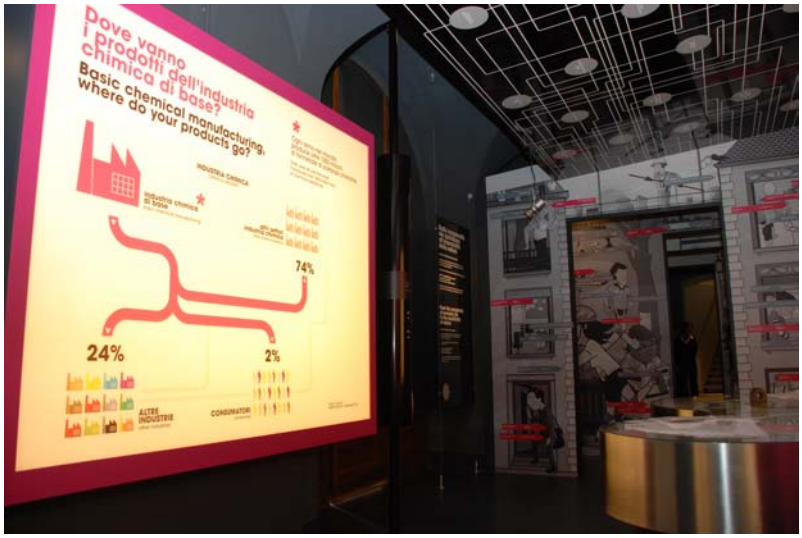
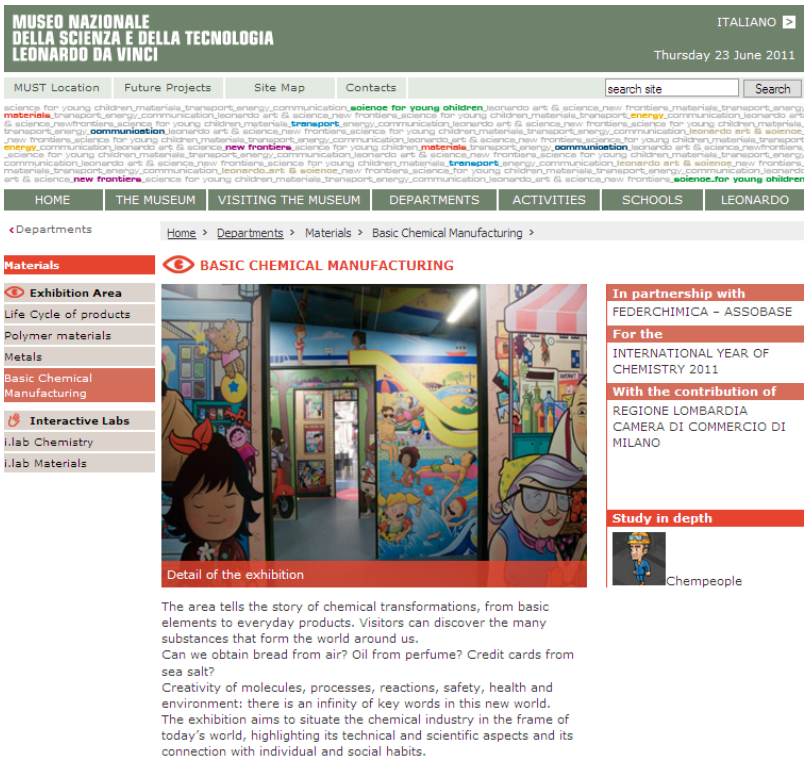
FEDERCHIMICA
ASSOBASE
Associazione nazionale imprese chimica di base inorganica e organica

International Year of CHEMISTRY 2011

Basic Chemicals Industry at the National Museum of Science and Technology "Leonardo da Vinci" of Milan:

From the Project to the Section





http://www.museoscienza.org/english/departments/chemical.asp

MUSEO NAZIONALE DELLA SCIENZA E DELLA TECNOLOGIA **LEONARDO DA VINCI**

Sei pronto a entrare in un nuovo mondo?
Sapresti ottenere il pane dall'aria?
E un profumo dal petrolio?
Riuscirai a passare di livello in livello, dalle fonti ai prodotti, per trasformare i tuoi bisogni in realtà?

Oggetti storici, postazioni multimediali, installazioni e attività interattive per andare a caccia di una moltitudine di sostanze chimiche, esplorare un impianto, incontrare i "personaggi" che lo popolano e scoprire ricerca e innovazione in gioco.

Are you ready to dive into a new world?
Would you know how to make bread from the air?
And perfume from oil?
Will you be able to go from level to level, from sources to products, to turn your needs into reality?

Historical objects, multimedia stations, installations and interactive experiences to discover a multitude of chemical substances, explore a plant, meet the "actors" that populate it and find out about the research and development involved.

GIORNI E ORARI DI APERTURA

martedì - venerdì 9.30 - 17.00
sabato e festivi 9.30 - 18.30

INFORMAZIONI

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seguici su

nell'ambito di

International Year of CHEMISTRY 2011

con il contributo di

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1. THE PROJECT

The beginning

It took more than three years (2008 – 2011) to a team formed by representatives of Basic Chemicals Industry and personnel of the Museum, to develop and implement this “Museum project” coming from the more and more stringent need of the basic chemicals producers associated to Federchimica Assobase to "communicate" the sustainability of their industry and its products to a larger public.

- **A shared mission (Assobase / Museum)**

To place correctly the Basic Chemicals Industry in the today’s world, even in terms of sustainability, clarifying the role [direct and indirect] it plays in meeting the needs of the community.

- **3 main objectives**

Objective one: to show that the Basic Chemicals Industry is essential in our daily life, and make it visible.

The visitor is welcomed and surrounded by a representation of reality which breaks down on different wings rich of links to the chemical nature of items.

Objective two: to explain what Basic Chemicals Industry means , how it works and how it is perceived and then to make it “understandable”.

A dense network connects sources to products of our daily life trough the huge number of chemical substances manufactured by the Basic Chemicals Industry which is underlined along this path, out of their usual context.

Funny and interactive exhibits help visitors to better understand what is not directly “visible”.

Objective three: to build awareness on the relationship between Basic Chemicals Industry and society, and then to show how this industry is evolving, in terms of sustainability, in relation to society, its needs and culture.

Behind the scenes, the visitor encounters a few stories of industrial outstanding figures (SOLVAY; DE NORA; HABER - BOSH) which underline clearly the link between human dimension , environment and industrial evolution of basic chemicals.
A multi-media exhibit allows visitors to confront with the issue of sustainability.

The phases of work

Planning and executive phases consisted in the ***museological project*** (in which the curator of the exhibition, defining the objectives according to the needs and demands expressed by the Museum, visitors and partners, identifies “what” in terms of guidelines, content and main messages) and in the ***museographic project*** (in which it is finalised “how” the whole content will be presented and effectively communicated in order to be easily understood, visible and tangible).

The implementation of the *museological phase* was in charge of a leading working group composed by the editor and his staff (heads of the Museum internal functions like Scientific

Coordination, Historical Department, Marketing, and Fundraising) and a few experts from the chemical industrial side identified and selected by Assobase.
A supplementary and important support has also been given by the contribution of different external stakeholders: public institutions (schools and academia), industry, citizens' associations.

A fundamental background for the decision making process of this working group consisted in several events especially organized with different actors from the research and academic world, general public and associations representing different industrial sectors. Particularly, to be mentioned:

- Brainstorming meetings between Assobase representatives and Museum staff, responsible for the scientific content;
- The visits to the chemical plants of Solvay in Rosignano (LI) and of Polimeri Europa in Brindisi followed by the discussions with some representatives of different professions working in those chemical sites;
- Some interviews and contributions of researchers and academics;
- The voice of representatives of several associations such as Legambiente (environmental NGO's);
- The survey on the perception of chemistry made by the Museum.

The management of the *museographic* phase has been granted to the same WG but with some composition changes dues to the necessity to introduce some specific new professionalisms (Educational Services, Communication, Exhibition Design and Technical Office) able to transform messages from the written word into the preparation of an exposition space, choosing the most appropriate interpretative tools to encourage the active participation of visitors. A project manager coordinates the WG meetings and internal works.

The main chemical processes represented in the section are:

- Cracking processes
- Electrolytic processes
- Synthesis processes.

The sustainability challenge

The double objective of this core theme is to offer visitors the tools to reflect on the concept of sustainability applied to basic chemistry and make visitors aware of how this concept is also linked to the individuals daily choices.

Once people have understood how the concept of sustainability applies to the processes and products of basic chemistry, the sustainability will be used to help visitor to understand that the individual can and must put in act virtuous behaviors that contribute to change and to achieve a new model of sustainable development. In this regard, the Italian Chemical Industry, through Federchimica, has been self regulated by 1991 with regards to safety and protection of human health and environment, through the proper and progressive adoption of the Responsible Care Program and rules of conduct.

For a broad and complex concept such as sustainability, mostly when closely related to a field such as basic chemicals, the communication challenge has been to develop and implement synthesis tools and messages capable, at the same time, to be accepted by experts and understandable to the general public.

2. The Section

On 12th April 2011, within the International Year of Chemistry, **Federchimica Assobase*** with a plenty of success of critics and public, opened the new section, the permanent exhibition on base chemistry within, the **National Museum of Science and Technology "Leonardo da Vinci"**** of Milan, in the presence of Mr. Giorgio Squinzi, President of CEFIC and Federchimica, Mr. Giorgio Favro, President of Assobase, Mr. Fiorenzo Galli, Director of the Museum Leonardo da Vinci, Mr. Alberto Cavalli, Deputy President of University and Research within Regione Lombardia and more than 200 hosts (**http://www.museoscienza.org/english/departments/chemical.asp**).

The area, on a surface of 120 square meters, tells the story of chemical transformations, from basic elements to everyday products. Visitors can discover the many substances that form the world around us. The exhibition aims to situate the chemical industry in the frame of today's world, highlighting its technical and scientific aspects and its connection with individual and social habits.

Represent the Basic Chemicals Industry today means telling a complex and invisible field, but indispensable to life, economic and social development, not only for the production of goods and labor but also for the production of knowledge, research and development. The chemical industry produces many of the basic raw materials essential not only for the chemical chain manufacturing but also for nearly all other industrial sectors; only few products go directly to consumers.

Contemporary life is characterized by a variety of needs often perceived as primary and which too often are taken for granted: live, heal, communicate, eat, play etc… without, on the contrary, realizing the essential link between them (and their satisfaction) and the basic products of the industry in general and those of the chemical industry in particular.

Creativity of molecules, processes, reactions, safety, health and environment, ... there are many keywords in this new world. The visitor is invited to follow the flow of chemical transformations ranging from raw materials to processed daily and discover the myriad of substances that make up what is around him. From the air can we get the bread? From oil perfumes? And from sea salt credit cards?

The new section of the Museum tells the Basic Chemicals Industry with unexpected shapes and colors: pink walls, ceiling light molecules, remains mysterious industry, creative illustrations and a pixel art video game.

An example? There's a chemical plant to manage. 12 professionals will be working for you. Choose the right team and deal with some possibly occurring incidents. (http://www.museoscienza.org/english/chempeople/).

The languages and tools are varied and appealing to all to stimulate an active enjoyment.
For the curious and fans there will be a media table to explore the contents of the section.
The Museum and Federchimica - Assobase make available to the public and schools a new space in which chemistry is perceived in its practical industrial scale, making it visible science, technology, people and professionals who give life to the Basic Chemicals Industry.

All the texts of the section have been developed in both Italian and English language.

3. The Future

The project working team - formed by representatives of the Basic Chemicals Industry and personnel of the Museum – has already started to work on the future development of the section on three main different levels:

- **Enrichment of the “touch table” contents.**

  One of the interactive corners of the section is represented by a “touch table” where many documents, images, articles, songs, curiosities … linked in somehow to the basic chemicals world have been uploaded. Visitors can consult it during the visit and/or decide to send what could interest them to their email address and go trough it later, from offices or from homes.

  In order to make it lively and attractive a continuous update it’s crucial.

- Dedicated Schools visits.

  Because Students and Teachers are considered by the Museum “privileged targets”, their feedback is very important and will allow to adjust contents of the section if necessary.

  A pool of companies representatives will be available to tutor Students and classes.

- **Companies involvement.**

  An ad hoc working group - composed by communication and technical managers - is setting up. It will meet twice a year and their components will act as spokespersons for their companies, in order to improve upon the section if and when necessary.

The project working team will continue to meet regularly to monitor the section and update it.

* Assobase, one of the 16 Federchimica Association's groups industries operating within inorganic and organic chemicals; surfactants and raw materials for detergents.

38 chemical industries with a turnover of more than 7 billions of Euro, corresponding to 90% of the market, are part of Assobase; they are:

ACETATI
AKZO NOBEL CHEMICALS
ALTAIR CHIMICA
ARKEMA
BALCHEM ITALIA
BASF ITALIA
CHEMTURA ITALY
DOW ITALIA
DOW ITALIA DIV. COMMERCIALE
DU PONT DE NEMOURS ITALIANA
ECOFUEL
EIGENMANN &VERONELLI
ENI DIV. REFINING
ESSECO
ESSO ITALIANA
EVONIK DEGUSSA ITALIA
FLUORSID
HUNTSMAN SURFACES SCIENCES ITALIA
KMG ITALIA
ITALMATCH CHEMICALS
NITROL CHIMICA
NUOVA SOLMINE (Soris)
PERSTORP
POLIMERI EUROPA
POLYNT
PROCHIN ITALIA
RADICI CHIMICA
RHODIA ITALIA
SASOL ITALY
SOC.ELETTROCHIMICA SOLFURI E CLORODERIVATI
SOLVAY BARIO E DERIVATI
SOLVAY CHIMICA BUSSI
SOLVAY CHIMICA ITALIA
SYNDIAL
TESSENDERLO ITALIA
TOTALERG
UOP M.S.
VINAVIL

** The **National Museum of Science and Technology "Leonardo da Vinci"** of Milan, founded in 1953 on the Lombard industrial experience, in an ancient Monastery, represents a very important Institution not only for Milan but for the whole nation.

Some figures:

40,000
square metres

10,000
objects

12,500
square metres of areas renewed and refurbished since 2000

330,000
visitors in 2008 (the Museum remained closed for maintenance works for three months)

2,806,196
visits to the Museum's website

7
thematic departments (Materials, Transports, Energy, Communication, Leonardo Art&Science, New Frontiers, Science for Children)

14
exhibition areas

13
interactive labs (i.labs)

119
educational activities.