



Air//Rail 2011

Italian Airports and Intermodality

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GENERAL CONSIDERATIONS

- ➔ In the past years air transport was meant to satisfy a medium-high passenger target
- ➔ Today air transport has evolved to satisfy massive demand and a different customer target thanks to:
 - ➔ *Liberalization of air market within EU boundaries*
 - ➔ *Open skies and other traffic agreement*
 - ➔ *Birth and development of low-cost and low-fare operators*
- ➔ Airports are not the final travel destination but a transport infrastructure that need to be connected to the city that they serve
- ➔ Nowadays there is a need for an integrated transport system to ensure wider coverage of territory

ACCESSIBILITY



- A fundamental issue for the establishment of comprehensive performance level of air transport



Accessibility directly determines the enlargement of airport catchment area, improving the connection with cities and the socio-economic benefits for the referenced urban area

- Choice for better modal integration shall take into due account sustainability aspects, economics and environment



Typically rail vs roads



ACCESSIBILITY

Pro's and con's of alternatives

→ Roads

- Basic connection for any airport
- More flexible (*door to door concept*)
- Uncertainty for connection timing
- More cost per travel
- More environmental impact
- Saturation of road network

→ Rail

- Efficient /Reliable
- High cost
- Moderate environmental impact
- Reduction on connection timing
- Reduction of needs for parking lots at airports and better use of land



AIR – RAIL

Competition Vs Complementarity

- Replacement of aerial connections with high quality rail connections (High speed trains) for close destinations (less than 500 km ca.)
- Direct connection between airplane and high speed train
- Economic value for customers (competition between different transportation modes)
- Flexible use of transportation modes within a global network



European trends for intermodality

- ➔ **Global approach to network**
- ➔ **Establishment of the new TEN-T network**
- ➔ **Air-rail interactions as qualifying factor for airports**
- ➔ **Core Network**

Fiumicino and Malpensa shall be provided with high speed rail connection by 2050

Venice airport could benefit from having railway station of the planned High speed train at airport and viceversa rail will benefit from the airport traffic in offering qualified services to and from airport.



Italian scenario

➔ The Italian airport network and other European countries

Paese	Superf.	Popolaz. (2008)	Traffico (2008)	Aeroporti aperti al traffico comm.	Rapporto Abitanti aeroporto	Densità territoriale aeroporti
	Kmq	Mil. abit.	Mil. pax	n.	Mil. abit/apt	Kmq/apt
ITALIA	301.338	60,04	133,00	47	1,27	6.400
GERMANIA	357.000	82,00	185,72	40	2,05	8.900
SPAGNA	505.000	45,82	203,86	48	0,95	10.500
FRANCIA	675.000	64,35	147,80	87	0,73	7.700
REGNO UNITO	230.000	61,63	234,93	58	1,06	3.600
PAESI BASSI	41.500	16,48	50,41	16	1,03	2.593
DANIMARCA	43.100	5,51	24,62	33	0,16	1.300



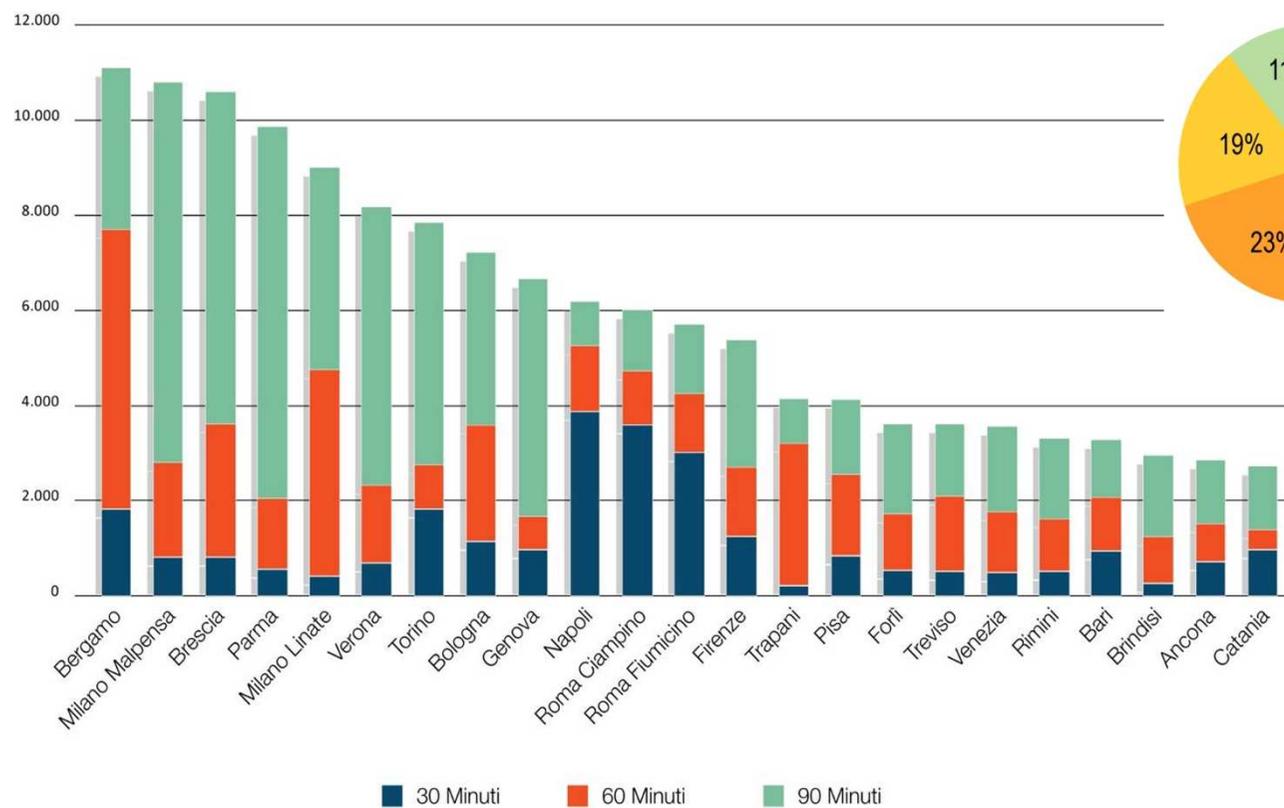
Italian scenario

- ✈ **Most of the airports are in the proximity of cities they serve: 50% is within 5 km, 40% is within 15 km**
- ✈ **Time to reach airports in many cases are excessive due to local traffic levels or impaired by poor road system**
- ✈ **For airports like Roma Fiumicino e Palermo, quite far from the city, accessibility is heavily impacted by traffic generated by metropolitan conurbation. Infrastructures connecting Malpensa e Fiumicino airports to cities and territories of their catchment area are not coherent with the role played by these airport.**

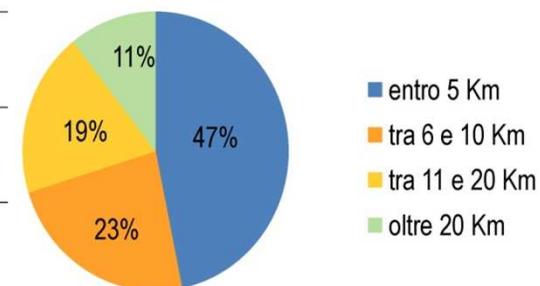


Italian scenario

Population reached by road per time intervals



City distance

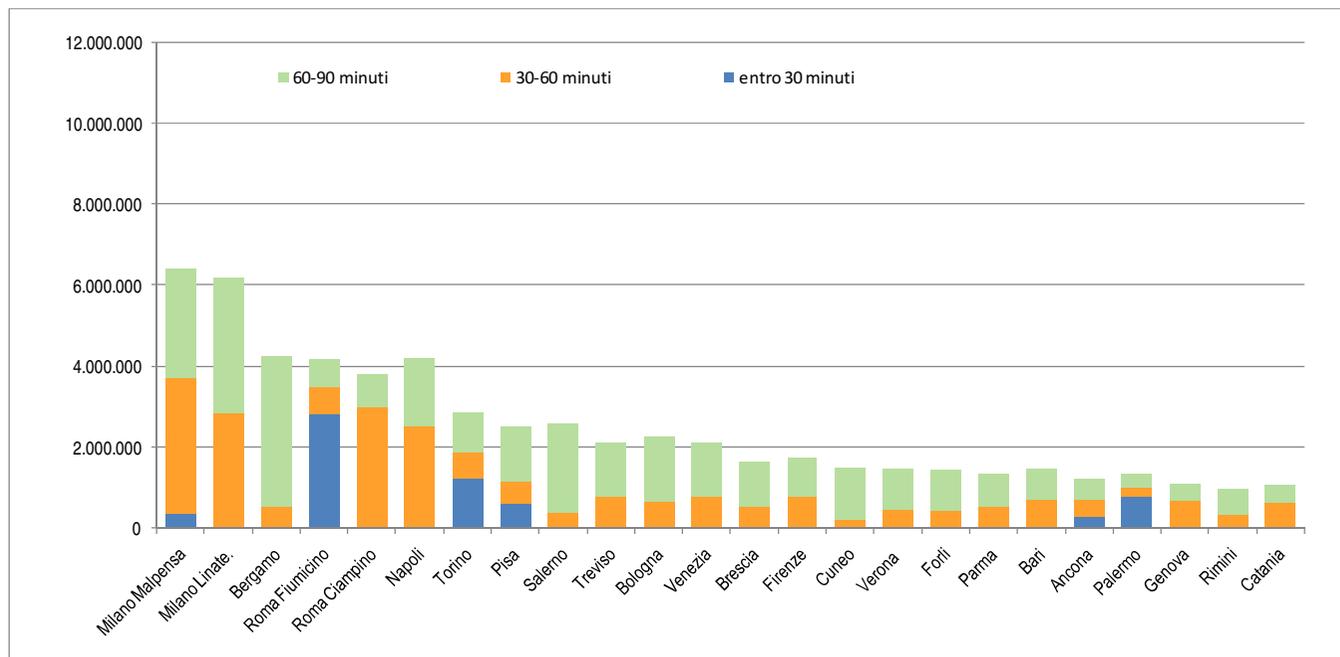




Italian scenario

- ✈ **Poor level of intermodality, only 6 airports connected by rail, with inadequate level of service in terms of quality and scheduled frequency**

Population reached by rail per time intervals





Italian scenario

Collegamento ferroviario esistente	Collegamento su ferro in corso	Collegamento su ferro in progetto	Collegamento su ferro programmato
Roma Fiumicino	Cagliari	Venezia (regionale e A.V.)	Bergamo
Milano Malpensa	Bari (metropolitana)	Brindisi	Genova
Torino Caselle	Bologna (People mover)	Catania (Metropolitana)	Lamezia Terme
Pisa	Napoli (Metropolitana)	Milano Linate (metropolitana)	Alghero
Palermo			Verona
Ancona			Trapani



Italian scenario

- Strategic study supporting the development of national airport network envisages that air transportation will face a growth that could bring to double passenger number from 139 Mil. Pax (2010) to almost 270 Mil. Pax by 2030 . This will stress the system but also constitute a big opportunity to strengthen our transportation network if we are able to

