

# ersai sustainability report 2012



saipem



# Mission

The Mission of Ersai Llc is to remunerate capital investments and maximise local content, growing in competence and efficiency.

Our goal is to continue to be a Leader company in the field of on/offshore industry services and infrastructures in the Caspian Area.

We pursue the satisfaction of our clients by developing effective, reliable, innovative and top quality solutions, with full respect of Safety, Quality, Health, Sustainability and Environment requirements of the Republic of Kazakhstan and International Standards.

Particular care is devoted to the development of local content, by creating conditions which allow the growth of local employees, as well as local enterprises within the Republic of Kazakhstan.

# Letter from the Management



As new General Director of Ersai I would like to introduce this third edition of the Ersai Sustainability Report that focuses mainly on our neighbouring communities. As my previous experience as QHSE and Sustainability Manager of Ersai taught me, improving community engagement can reinforce Company transparency and the perceptions others have of it, thus strengthening trust and creating more sustainable relationships. It is my belief that we cannot operate effectively without entering into partnerships with our neighbouring communities. We at Ersai have been strongly committed

to working responsively and to contributing positively to the socio-economic development of local communities. Through our annual Sustainability Plan, which is based on analysis of their needs, we define activities for health and cultural promotion, education and environmental protection. My forthcoming commitment is to foster effective community engagement even further, whereby both the Company and its stakeholders can benefit from mutual relationships.

**Alessandro Castagna**

*Ersai General Director*



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ERSAI

# ersai sustainability report

## 2012

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## About Ersai

*Ersai is a leading company in Kazakhstan. Founded by ERC holdings and Saipem International BV, it provides a wide range of services to Clients including project management, organisation, engineering, procurement, construction & installation, commissioning & maintenance of plant and equipment, facilities, shipbuilding, port management, logistic services and ancillary works pertinent to onshore and offshore Oil&Gas locations. The high technological level of structures and equipment owned, associated with the highly technical experience of qualified personnel, allows Ersai to reach a yearly*

*production of 35,000-40,000 tonnes for pre-fabrication and assembly of medium- and high-complexity modules consisting of steel structures, piping, E&I and mechanical disciplines. Ersai is based in Aktau, with its head office in Almaty and its Fabrication Yard in Kuryk. The latter is fully equipped with all types of cutting, bevelling, welding and painting equipment, as well as cranes of up to 1,000 tonnes in lifting capacity. The Company has an Integrated QHSE Management System certified in accordance with ISO 9001:2000 since 2005. With the revision of the standard,*

*ISO 9001:2008 certification was awarded to the QHSE Integrated Management System together with ISO 14001:2004 and OHSAS 18001:2007 certifications. In 2010, the Welding Process Quality Management System was confirmed as compliant with ISO 3834-2:2005 standard. Ersai yard has received Recognition Certification from the Russian Maritime Register of Shipping (RMRS). RMRS acknowledged the welder training carried out at the Ersai yard Training Centre and the manner in which this qualified workers for shipbuilding and reconstruction activities.*

### Key figures

**1,314**

NUMBER OF EMPLOYEES

**880**

NUMBER OF LOCAL EMPLOYEES

**67%**

PERCENTAGE OF PURCHASES RELATED TO LOCAL SUPPLIERS AND SUBCONTRACTORS

**76%**

PERCENTAGE OF TREATED SEWAGE WATER REUSED FOR TECHNICAL PURPOSES

**80%**

PERCENTAGE OF WASTE SEPARATION

**2,010**

TOTAL HOURS OF TRAINING

## Main achievements in 2012

### Assembly and completion of the Zhambyl Drilling Barge Rig

The barge was manufactured by Ersai under contract with Daewoo Shipbuilding & Marine Engineering (DSME) for the Client, the Korean National Oil Co (KNOC), owner of the barge.

The submersible drilling barge is designed for drilling operations in the Caspian Sea. With a length of 100 m and a width of 50 m, it is capable of drilling wells of up to 6,000 metres in depth. The first project of the Caspian Explorer will be the drilling of an exploratory well on the Zhambyl block.

The grand opening ceremony of the 'Caspian Explorer' barge was officially held on June 14, 2012 at the Ersai Caspian Yard. This is the first time a drilling barge rig of this type has been manufactured in Kazakhstan.

The ceremony was attended by the first Deputy Prime Minister of the Republic of Kazakhstan, Mr. S. Akhmetov, the Akim of the Mangystau Region, Mr. B. Mukhamedzhanov, the representatives of the Ministries of Kazakhstan and Korea, the Ambassador of the Republic of

Korea in the Republic of Kazakhstan, and Top Management of KNOC, DSME and KazMunaiGas.

### Confirmation of Ersai certifications

Successful results of third party audits for confirmation of Ersai certifications according to ISO 3834, ISO 9001, ISO 14001 and OHSAS 18001 standards, as well as RMRS and NCA recognitions and accreditations with zero non-conformities.

### New contract award

Acquisition of a new contract, in consortium with KKL for a new Client, 'Teniz Byrgylau' (a 100% subsidiary of National Company KazMunaiGas JSC) (JUDR project).

The project involves the construction of a ready-to-operate jack-up rig capable of operating in water depths of from 5 to 80 metres and of drilling in the Caspian Sea to depths of up to 6,000 metres. Construction work will be conducted in the shipyards of Keppel Kazakhstan Llp and Ersai Caspian Contractor Llc in the Mangystau region. Completion is scheduled for the first quarter of 2015.



# Creating shared value

Valuing employees, leveraging their skills, promoting local content strategy through employment and selection of suppliers and sustaining socio-economic development of local communities are Ersai's key operating practices. These aim to enhance the Company's competitiveness and its license to operate and to increase the wealth of the communities in which it operates.

## People: our success driver

Human resources lie at the heart of the Company's management policy. Involving highly qualified and motivated employees, creating an environment conducive to efficient work and the continuous professional development of staff are essential for Ersai.

With respect to its employees, the Company carries out a fair and open policy at all stages. General obligations of the employees and Ersai are stipulated in the Collective Agreement and Labour Contract.

The New Collective Agreement was signed between the Company and the Employee Representative Committee set up in February 2012. The Agreement includes additional benefits such as the provision of medical insurance and voluntary accident insurance for the temporary disability of employees.

In 2012, Ersai reached 1,314 people, 67% of whom were Kazakh nationals. The Company adopts a strict policy of maximising the hiring of local people.

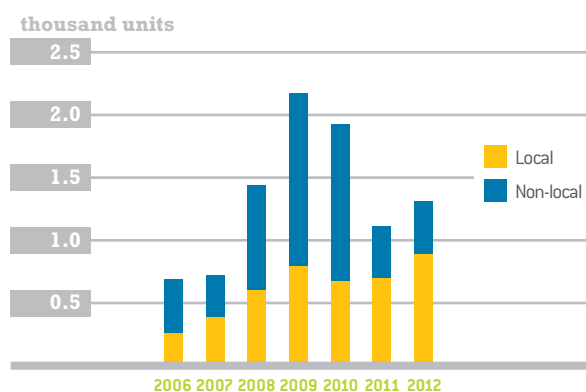
### People Management

In 2012, Ersai continued with its people management policy already in place, focused mainly on retention and career development.

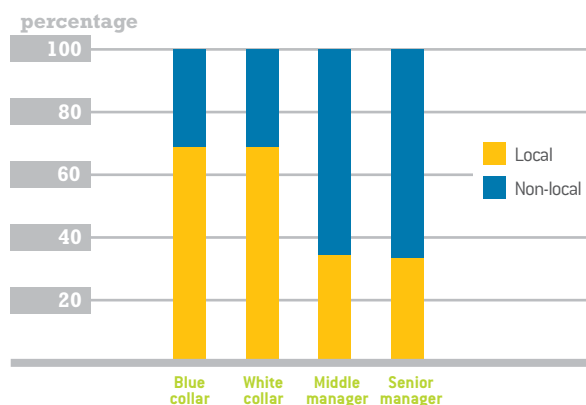
With reference to the Retention Plan in 2012, an additional 16 employees signed an agreement. A personal saving account was opened for each employee in the Kazinvestbank, where every year Ersai deposits a sum based on seniority and monthly basic gross salary. In total, there are now 55 key resources involved in the Plan. In 2013, 4 employees will receive 100% of their accumulated capital and another 4 employees 30%. The implementation of a 'loyalty' attitude towards Company

resources, a career perspective and job continuity are the main advantages of the programme.

### LOCAL STAFF OVER TOTAL WORKFORCE



### EMPLOYEE CATEGORY BREAKDOWN





Furthermore, Ersai moved ahead with its 'Assessment of Potential' scheme with the aim of gathering information that may be useful in appraising the potential skills of young resources. Four young talents passed the assessment. The information collected allowed the Heads of Department and Supervisors to plan the steps of their professional development accurately and to analyse their strengths and areas in need of improvement.

In addition, Ersai proceeded with its work in the Valuable International Pool (VIP), a segmentation process targeted at the creation of an internal market for international resources in the Group. Up to now, 12 Ersai VIP resources have been identified.

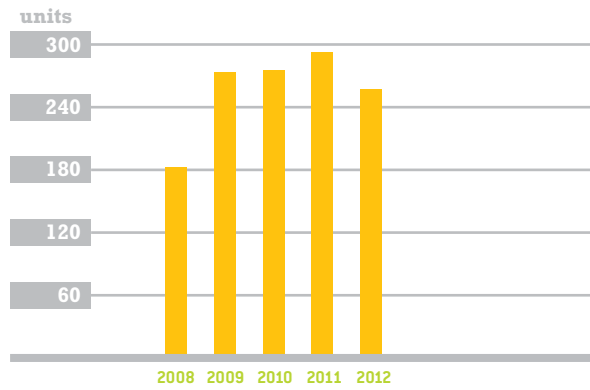
**Training**

Every year, the Company organises specific training courses on the basis of assessed needs, the training plan and the budget approved by the Top Management. In 2012, a total of 2,010 hours of training were provided to 112 employees to develop their managerial, technical and professional skills and abilities.

**Development of the Professional Training Centre (PTC)**

In 2012, the Ersai PTC actively participated in the KazWeld Project proposed by Total and supported by the President of Kazakhstan. This involves 'the establishment of a new international educational system to develop vocational education in Kazakhstan'. The first group of five practical instructors and welders was trained and certified as per International Institute of Welding (IIW) standards and awarded the IIW diploma recognised in 56 countries.

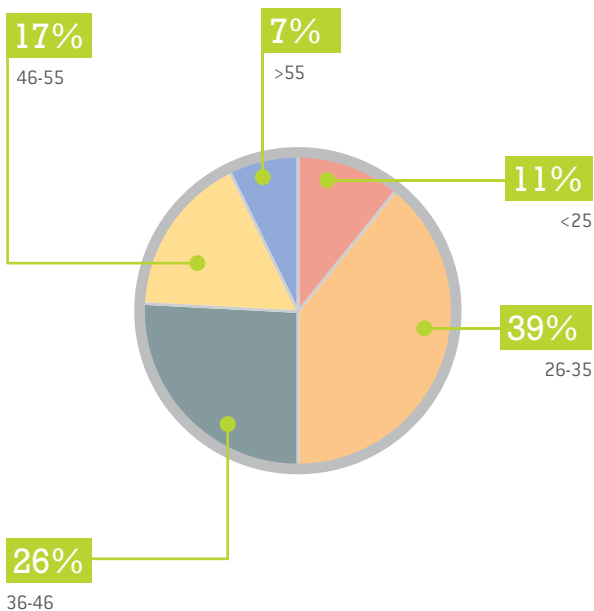
**FEMALE EMPLOYEES**



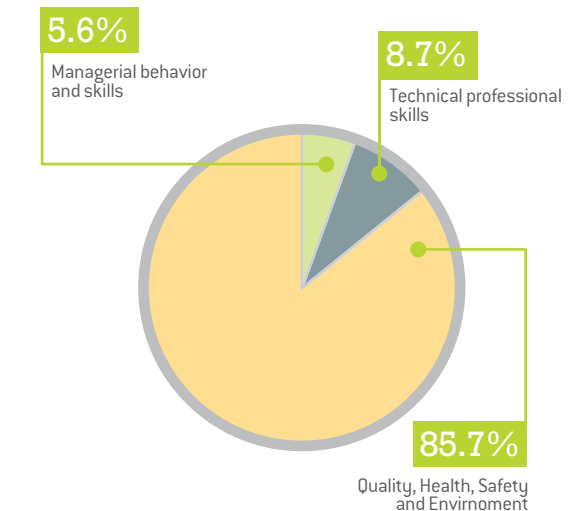
Furthermore, the PTC acquired the status of Authorised Training Centre, opening up the following opportunities:

- increase competitiveness and attract investments;
- train and qualify welders and welding practitioners as per International Standards;
- train welders and welding practitioners for IIW diplomas recognised by the international market;
- develop training programmes as per IIW standards;
- obtain and collect information related to new welding technologies.

**EMPLOYEE BREAKDOWN BY AGE**



**TRAINING HOURS BY COURSE TYPE**



## Building a sustainable supply chain

Ersai is working with its local vendors to develop their capabilities in order to meet international standards. Audits on vendors are conducted by Ersai on a regular basis with the purpose of assessing their QHSE Management System against ISO 9001, OHSAS 18001 and ISO 14001 standards and to give feedback on improvement actions to be taken. In 2012, QHSE Assessment Audits were conducted on 7 main vendors. The areas of improvement identified were mainly related to the HSE Management System and control of records. In addition, specific programmes are in place to help subcontractors improve their HSE Systems and achieve overall improved HSE performance. HSE training sessions are also organised for subcontractor personnel working on Ersai premises. The Ersai QHSE Manager launched monthly

meetings with subcontractors working on site with the aim of discussing QHSE issues on a regular basis and deciding on the measures that need to be implemented.

With a view to increasing transparency, a new E-Procurement System (SRM) was implemented in Ersai. As per Ersai procurement process procedures, all tenders exceeding €500,000 are subject to a 'Secure Bid Procedure'. SRM is an electronic E-procurement platform which ensures transmittal of vendor bids within the deadline and the simultaneous opening thereof by the buyer. The SRM platform can eventually be used for tenders of lower amounts, depending on the nature of the materials and services involved.

## Living together with local communities

Ersai is strongly committed to working responsibly and to contributing positively to the socio-economic development of the communities where it operates.

### Relations with local stakeholders

The most important local stakeholders in the area for Ersai have been identified, in particular all local authorities and communities in Aktau and especially Kuryk, where the Fabrication Yard is based.

Starting from the analysis of the needs of local communities and their expectations, every year Ersai defines a Sustainability Plan in agreement with local authorities and local communities. This includes all initiatives mainly aimed at creating value in communities through health promotion, education and environmental and cultural awareness. In particular, the focus on youngsters and their education and wellbeing is an essential aspect to guarantee a future development for local communities.

In March 2012, Ersai conducted a public hearing with local stakeholders to present and discuss the proposal of the Ersai Sustainability Plan for 2012.

In December 2012, a second public hearing was organised to present the initiatives carried out during the year and their results. During the meeting the plan for 2013 was also presented and discussed.

Both meetings were attended by most Kuryk village stakeholders, in particular teachers, doctors, kindergarten

teachers, students, and so forth. A total of 250 citizens attended the meetings.

For the 2013 annual plan, Ersai, together with the Kuryk stakeholders (heads of educational institutions, health sectors, schools, kindergartens, etc.), have identified people from the village responsible for the successful implementation and diffusion of information on each individual local community initiative that will be realised. This will have the objective of further involving local stakeholders and making them feel that they participate in and are responsible for the activities conducted, thereby increasing their engagement. Some of the initiatives carried out in 2012 are reported below.

### Initiatives for local communities

#### Education

##### Situational analysis

In association with the non-governmental organisation Eurasia Foundation of Central Asia (EFCA), Ersai carried out a situational analysis of educational challenges and opportunities in Kuryk village. This was designed to identify the characteristics and conditions of youth in Kuryk, as well as to investigate the factors which impact their access to and participation in educational, recreational and vocational activities. The analysis

entails gathering information about youth development opportunities currently available, the degree of family and community involvement in supporting these, and the extent to which they prepare young people for employment, citizenship and responsible adulthood. EFCA experts worked closely with community members and youth throughout the analysis to identify potential opportunities for future partnerships and collaborations. Following data collection, analysis of the region's strengths and areas for improvement were summarised in a final research report. This includes recommendations for future action and will serve as the basis for future projects that can be initiated by Ersai to support and improve youth services in the region. In summary, the following issues have been highlighted:

#### Preschool education

Main problems emerging: lack of qualified personnel; lack of professionals working with children with disabilities; low professional motivation for teachers to work in kindergartens; very limited contact between the administration, the teachers and the parents; parents not involved in the educational process; lack of teaching materials, toys, playgrounds and pavilions.

#### Secondary education

Main problems emerging: lack of subject teachers; teachers do not use interactive teaching methods (including interactive technology); very limited contact between management and teachers; pupils are not prepared, including psychologically, for the Common National Test; lack of career guidance; need for the development of extra-curricular and cultural activities for pupils; poor material and technical support (PC, dining rooms, sports fields).

#### The Overall Development of Youth

Main problems emerging: lack of recreational places for youth; inaccessibility of courses, especially for children from low-income families and disabled children; lack of youth organisations and NGOs working on youth development.

#### Vocational education

Main problems emerging: unemployment among university graduates; young professionals in Kuryk are unprepared for work; inability of low-income families to pay for the education of their children after they graduate from schools.

#### Improvement of local education and schools

Ersai, together with the Department of Education, conducted a motivational competition among Kuryk teachers. The purpose of this was to encourage teachers and students in their preparation for the National Test. Teachers whose students got the highest marks in the examination received monetary awards.

Results of the National Test showed that the Karakian Region was second in the overall Mangystau Oblast. This is considered a big improvement, as it had been placed near the bottom since 2006. This achievement is the result of the preparation courses and the motivational contest among teachers, both organised by Ersai.

For the fourth successive year Ersai successfully implemented its scholarship programme for school-leavers from low-income families in Kuryk village. On March 28, 2012, the Ersai Sustainability Department organised a meeting with all Kuryk school-leavers and their parents to inform them about the scheme. During the meeting, students became acquainted with the selection process, and with the specialisations required by the Company (i.e. welding engineers, electricians, mechanical engineers, construction engineers, doctors, safety engineers, ecologists and certification engineers, etc.). The annual selection of candidates took place in two stages: in the first, students took a test in mathematics and physics/biology and in the second they were interviewed. After successful completion of the test, four students were chosen. One was enrolled in the Faculty of Automation and Control at the Karaganda State Technical University and two in the Engineering Faculty of the same institution. The fourth student was enrolled at the Medical Institute.

The scholarship programme covers study fees for 5 years and a monthly stipend of 25,000 tenge for each student.

### Ersai - Patron of Education

On October 26, 2012, the honouring ceremony for Patrons in Education was held in the Astana Concert Hall under the auspices of the Kazakhstan Ministry of Education and Science. In recognition of the contribution made by Ersai Caspian Contractor LLC to the development of education in Mangystau Province, the Ministry awarded the Company the prestigious nomination 'Patron in Education of 2012' in the category 'The Young Generation is the Future of the Country'. On behalf of the Ministry of Education and Science, the Minister Zhumagulov Bakhytzhon conferred a diploma and medal to Ersai Deputy General Director, Mr. Yan Chan.

The names of all 34 Patrons in Education from all over Kazakhstan were entered into the 'Golden Book of Patrons'. In 2012 alone Ersai allocated 20 million tenge to support educational institutions. It was a great pleasure and honour for the Company to see its efforts appreciated at such a high level.

At the moment, the programme sponsors a total of 13 students. During an interview, one student said: 'I was enrolled in 2011 and I am now studying in Karaganda at the Mechanical Engineering Faculty. My monthly student fee is enough to see me through. Ersai checks my progress on a regular basis'.

The Kuryk Department of Education set up a commission consisting of school heads, teachers and Ersai representatives with the purpose of choosing a school to receive kitchen equipment. On March 28, 2012, the commission inspected two schools and school No. 6 was selected. The equipment arrived at the beginning of May and was donated in conjunction with the Ersai subcontractor MKC Multicatering Kazakhstan Co Llp. An official ceremony was held to welcome the arrival of the new equipment. Another school in Kuryk also benefited from the programme by receiving sports and recreational materials.

#### **Health promotion**

In the context of the multi-year programme against tuberculosis, which is included in the Ersai sustainability programme, in 2012 a new section of the tuberculosis dispensary was renovated and put into operation. Before that, patients were received at the polyclinic, where they exposed other patients or visitors to possible infection. In addition, Ersai continued its No Tuberculosis campaign among youth of Mangystau Region.

As part of the programme 'Support for Children with Heart Disease', 2 qualified doctors were invited to Kuryk to make screenings of all children with congenital heart disease and identify those in need of surgery and medical treatment. For this screening, the hospital had modern ultrasonic equipment, which had remained unused due to the absence of a transducer, until Ersai provided one. As a further step, Ersai is planning to organise specialist training on the use of this new equipment for all paediatricians in Kuryk. This will be organised in the Syzganov Surgery Centre in Almaty. Once trained, doctors will be able to screen the children properly and identify those in need of surgery.

Other provisions and materials, such as a laryngoscope, a bedside monitor, an alcohol tester, a salivary ejector, a cardiofax, artificial lung ventilation, an ultraviolet camera and two new boilers, were provided to Kuryk Central Hospital.

#### **Environmental protection**

An environmental campaign took place in Kuryk between April 23 and 27, the main purpose of which was to teach schoolchildren to keep the environment clean and learn how to separate waste. 315 children from 19 classes participated and a cleaning campaign was conducted at the seaside and in areas near the schools, collecting about 3 tonnes of garbage in total. The class who collected the largest amount of rubbish (450 kg) was rewarded with a

trip to the Museum of Local History in Aktau as well as a day of skiing.

A Summer Internship was carried out from June 5 (World Environment Day) to July 5, 2012. About 85 schoolchildren and 6 teachers took part in the initiative. During the internship, teachers acquainted the schoolchildren with the most important environmental issues. In addition, demonstrations were given on the beach cleaning and school cleaning campaigns. This initiative contributed to convincing the children of the need to protect the environment and to keep the places where they live clean. For the period of the internship, children and teachers received a salary of 15,000 tenge.

#### **Promotion of sport and healthy lifestyle**

On Children's Protection Day, Ersai organised sports competitions for schoolchildren in Kuryk. Children played football, basketball, volleyball, chess and togyz kumalak (a traditional Kazakh game). Three schools took part to the competition. The winning school won sports equipment awarded by Ersai for a value of 4.7 million tenge.

The Junior Basketball League was launched with the support of Ersai Subcontractors such as STL-Saga Terminal Logistics Llp and Caspian Mainport Ltd. This initiative was conducted by potential Ersai subcontractors in the context of activities which seek to involve subcontractors in sustainability initiatives.

#### **Ersai Kuryk Marathon**

On May 9, 2012, on the occasion of Victory Day, Ersai, together with the Mangystau and Karakian Departments of Sport, organised a 10 km running race. More than 50 people participated. Ersai provided full logistic support and equipment for the event.

#### **Emergency assistance**

On December 19, 2012, a strong hurricane hit Kuryk village and winds blew off half the roof of local school No. 6. Fortunately, the hurricane struck in the evening, when no children or teachers were present. Due to the damage, one of the three training blocks was closed. Schoolwork continued, however, in two undamaged buildings. The next day, Ersai offered its help to the head of the school and reconstruction of the roof began immediately. The Company provided around 3 million tenge for repair work, which was carried out by Ersai workers. Within a month the roof was completely restored.

'We thank Ersai not only on behalf of the school, but also on behalf of students and their parents. We were able to restore normal functioning of the school quickly, owing to that fact the work was carried out in such a short time', said Zaure Kusainova, school director.



# Running a sustainable business

Ersai is committed to delivering sustainable and long-term value to all its stakeholders, managing its activities responsibly through correct and transparent business practices, continuous innovation, safe and healthy operations and reducing environmental impacts.

## Managing our business for long-lasting success

### Main Projects in 2012

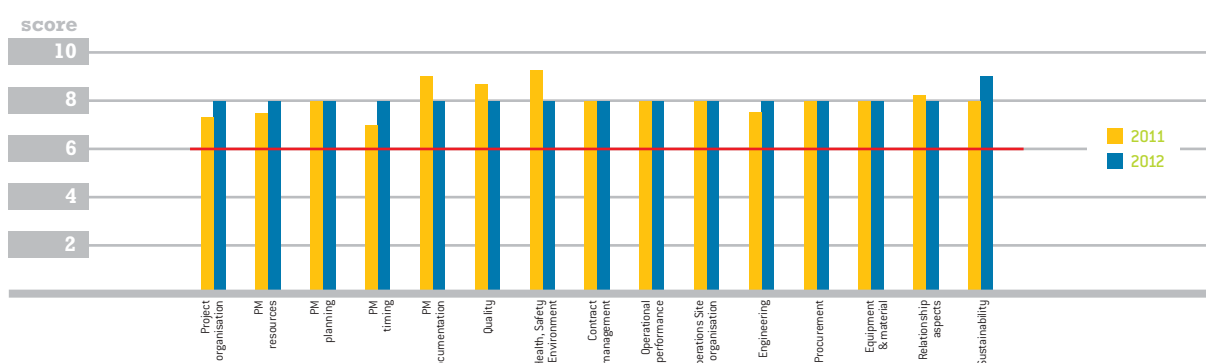
Name	Client	Description
Jack-Up Drilling Rig	Teniz Burgylau LLP	Procurement, fabrication, assembly, installation, hook-up and commissioning of a jack-up drilling rig.
Zhambyl	Daewoo Shipbuilding and Marine Engineering	Procurement, fabrication of structure, assembly of blocks and equipment, installation, hook-up and integration, testing and commissioning for the completion of the Zhambyl Submersible Drilling Rig.
Castoro 12 Modification Works	Saipem SpA Kazakhstan Branch	Conversion and modification works.
Castoro 16 Modification Works	Saipem SpA Kazakhstan Branch	Conversion and modification works.

### Customer Satisfaction

In a competitive marketplace where businesses compete for clients, customer satisfaction is seen as a key differentiator and a primary element of business strategy. For this reason, Customer Satisfaction Questionnaires are sent to Clients in order to receive feedback regarding activities carried out by Ersai. In 2012, feedback was received for the Zhambyl Project.

The Client especially appreciated the Company's ability to comply with project requirements during the construction period. Even though different cultures and working environments conditions generated unexpected situations, Ersai was at all times able to cooperate to resolve the problems and complete the project.

### CUSTOMER SATISFACTION: COMPARISON TABLE OF 2011 AND 2012 FIGURES



The maximum score is 10. The red line represents the critical point [score of 6] under which the Company shall take action.

## Ersai Vessels

### Ersai 1

Hull length: 139.84 m; length overall (LOA): 140.45 m; hull breadth: 42.00 m; breadth overall: 42.61 m; depth: 8.40 m; lightship: 9,200 t approx.; lightship (without crane): 7,300 t; draught light: 1.70 m approx., typical 4.00 m, max. 5.60 m.

Class notation RMRS KE I technological pontoon.

Main crawler crane capacity 1,200 t.



### Ersai 2

Crane type: Demag TC-1000s; maximum load: 200 t fully revolving; auxiliary hoist: 10 t; boom length: 54 m.

Powered: diesel-hydraulic; length (overall.): 59.89 m; tonnage: gross 824 t, net 247 t; 2x1,000 kg, chain 150 m.



### Ersai 400

Accommodation Barge ABS (American Bureau of Shipping).

Hull type: ship shaped barge with side; blisters: ice class notation A0.

Hull length: 111 m; hull width: 16.20 m; depth: 3.75 m; load line displacement: 3,600 t; freeboard draught: 2.8 m; 2x10 t capacity revolving cranes at side; 1x3 t revolving crane at stern.

Helideck: aluminium made and suitable for Super Puma AS 332L2 helicopter.



### Ersai 3

Classification: Utility Barge; class: Germanischer Lloyd - 100 A5 K E 'Special purpose ship' RMRS.

Length overall: 68.27 m; gross tonnage: 1,963 t; 1 pedestal crane capacity 5 t @ 12 m on exposed deck at stern; 1 overhead crane of 3 t capacity; 1 electrical monorail hoist of 2 t capacity.



### Ersai 4

Type of Unit: WSB1 - Workshop Storage Barge; Class: RMRS; dimension: 96 m x 15 m x 3.6 m draft; pedestal crane capacity: 5 t @ 12 m; overhead crane capacity: 3 t; electrical hoist capacity: 3 t; office: 100 pp., meeting room. Ice reinforcement: 0.6 m. Facilities for external users: 3x275 kW DDGG set 50 HZ; 1 Air compressor (10.5 m<sup>3</sup>/min - 12 bar); Dirty water tanks: 320 m<sup>3</sup>.



## Major investments to meet client needs and guarantee long-lasting business relations

During the period 2009-2012, Ersai made important investments to enlarge the area and capacity of the Fabrication Yard and to increase in-house qualifications to carry out highly challenging projects. The most important of these are as follows.

### Construction of the dry dock

A temporary dry dock has been built in the Fabrication Yard for the Zambyl project, which includes the construction of a submersible drilling rig. The dock was designed in the form of a light structure of 140.06 m in length and 85.86 m in width, as well as a waterproofing metallic chamber of 6.16 m in depth. The structure of the dry dock is located in the safe water area below sea level and separated by the lock paddle from the water area. It is a specially dedicated structure for the construction and assembly of block modules for the offshore structure which can then be then launched into the sea.

### Training Centre

In 2009, the existing Ersai Training Centre became a separate entity with the new name Professional Training Centre Llp, strictly focused on serving the industry's training requirements.

Recognising the extensive need for professionally qualified personnel such as welders, pipe-fitters, steel carpenters, scaffolders, instrumentation specialists, painters, hydro test specialists and electricians, the Professional Training Centre is now able to train local people on the skills required by the Company but also to provide additional training to enhance individual skills if and when required. In addition to the main technical

courses, language and computer skills courses are organised, mainly targeted at unemployed inhabitants and schoolchildren in Kuryk. The Professional Training Centre is certified in accordance with ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007 standards.

### Testing laboratory

To provide a more comprehensive and high quality service to its Clients, Ersai has set up an NDT Testing Laboratory, which received an RMRS Recognition Certificate starting from 2010. The Laboratory's activities include metalwork, ship hull metal weld joints, floating structures, Mobile Offshore Drilling Units (MODU), Fixed Offshore Platforms (FOP), submersibles, ship diving systems, boilers, heat exchangers, pressure bottles, lifting appliances and handling gear for ships, pipelines, steel castings, rolled products, forgings, stampings, details of mechanisms, devices and systems.



### Ersai Fabrication Yard

Total area: 220 hectares; developed area: 130 hectares; sheltered area (structural and piping pre-fabrication, painting and sand blasting, warehousing): 25,000 m<sup>2</sup>; offices area: 5,000 m<sup>2</sup>.

Accommodation facilities for 2,000 people in 21 and 17 bungalows; fully equipped port with the following configurations:

- water front 1,000 m;
- quay: 464 m; 22.4 m width;
- mooring dolphin: 100 m length; 22 m width;
- service jetty: 200 m length; 20 m width, with 30 t gantry crane;
- water front basin: 328,740 m<sup>2</sup>;
- water front fully protected by breakwaters for a total of about 1,700 m;
- entrance channel: 120 m width;
- water depth: 5.2 m C.D.

Total fabrication capacity of about 1,500-2,100 tonnes/month. In the event of a request for additional fabrication capacity, the future workload can be increased up to 3,200 tonnes/month by further developing an already owned area and hiring additional employees.





**Mechanical Testing Laboratory**

With the aim of mitigating losses, optimising Company expenses and improving service timing, Ersai decided to establish its own Mechanical Testing Laboratory that could not only cover all of the Company’s mechanical testing

needs but also enlarge its external services portfolio by performing mechanical tests for other companies. Extending over an area of 106 m², the Laboratory can carry out bend tests, tensile tests, impact tests and hardness tests, as well as macro and micro analyses.

**Business Ethics**

The Saipem Code of Ethics, fully implemented by Ersai, defines the values recognised, accepted and shared by the Company, as well as the responsibilities it assumes in relation to internal and external stakeholders. Compliance with the Code of Ethics is of fundamental importance for ensuring the functioning, reliability and reputation of the Company. The Code requires fairness, loyalty, integrity and transparency of operations, as well as correct conduct, working practices and processes in relations either within the Group or with external parties such

as shareholders, clients, suppliers, partners, and local communities. All of Ersai’s employees are expected to be familiar with the principles and contents of the Code of Ethics. To this end, awareness raising sessions are organised by the HR Department. These were attended by 144 employees in 2012. A Compliance Committee was set up with the purpose of monitoring implementation of the Code of Ethics and the most recent audit results show no infringements.

**Health & Safety: key principles in our operations**

Ersai’s HSE Management System is certified by Bureau Veritas Certification in accordance with OHSAS 18001:2007 and ISO 14001:2004 standards.

**Commitment to Health Promotion**

The Ersai health service continuously monitors the fitness status of all employees on a monthly basis. As a result, 92% of local employees and 95% of expatriates have a valid medical fitness certificate. Besides health monitoring, the Company is committed to developing and implementing programmes to spread an individual culture and attitude in relation to health practices.

**Cardiovascular Disease Prevention Programme**

The aim of the programme is constant assessment, monitoring and prevention of cardiovascular disease due to certain risk factors. In 2012, 179 people participated in the programme. Out of 64 employees belonging to the Risk Factor Monitoring Programme (on account of gender, age, smoking, systolic blood pressure, total cholesterol or cholesterol/HDL ratio), 16 participants decreased their score, while 12 maintained their previous one. Results were achieved by medical treatment alone (57.1%), life style modification plus medical treatment (35.7%) and life style modification alone (7.2%).

PROACTIVE KPI		2010	2011	2012
Health training hours	(No.)	3,495	828	1,761
Employees participating to Health courses	(No.)	1,642	611	1,098
Local employees taking part in health courses	(No.)	1,585	498	1,098
Medical staff	(No.)	12	13	13
Vaccinations	(No.)	1,650	1,000	235
Personnel involved in First Aid Training	(No.)	217	200	133

REACTIVE KPI		2010	2011	2012
Employees visiting the clinic due to illness	(%)	1.35	1.16	1.18
Employees absent due to illness	(No.)	1,180	662	401
Medical Evacuations (Medevac) performed	(No.)	27	17	41

51% of the overall number of visits to the Kuryk clinic were related to illnesses, mainly respiratory

(23.31%), digestive (6.71%), musculoskeletal (5.49%), skin (4.33%) and other (11.25%).

## Health Service Customer Satisfaction Questionnaire

With the purpose of evaluating the performance of the Ersai Medical Department, employees of the Company were asked to complete a Customer Satisfaction

Questionnaire for Health Related Services. 295 questionnaires were received. 226 respondents defined the service as 'excellent', 67 as 'good' and 2 as 'sufficient'.

## Medical Insurance

In 2012, Ersai signed an agreement with Interteach Corporation with the purpose of providing medical insurance to all Company employees for free consultations

and 24 hour family doctor visits. In the event of emergencies, employees can also make emergency calls and get specific treatment, hospitalisation and medicines

## Safety Performance Indicators

	2005	2006	2007	2008	2009	2010	2011	2012
Man-hours Worked	2,989,356	3,393,006	2,799,323	4,813,705	7,622,995	6,692,035	6,149,386	4,550,984
Lost Time Injuries	3	5	2	3	5	6	3	4
Total Recordable Incidents	5	6	3	6	13	12	6	7
First Aid Cases	110	41	59	142	54	11	7	2
Lost Workdays	197	191	186	220	185	390	61	394
LTI Frequency Rate	1.00	1.47	0.71	0.62	0.65	0.90	0.48	0.88
TRI Frequency Rate	1.67	1.77	1.07	1.25	1.71	1.79	0.97	0.88
FA Cases Rate	0.36	0.12	0.21	0.29	0.07	0.01	0.01	0.04
Severity Rate	0.06	0.05	0.09	0.04	0.02	0.06	0.01	0.09

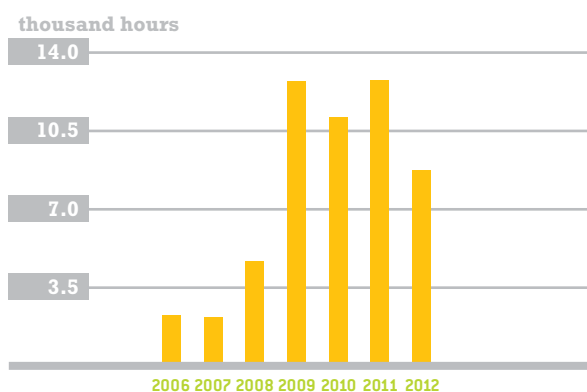
	2007	2008	2009	2010	2011	2012
Safety Hazard Observation Cards	796	947	1,018	3,338	2,089	502
Tool Box Talks	5,615	10,281	14,203	13,555	15,641	12,138
HSE Meetings	157	143	570	612	574	307
Job Safety Analysis	648	1,099	539	1,180	2,640	1,502
HSE Training Hours	4,282	8,165	13,444	13,191	16,008	9,316
HSE Inspections	182	237	578	585	414	423
Emergency Drills	7	13	17	29	26	21

Analysing the trends it can be noted that:

- The total number of minor incidents has decreased drastically over the years: in 2012, only 2 First Aid Cases (FAC) were reported (positive trend since 2008).

- The total number of 'medium & serious' incidents increased in 2012: 4 LTI occurred during the year (negative trend).

### SAFETY AWARENESS COURSES



## QHSE Award Ceremony

The Quality, Health, Safety and Environment Award Ceremony took place on a quarterly basis in 2012. The purpose of this award scheme is to improve the Company's QHSE performance by increasing QHSE awareness and encouraging employees to take proactive measures during daily activities. The QHSE Award involves all employees from all departments: production (all projects), asset and maintenance, lifting and rigging. Department Managers submit their best teams and a special committee analyses them according to QHSE criteria. In 2012, the monetary award was given to workers, foremen, drivers, crane operators, welders, pipe fitters and steel carpenters. A total of 483 employees were received awards.

## Climate Analysis

A Climate Analysis Questionnaire is used to measure the perception of employees towards Health, Safety & Environmental programmes.

The questionnaires are distributed twice a year to all employees. The survey contains questions related to HSE (i.e. availability of PPE, training courses related to job safety, waste segregation, health of employees, etc.) and is anonymous. Feedback is collected and analysed by the Safety Department.

In 2012, 281 questionnaires were filled in and returned.

The following are some of the conclusions that can be drawn from an analysis of the questionnaires:

- Positive feedback on the question related to safety advisor coaching and availability of PPE.
- Good worker perception of safety training sessions provided (96%).

- Health and environment questions basically confirmed the positive perception of last year; indeed, the average of positive answers was 93% for environment and 91.3% for health.

Results are positive in terms of perceptions of HSE issues, but Ersai needs to concentrate on getting higher scores on concrete initiatives, as this is the best way to verify actual trends.

The questionnaires also contained employee suggestions, the most common of which were:

- open a dental surgery;
- install rubbish bins along the road;
- improve the quality of water in the camp;
- lay anti-slip covering in halls during the winter period;
- use paper cups.

## Leadership in Health and Safety (LiHS)

Ersai Llc continues to apply all phases of the Saipem Group LiHS programme. It is important to keep the process on-going so as to prevent distraction and constantly improve a health & safety culture within the organisation. Managers and supervisors at all levels play a fundamental role in the dissemination and build-up of this culture, and it is Management's belief that cultural change should start from the top and be cascaded down to all elements of the workforce.

That is why a dedicated workshop has been designed for all Managers and Supervisors, who are trained in health & safety, in how the Company is committed to it and requires that all personnel be likewise committed, starting from Management and cascading down to all personnel along the chain of command.

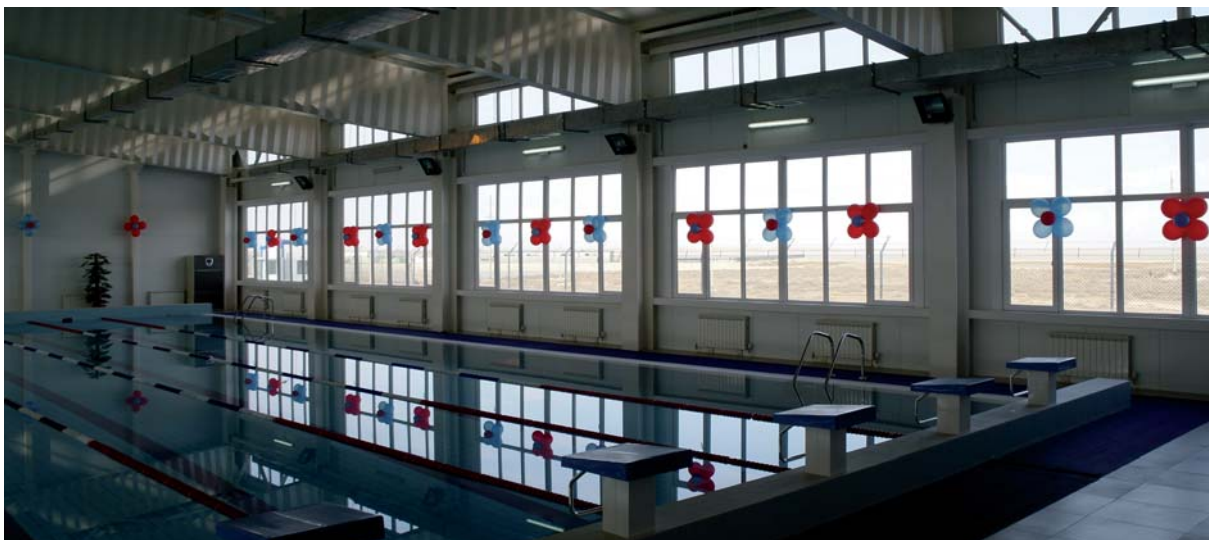
In 2012, Ersai Management decided to extend the LiHS messages to all subcontractor personnel. The Ersai General Director organised a meeting with subcontractor managers with the aim of conducting the LiHS Phase 3

(the Five Stars Intervention Training) for all subcontractor personnel so as to help Ersai create a common health & safety vision on the production site.

The companies Bolashak, RBG, Multicatering, SGS, Geecy and CIS took part in the course. In total, about 100 people were present. In addition, during 2012, LiHS films were translated into both Kazakh and Russian so that they could be more easily understood by all workers, including subcontractor workers.

## Wellbeing

Ersai has a 1,120 m<sup>2</sup> swimming pool with a maximum capacity of 100 people, as well as two saunas of 104 m<sup>2</sup> and 124 m<sup>2</sup>, respectively. Ersai camp residents (employees and clients) can access these facilities after work.



# Environmental protection

Ersai has an Environmental Management System certified in accordance with ISO 14001:2004 standard. The Company has identified the environmental aspects connected to its activities and analysed their influence on the environment.

## Actions to improve environmental performance

During the year, Ersai conducted a campaign against the use of plastic. With the purpose of decreasing the plastic waste in Ersai Base, water dispensers were installed in

each office and plastic cups in mess rooms were replaced with paper ones.

The newly installed incinerator is used for solid domestic waste, oily water, oil filters and food waste. It is calculated that the use of this plant will reduce the total quantity of waste to be sent outside the yard for disposal by about 30%.

Dedicated training courses were conducted for plant operators.

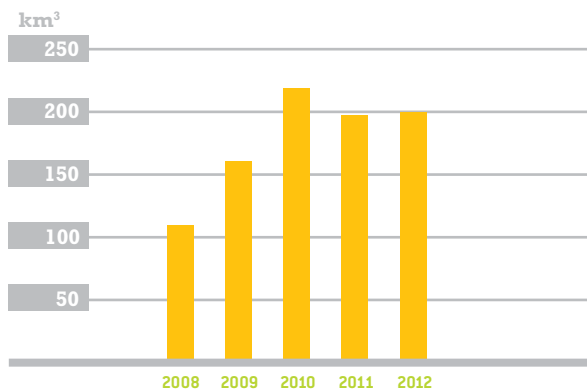
## Increase awareness and competence

The celebration of World Environment Day started with interactive Tool Box Talks for different projects and work-teams. Ecological issues important for Ersai and the general ecological situation in the Caspian Region were discussed. After that, small quizzes were organised, with specific questions related to environment. The best performing workers received special prizes.

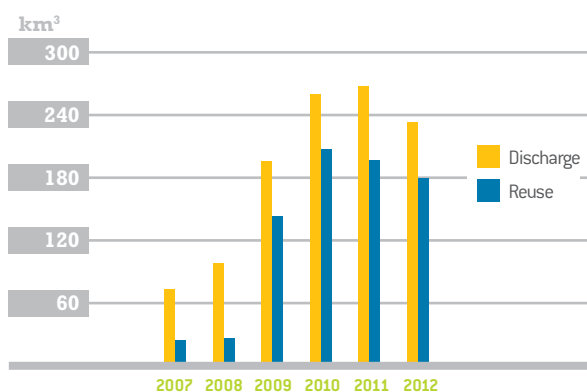
The following training activities were carried out in 2012:

- Ersai's Waste Management System - 254 hours;
- Onshore & Offshore Oil Spill Response - 93 hours;
- Ersai's Environmental Management System - 19 hours;
- Environmental Issues - 285 hours;
- Rational Use of Resources - 132 hours, in addition to posters and bulletins;
- World Sea Day - 12 hours;
- Operating the New Waste Incinerator - 35 hours.

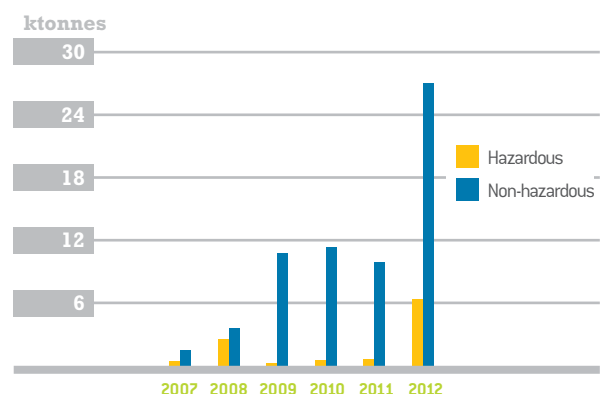
WATER CONSUMPTION



WATER DISCHARGE, REUSE



WASTE PRODUCED



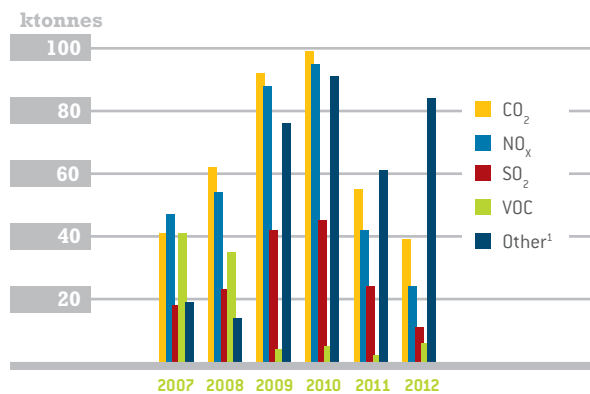


In 2009, Ersai expanded sewage water treatment and, after some modifications, started to receive sewage and oily water from offshore projects. This explains why, since 2009, the quantity of discharged water has increased and is now greater than water consumption.

The increase in hazardous waste in 2012 was due to the disposal of offshore drilling waste for the new project with N Operating Company Co.

The large increase in non-hazardous waste was due to a critical situation in the sewage treatment plant, which was blocked. Therefore, all sewage water from offshore operations that needed to be treated (about 20,000 tonnes) was removed and disposed of as waste by a subcontractor.

#### EMISSIONS



[1] Includes methane, hydrocarbons, benzene, chlorine, suspended matter, inorganic dust, acetone, carbon black, etc.





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**Feedback**

What you think of this Sustainability Report matters to us.

As we are constantly striving to improve our reporting, we would very much welcome your feedback. We will also be pleased to answer any questions you may have.

Contact us at: [sustainability@saipem.com](mailto:sustainability@saipem.com)

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