
LINDT & SPRÜNGLI
LUSERNA PLANT
COMPANY PROFILE

1 Organization Profile

1.1 Lindt & Sprüngli Group

In 1845 in Zürich - Switzerland, a confectioner named David Sprüngli and his apprentice son Rudolf, decided to produce chocolate. Under the influence of a new Italian trend, they started to make solid, rather than liquid, chocolate.

In the wealthy Zürich society, this became very popular and consequently production was transferred to a new factory in Horgen, on the Zürich Lake. In 1862, Rudolf Sprüngli took the helm of the company and boosted the business, opening a new confectioner shop and moving the factory back to Zurich.

In 1898, after Rudolf Sprüngli's retirement, his son Johann started to build a new larger factory in Kilchberg, on the Zurich Lake, where one year later the production started. Since then, the company headquarters have never been moved.



With six production sites in Europe, six in the USA and distribution and sales companies on four continents, Lindt & Sprüngli is recognized as a market leader in the premium quality chocolate business, offering a large selection of products in more than 120 countries around the world. After more than 165 years, Lindt & Sprüngli has become known as one of the most innovative and creative premium chocolate companies.

1.2 Luserna Plant History

History of Luserna Plant is strictly related to the history of the brand Caffarel. Caffarel was founded in 1826 when Pierre Paul Caffarel (1801–1871) converted an ex-tannery into a chocolate factory. The original plant was built in Turin, then in 1968 it has been moved in Luserna San Giovanni (TO) the homeland of its founder, the actual plant is still located there.

One of the most important commercial success was Gianduia chocolate invented by Caffarel in 1852. This new type of chocolate, made by mixing cocoa, sugar and Tonda Gentile delle Langhe hazelnuts (renowned for their taste), is the innovative recipe of Gianduiotto.

In fact, Caffarel began producing this unique specialty in 1865, birth year of original Gianduiotto.

In 1845 Michele Prochet joined the company and the company name became Caffarel Prochet & Co, the company's ties with the Caffarel family ended by 1897, and Prochet died in 1904. The company changed hands more than once in the early 20th century, and finally in 1997 Caffarel was acquired by the Lindt & Sprüngli Group.

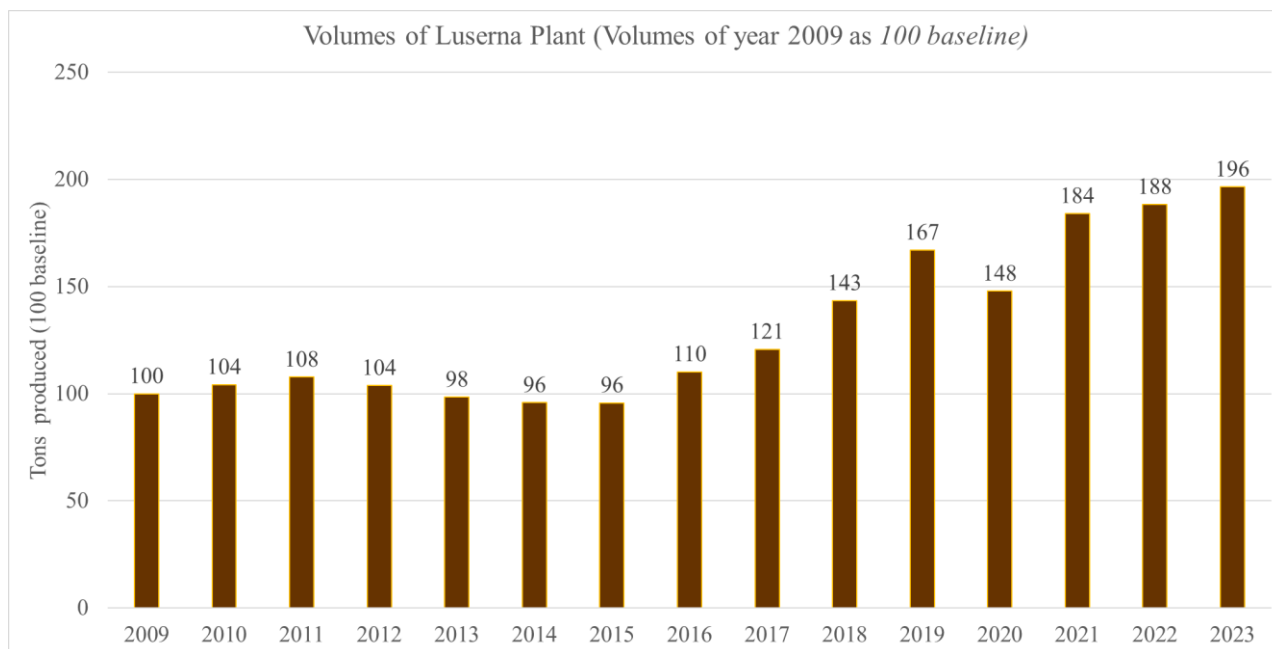
In 2021 Caffarel was merged into Lindt & Sprüngli Italia SpA.



1.3 Luserna Plant Volume and Products

Luserna Plant is currently producing both for Caffarel brand, both for Intercompany Lindt & Sprüngli business which is becoming the biggest part of the total production volumes.

Here is showed a deployment of the production volumes of the plant.



Luserna Plant produces a wide range of products which can be grouped in different families.

Professional Products

Couvertures and pastes are Sold to bakeries and restaurants



Cut Products

Chocolates with an high percentage of hazelnuts deposited on a belt then cut by a knife



Moulded Products

Chocolates and bars with a shell that differs from the filling or inclusions



Spread Cream

Chocolate cream made in four differents recipes, produced for Caffarel and for Lindt & Sprüngli intercompany



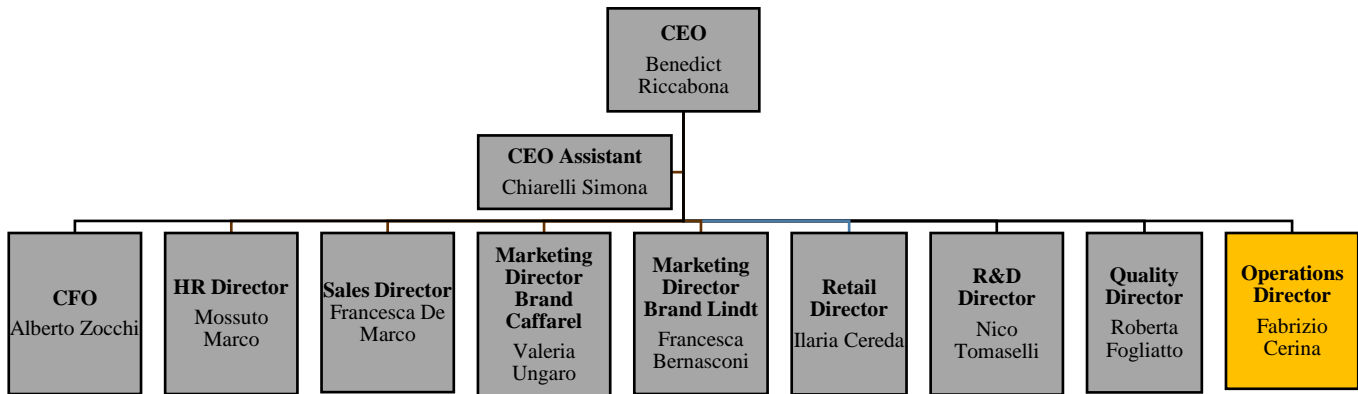
Gianduiotto

Extruded products with an high percentage of hazelnuts produced in five different recipes

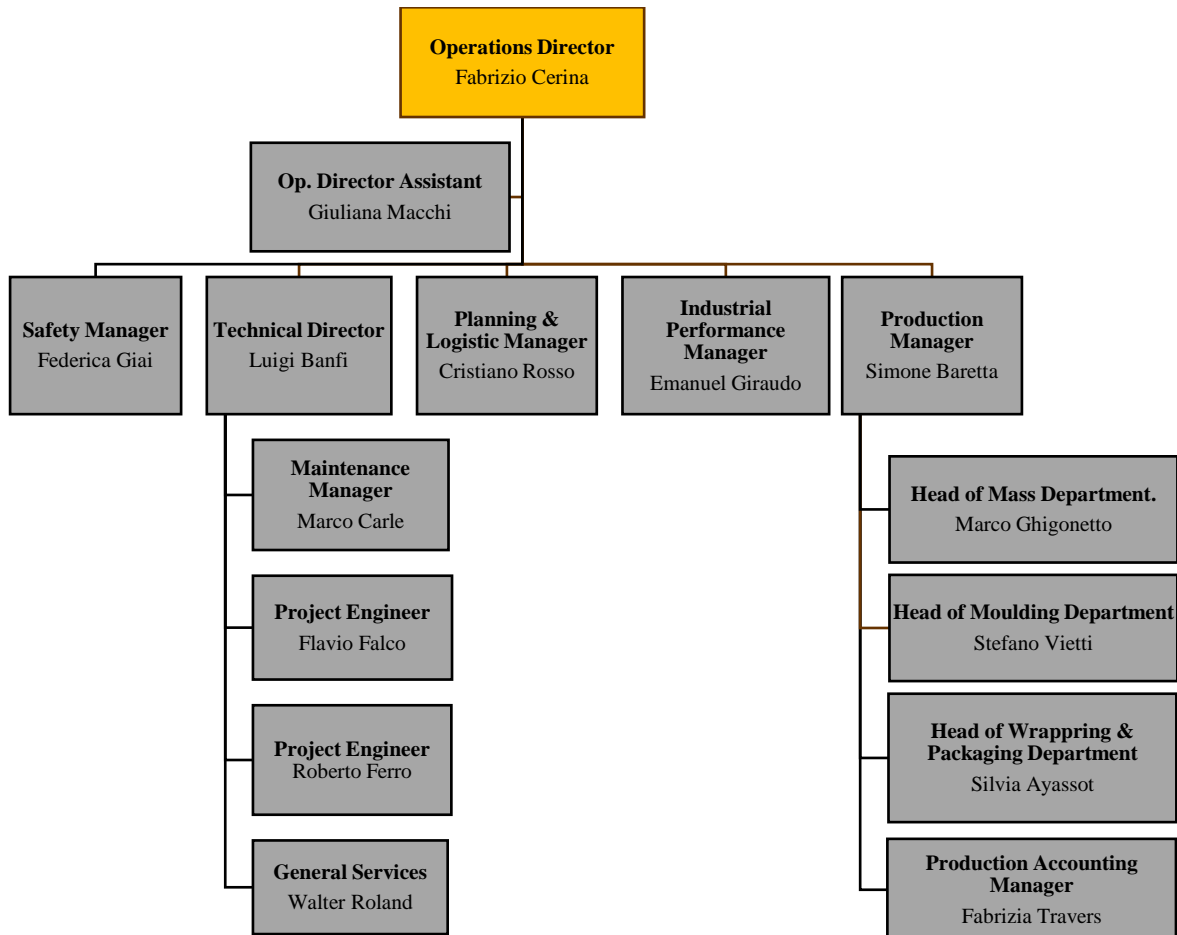


1.4 Luserna Plant Organization

Here the Management Team of Lindt & Sprüngli Italia.



Lindt Group has two production plant in Italy: one in Induno Olona and one in Luserna San Giovanni. The headquarter of Operations Area is in the plant of Induno Olona but there are some functions specific of Luserna Plant. In the following flowchart we present the Operations structure related to the Luserna Plant.



In Luserna are currently working 168 blue collars. The most of the white collars are related to the Operations functions.

2 Milestone on the Journey of Manufacturing Excellence

TPM in Luserna Plant was launched in the middle of 2013 after the decision of the Lindt & Sprüngli Group to start a global TPM program, called LPW “Lindt Performance Way”.

Luserna Plant started the program in order to better analyze the losses inside the plant, to reduce the costs and to standardize the processes to avoid fluctuating results of the machines.

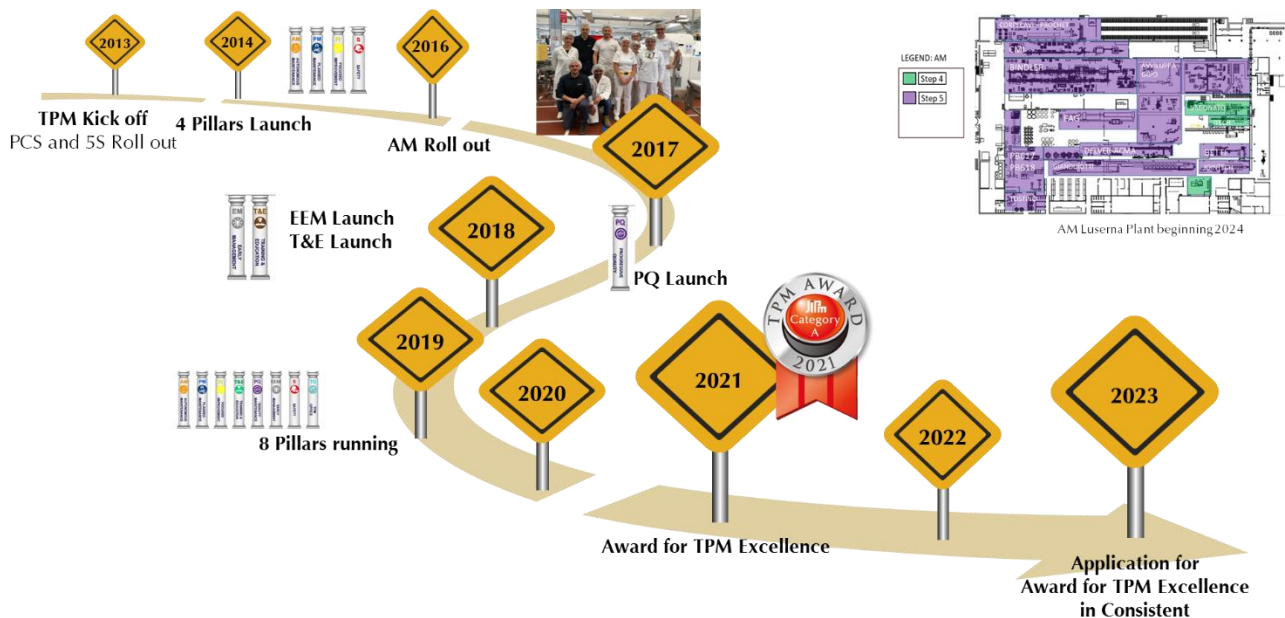
The need for the TPM launch was due to different factors, grouped as:

- External needs: growth volumes mainly of the Intercompany business; a competitive selling price; yearly progressive reduction in operating profit;
- Internal needs: low efficiency of productions lines; training hours not formalized and tracked; a general lack of KPI's and Pareto culture; need to adopt continuous improvement approach;

The first step was to roll-out the 5S program to all the production areas and setting up a reliable Performance Control System (PCS). The PCS was set up on every production line with standardized boards.

From 2019 we had eight pillars running and in 2021 we achieve the JIPM Excellence Award.

In 2023, achieving STEP 5 on the most of our lines, we apply for the award for TPM Excellence in Consistent.



3 Benefits Achieved

The TPM methodology helped to increase the knowledge and the awareness of the employees. Below there is the chart with the Factory KPIs in terms of PQCDsME.

| CATEGORY | INDEX (Calculation Formula) | Unit | 2013 TPM Kick Off | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Delta % 2013 /2023 |
|----------|--|---------------------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|--------------------------|
| P | Plant Productivity | kg/ h produced (2013 as 100 baseline) | 100 | 107 | 121 | 135 | 142 | 163 | 179 | 207 | 255 | 262 | 255 | 155% |
| P | Filling Line | % | 44 | 45 | 46 | 50 | 53 | 59 | 65 | 68 | 74 | 69 | 71 | 61% |
| P | Chocolate line | % | 64 | 63 | 73 | 75 | 72 | 68 | 69 | 69 | 70 | 69 | 74 | 16% |
| P | Cuttet products - Delver | % | 63 | 64 | 65 | 66 | 68 | 60 | 64 | 66 | 77 | 75 | 79 | 25% |
| P | Bindler | % | | | | | | | 46 | 54 | 56 | 61 | 61 | 31% |
| P | F.A.G. | % | 58 | 58 | 58 | 58 | 58 | 59 | 58 | 62 | 67 | 65 | 76 | 31% |
| P | Spread Line PMR (until 2020) - CMI | % | 30 | 30 | 30 | 45 | 52 | 68 | 75 | 55 | 51 | 53 | 53 | 77% |
| P | Wrapping machine AC0332 | % | 81 | 81 | 81 | 83 | 80 | 82 | 81 | 78 | 76 | 79 | 79 | -3% |
| P | Wrapping machine AC0790 | % | 61 | 61 | 68 | 68 | 68 | 72 | 74 | 76 | 74 | 65 | 70 | 14% |
| P | Jointech-FIMA | % | 59 | 59 | 68 | 72 | 56 | 65 | 73 | 73 | 76 | 77 | 73 | 24% |
| Q | N'Consumer Complaints / tons molded | #/ tons | | | | | | 14 | 10 | 18 | 11 | 11 | 9 | -39% |
| Q | Non Right 1st time Levels II and III | % (tons/tons) | | | | | | 1,1% | 0,8% | 0,1% | 0,1% | 0,1% | 0,2% | -78% |
| Q | Non Right 1st time Levels IV, V and VI | % (tons/tons) | | | | | | 1,8% | 2,3% | 2,5% | 1,7% | 0,7% | 0,7% | -61% |
| C | Waste of production (% tons) | % | 1,6 | 1,9 | 1,8 | 1,7 | 2,1 | 2,3 | 1,8 | 1,1 | 1,3 | 1,1 | 1,3 | -19% |
| C | Rework (% tons) | % | 2,6 | 2,1 | 1,9 | 2,0 | 1,9 | 1,6 | 2,1 | 2,2 | 2,6 | 2,7 | 3,3 | 29% |
| C | Direct labour cost | €/ton produced (2013 as 100 baseline) | 100 | 97 | 87 | 81 | 74 | 65 | 59 | 56 | 48 | 50 | 49 | -51% |
| C | Indirect cost (excluding depreciation) | €/ton produced (2013 as 100 baseline) | 100 | 104 | 102 | 83 | 60 | 52 | 47 | 48 | 41 | 39 | 47 | -53% |
| D | On time | % | 98,9 | 99,1 | 99,3 | 99,2 | 99,2 | 99,2 | 99,1 | 98,8 | 68,8 | 68,8 | 68,0 | -31% |
| D | Case Fill | % | 98,7 | 98,5 | 99,0 | 99,1 | 98,7 | 98,7 | 99,2 | 98,2 | 97,8 | 97,7 | 98,0 | -1% |
| S | Lost time accidents (requiring days off working) | # | 3 | 4 | 0 | 1 | 1 | 2 | 3 | 0 | 0 | 1 | 1 | -67% |
| S | First Aid (not requiring days off working) | # | 18 | 21 | 42 | 29 | 21 | 20 | 22 | 6 | 11 | 11 | 9 | -50% |
| M | Sick leave | % | 4,7 | 5,7 | 4,5 | 5,8 | 6,1 | 6,3 | 5,1 | 6,3 | 6,1 | 7,3 | 9,0 | 91% |
| M | Turnover rate Operations | % | 19,0 | 19,0 | 12,6 | 4,9 | 2,3 | 8,0 | 6,9 | 5,6 | 18,3 | 7,0 | 8,4 | -56% |
| M | Satisfaction Index (from Company Survey) | % | | | | 57 | | | 56 | | | 61 | | 7% |
| E | Water Consumption | fresh water m3/ton produced | 18,8 | 18,8 | 20,7 | 17,4 | 13,3 | 11,7 | 12,0 | 9,5 | 10,4 | 10,9 | 6,9 | -63% |
| E | Energy Consumption | MWh/ton produced | 3,4 | 3,4 | 3,4 | 3,0 | 2,7 | 2,5 | 2,3 | 2,4 | 2,1 | 1,8 | 1,7 | -50% |

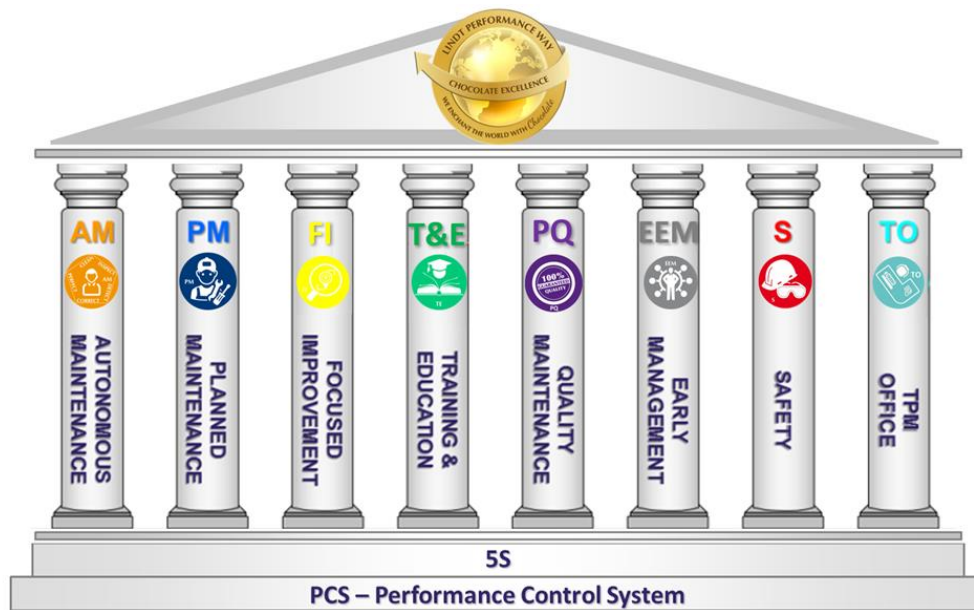
During last five year we also obtained intangible results, below are some highlights:

- Standardized working processes across the whole factory;
- The development of skills through training and knowhow improvement;
- The creation of an environment where all workers can get involved;
- Discipline and an “speaking by numbers” approach;
- Involvement of lot of people in Improvement teams, Autonomous Maintenance initiatives;
- Culture of zero losses, zero defects and zero breakdowns has been established aiming to achieve excellence in every part of daily activities.

4 Key of our Manufacturing Excellence

Our current “House of improvement” is based on the two foundations of PCS and 5S, while the pillars are working to eradicate their proper losses.

On the roof of the house is displaced the name of the program of our company, LPW. In 2021 the company changed the name of its improvement program from “LPW: Lindt Production Way” to “LPW: Lindt Performance Way”. This represents a milestone in the development of the program, where through the help of digital technologies as enablers, we want to extend the perimeter of action on the end-to-end value chain, from suppliers to customers.



At the very top is the Hoshin Kanri, that allows us to systematically deploy company strategy and high-level company targets into practical actions. The link with the company targets is run by the monthly meetings of the Steering Committee. The Steering Committee oversees the progression of LPW activities and is responsible for:

- Checking the status of the eight pillars and providing support when needed
- Confirming the teams proposed by pillars
- Verifying the results of the teams by monitoring and tracking results

