



CiViTAS
Cleaner and better transport in cities

POINTER

The CIVITAS initiative promoting the use of alternative fuels and energy-efficient vehicles

Event

GREEN CITY ENERGY

Cleaner fuels for urban mobility

Date & Location

2nd July 2010 - Pisa, Italy

Speaker

Simone Bosetti

**TRT Trasporti e Territorio
Milan, Italy**



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

CONTENTS

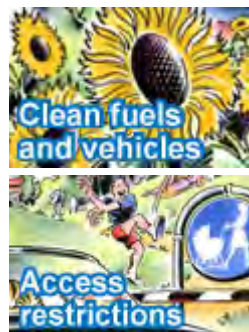
How alternative fuels and energy-efficient vehicles are being introduced and developed in cities across Europe, as part of integrated policies for sustainable urban transport, from the perspective of the current EU CIVITAS initiative

- The **CIVITAS initiative**, co-financed by the European Union, for cleaner and better transport in cities
- **POINTER** and its role in the CIVITAS framework (cross-site evaluation and monitoring of the CIVITAS PLUS measures)
- CIVITAS measures for sustainable urban mobility
- Few hints about the previous CIVITAS initiatives (I and II)
- **“Alternative fuels and energy-efficient vehicles clean vehicles”** measures in **CIVITAS Plus** (2008-2012), analysed according to different dimensions:
 - typology of measures
 - fuels and technologies considered
 - vehicles and users involved
 - some examples



CIVITAS initiative: cleaner and better transport in cities

The **CIVITAS** (**C**ity-**VIT**ality-**S**ustainability) initiative, co-financed by the European Union (5th – 6th – 7th FRP), helps cities to achieve a more sustainable, clean and energy efficient urban transport system by implementing and evaluating an ambitious, integrated set of technology and policy based measures



Objectives:

- to promote and implement sustainable, clean and (energy) efficient urban transport measures
- to implement integrated packages of technology and policy measures in the field of energy and transport in 8 categories of measures
- to build up critical mass and markets for innovation

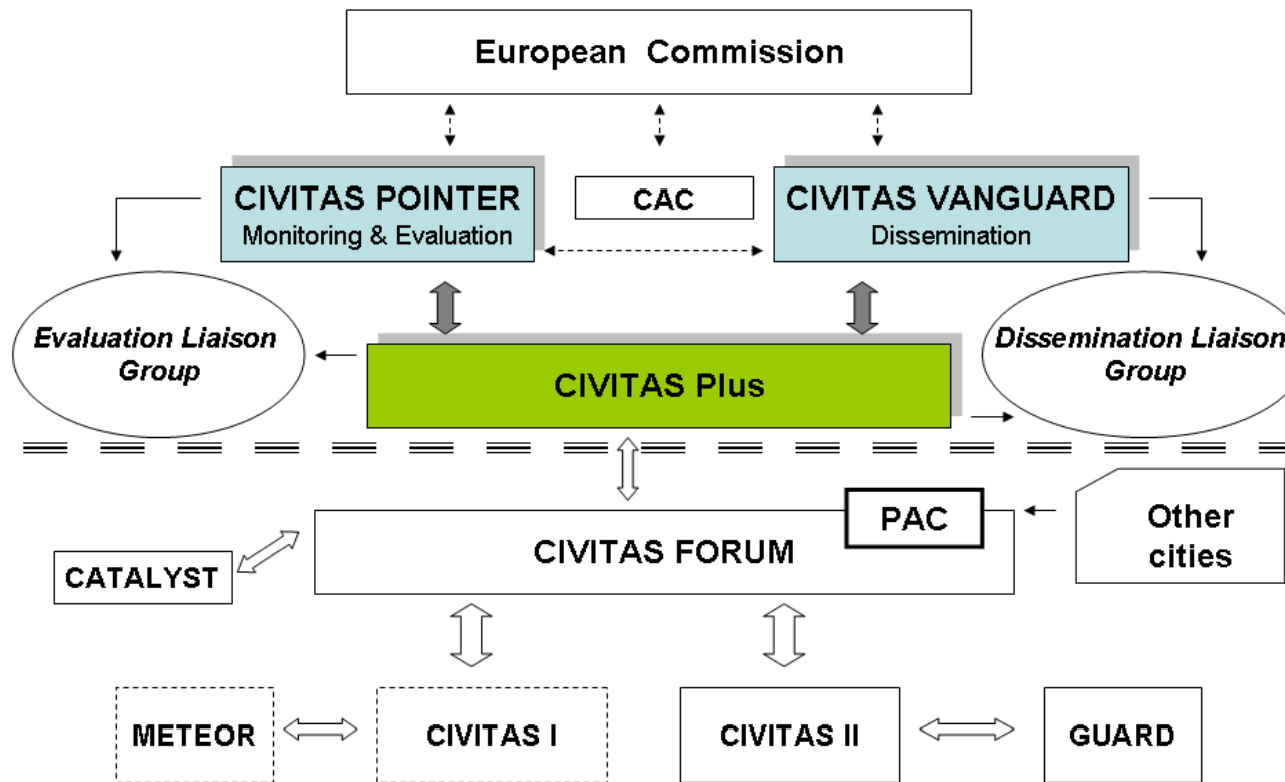
CIVITAS is a
programme
“of cities for cities”:

CIVITAS is
coordinated by cities
which also represent
real living
“laboratories” for
learning and
evaluating

www.civitas.eu



CIVITAS Framework and POINTER



POINTER:

support action
for monitoring and
evaluation
in CIVITAS PLUS



POINTER Tasks

1) Monitoring

Establishing and implementing of monitoring procedures to independently report on the progress of the CIVITAS Plus projects (quality assurance and support to cities)

2) Evaluation

Independent overall cross-site evaluation of CIVITAS Plus measures:

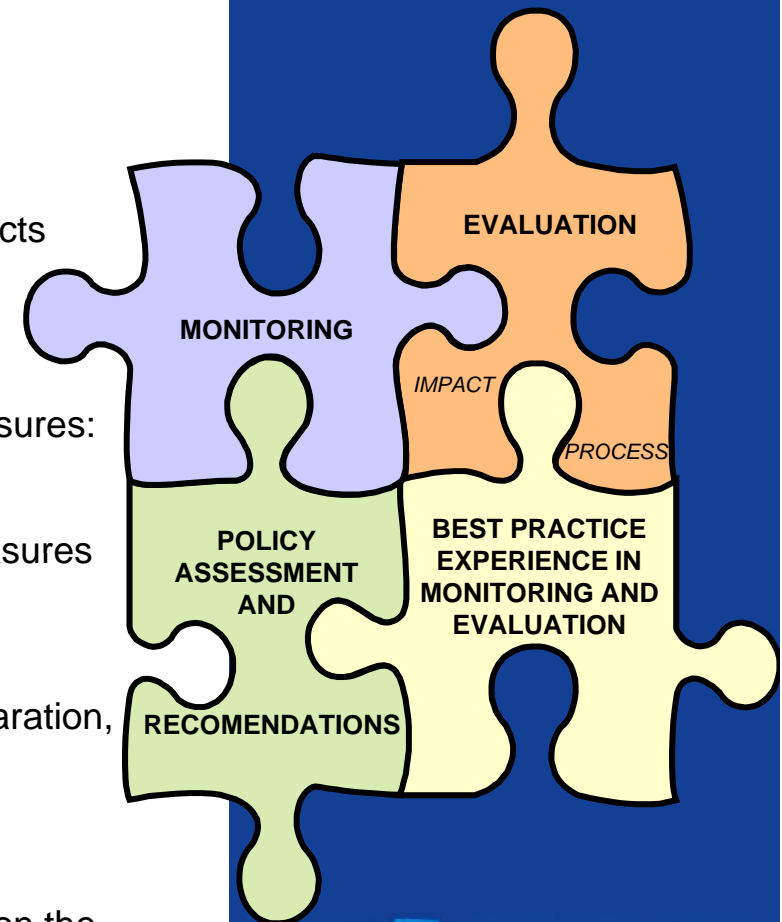
- Impact evaluation
To understand the impact of measures or groups of measures enabling a clear interpretation of the results
- Process evaluation
To get insight in the drivers and barriers during the preparation, implementation and operation of the measures

3) Policy Assessment and Recommendations

Development of clear European-level policy recommendations on the basis of validated city results

4) Best Practice experience in Monitoring and Evaluation

Dissemination of best practices on monitoring and evaluation based upon the experiences gained in POINTER



CIVITAS Themes (categories of measures)

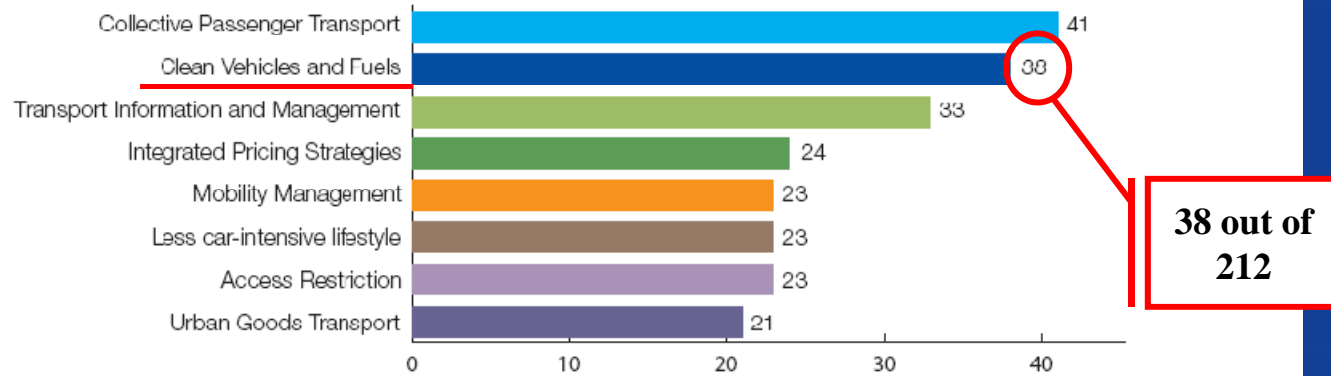
CIVITAS I	CIVITAS II	CIVITAS Plus
WP12: Clean private and public fleets	WP5: Clean vehicles and alternative fuels	1: Alternative fuels & clean, energy-efficient vehicles
WP7: Stimulation of PT modes	WP8: Stimulation of PT modes	2: High quality energy-efficient Passenger Transport
WP6: Integrated pricing strategies	WP7: Integrated pricing strategies	3: Economic based Demand Management strategies
WP5: Access restriction	WP6: Access management	4: Mobility Management, Communication & Education
WP10: Innovative soft measures	WP11: Innovative soft measures	5: Safety and Security
WP8: New forms of vehicle use and ownership	WP9: New forms of vehicle use and ownership	6: Mobility services for energy-efficient vehicle use
WP9: New concepts for goods distribution	WP10: New concepts for goods distribution	7: Energy-efficient freight distribution
WP11: Integration of traffic management systems	WP12: Telematics	8: Innovative Transport Telematics systems

**Energy efficiency
has become more and more relevant in CIVITAS**



CIVITAS I (2002-2006) Overview

The bulk of efforts was placed on Public Transport and promotion of the use of alternative vehicles and fuels

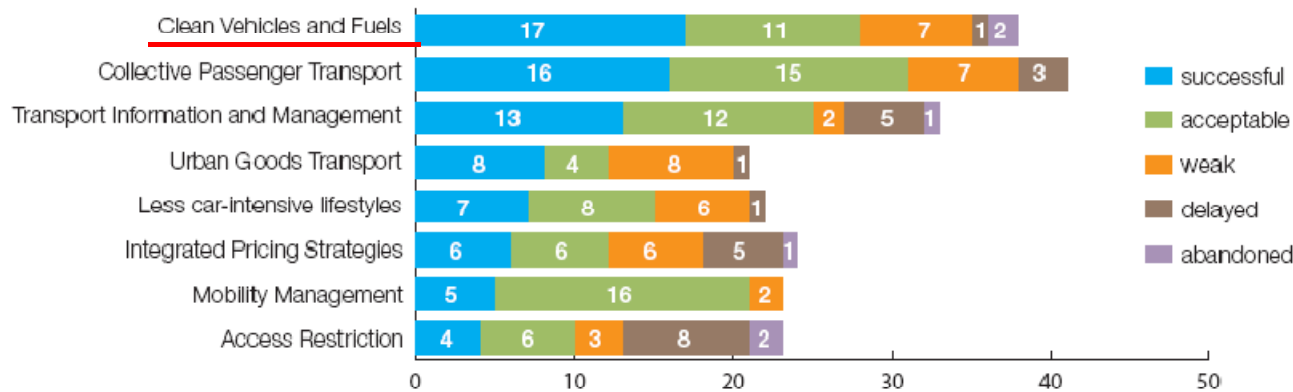


38 measures divided in to three clusters:

1. PUBLIC FLEETS
2. PRIVATE FLEETS
3. SUPPORTING INFRASTRUCTURE AND INCENTIVES

38 out of 212

The implementation of measures was largely successful

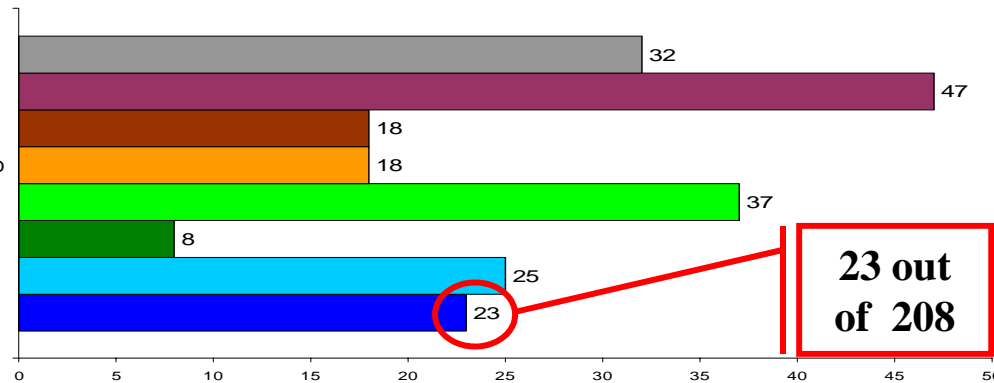


Over 70% were satisfactory completed, some 20% proved to be troublesome, while just 5% were to be replaced or halted



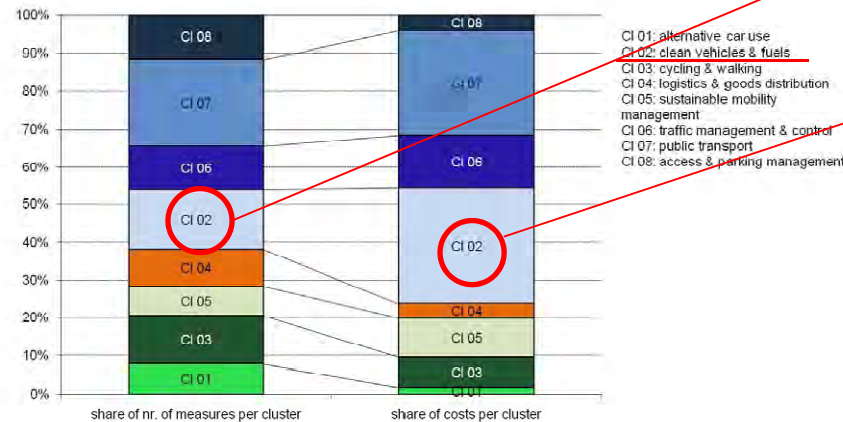
CIVITAS II (2005-2009) Overview

- Telematics
- Innovative soft measures
- New concepts for goods distribution
- New forms of vehicle se & ownership
- Stimulation of PT modes
- Integrated pricing strategies
- Access Management
- Clean vehicles and alternative fuels



One of the biggest cluster in terms of the number of measures included involving the biggest share of the budget for measure implementation

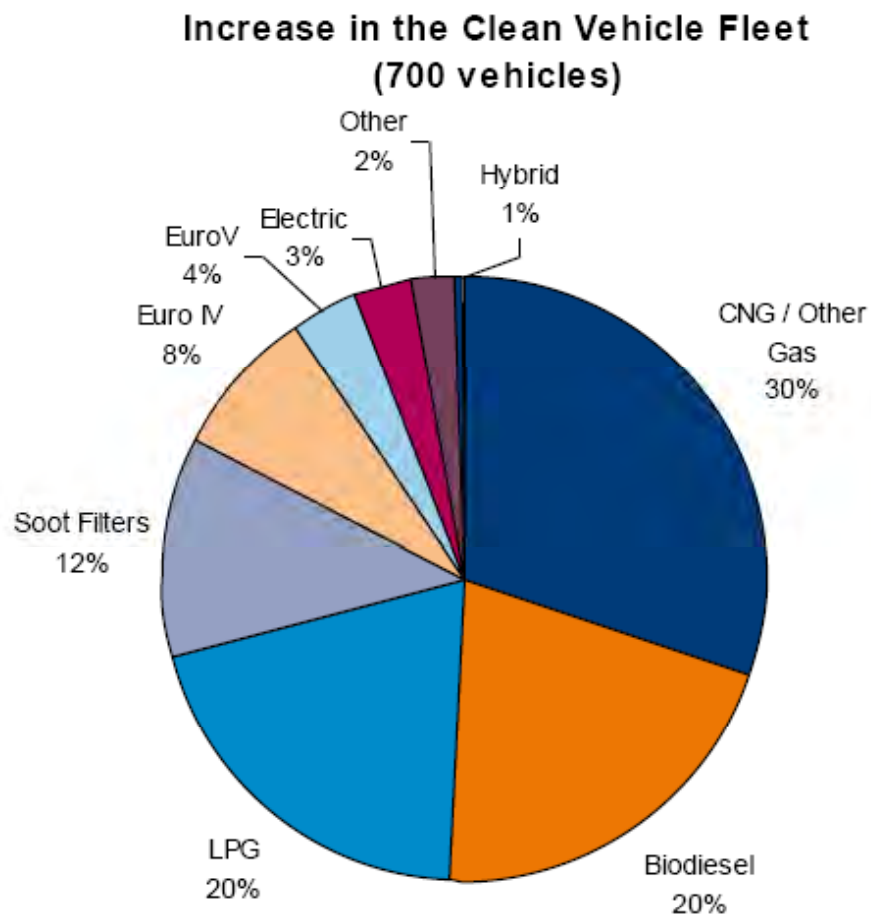
Share of number of measures versus share of costs per clusters



Resources per measure are over average



CIVITAS II (2005-2009) Alternative fuels and clean vehicles



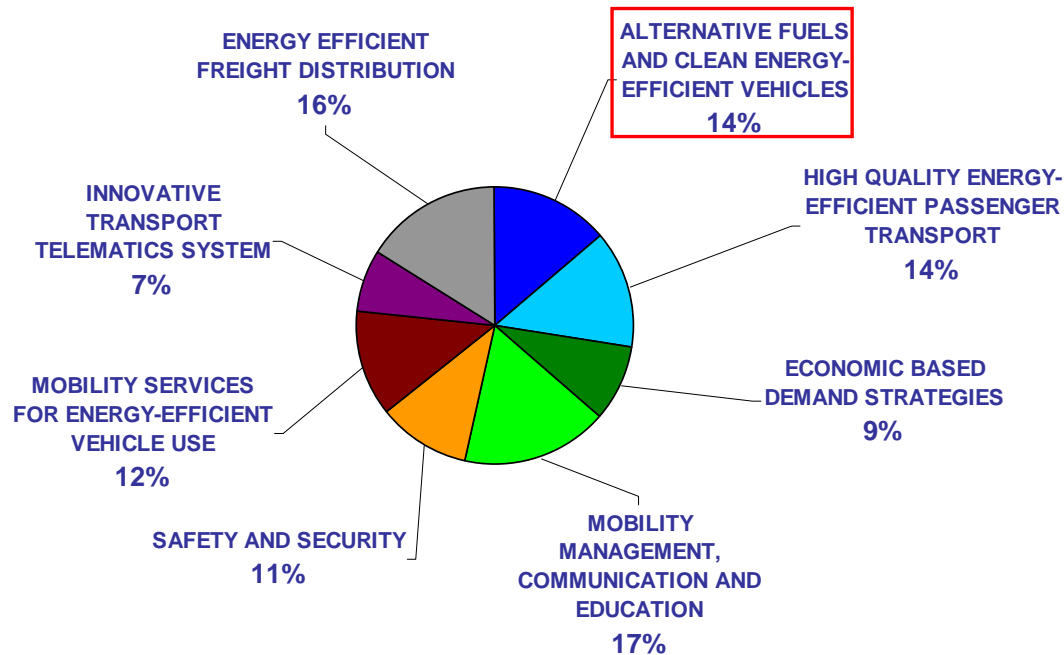
CIVITAS PLUS (2008-2012)

Alternative fuels and clean vehicles

Overview

42 measures, among the 25 cities, out of 305
 At least one measure per city – except for some cities:
 Gent (5), Zagreb (3), Ljubljana (3), Craiova (3)

CIVITAS PLUS Measures per theme



4 Italian cities



MONZA



BOLOGNA
(Leader)



BRESCIA



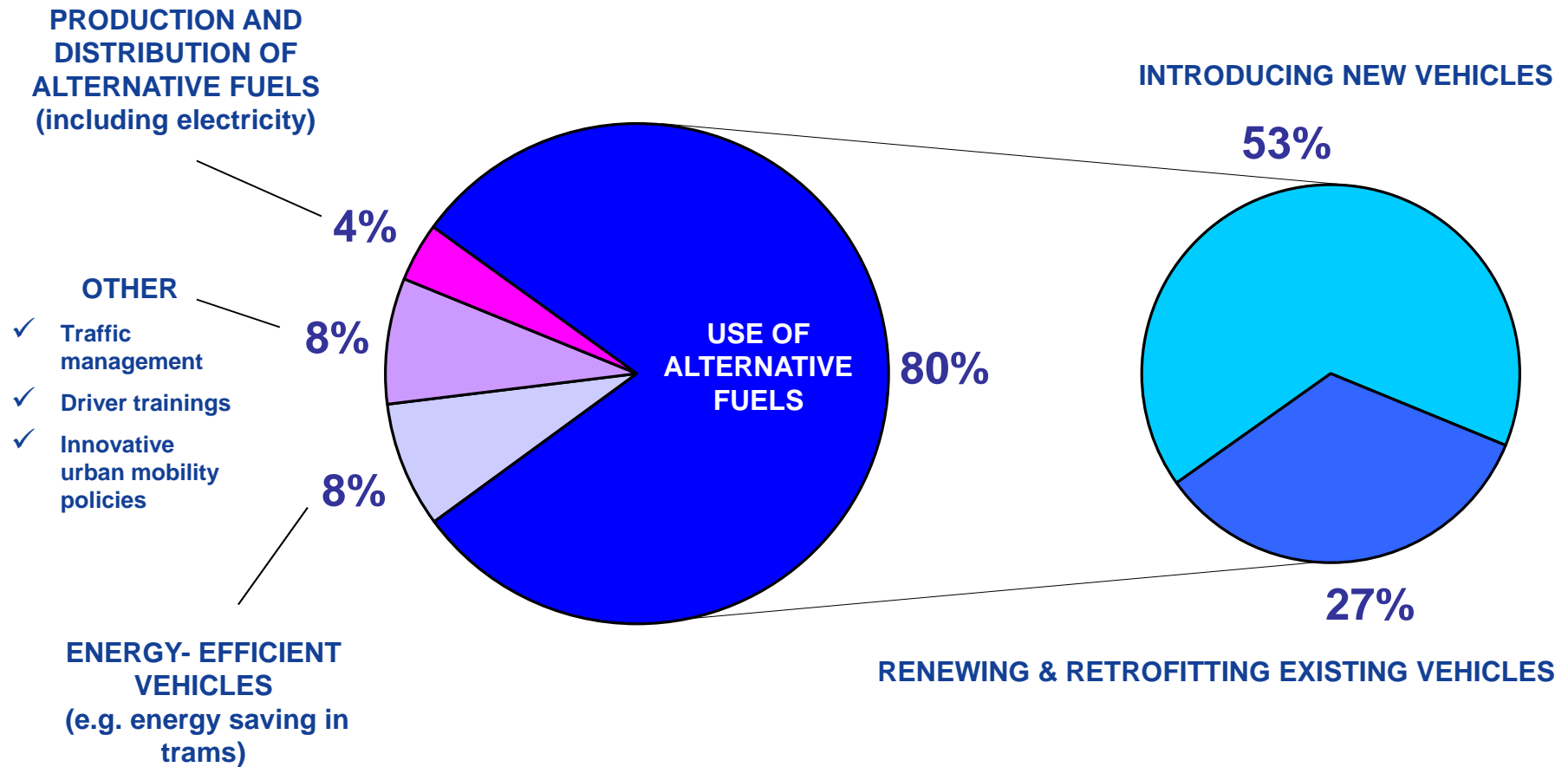
PERUGIA
(Leader)



CIVITAS PLUS

Alternative fuels and clean vehicles

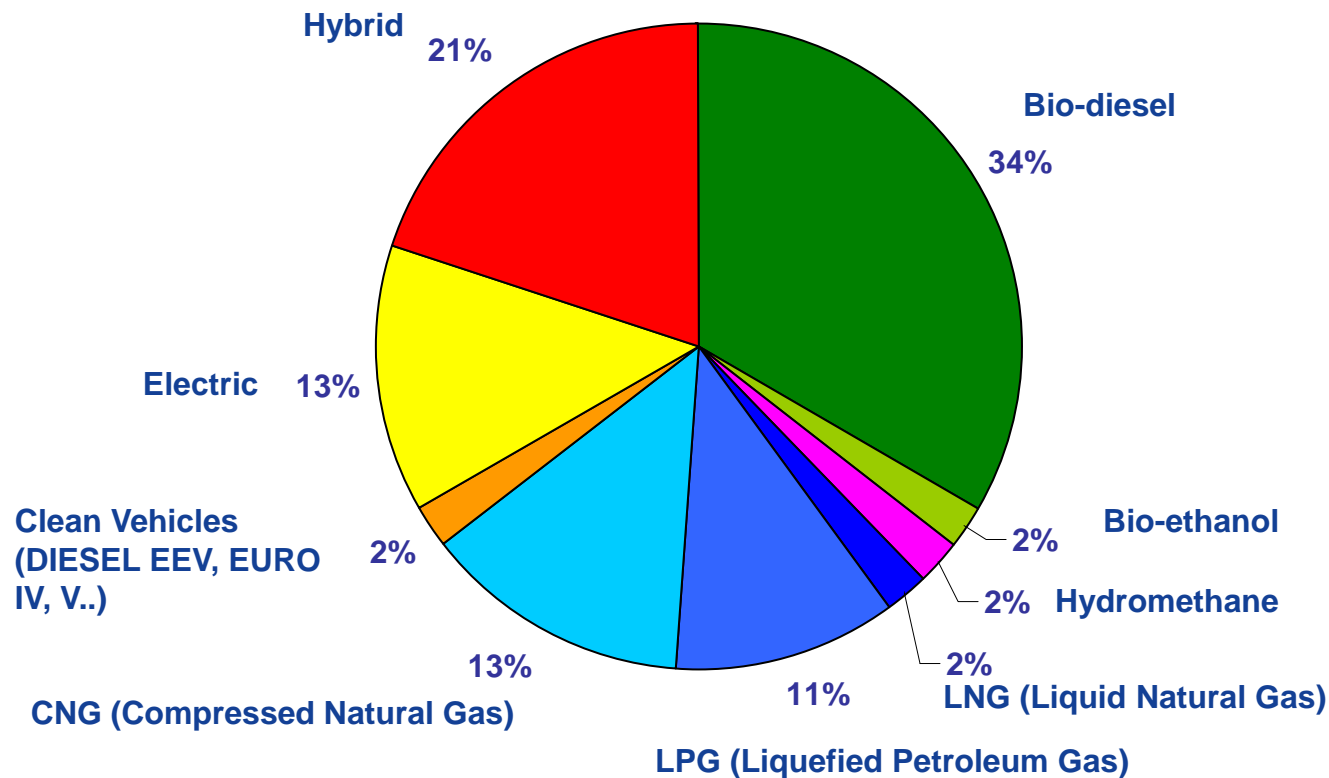
Measures



CIVITAS PLUS

Alternative fuels and clean vehicles

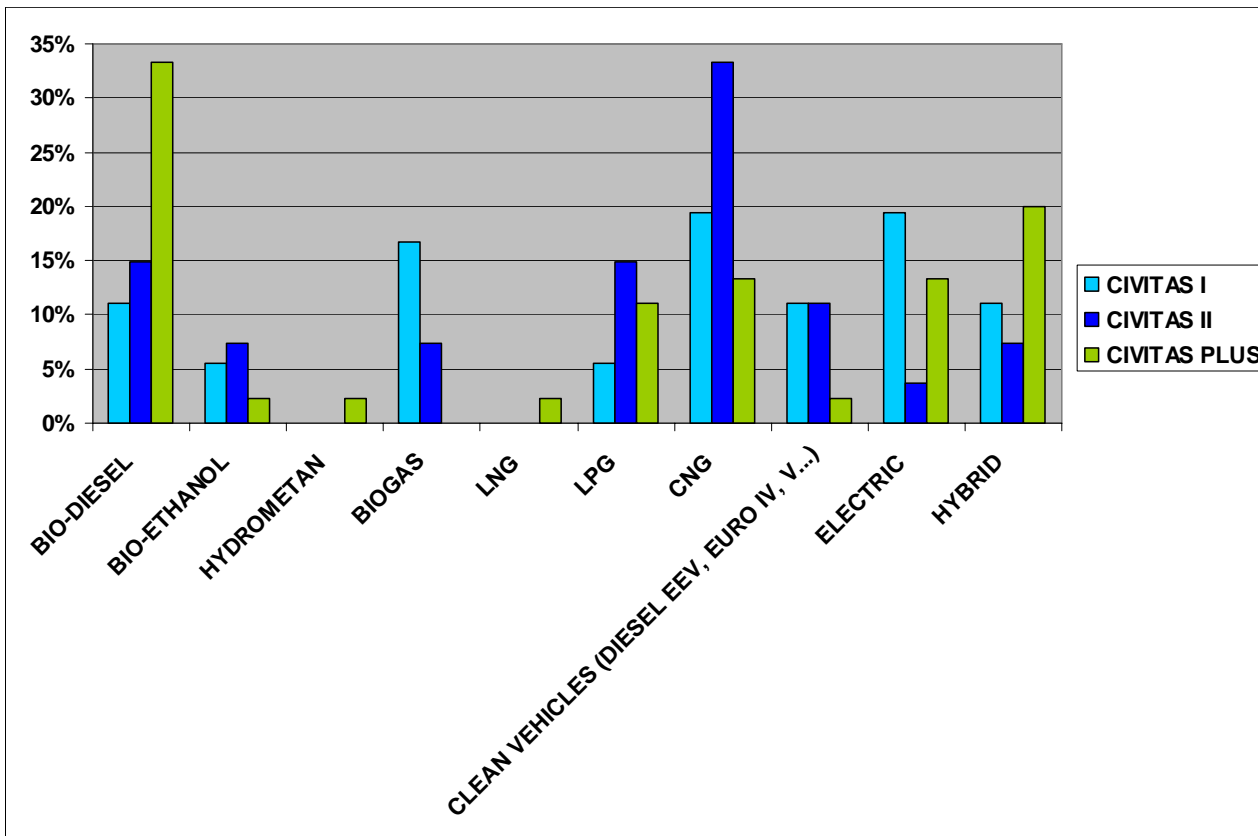
Fuels and technologies



- One third of Bio-fuels
- One third of GAS fuels
- One third of Electric or Hybrid vehicles
- Only few “clean” DIESEL vehicles



CIVITAS PLUS vs CIVITAS I and II Fuels - engines



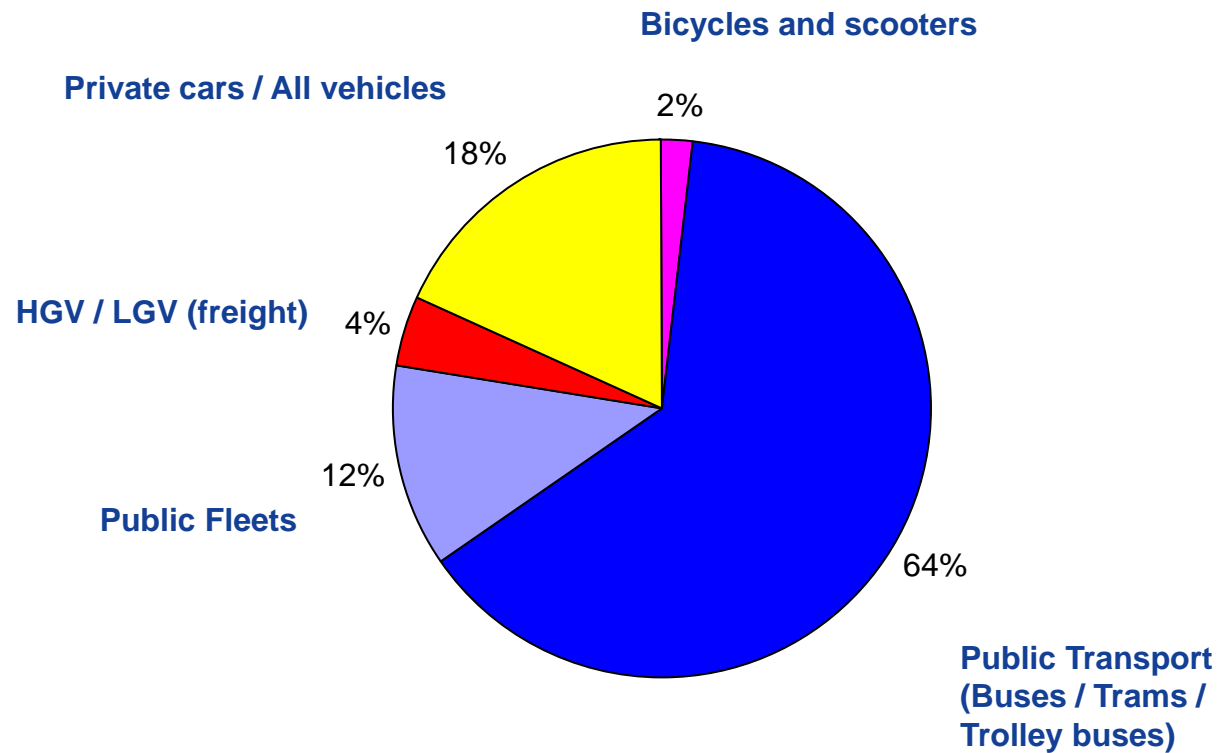
- Increase in use of Bio-diesel
- Testing of new fuels and technologies (hydromethane, LNG and Hybrid vehicles)
- Less efforts in simply “cleaning” traditional DIESEL engines
- No more applications of Bio-gas



CIVITAS PLUS





Alternative fuels and clean vehicles

Vehicles and users



CIVITAS PLUS

Some examples

BOLOGNA	MEASURE	EXPECTED OUTCOMES
 <p>Cleaner bus</p>	<p>A feasibility study to analyse two alternative fuel options:</p> <ul style="list-style-type: none"> •HYDROMETHANE •LNG (LIQUID METHANE) 	<p>Realization of a mini-fleet of very low emission buses running as part of the Bologna urban service</p>
 <p>Clean PT Fleet in Perugia</p>	<p>16% of buses in public transport fleet retrofitted with an innovative dual-fuel solution (DIESEL/METHANE)</p>	<p>Significant reduction in greenhouse gas emissions</p> <p>(HC: - 35%; CO: -25%; NOx: -75%; PM10: -73%)</p>
 <p>Bus in Vitoria-Gasteiz</p>	<p>Incorporation of 4 clean buses (fuel-flexible and hybrid) into the public buses fleet</p>	<p>Contributing to the Local Strategy for the prevention of Climate Change</p> <p>(2003-2010 Local Air Quality Management Plan)</p>
 <p>Parking tariff differentiation</p>	<p>Pilot project to test the effectiveness of differentiating parking tariffs according to environmental characteristics of vehicles</p>	<p>Stimulating the purchase and the use of environmentally friendlier vehicles</p> <p>(i.e. fuelled by innovative fuels)</p>

MORE INFO ON:
www.civitas.eu

HYDROMETHANE

DUAL- FUEL BUSES

FUEL –FLEXIBLE BUSES

NEW ENVIRONMENTAL
PARKING POLICY

Thank you!

Simone Bosetti
TRT Trasporti e Territorio
Milan, Italy

bosetti@trttrasportieterritorio.it
www.trttrasportieterritorio.it

Ricerche e Trasporti



www.ricerchetrasporti.it
The Italian web portal of
researching, studying and
discussion on transport topics

ELTIS



www.eltis.org
Europe's N° 1 web portal on
urban transport and mobility



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION