

## Application for Advanced Special Award

### Company Profile

#### *Tetra Pak Carta S.p.A. Rubiera Factory*

#### **Section 1: Company, Plant/Factory Profile**

- 1.1 Company
- 1.2 Rubiera Factory

#### **Section 2: Milestone on the Journey of Manufacturing Excellence**

- 2.1 Reasons of TPM adoption and items introduced

#### **Section 3: Benefits Achieved**

- 3.1 Tangible Results
- 3.2 Employee Motivation, Involvement and other Intangible Results

#### **Section 4: Key of our Manufacturing Excellence**

- 4.1 Key items in Manufacturing Excellence program in the future

#### **Section 5: Achievement record**

- 5.1 TPM Award Assessment Achievement Sheet



# 1. Company, Plant/ Factory Profile

## 1.1 Company

Tetra Pak is the world's leading food processing and packaging solutions company. Working closely with customers and suppliers, we provide safe, innovative and sustainable products that each day meet the needs of hundreds of millions of people around the world: in 2024 Tetra Pak produced 178 billion packages with 24.456 employees operating in more than 160 countries.

Our motto, "Protects what's good"™, reflects our vision to make food safe and available, everywhere.

Tetra Pak packaging material is composed of paperboard, polyethylene and, for aseptic packages, aluminium foil. This combination of material varies to suit different product categories, food grade polyethylene is in every case the only material in contact with the product.

Tetra Pak customers are never far from one of the many Tetra Pak packaging material plants throughout the world to guarantee prompt deliveries to about 8.592 Tetra Pak machines forming, filling and sealing Tetra Pak packages on customer sites.

## 1.2 Rubiera Factory

Tetra Pak factories supplying packaging material are organized in 3 different regions: EMEA (Europe, Middle East and Africa), Americas and APAC (Asia Pacific).

Rubiera factory was the first Factory outside Sweden starting its activity in 1965, it is currently the oldest of the 28 Tetra Pak packaging material converting factories worldwide and belongs to EMEA region.

During 2024 we produced 3571 million standard packs, differentiated in 15 sizes, with 157 employees.

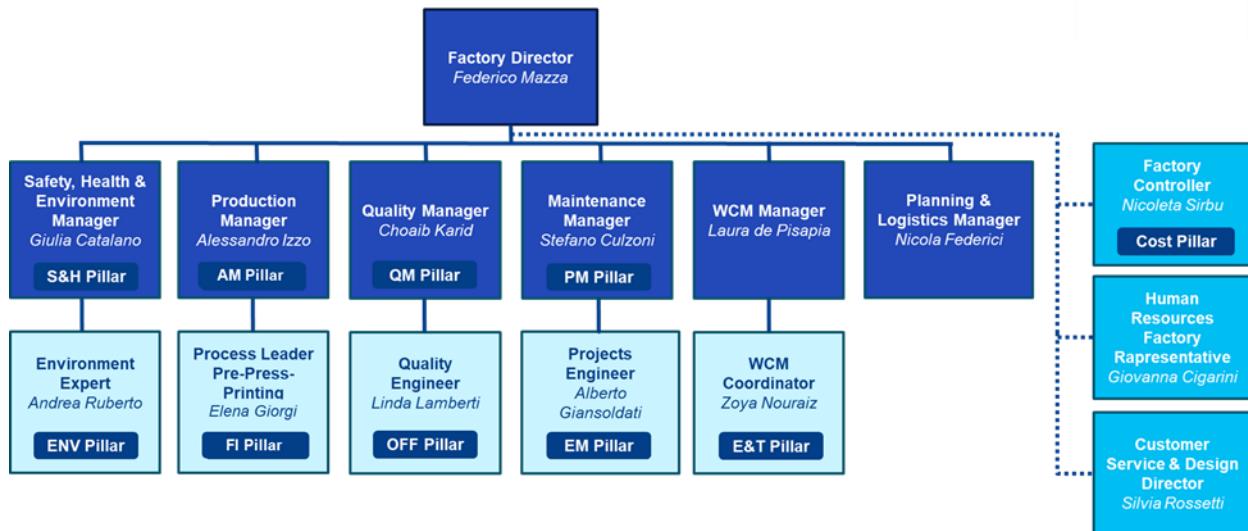
Rubiera factory is producing 70% of volumes for Italian customer and exporting to 42 countries. Proximity is a strong business advantage for our customers, the average distance of the top 15 customers from Rubiera is 170 km.



Production is made by 4 major process steps:

- Prepress - produces and mounts the clichés to be used in printing;
- Printing - prints the paper roll with water-based inks with the design required by a customer;
- Coating - covers the printed paper with extruded layers of polyethylene and alufoil;
- Finishing - slits the coated rolls in finished reels, palletizes and wraps the reels prior to being sent to customers.

The leadership of WCM Pillars is embedded in the hierarchical structure:



## 2. Milestone on the Journey of Manufacturing Excellence

### 2.1 Reasons of TPM adoption and items introduced

World Class Manufacturing (WCM) is the name of Tetra Pak TPM Program.

It represents the continuous improvement process at Tetra Pak and has its foundation in TPM.

WCM was launched in Rubiera factory in 2003 to improve cost competitiveness, add more customer value and secure long-term profitable growth by doing things better, cheaper, faster and always safer.

Today, with more than 20 years' experience with WCM, the methodology has proven to be the main enabler for delivering results, eradicating losses through continuous improvement of processes, performances and individual skills.

Today we have 10 WCM pillars in place (Cost, FI, AM, PM, QM, E&T, S&H, EM, Off, Env) with 2 production departments (Coating and Finishing) working with Autonomous Maintenance at step 7 and 2 production departments (Prepress and Printing) working with Autonomous Maintenance at step 6.

Every single employee in Rubiera is involved in WCM activities in their daily jobs and participates or even leads specific improvement team work ongoing in the plant all the time.

All our people are required to practice self-discipline to assure 5S in the workplace and maintenance of the standards introduced along the years to sustain the results achieved.

#### **PLANT MILESTONES**

<b>1965</b>	Tetra Classic Production start
<b>1969</b>	Introduction Tetra Brick Aseptic Production
<b>1980</b>	Introduction Tetra Brick Aseptic printing method Roto
<b>1981</b>	Introduction Tetra Rex Production
<b>1986</b>	Offset "second concept" Tetra Brick Aseptic Production
<b>1991</b>	Cerutti Rotoprinter started
<b>1998</b>	Stop Tetra Rex production, (moved to Factory in Latina)
<b>1999</b>	Moved Tetra Brick Aseptic production from Latina Factory to Rubiera
<b>2003</b>	Photo-process Production Start-up
<b>2003</b>	VT Flex 175 MS24 Printer (M15) installation
<b>2004</b>	Stop Roto Production
<b>2008</b>	VT Flex 175 ES21 Printer (M16) installation
<b>2009</b>	VT Lam 650/6 WRM 98 Laminator (M26) installation
<b>2019</b>	CL 1200 104 Slitter (M55) and downstream installation
<b>2021</b>	CL 1200 106 Slitter (M56) installation
<b>2022</b>	Laser guided vehicle (LGV) replacement

## ***WCM MILESTONES***

---

<b>2003</b>	WCM program kick off: AM, PM, FI, QM Pillars establishment
<b>2004</b>	Env, E&T, S&H Pillars establishment
<b>2006</b>	Cost, EM, SC Pillars establishment
<b>2007</b>	Off Pillar establishment
<b>2008</b>	TPM Excellence Award Category A
<b>2010</b>	Award for Excellence in Consistent TPM Commitment
<b>2014</b>	Special Award for TPM Achievement
<b>2016</b>	Advanced Special Award for TPM Achievement
<b>2023</b>	Application for Advanced Special Award for TPM Achievement (re-certification)

## ***CERTIFICATIONS MILESTONES***

---

<b>1995</b>	ISO 9001 quality management
<b>1997</b>	ISO 14001 environmental management
<b>2004</b>	BCR Packaging food safety hygiene management
<b>2009</b>	FSC global forest certification system
<b>2013</b>	FDA/ IMS certification of beverage packaging export to USA
<b>2013</b>	SMETA certification for Corporate Social Responsibility
<b>2016</b>	OHSAS Occupational Health and Safety Assessment Series certification 180001
<b>2018</b>	ISO 45001 safety management
<b>2023</b>	ISCC Plus certification for product sustainability

## 3. Benefits Achieved

### 3.1 Tangible Results

Since WCM was kicked off in 2003, Rubiera factory has achieved remarkable results in Key Performance Indicators:

- Coating EE%: 28% improvement
- Total Waste: 54% reduction
- Claims: 96% reduction
- No. of accidents: 100% reduction
- Lead time: 71% reduction
- Cost Index: 31% reduction

### 3.2 Employee Motivation, Involvement and other Intangible Results

Operators learned the function and structure of equipment and equipment-product quality relationship and feel responsible for their own machines: this new mindset was developed through the AM Program. While production people got better awareness about the machine management, the maintenance people, at the same time, got more time for their development so that they can focus on preventive actions rather than reactive ones. The WCM activities secured benefits which cannot be measured but are clearly visible in the plant:

- The empowerment of people who manage autonomously their own equipment;
- The engagement of people;
- The change from the “quick fix” culture to “find & eradicate root cause” culture;
- The 5S spreading for a clean factory and a pleasant work environment;
- Customers visiting the plant have positive impression, which leads to increased trust and orders;
- The feeling of self-empowerment in all levels of the organization.

## 4. Key of our Manufacturing Excellence

### 4.1 Key items in manufacturing excellence program in the future

The major contributor to the good results in our process was the application of WCM in the past 22 years. All this journey has taught us that to be competitive in our market scenario we must quantify the losses reaching the eradication towards a process optimization.

The process optimization doesn't stand alone, it has the people as the base to sustain the progress. All of that aiming to satisfy and exceed our customers' expectations.

With this in mind, we developed our internal strategy that sends a strong competitiveness message to our employees as at the heart of our strategy we have the Growth of Packaging Material.

Growth is the key to successful manufacturing excellence to secure the future of our customers and our plant.

Our strategy is clearly focused on, first of all, not taking any compromise on Safety and Quality. Doing everything we do with a Productivity mindset and sustained by our major source for success: People.

Around the strategy we have written the leadership behaviours we want our People to demonstrate: Capable, Dynamic, Productive.

Our motto is to be "The recognised factory, by everyone", by everyone we mean: our customer, our employees and the society.

We finally believe that we have to leverage on the proximity of Rubiera plant from our customers and being productive in order to secure market competitiveness in the future, this is what makes us special.



## 5. Achievement Record

### 5.1 TPM Award Assessment Achievement Sheet

#### TPM Award Assessment Achievement Sheet

Company & plant name	Tetra Pak Carta S.p.A.	
TPM Slogan/Objectives	We drive a deep rooted change to achieve zero loss by involving all employees to ensure our future through customers' trust	

▼ Please fill in the range of data you are collecting ▼

Category	Index	Unit	TPM Started	Actual Status	Target
Enter the year →			2003	2024	2024
S	Number of work-related accidents requiring days off work	Cases/ year	13	0	0
S	Number of work-related accidents not requiring days off work	Cases/ year	23	0	0
P	Productivity for main products	1000 packs/ no. of operators	930	1936	1832
P	EE bottleneck machine (Coating process)	%	62.82	77.15	77.65
P	Availability bottleneck machine (Coating process)	%	78.10	88.67	88.45
P	Performance Rate bottleneck machine (Coating process)	%	82.00	87.63	88.50
P	Quality Products Rate bottleneck machine (Coating process)	%	98.20	99.30	99.20
P	Number of breakdowns	Breakdowns/ year	1284	143	185
P	MTBF	Hour	N/A	25.6	24.5
P	MTTR	Hour	N/A	0.9	1.0
Q	Number of customer complaints	Number/year	222	10	15
Q	In-line defect rate (scrap)	%	6.57	3.23	3.25
Q	In-line defect rate (rework)	%	15.4	8.5	10.0
C	Cost index (CTC vs 2003 without inflation)	Cost/ Million Packs	100	69	79
D	Production Lead time	Days	7.5	2.2	2.8
D	Delivery performance (New Perfect Order rules from 2020)	%	N/A	83.4	84.1
S	Frequency rate	Number of occupational accidents with leave for 1 000 000 worked hours	32.9	0	0
M	Number of Employee Suggestions	Number/year	355	513	550