

CHAPTER 20
THE DIGITAL EXPO



ABSTRACT CHAPTER 20

TECHNOLOGY AT THE SERVICE OF THE EXPO

The primary goal of the digital Expo is to make certain any visit to the Expo runs as smoothly as possible, ensuring visitors enjoy a unique experience and can experiment with cutting-edge technology.

The technological solutions are never adopted simply for the sake of technology, but are designed with people in mind.

The technologies favoured are those that have already been tested sufficiently to ensure they will work properly in 2015. This required balancing the need to give visitors a sense of awe with the organisational necessity that things work.

THE NEED FOR TECHNOLOGY AND POTENTIAL SOLUTIONS

PARTICIPATION

Innovative projects aimed at building consensus and encouraging all countries to participate:

- Countdown 2015 (travelling exhibition on a sustainable future);
- Virtual pavilions (digital solutions that allow remote participation).

SERVICES

A video-portal could be created to help communication and promote the event as well as to improve booking, ticketing and assistance.

LOGISTICS AND INFO

Various solutions will be adopted to aid logistics, to ensure visitors receive the necessary info and to ensure smooth on-site traffic flows and site access:

- Stradamica (traffic info);
- My Avatar (queue management);
- Milano In-Touch (touch screen kiosks);
- Mobile Personal Assistant.

SECURITY AND ACCESS

A biometric access system is planned (for staff and volunteers) to aid risk prevention and to provide visitors with more assistance.

THE EXPO WITH A STORY

Innovative means for communicating content:

- Virtual Playhouse (entertainment area for children);
- Expo Urban TV;
- Hyper Events (world's largest screen);
- Virtual graffiti in Milan.

A THRILLING EXPO

Ways of making the Expo more spectacular and involving:

- Holographic Pantheon (key figures recount the history of Milan from the sky);
- Holographic world (to celebrate the national days of countries).

20.1 Technology to help visitors

The primary goal of the digital side of the Expo is to make certain any visit to the Expo runs as smoothly as possible, ensuring visitors enjoy a unique experience and experiment with cutting-edge technology.

The development of the technological side will take into account the innovations introduced in Shanghai for the 2010 Expo, which will serve as baseline for more advanced platforms.

Moreover, the entire Expo is designed with a view to unveiling useful solutions that Milan and its people can continue to benefit from as legacies of the Expo.

The proposed technology and applications are based on a predictive analysis of what will be emerging in 2015. In general, the technologies favoured are those that have already been tested sufficiently to ensure they will work properly in 2015. This requires balancing the desire to stun and entertain visitors with the organisational necessity that everything will work as it should.

Some of the solutions are based on technologies that are already partially in use. Here, we mean those solutions that will be left as a legacy of the Expo to the city (logistics, security, environment). For these, feasibility, functionality and cost-effectiveness were prioritised.

Given the nature of these elements, it is possible to begin detailed designs and to start implementation prior to being awarded the bid. An advantage of such a head start would be that more in-depth testing could be carried out in the four year period from 2008-2011.

20.2 Potential technological solutions

The potential technological solutions have been grouped into clusters:

- solutions to promote consensus building;
- solutions to support pre-Expo activities;
- solutions for a welcoming city: logistics and information;
- solutions for a helpful city: security, optimisation and prevention;
- solutions to manage content: an Expo with a story;
- solutions to enhance content: a thrilling Expo.



20.2.1 Consensus building

A few innovative solutions have been put forward to promote consensus building for Milan's bid:

Countdown 2015

This is a travelling exhibition on sustainable development, with the first stage in Milan. It will provide a sneak preview of the ideas for a sustainable future that will be put forward by the Expo and will target visitors from Milan, the rest of Italy and abroad. This exhibition can be organised quickly and thus become a showcase for BIE delegations and voting countries.

Virtual Pavilions

To promote global participation and to ensure developing nations are involved in Expo 2015, digital solutions have been designed to provide effective, low-cost communication. Virtual Pavilions will be included in joint pavilions.

20.2.2 Supporting pre-Expo activities

Innovative media ideas have been devised to support the activities that will need to be carried out in the run-up to Expo 2015:

Cross media Video-portal

The portal will allow everybody to have access to a wide range of services and functions.

This system is designed to be both extremely user-friendly and to be accessible from just about any device. It will provide information (films, multimedia clips and virtual tours), booking, ticketing, and customised services (video-call centre and video-press room).

20.2.3 Logistics and information

There will be solutions that provide logistic support, that offer visitors information services and that regulate the flow of traffic both to and from the Expo and within it (local, long-haul and by car):

MPA (Mobile Personal Assistant)

This is a real time information service designed to communicate with all portable devices that will be available in 2015. It offers three types of benefit: 1) virtual information points; 2) indication of alternative routes to reduce queues; and 3) an improved visit experience through useful information and warnings. This system will also provide comprehensive booking options for shows and events in the Milan area as well as the chance to reserve urban transportation and/or a bay in a parking lot.

All the services will be accessible through any mobile device (mobile phone, i-pod, etc.).

I-Com will also be made available. It consists of a mobile device specifically created for Expo 2015, with more functionality than traditional devices. It will only be possible to use it in Milan.

Milano InTouch (TOUCH screen information points)

These user-friendly, multilingual and interactive touch screens will be placed in busy spots. They will replace info stands, provide localised information and incorporate devices to make them accessible to people with disabilities.

By highlighting the busiest areas and suggesting alternative routes, these screens will help ensure crowds flow smoothly both at the Expo and in strategic parts of Milan. They will contain innovative applications, such as 3D world maps which – by touching the interactive areas – will guide visitors to whichever of the “Feeding the Planet, Energy for Life” themes they prefer.

In addition, they will broadcast sequentially the daily programs of Expo Urban TV.

StradAmica

A system of interactive sensors is designed to communicate with motorists and to provide information in real time, thus diverting traffic towards less busy roads and warning visitors about road conditions.



My Avatar

All visitors will have a digital alter ego. Visitors will only need to put their One Pass close to a specific reader and the system will record their booking to visit the chosen pavilion and provide information on the estimated waiting time. Then, visitors will be able to relax and optimise their visiting time.

20.2.4 Co-operating on providing assistance

An innovative access system has been designed to reduce risks and provide visitors with assistance:

ABC Pass (Consensual Biometric Access)

Such system, that so far is foreseen only for staff and volunteers, is based on a biometric iris scan system. This will be used for individuals who are authorised to access restricted areas, but the system will be consensual, with people being able to opt out.

20.2.5 Innovative communication: Expo tells a story

The following innovative solutions will be used to ensure high quality, effective communication at the Expo:

Virtual metropolitan graffiti

All visitors will be able to leave messages in the air, in the busiest spots of the city, that can only be viewed using mobile devices (or *I-Com*) by the visitors they are destined for. This will turn Milan into a living forum, a bulletin board for the exchange of views on food and nutrition, like a massive billboard for urban graffiti.

Virtual Playhouse

Based on advanced natural interaction, this recreation space is designed for children and youngsters where they can learn more about "Feeding the Planet, Energy for Life" through technological innovation, in a simple and fun way.

Expo Urban Tv

A multi-platform dedicated TV channel informing visitors around the world about the Expo, broadcast to mobile devices, visitors' I-Coms, InTouch screens – when not in use – TV sets in hotel rooms, video-portals or the dedicated Sat network. All of the Expo will be broadcast live: events, useful information and interviews with key figures. A permanent forum on nutrition featuring international personalities and experts (in politics, science, culture and entertainment).

Hyper Events

The most important Italian and international events will be broadcast live on the world's largest screen that will be erected at Castello Sforzesco. It could also be used to celebrate national days, with live connections to participating countries.

All the main shows will be broadcasted live and made available for tourists.

20.2.6 A thrilling Expo

A number of other innovative solutions will also be adopted to give the Expo a sense of the spectacular and to ensure visitors are truly involved in the event:

Urban Kaleidoscope

This is aimed at some of the smaller places of interest, such as the Columns of San Lorenzo, and spots where people gather in the evenings. It will consist of magic urban furnishings painted with heat-sensitive paint that changes colour as the temperature varies, sensorial carpets that play melodies as the flow of visitors fluctuates, and lighting linked to sensors that create light shows as the groupings of people change.

The Expo Xp

Specifically created devices (glasses that use increased reality technology) will allow visitors to journey through time and space. As they go through the pavilions, they will see images and films clips that help them to orientate themselves. Visitors will wear special glasses allowing them to watch films and images while visiting pavilions. Such system will help reducing waiting times that could be registered.



Milano Social Club

This solution is aimed at visitors to Expo 2015 who may wish to meet other people with the same idea. The visitor will be able to digit his personal data in the portal and then will be entitled to recognise thanks to a special increased-reality glasses, other visitors responding to the selected characteristics.

Holographic Pantheon

The world's first Holographic Park: famous people from the history of Milan will tell visitors about their city from above thanks to a giant image projected in the sky. Once the Expo ends, they will become a virtual landmark for the city.

Holographic World

On national holidays or festival, the holographic personalities from Milan will make way for holographs from the celebrating country. A stunning spectacle in the skies of Milan recreating the environment and atmosphere of the country in question (see also chapter 9, point 9.9.4).