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Chairman & CEO REPORT

In 2016 RINA acquired Edif, its largest acquisition ever for €151 million, which was concluded in June. This was a tremendously important step for the company and provided the springboard for the company's future growth. By acquiring Edif the group is without doubt stronger and more diversified, both in geography and service portfolios. These facts, in combination, point to a future full of great opportunity.

Overall, considering the challenging market conditions during the year 2016, both our test, inspection and certification (TIC) and our consulting engineering (CE) businesses have performed robustly. I have been impressed by the way in which the company's management team responded to the market, displaying creativity, dedication and strength of purpose to deliver results which, although behind budget in some areas, were never-the-less good under the circumstances.

TIC has been working in two main markets, energy and marine. When the oil price fell to \$27 per barrel in February, the commercial shockwaves that impacted on the market were felt worldwide. That impact continued even when the price of crude had risen to \$50 per barrel at the end of the year. This dramatic and unforeseen market development resulted in contracts being cancelled at the beginning of the year, plus some existing naturally recurring contracts not being renewed. This impacted heavily on both QIC and RINA Services. But as the year progressed we started to see some of the true benefits from the acquisition with an increased portfolio of oil major customers.



Vgo Salerno СНАІRMAN & CEO, RINA

The people of RINA responded well to the challenges of 2016 and they will be the engine to drive the company's growth in 2017, during which we will consolidate our positions of strength"

For parts of our marine business the persisting fleet oversupply and the repercussions of the oil price were very similar. In general, the marine industry has experienced one of the worst crises in recent years, affecting traditional commercial vessels like bulkers, tankers, container ships and offshore vessels. This has, unfortunately, resulted in some cancelled contracts accompanied by a noticeable increase in vessel scrapping. Nevertheless, our fleet size increased in terms of gross tonnage by 5%, which was an impressive achievement. Fortunately, RINA is in a leadership position in the RO-PAX and cruise ship market where we are currently in a number one and number three position respectively. Our strength in the cruise sector is particularly important and endorses the decision to invest in our competence centre in Hamburg.

Our measured response to these market conditions was not only to deliver our TIC services in an even more timely manner, but also expand the services offered, particularly in the IT area. The area of plant maintenance is currently very important for our customers as they push for greater operational efficiency. RINA has had success in this area largely thanks to our shareholding in IB, the asset integrity software business. This business is achieving great results. We have the option to take the majority shareholding in it at a future date, an option which we are definitely considering.

For our CE business, conditions improved in the second part of the year, when we saw a modest recovery in activities. This reflected the market conditions during that period but also the development and implementation of a new business strategy. That strategy focused on moving our business from the upstream to downstream sector while leveraging the strengths of ERA, part of the Edif acquisition, in the field of renewable energy production and distribution (smart grids). We were fortunate to see the positive results of that strategy in late 2016 when we won a number of important contracts with refineries while laying the groundwork for further success in early 2017.

But the star of the TIC and CE business in 2016 was undoubtedly the Transport & Infrastructure division which grew by 40%, a remarkable result and a reflection of RINA's growing expertise in the management of complex transportation and infrastructure projects. The Industry and New Materials division represents great potential based on CSM's proven competence in the field of Industry 4.0. As companies embrace digitalisation

encompassing sensor/machine connectivity and additive manufacturing, knowledge of how to leverage this technology to improve efficiency and reduce costs will be in great demand.

Of course, RINA has not been the only company to be affected by the challenging trading conditions in 2016 and I believe that we have responded to those challenges more effectively than our competitors, many of whom have made large redundancies. We have been able to move human capital within the business, for example from the potentially loss making energy and marine sectors to the profitable railways and metros businesses. People are our main asset and as such we have invested in training and personal development. It is the quality of our staff that is a key differentiator for RINA, and it is that quality that has allowed us to succeed even in tough market conditions.

The results of 2016, showing an EBITDA of €54 million on a turnover of €448 million, could have been better. But the reality is that they are the same as 2015 and the company is still very very strong, so any disappointment I may have centres around the fact that we have not achieved our growth ambitions. In 2016 we started the complete restructuring of the organisation to increase efficiency. There is still some opportunity for synergies following the acquisition, including the better use of offices and the integration of systems. The full benefits of our new ERP system have yet to be realised, but I believe that our efficiency will be dramatically improved when this system is fully implemented. To become the most efficient operator in the industry is very important because, as the market recovers in 2017, the commercial pressure will be very high. Currently, the company is still in a period of adjustment following the acquisition. We have experienced a tough year but we have worked together and responded well to the challenge.

In 2017 we will be focussing on those markets that offer the greatest potential namely renewable energy, electrical grids, downstream, asset integrity management and industry 4.0. We will actively pursue the market opportunity in China and SE Asia. In addition, we will consolidate our positions of strength in the marine, transport & infrastructure, industry & materials and energy sectors. Our multicultural employees are our greatest asset, they have responded to the challenges of 2016 and they will be the engine to drive the company's growth in 2017. RINA is now in an excellent position being closer to our customers to take advantage of the developments in the energy market, the manufacturing market and the marine market.

TIC Services

2016 was a difficult year, but the resilience of our team and the flexibility of the business allowed us to adapt quickly to market fluctuations. The ability to offer innovative services that add value to the industries we work in, represents an asset we continuously invest in to promote the growth of the company and of our clients portfolio.

The biggest markets for TIC Services, energy and marine, suffered an economic downturn in 2016. Low oil prices meant many projects were delayed and new investments postponed, leading to a reduction in overall activity and this, combined with other unexpected events, made 2016 a challenging year.

We are fortunate to have a superb group of totally committed resilient employees. We have repeated our 2015 results. I am disappointed we did not see overall growth, but considering the challenges and the fact that 2015 was a good year, I believe we should be proud of the results. If we can achieve these figures in exceptionally tough market conditions, the future looks promising.

Our performance in the oil and gas sector showed some resilience and was in line with our competitors. On a positive note, clients and geographic coverage has increased; some as a result of expansion but the majority from our acquisition of NDE and QIC. We see opportunities to increase business by offering a variety of services on a wider, global basis. Shifting from CAPEX to OPEX related specialist services and renewable energy will be crucial to our future success.

Overall, our marine business has held its own. Most importantly, our fleet size has grown and we have increased our market share more than our main competitors. Our success is a reflection of the quality of the people we employ, hard work, customer care and a balanced portfolio has resulted in a resilience to market fluctuations.

There were also mixed fortunes for the marine sector. We saw a reduction in cargo business with a drop in new builds and some cancellations, but we experienced significant growth in the cruise ship market, not only in new builds, but also in delivering a wide range of new services and value-added solutions.







36.8 M





Michele Francioni CEO, RINA SERVICES

2016 was a challenging year, but our performance has shown that our organisation is strong"

A focus on yachting bought us the best results to date for this niche sector. We have seen an increase in the size of vessels and this market is looking strong also for 2017. This was primarily due to a massive contract with the Italian Navy, the navy sector has also performed well this year.

We continue to broaden our markets with new investments. In 2016 we consolidated our automotive industry presence. This is a competitive sector and commercial returns are slow to materialise. However, we had success with the Italian Ministry of Transport in the verification of automotive manufacturer emissions claims.

In 2016 we achieved organic growth of over 5% in business assurance services. We have also worked very hard on the further international expansion of our activities and are now recognised by the Certification and Accreditation Administration of the People's Republic of China to issue certificates for quality,

environmental and health & safety management systems.

In other areas, rail has experienced growth, consolidation and expansion worldwide. The infrastructure business has remained fairly consistent. Business assurance has also had a good year with Italy performing particularly well.

Looking ahead to 2017 we still have plenty of opportunities to exploit the acquisitions that we have made and leverage clients. We will continue to focus on the cruise ship sector and are expecting good returns.

Overall, our performance in 2016 has shown that our organisation is strong. And, although we have not seen growth, we have also not experienced the sharp reductions felt by others. This resilience to market fluctuations makes me very positive about the future.





CE Services

By developing our internal structure and with a determined effort, we have moved the company to a higher level in the market in terms of tenders and projects secured. This move has also changed the balance of our portfolio and has given us an international network potentiating our ability to solve problems.

At the end of 2015 the oil price dropped. This was not predicted and many analysts thought \$40 per barrel was the bottom of the dip. However, 2016 saw prices plummet further to below \$27 per barrel. This complete downturn in the oil and gas industry affected many, including D'Appolonia.

The slump in the oil price at the beginning of 2016 resulted in many oil and gas projects being cancelled or postponed but it also impacted investment in other areas including infrastructure, transport and industry projects. I am very proud to say, however, that this significant threat to our business was met with resilience from the CE Services team. Indeed, their strength and commitment in implementing a strategy to rebalance and re-focus our business efforts and mitigate effects left us in a much stronger position for the future.

During 2016, we changed the D'Appolonia business to make it more robust and resilient to

market influences with a multi-faceted strategy. Firstly, within the oil and gas business we extended our reach to be present in areas that meant we could increase both the number of potential clients and the volume and the quality of proposals. An extended geographical and client driven approach meant we were somewhat able to mitigate the impact of the low oil price.

Secondly, outside of oil and gas, we worked hard to increase our presence and success in sizeable infrastructure and transportation projects which, unlike our more traditional medium-sized projects, were not impacted by the downturn in oil. This resulted in an excellent year for us in the infrastructure and industrial sectors with some very large contracts secured.

Our success in 2016 has been a mixture between new clients and increased project sizes with existing clients. By developing our internal structure and with a determined effort, we have



COUNTRIES WITH PROJECTS



863,000

HOURS OF ENGINEERING



558 NEW PROJECTS





Roberto Carpaneto CEO, D'APPOLONIA

We developed the business to make it more robust and resilient to market influences with a multi-faceted strategy"

moved D'Appolonia to a higher level in the market in terms of tenders and projects secured. This has changed the balance of our portfolio and, while we are still busy with oil and gas projects, we are less reliant on this market area.

Some of the strategies to achieve our goals included further integrating our business after the acquisitions of the past couple of years. Key personnel have been relocated to support and strengthen our presence outside of Italy - a move that has given us an international network and the ability to compete with the historic global engineering consultancy giants.

There are many components to the challenges and successes of 2016 but D'Appolonia's ability to solve problems, its competence, flexibility and creativity means that our clients see us as a true partner. Looking forward to the rest of 2017, we will continue to work towards our vision of becoming one of the most important

international engineering consultants. I believe there is still plenty of room in the market areas we are already in. Our acquisition of Edif ERA gives us a strong position to target English-speaking countries and increase our presence in areas such as Australia and North America. Africa is another strategic focus for the future and we will work to strengthen our grip on this market.

In summary, a year of challenges has left us stronger than ever. With the changes we have made, we have proven that we can play with the biggest in our field and win - opening up many exciting opportunities for us in the coming years.



Money

2016 was a tough year but the completion of the Edif acquisition and the integration in our Group was a huge step for the business which will accelerate the Group's future expansion. We will continue to strengthen the business through greater diversification to keep it strong against specific markets downturns.

2016 brought with it unprecedented market conditions. For the first half of the year, engineering activities were poor with orders postponed, little general activity and low margins. Conversely, the certification and marine business was running well during this period. In the second half of the year, however, also the marine and inspection business were impacted by the tough market due to the general lack of commercial activity worldwide. With the demand for shipping low, ship owners were forced to stop new builds in progress and cancel contracts with yards.

Although the cargo ship business was suffering, we did see an unprecedented growth in the cruise ship sector. This smaller market area, however, could not completely replace the downturn in cargo ship business. To handle these reductions and especially those caused as a result of the lower oil price we had to implement a cost-cutting program which resulted in some internal projects, such as plans for new offices and new hires, being

put on hold. In parallel with this, we have been pushing hard for business in areas where we have not been as strong but where there has not been the same downturn in business.

During 2016 we also acquired the Edif business. Although this process started prior to the global market downturn, it was, and still remains, a sound investment for us with finance being provided by three main banks and a share capital increase subscribed by some shareholders. The actual acquisition process started at the end of 2015 and was completed in July of 2016. It was a challenging process as the Edif group is a young group of businesses that were not fully integrated. Since July, we have been working hard to integrate them individually as well as integrate them within RINA.

As with the rest of the business, we will work to maximise margins over the coming years. In 2017 market conditions appear to be similar to







65
COUNTRIES



Roberto Cavanna CFO, RINA

Through synergies and reorganisation we will multiply the potential of the acquisitions we made"

2016, so this too will be a tough year. However our strategy to be less reliant on oil & gas CAPEX business has, and continues to make the business more resilient.

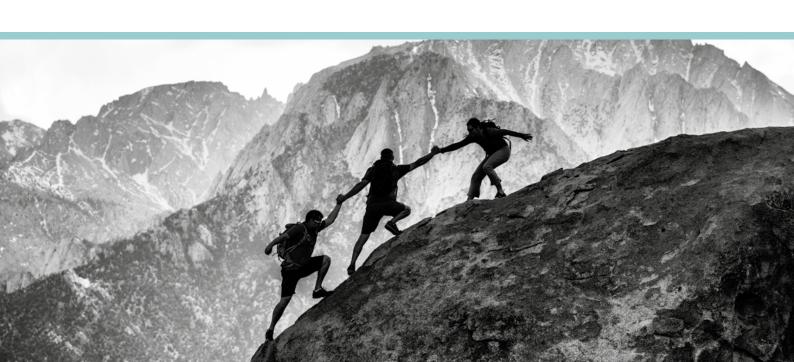
The increased diversification and new clients which the Edif acquisition has brought to the RINA business has resulted in greater strength going forward. In oil and gas we are no longer working only in E&P, but are involved in many more activities and have good contacts with many Italian and international major global oil and gas operators.

I am happy with what we are doing now in terms of the group structure and people. We are dividing Edif into two parts: NDE will be part of the TIC business and ERA part of D'Appolonia. We are also merging geographies as appropriate to make the business leaner and more efficient.

Looking forward, we will continue to strengthen the business through greater diversification to make

us less vulnerable to specific market downturns. We expect to see fairly consistent performance from the marine business, maybe with some small growth. We will also look to expand our inspection business into those market sectors which to date we have not addressed.

Ultimately, we are still hungry to expand and will be moving towards an Initial Public Offering (IPO) within the next few years. 2016 was a tough year but the completion of the Edif acquisition and the integration in our Group was a huge step for the business and one which I am sure will accelerate the Group's future expansion. For now a continued focus on lean projects and restructuring will deliver further savings. Finally, I would like to say that the resilience we have seen this year is a reflection of our colleagues and consultants who have worked exceptionally hard to put the business in the strong position it is today.





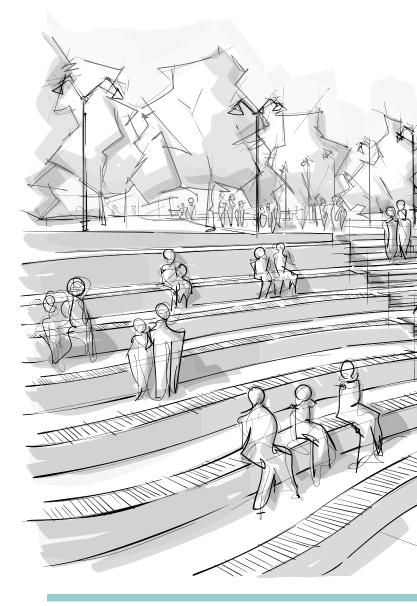
People

The difficult market conditions in 2016 presented challenges to HR just as they did for the rest of the business, especially as these were combined with the Edif acquisition. These situations are unsettling for employees so the challenge that faced HR was to present a picture of a reshaped organisation as quickly as possible. The restructuring of the RINA group was as much a communication challenge as an organisational challenge. Managing this task was difficult but when merging a new company into the organisational structure cascading information presents an even greater challenge.

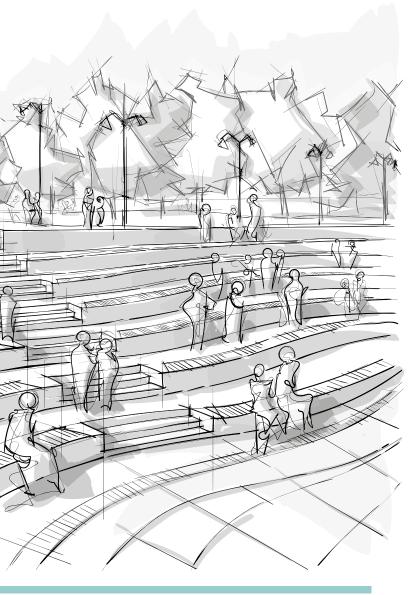
The Edif business was very focussed on productivity with relatively light staffing. There were few areas of overlap which meant duplication of personnel was minimal. Our focus is on the optimisation of all our assets, both human capital and economic. This means placing people where they are needed, which may involve a change of duties or location. With the acquisition, there is an expanded opportunity to work in new countries and to expand portfolio experience for career progression.

Part of the HR role during 2016 was to consolidate the assessment processes of both young talents and senior managers. This is an ongoing task but will give us a deeper and stronger understanding of our new Edif colleagues. This in turn will help us to identify good managers for the future.

Our business is powered by individuals and to be successful, we have to focus on each individual to make the group strong. That's why, despite the difficult markets, we kept investing in our people. At the end of the day, each one of our staff should feel like the cornerstone to our organisation.







CSR

RINA strives to continuously improve and create shared values with all of our stakeholders. Supporting this we apply integrated Enterprise Risk Management and, in April 2016, we issued the RINA Corporate Social Responsibility (CSR) Policy: a document that shows our commitment to sustainable development and responsible business conduct. It covers governance, people, the planet and innovation.

We continue to develop tools and procedures to help with our CSR and strengthen our business. In 2016, we gained external certification of RINA operative companies' integrated management systems for environmental and health & safety compliance with ISO 14001 and OHSAS 18001 standards.

One of our 2016 projects to support creation of social value included adding 1000 meals for young students at the school in Acquasanta in Umbria (Italy) that was damaged by the earthquake.

Safety and security of our employees is paramount to what we do. In 2016 we developed an initiative focused on this area for people travelling abroad. This new travel policy has received positive feedback from the people using it and, I believe, was one of the most important steps in 2016 to support our international business.







69 NATIONALITIES



HIGHLIGHTS

& ACHIEVEMENTS

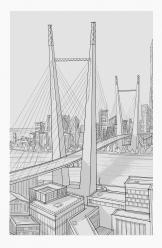
Corporate

■ RINA acquired the entire share capital of Edif Group, a leading worldwide provider of a diverse range of TIC-CE services that serve to reduce risk, optimise performance and enhance the capability of its clients' assets

Transport&Infrastructure

■ **Irish Rail** selected D'Appolonia for safety assurance support services

- D'Appolonia EUTransport Research Competition for research activities in the field of railway vehicle safety
- was D'Appolonia awarded the TRA Visions a public tender for the Champions development of Venice Port Master Plan





Energy

RINA Services carried out in Italy for Eni the first independent review and verification of risk management system in to line with EU Directive 2013/30/EU

D'Appolonia developed the **Net Environmental** Benefit Analysis (NEBA), a new advanced tool support oil spill contingency planning

OPIC the U.S. Overseas Private **Investment Corporation** awarded D'Appolonia a multiyear framework contract environmental and social services to support their investments in developing countries worldwide





Marine

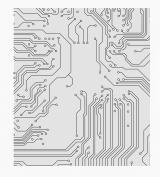
- Delivery of the Seabourn Encore luxury cruise ship
- Opening of the Gas Excellence Centre that brings together RINA global gas expertise
- Acquisition of share in IB Software Consulting enhance the range of software tools for the marine industry

Industry & New Materials

CSM organised the first edition of MAM16, Master on Additive Manufacturing

■ The Iranian Mobarakeh ■ Polaris developed a Steel Company awarded quadcopter drone, ENAC CSM a contract for the certified, with mission technical training their personnel in steel production for oil & gas and automobile products

of planning functions



Business Assurance

- RINA was recognized by CNCA (Certification and Accreditation Administration of the People's Republic of China) for quality system management, **environmental** system management and **health** and safety management
- RINA was accredited RINA Services joined by the Polish Oil and Italian certificates of conformity for the production of biofuels enhancement and bioliquids (KZR INiG System)

Identity. Gas Institute to issue independent and nonprofit association for sustainable the global protection, and promotion of Made in Italy culture and products

 Agroqualità was authorized by the Ministry of Agricultural Food and Forestry Policies for the **Organic Certification** according to the Reg. EC 834/2007

Energy

We reacted to market conditions and pressure with a strong push on our work quality and diversification strategy. We focussed on new market sectors, tendering for asset integrity for downstream projects, to give us the basis for a more balanced portfolio. We are now in a stronger position with major clients that will help us going forward.

The market conditions for 2016 are a matter of public record. Some projects were delayed, postponed or even cancelled in the first part of the year. For projects that did go ahead, there was much greater pressure on price. This resulted in contraction of our Energy business, but there are many positives to be taken from the year that have left us stronger and more resilient moving forward.

The general reduction in activity and pressure on prices had two effects: firstly it opened the door to smaller and less structured competitors who were prepared to reduce prices; secondly we saw large companies and EPC contractors bidding for smaller contracts that would have not interested them on better market conditions. To compete with this we reacted to low prices, often provided by less technically competent companies, with a strong push on our work quality. On the other side, we formed many joint ventures with large EPCs in key markets. This move gave us greater visibility in the market, helped us secure larger contracts and put us in a stronger position with major clients that will help us going forward.

Strategies for greater diversification that started before 2016 have made us stronger. On the TIC side, these included new services with extension of our certification to operation and maintenance activities. We also began to focus on new market sectors, in particular tendering for asset integrity for downstream projects, to give us the basis for a more balanced portfolio. These projects are particularly appealing as they combine our TIC and CE offerings and are supported by the added competencies Edif brings in this area.

On the CE side the business has changed with a greater number of smaller projects and fewer large contracts. This is because the oil operators are consolidating their businesses looking for shorter developments and quick returns as opposed to large production, high CAPEX projects. Smaller projects mean greater commercial effort but the Edif acquisition has opened up many exciting opportunities for us.

Edif complements our business very well as it has a different client portfolio to RINA in the energy sector and is stronger in different geographical territories.



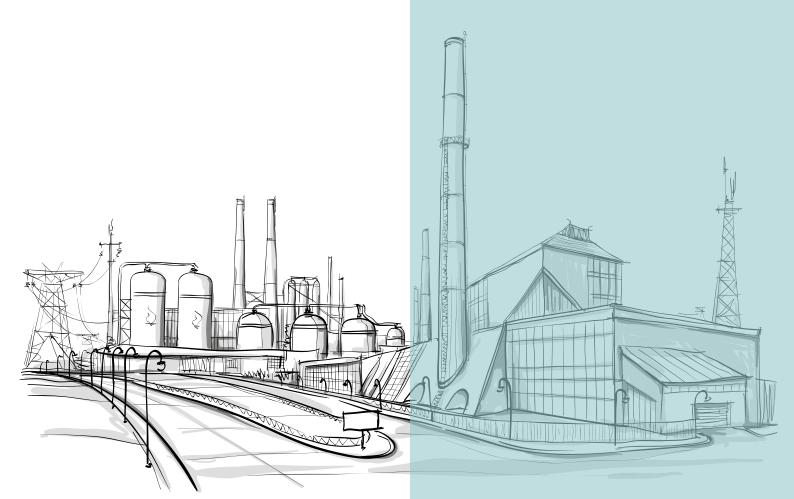
RINA has been strong in the electrical generation market, to which Edif ERA adds significant expertise in electrical transmission and distribution, enabling us to offer our clients a complete and integrated service package. Edif's base in the UK will particularly add benefit to the business and bring us culturally closer to English speaking regions. We will also see growing opportunities in countries such as Saudi Arabia and China, where RINA has historically had a strong presence in marine but not so much in energy. Their additional competencies, such as drilling phase inspection, fit perfectly with the business. One example of the success we have already seen includes the LIWA project in Oman. RINA's presence in the country combined with Edif NDE's relationship with the client led to the signing of this multi-million contract in October 2016.

Edif's strong presence in offshore wind farms will also help us add further diversification in the renewables market. Offshore wind farms are similar to offshore platforms in terms of verification of design and infrastructure so they are a good area for us. That is not to say that we will not continue to build on our success in solar PV particularly in the USA, SA and Middle East. During 2016 we opened companies in Ghana and

Chile. The Ghana office will support the Offshore Cape Three Points (OCTP) project which includes subsea production systems and an FPSO. Our presence in Chile will service growing LNG projects in this region.

Looking forward to 2017, we will exploit all synergies from the combination of geographies, services and the client base the Edif acquisition has opened up. We will continue to focus and promote digitalisation to our clients with added value software offerings and RFID technology. Some exciting internal projects include new tools for managing inspection and research into the use of robots or drones to facilitate efficiency in visual inspection services.

Energy is now the largest business unit in the RINA Group in terms of revenue and the size of our business now gives us global visibility. 2016 was the start of a new era for us and one in which the Energy market will be of great importance. We have to change to accommodate this new business position, not only on an individual level, but as a company in how we address the market. This is a new and exciting point in our history.





Projects Energy TIC

OFFSHORE PLATFORM CLASSIFICATION



RINA Egypt won a contract with Abu Qir Petroleum for the inspection and re-certification of Abu Qir's offshore facilities. Abu Qir Petroleum is a joint venture company between EGPC (Egyptian General Petroleum Corporation) and Edison Italy. The tender covers Class and Safe Operation certification for all Abu Qir Petroleum fixed offshore Gas production platforms located in Abu Qir bay, Alexandria (EGYPT). The Abu Qir Company has 5 complex platforms under the scope of this contract. RINA will survey the platform structure, relevant top side facilities, electrical instrumentation, life-saving and lifting appliances. This contract is a further step in the sustainable development and growth of RINA Egypt Energy hub.

DEEPWATER EQUIPMENT INSPECTION IN THE GULF



Discovered in 2007, the Julia field comprises five leases in the ultra-deepwater Walker Ridge area of the Gulf of Mexico. It is located approximately 265 miles southwest of New Orleans in water depths of more than 7,000 feet. The application of technology at these depths has played a key role in the Julia development including the use of subsea pumps that have one of the deepest applications and highest design pressures in the industry to date. For this project, RINA Services carried out vendor inspection services at various supplier premises and in particular, RINA inspectors worked on various drilling equipment, manifold, DHCE and hangers in the USA.

WIKINGER WIND FARM



Iberdrola is expanding its renewables portfolio. The Wikinger project is an offshore wind farm composed of two wind farm areas, Wikinger with 70 turbines and Wikinger South with 13 turbines. It is located in the jurisdiction of BSH, in German waters, at a depth of approximately 39 m and will provide a total capacity of 415 MW. RINA Services provided design approval and construction supervision of sea fastening of the upper and lower grillage, design approval and manufacturing supervision of spreader bars and inspection services for the construction of 29 offshore jackets.

FRAMEWORK AGREEMENT WITH ENI CONGO



RINA Services will be providing very broad technical assistance to Eni as part of an important framework agreement. The contract scope includes QA and QC coordination, field inspection, QA and QC surveillance of Eni's vendors/sub-suppliers including their construction sites. This activity will verify that purchase orders/contract requirements for materials, equipment, documentation and delivery are in compliance with specific contracts. Under the heading of QA and QC RINA will be partially monitoring all fabrication work with a particular emphasis on welding painting and electrical instrumentation inspection. In addition, mechanical inspection will be an important component during manufacturing and fabrication but also during construction which will take place in the Republic of the Congo.

PLATFORM LIFE EXTENSION PROJECT IN INDIA



ONGC launched three tenders for life extension of well platforms (LEWP) and RINA Services won 1 and 3. The scope of work for LEWP I includes changing all facilities on 20 unmanned platforms. RINA is involved in pre-construction survey/procurement, inspections/fabrication, pre-commissioning and commissioning. RINA will monitor and inspect onshore, offshore and at the vendor premises until hand over. LEWP III covers decommissioning, removal and replacement of the existing topside decks with new ones on 10 unmanned platforms for which RINA will provide project management services.

ITER NUCLEAR PROJECT



In southern France, 35 nations are collaborating to build the world's largest tokamak, a magnetic fusion device designed to prove the feasibility of fusion as a source of energy. ITER will be the first fusion device to produce net energy and maintain fusion for long periods of time. ITER will test the integrated technologies, materials, and physics regimes necessary for the commercial production of fusion-based electricity. RINA Services is providing inspection services on the basis of contractual specifications and international standards at Ansaldo Nucleare suppliers premises in Europe. In particular, our inspector supervises NDT tests and checks the supplies status.

ACCELERATED GAS PRODUCTION IN EGYPT



RINA Services continues its involvement with inspections and site supervision for the development of the main gas fields in Egypt, the West Nile Delta project for BP and the Zohr project for Eni and its Egyptian auxiliary Petrobel. In particular, for the Zohr project, RINA is supporting the development of the project during the purchasing of equipment and materials, the onshore critical construction activities and the offshore installation phases. For the West Nile Delta project RINA is providing vendor inspection services worldwide, ensuring that the subsea equipment is manufactured to specification, and site supervision services locally during the laying of the subsea infrastructure and the tie-back pipeline.

EXPANSION IN SOUTH AMERICA



RINA Services will be managing the design review and consequent certification of existing subsea pipelines for TOTAL AUSTRAL S.A. according to the Technical Regulations for Subsea Pipelines "RTDS" (Reglamento Técnico para Ductos Submarinos). The contract refers to the subsea assets associated with the Planta RIO CULLEN, which accounts the following structures/installations/platforms: nr. 6 Platforms (Vega Pleyade, Carina, Aries, Argo, Hidra Norte & Hidra Central), nr. 1 SBM and nr. 1 PLEM. This win is the first of this type for RINA Iberia SLU - Argentina Branch - and consolidates the energy role of RINA in that region and the international footprint of the entire Group.

LIWA PLASTIC PROJECT



Orpic's Liwa Plastic Project is a steam cracker project that will support the downstream plastic Industry in Oman. Orpic awarded a total of 4 packages worth over 4.5 billion USD for this project. The largest award was made to CB&I and CTCI Corporation JV. CB&I required the service provider to have locally recognised entities in 6 countries. NDE lacked offices in Korea, Netherlands & Oman, but as part of RINA's network, full geographical coverage could be provided. This is the first project won by RINA Services with NDE which was part of the Edif acquisition. The project is forecast to run for 4 years with TPIA services required for 2 years, providing both inspection and expediting services for approximately 500 PO's to be placed worldwide and a procurement spend of over 1 billion dollars.

DEEP WATER EQUIPMENT INSPECTION FOR SHELL



RINA Services carried out vendor inspections on behalf of Shell on various components such as Manifold, Suction Piles, Flowline Equipment, Valves, Packers, Systems and Liner Hangers. All of these components will be used in connection with the Stones field, the world's deepest oil and gas project, operating in around 2,900 metres (9,500 feet) of water in an ultra-deep area of the US Gulf of Mexico.

The FPSO Turritella connects to a subsea infrastructure producing oil and gas from reservoirs nearly 30,000 feet below sea level with two subsea production wells tied back to Turritella. Six further production wells will be added later, in addition to a multi-phase system to pump oil and gas from the seabed to the FPSO, increasing recoverable volumes and production rates.

INDONESIA SUBSEA PROJECT



Chevron Indonesia is developing the Bangka hubs, located in the Makassar Strait, Indonesia. RINA Services as part of the PT Depriwangga consortium will be providing QA/QC inspection services for material and component fabrication, installation, testing, pre-commissioning & commissioning activities in addition to supervision services. RINA will also be responsible for expediting various materials and equipment purchased domestically and globally for the project.

The Bangka Field is located approximately 70 km offshore East Kalimantan in water depths of 3,200 ft. It is a gas-condensate field consisting of two stacked upper slope channel complexes, known as the Upper Channel and Lower Channel reservoirs. The field is developed as two subsea wells connected via a single flexible flowline to the existing West Seno Floating Production Unit (FPU). This is the first stage of the Chevron-operated Indonesia Deepwater Development (IDD) Project in East Kalimantan.



Projects Energy CE

GHANA OCTP DEVELOPMENT PROJECT



Eni is developing the Ghana Offshore Cape Three Points project using subsea wells tied to a Floating Storage Production Offloading unit (FSPO) and D'Appolonia is providing project management, engineering and supervision consulting services. D'Appolonia provided supervision services for the vessel refurbishment and life extension at the fabrication yards in Batam and Vietnam for the 5 topside modules. We supervised the integration with the hull in Singapore as well as the fabrication, installation and mooring in Ghana. The activities involved more than 80 specialists in different locations in the Far East, Europe and Ghana.

GE SERGIPE PROJECT IN BRAZIL



D'Appolonia won a contract with Alstom Energia Termica & Industria Ltd (a GE Company) in Brazil to provide architect engineering and specialist consultancy services for the construction of a new combined gas cycle power station in Porto de Sergipe. With a generating capacity of 1,516 MW, the facility will be the largest gas power plant in Latin America and can deliver an efficiency rate of over 62%. Short construction times required a modular design. The modular structures will be pre-assembled and then assembled on site. D'Appolonia's consolidated skill in modular design and experience in BIM planning resulted in awarding this contract. In addition to managing the design activities, D'Appolonia will coordinate with the various departments at GE Swiss engineering execution centre and locally with a Brazilian consultant for the permitting design.

SUBSEA PIPELINE FOR HPCL REFINERY IN INDIA



Hindustan Petroleum Corporation Limited (HPCL) Refinery, based in Visakhapatnam (east coast of India), plans to connect their offshore tanker terminal to a ship jetty for receiving petroleum products through ocean tankers. The project includes installation of a 1.1 km long subsea pipeline, pumping station, loading arms, SCADA and cathodic protection systems. HPCL awarded D'Appolonia a contract for engineering and project management consulting services throughout the 18 months project duration, starting from the engineering phase until commissioning of the whole system. The scope of services includes all the engineering and consulting activities needed by HPCL in order to appoint an installation contractor, as well as PMC and field management required during the construction and commissioning.

VEGA OIL OFFSHORE PLATFORM



Edison intends to drill 8 new production wells at the Vega B platform in addition to those already authorized in the area. D'Appolonia has assisted Edison in the past with the development of the Environmental Impact Assessments and of the integrated pollution prevention and control (IPPC) procedure. This will support the permitting process. D'Appolonia has now been involved in the new procedures to assist Edison to get the requested authorizations by the Ministry of the Environment.

Annua

AVIVA ONSHORE WIND PORTFOLIO



OST was appointed by Aviva Investors, to provide due diligence support for a UK 60 MW multiproject wind portfolio. OST's review included planning issues and land rights and supported the negotiation of EPC and asset management contracts. A detailed operational energy yield analysis of two projects was undertaken including evaluation of power performance test results for two turbines. Critical reviews of five third-party yield analyses were considered within the financial models. The acquisition was closed in 2016 and OST provided project management services for the construction projects under an Owner's Engineer appointment, acting as Engineer under the EPC contract and monitored works progress.

QEII FLOATING PV



OST was appointed as independent engineer to undertake a technical assessment of the Lightsource QEII reservoir floating PV project. The project is one of the largest floating PV installations in Europe with 23,897 modules mounted on a single island of plastic floats forming rafts of solar panels. OST reviewed the technical components to be used for the project as well as the structural design and installation methods. This included float connections and anchoring design, floater-specific MRA analysis and benchmarking against similar installations. Financing of the project was successfully closed in 2016 making the plant the first European Bank financed floating PV project.

BENBAN PV PROJECT IN EGYPT



OST was appointed by the EBRD and OPIC as the Environmental & Social Advisor to undertake Environmental & Social Due Diligence (ESDD) on a series of 50 MWp solar PV across Egypt. Many of the projects are to be located within the 1.8 GW Benban solar development, near Aswan which is currently the world's largest solar PV development. The project developers include FRV, Scatec, Orascom, EDF, First Solar, and Total. The scope required the review of project environmental and social impact assessments and associated environmental and social management plans, including stakeholder engagement plans, and project appraisal to determine compliance with EBRD and IFC environmental and social policies, standards, and guidelines.

TRADEMARK EAST AFRICA IN TANZANIA



D'Appolonia was selected by the not-for-profit company TradeMark East Africa to develop a feasibility study and engineering design for the construction of a new liquid bulk terminal and tank farm and the relocation of Kurasini Oil Jetty (KOJ) in Dar es Salaam, Tanzania.

GE ALGERIA



D'Appolonia was awarded by General Electric Algeria Turbines an important contract for PMCM and owner's engineering for the development of a new industrial facility in Algeria for the assembly of gas and steam turbines. The contract represents the continuation of the design and tender phase activities carried out in 2015 and in the first half of 2016. The contract includes design review, project management and construction supervision during the whole project.

KOYSHA HYDROPOWER PLANT IN ETHIOPIA



D'Appolonia was selected by Salini Impregilo on behalf of a pool of lenders including SACE, the Italian export credit agency, to act as the environmental and social advisor for the Koysha Hydrolectric power plant project. The project consists of the design, procurement and construction of the power plant with an installed capacity of 2,160 MW over the southern Omo river.

PALMA LNG EXPORT TERMINAL



Eni East Africa is developing an LNG export terminal in Tungue Bay, northern Mozambique. D'Appolonia executed nearshore site investigations for the terminal and was responsible for the geotechnical investigation for self-elevating platforms. In-situ testing and onshore geotechnical laboratory testing, including geophysical and environmental surveys comprising benthic, sediment and water sampling with subsequent laboratory testing and complete environmental baseline characterization were all included in the important contract. The project, which employed 20+ people on site, was highly challenging considering the remote area of investigation that implied many technical, logistic and HSE issues including the need for geohazard and seismic engineering, plus studies into risk assessment.

PROJECT ORION



OST was selected by Brookfield to undertake a technical due diligence on an international portfolio of solar assets. This is the largest portfolio of PV projects that OST has worked on and once financial closed has been reached it will be the largest PV portfolio ever sold.

We provided technical advisory services to Brookfield Asset Management for the acquisition of the largest renewable energy portfolio, previously owned by SunEdison, for a total investment of about \$1.41 billion. The portfolio comprises nearly 4,000 MW of wind and solar power in UK, USA, Canada, Uruguay, Chile, Brazil, India, China, South Africa, Thailand and Malaysia.

PANAMA CANAL LNG TERMINAL



The Autoridad del Canal de Panamá (ACP) plans to develop LNG-related infrastructure in the Canal territory. The goal of the new facilities is to 1) facilitate the delivery of LNG bunkers to vessels, 2) provide electric power to ACP infrastructure, 3) grant new business concessions, 4) transform Panama into a regional energy hub and 5) brand the Panama Canal as a "green" shipping route. ACP awarded RINA USA a contract valued US\$ 878,000 for a feasibility study for the Panama Canal LNG Terminal Project. The study addresses market, siting, technical, institutional/legal/regulatory and environmental issues and began in November 2016, ending in July 2017.

ENERGY STORAGE FOR NATIONAL GRID'S EFR SERVICE



Of the 201 MW of Enhanced Frequency Response (EFR) contracts awarded by National Grid, OST was appointed as Technical Advisor on many projects. OST assisted with technical and commercial issues regarding the implementation of Lithium Ion Energy Storage Systems (ESS). OST advised and assisted with the functional modelling of the full two year second-by-second UK grid frequency data set, planning application preparation, submission and management, and drafted tendering scope and evaluations documents. Commercial advisory assistance was also provided in reviewing the National Grid's EFR Service Agreement, drafting of commercial and performance protection mechanisms and Heads of Terms for EPC and O&M contract tendering.

Marine

As a lean and international company that understands where the potential is and reshapes itself, we focused on niche areas to tackle the difficult market. We put together new service offerings for the operational side of the marine sector that can enhance the performance of the industry and reinforced our geographical presence where key clients in the cruise industry are located.

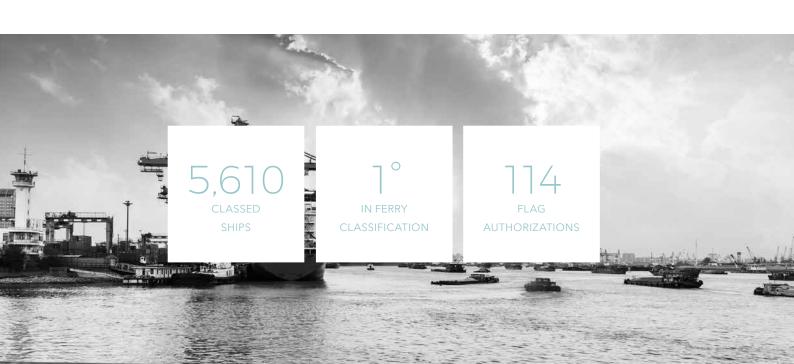
The harsh market conditions during 2016 made business difficult. Freight rates were very low because of the overcapacity in the market. Indeed, the year saw a reduction in global newbuilding orders of cargo ships of about 75% compared with 2015. However, despite the fall of the orders for new ships the overcapacity seems far from being absorbed.

2016 also saw a large percentage of ships being scrapped. 942 vessels went to scrap, which equated to around 44 million of tonnage. This is an increase compared with 2015 and more than was forecast. The average age of ships being scrapped also decreased and we recorded 10 years old vessels been sent to the cut. Ultimately, the low freight rates and lack of business mean it is sometimes more convenient to scrap a ship rather than keep it in service waiting for work.

On a positive note, niche markets performed extremely well. These included the cruise market and all three RORO sectors - cargo, pax and vehicle carriers plus some specific vessels such as livestock and asphalt carriers. To compensate for the downturn in the cargo

sector, we focussed on these areas and put together new service offerings specifically on the operational side of the marine sector. Although cruise ships are only a small proportion of the business, the combination of the niche markets that were performing well in 2016 equated to around one third of our business. For the first time in RINA's global orderbook, the tonnage of passenger ships surpassed that of cargo vessels.

Part of our strategy was to reinforce our geographical presence where key clients in the cruise industry are located, including Germany, USA and China. In Miami, for example, we now have a strong and competent team of people in place, some from the cruise industry and some with software backgrounds, who are very capable of independently delivering our services to the major cruise operators. Our investment of resources in Germany started even before the USA and we continue to reinforce our presence there. In China, we have been making commercial investments in terms of seminars and review of technical specifications. Although returns from the cruise market in China during 2016 were limited, our groundwork has placed us in excellent



position to compete in this market that we expect, in the medium term, to experience a tremendous growth.

LNG is another market sector where we have been working to improve our visibility. We have employed experts from the gas industry to increase our competence and day by day we are gaining more acknowledgment and recognition of our expertise in these areas. Along with our D'Appolonia colleagues, we can present ourselves as a global gas centre of excellence with a great variety of competences. The LNG market offers opportunities not only in new vessels but also in the infrastructure required including bunkering facilities, readjustment of harbour and terminals to allow for bunkering of LNG, and review of the logistics of dry docks. This all presents a lot of crossselling opportunities within the RINA group.

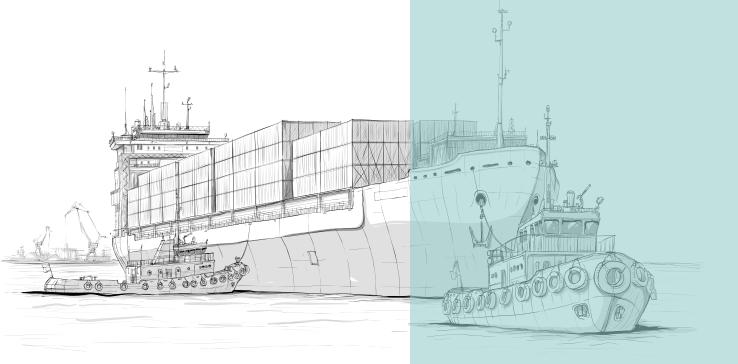
Our continuing effort in promoting and expanding the RINA business in the marine sector means that the market now views us differently. We are seen as partners, and are often called upon to support the industry with services that go beyond traditional classification services and can enhance performance. For example, one client asked us to develop software for the monitoring of air emissions and for another we developed software to manage bilge and sludge waste, helping eradicate errors in a vessels oil record.

The acquisition of Edif in 2016 strengthened our position in the oil and gas market; in particular through contact with oil majors in the USA and coverage of supply vessels in the UK. Moving forward, we will be looking at strategic plans to develop our business based on this increased knowledge and client contact.

Looking forward to 2017, we expect new builds in the cargo sector to remain at low levels. This means we need to continue to focus on the niche market sectors that are performing well - primarily cruise ships and ferries. The downturn has also presented some opportunities or us to package standard and advisory services together and promote this to larger operators for their existing fleets. The main geographical areas where we expect consistent growth in the classification of ships in service will be Greece, where there is a large ship owner community, and northern Europe.

For our advisory services in the coming year, we are predicting an increase in budget of around 40%, taking advantage primarily of forthcoming regulations and development of new technologies such as the adoption of new fuels and the introduction of fuel cells and electric batteries on board vessels.

We closed the year in a stable condition with a shortfall of around just 2% to budget. This was an excellent performance given the market conditions. Our success has come from good strategic planning but also from a great common effort by our global teams.



Projects Marine TIC

ENERGY GOVERNANCE FOR MSC SHIPMANAGEMENT



Cyprus-based MSC Shipmanagement has chosen RINA's InfoSHIP Energy Governance (EGO) software for the performance management of its fleet. MSC has invested in a range of retrofit solutions to reduce the energy consumption and air emissions of its fleet which totals more than 160 containerships. InfoSHIP EGO is part of the ship management software suite developed by RINA and IB Software & Consulting. InfoSHIP EGO has a number of modules which collect data on-board the ship automatically from navigation and machinery automation systems. The data can then be analysed for trim optimization, propulsion efficiency, voyage and fuel management, overall energy management and decision management. As the software can be customized to a particular operator's needs, it can easily be set-up to provide all the data needed to meet the requirements of the EU Monitoring, Reporting and Verification (MRV) scheme.

LEADING THE CRUISE SHIP SECTOR



RINA Services acquired contracts for the supervision of the construction of 2 cruise ships for Costa Asia, 1 cruise ship for CCL and 1 option for a Carnival Group branded cruise ship to be built at Fincantieri. The new ships will feature the exclusive "green cruising" design as part of the first generation of cruise ships to be powered at sea by LNG. RINA will class the new builds at Meyer Werft according to its classification rules for passenger ships with LNG fuelled service notation and will certify the vessels in compliance with the latest and most stringent international mandatory regulations, such as the IGF Code. The classification will comprise the appraisal of the plans, supervision during the construction and the cargo system at the manufacturer's. This represents approx. two years activity and will conclude with the shipboard tests and commissioning, including the bunkering tests and final sea-trials using LNG as fuel.

FIRST LNG FUELLED FERRY OPERATING IN THE MED



RINA Services acquired the contract for the supervision of construction of 1 + 1 LNG fuelled ro-ro pax for Caronte & Tourist to be built at Sefine Shipyard (Turkey). The ship will be the first LNG fuelled ferry operating in the Mediterranean Sea. It will be 133 m long, 21.5 m wide, and capable of carrying 290 cars on two vehicle decks, in addition to 1,500 passengers. The vessel's propulsion will be based on a gas-electric system using three dual-fuel engines. It is scheduled for delivery in 2018 and has been optimised to operate across the Strait of Messina between Villa San Giovanni and Messina in Sicily - an area subject to strong currents. The vessel will also have an EU Class B certificate, meaning it will also be able to operate on more open routes, such as to the Aeolian Islands.

ITALIAN NAVY



RINA Services signed with Fincantieri a contract for the classification of 9 ships for the Italian Navy: 1 LSS (Logistic Support Ship); 1 LHD (Landing Helicopter Dock); 7 PPA (Offshore Multipurpose Patrol Ship). The new building program is expected to be concluded by 2026. The Logistic Support Ship is a double hulled unit, fully interoperable with NATO and EU partners. The ship will be more versatile than the present generation of ships, benefiting from the extensive use of the "modularity" concept. The vision at the design phase was to incorporate enhanced "dual use" features, making it fit for traditional military tasks and be able to operate during peace time supporting Humanitarian and Disaster Relief Assistance Operations. The Offshore Multipurpose Patrol Ship will have a smaller environmental footprint by using bio fuel and electric propulsion.

ITALIAN INFRASTRUCTURE FOR ALTERNATIVE FUELS



GAINN4CORE contributes to the GAINN-IT Global Project and aims to define, prototype, test two of the three Italian LNG grids (the Tyrrenic-Ligurian and the Adriatic-Ionic) including the Core ports of Genoa, La Spezia, Livorno, Ravenna and Venice. The objectives are to define the complete National LNG grid by 2030, to provide the ports of Genoa, La Spezia, Livorno, Ravenna and Venice with initial pilot infrastructure appropriately connected to each other, in order to store, distribute and refuel ships and other vehicles, and to generate the initial demand for the fully operational LNG bunkering stations.

REFITTING WORKS ON COUSTEAU'S VESSEL



RINA Services acquired the contract for the supervision of the refitting works on MV Calypso, the oceanographic vessel of Jacques Cousteau. The vessel was built in 1942 as a military minesweeper and then became a ferry boat. In 1950 Cousteau restructured and transformed the ship into an expedition vessel for oceanographic research. In 1996, Calypso was accidentally rammed by a barge and sank in the port of Singapore. She was then raised by a crane, patched, and pumped dry before being put in a shipyard for recommissioning, which started twenty years later. The work is currently being carried out at the Aykin Marina shipyard, on the Asian coast of the Sea of Marmara, under the supervision of RINA.

AIDAPRIMA CRUISE SHIP



RINA Services provided risk assessment and alternative design, approved by the Flag Administration, for the 125k GT cruise ship AIDAprima, owned by AIDA Cruise. Our activity comprised the classification of the ship and the provision of technical support on the application of the alternative design, allowing the Flag Administration to accept deviations from the prescriptive international safety regulations. AIDAprima is the first cruise ship that has both a shore power connection, a comprehensive system for exhaust after-treatment, and a dual fuel engine. The vessel may, depending on availability, be operated using LNG fuel. AIDAprima is also the first cruise ship to use MHI's proprietary technology the Mitsubishi Air Lubrication System (MALS). The system forms small air bubbles, which cover the bottom of the vessel thereby decreasing hull friction resulting in reduced carbon dioxide and fuel consumption.

SUSTAINABLE LNG OPERATIONS



GAINN4MOS aims to improve the Motorways of the Sea network in six Member States by carrying out engineering studies of ships retrofitting and port LNG bunkering stations. There will be and a large set of pilot projects including 4 ship retrofitting projects - an LNG bunkering barge, an LNG port tugboat, an LNG general cargo ship and an LNG pax or ro-pax vessel - as well as 7 LNG bunkering stations at core ports. Three pilot infrastructure networks for the use of LNG as an alternative transport fuel, composed of 3 LNG grids in the Tyrrenian-Ligurian, South Italian and Adriatic-Ionian Seas in Italy.

LOW ENERGY AND NEAR TO ZERO EMISSIONS SHIPS



LeanShips will include 8 innovative technologies that will increase efficiency and reduce pollution. The technologies will be fitted to new/retrofitted vessels according end users' requirements. Demonstrators were selected for their end-user commitment, impact on energy use/emissions, EU-relevance, innovativeness and targeted-TRL (technologies readiness level) at the project end. Selected technologies address engines/fuels/drive trains, hull/propulsors and energy systems/emission abatement technologies. The LeanShips partnership includes ship owners, shipyards and equipment suppliers.

Transport & Infrastructure

In a tough market we sustained and even improved our business levels. We secured some good projects and reached new boundaries with the biggest contract to date and new geographical breakthroughs. We continue to grow, not by promotion, but project by project, based on the well-earned trust customers place in us.

The turmoil in the oil & gas industry was a big driver in 2016. Although transport and infrastructure were not directly affected, there were some knock-on effects as governments, particularly those more reliant on the income from oil resources, slowed down or even cancelled major infrastructure investments. Fortunately one of the strengths of our business sector is its diversity and wide service portfolio and this has allowed us to grow business levels although falling slightly short of our 2016 budget.

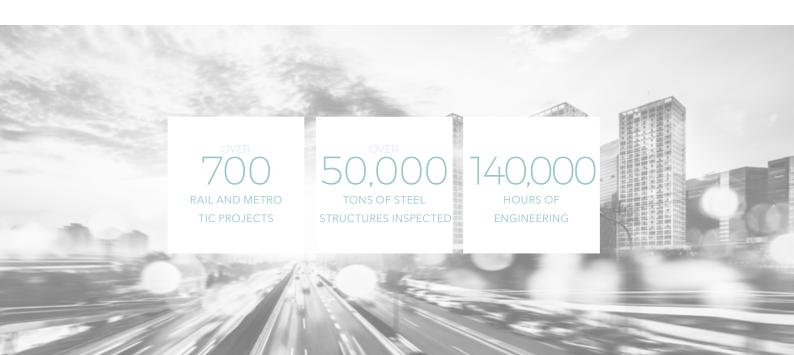
Through determination, capability, capacity and sometimes bravery, we secured some good projects in 2016. New boundaries were reached with the biggest contract to date and new geographical breakthroughs, including a project in Perth, Australia.

We invested a lot of time and resources in the port and marine logistic sectors during the year, working to exploit the large number of references we have in these areas. We are now starting to see the fruits of these efforts. In construction, we have invested in training in new building information management tools to meet increasing requests from clients to comply with new codes of development for

public works. With an eye on the future, we are working to embed this way of operating across all projects. With new contracts including the Venice Port Master Plan, Failaka Island Marina in Kuwait and the Sohar Port framework in Oman, our consulting engineering business is succeeding in a challenging market.

Automotive is a huge market sector and is one in which RINA wants to develop its presence. In 2016 we invested time and effort in visiting automotive OEM clients to promote the services we can offer. Along with the global brand recognition RINA has, this helped us towards submitting proposals to a total value of around €10M. We were successful in a number of deals with various automotive manufacturers that will help us continue to build references and reputation in this sector.

Alongside these private tenders, we also secured a major contract with the Italian Transport Ministry for vehicle testing and verification. This covered a wide variety of motor vehicle types sold in Italy. We will test over 1000 new and used vehicles to verify confirmation with emissions standards.



Railways were largely unaffected by the economic slowdown in 2016, with some exceptions in the Middle East region, but we still met our budget despite the postponement of a major project in Oman. We are historically strong in certification but, towards the end of the year following the Edif acquisition, we have also been working to open markets in maintenance, supplier quality and expediting.

2016 saw the launch of a new risk assessment service for railways, which presents some growth opportunities for the future. The tragic local rail accident in Puglia also led to reorganisation of the whole rail industry in Italy. RINA is supporting more than 12 new clients in gap analysis for the new standards and procedures this reorganisation requires.

The Stockholm Metro Program and Istanbul Metro expansion contracts for consulting engineering services were both extended. During the year we further expanded our contract base to include the Tel Aviv Metro project and the Forrestfield Airport Metro Link in Perth, Australia. We started working on the Dubai Metro 2020 extension project which strengthens our presence in the Middle East.

We hope to see continued growth in railways with some big investments in major markets such as Northern Europe. We will continue to grow not by promotion but project by project, based on the well-earned trust customers place in us.

In aerospace we are focussing on small contracts but, like automotive, we are working to increase references and add new services such as process verification in manufacturing and assembly of parts. We have been focussing on Italy, where we are strongest, to build our

experience along with some other strategic geographies. 2016 was very much a groundwork year, but we see big opportunities looking forward.

In infrastructure, the Italian market represents half of RINA's revenue. As the new code for public works came into force, the market had to take time to change and understand the new regulations and settle into a new way of working. However, 2016 saw some exciting contracts in the USA, including inspection of the steel infrastructure in the Hudson Yard Real Estate Project Development plus the striking "Vessel" work of art at its centre. At the end of the year we also secured an inspection contract for the US Tennis Flushing Meadows Stadium.

New infrastructure offerings during the year included a vendor inspection service for major EPC contractors. Requiring the inspection of many sub-contractors located throughout the world, RINA's global presence means it is well placed to provide this service. Overall infrastructure business increased during 2016 compared with 2015 and our budget was met in terms of both revenue and margin. In summary, "Mission accomplished". As for next year, let's aim for the Grand Slam in this area!

Looking forward to 2017 across Transport and Infrastructure, we are optimistic. Markets are starting to find ways of dealing with the new economic realities and there are new signs of vitality. Looking back at 2016, it was a tough market environment but we sustained and even improved our business levels. This is due to the passion and technical expertise which makes our teams formidable. To quote the historian, Edward Gibbon, "The wind and waves are always on the side of the most able navigators". In this market, RINA is a very able navigator indeed!





QATAR 2022 FIFA STADIUM



RINA Services was appointed as Test Agency to conduct steel inspections at Al Bayt Stadium. The design concept behind the new Al Khor, 40km north of Doha, stadium mimics the traditional Bedouin tent from which it also takes its name. RINA's client, Cimolai S.p.A., is one of the biggest steel manufacturers in Italy. Target seating capacity is 60,000 and the overall project value is €770m. The stadium, surrounded by impressively landscaped plazas and parking sites, will not only meet all FIFA criteria, but also environmental and sustainability guidelines set out by LEED and GSAS standards. RINA performed welding inspections at Monfalcone Cimolai shop (North East Italy).

TURKMENBASHI SEAPORT



RINA Services has been providing worldwide procurement and vendor inspections for the Turkmenbashi seaport, a project awarded to the Turkish EPC contractor GAP Insaat. As the appointed Third Party Certification Body, in addition to design verification, RINA will provide site supervision which is still ongoing (duration 36 months). Several RINA offices from North Europe to Turkey, from Italy to China are involved in carrying out manufacturing inspections, factory acceptance tests to ensure compliance with relevant standards, final inspection of ready goods and pre-shipment and loading inspections. Experts from RINA's wide range of international offices have performed inspections on site at suppliers' premises.

NEW AIRPORT TERMINALS IN NORTHEAST ITALY



SAVE (Airport Company Management for North East Airports Venice, Verona, Brescia) appointed RINA Services to perform design verification for Terminal 2 of Venice airport, a terminal of Verona airport and a new runway at Brescia airport. These projects are part of investments worth 4.2 billion euro allocated in Italy in the period 2016-2021.

MASTER PLAN FOR THE NEW FLORENCE AIRPORT



Tuscany Airport Company has selected RINA Services to perform the design verification for main investments within the 2014-2029 Master Plan for the new Florence Airport. Those areas subject to verification are 2.4 km of runways, environmental mitigation, aprons, internal road connection, fire fighters building and hydraulic compensation work, the new terminal, terminal parking and terminal road. The total project value is €350m. The principal scope of work is to ensure that design solutions are in compliance with Tuscany Airport Company guidelines, local Public Institution authorizations, standards and codes in force. RINA's portion of the overall contract is worth €700k. This new contract (5 years duration) allows RINA to once again reinforce is leadership in the Italian Infrastructure Market particularly for airport projects.

TAGLIAMENTO RIVER BRIDGE



The joint venture Rizzani De Eccher and Pizzarotti (Tiliaventum SCARL) engaged RINA Services to provide design verification services for the new Tagliamento river bridge in Palmanova, Northeast Italy. The new bridge is included in the third lane enlargement project of the A4 motorway.

THIRD PARTY INSPECTIONS FOR EPC CONTRACTORS



RINA Services performed various third party inspections for leading EPC contractors such as CMC Ravenna (Metro Catania), Strabag (Grosseto-Siena Highway), Yapi Merkezi (Tramway Algeria).

CITY LIFE SKYSCRAPER IN MILAN



After a very detailed bidding process, RINA Services' Green Building team was awarded a contract for any LEED Codes for the City Life (Developer) skyscraper in Milan which was designed by Libeskind. City Life represents one of the biggest urban renewal schemes in Europe, with its balanced mix of public and private services. Three internationally renowned architects have signed up to this project, Zaha Hadid, Daniel Libeskind and Arata Isozaki. The Libeskind Tower, has 28 floors and stands at 175 meters high. RINA Services was awarded both the LEED Administrator and Commissioning authority roles during construction.

After the LEED certification of AXA and Boston Consulting's Italian Headquarters, this new contract confirms RINA's lead position in the field of certification and verification for the energy efficiency and environmental sustainability of buildings.

AMAZON'S NEW HEADQUARTERS IN MILAN



RINA Services was awarded a contract to act as LEED Commissioning Authority CxA for Amazon's new headquarters in Milan. The project comprises the renovation of 2 buildings (15,000sqm) in conformance with the international environmental sustainability protocol LEED. RINA will conduct pre-functional inspections and site visits in order to verify the proper installation and handling of systems to be commissioned, necessary to operate the building efficiently. RINA will verify and document that all systems and assemblies are planned, designed, installed, tested and maintained to meet the owner's requirements. This activity will take place during all building phases, from concept to operation, and will include energy and water efficiency, indoor environmental quality and durability.

ENERGY AUDIT OF SOGEI HEADQUARTERS



RINA Services was contracted by SOGEI S.p.A., the information and communication technology company of the Italian Ministry of Economy and Finance, to carry out an energy audit of their headquarters, an office building with one of the bigger server farms in Italy. During the last 5 years, RINA Services has developed specialised Energy Audit expertise, analysing a wide variety of companies that have a high-energy consumption. Thanks to the energy audit activity SOGEI will save €2m per year.

RENAULT ITALIA



RINA Services has audited more than 7,000 sales contracts of new cars sold by Renault's dealers in Italy in order to confirm the fuel economy claims made by Renault Italia to dealers for sales incentive purposes. All requirements as specified by Renault's Commercial Policies and Standards were verified by the RINA Automotive auditors.

TUNNEL DU MONT BLANC



RINA Services, appointed by GEIE-TMB, has certified the monitoring system of the safety systems for the Mont Blanc tunnel. Since 29 November 2016, the Mont Blanc Tunnel has employed a new and innovative system to monitor its safety systems. The new system called LOGOS, an acronym for Localiser Organiser et Gérer les Opérations de Sécurité, obtained the SIL 3 certification from RINA Services. The LOGOS is one of the most sophisticated monitoring systems in a road tunnel anywhere in the world. It is used for the automatic and manual remote supervision and control of all the equipment and systems inside the 11.6 km long of tunnel included entry ramps.

ORIGINAL EQUIPMENT MANUFACTURER STANDARD AUDIT



RINA Services is providing standard audits, mystery shopping and tools calibration services to the dealer networks of Mercedes-Benz, AUDI, Volkswagen and MAN. This work is aimed at verifying continuous customer satisfaction and that the dealer contracts are being correctly fulfilled.

INTESA SANPAOLO PROVIS BANK



RINA Services started a new service relating to the appraisal of used assets like passenger cars, industrial vehicles, boats, equipment and plans. RINA used its experience to verify that used assets continue to conform to the original specification and laws of the market. The value of assets was confirmed prior to sale in the market. The first area where this is a new activity has been practiced is in the used car sector.

MONGOLIAN RAILWAYS



The Mongolian Railways engaged RINA Services to provide an Independent Safety Assessment (ISA) of the Train Control System of the Khoit - Ulaanbaatar-Zamyn Uud line. This project is included in the Framework Agreement with Bombardier Russia.

ALSTOM FERROVIARIA



NTV granted RINA Services, as Notified Body, Designated Body and Testing Authority, the contract for the Authorization to Put In Service (APIS) of the Pendolino ETR675 train. The ETR675 is the first high-speed train in Italy compliant with the Technical Specifications for Interoperability 2014.

REHAP



The main objective of REHAP is the transformation of agroforestry residues into new sustainable and eco-efficient derivatives, which comprise building blocks (2,3- and 1,4- Butanediol), high-performance additives (superplasticizers and flame retardants) and biobased polymeric resins (biophenolics and NIPUs), through innovative cost-effective processes to demonstrate their potential use in several products at an industrial level and their application in sectors like Construction.

AUDI AUTOMOBILE



RINA Services has supported the Audi Group in the design and delivery of training courses and coaching related to technical and professional skills to Audi's dealers and service partners. The aim is to train, coach and empower more than 500 people within the Audi's Dealer network.

CNH INDUSTRIAL



RINA Services has issued the first Functional Safety Certification for Agricultural applications manufactured by CNH Industrial, the global leader in capital goods. The company designs, produces and sells agricultural and construction equipment, trucks, commercial vehicles, buses and specialty vehicles, in addition to a broad portfolio of powertrain applications. The certificate was issued at the conclusion of the assessment activity of the Functional Safety Process (called QS-E039). This was developed by CNH Industrial to fulfil the requirements defined by the standards ISO 13849 "Safety of machinery - Safety-related parts of control systems - Part 1: General principles of design" and ISO 25119:2010 "Tractors and machinery for agriculture and forestry - Safety-related parts of control systems".

ANSALDO STS



RINA Services, in cooperation with Italcertifer, acquired the contract as Independent Safety Assessor (ISA) for the signalling and SCADA (supervisory control and data acquisition) of the Metro Lima Project, the only on-going metro project in Latin America.

SIEMENS AG



RINA Services obtained the contract as Independent Safety Assessor for the Authorization to Put In Service (APIS) on E193 locomotives (X4 Platform). This is one of the first projects in which a locomotive receives APIS in a number of different European countries. It is a step towards a single integrated railway system.

ITALIAN REGIONAL RAILWAYS



RINA Services acquired contracts for Risk Management and Operation Safety Management System Verification, following the request made by ANSF (Agenzia Nazionale per la Sicurezza delle Ferrovie) and the Transport and Infrastructure Ministry, following the necessity to verify the Italian Regional Railways in this area.

FIRE SUPPRESSION SYSTEM CERTIFICATION



RINA Services certified the fire suppression system for the engine box of bus vehicles developed by KSS, a worldwide company specialized in safety equipment for OEM's, according to ECE107 regulation.



Projects T&I CE

MOSUL DAM SAFETY REHABILITATION WORKS



D'Appolonia, through Sembenelli Consulting is assisting the contractor for the first phase of the Grouting Works for the Mosul Dam in Iraq. The dam is a zoned earth fill dam 113 m high and 2.21 km long on the Tigris River, North of Iraq. It has been in operation since 1985 but, due to foundation complexity and the existence of gypsum and anhydrite layers, rock solution and erosion problems arose soon after completion and have been increasing with time. The Ministry of Water Resources has come to the decision that conservation grouting must be resumed along the entire extent of the dam, starting with the most critical areas. This will be carried out both at ground level and from a long, narrow gallery. SC Sembenelli Consulting is providing the Italian specialized Contractor Trevi with technical assistance during the daily activities, both by the provision of a local office and site personnel.

FORRESTFIELD AIRPORT METRO LINK



D'Appolonia is supporting the contractor for the entire project life cycle phases with a resident team in Perth. The Forrestfield-Airport Link project is jointly funded by the Australian and Western Australian governments and will deliver a new rail service to the eastern suburbs of Perth. The rail link will connect with the existing Midland line near Bayswater Station and will run to Forrestfield through underground tunnels. The D&B contract for the Forrestfield-Airport Link project was awarded to Salini Impregilo - NRW Joint Venture (SI-NRW) and includes 8 km of rail tunnels and 3 new train stations, and infrastructure maintenance. The scope of the services provided by D'Appolonia is to define a system engineering process based on methodologies and a suitable organisation to ensure that the design and supply provisions will fulfil the FAL contract requirements and result in a unified, integrated and fully compatible transport system.

TEL AVIV METRO



D'Appolonia was awarded an important project management contract for monitoring tenders, contracts assignment, planning, manufacturing, activation, testing, etc. of Tel Aviv's integrated transport project. This is a 10 year contract with the Israeli Public Company which has the responsibility for the implementation of an ambitious Public Transport plan for the greater Tel Aviv region including 31 municipalities, 22 provinces and 12 regions. D'Appolonia offers from its Tel Aviv office technical assistance and program assurance for the development of the new integrated public transport system. The mass transit system network includes 8 lines, 5 of which are Light Rail Transit (LRT) lines and 3 Bus Rapid Transit (BRT) lines. The mass transit system network comprises a total of 215 km from Rehovot in the south to Netanya in the north and up to Kfar-Saba, Rosh-Haayin and Lod in the east.

IZMIT BAY BRIDGE



D'Appolonia was appointed by Siemens Turkey to design and install a distributed network of hybrid sensors to provide real-time permanent monitoring of the structural integrity of the lzmit Bay Bridge (Turkey), named Osman Gazi Bridge, the world's fourth longest suspension bridge with a main span of 1550 m. The system provides early damage detection and warning systems that will enhance the safety of the bridge in what is a highly active seismic region. Other benefits of the system are the ability to gain a better understanding of the structure's response under various working conditions and the optimization of inspection programs. There is also the possibility to adopt a Condition Based Maintenance (CBM) strategy replacing more time-consuming inspections. Other benefits include data that will help with new design solutions, materials, construction processes or structural strengthening solutions. Finally the system will extend the bridge's lifetime.



AL MAKTOUM INTERNATIONAL AIRPORT, DUBAI



Our client is undertaking one of the most important airport projects in the world. Edif ERA has been appointed to provide peer review and value engineering services to help ensure that the design of the eight 132 kV/11 kV substations and the five standby emergency power plants are the most efficient and are optimized for the specified performance.

SOHAR PORT AND FREE ZONE



The Port Authority of Sohar (Oman) has selected D'Appolonia as part of a framework contract to provide engineering support for the Sohar Port expansion program. The Port of Sohar is a deep water (23 metres) industrial port in the Middle East, 220 km northwest of Muscat. The Port is managed by the Sohar Industrial Port Company, a JV between the Government of Oman and the Port of Rotterdam. There are three clusters: logistics, petrochemicals and metals. As one of the deepest ports in the Middle East larger cargo vessels can enter the port providing economies of scale. The port's location reduces travel time by avoiding the Strait of Hormuz. D'Appolonia will provide qualified technical support, throughout the life cycle of marine works, from concept to detail design and procurement, encompassing the whole spectrum of competences and disciplines.

DUBAI METRO EXPO 2020 EXTENSION



The Acciona-Gulermak JV selected D'Appolonia to provide engineering support during the implementation of the Route 2020 Project for Dubai Metro. The line runs for 15 km with 7 stations, beginning with an elevated branch off the existing Red Line between the Jumeirah Lake Tower Station and the Nakheel Harbour and Tower Station. It runs south to a new interchange station at Nakheel Harbour and Tower Station, then southeast to Ibn Batutta Street. The design and build contract of the entire Dubai Metro - Route 2020 has been assigned to the Alstom, Acciona and Gülermak JV. D'Appolonia was appointed by Acciona - Gulermak CW JV to provide RAM and safety assurance, software safety assurance and EMI/EMC Management.

SAMHAN DISTRICT



D'Appolonia was appointed as lead consultant for the design of a new 5-star heritage hotel in the historical Samhan District of Ad'Diriyah, Riyadh by Nuzul Saudi Heritage Hospitality Company. The project was an initiative led by the Saudi Commission for Tourism & National Heritage (SCTNH) to maintain national heritage through the use of historical sites and buildings across the kingdom as hotels specialized in heritage hospitality. D'Appolonia provided engineering services up to detailed design development, and supported Nuzul Hospitality with technical supervision and recommendations for construction according to the BREEAM International 2013 scheme and D'Appolonia's Quality Management System. The project area sits inside the UNESCO buffer zone, so all techniques used to restore buildings also needed to be compliant with UNESCO protocols.

AFE BABALOLA UNIVERSITY EXPANSION IN NIGERIA



D'Appolonia was appointed by the African Development Bank and other commercial banks to act as the independent technical engineer for the technical due diligence of the Afe Babalola University expansion project. This project includes the design and construction of a small scale hydro power unit, an industrial research park and a 400 bed teaching hospital.

Business Assurance

We are responsive and flexible. We invest a lot in innovation and this was fundamental not only to protect our business during the year, but also to increase it. Today, we have one of the most up-to-date service portfolios that we deliver through geographically and culturally close relationships with clients.

During 2016 we worked hard to maintain our leadership position in core certification services, particularly in those markets where we are most active. We have been successful in this endeavour and we were able to protect our client base and reduce the impact of the difficult certification market in Europe. Noncompulsory certification is often one of the first costs to be cut if businesses are struggling and this decline was compounded by the low oil price during the year.

To further strengthen our competitive position, we extended the range of our services throughout the year. Today we have one of the most up-to-date and innovative service portfolios, over 140 certification schemes, and through this position we have established a positive growth curve compared with 2015, achieving an organic growth of over 5%, in line with the international average sector growth.

Offering new services was fundamental to the success we experienced during the year and the additions to our portfolio of services were wide and varied. They included areas of social accountability and

sustainability, for example ISO 26000 assessment for Social Responsibility. We also focussed on other older environmental schemes such as the certification of sustainable biofuels and biomass verification and certification services.

In the food sector, we secured good growth through the contracts gained with major operators such as Gruppo Sarni, Portalupi Salumi, Idcam Geolive Belice, Inalpi, Collegio Toscano degli olivicoltori, De Langlade e Grancelli, Sunfruit, Covim. We extended our services through new accreditations, among which were the authorization by the Ministry of Agricultural Food and Forestry Policies for the Organic Certification according to the Reg. EC 834/2007. Also the global accreditation for BRC lop, which guarantees the health and hygiene safety of the packaging that comes into contact with food products. We have also introduced in our services Vegan Products Certification.

We continued to strengthen our market position in Sustainable Fishing Certification with contracts awarded across four continents. Our activities increased thanks

MANAGEMENT

to the main two standards of the sector, Friend of the Sea and Marine Stewardship Council. Activities are now carried out worldwide: 40 contracts were signed with some of the main organizations of the fish sector such as Omega Protein in USA, Golden Omega and Antarctic Sea Fisheries in Chile, Singapore Aquaculture Technology, Nippon Suisan Kaisha and Anhui Xinzhou Marine Biological Products in the Far East, Unimer SA in Morocco, Camli Yem Besicilik Sanayi Ve Ticaret and Dardanel Onentas Gida San in Turkey, Aker Biomarine, Orkla and Otto Frank in North Europe, C.S.I. - Compagnia Surgelati Italiana (Findus), Produttori Ittici Trevigiani, Ittica Golfo di Follonica, Nino Castiglione, Intertonno, Callipo, Proda and Jais in Italy.

The service portfolio of LAB 21 in Tunis was reorganised and chemical and microbiological testing services for the food industry have become central. In total, RINA Laboratories performed over 150,000 tests in 2016 on a wide variety of products.

In 2016, we have been fast to react to the growing requests for standards for anti-bribery and privacy. In fact, we have developed new schemes in these areas and have been the first company worldwide to offer compliance certification according to ISO 37001. In the well-developed environmental and health & safety markets, we have experienced more than the market average growth. During the year we have further increased activities particularly with groups of companies. These businesses have been looking for specific cooperation at a local level in order to find solutions that will reduce costs. Something that is of great interest in these challenging times.

Much of our success this year can be attributed to our responsiveness and flexibility to meet specific client needs. We invested a lot in innovation and in the quality of services and this has helped us protect and keep our margins stable. In our most consolidated market areas, we have very deep and strong commercial, technical and administrative relationships with our clients. We have maintained our structure and our continued ability to offer local expertise. Our customers know that we are located close to them, understand their local challenges and that they can speak directly with us in their language. This business philosophy we believe is essential if we are to tackle complicated standards.

During the year we have worked to develop our international client base in Business Assurance, particularly in the European region. We have opened a new certification business in Germany, supported by a staff of senior experts. We have also pushed hard in Poland and put significant investment into Romania, where we have added new activities, including a completely new line of industrial inspections.

In other parts of the world, we have invested heavily in order to enter the Chinese market. RINA (Shanghai) Quality Certification Co. is now recognised by CNCA to issue certificates for quality, environmental and health & safety management systems. CNCA, Certification and Accreditation Administration of the People's Republic of China, is the public authority that exercises the administrative responsibilities of unified management, supervision and overall coordination of certification and accreditation activities across the country. A CNCA business license is an absolute necessity and will allow RINA to issue certificates in China.

In the Gulf area we have established a new joint company with the Emirates Classification Society: TASNEEF-RINA Business Assurance. This new company immediately became a reference for the business assurance sector in the UAE and has already been an important contributor to the development of new legislative standards. Success has been rapid with awards for the certification of the Federal Transport Authority of Abu Dhabi plus quality, health & safety and learning processes for the general headquarters of the UAE Armed Forces.

Although we have not seen much turnover to date from these international investments, they should be seen as important seeds for future growth.

Of course a major event for RINA during the year was the acquisition of the Edif business. In the Business Assurance sector we will work on creating opportunities to allow the Edif's clients to benefit from a wider range of services.

Overall, business assurance is a stable market. Many of the contracts we secure are for services over a number of years and this helps to protect the business from sudden market downturns. Equally the nature of our business means client relationships are developed over many years creating a secure long term business model.

Innovation is at the heart of our Business Assurance sector. It is a vital element in our capacity to maintain and strengthen our market position but is also a key to entering new markets. To be successful you need to be flexible and open-minded. You must be able to anticipate regulatory, technological, social and economic changes and approach them with flexibility. Our innovative approach keeps our business strong, which means that we will be ready to react when markets recover.



Projects

QUALITY MANAGEMENT SYSTEM CERTIFICATION



This company is one of the subsidiaries of PT. Angkasa Pura I (Persero) that has the responsibility to manage 13 Airports in eastern of Indonesia.

The certification of PT. Angkasa Pura Support is important to improve the brand positioning of RINA certification business in Indonesia and Asia.

FIRE TESTING EQUIPMENT



RINA acquired an important new customer from Tasmania, operating in the field of innovative aluminium alloy fire resistant partitions such as bulkheads and decks. The Calata Gadda lab was equipped with new fire testing equipment to perform smoke control tests on doors and shutters assemblies, as required by the standard EN 1634-3.

PERSONAL DEVELOPMENT



RINA delivered in Northern Cyprus a series of personal development training courses within an EU project aiming to support the development and product quality of food manufacturers in the villages of the Değirmenlik Municipality.

ISO 26000 - GUIDANCE ON SOCIAL RESPONSIBILITY



RINA Services assessed 12 affiliates of Eni worldwide (Africa, Asia and South America), of D'Amico Group in Italy, UK and USA and of Ishima Ship Management in Singapore.

PROTECTING AND PROMOTING THE ITALIAN IDENTITY



RINA joined Italian Identity, an independent and non-profit association that, through its projects and activities, has the objective of protecting, enhancing and promoting Made in Italy and the culture of authentic Italian products globally. In order to support and increase the robustness of its initiatives, Italian Identity has partnered with RINA Services for auditing activities.

PERSONNEL COMPETENCE CERTIFICATION



Activities were expanded up to 72,000 certificates. In particular, among other initiatives, RINA partnered with AIDP (Associazione Italiana Direzione Personale) to develop a scheme in the HR sector; with IAPP (Italian Association of Procurement Professionals) to develop a scheme in the procurement sector and develop training courses and certification scheme for Expediters with a major energy player.

These are the response to the cultural change in the human resources management and the need of the market to have relevant skills recognised.

RINA Services also developed the certification scheme for fire resistant and smoke control doors and windows installers and maintainers (UNI 11473-3), following the trend of standardisation and certification guided by the Italian Standardisation Body (UNI).



Business Assurance TIC

HISER - NEW H2020 PROJECT



HISER (Holistic Innovative Solutions for an Efficient Recycling and Recovery of Valuable Raw Materials from Complex Construction and Demolition Waste) is an interesting project. The goal is to develop and demonstrate novel cost-effective technological and non-technological holistic solutions for a higher recovery of raw materials from ever more complex C&DW, by considering circular economy approaches throughout the building value chain (from the Endof-Life Buildings to new Buildings). The HISER project is coordinated by Tecnalia and involves 25 partners from 9 countries. RINA's role is to carry out Environmental Technology Verification (ETV).

SUSTAINABILITY REPORT VERIFICATION STATEMENT



RINA issued its first "Sustainability Report Verification Statement" in India to Bhoruka Power Corporation Limited to verify the compliancy of the Annual Report, for the financial year 2015-2016, to the Global Reporting Initiative (GRI) G4 and the AA1000 APS Assurance Standard.

SERVICES FOR BEACH OPERATORS



RINA Services issued to 17 beach operators in Puglia and Liguria the certification for beach operations according to ISO 13009 standard. By choosing to be compliant to this standard, operators demonstrate the sustainable management of the beach facilities and the high quality of the services, including beach safety, information and communication, cleaning and waste removal and environmental protection for tourists and residents.

STRATEGIC PARTNERSHIPS



Environment and health and safety on workplace related certification activities for Fincantieri continued. The strategic partnership with clients such as Eni, Enel, Pirelli, Leonardo, Costa Crociere, Acea, Snam Rete Gas, Air Liquide, ABB, Feudi di San Gregorio, AgustaWestland, Marcegaglia, Manutencoop, Sasol, Acque and Postel was strenghtened.

INDUSTRIAL TESTING



SSM carried out for ESAB the verification of welding materials according to the EU and US regulations, testing over 200 products. The new laboratory of Castel Romano became fully operative.

ANTI-BRIBERY MANAGEMENT SYSTEM



The ISO 37001:2016 "Anti-bribery management system standard", published in October 2016, has the aim to help organizations in their fight against corruption, creating an ethos of integrity, transparency, and conformity. Even though this standard cannot guarantee eradication of bribery, it can provide assistance in implementing effective measures for prevention and management. RINA Services developed the scheme, started the accreditation and carried out the pilot audits for some international customers in Brazil and Italy.



FOOD TESTING



ITA (Istituto Tecnologie Avanzate) provided potable water testing for Costa Crociere and Aida Cruises ships in Italy and in Asia, UAE, and Europe; 2nd part audit in Europe, North and South America and Israel for an Italian supermarket company and for an Italian food producer and gained a three year contract on labelling conformity in compliance with Reg UE 1169/2011, for Selex Gruppo Commerciale, one of the main Italian Groups of independent retailers.

SUSTAINABLE PRODUCTION OF BIOFUELS AND BIOLIQUIDS



RINA Poland Sp.z o.o. received the accreditation by the Oil and Gas Institute - National Research Institute, System Administrator to issue certificates of conformity for the sustainable production of biofuels and bioliquids according to KZR INiG System.

With this accreditation RINA can offer the biofuel and bioliquid sustainability certification according to three different voluntary schemes, all recognized by European Commission: ISCC EU, 2BSvs, KZR INiG.

HEALTH AND SAFETY



In Albania RINA ran training courses for over 1,700 people on health and safety to OSHEE, leading company in the Albanian energy distribution market.

EVENT SUSTAINABILITY MANAGEMENT SYSTEM



RINA certified the events for Giovani Imprenditori di CONFINDUSTRIA "46th conference of Santa Margherita Ligure" held on 10-11 June 2016 (about 1,500 participants) and "31st conference of Capri" held on 21-22 October 2016 (about 1,000 participants) according to ISO 20121.

FISSAC - NEW H2020 PROJECT



The FISSAC, (Fostering Industrial Symbiosis for a Sustainable Resource Intensive Industry across the extended Construction Value Chain), project involves stakeholders at all levels. This includes the construction and demolition value chain to develop a methodology and software platform to facilitate information exchange that can support industrial symbiosis networks and replicate pilot schemes at local and regional levels. The project is coordinated by Acciona Construcción (Spain) and comprises 26 partners from 9 countries. The role of RINA is to develop the required specific standards and certification schemes.

MAJOR INTERNATIONAL PLAYERS



RINA's branches abroad acquired contracts with major international players such as Pepsi, Unilever, Honeywell Aerospace and Ericsson.

ALTERNATIVE LOW CARBON FUELS IN CEMENT FACTORIES



Cimentas Izmir Cimento Fabrikası Turk A.S. commissioned RINA to carry out the validation of a project titled "Grouped Project for Use Alternative Low Carbon Fuels in Cement Factories in Turkey". Cimentas is the Turkish subsidiary of Cementir Holding and the company is the first foreign-owned Turkish player with annual production capacity of 5.4 million tons of cement.

CRUISE HOSPITALITY MANAGEMENT COURSE



RINA Mediterranean Institute organised the Higher National Diploma in Cruise Hospitality Management Course, in collaboration with the Maltese Institute of Tourism Studies (ITS) and the Master Degree in Business Shipping Management, in collaboration with University of Malta, Faculty of Economics, Management and Accountancy (FEMA).

ALL-INCLUSIVE CERTIFICATION



RINA was contracted by Vallourec, a world leader in premium tubular solutions primarily in the the energy sector for the certification of the environmental, occupational health and safety, quality and energy management system. Its expertise also extends to the Industry sector (mechanicals, automobile, construction etc.).

GHG INVENTORY VERIFICATION



RINA performed the GHG Inventory verification for big players in the Brazilian market as Alcoa, Grupo Ccr, Petrobras and Akzonobel.

PRODUCT CERTIFICATION AND PERIODICAL INSPECTIONS



Over 30,000 inspections were carried out on lifts, electrical systems, lifting and pressure equipment. During 2016 the partnership with Unipol was started for the verification of their properties.

SUSTAINABLE EVENTS



RINA Services, together with SAQM and GoldenBee Consulting, organized a course in Shanghai on the ISO 20121 for the sustainable management of events.

EU ETS VERIFICATION



RINA was awarded a new important contract by AITEC, the Italian association of the Clinker Producers, an important step in a new market sector, historically dominated by competitors.

Industry & New Materials

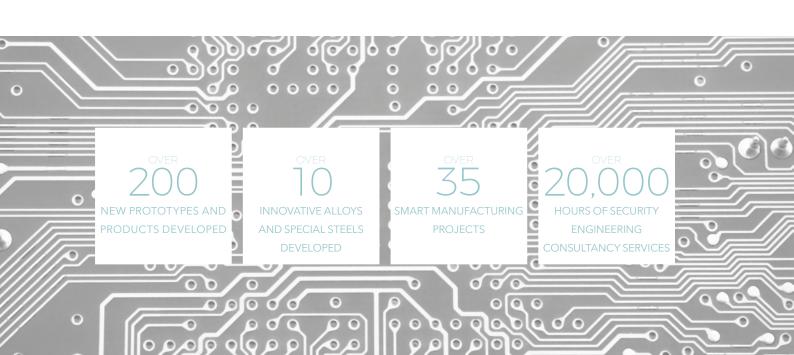
Maintaining investments in R&D meant that when the market rebooted we were ready. The integration of competences across the group allowed us to bid for bigger contracts. We are also very much involved in the concepts and benefits of Industry 4.0, having experience both in manufacturing and data management.

The market conditions affecting this group were different from those experienced in other sectors. At beginning of 2016 we saw the formation of the Industry group which merged the innovation consulting, electronics (space) and power generation businesses. This "group" enjoyed business success both in the restructuring of the business and in contract wins. On the other hand, the new materials group although challenged at the beginning of the year saw positive signs of growth late in 2016 as the oil price recovered and investments were rebooted.

The principal challenge for the new Industry group was to merge what was three separate business units, sharing methodologies, competences and customers. This was made doubly difficult as, following the Edif acquisition, ERA's specific industry experience also had to be integrated. But the outcome was extremely positive both in the establishment of a new organisational structure and in the winning of new contracts. At the end of the year the group exceeded its revenue targets, an excellent result.

A principal contract with the European Space Agency was extended by 3 years meaning that the Industry group will continue to provide security engineering services. As an example of how new services are being sold based on the combined competences of the new group, a framework agreement was signed to provide facilities management for the space agency.

Other synergies were explored in the defence sector combining D'Appolonia's strength in the Italian and Middle East markets in providing specialised technical services with Edif ERA's longstanding UK experience in delivering high profile consulting and decision support services. This enables us to offer a full range of services, from high level program management consulting and training consultancy services directly for Ministries of Defence or big industries, to all types of detailed technical activities. This allowed us to bid for bigger contracts and resulted in the renewal of an important framework contract with the British Ministry of Defence. Another significant contract with an Italian defence



specialist saw us providing engineering services for the development of electronic warfare products for naval, land and airborne platforms.

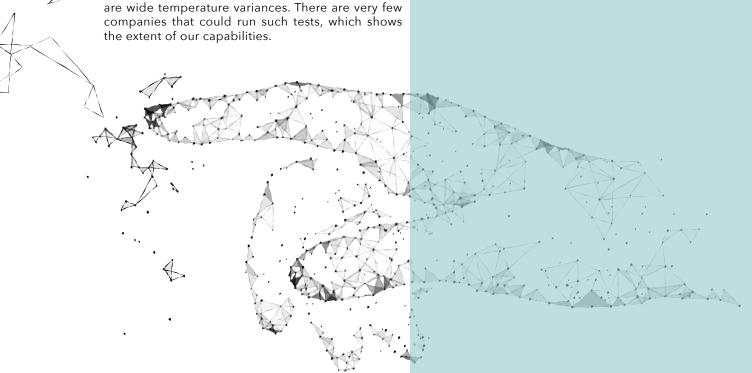
The New Material group represented by CSM maintained its investment in R&D, meaning that we were ready to respond to client needs as soon as they started to commit funding to projects. This was a key element of our success in the second part of

Our experience means that CSM has transitioned from being just a research institute to a consulting group, because our competencies are so relevant to industry today. Our specialisation in manufacturing means we are also very much involved in the concepts and benefits of Industry 4.0. Converting that data into useful and actionable information is now an important part of CSM's services. Industry 4.0 incorporates many key technical innovations including the use of robots, drones, Big Data, virtual reality and additive manufacturing. We have experience in all these areas. For example, one of our research projects is looking into the use of drones to monitor environmental parameters in steel making.

One of the business highlights of 2016 included the full scale test of a 400m pipeline loaded with super critical CO2. This experiment looked at the scientific aspects of what happens when a pipeline fails and what can be done to increase safety. Collecting vital data from a full scale test application like this enables us to design new materials for the safe transfer of CO2 through a pipeline where there Our core markets are where materials and technology play a critical role. The oil and gas industry, for example, demands materials that meet very specific needs. We also support markets that are looking to lower their costs by investigating whether lower grade steel is sufficient to meet safety requirements. We support steel producers and steel plant manufacturers in meeting required quality and cost targets. Our clients that actually make the steel are continually looking to provide technology that will add value to their customers. Our experience in the steel industry and in manufacturing has made us a successful partner for these businesses.

2016 was a challenging year but, despite this, we have improved our capability to be sustainable as a business. There are very positive signs that the transformation work we have done throughout the year will give us the growth we are looking for. Our competencies are fundamental for accelerating any project that involves critical materials and processes and we will continue to pursue innovation in terms of products, processes and materials.

Throughout RINA there are strong links between the skills and services provided by the Industry and New Materials group in the areas of engineering innovation, technology and project management skills. The additional expertise of ERA will be valuable to the company and will allow the exchange of services across a broader customer base.





Projects |&NM CE

GALILEO PROJECT - RINA LOOK TO THE STARS



In 2015 D'Appolonia has been awarded an 18 month contract to provide ESA, through Thales Alenia Space Italia, with security engineering support for the new Galileo navigation satellite system. At the end of 2016 D'Appolonia signed the extension contract covering the four years between 2017 and 2020 to provide engineering support. D'Appolonia is focussed on defining the operational security requirements, system compliance, defining PRS training procedures, the PRS validation scheme and process, PRS validation and testing activities, system modelling according to the MoDAF paradigm and system test compatibility campaigns. Moreover, our team of engineers is acting as the Security Monitoring Cell for the whole Galileo system, performing daily, weekly and monthly checks and producing system status reports.

GREEN CERAMICS - DAXEL PROJECT



With the world focussing on climate change and the reduction of emissions D'Appolonia embarked on an important project with DAXEL. The company manufactures specialist chemicals for the ceramic industry, and is currently working to develop a new additive that would allow the production of ceramics with a much lower use of energy and water. The project is still ongoing and, upon conclusion it will result in the company making a significant breakthrough within the market, giving Daxel a significant technical advantage against its global competitors.

COAL TO GAS PIPELINE PROJECT



China's new five-year energy plan will address the country's energy mix, putting gas production as a priority to reduce the country's air pollution. Boosting the national gas pipeline grid and building the new Xinjiang Coal-to-Gas Transmission Pipeline is important. CSM is helping a major Chinese oil and gas company to define the material requirements for arresting a fast running fracture in case of an accidental pipeline rupture. A full scale test has been carried out on a 48" diameter pipeline section 400m long pressurized with gas and fully buried. Numerical modelling will be also performed by using CSM's proprietary software. At the end of the project the pipeline material requirements will be defined for a safe pipeline design and operation.

INVENTING A NEW ALLOY



Additive manufacturing technologies such as Selective Laser Melting (SLM), are still on the threshold of being used in industry. The technology offers benefits in terms of weight reduction and the functional optimization of parts and applications. The achievable mass reduction in lightweight applications depends on structural optimization and the mechanical properties of the lightweight material used. High-strength structural aluminium alloys are therefore of special interest for SLM technology. CSM has been developing a new alloy for demanding applications. In this last year a preliminary study has identified the main metallurgical criteria of the new alloy and thermodynamic and kinetic models have been created to support the alloy design.

NEW ALLOY FOR STATOIL COST SAVINGS



Statoil is reducing costs during exploration and production, using less costly materials in offshore wells while maintaining high levels of guaranteed safety. Statoil commissioned CSM to verify the possibility of reducing "over-conservatism" in material selection by substituting currently used steels with lower alloyed solutions. Several well conditions have been experimentally investigated involving high pressure, high temperature and strongly corrosive environments. CSM has proven lower cost alloys can be used. This project continues a long lasting relationship between CSM and Statoil in the material selection and testing field.

SARCO2 SAFE TRANSPORTATION OF CO2 BY PIPELINE



Carbon Capture Transportation and Sequestration (CCTS) plays a key role in reducing greenhouse emissions. However, despite recent R&D efforts CO2 pipeline materials require definition and environmental safety limits in case of accidental rupture. CSM is one of the main R&D players in this field combining a theoretical approach with experimental testing verification. The recently successfully concluded project SARCO2 "Requirements for Safe and Reliable CO2 Transportation Pipeline" contributes significantly to the topics above and future Standards. SARCO2 was sponsored by the European Community (RFCS), EPRG and DNV GL, which will use SARCO2 results for updating their recommendation for future design and operation of CO2 pipelines (DNV-RP-J202).

THE END OF TURBINE BLADE CRACKING



CSM has been involved with a worldwide leader in power generation in the investigation of defect formation mechanisms of superalloys produced by SLM (Selective Laser Melting Deposition). Superalloys are used extensively for the fabrication of turbine components due to their strength at high temperatures. However these alloys are highly susceptible to defect formation due to the very high cooling rate experienced in the SLM process. CSM is working to characterise and quantitatively assess the cracking behaviour of a superalloy based on microstructural observations and finally identify the main mechanisms for their formation.

BIRTH OF A NEW SUPERALLOY



CSM is developing customised superalloys for the repair of gas turbine components, using a laser cladding process. During the life of a component, it may be subject to local impacts, corrosion, variable or regular thermal cycles and stresses and other testing conditions that can potentially cause local defects or cracking. Laser cladding is a novel powerful tool for the repair of metal components that combines the technologies of additive manufacturing and laser cladding surface modification. The project is now completed and by using thermodynamic and kinetic models to simulate the material's behaviour the superalloy will increase corrosion resistance with improved mechanical properties.

WELD INTEGRITY FOR A GIANT GAS FIELD IN NORTH AFRICA



Within the framework of the activities of a major oil and gas company to develop the pipelines for a giant deep-water reservoir in North Africa, CSM was asked to perform the specialist qualification testing of the gas pipeline girth welds and to validate the Engineering Critical Assessment (ECA), performed by the main contractor. This work determines the weld defect tolerability of the pipelines to be laid and safely operated in the harsh environment due to H2S presence. The ECA review and validation has been assigned to CSM due to the high reputation and experience gained over the years in specialised technical areas such as fracture mechanics, fatigue and fitness for purpose analysis.

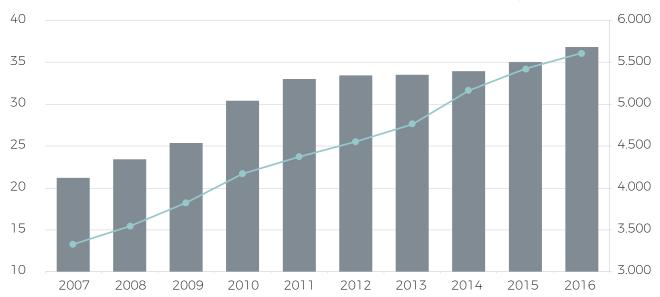
SUPCAM



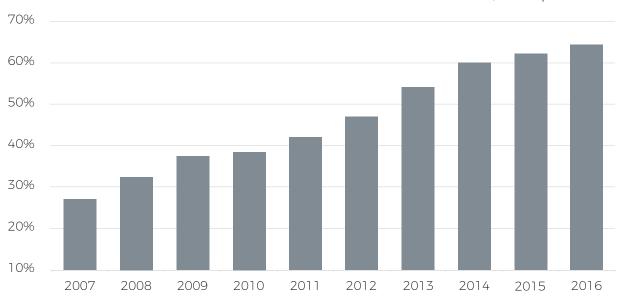
The EU-funded SUPCAM project represents a highly innovative and disruptive solution for colon disease diagnosis and screening. It addressed the development of an innovative active video endoscopic capsule (AVCE), the design of which allows the safe and accurate guidance along the colonic lumen from the outside. The design uses an electromagnetic field and an external compact assisted handle which has been adapted so that it can be transported and is therefore suitable for most outpatient situations. SUPCAM can investigate the colonic area, ensuring a high level of accuracy. Recently SUPCAM has won the ADI (Italian association for industrial design) Design Index Innovation Award.

Operational highlights

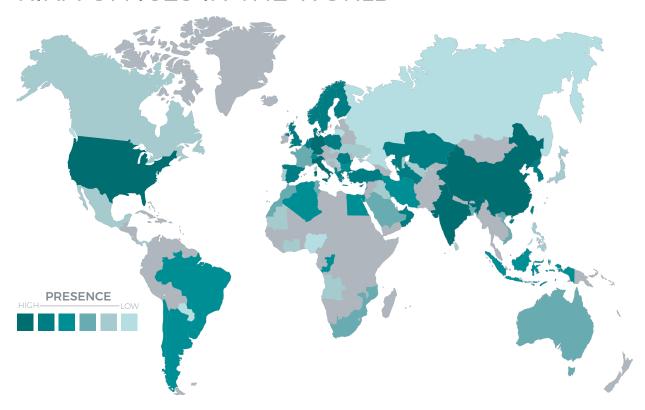
CLASSED FLEET (millions of GT and number of ships)



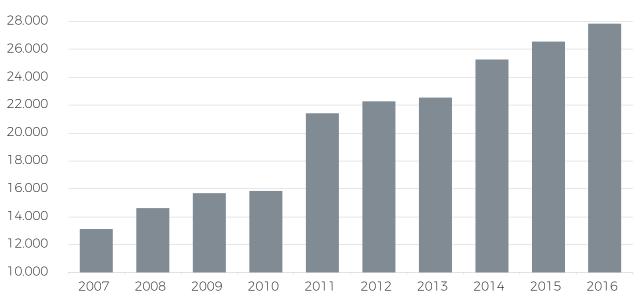
ENGINEERING OPERATIONS ABROAD (% of production)



RINA OFFICES IN THE WORLD



CERTIFIED COMPANIES

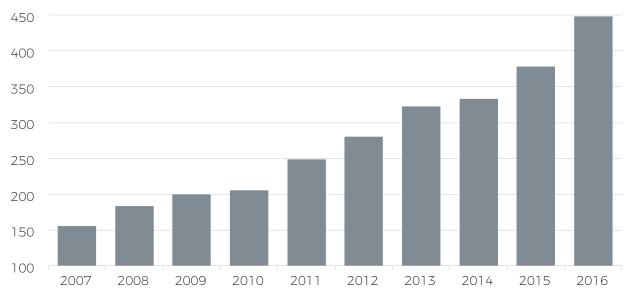


Financial highlights

INCOME STATEMENT (thousands of €)	31-12-2016	31-12-2015
Turnover	398,883	378,503
EBITDA*	47,779	43,792
EBITDA pro-forma **	54,562	-
Group net result for the year	4,639	8,574
BALANCE SHEET (thousands of €)		
Total non-current assets	288,920	139,619
Total current assets	254,785	241,765
Assets held for sale	2,963	4,410
TOTAL ASSETS	546,667	385,795
Total shareholders' equity	210,940	123,736
Non-current liabilities	187,873	118,918
Current liabilities	141,372	135,367
Liabilities held for sale	6,482	7,772
TOTAL EQUITY AND LIABILITIES	546,667	385,795

^{*} EBITDA adjusted for non recurring items

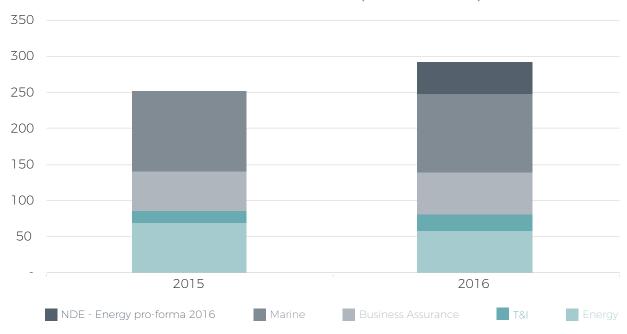
TURNOVER* (millions of €)



*Turnover figures for 2016 consider Edif Group numbers for the entire year 2016 (as if the acquisition took place on January 1st)

^{**} EBITDA adjusted and pro-forma consolidated figures considering Edif Group numbers for the entire year 2016 (as if the acquisition took place on January 1st)

OPERATING REVENUES TIC (millions of €)



OPERATING REVENUES CE (millions of €)





CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Amounts in thousands of € As of 31 D		December
	2016	2015
ASSETS		
Non-current assets		
Property, plant and equipment	47,017	47,661
Goodwill	155,629	56,107
Other intangible assets	59,648	9,193
Investments valued at equity method	1,461	212
Financial assets	1,593	506
Deferred tax assets	19,653	22,780
Other receivables and other non-current assets	3,919	3,160
Total non-current assets	288,920	139,619
Current assets		
Trade receivables	170,850	172,166
Financial assets	1,310	5,868
Other receivables and other current assets	27,016	22,564
Cash and cash equivalents	55,609	41,167
Total current assets	254,785	241,765
Assets held for sale	2,963	4,410
TOTAL ASSETS	546,667	385,795

Amounts in thousands of €	As of 31 December 2016 2015	
EQUITY AND LIABILITIES		
Shareholders' equity		
Share capital	49,518	36,397
Reserves from retained earnings	59,675	51,045
Translation reserve	2,208	1,655
Other reserves	92,249	23,990
Profit/(loss) for the year	4,639	8,574
Shareholders' equity attributable to owners of the parent	208,289	121,661
Minorities result	711	288
Third party equity	1,940	1,787
Total Shareholders' equity	210,940	123,736
Non-current liabilities		
Payables to banks and other lenders	149,686	84,335
Employee benefits	16,421	16,389
Provisions for risks and charges	7,502	9,854
Deferred tax liabilities	9,445	5,001
Other payables and other non-current liabilities	4.819	8,340
Total non-current liabilities	187,873	118,918
	,	,
Current liabilities		
Payables to banks and other lenders	32,615	29,213
Trade payables	51,137	50,606
Tax payables	4,395	4,982
Other payables and other current liabilities	53,225	50,566
Total current liabilities	141,372	135,367
	6 / 00	5 550
Liabilities held for sale	6,482	7,772
TOTAL EQUITY AND LIABILITIES	546,667	385,795

Annual Report 2016 FINANCIAL HIGHLIGHTS

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Amounts in thousands of €	As of 31 December 2016 2015	
Revenues	385,571	373,355
Other revenues and income	13,312	5,148
Total revenues	398,883	378,503
Raw materials	(4,855)	(5,538)
Services	(140,428)	(140,606)
Personnel	(188,162)	(176,189)
Depreciation/Amortisation	(11,777)	(9,268)
Provisions and write-downs	(9,014)	(6,695)
Other costs	(25,014)	(21,766)
Total costs	(379,250)	(360,062)
Operating profit	19,634	18,441
	0.070	0.073
Financial income	9,049	9,932
Financial charges	(12,287)	(10,908)
Profit/(Loss) before tax	16,396	17,465
Taxes	(11,046)	(8,603)
Net income for the year from continuing operations	5,350	8,862
Profit/(Loss) for the year	5,350	8,862
Profit/(Loss) for the year attributable to owners of the parent	4,639	8,574
Profit/(Loss) for the year attributable to minority interests	711	288
Other comprehensive income - items that will not be reclassified to profit or loss Remeasurements of post employment benefit obligations	(462)	195
- Nemedadrements of post employment benefit obligations	(402)	133
Total items that will not be reclassified to profit or loss	(462)	195
Items that may be subsequently reclassified to profit or loss		
Currency translation differences	308	(760)
Total items that may be subsequently reclassified to profit or loss	308	(760)
Total comprehensive income for the year	5,196	8,297
- Attributable to owners of the parent company	4,485	8,009
- Attributable to non-controlling interests	711	288
/ with detable to Hort controlling interests	/ 1 1	200

CONSOLIDATED CASH FLOW STATEMENT

Amounts in thousands of €	As of 31 2016	December 2015
Profit/(Loss) before tax as per the statement of comprehensive income Profit/(Loss) before tax from discontinued operation	16,397 -	17,674 -
Profit/(Loss) before tax (from continuing operations and discontinued operation)	16,397	17,674
Adjustments to reconcile profit before tax to cash flows from operating activities		
Depreciation/Amortisation of property, plant and equipment/intangible assets	11,777	9,329
Provisions and write-downs	9,014	6,695
Financial (income)/charges, net	3.238	976
Income tax paid	(12,060)	(13,760)
Other non-cash items	(242)	(2,160)
Cash generated from (used in) operating activities before changes in working capital	28,124	18,754
Change in working capital		
- Trade and other receivables	24,181	18,201
- Trade and other payables	(24,189)	(3,153)
- Personnel-related provisions and provisions for risks and charges	(11,314)	(7,518)
Cash generated from (used in) operating activities (A)	16,802	26,284
cash generated nom (asea m) operating activities (1)	10,002	20,201
Cash flow from investing activities		
Additions to fixed assets		
- Intangible assets	(2,180)	(6,024)
- Property, plant and equipment	(134)	(4,394)
Acquisition of Edif Group net of cash acquired	(150,002)	-
Other acquisitions	-	(13,495)
Cash generated from (used in) investing activities (B)	(152,316)	(23,913)
Cash flow from financing activities		
New bank loans	60,000	-
Repayment of bank loans and payables for finance leases	167,159	52,183
Change in investment in financial assets	(78,793)	(40,533)
Financial charges paid	2,713	1,194
Financial income received	(4,339)	(2,655)
Acquisition minority interest Simtex	401	334
Dividends distributed	(1,745)	(1,544)
Cash generated from (used in) financing activities (C)	145,396	8,979
Net cash generated (used) in the period (A+B+C)	9,882	11,350
Cash and cash equivalents at the beginning of the period	40,308	28,989
Foreign exchange differences on cash and cash equivalents	40,306	20,909
Cash and cash equivalents at the end of the period, net of current account overdrafts		40,308

Staff Employees

	31-12-2016	CHANGES	31-12-2015
Managers	128	0	128
Technical staff	2,700	567	2,133
Staff Services	910	162	748

Total	3,738	729	3,009
	31-12-2016	CHANGES	31-12-2015
Italy	1996	11	1985
Europe	729	423	306
Asia	627	190	437
Americas	254	70	184
Africa	124	29	95
Oceania	8	6	2

5,750 725 5,005	Total Group	3,738	729	3,009
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RINA WORLDWIDE STAFF

