PAMP®

Produits Artistiques Metaux Precieux

Sustainability Report 2015

Renew, evolve, improve.

at PAMP, this is not just a need dictated by the growing complexity of the market, but rather a guiding principle for the fundamental approach we have chosen to take in running the company, one that influences our business decisions and operations – however, it is also more than that.

When it comes to sustainability, we believe that complying with existing rules is not enough, and we therefore work hard and invest time and resources constantly to improve our performance in terms of social, environmental and economic responsibility.

Over the financial year covered here, from 1 July 2014 to 30 June 2015, we focused in particular on enhancing our production facility through major earthquake-proofing works and refurbishment of the entrance area with benefits in terms of both security and aesthetics. Our commitment to greater traceability in the precious metals we process was also at the center of our work, culminating in our acquisition of Chain-of-Custody (CoC) certification. Finally, we also concentrated on energy supply sustainability, opting to obtain our electricity solely from Swiss Renewable Energy.

This new Sustainability Report is also situated within a perspective of renewal and evolution. It is designed to serve increasingly as a tool for dialogue with stakeholders, through easily readable information and a clear, transparent explanation of the causes for developments in the data.

This document, which is intended for all our interest groups (employees, the local community, customers, suppliers, institutions, shareholders, group companies, organisations and associations, mass media, competitors), is a summary, and at the same time a demonstration, of our ongoing commitment.

Highlights

Chain-of-Custody Certification

In March, we received Chain-of-Custody (CoC) certification from the Responsible Jewellery Council (RJC). That recognition certifies PAMP's capabilities to trace processed precious metals (gold, platinum and palladium) from sourcing through to final use for investment, collection or jewellery making. CoC certified metal comes from a fully sustainable supply chain, in environmental, ethical and human rights terms alike.

Human Rights Watch Report

In June, non-governmental organisation Human Rights Watch published a report on the use of child labour in the gold mines of Ghana, in which it applauded our commitment to combating the phenomenon by assessing our suppliers with the utmost care. The report cites us as an example to be followed when it comes to responsible practices, especially with regard to our robust due diligence system.

Supplier Achievement Award

In October, PAMP was awarded the Supplier Achievement Award at the Royal Mint's Annual Supplier Awards, held to recognise its more than 1,000 suppliers. The reason for this prestigious recognition was our achievement of the SA8000 certification in May 2014, as the first precious metals refinery in the world to do so.

MyPAMP

In 2014-2015, we developed and launched the MyPAMP service, an online application allowing customers to register all their precious metal products in one place. Investors can also access market valuation information with in-depth graphics and analyses, while collectors benefit from images, details and estimates of the value of items.

Shanghai Gold Exchange Good Delivery

In July, the Shanghai Gold Exchange (SGE), an independent non-profit organisation, awarded us Good Delivery accreditation. Founded by the People's Bank of China, the SGE trades in gold, silver, platinum and other precious metals. The Good Delivery standard is only awarded to assay offices and refineries which stand out for both product quality and business practices.

VERISCAN Continues to Evolve

Throughout the year, we fine-tuned our exclusive VERISCAN bullion authentication technology, applying it to the entire Fortuna range of products.

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Who we are

The Company

Our work is based on five key values:

- **Excellence in products and services;**
- **Trust and reliability to ensure a transparent, ethical production chain;**
- **Respect for the environment and the local community;**
- **Innovation and the search for the best technical and process-related solutions;**
- **Protection and development of our human resources.**

1977: PAMP was founded in Chiasso
1981: The company became part of the Geneva-based group MKS, now MKS PAMP GROUP
1984: The production facility in Castel San Pietro opened
2008: The joint venture with MMTC (Metals and Minerals Trading Corporation of India), the largest Indian public trading company, led to the creation of MMTC-PAMP

PAMP SA, or Produits Artistiques Métaux Précieux (artistic precious metals products), specialises in refining and processing precious metals (gold, silver, platinum, palladium and rhodium). It is not only a leading company in the sector, but also one of the most prestigious brands. As part of the MKS PAMP GROUP, we now have a presence on **five continents** and in **12 countries**. We have always based our work on very high quality standards and a sharp focus on sustainability. Particularly over the past decade, we have worked to achieve transparency and ethics not just within the company, but throughout the production chain.

We have a very wide range of customers, including central banks, commercial banks, Government Mints, mining companies, manufacturers of and dealers in jewellery and watches, asset management and trading companies, commodity trading advisors (CTAs) and private investors, bullion traders and national postal regulatory authorities from all over the world.

Business Activities and Recognition

We are an Ordinary Member of the London Bullion Market Association (LBMA) and our assay laboratory is recognised (together with two others worldwide) as a Good Delivery Referee by both the LBMA and the London Platinum and Palladium Market (LPPM). We are therefore authorised to analyse and evaluate bars sent by candidates for Good Delivery certification.

Our products are recognised as Good Delivery by:

- **LBMA, the London Bullion Market Association;**
- **LPPM, the London Platinum and Palladium Market;**
- **BNS, 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 comply with FINMA (Swiss Financial Market Supervisory Authority) regulations, particularly in relation to combating money-laundering and the financing of terrorism, throughout the production chain.

• **Refining:**
the department is operational 24 hours/24, with an annual production capacity of more than 450 tons of gold, 600 tons of silver and 30 tons of Platinum Group Metals;

• **Analysis and sampling:**
as an independent entity, our assay laboratory operates under the remit of the Swiss Central Office for the Control of Precious Metals and is ISO/IEC 17025 accredited (meaning that it meets the standards required 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;

• **Track and trace finished or semi-finished products:**
we can manufacture batches of our products using segregated processing and equipment, ensuring full traceability of the precious metals from the mine to the final product;

Our quality management system is ISO 9001 certified, and all our processes are focused on meeting the needs of our stakeholders. We are the only refinery in Switzerland to hold ISO 9001, ISO 14001, ISO 17025, OHSAS 18001 and SA 8000 certifications simultaneously.

• **Gifts and collector's items:**
pendants, nameplates and other items in gold, silver, platinum and palladium;

• **Coins and medals:**
concept, design, minting, packaging and distribution;

•**Semi-finished goods for industry:**
we supply the gold, 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:**
we provide our partners with a platform and know-how to support the retail sale of a range of products without the need for them to take on risks or have specific knowledge of the sector.

Financial services:
as a part of the MKS PAMP Group, we can make our skills available to our customers in relation to precious metal quotes, physical trading of precious metals, unallocated trading, location and purity swaps, web-based trading application (WTA), web-based reporting and daily market reports.

UNESCO World Heritage International Coin Program

As part of the World Heritage International Coin Program, we are an exclusive UNESCO partner supporting this United Nations agency in producing and distributing special collections to celebrate its activities and goals in relation to education, science, culture and communication, as well as official events, anniversaries, or specific years or decades.

In 2014-2015, we had the honour of issuing:

- The 5 and 10 euro coins celebrating Dutch Windmills minted by the Royal Dutch Mint;;
- The gold and silver Mount Fuji & the Canadian Rockies minted by the Royal Canadian Mint;
- The Great Barrier Reef coins minted by the Royal Australian Mint to celebrate the largest coral reef in the world;
- Les Invalides & Grand Palais coins, minted by Monnaie de Paris;
- The Mir Castle coin, produced jointly with the National Bank of the Republic of Belarus;
- The silver Wood Buffalo National Park & Sichuan Giant Panda Sanctuaries coin by the Royal Canadian Mint;
- The second issue of the coin series 15 Cities of Spain promoted by Fábrica Nacional de Moneda y Timbre.

Images: *The latest coin editions minted this year in exclusive partnership with UNESCO*

Social Responsibility

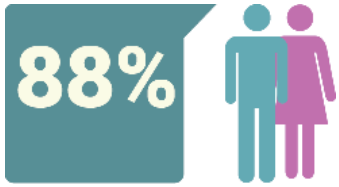
People are always a priority for PAMP. Internally, this takes the form of developing our employees and maintaining a dialogue with them, as well as putting the utmost care and attention into safeguarding health and safety throughout our facilities.
Looking outside the company, our social responsibility is embodied in our support for the community of Castel San Pietro and its institutions on the one hand, and in our monitoring of the entire production chain on the other. It is a demanding task, but one that we are convinced is worthwhile to pursue steadily in order to ensure ethical conduct and respect for human rights at every stage in the chain.

PAMP is not just a sponsor for our school: it's a company that has faith in us and wants to build something together. Over the years, we have always been conscious of direct involvement from the company, constant interest, a desire to understand the needs of our children and the perceptiveness to see us as a valuable asset to the whole community. This partnership also motivates us to constantly do better, finding inspiration and turning our efforts into a tangible reality.

Piercarla Reposo, Head Teacher
Istituto Sant'Angelo di Loverciano

EMPLOYEES

71% of our employees are male and 29% female.



88% of our employees work at PAMP for more than 3 years, 54% for more than 5 years and 29% for more than 10 years.

TRAINING

1606 hours of training.

Health & Safety

Compared to 2013-2014 the accident frequency index had a reduction of -47% and the severity index declined by -50%.

Local Community

PAMP renewed its sponsorships of both l'Istituto Sant'Angelo di Loverciano for special needs children, and the Ticinese football team AS Castello.

Production Chain

We evaluated 25% of our suppliers according to the procedures outlined by our SA8000 Certification.

1.1. Employees

1.1.1. Staff Composition

Figure 01 **Number of employees**

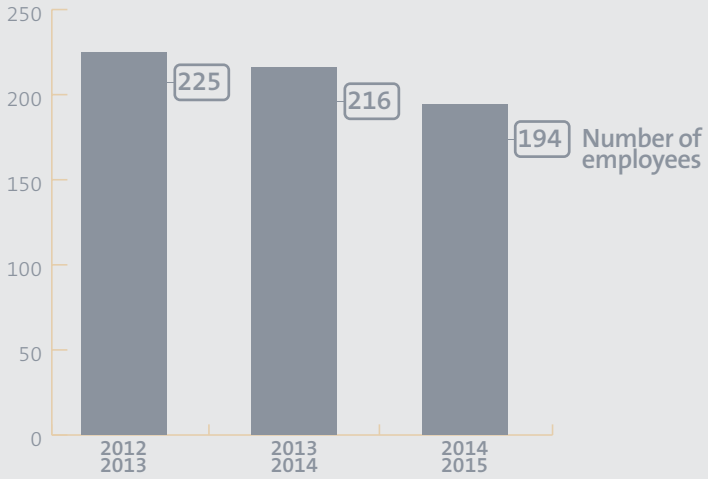
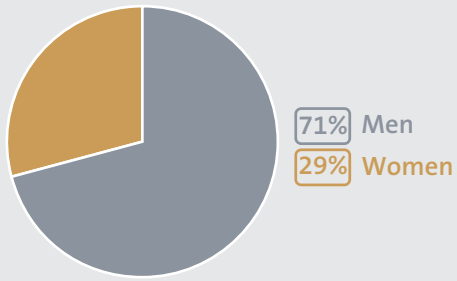


Figure 02 **Staff composition by gender**



	2012-2013	2013-2014	**2014-2015**
Men	71%	72%	**71%**
Women	29%	28%	**29%**

During the financial year in question, the workforce rationalisation trend that began the previous year continued, and we now have 22 fewer employees for a total of 194 (Figure 1). From 2009-2010, when we had 150 employees, we grew to 230 employees in 2011-2012, in line with a substantial development in the precious metals market. In recent years, however, we have been faced with complex market conditions which, combined with increased process efficiency, have meant that we have not been able to hire new staff when others left (retirements, conclusion of apprenticeships), at every level in the hierarchy. It is worth noting, however, that the reduced number of employees in that period of economic downturn was proportionately smaller than the drop in economic performance. That is because much of the staff that joined the company to handle the increase in demand was kept on in spite of the subsequent fall in demand. Nearly all our employees have **permanent contracts**, but during the past year we have also hired some staff on fixed-term contracts to handle the unexpected fluctuations in the market that are typical of this sector.

We want our staff to be satisfied and happy, and therefore motivated to stay with the company. At present, 54% of our employees have been with us for over five years. That is a positive result for us, but also an incentive to constantly improve the working environment.

The intrinsic characteristics of the work we do mean that a large majority of our workforce are men (71%, Figure 2). Women (29%) are present in every professional category, parti-

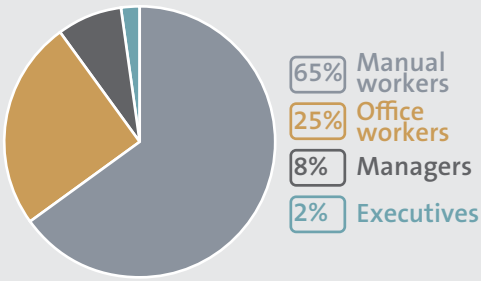
Developing internal communication

In recent years, we have set up various new channels to facilitate two-way communication with our employees. We are convinced that constructive dialogue between staff and management underlies the creation of a positive climate, as well as supporting an improvement in work processes and interaction methods.

cularly in administrative roles. However, we are implementing projects to facilitate the entry of female staff, including in factory roles, thanks to new machinery that makes individual tasks less demanding. For example, in some processes, the heavy precious metal bars are now lifted by a machine operated by the employee and where no more manual handling of the bars are required.

The distribution of the staff by professional category (Figure 3) and age (Figure 4) has remained all but identical compared to the previous year, but the composition based on length of time worked at the company has changed considerably. As Figure 5 shows, 88% of PAMP's employees have now been at the company for over three years, and 54% for over five. That change can be attributed on one hand to the low numbers of new staff at the company, and on the other to a trend for staff to remain at the company for several years. We believe that is an important sign of both PAMP and **our employees' loyalty**, and we therefore monitor that indicator carefully. Ensuring that the climate is positive and our human resources are developed and protected is a priority for us.
Over the past year, we have also noted with satisfaction that use of the new internal communication tools (suggestion form and ideas register) has grown, and similarly relationships and communication with worker representatives have strengthened.

Figure 03 **Staff composition by professional category**



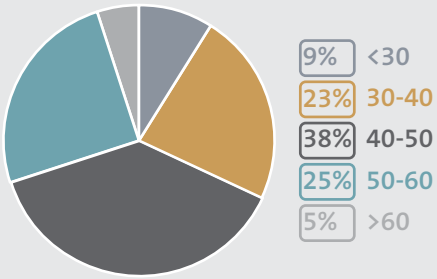
	2012-2013	2013-2014	**2014-2015**
Manual w.	69%	66%	**65%**
Office w.	23%	25%	**25%**
Managers	6%	7%	**8%**
Executives	2%	2%	**2%**

Through those tools, we encourage everyone to make suggestions and propose ideas freely. They are then assessed, a response is given and potentially they may then be implemented:

- Suggestion box: employees can put suggestions, reports or complaints of various kinds in the box, anonymously if they wish;
- Ideas register: collects proposals from anyone who wants to leave a contribution, and can be consulted by everyone;
- Display: this is located at the entrance and informs employees of important events, together with communications of various kinds.

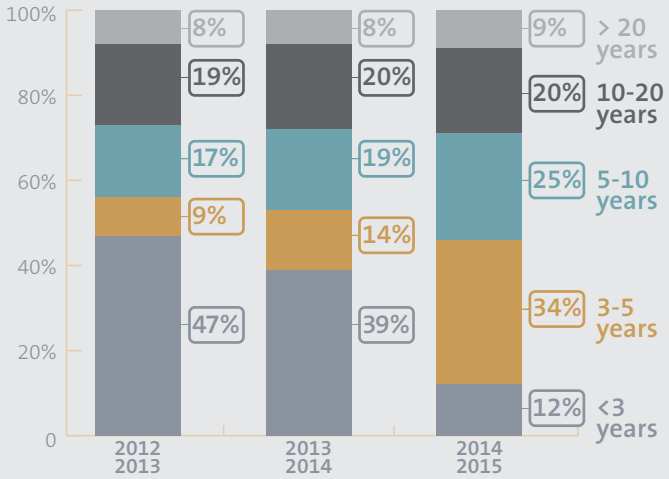
In addition, the annually elected Worker Representatives have a very important linking role and act as spokespeople for the needs of our staff. We hold regular coordination meetings which provide opportunities for discussion and consensus-building.

Figure 04 **Staff composition by age**



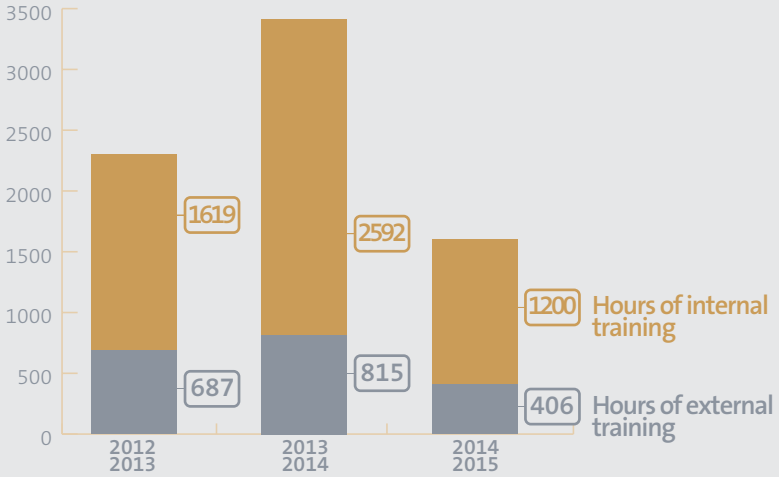
	2012-2013	2013-2014	**2014-2015**
<30	15%	13%	**9%**
30-40	25%	24%	**23%**
40-50	37%	36%	**38%**
50-60	19%	22%	**25%**
>60	4%	5%	**5%**

Figure 05 **Trends in staff composition by length of time working for the company (years)**



1.1.2. Training

Figure 06 **Hours of training**



Following a substantial increase in hours of training attended during 2013-2014, this year the number of hours fell considerably, but nonetheless reached the sizeable level of 1,606 hours of training in total. As Figure 6 shows, 406 hours were internal training, i.e. provided by our employees, and 1,200 were external training.

The reduction in training hours can primarily be attributed to two factors: firstly, in several cases, **highly vocational courses** of training for individual staff for the acquisition of specific skills that had become necessary at the company came to an end. Secondly, the first cycle of ethics training meetings particularly focused on SA8000 certification also finished. When the certification

Courses for every need

The range of courses we offer our employees is very broad, covering an assortment of areas through both external training courses and knowledge development sessions managed internally by our staff. The main areas into which the courses can be grouped are:

- Management system knowledge.

Further to obtaining each new certification, we update our staff on both the significance of the certification and on any processes required for effective implementation of it or which are otherwise influenced by it;

- Quality and processes.

A sizeable share of the training is dedicated to updating on, and mastery of, work processes, so that the level of quality of our products and services remains high at all times;

- Safety.

We invest heavily in specific courses both on safety procedures linked to individual work processes and more generally on health and safety culture at the company;

- Personal and professional growth.

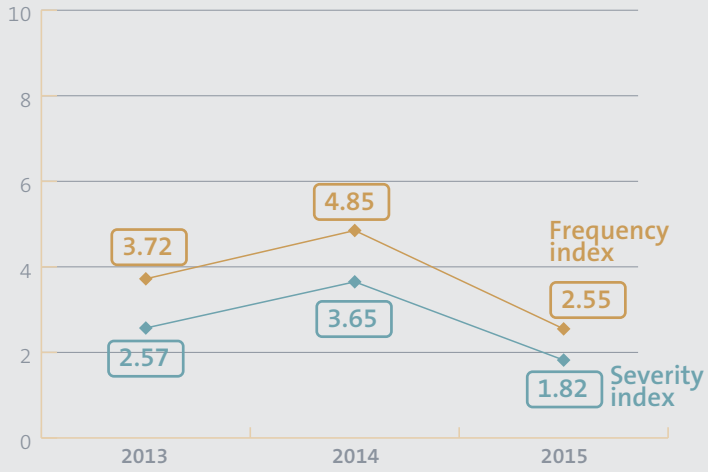
This category of courses includes, for example, language courses, which we offer our employees as, and when, it becomes necessary to improve a language for work reasons, as well as special vocational courses for individuals to give them specific skills to aid in the performance of their duties.

We are drawing up a new training plan based on our company objectives, which considers two key aspects when assigning types of course to each employee: the recipients (assessed taking into account the organisational aspect, the functional aspect and personal requirements), and consistency with company objectives. That criterion allows us to take a structured approach to arranging training.

was obtained, each employee took part in a session to develop knowledge and awareness of various themes with the potential to affect the precious metals supply chain. It is also worth emphasising the fact that training hours are shared between a smaller number of employees, and that this year we concentrated our resources on specific training courses intended to update our employees on work processes. Those courses are not always easy to record (they are often training periods overlapping with normal operational activities) and they are not fully counted in the figure stated, in spite of the sizeable number of hours put in at multiple levels. As well, the company is counting less of 'unexperienced employees' also requiring less training. As a result, the actual number of hours dedicated to training and updating is in all likelihood greater than the number reported above.

1.1.3. Health and Safety

Figure 07 **Accident indices**



In the financial year in question, we observed a substantial improvement in indices on accidents at work. With 351,827 hours worked, as Figure 7 shows, we have a severity index (number of hours lost due to occupational accidents per 1,000 hours worked) of 1.82 and a frequency index (number of incidents calculated per 100,000 hours worked) of 2.55. Both speak to a sharp reduction compared to 2013-2014: -50% in the severity index and -47% in the frequency index.

We hold OHSAS 18001 voluntary certification, an international standard requiring the application of a rigorous system to ensure compliance with applicable standards as well as scrupulous checks on employee health and safety.

We want to continue to improve so that we can reduce these indices even further, and we therefore maintain a constant focus on the health and safety of our employees. We have several tools such as **checklists** and **regulations** to protect our staff.

Improvement through ongoing analysis

In addition to raising awareness and the rigorous safety procedures we apply, during the year we began monitoring accidents on two fronts. Firstly, we record hours lost over time due to occupational accidents, non-occupational accidents or illness. That gives us a long view and means that we know precisely what the sources are of variations in the severity and frequency indicators.

Secondly, we ask everyone, with the help of selected employees trained as "Health and Safety Representatives", to keep track of "near-misses" – times when an accident was about to take place but was avoided. An analysis of those incidents, and how negative consequences were avoided, gives us a better understanding of what occupational risks there are and allows us to work proactively to raise the staff's awareness and find solutions to ensure better and better protection.

Image: *PAMP employees follow the safety procedures and use their personal protective equipment*

1.2. Local Community

Our ongoing work to support the community has various, different aspects and multiple levels of collaboration with local bodies. In particular, we are active through:

- **Periodic meetings with the authorities of Castel San Pietro;**
- **Open dialogue with the Vivigorla e Dintorni association;**
- **A direct communication channel with citizens;**
- **Close collaboration with the Department of the Environment;**
- **Special projects at Istituto Sant'Angelo di Loverciano school;**
- **Sponsorship of AS Castello football team.**

Once again in the financial year 2014-2015, we focused a great deal of effort on relationships with the community around us with the aim of maintaining a **transparent**, **constructive dialogue**. We therefore meet representatives of the authorities periodically so that we can keep each other up to date on various issues, such as roads and environmental protection projects. Similarly, we stay in contact with the Vivigorla e Dintorni association, the neighbourhood committee for the area where we are based, in relation to protection of the area, and we have set up a direct channel of communication so that we can follow up any requests from citizens. We also work with the Department of the Environment of Bellinzona for matters related to managing environmental impact.

Our approach to the local community is based on transparency and a desire for dialogue and to return value to the area that we call home. Through our awareness of our role in society, we support local bodies so far as we are able, maximising the benefit through very profitable two-way communication.

We support two local bodies through sponsorship. Firstly, working with the **Istituto Sant'Angelo di Loverciano** special school allows us to implement projects to enhance the education offered to pupils, such as a 3-year English course involving 30 children of varying ages, which ended in June. The party for the end of the course, with the participation of singer Charlie Roe and her guitarist Shane Kerins (see photo on the next page), was also intended to give the children a happy celebration and, at the same time, to teach the importance of cultivating your passions.

Secondly, we support the local football team, **Associazione Sportiva Castello** (AS Castello), which plays in the Second Interregional League. Through that sponsorship, we want to make a contribution to promoting healthy values like team spirit, dedication and the growth of young talent in a safe environment. In March, we also invited the team and some of its leaders to our facility (see photo on the next page) for an opportunity to meet and socialise.

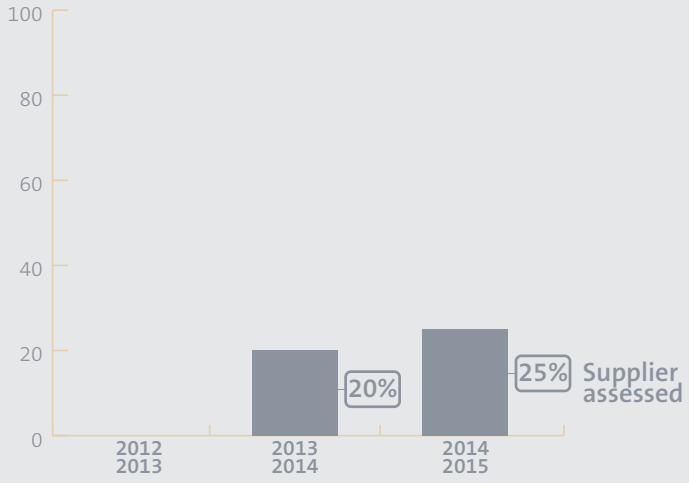
Our partnerships

Image: *The party for the end of the English course at Istituto Sant'Angelo di Loverciano*

Image: *The AS Castello team visitis PAMP*

1.3. Production Chain

Figure 09 **Active suppliers assessed based on the SA8000 procedure**



After an initial trial phase, in 2014-2015 we enhanced and consolidated the assessments of our active suppliers in accordance with the requirements of SA8000. That certification, which we sought voluntarily and obtained in May 2014, is one of the most meaningful when it comes to corporate social responsibility, especially in relation to the production chain. As Figure 9 shows, 25% of our total active suppliers have responded to the questionnaire, while others have sent a statement of intent without yet being able to fill it in. The latter group is therefore not included in the calculation of the assessed percentage, and similarly the in-depth assessments on which we concentrated heavily during the year are not included either. The latest includes risk assessment, on the ground audits and monitoring of remedy measures if results of the audits were not fully satisfactory.

Together with the MKS PAMP Group, we apply strict internal procedures and act on multiple fronts to supervise the chain. In particular, we follow the **Responsible Precious Metals Group Policy** internal directive and the **Know Your Customers** procedure, which seeks to verify & warrant the absence of money laundering, terrorism financing and funding of conflict; as well as the respect for human rights and appropriate working conditions, and the environmental impact of mining and production operations.
We work with organisations and associations at the international level to draw up regulations and define and implement guidelines. Those associations include:

- RJC, Responsible Jewellery Council;
- OECD, the Organisation for Economic Co-operation and Development;
- WGC, the World Gold Council;
- LBMA, the London Bullion Market Association;
- SBGA, the Swiss Better Gold Association;
- PPA, the Public-Private Alliance for Responsible Mineral Trade.

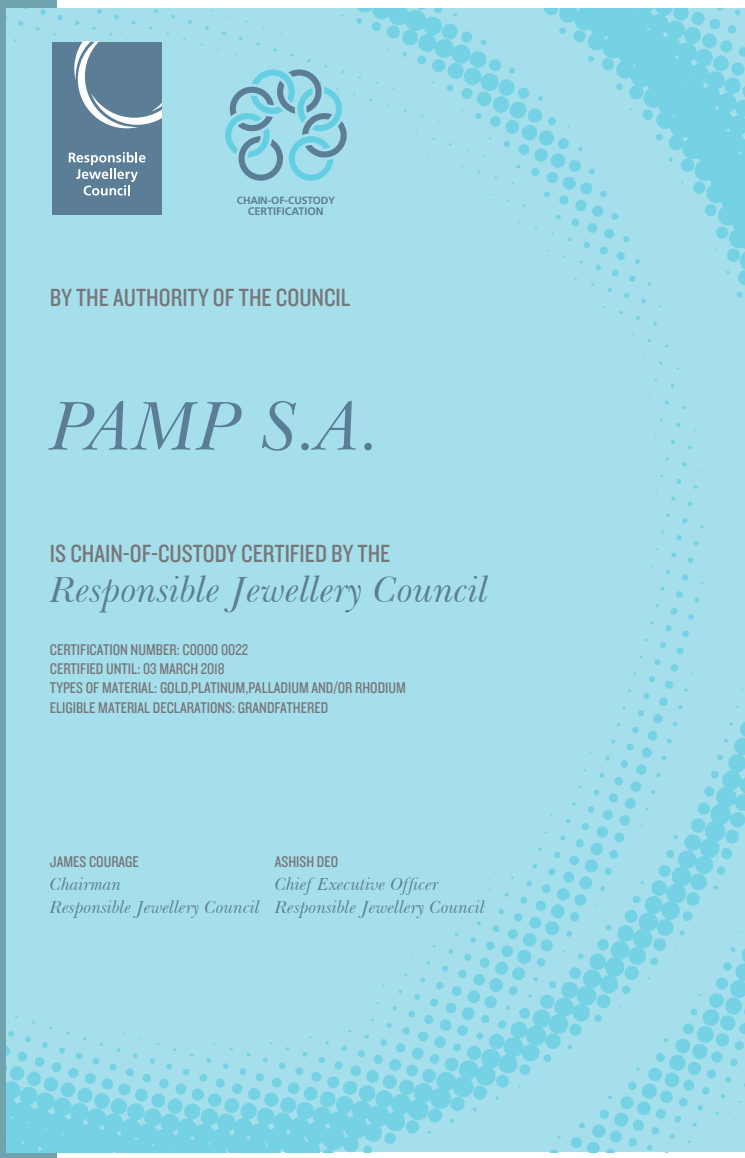
Tangible evidence of the results of our commitment also came up last June, when PAMP was cited as an example to be followed by Human Rights Watch in its report, Precious Metal, Cheap Labor – Child Labor and Corporate Responsibility in Ghana's Artisanal Gold Mines. The NGO examined the practices of six refineries in

We believe that knowledge of the partners we work with is a key element in ensuring the sustainability of the chain. We work exclusively with suppliers who apply best practices and we demonstrate our total commitment to combating human rights abuses in every phase of the production and distribution chain.

Chain-of-Custody (CoC) Certification:

Since 2011 we have held the Responsible Jewellery Council's Code of Practices certification, a voluntary standard applying in particular to an ethical approach to business operations (in terms of human rights, environmental sustainability and workers' rights).
In March 2015, we also obtained a second Responsible Jewellery Council certification, namely Chain-of-Custody or CoC. That certification is intended to improve the traceability of processed metals (gold, platinum and palladium) from sourcing through to final use for investment, collection or jewellery making. CoC certified metal comes from a fully sustainable supply chain, from environmental, ethical and human rights perspectives alike.

Ghana to look at any use of child labour, and concluded not only that we work with gold from sources properly monitored by both ourselves and the Minerals Commission of Ghana but also that we have a robust due diligence system.


Responsible Jewellery Council

CHAIN-OF-CUSTODY CERTIFICATION

BY THE AUTHORITY OF THE COUNCIL

PAMP S.A.

IS CHAIN-OF-CUSTODY CERTIFIED BY THE
Responsible Jewellery Council

CERTIFICATION NUMBER: C0000 0022
CERTIFIED UNTIL: 03 MARCH 2018
TYPES OF MATERIAL: GOLD,PLATINUM,PALLADIUM AND/OR RHODIUM
ELIGIBLE MATERIAL DECLARATIONS: GRANDFATHERED

JAMES COURAGE
Chairman
Responsible Jewellery Council

ASHISH DEO
Chief Executive Officer
Responsible Jewellery Council

Image: *Chain-of-Custody Certificate*

Environmental Responsibility

The environment around us is a precious asset and our focus on constant improvement guides us not only when it comes to strict compliance with the regulations, but also and most importantly in the search for and implementation of new solutions, so that we can respect and protect the ecosystem even more.
Our approach to environmental responsibility, as demonstrated by our ISO 14001 certification, which requires an environmental management system capable of monitoring the environmental impact of our activities, takes the form of frugal use of the resources required for the company to operate and prudent management of water discharges, waste and atmospheric emissions, so that their impact on nature and people is as small as possible.

All stakeholders now need to be making a contribution to improving the road and climate situation of our region.
I think companies' awareness has reached a good level, and so tangible, sustainable, viable measures will soon be presented to the various companies. I can say with certainty that PAMP was among the first companies to adopt corporate mobility measures to reduce employee travel substantially, with the active contribution of its employees. There is always space for improvement, but the company's determination when it comes to respect for the environment is clear.

Corrado Sartori,
Mobility Manager Mendrisiotto

Resources

-2.16 kWh

Compared to last year, we had a decrease in energy consumption of 2.16 KWh for each hour worked.

Laboratory Analysis and PLC (Programmable Logic Controller) System
PAMP conducts regular controls of water discharged into the local stream. And thanks to our partnership with the Water Purification Consortium of Chiasso and Surrounding Area (CDACD) we pre-treat the water discharged to the communal water treatment plant through our PLC system.

72%

72% of our total energy consumption is supplied by electricity. Liquid and gaseous fuels count for 10% and 18% respectively.

48%

48% of the total water used for production processes derives from our private well.

+10%

Compared to the previous year, 10% more water was discharged into the natural environment (Raggio stream).

Environmental Impact

-5.4 µg/m³

The medium annual values for the quantity of nitrogen oxides (NOx) PAMP released into the atmosphere shows a reduction of 5.4 µg per cubic metre. Overall that value has maintained at 20.9 µg/m3, well below the threshold set by the Order Against Atmospheric Pollution (OIAt, 30 µg per cubic metre).

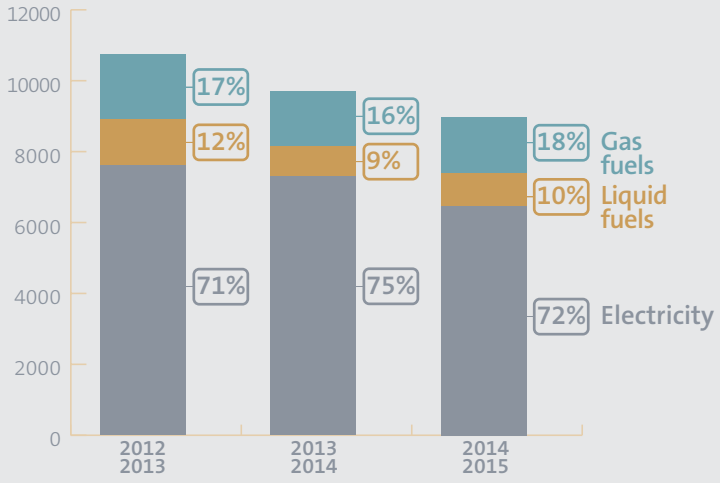
95%

We recycle 95% of the ordinary waste we produce through our daily operations.

2.1. Resources

2.1.1. Energy

FigurE 10 **Energy Supply**



For some time now, we have been looking into solutions to improve our sustainability when it comes to the use of resources. We are now beginning the implementation of various **projects to increase energy efficiency**. By monitoring carbon dioxide (CO^2) production, we can keep the impact of the various processes under control, with a two-part objective: firstly, to reduce energy consumption in general; and secondly, to increase the percentage of electricity use within our energy mix. Electricity is actually the energy type that causes the least carbon dioxide production. It now makes up 72% of our total energy supply. As Figure 10 shows, liquid fuels (fuel oil), which we primarily use for heating the working environments, account for 10% of the total, while gaseous fuels (methane and propane) account for 18%. Variations in the energy mix compared to 2013-2014 can be attributed to changes in demand and resulting variations in production processes. In the next financial year, we plan to replace the boilers, which will no longer run on fuel oil but rather on methane.

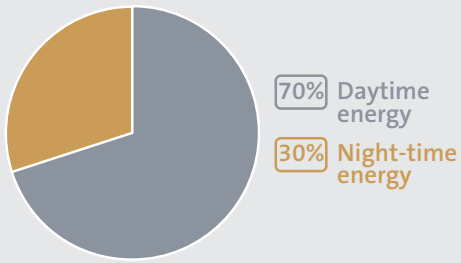
From 2016 onwards, we have decided to acquire electricity solely from Swiss Renewable Energy. That means that our supplier will supply us exclusively with hydroelectric – and therefore renewable – power, produced in Switzerland. That will allow us to reduce the production of carbon dioxide even further, albeit indirectly.

A continuation in the trend for the volume of consumption in general to reduce can also be observed, moving from 9,686 MWh to 8,980 MWh. Extensive optimisation of the use of input current contributed to the drop in consumption: for each hour worked, 25.5 KWh were consumed – a fall of 2.16 KWh compared to the previous year and down 3 KWh on the figure for 2012-2013. That result, which brings with it major savings in terms of overall energy consumption, is precisely the goal on which our efforts are heavily concentrated. Accurate recording of power flows, critical analysis of energy performance, being open to innovation as an element of efficiency, and raising the awareness of all staff in relation to more careful energy management throughout all production and other processes are key elements for improving our energy performance.

Day-to-day distribution of electricity consumption

We kept the distribution of electricity consumption stable during the financial year in question between the day (hourly percentage 4.4%) and the night (hourly percentage 3.8%). By standardising input energy, we can avoid peaks in demand when the need is generally greater (typically during the day) and take advantage of night-time surpluses, which would otherwise be lost. Figure 11 illustrates that 70% of the energy is used in the 16 hours between 06:00 and 22:00, while the remaining 30% is consumed in the eight night-time hours from 22:00 to 06:00. Those values are in line with the last two financial years with no variations occurring.

Figure 11 **Daily distribution of electricity consumption**



	2012-2013	2013-2014	**2014-2015**
Daytime energy (16 hours)	70%	70%	**70%**
Night-time energy (8 hours)	30%	30%	**30%**

2.1.2. Water

Figure 12 **Water supply**

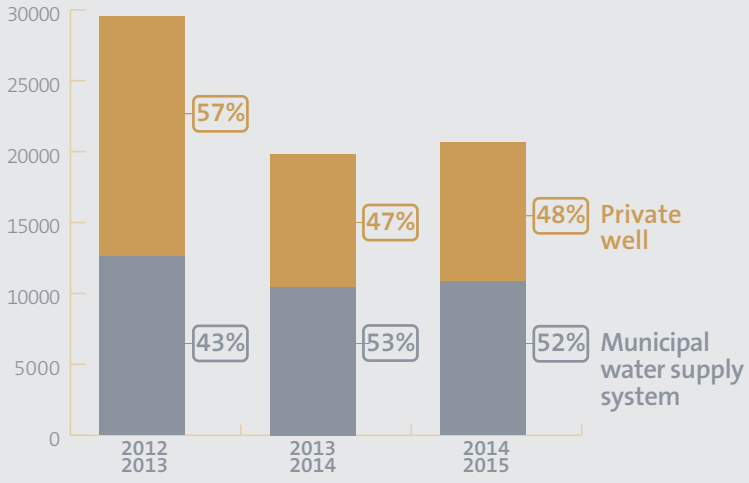
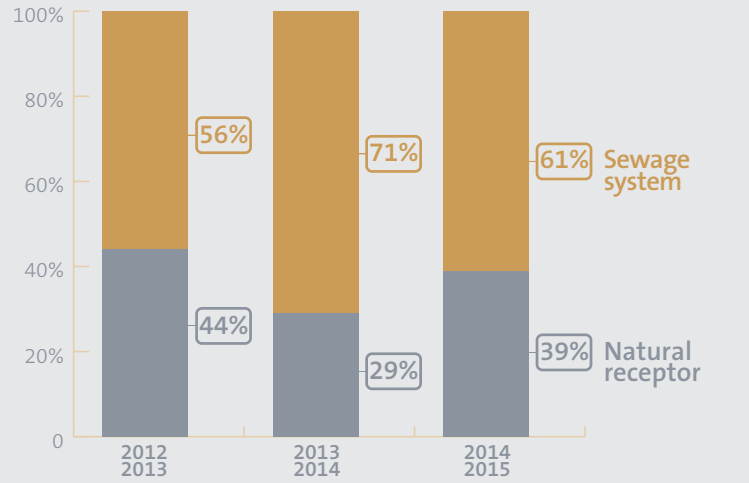


Figure 13 **Destination of water discharges**



During the financial year, water consumption increased slightly compared to 2013-2014, reaching a total of 20,645 cubic metres as opposed to 19,792 in the previous year (+853 cubic metres). In particular, the percentage of water taken from our private well (which draws water directly from the groundwater below our facility) increased slightly (Figure 12). Fluctuations in our mix of standard production activities determined these variations: The production processes during the considered period required a greater quantity of water, and in particular a greater quantity of water taken from our private well.

We have begun implementation of an ongoing monitoring system for the data on input and output water. The data allows us to react immediately in the event of any anomalies, investigate their causes and act quickly and effectively.

As Figure 13 shows, during the period in question we were able to discharge 10% more water into the natural environment, i.e. 39% of all the water used (approximately 7,000 cubic metres out of the 20,645 used). Meanwhile, for the discharges to the communal water treatment plant via the **PLC (Programmable Logic Controller) system** installed last year, our partnership with the Water Purification Consortium of Chiasso and Surrounding Area (CDACD) continues successfully and to the satisfaction of both parties. It allows us to pre-treat the water by controlling the pH based on specific, agreed parameters, and

The Raggio stream: a resource to be preserved

A few years ago, we built a private well to draw water from a groundwater reservoir below our facility. A reverse osmosis system filters and purifies the water to make it suitable for a variety of uses. The well allows us to draw less water from the municipal aqueduct, which supplies all household and industrial needs in Castel San Pietro.
Most of the water drawn from the well is used for cooling the systems, and it therefore does not come into contact with any pollutant, so it can be returned to the Raggio (where it would have flowed naturally). Our laboratory carries out careful checks and tests on its properties and temperature in any case, making sure that it is within the parameters required for it to be released into the natural environment.

to plan discharges so that they comply with the desired timescales, volumes and total nitrate content present in the water.

A structured system for storage in tanks and containers means that we can ensure hazardous substances such as chemical materials and agents are not released into the soil.

Image: *Our laboratory analyses the water in minute detail before it can be discharged externally*

2.2. Environmental Impact

2.2.1. Waste

Figure 14 **Composition of ordinary waste**

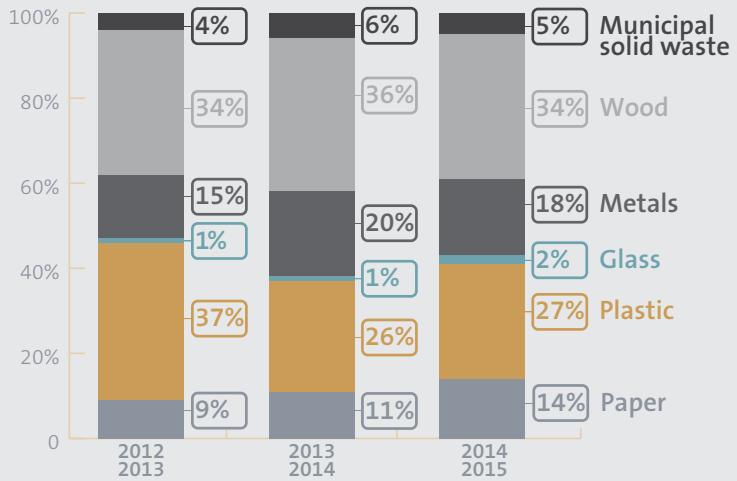
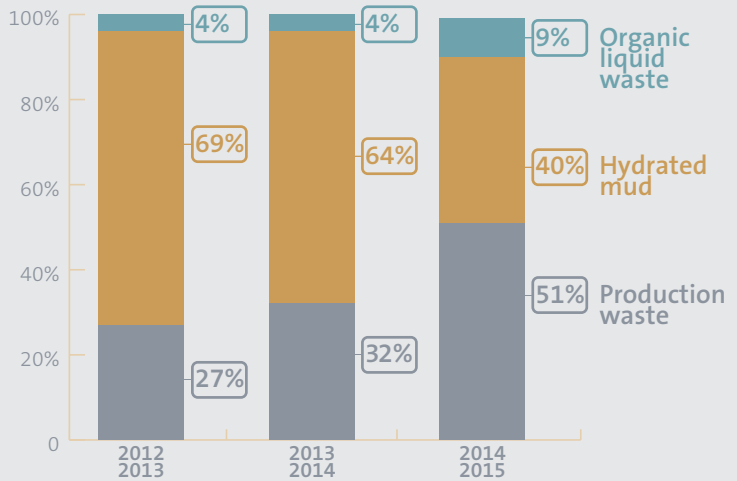


Figure 15 **Composition of special waste**



Our approach to waste management is intended to minimise waste production and, at the same time, to recycle as much of the generated waste as possible by working closely with the specialist waste disposal companies.

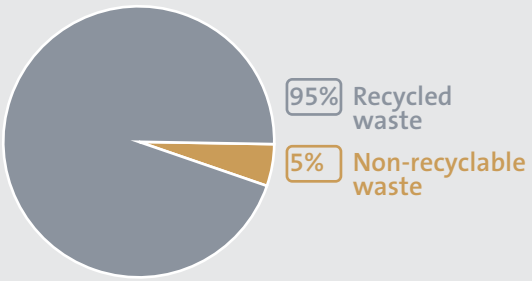
The total amount of ordinary waste produced fell by 10% compared to 2013-2014, thanks to **even more careful waste management**. As Figure 14 shows, there have been no substantial variations in the composition, although this had changed significantly the previous year compared to 2012-2013, during which various structural improvement works had generated a greater quantity of waste, particularly plastic. At present, the largest share of the waste is made up of wood at 34% (-2% compared to the previous year), followed by plastic at 27% (+1%), metal at 18% (-2%), paper at 14% (+3%), municipal solid waste at 5% (-1%) and finally glass at 2% (+1%).

In terms of special waste, i.e. waste with specific chemical and physical properties due to the presence of non-precious metals in it, a considerable reduction in the total quantity was recorded. That is primarily attributable to logistics, or rather the timescales within which the various materials are sent to the specialist waste processing companies (and therefore recorded as outgoing). The percentage variations are also influenced by the same factor and, as Figure 15 shows, there was a 19% increase during the financial year in production slag and residues from the foundry (51%), a 25% reduction in hydrated sludge from the refinery (40%) and a 5% rise in depleted organic liquids (9%). Authorised companies process all of those materials so that they can be **converted, recycled or reclaimed**.

Recycling means protecting the environment

We focus heavily on waste recycling, raising our employees' awareness so that everything that can be recycled is placed in the special containers located in various areas around the facility. As Figure 16 shows, in line with previous years, we recycled 95% of our waste with just 5% passed to the municipal waste agency as municipal solid waste.

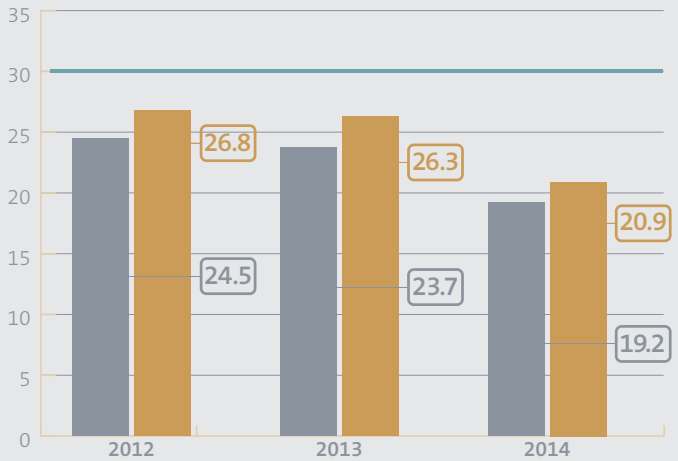
Figure 16 **Recycling of ordinary waste**



	2012-2013	2013-2014	**2014-2015**
Recycled waste	96%	94%	**95%**
Non-recyclable waste	4%	6%	**5%**

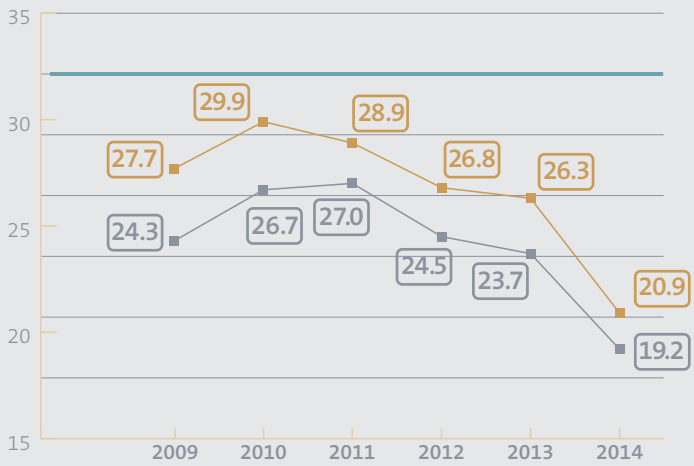
2.2.2. Atmospheric Emissions

Figure 17 **Average NOx emission values**



Annual average Castel San Pietro detectors
Annual average PAMP detectors
Annual average rate of the Air Pollution Control Ordinance limit value

Figure 18 **Extra-concentration of NOx emissions recorded by PAMP detectors (µg/m³)**



Annual average Castel San Pietro detectors
Annual average PAMP detectors
Annual average rate of the Air Pollution Control Ordinance limit value

In 2014-2015, the values for the quantity of nitrogen oxides (NOx) in the air of Castel San Pietro and near PAMP **were the lowest recorded** since measurements began. The concentration of those substances can be attributed primarily to two factors, namely heating use and traffic. The emissions directly linked to our work result from the processing of silver, which requires the use of nitric acid. As Figure 17 shows, the reduction in the recorded values can be found not only at the two detectors located near our facility, but also at the two detectors in the built-up area of Castel San Pietro (approximately two kilometres from our premises).

We work with the SPAAS (Water, Air and Soil Protection Section) of the Department of the Environment with a commitment not only to keeping consumption below the legal threshold, but also to ensure continuous monitoring of the quality of the air we emit using two probes installed on each of the two towers.

The data makes it clear that the values are well below the threshold set by the Order Against Atmospheric Pollution (OIAt, 30 µg per cubic metre), and that our presence has a minimal effect on the surrounding air, as the difference between the average at the PAMP detectors (20.9 µg/m³) and the annual average for the detectors in the center of the village (19.2 µg/m³) was only 1.7 µg/m³.

Car pooling: a tangible commitment to the environment

With nearly 200 employees and a location away from railway stations and near a built-up area, we have been conscious of a duty to protect the environment and the community by limiting the traffic generated by our employees coming and going on their respective shifts.
We therefore took the matter to heart and, at the end of 2013, launched a project to encourage car pooling between PAMP employees. That took off over the course of 2014, making it possible to reduce the number of incoming cars by 30-35 in total. That is a reduction of approximately 15%, which we are very happy with at the moment.

Our approach is based on the idea that participation in the project should be voluntary, supported by an understanding of the actual benefits of car pooling, and facilitated by functional tools for forming teams:

- Mapping of where our staff live;
- A mathematical model to calculate the economic benefits generated by car pooling with one or more people based on the area of residence;
- A model to simulate the impact on local traffic depending on working hours.

We got the Worker Representatives involved to make spreading the word easier, established a guarantee for anyone car pooling that they would be accompanied home even in the event of an accident affecting a member of the team, and assigned the parking spaces nearest to the entrance to employees travelling in a group.

All of this made a good level of employee buy-in to the project possible. As the graphic shows, 23% of the workforce stated at the beginning of 2015 that they regularly participated in car pooling, while 31% said they participated occasionally or used transport other than a car to get to work. That data, alongside the positive opinions of staff who signed up to the project straight away, demonstrates that there is still considerable potential for improvement and our objectives for the future can be ambitious.

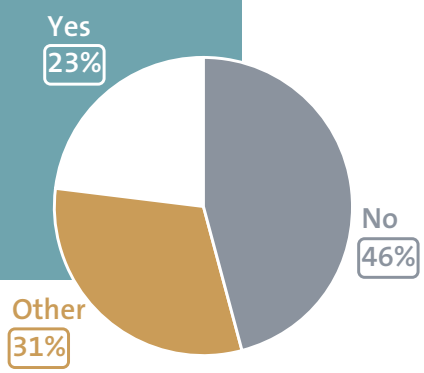
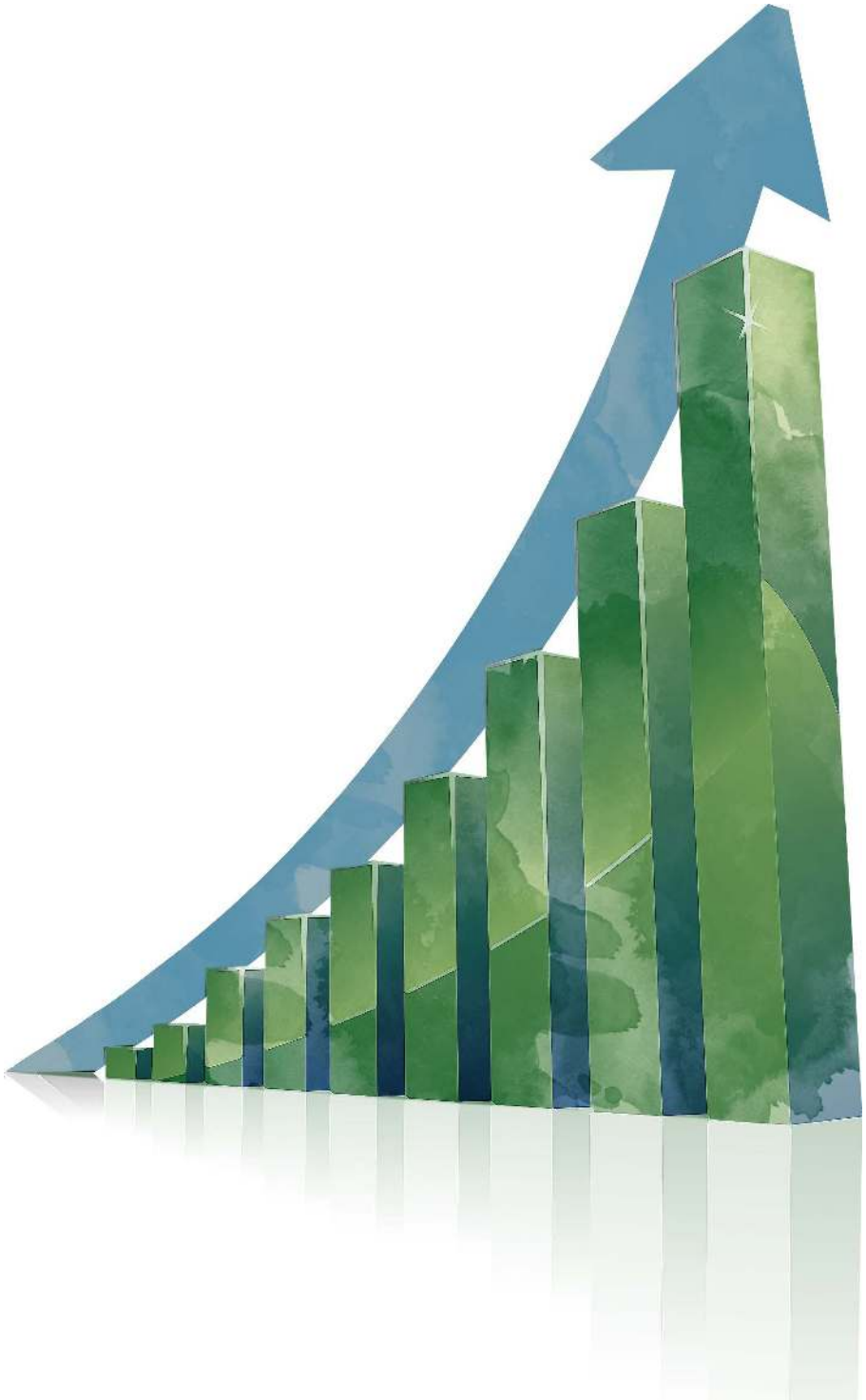


Figure 19 Do you participate in car pooling regularly?

Economic Responsibility

Our business operations are intended first and foremost to ensure the stability of the company. Based on that foundation, we can responsibly manage our relationship of trust with all our customers, suppliers and partners, protect our employees, invest in research and development, and continue to contribute substantially to the community in the form of taxes and sponsorships.

A forward-looking strategy is our strength: even amid changing, complex market conditions, responsible economic management makes company stability possible.



RESULTS

76%

Turnover was 76%, compared to the 100% result during 2008-2009, which is taken as the reference year.

160%

Capitalisation was 160%, compared to the 100% result during 2008-2009, which is taken as the reference year.

INDIRECT IMPACT

+14%

Investments were up +14% compared to 2013-2014, and when compared to 95% of the reference year.

130%

The amount dedicated to sponsorship activities was 130% compared to the 100% result of 2008-2009, which is taken as the reference year.

Suppliers by Country of Origin
The companies from which PAMP obtains consumables, machinery and services are mainly located in Ticino or Switzerland (total 63%), with 32% from Europe (Italy, Belgium, Germany, United Kingdom, Holland and France), and the remaining 5% from the rest of the world (United States, Singapore, India and China).

3.1. Results

Figure 20 **Trends in turnover**

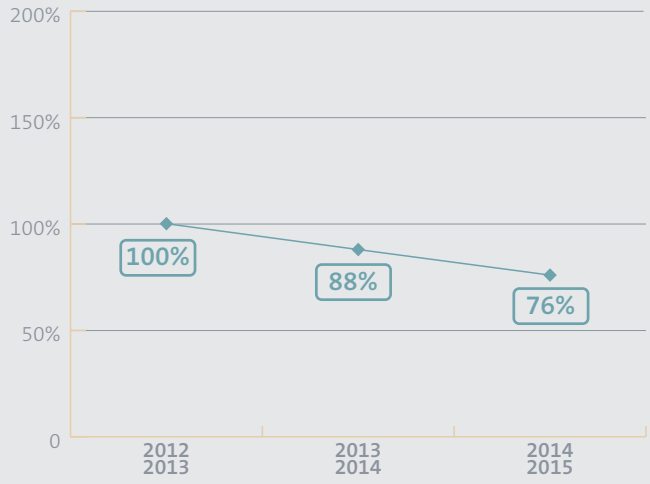
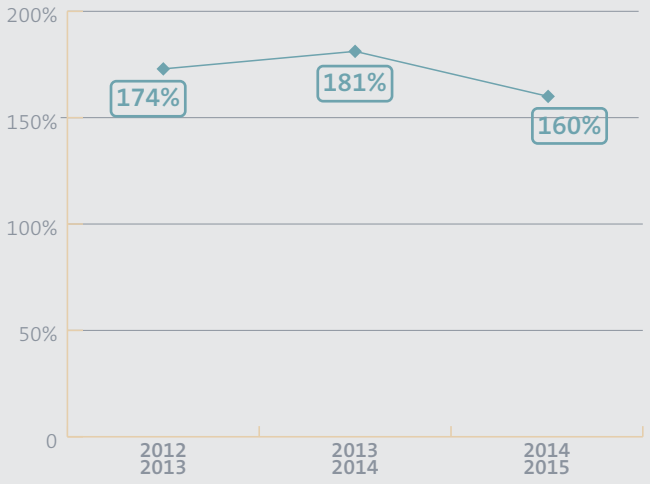


Figure 21 **Trends in capitalisation**



As in recent years, the result for the financial year 2014-2015 was conditioned by market trends. We are seeing on one hand a gold and precious metals price that is fairly steady at low levels, and on the other a **general stagnation in demand**. After some movement on the market between 2011 and 2013, we are now seeing a slow-down both in Switzerland and abroad. As Figure 20 shows, turnover was 76% compared to the 100% result of 2008-2009 which is taken as the reference, with a fall of 12% from the financial year 2013-2014.

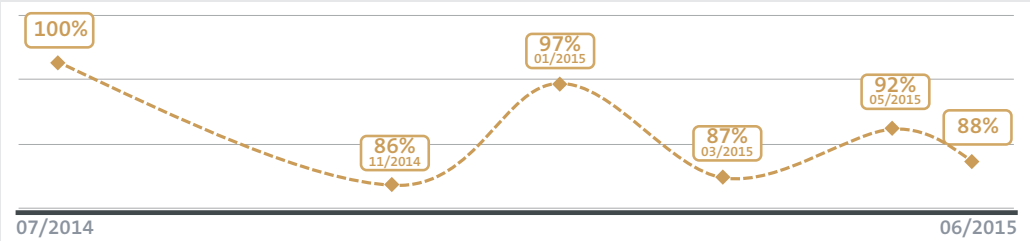
Capitalisation also saw a fall of 19% compared to the previous year (from 181% to 160%, Figure 21), counter to the trend in the previous financial years. However, the figure remains well above the 100% value of 2008-2009 taken as the reference, and is an important indication of the company's stability.

In spite of unfavourable market conditions for the precious metals sector in general, we are maintaining our stability and persevering with responsible management of the business, orientated towards a long-term vision.

Gold Price Trend

During the financial year in question, the sector faced the complex situation of fluctuations of the price of gold. As the graph shows, the price of gold since July 2014 (taken as the base-price) varied, registering 86% in November 2014, 97% in January 2015, 87% in March 2015, 92% in May 2015, and finishing at 88% at the end of the financial year.

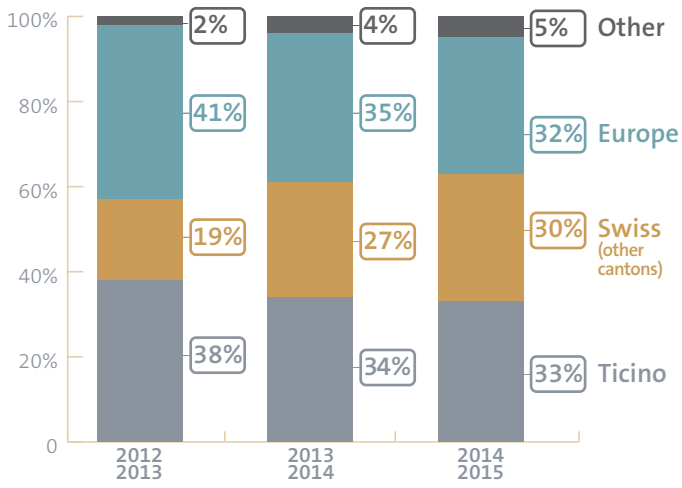
Figure 22 **Gold Price Trend**



3.2. Indirect Economic Impact

3.2.1. Suppliers

Figure 23 **Origin of suppliers by geographical area**



When choosing our suppliers, we give preference where possible to local suppliers, bearing in mind that by "suppliers" we mean companies from which we obtain consumables, machinery and services, as we receive the precious metals to be processed directly from our customers.
As Figure 23 shows, in recent years a trend can be observed for growth in the proportion of Swiss suppliers (63% in total), counterbalanced by a reduction in European suppliers and suppliers from other countries (37% in total). In 2012-2013 the former accounted for 57% and the latter for 43%.

We want to establish a relationship of trust with our suppliers based on a lasting partnership from which both parties benefit, including in terms of efficiency and synergy.

We prefer to work with Ticino-based suppliers, if there are any with the required skill or product, which is often very specific and therefore not easy to locate. That is because generating value for the economic community where we are located is part of our conception of economic responsibility.
In addition, a shorter supply chain where the travel required is reduced provides obvious benefits for the environment.

Requirements for foreign suppliers

In our sector, we sometimes need highly specific products or services with very precise quality demands to allow us to maintain our own quality standards and must seek them beyond the borders of our own country. Suppliers from foreign countries such as Italy and France may therefore come to work at our facility.
We work closely with the Labour Inspectorate to ensure that the internal labour market is protected and all the requirements for working in Switzerland are met, and we provide the following on a special platform available to our suppliers:

- Full information on safety procedures;
- A description of the legal obligations for coming to work in Switzerland;
- The forms to be filled in.

Safety and the protection of everyone who comes to work for us are aspects on which we place a great deal of emphasis, and all the necessary information on them is also provided on the platform.

3.2.2. Tax, Investments and Sponsorships

Figure 24 **Trends in direct tax**

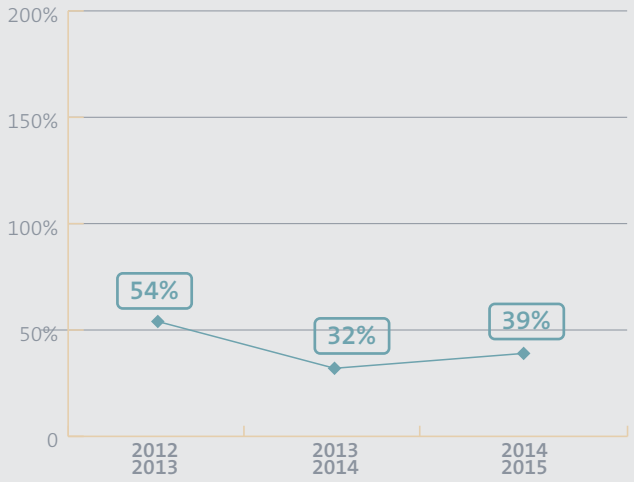
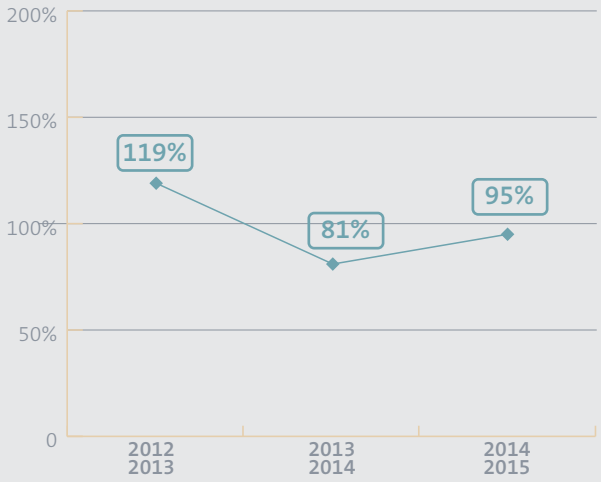


Figure 25 **Trends in investments**

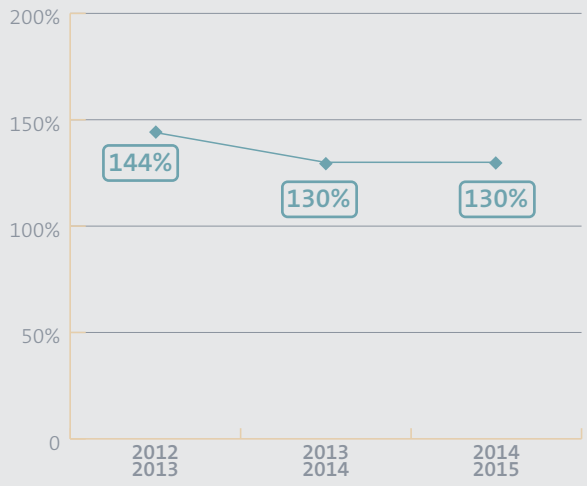


During the financial year in question, there was a rise in both the tax rate paid to the Municipal Authority, which increased 7% to 39% compared to the 100% value of 2008-2009 (Figure 24), and in investments on corporate assets.
As Figure 25 shows, investments on corporate assets were up +14% compared to 2013-2014, to 95% compared to the base year.
The increase in tax can be attributed to higher profits compared to the reference period for the previous calculation.

We believe strongly in innovation, and we therefore invest constantly in research and development. This year, we also invested in the Castel San Pietro facility, making special adaptations to the structure.

The **positive trend in investments** is further confirmation of both our commitment to constant improvement and innovation, and the ownership's faith in the company in spite of unfavourable market conditions. This year, in addition to modernising our facilities, we focused on some of our production machinery to obtain increased automation and process efficiency.

Figure 26 **Sponsorship Trends**



Monies dedicated to sponsorships during the current financial year were equal to the previous year, counting for 130% when compared to the 100% value of 2008-2009 (Figure 26). That increase is a clear signal of our ongoing, long-term commitment to the local community and its institutions (see Chapter 1.2, Local Community).

Investing in our structure

In 2014-2015, we undertook a variety of modernisation works on our structures. First and foremost, we refurbished the entrance to the factory, giving it a more contemporary look and more high-performance security equipment. We also carried out earthquake-proofing works on our production facility. The project, which was assigned to a leading specialist company in the sector, took several months of work and involved applying cladding to all the weight-bearing columns in the building. As a result, the building's stability has been improved, even in the event of an earthquake.

Image: *The results of the earthquake-proofing works*

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