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Cleaner and better transport in cities

ARCHIMEDES

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Monza

T79.1 – Improved Traveller Information in Monza

City of Monza

January 2012



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1 Introduction

1.1 Background CIVITAS

CIVITAS - cleaner and better transport in cities - stands for City-VITALity-Sustainability. With the CIVITAS Initiative, the EC aims to generate a decisive breakthrough by supporting and evaluating the implementation of ambitious integrated sustainable urban transport strategies that should make a real difference for the welfare of the European citizen.

CIVITAS I started in early 2002 (within the 5th Framework Research Programme);
CIVITAS II started in early 2005 (within the 6th Framework Research Programme) and
CIVITAS PLUS started in late 2008 (within the 7th Framework Research Programme).

The objective of CIVITAS-Plus is to test and increase the understanding of the frameworks, processes and packaging required to successfully introduce bold, integrated and innovative strategies for clean and sustainable urban transport that address concerns related to energy-efficiency, transport policy and road safety, alternative fuels and the environment.

Within CIVITAS I (2002-2006) there are 19 cities clustered in 4 demonstration projects, within CIVITAS II (2005-2009) 17 cities in 4 demonstration projects, whilst within CIVITAS PLUS (2008-2012) 25 cities in 5 demonstration projects are taking part. These demonstration cities all over Europe will be funded by the European Commission.

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

Horizontal projects support the CIVITAS demonstration projects & cities by :

- Cross-site evaluation and Europe wide dissemination in co-operation with the demonstration projects
- The organisation of the annual meeting of CIVITAS Forum members
- Providing the Secretariat for the Political Advisory Committee (PAC)
- Development of policy recommendations for a long-term multiplier effect of CIVITAS

Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme “of cities for cities”
- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living ‘Laboratories’ for learning and evaluating

1.2 Background ARCHIMEDES

ARCHIMEDES is an integrating project, bringing together 6 European cities to address problems and opportunities for creating environmentally sustainable, safe and energy efficient transport systems in medium sized urban areas.

The objective of ARCHIMEDES is to introduce innovative, integrated and ambitious strategies for clean, energy-efficient, sustainable urban transport to achieve significant impacts in the policy fields of energy, transport, and environmental sustainability. An ambitious blend of policy tools and measures will increase energy-efficiency in transport, provide safer and more convenient travel for all, using a higher share of clean engine technology and fuels, resulting in an enhanced urban environment (including reduced noise and air pollution). Visible and measurable impacts will result from significantly sized measures in specific innovation areas. Demonstrations of innovative transport technologies, policy measures and partnership working, combined with targeted research, will verify the best frameworks, processes and packaging required to successfully transfer the strategies to other cities.

1.3 Participant Cities

The ARCHIMEDES project focuses on activities in specific innovation areas of each city, known as the CIVITAS corridor or zone (depending on shape and geography). These innovation areas extend to the peri-urban fringe and the administrative boundaries of regional authorities and neighbouring administrations.

The two Learning cities, to which experience and best-practice will be transferred are Monza (Italy) and Ústí nad Labem (Czech Republic). The strategy for the project is to ensure that the tools and measures developed have the widest application throughout Europe, tested via the Learning Cities' activities and interaction with the Lead City partners.

1.3.1 Leading City Innovation Areas

The four Leading cities proposed in the ARCHIMEDES project are:

- Aalborg (Denmark);
- Brighton & Hove (UK);
- Donostia-San Sebastián (Spain); and
- Iasi (Romania).

Together the Lead Cities in ARCHIMEDES cover different geographic parts of Europe. They have the full support of the relevant political representatives for the project, and are well able to implement the innovative range of demonstration activities proposed.

The Lead Cities are joined in their local projects by a small number of key partners that show a high level of commitment to the project objectives of energy-efficient urban transportation. In all cases the public transport company features as a partner in the proposed project.

2 Monza

Monza is a city on the river Lambro, a tributary of the Po, in the Lombardy region of Italy, some 15km north-northeast of Milan. It is the third-largest city of Lombardy and the most important

economic, industrial and administrative centre of the Brianza area, supporting a textile industry and a publishing trade. It is best known for its Grand Prix.

The City of Monza, with approximately 121,000 inhabitants, is located 15 km north of Milan, which is the centre of the Lombardia area. This area is one of the engines of the Italian economy; the number of companies is 58,500, i.e. a company for every 13 inhabitants.

Monza is affected by a huge amount of traffic that crosses the city to reach Milan and the highways nodes located between Monza and Milan. It is also an important node in the Railways network, crossed by routes connecting Milan with Como and Switzerland, Lecco and Sondrio, Bergamo and Brianza. "Regione Lombardia", which in the new devolution framework started in 1998, has full responsibility for establishing the Local Public Transportation System (trains, coaches and buses) and has created a new approach for urban rail routes using an approach similar to the German S-Line or Paris RER.

Monza has recently become the head of the new "Monza and Brianza" province, with approximately 750,000 inhabitants, so will gain the full range of administration functions by 2009. Plan-making responsibilities and an influence over peri-urban areas will require the city to develop new competencies.

In this context, the objective of the City of Monza in participating in CIVITAS as a Learning City is to set up an Urban Mobility System where the impact of private traffic can be reduced, creating a new mobility offer, where alternative modes become increasingly significant, leading to improvements to the urban environment and a reduction in energy consumption (and concurrent pollution).

3 Background to the Deliverable

In the context of Sustainable Mobility, the use of Public Transport in the City of Monza needs to be increased. In order to achieve this objective, in the ARCHIMEDES framework a positive choice has been made, with the full support of the government of the Municipality, to implement technological measures to make Public Transport more attractive to citizens.

With measure no. 79 "(Improved Traveller Information in Monza)", an Advanced Traveller Information Service for Urban Public Transport has been set up providing real time information at the most important bus stops in the city and at the Porta Castello interchange.

The implementation of the measure has been enabled by the activation of measure no. 78 (Bus Management System in Monza) which has allowed Bus Localisation and Monitoring, a fundamental prerequisite to define the kind of information to be provided to Public Transport users.

The measure covers 2 tasks.

Research Stage: Task 11.8.7 Bus Traveller Information Study

A study has been undertaken by Comune of Monza, with the technological support of PA and the operational support of NET to define the requirements of the kind of information to be provided to passengers at key interchanges and key bus stops in Monza.

Demonstration Stage: Task 8.14 Improved Traveller Information

Real time passenger information provided by the Bus Management System is provided by NET to passengers at 10 key stops and at the "Porta Castello" interchange.

3.1 Summary Description of the Task

Within this demonstration task, the work has focused on the installation of the devices which have been chosen to provide real time information to PT users in Monza.

Starting from the analysis of the actual Urban Public Transport network, the most suitable locations to install Passenger Information Display Systems (PIDS) have been identified, with a particular focus on most frequented lines, which cover the CIVITAS corridor for public transport.

The software and the technological framework necessary to implement the measure have been identified, consisting of:

- a. the Electronic Display to be installed at the bus stops identified,
- b. an interactive totem to be installed at Porta Castello interchange node to provide complete information on the PT service to passengers (timetables, routes)

Inspections of the locations of the 30 bus shelters to be installed have been made in order to define the precise positioning of displays and the necessary electrical connections.

NET, which has supported Comune of Monza in carrying out site investigations for the installation of devices, has encountered some difficulties with costs' estimates provided by the electricity supplier. These problems were eventually overcome and the totem and first bus stops was installed in December 2011. Remaining bus stops will be installed in next months.

4 Study of Bus Traveller Information

4.1 Description of the Work Done

4.1.1 Prerequisite of AVL/AVM system

On Monza territory, there are six urban lines which were previously managed by TPM, a company 100% controlled by the Municipality of Monza, and several other lines managed by other transportation companies which connect different cities of Brianza to Monza railway station or to the MM1 terminus in Sesto San Giovanni. The urban network is depicted in Figure 1 and the complete network with suburban lines, is depicted in Figure 2.

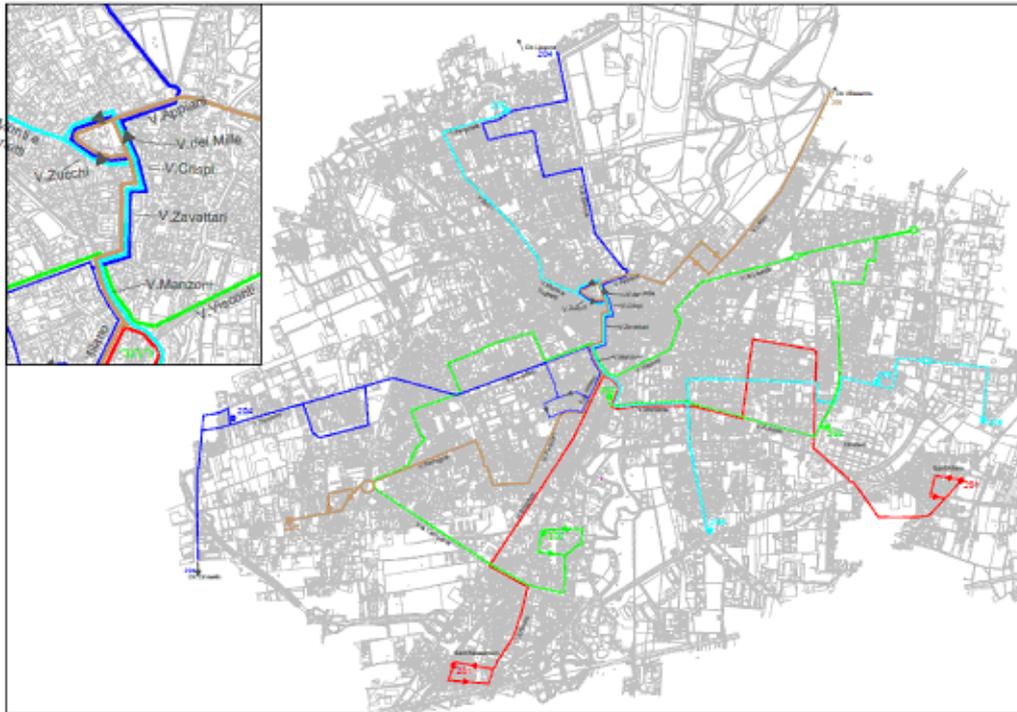


Figure 1 - Monza urban PT network

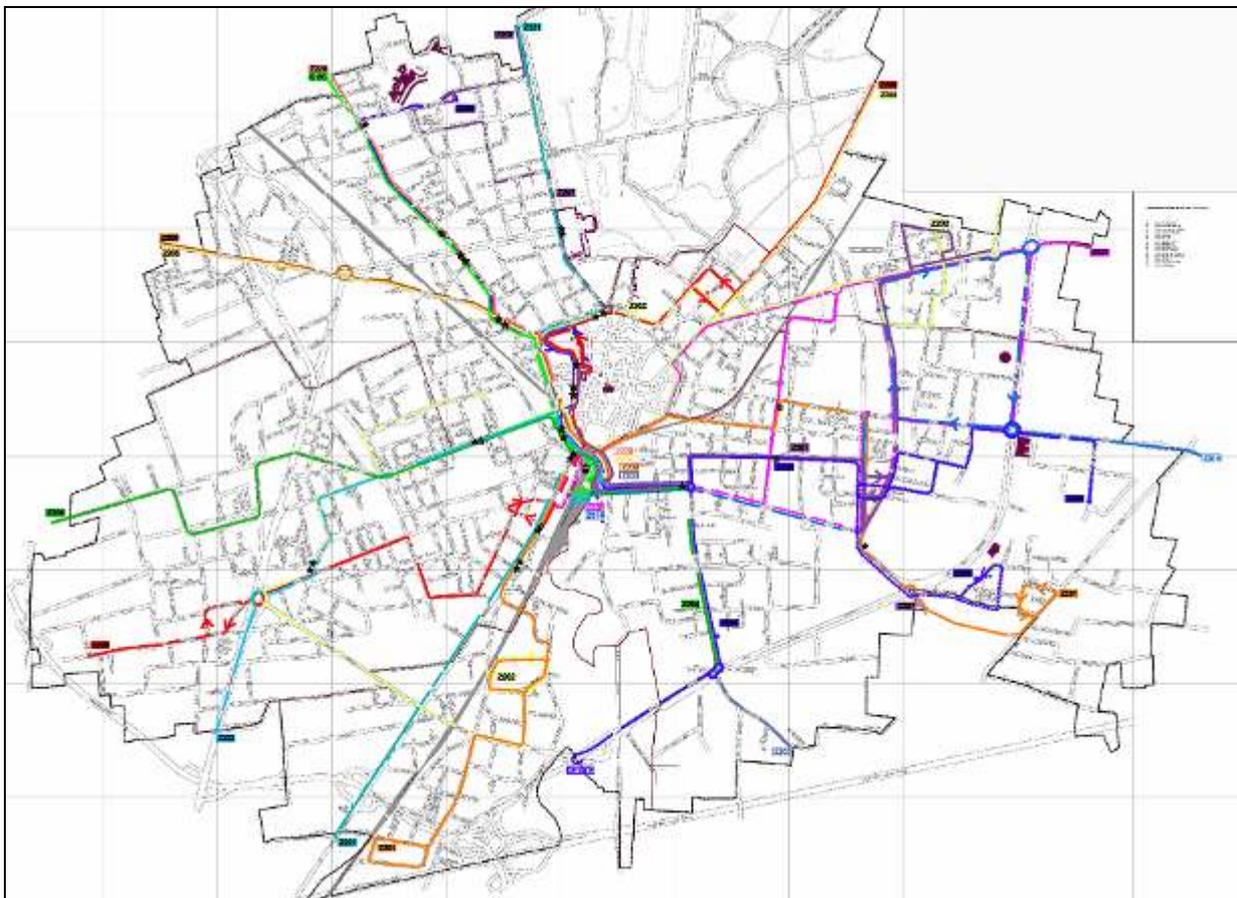


Figure 2 - Monza PT network (urban and suburban lines)

In September 2009, TPM merged with NET, a Public Transport (PT) company in which ATM (the company which runs the bus and the metro service in Milan) has a stake, so the urban lines are now managed by NET.

Before merging with NET, TPM had already installed an AVL/AVM system on its fleet, but that system needed significant upgrades to fulfil the ARCHIMEDES requirements.

The new management of the service, exploiting experience of ATM, decided to extend an existing AVL/AVM system, already active on the ATM fleet to the fleet inherited by TPM; these required extensions have been successfully accomplished in a short time, due to the internal design of this new AVM/AVM system. Since July 2010, every vehicle in the NET fleet has been equipped with an On-Board Unit (OBU) consisting of an Industrial PC with specific devices and sensors:

- a GPS device to determine the vehicle position, coded with Lat-Long coordinate system (WGS 84);
- a GPRS communication system to send the information to a Control Centre; this communication method has been chosen since it was already used before managing TPM fleet; ATM and NET fleets are monitored across a wide area and GPRS ensures the required coverage;

As the driver begins his shift, he identifies himself to the system, typing his personal code on a dedicated keyboard.

Data concerning vehicle positions are produced at a given frequency (sampling interval is about 10 seconds) and sent to the Control Centre at another given frequency (transmission interval is about 1-2 minutes). Once records are received by the Control Centre they are processed by the GPCWIN FET module which analyses them and store them in a database table, for subsequent use. Such analyses allow to provision of accurate data, filtering possible outliers. In the ARCHIMEDES context, the immediate use provides information which can be used for Measure 79 (InfoBus) and for Measure 82 (Bus priority at intersections on the corridor identified). In addition, data is available for every type of off-line statistical analyses; typical application of such analyses are to assess if the planned service is coherent with the actual one in order to plan adjustments to timetables.

The technological framework needed to provide end-user information concerning the actual arrival time of buses has been already described in Deliverable R.79.1 and is summarised in Figure 3.

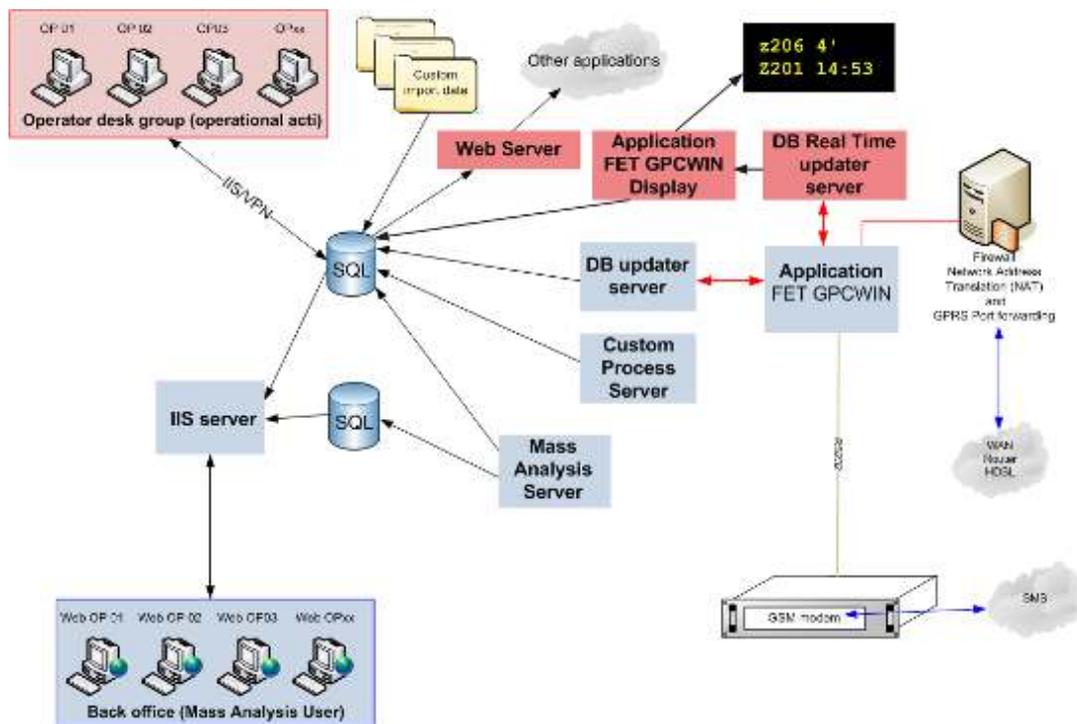


Figure 3 - Architecture of the system

This system provides real time positional data collected from the buses of the Public Transport Fleet, as it is received by the Central system, through the specific software module “DB Real Time Updater Server”.

These data are then transferred to another software module running in the Central System (“Electronic Display Server”) which is aimed at preparing data for every Electronic Display board installed across the city, depicted in Figure 3 by the black symbol with yellow characters.

Such Real Time data will also be available to other future applications, as depicted by the grey cloud in the upper right position of Figure 3.

4.1.2 Identification of bus stops

The most important bus stops of the PT network have been identified in order to define where to install bus stops with electronic displays.

The choice of the bus stops has been shared with NET and with the Province of Monza and Brianza with the aim of installing thirty electronic bus stops, ten of which will be located on one of the two CIVITAS corridors which were identified at the beginning of ARCHIMEDES project. More specifically this is the corridor mainly dedicated to Public Transport routes, which goes from Porta Castello interchange node, located at the bottom of the orange line in the following figure, close to the central Railway Station of Monza, to Viale Cesare Battisti, where it joins the corridor dedicated to private traffic (depicted with the purple line).

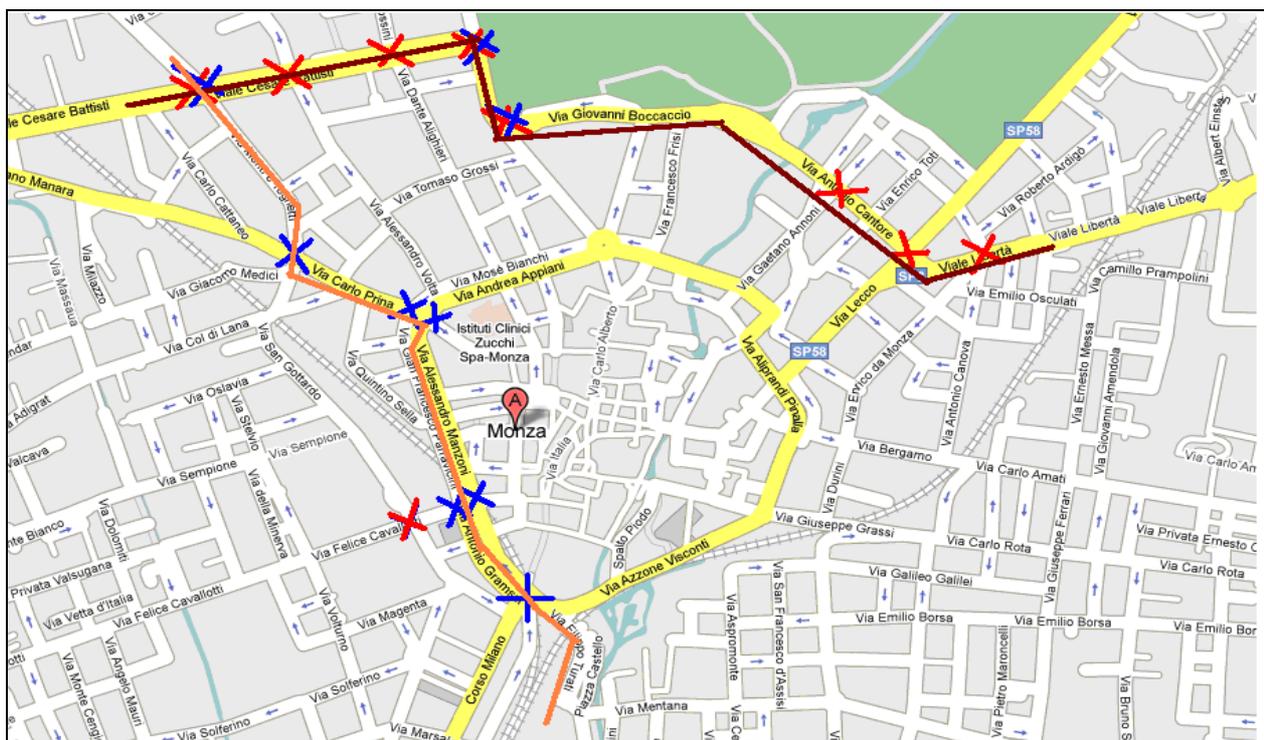


Figure 4 - Monza CIVITAS Corridors

In addition, it was decided to install electronic bus stops where the largest number of lines stop, so the information to PT users can be more complete and can also help with interchanges between different lines.

Starting from this approach, NET has proposed its list of thirty bus stops where new shelters are being installed, according to the following table.

Bus stop location	Bus stop denomination
Via Ferrari after Via Amati	Ferrari Amati
Via Borsa, before Via Ferrari	Borsa Ferrari
Via Manzoni – Via Osio, both directions	Manzoni Osio
Via Zavattari, both directions	Zavattari Trento e Trieste
Via Prina after Via Borghetto	Prina Borghetto
Via Prina after Via Villoresi	Prina Villoresi
Via Monti e Tognetti – Via Sirtori, both directions	Monti e Tognetti Sirtori
Via Boito – Via Pero	Boito Pero
Corso Milano -Largo Molinetto both directions	Milano Molinetto
Via Mentana before Via Buonarroti	Mentana Buonarroti
Piazza Citterio - Via Appiani both directions	Citterio Appiani
Via Cavallotti – Via A. da Brescia both directions	Cavallotti Da Brescia
Corso Milano railway Stazione both directions	Milano Stazione
Viale Regina Margherita - Viale Battisti both directions	Regina Margherita Battisti
Via Meda - Via Romagna both directions	Romagna Meda
Via Pergolesi Hospital entrance	Pergolesi Ospedale
Piazza Carducci	Carducci Municipio
Piazza Cimitero	Cimitero Salvadori
Via Borgazzi – Via Galvani both directions	Borgazzi Galvani



Fermate NET

Fermate NET

- ▲ Normale
- Altimetrica

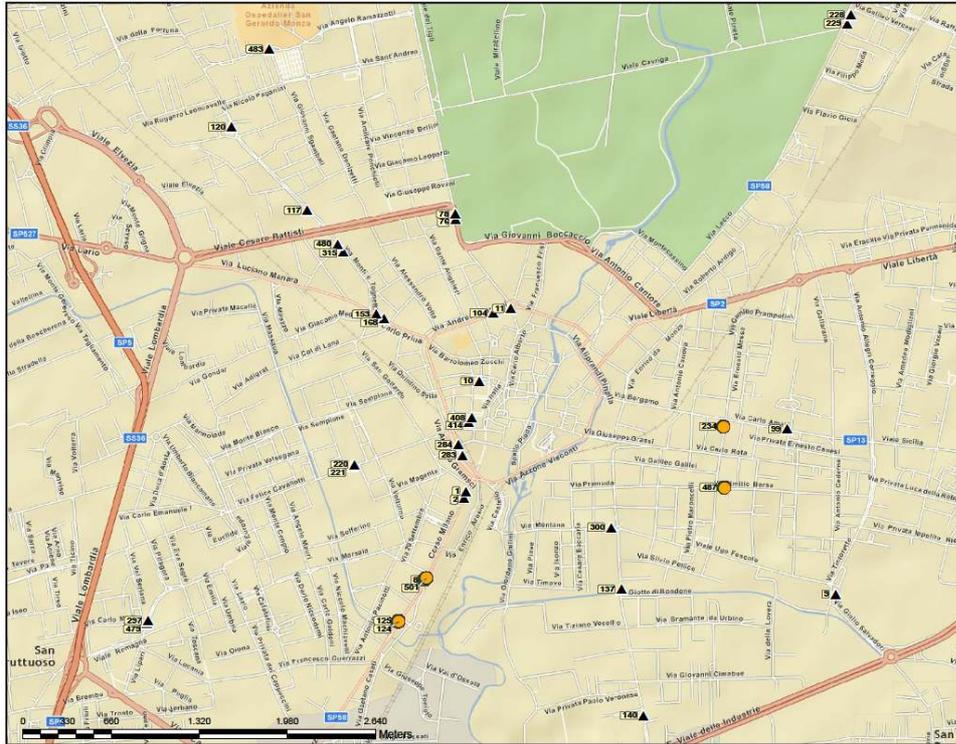


Figure 5 - Electronic bus stops location

After defining the location of bus stops, inspections have been made to define the precise positioning and the necessary electrical connections. At this stage, NET, who supported Comune of Monza in carrying out practicalities for the installation of devices, has encountered some difficulties with the electricity supplier as far as the definition of costs estimates was concerned, but fortunately these problems were soon resolved and installation works have begun.

The chosen device is Aesys series HG5M whose electronic display can be both connected to a power supply line and fed by solar power. In the city of Monza both of these options have been installed. The functions are the same: the only difference is that with a power supply connection the display can always be active; however, when the electronic display is fed by solar power the display only shows the contents for some seconds every minute, in order to reduce energy consumption.

The first two bus stops have been installed in Piazza Castello, just outside the railway station, where many important PT lines pass, and have been made immediately operational since the display receives information in real time about the bus location relying on the software system installed on all NET bus fleet used also for Measure no. 78 (Bus localization system). The following figures show both types of electronic bus stops installed.



Figure 6 - Front view of photovoltaic bus stop



Figure 7 - Side view of photovoltaic bus stop



Figure 8 –Photovoltaic electronic bus stop showing arrival times



Figure 9 - Electric bus stop



Figure 10 – Electric bus stop showing arrival time

4.1.3 Interactive Totem in Piazza Castello interchange node

As far as the more complete communication system to be located at Porta Castello interchange node is concerned, a vertical interactive totem produced by Samsung has been installed; its functions allow a strong interaction with users, thanks to a touch screen function and built-in speakers.

More specifically, the chosen device is an outdoor solution LCD 46" all in one, described as an exclusive DID (Digital Information Display). It is equipped with a PC and network connectivity in order to be remotely controlled via LAN/WAN, and with a high brightness panel.

A conditioning system is included and the totem is provided with protective glass to resist vandalism. As an outdoor device, it has been designed to endure rain, snow, heat, dust and difficult environmental conditions in general.



Figure 11 - SAMSUNG Totem 460 DRn -A

Initially it was intended to locate the totem at the entrance to the subway leading to the railway station platform. However, it was difficult to reach agreement with Rete Ferroviaria Italiana (Owner of the Italian Rail Network), especially as far as electricity supply was concerned, and it has since been decided to install the totem in Piazza Castello, just before the entrance to the railway station forecourt, in order to take the power directly from a building owned by the municipality.

The following figures show the initial siting, in which the totem is located in front of the Urban Centre of Monza (figure on the left), and the actual installation below in the bus shelter (on the right), in order to better protect the totem, on the one hand, and to make it more accessible to people waiting for buses even in bad weather conditions, on the other, as well as allowing for wi-fi connection through the Municipality net serving the Urban Centre.



Figure 12 - Initial siting and definitive location of totem

The following information has been made available on the totem:

- Monza Public Transport network
- Monza – Milan – Monza trains' timetable

- Around me (indicating location of public offices, events, retailers of PT tickets, churches, offices etc.)
- Real time situation of flights at Malpensa and Linate airports
- Real time Milan Metro situation
- Events at Milan – Rho Fair
- News concerning mobility, events and Municipality of Monza (through RSS feed)
- Meteo.

The following figures depict the appearance of the totem, which was previewed during the Monza Consortium Meeting.

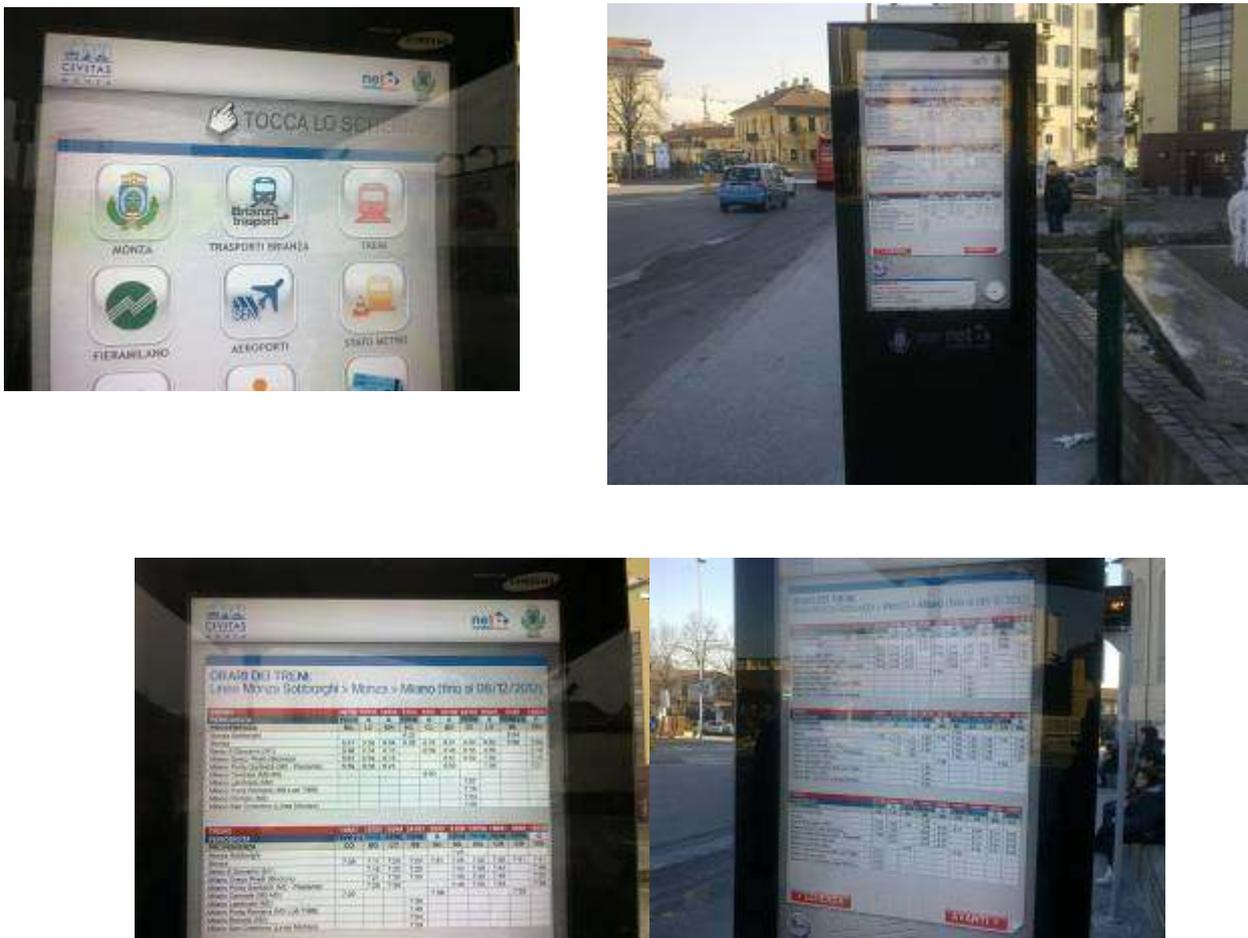
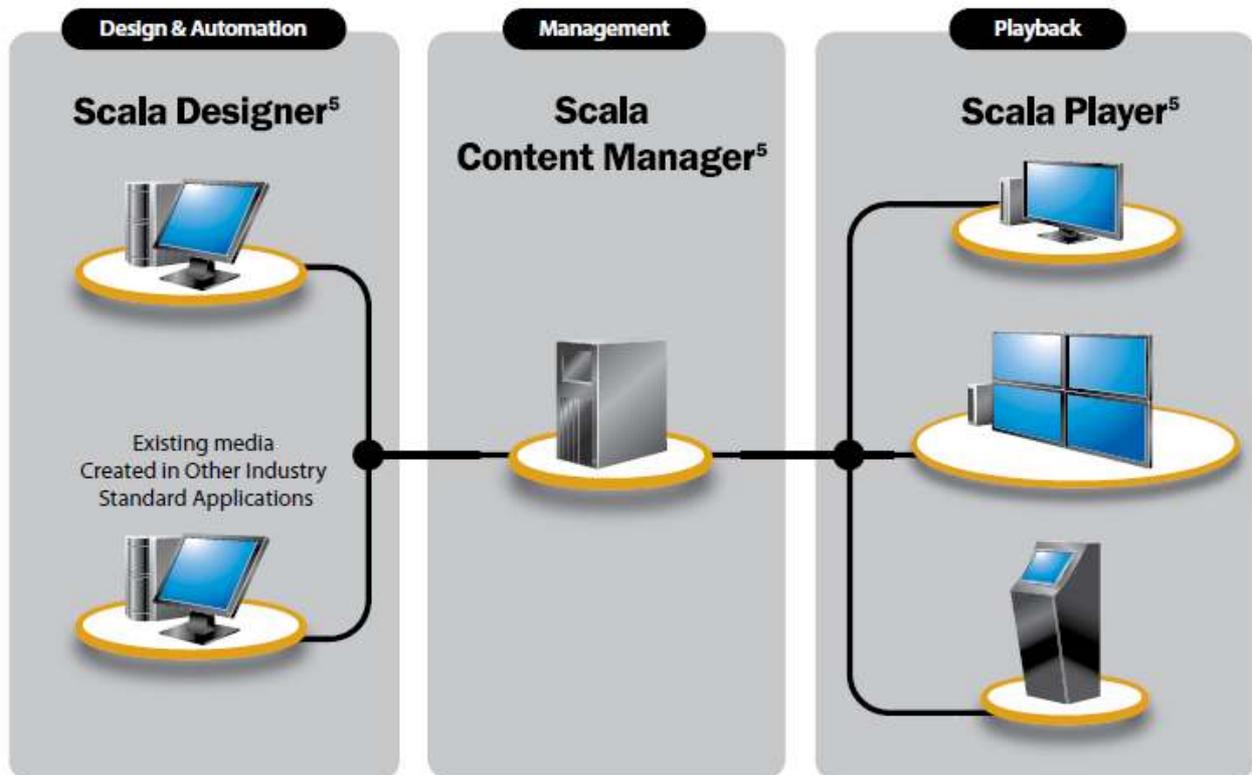


Figure 13 - Screenshots of the totem

The software which runs the totem, called Digital Signage, has been developed by Scala, a software company with years of experience in broadcast and now a leader in digital signage. Digital signage software creates, manages, and distributes electronic content to networks of digital displays that are centrally managed and addressable for targeted information, entertainment, merchandising, and advertising. It is composed of three modules, which, although independently installed, interact in an automatic way according to the following scheme:



- Designer:** this module allows the creation of multimedia productions – utilising motion, colour, graphics, text animation, video, sound design, and special effects – while creatively highlighting the message for emphasis. It is provided with tools allowing professionals to get attractive layouts, but, at the same time, is based on a logical sequence that makes it accessible even to less experienced users. All elements forming the contents are displayed on the totem screen in chronological order and can be associated with incoming and outgoing transitions chosen from a huge library and customisable according to length and direction. Same transitions may also be used to create visual effects.

InfoChannel Designer animations are called "scripts": they are in txt file, written in proprietary language - understandable and edited manually. Text files are associated to all the objects that make up the script (images, clips, text, files, external scripting, etc.) in an external folder. Advantages of such a structure are the following:

- text files occupy very little memory and can be read by all systems;
- reference to external files allows a rational upload, so that only changes are saved on the remote server, saving time and reducing the exploitation of the band.

The software supports PNG format, similar to JPG which offers very stylish and effective, but at the same time, light and easily updatable graphics through the web. Moreover, it supports the inclusion of scrolling text (crawl), both horizontally and vertically,

- Content Manager:** Utilizing an intuitive, internet-based interface, Scala scripts and media are effectively organized, delivered, and updated. Contents are updated and distributed with planning and scheduling tools from any internet-connected computer to a potentially unlimited number of players. The interface is displayed as a page of a common web browser and can be

operated from any remote location with secure access via a standard URL. This feature also allows the Designer module to publish scripts on Content Manager from anywhere on the Internet, freeing creators of contents from the need to use complex network protocols, or to operate directly on the server.

In addition, Content Manager uses efficient open source technologies, which are configured automatically during installation and which are handled entirely within the software. A list of all published scripts is automatically updated every time a script is published by the Designer module, so playlists can be created or imported into existing ones: it is therefore sufficient to save the changes needed to update the schedule and send it to the player immediately, at scheduled times or manually.

- **Player:** this module provides stable reliable multimedia playback for virtually any environment. The Player will continuously run and update content on dynamic signage displays according to the plan set in place by the Content Manager. The Player reports back on its health and on what content is played to ensure that the network is running as intended.

The Player module is installed on the terminal and is designed to be controlled via the network module from the Content Manager. Each module can run the play-out of two channels simultaneously on a single screen or screens independently. The image can be rotated at right angles (0, 90, 180 and 270 degrees) for display or visible vertical mirror. It is also designed to run scripts at any resolution, with the appropriate graphics card, and to divide the image on multiple screens, such as video walls.

The described technical features have been used by technicians to develop, in agreement with Comune of Monza, the palimpsest of the totem.

4.2 Main Outcomes

The implementation of the measure appears to have met expectations of citizens as far as real time information is concerned. The totem is very useful to people looking for any kind of information concerning mobility, whilst electronic bus stops display essential information for each bus. More specifically, for each bus it is possible to show:

- No. of route;
- Destination;
- Scheduled arrival time or actual delay.

The functionality of the different devices is being tested all day long, during the demonstration activities.

4.3 Problems Identified

No functional issues have as yet been identified as problems.

4.4 Mitigating Activities

Not applicable.

4.5 Future Plans

The other electronic bus stops will be installed as soon as streetworks and electricity supply connections are complete, in order to realise the full implementation of the improved traveler information system.

The implemented technological framework has been designed to also host other functionalities that could be implemented in the future, such as:

- software applications to provide information through SMS service;
- software applications to provide information through a Web site;
- installation on buses of screens to provide passengers with in-trip information.

Another important possible extension, which this system is capable of providing, is the management of data related to other Public Transport fleets in the city of Monza where other PT operators are active. For these purposes, the DB Realtime Updater server would be fed by data originated by such fleets through specific software interfaces (e.g. Webservices). Other PT companies have already been approached in order to ask them to develop such interfaces in order to have all PT information available on the bus stops.

As far as the totem is concerned, surveys will be made to ask users about their degree of satisfaction, so as to evaluate the opportunity to install more devices in the city, in other strategic locations like the City Centre, the Hospital and the Park.

The installation of such devices can be considered the starting point for future use of these technologies as far as improving information for PT travellers is concerned. In future all bus stops in the city will have to be equipped with electronic bus stops, so to provide information to all citizens and not only to those using buses on CIVITAS Corridor. This is why the list of electronic bus stops to be installed by NET is made up of 30 locations. Probably it will not be possible to equip all the bus stops in the city within the deadline of the running PT contract which expires in November 2014, but the path is traced and in the next tender to issue for PT service the installation of such electronic devices will be considered necessary to participate to the tender.

Annex 1 - Technical features of electronic bus stops

The control of the opto-electronic components is semi-static (AlInGaP LED Technology); this technology allows an optimal trade-off between efficiency and reliability on one side and low consumption (max 10W).

The high-definition graphical matrix proposed (5mm step) ensures the maximum flexibility at showing different types of contents. More precisely, it allows fonts and dimensions to be adapted to the texts and graphics to be displayed.

The readability of information presented is optimised, so the contents can be read at 10 metres and more. The enclosure has been designed to resist at thefts.

Other relevant information includes:

- continuous current control on leds;
- MTBF of LEDs: 1.500.000 operating hours;
- Amber colour LEDs at very high brightness (1.6Cd @ 20mA);
- 3000Cd/mq Brightness;
- Visibility angle: 120° Horizontal, 60° Vertical;
- Fanless Display for reduced maintenance tasks (no filter substitution);
- Operating Temperature: -20°C, +60°C;
- Operating Humidity: 5% to 90% (without condensation at +60°C);
- Automatic brightness control with 128 levels through specific sensor;
- IP54 protection

As far as the control unit is concerned, the main features are:

- microprocessor unit at 60 MHz and FPGA (Field Programmable Gate Array);
- 2 Mbit Flash Memory, 1Mbyte RAM;
- Internal temperature detection;
- Operating Range: -20° to +85°
- MTBF: 20,000 hours

Displays consists of three lines; each of them can show up to 20 characters with proportional font or 16 characters with a fixed font. If the content to be displayed consists of more than three lines, the display can alternatively show batches of three lines, restarting when all the messages have been displayed.

Characters that can be shown are:

- numbers, lowercase and uppercase letters

The attributes are:

- proportional font 7x5
- fixed font 7x5
- uppercase letters with subscript for the 8th row to show the descending component of letters p, q and g that use the 8th pixel;
- semi-expanded font 8x6 to highlight particular information

Messages can blink and message scroll is allowed on the third line (the lowest one).

The communication with the displays is accomplished through GPRS lines; the same front-end used for the GPRS communication with the On Board Units (OBU) installed on the buses of the fleet is used also for GPRS connection with the displays.

As far as information to be displayed, the choice is to represent for each bus line the following information:

- less than 5 minutes to arrival, display the number of minutes;
- more than 5' to arrival, hour and minute (e.g. 15:35) of arrival; if the expected arrival is some time away (e.g. 2 hours or more, configurable), the value is not shown and a courtesy message is presented, if configured. A typical courtesy message is the actual clock.

Some technical details of the electronic bus stops are reported in the following pages.

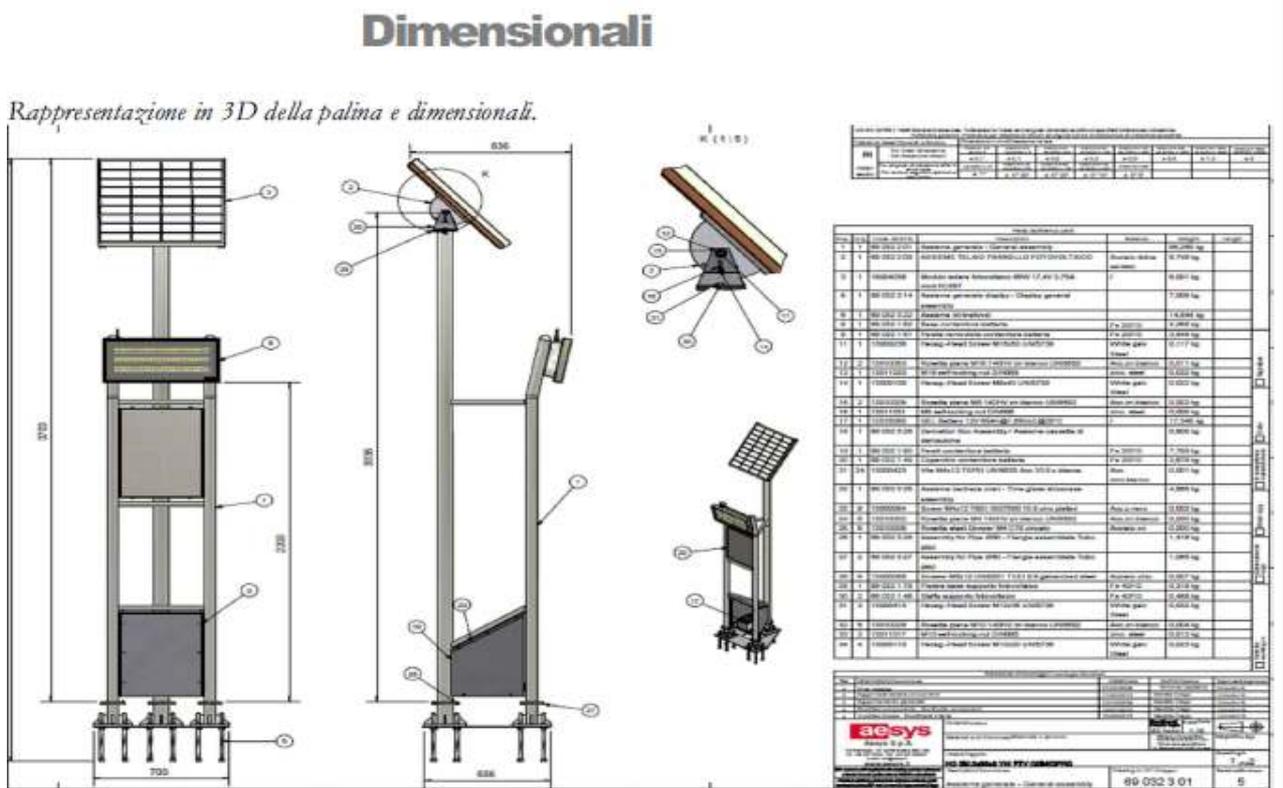


Figure 14 - 3D technical drawings of Aesys electronic bus stop

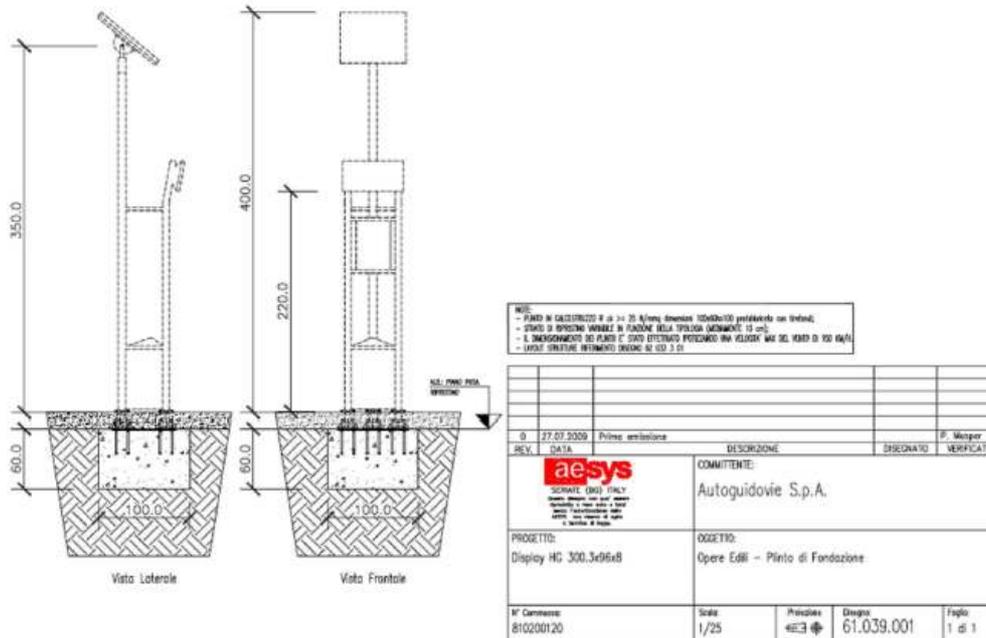
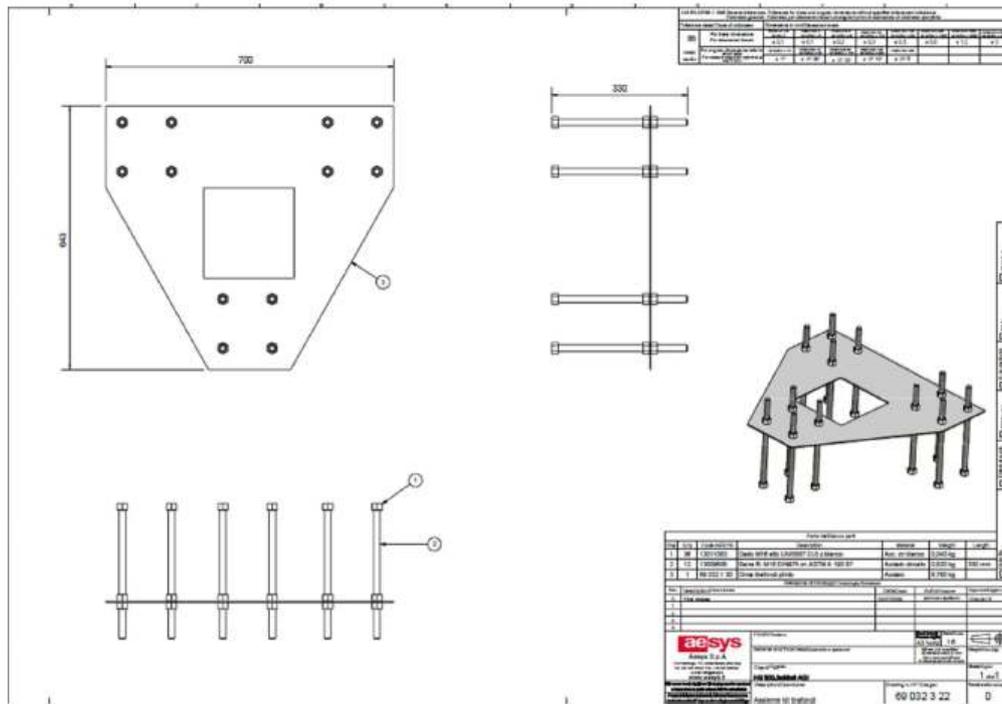


Figure 16 - Details of device basement

Annex 2 - Press and web coverage



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MOBILITÀ SOSTENIBILE: TOTEM E TRENTA PALINE

22 dicembre 2011



30 paline elettroniche saranno installate alle fermate degli autobus più frequentate.

Sarà, così, possibile avere informazioni in tempo reale sul tempo di arrivo del bus alla fermata: questo grazie al sistema installato sugli autobus di NET che consente la loro localizzazione sul territorio cittadino.

Le paline sono di due tipi: alcune elettriche, altre fotovoltaiche; le prime saranno costantemente in funzione mentre quelle fotovoltaiche si accenderanno per il solo tempo necessario a visualizzare l'informazione per risparmiare energia.

Questa è la dislocazione delle paline elettroniche che saranno installate nelle vie: Ferrari, Borsa, Manzoni, Zavattari, Prina, Monti e Tognetti, Boito, Mantana, Cavallotti, Meda, Pergolesi, Borgazzi, corso Milano, piazza Citterio, viale Regina Margherita, piazze Carducci e Cimitero.

In piazza Castello, oltre alle paline, è stato installato un totem interattivo touch screen sul quale si possono visualizzare:

- gli orari dei treni e degli autobus,
- la mappa del trasporto pubblico di Monza,
- la situazione dei voli presso gli aeroporti di Linate e Malpensa e delle metropolitane milanesi,
- l'Around Me per individuare i principali servizi cittadini presenti in prossimità del totem (uffici pubblici, parcheggi, ospedali, rivendite biglietti autobus etc.),
- le principali informazioni relative alla mobilità e agli eventi in città.

Il totem è munito di un vetro protettivo e di una videocamera antivandalismo che si attiva in caso di scossoni, urti e tollera le più svariate condizioni climatiche.

“Si è ritenuto di partire con le prime installazioni in Piazza Castello visto l'importante ruolo che la zona ha assunto quale nodo di interscambio ferro-gomma - afferma l'Assessore alla Mobilità Simone Villa - in un'ottica di avvicinamento della cittadinanza ad un maggiore uso dei mezzi pubblici, soprattutto in un periodo nel quale il problema dell'inquinamento ambientale diventa sempre più pressante: l'Amministrazione Comunale, d'intesa con NET, conta così di offrire un servizio migliore ai cittadini attraverso le informazioni in tempo reale.”

Municipality website

<p>ed. Quotidiana MONZA <small>23 DICEMBRE</small></p>	<p>Quotidiano data: 23 12 2011 Pagine: 7 Anno: 1</p>
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PROGETTO SEGNALEAZIONE DEI TEMPI D'ATTESA E ALTRE NOTIZIE IN TEMPO REALE SU PALINE E TOTEM INTERATTIVI

L'elettronica trasforma la fermata del bus

di MARCO GALVANI - MONZA -

IL TEMPO d'attesa dei pullman non sarà più un'incognita. Le fermate più frequentate dei bus della città urbana saranno attrezzate con paline elettroniche che daranno informazioni aggiornate sul tempo di arrivo dei mezzi pubblici.

IN TUTTO saranno 30 le paline che riceveranno le comunicazioni grazie al sistema di tracciamento installato su tutti gli autobus della flotta gestita da Net (la società che ha rilevato il ramo d'azienda di Ipm relativo al trasporto pubblico) che consente la loro localizzazione sul territorio cittadino.

Le prime due sono già operative in piazza Castello, davanti all'Urban Center e all'ingresso secondario della stazione ferroviaria, e sono di due tipi come le altre che nei prossimi giorni saranno posizionate: alcune elettroniche, che saranno costantemente in funzione, e altre interattive, che si accenderanno per il solo tempo necessario a visualizzare l'informazione in modo da risparmiare energia. Oltre alle paline, in piazza Castello è stato installato un totem interattivo touch screen sul quale possono essere visualizzate informazioni chiave per la mobilità: l'orario dei treni, quello degli autobus, la mappa del trasporto pubblico locale, la situazione dei voli a Linate e Malpensa e delle metropoli-rane milanesi, l'arundine per individuare i principali servizi vicini al sistema (uffici pubblici, parcheggi, ospedali, rivenditori biglietti dei bus) e anche l'elenco degli eventi in città.

SITRATTA di una iniziativa resa possibile grazie ai finanziamenti europei del progetto Archimedes che sci permetterà di offrire un servizio innovativo di dati a traverso informazioni in tempo reale - le parole dell'assessore alla Viabilità, Simone Villa - in un'ottica di avvicinamento della cittadina a un maggiore uso dei mezzi pubblici soprattutto in un periodo in cui i problemi dell'inquinamento diventa sempre più pressante.

www.palinetotem.it



STAZIONE Totem e paline elettroniche al debutto di Rossi

ARRIVATA A MONZA

Il nuovo sistema è già operativo in piazza Castello



*Foglie stampa ad uso esclusivo del destinatario, non riproducibile.

Polizia - Viabilità - Sicurezza - Protezione Civile

Press release from Il Giorno – National paper- Local edition

In partenza interventi sui semafori, videocamere sulla Ztl e bike sharing

Un milione di euro investiti in mobilità



[odi] Il traffico devastante, la ricerca disperata di un parcheggio e la scarsa puntualità dei mezzi pubblici sono tra le problematiche maggiori dei monzesi. Per Natale però l'assessore alla Sicurezza Simone Villa ha deciso di fare un regalo ai concittadini, scegliendo di investire un milione di euro per migliorare la mobilità monzese, ancora lontana dai livelli europei, nonostante faccia parte del progetto comunitario Archimedes.

Alcuni provvedimenti sono già partiti, come l'installazione delle paline elettroniche alle fermate degli autobus per conoscere i tempi di attesa dei mezzi, altri invece verranno attuati dall'anno prossimo. «L'obiettivo è iniziare a pensare alla Monza del futuro», ha spiegato Villa, che ha annunciato in settimana tutte le novità per gli spostamenti in città. A partire da quelle già visibili come le paline elettroniche in trenta fermate, di cui è già stata attuata la prima installazione in piazza Castello. Un provvedimento costato 180mila euro, ma interamente finanziato da Net, il centro di Atm che si occupa del trasporto cittadino che consentirà agli utenti di capire in quanto arriverà il mezzo atteso e se ci sono eventuali ritardi, come già av-

viene a Milano. Sempre in piazza Castello è stato installato il primo totem informativo (costato 20mila euro) che il Comune ha voluto sia per i monzesi che per i turisti (presto verrà aggiunta la versione

inglese). Sulle schermate touch sarà possibile aprire orari di treni e aerei, metropolitane, mappe e informazioni varie del tipo «Around me» (uffici pubblici, parcheggi, ospedale e servizi nella zona). «Do-

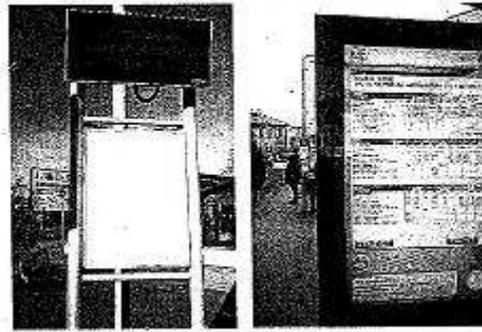
viamo cercare di favorire l'utilizzo dei mezzi pubblici, perché è importante arrivare a far cambiare mentalità al monzese», ha spiegato Villa che ha pensato sia al traffico veicolare che a quello alternativo.

«Sempre l'anno prossimo verrà attivato il sistema di videocamere sulle zone Ztl per pedonalizzare il centro storico costato circa 500mila euro - ha continuato - Poi, con la primavera saranno attivi an-

che i servizi infoparking per indirizzare alle aree di sosta gli automobilisti per i quali sono stati investiti altri 350mila euro, e la sostituzione dei semafori con i sistemi a led». Infine, di prossima attuazione è anche la pedonalizzazione semaforica per i mezzi pubblici lungo il corridoio via Manzoni - Appiani - Prina - Monti e Tognetti-viale Bazzoli, per dare preferenza agli autobus quando in ritardo. Ancora da definire invece il bike sharing, che sicuramente verrà avviato, ma con modalità diverse rispetto alla situazione milanese. «Ci stanno lavorando gli uffici comunali preposti senza così agguantarsi per l'ente pubblico e quindi per i cittadini - ha precisato orgoglioso Villa - Tutto il lavoro è stato svolto da due risorse umane e mezzo. In un tempo in cui si parla di costi e sprechi, è il caso di andare forte».

Diana Cariani

PANELLI INFORMATIVI SUI TEMPI DI ATTESA DELL'AUTOBUS



In trenta fermate

Le paline elettroniche per conoscere il tempo di arrivo degli autobus saranno installate in trenta fermate. Per il momento è già attiva quella di prova in piazza Castello (nella foto a sinistra). Sempre di fronte al Binario 7 è consultabile anche il totem informativo (a destra nella foto). Ecco tutte le localizzazioni delle nuove paline elettroniche: Ferruci Anzoli, Borsa Ferrari, Manzoni Ono, Zavatiani Piazza Trento, Prina Borghetto, Prina Villoresi, Mondi e Tognetti Sartori, Boito Perso, Milano Molinetto, Mentana Buonarroti, Citerio Appiani, Cavallotti Da Brescia, Milano stazione, Regina Margherita Bastioli, Romagna Meda, Pergolesi ospedale, Carducci Municipio, Cusiatero Salvadori, Borgazzi Galvani.

MONZA 27 DIC

... di ... il ... di ...

GRANDI MANIFRE NEI A I ECA MORD

Press release from Giornale di Monza – local newspaper

il Cittadino

Giovedì 29 dicembre 2011

CRONACA

17

Sarà un totem a dirci dove andare

Installato in piazza Castello è il primo tassello della rete elettronica dei trasporti. Si potranno visualizzare gli orari di treni e pullman ma anche quelli degli aerei

Mobilizzazione. Gli edicolanti: «Professione da difendere»



PIAZZA CASTELLO. L'interattiva anche per viaggiare con il bus

■ In piazza Castello è stato installato un nuovo tassello del progetto Archimedes, il piano di ricerca dell'Ulivo e europea per migliorare la viabilità cittadina. Con l'installazione di un totem touch in piazza Castello, in una strategica posizione a cavallo tra stazione ferroviaria e capolinea degli autobus, è infatti stata avviata la realizzazione di una rete informativa del servizio di trasporto su gomma.

Un «craxero» elettronico formato da 30 pollici, che saranno installate alle fermate degli autobus più importanti, per avere informazioni in tempo reale sul tempo di arrivo alla fermata. Un servizio reso possibile dal sistema installato sugli autobus della Met, che consente la loro localizzazione sul territorio cittadino.

Le palmine sono di due tipi: elettriche, o fotovoltaiche: le prime saranno costruite mentre in funzione mentre quelle fotovoltaiche si accenderanno per il solo tempo necessario a visualizzare l'informazione, al fine di risparmiare energia.

In piazza Castello è stato invece installato un totem interattivo touch screen sul quale si possono visualizzare gli orari dei treni e degli autobus, la mappa del trasporto pubblico di Monza, la situazione dei voli presso gli aeroporti di Linate e Malpensa, e delle metropoli italiane. Il servizio Around Me

(che individua i principali servizi cittadini presenti in prossimità del totem, come uffici pubblici, parcheggi, ospedali, rivendite di biglietti per autobus), e infine le principali informazioni relative alla mobilità e agli eventi in città.

Il totem è munito di un vetro protettivo e di una videocamera anti-vandalismo che si attiva in caso di scossoni o urti, e tollera le più svariate condizioni climatiche. Le palmine elettroniche saranno installate nelle vie Ferrini, Borsa, Mazzoni, Zaccaroni, Piazza Monte Ingnati, Boito, Mantova, Cavallotti, Meda, terza via Regina Margherita, piazza Carducci e Casaleiro.

«Siamo partiti nel totem di piazza Castello visto l'importante ruolo che la zona ha assunto quale nodo di interscambio ferro-gomma»

spiega l'assessore alla Mobilità Stefano Vella. «Una volta completata l'installazione delle palmine, partirà la fase operativa di un altro pilastro del progetto Archimedes, che prevede la preferenziazione semaforica per i mezzi pubblici lungo le vie Manzoni, Appiani, Prati, Monti e Tognotti, e viale Bernini. È già in fase di predisposizione la centralizzazione dei semafori di alcuni lungoraggi per poter introdurre la sperimentazione di questa ulteriore misura».



■ In piazza Castello è stato installato un totem touch screen sul quale si possono visualizzare gli orari dei treni e degli autobus, la mappa del trasporto pubblico di Monza, la situazione dei voli presso gli aeroporti di Linate e Malpensa, e delle metropoli italiane. Il servizio Around Me

Un modo per scegliere cose che non tutti sanno, come la necessità per l'edicolante che si deve spingere di far pervenire all'apposita commissione l'atto di matricola, per poter chiudere l'edicola il giorno delle prove. «Accetta un edicolante» è lo

VIABILITA'

Più sicurezza all'incrocio



Press release from Il Cittadino – Local newspaper