Session 2: Renewal of the Vehicle Park

The Italian Bus Renewal Scheme

Enrico Mingardi
Federtrasporti, Italy
Over the last decade, the directions taken by the European Union have highlighted the need, among member states, for greater emphasis on “sustainable growth”; this trend emerged especially after the Conference in Rio de Janeiro in 1992, which gave official status to “Sustainable Growth” by defining a document named “Agenda XXI”.

On the occasion of the Kyoto World Climate Conference, Italy undertook to reduce emissions of “greenhouse gases” (effectively CO$_2$) by 7% by 2010, taking as the benchmark the levels reached in 1990.

It is evident that attention towards environmental problems is a key issue as regards mobility; in fact, the indications from the European Union and, consequently, the policies adopted by individual member states, demand a new approach to transport policy so as to reduce the pressure exerted by transportation itself on environmental resources.

It is therefore necessary to promote an evolution in public transport policy with the objective of satisfying the various needs of citizens and thus make public passenger transport more competitive and more exploitable than the private sector. Emphasis should also be given to the principle of “who pollutes pays”, whereby whoever causes pollution is required to sustain the costs of his actions; there is no intention to restrict the right of citizens to mobility but nevertheless there should be precise rules.

Substantial modification of the scenarios within the mobility system in order to reduce energy consumption levels and improve the situation as regards environmental impact requires of two main areas of action to be considered:

1. **Improvement in the efficiency of vehicles in use and introduction of new fuels** (by replacing vehicles which provoke the most pollution, and the development and rapid introduction of new vehicles with combustion engines or innovative drive systems);

2. **Rationalisation of the entire transport system and mobility in general** (through effective policies and planning tools for urban and suburban mobility with control of demand for mobility and expansion of civic transport supply; widespread introduction of IT and telematics systems; improvements in the efficiency of freight transport).

In particular, the renewal of buses in use substantially depends on the state finance made available to the sector in 1995 (following the stagnation in the three-year period 1991-1994) through state funds for the regions (Law 204/95) covering the acquisition of new public transport systems and the replacement of buses more than 15 years old.
In this regard, the graphs clearly show (Table 1) that in the three-year period 1996-1998 Local Public Transport Companies reduced the overall average age of vehicles in circulation from 11.7 years to 11 years. However, vehicles in use still have an average age that is much higher than the European average (7.5 years).

<table>
<thead>
<tr>
<th>Average Age by Year</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
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<tbody>
<tr>
<td>11.7 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.4 years</td>
<td></td>
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<tr>
<td>11.0 years</td>
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Table 1

Source: Federtrasporti

<table>
<thead>
<tr>
<th>Number of Buses More Than 15 Years Old</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
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<tbody>
<tr>
<td>7.697</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.810</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7.599</td>
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Table 2

Source: Federtrasporti
In addition, if we analyse the situation of public and private vehicles in use as a whole at 1.1.99, average age is 12.1 years compared to 7 years in 1988 (source ANFIA, from a field survey carried out by the Centre for Transport System Studies) highlighting the worsening overall situation in Italy compared to the rest of Europe, a matter for some concern.

The re-launching of investments in the sector came about through Law no. 194/98 which envisaged, among the most important actions for renewing the local public transport system, the launch of the ten-year plan for the acquisition of new buses through special financial assistance in the three-year period 1997-1999.

Investments in the acquisition of buses by local public transport companies thus increased from ITL 140 billion in 1994 to ITL 768 billion in 1998, a percentage increase over previous years of 110% in 1995, 41% in 1996, 31% in 1997 and 40.5% in 1998 (Table 3).

Table 3

<table>
<thead>
<tr>
<th>Years</th>
<th>Investments (bn lire)</th>
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<tbody>
<tr>
<td>1994</td>
<td>140,29</td>
</tr>
<tr>
<td>1995</td>
<td>295,61</td>
</tr>
<tr>
<td>1996</td>
<td>416,95</td>
</tr>
<tr>
<td>1997</td>
<td>546,69</td>
</tr>
<tr>
<td>1998</td>
<td>768,07</td>
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</table>

Source: Federtrasporti
Law 488/999 (Budget for 2000), in order to ensure continued action within the scope of Law no. 194 passed in 1998, made available overall finance worth around ITL 1300 billion, for the future purchase of around 3,250 buses, compared with 4,500 envisaged for the three-year period 2000-2003 within the ten-year plan for the acquisition of new buses.

Against this general background, Federtrasporti (Italian Transport Federation) has launched a number of undertakings: on the one hand, it has signed voluntary agreements with various partners for joint efforts towards “sustainable mobility”; on the other hand, it has set up within its own organisation a Working Committee for the development of “Recommendations for the acquisition of 12 m urban buses – Technical Specifications”.

In relation to the voluntary agreements, we can mention:

1. Protocol of Agreement between the Ministry for the Environment and Federtrasporti (June 1998): designed to promote incentive action for strong growth of the role of public transport with special emphasis on environmental questions. The role which this Protocol assigns to Federtrasporti and its members is particularly important as regards:

   - improvements in “quality standards” in local public transport with the aim among others of achieving higher appeal for such civic services;

   - definition of progressively higher quotas of vehicles in use to involve vehicles that ensure lower environmental impact compatibly with the resources available to the sector;
• pay maximum attention to the “flexible civic transport system” (car-sharing and city taxis) in order to ensure an efficient inter-modal system;

• training, up-dating and re-qualification of strategic professional roles such as Energy Managers and Mobility Managers: the latter collaborating with Local Council Mobility Offices in the management of relationships with the people appointed in companies having more than 300 employees;

• to verify and, if possible, exceed in new company vehicle purchases the percentages envisaged in the Decree concerning “urban mobility” (5% in 1998, 10% in 1999, 20% in 2000, 30% in 2001, 40% in 2002 and 50% in 2003).

2. Protocol of Agreement between ENEA and Federtrasporti (April 1999): designed to launch joint activities between the parties having the following primary objectives:

• incentives for using public transport;
• quality improvement in public transport;
• installation of management tools for the control, management and improvement of energy performances by civic transport companies;
• introduction of innovative vehicles ensuring low consumption and low emissions;
• training, up-dating and re-qualification of strategic professional roles for a more rational use of energy in civic transport companies.

3. Agreement between WWF and Federtrasporti: having the primary objective of providing incentives for using public transport in Italian cities, reducing the impact of individual means of transport and helping citizens understand the close link between the use of private means of transport and climatic changes.

4. Protocol of Agreement between Federtrasporti and Cam Tecnologie S.p.A. (June 1999) to launch the use of Gecam, an emulsion of fuel oil and water, among member companies. Through this protocol, Cam Tecnologie ensures special conditions of supply for member companies, while Federtrasporti undertakes to publicise the agreement and encourage its members to begin trials with the product in order to assess the results achieved in terms of environmental pollution, consumption and outcomes as regards mechanical components.

As regards the “Recommendations for the acquisition of 12 m urban buses – Technical Specifications” presented in February 1999, it should be emphasised that the first edition of the publication represents the effort of Federtrasporti, with the fundamental contribution of its members, to define technical, functional and constructional requirements in order to identify a standardised vehicle.

The innovative aspect of the document is that these requirements were formulated by taking three fundamental principles into consideration: 

safety, quality and comfort

to ensure the best emphasis on clients-users.

The document is further characterised by the evolution introduced in relation to the nature and time-scale of the performances which can be requested of Suppliers, in terms of both warranties and after-sales technical assistance.

These Specifications take account of the suggestions and observations provided by the ANFIA Group (with the exception of the part concerning planned maintenance which requires further study) with the
intention of defining a “standard basic vehicle” which not only considers the diversified requirements of transport companies but also supports Manufacturers in terms of orienting production.

The Specifications are based on a tender to be awarded in relation to the economically most advantageous offer, to be selected on the basis of appropriate assessment of technical-functional specifications and price.

In particular, the Technical Specifications express (through Recommendations) a basic formula which, in outline, matches accepted requirements with the sole innovation of consolidating the increased overall warranty period at 2 years or 100,000 km.

This evolution aims to extend this formula, by requiring greater involvement on the part of Manufacturers, not least by exerting “pressure” for improvements in the general quality of the product, which should no longer be intended as limited to the “product as such” but integrated within a more general logic which ensures better exploitation of the vehicle at a lower cost for the Client-User.