

1st City-Industry-Summit TROLLEY
21st October 2010, Parma

RESULTS OF THE SURVEY:
“TROLLEYBUS SYSTEMS IN ITALY”



WHO WE ARE

ASSTRA was born the 1st January 2001 from the combination of two associations that practised the profession for over 50 years.

FENIT
*Federazione
Nazionale
Imprese
Trasporti*

By 1946



By 1947

Is the National Association of Local Public Transport in Italy

ASSTRA represents a network of more than 200 companies running not only urban and suburban public transport services on:

- buses,
- tramway,
- trolleybuses,
- metropolitan railway,
- light rail (Except those operated by Trenitalia S.p.A.),
- waterborne transport,
- tourist and school services,
- parking areas,
- towing away of vehicles.

WHAT IT DOES

Acts to create awareness of policy-makers and public opinion on the social, economical and environmental role of local public transport according to the principles of sustainable development.



Offers its members a wide spectrum of services such as legal, economic-financial and tax advice along with counselling in matters relating to trade unions, insurance, railways and technological progress.

Represents the interest of its members in front of governmental authorities, policy-makers, Trade Unions, economical, political and social organizations, both national, European and international.

THE PRINCIPAL ASSTRA DATA

THE PRINCIPAL ASSTRA DATA	
Associate members	205
Quotes of market urban transport	95%
Quotes of market extra-urban transport	75%
Public Transport Fleet	35.000
Regional Common	830 trains
Net extent	210.000 km
Produced kilometers	1,65 billion
Employeds	100.000
Served councils	5.000
Passengers per year	5,2 billion
Turnover	9 billion €

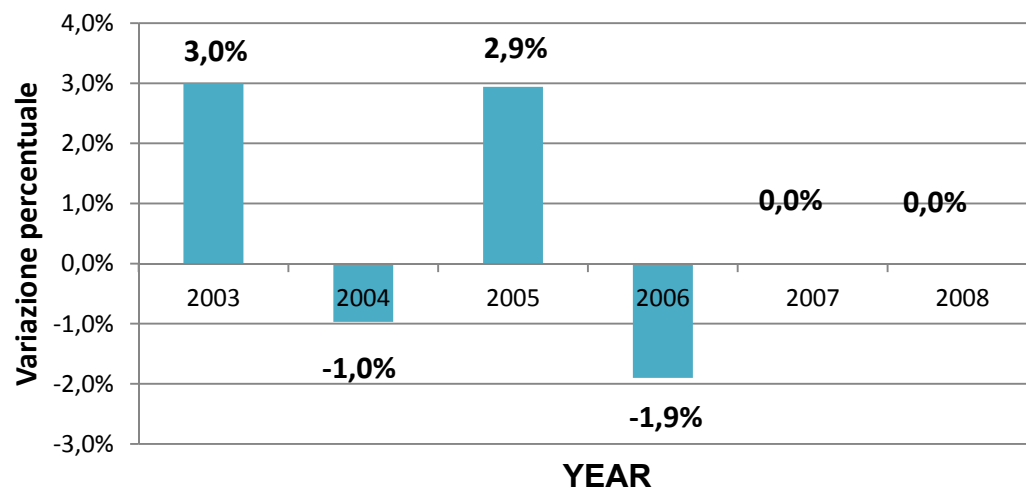
[Source: ASSTRA, Yearbook Year 2008]

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THE OFFER OF VEHICLES OF PUBLIC LOCAL TRANSPORT

TYPE PARK	N. CARRIAGES	SOURCE
Bus	34.375	ASSTRA (2006)
Trolleybus	437	ASSTRA
Tram	957	CNT 2006-07
Underground	1.298	CNT 2006-07
TOTAL	35.700	



FLEET DYNAMICS
(2003-2008, percentage change)

ASSTRA presents the results of the survey 'TROLLEYBUS SYSTEMS' aimed at painting a picture of the Italian situation referred to 2009.



➤ **Sample :**
13 Companies, i.e. **100%** of the entire universe

➤ **Population:**
ASSTRA Universe
(13 Filobus Companies)



Invia al Servizio Innovazioni Tecnologiche (fax: 06/69603555; amitrano@asstra.it)



**QUESTIONARIO
"SISTEMI FILOVIARI"**

RICHIESTA CHIARIMENTI

Nel caso di incertezze o difficoltà nella compilazione della rilevazione, le imprese potranno rivolgersi al Servizio Innovazioni Tecnologiche.

Ing. Nadia Amitrano
Servizio Innovazioni Tecnologiche
Tel. 06 69603572
Fax. 06 69603555
E-Mail: amitrano@asstra.it

Si informano le Aziende Associate, che tutti i questionari pervenuti saranno conservati e utilizzati da ASSTRA nel rispetto delle norme sulla privacy. I dati raccolti saranno trattati in forma anonima, e l'esito dell'indagine sarà presentato attraverso un'elaborazione aggregata dalla quale non sarà assolutamente possibile risalire al singolo caso specifico.

Azienda: Città:

Responsabile Aziendale della compilazione della rilevazione

Servizio:

Nome: Cognome:

Telefono: Fax:

Cellulare: E-Mail:

Autorizzo il trattamento dei dati ai sensi del D.Lgs. 196/2003 (firma)

1/8

THE COMPANIES

CITY/COMPANY
ANCONA/CONEROBUS
CAGLIARI/CTM
GENOVA/AMT
IMPERIA/RT
LA SPEZIA/ATC
MILANO/ATM
MODENA/ATCM
NAPOLI/ANM
NAPOLI/CTP
PARMA/TEP
RIMINI/TS
ROMA/ATAC-TRAMBUS



THE QUESTIONNAIRE

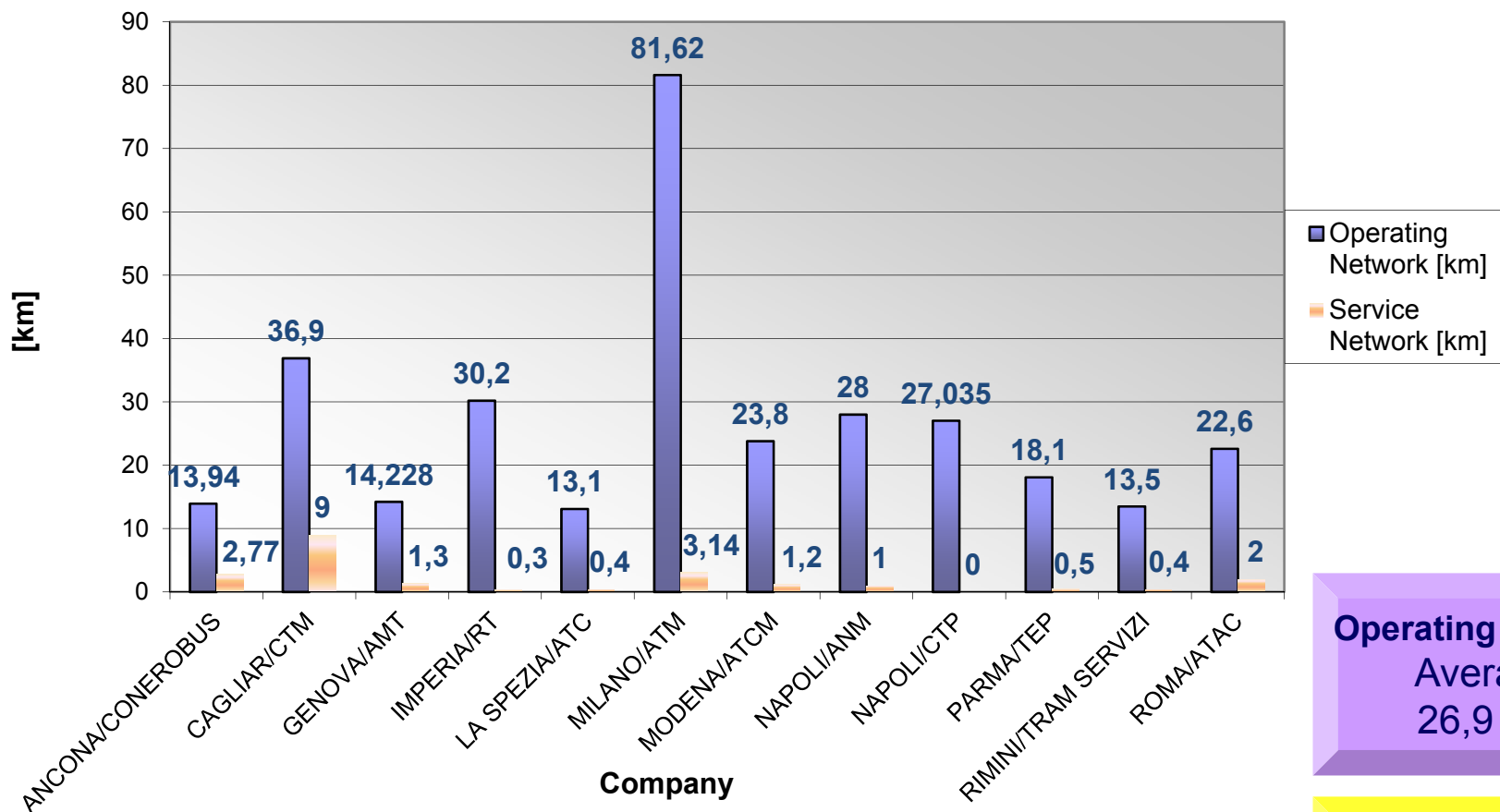
- SECT. 1: GENERAL INFORMATION
- SECT. 2: VEHICLE
- SECT. 3: FIXED INSTALLATION
- SECT. 4: POSSIBLE DEVELOPMENTS

SECTION 1

GENERAL INFORMATION



TROLLEYBUS NETWORK



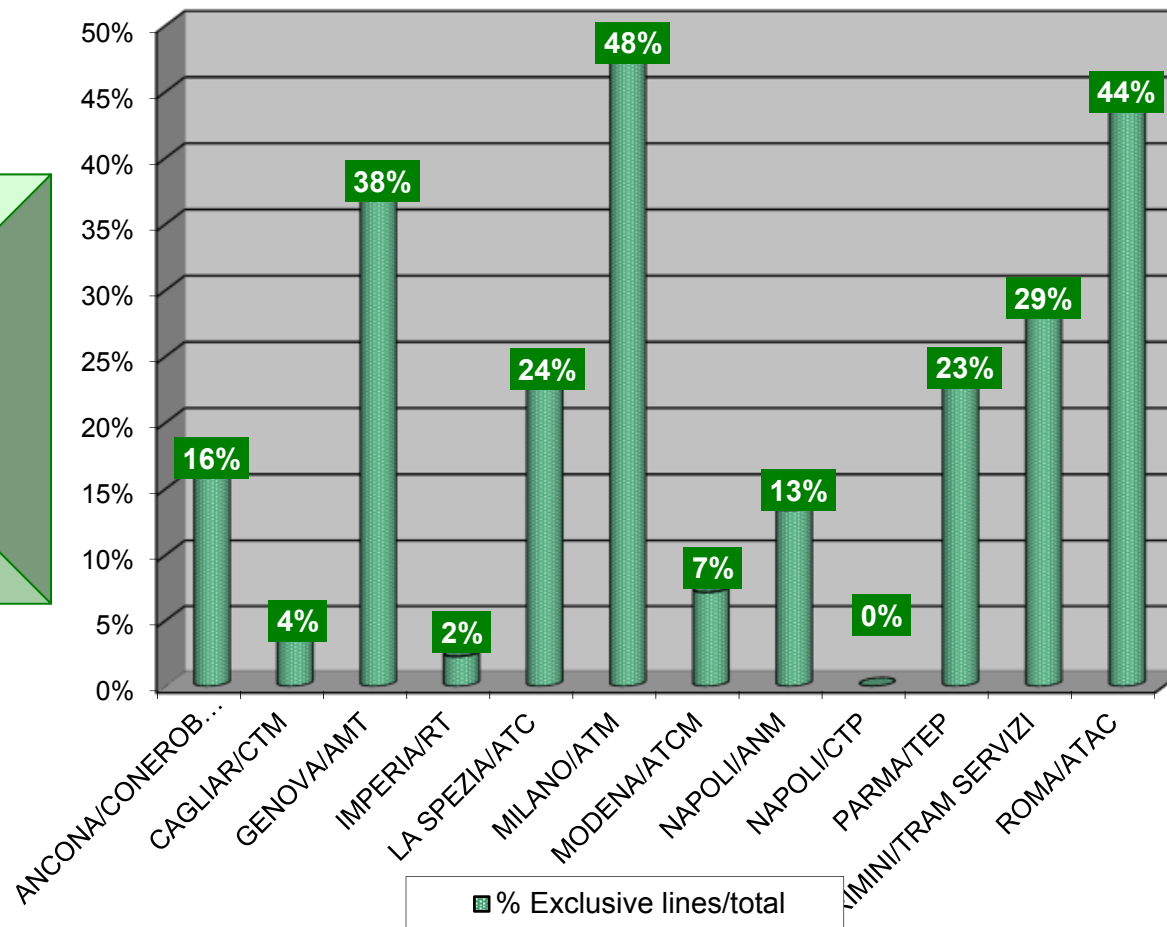
Operating Network
Average
26,9 km

Service Network
Average
1,83 km

The diagram shows for each transport company the length of the operating and service networks. The service networks exist in 11 companies.

EXCLUSIVE LANES [kms]

% of exclusive
lanes/total lanes
23%
(average
value)



The diagram points out the low number of exclusive lanes for trolleybuses expressed in kms. Indeed, exclusive lanes amounts to 23% of the entire network (except for ATM Milan, and ATAC Rome that exceed 40%).

TOTAL: 30 OPERATED LINES



TRAVELLER/YEAR
(Mean Value)
5.410.643

**Incremento
2007-2008**

16%

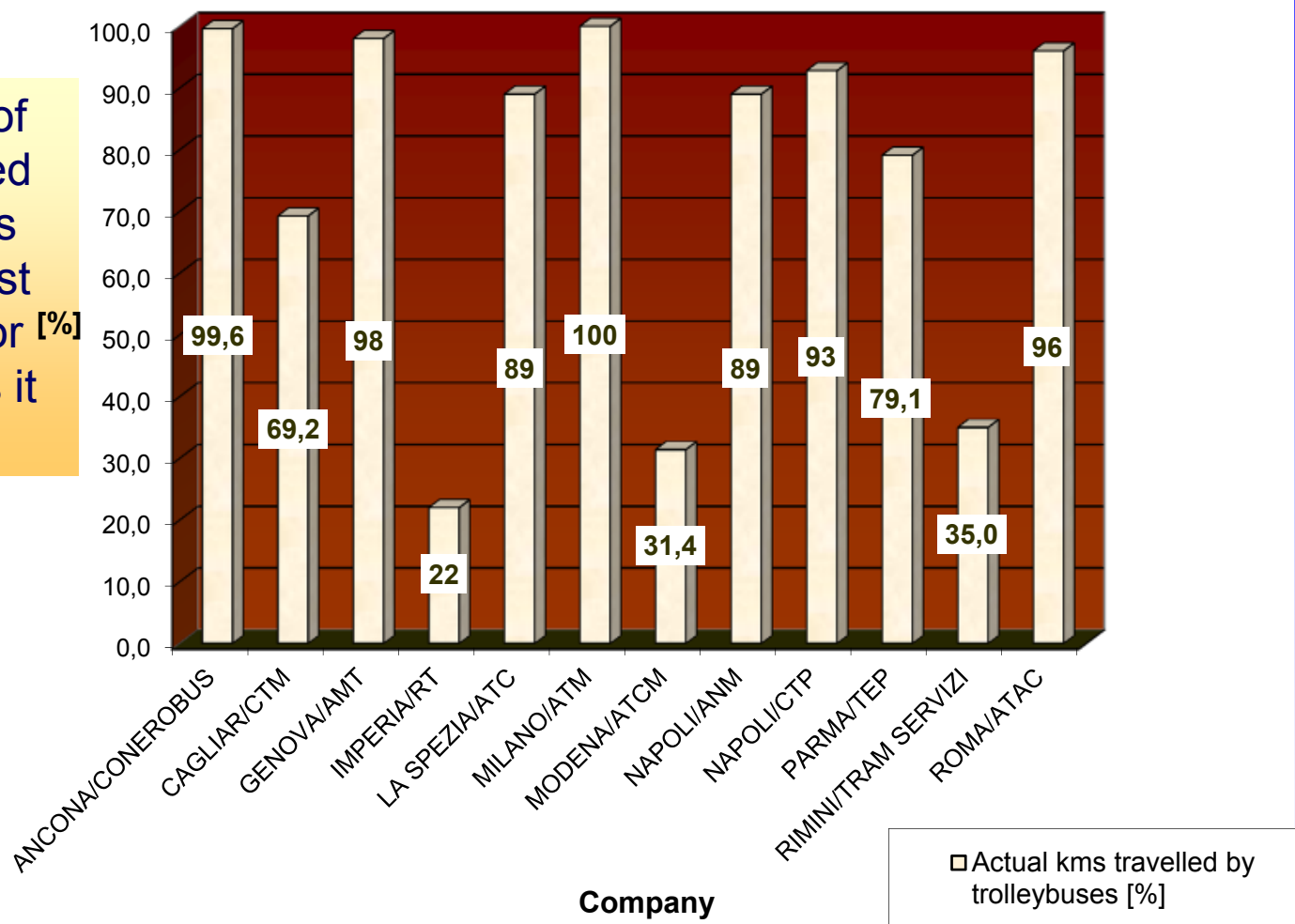
NO. STOPS
1179
MIDDLE DISTANCE
265 m

**ATAC ROMA
EXSPRESS LINE
MIDDLE DISTANCE**
750 m



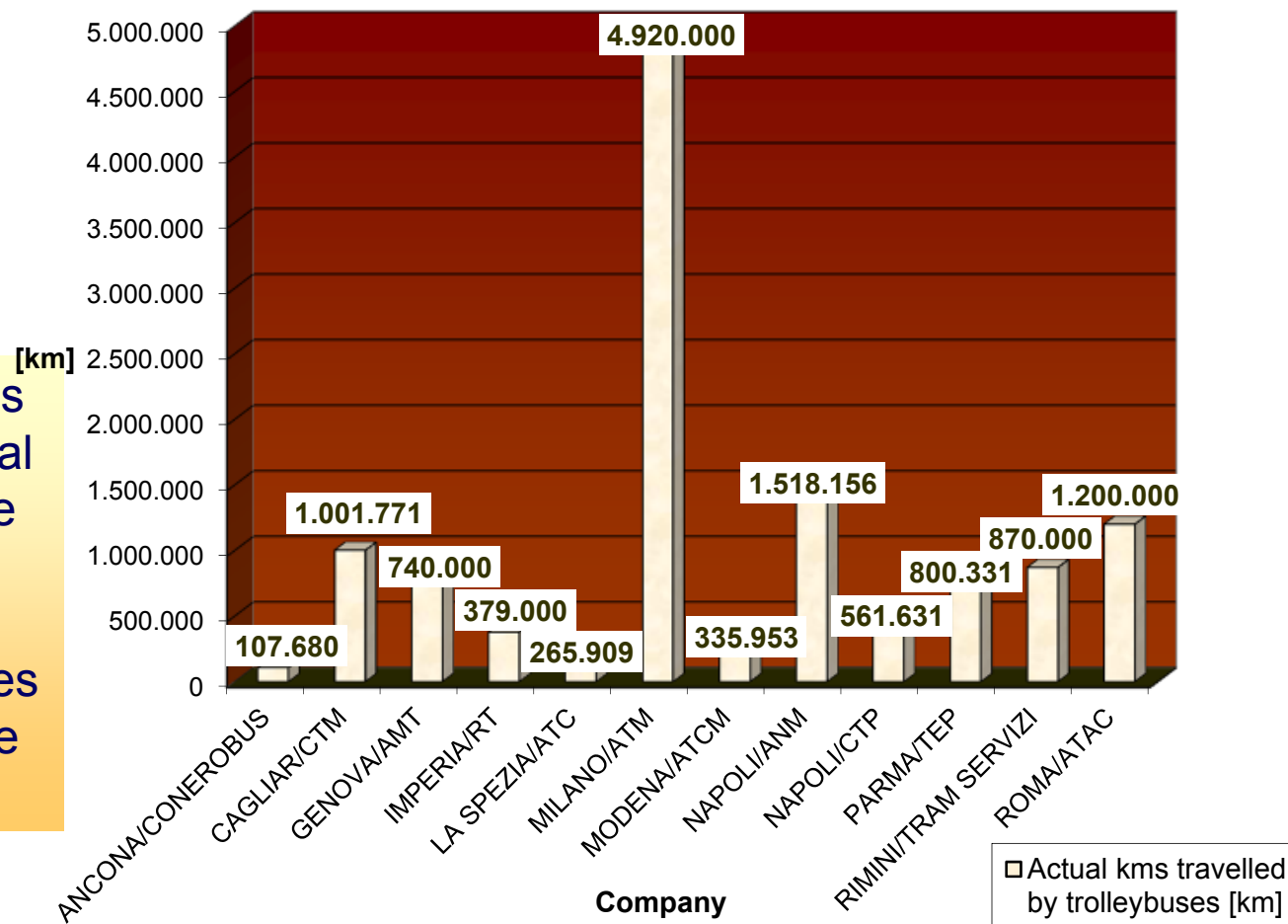
PERCENTAGE OF ACTUAL KM TRAVELLED BY TROLLEYBUSES [%]

The percentage of actual km travelled by trolleybuses is rather high in most cases. Indeed, for only 3 companies it lies below 40%.



ACTUAL KMS TRAVELLED BY TROLLEYBUSES [km]

The diagram shows the number of actual km travelled in one year (2008). Please note that almost all companies operate the service all year round.



TROLLEYBUS SERVICE DURATION:

- 92% of companies: ALL YEAR ROUND
- 8% of companies: ON SCHOOLDAYS

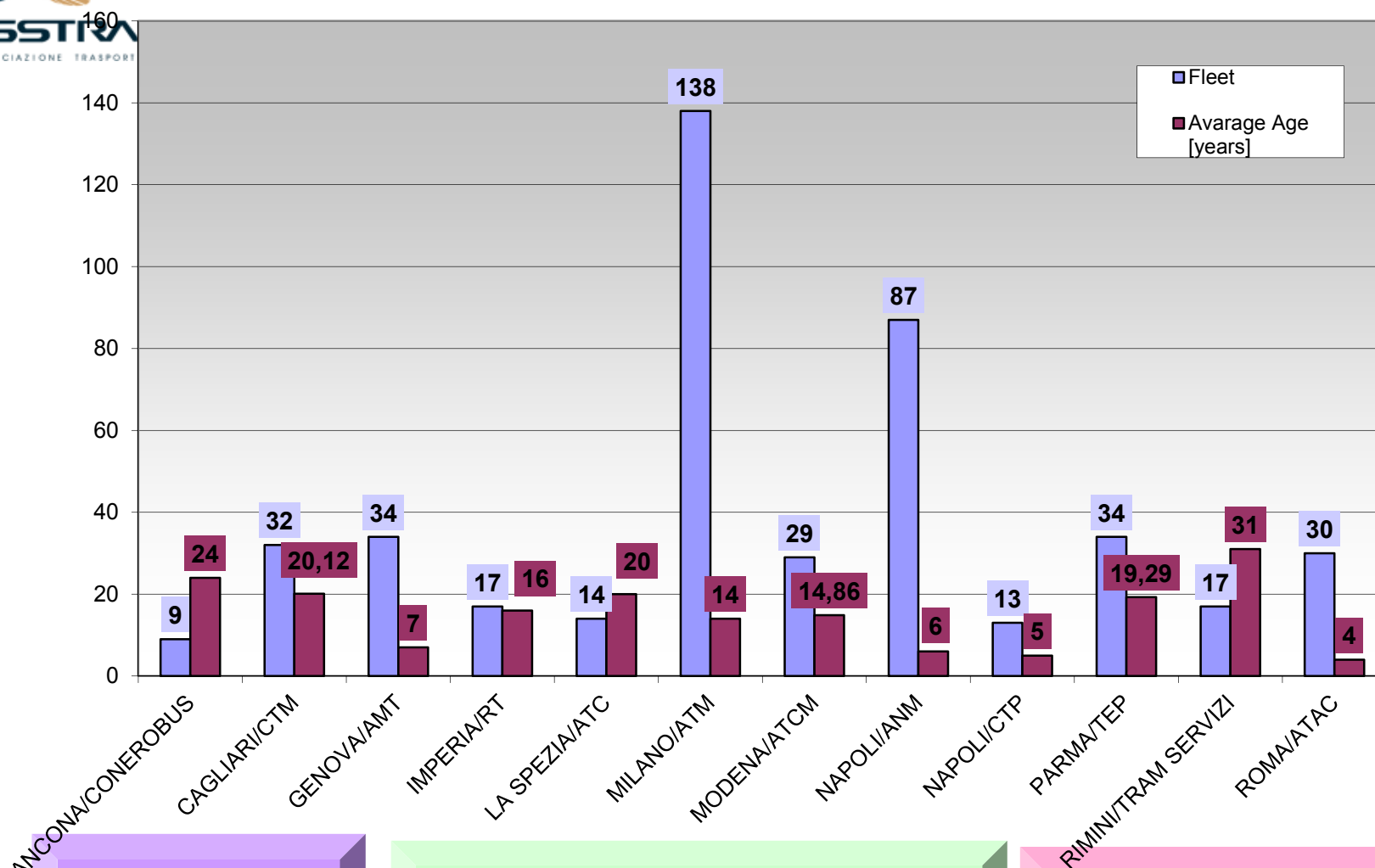


SECTION 2

VEHICLE



FLEET/AVARAGE AGE

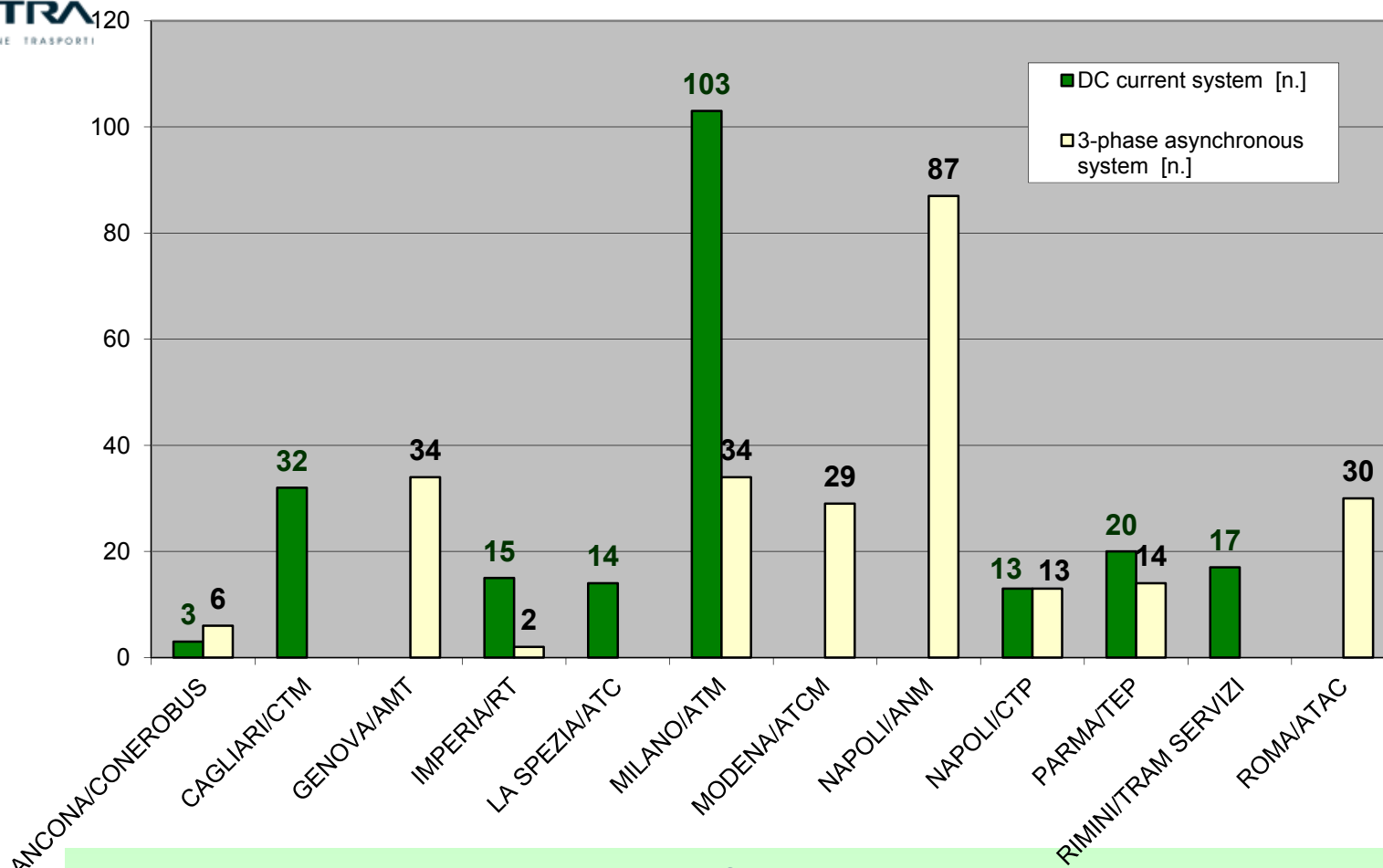


AVARAGE AGE
15,5 years

21%
TROLLEYBUSES WITH
AIR CONDITIONING SYSTEM

VEHICLE LENGTH:
↗70% = 12 m
↗30% > 12 m

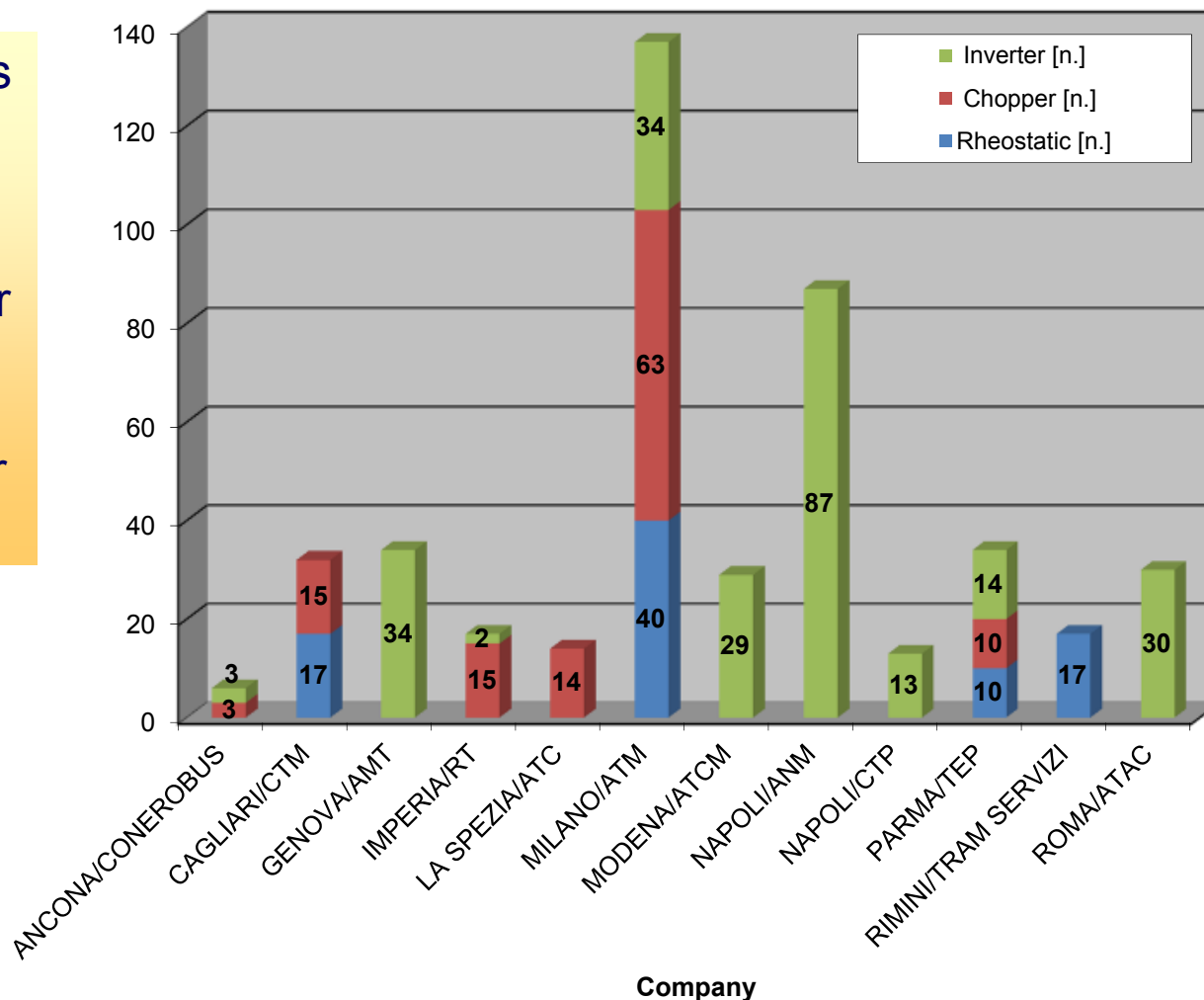
TYPES OF MOTORS



The diagram shows the types of motors in regular service vehicles and it specifies the number of vehicles with a DC current system and of those with a 3-phase asynchronous system for each company.

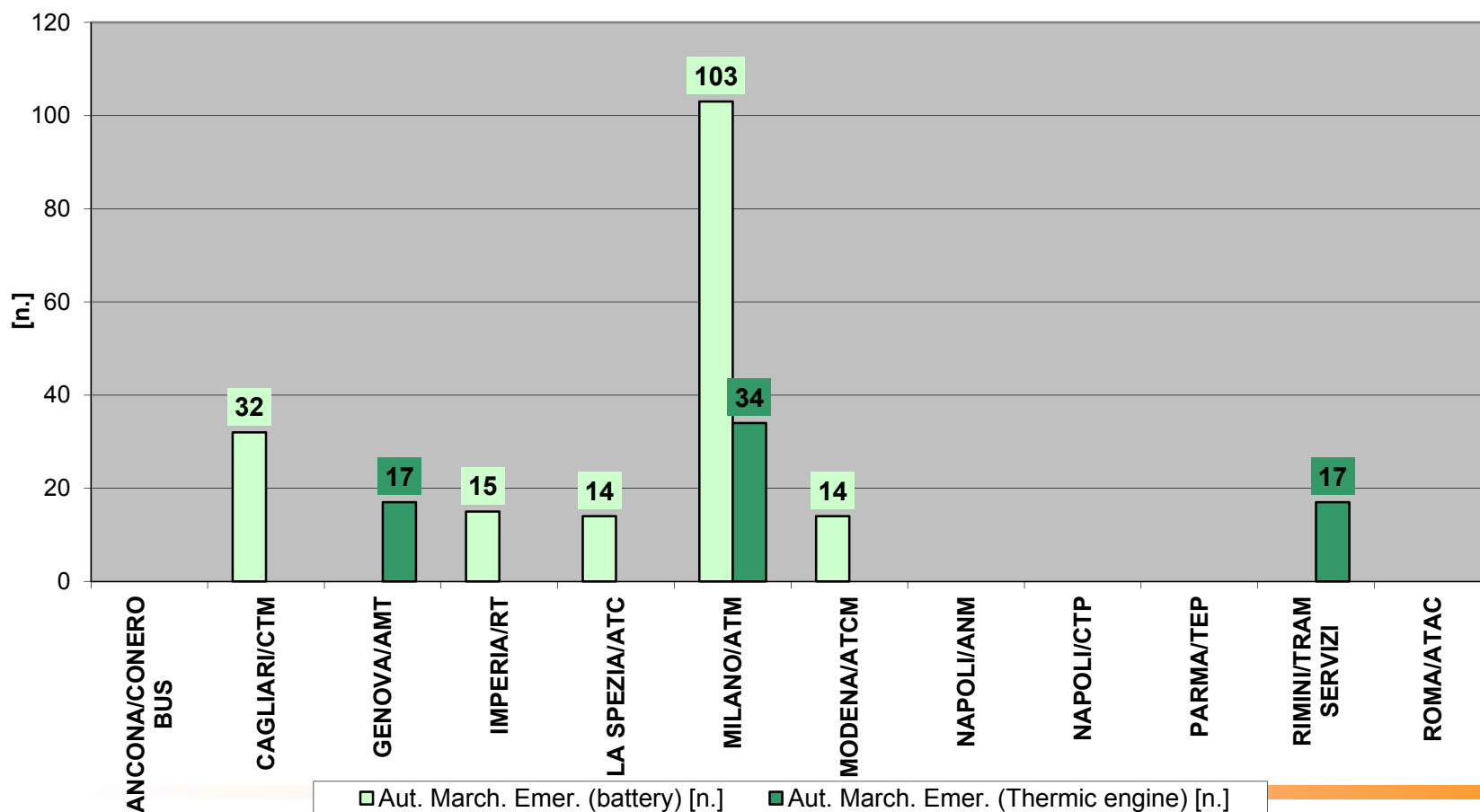
TYPES OF CONTROL SYSTEMS

The diagram shows the number of vehicles equipped with rheostatic, Chopper or Inverter control systems. The most widely used is the Inverter type.



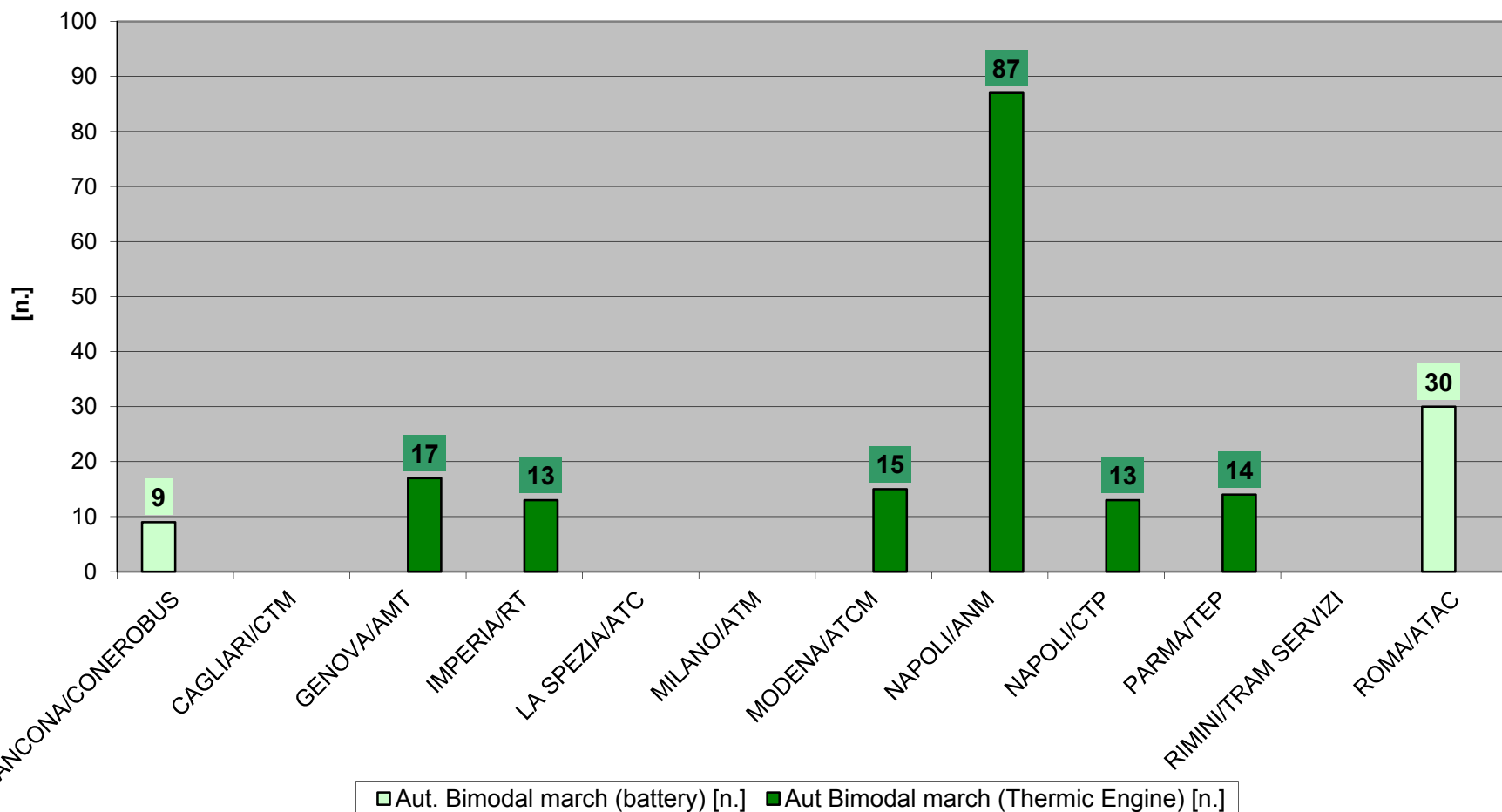
AUTONOMOUS MARCH SYSTEM OF REGULAR TROLLEYBUSES

VEHICLE EQUIPPED WITH AUTONOMOUS
MARCH SYSTEM OF ONLY EMERGENCY



AUTONOMOUS MARCH SYSTEM OF REGULAR TROLLEYBUSES

VEHICLE EQUIPPED WITH AUTONOMOUS
BIMODAL MARCH SYSTEM



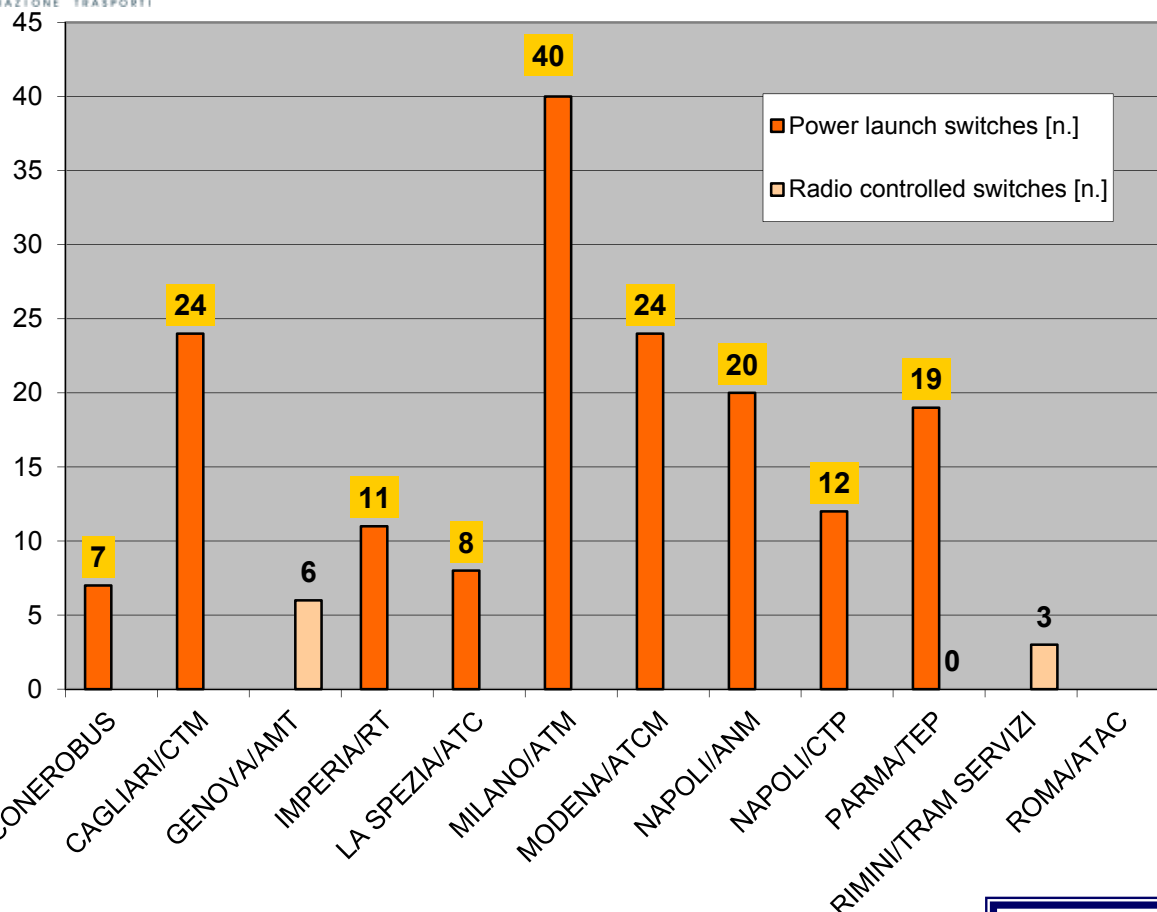
SECTION 3

FIXED INSTALLATION



SWITCHES-DEPOTS

SWITCHES



Please note that only AMT Genoa and Tram Servizi Rimini use radio controlled switches.



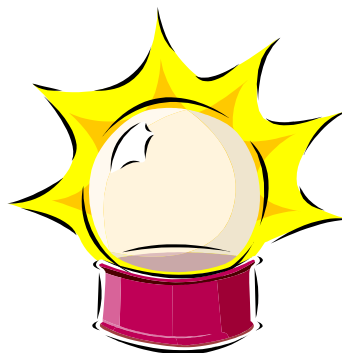
DEPOTS



➤ 14 Depots
➤ 33 TROLLEYBUS/DEPOT

SECTION 4

POSSIBLE DEVELOPMENTS



POSSIBLE DEVELOPMENTS

Projects	% Companies	Quantity (TOTAL VALUES)
Modernization of installation	25 %	Km of line: 12
Fleet replacement	50%	No. of vehicles: 84
New rolling stock (increase)	27%	No. of vehicles : 61
Purchase of specific equipment and control systems	25%	SSE systems and driving aids
Network extension	42%	Km of network : 48,6

The table shows the 'works in progress' in Italian companies. They involve mainly the **fleet** (84 new vehicles) and the **network** (to be extended by 48,6 km).



ON SITE...



SGM S.p.A. Lecce



AMTAB S.p.A. Bari

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★ Thank you for your attention ★

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