



International Association of Public Transport
Union Internationale des Transports Publics
Internationaler Verband für öffentliches Verkehrswesen
Unión Internacional de Transporte Público

Heather Allen

*Senior Manager
for Sustainable
Development
UITP*

***The BIG picture in 20 minutes
– putting some heart beat into
public transport***

***Melbourne
July 8th 2008***

A man in a grey and orange long-sleeved shirt and blue jeans is smiling and holding the hand of a woman in a blue denim jacket and jeans. They are standing on a train platform with a green train car in the background. The scene is captured in a dynamic, slightly blurred style, suggesting movement and connection.

UITP

**Connecting the world
of public transport**

A diverse membership

UITP unites the entire supply chain of public transport players



- Operating companies
- Local, regional and national authorities
- Service and supply industry, consultants
- Research institutes and academics

One main office in Brussels

Nine liaison and regional offices worldwide





What's on the menu today?

Let's start with something **BIG**

like

THE WORLD

Our beautiful blue and green planet





Then let's think about putting it in context

The Past

The PRESENT

&

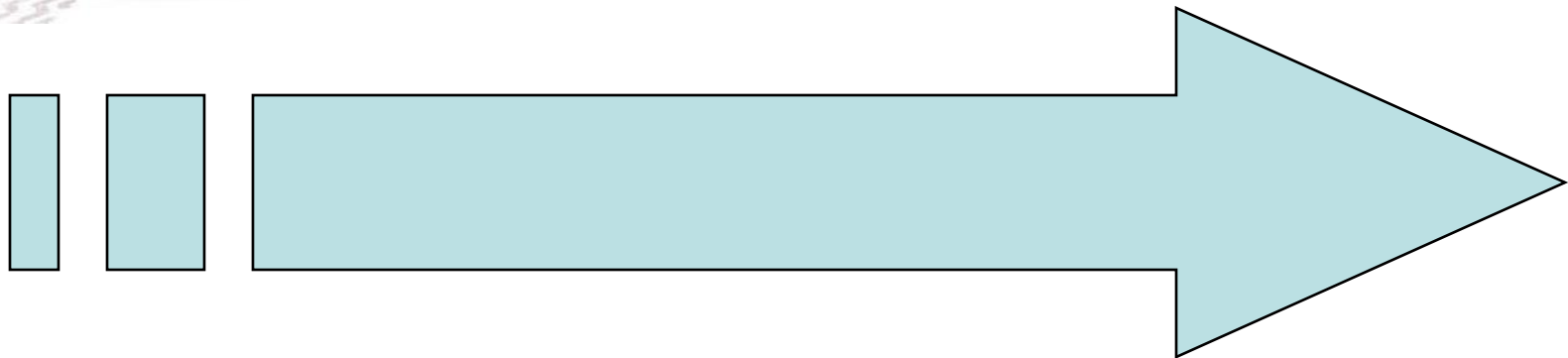
The Future



The BIG picture



**An egg
and the arrow of time.....**



Sharing the planet with 'X' billion others

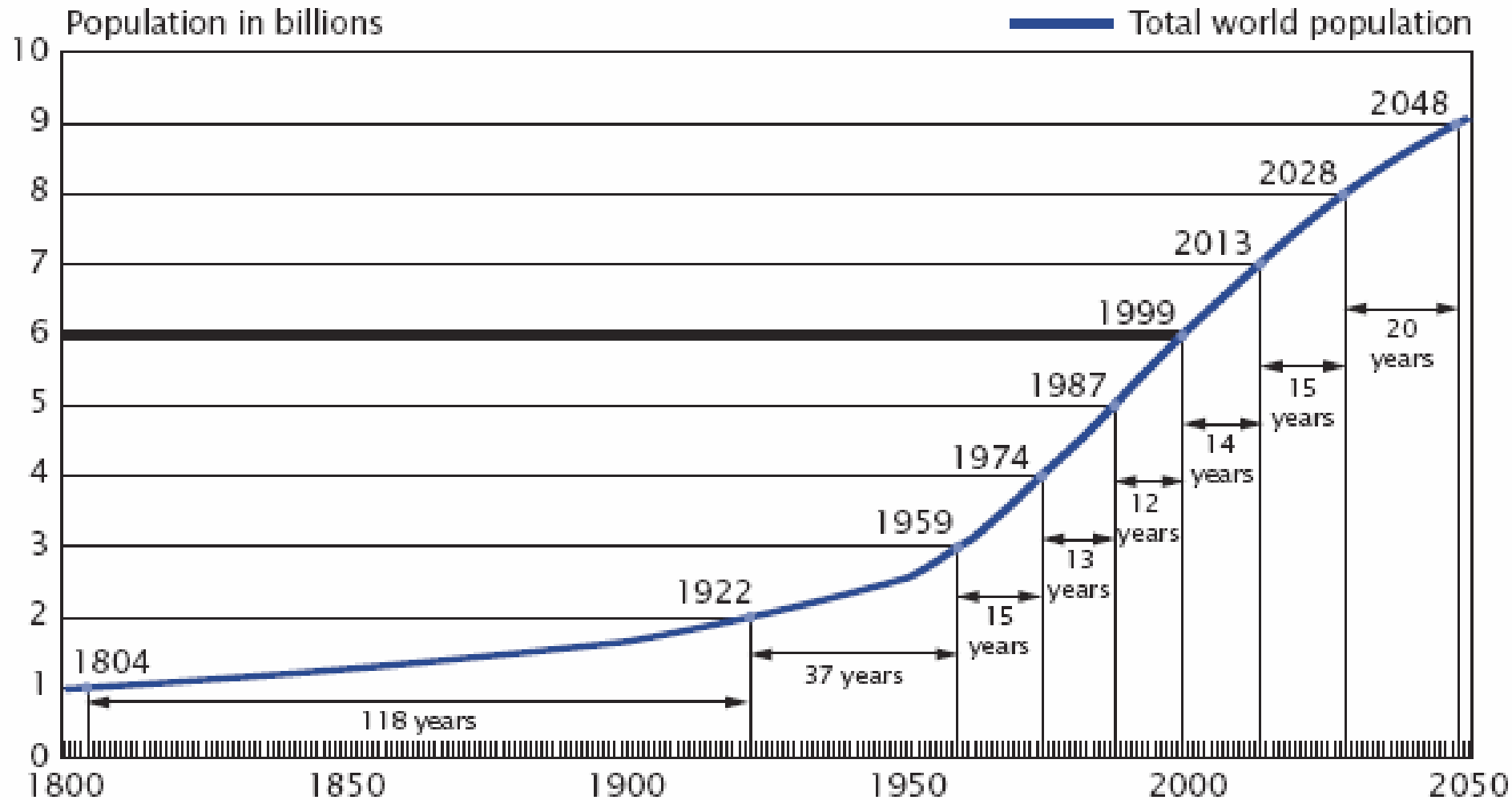


- **2002 : 19 megacities in the world (with 15 in the developing world)**



- **By 2025 : 40 megacities (almost all new ones will be in Asia, Africa, Latin America...)**

Just how many people? How quickly?



Source: United Nations, *World Population Prospects: The 1994 Revision*; U.S. Census Bureau, International Programs Center, International Data Base and unpublished tables.

More people are living in urban areas



More People = More Transport

**More People in urban areas
=
More transport *demand* in
cities**

Will we run out of planet before we run out of energy??



- Road transport is more than 90% fossil-fuel based
- 26% of Greenhouse Gases are from Transport (all modes) world-wide
- Fossil fuel consumption increased **X 5** since 1950
- GHG's (CO₂) from transport are growing faster than in any other sector

The weather-related economic losses of hurricane Katrina, which hit the United States in summer 2005, are estimated at US\$200 billion.



Global trends include –

- **The Economy: Globalisation and a reversal in power**
 - **Multinationals / corporate domination over political action**
 - **Changes in share/stakeholders and their voices**
 - **Weak US dollar - questioned as reference currency**
 - **A global shift in purchasing power**
 - **Mass motorisation = increasing congestion**
- **The Environment: major risks and opportunities**
 - **pollution**
 - **energy**
 - **climate change**
- **Society: The ultimate focal points**
 - **increased urbanisation**
 - **social inclusion**
 - **the life-style of the younger population**



Perception and reality



Business as usual??



Use of non-renewable resources

○

○ Valuing what we have

○

○

Its too expensiveto do now....

mmmm
...????

The price of energy....

Economic arguments need a broad perspective

Total External costs of Transport Million €/yr Europe

**Cost of
congestion, air
pollution and
traffic
accidents
(EU 25)**

€560 bio

**Total turnover
including
capital
investments in
public
transport in
Europe**

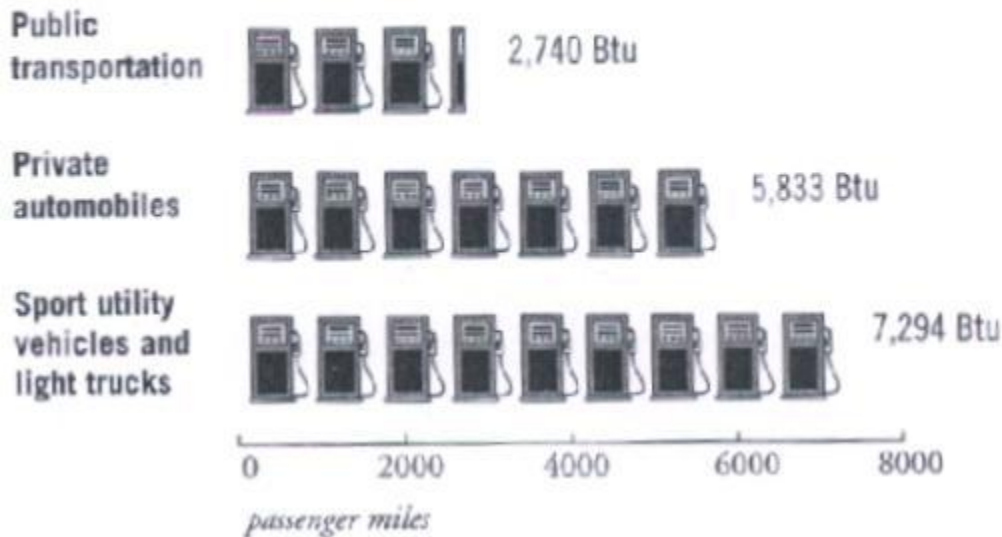
€120 bio

**Per capita GDP
wasted due to
congestion, air
pollution and
accidents**

€ 1240

Cost of transport and energy consumption

Public Transportation Uses Less Fuel



- **Energy savings between cities with a high modal share of public transport and cities where most trips are made by private car represent around 500 to 600 litres of petrol per inhabitant per year.**
- **+/-100 cars = 1 km**

INTRODUCING EARTH'S FIRST FULL HYBRID SUV.



Meet Escape Hybrid.* As the first and only gas/electric SUV, the Escape Hybrid compromises nothing. Getting you there, anywhere, with front-wheel- or 4-wheel-drive capability. Seating five people. Yet delivering engine performance that makes it the most fuel-efficient SUV ever** (over 35 city mpg). And lower emissions that make it the cleanest SUV ever.** Which means this SUV, by nature, is kinder and gentler on

nature. New technology creating greener vehicles, cleaner

factories.† It's the right road for our company.

And we're well underway. Read more

about the Escape Hybrid and Ford's

other environmental initiatives on

fordvehicles.com/environment.



Escape Hybrid

*Available Summer 2004. **Based on Ford preliminary data, over 35 city mpg, front-wheel drive.

†Based on Escape Hybrid increased fuel economy and lower emissions and award-winning Dearborn Truck Plant.

Compact development helps reduce the need to drive



- Good public transport is an important part of compact development
- If 60% of new growth were in compact patterns, 85 million tonnes of CO2 would be saved annually in U.S.A. by 2030
- These savings would equal a **28%** increase in federal vehicle fuel efficiency standards

Source: *Growing Cooler: The Evidence on Urban Development and Climate Change*, Urban Land Institute and other organizations, October 2007



Equal burden sharing



Professor Garnaut called for 'Strong action' on climate change... Australia had a 'special responsibility' to tackle the problem as its recent economic prosperity was largely due to the Asian economic boom driving global greenhouse as emissions...

Quote: The Australian Financial Review July 6th 2008

Stern Reviewthe cost of inaction....

If we didn't have any oil from one day to the next



**The MAJORITY of us
would become
transport
disadvantaged!
in a few weeks**



Perception and reality



Finding solutions requires looking in the right direction and having the right tools!!!



UITP's Charter on Sustainable Development

- The charter focuses on how UITP member organisations are performing in social, environmental and economic terms.

- Launched at the UITP World Congress in May 2003 with 33 pioneer signatories now nearly **130 organisations have signed** (www.uitp.org)

- Worldwide exchange of experience and best practise

- Voluntary but measurable commitment

- UITP uses examples in its international work with UN etc



Charter on Sustainable Development



Association Charter Signatory 2003-2004

This charter acknowledges the commitment that

is making to Sustainable Development

Signatory commit to promote the development of sustainable development in their activities and to ensure that the public transport system contributes to the achievement of the 2001 Millennium Development Goals.

The signatory and UITP member has complied with all the criteria to qualify as an Association Charter Signatory.



Charter on Sustainable Development



Full Charter Signatory 2005-2007

This charter acknowledges the commitment that UITP member

is making to Sustainable Development



Charter on Sustainable Development



Pledge Charter Signatory 2005-2007

This charter acknowledges the commitment that UITP member

is making to Sustainable Development

Signatory commit to promote the development of sustainable development in their activities and to ensure that the public transport system contributes to the achievement of the 2001 Millennium Development Goals.

The UITP member has committed to follow Sustainable Development principles in its activities and to comply with all the criteria to qualify as a Pledge Charter Signatory.

UITP and Charter Signatory commitment to:

1. Promote Sustainable Development through dialogue and co-operation between public and private.

2. Integrate Sustainable and Economic policy to develop a balanced policy between social, environmental and economic considerations.

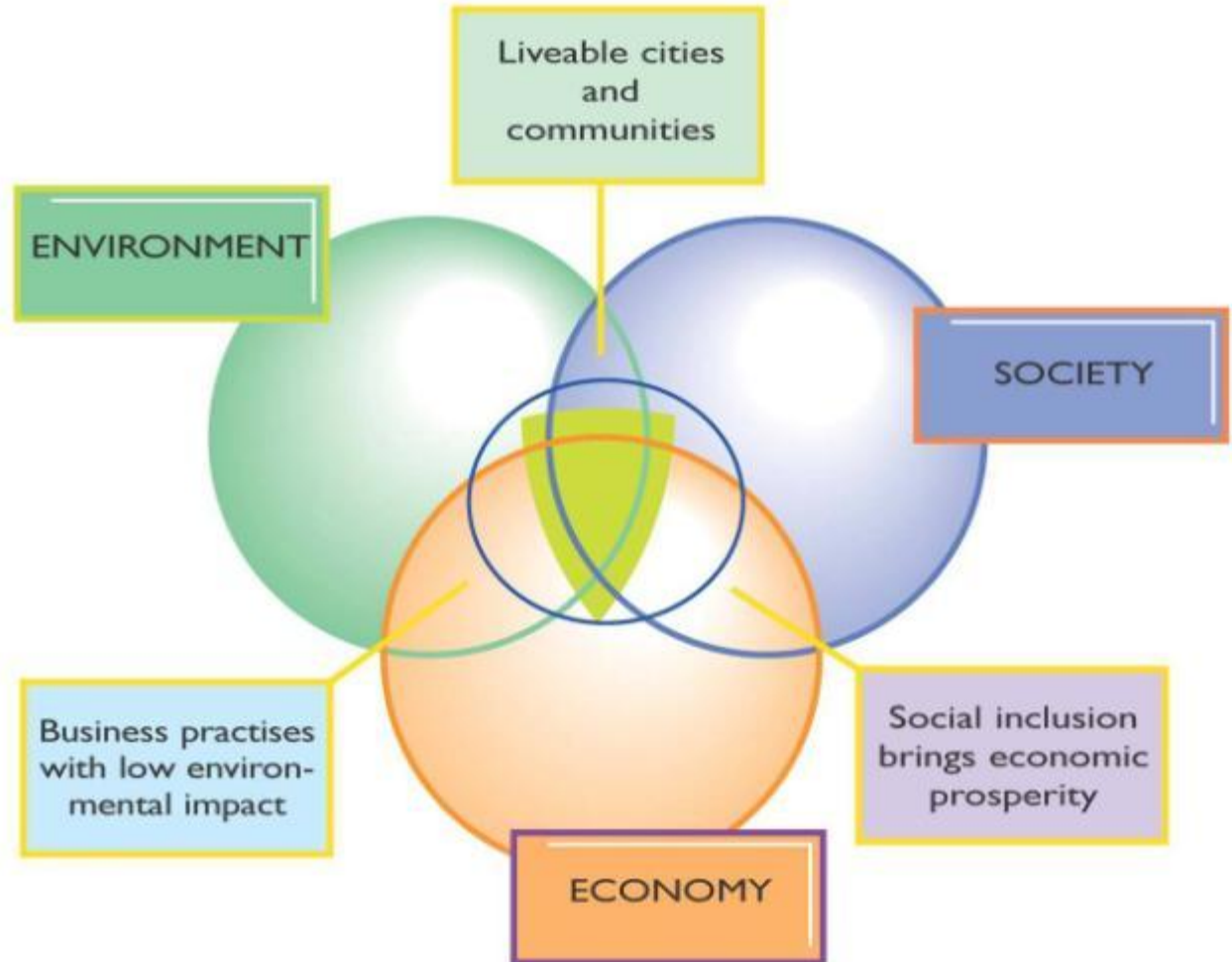
3. Facilitate training and education through in-house and external courses on sustainable development.

4. Facilitate reports on Sustainable Development progress.

UITP Member Signatory UITP Member, Pledge



What do we mean by Sustainable Development at UITP



What do we mean by Sustainable Development at UITP



- Taking decisions understanding the impact and determining a good balance in terms of:
 - Social Justice
 - Environmental Protection
 - Economic Sense
- Sustainable development is how you plan for the future while still operating in the now

➤ Fleet renewal

Carris, Lisbon, Portugal

replaced 408 buses out of its fleet of 715



-ATM, Milan, Italy has the youngest fleet average age 4.5 yr and is extending its trolleybus fleet

➤ Energy efficiency improvements



- Regenerative braking for urban rail (light rail/tramways and metros)
Example : RATP Paris, Ulasim Turkey

- 'Ecodriving' – training drivers to drive more 'softly' 10-15% fuel savings
Examples: Montreal, Geneva, Brussels

- Efficiency also relies on infrastructure
Importance of dedicated transit routes for buses/ trams keeping them out of traffic – better commercial speed and fuel use

- Examples: Hobart, Nice, Lisbon*



➤ Use of low carbon energies



Stockholm, Sweden : City to be «fossil fuel free» by 2050 , today PT uses **100%** renewable energy in city centre -metro, light rail, ethanol and gas buses (SLTF)

Dresden, Germany : 2006 trial of hybrid buses

Saarbrücken, Germany: Piloting first electric/CNG hybrid buses

Lille, France : 150 CNG & biogas buses (50% biogas)– double gains from non disposal of rubbish AND a low GHG emission fuel

Calgary, Canada : 'Ride the wind' has an innovative energy scheme with the Alberta Power company for wind energy for their light rail service



➤ Public transport helping to reduce CO2 emissions



CHANGING BEHAVIOUR: Munich avoids **12,000 tonnes CO2** annually with soft policies to change behaviour (changing one or two car trips to PT and NMT)

NEW TECHNOLOGY: CPT, Naples uses photovoltaic panels on bus depots provide enough energy to run 4 of the trolley bus fleet

Avoidance or reduction....

➤ Tool for reducing congestion – London, Stockholm and Milan leading the way



London Congestion charging and clean air zone

- Reduced car traffic by some 30%
- Enforcement of bus lanes – bus reliability up 60%
- 40% increase in bus patronage in 4 years (200 new services put on)
- 70% increase in cycling in same period (23% in 2004)
- 4% modal shift from car to PT 40% reduction in fatalities to cyclists and pedestrians
- 2008 Sustainable Transport Award (TRB)
- Milan 1st results +/- 25% reduction in traffic



Lack of public awareness



Using Sustainable development messages with your clients

==> Behaviour change

Does sustainability sell?

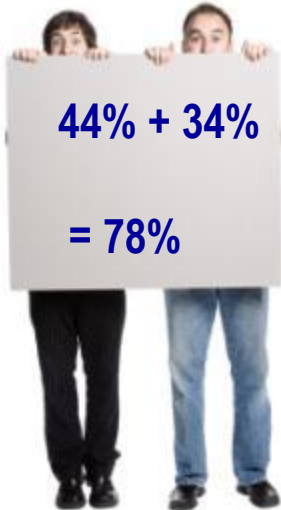
Some market research...the STIB, Brussels

10.000 questionnaires, (3 days in novembre 2006);

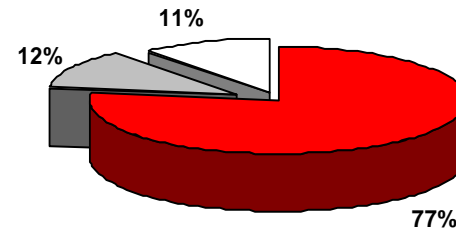
- feedback 1.575 replies (answer rate 15,75%)

- via internet 13.623 replies over 3 weeks

Total: **15.598 answers**



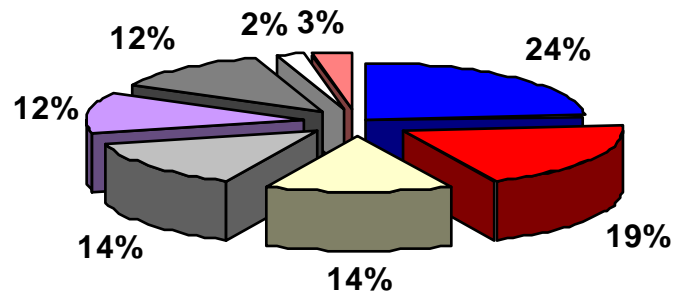
Do you feel concerned by climate change ?



Do you think that the use of PT is an efficient way to avoid climate change ?

External survey – results

Which advantages do you attribute to PT?



Conclusions: Take action!



- Partnership with the International Polar Foundation
- Communication campaigns about PT as a sustainable way of travelling in the city.



Merci. Chaque jour avec la STIB, vous sauvegardez un peu plus la banquise.



Thank you to the 270 million passengers that again (helped) reduce CO2 emissions this year

Thank you.

Every day, by using the STIB, you help save a little bit more of the icecap.



Merci à nos 270 millions de voyageurs qui ont encore réduit les émissions de CO₂ cette année.





AVEC DES TRAMS SILENCIEUX,
LA VILLE DE DEMAIN PLONGE DANS LA TRANQUILLITÉ.



ON VA VOUS FACILITER L'AVENIR.





**NOUS LAVONS NOS BUS ET APRÈS
NOUS LAVONS L'EAU QUI A LAVÉ NOS BUS**



**On avance,
on avance...**





NOUS RECYCLONS LES DÉCHETS DE NOS CHANTIERS. C'EST BIEN NATUREL



On avance,
on avance...



UITP/UNEP TV Campaign – The voice of reasons (aged 6)



30 second TV campaign valuing the role of public transport in alleviating climate change.

-build on the success of a first TV campaign launched in 2005 with slogan, 'The world is your home. Look after it'.

- launched on **22/02/08** at **UNEP 10th Special Session of the Governing Council/Global Ministerial Environment Forum**

UITP/UNEP TV Campaign – The voice of reasons (aged 6)

- Seen on :
 - BBC World
 - CNN
 - EuroNews
 - CNBC
 - Sky News
 - Bloomberg
 - Eurosport
 - Fashion TV
 - E! Entertainment

- ✓ February and WED June 5th 2008
- ✓ Best in class NGO, EACA Award
- ✓ Available in English, French, German, Spanish, Italian, Japanese, Cantonese, Mandarin, Portuguese ... Australian



Public transport is doing a lot – but it can also do much more.....developing the charter

Reports

- 2007 Progress report 'Making tomorrow today – Mapping the progress of charter signatories' with nearly 100 examples from charter signatories on implementing sustainable development)

2 other reports can be downloaded

Supportive network for signatories

- Coaching and Training Workshops
- Masterclasses
- Other tools e.g The World is your Home
- UITP Position paper on climate change
- Indicators and reporting guidelines
- CC inventory and communication WG



DECEMBER 2007
A UITP position paper

Focus

A low carbon future with public transport

THE CONTRIBUTION PUBLIC TRANSPORT MAKES TO REDUCING CARBON USE AND THE MITIGATING THE RISK OF CLIMATE CHANGE: THIS PAPER WILL PROVIDE A SHORT BACKGROUND ON GREENHOUSE GASES (GHS) DETAIL THE SHARE AND RESPONSIBILITY FOR PUBLIC TRANSPORT AND PROVIDE RECOMMENDATIONS.

Background
Man seeks comfort and increasing levels of carbon dioxide are changing the natural climate system. Ecological systems in many parts of the world. The extent of this impact and how reversible these effects are may still be uncertain, but the direct and indirect consequences of the changes that we are already experiencing present risks that should not be ignored. For example, the world has released a cumulative total of 1,000 billion tonnes of CO₂ since the start of the 20th century. At a global average, this is the equivalent of each person in the world releasing 10 tonnes of CO₂ by 2004. Doubling the rate of emissions would lead to a 20% increase in the total amount of CO₂ released.

What is the Greenhouse Gas effect?
The earth is protected from the sun by a blanket of gases. Some of the sun's energy is retained on the earth and the rest is lost to space. Excess GHG's change the balance of this naturally occurring process and allow the thickness of this layer to vary. The more greenhouse is trapped and the more gases around the planet the warmer. The Intergovernmental Panel on Climate Change (IPCC) believes that the warming of the Earth should be limited to 2°C, this means limiting the concentration of CO₂ in the atmosphere to 550 ppm.

¹ Source: Intergovernmental Panel on Climate Change (IPCC) Working Group I Contribution Working Paper 1, 2001, p. 10. ² UITP also supports work with the UITP at the UITPCC conference on the same topic in 2006. ³ UITP, 2006, p. 10.

Key SD issues currently being reported by public transport

Environmental issues

- **Climate change** : greenhouse gas emissions (vehicles) and CO2 production and/or avoidance
- **Hazardous /toxic chemical use and disposal** : (hazardous) waste from vehicles or vehicles maintenance workshops/ cleaning chemicals.
- **Waste management**
- **Water use**
- **Noise and vibration**
- **Fuel storage and use:** fuel spills and leaks
- **Air quality (Nox, Sox, Voc, Ozone, PM² & PM¹⁰)**

Economic issues (classified in order of times mentioned)

- **Energy usage / energy security and access to reliable energy sources** : Cost of energy is a major factor affecting our competitiveness : higher speed and passenger comfort increase energy consumption
- **Clarity of roles between government, regulator and central provider**
- **Increase/maintaining passenger numbers**
- **Farebox recovery**

Societal issues (classified in order of times mentioned)

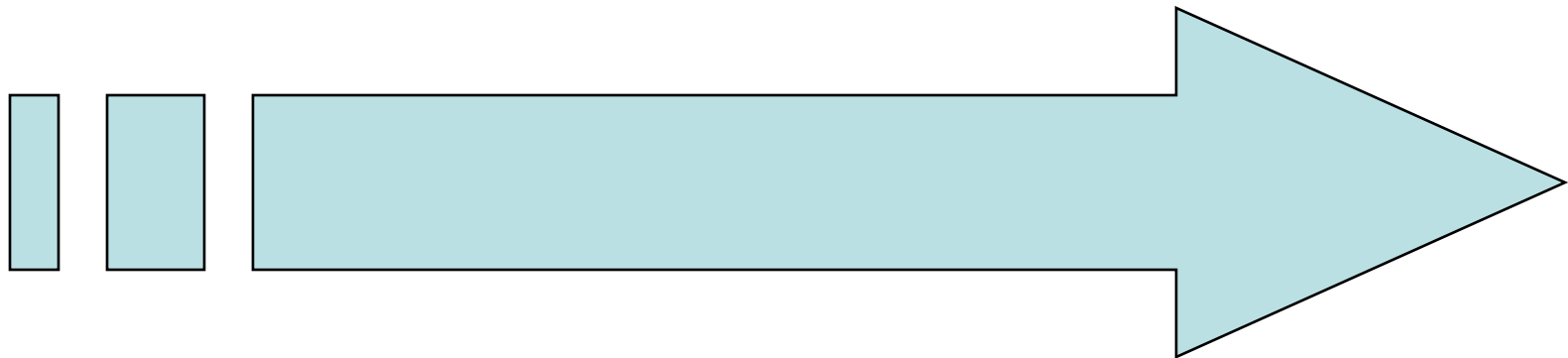
- **Community development** : contribution to local, regional and national economies, investments made in services to the community, support of charities, disaster relief
- **Health and safety (accidents)** : of employees, clients, people living in the deserved areas.
- **Well being** : satisfaction of employee customers
- **Accessibility of the network** : for disabled people, elderly people, people travelling with kids or babies
- **Traffic jam problems**
- **Assault/aggressions on staff and customers** : verbal/physic, within vehicles/within the network.
- **Developing and retaining motivated and skilled staff**
- **Work/life balance**



Back to the BIG picture



An egg and the arrow of time.....



Value of public transport in a crisis situation



- ✓ Impacts from household action are immediate
- ✓ Supports efficient land use patterns resulting in travel reductions
- ✓ Provides a “choice” for households desiring personal action
- ✓ Reduces congestion and improves fuel economy
- ✓ Preserves mobility in a climate of rising fuel prices

Job creation with PT - Studies in Europe and the USA



✓ show that +/- 30 jobs are created for every 1 million € invested in public transport infrastructure and around 57 jobs for a similar investment in public transport operations.

From a study of 13 European public transport investments the regional economic effects of public transport investments costs were found to have a multiplier effect of 2 to 2.5.

In Switzerland the economy as a whole benefits from added value of 4.60€ for every 1 € spent on public transport. In addition, every direct job is linked to 4.1 jobs in other sectors of the economy.

Source TRANSECON; Urban Transport and Local Socio-Economic Development Final Report 2003 & Public Transport and the Nation's Economy A quantitative analysis of public transportation's economic impact prepared by Cambridge Systematics Inc. with Economic Development Research Group October 1999

'Green' Job creation or a future where an 'eco-elite' can afford to buy hybrid cars.

- An underestimation of the pace of development of green industries and jobs. Recent reports show that over **\$160 billion were invested in 2007**. *The 'green zone' - includes buildings, transport, energy, recycling and forestry.*
- Renewable energy has created in excess of 2.3 million jobs
- In the **USA** alone, the environmental industry in 2005 generated more than 5.3 million jobs - ten times the number in the US pharmaceutical industry.
- **Delhi's** introducing of CNG gas buses created an additional 18,000 new job
- The ethanol programme in **Brazil** has created half a million jobs. Its bio-diesel programme is specifically designed to benefit hundreds of thousands of mostly poor smallholder farmers.
- By the year 2020, **Germany** will have more jobs in the field of environmental technologies than in its entire automotive industry.
- In **Europe**, a 20 % increase in energy efficiency would create about a million jobs. The same applies in emerging and developing countries.
- In **China** the solar heating global leader - sales revenues of about \$2.5 billion in 2005, more than 1,000 Chinese manufacturers employed more than 150,000 people.

Some Recommendations

A sustainable future and therefore a future will depend on:

- No single solution but package of well coordinated measures
- Critical assessment of local and regional conditions required
- Timeline and actors/responsibilities
- Costs can vary considerably
- Quantify co-benefits with Climate Change, local air pollution and social inclusion issues



Appropriate instruments AND a broad approach to appraisal methods (both regulatory and economic) are needed to help translating measures into practice





For us and our children

The logo for UITP (International Association of Public Transport) is located in the top left corner. It features the letters 'UITP' in a bold, blue, sans-serif font, set against a circular background with green and blue segments.

UITP

2nd UITP sustainable development conference

Making Tomorrow Today

October 22-24th 2008

Milan

www.uitp.org



Look at what you do **DIFFERENTLY!**



This is what we normally look at.....

When we should really be looking at how we manage this part!

See you in Milan!

THANK YOU FOR YOUR ATTENTION
Heather.allen@uitp.org