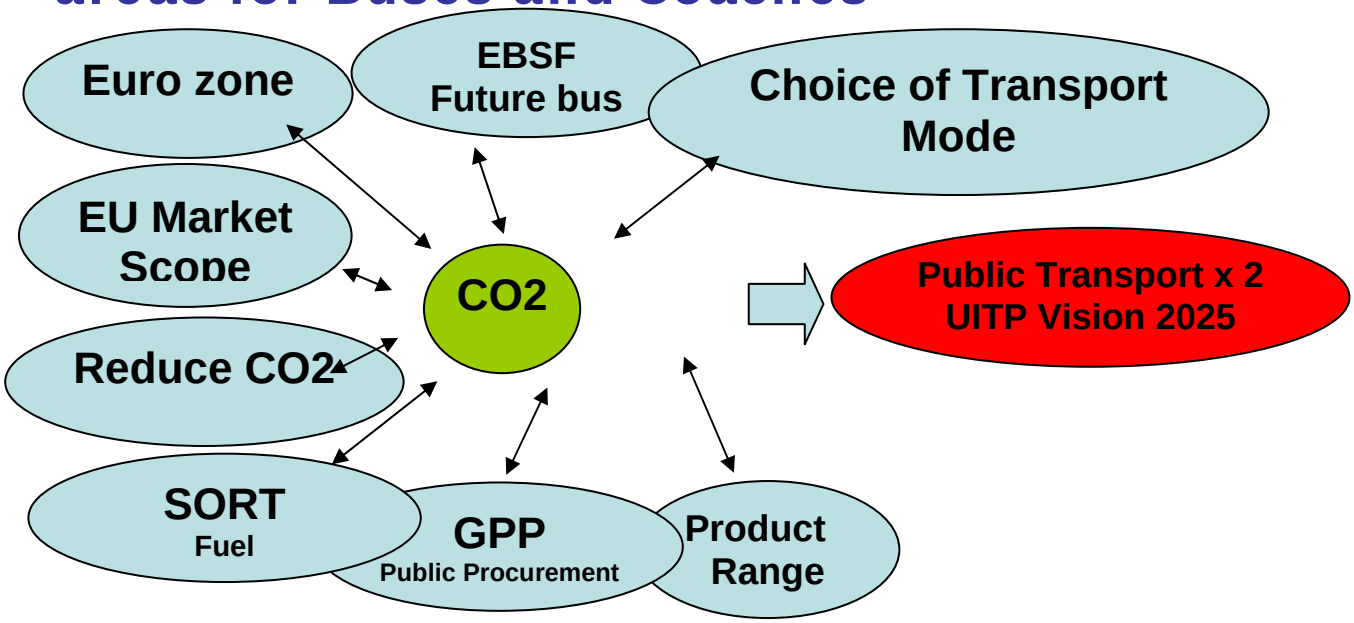
1st draft
Outline of position for UITP to discuss with ACEA
(21st January 2011)

Reflection about CO_2 has impacts in many areas for Buses and Coaches



CO2 cannot be treated in isolation
Policy goals and signals to industry need to be clear

Background

- The majority of buses and coaches are built by the same manufacturers as trucks and engine so there are a lot of similarities, but there are also as many differences and,therefore they cannot be treated in the same way.

- There are more people living in urban areas than in the countryside. Some 72% of Europe now lives in towns and cities and they produce 85 % of GDP. 90% of rail trips are not international but are regional and suburban and buses account for it is interesting to know that 30 billion passengers are travelling on a bus every year in the EU. The Commission must recognize that if Europe is to remain competitive and reduce its emissions, it needs to address urban mobility.

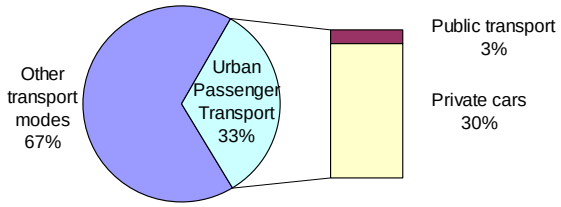
- Buses and coaches are already amongst the most environmentally and energy efficient transport modes on the basis of person km:
  - Low levels of local emissions
  - Low CO2 and other GHG emissions even with an average load of 20%[1]
  - Low energy consumption
  - Low space consumption
  - Excellent accident record compared to other passenger transport modes.

→ Buses and bus systems are a key solution to urban mobility related challenges as well as to reduce CO2 emissions. More buses and more use of public transport helps

[1] Verband Deutscher Verkehrsunternehmen

reducing CO2 emissions. In European cities, public transport produces about 60% mess CO2 than private cars per passenger km. People travelling by public transport, even with todays capacity levels and technology only produce about 64g CO2 per capita per km.
NOTE: It would be good to also include the figures from ADEME or other independent organization

UITP has recognized this and has adopted an ambitious strategy to double market share by 2025: PTx2. Supporting this strategy could be a win-win situation for the Commission as well for the bus sector.



It should be noted that cleaner fleets will deliver some gains in CO2 reduction, real progress will require broader policy responses. From UITP's work done on gathering data from some 100 ciites (the Millennium Cities Database) cities with a high modal share of public transport, walking and cycling (60% or higher) annually produce significantly less CO2 per capita. This can be as musch as 2.5 tons per capita difference. For instance, if cities with similar populations such as Berlin and Washington DC are compared. Both have a population slightly under 4 million, but Berlin produces 10 million tons less CO2 per year from passenger transport than Washington almost entirely due to the citizens choice to use sustainable modes.

City	% public transport + walking + cycling	Annual CO_2 emissions per capita
Chicago	12%	2,900 kg
Washington DC	16%	3,400 kg
Ottawa	20%	2,000 kg
Stuttgart	41%	1,400 kg
London	50%	1,100 kg
Paris	54%	950 kg
Berlin	61%	770 kg
Tokyo	68%	820 kg
Warsaw	71%	670 kg
Hong-Kong	84%	378 kg

Source: UITP Millenium Cities Database

Cleaning the fleet and classification
Moving the composition of the European bus fleet towards a cleaner profile will take more than a system of CO2 labeling. UITP would be happy to share its data on the present situation of the bus fleet in Europe (2005)[2] and discuss the mix of measure that would be needed to achieve the wider policy goals and CO2 reduction that are part of this work.

[2]Latest figures on the urban bus fleet in the European Union was published in 2007, based on 2005 figures. Source: www.uitp.org/mos/pics/stats/survey_bus_fleet.pdf

Already many of its members have made significant efforts to decrease the average age of bus fleets and to introduce a variety of cleaner fuels and new technologies. However there are still substantial outstanding challenges where buses need some special attention due to the variety of the product range. A balance between a comprehensive and detailed list of bus classes and a simplified but workable arrangement of clusters according to operational performance rather than weight or size, would in our view be preferable.

It should be noted that many of the cleaner technologies come with a higher price tag than the improved clean diesel internal combustion engine. However for many authoritiesthese newer technologies are still unaffordable, and strict limits may result in lower service levels making individual car use the only option. Any labeling or classification should not, therefore, send the wrong signals to policy and decision makers. A standard diesel city bus is still the backbone of most public transport networks and already delivers low carbon CO2 trips per capita. As more passengers shift to public transport this can only be improved. Communities obliged to cut services if they can only afford fewer cleaner buses will lose out. Financial support for the purchase of new cleaner buses including hybrid buses as well as bus infrastructure would be welcomed (for instance the use of unspent EU funds of the European Energy Programme for Recovery, EEPR)..

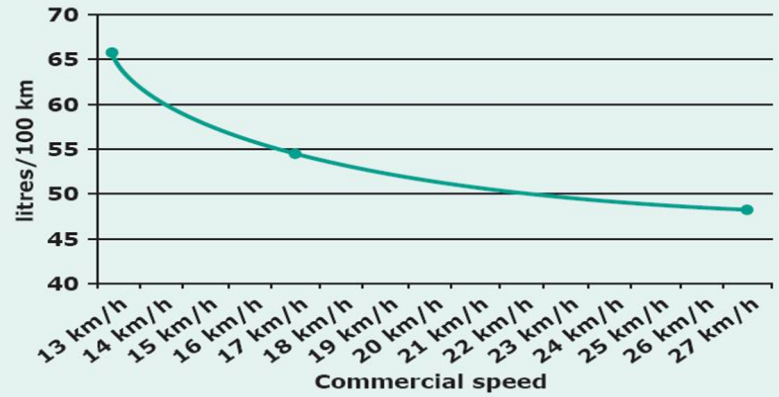
Discussion is still required for the classification of some vehicles as the product range includes buses that use a variety of different fuels such as liquid (clean diesel, diesel blends with biofuels or synthetic fuels), gaseous (CNG, LPG, Biogas) or electrical energy such as trolley buses[3]. .

UITP would support a range of values and clusters of vehicle classifications based on operational performance.and drive cycles

Methodology and test cycles

It is important to recognise bus-specific characteristics in any recommended methodology. In our experience there is a huge variation in vehicle performance and fuel consumption depending on the type of operation as shown in UITP's on road testing for diesel buses 'SORT'.[4]

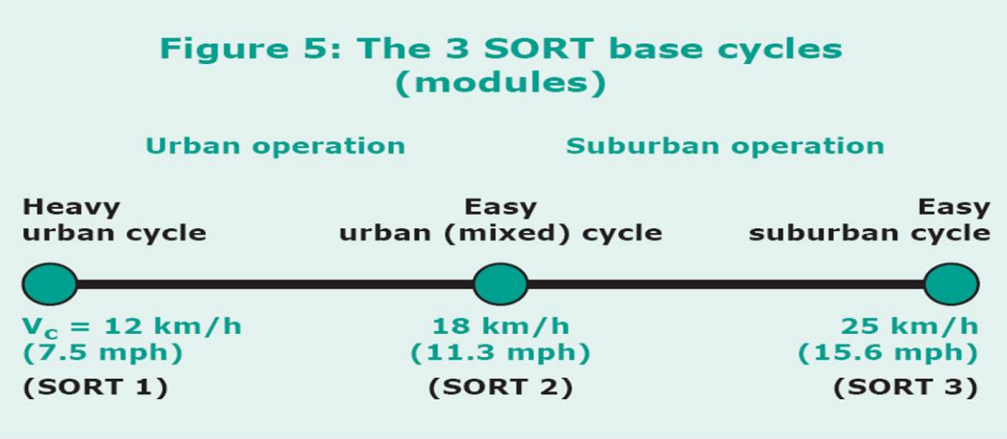
Figure 3: An example of the evolution of the consumption of an articulated vehicle according to its commercial speed



[3] For a long list of all possible alternative fuels, refer to the final report from the European Commission's Future Transport Fuels Contact Group as an input for the Transport White Paper

[4] More information can be found at www.uitp.org/publications/index2.cfm?id=1#SORT2

The guiding principle of SORT is built on the conviction that the average commercial speed of a given busnetwork summarises and expresses most adequately the bus operation, taking into account the impact of the external city and road traffic environment. UITP would be willing to share this methodology and work with this project on developing relationships and coefficients that are meaningful to develop a range of default values for buses.
The modular SORT values for fuel consumption SORT 1, SORT 2 and SORT 3 correspond each with a given average commercial speed (verified and validated on empirical field data). Classification based only on fuel efficiencies could give misleading information if road test cycles are not taken into account.



Source: UITP SORT

Only 40 000 buses and coaches are produced for the European market annully which is about 10 times less than other heavy duty vehicles such as trucks. The administrative cost for each homologation is considerable for each bus, so it is important that the methodology put forward is appropriate and remains affordable for the sector. There is a growing body of evidence on the performance values for buses but it is still relatively immature compared to the history of data built up on trucks.

UITP suggests using the SORT on road test cycles as the base for standards for buses and costs for testing and setting default values for CO2 underlining the need for this to remain affordable.

Moving forward with the European Union as one

✓ Continued support for research

The industry already allocates XX (TO BE DISCUSSED WITH ACEA) for research and development and sees the continued support for this from the European Union as being crucial to achieving a low carbon economy. This will help give a choice of pathways to achieve the ambitious EU GHG reduction targets but will also help ensure that Europe has the skills; knowledge and products to benefit from this effort.

Efforts are already ongoing in the following areas: Vehicle technology improvements (engine, transmission, hybridisation, vehicle body etc.)
- Efficiency requirements for air-conditioning systems
- Tyre pressure monitoring systems
- Low rolling resistance tyres
- Gear shift indicators
- Mandatory fuel efficiency targets

This funding R&D should also promote innovation across the whole bus system in order to make public transport by bus more attractive to customers (such as the EBSF project).

Efforts that are not yet ongoing but from where considerable system potentials are expected include the following areas: adapted infrastructure for vehicle in the city (roads, buslanes, hubs, seamless and intermodal terminals, switch points improvements etc.)

✓ Retaining European competiveness.

Employment in public transport and the bus sector should be recognised as green jobs. Promoting public transport and increasing patronage is a win-win situation for Europe. It will help boost local economies as everyone will have improved low carbon access to jobs, education and other basic needs. It will also create local sustainable jobs for skilled and unskilled labour. This can have a beneficial effect Europe wide rather than just benefitting a few regions or countries.

UITP requests continued European support for technological research and development and asks that the potential for green jobs in the sector is recognised.

What the sector (UITP) can do.

- Validate the methodology with member operators and organizing authorities.
- Develop a set of guidelines for use
- Sign UITP"s Sustainable Development Charter (planned April 2011)
- Other ? (to be discussed)

Timeline and planning for UITP/ACEA discussions

• Study on development and testing of a certification procedure for CO2 emissions and fuel consumption – stakeholder meeting in March 2011?
• Further meeting(s) UITP/ACEA ?
• HDV Energy Efficiency Labelling Policy Instrument

Step 1: Labelling of the CO2 emissions from HDV engines as recorded by a standardised test procedure;

Step 2: Labelling of entire vehicles predicting the overall efficiency of a whole vehicle combination in operation.

Step 3: Labelling of vehicle components (such as superstructures, trailers and semitrailers).