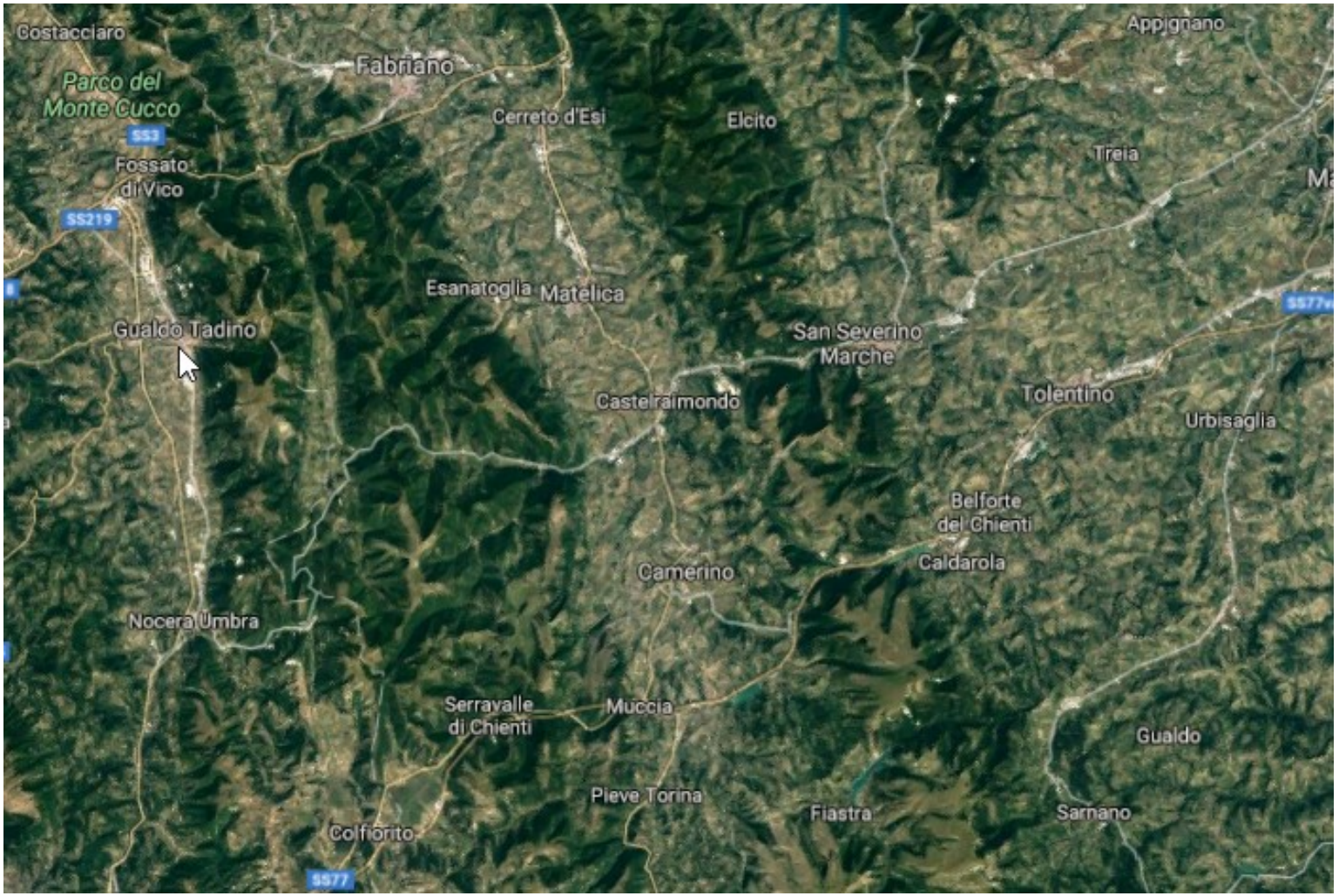


Marche Pilot Projects

The Pilot Project of the Marche Region has been developed along the territories of the Alto Maceratese, including the Mountain Communities of Camerino (high Chienti, Fiastrone and Nera), San Severino (high Valley of Potenza) and San Ginesio (Monti Azzurro).

Marche Pilot Projects

Marche Pilot Projects



Population in the area

Comunità Montana	Population	In mountain Area
Camerino	14,915	14,915
San Ginesio	41,474	25,276
San Severino Marche	43,372	33,947

Population in the area

Population		
City	Population	in Mountain Areas
Acquacanina	137	137
Bolognola	166	166
Camerino	7,313	7,313
Camporotondo di Fiastrone	606	606
Castelraimondo	4,655	4,655
Castelsantangelo sul Nera	366	366
Cessapalombo	563	563
Fiastra	602	602
Fiordimonte	255	255
Monte Cavallo	169	169
Muccia	913	913
Pievebovigliana	880	880
Pieve Torina	1,377	1,377
San Severino Marche	13,048	13,048
Serravalle	1,115	1,115
Ussita	433	449
Visso	1,173	1,173

Population in the area

Population in the area

Population Age					
City	**0-6**	**7-14**	**15-29**	**30-65**	**over 65**
Acquacanina	8	14	9	54	50
Bolognola	7	12	32	69	37
Camerino	287	420	1344	3458	1831
Camporotondo di Fiastrone	50	54	94	273	135
Castelraimondo	236	321	769	2245	1086
Castelsantangelo sul Nera	13	27	41	159	147
Cessapalombo	15	35	105	220	188
Fiastra	28	46	70	256	225
Fiordimonte	9	13	32	111	86
Monte Cavallo	14	4	27	89	56
Muccia	45	70	154	424	238
Pievebovigliana	45	69	132	368	277
Pieve Torina	70	75	237	613	396
San Severino Marche	667	972	2091	6171	3147
Serravalle	41	62	149	469	457
Ussita	16	23	69	198	147
Visso	52	71	194	537	346

The Pilot project

socio-economic analysis of the context;

analysis of the existing experiences;

analysis of the demand for services

Tragitto base	Frequenza giornaliera attuale	Tragitti secondari	Lunghezza tragitto secondario (Km)	Numero corse sostitutive	Giorni di attuale erogazione servizio
Visso - Camerino - Fabriano	4 andate + 4 ritorni	Madonna di Caspreano - Montecavallo	8	4	306
		Casavecchia Alta - Appennino - Valico delle Fornaci	0	6	306
		Valico delle Fornaci - Aschio	10	1	51
		Valico delle Fornaci - Cupi	21	1	51
		Visso - Ponte Chiussita	11	2	204
		Visso - Castel Sant'Angelo	8	4	306
		Visso - Ussita	5	4	306

DRT graph


Serralta
Cesolo
Bivio Rocchetta
Serripola
San Severino
Crispiero
Castelraimondo
Capolapiaggia
Camerino
S.Luca
Sfercia
Camporotondo
Caldarola
Raggiano
Morro
Polverina
Cessapalombo
Fiastra
Acquacanina
Muccia
Pievebovigliana
Bolognola
Pontelatrave
Serravalle di Chienti
Fiordimonte
Pievetorina
Taverne
Nemi
Dignano
Frontignano
Montecavallo
San Martino
Ussita
Visso
Forcella
Castelsantangelo sul Nera
Pontechiussita
Rasenna

Results of the implementation

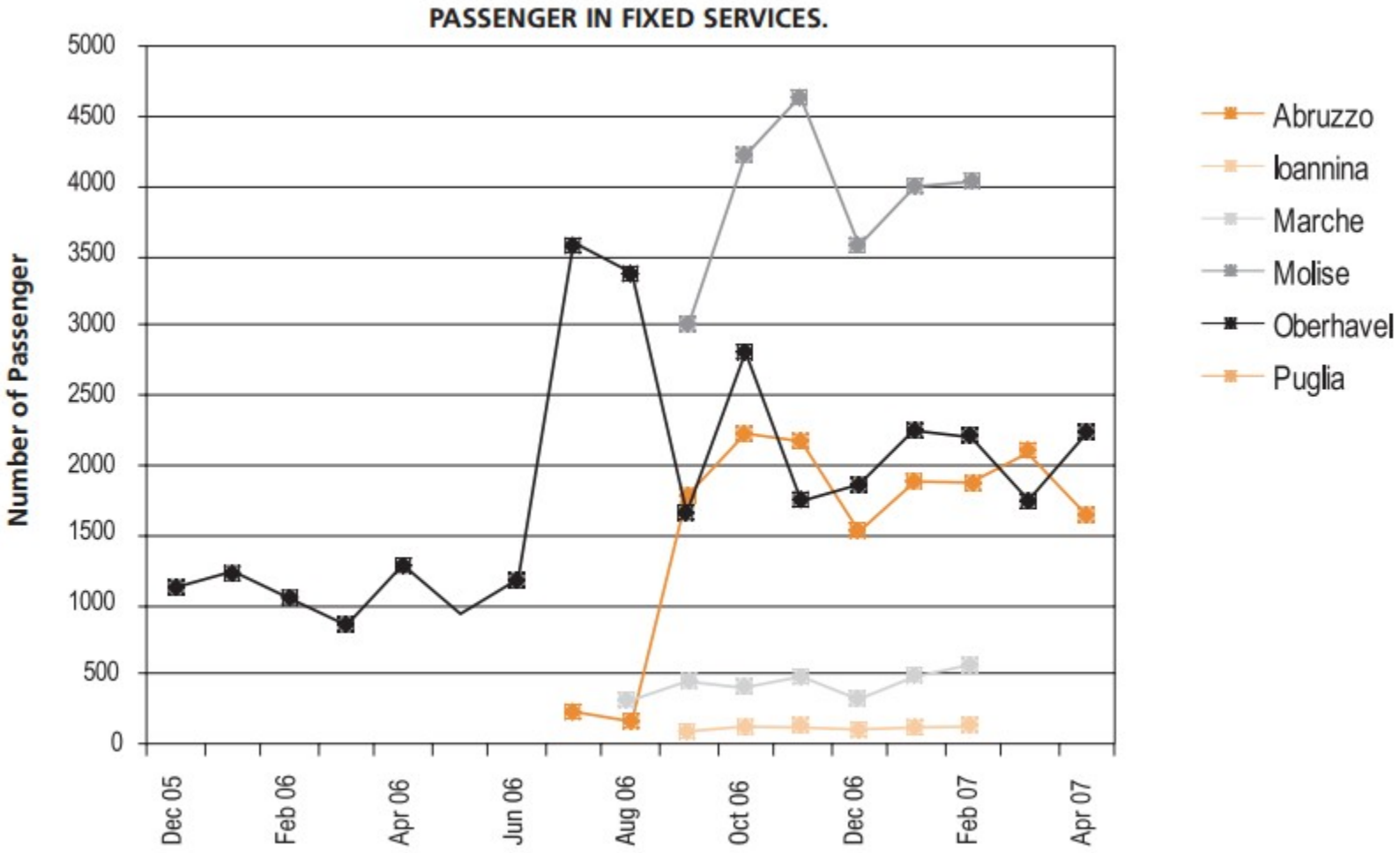
Distances in kilometers by fixed timetable services, from 1/07/2006 to 30/04/2007 = 57,584Km;

Distances in kilometers by on-call services, from1/07/2006 to 30/04/2007 = 17.257Km.

Passengers transported by fixed timetable services, from 1/07/2006 to 30/04/2007 = 15.521;

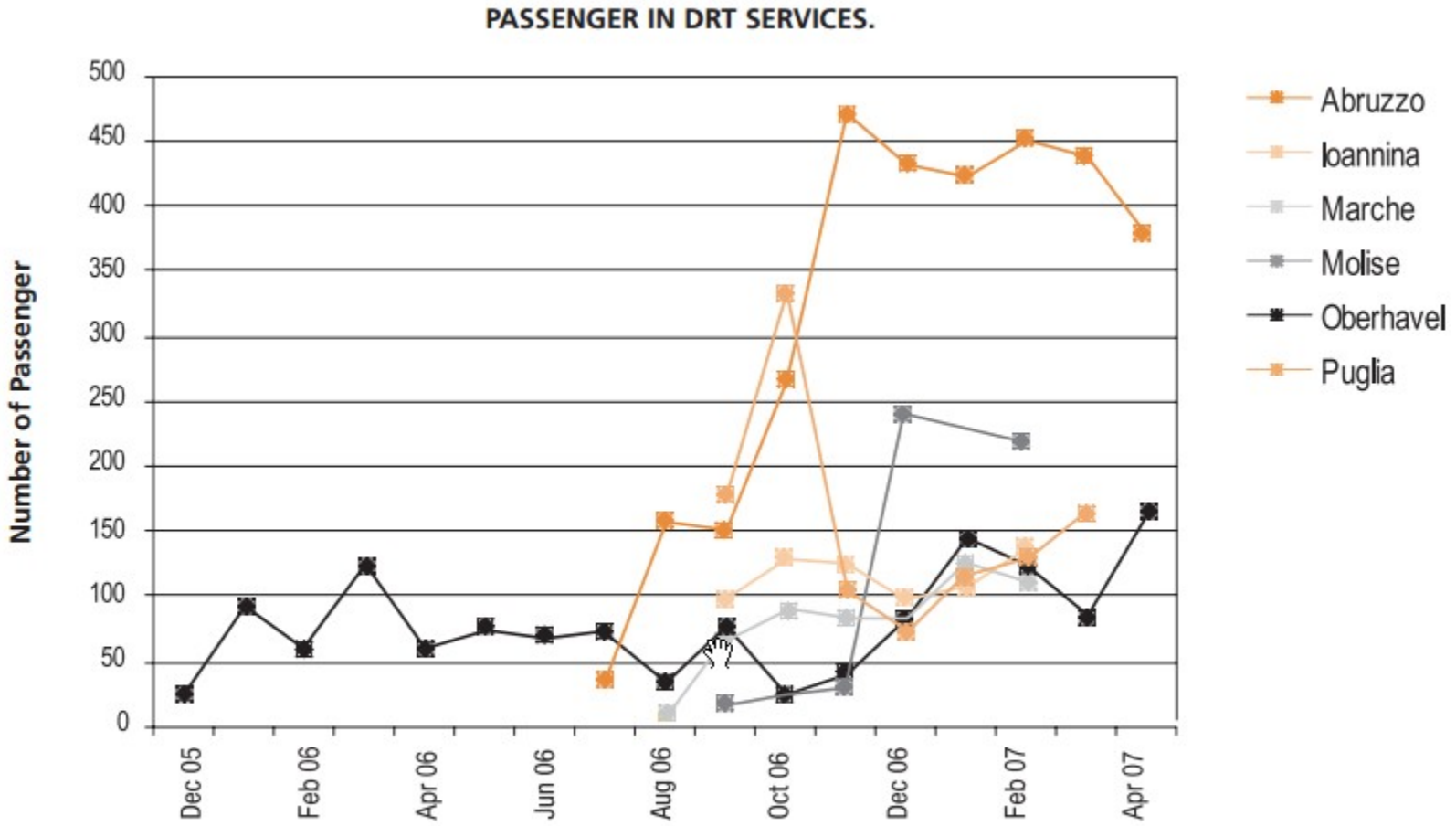
Passengers transported by on-call services, from1/07/2006 to 30/04/2007 = 3.194.

Results of the implementation



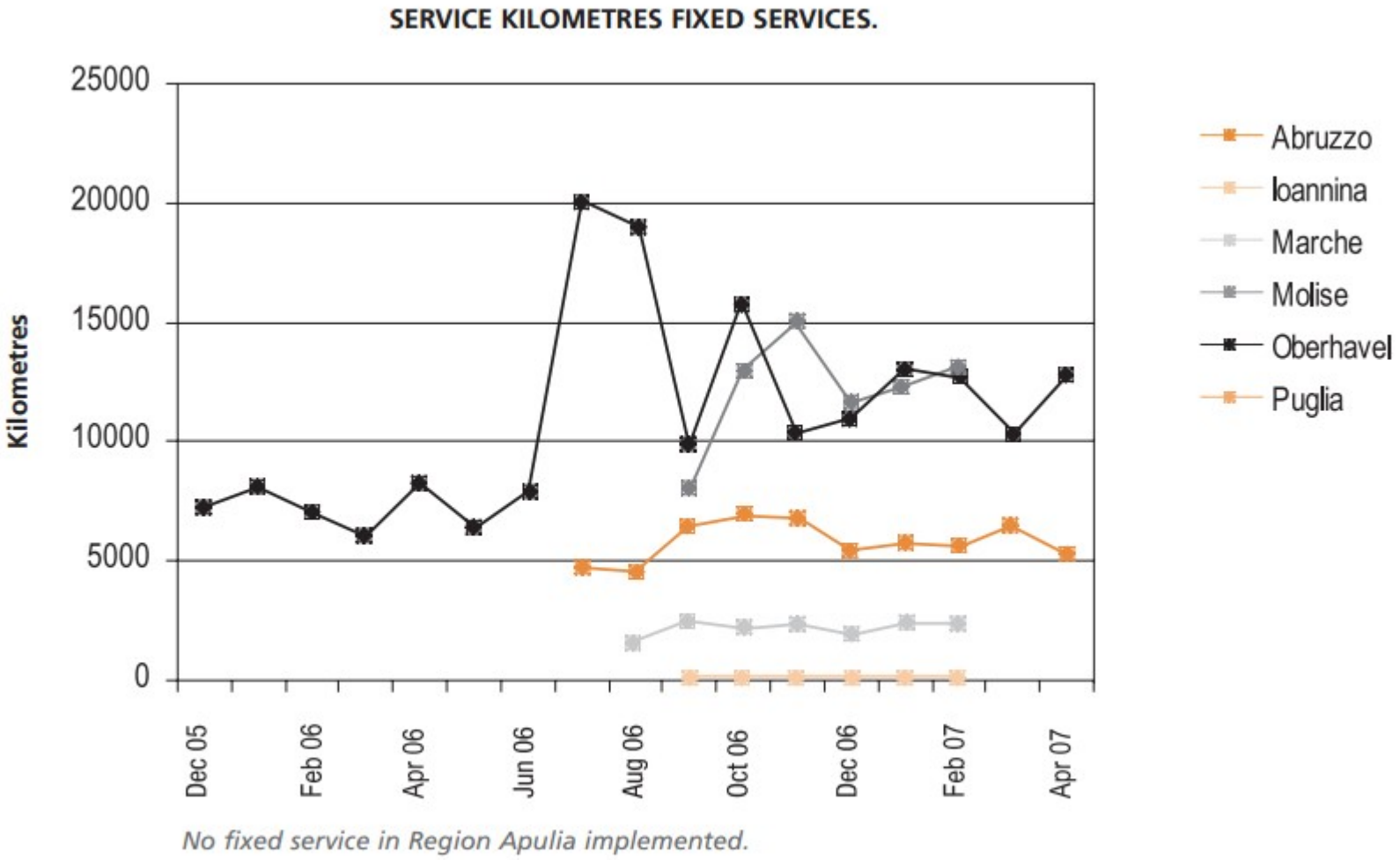
No fixed service in Region Apulia implemented.

Results of the implementation

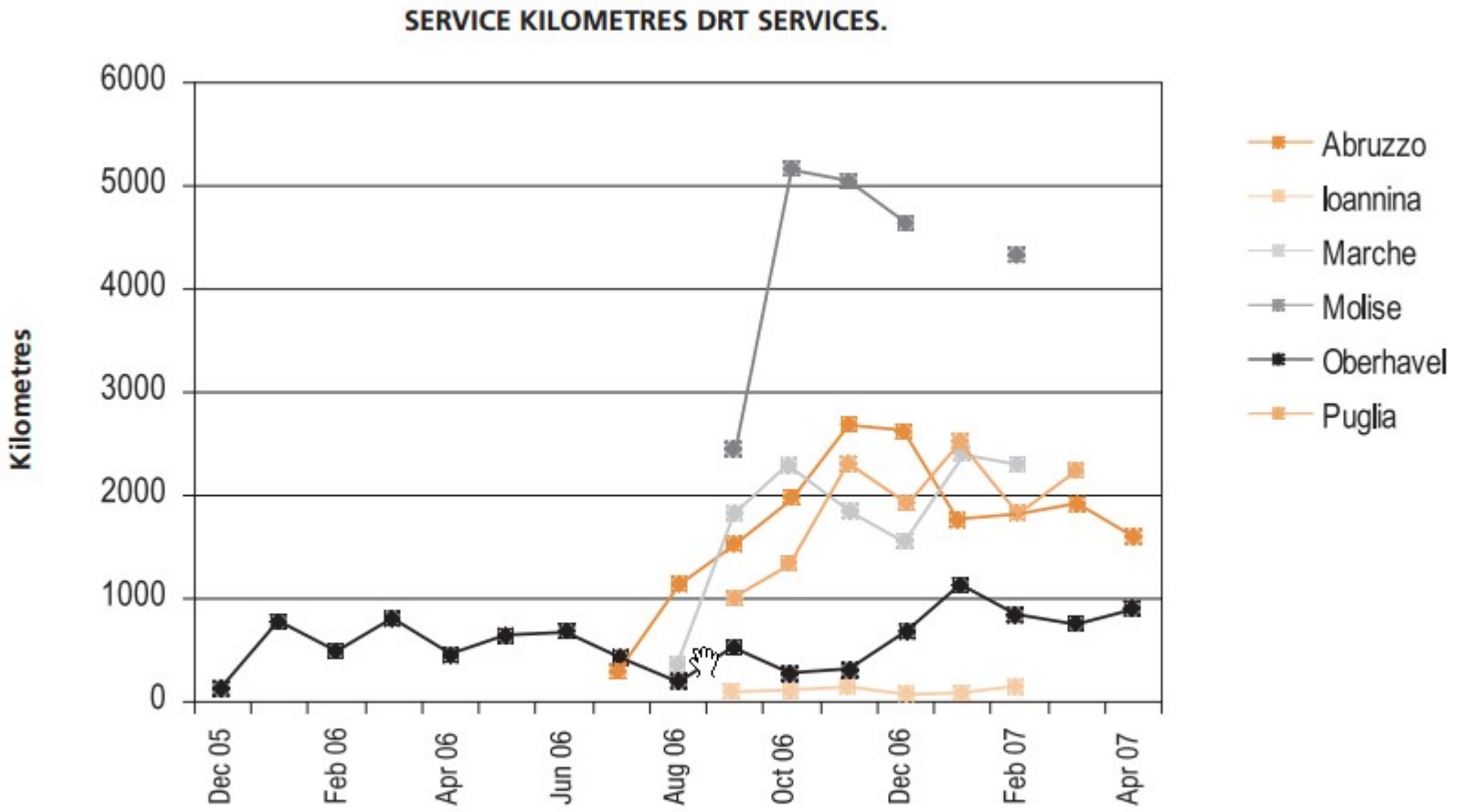


In January 2007 a suspension of the DRT service due to technical problems appeared in Region Molise.

Results of the implementation



Results of the implementation



In January 2007 a suspension of the DRT service due to technical problems appeared in Region Molise.

Conclusions

Demand Responsive Transport systems can improve the quality of life of people living in remote areas

Decision Makers benefit of the pilot programs in order to identify specific actions and transport systems

In planning and providing a DRT service a new actor plays a role of coordination of the resources already present in the local transportation companies (buses, drivers, depots, offices): ICT

ICT tools, Infomobility and DRT can make evident hidden or latent requests of mobility.