

**PAMP.**  
Produits Artistiques Metaux Precieux

**Sustainability Report  
2017**





# Care. Commitment. Responsibility.



In 2017 PAMP celebrated 40 years since its founding in 1977 in Chiasso. This is an important milestone on a journey marked by the expansion of roots in the local area and the community, care for the environment, a commitment to sustainability along the entire production chain and far-sighted management of operations to ensure the stability of the company and a drive for innovation. Over these past 40 years PAMP has grown significantly, from a handful of staff in 1977 to 170 today, gaining national and international recognition as the leading company in the precious metals processing sector.

This Sustainability Report, which covers the period from 1 July 2016 until 30 June 2017, is addressed to our stakeholders: staff, the local community, institutions, organisations and associations, the media, customers, suppliers, shareholders, group companies and competitors. On one hand it sets out our results in Social, Environmental and Economic Responsibility, showing the evolution of our indicators and the underlying reasons; on the other hand it highlights future directions and our commitments to make improvements where possible. It seeks to provide a transparent instrument for comparison and discussion.

In this edition we document the activities commemorating our 40 year anniversary, with a photographic supplement on the initiative known as PAMP INSIEME – Tempo Prezioso per la Comunità (voluntary initiative for the staff), which is described below (pages 20-21).



# Highlights

## **PAMP celebrates 40 years**

2017 marks 40 years since the foundation of PAMP in 1977 in Chiasso. To celebrate this important milestone we chose activities that represented our journey and reflected our values.

In particular, we involved staff in a voluntary initiative that we called 'PAMP INSIEME – Tempo Prezioso per la Comunità', organised in association with the municipality of Castel San Pietro and with other social organisations from the local area: no fewer than 116 of our 170 staff members joined the initiative, providing their time to the community. This meant various bodies from the local area received help from volunteers with tasks linked to ecology, the third age and childhood (more details on pages 19-21).

Secondly, a more international initiative was the support given to a charity event organised by the Swiss Committee for UNICEF, aimed at raising funds to protect childhood in the first 1,000 days of life (page 39). Finally, all employees and their families were invited to a special evening in Lugano at the beginning of December (page 14).

## **Innovation to protect the environment**

In April we became the first precious metals refinery in the world to install the ALS (Acidless separation) machine, capable of separating gold and silver without using chemical substances. This innovative system, developed by IKOI and GT&F, has revolutionised the initial refining process, with undeniable environmental benefits in terms of the use of chemicals, energy consumption and emissions, and has had a positive impact on worker safety (page 27).

## **Concrete measures to reduce CO<sub>2</sub> emissions**

A renowned consultant from the Confederation carried out an energy analysis, following which a number of goals were defined and an agreement was signed with the Confederation. Numerous technical interventions will result in greater energy efficiency and a related reduction in consumption, as well as a significant reduction in direct and indirect carbon dioxide emissions (page 33).

## **Renewed partnership with UNESCO**

Since 2012 PAMP is honored to be selected the exclusive managing partner of the UNESCO Commemorative Coin and Medal Programme.

Significantly, in the early part of the 2017 financial year PAMP further renewed by 5-year contract this highly successful partnership with UNESCO, one of the world's most prestigious and influential cultural institutions. The Programme is among the most sought after by coin collectors around the world, and PAMP is honored to facilitate all aspects of its management, from technical guidance through to distribution and marketing activities.

## **Rhodium ingots**

Also launched in 2017, PAMP's 1oz. Rhodium investment bar bearing its world-famous Fortuna emblem marked an industry first. A platinum group metal, rhodium cannot be produced by standard production or minting techniques. Our experienced engineering team perfected its manufacture to far surpass quality excellence of the few examples currently on the market, evident in the proof-like finish for which PAMP bars are internationally renowned. To date, the 1oz rhodium Fortuna ingot has proven widely successful with bullion collectors across all markets and can be instantly authenticated via PAMP's innovative VERISCAN bullion identification iPhone app.



# Contents

## Who We Are

The Company and the Company Policy  
Business Activities and Recognition

### 1. Social Responsibility

- 1.1. Employees
  - 1.1.1. Staff Composition
  - 1.1.2. Training
  - 1.1.3. Health and Safety
- 1.2. Local Community
- 1.3. Production Chain

### 2. Environmental Responsibility

- 2.1. Resources
  - 2.1.1. Energy
  - 2.1.2. Water
- 2.2. Environmental Impact
  - 2.2.1. Waste
  - 2.2.2. Emissions

### 3. Economic Responsibility

- 3.1. Results
- 3.2. Indirect Economic Impact
  - 3.2.1. Suppliers
  - 3.2.2. Tax, Investments and Sponsorships

# Who we are

## The Company and the Company Policy

### Our core values:

- **Excellence:** the utmost care is taken with all phases of processing, with all activities and with individual products and services in order to achieve the highest levels of quality;
- **Seriousness and reliability:** we make a profound commitment to a sustainable and transparent production chain;
- **Respect:** we control our environmental impact, collaborating with institutions and maintaining an open and respectful relationship with the community;
- **Research and innovation:** by constantly investing in the research and development sector we aim to adopt the most advanced technical and process solutions;
- **Protection and development:** we work to safeguard our employees' health and safety and to ensure they can work in a calm and collaborative environment.

### History

- 1977: PAMP founded in Chiasso
- 1981: acquisition by the MKS Group
- 1984: relocation to the current headquarters in Castel San Pietro
- 2008: creation of MMTC-PAMP, a joint venture with the largest Indian public trading company, the Metals and Minerals Trading Corporation of India (MMTC)
- 2012: beginning of the partnership with UNESCO as part of the commemorative coins programme
- 2014: MKS Group name updated to MKS PAMP GROUP

PAMP SA, based in Castel San Pietro, is part of the MKS PAMP Group. The group, based in Geneva, has **four brands with 14 offices in 12 different countries**. In addition to PAMP and MMTC-PAMP, which handle the refining and processing of precious metals, the portfolio includes MKS, which provides financial, physical and commercial services to a global customer base, and coin and ingot distributor MTB, which operates in the United States.

*« PAMP stands for Produits Artistiques Métaux Précieux. As the leading refining and processing company for precious metals, the PAMP brand enjoys a prestigious position in the production of ingots and is a byword for high quality. »*

PAMP's clientele comes from a diverse range of sectors across the globe, including central banks, commercial banks, national mints, mining companies, manufacturers of and dealers in jewellery and watches, asset management and trading companies, commodity trading advisors (CTAs) and private investors, ingot traders and national postal regulatory authorities.



✓ *Attention to customer satisfaction*

We carefully analyse our customers' needs in order to increase the added value of our products and ensure prompt, thorough and effective pre-sale and post-sales service.

✓ *Management of skills and training*

We make every effort to develop staff skills through ongoing training and guidance; this helps ensure our staff are loyal and reliable.

✓ *Controlling the quality of products and services*

We carefully check the quality of our products and verify that technical specifications are respected; our assay and analysis laboratory operates according to numerous accredited methods.

**QUALITY**



✓ *Analysis of environmental impact*

We analyse and evaluate the possible risks of our operations, we check our performance by monitoring the context and the environmental impact throughout the production chain.

✓ *Guarantee of compliance with legislation*

We remain constantly up-to-date on regulations in force, we conduct internal checks on compliance with these regulations and we actively work together with institutions.

✓ *Improvement of ecological processes*

We constantly update our safety procedure to prevent environmental risks, we draw up improvement projects and use modern, efficient facilities.

**ENVIRONMENT**



**HEALTH AND SAFETY**



✓ *Awareness of dangers and prevention*

We catalogue dangers, we evaluate potential risks and preventive measures, also working together with specialists and institutions.

✓ *Development of a culture of safety*

We carry out specific training on safety and procedures and we make use of recognised internal professionals; our monitoring activities include collecting input from employees.

✓ *Compliance with rules and good practices*

We have established precise safety rules for workers and visitors, we have an internal safety department and we work together with the occupational doctor.

**ETHICS AND SOCIAL RES.**



✓ *The central importance of individuals*

We have regular contact with Worker Representatives; we have tools for dialogue and communication and we organise initiatives to promote social interaction and cooperation.

✓ *Fight against discrimination*

We analyse and determine salaries based on concrete elements, we ensure fair treatment and fight against any discrimination, basing our evaluations on performance.

✓ *Awareness of our impact on society*

We evaluate our partners and suppliers, we cooperate locally and globally with associations and institutions for the sustainability of the supply chain, we continuously strive to support the local area and the community.

# Business Activities and Recognition

## We have received the following international recognitions:

- London Bullion Market Association **Ordinary Member**.
- Our assay laboratory is one of only three **Good Delivery Referees** authorised by both the London Bullion Market Association and the London Platinum and Palladium Market (LPPM) to analyse and evaluate bars sent by candidates for Good Delivery certification.
- Our products are recognised as **Good Delivery** by the following bodies:
  - LBMA, the London Bullion Market Association;
  - LPPM, the London Platinum and Palladium Market;
  - SNB, the Swiss National Bank;
  - TOCOM, the Tokyo Stock Exchange;
  - COMEX, the New York Commodity Exchange;
  - DMCC, the Dubai Gold and Commodities Exchange;
  - CME, the Chicago Mercantile Exchange;
  - SGE, the Shanghai Gold Exchange.
- We are an **associate member** of the London Platinum and Palladium Market and the Tokyo Stock Exchange
- and a **non-clearing member** of the New York Commodity Exchange and the Chicago Mercantile Exchange.
- We are subject to **FINMA (Swiss Financial Market Supervisory Authority) regulations** in relation to combating money-laundering and the financing of terrorism, throughout the production chain.

PAMP offers its customers a complete range of products and services:

- **Refining:** the department is operational 24 hours a day, with an annual production capacity of more than 450 tonnes of gold, 600 tonnes of silver and 30 tonnes of platinum group metals;
- **Analysis and sampling:** our assay laboratory operates as an independent entity under the remit of the Swiss Central Office for the Control of Precious Metals and holds ISO/IEC 17025 accreditation, recognition of the fact that the laboratory meets the standards requi-

*« Bodies such as the LBMA and the LPPM commission independent laboratories to conduct international inter-laboratory tests which seek improvements in quality through comparison and impartial verification. The PAMP laboratory is regularly rated as excellent. »*

red for carrying out analyses using accredited methods, and can therefore issue various types of certificates;

- **Cast bars and ingots:** these are produced in gold, silver, platinum and palladium with specific characteristics in terms of dimensions and purity;
- **Minted ingots:** these are produced in gold, silver, platinum, palladium and rhodium in weights ranging from 0.3 g to 1 kg;
- **Finished and semi-finished products with traceable origin:** optionally, we can manufacture batches of our products using segregated processing and equipment, guaranteeing full traceability of the precious metal throughout the chain;
- **Gifts and collectors' items:** pendants, nameplates and other items in gold, silver, platinum and palladium;



## UNESCO World Heritage International Coin Program

*The coins produced as part of the UNESCO programme*

In 2012 we began working with UNESCO, becoming an exclusive partner for the coordination, production and distribution of commemorative coins as part of the World Heritage – International Coin Program. The initiative aims to celebrate world cultural heritage (together with other topics close to UNESCO's heart) by producing coins and medals, for which **we work with national mints and central banks** on the concept, design, packaging and distribution.

During the financial year in question we had the honour of producing:

- The East Rennell, Underwater Nature commemorative coin celebrating the rich underwater heritage of the easternmost point of Rennell Island, located in the Solomon Islands. The reserve is 86 km long and 15 km wide and is the largest raised coral atoll in the world, containing a vast number of endemic species.
- The gold and silver Place de la Concorde - Palais Bourbon commemorative coins, which honour one of the most picturesque squares in Paris and the Palais Bourbon, located on the Rive Gauche in front of the Pont de la Concorde and the French National Assembly, France's lower house. The collection was produced by Monnaie de Paris.
- Developed in collaboration with the Singapore Mint, the Botanic Garden coins depict the 74 hectare gardens in the city of Singapore, an important centre for botanic research.
- The silver Paisaje Industrial Fray Bentos coin, dedicated to the industrial complex located close to the Uruguayan town of Fray Bentos, which became a UNESCO World Heritage Site in 2005. The site, which was used for meat processing until 1979, includes industrial buildings as well as workers' houses, a hospital and a theatre.

- **Coins and medals:** we take care of all phases, from concept and design to minting, packaging and distribution;

- **Semi-finished goods for industry:** we supply the chemical, electronics, pharmaceutical and automotive industries with pure precious metals, gold alloys, components, and salts and solutions containing platinum group metals;

- **Storage service:** in Switzerland, the United States and India;

- **Retail solutions:** our partners can make use of a platform and our know-how to support the retail sale of a range of products, without taking on risks or having specific knowledge of the sector.

**Added-value solutions:** one example is VERISCAN technology, which instantly scans the surface of ingots and coins at the microscopic level, allowing the unambiguous identification of products from PAMP or its brand partners. During this period we also launched the VERISCAN iPhone app, combining extremely high technological performance with the convenience and simplicity of an app. VERISCAN reduces the risk of counterfeiting virtually to zero, and can also reduce reacquisition costs for distributors and investors.

**Financial services:** as part of the MKS PAMP GROUP we are able to offer customers access to expertise in relation to precious metal quotes, physical trading of precious metals, unallocated trading, location and purity swaps, a web-based trading application (WTA), web-based reporting and daily market reports.

# Social Responsibility

Openness to dialogue, attention to individuals and care over relationships are the cornerstones of our approach to social responsibility and are applied throughout the production chain. To achieve this goal we work hard to ensure we have satisfied, loyal employees, in part through training and activities aimed at favouring social interaction and cooperation. We monitor and devote great care and attention to health and safety. We support the local community and maintain an open communication channel. We carefully analyse our partners and actively work with organisations and institutions both nationally and internationally.

*I have personally found my experience of voluntary work with the company to be enriching, and judging by the comments and general enthusiasm of my colleagues I think they feel the same way. I chose to spend time with the elderly; seeing the joy in their eyes over something new or simply in getting a little more attention is something that touched me deeply. I had volunteered in the past, but nowadays it's hard for me to find the time. So I am pleased that the company organised this initiative, which was certainly demanding from a number of perspectives but positive for everyone involved.*

Cinzia Corna,  
Treasury dispatch operator at  
PAMP



## EMPLOYEES



29%

The proportion of women working in our company.

65%

The percentage of employees who have worked at PAMP for over 5 years.

## TRAINING



Hours of internal and external training.

## HEALTH AND SAFETY

-22%

The reduction in the frequency index for accidents at work, which fell from 2.25 to 1.75. This result is well below the average for the sector.

## LOCAL COMMUNITY

PAMP INSIEME – Tempo Prezioso per la Comunità, is the initiative organised to mark the company's 40th anniversary.



## PRODUCTION CHAIN



The percentage of our active suppliers (representing over 90% of total spending) that were inspected in accordance with the procedures set by the SA8000 voluntary certification.



# 1.1. Employees

## 1.1.1. Personnel Composition

Figure 1 Number of employees

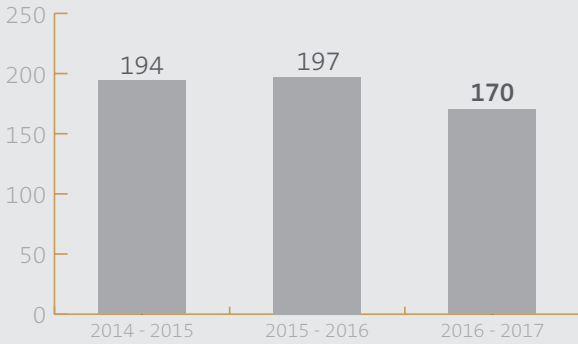
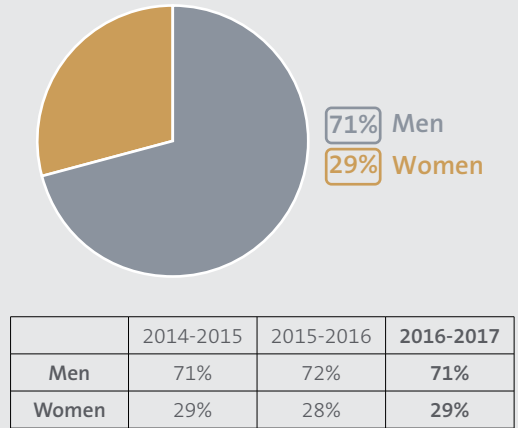


Figure 2 Personnel composition by gender



During the 2016-2017 financial year, various factors led to the number of employees falling by 27 (Figure 1). Firstly, the external security system was outsourced in order to raise professional standards. We took steps to ensure employees affected by this measure were offered a solution, and they were therefore able to sign a new contract with

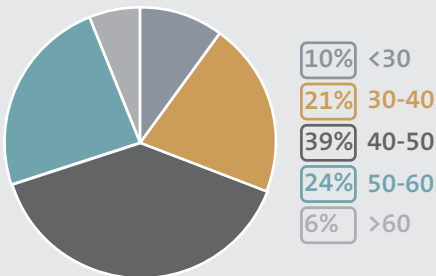
*« This year marks ten years since the introduction of the Worker Representatives. Today this group plays a key role in liaising between employees and management, providing essential discussions and consultancy on topics relating to management, safety and human resources. »*

the contracted company. Secondly, through a combination of early retirement and not replacing employees who were leaving for various reasons, there was a reduction in the workforce across the board which had become necessary as a result of reduced turnover. All employees have permanent contracts.

Regarding personnel composition by gender and age, there were no significant changes. The clear preponderance of men (71%) compared with women (29%) is due to the predominant role of production in PAMP’s activities (Figure 2). The slight variations in the percentage of workers from different age groups are cyclical and not caused by any specific reasons. There was a slight increase in the workforce below the age of 30 and in the 40-50 age group; the 30-40 age group remained stable, while there was a decline in the percentage of workers aged between 50 and 60 and over 60 (Figure 3).

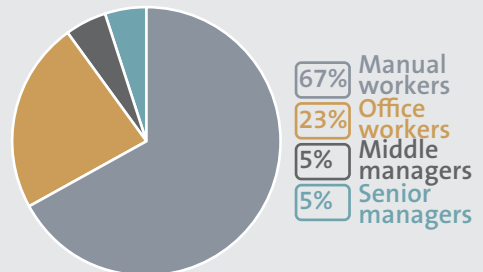
Following modifications to the organisational structure, which at the beginning of 2016 led to a change in the composition of personnel at the level of middle and senior managers, during the financial year in question these percentages remained largely stable. There was a slight change in the categories of manual workers with an increase of 2% offset by a corresponding reduction in the office worker category (Figure 4).

Figure 3 Personnel composition by age



	2014-2015	2015-2016	2016-2017
<30	9%	9%	10%
30-40	23%	21%	21%
40-50	38%	37%	39%
50-60	25%	26%	24%
>60	5%	7%	6%

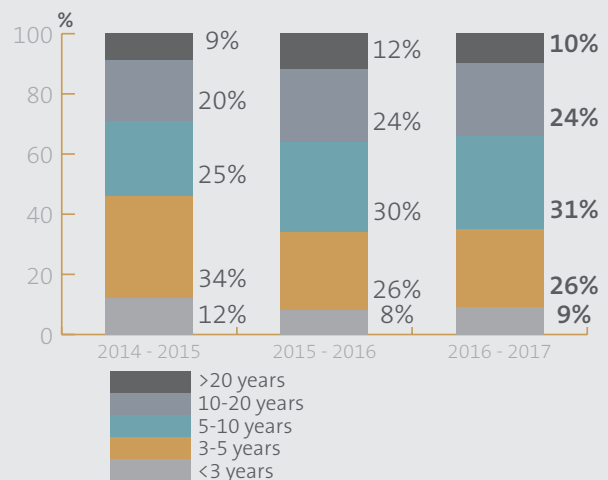
Figure 4 Personnel composition by professional category



	2014-2015	2015-2016	2016-2017
Manual w.	65%	65%	67%
Office w.	25%	25%	23%
Middle man.	8%	5%	5%
Senior man.	2%	5%	5%

As shown by Figure 5 which illustrates personnel composition based on length of service at the company, the data remained largely unchanged from the previous financial year: 65% of our workforce has been with the company for over 5 years. In more detail, 31% of employees have been at PAMP for between 5 and 10 years, 24% have been with the company for between 10 and 20 years and 20% for over 20 years. There were no significant changes in this data or in the percentages of those employees who have been with us for less than 5 years (9% for less than 3 years, 26% for between 3 and 5 years). These numbers show the **loyalty of our employees** and are very positive for us. In particular, in recent years some initiatives have enabled us to strengthen our team spirit while improving the work environment: we have more frequent meetings with Worker Representatives, we have introduced two-way communications tools such as the Suggestion Box and the Ideas Register, and last but not least this year saw the introduction of the PAMP INSIEME voluntary initiative.

Figure 5 Trends in personnel composition by length of time working for the company (years)



We remain committed to making continuous improvements in order to enhance job satisfaction and increase loyalty among our employees.



*The party held in  
December 2017*

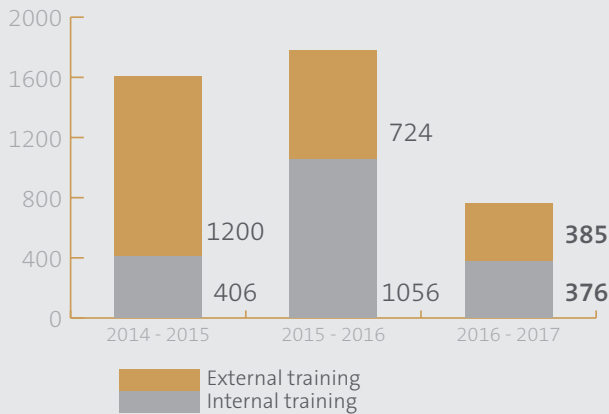
### **A sparkling birthday in a spirit of unity**

Friday 8 December, the company's traditional Christmas dinner, was transformed into a special party to celebrate 40 years of PAMP. Employees and their families, **around 230 people** in all, gathered at a renowned Lugano event space to enjoy an evening full of surprises. An aerial silks acrobat performed during aperitifs, dancing and executing spectacular moves while suspended in mid-air, and during dinner guests were astonished by a mind reader. The younger guests, around 40 children below the age of 12, were treated to their own special performance. Another exciting moment was the prize draw for the competition organised as part of the PAMP INSIEME initiative: eight employees received technological prizes or experiences in the local area. The CEO Nadia Haroun, along with the Group's executives, thanked all present, highlighting the invaluable work done by employees in writing a long success story and in reaching important milestones like that being celebrated.



## 1.1.2. Training

Figure 6 Hours of training



The number of hours of training fell by 57% compared with the 2015-2016 financial year, declining from 1780 to 761 hours (Figure 6). This reduction was caused by a combination of several factors: firstly there was a fall in the number of employees, while low staff turnover allowed a consolidation of the knowledge and skills required to carry out everyday tasks, reducing the need for internal training. Secondly, a number of highly vocational courses for individuals came to an end. And finally, other courses were also completed by internal staff without a precise operational focus, aimed at expanding the cultural knowledge of staff and sharing specialist expertise. **The goal for the future remains expanding** the training offered to employees, whether pro-

« *Internal training plays a key role in our sector since, particularly on the production side, many skills are acquired directly on the job through practice and with advice from more experienced colleagues.* »

### Ensure employee development through continuous training

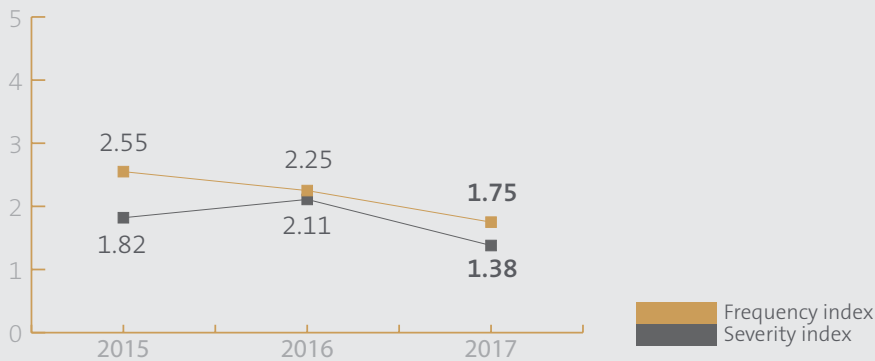
During the financial year many employees took part in continuous training courses in a number of different areas with **financial support from the company** (which covered all costs). In addition to two employees who obtained the title of Workplace Safety Engineer (see section 1.1.3 Health and Safety, on page 17), other courses undertaken included:

- A course to develop specific graphic design skills at the Mohole School in Milan;
- A marketing and sales course organised by the Association of Ticino's Industries, AITI;
- A Certificate of Advanced Studies from the University of Applied Sciences and Arts of Southern Switzerland, SUPSI, in advanced project management;
- A vocational training course aimed at obtaining the federal certificate for Finance and Accounting Specialist, organised by the Istituto Cantonale di Economia e Commercio, ICEC.

vided internally or by external professionals. Our courses focus on familiarity with and use of the Management System, quality and processes, safety and finally personal and professional growth.

### 1.1.3. Health and Safety

Figure 7 Accident indices



The 2016-2017 financial year saw a very positive result in terms of occupational health and safety, with a **reduction both in the frequency and severity of accidents**. As shown in Figure 7, the frequency index (number of accidents per 100,000 hours worked) was 1.75, 22% lower than in the previous financial year. The severity index (number of working hours lost due to occupational accidents per 1,000 hours worked) fell by 35% to 1.38. This encouraging result was achieved thanks to considerable awareness-raising and training initiatives undertaken in recent years, as well

*« We began a regular collaboration with an occupational doctor on a preventive basis; this professional's specific skills can help us make constant improvements to work processes in order to protect employees. »*

as the introduction of additional standards and a monitoring system. However, it should be stressed that all it takes is one incident, not necessarily a serious incident but one that requires the employee to take an extended leave of absence, and this trend would be reversed, leading to a significant deterioration in results.

We work constantly to provide a safe and healthy working environment for all of our employees. We maintained our OHSAS 18001 voluntary certification, which, as an international standard, requires the application of a structured system to manage the health and safety of employees: through this system we ensure compliance with the rules in force and carry out careful checks.



*The three Safety Engineers, Fiorenzo Arbini, Mario Orsenigo and Giovanni Calabria*

## Enhanced skills: two new Workplace Safety Engineers

As well as Deputy Director Fiorenzo Arbini, the company now has two new Workplace Safety Engineers: Giovanni Calabria, Internal Processes and Quality Manager, and Mario Orsenigo, Safety and Environmental Manager. Both professionals successfully completed the vocational course provided by Suva on behalf of the Federal Committee for Workplace Safety Coordination (CFSL). This training programme, an additional module to the CFSL course for safety experts or for similar courses, meets the requirements of the Ordinance on the Qualification of Workplace Safety Specialists and is recognised by the Federal Office of Public Health.

The title of Safety Engineer is **the highest non-medical level of specialisation**, and is obtained by frequenting an additional 10 day seminar beyond that required to become a Safety Expert (with a total of 35 days). The final exam requires the preparation and presentation of a thesis on the risk analysis of an applied or planned work process. The study programme is aimed at a greater integration of safety aspects at all levels of company management, from devising strategies to implementation in the workplace. Giovanni Calabria and Mario Orsenigo were joined by another nine students from Ticino and 37 from the rest of Switzerland at a ceremony at the Kursaal Bern, where they received their diplomas on 30 June.

## 1.2. Local Community

### Our partnerships with the local area

- **Department of the Environment:** working closely together to protect the environment;
- **Municipal Authority of Castel San Pietro:** holding periodic meetings;
- **Vivigorla e Dintorni local association:** regular meetings and contact;
- **Inhabitants of Castel San Pietro:** direct communication channel available to local inhabitants;
- **Istituto Sant'Angelo di Loverciano school:** support for special projects;
- **Associazione Sportiva Castello local football team:** sponsorship (main sponsor).

A company is an integral part of the community in which it operates and we are convinced that companies must be respectful towards the community and the local area, and also contribute to their wellbeing. This is particularly true considering that the Municipality of **Castel San Pietro has just over 2,000 inhabitants** and the whole canton has just over 350,000 (source: Canton Ticino Office of Statistics, April 2017): in this context we can make a difference. Over the years we have

*« Over the year we are always happy to interact with various organisations from the local area, whether at official meetings, individual events or social occasions. All of these encounters strengthen relationships and make us more a part of the community. »*

established a relationship of trust with Canton authorities (such as the Department of the Environment), institutions and local associations. We have shown openness to the

local population and for many years we have provided support to two local organisations, including through sponsorship:

- We have worked closely on various levels with Istituto Sant'Angelo di Loverciano, a foundation that offers education and training to disabled or socially disadvantaged children and young people. As well as supporting specific courses on three-year cycles (this is the second year of the workplace education project at a fresh pasta factory), we use the canteen for work lunches and to offer subsidised meals to our employees.
- We are the main sponsor of AS Castello, a local football team competing in the Second Regional League; this sporting association has a strong team spirit and is known for promoting genuine values, even among its youngest members.



*Municipal Authority of Castel San Pietro visiting PAMP*

### > An increasingly solid collaboration

On various occasions during the 2016-2017 financial year we had the opportunity to strengthen our relationship with the Municipality of Castel San Pietro. At the end of 2016, for example, we were delighted to welcome to our offices the Mayor, Alessia Ponti, the Deputy Mayor, Paolo Prada, the Secretary, Lorenzo Fontana and the Municipal Technician, Carlo Falconi, representing the municipal government. The visit was an opportunity to confirm **our shared commitment to issues that are of great importance** both to the Municipality and the company: protecting the surrounding environment, dialogue with the Vivigorla e Dintorni local association and with residents and support for local organisations.

After the meeting, the Mayor and the other officials also had the chance to visit the factory and see the production processes in full flow, which generated a great deal of interest.

Secondly, 2017 saw the creation of PAMP INSIE-ME – Tempo Prezioso per la Comunità, launched to coincide with celebrations for the company's 40th anniversary. The initiative grew out of the close relationship with the municipality and from the company's desire to interact more with the community. Aiming to make a solid contribution to the wellbeing of the community, we gave our employees the chance to devote half a working day to **a range of voluntary activities in the local area**. The response was very positive and everyone took the event seriously, while also having fun. The activities offered, in coordination with the Municipality, took place over the course of four weeks and included providing entertainment to residents of local retirement homes (walks, memory games, handicrafts and sewing), working with the Municipal Technical Office to clean a path and carry out maintenance work at the playground, and finally helping the Percorso Vita company to restore the path of the same name. Photos taken during the initiative can be seen on the following pages.





# 16

groups of  
volunteers



employees  
registered

# 116

4 local  
organisations  
involved



# 320

working hours  
dedicated to public  
benefit activities

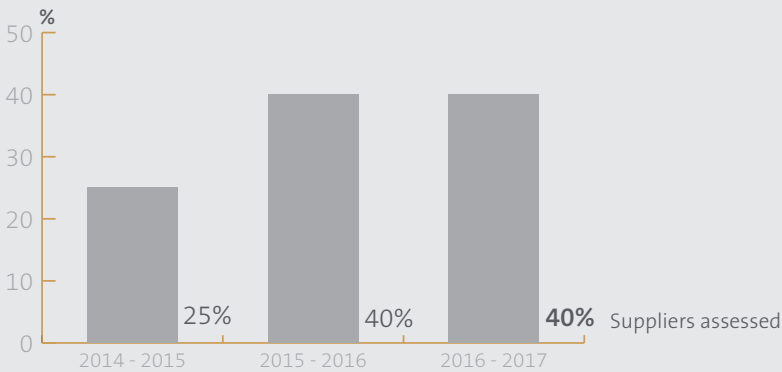






## 1.3. Production Chain

Figure 8 Active suppliers assessed based on the SA8000 procedure



Supervising the production chain is of fundamental importance to PAMP and our work in this area takes place through multiple activities on several levels. Figure 8 refers to the inspection of active suppliers, in accordance with voluntary certification SA8000, the international standard that certifies a structured approach to social responsibility throughout the production chain. To date we have been able to assess 40% of suppliers, representing over 90% of our overall spending; considering that this assessment process began in the 2014-2015 financial year we consider this result satisfactory, although our goal is still to inspect all of our partners.

During this financial year we also conducted an important classification of all active suppliers based on the type of service they provide or the merchandise that we buy, as well as our level of spending. By organising our information in this way it will make it easier to differentiate between assessment procedures and therefore to cover all of the companies involved.

We implement the **Responsible Precious Metals Group Policy**, shared within the MKS PAMP GROUP, through a management system

that involves the constant monitoring of transactions and the completion of due diligence based on risk analysis at the beginning of any commercial relationship. In addition, through the **Know Your Customer** procedure we verify the following with all current and potential customers:

- The origin of the raw materials we receive for processing;
- The legality of financial resources;
- Respect for human rights and standards on working conditions;
- The environmental sustainability of mining and production operations.

*« As well as renewing our SA8000 certification, we have progressed to the 2014 version, which updates the approach to risk assessment, including from an ethical perspective. In addition, we established an internal Social Performance Team to oversee application of the standard. »*

The commitment to the sustainability of the entire production chain aims to combat all human rights abuses as well as the financing of conflict or terrorism and guaranteeing compliance with standards on money-laundering. An additional element of our dedication and firm commitment to serve as an



## The sector's work on self-regulation

In September 2016 the LBMA, in association with the Silver Institute, launched a consultation into the possible implementation of a **Responsible Silver Guidance (RSG)** at silver refineries. The document will be based on the OECD Due Diligence Guidance, the Know Your Customer procedure and regulations on money-laundering and combating terrorist financing.

As well as serving as an example of best practices in the sector, PAMP has played an active role in drafting the Responsible Silver Guidance, making contributions both in the initial stages and in revising drafts.

The drafting of the document, and plans to produce similar work for platinum and palladium, demonstrates the entire sector's commitment to self-regulation in promoting a responsible production chain. Our company is a pioneer in this regard, having some time ago adopted control processes and procedures aimed at ensuring a value chain compliant with the most stringent standards on sustainability.

example to the whole sector lies in our collaboration with international institutions and organisations: we participate in round tables and play an active role in defining guidelines and regulations, as well as in implementing initiatives. We work closely with:

- **Responsible Jewellery Council, RJC:** we follow their Code of Practice and in 2015 we obtained the Chain-of-Custody certification: CoC-certified metal comes from a fully traceable production chain that complies with the RJC's ethical requirements;
- **Organisation for Economic Co-Operation and Development, OECD:** we are an active member of the Multi Stakeholder Steering Group working on implementation of the OECD Due Diligence Guidance;

- **World Gold Council, WGC;**
- **London Bullion Market Association, LBMA:** we helped draft its Responsible Gold Guidance and similar regulations for silver (see the focus above);
- **Swiss Better Gold Association, SBGA;**
- **Public-Private Alliance for Responsible Mineral Trade, PPA.**

# Environmental Responsibility

Our approach to environmental responsibility involves the careful analysis of potential risks and of our own performance, and rigorous compliance with laws and regulations, as well as a constant search for improvements which also consists of implementing innovative projects and technology. We have ISO 14001 certification, which demonstrates that our environmental management system is effective and always ready for constructive development. This section contains indicators on the resources we use, namely electricity and water, as well as control of our environmental impact (water discharges, waste and atmospheric emissions).

*Over the years PAMP has developed a close relationship with the Municipal Technical Office: thanks to defined contact people and the company's availability and openness, we have worked together productively on all topics relating to environmental impact.*

*In addition, the company's recent voluntary work initiative also came as a pleasant surprise to our external team, both in terms of human impact and the results for the environment. PAMP employees proved very willing and motivated and were also able to visit some of the region's less well known areas.*

Massimo Cristinelli, Head of the Municipal Technical Office of Castel San Pietro



## RESOURCES

**33.9 kWh**

The amount of energy consumed per hour of work.

**54%**

The percentage of used water discharged back into the natural environment after extensive laboratory analysis.

**11017 m<sup>3</sup>**

The total cubic metres of water drawn from our private well, representing 48% of our total requirements. This ensures we do not place an undue burden on the consortium aqueduct.

**72%**

The percentage of our total energy needs covered by electricity from renewable sources (Swiss hydroelectric energy).

## ENVIRONMENTAL IMPACT

**21.4 µg/m<sup>3</sup>**

The average value of nitrogen oxides present in the atmosphere recorded by detectors positioned around our plant. The Ordinance on Air Pollution Control (OIA) sets a limit of 30 µg/m<sup>3</sup> (micrograms per metre cubed).

**93%**

The percentage of waste that we were able to recycle.

**-35%**

The percentage reduction in tonnes of ordinary waste produced by our company.

## 2.1. Resources

### 2.1.1. Energy

Figure 9 Energy Supply (MWh/year)

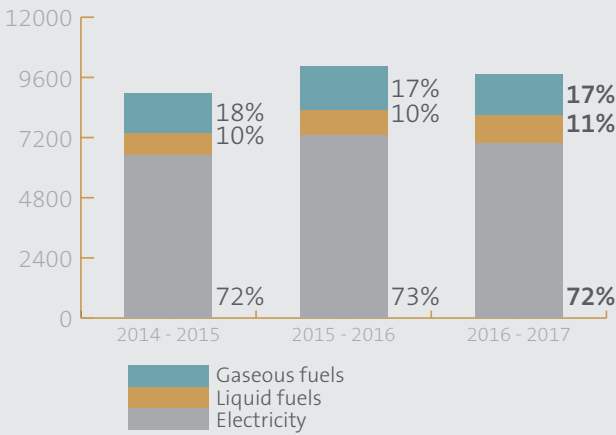
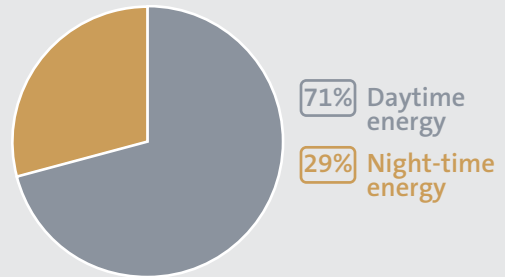


Figure 10 Day-to-day distribution of electricity consumption



	2014-2015	2015-2016	2016-2017
Daytime energy (16 hours)	70%	72%	71%
Night-time energy (8 hours)	30%	28%	29%

In the 2016-2017 financial year there was a slight reduction in overall energy consumption at 9,175 MWh, 3.4% less than the year before (10,060 MWh); this reduction was due to changes in production processes and in particular a slight reduction in refinery operations. As can be seen from the graph (Figure 9), the energy mix has remained practically unchanged over the past three years, with a strong preponderance of electricity (72%): this is positive as it demonstrates that we are capable of meeting **most of our total energy requirements with clean energy**, produced from renewable sources and with a lower impact in terms of emissions of carbon dioxide (CO<sub>2</sub>).

« *Our electricity supply essentially comes from renewable sources, because since last year we chose to be supplied exclusively from Swiss hydroelectric power.* »

11% of our needs are met with fuel oil, which we essentially use to heat working areas: changes are therefore influenced by the climate. Finally the remaining 17% of our requirements

are met by gaseous fuels, namely methane and propane.

Energy consumption per hour worked has increased by 19%, from 28.4 KWh in the 2015-2016 financial year to 33.9 KWh in the financial year under consideration; this is the result of increased efficiency on the part of the workforce, which has made it possible to fit the same level of production as the previous financial year into fewer hours. For the future our goal is to reduce this value through even more rational use of input energy.

The day-to-day distribution of electricity consumption is in line with previous financial years: 71% of energy is consumed during the daytime hours from 06:00 to 22:00, while 29% is consumed during night-time hours from 22:00 to 06:00 (Figure 10). This shows that, thanks to **normalisation of input energy**, we managed to avoid peaks in demand during the day (when energy requirements are generally greater, also from other companies and homes), exploiting night-time surpluses that would otherwise be wasted.

## Green technology for the initial refining process

In April 2017 the IKOI and GT&F companies installed the system at the world's leading precious metals refinery to separate gold and silver without using chemical substances.

The raw material received at the refinery for processing often contains gold, silver and other metals: the revolutionary "green" technology of ALS (Acidless Separation) makes it possible, during the pre-refining stage, to separate gold from other precious metals without the need for chemicals. The system exploits the differences in vapour pressure of the various metals, which determine their melting or evaporation temperature. The raw material is heated in a furnace inside a pressurised tank: when it reaches a temperature of 1,300 degrees, the silver evaporates and is collected in a special filter, while the gold remains in the crucible. This is the pre-refining stage.

**This technology allows a faster and cleaner cycle**, since rather than using chemical substances the process uses electricity, a clean source. Energy consumption is reduced thanks to shorter refining times and smaller quantities of material to be refined. In addition, fewer emissions are sent to the filtering system and the closed and isolated machine is safer for operators involved in the process, who extract the materials once the equipment has cooled down.

Our company made a decisive contribution to the implementation of the system and the technology involved, experimenting with the pilot version, which was installed for the first time in Castel San Pietro.



*A worker operating the ALS system*



## 2.1.2. Water

Figure 11 Water supply (metres cubed)

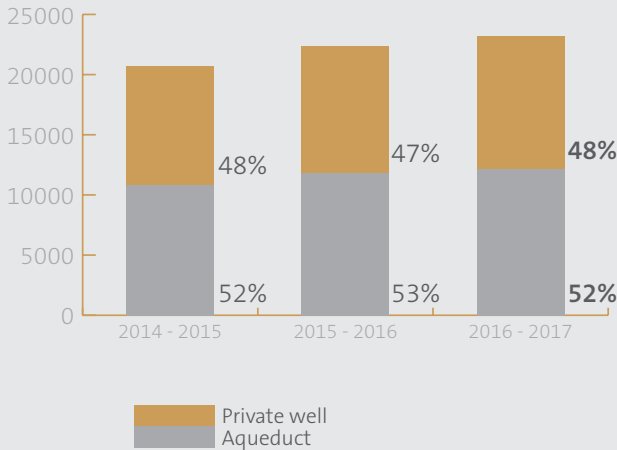
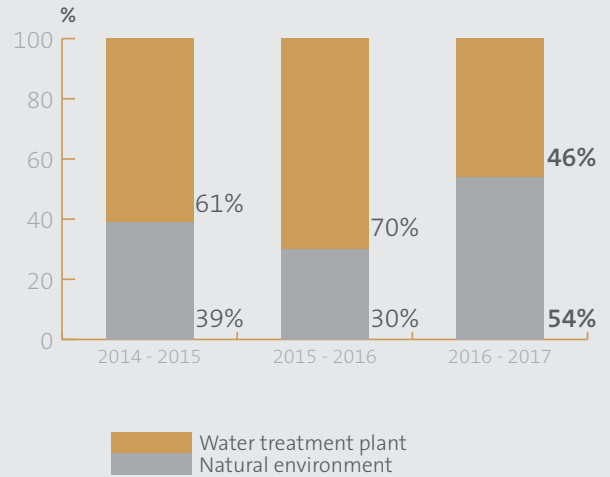


Figure 12 Destination of water discharges



As shown in the graph on water supply, the 2016-2017 financial year saw a continuation of the recent trend, with a little over half of the water used being drawn from the consortium aqueduct (Figure 11). The remaining 48% of water was sourced from our private well, from which we draw water in accordance with the restrictions imposed by the abstraction authorisation. Overall water consumption grew by around 800 metres cubed, in relation to the changes in the production mix.

*« We have a long-established partnership with the Water Treatment Consortium for Chiasso and Surrounding Areas, with which we agree upon the quantities of waters to be sent at pre-established intervals, in order to avoid overloading the system. »*

In terms of the destination of water discharges illustrated in Figure 12, this year saw an important development: we were able to discharge most of the water used, 54%, (24 percentage points more than the last year) into the natural environment, the Raggio stream. This result, which deviates from the

trend seen in previous periods and which in practice means we have reduced our impact on the consortium water treatment plant, was caused by two main factors: firstly, a lower workload at the foundry offset by a greater workload in the processing department which only uses water to cool the equipment (this water can therefore be returned to the natural cycle after the usual tests have been conducted). Secondly, thanks to **increased use of the device that conducts the reverse osmosis process on the water drawn from the well** to make it usable, we can recover a greater quantity of water for use in cooling the machinery and which can therefore later be discharged into the stream. Thanks to this optimised capacity for water recovery, the quantity of water drawn from the well and the water returned to the Raggio stream is largely in balance.

## Shared solutions for the completion of works

During the financial year we worked with the Municipal Technical Office to facilitate work on Via alle Zocche, the location of the entrance to our company premises, both for pedestrians and suppliers, as well as around thirty parking spaces for employees and visitors.

The works to restore the rainwater cistern and replace the drinking water pipeline were carried out together with the laying of the gas network by AGE SA and the upgrade of the public lighting. An innovative overflow system known as the Hobas CSO Chamber was installed at the end of Via alle Zocche, close to the employee car park. This is the first system of its type to be installed south of the Alps and has allowed the Municipality of Castel San Pietro to upgrade its waste water disposal system in a sustainable and environmentally friendly way. The device can manage overloads of the municipal mixed pipeline system in the event of heavy rainfall, reliably separating the largest suspended solids from the discharge waters.

We immediately offered to work with the Municipal Technical Office to find **solutions to enable the works to be carried out smoothly and efficiently** without obstructing access to our site. Following a number of meetings involving our safety and logistics staff we were able to guarantee safe conditions during the works and development of the work site, including moving our car park to allow the road to be marked out.

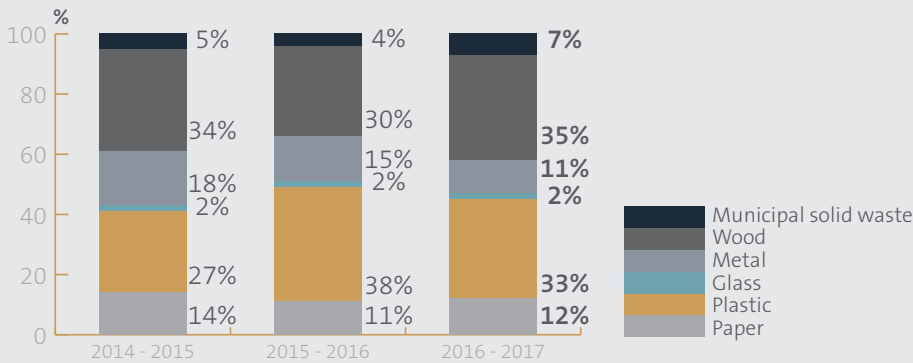


*Work being done along Via alle Zocche*

## 2.2. Environmental Impact

### 2.2.1. Waste

Figure 13 Composition of ordinary waste



During the 2016-2017 financial year **the total quantity of ordinary waste fell by 35%**, as a result of the completion of modernisation works at the site. In particular there was a reduction in plastic, metals and waste wood, the types of waste typically associated with building sites. In percentage terms, of the total waste generated, plastic fell from 38% to 33% and metal from 15% to 11%. Although the quantity of wood fell in absolute terms, the percentage of wood in total waste produced rose from 30% to 35% (Figure 13).

Overall, we were able to recycle 93% of all waste (Figure 14). This result is slightly lower than in previous years since in the 2016-2017 financial year the total for non-recyclable wa-

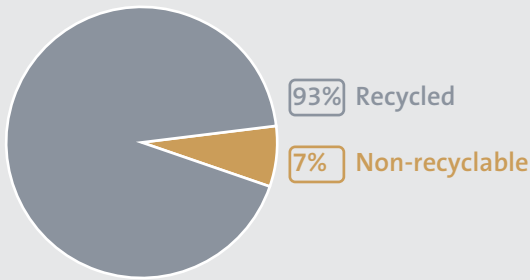
*« We carefully manage all the waste that we produce, whether ordinary or special waste, ensuring that it is stored, recycled or disposed of correctly and in an environmentally friendly way. »*

ste also included bulky waste, which we send to the waste disposal provider which checks the possibility of recycling certain parts.

Regarding special waste, the changes in composition shown in Figure 15 are due to two main factors: firstly, the special waste produced is linked to changes in the production mix; secondly, since this waste is sent to specialised companies for recovery and recycling, it may not be delivered and therefore accounted for within the same time frame every year. More information on special waste can be found in the focus on the next page.

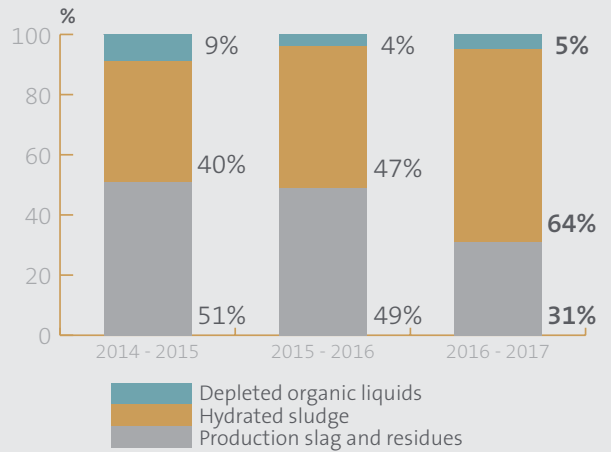


Figure 14 Recycling of ordinary waste



	2014-2015	2015-2016	2016-2017
Recycled	95%	96%	93%
Non-recyclable	5%	4%	7%

Figure 15 Composition of special waste



### What is special waste and how is it managed?

Special waste is waste that cannot be disposed of with municipal solid waste and which has particular chemical and physical properties associated with the presence of non-precious metals like copper, nickel and zinc.

We ensure that this waste, which requires a **series of specific technical and organisational processes for environmentally friendly disposal**, is stored and managed in association with authorised specialist companies. We issue regular bulletins to comply with the Federal Council ordinance on the register relating to pollutant release and the transfer of waste and of pollutants in waste water (PRTR Ordinance).

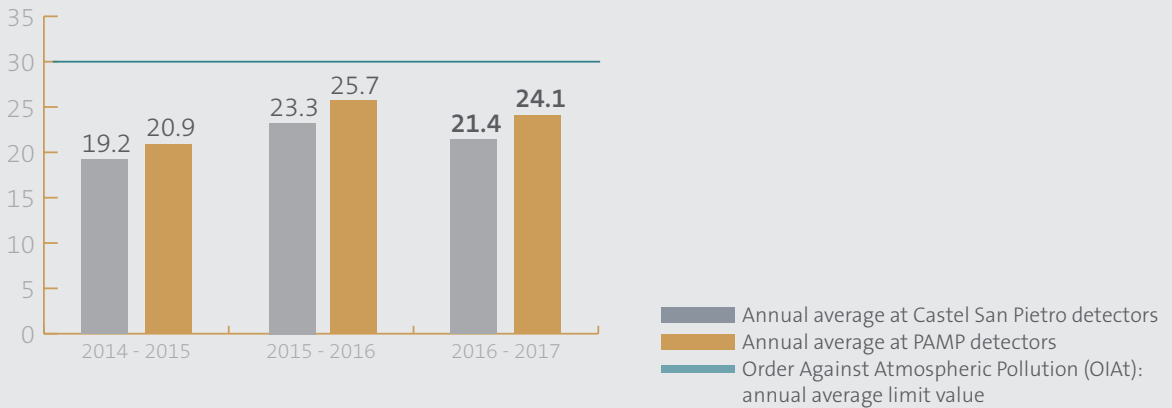
One type of special waste is production slag and residues, such as dust and resins from various production processes in the foundry; this waste is stored in metallic drums and later processed by specialised firms to recover traces of precious metals and obtain inert material that has various applications, for example to fill in road works.

Another type is hydrated sludge, namely copper sludge derived from the treatment of water used in the refining process; this waste is stored in special 1,000 kg sacks before being sent to copper refineries for recovery of the metal. Finally, depleted organic liquids, such as oils and solvents primarily from the running of the systems, are filtered and regenerated in order to be reused.



## 2.2.2. Atmospheric Emissions

Figure 16 Average emission values  $\text{NO}_x$   $\text{m}^3$



As shown in Figure 16, the data on atmospheric emissions recorded during the financial year in question were positive. There was a fall in both the average value for the concentration of nitrogen oxides per metre cubed recorded by detectors in Castel San Pietro and the value recorded by the detectors installed at PAMP: the first fell by 8% to 21.4  $\mu\text{g}/\text{m}^3$  while the second fell by 6% to 24.1  $\mu\text{g}/\text{m}^3$ . **These quantities are well below the upper limit of 30  $\mu\text{g}/\text{m}^3$  (micrograms per metre cubed) established by the Ordinance on Air Pollution Control (OIA).**

A comparison of the value recorded by the detectors in central Castel San Pietro and those on the boundary of our plant confirms that the level of nitrogen oxides produced by PAMP is under control. The concentration of this substance in the area is caused by factors such as traffic and the use of fossil fuels for heating.

*« Our towers are equipped with detectors to continuously monitor outgoing air quality, in order to immediately detect any anomalies and enable prompt intervention. »*

## Concrete commitment to reduce CO<sub>2</sub> emissions

During the financial year an agreement was finalised and signed with the Confederation on the implementation of measures to reduce emissions of carbon dioxide (CO<sub>2</sub>). Following an energy analysis conducted by a renowned consultant from the Confederation, a number of targets were defined and we signed a binding 5-year agreement, which will be followed up by annual monitoring to verify the progress being made. Numerous technical interventions will enable greater energy efficiency and a related reduction in consumption, as well as a significant reduction in direct and indirect carbon dioxide emissions.

Specifically, over the course of two years a heat pump will replace some of the current heating and cooling devices: this system, which enables the 'recycling' of heat produced by heating or cooling equipment (for example, equipment for cooling down a system or heating a working environment), will make it possible to avoid unnecessary temperature dispersion and ensure the most efficient use of energy. This **structured approach has clear environmental benefits** in the immediate term: by no longer using liquid fuel and limiting the use of gaseous fuels, this will not only reduce the carbon dioxide emissions that threaten our atmosphere but will also eliminate risks linked to the transportation and storage of these materials.



*The detectors installed on the towers allow continuous measurement of the quality of the air emitted by the plant*

# Economic Responsibility

Our long-term-oriented management strategy allows us to survive periods of market stagnation, enabling us to rely on the company's solid foundations. For us economic responsibility means being able, as far as possible, to provide stability for our employees, to maintain business relations with our partners, to invest in areas of critical importance for the success of the company through continued innovation, and finally to support local firms, particularly those with which we have established ongoing partnerships over the years. We remain committed to generating value for society and the economic fabric of the canton, and we continued working hard to achieve this in the financial year under consideration.

*Corporate social responsibility also involves competitiveness, reputation and innovation. These three strategic factors are essential for navigating the rapidly changing market successfully.*

*We therefore commend the commitment of Ticino companies which, like PAMP, through its Sustainability Report, are open to dialogue with their target markets, highlighting the valuable contribution made to our region, not just in terms of the economy but also society and the environment.*

Fabio Regazzi,  
Chairman of AITI (Association of Ticino's Industries)



## RESULTS

**-17%**

The percentage reduction in turnover compared with the previous financial period.

**-6%**

The percentage reduction in capitalisation compared with the previous financial period.

## INDIRECT ECONOMIC IMPACT

**33%**

The proportion of Ticino suppliers out of all our suppliers of consumables, machinery or services.



Our long-standing partnerships with Istituto Sant'Angelo di Loverciano and Associazione Sportiva Castello.



### *L'IMPEGNO DEL TICINO PER L'INFANZIA*

We supported the charity event organised in Ticino by the Swiss Committee for UNICEF.

**+30%**

The percentage increase in our sponsorship compared with the previous financial period.



## 3.1. Results

Figure 17 Evolution of turnover  
(base 100: 2014-2015)

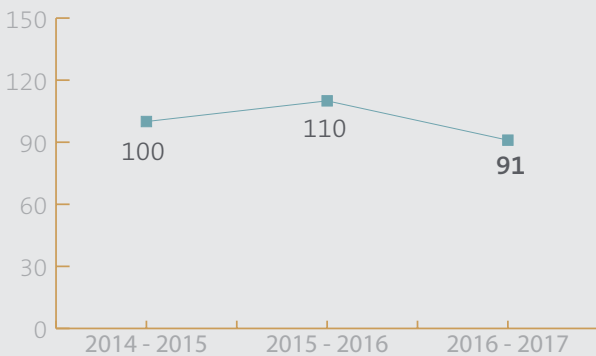
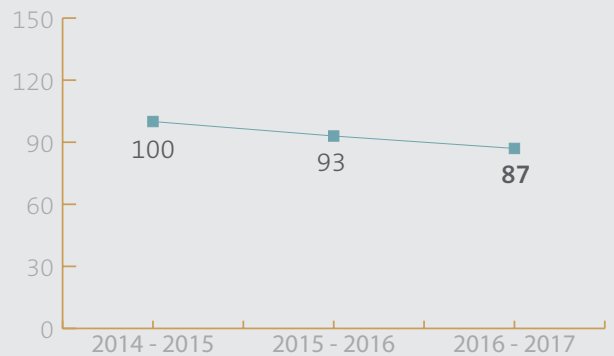


Figure 18 Evolution of capitalisation  
(base 100: 2014-2015)



Turnover in the 2016-2017 financial year fell by 17% compared with the previous period, during which it registered an increase (Figure 17). This reduction was caused mainly by a fall in demand for minted products (which influenced an increase in turnover in 2015-2016) and a largely flat period in the market overall. In order to face the challenging market situation, an adjustment and cost-control phase was necessary. We mainly concentrated on long-term investments and on creating the conditions for relaunch, leaving the

*« A careful, long-term-oriented management strategy allows us to maintain the company's solid foundations, even in the face of market fluctuations and while incurring significant costs. »*

achievement of short-term results temporarily aside. According to our expectations, the signals of this economic recovery will soon be evident in our results.

Figure 18 shows a 6% contraction in capitalisation as a result of a dividend distribution and a reduction in net results (balance sheet loss). It is important to stress that the year representing base 100 (2014-2015) recorded very high capitalisation, which had grown significantly in the previous years as a result of strategic provisions. Therefore **the company's stability remains guaranteed.**

### Our participation in the economic life of the canton

We contribute to the vitality of the canton's economic fabric as members of a number of associations:

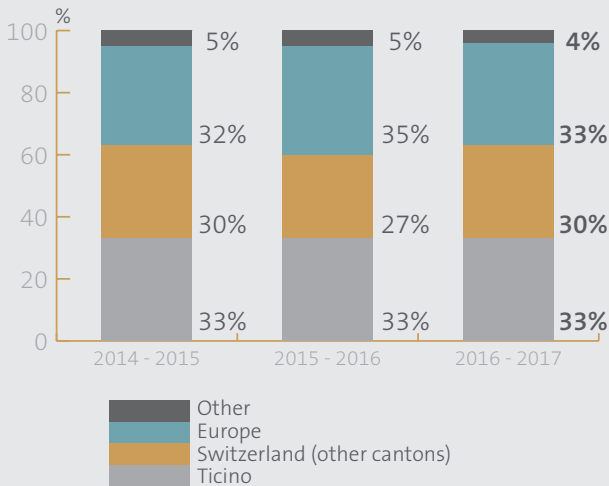
- The Canton Ticino Chamber of Commerce (Cc-Ti);
- Association of Ticino's Industries (AITI);
- Ticino Watchmaking Industry Association (ATIO).

At the national level we are members of the Swiss Association of Manufacturers and Traders in Precious Metals (ASFCMP). We make ourselves available within these associations to **share our experience** and cooperate on various topics.

## 3.2. Indirect Economic Impact

### 3.2.1. Suppliers

Figure 19 Origin of suppliers by geographical area



During the financial period in question we had a total of 491 active suppliers (i.e. those that issued at least one invoice during the tax year) that provide consumables or equipment or that provide services. As shown by Figure 19, compared with the 2015-2016 financial year there was an increase in the percentage of suppliers from Switzerland, taking the total share of national suppliers to 63%, of which over half are from Ticino (33%). The percentages of suppliers from Europe and the rest of the world slightly fell accounting respectively for 33% and 4% of the total.

*« In terms of spending, the percentage of purchases made in Ticino is 40% of the total; 35% remained in the Confederation (excluding Ticino) and 15% in Italy. The remaining 10% is divided equally between the rest of Europe and the world. »*

**Geographical proximity is a very important factor** when choosing which partners to work with and we try to use local companies as far as possible. In this way we can contribute to the regional economy while also protecting the environment by limiting travel. Our needs are often very specific and therefore it is not always easy to find a local supplier; in

#### Made in Ticino certificates distributed all over the world

Small ingots (for example kilobars) for use in the banking sector are shipped in boxes of 25 units; each ingot comes with a certificate which accompanies it in the box. On this document the head of our assay laboratory, who is also a sworn assayer, **certifies the authenticity of the ingot with his signature**, stating the title, weight and serial number. Every year we produce hundreds of thousands of ingots, each with its own certificate. These certificates are produced by a printer in Chiasso, which for years has provided a punctual service and above all precision, the fundamental element for these types of documents, which are distributed to the largest customers in the banking sector throughout the world.



Certificates for small ingots

any case, we try to establish long-term agreements with our partners in order to boost synergies and increase efficiency.

### 3.2.2. Tax, Investments and Sponsorships

Figure 20 Evolution of taxes  
(base 100: 2014-2015)

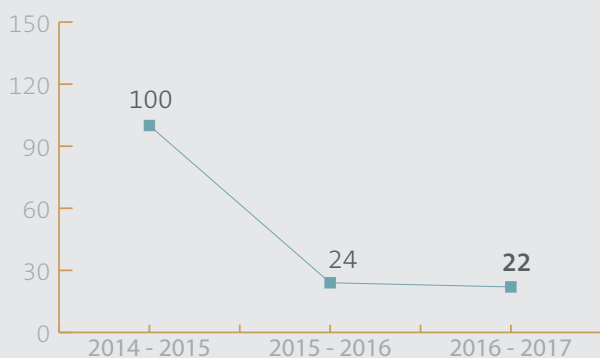
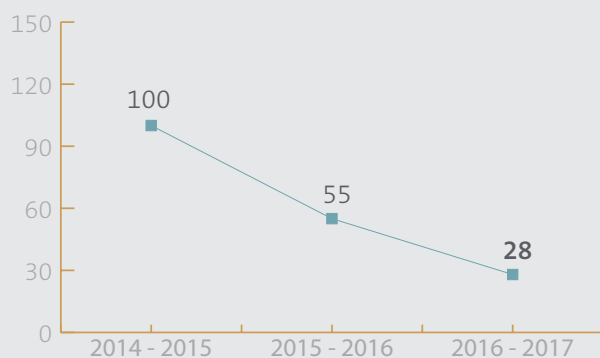


Figure 21 Evolution of investments  
(base 100: 2014-2015)



As shown in Figure 20, there was a slight reduction in the amount of taxes paid (8% lower); considering the loss registered in the period, also connected to **investments to be amortised in the long term**, such as those relating to implementation of the ERP (Enterprise Resource Planning) system which affected profits, we only paid taxes relating to company capital and not those directly linked to profits earned.

There was also a fall in investments in tangible company assets (machinery, improvements to facilities, etc.) of 49% (Figure 21). However, it is important to note that this aspect was partially influenced by the excep-

*« Important restructuring works were started at the plant: this demonstrates the faith shown by the MKS PAMP Group in the Castel San Pietro plant and its desire to invest for the future. »*

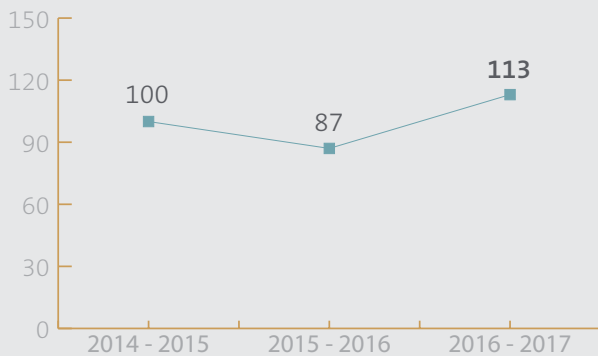
tionally high figure constituting the base 100 of year 2014-2015 in which significant investments were made, and also linked to the accounting of the ERP system mentioned above as an investment. Major investments were

made during the 2016-2017 financial year on the plant, completing an initial restructuring phase that involved aspects relating to security at the entrance, through the **modernisation of access and protection systems** for the building and staff.

Sponsorships rose by 30% during the 2016-2017 financial year, running counter to the trend seen for the previous indicators (Figure 22). In addition to maintaining our **consolidated cooperation with long-standing partners** (such as the Istituto Sant'Angelo di Loverciano school and Associazione Sportiva Castello), during celebrations for our company's 40th anniversary we decided to expand our activities, sponsoring a charitable event organised by the Swiss Committee for UNICEF (see the focus on the next page for details of the initiative).



Figure 22 Evolution of sponsorships  
(base 100: 2014-2015)



## Child protection: PAMP supports UNICEF

In April 2017 we co-sponsored the annual charity event *L'impegno del Ticino per l'infanzia*, organised by the Swiss Committee for UNICEF.

**Thanks to the support of various Ticino companies**, the evening, held at the Swiss Diamond Hotel in Vico Morcote, raised funds to help disadvantaged children to get the best start in life.

The first thousand days of life are decisive; children receive the foundations for their physical, mental and emotional development.



*Representatives of the main sponsors of the event: Franco Porro for PAMP, Nadia Dresti and Tanja Miserez for the Swiss Committee for UNICEF, Nicola Roncoroni for Assimedia and Luca Todesco for BancaStato*

If children can be protected during this period, premature deaths could be practically eliminated. However, malnutrition, avoidable diseases and deficient health systems are responsible for the death of 16,000 children below the age of five every day. That amounts to 660 young lives every hour or 11 per minute. The funds raised will make it possible to adopt measures that appear easy to implement, but which have a very positive effect on children's health: distribution of foods to treat malnutrition, insecticide-treated mosquito nets to combat malaria and drugs to prevent the mother-to-child transmission of HIV, vaccination campaigns, the construction of wells and the establishment of basic health centres.

We decided to make a considerable donation to support this event on the occasion of our 40th anniversary; the evening was also an opportunity to strengthen our relationship with various important stakeholders.





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