

# Studying Internationalism in the Archive

Pirelli is a **multinational** tyre manufacturer with branches in 13 countries, 19 **production plants** and over 30.000 employees. The **international** nature of Pirelli makes it possible to promote teamwork, with a cross-cultural and **intercultural** approach. The students will examine documents in the Pirelli Historical Archive to find out about the history of Pirelli. From the first **factory** built in 1872 by **Giovanni Battista Pirelli** in the centre of Milan, for the production of items in rubber, to the first production plant opened abroad, in Spain, in 1902. From its debut on the New York Stock Exchange to the construction of the latest factories in Indonesia, Mexico and China, while also looking at the house organs the company has published in various countries around the world, and at the global advertising campaigns on display in the new exhibition now showing at the Pirelli Foundation. They will find out what a document is and how it is preserved, and they will search through the **historical sources** and **documents** to make an authentic historical and archival **study** of their own.



## Subject areas



- History
- Geography
- Italian language and literature

## Keywords



#Internationalism #Multinational  
#Intercultural #GlobalCompany  
#ProductionPlant #Factory  
#HistoricalSources #Document  
#Research #Rubber  
#GiovanniBattistaPirelli  
#Heritage

## Places



Visit to the Pirelli Foundation, with the Historical Archive and the temporary exhibition *Advertising with a Capital P*

## A look at some of the subjects and documents selected for this course:



Sign for the Museo Storico delle Industrie Pirelli

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*Pirelli: 140 Years of History*, video, 2014

FIND OUT MORE

Internationalism and cultural integration. Interview with Marco Tronchetti Provera

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# Tyre Chemistry

The Research and Development area has been at the heart of the Pirelli company ever since it was set up over 146 years ago. Documents in the Pirelli Historical Archive show how Pirelli has been constantly committed to **innovation** and **sustainability**, so that it can always offer **cutting-edge** products. The documents range from patents to the books and magazines in the Scientific and Technical Library, to the recipes for compounds and tests on materials. In the 1930s, for example, in the Bicocca chemical laboratories, the Nobel laureate **Giulio Natta** studied the first prototypes of **synthetic rubber** made with raw materials from Italy. Still today, there is an advanced chemical laboratory at the Pirelli Headquarters in Milano Bicocca, where rubbers, accelerating agents, resins, vulcanisers, oils, additives, etc. are subjected to stringent tests to ensure the quality of the **tyre** right from the outset.

During their tour of the chemical laboratory with experienced colleagues, the students will learn how the main analysis instruments work and they will see how a modern **chemical analysis** laboratory is organised.



## Subject areas



- History
- Physics
- Natural Sciences
- Chemistry

## Keywords



#Sustainability  
#ResearchAndDevelopment  
#Innovation #Cutting-edge  
#GiulioNatta #ChemicalAnalysis  
#Tyre #SyntheticRubber  
#Innovation

## Places



The students will visit the Pirelli Historical Archive and the Scientific and Technical Library in the Pirelli Foundation as well as the chemical laboratories in Milano Bicocca

## A look at some of the subjects and documents selected for this course:



The introduction of synthetic rubber, 1954

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New people and new tools for Chemistry, 1950

[FIND OUT MORE](#)

On the nature of rubber, 1949

[FIND OUT MORE](#)



# The Digital Factory - Next MIRS Milano Bicocca

There is a production department in the Bicocca area called **Next MIRS** (Modular Integrated Robotized System), where **anthropomorphic robots** work together in a network. It has special machines to ensure maximum flexibility in the production of high-performance **tyres**. The Next MIRS production line is a major innovation in Pirelli's production process. At the Pirelli Foundation, the students will have an in-depth look at the company's historical archive and visit the Scientific and Technical Library and, with the help of multimedia and video tools, they will find out about the many advances made by Pirelli during its long history and how this **technological** evolution came about. They will then be shown around the factory and its **automated** production of tyres, where the technical staff will show them every stage involved in the creation of **prototypes** and **high-performance** tyres, which are some of the most innovative ever in terms of **safety** and **sustainability**.



## Subject areas



- History
- Physics
- Natural Sciences
- Information Technology

## Keywords



#Sustainability #Automation  
#Robotics #NextMIRS #Robot  
#Digital #HighPerformance  
#Prototype #Safety  
#Technology #Tyre #Factory  
#Innovation

## Places



Visit to the Pirelli Historical Archive at the Pirelli Foundation and to the Next MIRS factory in Milano Bicocca.

The course is for students aged 18 and over.

## A look at some of the subjects and documents selected for this course:



A project for a new industry in the mind of a romantic student, 1949

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Patent for the Ercole tyre

[FIND OUT MORE](#)

Modular Integrated Robotized System (Next MIRS)

[FIND OUT MORE](#)



# The Factory in the Cherry Orchard – Pirelli Industrial Centre in Settimo Torinese

The Pirelli Industrial Centre in Settimo Torinese is currently the Group's most technologically advanced plant for the production of high- and ultra-high-performance tyres with low environmental impact. The star of the renovation project – which gives pride of place to the **workers** – is the central body, known as the "Spina". This was designed by the architect Renzo Piano for the offices and services and it links the two production departments. Large windows provide natural light for the various areas and a roof of photovoltaic panels is part of a policy to use as many sources of **renewable energy** as possible. 400 cherry trees have been planted around the **factory**, framing it and giving it its name.

Over the years, the factory has been the venue for several events that have brought the world of manufacturing into close contact with that of culture. These events include interviews with the workers, which led to the publication of the book *Voci del Lavoro* and a stage version at the Piccolo Teatro di Milano in 2011, through to **music** in the factory, with concerts put on in collaboration with the MITO SettembreMusica festival. The highest expression of this desire to create a dialogue between **technology** and **art** came in 2017 when Maestro Salvatore Accardo and the Orchestra da Camera Italiana performed the premiere of a piece entitled "Il Canto della Fabbrica" at the centre of the packaging department. The song was composed by Francesco Fiore, who took inspiration in particular from the sounds of the Next MIRS, the line of **robots** and **digital** machines.

A story that goes from the opening of the first Pirelli factory through to today's **Industry 4.0** manufacturing will help students visiting the Industrial Centre in Settimo Torinese to gain a greater understanding of what an international company is like.



## Subject areas



- History
- Physics
- Natural Sciences
- Systems and Automation

## Keywords



#RenewableEnergy #Robots  
#ArchitecturalRedevelopment  
#RenzoPiano #Work #Digital  
#Industry4.0 #Art #Technology  
#Music #ProductionPlant  
#DigitalFactory

## Places



Visit to the Pirelli Industrial Centre in Settimo Torinese (Turin)

The course is for students aged 18 and over.

Each group may consist of up to 25 participants (including accompanying persons).

The organisation and cost of transport are borne by the school.

## A look at some of the subjects and documents selected for this course:



Il Canto della Fabbrica

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Factories on a human scale, 1960

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Settimo, la fabbrica e il lavoro. Piccolo Teatro

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# Tyre physics

Pirelli's constant attention to the **raw materials** used for the manufacture of its tyres, and the way they are combined to obtain an ultra-high-performance product, is clear to see in the documents in the Historical Archive at the Pirelli Foundation. The texts in the Scientific and Technical Library at the Pirelli Foundation range from **recipes** for tyre compounds and a huge variety of articles from the early twentieth century to the studies of guayule plants in 1936. The search for innovative materials continued in 1937 with studies into **synthetic rubber** carried out for Pirelli by the future Nobel laureate **Giulio Natta**. A journey that starts out from raw materials and offers a close-up view of what the "rubber soul" of a tyre is made of. How many and what components are there in a tyre? What is the *Hevea brasiliensis* – the tree from which natural rubber, with its unique properties, is extracted – actually like? After an interactive tour of the Pirelli Foundation, the students will be accompanied by experienced colleagues in the **physics laboratory**, where they will follow the creation of a compound and the vulcanisation process. They will closely observe the various static and dynamic tests to which the raw and cured compounds are subjected, and the measurements, using cutting-edge instruments, of the hardness, density, elasticity, hysteretic behaviour, traction, and many other **physical properties** of rubber.



## Subject areas



- History
- Physics
- Natural Sciences
- Chemistry

## Keywords



#Sustainability  
#ResearchAndDevelopment  
#Innovation #Avant-garde #Tyre  
#Synthetic Rubber #Innovation

## Places



The students will visit the Pirelli Historical Archive and the Scientific and Technical Library in the Pirelli Foundation as well as the physics laboratories in Milano Bicocca

## A look at some of the subjects and documents selected for this course:



Pirelli Scientific and Technical Library

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The Pirelli Foundation, where Research and Development is history

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What's inside a tyre. *Pirelli* magazine

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# “A Novel about an Invention that Put the World on the Move”

The design and **production** of a tyre is a multi-stage process that involves a number of experts: from the choice of increasingly eco-**sustainable** materials to experiments to study levels of resistance and noise, through to manufacture in **high-tech** factories. All of this to create a product that is **innovative** and **safe** for those behind the wheel, thanks to the latest **smart tyres**, from **Pirelli Connesso to the Cyber Car**.

The **tyre** plays the lead role in an interactive tour that uses digital tools and documents from the company's historical archive to introduce the students to a product that is absolutely fundamental for all those who travel by road. The kids will follow the process all the way from the **design** stage to the creation of a **prototype**, and on to the finished tyre, ready to be put onto the market. In particular, the visit to the Pirelli **Research and Development** laboratories will show the students how a laser is used to create the pattern of the **tread** on the prototype, the **gouge** that carves out the smooth rubber, and the **tests** on the contact area and noise and many other checks that a tyre has to undergo.



## Subject areas



- History
- Chemistry
- Natural Sciences

## Keywords



#Sustainability #Innovation  
#ResearchAndDevelopment  
#Prototype #Production  
#Innovation #Tread #Technology  
#Test #Gouge #Safety #Design  
#SmartTyres #PirelliConnesso  
#CyberCar

## Places



Visit to the Pirelli Foundation, with the Historical Archive and the temporary exhibition *Advertising with a Capital P*, and to the Research and Development laboratories for indoor testing

## A look at some of the subjects and documents selected for this course:



A novel about an invention that put the world on the move

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Silver. The invisible heart of a tyre

[FIND OUT MORE](#)

A project for a new industry in the mind of a romantic student.

[FIND OUT MORE](#)



# A Factory in a Human Scale

By the end of the nineteenth century, Pirelli had already begun to provide a series of **services** for the **wellbeing** of its **employees**. These ranged from a canteen to a nursery school and healthcare services, and scholarships for children and teenagers.

The **social and welfare** system put in place by Pirelli created a closer bond of trust between the company and the worker, as well as their family, helping workers feel part of a **company community**. Still today, all employees enjoy services offered by the company, which has established its headquarters in Milano Bicocca. A journey through the documents in the Pirelli Historical Archive will teach us what corporate welfare really is, as well as how workers' lives have changed. The people who live here have changed, as have their needs, and also the spaces themselves have changed. Over the years, the area to the north of Milan has radically transformed, also in terms of its architecture, to suit the various activities the area has been put to: from its agricultural origins to an industrial past with many companies, including Pirelli, though to its **urban transformation** today and to the **Bicocca Project**. After looking at the documents, interactive activities and a visit to the **district**, the kids will be able to reconstruct its history and personally observe the profound changes that have affected the area.



## Subject areas



- History
- Italian language and literature
- Geography

## Keywords



#Services #UrbanTransformation  
#CorporateWelfare #Work  
#SocialSustainability #Services  
#Health #Headquarters  
#Document,#SocialAndWelfareService  
#BicoccaProject  
#BicoccaDistrict

## Places



Visit to the Pirelli Foundation, which is home to the Pirelli Historical Archive, and to the Pirelli Headquarters (the former cooling tower) and the surrounding areas

## A look at some of the subjects and documents selected for this course:



The agreement between the company and its workers, May 1902

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The factory is open to cultural phenomena

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View of the Pirelli factory in Milano-Bicocca

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