BOOKLET

Italy, Lombardy and Milan

A cura dell’area
Centro studi / Economic Research Department

N° 12/ July 2023
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Executive summary
Executive summary

Who we are
Assolombarda is the largest local entrepreneurial Association in Italy, representing approximately 7,000 companies located in the area of Milano, Lodi, Monza Brianza and Pavia, employing more than 426,000 workers locally and several hundred thousands in the whole country.

Italy
Thanks to the Made in Italy brand recognized and esteemed throughout the world, Italy is well positioned in international rankings: an example of this is the growth in exports, which exceeds 625 billion euros.

Lombardy and Milan
Lombardy is the first manufacturing region in Italy. While concentrating only 17% of the national population, it accounts for more than a fifth of Italian GDP and a fourth of exports. It produces a third of highly-cited scientific articles and patents. Lombardy and Milan feature a solid and highly diversified economy (from industry to trade, to services, to finance). Lombardy stands out for its international stance, the region being home to 7,000 MNCs for a total workforce of 736,000 and a turnover of 354.2 billion euros. These multinational companies are well-integrated in a dynamic network connecting small, medium and large firms, among which 136 in Milan boasting a turnover of over 1 billion euros. Lombardy is also an attractive place for innovative startups: 3,700, a fourth of total innovative startups in Italy.

Based on the innovation ecosystem and qualified human capital hosted, Lombardy and Milan rightfully assume the role of knowledge hub. The territory is home to the main Italian research centers, 19 IRCCS (Institutes for Treatment and Research) and 13 universities attracting 310,000 students, of which almost 18,900 foreign.
Italy’s strengths
Italian manufacturing in global rankings

Italy ranks #6 economy in the world for manufacturing trade surplus ... ... and #7 for share of global manufacturing value added

Manufacturing trade surplus - 2021 (US billion dollar)

<table>
<thead>
<tr>
<th>Country</th>
<th>Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1,583.3</td>
</tr>
<tr>
<td>Germany</td>
<td>360.9</td>
</tr>
<tr>
<td>Japan</td>
<td>201.1</td>
</tr>
<tr>
<td>Korea</td>
<td>189.2</td>
</tr>
<tr>
<td>Chinese Taipei</td>
<td>129.3</td>
</tr>
<tr>
<td>Italy</td>
<td>116.7</td>
</tr>
</tbody>
</table>

Share of global manufacturing value added - 2021 (% on current prices - US dollar)

<table>
<thead>
<tr>
<th>Country</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>30.7</td>
</tr>
<tr>
<td>USA</td>
<td>15.6</td>
</tr>
<tr>
<td>Japan</td>
<td>6.4</td>
</tr>
<tr>
<td>Germany</td>
<td>5.0</td>
</tr>
<tr>
<td>Korea</td>
<td>2.9</td>
</tr>
<tr>
<td>India</td>
<td>2.8</td>
</tr>
<tr>
<td>Italy</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Assolombarda on WTO and World Bank data
The performance of Italian export

Italy exports over

625 billion euro

Source: Assolombarda on Istat data
Made in Italy

* Manufacture of electric lighting are included in furniture, not in electrical appliances

Source: Assolombarda on Istat data (export 2022, businesses and employees 2020)
Lombardy: business structure
The role of Lombardy in the Italian economy

While concentrating only 17% of the national population, it accounts for more than a fifth of Italian GDP and a fourth of exports.

It produces a third of highly-cited scientific articles and patents.

Source: Assolombarda on Istat and Eurostat data
Lombardy is the **1** manufacturing region in Italy and **2** in Europe*

<table>
<thead>
<tr>
<th>Region</th>
<th>Manufacturing gross value added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern - Ireland</td>
<td>88.9</td>
</tr>
<tr>
<td>Lombardia - Italy</td>
<td>66.1</td>
</tr>
<tr>
<td>Stuttgart - Germany</td>
<td>65.6</td>
</tr>
<tr>
<td>Oberbayern - Germany</td>
<td>57.0</td>
</tr>
<tr>
<td>Île de France - France</td>
<td>35.6</td>
</tr>
<tr>
<td>Veneto - Italy</td>
<td>35.0</td>
</tr>
<tr>
<td>Emilia-Romagna - Italy</td>
<td>34.3</td>
</tr>
<tr>
<td>Cataluña - Spain</td>
<td>31.4</td>
</tr>
<tr>
<td>Eastern and Midland - Ireland</td>
<td>30.1</td>
</tr>
<tr>
<td>Rhône-Alpes - France</td>
<td>29.7</td>
</tr>
</tbody>
</table>

* by manufacturing value added  
** NUTS 2 - Eurostat  
Source: Assolombarda on Eurostat data
Lombardy’s economic structure by sectors

**Diversified by sector**

Made in Italy traditional sectors interact with high-tech and knowledge-intensive sectors

**Diversified by firm size**

Strong regional network of:
- innovative startups
- small family-owned and -run enterprises
- medium firms with a strong international presence
- large firms (136 in Milano > 1 bn euro in turnover)
- more than 7,000 foreign multinational companies

### % Lombardy’s workforce by sector, 2020

- **38.7%** Other
- **24.1%** Manufacturing
- **17.7%** Trade
- **8.2%** Professional, scientific and technical activities
- **4.6%** ICT
- **3.8%** Finance and Insurance
- **1.9%** Real Estate

*Source: Assolombarda on Istat, Eurostat and Infocamere data*
Over 3,700 innovative startups in Lombardy

More than 1/4 of the total 13,800 active in Italy

Of these 3,700:
- 2,700 in Milan (72%)
- 88% in services

% innovative startups by sector in Lombardy, 2023

- 57.6% Software & other ICT
- 21.3% R&D & other professional, scientific, and technical activities
- 8.8% Other
- 5.3% Other manufacturing
- 3.2% Retail
- 1.6% Electronics
- 1.4% Machinery
- 0.8% Chem & Pharma

Source: Assolombarda on Infocamere.
Lombardy’s economic structure by firm’s size class

The bulk of Lombardy’s economic structure is made of micro businesses:

94% of firms in Lombardy are micro (0-9 pers. employed), accounting for 40% of the total regional workforce.

<table>
<thead>
<tr>
<th>% firms by size class – 2020 Lombardy</th>
<th>% persons employed by size class – 2020 Lombardy</th>
</tr>
</thead>
<tbody>
<tr>
<td>94% Micro (0-9 pers. employed)</td>
<td>40% Micro (0-9 pers. employed)</td>
</tr>
<tr>
<td>5% Small (10-49 pers. employed)</td>
<td>25% Small (10-49 pers. employed)</td>
</tr>
<tr>
<td>1% Medium-large (50+ pers. employed)</td>
<td>35% Medium-large (50+ pers. employed)</td>
</tr>
</tbody>
</table>

Source: Assolombarda on Istat data
Economic structure – Medium and Large firms

In Lombardy

almost

1.100

medium enterprises

30% of the total 3,700* active in Italy

136 firms with turnover

> €1 bn in Milan

* Italian medium-sized manufacturing companies account for approximately 16% of the domestic manufacturing value added and of Italian exports

Source: Assolombarda on AIDA, Mediobanca-Unioncamere and Camera di Commercio di Milano, Monza Brianza, Lodi data
Economic structure – Foreign multinational companies

In Lombardy

more than 7,000 foreign multinational companies

44% of the total 15,800 in Italy

with 736,000 persons employed

and 354.2 bn € turnover

Source: Assolombarda on Camera di Commercio di Milano, Monza Brianza, Lodi data (2022)
Booklet Italy, Lombardy and Milan

Provincial economic profiles

**Milan**
- Chemicals
- Fashion
- Finance
- Furniture & Design
- Life Sciences
- Machinery

**Monza Brianza**
- Automotive
- Electronics
- Furniture & Design
- Life Sciences
- Machinery
- Rubber & Plastics

**Pavia**
- Food
- Footwear
- Life Sciences
- Machinery

**Lodi**
- Cosmetics
- Electronics
- Food Machinery
- ICT
- Logistics

Source: Invest in Lombardy and Assolombarda on Istat data
Provincial economic profiles

Milan

**Firms** > 345,000  
**Persons employed** 1.5 mln

Knowledge economy which integrates manufacturing and innovative services

<table>
<thead>
<tr>
<th>Sector</th>
<th>Exports*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fashion</td>
<td>€ 10.7 bn</td>
</tr>
<tr>
<td>Machinery</td>
<td>€ 7.7 bn</td>
</tr>
<tr>
<td>Chemicals</td>
<td>€ 6.9 bn</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>€ 6.0 bn</td>
</tr>
<tr>
<td>Furniture &amp; Design</td>
<td>€ 1.1 bn</td>
</tr>
<tr>
<td>Finance</td>
<td></td>
</tr>
</tbody>
</table>

*Note: *numbers refer to exports in 2022 and are specified for manufacturing sectors only

*Source: Invest in Lombardy and Assolombarda on Istat data*
Monza Brianza

Firms 75,000
Persons employed 277,000

Exports
- Machinery: €1.7 bn
- Life Sciences: €1.4 bn
- Furniture & Design: €1.4 bn
- Electronics: €1.3 bn
- Rubber & Plastics: €0.9 bn
- Automotive: €0.3 bn

Note: numbers refer to exports in 2022 and are specified for manufacturing sectors only
Source: Invest in Lombardy and Assolombarda on Istat data
Pavia

Firms 40,000
Persons employed 132,000

Exports
- Machinery: €0.9 bn
- Life Sciences: €0.7 bn
- Food: €0.5 bn
- Footwear: €0.1 bn

Note: numbers refer to exports in 2022 and are specified for manufacturing sectors only
Source: Invest in Lombardy and Assolombarda on Istat data
Provincial economic profiles

Lodi

Firms 15,000
Persons employed 57,000

Exports
- Electronics: €3.0 bn
- Food: €0.6 bn
- Cosmetics: €0.5 bn
- Machinery: €0.2 bn
- ICT
- Logistics

Note: numbers refer to exports in 2022 and are specified for manufacturing sectors only
Source: Invest in Lombardy and Assolombarda on Istat data
Provincial economic profiles

**Lecco**
- Mechanical industry; Textiles; Energy, Green economy, Sustainable building; Rehabilitation, Health and Domotics; Tourism

**Como**
- Tourism; Research & Innovation; Craft; Transport; Textiles

**Varese**
- Aerospace; Energy; Transport and Logistics; Home appliances; Tourism and Sport

**Cremona**
- Agriculture & Food processing; Metalworks engineering; Tourism; Cosmetics; ICT

**Sondrio**
- Wine production; Wood industry; Mining; Tourism; Agriculture & Food processing

**Bergamo**
- Mechatronics; Chemicals and Pharmaceuticals; Creative industry (fashion & design); Rubber and Plastics; Lighting and IT

**Brescia**
- Engineering; Food Processing; Tourism/Hospitality Industry; Tourism

**Mantova**
- Agriculture & Food processing; Agricultural engineering; Textiles & Stockings; Home furnishings; Woodworking

*Source: Invest in Lombardy and Assolombarda on Istat data*
Cleantech industry (*)

- 652 Cleantech firms
- 478 Innovative startups
- 10% Patents in electrical machinery, apparatus and energy
- 71% Cleantech firms specialized in R&D and engineering
- 3rd In Europe for Horizon 2020 funds recipients in cleantech projects (**)

Source: «Il cleantech in Lombardia: una prima mappatura», Assolombarda

(*) Data refer to Lombardy

(**) The projects belonged to the 'Climate action, environment, resources', 'Secure, clean, efficient energy', 'Smart, green, integrated transport' and 'Advanced materials' research areas
Lombardy’s strengths
Internationalization
Exports: Lombardy vs other European economies

Lombardy’s exports are higher in value than those of entire European countries:

European countries’ exports - 2022 (billion euro)

Sources: Assolombarda on UN COMTRADE and Istat data
Exports: Lombardy’s main trade partners

Source: Assolombarda on Istat data
Exports from Lombardy by sector: points of excellence

Made in Italy in Lombardy

114 bn € exports
of which
- 9 bn € Food & Beverage
- 18 bn € Fashion
- 5 bn € Furniture
- 82 bn € Mechatronics

Furthermore

28 bn €
Exports Chem & Pharma

* Manufacture of electric lighting are included in furniture, not in electrical devices

Source: Assolombarda on Istat data (export 2022)
R&D
Highly cited scientific articles per million inhabitants

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2021</th>
<th>% change 2021-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-W.</td>
<td>36</td>
<td>39</td>
<td>+44%</td>
</tr>
<tr>
<td>Bayern</td>
<td>28</td>
<td>31</td>
<td>0%</td>
</tr>
<tr>
<td>Auvergne Rhône-Alpes</td>
<td>32</td>
<td>33</td>
<td>0%</td>
</tr>
<tr>
<td>Cataluña</td>
<td>45</td>
<td>58</td>
<td>+44%</td>
</tr>
<tr>
<td>Lombardy</td>
<td>23</td>
<td>33</td>
<td>+44%</td>
</tr>
</tbody>
</table>

Patents per million inhabitants

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2021</th>
<th>% change 2021-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-W.</td>
<td>489</td>
<td>458</td>
<td>+11%</td>
</tr>
<tr>
<td>Bayern</td>
<td>537</td>
<td>583</td>
<td>+11%</td>
</tr>
<tr>
<td>Auvergne Rhône-Alpes</td>
<td>152</td>
<td>159</td>
<td>0%</td>
</tr>
<tr>
<td>Cataluña</td>
<td>68</td>
<td>85</td>
<td>0%</td>
</tr>
<tr>
<td>Lombardy</td>
<td>140</td>
<td>155</td>
<td>+11%</td>
</tr>
</tbody>
</table>

Source: Assolombarda, Booklet Ricerca e Innovazione 2022
Research institutions

13 Universities

1 Institute of Advanced Studies

19 Institutes of Treatment and Research

3.5% Ratio between research, innovation and development and GDP in 2021

5.09 bn € R & D expenses in 2020

Source: Assolombarda on Regione Lombardia data
Innovation: the role of Lombardy in Italy

- Population: 17%
- Innovative startups: 27%
- Highly-cited scientific articles: 23%
- Patents: 31%

Source: Assolombarda, Booklet Ricerca e Innovazione
Education
Universities: high international attractiveness

In Lombardy

Almost 310,000 university students

of which 18,900 international university students
(around 15,700 in Milan)

equal to 6% of the total number of students

The equivalent figure is:
11% in Germany
9% in France
4% in Spain

Source: Assolombarda on Miur, OECD and Assolombarda data
## Politecnico di Milano and Bocconi examples of excellence

<table>
<thead>
<tr>
<th>Social Science &amp; Management</th>
<th>Engineering and Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Harvard University</td>
<td>1 MIT</td>
</tr>
<tr>
<td>2 University of Oxford</td>
<td>2 Stanford University</td>
</tr>
<tr>
<td>3 Stanford University</td>
<td>3 University of Cambridge</td>
</tr>
<tr>
<td>4 MIT</td>
<td>4 University of Oxford</td>
</tr>
<tr>
<td>5 LSE</td>
<td>5 University of California, Berkeley</td>
</tr>
<tr>
<td>6 University of Cambridge</td>
<td>6 Imperial College London</td>
</tr>
<tr>
<td>7 University of California, Berkeley</td>
<td>7 ETH Zurich</td>
</tr>
<tr>
<td>8 Yale University</td>
<td>8 Harvard University</td>
</tr>
<tr>
<td>9 University of Chicago</td>
<td>9 Tsinghua University</td>
</tr>
<tr>
<td>10 Columbia University</td>
<td>10 California Institute of Technology</td>
</tr>
<tr>
<td>11 University of California, Los Angeles</td>
<td>EPFL</td>
</tr>
<tr>
<td>12 University of Pennsylvania</td>
<td>12 Georgia Institute of Technology</td>
</tr>
<tr>
<td>13 New York University</td>
<td>13 Delft Institute of Technology</td>
</tr>
<tr>
<td>14 Bocconi University</td>
<td>14 Nanyang Technological University, Singapore</td>
</tr>
<tr>
<td></td>
<td>15 Carnegie Mellon University</td>
</tr>
<tr>
<td></td>
<td>16 National University of Singapore</td>
</tr>
<tr>
<td></td>
<td>17 University of California, Los Angeles</td>
</tr>
<tr>
<td></td>
<td>18 Politecnico di Milano</td>
</tr>
</tbody>
</table>

**In Social Science & Management**

Bocconi University  
4<sup>th</sup> in Europe  
14<sup>th</sup> worldwide

**In Engineering & Technology**

Politecnico di Milano  
7<sup>th</sup> in Europe  
18<sup>th</sup> worldwide  
10<sup>th</sup> in Architecture  
8<sup>th</sup> in Design

*Source: Assolombarda on QS Ranking data (2023)*
Focus Milan
Milan a knowledge hub

In Milan one finds

- a **multi-sectorial economy**, a manufacturing core integrated with highly knowledge-intensive services;

- a thick **network of small and medium firms** coexisting and interweaving with **large enterprises** and **multinational companies**;

- as many as **8 long-standing and prestigious universities**, closely connected to the entrepreneurial system;

- a strong specialization in knowledge-intensive sectors and the availability of **high-skilled human capital**.
Milan: in 2022, 10% of the Italian GDP

Gross Domestic Product % - 2022

Rest of Italy 77%

Lombardy 23%

Milan 10%

Value Added per capita - 2021 (euro)

- Milan*: 55,506
- Lombardy: 38,897
- Italy: 29,127

(*) estimated value

Source: Assolombarda on Prometeia data (2022)
Tourism and culture

In 2022 6.1 mln Visitors
3 International airports
57% International tourists
40 Museums
4 Million Museum visitors

Source: Assolombarda on Regione Lombardia and Istat data
Milan: other records

Design

Over 307,000 visitors from 181 countries in 2022 Milan Furniture Fair

Over 230,000 university students in 8 universities

Over 410 listed companies at Borsa Italiana, one of the main European stock exchanges

8.1 bn € overall economic impact of Fiera Milano

Over 11,000 firms operating in the financial and insurance sectors

Fashion capital

Milan is one of the four major fashion capitals of the world hosting fashion weeks, together with London, New York and Paris

Source: Fondazione Fiera Milano, Borsa Italiana, MIUR, Yes Milano, Milan Furniture Fair, Istat/fDi markets