

SUSTAINABILITY

REPORT

2017



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LETTER TO THE STAKEHOLDER

We live in a time where change happens much faster than we were used to. In such a constantly-evolving and unstable environment - both economically and politically - enterprises are called to prove their ability to read change and adjust their operations accordingly, by innovating their way of doing business, increasing their efficiency, using available resources responsibly and differentiating successfully on their markets for a lasting competitive advantage.

A year has already gone by since in 2016 the governments of the UN member states signed up to the 2030 Agenda for Sustainable Development, committing to pursue 17 Sustainable Development Goals (SDGs) over a period of fifteen years - 17 goals that cover key issues for global development, including the reduction of poverty, the right to education, the eradication of hunger, the fight against climate change, etc.

This new reference framework has presented organizations worldwide with the opportunity to rethink themselves. It has made them aware that the world of business too plays a vital role in the attainment of a very important objective, that of: *"meeting the needs of the present without compromising the ability of future generations to meet their own"*. Which is what *"sustainable development"* is all about.

Today, sustainability is no longer a mere philosophical concept, a vague aspiration. It is increasingly becoming a guidance to be referred to when making choices in the most important sectors of the global economy, in relation to the social and environmental impacts that such choices entail.

Businesses are called to break traditional thinking patterns and look at sustainability as an opportunity to generate positive results in terms of new jobs, efficiency and reputation. For Cmc, which is over one hundred years old, this means continuing on a path that was undertaken quite some time ago in respect of many of the aspects discussed in the Agenda 2030.

Indeed, we have always invested in the occupational health & safety of our personnel, as well as in the education of our members and workforce. We are now also placing a growing focus on corporate welfare, as well as on the behavioral and social standards (Code of Conduct, Organizational Model, Anti-Bribery Management System) by which each member of our organization is required to consciously abide.

I believe it is important that we continue on our path, while also developing new lines of actions. Reporting on our activities is an opportunity to improve ourselves. It doesn't just mean disclosing our results. It also means measuring our efforts on important and globally-competitive issues in an increasingly detailed manner, that can be understood and appreciated more and more effectively, with a view to strengthening our cooperative identity and our relations with the stakeholders and the market.

With this in mind, our Board of Directors has chosen to begin on a path that will gradually lead us, over the years, to expanding our reporting activities in accordance with the GRI (Global Reporting Initiative) Sustainability Reporting Standards - the international reference framework for clear reporting on the social, environmental and economic impacts generated by an organization in its operations and the sustainability of the same.

Alfredo Fioretti
Cmc's President

NOTE ON METHOD

The **Sustainability Report** prepared by Ravenna-based cooperative Cooperativa Muratori & Cementisti – Cmc di Ravenna (hereinafter referred to as “Cmc”, the “Cmc Group” or the “Group”) contains the environmental, social, HR, human rights and anti-bribery information required to ensure a full understanding of the Cooperative’s operations, performances, results and impacts.

The Sustainability Report for the year 2017 is the first to be prepared in accordance with the methodology and principles set out in the *GRI Sustainability Reporting Standards*, currently representing the most widespread and internationally recognized reference for reporting of non-financial information.

The general principles applied for the preparation of this Sustainability Report are those established in the GRI Standards: materiality, stakeholder inclusiveness, sustainability context, completeness, balance between positive and negative aspects, comparability, accuracy, timeliness, reliability, clarity.

Performance indicators are those indicated in the above reporting standards for the various areas of sustainability, in consideration of the type of operations conducted by the Cooperative and the impacts generated by the same. In particular, performance indicators were chosen based on the materiality assessment and topics identified by the Cooperative in accordance with the GRI Reporting Standards and focused on data and information that are managed directly within the Cmc Group. Values for which estimates are used are indicated directly in the relevant sections of this document.

The reference reporting area for the quality and quantity performance data and information contained in this Sustainability Report comprises the parent undertaking Cmc and its subsidiaries, as consolidated in the Cmc Group Consolidated Financial Statements at 31 December 2017. Data referring to the previous financial year (2016) are also presented for comparative purposes.

Cmc has adopted the GRI Standards as from the year 2017, which is the reporting period for this Sustainability Report. Given the characteristics, geographical reach and complexity of the Group’s operations, this has meant that adequate procedures and tools for the collection of data from the various work sites - especially “*environmental*” data - had to be defined. The environmental data collection process covered an overall area that corresponds to a number of work sites representing on average some 50% of the Cmc Group’s consolidated revenues. Environmental data reported in this document refer, in particular, to Cmc’s most important work sites in Italy and abroad.

Cmc aims to gradually expand its reporting area, so as to ensure full consistency with the financial data contained in its Consolidated Financial Statements. In any case, we believe that the data provided in this Sustainability Report offer an adequate - if not as yet complete - picture of the operations conducted by Cmc, as well as of the environmental impacts generated by the same. Further limitations in terms of the reporting area, which also affected some data relating to human resources, are discussed in detail in the relevant sections of this document.

Preparation of this Sustainability Report saw the involvement of Cmc’s various functions. Collection of the data, in particular, was conducted with the cooperation of the Group’s corporate services and most important work sites, in Italy and internationally.

The Sustainability Report is available on Cmc’s official website, at:

www.cmcgruppo.com

To request more information, please contact us at:

cmc.cmc@cmcra.com

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1. IDENTITY AND PROFILE

1.1

ABOUT US

WE ARE MEN AND WOMEN WHO HAVE CHOSEN
TO EMBARK ON A CONSISTENT **MISSION**
LINKING PAST, PRESENT AND FUTURE

EVERY DAY WE WORK TO:

RENEW

THE PACT BETWEEN MEMBERS TO INCREASE
THE VALUE OF THE BUSINESS AND CREATE NEW WORK

DEVELOP

A GOVERNANCE SYSTEM THAT IS BASED ON DEMOCRACY
AND MEMBER PARTICIPATION

EXPAND

OUR BUSINESS AND ITS ABILITY TO COMPETE
ON A GLOBAL MARKET

FOCUS ON

PEOPLE, RESPONSIBILITY, SAFETY,
AND LEGAL CONFORMITY

ENSURE

THE GROWTH OF INDIVISIBLE
RESOURCES AS THE FOUNDING PACT OF OUR
INTERGENERATIONAL APPROACH

1.2

IDENTITY CARD

NAME:

Cooperativa Muratori
& Cementisti
- Cmc di Ravenna



DATE OF BIRTH:

7 March 1901

ADDRESS:

Registered office: Ravenna - Italy
operating in 39 countries across 4 continents

FAMILY MEMBERS:

At end 2017: 340 members
419 permanent staff
6,676 workers worldwide

DISTINGUISHING TRAITS:

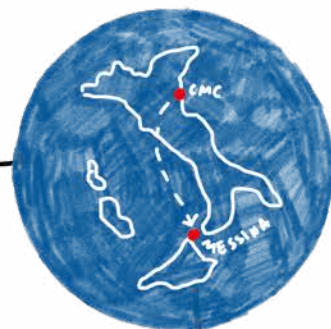
We build large infrastructures in the
transportation, water and irrigation, building,
sewage and water treatment, mining
and waste treatment, water control
and marine sectors

CMC, A HISTORY OF CONSTANCY AND COMPETENCE SINCE 1901



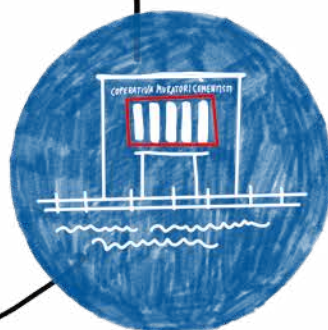
1901

THE COOPERATIVE IS FORMED BY WORKERS, MASON'S AND LABORERS OF THE MUNICIPALITY OF RAVENNA



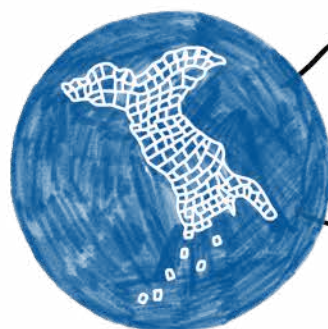
1908

WE BEGIN OUR TRAVELS! OFF WE GO TO MESSINA TO REBUILD THE CITY DESTROYED BY THE EARTHQUAKE



1934

THE CURRENT HEADQUARTERS ARE SET UP IN RAVENNA'S DOCKS AREA



1951

THE COOPERATIVE CONTRIBUTES TO THE CONSTRUCTION OF MANUFACTURING PLANTS AND INFRASTRUCTURES AS ITALY COMES BACK TO LIFE



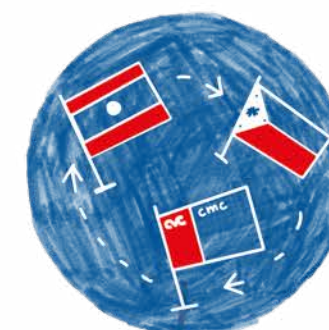
1975

FIRST INTERNATIONAL PROJECTS: OFF WE GO IN IRAN



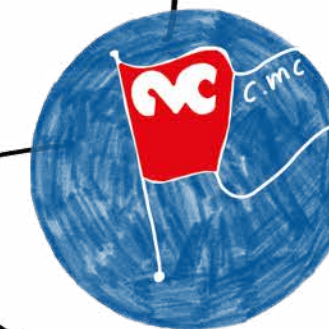
2011

CMC LANDS IN AMERICA!



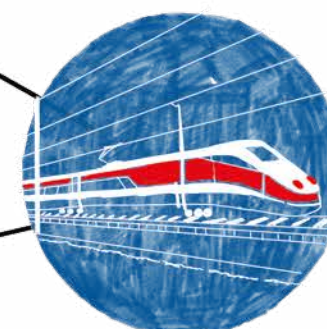
2017

CMC IS BACK IN THE PHILIPPINES AND LAOS



2014

CMC IS THE FIRST COOPERATIVE IN THE WORLD TO ISSUE BONDS



1995

CMC BECOMES A LEADING PLAYER IN THE DEVELOPMENT OF THE ITALIAN HIGH-SPEED RAILWAY SYSTEM

1.4

THE BUSINESS MODEL

Cmc operates in accordance with the values and principles set out in its Code of Conduct, which is informed by an ethos of economic, financial, environmental and social sustainability.

Focus on people

We recognize the key role played by our members and workers and are committed to improving their professional working life.

Health & safety in the workplace

We promote the spreading and consolidation of a culture of occupational health & safety, raising awareness on risks and advocating responsible behavior.

Legality and integrity

We strive to ensure - in all fields - full compliance with laws and regulations, as well as with principles of transparency, loyalty and integrity.

Environmental sustainability

We believe that the environment is a vital resource that must be actively protected by pursuing a balance between economic initiative and environmental sustainability.

Social commitment

We have chosen to implement an innovative welfare model, aiming to improve the quality of life of our members and workers, as well as of their families. We also support valuable initiatives seeking to promote the social development of the communities in which we operate.

Transparent communication

We place great importance on communication, which we regard as a key tool to achieve corporate transparency and an indispensable practice to promote democracy and participation of members and workers.

1.5

THE ORGANIZATION AND ITS CONTEXT

Cmc is a leading international construction organization.

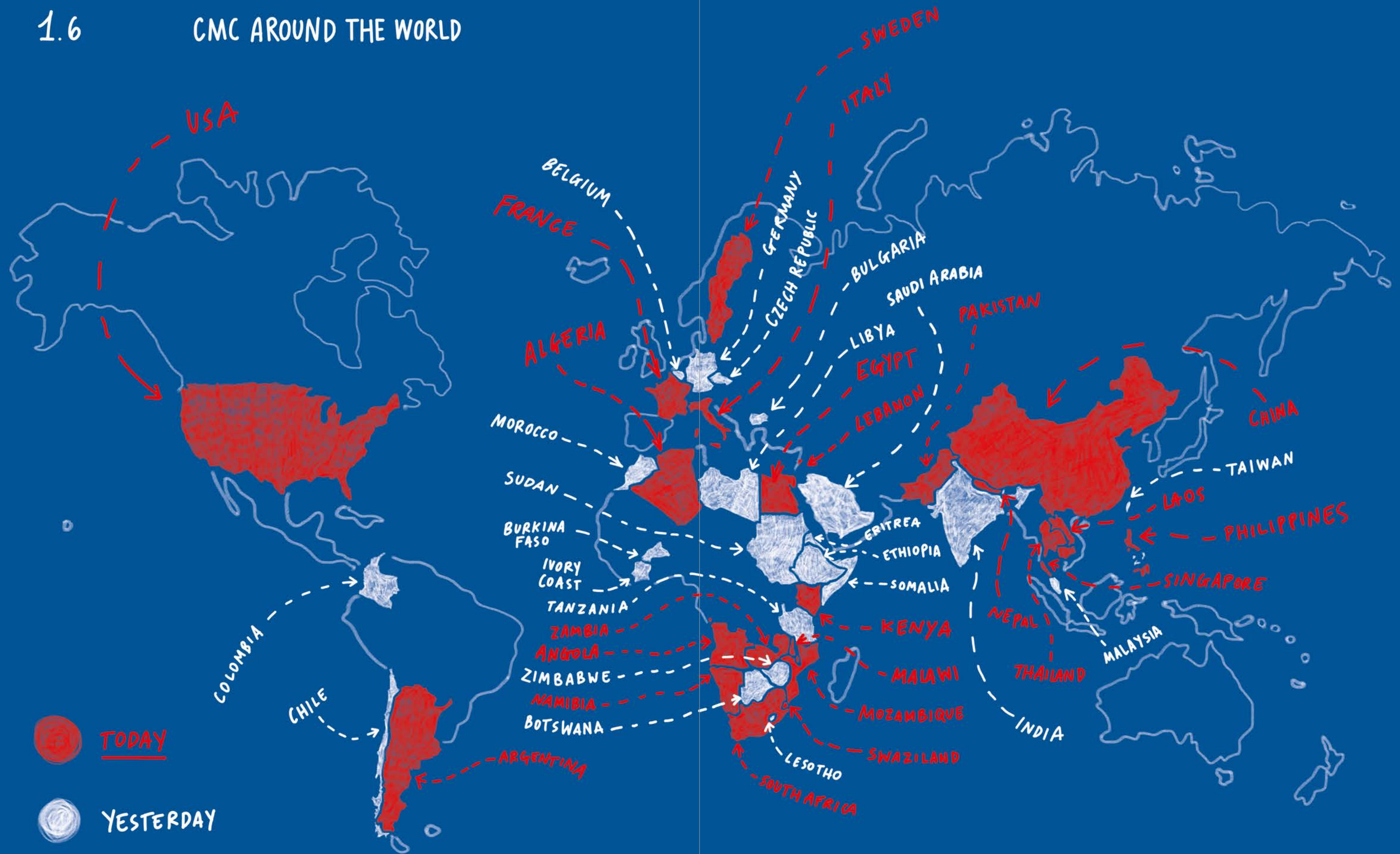
Our technical/organizational and economic/financial competencies, together with our wide experience acquired in large infrastructure construction worldwide, make us one of just **a few Italian General Contractors** who are qualified to bid for the largest contracts.

We build large infrastructure projects (especially public procurement) in all sectors, including in the road, railway, airport, water supply/hydroelectric, water control, residential, commercial and industrial building fields.

In recent years, Cmc has invested in its ability to undertake projects of high technological complexity in the transportation, hydroelectric and underground construction industries.

Today, the Cooperative generates over 60% of its revenues from international contracts, both public and private, and is able to operate in full in compliance with the most exacting international standards (FIDIC, ILO, ISO, World Bank, Anti-Bribery and Anti-Corruption, etc.).

Cmc's **direction and management operations** are based at the Cooperative's headquarters in Ravenna and involve the typical policy-making activities that are the task of senior management, together with all other management processes in the areas of marketing, contract estimating, tendering and signing, project execution planning, design control, purchasing, administrative and financial affairs, legal affairs, management control, etc. Although overall control remains in the hands of senior management at the main headquarters, some of these processes are entrusted to the local international branches directly.





1.7 CMC'S COMMITMENT TO SUSTAINABILITY

2017 was a year of consolidation and sustained effort to maintain stability in a sector - that of construction - that is affected by very different trends across countries worldwide.

Our 2018/2020 three-year Industrial Plan seeks to ensure continuity with the previous plans, while also introducing some specific aims for improvement. The criticalities of the Italian construction industry press us to expand our international operations, working to secure new contracts across all continents. Yet, we continue to believe in the potential of our own country, in our historical roots, and are thus determined to also “*keep fighting*” to retain a significant presence in Italy.

Over the years, Cmc has acquired a solid know-how in its core business of infrastructure construction, especially in the field of high-quality and high-technology projects. We have been working on the international markets for many years and are fully aware of the risks associated with projects involving international stakeholders on various levels: political, environmental, technological, financial, currency-related, etc.

No less challenging is our commitment to debt reduction. In the course of 2017 - in an effort to achieve greater stability and sustain our growth and increasingly globalized backlog - we completed two bond issues. These operations, however, involved major financial outlays and will produce their benefits over the next 5 years. Confirmation of our assigned ratings by Moody's and Standard&Poor's is a clear sign of the financial world's confidence in us and reinforces our commitment and responsibility towards stakeholders.

We walk on a path that is based on ethical conduct, on responsibility, on the establishment and strengthening of solid relations and development routes with our members, workers, investors, clients, suppliers and community.

Our most important counterparties - who are always at the heart of our *cooperative business project* - are human resources. We seek to involve our people in the pursuit of our targets, to bring out the potential of our human capital, to train and develop those who will be Cmc's future.

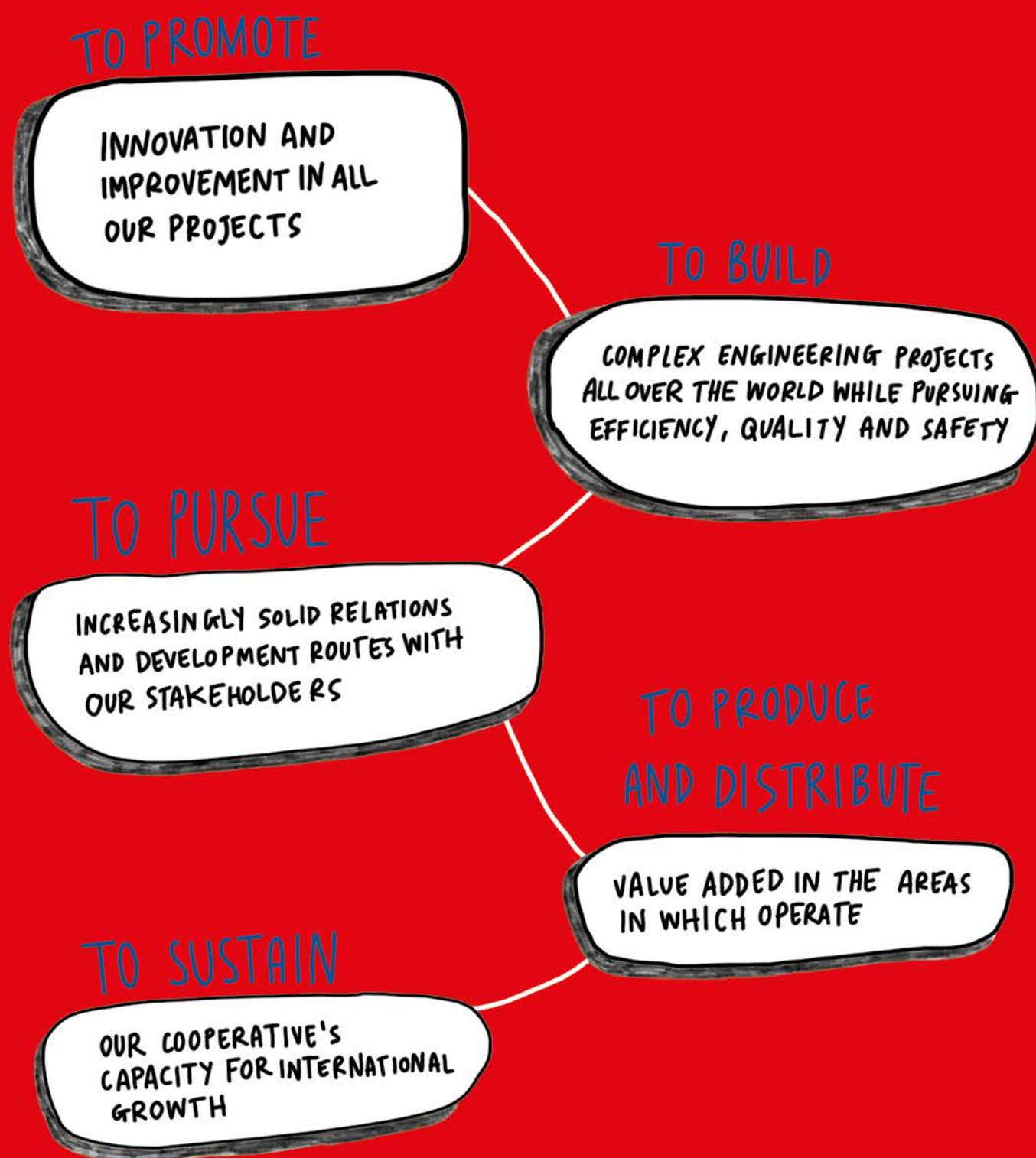
Every day, we work to build complex engineering projects all over the world while pursuing efficiency, quality and safety, to promote innovation and continuous improvement, to improve project performance and production chain efficiency. Quality, occupational health & safety, environmental protection and legal compliance are the key principles on which we base our strategies, in our effort to strengthen competitiveness and economic/financial performance. Through our work and our relations with clients and suppliers, we look at the construction business as a driver for development and seek to offer a way of “doing business” that is able to create social and economic value in all the areas and communities in which we operate.

For us, sustainability is circular and global. **It is a continuous process that aims to achieve a real balance between human, financial and social capital.**

It is a pact of responsibility, a relationship of trust and quality with all our partners all over the world. It is a tough and continuing challenge which, to quote the Star Trek introductory speech, requires the courage to “boldly go where no man has been before”.

Roberto Macri
Cmc's General Manager

1.8 HOW WE WORK: OUR GOALS



The Global Compact



Precautionary Approach

Cmc is a signatory to the **United Nations Global Compact**, the largest corporate citizenship strategic initiative in the world, with over **8,700 signatory companies and organizations** from more than **160 countries around the world**.

By signing up to the Global Compact, Cmc has undertaken to embrace, support and implement a set of core values that seek to promote a **sustainable global economy**, championing human and labor rights, labor standards, environmental protection and the fight against corruption through political actions, corporate practices and social behaviors.

Cmc's commitment is documented in the **"Communication on Progress"** report, published annually on the Organization's website.

Introduced in 1992 on the occasion of the UN Conference on Environment and Development (**Principle 15 of "The Rio Declaration on Environment and Development"**), as part of the action for the conservation of the environment and of biodiversity, this principle is based on the *"better safe than sorry"* assumption.

The adoption of this principle - as an integral part of an organization's risk management strategy - involves the prior assessment of the negative environmental and social impacts that could potentially arise from strategic decisions and/or choices made with regard to products and processes.

Where there are threats of a serious or irreversible damage, the implementation of adequate and effective measures must be assessed, including in terms of costs and benefits, with a view to preventing and/or reducing negative impacts.

1

FIRST-RANKING CONSTRUCTION COOPERATIVE IN EUROPE

4

FOURTH-RANKING CONSTRUCTION BUSINESS IN ITALY

39

COUNTRIES IN WHICH CMC OPERATES

100

PROJECTS UNDER WAY

116

YEARS OF HISTORY

340

MEMBERS

6,676

NUMBER OF PEOPLE WHO WORK FOR CMC AROUND THE WORLD

11,891

TOTAL HOURS OF TRAINING PROVIDED

7,360

TOTAL HOURS OF TRAINING ON QUALITY, HEALTH & SAFETY AND THE ENVIRONMENT

40

LANGUAGES SPOKEN OVERALL BY CMC PERSONNEL

€ 150 million

CAPITAL AND RESERVES

€ 1,119 million

GROUP'S REVENUES

€ 1,026 million

ECONOMIC VALUE DISTRIBUTED TO STAKEHOLDERS

4,000

SUPPLIERS IN ITALY AND AROUND THE WORLD

2,100 million

METRIC TONS OF MATERIALS USED*

1,430 million

GJ OF ENERGY USED*

408 thousand m³

OF WATER USED*

* THE DATA COLLECTED REFER TO A NUMBER OF WORK SITES REPRESENTING 50% OF CMC'S CONSOLIDATED REVENUES

COOPERATIVA MURATORI CEMENTISTI

2. THE GOVERNANCE SYSTEM

2.1 THE GOVERNANCE STRUCTURE AND BODIES

Relying on solid roots, Cmc truly believes in the cooperative model and promotes diffused responsibility and the participation of members in the definition of its business development plans. Cmc is a cooperative society operating in the form of a public limited company. Its shareholders are its working members and its investor members.

On 6 May 2017, Cmc Members' Assembly appointed its new governance bodies: the **Board of Directors** and the **Board of Auditors**.

The election process is based on the selection of candidates by an Electoral Committee, which is elected by the Members' Assembly and is conducted in accordance with the procedure set out in the relevant Internal Regulations.

The Internal Regulations promote gender representation.

In order to ensure maximum participation in the election, the opportunity to vote is also guaranteed to members based abroad. Ballot papers were sent by the Committee to members in 15 countries. As many as 91.71% of members holding a right to vote took part in the election for the new Board of Directors.

COMPOSITION OF BOARD OF DIRECTORS

AGE RANGE	WOMEN	MEN	TOTAL
0-30	—	—	—
30-50	2	4	6
OVER 50	—	5	5
TOTAL	2	9	11

BOARD OF DIRECTORS AT 30 JUNE 2018



BOARD OF AUDITORS

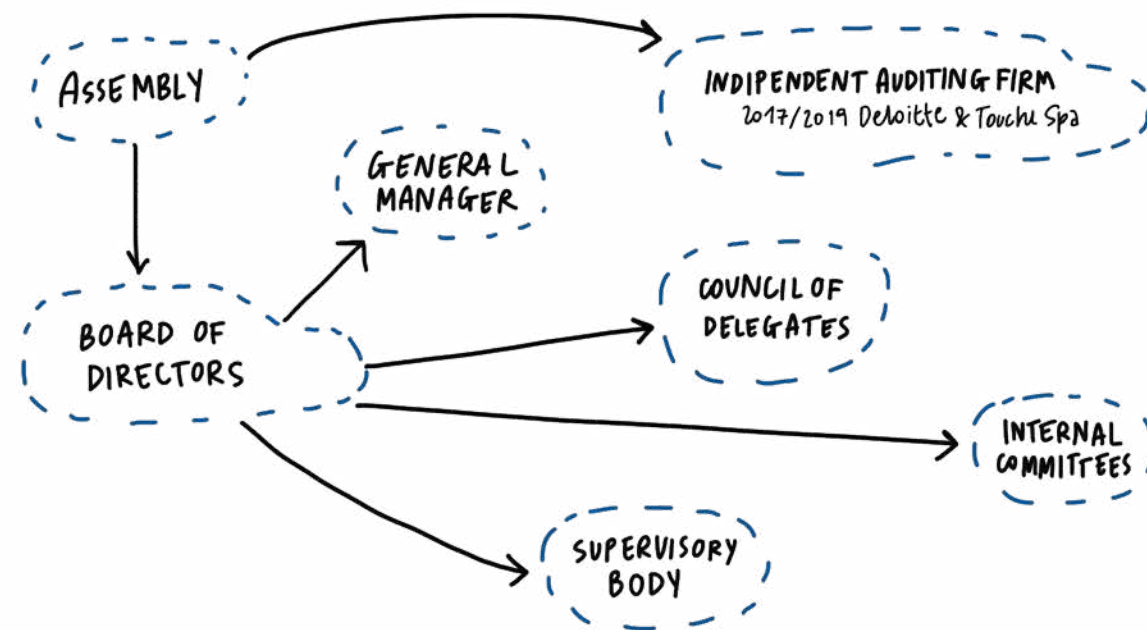


Council of Delegates

The Council of Delegates is made up of approximately 100 members, appointed by the Board of Directors. It is a member representative body with consulting functions, assisting in particular in the definition of the Cooperative's development plans.

Internal regulations also provide for the possibility of appointing **Member Commissions** (working members), through which Cmc promotes actions for improvement and interaction with its members and workforce.

The Board of Directors' **Internal Committees** (Monitoring Committee, Appointments and Remuneration Committee, Governance and Social Responsibility Committee) support the Board of Directors in the assessment of long-term plans and strategies, as well as in the definition of remuneration policies and training programs for members and directors.



2.2

THE DELEGATION SYSTEM

The President is Cmc's legal representative and the guarantor of the effective and correct implementation of the Cooperative's governance and internal control system.

The President is granted no additional delegations of authority or powers vis-à-vis the members or any third parties other than those connected with his/her role as a uniting and effective representative of the Cooperative's overall business, political and social aims.

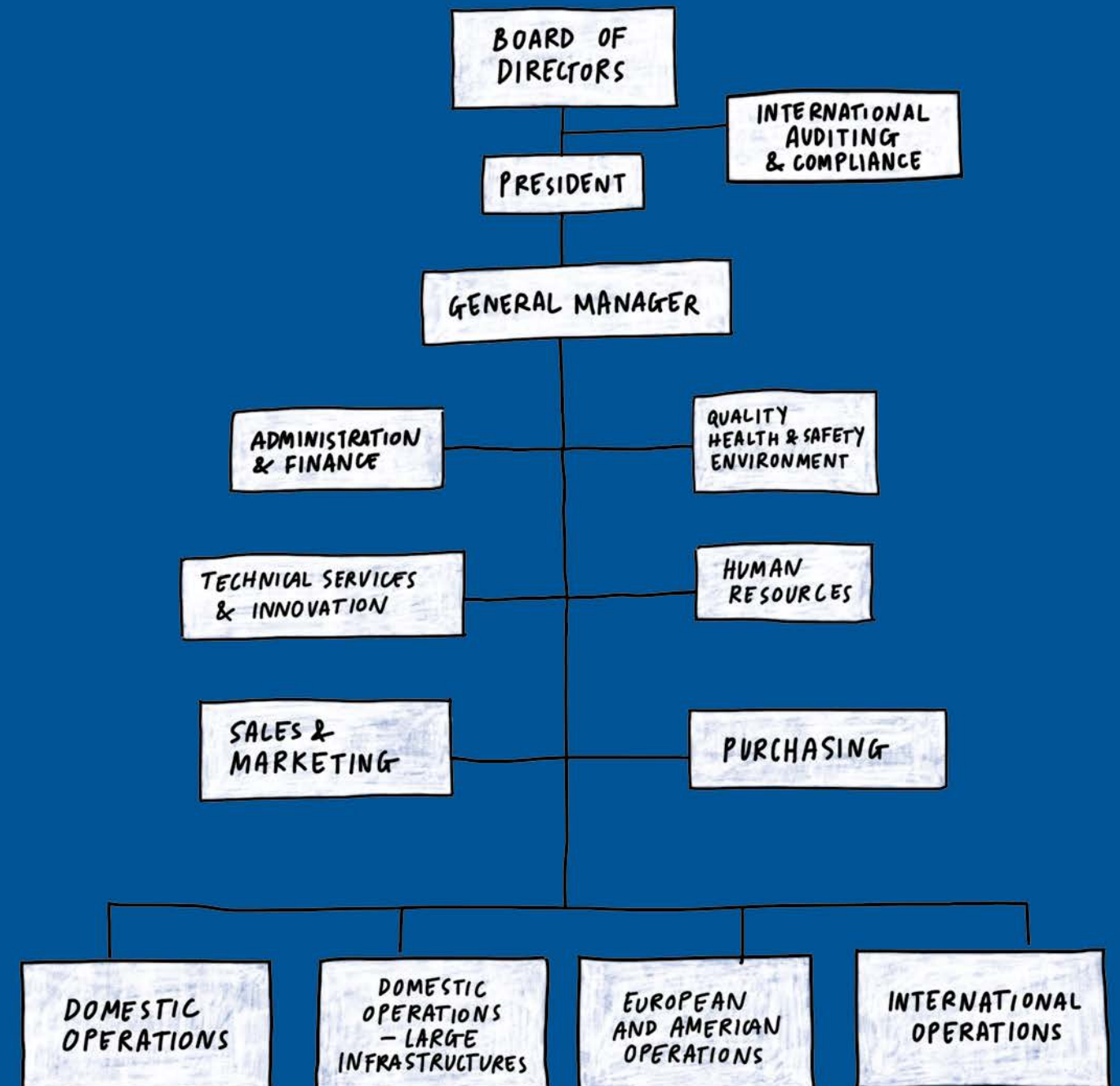
The **General Manager** is entrusted the responsibility of running the Cooperative and managing its operations, with the aim of implementing the programs and the strategies adopted by the Board of Directors.

The **granting and exercise of powers** in Cmc is based on an internal set of rules according to which there must be no coincidence between those who make and implement the decisions, those who are called to give accounting evidence of operations and those who carry out the checks imposed by the law or by internal verification procedures.

Programs and actions in terms of Corporate Social Responsibility are defined by the Board of Directors, upon proposal of the "Governance and Social Responsibility" Internal Committee.



ORGANIZATIONAL CHART AT 30 JUNE 2018



Cmc acts in compliance with **the principles and objects adopted by the members in the Cooperative's Articles of Association**, as inspired by article 45 of the Italian Constitution and the Declaration of Cooperative Identity approved by the International Cooperative Alliance.

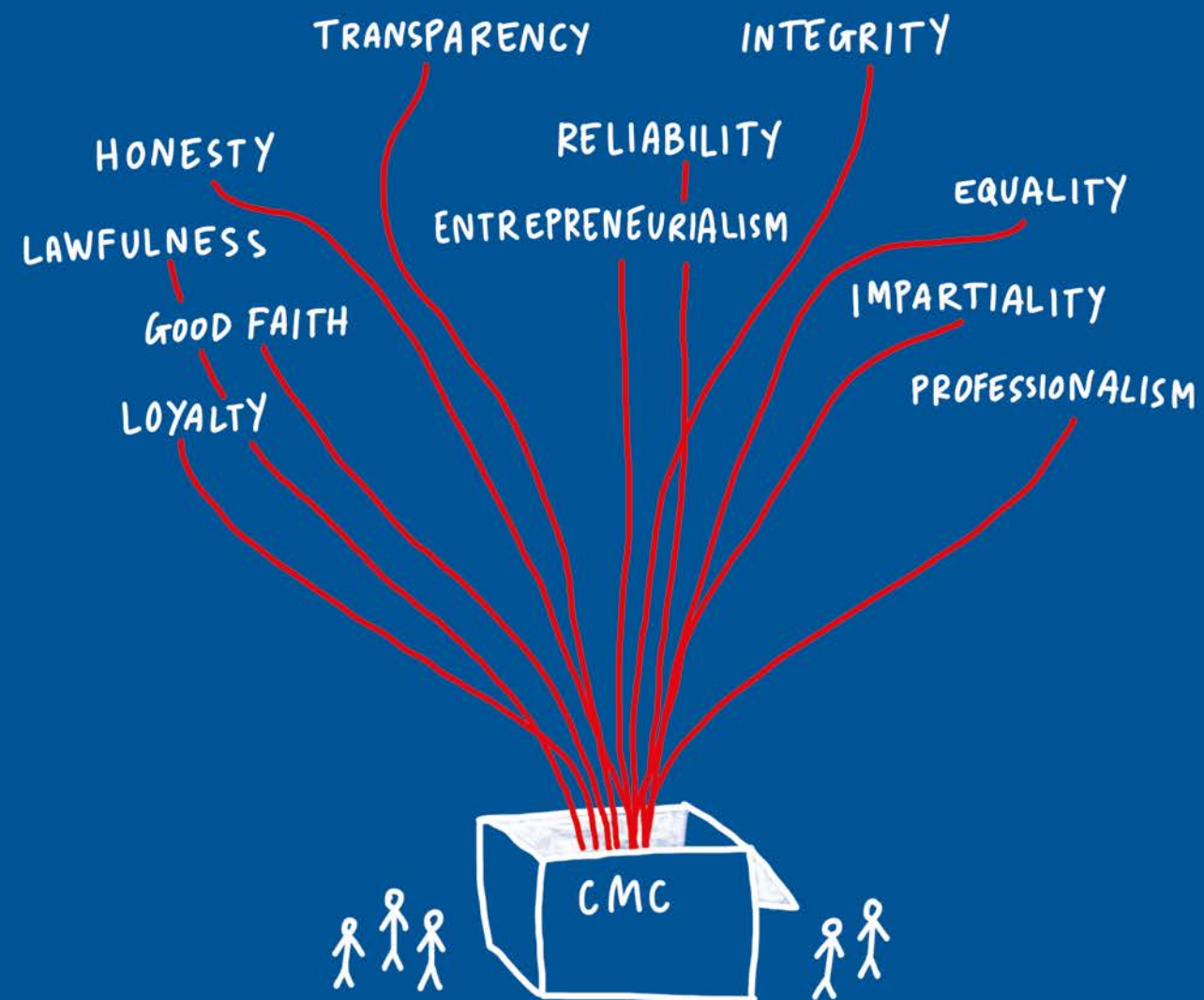
Article 4 – Purpose

The Cooperative pursues objects of mutual exchange, with no aims of private speculation, and is governed in accordance with principles of democratic organization. The main purpose of the Cooperative is to ensure that its working members, through their membership, are guaranteed continuous employment and improved financial, social and professional conditions, as well as an adequate return on their invested capital.

Cmc has adopted a detailed set of rules to guide its democratic and governance processes, its decision-making processes, as well as the behaviors of its management and of all the parties (members, employees, semi-independent long-term contractors, clients, suppliers, institutions) with which it interacts, consistently with cooperative principles, as well with the applicable laws and regulations, including internal regulations.

Codes, policies, procedures and models are published on the Cooperative's intranet and are made available to all Cmc workers. Wide-reaching internal communication and information is ensured via dedicated e-mails and newsletters.





2.4

ETHICS, RESPONSIBILITY AND ANTI-BRIBERY MEASURES

Code of Conduct

Adopted in 2003, Cmc's Code of Conduct provides the foundation for the Cooperative's and the Group's operation, the protection of its reliability and reputation as perceived from the outside and the increasing satisfaction of its clients.

The Code of Conduct defines - clearly and transparently - the **set of values** which inform Cmc's actions in the pursuit of its goals and is of key importance for the correct performance of its activities.

All of the Cooperative's workers and all of those who cooperate with Cmc in the exercise of its activities (partners, suppliers, consultants, service providers, etc.) are required to **sign the Code of Conduct** and actively contribute to its observance.

Through the appointment of the Supervisory Body and the adoption of the Organizational Model under Italian Legislative Decree No. 231/2001, Cmc guarantees the **broadest possible circulation of the Code**, monitors compliance with behavioral rules and promotes training and awareness on the Code's values and principles.

**Organizational,
Management and
Control Model as
per Italian Legislative
Decree No. 231/2001**

Italian Legislative Decree No. 231 of 8 June 2001 has introduced into the Italian legal system the notion of the **administrative liability of entities** derived from specific crimes perpetrated in the interest or for the benefit of the entity by its senior management officers or their subordinates. Our Cooperative has adopted the preventive means set out under Italian Legislative Decree No. 231/01 since 2003, involving:

the implementation of a **231 Organizational Model**, which is regularly updated in accordance with normative changes on the administrative liability of entities. The Code of Conduct is an integral part of this Model;

the creation of a **Supervisory Body** formed by internal and external members (mixed board), with specific knowledge in the areas under supervision;

the definition of **specific prevention and monitoring protocols**: in cooperation with the competent corporate functions, the Supervisory Body plans the auditing activities to be conducted both at the head office and in the various work sites (in Italy and internationally) and supports the Cooperative in the updating of its management procedures, as well as of its Organizational, Management and Control Model, in consideration of application practices and changes in the normative reference. The flow of information between the Supervisory Body and the corporate functions, the Board of Directors and the Board of Auditors is continuous and is constantly improving;

the implementation of a **Disciplinary System** designed to punish breach of internal regulations established as part of the “231 system”.

In addition to Cmc, group companies **Ged Prefabbricati Srl** and **Sic (Società Italiana Impianti e Cave) Spa** also implement a “231 organizational system” (Organizational Model and Code of Conduct, Supervisory Body, procedures, etc.). Cmc has established a set of guidelines on the administrative liability of entities as per Italian legislative Decree No. 231/01 also for its subsidiary companies.

The 231 Organizational Model, together with all the other documents adopted by the Group as part of its “231 system”, form the supporting infrastructure of the Cooperative’s **Anti-Bribery System**, a system on which Cmc has invested a lot and which has enabled it to obtain certification to the ISO 37001 international standard.

White list

As from 2014, Cmc is listed on the “*White list of suppliers, service providers and work contractors that are not subject to infiltrations by mafia-type organizations*”, as maintained by the Ministry of Interior Local Representation Office in Ravenna. Some of the Cmc Group’s most important member companies, including Sic Spa and Ged Srl, are also listed on the White List.

**Protocols
of legality**

For Cmc, legality is a key element of its business culture and adds value to its day-to-day operations.

As from 2001, Cmc and the Cmc Group companies have been adopting high procedural standards in ensuring compliance with contractual undertakings and related special specifications, including by applying the so-called **Protocols of Legality**, as jointly implemented by the Ministry of Interior Local Representation Offices and the Contracting Authorities for the purpose of combating infiltrations by mafia-type organizations in public contracts and indirectly, episodes of bribing.

During 2017, Cmc managed **8 contracts** that required compliance with the Protocols of Legality adopted by the Ministry of Interior Local Representation Offices for the cities of Turin, Livorno, Savona, Caltanissetta, Agrigento, Palermo and Catania.

**Internal Auditing
& Compliance**

In 2017, the Cooperative’s organizational structure was extended to include a new **Internal Auditing & Compliance Function**, which is positioned at the top of the organizational hierarchy, reports - both *functionally and hierarchically* - directly to the Board of Directors and cooperates with the Board of Auditors and the Supervisory Body.

The **Internal Auditing & Compliance Function** provides independent and objective *assurance and consultancy* assistance to corporate governance bodies, for the verification of the adequacy, efficiency and effectiveness of the internal auditing system, and supports the Cooperative in the achievement of its corporate goals, through the assessment of the effectiveness of the governance, risk management and operating/normative auditing processes implemented by the same.



2.5 THE PROCESS MANAGEMENT SYSTEM

The Cooperative’s sensitive processes are subjected to specific management and quality-related procedures involving numerous corporate areas. The Quality Management System, in particular, is based on the following general principles:

- approach by processes;
- attention to interested parties;
- risk and opportunity analysis;
- continuous improvement;
- stakeholder satisfaction.

Starting with the **Quality Management System (QMS)**, process management has been gradually extended, with the creation of the **Occupational Health & Safety and Environmental Management Systems** and, later, the adoption of the **Organizational, Management and Control Model as per Italian Legislative Decree No. 231/2001** and the implementation of many other international standards, including in other corporate areas and activities.

This process control approach doesn’t apply only to the processes managed by Cmc internally but also to those entrusted to **external entities**. The QMS system sets out clear responsibilities, criteria and operating procedures aiming to ensure the quality of construction activities in all their operational and management aspects.

Cmc’s Integrated Management System is based on a firm commitment to ensure full and continuous compliance with the current legislation, as well as with all other applicable requirements, and seeks to promote all efforts in terms of prevention and continuous improvement, with a view to satisfying the needs and expectations of clients, workers, the community and all other stakeholders and ensuring the highest and widest level of construction quality, occupational health & safety, work ergonomics, environmental protection, social and individual welfare.

**Integrated Quality,
Health & Safety
and Environmental
Management System**

Quality, occupational health & safety and environmental protection are at the heart of Cmc’s activity. The Cmc Group pursues the promotion of quality, occupational health & safety, environmental protection and pollution prevention.

For the above purposes, Cmc has developed an Integrated Quality, Occupational Health & Safety and Environmental Management System that complies with the requirements of the ISO 9001, ISO 14001 and OHSAS 18001 international standards.

**National
certifications**

Certificate of Qualification to Bid for Public Works Tenders

Cmc was one of the first construction businesses to be granted the Certificate of Qualification to Bid for Public Works Tenders by SOA*. It is listed in 35 work categories, 14 of which with unlimited contract value.

Compared to 2016, three new unlimited contract value categories have been acquired (OG8, OG9 and OS 22), while for others a higher value has been obtained.

Certificate of Qualification to Act as General Contractor

Cmc has held a Certificate of Qualification to Act as General Contractor - Class III since 2006. Class III is the highest class, allowing listed companies to take part in contracts whose value exceeds z 700 million. **Currently, Cmc is the only cooperative in Italy to hold this certificate.**

**SOA: Certification body accredited with the Italian Anti-Bribery Authority (ANAC - Autorità Nazionale Anti Corruzione), responsible for verifying the existence of qualification prerequisites and compliance with EU requirements.*

Environmental Management System certified to standard **UNI EN ISO 14001:2015**. This certification indicates that the organization implements an Environmental Management System that is adequate to its operations, products and services, is compliant with the requirements of standard UNI EN ISO 14001 and enables the organization to adopt a systematic approach to environmental management, in due consideration of the relevant social and economic context.

Quality Management System certified to standard **UNI EN ISO 9001:2015**. Certification to standard UNI EN ISO 9001 is used, in both the private and public sector, to improve confidence in the organization by all parties involved. This certification indicates that the organization implements an effective Quality Management System that is adequate to its operations, products and services and complies with the requirements of standard UNI EN ISO 9001.

Occupational Health & Safety Management System – Certified to standard **OHSAS 18001:2007**. Certification of occupational health & safety to BS OHSAS 18001 (British Standard Occupational Health & Safety Assessment Series) certifies that the business implements an effective Occupational Health & Safety System.

In addition, BS OH SAS 18001 is listed under article 30 of Italian Legislative Decree No. 81/08 as a management model granting exemption from administrative liability under Italian Legislative Decree No. 231/2001.

Merit Award

In May 2018, Cmc obtained **certification of its anti-bribery management system** to standard ISO 37001. Certification body SGS Italia then assigned the Cooperative a Merit Award for having obtained **certification of four of its management systems**.

International
certifications

LEED Protocol – Leadership in Energy and Environmental Design

The Cooperative holds the LEED certification, one of the most important green building certifications worldwide, promoted by US certification body *USGBC (US Green Building Council)*.

The Leed certification, now available also in Italy, is the new world standard for green building and is based on a series of indicators measuring the environmental sustainability of design, building, management and maintenance solutions used in building across their entire supply chain. The system has 4 rating levels: Certified, Silver, Gold and Platinum.

The Leed certifications obtained by Cmc mostly regard new buildings constructed for the US government and, in particular, for the US ARMY and US NAVY.

In 2017, Cmc obtained a Leed Silver certification for a private building project: the new Coca Cola production and bottling facility in Mozambique.

Certification under Broad-Based Black Economic Empowerment Act of South Africa

Thanks to its committed efforts in integrating colored personnel and involving local companies in its operations in South Africa, the Cooperative has been granted certification (level 6) under the **B-BBEE Act No. 53 of 2003**.

Certifications held in Singapore

Quality ISO 9001/UNI EN ISO 9001 – **Health & Safety** OHSAS 18001:2007 – **Environmental** ISO 14001/UNI ISO 14001:2004 – BizSAFE certification level 3 WSH Act (Workplace Safety and Health Act).*

During 2017, the quality and environmental certifications were renewed following transition to the new 2015 emission standards, while the health & safety system was the subject of a surveillance audit.

AT THE END OF 2017, ALL CERTIFICATIONS HELD BY CMC HAD EITHER BEEN **FULLY CONFIRMED OR RENEWED IF EXPIRING**. IN ADDITION, TRANSITION TO THE **NEW STANDARDS ISO 9001:2015 AND ISO 14001:2015 WAS COMPLETED FOR THE QUALITY MANAGEMENT SYSTEM AND THE ENVIRONMENTAL MANAGEMENT SYSTEM**.

* The Workplace Safety & Health Council works in close cooperation with the Ministry of Manpower (MOM) and other governmental agencies, industry bodies, trade unions and trade associations to create new strategies to increase occupational health & safety standards in Singapore and realize the WSH 2018 mission.

Audits

Audits are one of the cornerstones in Cmc’s integrated QHSE system.

Audits can result into **observations** (recommendations/suggestions for process improvement) or **nonconformity reports**, which, in turn, may lead to specific **corrective actions** (CAR), aiming to ensure the continuous improvement of processes and activities.

In **2017**, the QHSE Service conducted **21 internal audits**. **10 nonconformity reports** were issued, bearing no significant impact on the QHSE System, together with **57 observations** (+8 against 2016).

Certification body audits

In December 2017, a surveillance audit was conducted by SGS Singapore for the Singapore area, confirming certification of the three management systems (Quality, Health & Safety and Environmental). At the same time, an audit by certification body SGS Italia was also conducted.

Audits regarded **2 Italian work sites**, **4 international work sites** and the **head office services**, including the Quality, Health & Safety and Environmental Service, the Domestic Tenders Office, the Purchasing Service, the Development and Training Service and the Operations Centre.

The certification bodies issued some observations, which Cmc promptly examined in order to prevent the arising of potential nonconformities and obtain important inputs for the improvement of its three management systems.

Prizes and awards

With regard to quality - meant as the overall technical complexity of a construction - Cmc was assigned the **Fulton Award in the infrastructure category** by the Concrete Society of Southern Africa, for its Edgecombe road upgrade project.

Winning of the award makes Cmc the **leading Italian general contractor in South Africa**, giving it large visibility on the African continent and, in particular, across all Southern African states.

Focus on: the Quality Management System

Document Management System

During 2017, the 3rd phase of the project for the adoption of an electronic Document Management System (DMS) was completed. The new document hub system (HDO) was integrated with the procedures that were already in place for the accounting system (Superstrike) and the order/supplier management system (EasyBuy), as well as with the certified email system. The process will continue into 2018 with user training.

Building Information Modeling – Introduction

During 2017, Cmc introduced BIM (*Building Information Modeling*) as a tool for the management of projects and the creation of the functional characteristics required under the reference legislation.

Revision of Quality Manual

During 2017, the Quality Manual, the organizational chart and certain procedures were brought up to date with the new ISO 9001: 2015 standard.



3. THE STAKEHOLDERS

3.1

THE STAKEHOLDERS

Stakeholders are individuals or groups that **“have an interest”** in an organization. As a consequence, the decisions and activities of that organization have an impact on the stakeholders, who, in turn, influence the organization, given the reciprocity of existing relations and connections.

Identification of stakeholders represents a very important moment in the definition of the sustainability policies and strategy of a business.

Cmc operates all over the world, with projects and activities that involve numerous stakeholders, and every day has thousands of contacts and interactions with investors, clients, workers (existing and potential), public authorities and media partners.

A continuous dialogue is vital to respond to the expectations and needs of each group of stakeholders, as well as to strive to reconcile the Group’s development strategies with a structured long-term distribution of the value added and wealth produced.



Cmc promotes the development of cooperation and is a member of many associations, consortia and organizations that pursue exchange, growth and creation of good cooperative business.

In 2011, cooperatives association Legacoop – together with Confcooperative and AGCI – set up the **Alleanza delle Cooperative Italiane** (Italian Cooperative Alliance): a stable coordinative effort aiming to create a single unifying reference association for Italian cooperatives.

Cmc is a member of national cooperatives association **Legacoop Nazionale**. Our President is a member of Legacoop's local chairing and governing bodies (Legacoop Emilia-Romagna and Legacoop Romagna).

Cmc is a member of the Ravenna province cooperatives federation **Federazione delle Cooperative della Provincia di Ravenna**.

Cmc is also a member of important business consortia: **Consorzio Coop Costruzioni – CCC di Bologna, Conscoop di Forlì, Consorzio Nazionale Servizi**.

Cmc is a founding member of **Consorzio Integra**.

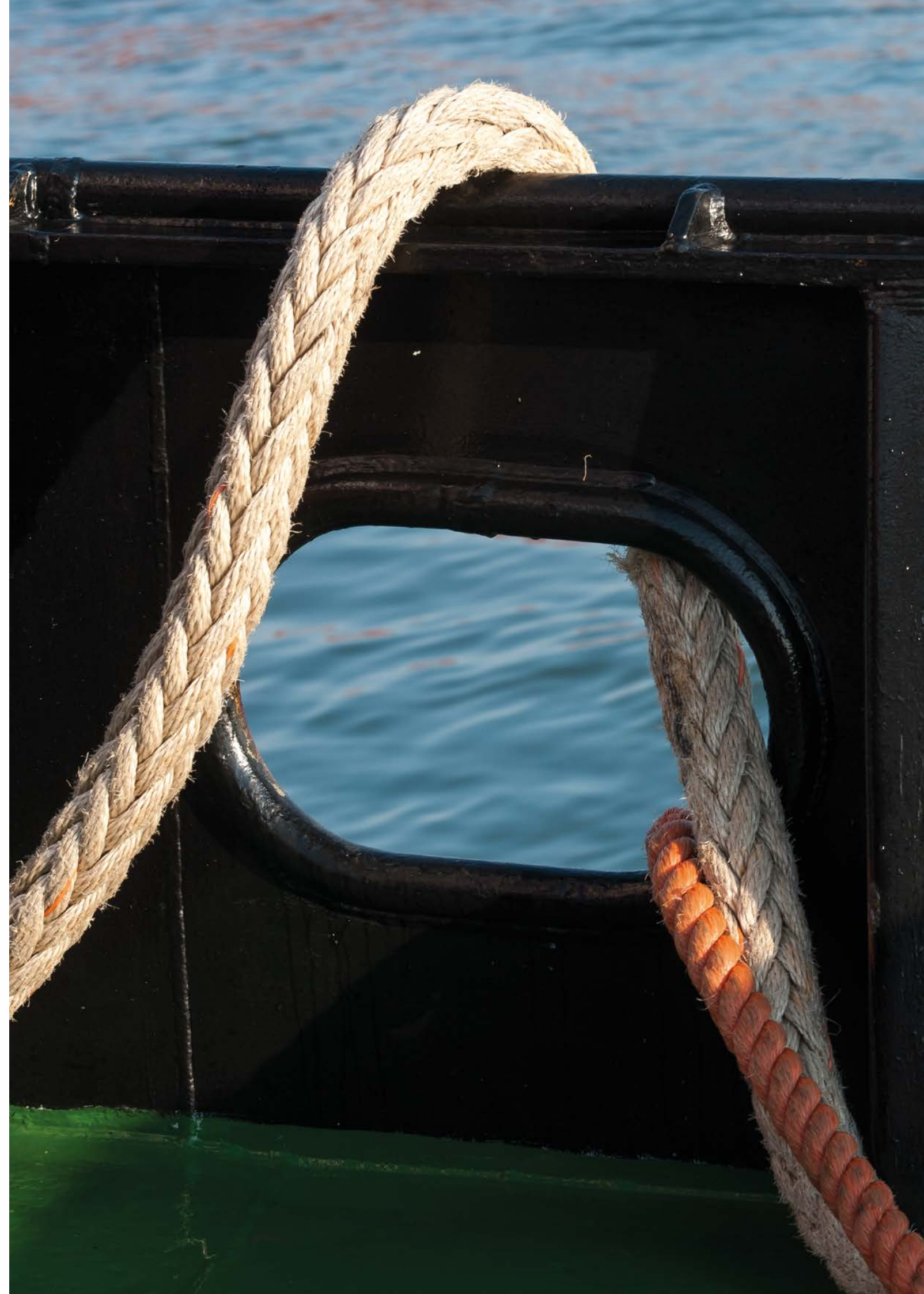
Cmc supports cultural association **Circolo Cooperatori di Ravenna**, for the spreading and promotion of cooperative values.

Cooperative support

A 3% share of Cmc's profits (€ 53,000.00 in 2017) is destined to mutual funds for the promotion and development of cooperation.

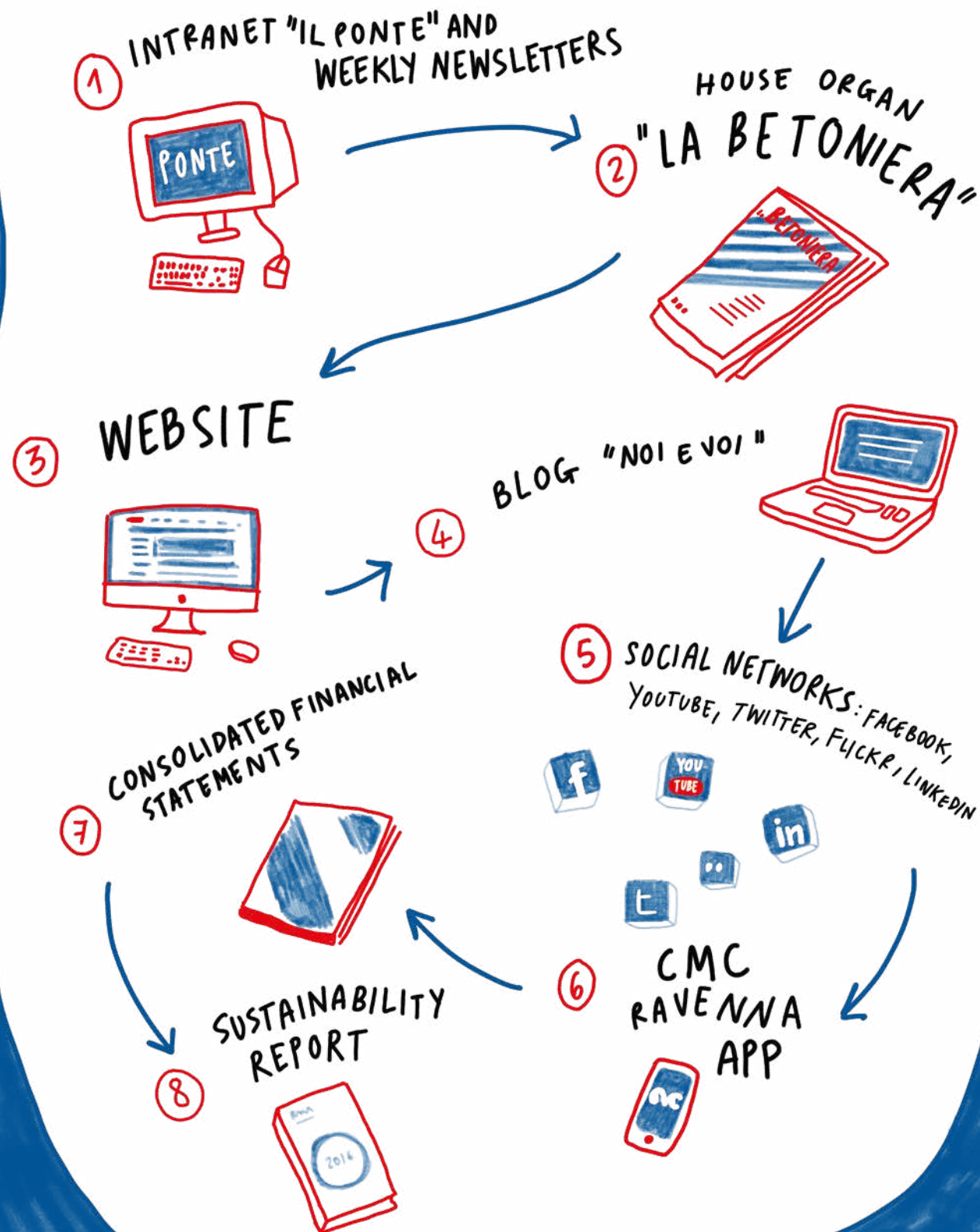
In 2017, a total of € 275,000.00 was donated to various associations in the cooperative movement.

In 2017, Cmc supported the "Coopstartup Romagna" competition project, promoted by Legacoop Emilia Romagna, offering tutor and expert support and free training programs to enable young people aged 18 to 40 to acquire the knowledge and competencies they need to set up cooperative start-ups.



3.3

STAKEHOLDER ENGAGEMENT



I communicate ergo sum

Stakeholder engagement activities vary based on the level of priority assigned to each category and their level of dependence and interconnection. Stakeholder engagement is key to understand the changes (potential or actual) that may follow from decisions, activities or initiatives adopted by the Cooperative.

Dialogue and engagement options are flexible and diverse, depending on the characteristics of each stakeholder group.

For Cmc, communicating does not simply mean informing. Rather, it means creating a relationship with stakeholders - internal and external, local and international.

Members and workers are the Cooperative's beating heart. This is why communication is vital to convey clear and transparent information on corporate strategies, targets achieved and new challenges ahead. Our key communication instrument is for them.

During 2017, our intranet platform **"Il Ponte"** (the Bridge) published **306** pieces of news. It also registered over **8,000** contacts and more than **172,000** pages were viewed.

Throughout the year, **50** newsletters were sent out, with the related news also published weekly on the intranet.

"La Betoniera" (The cement mixer) is the Cooperative's house organ. Published in both Italian and English, its audience includes members, workers and stakeholders. In 2017, **4** issues were published and as many as **10,000** copies were sent out worldwide. As well as in paper format, "La Betoniera" is also published on the Cooperative's website and on the Cmc Ravenna app.

The Cooperative's website, available in both Italian and English, is the quickest and most immediate way to learn about Cmc's varied universe. In 2017, the website recorded over **104,000** contacts and almost **400,000** pages were viewed.

The blog "Noi e Voi" (You and Us) is another useful and fast means of communication in the Cmc world. In 2017, the blog registered over **21,000** visits.

In a world that is increasingly connected, **social networks** are - for Cmc too - an important channel to reach a wide variety of parties.

At the end of 2017, Cmc’s **Facebook** page had approximately **4,000** users. Our videos on **YouTube** had reached over **22,000** views and our photos on **Flickr** had more than **1 million** clicks. **Linkedin** is the preferred social network to stay up to date with Cmc’s placement and job opportunities.

The **“Cmc Ravenna” App** allows users to quickly view and download financial statements, the house organ and (in the area reserved for Cmc workers) information on the various work sites.

Financial communication

Investors and the financial community as a whole are important stakeholders who represent a key focus in Cmc’s communication strategy. As well as the Consolidated Financial Statements (which are published every year in both Italian and English), all quarterly financial reports are also available in the dedicated website section, specifically reserved for investors.

Social communication

Non-financial results are collected and reported annually in the Sustainability Report, published in both Italian and English, offering an overall picture of social and sustainability results achieved by the Cooperative, in addition to financial ones.

3.4

CMC MEETS THE STAKEHOLDERS

Seminars and study conferences

Numerous important events were held in 2017 involving the Cooperative’s stakeholders (clients, suppliers, financial community), including a range of seminars and workshops on specific topics.

Conference - **“Ocean Engineering Research and Applications”**, organized by engineering association Associazione di Ingegneria Off-shore e Marina.
Ancona – October

Conference - **“Why is Brick-and-Mortar Obsolete”**.
Faenza – September

Seminar - **“BIM – Construction Management Platform”**.
Ravenna, Cmc Head Office – June

Conference - **World Tunnel Congress**.
Bergen, Norway – June

Meeting – 3rd **Italy-Thailand Business Forum**.
Milan – May

Conference - **Swiss Tunnel Congress**.
Lucerne, Switzerland – May

Seminar on the **use of fiber-reinforced concrete**, sponsored by Italian tunneling association Società Italiana Gallerie.
Rome – May

Seminar on **anti-bribery legislation and the 231 system**.
Johannesburg, South Africa – April

Master – 3rd **Master in Corporate and Economic Criminal Law**, organized by Bologna’s Alma Mater Studiorum University, Department of Legal Science.
Ravenna, Cmc Head Office – March

Conference series – 16th **Rock Mechanics and Engineering Conference Series**, organized by the Turin Polytechnic.
Turin – February

Workshop **“People and meeting management”**.
Ravenna, Cmc Head Office – February

Delegation visits

Delegations from **Saudi Arabia, Zambia, Georgia, Kenya** came to visit us at our head office in Ravenna, as well as at some work sites in Italy.
Delegations of students, engineers, architects and journalists visited many of Cmc’s Italian work sites. The Italian ambassador came to visit our **work sites in Algeria**, while the Swedish Prime Minister visited our **Stockholm bypass work site**.

The **President of Namibia** visited our work site in the African country.

Meetings with the financial community

Entry into the financial market means the Cooperative is now kept under close scrutiny by rating agencies, who are now constantly assessing its credibility and solvency, as well as its ability to generate the resources it needs to meet obligations towards creditors. Standard & Poor’s and Moody’s have rated our bonds as **B and B2**, confirming their positive judgement and thus consolidating Cmc’s position on the financial markets.

Cmc conducts regular meetings with investors, lending institutions and rating agencies throughout the year.

Projects and relations with stakeholders

Cmc has always paid great attention to the needs of the communities in which it operates, including through its support to social, cultural and sports events and initiatives.

In 2017, a decision was made to rationalize expenditure relating to sponsorships and donations, in an effort to focus more on corporate welfare policies.

In 2017, Cmc took part in the project **“Social responsibility in business networks. Reaching a new balance between business competitiveness, people welfare and environmental protection”**, promoted by the Emilia Romagna Regional Council and the Chambers of Commerce of Ravenna and Ferrara: an incubator program conducted in cooperation with other local businesses to generate ideas and initiatives on corporate welfare, sustainable mobility and sustainable tourism.

In 2017 Cmc also confirmed its support in the initiative promoted by the Municipality of Ravenna **“Adopt a social project, make solidarity part of your business”**.

As part of this project, Cmc *“adopted”* (by providing funding) three associations that work with disability: sailing association **Marinando Ravenna**, mental health support association **Ama la Vita** and amateur sports association **Terapia Judo**.

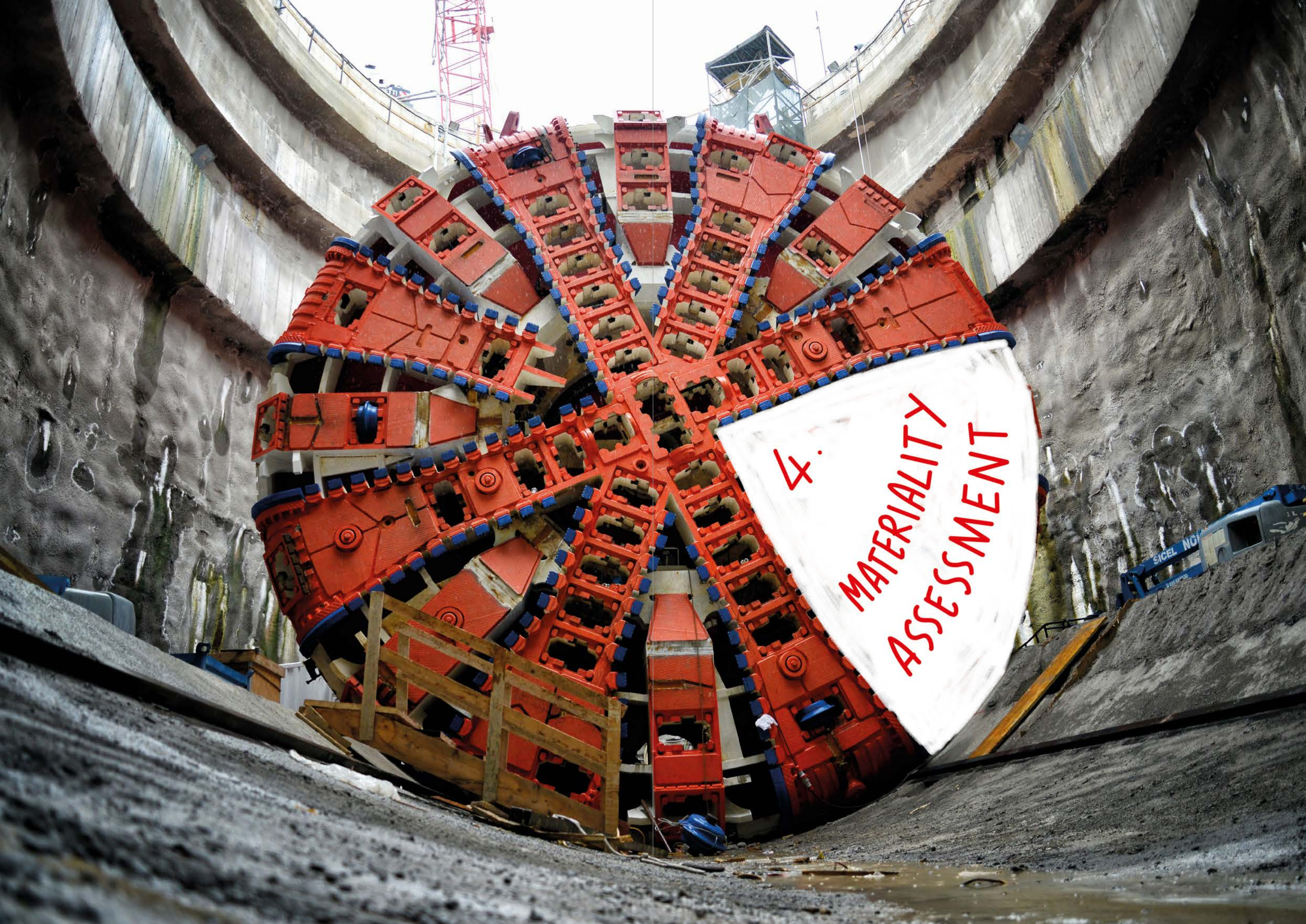
"Salvatore Fazio" Thesis Prize

The "Salvatore Fazio" geotechnical thesis prize has been awarded by Cmc since 2013, in cooperation with the Department of Civil and Environmental Engineering of the University of Catania. This is an important prize, whose aim is not only to remember a young engineer who died at a very young age, but also to interest students in a subject of great relevance. Student participation is always high, with an average of 30 theses being submitted.

Ravennantica Foundation and Antico Porto di Classe Archaeological Park

Cmc also sponsored the creation of two new classrooms at the Antico Porto di Classe Archaeological Park. The classrooms are dedicated to the memory of Massimo Matteucci, who was president of Cmc for 21 years and died before time in August 2017.





4.
MATERIALITY
ASSESSMENT

4.1

RELEVANT ASPECTS: MATERIAL TOPICS

Materiality
assessment

A materiality assessment is used to determine what aspects are most relevant and most important to a business and its stakeholders. The process allows to identify **sustainability issues** that have significant impacts (positive and negative) for both the business and its stakeholders, in terms of governance and of the various sustainability areas: economic/financial, environmental and social. The assessment was conducted consistently with the GRI Standards, which have been adopted as the chosen reporting system for the purposes of this Sustainability Report.

In particular, the process was structured as follows:

mapping of stakeholders and of the outcomes of engagement activities/findings and assessments;

identification and internal assessment of material topics based on the business model, industrial plan and policies adopted by Cmc;

assessment and comparison against some of the main players in the industry (internationally).

The identification of potentially material issues has involved reviewing of documents, external engagement activities and internal engagement activities. The identification process has taken into due consideration the Sustainable Development Goals (SDGs) established by the United Nations.

As part of its systematic internal engagement process, Cmc has identified and shared material issues and their scale of priority.



A profile assessment of the various categories of stakeholders and the *engagement* activities conducted have allowed to identify and *map out* the main expectations of Cmc’s stakeholders.

Stakeholders	Expectations
Members	<ul style="list-style-type: none">• Working members and investor members expect the Cooperative to pursue its <i>mission</i>, while abiding by its values of integrity, transparency, social responsibility and attention to others.• Member bonuses, revaluations and dividends in relation to their shares and/or deposits.• Creation of work.
Management	<ul style="list-style-type: none">• Profitability.• Financial sustainability.• Ethical conduct and integrity.• Fight against corruption.• Personal and professional growth of workers.• Health & safety in the workplace.• Quality.
Working members and workers	<ul style="list-style-type: none">• Sufficient profitability, allowing the Cooperative to continue its operations as a going concern and self-finance its development.• Personal fulfilment and professional growth (work, training, equal opportunities, diversity).• Human rights.• Health & safety in the workplace.• Ethical conduct and integrity.• Fight against corruption.
Clients/employers (public and private)	<ul style="list-style-type: none">• Completion of works within the time schedule and in the manner agreed.• Efficiency and quality of work.• Human rights.

	<ul style="list-style-type: none">• Health & safety in the workplace.• Ethical conduct and integrity.• Fight against corruption.• Transparency.• Environmental protection.• Attention to local communities.
Suppliers and commercial partners	<ul style="list-style-type: none">• Honest and lasting commercial relations.• Compliance with contractual terms and conditions.• Fair and transparent supplier selection and evaluation procedures.• Human rights.• Health & safety in the workplace.• Ethical conduct and integrity.• Fight against corruption.
Investors	<ul style="list-style-type: none">• Economic and financial performances.• Direct and indirect economic impacts.
Auditing bodies and authorities	<ul style="list-style-type: none">• Compliance with national and international legislation.• Fight against corruption.• Compliance with procedures and certifications.
Local and international communities	<ul style="list-style-type: none">• Direct and indirect economic impacts.• Environmental protection.• Protection of rights of indigenous populations.• Human rights.• Ethical conduct and integrity.• Fight against corruption.• Dialogue.

RELEVANT ASPECTS

Area	Material topic
Governance & Compliance	<ul style="list-style-type: none">• Ethical conduct and integrity.• Values, principles and behavioral standards.• Compliance with national and international legislation.
Economic /Financial	<ul style="list-style-type: none">• Direct economic value generated and distributed.• Financial sustainability.
Environment	<ul style="list-style-type: none">• Efficient management of resources (materials, energy, water, emissions, waste effluents and solid waste products).• Biodiversity, environmental compliance.
Personnel /Human Resources	<ul style="list-style-type: none">• Workers’ health & safety• Training and education.• Employment.• Human rights (child labor, forced or compulsory labor).• People’s fulfilment – Focus on professional growth.• No discrimination, diversity and equal opportunities.• People’s welfare and well-being.
Clients	<ul style="list-style-type: none">• Efficiency and quality of work.• Compliance with contractual terms and conditions.
Supply chain	<ul style="list-style-type: none">• Fair and transparent supplier selection and evaluation procedures.
Community and territory	<ul style="list-style-type: none">• Relations with local communities.• Attention to the development of the local communities and area.• Rights of indigenous populations.



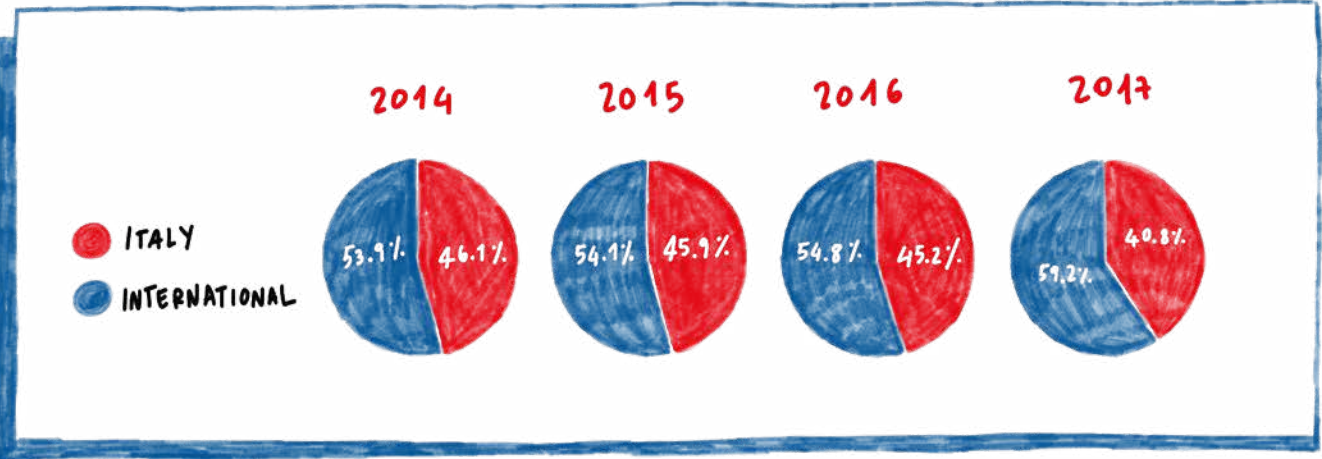
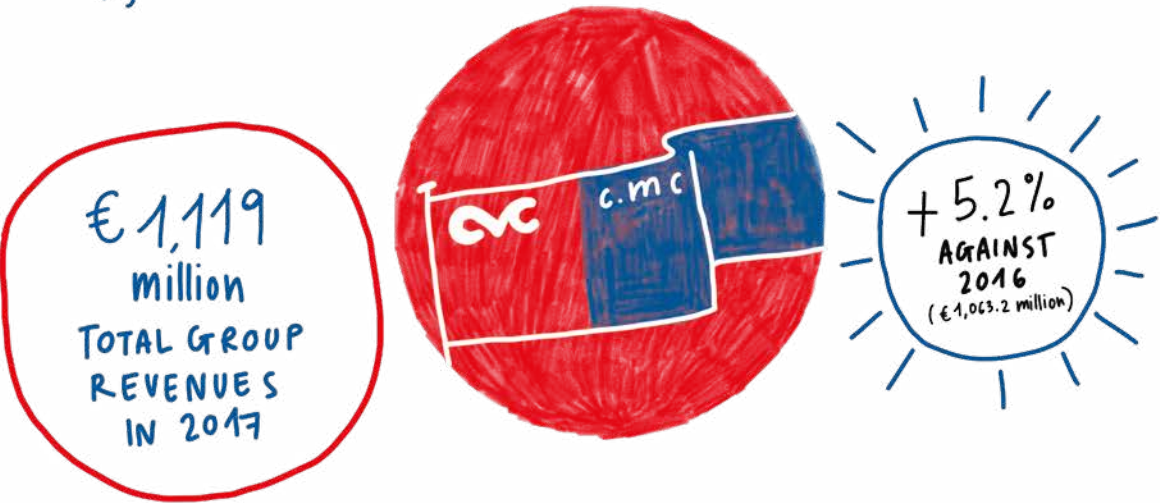


5. ECONOMIC AND FINANCIAL PERFORMANCE

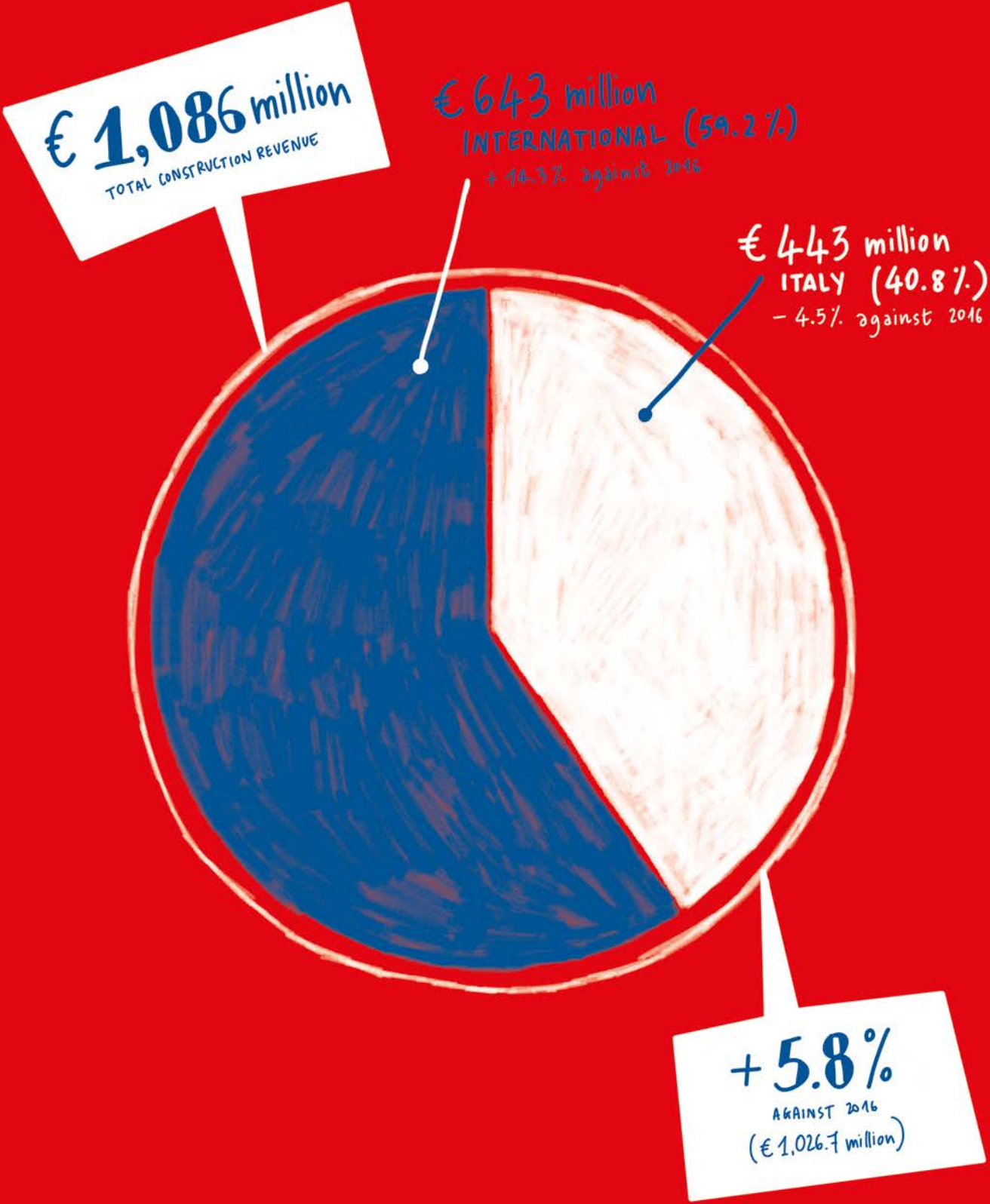
5.1 BUSINESS AND MARKETS

Our 2017 results represent the reality of a business that has been able - through constant focus and determination - to achieve the economic and financial goals of its Industrial Plan, even at these hard times. These results strengthen Cmc's positioning at the top of the domestic construction market.

Consistently turning over more than one billion euros since 2013, and showing a growth against 2016



2017 CONSTRUCTION REVENUE



THE REFERENCE MARKETS

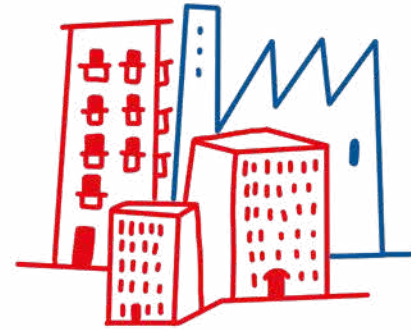
CONSTRUCTION REVENUE BY SECTOR: 2017 DATA

BUILDING PROJECTS

+7.6% AGAINST 2016



- RESIDENTIAL BUILDINGS
- HOTELS AND RESORTS
- OFFICE AND SERVICE BUILDINGS
- CIVIL AND PUBLIC BUILDINGS
- INDUSTRIAL BUILDINGS
- RESTORATIONS AND REFURBISHMENTS

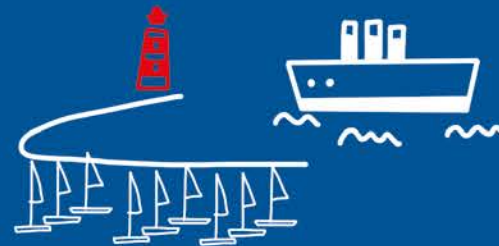


WATER CONTROL AND MARINE

-3.8% AGAINST 2016



- COASTAL CONTROL SYSTEMS
- PIERS AND DOCKS
- DREDGING

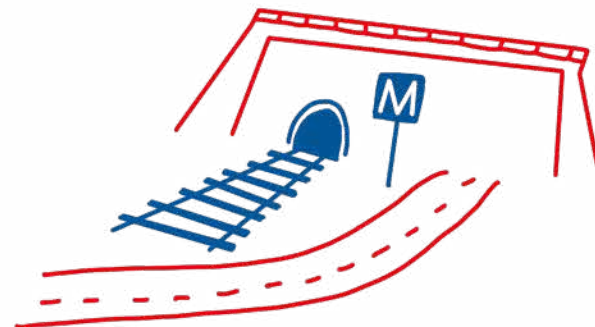


TRANSPORTATION

+0.1% AGAINST 2016

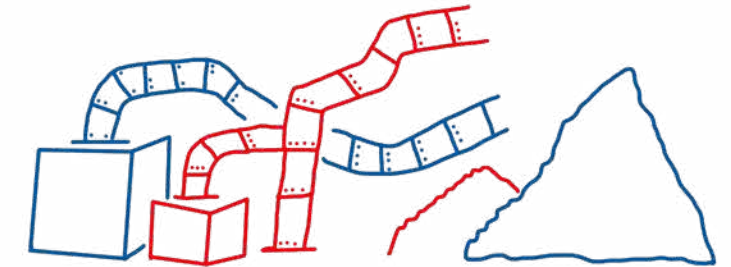


- RAILWAYS AND SUBWAYS
- ROADS AND MOTORWAYS



MINING AND WASTE TREATMENT

-3.9% AGAINST 2016



WATER AND IRRIGATION

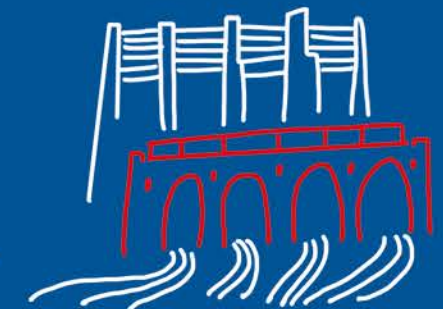
+22.8% AGAINST 2016



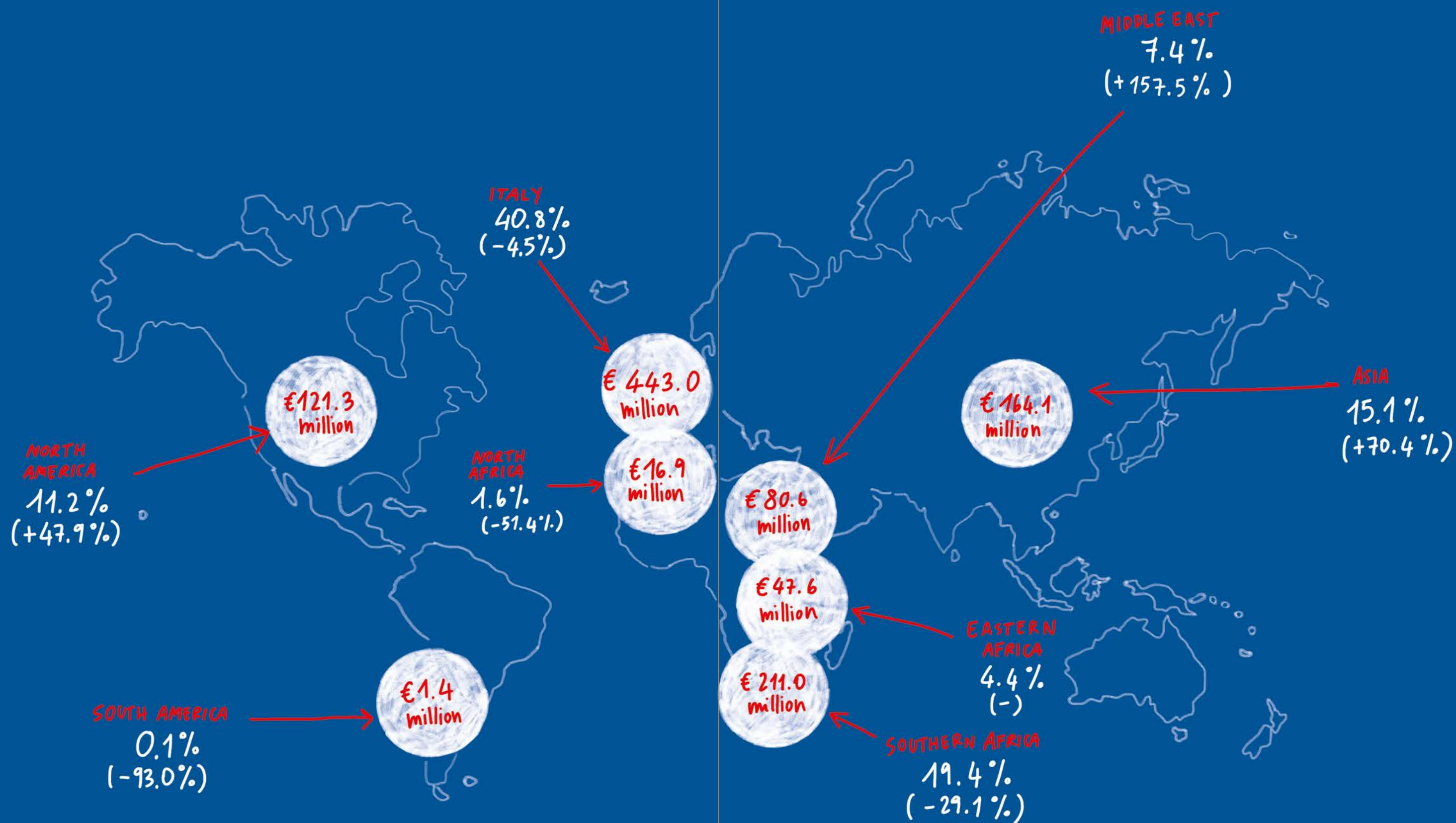
- WATER SUPPLY SYSTEMS AND IRRIGATION CHANNELS
- DAMS
- HYDRAULIC TUNNELS AND HYDROELECTRIC PLANTS

SEWAGE AND WATER TREATMENT

- SEWAGE SYSTEMS
- WATER TREATMENT AND SANITATION SYSTEMS
- WATER PURIFICATION SYSTEMS



CONSTRUCTION REVENUE BY GEOGRAPHICAL AREA - 2017



ECONOMIC VALUE GENERATED AND DISTRIBUTED

The tables provided have been prepared using the data contained in Cmc's Consolidated Financial Statements for the reporting period, for the purpose of highlighting the economic value that was directly generated and distributed to internal and external stakeholders.

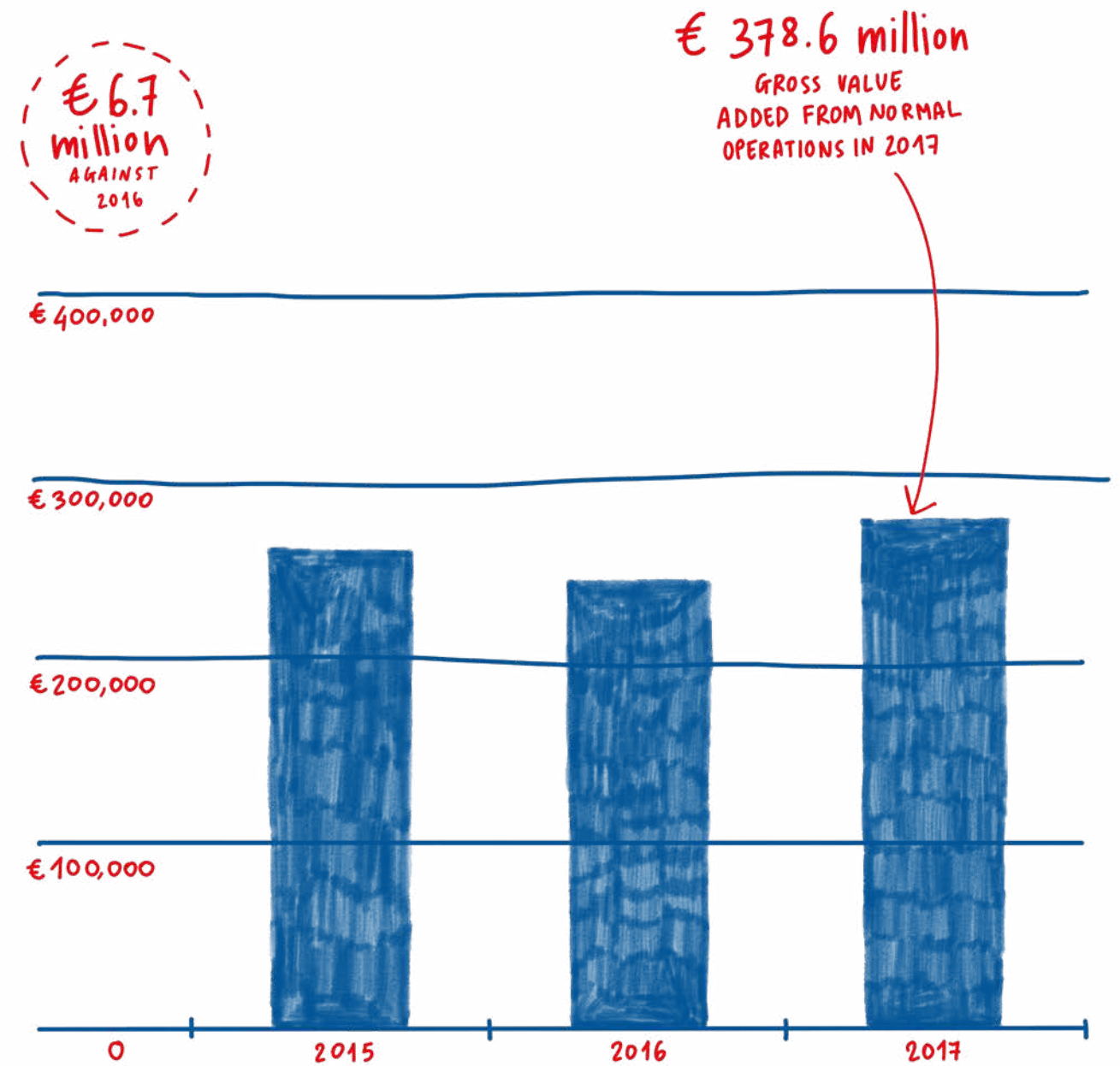
Value added is determined by setting the value of production against the costs incurred for its creation, thus allowing to establish the ability of the business to generate value and produce a return for the inputs introduced into the production cycle.

In particular, in this Sustainability Report, value added is determined as the difference between revenues and the costs of production that are not a return for the business stakeholders. The determination of value added allows to calculate how much **wealth** has been **produced by the Cooperative**, how it has been created and how it is distributed to the relevant parties, as well as to identify the economic impacts produced by the business.

Economic value generated shows revenues and other revenues net of any adjustments for losses on bad debts, while economic value distributed considers reclassified costs per stakeholder category.

In 2016, a total of € 715,000 was distributed to members by way of return on the Cooperative's capital. In 2017, € 282,000 were assigned as a revaluation of shares held by working members and investor members.

With reference to the same periods, Cmc achieved a consolidated net profit of € 26.8 million in 2017 and € 9.1 million in 2016. The economic value retained corresponds to the difference between economic value generated and economic value distributed and essentially includes depreciation and deferred taxation. For further information, please refer to our Consolidated Financial Statements.



DISTRIBUTION OF ECONOMIC VALUE

Amounts in thousand euros	2017	%	2016
ECONOMIC VALUE GENERATED	1,113,139		1,062,881
Suppliers-Operating Cost	(739,689)	72.09 %	(708,075)
Human resources-Personnel costs	(202,467)	19.77 %	(198,255)
Banks, other lenders and financial charges	(64,570)	6.29 %	(44,665)
Tax authorities-Tax	(17,013)	1.66 %	(19,958)
Local community, territory and social activities	(1,943)	0.19 %	(1,855)
TOTAL	(1,025,682)		(972,808)
Dividends distributed, financial charges and members' deposits	(446)	0.04 %	(918)
ECONOMIC VALUE DISTRIBUTED	(1,026,128)		(973,726)
ECONOMIC VALUE RETAINED	91,051		89,155

5.3

INVESTMENTS

Cmc operates in the field of large infrastructural projects in Italy and internationally.

The Cmc Group is among just a few Italian General Contractors that are qualified to tender in large-size contracts, including for the construction of motorways, road/railway tunnels, dams, water supply systems, hydroelectric plants and ports. Over the years, Cmc has strengthened its position on both the Italian and the international markets and has become a key player in the construction of large infrastructure projects designed to improve quality of life.

These are projects that require major financial outlays, mostly in relation to the plant and machinery that are necessary for construction activities, including in terms of work site logistic infrastructure, machinery and equipment.

As part of its ordinary activities, Cmc also invests in special purpose entities, created especially for specific projects.

TOTAL INVESTMENTS IN TANGIBLE AND INTANGIBLE ASSETS:

**IN 2017 AMOUNT TO
€ 76.4 MILLION**

Capital providers

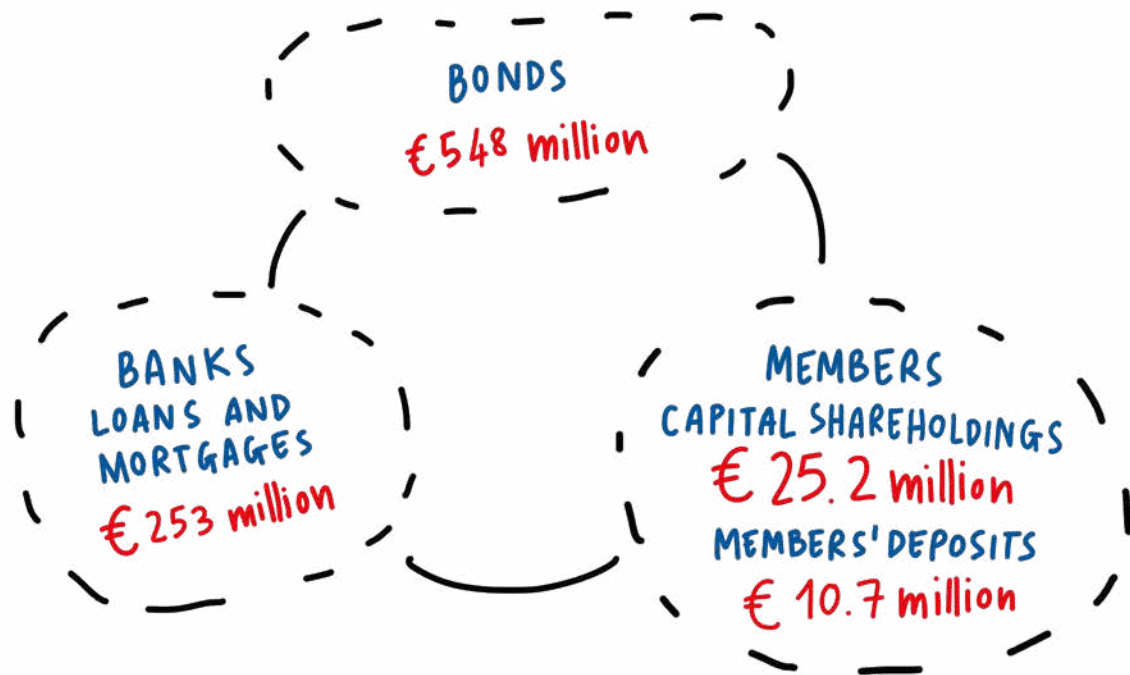
Cmc became the first cooperative in the world to issue - in 2014 - bonds that were listed on the Milan and Luxembourg stock exchanges.

In 2017, Cmc proceeded to complete two more bond issues.

2016 and 2017 marked some important milestones in the Cmc Group’s financial strategy, aiming to improve the liquidity profile and balance of its debt structure and facilitate the pursuit of its business goals, involving a growth in volumes and the expansion of international operations into new countries. With funds raised in 2017, Cmc was able to refinance its existing debt.

In November 2017, Cmc completed a new unsecured senior bond issue worth € 325 million, with a 6% coupon and a 2023 maturity. The bond was assigned a B rating and a B2 rating by rating agencies S&P and Moody’s respectively. Proceeds raised were used for early redemption on the bonds issued in 2014 (7.5% coupon and 2021 maturity), enabling Cmc to extend deadlines and reduce financial charges.

Diversification in financial policies grants Cmc increased stability to sustain its international growth.



Specialist competencies

Over the years, Cmc has been able to develop a range of skills that are now the key elements of its competitive advantage. Starting from the 80s, Cmc has been a pioneer in **mechanical excavation**, a competence area that, together with other factors, has enabled it to become a leader in the construction of complex underground infrastructures, specializing, in particular, in the use of **Tunnel Boring Machines (TBMs)**.

Every year, Cmc invests some 30 million euros in TBMs and in the related applied technology. The machines we use are efficient, have hybrid characteristics and ensure high performances in the excavation of various ground types.

The success of a mechanical excavation project depends on **good initial design and planning**, on the performances and **efficiency of the machines** used and, last but not least, on the abilities and **professionalism of the personnel** employed. Indeed, it is a matter of deploying an “enhanced” organizational effort on all levels (organizational, logistic, personnel, training, health & safety, etc.).

Cmc uses highly-skilled personnel in all of its work sites worldwide: a choice of 100/120 work site technical staff, of various nationalities, with a high level of competence and expertise in excavation activities.

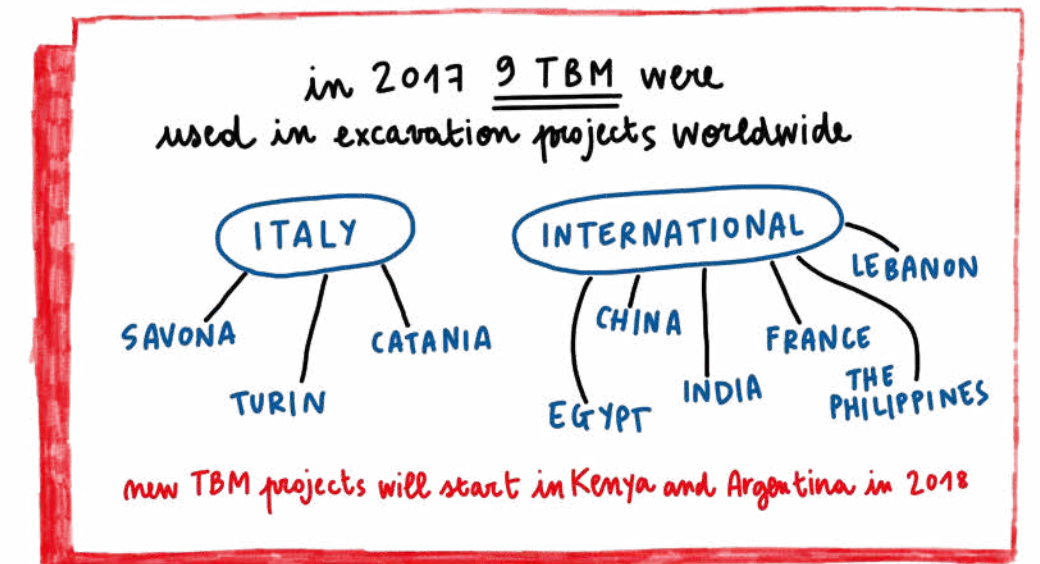
Electronics also plays a key role. Nowadays some excavation-related activities can even be controlled remotely.

Attention to innovation and training (especially of local personnel) and cooperation with all technical partners are crucial. Cmc takes part in various events and conferences, with the aim of illustrating the expertise it has acquired in mechanical excavation.

University students frequently visit our work sites in Italy and abroad to learn more about tunnel boring and mechanical excavation methods - through the use of TBMs in particular.



New technologies and new projects



Cmc places great attention on innovation and on the testing of new technologies and materials, especially in the environmental, renewable and sustainability fields.

ENERTUN – The first heat-exchange segment in Italy

Cmc - through its consortium Italia 61 (in which it holds a 95% interest) - has entered into a memorandum of understanding with the Turin Polytechnic and with its client InfraTo Spa for the experimental design and construction of **heat-exchange segments** to be installed in the tunnel that it is currently building as part of the Turin underground railway system (Lingotto – Bengasi section - Line 1).

We are talking of a highly innovative, environmentally-friendly and sustainable project, allowing to generate, at almost zero cost, approximately 1 MW of energy per km of tunnel, which is expected to be sufficient to ensure enough heating, cooling and hot water for approximately forty 7-storey energy-class A apartment blocks.

Measuring activities of the energy produced are already under way and the first data show very promising results, even better than estimated using the mathematical models.

Cmc has been involved in various projects and initiatives supporting research and innovation applied to building processes.

Smart City Exhibitions Cmc is a regular participant in the event dedicated to smart city policies.

R2B – Research to Business Cmc takes part in the International Industrial Research Exhibition, devoted to smart technological solutions applied to the construction industry.

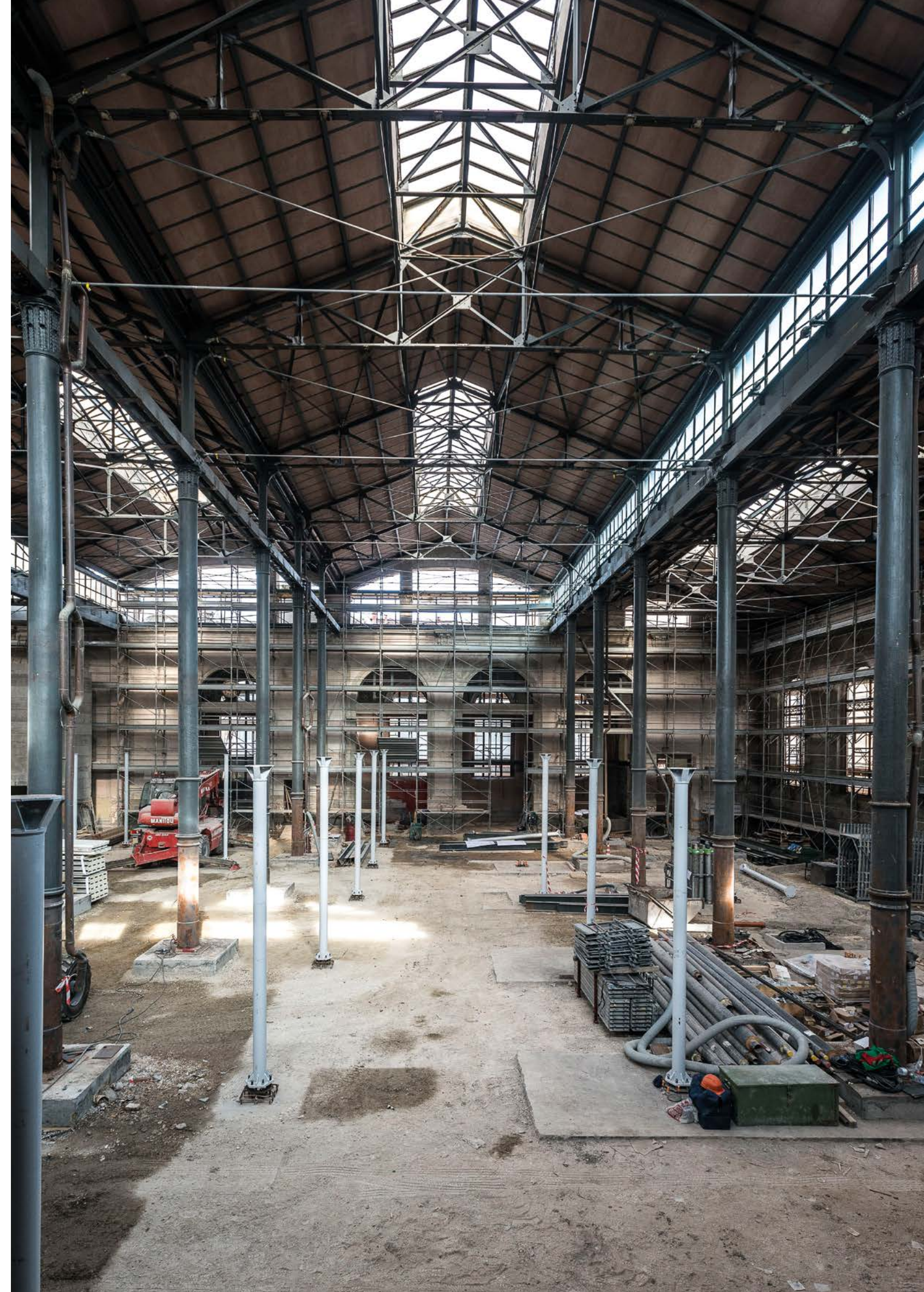
RIGERS – City regeneration: smart buildings and grids Cmc continues its cooperation - together with other partners (including ICIE, the *Cooperative Institute for Innovation*) - in the RIGERS project, for the development of innovative technological solutions and the planning and simulation of regeneration interventions. The project looks to develop an *integrated building regeneration system*, with the aim of increasing the welfare and quality of life of city-dwellers, through a multi-objective approach on more levels (energy, environmental, functional, earthquake resistance).

For the year 2018, Cmc is planning prototype application in a new project for the construction of **wooden dwellings using CLT technology** (innovative applications making wide use of dry technologies), as well as the testing of new solutions for the improvement of thermal, acoustic, structural and seismic isolation of the building envelope.

Cantiere Smart 2.0

Cmc is also involved in the Cantiere Smart 2.0 project, using *Internet of Things*, *Big Data* and *Business Intelligence* solutions to apply the key features of a smart factory environment to the construction industry. The project seeks to make the building process more transparent for both the client and the contracting authority, to increase the level of documented work site safety, as well as to improve quality control and monitoring throughout the building process. During 2017, Cantiere Smart 2.0 solutions were pilot tested at the **Ravenna Indoor Market** rehabilitation work site.

In 2018, testing will be extended to other work sites. Systems may be designed to immediately meet site-specific requirements and develop to adjust to the peculiar features of each work site through new functions and capabilities.





6. THE ENVIRONMENT

THE ENVIRONMENTAL SUSTAINABILITY POLICIES

Cmc builds infrastructures and buildings designed to improve quality of life for people worldwide. The protection of the environment and of its natural resources is therefore strictly connected with its activities.

The notion of sustainability is associated with that of quality of life and work and, consequently, with that of a healthy and safe environment.

In 2017, Cmc made it its goal to implement the environmental sustainability goals set out by the Italian government and the international community, pursuing:

improvement of performances in waste prevention and adoption of new strategies for the reduction of pollution and energy consumption;

identification of the best technologies to gradually improve energy and environmental efficiency and savings, at both the Cooperative's head office and the various production units.

Energy Manager

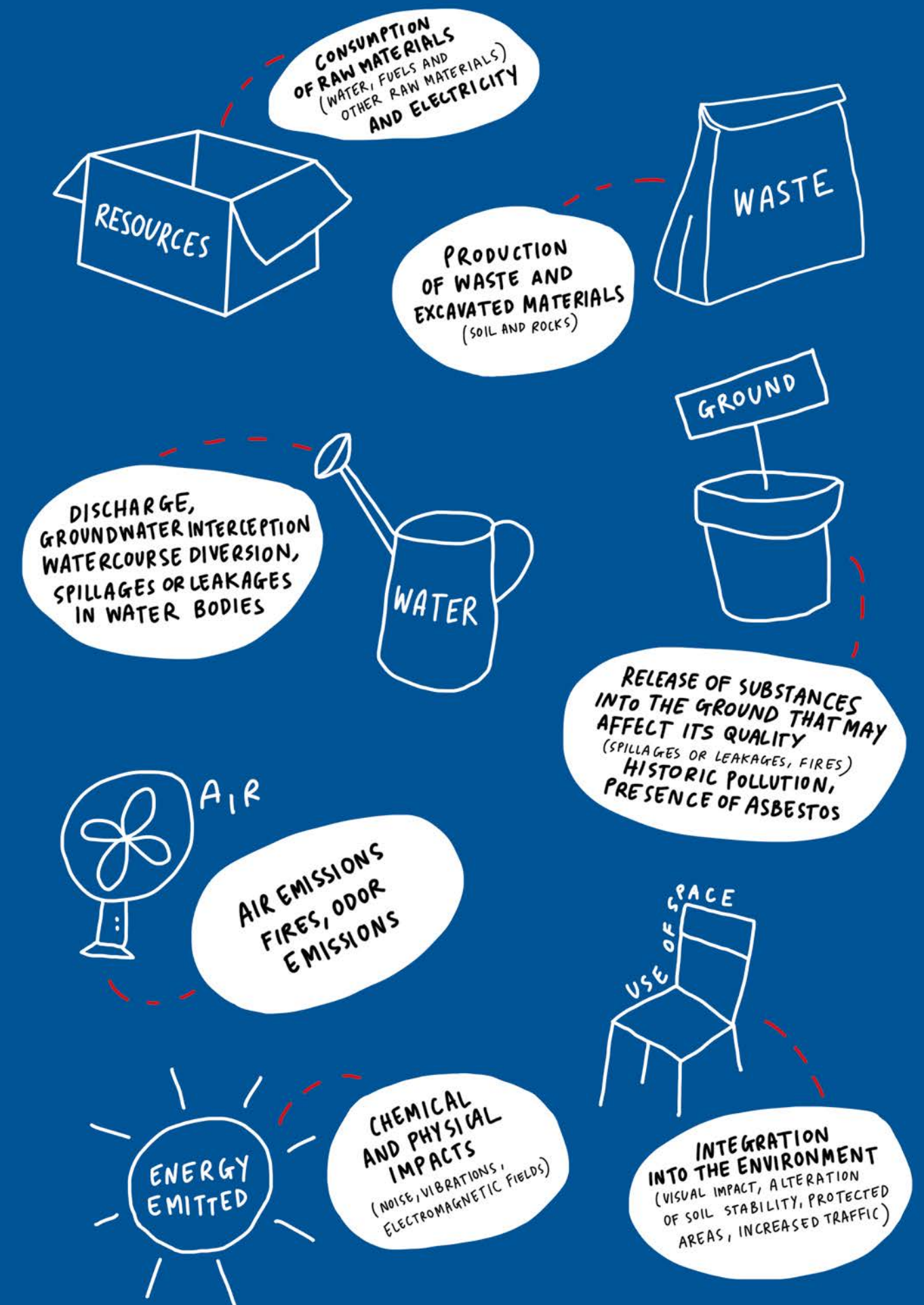
In 2016 Cmc appointed its *Energy Manager*, who is responsible for:

identifying actions, initiatives and procedures designed to promote a rational use of energy;

ensuring that energy footprints are prepared, taking also into consideration economic parameters and final energy uses;

preparing energy data for the verification of actions conducted using government grants.

During 2017, the newly-appointed Energy Manager concentrated efforts on supporting projects for the reduction of energy costs and consumption and the simultaneous improvement of competitiveness through an efficient use of resources (energy, environmental, water, materials, waste, etc.) in all stages of good and service production and throughout the value chain.



Improved head office sustainability and energy efficiency

In 2016, Cmc conducted an energy audit of its head office building in Ravenna. The audit report, prepared in accordance with Italian Legislative Decree No. 102/2014 on the energy efficiency of buildings (consumption of electricity, heating, etc.), identified a range of actions and recommendations to increase energy efficiency, especially in technical/operating terms.

Ordinary and extraordinary maintenance activities carried out at the head office building in 2017 were planned and conducted in line with the indications provided in the above energy audit.

Training/information

A range of in-house training/information activities were conducted in 2017 to raise user awareness on energy issues and responsible persons. These were completed with an extensive communication action, including articles published on the Cooperative’s intranet.

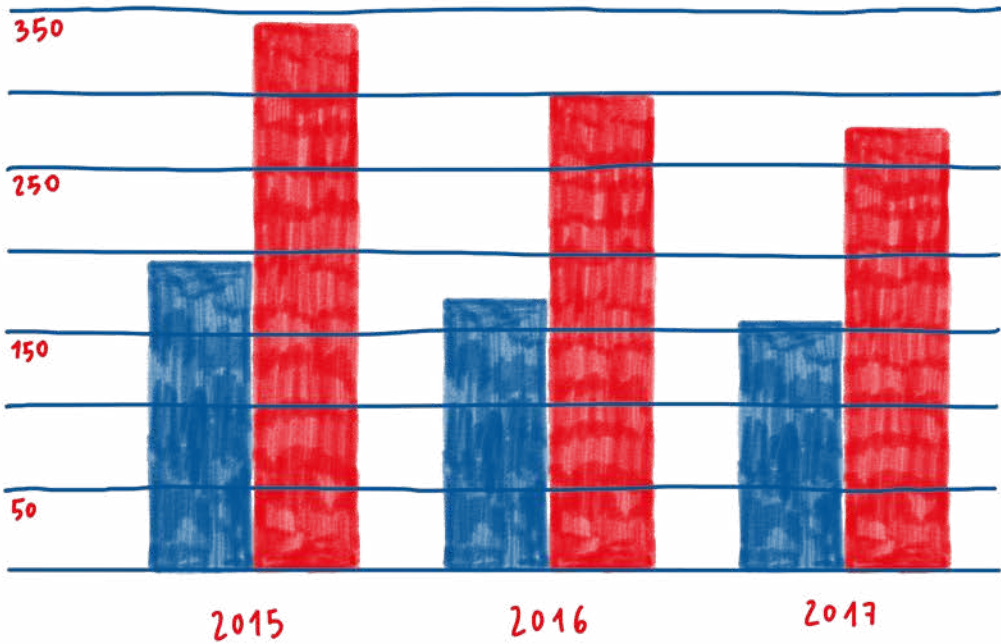
Electricity and lighting

In 2016, Cmc replaced 1,400 lighting fixtures in its offices, parking lots and warehouses at its Ravenna head office, switching from traditional lighting to **LED-technology** lighting, with the aim of optimizing the existing system, as well as **reducing consumption** and running costs, through a decrease in energy requirements.

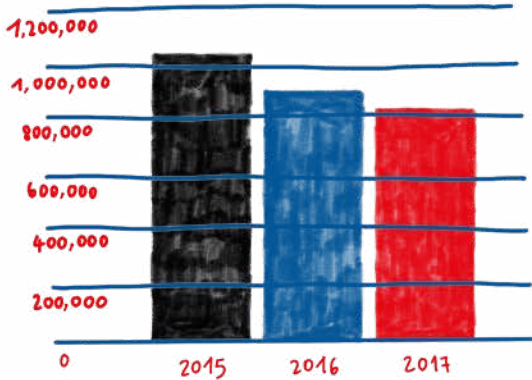
Overall, switching to LED lighting allowed to decrease electricity consumption by 25.7%, with savings totaling € 51 thousands.

ENERGY CONSUMPTION - RAVENNA HEAD OFFICE

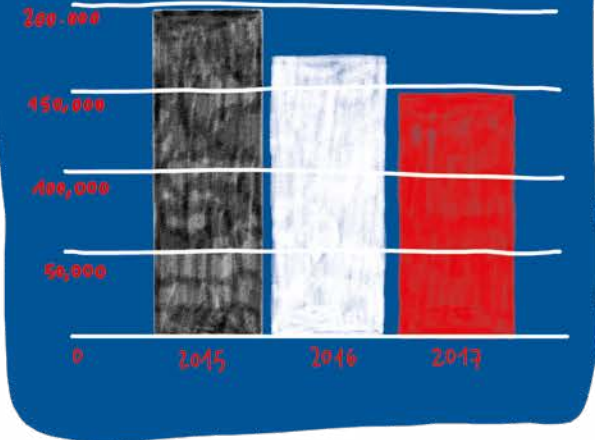
METRIC TONS OF OIL EQUIVALENT - 36.87 (TOEs)
METRIC TONS OF CO₂/YEAR EQUIVALENT - 65.4 OF CO₂/YEAR



ELECTRICITY CONSUMPTION (KWh) - 197,178



OVERALL ELECTRICITY EXPENDITURE (€) - 50,465.98



6.2

THE ENVIRONMENTAL MANAGEMENT SYSTEM

Cmc promotes sustainable behaviors and actions and seeks to achieve a rational use of resources, with a view to avoiding waste and protecting social and environmental aspects throughout the infrastructure construction process.

The Environmental Management System (EMS) is the operating tool (certified to standard UNI EN ISO 14001 and adopted by Cmc in all its work sites since 2008) that is used for the management of all site activities that are relevant in terms of environmental protection, environmental performance improvement and environmental policy implementation.

The EMS is applied in the various work sites through project-specific **Environmental and Social Management Plans**, aiming to ensure:

- implementation of environmental policies;
- compliance with applicable environmental requirements over time;
- prevention of non-conformities during operations;
- continual improvement of operating practices;
- availability of the financial, technical and human resources required for correct system operation.

Each project-specific Environmental and Social Management Plan takes into consideration all the possible environmental aspects that can be anticipated, in practice or in theory, in relation to the operations conducted, as grouped into the categories below.

Inspections and audits

Compliance with the environmental requirements and prescriptions applicable to the specific project is verified by the responsible site personnel through dedicated system inspections and audits. The EMS also requires the execution of periodical reviews, during which the EMS Manager discusses the general environmental conformity of site activities with the Site Construction Manager and improvement goals are planned jointly by the parties.

Training and information

Correct operation and effectiveness of the EMS are strictly connected with the awareness of all personnel regarding the aims of the system and the acquisition of the necessary competencies by those whose activities can have an impact on environmental aspects (therein including all personnel utilized by contractors, sub-contractors, work providers and suppliers). Cmc also ensures that all personnel used by third parties, contractors, sub-contractors and suppliers, who operate on behalf of the organization and whose activities may have a significant impact on the environment, have the skills required to satisfactorily complete the activities entrusted to them. The effectiveness of the training and/or information provided is evaluated during internal verifications and/or through evaluation questionnaires to be completed at the end of the specific activity.

Management of environmental emergencies

Consistently with general planning criteria for work site safety in emergency situations, the EMS identifies a specific procedure for the management of emergencies. Specific instructions for the management of emergencies are provided in the EMS operating documents, as well as in the work site Emergency Plan.

Audits

Over the years, goals in terms of environmental protection and sustainable development have become increasingly ambitious. For this reason, the Quality, Health & Safety and Environmental Service (QHSE) conducts a continuous internal auditing action, designed to verify effective implementation and conformity of the various corporate management systems with the relevant international standards. The findings of these activities are reviewed in dedicated reports. Auditing activities at international locations are conducted by selected local firms, meeting the necessary professional requirements. In 2017, seventeen audits were conducted on the Environmental Management System, concurrently with those on the Safety Management System, identifying no need for any corrective actions.

ENVIRONMENTAL INDICATORS: THE DATA COLLECTION PROCESS AND THE REPORTING AREA

Starting from 2017, Cmc has adopted the **GRI Standards** indicators as reference for the preparation of its Sustainability Report.

The environmental data collection process covered an overall area that corresponds to a number of work sites representing on average **50% of the Cmc Group's consolidated revenues**. The environmental data included in this report regard Cmc's most important work sites in Italy and abroad.

Cmc aims to gradually expand its reporting area, so as to ensure **full consistency with the financial data** contained in its Consolidated Financial Statements.

In any case, we believe that the data provided in this Sustainability Report offer an adequate - if not as yet complete - picture of the operations conducted by Cmc, as well as of the environmental impacts generated by the same.

RAW MATERIALS AND OTHER MATERIALS

GRI 301-1

AMOUNT OF MATERIALS USED	UNIT OF MEASUREMENT	2017	2016
AGGREGATES	t	406,688.96	174,726.76
BITUMEN	t	25,274.82	31,486.28
CEMENT	t	78,029.97	60,171.01
REINFORCING BARS	t	760,304.81	1,454,710.40
PRECAST CONCRETE	t	440,060.30	525,591.57
PREMIXED TARMAC	t	135,886.68	52,641.21
PREMIXED CONCRETE	t	251,995.06	244,264.56
TOTAL MATERIALS USED	t	2,098,240.61	2,518,891.79

THE DATA COLLECTED REFER TO A NUMBER OF WORK SITES REPRESENTING 50% OF CMC'S CONSOLIDATED REVENUES

The amount of materials used may vary depending on the type of work to be carried out in the specific site, the percentage of the works that has already been completed, the stage of the works and type of equipment used. Aggregates used for road embankments, road substrates, etc., may be quarried or recovered products (purchase of recycled aggregates).

6.5 ENERGY

AMOUNT OF DIRECT ENERGY USED	UNIT	2017	2016
DIESEL FUEL	GJ	1,296,834.07	879,247.25
GASOLINE	GJ	15,118.98	16,834.31
NATURAL GAS	GJ	729.59	688.63
ELECTRICITY	GJ	115,038.86	76,247.03
TOTAL ENERGY USED	GJ	1,427,721.51	973,017.22
ENERGY INTENSITY	GJ/€ million	2,163.46	1,776.78

THE DATA COLLECTED REFER TO A NUMBER OF WORK SITES REPRESENTING 50% OF CMC'S CONSOLIDATED REVENUES

Just like for materials, the amount of energy used varies depending on the type of work to be carried out in the specific site, the stage of the works and type of equipment used.

The type of energy source used and the related amount are largely affected by the geographical location of the site and the existence of connections to the local electricity grid, if available. In Italy, the use of electricity prevails, while generators are more often used abroad, with consequent consumption of diesel fuel. Natural gas is rarely used on our work sites, as there is a preference to use electrical refrigeration/cooling systems of the heat pump type.

The amount of electricity used in Italy in 2017 was higher than in the previous year, although that was because four TBM machines were employed (TBMs naturally use a high amount of electricity). Indirect use of energy is mostly associated with the fuel used for powering vehicles by sub-contractors undertaking portions of the works on our sites. The data relating to such amounts, which are not included in the Group's reporting area, are not currently available and it has not been possible to adequately assess their value for consistent reporting.

6.6 WATER

AMOUNT OF WATER USED	UNIT	2017	2016
WELLS	m³	16,275.82	6,129.60
RIVERS	m³	68,726.73	43,184.54
LAKES	m³	13,478.00	13,478.00
SEA	m³	-	-
WATER SUPPLY SYSTEMS	m³	309,317.76	62,118.00
TOTAL WATER USED	m³	407,798.31	124,910.14

THE DATA COLLECTED REFER TO A NUMBER OF WORK SITES REPRESENTING 50% OF CMC'S CONSOLIDATED REVENUES

International work sites generally get their water from "direct" natural sources (rivers in particular), as a water supply network is often unavailable in the areas where the sites are located. In Italy, on the contrary, 100% of our water supply comes from temporary connections to the local water supply system.

When excavating tunnels using TBMs (in particular when using EPB machinery), water demand is always very high. This explains the high amount of water used for Italian projects in 2017 (four TBMs).

A good part of the water, in particular when TBMs are used, is recycled. Water used by small site equipment is also recycled (such as by wheelwash units, in which case almost 99% of the water is recycled). The amount of water that is effectively reused on site is difficult to monitor (as equipment is not permanent like in an ordinary industrial manufacturing site).

Biodiversity is the variety of life on Earth and can be measured at all levels, including genes, species, populations and ecosystems. A variety of organisms, living things, plants, animals and ecosystems that are all interlinked with each other, all indispensable. Through biodiversity, Nature is able to supply the food, water, energy and resources that are needed for our daily life. Biodiversity ensures the survival of life on Earth and all organizations have a duty to preserve the Earth's environment and resources for future generations. (Source: WWF Italia).

Cmc's activities

Cmc is fully aware that the protection of biodiversity is vital and adopts appropriate environmental control and protection policies and strategies in all its work site worldwide. Cmc's international work sites (especially in Africa and Asia) are frequently located in the proximity of protected and/or high-biodiversity areas. These areas host numerous animal and/or plant species that are listed in the relevant reference document, that is in the international red list of protected and/or threatened species (*Red List – IUCN – International Union for the Conservation of Nature*).

» <http://www.iucnredlist.org/>

Deliverables for large infrastructural projects typically include technical documents that identify the necessary measures for the mitigation of environmental impacts before, during and after construction. Working from contractual requirements, Cmc prepares project-specific **Environmental and Social Management Plans**, which lay down the correct procedures for the execution of work site activities (so as to ensure protection of the relevant environmental media), as well as the monitoring criteria to be implemented, before, during and after completion of the works, in relation to all relevant environmental aspects (animals, plants, human beings, soil, water, air, climate, material assets and cultural heritage).

If a work site is located in the proximity of a protected and/or high-biodiversity area, special protection measures are adopted, so as to limit the impact of the operations on the local ecosystem, as well as on the various protected animal and plant species.

Particular attention is given to ecosystems that are endangered or are located in protected areas, which are monitored through periodical checking of local trees and sample checking of local water, larvae and insects. Native animal species are monitored throughout the duration of the works, through in-depth observations at specific checkpoints, identified in accordance with the applicable protocols. Protection of specific species from hunting and fishing is also ensured.

Conservation of natural habitats and restoration actions

Cmc seeks to avoid breaking up and/or destroying terrestrial and/or aquatic habitats when positioning pipe ducts, work sites, supporting structures and/or maintenance roads, using the existing transport corridors instead.

Species protection strategies

Cmc often hires landscape designers and experts specializing in ecological surveys to establish how best to remove existing vegetation during work site construction; to define a plan for the relocation of local plant and animal species, especially threatened species; to limit deforestation to the bare minimum, especially in areas where protected animal and plant species live; as well to map out and clearly indicate the presence of populations of species to be protected.

Soil protection strategies

Projects often involve environmental engineering activities, including auxiliary works for erosion control, soil conservation (such as reforestation), ground drainage, landscaping, ploughing, regulation of farming and pasture land use. Particular attention is given to fire risks and hazards, avoiding to store large quantities of high-risk fuels and conducting regular maintenance, especially during the seasons when the risk of forest fires is greater.

Aquatic life impact control strategies

The main goal is that of ensuring that project construction and operation cause minimum impact on the local aquatic plant and animal life. If necessary - especially in international work sites - the presence of carrier vectors is monitored and local healthcare facilities are strengthened and/or contributions are made to public health programs combating malaria, schistosomiasis, etc.

Land management impact control strategies

In Italy, impact mitigation during construction work is strictly regulated (in terms of noise, dusts, etc.), and appropriate mitigation measures are adopted based on the presence of sensitive receptors. Abroad too, adequate land management measures are adopted.



**A “model”
work site**

Cmc is currently working in Sweden on the construction of the **Stockholm Bypass**, the most important infrastructural project currently under way in Sweden and one of the most impressive structures in the entire Scandinavian and Baltic area. Safety standards are very high. Sweden boasts some of the lowest statistics worldwide in terms of occupational injuries. Key in pursuing this important objective is the continuous cooperation between the construction site’s prevention and protection function, the client, the national agency for safety in the workplace and the trade unions.

No less important than safety is environmental protection, which also plays a crucial role, especially in consideration of the fact that the construction site is located within a natural reserve, whose water bodies are the main source of supply for the Stockholm water distribution system.

In order to keep traffic down to the minimum and reduce CO2 emissions, excavated material is crushed on site, loaded on self-propelled ships through a conveyor belt system and shipped by sea all the way to the ports indicated by the client.

DIRECT EMISSIONS (SCOPE 1)	t CO ₂ e	98,762
INDIRECT EMISSIONS (SCOPE 2)	t CO ₂ e	8,742
OTHER INDIRECT EMISSIONS (SCOPE 3)	t CO ₂ e	21,394

TOTAL GREENHOUSE GAS EMISSIONS tCO₂e 128,898

GREENHOUSE GAS EMISSIONS INTENSITY tCO₂e/M€ 195

Greenhouse gas emission values are obtained using the data indicated in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and by the International Energy Agency. Greenhouse gas emissions intensity is calculated as the ratio between total emissions from fuels, electricity and sub-contractor activities and revenues.

ITALY				
AMOUNT OF WASTE PRODUCED	UNIT	2017	2016	
TOTAL WASTE PERTYPE OF ACTIVITY				
CONSTRUCTION AND DEMOLITION WASTE	t	211,972.88	136,655.79	
EXCAVATION WASTE	t	7,038.68	11,776.62	
GENERAL WASTE AND OTHER WASTE	t	9,753.04	3,196.02	
TOTAL NON-HAZARDOUS AND HAZARDOUS WASTE	t	228,764.60	151,628.43	
TOTAL WASTE PER TYPE OF USE				
RECOVERY, REUSE AND RECYCLING	t	225,745.34	NON DISPONIBILE	
INCINERATION	t	—	—	
LANDFILL	t	3,019.26	NON DISPONIBILE	
TOTAL NON-HAZARDOUS AND HAZARDOUS WASTE	t	228,764.60	—	
TOTAL WASTE PER TYPE OF WASTE				
NON-HAZARDOUS WASTE	t	228,192.13	151,442.14	
HAZARDOUS WASTE	t	572.47	186.29	
TOTAL NON-HAZARDOUS AND HAZARDOUS WASTE	t	228,764.60	151,628.43	

THE DATA COLLECTED REFER TO A NUMBER OF WORK SITES REPRESENTING 50% OF CMC'S CONSOLIDATED REVENUES

"At the Bolognetta construction site in Sicily a crushing mill has been installed that has been able to recover – just in 2017 – more than 70,000 metric tons of milled material and more than 40,000 metric tons of cement and other mixed demolition waste. Tarmac recycled on site has been used for the construction of new road pavements, while demolition waste has been reused on site as a substrate/filling material".

Excavated material is treated as a byproduct: more than 1 million cubic meters of earth were excavated just in Italian sites, 85% of which has been reused either on site or, for the greatest part, in authorized external sites.



7. THE HUMAN RESOURCES

The Group recognizes the key importance of human resources, in the firm belief that the main factor for success for any enterprise is the contribution of its people, consisting of the professionalism, dedication, loyalty, integrity and team spirit that is required of them.

The Group is committed to creating adequate conditions for the protection of the psychological and physical welfare of its workers and of their moral values, avoiding any kind of discrimination, unlawful pressure or undue discomfort.

The Group rejects all kinds of child labor and adopts criteria based on merit, competence and professionalism for all its decisions relating to the work relationship with its employees and long-term semi-independent contractors.

Discriminatory practices are prohibited in the selection, hiring, training, management, development and remuneration of personnel, together with all forms of nepotism and favoritism.

Compatibly with the general efficiency of the work flow, the Group promotes flexibility in the organization of work, so as to accommodate the needs of pregnant female workers and/or persons who need to look after their children.

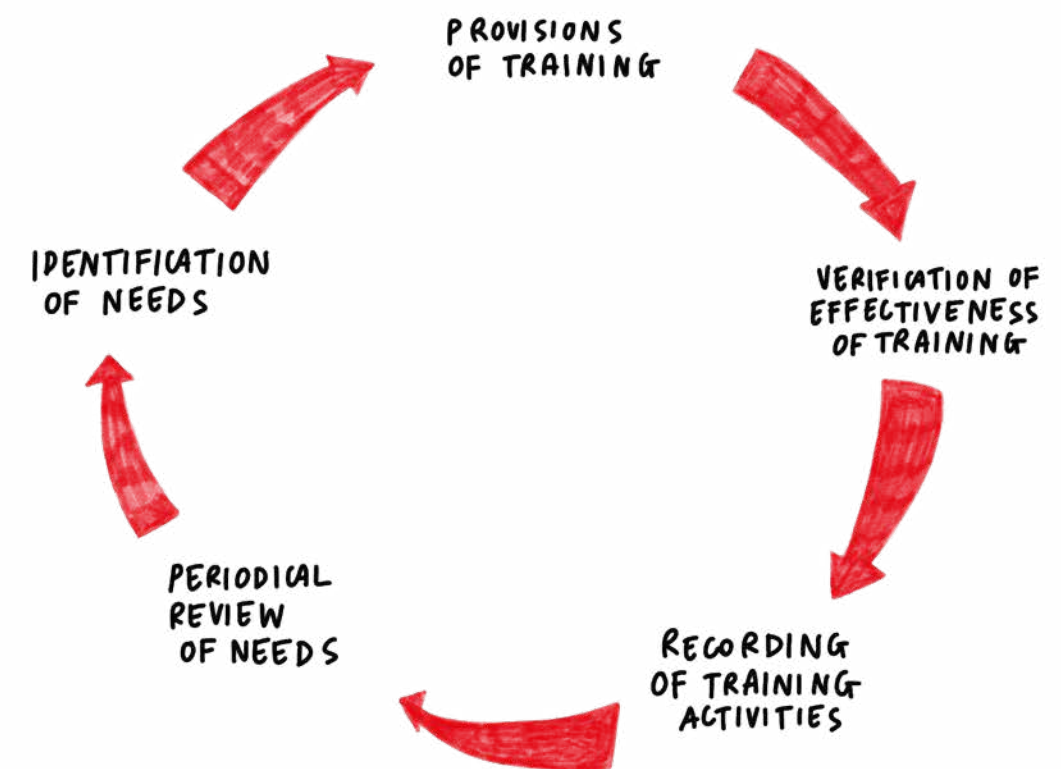
Protection of individuals

The Group is committed to protecting the moral integrity of its personnel and ensure that work conditions are respectful of their personal dignity.

Training and professional growth

The growth of human resources plays a key role for Cmc, who is keen to promote and invest, through suitable means, in the development of professional competencies and career paths.

In order to ensure success, Cmc adopts a systematic approach to training.



Health & safety

The Group promotes the spreading and consolidation of a **culture of health & safety in the workplace**, raising awareness of risk and advocating responsible behavior by all personnel.

With its employees and semi-independent long-term contractors, the Group acts in accordance with Italian Legislative Decree No. 81 of 9 April 2008, as well as with all other Italian and/or international laws and regulations that may be applicable from time to time based on the specific operations and/or geographical location.

Relations with the trade unions

Cmc has always had very good relations with trade-union organizations (FILLEA – CGIL; FENEAL UIL; FILCA CISL), at both local (province of Ravenna, where the Cooperative's head office is based), and national level. Cmc and the trade unions cooperate for the negotiation of supplementary company-specific and site-specific labor agreements.

Cmc and the trade unions maintain a continuous dialogue over all labor-related issues, including, in particular, in relation to the organization of work, employment and the related quality and quantity-related aspects, professional training at all levels (blue-collar workers, white-collar workers, technical staff, middle managers), flexible working hours and welfare initiatives designed to improve the effectiveness of work systems, while simultaneously responding to the need to balance the demands of work and personal life.

THE DATA COLLECTION PROCESS AND THE REPORTING AREA

Starting from 2017, Cmc has adopted the **GRI Standards** indicators as reference for the preparation of its Sustainability Report.

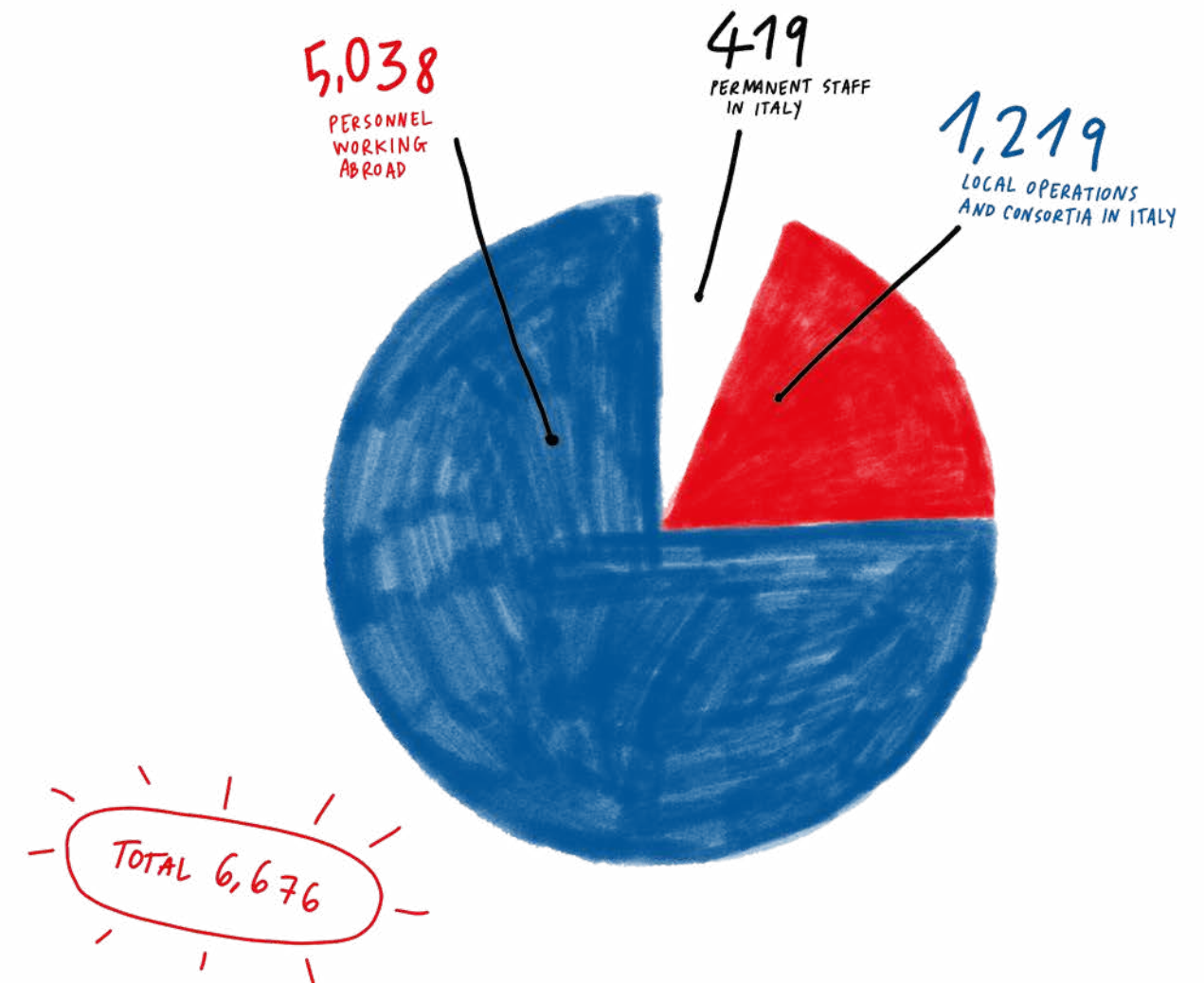
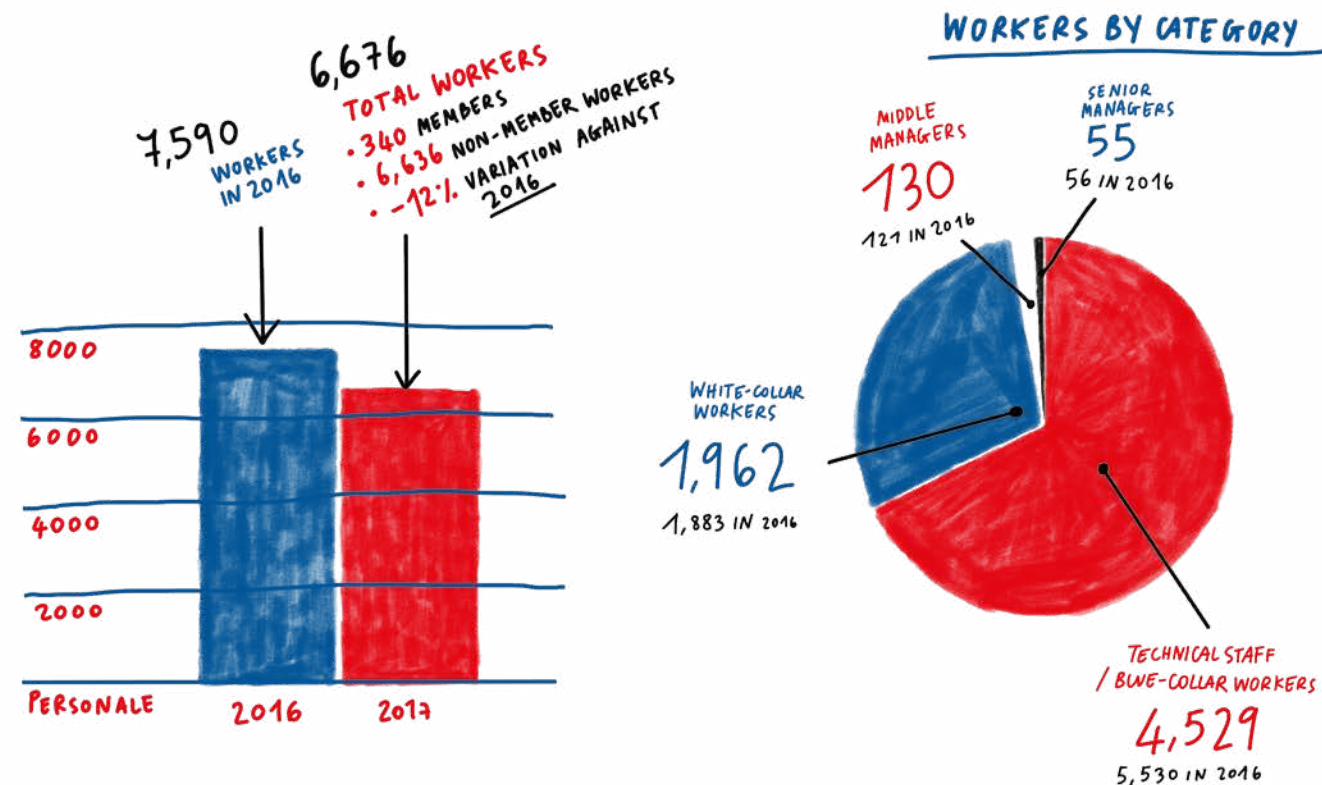
The **HR data** collection process covered the entire consolidation area. However, for some indicators (clearly identified in the sections below), not all quantity data were collected.

In any case, we believe that the data provided in this Sustainability Report offer an adequate - if not as yet complete - picture of the operations conducted by Cmc, as well as of the social impacts generated by the same.

Even as the recession persists on the Italian construction market, Cmc has continued to place strong emphasis on HR policies and labor protection, constantly striving to ensure stable and high-quality employment for its members and workers.

This is a challenge our Cooperative has been able to rise up to by optimizing its fixed and running costs, by continuing to believe in Italy's future and, most of all, by investing in resources abroad, so as to be able to seize the opportunities presented by the international markets.

Permanent staff has declined in number (-13) due to retirements, especially among blue-collar workers. Other variations are connected with the organizational flexibility that is typical of construction work sites. In particular, the number of personnel hired locally has gone down following the completion of some projects in Mozambique and Singapore.

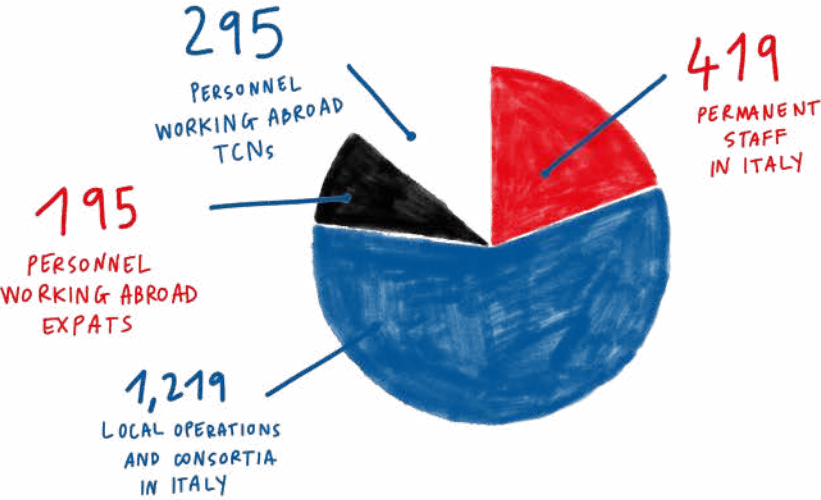


Based on the type of contract, workers having a work relationship with Cmc and/or the group companies may be classed as follows: employees, semi-independent long-term contractors, consultants, trainees for future hiring.

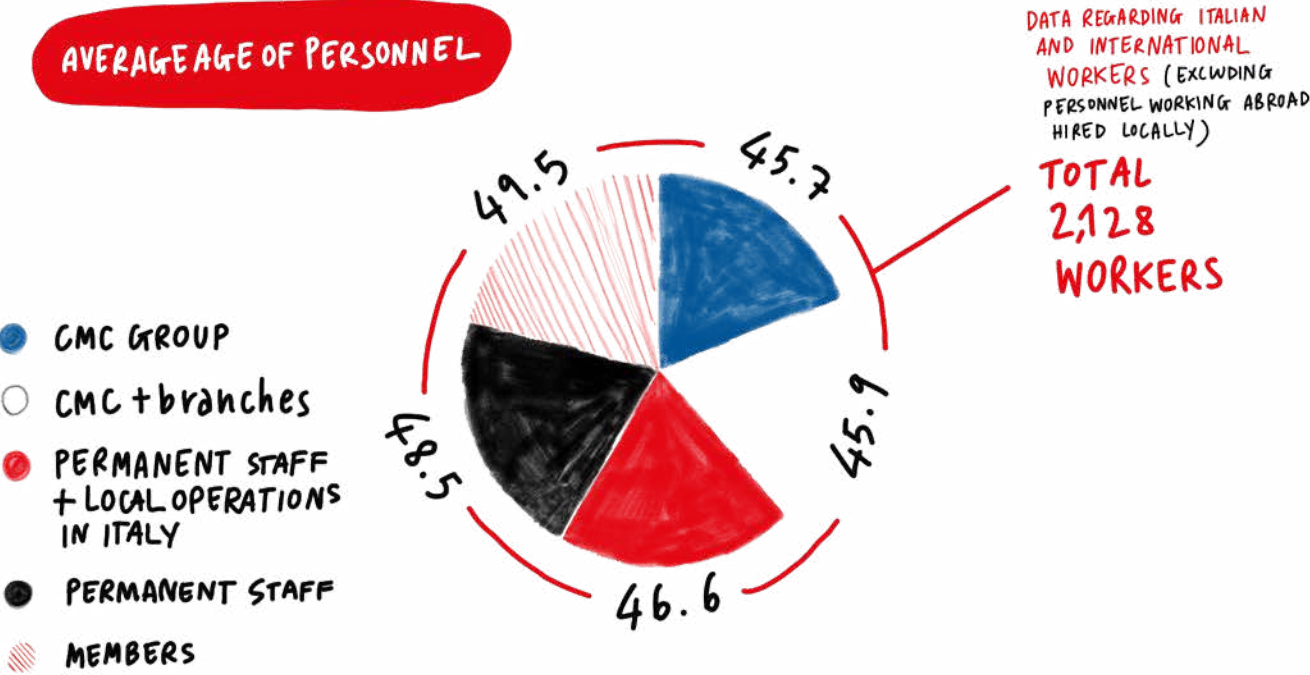
TCN Third Country Nationals

Personnel on international work sites who are not Italian and are not local but come from a third country.

The following data regard a portion of the Group's total workforce (6,676 people), excluding personnel working abroad who has been hired locally (4,548 people).
The reference portion includes 2,128 people, corresponding to 32% of the total workforce.



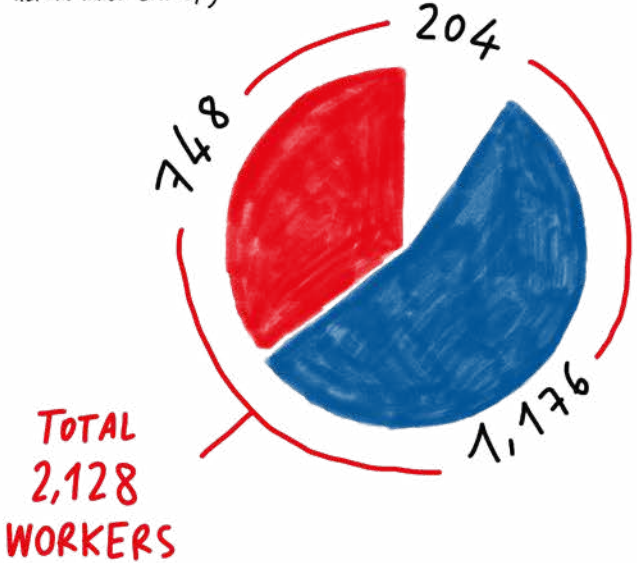
AVERAGE AGE OF PERSONNEL



PERSONNEL BY AGE GROUP

- 20-30
- 30-50
- OVER 50

DATA REGARDING ITALIAN AND INTERNATIONAL WORKERS (EXCLUDING PERSONNEL WORKING ABROAD HIRED LOCALLY)



Qualifications

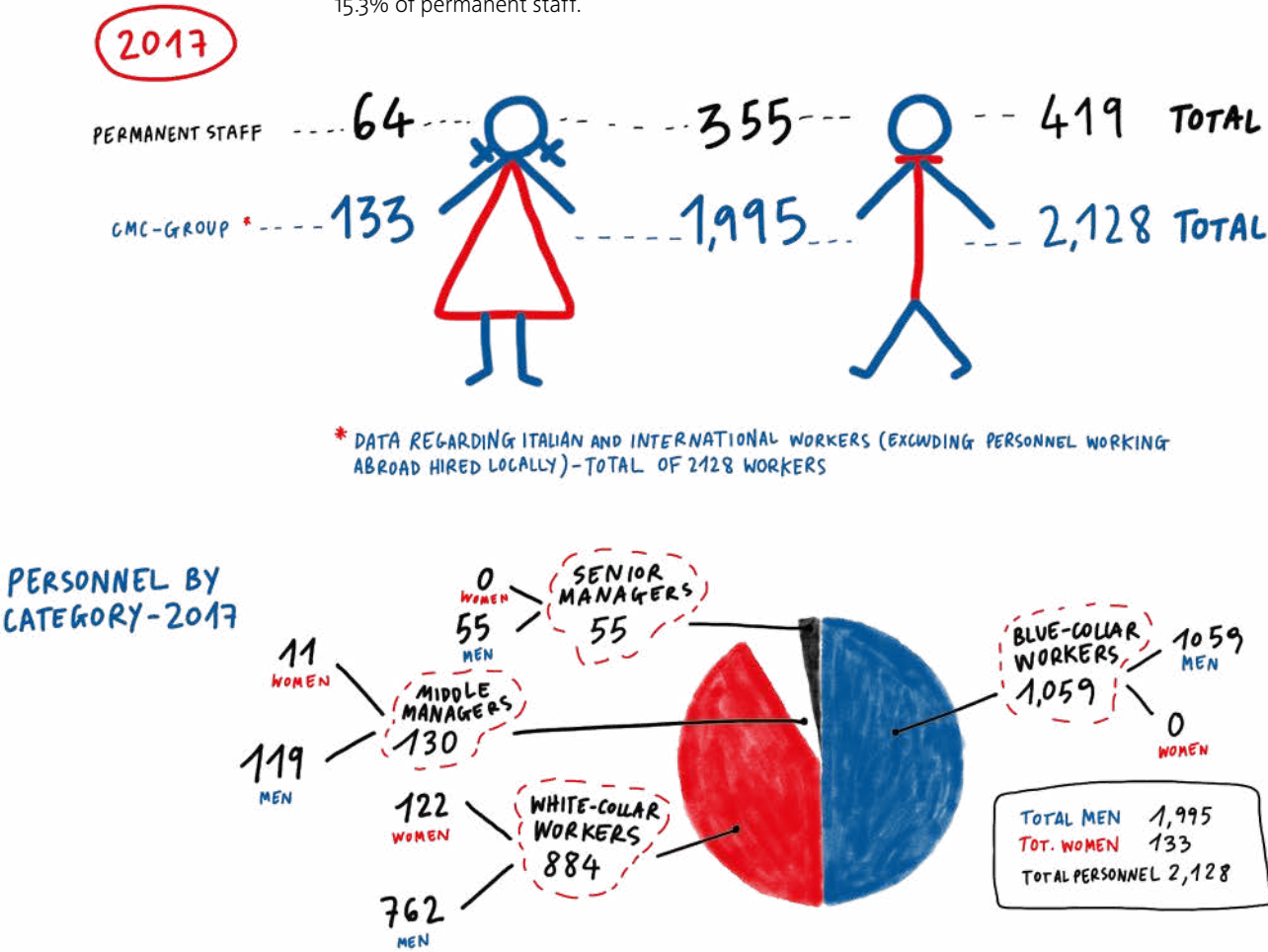
Cmc's human resources are made up of increasingly skilled personnel: less blue-collar workers and more graduates and college-trained personnel, with most people holding good-level qualifications.

Personnel flows and turnover

Turnover indicates the rate at which personnel leave an organization and shows the flows of people entering and leaving the organization's workforce. In 2017, 271 people were hired, while 368 left (-97). These are normal variations and are connected with retirements and the organizational flexibility that is typical of construction work sites.

Women and equal opportunities

Given the characteristics of its business, Cmc mostly employs male figures. Women represent 6.25% of personnel under consideration (that is excluding personnel working abroad hired locally) and 15.3% of permanent staff.



Over 78% of women in permanent staff are members, are either graduates or second-school diploma holders and are either middle managers or white-collar workers.

During the three years from 2014 to 2017, female presence in Cmc's total permanent staff has grown slightly: from 14.0% in 2014 to 15.3% in 2017.

11 new mothers were on maternity leave during 2016/2017. Cmc promotes initiatives seeking to balance work and personal life. In recent years, flexible start time has been introduced at the head office and a fund has been set up to partially refund nursery expenses incurred by workers/parents.

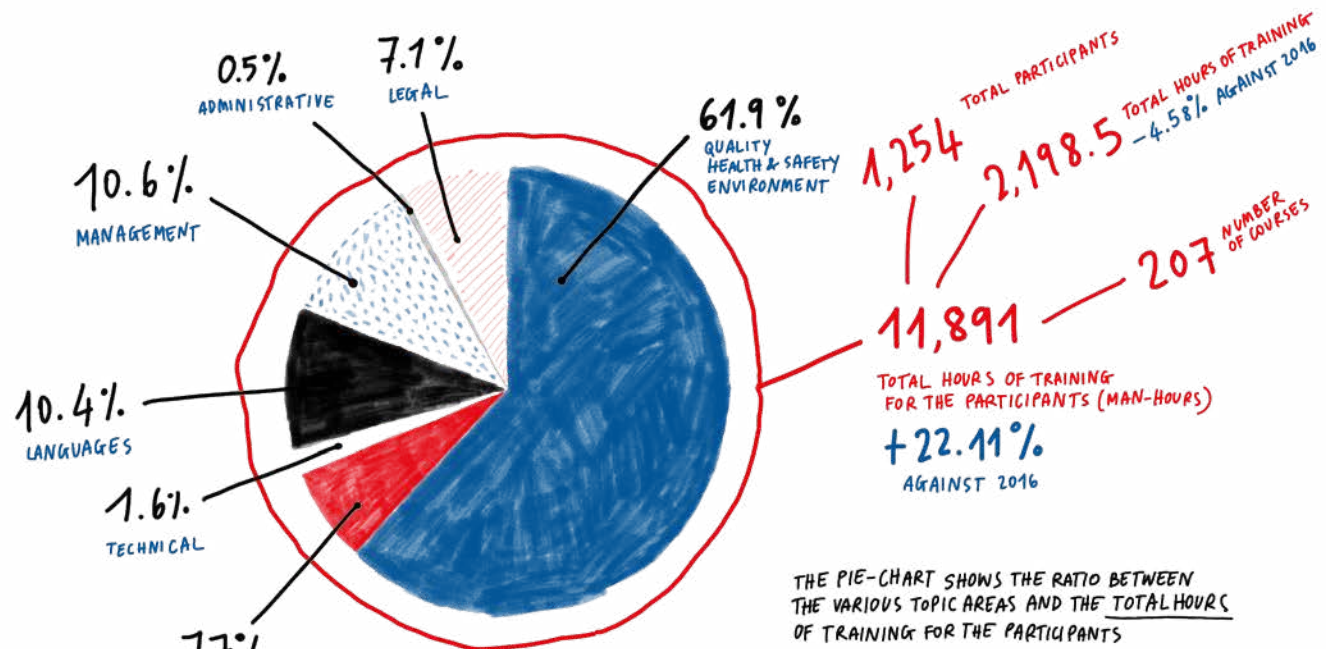
7.3

TRAINING AND GROWTH OF HUMAN CAPITAL

Training plays a key role in the professional development of Cmc's workers.

General data

Just like for the previous indicators, the data regard Italian and international workers (excluding personnel working abroad hired locally), for a total of 2,128 workers.



Despite a slight drop in total hours (-4.58%), training activities conducted in 2017 showed a significant increase in man-hours (+22.11%), for an equal number of participants and courses.

Training provided in 2017 was organized based on the proposals and needs formally identified in the Training Plan prepared at the beginning of the year. Costs were partly paid for using aid from the inter-professional funds jointly set up by the trade unions.

Technical training

Technical training offered in 2017 included seminars on new technologies (such as directional drilling and microtunneling) provided by technical staff involved in the actual projects and working meetings organized by university institutions, such as the **Turin Polytechnic**.

2017 also saw the consolidation of the cooperation with the **Catania University**, as well as with local production units, involving site visits and the provision of placements (duration 3 to 6 months) for the completion of theses on mechanical excavation by engineering degree students.

Other activities

Environment - Health & Safety - Quality

- Certification systems (ISO 14001:2015, OHSAS 18001 and new ISO 9001:2015);
 - Italian legislative Decree No. 231/01 and sanction system on the production and management of waste;
 - management of emergencies (CPR and use of defibrillator).
- 94 participants for a total of 848 hours.

Computerized document management systems

Specific training for all operating staff at the head office and at all other locations (including abroad) on computerized document management systems (HR management platform, email systems, calendar and meeting-rooms management systems).

Building Information Modeling (BIM)

- Basic training (total of 40 hours)
- Training of 20 specialists.

Languages

Increased provision of language training. During 2017, several new courses (group and individual) were launched (Spanish, English, French and Portuguese).

Legal

Training and information on Italian Legislative Decree No. 231/2001, for directors and senior management officers:

- seminar for senior managers, Area Construction Managers and Site Construction Managers working abroad on the application of Italian Legislative Decree No. 231/01 in international operations and comparison with local anti-bribery legislations;
- 20 participants for a total of 160 hours at the Johannesburg office;
- various information and refresher activities on legal matters and on Italian Legislative Decree No. 231/01 (corporate governance and organizational models) *(43 participants for a total of 177 hours)*.

Objectives for 2018 include continuous training and updating on new legislation coming into force.

- Training meetings on the new **General Data Protection Regulation** (EU 2016/679).
- Dedicated seminars on **international contracts**, with a special focus on the FIDIC clauses.
- Management courses for developing a distinctive leadership style, with the participation of chief officers and senior managers.
- Internationalization process: inter-cultural skills as a constant key element in business relationships and strategic decision-making.
- Development of knowledge required to create and maintain effective and productive professional relationships in a multicultural environment.
- Provision of training at the head office and at international locations (Bangkok and Johannesburg) for Cmc expatriate personnel (Construction Managers, Site Construction Managers, Administration Managers and technical staff in general).

Growing talent:
Cmc University

Cmc University is the Group’s management school for the development of the professional figures that are called to lead the Cooperative’s growth in Italy and worldwide.

ESTABLISHED 2009

COURSES 23

DURATION 2 or 3 academic years (depending on chosen course)

TUTORS 63 (overall from 2009)

TOTAL STUDENTS (FROM 2009)
112 of which 38% abroad (+3% against 2015)
operating in various parts of the world:
ITALY, MOZAMBIQUE, SOUTH AFRICA, MOROCCO, CHINA, CHILE AND LEBANON

Dedicated curriculum for each management position, comprising a range of specific courses.

Dedicated professional assessment process, with final exams and tests.

Multidisciplinary approach.

Internal lecturers (senior and middle managers are entrusted with the task of transferring the technical and managerial competencies that are required in our Cooperative).

A gradual shift in the project’s center of gravity away from Italy is continuing to take place, in line with the Cooperative’s and the Group’s strategic and development plans.

Learner
satisfaction

The table below shows learner satisfaction from 2010. The data obtained from assessments completed by participants (marks from 1 to 5) confirm a very positive average score also for 2017, corresponding to 4.00 for all training in general (including Cmc University).

Learner satisfaction in relation to Cmc University also remains very positive, with a score of 4.34, once again higher - for the 8th consecutive year - than obtained by overall training activities.

COMPARISON BETWEEN CMC UNIVERSITY / OVERALL TRAINING LEARNER SATISFACTION								
YEAR	2010	2011	2012	2013	2014	2015	2016	2017
CMC UNIVERSITY	4.46	4.96	4.36	4.23	4.32	4.34	4.53	4.43
OVERALL TRAINING	4.30	4.07	3.96	3.87	4.18	4.05	4.12	4.00

Improve
performances,
increase
competencies

Personnel professional assessments

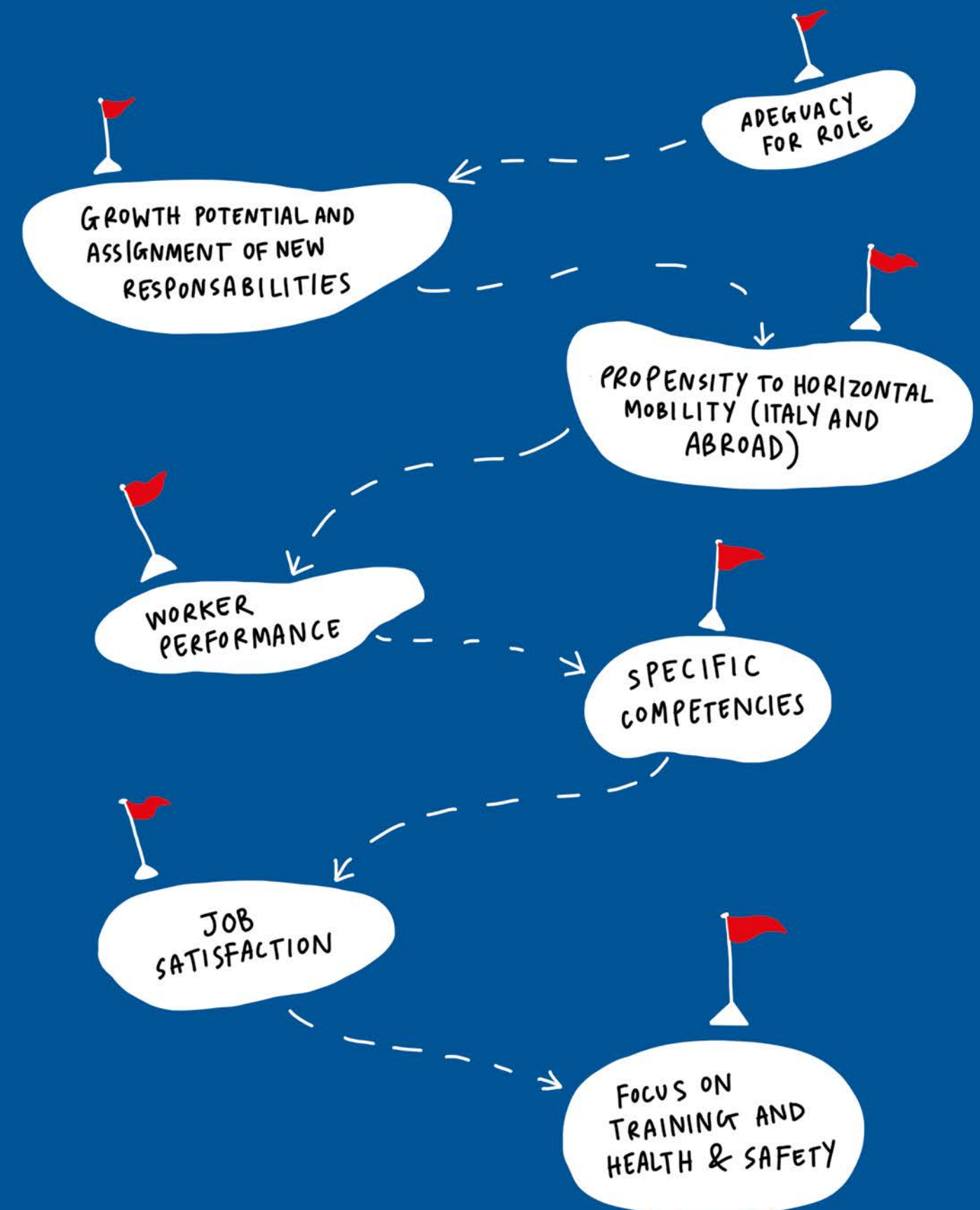
Every two years, Cmc conducts a professional assessment of its personnel, including of its middle managers, white-collar workers, permanent blue-collar workers, TCNs and personnel working in Italian and international work sites.

In 2017, as many as 740 questionnaires were collected, confirming a high response rate (89.7%) and a wide survey population and consolidating the marked increase already seen in 2014.

Two-year assessments are a key element in the definition of the HR Development Plan, which is updated on an annual basis and approved by the Board of Directors. The system assesses individual performances and identifies competencies that need to be improved through specific training.

During 2018, the data collected will be reviewed and the new HR Development Plan will be prepared.

ASSESSMENT CRITERIA



7.4

HEALTH & SAFETY IN THE WORKPLACE

Quality, occupational health & safety and environmental protection are key aspects in Cmc’s operations.

- The Group conducts regular technical and organizational activities regarding:
- the continuous analysis of risks and criticalities in the processes and resources to be protected;
 - the adoption of the most appropriate technologies for the prevention of occupational health & safety risks;
 - regular monitoring and updating of work methods;
 - the provision of training and information.

Internal audits

During 2017, the QHSE Service conducted a continuous internal auditing activity, designed to verify the effective implementation and conformity of corporate management systems with the relevant internal standards.

The findings of these activities are described in dedicated reports.

Some audits at international locations were conducted by selected local firms, meeting the necessary professional requirements. In any case, it was the responsibility of the QHSE Service to make sure that criteria were applied uniformly when assessing compliance, especially when dealing with obligatory requirements imposed by the applicable law and not by the specific management systems.

In 2017, **seventeen audits were conducted on the Safety Management System**, concurrently with those on the Environmental Management System, leading to the issue of 3 corrective action requests, including one abroad.

Injury rates
(Italy + international)

The OSHA frequency rate (*FR*) increased slightly, from 1.18 in 2016 to 1.45 in 2017, while the OSHA severity rate (*SR*) declined from 23.94 in 2016 to 20.37 in 2017.

The frequency rate *FR* and the severity rate *SR* are calculated in accordance with the relevant Health & Safety Management System procedure “Injury Statistics”, in conformity with standards UNI 7249 and OSHA, net of any injuries taking place during journeys to and/or from work.

The number of injuries in 2017 remained almost unchanged from 2016, However, there was a significant decrease in the number of hours worked due to the completion of construction on some work sites. This led to a slight increase in the OSHA frequency rate. The number of working days lost went down, meaning that injuries in 2017 were mostly minor, with a marked reduction in the OSHA severity rate.

	2017	2016
TOTAL HOURS WORKED	13,640,706	15,603,274
WORKING DAY LOST	1389	1868
DEATHS	1	2
UNI FREQUENCY RATE	7.26	5.90
UNI SEVERITY RATE	0.65	1.08
OSHA FREQUENCY RATE	1.45	1.18
OSHA SEVERITY RATE	20.37	23.94

* THE ABOVE SUMMARY DATA REFER TO CMC WORK SITES IN ITALY AND ABROAD AND ONLY REGARD CMC PERSONNEL, THAT IS EXCLUDING ANY PERSONNEL UTILIZED BY SUBCONTRACTORS AND OTHER WORK PROVIDERS IN GENERAL

Italian work sites

The UNI 2017 frequency rate (FR) is 14.00, slightly higher than in 2016 (12.70). The UNI 2017 severity rate went down against 2016, from 0.53 to 0.36.

Activities
conducted
in 2017

Training

Training of **Lead Auditors** for the auditing of the Environmental and Occupational Health & Safety Management Systems.

Training of management personnel (Area Construction Managers and Site Construction Managers) on issues associated with the environmental management of construction sites and the ensuing responsibilities/liabilities.

Certifications

Renewal of **OHSAS 18001** Occupational Health & Safety Certification (valid also abroad).

Document management system

“File box data entry” document management system - Implementation of the health & safety and environmental document management system in two pilot work sites (Ancona and Turin).

Occupational Health & Safety Management System - Document revision (Risk Assessment Document - general, head office and operations center, chemical/biological, electromagnetic fields, emergency plan, Seafarers Risk Assessment Document).

Document circulation – First issue and revisioned documents are circulated through the HDO computerized document management system. All Cmc personnel is informed through the intranet platform “*Il Ponte*”.

Cmc awards

In line with its corporate policy principles and with reference to the related management systems, Cmc has set up a panel for the awarding of health & safety and environmental awards for its Italian and international operations.

The panel examines audit findings and audit reports to identify the most deserving work sites in terms of occupational health & safety and environmental protection.

“Vai sul Sicuro” Safety Awards

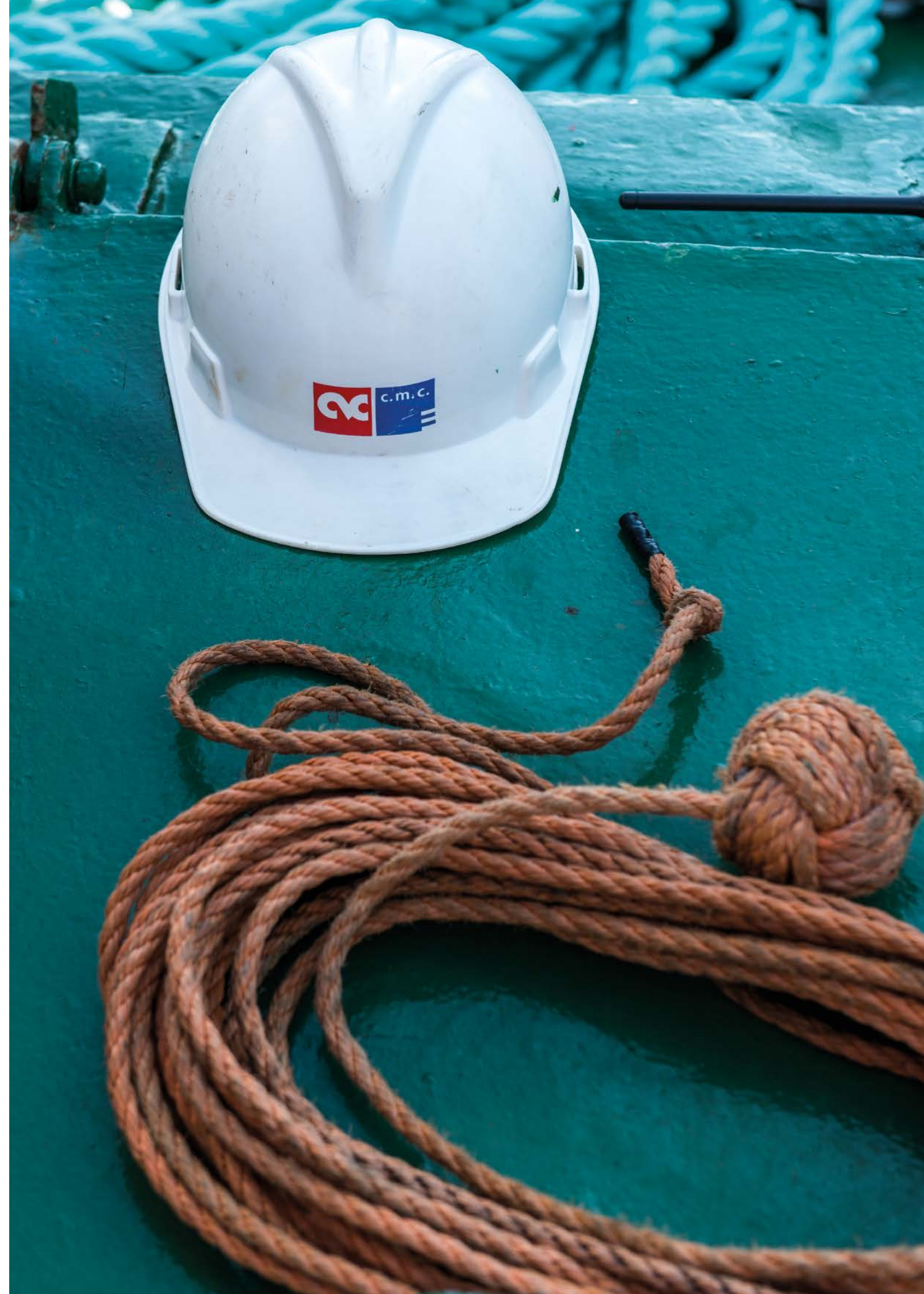
The “*Vai sul Sicuro*” (*Play it Safe*) *Safety Awards* recognize work sites that have excelled in terms of compliance with occupational health & safety standards and low injury records. *Awards assigned in 2017:*

- **Italy** SS 121 national route work site (Palermo – Lercara Friddi – Bolognetta).
- **International** South Africa branch.

Environmental Awards

In 2017, Cmc set up a new award recognizing the best performances in terms of environmental management. *Awards assigned in 2017:*

- **Italy** Empedocle 2 SS 640 national route work site.



MEMBERS AND WORK

Working members are the living heart of a cooperative organization.

The **mutual exchange** between members and a production and work cooperative finds its expression in the bilateral relation between *work activity* rendered and related *remuneration*.

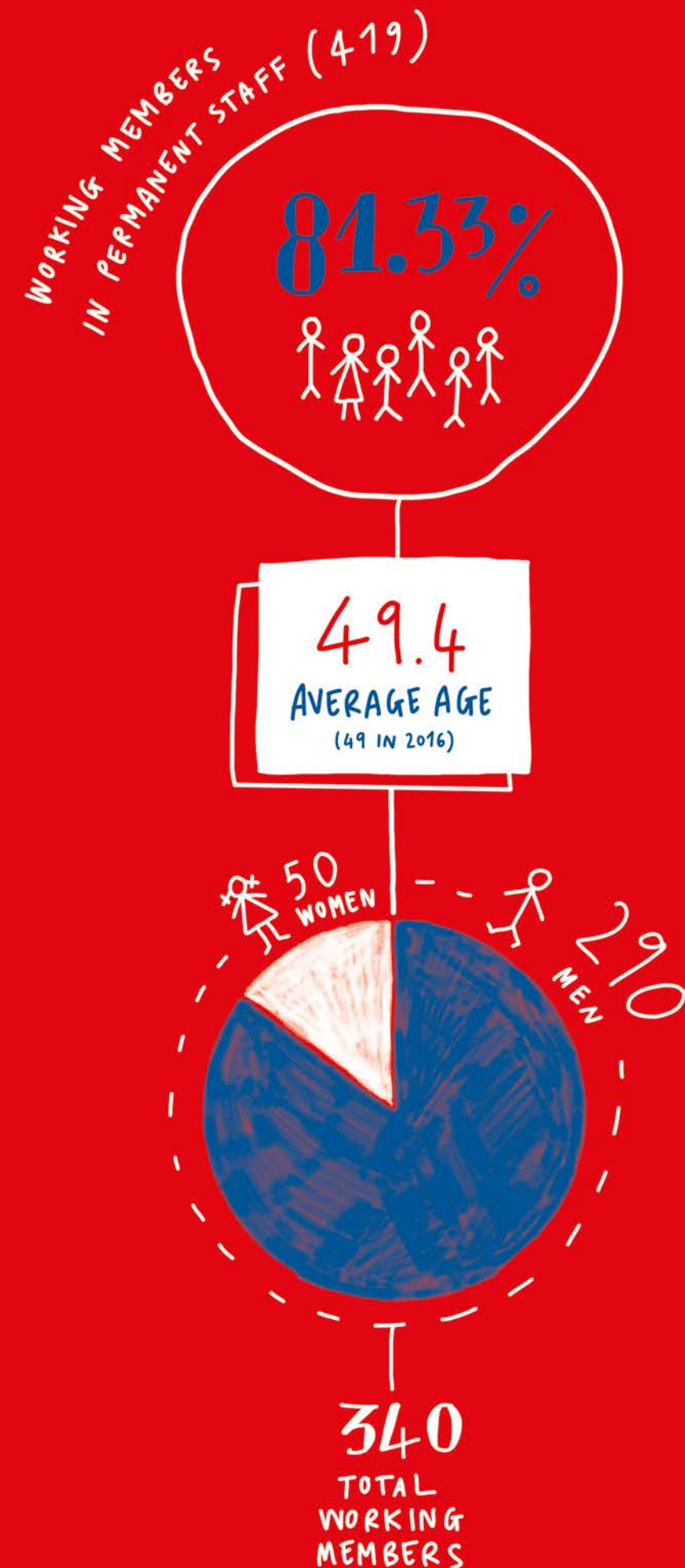
The **mutual exchange**, however, doesn't end here and also translates into the worker's *participation* in the cooperative's governance and business risk in exchange for better working conditions and other financial incentives.

Cmc's **member base** has remained pretty much unaltered, with only a slight decrease (-11.95% from 2013) due to retirements, confirming the **high degree of loyalty** and the validity of the cooperative membership admission process (every year new members are admitted subject to compliance with specific prerequisites, including at least two years' service seniority, sound moral and professional standing, ability to contribute to the attainment of corporate objects and share cooperative values).

The **low member turnover** translates into a high average age and corresponding service seniority (over 50% of members have been with Cmc for over 10 years; of these 12% have been with Cmc for over 30 years).

Member bonuses remain a key instrument for strengthening the Cooperative's equity.

For the year 2017, Cmc Members' Assembly assigned to members bonuses recorded as a capital increase amounting to € 1.3 million.



**Committed
to the future**

The cooperative enterprise is thought to ensure continuity.

At the same time, it is *designed* and organized for innovation.

Cooperatives differ from other limited liability companies in the way they use their profits and reserves.

Intergenerationality is one of the key principles on which our Cooperative is based, the work of its members and its assets all being meant to be passed on to future generations.

One part of the profits goes into the legal reserve, the Articles of Association providing that divisible and indivisible reserves may not be distributed to members, not during the life of the Cooperative and not upon its dissolution.

At 31 December 2017, indivisible reserves **amount to € 105,2 million.**



Being part of a cooperative is also a choice to share important moments and carries specific advantages in terms of special conditions and benefits.

The new Board of Directors has included the adoption of new actions in favor of its members as part of its objectives for its three-year term, aiming to offer tangible solutions and opportunities for the improvement of their welfare.



SUPPLEMENTARY HEALTHCARE COVER
(IN COOPERATION WITH UNISALUTE)



WORK AND NON-WORK-RELATED INJURY COVER



TAX ADVICE



SCHOLARSHIPS AND GRADUATION PRIZES



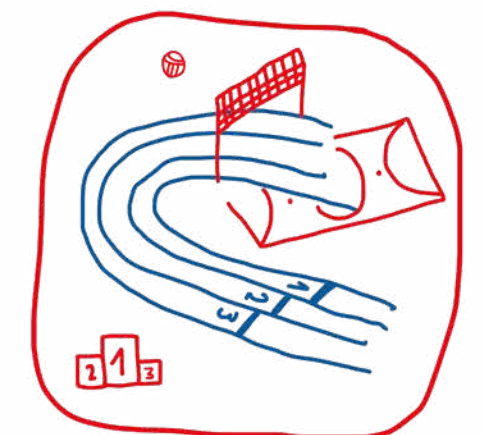
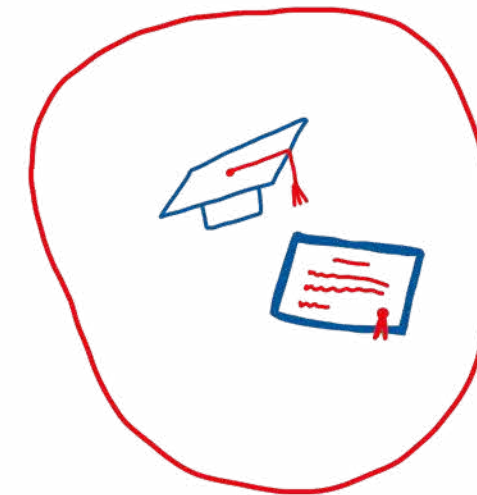
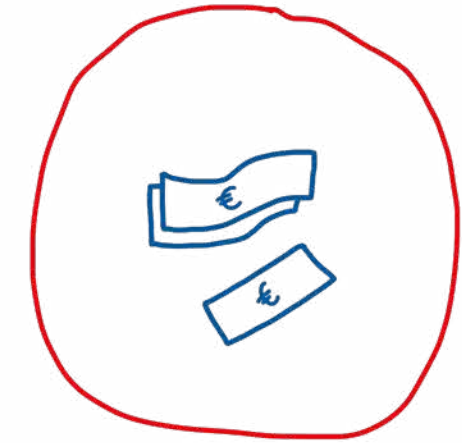
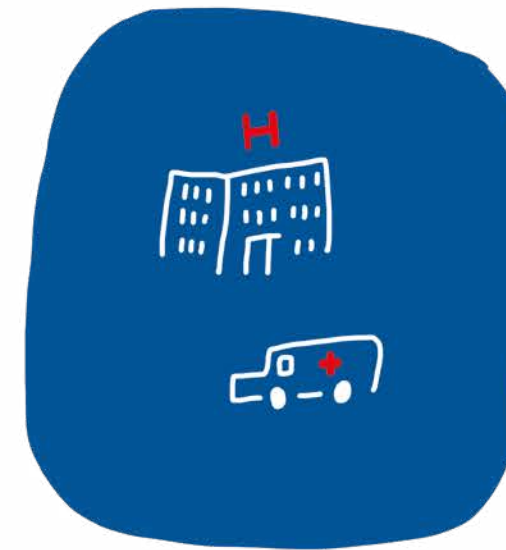
CHRISTMAS AND EPIPHANY PARCELS



SOCIAL EVENTS



SPORTS CLUBS





Scholarships

Support to the younger generation, educational development and cultural growth are key elements in the Cooperative’s activity and mission.

In 2017 too, Cmc recognized learning efforts with the awarding of scholarships to workers and children of workers who excelled in their secondary school or university studies.

In line with the above and as a departure from its Internal Regulations on Working Members, as approved by the Members’ Assembly, the **Cooperative’s Board of Directors increased the amount of funds set aside for scholarships for the year 2016/2017**. In 2017, a total of € 25,350 was awarded to students (€ 18,050 in 2016).

71 – number of scholarship winners (60 in 2016).

Social activities

My Cmc

In February 2017, on the occasion of the Members’ Assembly, Cmc announced the winners of the first drawing competition for the children of Cmc workers: **My Cmc**. The goal of the competition was to see Cmc through the eyes of children.

We asked them to tell us, through their drawings, what they see and what they depict in their imagination when they think of Cmc and what they gave us is a poetic and creative **vision of the Cooperative as it heads towards the 3rd millennium**.

The main awards were assigned to the 3 best works according to the competition’s judging criteria (representation of Cmc’s world, aesthetic value, technique/subject originality), while 3 special mentions were also assigned for originality, creativity and special prize under 6.

Sports and cultural activities

Numerous activities were organized by our sports clubs and retired members’ club.

In good shape as usual, the members of our **cycling group** held their annual rally, with an attendance of over 600 athletes.

Every year, Cmc takes part in the **Cooperatives National Tennis Tournament**, taking place in Milano Marittima (near Ravenna). The tournament involves over 350 athletes from cooperatives nationwide. In 2017, Cmc attended with as many as four teams and came first for the fourth year running!

Every year, the **retired members club** organizes a variety of initiatives and trips. An opportunity to be together, to visit beautiful villages, towns and cities in Italy and, why not, to cooperate at the table!

In memory of Massimo Matteucci

On August 15, 2017 Massimo Matteucci unexpectedly left us. The President of our Cooperative for 21 years (up to May 2017), Massimo gave a huge contribution to the growth and development of our Cooperative worldwide.

A principled man of great intelligence, culture and humanity, he was able to combine cooperative values with the needs of a large international enterprise.

In 2017, the Cooperative held two important initiatives in memory of this great co-operative member, in recognition of his efforts for the promotion of the cooperative movement and the education and employment of the younger generation.

Conference - “The modernity of ethics and of cooperative values”

In November 2017, Cmc - in cooperation with the national, the Emilia Romagna and the Romagna branches of cooperative association Legacoop, the Italian national association of production and work cooperatives ANCPL and the Ravenna Chamber of Commerce – organized a conference dedicated to ethics and cooperative values.

Scholarships in cooperation with the School of Engineering and Architecture of Bologna University.

Cmc, in cooperation with Bologna’s Alma Mater University, has set up three yearly scholarships in memory of Massimo Matteucci for new graduates in Civil Engineering, Building Engineering/Architecture and Engineering of Building Processes and Systems.

CMC
BOX 3

8. CLIENTS
AND SUPPLIERS:
A RELATIONSHIP
BUILT ON
TRUST AND
QUALITY

**The definition
of sales strategies**

Sales strategies supporting visibility and penetration into the national and international markets also include the creation and development of **strategic alliances**, both with a general purpose or regarding specific initiatives, as well as the establishment of **new commercial relationships** with public and private entities and the consolidation of existing ones.

Sales and marketing strategies are based, among other things, on the **observation and analysis of the reference markets**, in consideration of Cmc’s business offering, with a view to identifying new market segments that could sustain specific development plans, monitoring the evolution of established markets and directing activities correctly.

Client satisfaction

In the relationship with its clients and employers, both public and private, the Cmc Group’s main objective is the full satisfaction of contractual requirements and the establishment of a solid rapport informed by principles of **integrity, efficiency** and **professionalism**.

Relations with public administration bodies are based on the most rigid observance of the applicable laws and regulations.

Cmc seeks to achieve the full satisfaction of client/employer requirements and expectations, through stringent **compliance with contractual provisions and construction time line**.

Channels for measuring client satisfaction may include reports issued by the Client’s Engineer after conducting inspections, letters of appreciation issued by the client after completion of the works, reports of meetings with the Client’s Engineer.

These information and data are used as inputs in the review of the Quality Management System and offer key opportunities for the improvement of the same.

**Dialogue
with clients**

Cmc ensures effective communication with its clients by including in the project-specific **Quality Management Plan** also a dedicated Communication Plan, identifying the relevant contact persons and information/document transmission means for the various work activities.

Dialogue with clients involves numerous positions, who may vary depending on the specific project stage. The pre-tendering and tendering stages, for example, are handled by the Group’s corporate sales functions, while subsequent stages see the involvement of branch-specific designers, engineers and technical staff.

Once the contract has been secured and signed, it is the responsibility of the Area/Project Management team (specifically formed) to liaise with the client, with the constant support of the concerned corporate departments.

**Review
and assessment**

The data and information required to assess performances and identify improvement areas can be obtained from various internal sources.

Performances are measured by comparing goals planned against results achieved. In particular, the process monitoring and measuring system is based on a number of quality indicators associated with the main corporate processes.

Project-related processes are assessed through a group of general indicators and a group of project-specific indicators, in consideration of size, organizational complexity, technical/execution complexity, contract completion timeframe.

Cmc constantly monitors the satisfaction of its clients/employers through dedicated questionnaires.

8.2 SUPPLIERS

Selection and reliability criteria

To be approved as Cmc suppliers, organizations are required to comply with the specific ethical and behavioral policies defined by the Cooperative regarding the quality and health & safety of the work, and of the environment in which the work is carried out.

In the choice of its suppliers and sub-contractors, Cmc grants (where possible) equal opportunities to all organizations that meet prescribed requirements.

Cmc guarantees maximum transparency and efficiency in the purchasing process through an adequate separation of roles and filing of the necessary supporting documentation relating to the choices made.

Selection and evaluation of suppliers may take place indirectly (through questionnaires accompanied by valid supporting documentation certifying the supplier's qualifications) or directly (through audits, if deemed necessary).

Continuous normative reference evolution means that applicable requirements to be met by suppliers in the various fields (safety, quality, environmental, etc.) are constantly growing in number. Cmc's supplier selection, qualification and monitoring system evolves accordingly.

Ethical conduct, integrity and legality are at the heart of Cmc's business activities worldwide.

Cmc adopts a system of codes, policies, procedures, protocols and models designed to ensure **compliance** with all national and international laws on fair competition, so as to prevent the risk of corruption and maintain a high level of integrity in the relations with the public authorities.

The general terms and conditions of contract applicable to suppliers set out supplier undertakings in terms of normative compliance in the following areas:

Occupational health & safety – Italian Legislative Decree No. 81/2008 and associated legislation;

Environmental protection – Italian Legislative Decree No. 156/2010;

Code of conduct and Italian Legislative Decree No. 231/2001 (administrative liability of entities);

Privacy and processing of personal data pursuant to Italian Legislative Decree No. 196/2003 and the new EU Regulation 2016/679 (GDPR - *General Data Protection Regulation*);

Traceability of financial flows as per Italian Law No. 136/2010, as amended and supplemented;

Conformity of products, machinery, equipment, electrical appliances and components, chemical substances, etc. for the purposes of preventing injuries and occupational illnesses and protecting workers' health.

In Italy, Cmc has long been implementing the **Protocols of Legality** that are issued jointly by the Ministry of Interior Local Representation Offices and the Contracting Authorities, with the aim of combating the infiltration of crime organizations in public procurement and, indirectly, episodes of bribery.

The application of the above Protocols involves a **rigorous selection of contractual counterparties and continuous checks on the organizations involved in the production chain.**

In all its construction sites, Cmc employs dedicated personnel who is responsible for the implementation of the Protocols and verification of compliance with the same. Said personnel is trained regularly and is maintained fully up to date with the applicable legislation and procedures.

As from 2007, **19,590 applications** were submitted, which led to **6,731 firms being granted access to our construction work sites.**

In 2017, 1,026 firms were checked and authorized to provide their services in our projects.

Legality procedures are subjected to regular internal auditing. In 2017, audits conducted included several internal audits, as well as 6 external audits. No nonconformities were identified.

OUR SUPPLIERS

542

→ NEW SUPPLIERS REGISTERED IN THE LIST OF SUPPLIERS-ITALY FOR 2017
(823 IN 2016)

1,490

→ NEW SUPPLIERS REGISTERED IN THE LIST OF SUPPLIERS-INTERNATIONAL FOR 2017
(1367 IN 2016)

4,000

→ TOTAL SUPPLIERS-ITALY AND INTERNATIONAL (EXCLUDING LOCAL SUPPLIERS-INTERNATIONAL FOR CONTRACTS WITH A VALUE LOWER THAN € 50,00)

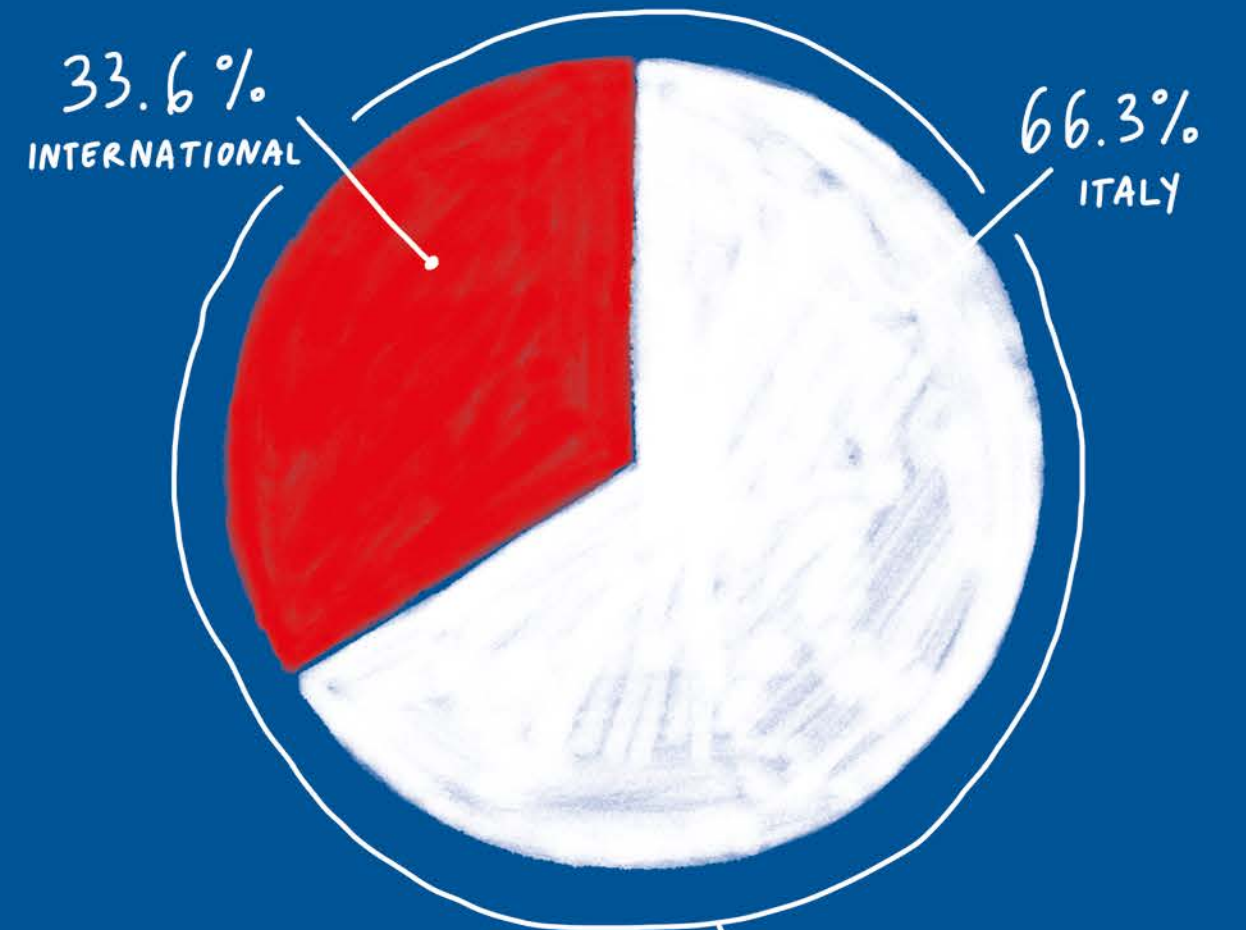
2,116

→ TOTAL EVALUATIONS CONDUCTED

92.16%

→ PERCENTAGE OF TOTAL EVALUATIONS APPROVED IN 2017
(87.77% IN 2016)

BREAKDOWN OF ORDERS BETWEEN ITALY AND INTERNATIONAL



IN 2017 ORDERS INCREASED BY 12.5% SPECIFICALLY:

+55.75% ITALY

+39.20% INTERNATIONAL BRANCHES AND WORK SITES

€554.29 million overall value of orders / contracts issued
(€525.61 MILLION IN 2016)



9. CASE STUDY

CASE STUDY: THE ITARE DAM

This case study – whose purpose is to provide evidence of our effective approach to CSR – is a precious opportunity to study a project with reference to all the aspects that are involved in a Sustainability Report, as well as of all the related operating strategies, from an economic, production-related, social, environmental and corporate social responsibility perspective.

Cmc has chosen to monitor a **project that will be taking place in Kenya**, from commencement to completion.

Itare Dam and water treatment works – Kenya

The Itare construction site is located in Kenya, in an area with plentiful water resources that will be used to meet the site’s long-term water requirements.
The Itare dam will have a capacity of 100,000 liter/day. It is one of the **key projects** identified by the Kenyan government, with the National Water Master Plan describing it as one of maximum priority in a series of policies aiming to develop sources that can ensure maximum economic efficiency.

The Itare dam seeks to offer a fully adequate long-term water supply solution to the water shortage issues that affect the municipality of Nakuru and the areas of Kuresoi, Molo, Njoro and Rongai.

CONTRACTING AUTHORITY: Rift Valley Water Service Board (RVWSB)
– **Contract value:** € 241million

DATA WHILE UNDER CONSTRUCTION
Commencement of works: 3 APRIL 2017
Expected duration of works: 48 MONTHS

Construction time line

- Completion of the two work site camps (dam and tunnel) and settlement of expatriate personnel;
- construction and commissioning of the industrial area, comprising the crushing plant and the concrete mixing plant;
- completion of the construction site quarry and extraction of the rock material needed for the production of the concrete aggregates by the crushing plant;
- excavation works for the dam body on both sides of the Itare river;
- completion of the excavation works for the TBM entrance portal and completion of the workshop;
- construction, in the excavation portal area, of the TBM spoil basin and the tunnel/industrial wastewater treatment plant;
- completion of the excavation works, construction of the foundations for the concrete plant and completion of the bearing structures for the tunnel segments manufacturing facility;
- excavation works for the distribution vessels in the city of Nakuru.

STAKEHOLDERS

MAIN STAKEHOLDER

RIFT VALLEY WATER
SERVICE BOARD (RVWSB - CLIENT)

MAIN AGENCIES INVOLVED (KFS, KWS, KENYA PRISONS SERVICE)

REGIONAL AND LOCAL AUTHORITIES (NAKURU, KERicho)

FIRMS INVOLVED IN THE PROJECT

CONSULTANTS

INTEREST GROUPS

SERVICE SUPPLIERS IN THE REGION (E.G. HEALTHCARE, EDUCATION
TRAINING, EMERGENCY SERVICES, ETC.)

SACE, INTESA SAN PAOLO, BNP, PARIBAS

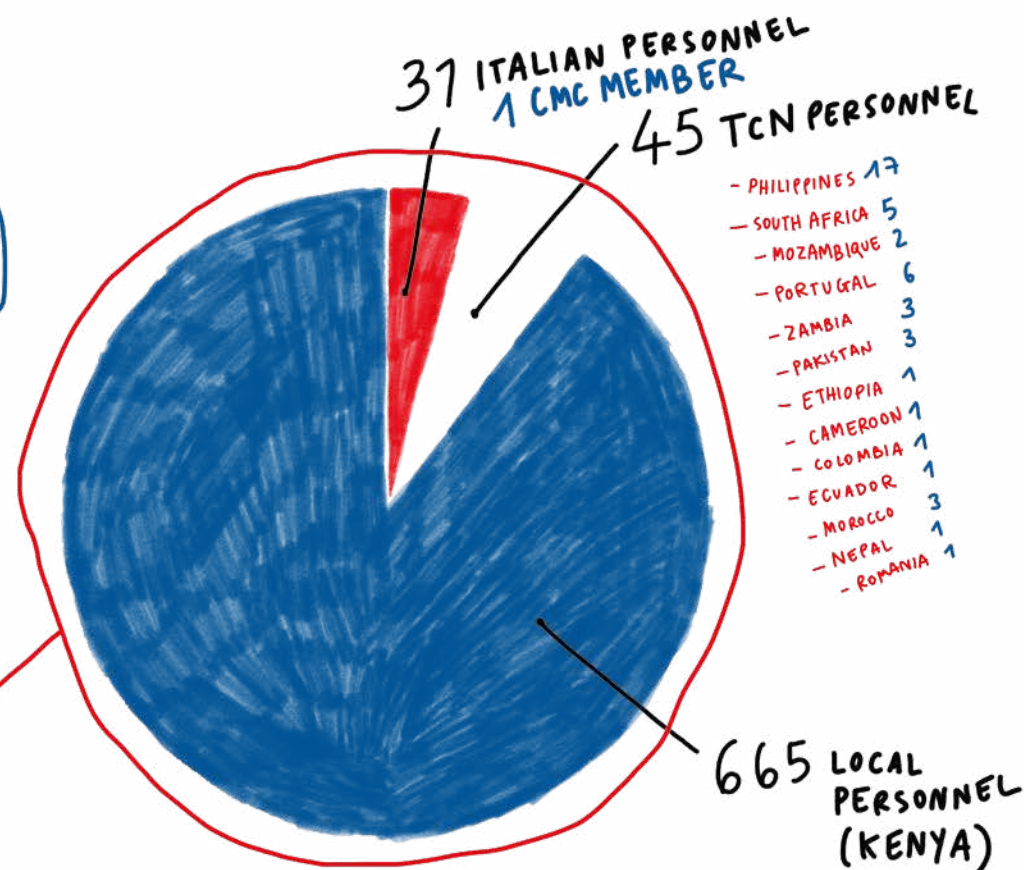
FINANCIAL PARTNERS

ENGINEERING AND DESIGN PARTNERS

H.P. GAUFFINGENIEURE GMBH & CO. KG - JBG

TOTAL PERSONNEL

731
PERSONNEL
CURRENTLY
IN FORCE



A sustainable project: Cmc commitments

Human rights

The issue of human rights is greatly felt in Kenya, as awareness on the matter has been raised by subsequent governments who have been keen to promote respect by foreigners.

One of the main issues is **respect of rights on land and property**.

Local populations have explained that the dam will cover sites that are sacred to them and want their access rights to be respected until said sites can be moved to different areas through rites that will be solemnized by senior members of the population.

Work and work conditions

The local legislation requires that pursuit of economic growth through the creation of new jobs and the generation of income be accompanied by the protection of the **workers' fundamental rights**. Cmc di Ravenna - Kenya Branch has set the following objectives for itself, to be pursued for the duration of the project:

- to promote fair treatment, non-discrimination and equal opportunities among workers;
- to establish, maintain and improve relations between the workers and the management;
- to promote compliance with national employment and labor legislation;
- to protect all categories of workers, including those who have been hired by third parties or are part of the client's supply chain;
- to promote safe and healthy work conditions and to protect workers' health.

Local and indigenous populations

The local legislation recognizes that indigenous populations – meant as **social groups with separate identities** from those of the main groups in the national society - are often the most vulnerable and marginal groups in the local population. The goals of Cmc di Ravenna – Kenya Branch are:

- to ensure that the development process takes place in full respect of the human rights, dignity, aspirations and means of subsistence based on cultural and natural resources of the indigenous populations;
- to prevent negative impacts on the indigenous communities and, if this is not possible, to minimize and compensate for said impacts;
- to promote benefits and opportunities for sustainable development for indigenous populations;
- to establish and maintain continuous relations with the indigenous populations concerned throughout the project;
- to guarantee correct information to indigenous communities;
- to respect and preserve the culture, knowledge and uses of indigenous populations in accordance with the “*Kenya Employment Act of 2007*”.

Earth ecology environmental protection control strategies

Cmc Ravenna – Kenya Branch has adopted the applicable ESIA (*Environmental and Social Impact Assessment*) procedures, also involving an active consultation process.

The main goal is to ensure **minimum impact on the Earth’s animal and plant life**, both during the project construction and operation stages. The protection of threatened animal and plant life is key to ensure sustenance and reduce the high level of poverty.

Numerous practices have been adopted on aspects regarding:

- the protection of terrestrial and aquatic habitats;
- the protection of protected or endangered species;
- soil erosion;
- deforestation and reforestation;
- climate change;
- the safety of the work site and of adjacent areas to protect people from possible accidents and hazards.



Habitat conservation

To avoid breaking up and/or destroying terrestrial and/or aquatic habitats when positioning pipe ducts, work sites, supporting structures and/or maintenance roads and to use the existing transport corridors instead. To introduce as many animal crossings as possible where habitat breaking up may not be avoided.

Species extinction and invasions

- To define a plan for the relocation of animal and plant species, especially threatened species;
- To limit deforestation to the bare minimum, especially in areas where endangered animal and plant species live;
- to map and clearly indicate the presence of species to be protected.

Erosion control

Methods used for erosion control include soil conservation measures such as reforestation, creation of check dams, controlled burning, ploughing and regulation of farming and pasture land use.

Planting and reforestation

To promote the planting of trees. Ways of achieving this include the identification of areas to be remediated, as well as of those which must not be damaged or removed.

Climate change

The introduction of a large amount of water in a relatively closed-off mountain valley area could substantially increase humidity levels and thus produce a positive effect in terms of forest growth and farming. It has not been possible to measure or prove this impact yet.

Environmental (Impact Assessment and Audit) Regulations of 2003

The Environmental (*Impact Assessment and Audit*) Regulations of 2003 require that specific plans are adopted to assess environmental impacts and adequate monitoring and auditing activities are conducted.

Nowadays, Kenya faces many environmental problems and challenges, including in terms of land degradation, management of water resources and environmental pollution, all made worse by a lack of awareness and inadequate information on the consequences of incorrect environmental interaction.

Kenya’s supplementary legislation recommends increased reuse/recycling of waste, including of wastewater.

It also recommends participation of stakeholders in the management of waste in their respective communities. It encourages better urban and countryside planning and the provision of primary assets, such as water, drainage and waste disposal.

A complete environmental monitoring and auditing program will be implemented (EMAP), aiming to verify the effectiveness of the mitigation measures proposed, as well as environmental conformity with the relevant legal requirements.

Relationship
with stakeholders

The ESIA good practices require that active consultation takes place with the competent regulatory bodies, experts, local communities and other interested parties. The goal is that of informing them on existing development plans and give them the opportunity to express their opinions on the project and on the related impacts, so that these can be carefully considered in impact assessment and mitigation actions.

The Kenyan Constitution sets out the need to involve the local communities in project development activities. This is also established in the EMCA Regulations of 1999 and the Environmental (*Impact Assessment and Audit*) Regulations of 2003. Consultation and participation of the local communities ensure that the interested parties are fully involved in the developments proposed and the sustainable use of resources is guaranteed. This process has been shown to allow the project to acquire a higher level of acceptance and to provide benefits for a larger portion of the local community.

Projects and relations with the local community

Numerous events are held involving the local institutions and community.

- Chepkoborat Primary School Safety Awareness – 28 October 2016
- HIV Aids Awareness Training – 12 June 2017
- Safety Training at Local School (Ndoinet Primary School) – 26 September 2017
- Safety Training at Local School (Chenkobukot Primary School) – 28 September 2017
- Safety Training at Local School (Marwa Primary School) – 16 October 2017
- Safety Awareness Training – (Dam Axis) – 18 December 2017

Human resources
and training

During 2017, Cmc Ravenna Kenya Branch conducted numerous training activities involving subcontractors and suppliers – *Subcontractor and Cmc Training*.

Injury trends

Total hours worked without accidents 2,499,588

Total days worked without accidents 623

Certifications

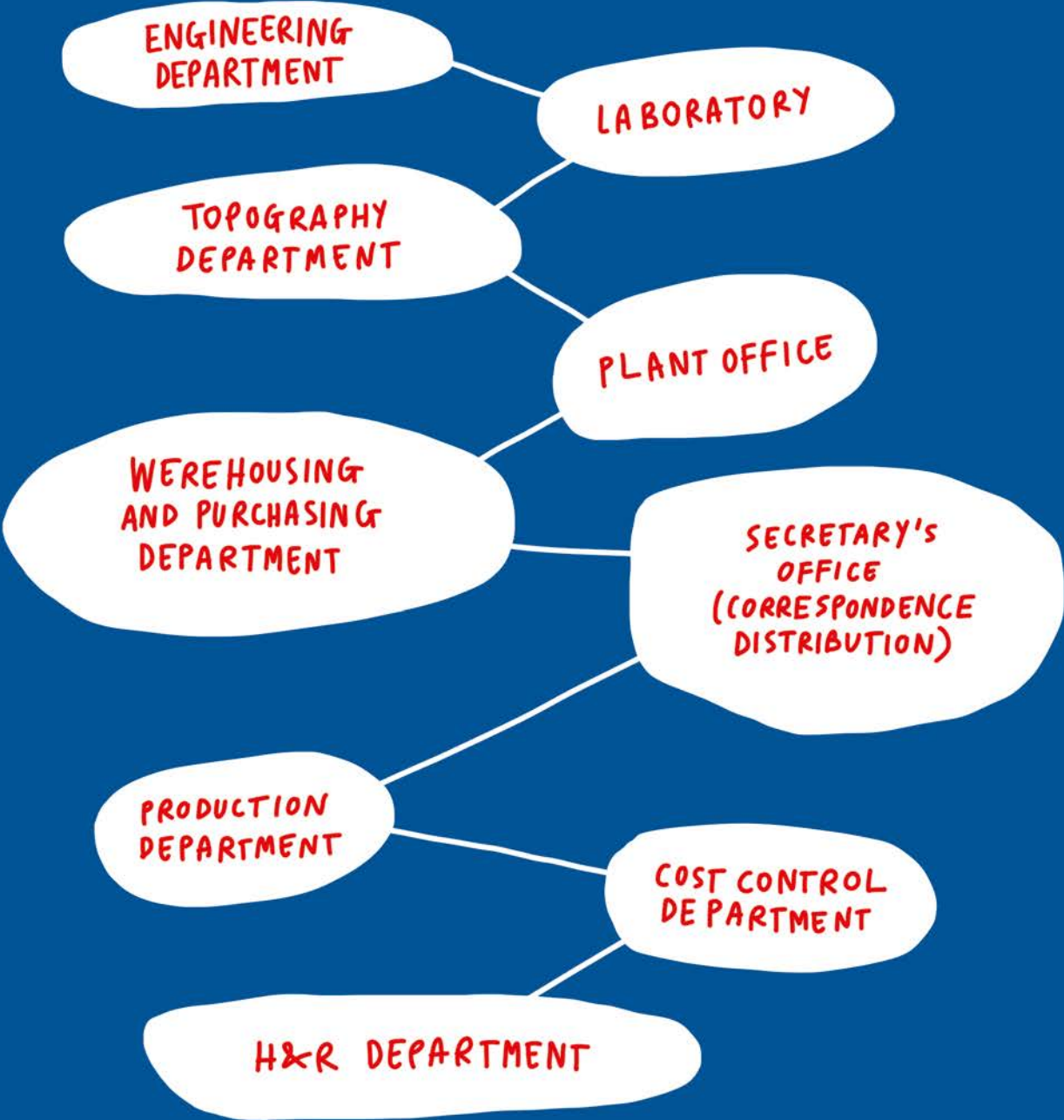
Quality

The Itare work site adopts the **ISO 9001: 2015** certification system. The ISO 9001 certificate will remain valid until 2021.

The legal requirements, procedures and operating instructions adopted are those prescribed by the Quality, Health & Safety and Environmental Service at the Ravenna head office, as adapted to suit the work site’s specific characteristics and needs. Monitoring is conducted through regular audits.

Inspections are carried out by the departments directly involved in the production and construction process, as per Cmc Quality Procedure PQG-17-01 “*Internal Audit Management*”.

DEPARTMENTS UNDER OBSERVATION



LOCAL SUB-CONTRACTORS ARE ALSO MONITORED AND AUDITED AS PART OF INTERNAL AUDITS

Suppliers

Suppliers and subcontractors producing materials or providing work to be used for the construction of the permanent structures must be approved by the Client's Engineer *Gauff Ingenieure*.

Careful selection and constant monitoring are applied to local and/or external suppliers. In some cases, specific inspections are conducted at the related production sites, so as to allow for direct verification of the quality of the products purchased. The list of approved suppliers and products is available from and shared by the Engineering Department and the Quality Department.

Clients

The Client's Engineer conducts regular monitoring of Cmc's activities on site. The Client's Engineer is kept fully up to date on the operations being completed, including with regard to blasting and topographic activities.

FUTURE IN PROGRESS



CREDITS

**Cooperativa Muratori
& Cementisti – Cmc di Ravenna**

Sustainability Report 2017

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