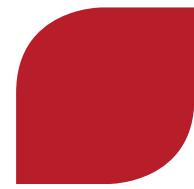




REPORT TO
2011 Responsible Development
On AREVA's
Mining Activities

AREVA MINES

A
AREVA
l'avenir pour l'énergie



CHAPTER **PROFILE**

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com

THE AREVA GROUP



AREVA designs and supplies high added-value products and services to support the operation of the global nuclear fleet.

The company is present throughout **the entire nuclear cycle**, from uranium mining to used fuel recycling, including nuclear reactor design and operating services.

AREVA is **recognized by utilities around the world for its expertise, its skills in cutting-edge technologies and its dedication to the highest level of safety.**

The Group is also present, through partnerships, in **renewable energies**.

■ Corporate Social Responsibility

Ever since its creation, AREVA has given impetus to a proactive sustainable development initiative by making strong commitments in matters of social, environmental and societal responsibility. These commitments are deployed and periodically updated through the policies that the group implements in a number of areas – human resources, diversity, nuclear safety, health, occupational safety and the environment – as well as through the Values Charter. These different policies and charters help organize the company's operations in compliance with human rights and in the interest of environmental protection and the laws that govern them. AREVA's efforts target continuous performance improvement in every field, particularly nuclear and occupational safety, and take into consideration the expectations of stakeholders directly or indirectly concerned by the group's operations.

AREVA subscribes to the United Nations' Global Compact and, on the occasion of the 21st United Nations Climate Change Conference, reaffirms its commitment in its operations to:

- reduce industrial emissions of carbon dioxide (CO₂) in AREVA's nuclear fuel cycle facilities by 50% by 2020 compared to 2004;
- reduce the total energy used in all of AREVA's facilities by at least 80% by 2020 compared to 2004;
- offer its customers the possibility of reducing their CO₂ emissions by building new nuclear reactors, improving their availability, and extending the operating period of existing reactors.

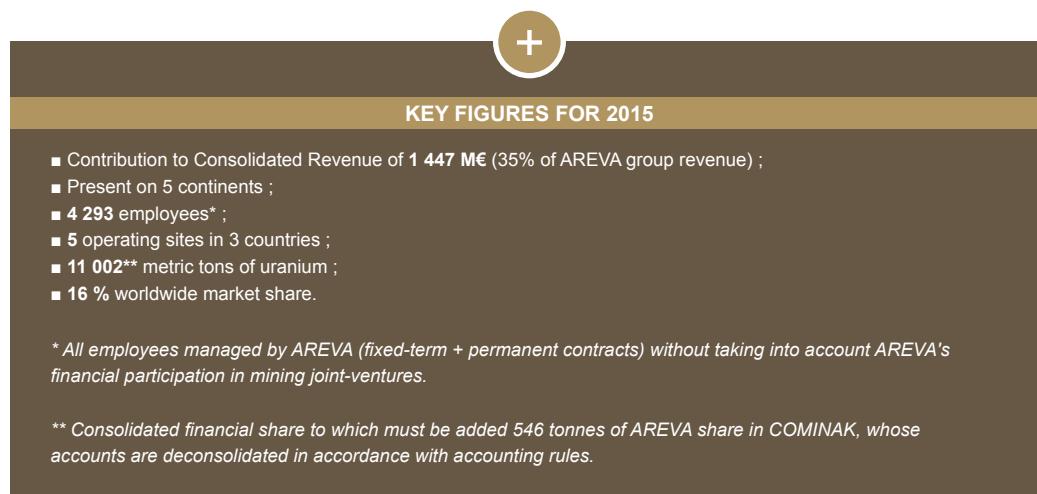
In addition, AREVA is pursuing its proactive continuous improvement initiative in its mining operations based on best international practices for corporate social responsibility, in particular through the ten principles of the International Council on Mining and Metals (ICMM).

AREVA'S MINING ACTIVITIES

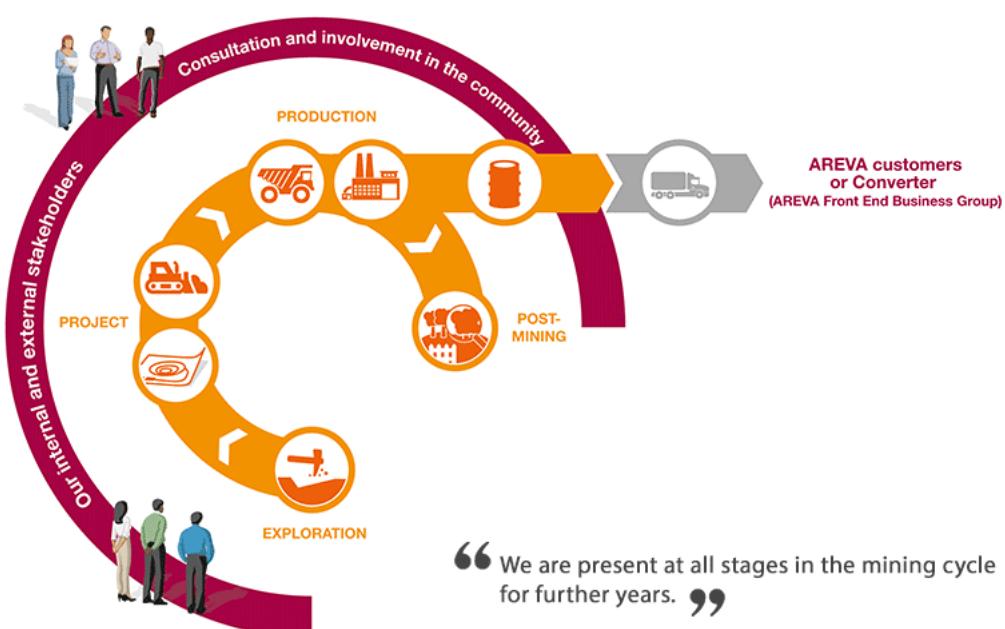
Mining activities are the **first link in the nuclear fuel cycle** and in the integrated model of the AREVA Group. AREVA was one of the top producers worldwide in 2015, producing 11,002 metric tons of uranium*. The group works to maintain resources and weighted reserves equivalent to 20 years of production at all times.

* Consolidated financial share to which must be added 546 tonnes of AREVA share in COMINAK, whose accounts are deconsolidated in accordance with accounting rules.

Thanks to a **presence spanning five continents**, they ensure the long-term supply to customers of uranium for electricity production while maintaining a responsible attitude towards people and the environment. It has a diverse portfolio of both active mines (Canada, Kazakhstan and Niger) and mines under development (Africa).



THE MAIN STAGES IN THE MINING CYCLE



■ Exploration – 10 years in average

Exploration involves **finding new uranium deposits**. Prospecting is carried out in successive steps: geological study of the region, interpretation of aerial or satellite photos, geophysical techniques, ground radioactivity measurements and studies of soil and water chemistry.

■ Mining project – from 8 to 12 years

The development phase **determines the technical, economic and environmental viability of a mining project**. It involves confirming the resources identified by geologists and characterizing the deposit and its ore. During this stage, the industrial pilot, which allows the extraction and ore-processing methods to be established, is set up. The infrastructures needed for mine operation are built. Studies are also performed to assess the societal and environmental impact of the project.

■ Extraction and processing - from 12 to 50 years

Ore is extracted from open-pit or underground mines, or using in situ recovery. AREVA's mining experts also regularly test and apply **innovative techniques**, which improve the performance of existing operations and increase personnel safety.

The main ore processing operations include crushing and grinding, dissolving, purification, calcination and concentration. The ore of uranium is transformed into a solid concentrate referred to as "yellow cake" (due to its appearance and color).

■ Post-mining: closure, remediation and monitoring - more than 10 years

This stage covers the **dismantling, remediation and revegetation of mining sites at the end of operation**, in strict compliance with the environmental regulations in force and in consultation with local populations. AREVA also performs radiological and environmental monitoring at these sites for at least 10 years.

HIGHLIGHTS 2015

Take a look at the main milestones achieved during these twelve months



FRANCE: A MONGOL DELEGATION VISITS BESSINES-SUR-GARTEMPE

The facility of Bessines, an AREVA Mines industrial hub in France, welcomed a delegation of fifteen elected representatives and journalists from Mongolia for a discovery of the Post-Mine activities and a visit to the reclaimed former mining sites of Bellezane and Puy de l'Âge, together with a tour of a cattle ranch representative of the Limousin race which was recently introduced into Mongolia.



NAMIBIA: TWO NEW STUDY GRANTS AWARDED

AREVA Resources Namibia awarded two new grants to Namibian students, one preparing a bachelor's degree in mining engineering at the Polytechnic school of Namibia and the other preparing an engineer's degree at the University of Namibia. In all, the group has supported 10 Namibians in their higher education courses since 2011.



NAMIBIA: AREVA RESOURCES NAMIBIA PUBLISHES ITS ACTIVITY REPORT FOR STAKEHOLDERS

The 2014 edition was published and submitted to all the stakeholders. Its objective: communicate on the servicing and maintenance activities at the Trekkopje site and provide feedback on the sustainable development actions in the areas of community investment, environmental management and business development.



THE NEW MANAGERIAL MODEL MANAGER@AREVA IS KNOWN AND SHARED BY AREVA MINES MANAGERS

An awareness training session on the new managerial model Manager@AREVA, was held in Mongolia, rounding off the initiative launched in 2014 by the group. To date, this new model has been introduced on all the sites within the mining business. In this way, the managers share the same managerial reference standards to face the many challenges involved in the group transformation.



NIGER: DONATION OF LABORATORY EQUIPMENT FOR THE FIGHT AGAINST MENINGITIS

As part of the fight against meningitis in Niger, AREVA Mines Niger and the mining companies SOMAIR, COMINAK and IMOURAREN have decided to support the Niger Ministry of Public Health and CERMES (Medical and Health Research Center) in their efforts to eradicate the disease. To help in this fight, CERMES obtained a donation of laboratory equipment to conduct analyses, for a total amount of more than 68,500 €.



CANADA: THE NUNAVUT COMMISSION EXPRESSES RESERVATIONS ON THE KIGGAVIK PROJECT

The Commission of the Canadian region of Nunavut, in charge of investigating the impact of the Kiggavik uranium mine project, issued its report following the hearings organized on the project final environmental impact assessment. The Commission recommended to the Ministry of Aboriginal Affairs and Northern Development not to go ahead with the Kiggavik project. The Commission's recommendation is mainly based on the absence of a fixed project starting date.



JUNE 2015

SAFETY IN ACTION MONTH ON THE AREVA MINES SITES

For the third year running, June is safety month at AREVA Mines. This year again, each of the sites organized a safety day featuring entertainments aiming to enhance employee and sub-contractor awareness of the safety culture.



JUNE 2015

NIGER: IRHAZER AGRICULTURAL DEVELOPMENT PROJECT: NEW AGREEMENT SIGNED BETWEEN AREVA AND THE STATE OF NIGER

The Niger minister of state, minister of the plan, of land use planning and of community development and the director of the AREVA Mines Niger facility signed the second funding agreement of the project for the agricultural development of the Ihazer-Tamesna-AlR region. This step confirms the development of the structures and activities for crop irrigation in the region, reinforcing the food security of the local population and the sustainable creation of jobs.



JUNE 2015

MONGOLIA: PERMIT TO OPERATE URANIUM DEPOSITS GRANTED

The Mining Resources Authority of Mongolia granted to COGEGOBI LLC, a subsidiary of AREVA, operating permits for the uranium deposits of Dulaan Uul and Zuuvch Ovoo (the Dulaan Uul deposit covering the Dulaan Uul and Umnut zones) in the Dornogovi province in the south-east of the country.



SEPTEMBER 2015

NIGER: THE PRESIDENT OF THE REPUBLIC OF NIGER LAUNCHES REFURBISHMENT WORK ON THE SECTIONS OF THE (VOIR AVEC CÉCILE)

The President of the Republic, SE Issoufou Mahamadou, launched the work on the refurbishment of two sections of the Tahoua-Agadez-Arlit road, one between Tamaya and Agadez (191 kms), the other between Agadez and Arlit (236 kms); the state of Niger is the project owner. The 685-km Tahoua – Agadez- Arlit road was opened and financed by the mining companies SOMAIR & COMINAK. The latter devote 1 % of their annual revenue to its maintenance.



SEPTEMBER 2015

KAZAKHSTAN: KATCO ORGANIZES WORKSHOPS FOR SHARING ITS « HEALTH, SAFETY, ENVIRONMENT » PRACTICES WITH ITS SUB-CONTRACTORS

KATCO, a joint venture of AREVA and KAZATOMPROM, organized at the mining site of Tortkuduk, a « Health, Safety, Environment » workshop for the directors and managers of the site sub-contractors. KATCO was able to share its good practices, proving its commitment to the safety of its employees and sub-contractors. The workshop concluded with the introduction of an action plan based on the comments and proposals of the sub-contractors' representatives.



OCTOBER 2015

ENCOUNTER WITH TOM BUTLER THE NEW PRESIDENT OF THE ICMM

As part of its responsible mining player approach, AREVA Mines received Tom Butler, President of the International Council of Mining and Metals (ICMM), which gathers 24 major mining sector stakeholders committed to a sustainable development process. Looking ahead to the International Climate Conference COP 21 held in Paris in early December, Olivier Wantz, Senior Executive Vice-President of AREVA Mines and Tom Butler exchanged views on the contribution of nuclear energy to this cause and on climate change.



OCTOBER 2015

KAZAKHSTAN: THE SECOND « ENVIRONMENT WEEK » ORGANIZED BY KATCO

Radiation protection specialists from KATCO, a joint venture of AREVA and KAZATOMPROM, got together to organize the second « Environment Week » held in the elementary schools of Taukent and Zhynts Ata in the south of Kazakhstan. These experts prepared a tool kit (presentations, methods and videos) and recreational activities to help the teachers to make their students aware of the environmental issues and safety.



OCTOBER 2015

CANADA: A YEAR AFTER ITS RESTART, THE MCCLEAN LAKE ORE PROCESSING PLANT PASSES A MAJOR PRODUCTION MILESTONE

For the first time, the McClean Lake plant succeeded in producing 1.7 million pounds of uranium (about 654 metric tons) in just one month. In 2015, the total output of McClean Lake was 11.3 million pounds or 4349 tU, including an AREVA share of 1612 tU.



OCTOBER 2015

CANADA: THE AREVA RESOURCES CANADA TEAMS MEET THE LOCAL COMMUNITIES AT CLUFF LAKE

The RSE and HSE (Health, Safety, Environment) teams of AREVA Resources Canada have been organizing annual briefings to engage in dialogue and answer the questions of the authorities and representatives of the communities of West Athabasca on the management of the former uranium mine at Cluff Lake, considered as a model of reclamation.



NOVEMBER 2015

GABON: THE SECOND LOCAL INFORMATION AND MONITORING COMMISSION (CLIS) HELD AT MOUNANA ATTRACTS 64 ATTENDEES

Its purpose was to inform the local authorities and the community of the actions and work performed by COMUF on its former mining sites since the last CLIS dating back to January 2015. A detailed update on the 2013-2015 action plan was also presented.



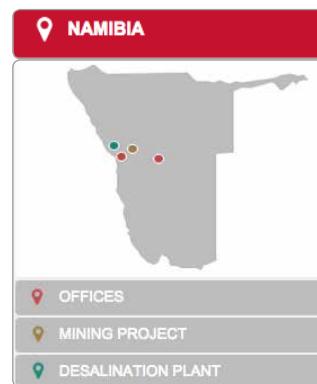
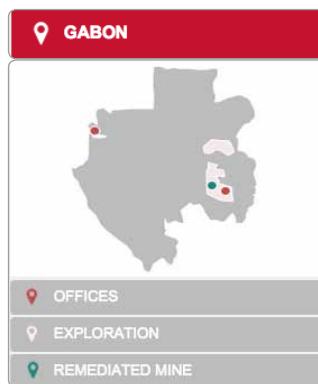
REPORT
2014

DECEMBER 2015

MONGOLIA: THE FIRST SUSTAINABLE DEVELOPMENT REPORT ISSUED BY AREVA MONGOL AND COGEGOBI IS AVAILABLE

AREVA Mongol and COGEGOBI report on their responsibility commitments with the publication of the first Sustainable Development Report, available in English and in Mongol. The Sustainable Development Report is one of the commitments taken as part of the 2014-2015 action plan and aims to report to both internal and external stakeholders on performance relating to the main Corporate Societal Responsibility (CSR) challenges.

■ WORLDWIDE PRESENCE



UPDATE ON OUR ACTIVITIES IN 2015

■ Australia

AREVA suspended its drilling work in Australia in the second half of 2015. Targeted studies will continue in view of the future resumption of work.



■ Canada

AREVA has been engaged in mining operations in Canada for more than 50 years. In Canada, AREVA's production comes from the McArthur River and Cigar Lake mines operated by Cameco Corporation. These sites are located approximately 700 kilometers north of Saskatoon in Saskatchewan Province.



AREVA is conducting a major exploration program in this uranium-rich province and in the Nunavut territory, where it also holds majority interests in several deposits:

- a 70% interest in McClean Lake,
- a 51% interest in Shea Creek,
- a 69.16% interest in Midwest,
- and a 64.8% interest in Kiggavik.

The final environmental impact study for the Kiggavik project submitted in October 2014 to the Nunavut Impact Review Board (NIRB) was not approved in May 2015 due to the lack of a specific start date. The NIRB indicated that it would not impose a definitive ban on the project, saying that the project could be presented for review at a later date once the uncertainties concerning its start date and the development program have been removed.

■ Cigar Lake

Cigar Lake is owned by a joint-venture consisting of Cameco Corporation, AREVA, Idemitsu Uranium Exploration Canada Ltd and Tepco Resources Inc

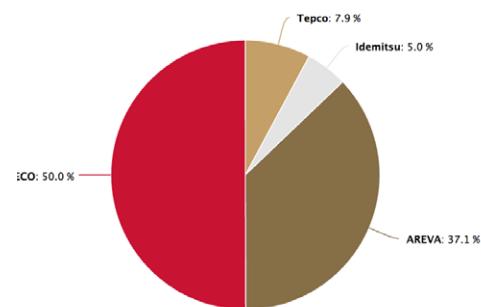
The deposit is operated by Cameco. Cigar Lake is the world's richest uranium deposit. The ore is processed in the McClean Lake mill operated by AREVA.

AREVA discovered the deposit in 1981 and helped develop the mining method.

In view of its location 450 meters below the surface and of the very high-grade uranium it contains, the deposit cannot be mined with conventional methods. Freezing techniques are used to strengthen the ground and prevent water infiltration. The selected mining method involves removing the ore by high-pressure *jet boring*. All infrastructure drifts are located in more solid rock under the deposit to position equipment, drill the ore body to freeze the ground, and mine it by *jet boring*.

Cigar Lake should produce 6,900 metric tons of uranium per year at full capacity (18 million pounds of U₃O₈). With 11.3 million pounds of uranium concentrates produced in 2015, production ramp-up at the Cigar Lake mine reached a production level above that of the forecast.

Composition of the Cigar Lake joint venture



■ McClean Lake

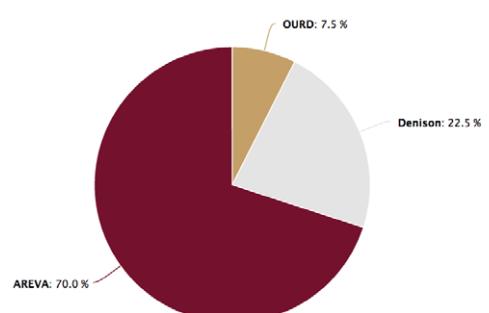
AREVA operates McClean Lake and is a 70% owner alongside Denison Mines Ltd and Ourd (Overseas Uranium Resources Development Company Ltd of Japan).

The first uranium production at the McClean Lake open pit mine began in 1995, and uranium concentrate production began at McClean Lake's Jeb mill in 1999. Mining operations were stopped in early 2009.

The mill was designed to process very high-grade ore (> 15%); its capacity was raised in order to receive all of the ore from Cigar Lake. Under an agreement signed in 2011 between the partners of Cigar Lake and McClean Lake, the Jeb mill processes all of the ore from the Cigar Lake mine. The mill was restarted in October 2014 for that purpose, and its ramp-up to nominal capacity is in step with the ramp-up of mining production (18 million pounds of uranium concentrates).

In 2016, it is planned to obtain the regulatory permit to increase production levels of uranium concentrates at the McLean Lake mill, which is currently limited to 13 million pounds.

Composition of the McClean Lake joint venture



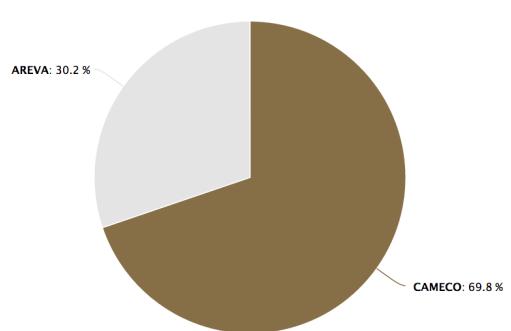
■ McArthur River

McArthur River is operated as a joint venture by Cameco Corporation. . The McArthur River mine has, with Cigar Lake, the world's largest production capacity.

The deposit was discovered in 1988 and mining began in December 1999. Located more than 600 meters below the surface, and in view of the very highgrade uranium it contains, the deposit cannot be mined with conventional methods.

The miners are protected from direct contact with the ore by the use of special mechanical mining methods (*raise boring and long hole stoping*), and the ground is frozen to prevent water infiltration. The mined ore is processed at the Key Lake mill, about 80 kilometers south of the deposit.

Composition of the McArthur River joint venture



The Key Lake mill is operated by Cameco Corporation, which holds an 83.33% interest (AREVA holds 16.67%). McArthur River and Key Lake have a capacity of 7,200 metric tons of uranium per year (18.7 million pounds of U₃O₈).

■ France

In France, the main activities are related to head office and managing the remediated former mining sites. Today a total 234 sites are under AREVA Mines responsibility for monitoring. The sites are located in 25 different French departments.

These sites were in operation between 1948 and 2001. Jouac, the last mine, closed in 2001. A number of activities were carried out at these former mining sites: exploration work, underground and open-pit mines, dismantled ore processing plants and 17 storage areas for uranium ore processing residues.



■ Gabon

In Gabon, exploration work resumed a few years ago at AREVA's former mining sites continues.



■ Kazakhstan

Katco was established in 1997 to develop and mine the Muyunkum and Tortkuduk deposits in southern Kazakhstan, approximately 250 kilometers north of Shymkent.



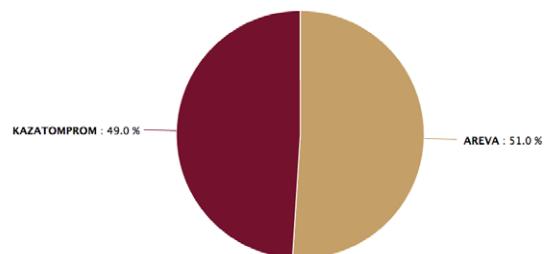
Shareholders include AREVA and the Kazakh company Kazatomprom, the national natural uranium producer of Kazakhstan.

Development of the two mining sites, located approximately 60 kilometers apart, started in April 2004 after the signature of agreements between the two shareholders. The in situ recovery (ISR) technology was chosen to solubilize the uranium directly in the rock.

In 2008, Katco received a permit to raise production to 4,000 metric tons of uranium per year; it has maintained this level since 2013. In 2015, Katco continued studies and work aimed at bringing the South Tortkuduk deposit into production; this deposit is located between two deposits currently in production.

The request to register South Tortkuduk resources and reserves with the State of Kazakhstan is under review and constitutes the first development stage of this deposit.

Composition of the KATCO joint venture



Mongolia

For more than 15 years, AREVA has successfully conducted mineral exploration operations in the Sainshand Basin at two sites, Dulaan Uul and Zoovch Ovoo.



Following an initial feasibility study, mining licenses were granted for the Dulaan Uul and Zoovch Ovoo deposits in June 2015 to Cogegobi, the subsidiary that will lead AREVA's exploration activities in Mongolia.

In accordance with nuclear energy law in Mongolia, these permits must be transferred to a new mining company in which the state-owned Mon-Atom company overseen by the Commission of State Properties has a 34% interest. The remaining 66% will be held by AREVA Mongol, itself 66% owned by AREVA and 34% owned by Mitsubishi Corporation. After receiving the necessary permits, the mining company will begin building and operating the pilot in order to confirm the technical and economic parameters of the deposit and update the feasibility study.

Namibia

The Trekkopje deposit is located in Namibia. AREVA has owned 100% of the property since its acquisition in 2007. In 2012 and 2013, a pilot phase demonstrated the feasibility of the selected technical solutions and confirmed the production cost objectives.



Nonetheless, the deterioration of uranium market conditions prompted AREVA to mothball the project in October 2012. The equipment and facilities are currently mothballed, and regular maintenance continues to be provided.

Niger

Exploration teams from the Commissariat à l'énergie atomique (CEA, the French atomic energy commission) detected uranium in Niger at the end of the 1950s. The uraniferous area is located west of the Aïr granitic body. Close to 2,000 people work at Somaïr and Cominak, excluding subcontractors. Along with jobs, the operating companies provide health, social and educational services to the local communities in this isolated area.

Cominak and Somaïr have delivered uranium to their customers without interruption since operations began in the 1970s.

AREVA also owns the Imouraren project, one of the world's largest deposits (with 174,196 metric tons of uranium in reserves after application of the ore yield with a grade of 700 ppm).

Workforce was adjusted at the level of activities in Somaïr and Areva Mines Niger.

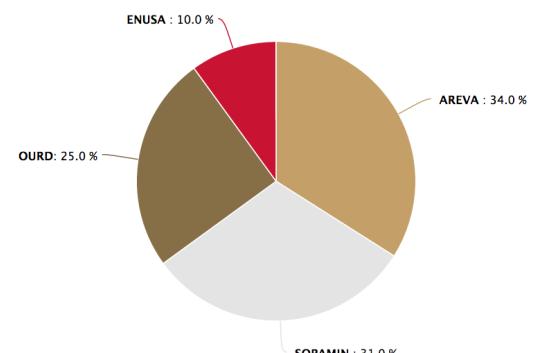


FIND OUT MORE

In accordance with the strategic partnership agreement signed by the State of Niger and AREVA on May 26, 2014:

- the mining agreement for Somaïr and Cominak were renewed till the end of 2008 in accordance with the Nigerien mining law of 2006 (with neutralization of the value-added tax impact);
- a joint Strategy Committee was set up. It will determine the schedule for the start of production of Imouraren as a function of the market trend, since current uranium prices do not allow the deposit to be operated profitably;
- AREVA will provide financial support to local infrastructure and development projects:
 - funding of a share of the Tahoua-Arlit road renovations;
 - financing of the construction of an office building for the mining companies;
 - strengthening of an agricultural development program in the Irhazer Valley of northern Niger.

Composition of the COMINAK joint venture



■ COMINAK

Cominak (Compagnie Minière d'Akouta) is 34% owned by AREVA, which operates it. The other shareholders are Sopamin of Niger (31%), Ourd (25%), and Enusa Industrias Avanzadas SA of Spain (Enusa, 10%).

The ore is extracted underground and is then processed in the site's mill, producing approximately 1,500 metric tons of uranium per year (3.9 million pounds of U₃O₈).



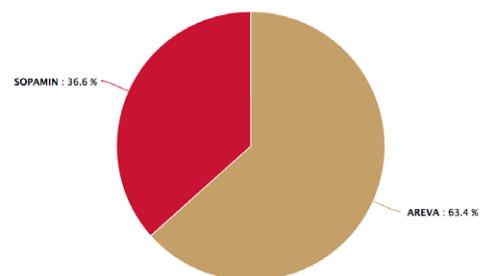
■ SOMAÏR

Société des mines de l'Aïr (Somaïr, the mining company of the Aïr) was established in 1968. The company is operated by AREVA, which owns 63.4% of the share capital; the remaining 36.6% is held by Société du patrimoine des mines du Niger (Sopamin, the Nigerien government's mining company).

Somaïr has operated several uranium deposits near the town of Arlit since 1971. The ore is extracted from open pit mines and heap leached or processed mechanically at the head end of the Arlit mill.

In both cases, the uranium solutions are treated the back end process of the mill. Given the current characteristics of the ore processed, capacity is in the range of 2,000 and 2,500 metric tons per year.

Composition of the SOMAIR joint venture



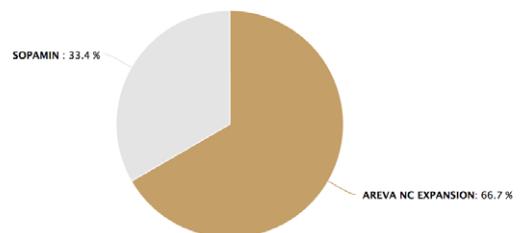
■ IMOURAREN project

Located 80 kilometers south of Arlit, this deposit was discovered in 1966 and constitutes one of the largest deposits in the world today (reserves of 174,196 metric tons of uranium after recovery). The feasibility study was completed in December 2007 and submitted in April 2008. AREVA received the mining permit for the deposit in early January 2009.

The Imouraren SA mining company was established, with AREVA NC Expansion (86.5% AREVA and 13.5% Kepco/KHNP) holding a 66.65% interest and Sopamin owned by the government of Niger holding the remaining 33.35%.

In view of market conditions, production startup work was suspended. The site, equipment and facilities are currently mothballed, and all demobilization operations together with implementation of the restructuring plan were completed in the first quarter of 2015.

Composition of the IMOURAREN SA joint venture



The project will restart when uranium market conditions permit. A strategy committee set up by the State of Niger and AREVA regularly reviews these conditions.

FIND OUT MORE ABOUT AREVA

“ AREVA SA, head of the AREVA Group, is a French “société anonyme” with a Board of Directors. The **Board of Directors** sets the directions for the AREVA's business and ensures they are implemented.



Governance combining oversight and transparency

The AREVA governance is based on a Board of Directors and its Specialized Committees. The Board of Directors sets the Company and the Group's business directions and oversees their implementation and deliberates in particular on the strategic or financial decisions. Its activities are governed by internal rules. At the end of the ordinary and extraordinary General Shareholders' Meeting of AREVA, held on January 8th, 2015, AREVA changed the governance structure, passing from a structure comprised of a Supervisory Board and a Management Board to a single Board of Directors structure with a Chairman and a Chief executive officer.

The board of directors meets as often as the interest of the company requires it and at least six times a year

Organized for industrial and commercial performance

The operating organization consists of five Business Groups (BGs), an Engineering & Projects organization (E&P), Functional Departments and three Regions in Germany, North America and Asia-Pacific.

The Group is organized to support our goal of **becoming the leader in solutions for low-carbon power generation**. Based on the principle of subsidiarity, the management system combines decision-making and decentralized operations through the Operating Divisions and overall coordination by coordination and steering committees. The functional departments support the objectives of the operating divisions. In light of its significant industrial presence and the need for close contact with customers, Regions were created.

AREVA'S MINING BUSINESS LINE

The Mining Business Line includes all the Areva's mining activities including "AREVA Mines SA" and the "mining operations" abroad and in France.

The Mining Business Line is managed by M. Jacques Peythieu (since 6 May 2015). He chairs the Mining Business Line Management Committee which includes the operational directors and directors of support functions involved in mining activities.

■ Board of Directors

AREVA Mines is a business corporation with **Board of Directors** (Société Anonyme avec Conseil d'Administration). Its primary function is to ensure operational consistency in mining activities carried out in France and internationally. Mr Olivier Wantz acted as President and CEO until February 18, 2016, at which point Mr Philippe Knoche, CEO of AREVA, took over the Chairmanship of AREVA Mines SA and Mr Jacques Peythieu became CEO.

AREVA Mines SA has a share capital of 25,207,343 euros and AREVA SA holds a 99.99% stake in the company, with the remaining 0.01% held by the CEA (the French Alternative Energies and Atomic Energy Commission).

AREVA Mine SA has **two sites** in France: the head office at the Tour AREVA (Courbevoie) and the Bessines-sur-Gartempe industrial site (Limousin). The organization, operation and prerogatives of the Board of Directors are set by the statutes. The Board of Directors meets at least twice a year. It decides how the company orients its activities and ensures their implementation.

The Board of Directors comprises 13 administrators:

- 5 appointed at the proposal of AREVA;
- 2 appointed at the proposal of the CEA (French Alternative Energies and Atomic Energy Commission);
- 3 state representatives;
- 3 elected staff representatives (first election held in February 2013).

A state inspector and a government auditor also attend board meetings, along with the secretary of the Central Works Council.

In accordance with the statutes, the Chairman is an executive administrator and has no right of veto. Representatives do not receive any remuneration or advantages from the companies controlled by AREVA Mines SA.

■ Management Committee

The Mining Business Line is run according to a decentralized operating model, based around a head office that performs overall management and oversight functions, and structures that carry out mining operations in France and internationally. "Mining operations" covers exploration, project, production, remediation and after-mining monitoring activities.

The Management Committee meets regularly in order to study safety, commercial, industrial and financial results as well as to draw up and monitor mining activity action plans.

It also ensures that the AREVA Values Charter is respected, in addition to the company's commitments to sustainable development, and leads the risk management process for the Mining Business Line.

The Management Committee is made up of directors from the operational departments (Geoscience, Operations and Projects, and Safety and Community Involvement) and the functional departments (Human Resources, Communications, Finance, Legal, Uranium Materials Management, Strategy and Development)..

■ Occupational Safety Committee

On September 1, 2013, in line with AREVA's Health and Safety Policy and as part of the associated Mining Business Line Roadmap, a Occupational Safety Committee was set up. It is made up of members of the Mining Business Line Management Committee, Site Directors and the Safety Team. It is chaired by Jacques Peythieu.

Its aim is to promote a safety culture within mining operations, establish and validate related objectives and ensure that the group's Health and Safety Policy is respected, along with its associated commitments.

■ Staff representative bodies

AREVA Mines' Human Resources Policy, in accordance with current regulations, is based on the principles of discussion and consultation. A responsible social dialog, one that is both constructive and innovative, is considered to be a vital element in the healthy running of the company.

Agreements are regularly signed with staff representatives. In March 2012, a new agreement mechanism was signed by AREVA Mines management and union organizations. It was the result of several months of joint work by management and labor representatives.

The Works Committees and union representatives form the representative bodies which engage in social dialogue in the various countries in which the AREVA group is present. The group has also set up a European Group Committee.

Regarding collective bargaining, agreements can be signed with union representatives (trade union coordinators) at group level and also in each of the companies that make up the group.

The AREVA group has chosen to formally and responsibly underpin its social policy with the signature of a number of group agreements which establish the foundations of this policy.

To date, several agreements have been signed at group level in France and the construction of social policy continues, including at European level. These agreements are drafted so that the commitments they contain can be implemented in the most concrete way possible, taking into account national specificities.

Every year, in France, the mandatory annual negotiations on wages are organized with the staff representative bodies. These also relate to gender equality goals on careers and pay levels in the company, as well as measures to achieve them.

In France, the Health, Safety and Working Conditions Committee (CHSCT) is both a consultative body and a proactive forum for making proposals. It plays an important role in prevention within AREVA Mining. It contributes:

- to the protection of the health, hygiene and safety of the employees of the entity and of employees made available by outside companies, including temporary workers,
- and to the improvement of working conditions.

100% of employees in France are covered by a collective bargaining agreement.

■ Public financial assistance

Within the framework of their mining activities, neither AREVA Mines nor any of its subsidiaries included in the financial consolidation scope have received public financial assistance for the financial year 2015. Items not considered as public assistance for the purposes of this statement include incentives, in particular fiscal incentives, automatically applied to all mining operators, as expressly provided for by the legislation, including mining legislation, of the countries concerned.

Mining activities include exploration, development, mining projects, production of uranium concentrates, and remediation of mining sites. In 2015, they extend over the following geographical areas: France, Gabon, Niger, Australia, Namibia, Central African Republic, Kazakhstan, Mongolia, Canada.

The company AREVA Mines SA is 100%-owned by AREVA SA. The French state holds a stake in AREVA SA through shareholdings held by the CEA (54.37%), the French Ministry of the Economy (28.83%) and BPI France Participations (3.32%). The State of Kuwait holds 4.82% of AREVA SA capital through the participation of Kuwait Investment Authority.

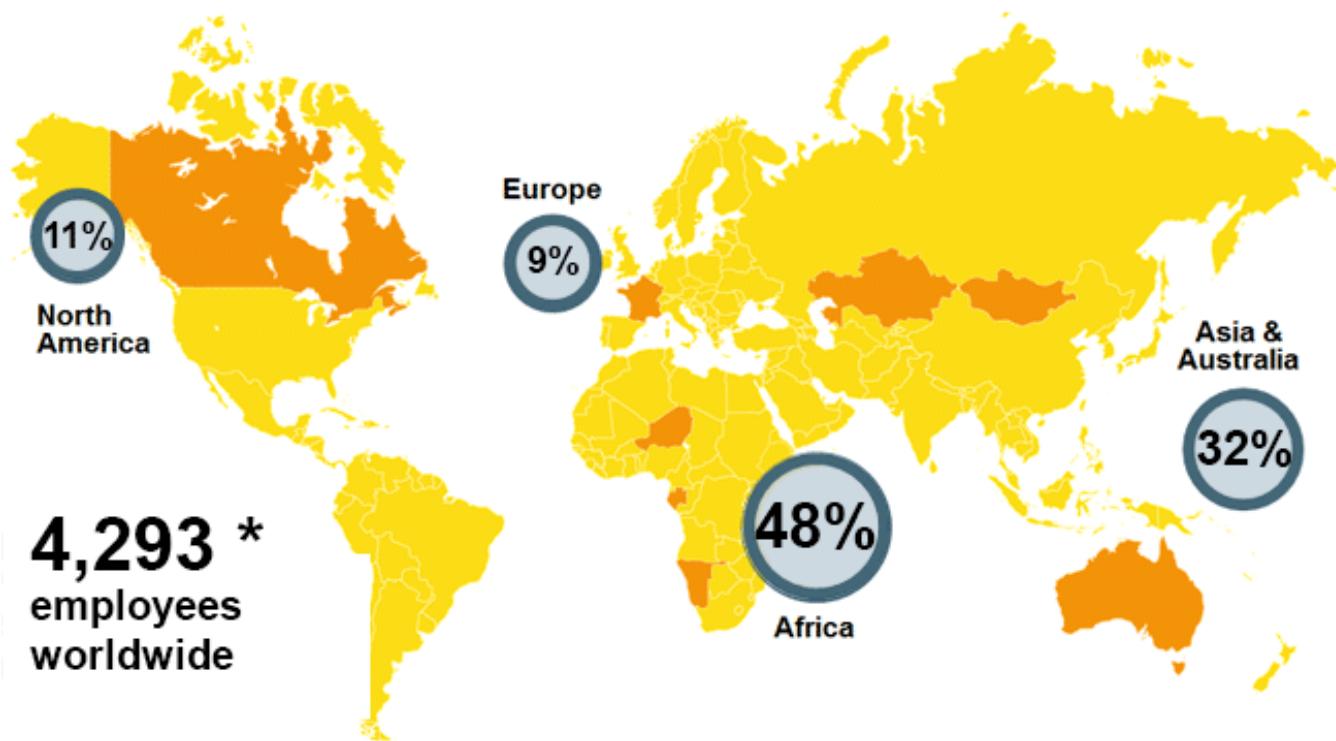
In addition, the following subsidiaries have stock held by a state other than the French state or by companies controlled by a State other than the French state (as at December 31, 2015):



SUBSIDIARY	Country	State or state-owned entity	Percentage ownership
KATCO	Kazakhstan	Kazatomprom company (100% owned by the Kazakh State)	49%
SOMAÏR	Niger	SOPAMIN company (100% owned by the State of Niger)	36.60%
COMINAK	Niger	SOPAMIN company (100% owned by the State of Niger)	31.00%
IMOURAREN SA	Niger	SOPAMIN company (100% owned by the State of Niger)	23.35%
		State of Niger	10%
COMUF	Gabon	Gabones State	24.75%

INTERNATIONAL ACTIVITIES

A presence on 5 continents



* All employees managed by AREVA (fixed-term + permanent contracts) without taking into account AREVA's financial participation in mining joint-ventures.

** Including staff of AREVA Med, the Nuclear Medicine subsidiary

AREVA has a diverse assets and resources portfolio, which constitutes an important security factor for utilities seeking long-term guarantees with regard to uranium supplies. Mining employees are present in various countries. There are uranium production sites in three countries: Canada, Niger and Kazakhstan.

As part of the competitiveness plan put in place to address the context of depressed market prices, workforce adjustments have continued resulting in a decrease of 13% compared to 2014.

URANIUM MARKET IN 2015



In a post-Fukushima environment, and despite a slower pace of growth in demand, AREVA intends to remain a key supplier of natural uranium.



AREVA's objective is to continue to optimize the competitiveness of existing sites, and to maintain its project portfolio and conduct the necessary studies in order to be in a position to launch new investments.

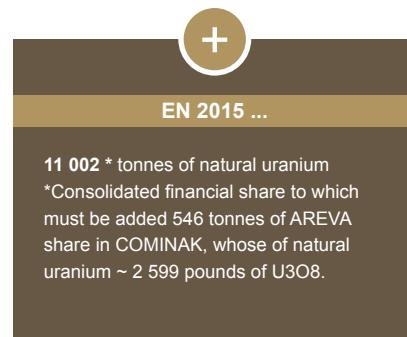
In this way, AREVA intends to strengthen its position in the uranium market while remaining one of the most competitive producers.

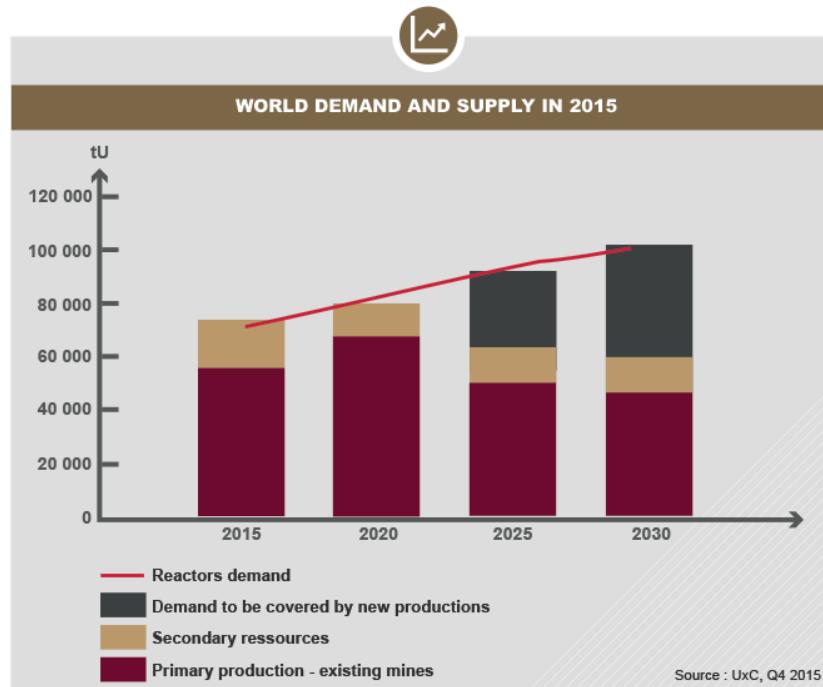
■ Market and competitive position

Reactor requirements amounted to approximately 69,000 metric tons of uranium in 2015 ("gross" demand expressed in natural uranium; source: UxC Q4 2015), slightly up from 2014, led in particular by demand in Asia (e.g. China).

Supply consists of :

- mining production, which amounted to approximately 60 700 metric tons of uranium, an increase of 8% compared with 2014 following the restart of the Cigar Lake mine ;
- secondary resources estimated to a total of 15,250 metric tons of uranium, according to UxC, coming from materials from used fuel recycling, marketing of uranium inventories of the US (DOE) and Russian governments, re-enriched depleted uranium, and low-enriched uranium of enrich



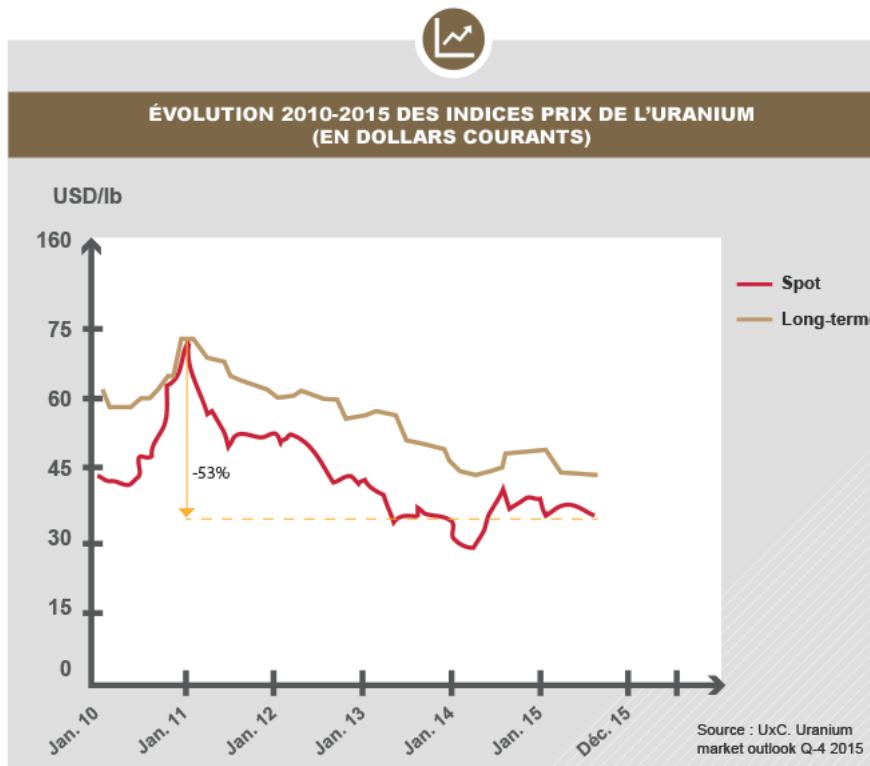


■ Spot Market

The spot market, which accounts for approximately 15% of uranium supply, varied between \$33 and \$40 per pound, ending the year at \$34.25 per pound.

These relatively low levels reflect an imbalance between supply and demand, currently offset by opportunistic purchases to cover Western utilities' medium-term requirements, and inventory increases by Chinese utilities.

The long-term indicator, which reflects the signature of multi-year contracts for deliveries starting a few years from now, fell in 2015, ending the year at \$44 per pound versus \$49.50 per pound at year-end 2014.



With the decline of market indicators since Fukushima, producers have announced numerous project postponements, closures and/or mothballing of producing mines, and reduced production. This restructuring is expected to continue in the coming years.

Longer term, the market is still expected to grow, with demand 25% higher in 2025 than in 2015 according to the World Nuclear Association (WNA), in particular with the restart of the Japanese reactors and growing reactor requirements from the Chinese nuclear program. Rising demand is expected to raise market prices and enable new projects to be launched.

AREVA PRODUCTION IN 2015

In 2015, the group sold around 13,000 metric tons of uranium, in slight increase compared to 12,600 metric tons of uranium in 2014.

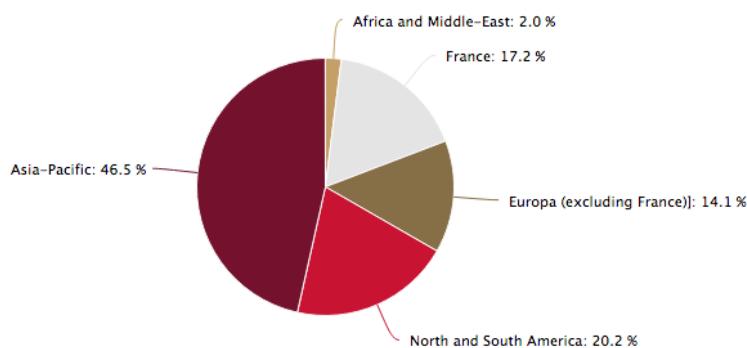


Key figures

The backlog amounted to 9.115 billion euros at the end of 2015. The backlog is diversified among customers in different uranium-consuming regions.

The sold uranium comes from the mineral resources of the companies in which AREVA has an equity interest, or from uranium bought on the market.

2013 revenue by geographical area



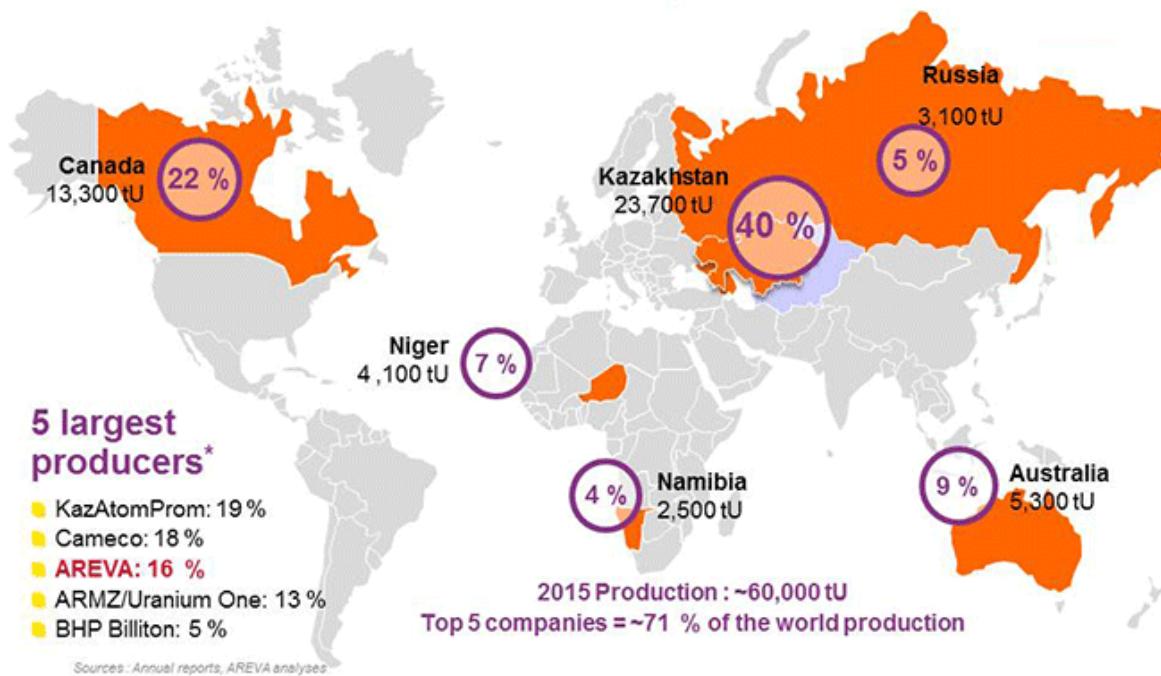
KEY FIGURES

	2014	2013
Revenue * (in millions of euros)	1,297	1,717 **
Operating income (in millions of euros)	(73)	499 **

* Contribution to consolidated revenue.

** In application of IFRS 5 and IFRS 11, the financial statements at December 31, 2013 were restated to present pro forma data at comparable consolidation scope at December 31,

Uranium world production in 2015



■ Production of mining sites

By controlling its production costs and the level of its capital expenditure, the Mining business turned in good operating and financial performance in 2015, despite a context of falling prices.

In 2015, AREVA produced 8,070 metric tons of uranium in joint venture share (equity share of production) corresponding to 10,456 metric tons on a financial consolidation part:

- Somaïr produced 2,509 metric tons of uranium, for an AREVA share of 1,591 metric tons (on a 100% basis);
- Cominak produced 1,607 metric tons of uranium, for an AREVA share of 546 metric tons (on a 100% basis);
- Katco produced 4,109 metric tons of uranium for an AREVA share of 2,095 metric tons (on a 100% basis);
- McArthur River/Key Lake produced 2,221 metric tons of uranium (AREVA's share);
- Cigar Lake produced 1,612 metric tons of uranium (AREVA's share).



COUNTRY 	Sites	Financial consolidation 2015	Type ¹
tU			
CANADA	McArthur River	2 221	UG
CANADA	Cigar Lake	1 612	UG
CANADA	McClean Lake	3	n.d.
TOTAL	Canada	3 835	
FRANCE	Div. Min. Hérault	2	n.d.
TOTAL	France	2	
KAZAKHSTAN	Katco	4 109	ISR
TOTAL	Kazakhstan	4 109	
NIGER	Cominak ²	-	UG
NIGER	Somaïr	2 509	OP
TOTAL	Niger	2 509	
TOTAL			10 456

¹ Type of operation: ISR: In Situ Recovery; OP: Open Pit; UG: Underground; n.d.: not defined.

² Cominak has been consolidated under the equity method since January 1, 2014. Source : AREVA.



CHAPTER

CSR APPROACH

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
[www.csr-mines.areva.com](http://www csr-mines areva com)



Company committed to sustainable relations

« Our customers, our employees and the communities in the regions where we are present expect us to deliver on our commitments, especially with regard to ensuring the long-term sustainability of our activities. We are convinced that dialogue and transparency are the drivers for durable relations and we will seize all opportunities to demonstrate this ».



Olivier WANTZ

**Member of the Executive Committee,
Senior Executive Vice President, Mining and Front-End**

1. WHAT ARE THE MAIN RESULTS IN 2014 CONCERNING YOUR RESPONSIBLE COMMITMENTS?

■ The continuity of our responsible approach

Over the last few years we have brought renewed vigour to our responsible approach by improving our practices and our reporting methodology. Today, we continue to follow our 2013 – 2016 roadmap. These commitments are applied to different areas:

Workplace health and safety: Our sole aim remains that of zero accident. In 2014, progress was made with zero fatal accident recorded and a lost time injury frequency rate of less than 1, i.e., 22 accidents with lost time. This year, over 90 days have been recorded without any lost-time accidents for all of our sites, and some sites have gone more than one year without any lost-time accidents. This result confirms our conviction that workplace safety imposes ambitious objectives and that they are reachable.

Production: In 2014, the production for all our sites was 8,959 tonnes of uranium, in line with our goals, in a difficult context of falling uranium prices. Our sites fulfilled their delivery commitments. It should be underlined that the KATCO mine in Kazakhstan produced 4,000 tonnes of uranium for the second year running, confirming that it is the foremost ISR mine in the world.

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In 2014, we also restarted the McClean Lake mill in Canada. With the Cigar Lake mine, located nearby, together they aim to become the second largest centre for uranium production in the world. It represents the start of a new industrial adventure that we intend to pursue over several decades.

Partnership: This year was marked by the finalisation of negotiations with the Republic of Niger and the signing of a strategic partnership agreement addressing our mining activity. The partnership covers the renewal of mining conventions for the companies SOMAÏR and COMINAK, as well as commitments for supporting the country's development.

Projects: The unfavourable market conditions have led us to suspend, in agreement with the Nigerien authorities, the work to start production in Imouraren, a future mine with a production capacity of 5,000 tonnes per year. This decision was dictated by the desire to avoid destabilising a market that is already fragile, and to ensure the sustainability of the other mines. Imouraren nevertheless remains a strategic project for AREVA and we will re-start the project as soon as the market conditions allow.

Local Development: Our commitment to local development continues through the development of major projects corresponding to the expectations of our stakeholders. In 2014 we launched in Mongolia a veterinary project, and in northern Niger the implementation of the first phase of the hydro-agricultural infrastructure project IRHAZER.

2. HAVE YOU IDENTIFIED THE HIGH-PRIORITY CHALLENGES TO BE ADDRESSED WITHIN THE NEXT THREE TO FIVE YEARS IN THE CONTEXT OF YOUR RESPONSIBLE APPROACH?

■ We have identified four high-priority challenges:

Competitiveness: Because of the difficult economic context, our capacity to be competitive and control our costs will allow us to maintain our position amongst the global leaders.

Local Development: The societal acceptability of our activities requires a good understanding of who our stakeholders are and their expectations. In 2014, we updated our stakeholder mapping for Mongolia and Gabon. This initiative will continue over the years to come for all our entities and countries.

Post-mining: AREVA's know-how in the area of post-mining site reclamation is internationally recognized. Today, the challenge is to better integrate, in support of local authorities, social and societal aspects into our projects at a very early stage, and to go beyond the technical problems of site reclamation alone.

Corporate Social Responsibility (CSR) culture: Increasing the involvement of our employees in the responsible approach is a major factor in ensuring the sustainability of our CSR practices. Dedicated training courses in our Mining College and regular communication on the subject are the levers we are using to build internal CSR culture.

3. HOW ARE MINING ACTIVITIES AFFECTED BY THE RESULTS AND CHANGES TO THE GOVERNANCE OF THE AREVA GROUP IN 2014?

■ Our foundations are sound: they should be secured and maintained over the long term

In 2014, AREVA suffered a drop in revenues and net losses of €4.8bn. The group faced a decline in its profitability due to both internal and external events. Our major investment programmes, initiated a few years ago, have not yet started to bear fruit, in particular due to a market downturn.

AREVA's mining activities are encompassed within the **transformation plan** announced by the group's new management at the start of 2015. This plan aims to re-focus AREVA on its core business in nuclear power, to help it to recover its competitiveness and reduce its debt.

Mining activities form part of the core business of AREVA's offering. Electricity producers worldwide wish to establish their long-term supply policy, which translates into a consistently well-filled order book for the Mining business group.

However, the economic context remains poor. **Under these conditions, our business group has set itself the goal of ensuring the sustainability of its activities on the traditional sites and developing supply sources by favouring competitiveness and profitability over volume.**

Today, with its portfolio of projects at different stages of advancement, its modern production equipment and optimized processes, **our business is well placed to offer its customers the security of supply they need.**

Another challenge we must address is to ensure the maintenance of the full range of mining competencies during this difficult phase for our industry. It is as much an industrial challenge as a human resources challenge. In 2014, we renewed the Mining College's training curriculum and we will ensure its operation in the future.

4. WHAT ARE THE MAIN EXPECTATIONS AND CONCERNs OF YOUR STAKEHOLDERS IN THIS CONTEXT?

■ Delivering on our commitments whilst ensuring dialogue and transparency.

Our customers, our employees and the communities in the regions where we are present expect us to deliver on our commitments and especially that of building a durable relation via:

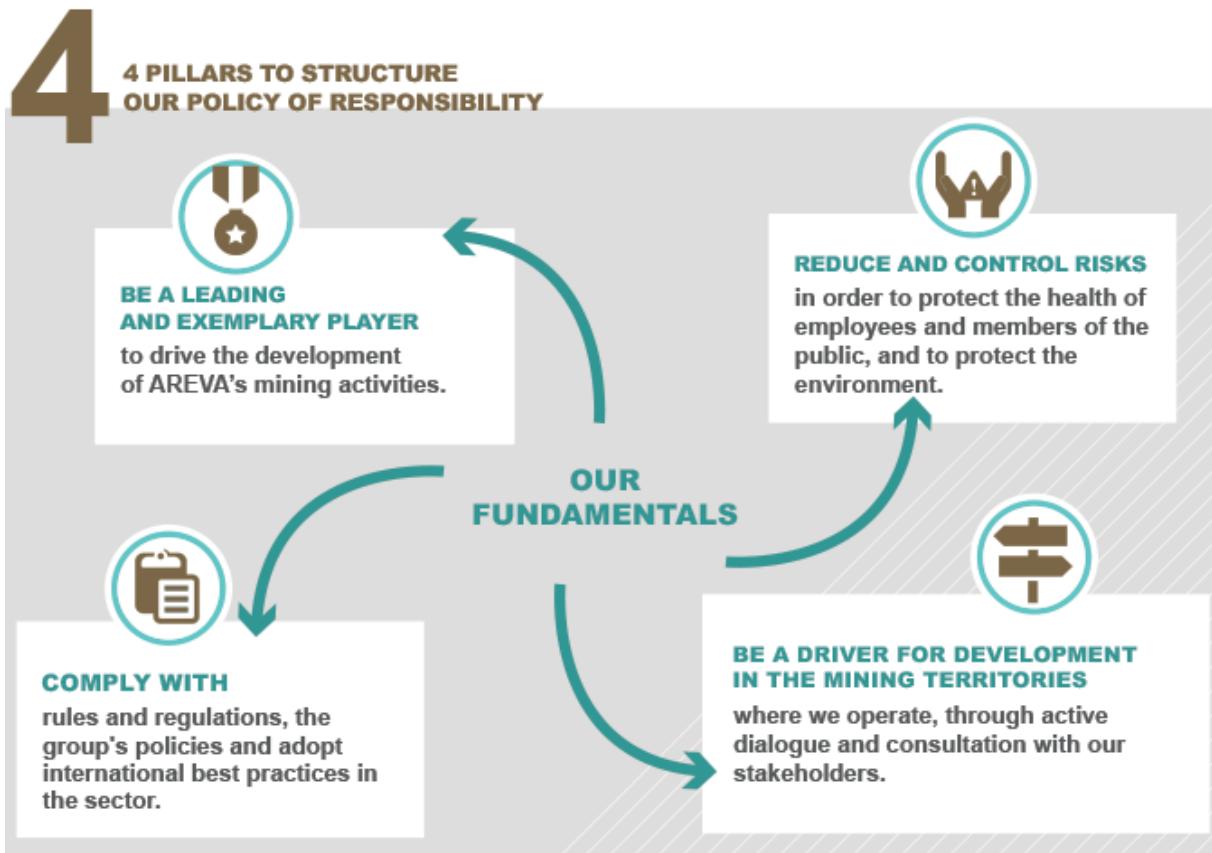
- Efforts made to improve our operational performance and to ensure a return to profitability.
- The taking of decisions that can sometimes be difficult, but are necessary for the long term.
- An integrated approach to responsibility in which health and safety, environmental protection and local development are indissociable from our operating methodology.

More than ever, in this difficult context, it is essential to seize all opportunities and use all the resources at our disposal to maintain the dialogue we have undertaken. To do this, we rely on:

- Talks given by managers on the sites
- Opening our sites to visits from external stakeholders
- Consultation via dedicated tools (Local Information Commissions, PNGMDR)
- Working with our counterparts at the International Council of Mining and Metals (ICMM)
- Working on CSR reporting, which in 2014 led to the creation of a public website, with advanced interactivity functions.

I invite all our stakeholders to use it to express themselves to the full!

OUR DEFINITION: "BEING A RESPONSIBLE MINING STAKEHOLDER"



OUR STAKEHOLDERS: "IDENTIFYING AND MEETING EXPECTATIONS"

Dialogue and consultation with our stakeholders are among the fundamentals of our approach.

Our teams at headquarters and/or on site are their primary interface.

A number of both voluntary and regulatory approaches help us facilitate these relationships and identify groups interested in our activities.



STAKEHOLDERS GROUPS INTERESTED IN OUR ACTIVITIES



AT LOCAL AND NATIONAL LEVEL:

Communities, authorities, associations, local business

The managing directors of our sites, as well as the business teams involved, are in touch with many local stakeholders. They interact through a number of dialogue and consultation mechanisms, the format and process of which depend either on the regulatory framework (e.g. public hearings in the course of environmental impact assessments) or mode ad hoc, voluntary frameworks (for instance a multi-party body for funding of societal projects).



EMPLOYEES:

Employees and staff representatives

This may be our employees (all types of contracts) and staff representatives on our various sites in France and abroad.

Our HR teams are their primary interface. Their expectations and concerns may be expressed and mediated through bodies such as the Works Committees or the Health, Safety and Working Conditions Committees (CHSCT).



INTERNATIONAL

ORGANIZATIONS AND MEDIA:

Non-governmental organizations, UN, journalists

At AREVA Mining headquarters level, two departments generally act as the first interface with these organizations, these being the CSR department (Corporate Social Responsibility) and the AREVA Mining communications department.

At country level, the organizations set up by the group companies are the direct interface.

The arrangements and the mechanisms for dialogue vary according to the nature of the expectations of stakeholders.



INVESTORS AND

ECONOMIC STAKEHOLDERS:

Customers, shareholders, suppliers, trade associations, etc.

These stakeholders interface with our teams at the headquarters of AREVA Mining (the purchasing department for instance), or directly with the entities of the group.

There are a number of governance mechanism implemented for their interaction with the senior management of our companies.

Frameworks and tools for identifying stakeholder expectations

- **Regulations in force, whether national or international.** These may designate, depending on the type of mining project, the stakeholders to be consulted as part of a clearly established dialogue and consultation process: e.g. the Site Monitoring Committee in France for after-mining remediation and monitoring projects. Other groups to be consulted may include stakeholders such as (but not limited to) the authorities, residents' associations or staff representative bodies.
- **Mining agreements, specific partnership agreements or special provisions in our contracts, may lay down a framework for investments for the benefit of communities or other local players with a view to socio-economic development.**
- **Frameworks and standards set by professional organizations in the sector** and bodies in charge of voluntary transparency and responsibility initiatives.
- **"Stakeholder mapping" and risk management exercises (e.g. the business risk model).** These are internal methodological principles. These systems help our teams identify and analyze the commitments to be made with regard to groups impacted by our mining and industrial projects.
- **Local bodies for dialogue with stakeholders.** Bodies such as the Bilateral steering committee (*CBO - Conseil Bilatéral d'Orientation, Niger*), which bring together local elected officials, relevant authorities and civil society, alongside AREVA, serve to elicit local stakeholder expectations.

CHALLENGES BEFORE US: "IDENTIFYING AND OVERCOMING CURRENT AND FUTURE CHALLENGES"

Mining is an industrial activity that can have environmental impacts.

Uranium naturally has specific physical, chemical and radiological properties.

We therefore adopt stringent and statutorily demanding practices for the protection of people and the environment.

These are preoccupations that are taken into account at all stages of the mine's lifecycle over a number of decades: control the impact of liabilities and safeguard against long-term risks (over 50 years).

Environment
Biodiversity Health Radiation
protection Remediation Water Air
Soil People
Safety Waste
Emissions

Our mining operations are international, and their contexts vary from one country to another, from an environmental standpoint as much as on political, economic, social and cultural levels.

The acceptability of our mining activities (our "social license to operate"), the contribution we can make to local development and the consultation of stakeholders are key areas of commitment on our part, both from a regulatory and a voluntary standpoint.

Building and maintaining trust is a constant challenge.

Multi-cultural
Local purchasing
Native populations Communities
Stakeholders Trust Dialogue
Consultation Local development
Redistribution EITI Sponsorship
Access to water Education Health
Environment

Numerous factors also have an impact on the production of Yellow Cake (uranium oxides): ore prices, national and international energy policies, the safety environment, regulatory requirements, stakeholder expectations, industry best practices, etc.

Our teams have to deal with constantly changing environments while ensuring a high level of safety and risk prevention over the medium and long term.

Fuel cycle
Transport Logistics Financial
Customers Partners Investors
States General public Safety
ICMM Risks

OUR ACTIONS: "MOBILIZING OUR DISCIPLINES AROUND OUR POLICY OF SOCIAL RESPONSIBILITY"

CSR (Corporate Social Responsibility) is a concept we are appropriating little by little.

We seek to be coherent with our corporate culture and at the same time receptive to related developments: extra-financial reporting, materiality, mapping and inclusion of stakeholders in our processes, community involvement, etc.

Our responsible approach is best defined through the commitment of our teams to identify and apply best industry practices.

AREVA is a member of the International Council on Mining and Metals (ICMM) and its undertaking to adopt the principles and positions of the organization dates back to 2012. As such our delegation composed of specialists and managers, is involved in its various working groups. The goal is to contribute to the development of new industry guidance and share our practices and lessons learnt with our peers. Members of our top-level management also sit on the ICMM Council.

We have defined three main areas where we are determined to progress continuously.

3 MAIN AREAS OF INTERVENTION FOR CONTINUOUS PROGRESS



IMPROVEMENT

AREVA Mines' CSR department was created in 2012. One of its aims is to support our teams abroad plus the support & operational business functions in incorporating these responsibility commitments.

We develop the associated tools and improvement processes: CSR audits on site and at headquarters, relevance or materiality exercise, participation in external working groups, etc.

Our goal is to achieve better prioritization of our CSR challenges and work out with our teams how to act on the areas for improvement that we identify.



REPORTING & AUDITS

Our subsidiaries declare revenues and amounts paid to governments under the Extractive Industries Transparency Initiative (EITI).

Since 2011, we have been producing this annual CSR document to report on our responsible development performance and commitments in accordance with the Global Reporting Initiative guidelines.

Since 2013, we have had external third party CSR audits carried out, both at headquarters and on mining sites, as per the ICMM Assurance Procedure and AA1000 principles.

For the 2015 report, we move to the G4 version of the GRI.



MOBILIZE OUR TEAMS

Our teams constitute the primary interface with our stakeholders. They conduct many concerted local initiatives to identify and address expectations.

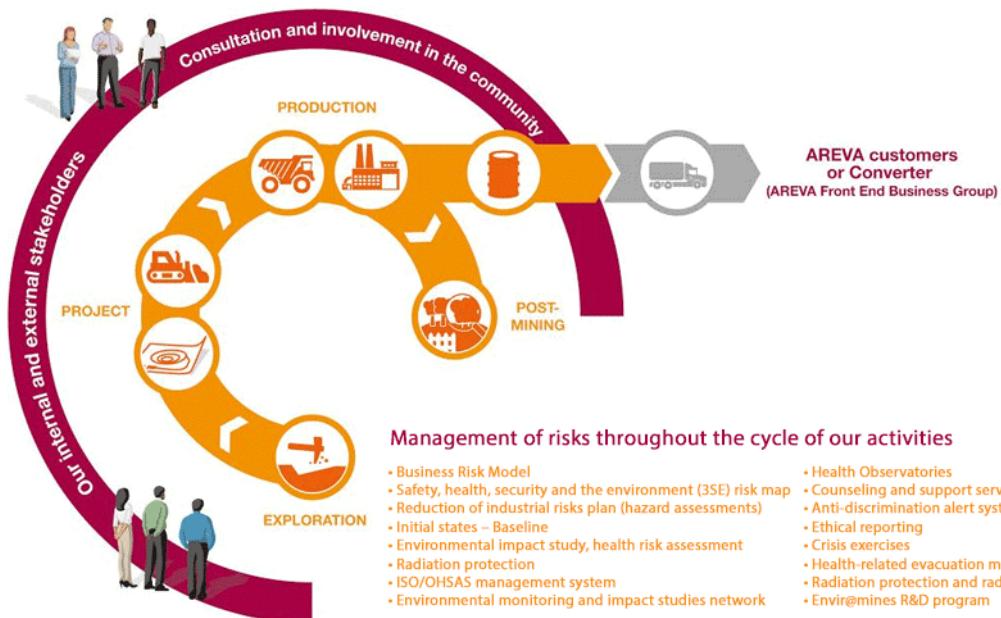
They are key to prevention of risks on a day-to-day basis and over the long term through research and development programs.

They are engaged in external working groups both for knowledge building and for sharing of best practices.

Our teams are constantly seeking to improve their business practices, whether in the course of "business as usual" or through targeted initiatives such as innovation competitions.



We are identifying and evaluating solutions for optimizing our activities and reducing their impacts throughout the lifecycle of the mine, in terms of social, environmental and economic aspects, with the aim of preventing risks as far upstream as possible for the benefit of our employees and the general public.



Nuclear safety and risk prevention are supported at the highest management levels of our organization. This constitutes AREVA's number one strategic pillar.

We are establishing many mechanisms for identifying, managing, monitoring and alerting to risks, reducing and eliminating risks in the long term, as well as preparing for emergency situations.

SCOPE

The CSR report on AREVA's mining activities covers workstation risks, health risks, industrial and environmental risks.

Each of our commitments presents the mechanisms in place more comprehensively.



Risks relating to security situations in the countries, as well as so-called financial risks, are outside the scope of this reporting. Management and coverage of global risks are addressed in the AREVA group's **Reference document** (Business Risk Model) to which AREVA Mining is a contributor.

AREAS FOR ACTION

RISK MAPPING

Assessing Health - Safety - Environment risks



Risk mapping is a monitoring tool based on 11 themes

- leadership,
- management of regulatory compliance and repositories,
- projects and control of changes,
- crisis management,
- 3SE culture - safety, health, security and environment,
- health and safety,
- control of nuclear and radiation protection risk,
- transport of hazardous materials on public roads,
- control of technological and accidental risks,
- hazardous substances,
- control of long-term (chronic) risks and impact on the environment.

Our head office and onsite teams, and in all the countries in which we have a presence, participate in the process of evaluating Health, Safety, Radiation protection and Environmental risks, so that we can carry out risk mapping.

The aim of this mapping process is to identify the major risks encountered on sites in different areas, so that we can assess the degree of control and define priority action plans to implement.

Monitoring of this mapping process is carried out through inspection programs as part of a continuous improvement process.

HAZARD STUDIES

Reducing technological risks



In order to reduce both technological and natural risks, hazard studies are regularly conducted upstream of new industrial projects and whenever there is a change of process at our "yellow cake" (U3O8) production sites.

These aim to identify major risks and the preventive and protective barriers to be implemented to minimize them.

They are also an opportunity to demonstrate the good practices employed by the teams and promote the sharing of experiences.

In 2014, considerable industrial investments have been made in this direction. For example, in Kazakhstan, at Katco, a leach solution pipe was replaced between the South Torkuduk and North Torkuduk sites. This change follows feedback after an environmental event and a strengthening of our pipeline design and construction standards to prevent accidental spills.

In 2013, during preparation work for the restart of the McClean Lake mill located in northern Saskatchewan, Canada, the team of metallurgy experts at McClean Lake established an updated assessment of risks. With the help of the operational and engineering teams, and an outside consultant, a new design was proposed and implemented in 2014. This assessment was also updated during the production ramp-up between 2014 and 2015, along with the associated action plan, in order to bring the level of identified risks within acceptable limits, in accordance with best practices, thus making the process safer.

CRISIS EXERCISE

Preparing for emergency situations



Exercises to prepare for emergency situations are regularly performed at a local level, and emergency response plans are regularly updated. Different levels of exercise are implemented:

- **Level 1:** Local exercises such as fire drills at least once per quarter.
- **Level 2:** Local exercises with involvement of the subsidiary's general management.
- **Level 3:** Local exercises with involvement of the subsidiary's general management and AREVA Mines headquarters.

In 2015, a level 3 crisis exercise was carried out at the COMINAK site in Niger. The aim was to test the crisis organization put in place to deal with an industrial accident situation. This exercise took place over one day and was managed locally and in collaboration with teams at the Niamey headquarters and AREVA Mining in Paris, involving the activation of three crisis control centers.

These exercises also provide an opportunity to train the various stakeholders (internal and external) and foster their skills and experience, test structures, procedures and equipment, and define new areas for improvement.

PROGRAMMES DE R&D

Prévenir sur le long terme



The scientific work for our R&D programs is performed by our onsite teams together with numerous research partners. The work aims above all to:

- understand, prevent and model the migration of chemical and radiological substances over the long term;
- identify the issues relating to water management and treatment;
- be proactive with regard to regulatory changes and the requirements of the authorities;
- develop new tools for sampling and analysis, to improve our knowledge of environmental impacts.

In order to support AREVA in tackling scientific challenges, a number of academic partnerships have been set up. These academic partnerships enable our R&D teams to enhance their work through reciprocal contributions of perspectives and skills. Academic partnerships are also an opportunity to gain greater legitimacy for published results and add to the R&D teams' own legitimacy and visibility. Our partners include Université Paris VI, Université Paris VII, Ecole des Mines de Paris, Université de Poitiers, Université de Bruxelles, the University of Manchester, the University of Granada, the CEA, Ecole Polytechnique Fédérale de Lausanne, CREGU, the University of Wisconsin.

VALUES CHARTER



Since 2003, the Values Charter has shown the importance that the group attaches to sustainable development, compliance with the Universal Declaration of Human Rights and adoption of the international principles defined by the OECD and the UN. It lays the foundations for the ethical governance of our activities.

Available on the AREVA internet site and issued to all of our employees, it sets out the group values to be respected, the principles of action with regard to stakeholders and the rules of conduct applicable within the group.

The rules of conduct with the Values Charter deal with the action we take in terms of the following:

- Compliance with international treaties (international mechanisms in force with regard to non-proliferation);
- Conflicts of interest;
- Insider trading;
- Corruption, gifts and unfair advantage;
- Payments;
- Political financing;
- Philanthropy, donations, humanitarian activities;
- Competition;
- Threats against persons and property;
- Primacy of our values at AREVA.

At group level, the AREVA Board of Directors has set up four specialized committees including the **Audit and Ethics Committee**. Its mission includes overseeing group compliance with the best international ethical practices, reviewing the values charter and its updates and where appropriate making recommendations to the Board of Directors. The role of **ethics officer within AREVA Mining** is held by the General Counsel for our activities, in contact with the AREVA Ethics officer on the Group Ethics Committee.

ETHICAL REPORTING

Every year, the Mining Business Line, like all the group's business entities, conducts an internal ethical reporting process on the proper application of the Values Charter and any infringements.

Each campaign opens with a letter from the Senior Executive Vice President AREVA Mining. This process involves all our directors and their managerial staff in all the countries where we are present.

This reporting is underpinned by the principle that our employees can report an infringement they have found without repercussion to themselves if the facts are proven (whether the issue is within our own operations or related to the practices of our subcontractors). In the same way, if anyone is given an order that clearly goes against the AREVA Values Charter, they are entitled not to comply and must report the matter to group management immediately.

The nature of corrective actions proposed will vary depending on the severity of the failure to comply with the Charter. These actions may range, for example, from training to dismissal of the personnel concerned. This exercise also enables our teams on all our sites to have a better qualitative understanding of the situations that bear risks with regard to the rules of conduct and the Charter's values: corruption, conflict of interest, forced or child labor, etc.

All members of the Mining Business Line's Management Committee have followed or will follow training in ethics and human rights. Similarly, all of our subcontractors and suppliers, in subscribing to our General Purchasing Conditions, make a contractual undertaking to adopting the Values Charter.

It was decided in 2016 to implement quarterly monitoring of ethical incidents within the AREVA Mining Management Committee.

INDIGENOUS PEOPLES' RIGHTS

This undertaking is written into the AREVA Values Charter and is addressed in the position statement of the International Council on Mining and Metals (ICMM), to which we adhere.

The right of indigenous peoples to decide on the basis of prior and informed free consent is one of the undertakings necessary for the acceptability of our activities and for building a constructive dialogue over the long term.

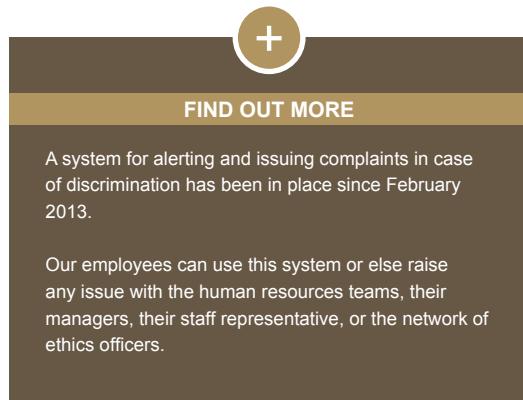
More specifically, in Mongolia and in Canada we seek to establish respect for these fundamentals at the earliest possible stage in the life cycle of mining activities (as of the exploration phase).

The way in which we approach and deal with the questions surrounding this complex issue in concrete terms is currently being examined by our different functions. As part of this process we are involved in an ICMM working group and we situate this initiative as one of our continuous improvement priorities.

SYSTEM FOR ALERTING AND ISSUING COMPLAINTS IN CASE OF DISCRIMINATION

Discrimination is unequal treatment based on grounds prohibited by law. French law recognizes twenty grounds or criteria of discrimination: age, gender, origin, family status, sexual orientation, gender identity, customs, genetic features, belonging or not to an ethnic group, nation, race, or given religion, physical appearance, disability, health status, pregnancy, family name, political opinions, trade union activities, place of residence (twentieth criterion, in the city act 21 February 2014).

It is different from a discriminatory behavior or act, which is a discriminatory gesture or action of one employee towards another, based on one of the twenty grounds of discrimination.





Regulatory compliance and enforcement is a prerequisite in our business and lies at the heart of group policies and standards.

We also attach great importance to adopting international good practices in order to continuously improve our approaches and guarantee sector monitoring in terms of sustainable development.

THE INTERNATIONAL COUNCIL ON MINING AND METALS (ICMM)

Since May 2011, AREVA has been a member of the International Council on Mining and Metals (ICMM). This initiative is a reflection of AREVA's desire to be part of a new dynamic of continuous improvement and to share its know-how more effectively with other stakeholders in the sector.



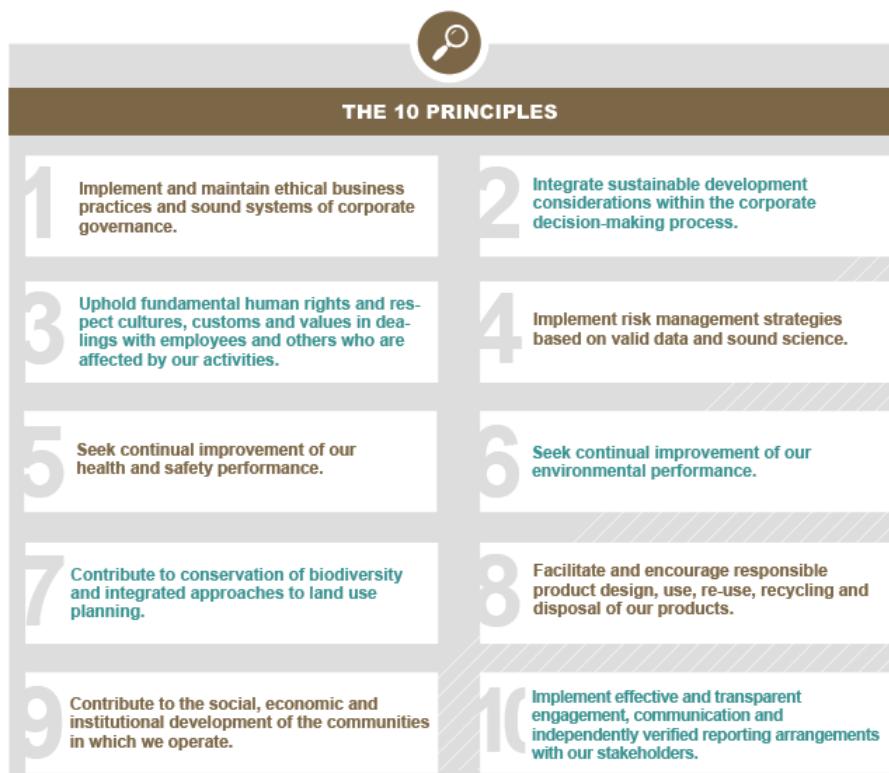
Top tier management, together with experts and specialists are actively involved in the working groups and processes associated with the development of ICMM sectoral good practices. As such, activities shall **be in line with the following commitments:**

- Incorporate into our policies and practices the **10 principles of sustainable development and the position statements of the ICMM (e.g. Indigenous peoples' rights)**. In accordance with our internal policies and commitments, we are applying these principles in the development of our Responsible Commitments Plan. They enable us to better understand the issues faced by the mining sector and act as a support in prioritizing the materiality of associated themes.
- Provide our stakeholders with an annual non-financial report in accordance with the international reporting guidelines of the Global Reporting Initiative (GRI). Today we are also committed to adopting the G4 version of the GRI starting from 2016.
- Have our statements and practices, presented in the Responsible Development Report on AREVA's Mining Activities, reviewed annually by an independent assessor (per ICMM audit procedure and AA1000 accountability principles).

■ Understanding the 10 ICMM sustainable development principles

The ten fundamental principles of the ICMM (and their complementary documents in the form of "position statements") take inspiration from other global standards such as the Rio Declaration, the Global Reporting Initiative, the OECD Guidelines for Multinational Enterprises, the World Bank's Operational Policies, Conventions 98, 169 and 176 from the International Labour Organization and the Voluntary Principles on Security and Human Rights.

For further information on each of the ten fundamental principles, see www.icmm.com.



THE EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE



**Extractive
Industries
Transparency
Initiative**

Since 2003, by lending its support to the Extractive Industries Transparency Initiative (EITI), AREVA has demonstrated its commitment to greater transparency in payments made to States, in relation to the management of mining resources.

Niger, Mongolia and Kazakhstan, countries in which the group is engaged in mining activities, are members of EITI. In these countries, our mining subsidiaries participate in the local multi-party process and declare payment of taxes, mining rights and taxes on profits using specific declaration forms. The statutory auditors of these subsidiaries carry out an audit which results in a certificate of compliance in accordance with the IFAC (International Federation of Accounts) ISRS 4400 international standard on related services.

Furthermore, AREVA's mining activity entities assess their involvement in the EITI process by means of self-assessment forms.

HEALTH OBSERVATORIES



THE OBSERVATORIES IN FIGURES...

To date, more than 1600 former employees of COMUF in Gabon and SOMAÏR and COMINAK in Niger have benefited from post-professional monitoring.

As of the end of 2014, no occupational diseases associated with exposure to ionizing radiation have been declared.

Through the Health Observatories deployed in Gabon (Health Observatory of Mounana - OSM) and Niger (Health Observatory for the Region of Agadez - OSRA), AREVA's mining activities carry out post-professional monitoring of retired miners liable to have been exposed to ionizing radiation due to their activity, in exactly the same manner as the system in force in France.

This is an initiative conducted by AREVA, the states and civil societies of Gabon and Niger. The observatories are the result of an innovative and multi-party approach.

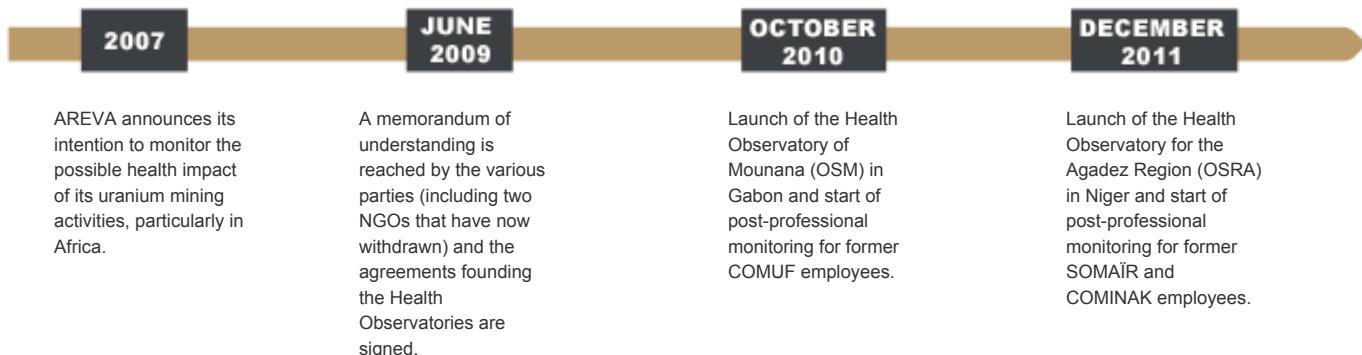
The medical consultation that forms part of this post-professional monitoring is organized every 2 years and includes an interview with a doctor, a clinical examination, a chest x-ray and a blood test. It is carried out by independent doctors whose services are provided to the Observatories.

THE OBSERVATORIES IN FIGURES...

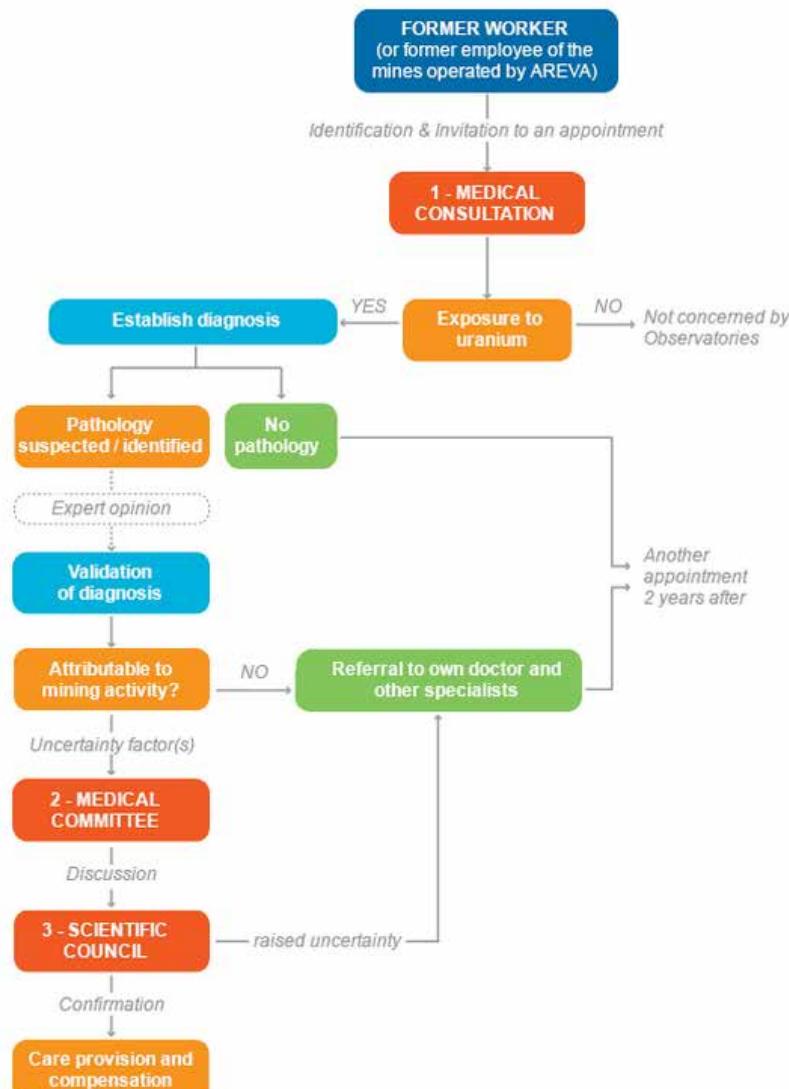
To date, more than 1996 former employees of COMUF in Gabon and SOMAÏR and COMINAK in Niger have benefited from post-professional monitoring. As of the end of 2015, no occupational diseases associated with exposure to ionizing radiation have been declared.



Setup timeline



How the Health Observatories work



In the event that a pathology not found in French Social Security table 6 is observed :

- The former employees concerned are directed to a suitable hospital facility but their case is no longer the responsibility of the Observatories.

In the event that a pathology found in French Social Security table 6 is observed:

- In the same way as under the French medical coverage scheme, the Observatories bear the cost of the corresponding care (treatment and medication)

In the event of a suspected pathology, three entities proceed to process the medical files and analyze results.

- **The Medical Committee:** three doctors, all experts in pathologies linked to ionizing radiation, analyze the health data sent by the Observatory doctor.
- **The Scientific Council:** five experts internationally recognized for their knowledge of pathologies linked to ionizing radiation make a judgment on the occupational nature of the pathology.
- **The Board of Directors:** representatives of AREVA, the states and the civil societies confirm the decision of the Scientific Council and launch the medical care.

OTHER VOLUNTARY INITIATIVES

■ Committee for Strategic Metals (COMES)

The French committee for strategic metals (Comité pour les Métaux Stratégiques - COMES) was created in January 2011 by the French authorities, giving rise to a forum for discussion and coordination between government departments, public agencies and professional associations from the extractive industries.

To protect the national economy, COMES provides strategic steering of mineral resources with the aim of safeguarding the procurement of these raw materials needed to supply the country's industry.

Given this objective, the activities carried out by COMES are organized into five critical areas:

- 1. Analysis of the demand of domestic industry.
- 2. Exploration initiatives and assessment of existing resources.
- 3. Waste management.
- 4. Vulnerability with regard to international circumstances.
- 5. Research and innovation

■ Minerals, Ores and Metals Alliance (Alliance des Minérais, Minéraux et Métaux - A3M)

The Minerals, Ores and Metals Alliance (Alliance des Minérais, Minéraux et Métaux - A3M) is the result of the alliance between the FEDEM (Federation of Ores, Industrial Minerals and non-ferrous metals - Fédération des Minérais, Minéraux Industriels et Métaux Non Ferreux) of which AREVA Mines is a member, and the French steel federation FFA. The alliance was created in 2013 and started operating in January 2014. Its aim is to improve visibility, representativeness and effectiveness in all areas of shared interests and particularly in two areas:

- 1. Economic performance and competitiveness.
- 2. Safety and community investment



ALLIANCE DES MINÉRAIS, MINÉRAUX ET MÉTAUX

A3M contributes to safeguarding the supply of the raw and secondary materials that are necessary for French industry to function properly, especially in key sectors with the greatest needs (construction, defense, automotive, aerospace, engineering), while implementing all the appropriate practices for meeting stringent regulatory requirements.

AREVA is also involved in discussions on the new French mining code with the French Ministry for Ecology, Sustainable Development and Energy.

■ International Atomic Energy Agency (IAEA)

AREVA Mines is one of France's representatives in the Uranium group of the International Atomic Energy Agency (IAEA), in collaboration with the OECD's Nuclear Energy Agency, the organization responsible for publishing the biennial report "The Red Book". This report collects all the mining statistics on the uranium of member countries.



International Atomic Energy Agency

All member countries contribute to the data for mining exploration activities, for the industrial activity of uranium production, on mining resources and reserves, and basic data on nuclear power generation.

AREVA Mines, with its international expertise and knowledge of the uranium business and disciplines, contributes to the analysis of collected data in order to produce a baseline report to serve the international nuclear community.

■ World Nuclear Association (WNA)

The World Nuclear Association (WNA) is an organization created in 1991 that evolved out of the Uranium Institute. Today it counts more than 170 members throughout the global nuclear industry:

- 1. all the players across the fuel cycle (uranium, conversion, enrichment, fuel).
- 2. all the builders of nuclear power plants
- 3. most of the engineering, construction and nuclear waste processing companies.

Its mission is to promote nuclear energy as a sustainable source of electricity production, through the organization of working groups and plenaries, and by producing benchmark technical or strategic analyses for the industry.

The organization thus enables its members to share expertise, the best practices in the industry, and to gain a thorough understanding of their markets. AREVA is an active member of the WNA.



■ Nuclear Energy Institute (NEI)

The Nuclear Energy Institute (NEI) is an American organization created in 1994 through the merger of several legacy organizations, devoted to promoting the nuclear energy industry. The institute currently has 350 members.

The aim of the organization is to inform and raise awareness on the role of nuclear energy.

The NEI uses its expertise to develop policies adapted to the specific issues facing the nuclear industry (economy, environmental, health issues, etc.), in order to ensure sustainable development and public acceptance of the industry.



■ The OCDE

On 4 May 2010, the governments of the 42 OECD and non-OECD countries adhering to the OECD Declaration on International Investment and Multinational Enterprises updated their Guidelines to reflect changes in the landscape for international investment and multinational enterprises.

These Guidelines aim to ensure that the operations of multinational enterprises are in harmony with government policies, to strengthen the basis of mutual confidence between enterprises and the societies in which they operate, to help improve the foreign investment climate and to enhance the contribution to sustainable development made by multinational enterprises.



■ The Global Compact

These are ten universal principles relating to human rights, rights at work, the environment and anti-corruption:

■ Human rights

- 1. Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2. Make sure that they are not complicit in human rights abuses.



United Nations
Global Compact

■ Labour

- 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4. The elimination of all forms of forced and compulsory labor;
- 5. The effective abolition of child labor; and
- 6. The elimination of discrimination in respect of employment and occupation.

■ Environment

- 7. Businesses should support a precautionary approach to environmental challenges;
- 8. Undertake initiatives to promote greater environmental responsibility; and
- 9. Encourage the development and diffusion of environmentally friendly technologies.

■ Anti-Corruption

- 10. Businesses should work against corruption in all its forms, including extortion and bribery.



Our objective:

"provide you with meaningful and comprehensive reporting on our policy of social responsibility, as associated with our principal short and long term challenges. »

Our challenge:

"allow you to express your expectations in terms of disclosure either through this web report or locally through our teams
on the mining sites".



MATERIALITY: WHAT DOES IT MEAN?

Materiality consists in identifying the CSR performance topics on which the AREVA Mining Business Line should report annually.

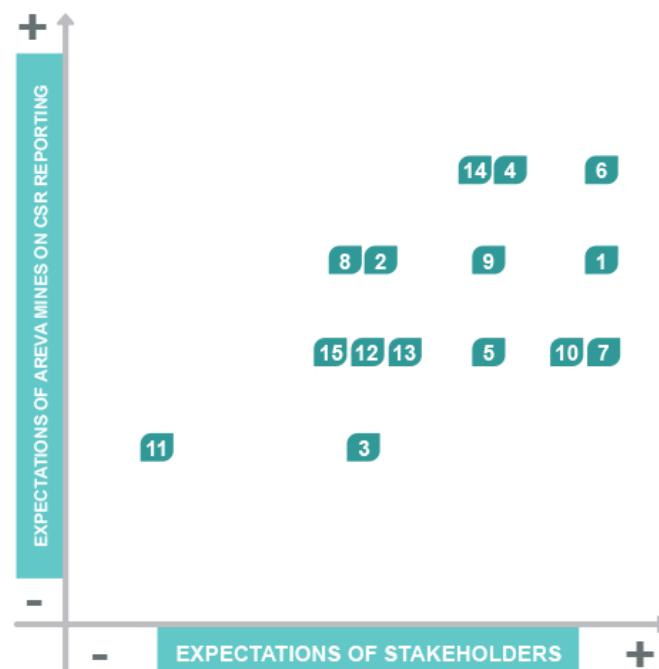
To carry out this exercise, we must consider two types of input data:

- Prioritization of issues to be conducted by the stakeholders in our mining activities;
- Prioritization of issues from an internal perspective (management and disciplines).

In 2014, we identified 15 materiality criteria to be assessed. To determine the criteria, we based our thinking on AREVA's internal policies and on the ten sustainable development principles of the International Council on Mining and Metals (ICMM).

1. TRANSPARENCY	2. RESPONSIBLE PURCHASING	3. ETHICAL BUSINESS	4. RISK MANAGEMENT
Share with stakeholders in a relevant, accurate and accessible manner, non-confidential information relating to decisions or activities having an impact on the economy, the general public or the environment.	Manage the supplier and product procurement chain in compliance with criteria conducive to protecting the environment, to social progress, to human rights and to economic development.	Adopt and maintain ethical business practices in order to avoid incidents of corruption or bribery.	Reduce, analyze and assess industrial risks liable to lead to health and safety consequences for employees, or to harmful consequences for the general public and the environment.

5. COMMUNITY INVOLVEMENT	6. HEALTH, SAFETY AND RADIATION PROTECTION OF EMPLOYEES	7. LABOR RELATIONS	8. EMPLOYEE DEVELOPMENT
Contribute to meeting local socio-economic and healthcare needs, respecting fundamental human rights and the culture and heritage of indigenous peoples, throughout the lifecycle of the mining activity and in cooperation with stakeholders.	Protect the health and safety of employees and keep the radiation impact on neighboring communities to a minimum.	Facilitate and safeguard dialogue between employees and general management (e.g. through staff representative bodies and internal communications).	Conduct recruitment of personnel, manage career development and provide access to training in accordance with diversity and non-discrimination criteria.
9. ENVIRONMENTAL FOOTPRINT	10. BIODIVERSITY	11. CLIMATE CHANGE	12. EMISSIONS AND WASTE
Monitor and assess quality of air, water, soils and the food chain, and optimize consumption of resources (water, energy, etc.) and raw materials (reagents, etc.).	Keep footprint to a minimum and preserve the flora and fauna in proximity to mining activities.	Help combat climate change by keeping greenhouse gas emissions to a minimum(CO2 et VOCs).	Control all liquid, solid and gaseous discharges and emissions, as well as waste and processing tailings, liable to have an impact on the environment.
13. MANAGEMENT OF LONG-TERM IMPACT	14. OPERATIONAL PERFORMANCE	15. SHIPMENTS AND TRACEABILITY OF URANIUM	
Prepare for the end of life phase of the mine as far upstream as possible, in compliance with environmental, social and societal principles and the regulations in force.	Ensure production is conducted on time, on budget and in accordance with AREVA values.	Guarantee the inspection and tracking of uranate concentrates, as well as the safety and security of shipments to converters.	



The pilot exercise carried out internally at the Mining Business Line management level resulted in five criteria being identified as priority areas for reporting:

- Health and protection of employees
- Transparency
- Risk management
- Operational performance
- Environmental footprint

On the strength of these first observations, we decided to give readers of the Responsible Development Report access to the information on our 7 major commitments (Health and Radiation Protection, Occupational Safety, Environment and Biodiversity, Community involvement; Commitment to employees; Mining closure; Innovation), as well as a visual approach to our key performance indicators and the CSR approach section presenting the main transverse subjects that cut across all our commitments (e.g. risk management; ethics and human rights).

WHERE ARE WE AT IN THE MATERIALITY PROCESS?

The main difficulty for our teams lies in:

- meaningfully consolidating this local and qualitative data at Mining Business Line level,
- the inclusion of external stakeholders in this evaluation process.

In order to prepare the transition to the G4 version of the Global Reporting Initiative and the associated materiality matrix as effectively as possible:

■ 2015 Results

- Guidelines about formalization and analysis of dialog with, and the expectations of, our stakeholders within the framework of local dialog and consultation bodies being prepared.
- Mongolia published a first CSR Report in 2015, covering the 2014 activities.
- The readers of this CSR Report were able to express themselves in a more accessible way on the issues presented in this report with the available questionnaire in the heading "Participate".

■ Objective from 2016

- Self-declare the Responsible Development Report on AREVA's mining activities as per the GRI "core option" level.
- Continue the work on guidelines relative to the formalization and the analysis of the exchanges and the expectations of our stakeholders within the framework of the local dialog and consultation bodies.
- Continue to process replies of the stakeholders and their expectations(waits) expressed with the available questionnaire in the heading "Participate".



We believe that such an exercise is all the more meaningful for being conducted on-site with our teams closest to the operational challenges and in contact with the local stakeholders.

Consistently with this approach, and in order to improve in this voluntary business practice, each of our sites is currently working on developing its annual report and reconciling the methodological requirements related to the materiality exercise and the Global Reporting Initiative (GRI) framework.



CHAPTER

COMMITMENTS

Health and radiation protection

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com

OUR FUNDAMENTALS IN TERMS OF OCCUPATIONAL HEALTH



Our employees may be exposed to several risk factors that could affect their health, whether on industrial sites, in offices or during business trips to the various countries in which AREVA's mining activities are based.

In the course of our activities, a great number of information and awareness raising actions are undertaken in order to maintain a high level of occupational health.



■ AREVA's Occupational Health and Safety Policy 2014-2016

One of the first pillars of the AREVA strategy is devoted to "Safety and Security" and incorporates the objectives of the group's Occupational Health and Safety Policy 2014-2016.

The objective that AREVA has set itself is to move towards achieving zero accidents and zero impact of our activities on the health and safety of our employees. This is why we are taking a range of actions to prevent occupational accidents and illnesses.

More specifically, AREVA is committed to ensuring effective monitoring of occupational health for all its employees. The following five major objectives are currently being deployed and apply to mining activities:

- 1. Draw up and apply international medical standards for the medical monitoring of occupational risks.
- 2. Strengthen medical support governance in all regions in which we are present;
- 3. Increase vigilance with regard to our employees' quality of life at work, particularly in terms of preventing psychosocial risks at all levels of the organization, by developing an active employee retention policy.
- 4. More specifically in France, ensure effective deployment of the group Occupational Health Service.
- 5. Take into account the specific issues associated with expatriate workers in employee health monitoring.

■ Health roadmap

The Group policy is listed in a roadmap specific to the Mining Business Line, based on four pillars:

- **Leadership and culture:** e.g. organization of health information for employees...
- **Organization and skills:** e.g. audits of medical structures, health scheme organization and optimization, etc.
- **Standards and procedures:** e.g. expatriate procedures, annual reports of Health Observatories, health recommendations in contracts with subcontractors, etc.
- **Risk analyses:** e.g. linking the health aspect to the organization of crisis exercises, monitoring impacts, etc.

In terms of occupational health regulations, employees are the responsibility of their entity of origin and are subject to national legislation. These regulatory considerations are incorporated into our operating policies and practices.

■ An international Health organization

Through our health policy, we are deploying a health service in all the countries in which we work to ensure we meet the prerequisites for occupational health and healthcare, as well as providing support for medical evacuations for local people and expatriates.

Priorities are set by the group Health Department and discussed by staff representative bodies (such as the Occupational Health and Safety Committee).



FIND OUT MORE

Through the Health Watch deployed in Gabon (Health Observatory of Mounana - OSM) and Niger (Health Watch for the Region of Agadez - OSRA), AREVA's mining activities carry out post-professional monitoring of retired miners liable to have been exposed to ionizing radiation due to their activity, in exactly the same manner as the system in force in France.

This is an initiative conducted by AREVA, the states and civil societies of Gabon and Niger. The observatories are the result of an innovative and multi-party approach.

RADIATION PROTECTION OF EMPLOYEES



Ionizing radiation is a form of occupational risk like any other, such as noise or risks of falls from height. It does however have a number of features which make it specific, in particular that of being an invisible risk that requires high-performance equipment to measure individual exposure.

In the mining sector, as in other sectors, such as the nuclear industry, certain fields of medicine, veterinary medicine or research, ionizing radiation is an integral part of an employee's everyday work.

All such workers are subject to the same set of regulations, though with different methods of application. This regulatory framework has undergone considerable change in recent years, in order to provide greater protection. Since 2003, in the French regulations, which are those that the group applies on all its sites where national regulations are less restrictive, a worker is considered to have been subject to exposure and thus must undergo dose rate monitoring as soon as they are subject to an occupational dose that could exceed 1 mSv per year.

The radiation protection of workers includes the whole coherent set of activities with the purpose of preventing and controlling any risk of exposure of workers to ionizing radiation by guaranteeing adapted and relevant dose rate monitoring under all circumstances.

This means it is necessary not only to assess occupational risks of a radiological nature and to improve working conditions in order to optimize the exposure of personnel, but also to foster a culture of radiation protection by offering training and expertise.



FIND OUT MORE

Ionizing radiation

Radioactivity is a physical phenomenon related to the structure of material. Certain atoms, such as uranium, are unstable and emit ionizing radiation. Such radiation is referred to as ionizing radiation as, when it interacts with material, it can ionize it, in other words tear away one or more electrons from its atoms.

■ Means of exposure to ionizing radiation

Two types of exposure to ionizing radiation are possible:

■ External exposure

The radioactive source is outside the organism. If the whole of the organism is affected, this is referred to as global exposure; if only part of it is affected, then it is a case of partial exposure.

In the case of "external remote exposure", exposure stops as soon as the radioactive source is distanced from the person or if a screen (shielding) is placed between the person and the source. When radiation is emitted by radionuclides present on the surface of the skin, in direct contact with the person, we also talk about "external contamination".

■ Internal exposure

The radioactive source has penetrated inside the organism. This is referred to as "internal contamination".

This can happen if a person inhales radioactive particles present in the air or ingests food that is contaminated with radioactive particles, or if there is direct contact with the skin or a wound (in this case we talk about "external contamination" that becomes "internal contamination").

When contamination occurs, exposure to radioactive particles continues as long as the source remains inside or in contact with the body.

■ Radiological protection principles

Through radiation protection, we implement all the preventative measures that limit the exposure of teams and populations to ionizing radiation.

In order to avoid or reduce the associated risks, radiation protection follows three main principles: justification, optimization and limitation of doses:

- the justification of activities that carry the risk of exposure to ionizing radiation;
- the optimization of exposure to this ionizing radiation, ensuring that exposure is kept as low as reasonable achievable, this is the ALARA precautionary principle;
- Doses of individual radiation exposure to such types of radiation must not exceed the regulatory limits. These three fundamental principles are taken from the recommendations of the ICRP (International Commission for Radiation Protection) and are enshrined in the French Public Health Code (Code de la santé publique).



FYI:

ALARA is the acronym for "As Low As Reasonably Achievable". It is one of the 3 major fundamental principles of radiation protection. The purpose is to reduce worker exposure to the lowest level possible, taking into account technical, economic, and social factors. The group adheres to this approach and applies this principle throughout its facilities.

For example, in the underground mine at COMINAK, fixed equipment installed to monitor the activity concentration of radon with audible and/or visual alarms ensures that workers are directly made aware of the presence of radon in the atmosphere. This system is optimized with the indication of "hot points", in other words areas with higher dose rates, by means of radioactive symbols in reflective paint on suspended signs.

Radiation protection was given pride of place at the AREVA Awards 2015, a challenge the main purpose of which is to reward teams at the origin of projects and accomplishments of an outstanding innovative nature.

The Quick Change Pumps to reduce the exposure of McClean Lake mill workers was chosen as one of seven winners from among the 24 finalists. This project, initiated by the AREVA Resources Canada employees in charge of maintenance, has made it possible to shorten the time required to carry out pump replacements in the ore pulp reception and storage areas, by introducing standardized pumps. This initiative has delivered a significant reduction in repair times and therefore in exposure to gamma radiation, from 4 hours to 10 minutes. This results in a direct improvement in the health and safety of workers thanks to a reduction in exposure time.

This type of equipment is an example of good practice with regard to international standards. In countries where legislation is less strict, AREVA is committed to reducing the maximum personal doses received in its facilities by exposed workers to 20mSv over a rolling 12-month period.

Radiation protection is taken into account from the design phases of projects. Facilities are built to limit exposure at workstations. Zoning, ventilation and structural components are the most important factors for sound design.

Following this, during normal operation, risks analyses are conducted at workstations and the exposure of workers is monitored using suitable dosimeters.

■ Radiation protection culture

■ Continued action to foster a culture of radiation protection.

In 2015, the Group, via its Health Safety Environment Quality Department (DSQE), continued to pursue its actions to foster a culture of radiation protection. For example, such actions have taken the form of distribution of communication materials, with the preparation of thematic information sheets for the "Are you sure?" ["Etes-vous sûr ?"] initiative, like those relating to the failure to wear dose measurement equipment in regulated areas or checking that Personal Protective Equipment (PPE) is being worn correctly.

Furthermore, it is also recommended to capitalize on the effect of some of these actions, in particular for instance by promoting participatory safety visits (Visites Sécurité Participative – VSPs) and checks to ensure that all those involved are following radiation protection rules correctly.

In addition, a self-assessment guide culture on nuclear safety culture including questions on radiation protection was also presented and made available.

The experience of participants in the area of radiation protection culture has made it possible to define criteria to assess the development of radiation protection culture under normal and post-accident conditions. The objective is to encourage a practical dialogue and allow everyone to make sense of measures and information relating to radiation protection, to provide a wider variety of sources of information that are more pluralistic and take account of local challenges, to promote a global approach to radiation protection issues, and encourage the development of networks to bring those actively involved and experts in radiation protection together.

In addition to the training required by French regulations on workers categorized for the purposes of radiation protection, in 2015, nearly 108 employees from the Mining BL received training in the fundamentals of radiation protection.

■ Regulations governing radiation protection

■ Regulatory limits per country

	
REGULATORY LIMIT SET FOR EMPLOYEES AND SUBCONTRACTORS	CUMULATIVE ANNUAL DOSE OVER A ROLLING 12-MONTH PERIOD FOR EXPOSED WORKERS
CIPR RECOMMENDATIONS	100 mSv over 5 years, without exceeding 50 mSv per year
EURATOM COUNCIL DIRECTIVE 2013/59/ OF 5 DEC. 2013	20 mSv per year
NIGER	20 mSv per year
CANADA	100 mSv over 5 years, without exceeding 50 mSv per year
KAZAKHSTAN	100 mSv over 5 years, without exceeding 50 mSv per year
FRANCE	20 mSv per year
NAMIBIA	100 mSv over 5 years, without exceeding 50 mSv per year
MONGOLIA	100 mSv over 5 years, without exceeding 50 mSv per year
GABON	100 mSv over 5 years, without exceeding 50 mSv per year

■ Definition of occupational diseases related to ionizing radiation

A disease can be recognized as an **occupational disease** if it is included in one of the **tables appended to the French Social Security Code** (Code de la Sécurité sociale).

Disorders caused by occupational exposure to ionizing radiation are dealt with in **table 6 (general social security scheme) and table 20 (agricultural scheme) of occupational diseases**. Each table has the following features:

- the symptoms or pathological lesions the affected person must present;
- an exhaustive list of these symptoms or pathological lesions, in the left-hand column of the table;
- reporting time limits, i.e. the maximum period between the end of the worker's exposure to the risk and when the condition is observed. This time limit varies depending on the clinical signs or symptoms presented by the affected person;
- the jobs likely to cause the condition in question, given in the right-hand column of the table.

Sometimes, the list is exhaustive and only workers allocated to the jobs listed have a right to be compensated for an occupational disease. In other cases, this list of jobs or professions is only indicative.

Any condition that meets the medical, occupational and administrative criteria given in the lists is systematically "presumed" to be occupational in origin, without any proof being necessary.

RISK FACTOR PREVENTION

Our employees are exposed to different categories of health risk, including the **injuries that may occur following an accident in the workplace**, mainly on an industrial or mining site, but also the **exposure to ionizing radiation** that is intrinsic to uranium ore mining and the production of uranium oxides (U_3O_8 – Yellow Cake). Our employees may also be exposed not only to psycho-social risks, but also to other risks as well, principally those such as exposure to noise, to dust, or to chemical substances which may potentially lead to occupational illnesses. Other factors may be directly linked to risks that are endemic in the country.



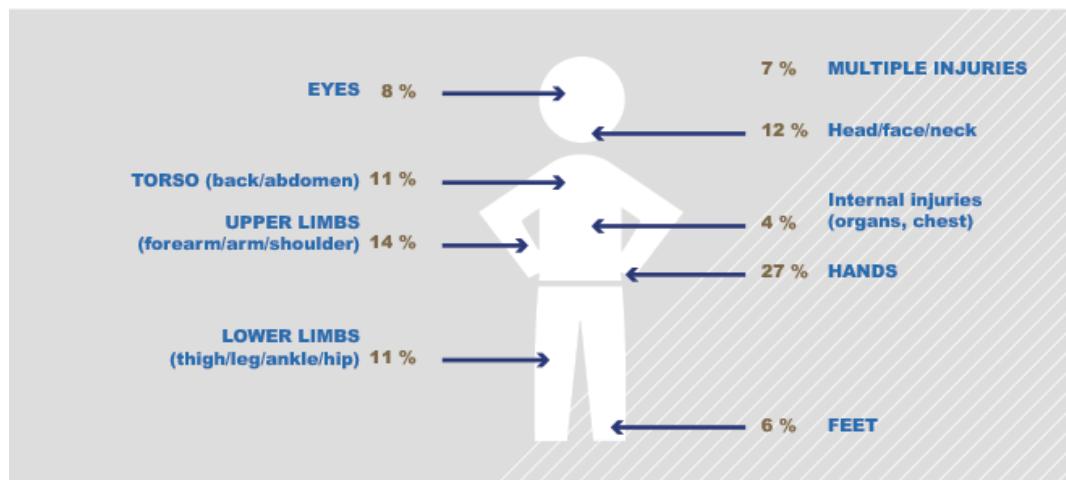
The prevention of risks that may affect the health of our employees takes place at several levels:

- **Occupational medical consultations:** e.g. medical visits on recruitment and periodically to establish suitability for the work in question.
- **Specific medical examination prior to expatriation.**
- **Preventing stress-related health risk factors.**
- **Training for all employees involved in travel** (long or short-term missions): e.g. pre-departure information including travel advice, information on specific medical check-ups, endemic diseases present in the countries where our sites are located, any other current health alerts (country health sheets, pathology data (for endemic diseases), healthy eating and hygiene tips, etc.), information on repatriation on health grounds.
- **Awareness-raising campaign** throughout the years using a number of channels: intranet (general health information or focus on a particular disease according to health alerts or seasonality); communication screens on each floor at headquarters.
- **Vaccination monitoring for employees abroad** (whether expatriate or on a business trip, long term or short term mobility), with compulsory vaccinations in accordance with current regulations and recommended vaccinations depending on the risks associated with the destination country (endemic diseases or according to health alerts).
- **First aid training:** training is organized regularly, along with refresher courses for AREVA personnel in France and within our international entities.
- **Baseline health assessments** before production begins to assess the health situation in the country or region in which our sites will be based: e.g. the baseline health assessment feasibility study launched in 2015 in Imouraren.
- **Counseling and support service** for psycho-social risks with provision of a psychologist from the occupational health department in France. Since 2015, a personal health contact specializing in this area has been placed at the disposal of expatriates and their families.
- **Preventative measures in the field of occupational safety and radiation protection:** Every measure taken with a view to preventing, eliminating or reducing the impact of accident-generating events or exposure to chemical risks or to ionizing radiation helps to protect the health of our employees
- **Assessments of risks to health and safety at workstations.**

2015 RESULTS

■ Injuries associated with workplace accidents

2015 RESULTS: injuries due to accidents in the workplace (fatal, with lost time or without lost time) for employees and subcontractors



■ Dose exceeding 20 mSv



20 mSv is the additional effective dose limit over a rolling 12-month period set by French regulations for workers liable to be exposed to radioactivity.

For all its international activities, AREVA has set this limit of 20 mSv over a sliding 12 month period including in countries where the national regulations are less restrictive.



CHAPTER

COMMITMENTS

Occupational safety

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com

FUNDAMENTALS: MAKING SAFETY A PRIORITY



The AREVA group aims for excellence in occupational safety throughout its activities: it forms one of the five pillars of the strategic plan, with the objective of achieving **zero fatal accidents** and a **constant reduction in the frequency rate of occupational accidents**, tending towards zero.



The "Safe Together" project



Since 2012, the AREVA group has been running a program specifically aimed at occupational safety culture entitled **Safe Together!** Its purpose is to develop a safety culture that involves all our employees and subcontractors. Our commitment to safety is based on 12 standards applicable on all group sites. These 12 standards are not a substitute for local regulations, standards or rules of best practice, but serve to complement them whilst also complying with them.

For the third year in a row, June was Safety Month in the Mining Business Line and in the AREVA Group in 2015. This year, each site organized a Safety Day during which various events were held to raise awareness and train employees and subcontractors in the group's safety culture.

Since 1 January 2015 twelve **safety standards** have been applied to all activities:

- **Strict compliance with pictograms:** A safety rule is expressed by one pictogram, and one pictogram only: red for a prohibition, yellow for a risk, and blue for an obligation. The pictogram is to be put in the most visible place where the rule applies to all those who enter the area concerned
- **Five minutes for safety:** Devote the first few minutes of each management meeting to safety in the workplace.
- **Safety information and training:** The first information received by any new arrival is provided in the form of a specially adapted introductory module to safety on site and at the workstation."
- **Personal protective equipment:** Any person entering a zone of activity belonging to AREVA must wear the personal protective equipment defined on the pictograms shown. Safety footwear is the minimum required equipment.
- **Wearing of safety belts in vehicles:** It is obligatory for both the driver and any passengers of all vehicles to wear safety belts while the vehicles are being driven or operated.
- **Hold the handrail:** Any person going up or down stairs must hold on to the handrail

- **No unprotected cables on the ground:** No unprotected cables must be left lying on the ground in areas where people are moving around
- **No alcohol and drugs:** For safety reasons, the consumption of alcohol and drugs is strictly prohibited on sites belonging to AREVA or operated under the direct responsibility of the group
- **Tobacco in smoking areas only:** For safety reasons, smoking is only permitted in the designated areas
- **Moving carefully:** rules to follow when moving around as a pedestrian (prevention of same-level falls),
- **Secure the handing area:** rules to follow when using handling equipment,
- **Using protective equipment when working at height:** rules to follow whenever working at height.



■ Our objectives: A commitment made at the highest level

The Mining Business Line's occupational safety objectives are based on the following commitments to:

- Strengthen and share a common safety culture across the Mining Business Line,
- Ensure a suitable structure that allows the effective implementation of actions to achieve the targets set,
- Effectively assess and prevent risks at workstations, as well as industrial and health risks.

The safety governance of AREVA Mines takes the form of a safety committee. This think tank and body of action meets 2 to 3 times per year. It is made up of the main directors of the BL.

“ Our objective: Zero Accidents ”

Safety lies at the very heart of our Mining activities' performance, with one objective: Zero Accidents. This is an ambitious, yet achievable, objective, one that we must get closer to achieving every year. I am convinced that a nuclear safety culture, and an occupational safety culture too, are possible, provided we never let go of all that has been achieved, nor of the efforts made, and above all, that we never allow our vigilance to slip, especially now, during this period of transition and change. I am counting on everyone who works in the BG to prove their unfailing commitment and exemplary behavior with regard to safety.

Olivier Wantz, Member of the Executive Committee and Senior Executive Vice President, Mining and Front End.

This committee is responsible for the planning of courses of action (roadmap), the supervision of their application, as well as for monitoring them and ensuring continuous improvement in safety results.

The safety governance of AREVA Mines takes the form of a safety committee. This think tank and body of action meets 2 to 3 times per year. It is made up of the main directors of the BL. This committee is responsible for the planning of courses of action (roadmap), the supervision of their application, as well as for monitoring them and ensuring continuous improvement in safety results.

The safety representatives of AREVA Mines are responsible for deploying these actions in the territories where it is present, with the assistance of managers and all employees who are responsible for their implementation. This occupational safety policy applies to everyone, whether AREVA employees, sub-contractors or visitors.

Every year, with a view to achieving continuous progress towards achieving the goal of zero accidents, the safety committee of the Mining BL sets intermediary objectives, which apply to employees of AREVA and its subsidiaries, as well as to sub-contractors:

■ For 2015:

- 0 fatal accidents
- TF1 <0.8 i.e. no more than 16 lost-time occupational accidents
- Consolidation of TF2 and TF3
- Analysis of all accidents with and without lost time
- All near misses with a high severity potential are declared and analyzed

LTIFR / TF1 (Lost Time Injury Frequency Rate) : Fatalities, and lost time accidents

TRIR / TF2 (Total Recordable Injury Frequency Rate) : Fatalities, and accidents with and without lost time

TRIR including first aid / TF3 (Total Recordable Injury Frequency Rate including first aid) : Fatalities, and accidents with and without lost time (including medical care and first aid)

■ Mining activities roadmap

Employees and subcontractors are exposed to the risks generated by mining activities, chiefly those linked to drilling activities and ore extraction, transportation and movement, as well as the risks inherent to all industrial activities (handling operations, working at height, etc.).

To achieve the safety objectives and apply the group's health and safety policy, AREVA Mines has defined actions for improvement which are detailed in a Safety Roadmap for 2013-2015, which is deployed at all AREVA sites where mining activities take place.

The Mining Business Line's objectives are detailed in a roadmap, based around 4 pillars:

- **Leadership and safety culture:**
 - Strengthen safety governance through discussions on the ground between management and employees, a safety day, and the creation of a safety committee and safety action plan for each site.
 - Raise awareness on occupational safety at all sites during the month of June: targeted actions for subcontractors, communication campaigns, mobilization to encourage initiatives, participative safety visits and feedback.
- **Organization and skills:** well define roles and responsibilities to ensure the right person is at the right post and identify key people, develop safety skills (among managers and employees) and set individual safety targets.
- **Standards and procedures:** implement the 12 standards common to the whole of the AREVA group, harmonize practices and implement procedures specific to mining activities, strengthen management systems on sites.
- **Risk analysis and prevention:** assess risks at workstations and industrial and health risks, set up a documented crisis system, take suitable prevention measures and update risk assessments when necessary.



Each site has prepared its own roadmap based around the four pillars.

Each local action plan is challenged by the Health, Safety, Environment and Radiation Protection [Santé Sécurité Environnement et Radioprotection – SSE-RP] (to examine its feasibility in terms of coherence, resources, leadtimes, etc.)

EXAMPLES OF ACTIONS CARRIED OUT IN 2015



- Obtaining OHSAS 18001 and ISO 14001 certification for the KATCO site
- Provision of training on employer responsibility for safety for all managers of the Bessines site
- Work on drilling standards together with the KATCO site
- Development of procedures on risks related to work at height applicable to all AREVA Mines sites
- Review of work at heights on one of AREVA Mines' sites and strengthening of measures to eliminate risk and collective protective measures
- Carrying out of safety diagnostics for all AREVA Mines sites
- Continuation of the site safety day events, which are an essential forum for interaction
- Diagnostics of safety culture

■ Diagnostics of safety culture

In June of this year, 2,107 members of staff from AREVA Mines, as well as sub-contractors took part in an online survey as part of a Safety Culture Diagnostics process. This survey was followed up on 9 sites in the form of 48 groups in which 437 people including 39 sub-contractors took part.

There is a visible improvement in safety culture at AREVA Mines since the previous diagnostics carried out in 2012. The diagnostics process enabled us to identify strong points such as the strong value placed on safety by the organization and areas for improvement such as the training of certain of our sub-contractors and the reticence to challenge one's coworkers in the event of failure to observe safety rules or of a situation identified to be hazardous. The results of our diagnostics process are being taken into account in the actions being taken on sites.



Work to prevent professional risks is carried out at most of our mining sites using a management system that meets the requirements of standards **OHSAS 18001** (for occupational health and safety) and **ISO 14001** (for the environment).

These systems make it possible to set up processes and procedures to control the main risks encountered on sites, prioritize them, monitor them, take corrective action and make improvements. All sites in operation, as well as the Bessines site, are certified. For other sites, we are conducting a study on a case-by-case basis depending on the state of progress of the project or the scale of activities (exploration, etc.) which are being conducted. In all cases, a Health, Safety and the Environment management system is in place.

The systems are audited every year by an external third party.

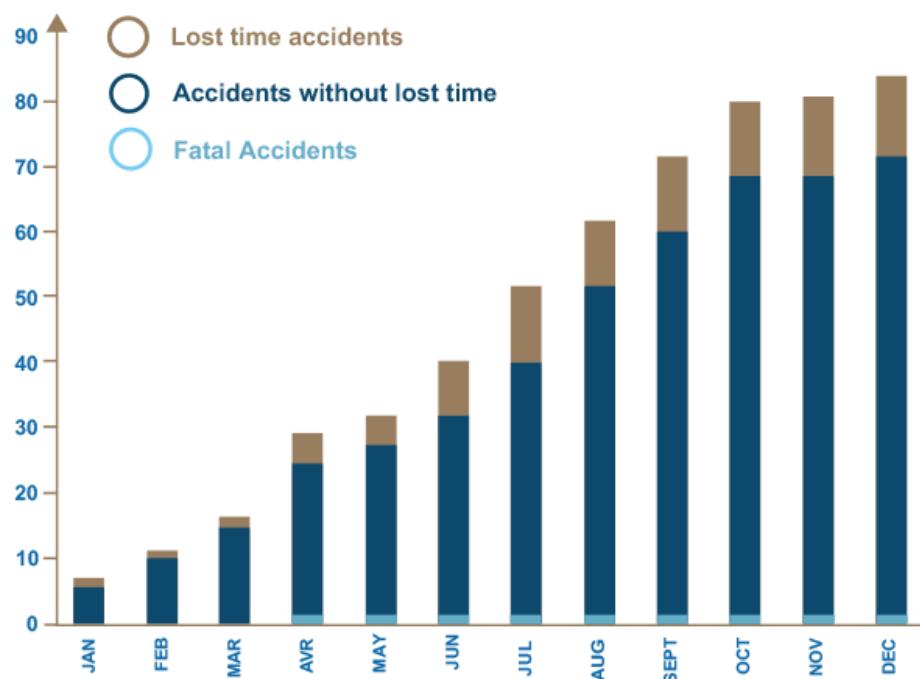
LOCATION OF OUR SITES	CERTIFICATION STATUS ON DEC. 31, 2015 - OHSAS 18001 & ISO 14001
CANADA	Certified
FRANCE(BESSINES)	Certified
KAZAKHSTAN	Certified (may 2015)
NAMIBIA	Integrated management system compliant with OHSAS 18001 and ISO 14001 standards but not certified
NIGER	Non-certified
MONGOLIA	Certified

2015 RESULTS: TENDING TOWARDS "ZERO ACCIDENTS"

In 2015, the safety results of the Mining Business Line were not met. Sadly, we had one tragic fatality at one of our sub-contractors in Kazakhstan during a drilling operation.

However, the commitment to safety at all levels of the organization allowed us to achieve a lost-time accident frequency rate of less than 0.8 (LTIFR / TF1 = 0.77), corresponding to 13 accidents in total. Since 2011, the frequency rate has included the safety results of our subcontractors.

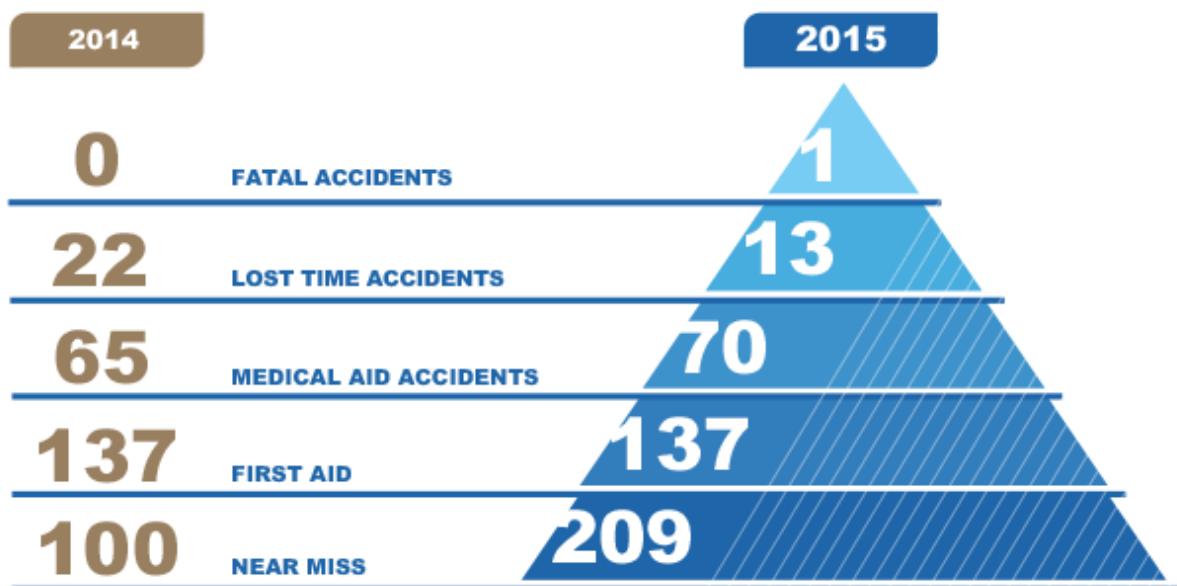
■ AREVA MINES LTIFR / TF1 & TRIR / TF2



Reminder of definitions

- **LTIFR / TF1:** Fatalities, and lost time accidents x 1 Million / hours worked over a rolling 12-month period
- **TRIR / TF2:** Fatalities, and accidents with and without lost time x 1 Million / hours worked over a rolling 12-month period
- **TRIR including first aid / TF3:** Fatalities, and accidents with and without lost time (including medical care and first aid) x 1 Million / hours worked over a rolling 12-month period

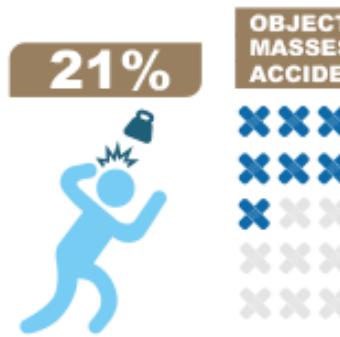
■ Safety events at end-2015 (from 1st January to 31 December 2015)



AREVA Mining has seen a resurgence in accidents between June and September. In response to this state of affairs, senior management issued a request for action in the form of a top/down remobilization. This request for remobilization was put into action by all teams and all departments worldwide. This action has borne fruit, in particular by stabilizing the rate of occupational accidents at 70.

■ Main causes of work-related accidents

MAIN CAUSES OF ACCIDENTS ARE:



OTHER CAUSES ARE :

OBJECTS DURING HANDLING



LIFTING, MOORING AND GRIPPING EQUIPMENT



FALL OF PERSON FROM ELEVATION



APPARATUS OR UTENSILS IMPLEMENTING HOT PRODUCTS, INCL. KILNS, OVENS



APPARATUS OR UTENSILS IMPLEMENTING CAUSTIC, CORROSIVE PRODUCTS



SAME-LEVEL FALL



WORKING ENVIRONMENT



OTHER





CHAPTER

COMMITMENTS

Environment & Biodiversity

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Our environmental responsibility is a permanent commitment underpinned by the AREVA Values Charter. As such, our actions seek to reinforce the prevention of events and management of the environmental footprint of our activities.

FUNDAMENTALS



■ AREVA's environment policy

The commitment of AREVA's mining activities is shaped by the AREVA group's environmental policy for 2014-2016.

Our teams therefore base their work on meeting current regulatory practices, international standards and the sharing of experience.

At every stage in the lifecycle of a mine, from exploration to site remediated, the 6 environmental policy commitments are met:

■ Performance in our management of the environmental challenges:

- 1. Foster and develop a culture of environmental risk prevention.
- 2. Improve the design of our facilities by taking into account their entire lifecycle.

■ Prevention and control of environmental accident risks:

- 3. Strengthen prevention and control measures surrounding technological accident risk.
- 4. Reduce risks related to ageing of facilities and accidental spillages.

■ Prevention and control of chronic environmental and health risks:

- 5. Strengthen prevention and control measures surrounding chronic health risks.
- 6. Prevent threats to biodiversity by managing the environmental footprint of our activities.

Our environmental policy applies to all entities of Areva Mines, both in France and abroad. Each operational entity deploys it in the form of action plans.

■ Our environmental performance

Throughout the life of the mine, the extraction and processing of uranium ore entail a need for raw materials and natural resources (water, energy, etc.). Our main challenge therefore consists in optimizing consumption and waste over time, and, in looking for possible ways of recovering waste, for a fluctuating uranium production level and taking account of a changing regulatory framework.

The scope of environmental objectives is adjusted depending on: changes in the mapping of risks, the expectations of stakeholders, internal and external best practices, environmental reporting and dialogue with operational entities.

Reporting for the various different environmental indicators presented on this page is carried out using STAR, the AREVA Group's proprietary reporting software. The methods used for the calculation of environmental indicators, as well as the associated reporting procedures are formally set out in an "AREVA Sustainable Development and Continuous Improvement" measurement and reporting protocol. This protocol, which is updated every year, is sent out to everyone involved in the preparation and reporting of data.

The scope of the reporting encompasses all activities of AREVA Mines and all those for which AREVA Mines is the operator.

For the financial year 2015, the main changes in scope concern the following points:

- One year after resumption of activity, the McClean Lake plant reached full capacity in September 2015,
- AREVA Mines reported good levels of operational performance in 2015,
- The putting of the Imouraren project under care and maintenance in Niger

2015 RESULTS

Throughout the life of the mine, the extraction and processing of uranium ore entails a need for raw materials and natural resources (water, energy, etc.). Our main challenge therefore consists in **optimizing consumption and waste over time** for a fluctuating uranium production level and in order to satisfy a changing regulatory framework.

Water

A rare natural resource in certain countries where AREVA is present, management of water is one of the company's core environmental and social concerns. From the monitoring of the volumes of taken water by source to the optimization of consumption: the question of water is the subject of constant attention.

Abstracted water

There are two distinct qualities of water needed by sites: drinking water and industrial water. The water used for our industrial and mining processes comes from various sources: surface water (lakes, rivers, the sea, etc.), groundwater (aquifers) and residual mine drainage water (pit water), recycled industrial water. Quantities of water taken are usually measured by flowmeters; however, certain points of taken water cannot be equipped with a flowmeter, in which case the quantity is estimated or simulated based on models.

QUANTITY OF WATER TAKEN BY SOURCE - M ³	2015	2014	2013	2012	2011
VOLUME OF WATER TAKEN FROM SURFACE WATERS (including rain water)	394 349	219 009	228 775	239 541	110 927
VOLUME OF WATER TAKEN FROM THE DISTRIBUTION NETWORK	98 756	156 660	194 625	445 448	1 561 462
VOLUME OF PIT WATER TAKEN *	6 214 265	5 147 643	5 548 605	7 152 852	6 738 599
VOLUME OF GROUNDWATER TAKEN (via pumping wells)**	5 717 849	6 414 741	6 841 845	6 144 581	5 420 079

*Volume of water related to mining operations (pre-mining and mining phases):

Note: For this indicator in 2015, for the mines in Niger, the quantity of pit water taken includes the quantity of drinking water used for industrial purposes. In previous years, water in this latter category has been taken into account as water taken from groundwater via pumping wells.

** This indicator includes water taken from groundwater, for whatever use: industrial water supply, drinking water supply, pumping for hydraulic containment, passive treatment. This water may be put to another subsequent use, on or off-site, to meet industrial needs or for the supply of water for consumption. This indicator excludes pit water. 50% of the decrease in this indicator is related to the cessation of activities in Niger (Imouraren project).

Note: the wells may be located on or off site.

■ Water consumed

Despite the increase in production, gross water consumption decreased by 5% compared to 2014 for AREVA's mining activities as a whole. This result was linked to a number of factors.

- The putting of the Imouraren project under care and maintenance in Niger,
- The continuation of the implementation of the effluent recycling process on the Katco site in Kazakhstan that makes it possible to reduce the consumption of groundwater,
- The SOMAÏR and COMINAK sites in Niger continuing their efforts to reduce and optimize water requirements with the adoption of industrial processes that consume less,



	2015	2014	2013	2012	2011
TOTAL VOLUME OF WATER CONSUMED - M³	6 041 114	6 346 657	7 251 308	7 393 125	7 605 854
VOLUME OF PIT WATER USED ON SITE - M³	3 826 732	3 704 193	4 008 400	4 629 024	4 434 890

■ Reduce water consumption: concrete actions

■ In Mongolia

At its site in Mongolia, over the past few years AREVA has implemented best practices and improvements which have produced some quite remarkable results. Among environmental protection measures, a mud recycling technology has been tested successfully. Typically used in other sectors such as the oil industry, this drilling technology applied to mining exploration reduces the amount of water used by between 30 and 60% depending on the width of the drillhole (with re-circulating the drilling solution).

■ In Niger

Since 2003, for Niger, a working group called "Aman", has been carrying out periodic additional monitoring campaigns on a wider scale than those conducted by site operators. The working group is mainly composed of geologists and mining hydrogeologists, with the support of environmental specialists. Its aim is to construct a forecasting model for water resources, better understand regional hydrogeology and guarantee a quality supply to sites and nearby towns. In 2015, AREVA has continued to take action by developing new hydrodynamic modeling tools to help manage underground waters in the Arlit region. At the same time, hydrogeological and hydrogeochemical studies have continued to be conducted on behalf of SOMAÏR and COMINAK.

■ Energy

Whether it originates from fossil fuels (gas or gasoline), electricity or renewable sources of energy (solar or hydroelectric power), the energy consumed by the different sites of AREVA Mines is monitored on a constant basis. The goal: to continue to reduce consumption, whilst increasing the share of renewable energy.

Since 2014, energy consumption has declined for AREVA Mines as a whole. Moreover, there has been a sharp increase in the consumption of electricity from renewable energy sources compared to previous years: the site in Namibia now draws 40% of its energy supply from hydroelectric power and the KATCO site powers part of its facilities using solar energy generated in situ. This increase is directly related to a change in reporting for this energy source.

In addition, the reduction in fossil fuel energy consumption is significantly attributable to the putting of the Imouraren project under care and maintenance. However, the KATCO and AREVA Resources Canada sites continue to slightly increase their consumption, given their increased activity (start-up of plant in Canada, increased production at KATCO).



	2015	2014	2013
ENERGY CONSUMED IN MWh	792 140	801 487	889 424
FOSSIL energy (MWh)	569 365	574 641	640 101
ELECTRICITY consumed (MWh)	222 774	226 847	248 922
Electricity consumed from non-renewable sources (MWh)	222 063	222 841	248 920
Electricity consumed from renewable sources (MWh)	711	5,8	2,6

■ Greenhouse gas emissions

The main source of global warming, greenhouse gases were subject to global monitoring by AREVA in 2015, whether produced directly by mining activities, or resulting from the consumption of energy necessary for the proper running of the company.

Direct greenhouse gas emissions result mainly from:

- The burning of fossil fuels: the quantities of CO₂ emitted are deduced from the quantities consumed and the corresponding CO₂ emission factors:



CO ₂ EMISSIONS FACTORS BY FUEL			
COMBUSTIBLE	tCO ₂ / GJ LHV	tCO ₂ / MWh LHV	tCO ₂ / tonne
NATURAL GAS	0.057	0.2052	...
PROPANE GAS / LP GAS	0.064	0.23	2.944
HEAVY FUEL	0.078	0.2808	3.12
DOMESTIC FUEL / DIESEL	0.075	0.27	3.15
MOTOR GASOLINE	0.073	0.2628	3.212

- Decarbonation during phases involving the chemical leaching of ore using acid, and reagents (containing carbonates) put into contact with acid solutions. The quantities of CO₂ emitted (corresponding directly to greenhouse gas emissions) can then be calculated based on the quantities of carbonate contained in the ore and the quantities of reagents used
- Emissions of HFCs (hydrofluorocarbons) resulting from the use of refrigerating fluids. The greenhouse gas emissions are deduced from the quantities of the different refrigerating fluids consumed and their associated GWP* (Global Warming Potential).

Note: The Global Warming Potential values used are defined in the group's reporting protocol.



ATMOSPHERIC EMISSIONS Metric tons CO ₂ equivalent	2015	2014	2013
TOTAL OF DIRECT GREENHOUSE GAS EMISSIONS (GHG) – SCOPE 1	187 460	190 278	202 302
DIRECT EMISSIONS OF GREENHOUSE GAS (GES) LINKED TO THE TRANSPORTATION OF FREIGHT AND PERSONNEL – SCOPE 1	14 218	16 442	16 876
DIRECT EMISSIONS OF GREENHOUSE GAS (GHG) LINKED TO THE PROCESS – SCOPE 1	32 162	30 334	22 622
DIRECT EMISSIONS OF GREENHOUSE GAS (GHG) LINKED TO FIRE-RETARDANT FLUIDS	6 895	8 846	9 926
INDIRECT GREENHOUSE GAS EMISSIONS – SCOPE 2 *	171 624	174 215	197 608

* Indirect GHG emissions relating to energy consumption: GHG emissions due to electrical energy purchased and/or imported and to thermal energy purchased and/or imported for group site operation.

CO₂ biogenic emission independent from gross direct emission: given that by definition they are greenhouse gas emissions associated with vegetation, in a first approach the sites of AREVA MINES are not concerned as mineral industry. However, we could be (*a priori marginally*), as far as clearing forest activities would be realized "to prepare" the ground and change the land-use. This point is under consideration.



AREVA MINES AND CLIMATE CHANGE

As a member of the International Council on Mining and Metals (ICMM), AREVA Mines supports the ICMM's position on climate change. In conducting its mining activities, AREVA Mines undertakes to limit greenhouse gas emissions in accordance with the environmental policy of AREVA and to carry out social projects and take action to conserve water and biodiversity in order to meet the challenges faced due to the consequences of climate change.

■ Waste

AREVA assumes responsibility for its own waste, whether it be conventional or radioactive waste, right through to its definitive disposal, even if this waste has been transferred or resold in the interim. The company must therefore ensure that such waste is traceable right through to definitive disposal.

■ Conventional waste

Conventional waste is related to normal activity (as part of normal production) or exceptional activity (e.g. as part of works, projects, etc.) and falls into two categories:

- hazardous waste (e.g. asbestos, batteries, packaging for toxic substances, electronic waste, etc.),
- non-hazardous waste (e.g. household waste, rubble, scrap metal, tires, plastic, etc.).

Waste is said to be recovered when it is recycled, reused, processed or used to generate heat or energy. This is the case for example at the KATCO site in Kazakhstan: around 60% of conventional waste was recovered in 2015. (100% of hazardous waste, 32% of non-hazardous waste).

The overall tonnage of conventional waste increased by 34% in relation to 2014 for AREVA's mining activities as a whole. This development is mainly due to the ramp-up of the McClean plant in Canada and its hazardous waste production (+94% for McClean in relation to 2014).



	2015	2014	2013
QUANTITY OF CONVENTIONAL WASTE - METRIC TONS	6 940	4 596	12 861
QUANTITY OF HAZARDOUS WASTE	3 534	1 410	6 459
QUANTITY OF NON-HAZARDOUS WASTE	3 405	3 185	6 402
QUANTITY OF CONVENTIONNAL RECYCLED HAZARDOUS WASTE*	109	424	500
QUANTITY OF CONVENTIONNAL RECYCLED NON-HAZARDOUS WASTE**	1 432	2 564	857

*Hazardous waste generated by our sites are: used oil, filters of fuel, unnecessary antifreeze agent and superfluous batteries. They are collected in indicated containers and transported for the internal or external recycling. Empty barrels or canisters which contain typically the residue of products as oil, antifreeze agent and grease are returned to the suppliers for the recycling.

**Our most significant non-hazardous waste includes scrap, used tires, inert industrial waste and the organic waste. All our scrap and a part of tires are recycled. Many of our operational sites implemented recycling schemes of the equipment as the paper, the plastic, the pallets, the glass, and some implemented programs of composting for organic waste.

■ Radioactive waste

Mining waste is classified as Very Low Level Waste (VLLW) and only contains naturally-occurring radionuclides.

Such Very Low Level Waste is either put into specific surface storage, or, possibly after processing, is rendered safe for disposal via normal channels, when it is below the release thresholds defined by national regulations (if applicable).

Directives sent out to each of the operational units likely to produce radioactive waste remind them of objectives and specify the resources to be deployed in terms of organization and performance to ensure such waste is managed safely. In particular, they take action in the following areas: the strict separation of conventional and radioactive waste, the exhaustive management of such waste, the taking into account of improvements, risks related to transport, the use of any final disposal channels.

The rise in the production of radioactive waste in 2015 is related to the start-up of activity at the McClean Lake Plant and to works of an exceptional nature carried out at KATCO (remediation of ground).

QUANTITY OF RADIOACTIVE WASTE – METRICS TONS	2015	2014	2013
RADIOACTIVE WASTE MASS GENERATED FROM OPERATIONS THAT HAVE BEEN *	848	266	291

**All the waste evacuated in authorized sector are to be taken into account, including if it is about specific storage. It is for example the case of waste of regular maintenance and muds, stored in an authorized mining dependence. The reporting of the quantities lower than 1 ton or 1 m³ is optional for waste having at least a stream for elimination, as well as reporting of any quantity lower than 100 kg or 100 liters.*



Biodiversity

As a responsible mining company, AREVA attaches a great deal of importance to the protection and conservation of biodiversity. This is why, even at the exploration stage, AREVA Mines takes action to minimize its impact on biodiversity as much as possible.

Its road network is optimized to ensure that the number of tracks used is kept to a strict minimum. These tracks are maintained on a regular basis to reduce the dispersal of dust which may collect on vegetation by the side of the road. Access to them is now sealed off when they are not necessary, to allow vegetation to grow back.

In the same way, the entire drilling process has been improved to reduce its impact on the ecosystem, by installing optimized platforms, avoiding the need to cut down trees or at least allowing the number of trees cut down to be reduced. The drilling process itself is currently being improved to reduce consumption of natural resources, and of water in particular.

Migration routes of animals and livestock are also taken into account in the exploration program.

Taking action to protect biodiversity

Certain mining sites are located close to zones which are rich in biodiversity. In 2015, we undertook studies and actions to preserve sensitive zones with third parties, such as local communities, consultancy firms, university specialists or nature conservation bodies.

- **Niger : IMOURAREN project**

Biodiversity study to characterize pasture conditions in the immediate vicinity of sand and gravel quarries.

- **France : Remediation and mining closure**

Preparation of files to request exemptions for remediation work impacting plant and animal habitats.

- **Kazakhstan : Exploration and production**

Environmental impact study within the framework of preparations for ISO 14001 certification.



Environmental studies

AREVA Mines conducts environmental studies throughout the life cycle of our mining and industrial projects, whether in response to regulatory requirements or voluntarily in order to better understand the impact of its activities.

Environmental impact studies (EIS) are performed for each new mining project and whenever a major modification to our industrial facilities is planned. They meet the regulatory requirements in force and must be submitted for public consultation to be approved by the local authorities.

These studies make it possible to map the impacts generated by a new project, improve understanding of the associated environment (e.g. biodiversity inventory), identify preventive or mitigating measures and offset measures to reduce risks at the source and set preventive measures to be incorporated into our facilities (e.g. leak detection instrumentation).

Accordingly, in 2015, we conducted a wide variety of studies on our different sites:

Mongolia:

- Detailed Environment Impact Assessment (DEIA) of the pilot project of ZOOVCH OVOO
- Paleontological study
- Archeological study
- Saxaul study (University of Mongolia)

Niger:

- Complementary biodiversity study on pastures south of the Imouraren project industrial zone
- State of the underlying aquifers at the SOMAIR site
- Waste studies

Canada:

- Environmental Impact Study (EIS) at Kiggavik

This is a non-exhaustive list.

ENVIRONMENTAL MONITORING

As part of its CSR initiative, AREVA Mines has implemented environmental monitoring tools on its mining sites. Thanks to this initiative, AREVA Mines is able to ensure that they do not pose any risk to the environment or local populations.

■ Certified environmental management system

Work to prevent professional risks is carried out at most of our mining sites using a management system that meets the requirements of standards ISO 14001 (for the environment) and OHSAS 18001 (for occupational health and safety).

These systems make it possible to set up processes and procedures to control the main risks encountered on sites, prioritize them, monitor them, take corrective action and make improvements.

The systems are audited every year by an external third party.

LOCATION OF OUR SITES	CERTIFICATION STATUS ON DECEMBER 31, 2015 – ISO 14001
AUSTRALIA	Certified
CANADA	Certified
FRANCE	Certified
KAZAKHSTAN	Certified
NAMIBIA	Non-certified
NIGER (SOMAIR & COMINAK)	Certified
MONGOLIA	2017 Objective

■ Regular environmental monitoring of our sites

To ensure that there is no pollution on its sites, AREVA Mines checks many different parameters, both in the air, water and ground. With only one objective: to be ready to act in response to even the slightest alert.

Air monitoring

This monitoring chiefly consists in measuring exposure to ambient radioactivity, with measurements being taken, depending on the site, of concentrations of gas either in the air or at the outlet of chimney stacks (e.g.: SOx). Measurements are taken continuously, both at the site and in the nearby area, using specific dosimeters.

Water monitoring

We are running campaigns to monitor the quality and quantity of aquifers and surface waters using a piezometric monitoring system upstream and downstream of our activities.

Hydrological and hydrogeological studies are performed at all sites well before mining operations begin. These studies allow a better understanding of the environment and the composition of the natural water so that we can adapt our projects accordingly. At all sites where it is necessary, the water is first sent through a treatment station before being released back into the environment in conformity with the environmental and health standards in force. Our experts are also studying the various water treatment method processes to improve the environmental efficacy of the processes applied. One process they have implemented, for example, is so-called "passive" treatment using limestone drains, and they have also optimized the physical-chemical treatment method.

Monitoring of plants and the food chain

Sampling and analysis are regularly carried out on plants and other components of the food chain, including aquatic and land fauna, aquatic flora, the fruit and vegetables produced in nearby gardens, and the milk supplied by animals that have grazed in meadows near sites or drunk from receiving water courses.

Soil monitoring

To minimize mining remediation work downstream as well as exposure limits, everything is done upstream to reduce the risk of soil pollution (whether by radionuclides or hazardous chemical products). Systematic monitoring allows identification of abnormal zones. If such zones are pinpointed, soil decontamination measures are applied to restore the zone to regulatory levels. Typically, soil sampling is annual, but if necessary the frequency can be increased.

■ Environmental events

Environmental events are fed back at group level via a **specific electronic tool known as AHEAD** (AREVA Happened Events Advanced Database). The AREVA group has developed a new **severity classification scale for near-events and environmental events** known as ASSESS (AREVA Severity Scale for Events and Soft Signals) which has been tested at AREVA Mines.

In 2015, we had no environmental events that had an impact outside our sites. Some accidental spillages (effluents, acid solution) took place during our operations. They remained within the sites concerned and had no major environmental consequences and no impact outside our sites. Corrective clean-up measures were taken at the sites. This type of incident is the subject of lessons and sharing of experience that help us to improve our practices and processes.



CHAPTER

COMMITMENTS

Social involvement

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com

FUNDAMENTALS: STRATEGIC ORIENTATION



Given the diversity of contexts, past events within our activities and the nature of our future projects, our aim is to promote a trusting dialog and long-term partnership with our stakeholders.



To meet this objective, we are adopting an approach with our head office and onsite teams based on working on the following areas:

Governance:

- Establish a managerial reporting system and map societal objectives for the period up to 2020.
- Identify and draw up, in a collaborative manner, the next stage of existing partnerships or update/create new agreements for socio-economic development projects;
- Continuing to run the Mining Social Committees (Comités Sociétaux Mines) as a governing body for determining strategy with regard to our stakeholders and community investments associated with AREVA's mining activities ;

Prevention of risks thanks to our commitment to our stakeholders:

- Update our knowledge base regarding the regions in which we work, notably through societal impact studies (e.g. societal impact study scheduled for 2014/2015 for the Imouraren project in Niger), and map stakeholders updating;
- Formalize our social lessons learned, particularly those learned from after-mining, both in France and on an international level;
- Update our risk mapping tools and materiality assessment analysis.

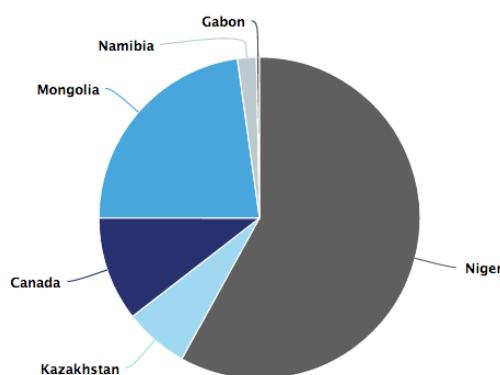
AREVA'S MINING SOCIAL COMMITTEES: OUR GOVERNANCE TOOL

Since February 1st, 2013, the Mining Social Committees of AREVA Mining Group have had the task of identifying (on an internal basis by country):

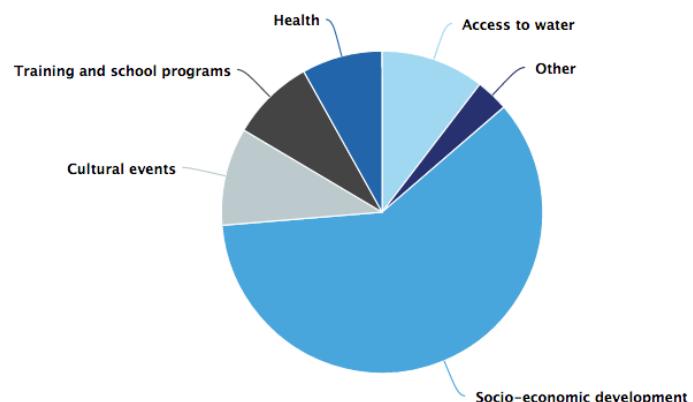
- strategic areas for involvement in the community;
- prospects for engagement with the stakeholders;
- priority community investment and local development projects;
- multi-year plans and associated budgets.

They bring together the managing directors of subsidiaries, local social leaders, and coordination and support teams from head office. Meetings are held more or less frequently depending on the needs. The Mining Social Committees cover the whole scope of AREVA Mines.

2015 budget breakdown by country for AREVA Mining – across all project categories



2015 budget breakdown by budget category for AREVA Mining



DIALOGUE WITH OUR STAKEHOLDERS

■ Who are our stakeholders?

We define our stakeholders as persons or groups of persons upon whom our activities have had or are having an impact. As part of a responsible approach, it is absolutely necessary to have an understanding of this environment in order to be able to adapt our actions as effectively as possible. We break our stakeholders down into four main groups. We are called upon to establish dialogue with all of these groups of stakeholders.

The methodology used to identify and qualify our stakeholders was updated in 2015.

This methodology is based both on internal feedback from experience and on benchmarking of performance outside the AREVA group.

The main criteria retained for the qualification of stakeholders are their geographical proximity to our operations, the level of impact of our activity and the possibilities for engagement with stakeholders.

■ Framework for dialogue

Meetings of bodies to maintain dialogue in labor relations (internal to AREVA and intended for employees) are organized both on sites and centrally. A similar process is also deployed to maintain social dialogue with our external stakeholders.

The objective of this process of entering into dialogue and discussion with stakeholders and meeting with them on a regular basis is to maintain a constructive relationship with our stakeholders to understand their expectations and explain our activity to them. It is an approach which is essential in order to get to know each other better. We thus adapt our frameworks for dialogue depending on the stakeholders (authorities, local population, associations, media, AREVA's employees).

These formal exchanges may take the form of face-to-face discussions, public meetings, or communication in writing and are adapted to the environment in each of the countries in which we are present. The topics most frequently addressed are those relating to the environment and the economy. The frequency with which we enter into dialogue will depend on the results of the stakeholder mapping methodology which will be deployed in 2016. For example, the update to this AREVA Mines responsible development report in particular makes use of answers to the questionnaire available in the report as a resource.

To date, all sites have taken measures to involve local communities, perform impact assessments and implement development programs. Such action takes different forms depending on the country concerned, but there are however a certain number of common elements that can be noted.



Attendees, the frequency of meetings and the subjects discussed depend on the issues encountered locally: socio-economic development, environmental footprint, health, better understanding of our mining and industrial projects, to name but a few.

Our approach to stakeholder commitments envisages the deployment, as of 2017, of a mechanism for the management of complaints. Currently, complaints are reported via our dialogue bodies on a country-by-country basis. The objective is to centralize this information in order to have a global overview of the topics involved. This will enable us to improve our understanding of the real challenges. Internally, there is already a report on ethical practices in which AREVA employees can report matters that they deem to be in conflict with the group's values to their line management.

■ Dialogue bodies

Here are some of the different types of dialogue and consultation bodies and events in the main areas in which we work:

■ CANADA – Athabasca Working Group (AWG)

- Created in 1993, this body is composed of members of the mining companies (AREVA Resources Canada Inc. and Cameco Corporation) and six communities in the north of Saskatchewan province.
- In 2012, these stakeholders began the renegotiation process for the "Impact Management Agreement", an agreement that since 2001 has covered all aspects relating to the impact of mining activities on the region: employment, training, environmental protection.
- In 2014, four meetings were held and the Athabasca Working Group's annual report was published.



FIND OUT MORE

The Athabasca Working Group environmental monitoring.

- On November 19, a meeting of the Local Information and Oversight Committee (Commission Locale d'Information et de Surveillance – CLIS) was held in Mounana in Gabon.
- The objective was to keep the local authorities and the general public informed about the actions taken and works carried out by COMUF on its former mining sites since the last CLIS meeting held in January 2015. A detailed report on the results of the 2013-2015 action plan was also drawn up.
- The results of environmental monitoring for the last three years concerning the areas on and around former mining sites - carried out under the supervision of the Gabonese Nuclear Safety and Security Agency [Autorité de sûreté et de sécurité gabonaise – AGSSN] were also commented on. "As in previous years, the results of the various inspections do not show any health risk", points out Philippe Crochon, from the Department of Safety and Social Involvement, AREVA Mining.
- A review of the Group's social initiatives was carried out, one of which concerns the creation of a pilot fish farm project in several basins of the Haut-Ogooué, which could be extended to the region of Mounana.
- Concerning the project to replace 124 radiologically affected houses, - known as the Mounana200 Project*, COMUF announced that all the studies necessary for it to launch the project are now complete, allowing it to go ahead with the initial phase of works in early 2016.
- "The agreement between the State of Gabon and COMUF, specifying the roles, responsibilities and conditions for the carrying out of works on the site, is to be approved in the near future", said Michel Capobianco, Managing Director of AREVA Gabon and COMUF. And he concluded by saying "for this second meeting organized in 2015, the quality of the dialogue and discussions with the local authorities and the general public fully lived up to our expectations. This is very satisfying for us."

■ FRANCE – Site Monitoring Committee (CSS)

- Set up on the initiative of local Préfets (government representatives), Site Monitoring Committees are bodies to promote dialog and consultation between the operator and local stakeholders (residents, employees, elected officials, associations, etc.).
- At least once a year, the operator provides the committee with a summary of site activities, focusing on environmental monitoring and risk prevention.
- In 2015 there were 11 committee meetings across France.

■ FRANCE

- Site Monitoring Committees: 11 meetings in 2015 as part of consultation on former mining sites
- Between January and December 2015, there were 12 meetings of Site Monitoring Committees (CSS – Commissions de Suivi Sites) across France. These CSS replaced the Local Information and Oversight Committees (CLIS – Commissions Locales d'Information et de Suivi) under the decree of February 2012.
- **The CSS are a place to share information, and a place for dialogue and consultation with all local stakeholders. Their aim is to inform the public about the effects of waste processing facilities on health and the environment. The introduction and organization of CSS, formerly CLIS, was strengthened by the circular of July 22, 2009, which calls for the development of this policy of openness and transparency.**
- It is the Prefect who appoints the members of the CSS and summons them to a meeting at least once a year. The committees are composed of representatives of the public authorities concerned (the French Nuclear Safety Authority (ASN), the regional health authority (ARS) and the regional department for the environment, town and country planning and housing (DREAL)), the operator, local and regional authorities, and representatives of residents' or environmental protection associations. The Prefect can set up a CSS for each waste processing facility for which a permit is requested, and is obliged to set up a CSS for all storage facilities for the collection of final waste or special industrial waste, or where a request is made by one of the municipalities located within the area covered by the public enquiry.

Through these committees, AREVA presents the different environmental outcomes and the work to be carried out to improve monitoring of former mining sites, in consultation with committee members.

■ GABON Local information committee

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■ KAZAKHSTAN – Site visits

- In 2014, AREVA's Katco subsidiary ran a series of site visits, welcoming groups from throughout the world (Kazakhstan, Mongolia, France, Denmark, Japan, etc.) composed of students, journalists, figures from the world of industry, politicians, researchers and farming associations, to introduce them to site activities and answer questions on sustainable development issues

■ MONGOLIA – Local cooperation councils

- Mongolia: Local cooperation councils meet successfully for the third time
- **October 1, 2015**
In order to allow information to be shared with the local community in the areas where AREVA Mongol LLC is present, Local cooperation councils have been set up. They met successfully for the third time on September 14 and 15, 2015 in the bag (commune) of Zuunbayan with 12 local participants, as well as at the Dulaan Uul exploration camp where 10 people from the sum (district) of Ulaanbadrakh took part.*

Specialists from AREVA Mongolia presented several studies including an archaeological study. They also reviewed the state of progress on several programs currently underway: the cultivation of saxauls, the rebuilding of herds, a veterinary project, the Elgen drinking water well and wells to be repaired.



Members of the Local cooperation council for the sum of Ulaanbadrakh in the vegetable garden of the Dulaan Uul camp

- These meetings gave rise to some fruitful discussions with members of the Local cooperation council which passed on several requests, such as: to obtain a copy of the AREVA Mongolia performance report, be informed on a regular basis about the veterinary project and for them to be invited to the next meeting, organize purchases of meat twice a year and provide support for the school in the sum (district).
- Ms Anjlai PUNTSAG, Manager for Sustainable Development and Local Affairs at AREVA Mongolia said: "Dialogue and transparency are fundamental principles that AREVA Mongolia applies in all the activities it conducts. These Local cooperation councils are an excellent example of this: the sum of Ulaabadrakh has met three times and the Local cooperation council for the bag of Zuunbayan met twice in 2014. The information exchanged at these meetings is essential in order to develop a mode of cooperation that guarantees the interests of all parties. The next meeting is scheduled for November 2015".

■ **NIGER – Bilateral steering committee (CBO)**

- Created in May 2006 to help strengthen the local governance of social projects for the benefit of populations.
- Brings together local elected officials, relevant administrations and civil society alongside AREVA. They define local development policies, identify priority areas for intervention, issue opinions on projects and ensure financing for the latter.
- AREVA's mining entities in Niger make an annual contribution of 750,000 euros to the CBO.

CONTRIBUTION TO LOCAL DEVELOPMENT

■ **Community investments**

■ **Community investment strategy**

We define community investments as the setting up of project and actions with the aim of meeting both the expectations of our stakeholders and the operational goals of AREVA Mines. In this sense, these projects differ from a purely corporate sponsorship-based initiative which is "a voluntary undertaking (...) which does not seek to have any impact on its (the company's) activities" (corporate sponsorship charter – ADMICAL)

■ **Funds spent in 2015**

Mining Social Committee budgets, which come from the Societal Responsibility Department at AREVA Mines, complement the budgets allocated by individual subsidiaries to community investment and programs.

In 2015, AREVA's mining activities (head office funds and subsidiaries funds) invested 3.6 million euros to finance more than 250 projects in the realms of health, education and economic development.

■ **Examples of social projects supported by AREVA's mining activities**

NIGER – projects to improve access to water

On April 14, 2015, employees of AREVA Mines in the La Défense had the chance to find out more about the "Les Puits du désert" [Desert Wells] association, which has been working in partnership with AREVA since 2013, as well as the initiatives that it is conducting in the North of Niger. The mission of the association is to come to the aid of populations by providing access to water, education, healthcare and economic development in the villages of the region.



Inauguration of the village well in Tafadek in presence of the head of the village and the people of Tafadek, representatives of the association "Les Puits du désert", the NGO "Tidène" and a representative from AREVA Mines.

In the desert, the search for water is the main preoccupation of local populations. The aim of the "Les puits du désert" association and its Nigerien partner NGO Tidène is to help the Tuareg people in the Tidène valley to the north of Agadez to no longer have to worry about how they are going to find water. "Water is after all present in significant quantities in the desert, at around 30 to 40m in depth" explains Christel Pernet, former coordinator and manager of the association, who came to meet teams from AREVA Mines.

"By renovating or building wells, whether for livestock, horticulture or drinking water, it is now possible to talk about healthcare, education and animal breeding as real possibilities. Providing access to water allows women to be freed from everyday chores allowing them to develop activities which bring in revenue and means children do not have to do such chores which prevent them from going to school." In this way, the activities of the association have also made it possible to build a school and provide schooling for 70 children.

Since 2004, 207 wells have been built by the "Puits du désert". 400 such wells are needed to guarantee the survival of the people of the Aïr Massif. As one of its solidarity initiatives, AREVA has thus financed the construction of one drinking water well in the village of Tafadek, one of five villages in the valley located close to the group's mining sites. This well was inaugurated in September 2014 and, in 2015, AREVA Mines renewed its support for the association's projects for a further three years.

CANADA – Support for healthcare and the community

On Friday, February 27 2015, AREVA's Northern Affairs Manager visited Prince Albert to present the Executive Director of the Athabasca Denesuline Child and Family Services Group with a \$ 100,000 CAD cheque representing the second and last installment of AREVA's \$ 200,000 donation in support of the "Yuthe Dene Sekwi Chu La Koe Btsedi", a 10-bed therapeutic home facility for at-risk youth.

The facility, located on the Louis Chicken Reserve #224 Black Lake Denesuline First Nations, right next to the Athabasca Health Centre in Stony Rapids, opened its doors on January 16, 2014 with six children between the ages of 12 and 17.

Today, the group home provides educational, spiritual and recreational services as well as therapeutic and family counselling sessions to Aboriginal youth and families close to their home and its programming includes a holistic approach to addiction and trauma recovery that incorporates language and traditional living practices. AREVA is pleased to be able to help northern Saskatchewan youth and their families grow into healthy, productive and strong communities.



NIGER – IRHAZER project

- Hydro-agricultural and pastoral development project in northern Niger to improve food security in desert areas.
- Following a feasibility and environmental impact study, a pilot project is underway and aims to cover 100 hectares for the benefit of 200 families.
- The deployment phase was launched at the end of the pilot assessment in areas located in the Irhazer Valley, the Tamesna and the valleys of the Air to benefit more than 2,000 households in June 2015.
- The project involves our employees, the local communities, as well as the regional and national authorities.
- AREVA financing: 17 million euros over 5 years. At the end of 2015, about 3 million euros have been spent.

MONGOLIA - Project to create a veterinary care unit

- In the cantons of Ulaanbadrakh and Zuunbayan in Dornogobi province where AREVA Mongol has activities, the health of the herds is very important for farmers.
- It is in this context that AREVA Mongol set out in late 2014 to create a veterinary care unit in partnership with the Mongolian cooperative union of private veterinary clinics (the UPVCMC). This cooperative relies on the expertise of an NGO which has been active in Mongolia for more than 10 years.
- The objective of the unit is to acquire detailed knowledge of livestock diseases in order to better control them and match prevention as effectively as possible.
- AREVA financing: 500,000 euros over 2 years

NAMIBIA – Development and distribution of teaching materials to teachers via the W.I.S.E. safety project

- Smart partnerships with the Namibian Ministry of Education, Arts and Culture for a period of five years
- Toolboxes developed including the Bouba & Zaza series reaching 10,800 children of learning age in the region of Erongo
- The aim of the W.I.S.E. (W = Wakey-wakey; I=Informed; S=Sensitive; E=Eager) safety project is to improve the passing on of information on topics related to personal safety included in primary school teaching programs through the development pedagogical aids designed specially to meet the needs of nationwide curricula for classes 1 to 3.
- The teaching aids includes guides for teachers, puzzles, flash cards, stories, songs, activity sheets, etc.
- AREVA financing: 6,666 euros

■ Investments in infrastructure and support for services:

AREVA Mines provides financing for various services and infrastructures which can be of general benefit to local communities or areas. These may for example be roads, the primary objective of which is connect mining sites to the existing road network. AREVA. Local populations can use the roads toll-free. Regular investments are also made in healthcare as part of community investment programs as indicated above. A specific focus on Niger is featured below.



PRESIDENT OF THE REPUBLIC OF NIGER LAUNCHES REPAIR WORK ON SECTIONS OF THE TA-HOUA-AGADEZ-ARLIT ROAD.

September 21, 2015

On Friday September 18, the President of the Republic, SE Issoufou Mahamadou, launched repair work on two sections of the Tahoua- Agadez-Arlit road, one between Tamaya and Agadez (191 km) and the other between Agadez and Arlit (236 km). The state of Niger is the Project Owner for this work.

The 685 km Tahoua – Agadez- Arlit road was opened to traffic in December 1980. It was financed by the mining companies SOMAIR & COMINAK. The latter are devoting 1 % of their annual revenue for its maintenance.

In accordance with the strategic partnership agreement signed between AREVA and Niger at Niamey in May 2014, AREVA is participating in the financing of the repair work on the Tahoua- Agadez-Arlit road.

A downpayment of 22.5 million euros, i.e. about 14 billion 759 million FCFA, has been made out of a total commitment of 90 million euros (nearly 60 billion FCFA). The ceremony was attended by members of the government, the diplomatic community, the administrative/religious/custom authorities, local representatives, delegations from neighboring countries and people from the region who had come in numbers for the occasion. For the President of the Republic SE Issoufou Mahamadou: "After the Arlit- Assamaka- Algerian border road, we have taken a major step with the repair of the Arlit- Agadez and Agadez-Tamaya road. Today's ceremony shows that we are meeting our commitment and that of our partners."



■ Transparency of revenue in the extractive sector

Through our support for the Extractive Industries Transparency Initiative (EITI), AREVA has continued to demonstrate its commitment to greater transparency in payments made to states in relation to the management of mining resources.

Niger, Mongolia and Kazakhstan, countries in which the group is engaged in mining activities, are members of EITI. In these countries, our mining subsidiaries participate in the local multi-party process and declare payment of taxes, mining rights and taxes on profits using specific declaration forms. The total revenue is presented officially on the EITI website.



IMPACT OF OUR PRESENCE IN THE REGIONS Focus on AREVA Niger

AREVA Mines, which has been present in Niger for over 50 years, is the main shareholder in Société des Mines de l'Air (SOMAIR) and Compagnie minière d'Akouta (COMINAK) which operate the two mining sites. The group is also developing the Imouraren project (one of the largest uranium deposits in Africa), this project having been put under care and maintenance while awaiting more favorable market conditions. Niger has significant uranium resources in its northern region. Uranium is the country's leading export resource (accounting for 55% of exports in 2013).

Currently Niger's uranium potential is exploited by two Nigerien companies: SOMAIR and COMINAK, with AREVA as the operator. SOMAIR and COMINAK exploit deposits in the Arlit region in the North-East of the country, over 1200 km by road from the capital, Niamey. Each mine has its own ore processing plant. Since they were founded in the late 1960s, the two mining companies have extracted more than 124,000 metric tons of uranium.

The impact of AREVA's mining activity in Niger can be read through various indicators:

- 800 million euros have been invested to date in the Imouraren project,
- 95 million euros paid to Niger in taxes in 2013,
- An average of 100 million euros per year in local purchases,
- 7,000 direct and indirect jobs: 98% of direct jobs (=AREVA Mines employees) are held by Nigerien nationals,
- the mining companies provide free medical care to employees and their families, the hospitals are open to the rest of the population. The hospitals budget is more than 4 million euros per year or 38% of overall expenditure devoted to externals,
- the mining companies make community investments targeting the following priority areas:
 - education (building classrooms, scholarships, etc.),
 - health (construction of health infrastructure, training, medical equipment, etc.),
 - access to water (drinking water wells, wells for horticulture, livestock wells, etc.),
 - provision of infrastructure (infrastructure for the municipalities and cooperatives, developments for agriculture or sanitation, etc.),
 - In 2014, 3 million euros were spent to community investments in Niger.
- the mining companies contribute to the maintenance of the Tahoua-Arlit road through an annual allocation to a maintenance fund for the road in an amount equivalent to 1% of their turnover.

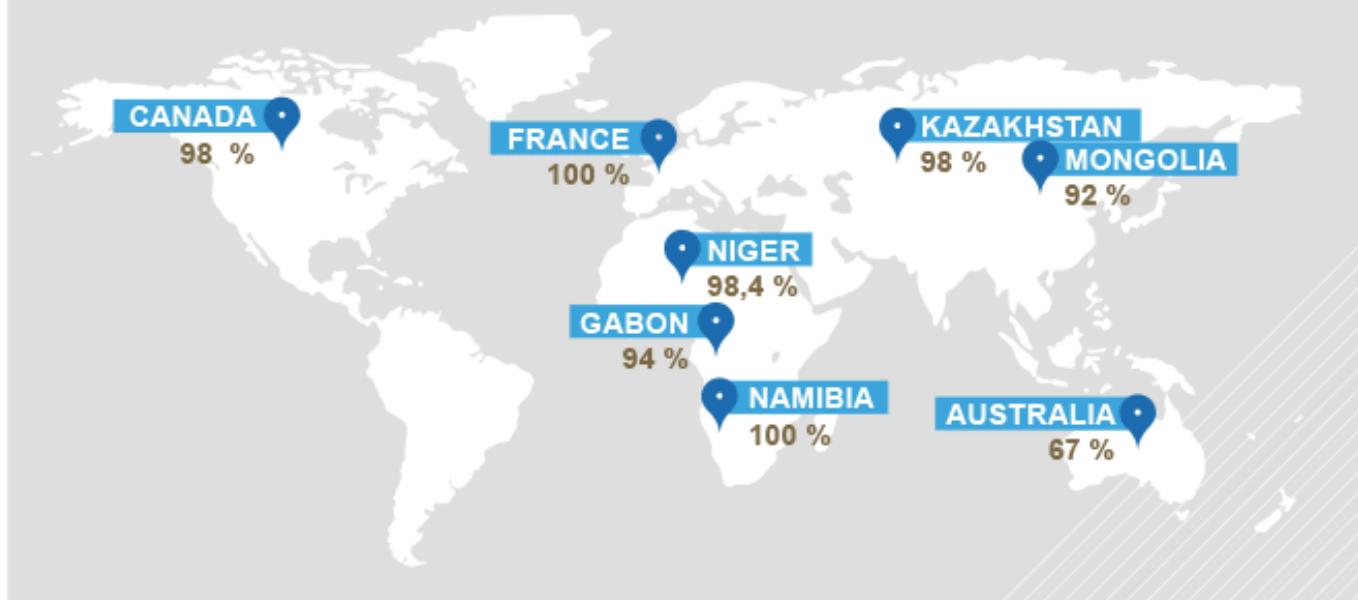
■ Local recruitment

■ Recruitment of employees

AREVA Mines' social policy expresses a commitment to promoting the local recruitment of our employees. Over 98% of our employees on our sites are from the host country.



PROPORTION OF LOCAL EMPLOYEES, BORN LOCALLY OR WITH LEGAL PERMANENT RESIDENCE (2014)



We also pay particular attention to indigenous communities, which may find it difficult to take advantage of our employment opportunities. This situation exists in Canada, for example, in North Saskatchewan, a region that has seen numerous initiatives to promote access to employment and select local entrepreneurs as a preference.

Currently, across all the countries in which we work, the majority of employees (at all levels of the organization) are of local nationality. The proportion of local managers is 60%.

■ Local purchasing

The fact that preference is given to local suppliers during the bidding process enables the creation of a network of companies and numerous jobs in the region where the mining site is located. **Today, 79% of our purchasing volume comes from the countries in which we are based, and 73% of our suppliers are local.**

It is not always easy to define the meaning of "local", and the term varies depending on the country, its stage of economic development and the population density around the site. AREVA has therefore implemented specific purchasing policies in the countries in which it has mining sites.

For example, in Canada, for similar contract bids, preference is systematically given to "local" northern suppliers, as per their status under provincial legislation in Saskatchewan. A company has "local" northern status if it belongs to or operates within the community living in northern Saskatchewan. Service contracts such as site catering or monitoring, which require a large workforce, have only been awarded to suppliers from this region.

Similarly in Kazakhstan where preference is given to local suppliers where skill levels are comparable. For catering services for instance, following a tender



FIND OUT MORE

The unfavorable economic context that our mining activities are currently experiencing is a complex issue to manage in terms of purchasing contracts.

In certain countries in which we work, as of 2013 we have had to optimize contractual commitments or even suspend contacts with some of our local suppliers and subcontractors.

We are aware that we are an important economic player for the regions where we are based. Our teams are working hard alongside our partners to find the best solution.



CHAPTER

COMMITMENTS

Commitment to employees

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report 2015 on Areva's Mining Activities

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Our commitment to employees in 2015 within the scope of mining activities has seen the strengthening of policies to improve quality of life at work. This has been achieved in areas relating to work-life balance, psycho-social risks and support for people with disabilities.

ROADMAP: STRATEGIC ORIENTATION 2013-2016



■ People

"People" constitutes one of the pillars of the group's strategic plan. This strategic area aims to anticipate future needs in terms of skills, promote mobility within the group and offer a wide range of professional training, as well as ensure progress is made towards the successful implementation of our pro-diversity policy.

■ 2015 : Key figures





SEX			
BREAKDOWN OF EMPLOYEES	Woman	Man	Total
PERMANENT	585	3 494	4 079
TEMPORARY	33	181	214
TOTAL	618	3 675	4 293

Safety roadmap

A note by the members of the AREVA Mines Committee, dated February 11, 2013, set diversity objectives for the group and formalized this commitment at the highest managerial level. The note was communicated to managers and is available to all employees on the intranet. These views were also presented to the AREVA Mines staff representative bodies.

Gender balance in the workplace

With regard to gender balance in our teams, the indicators in our mining activities are encouraging: women make up 35% of the workforce in France and **30% of the AREVA Mines Board of Directors** (40% of whom are AREVA employees). However, much work remains to be done to improve the overall numbers of women in our mining activities abroad (12%), by ensuring that women are promoted at all levels of the organization, and particularly in Management Committees, to reach AREVA's target of 26%.

Knowledge transfer

We aim to rigorously manage our technical know-how and expertise, ensuring knowledge is transferred. We do this by paying particular attention to AREVA Mines' pool of experts, maintaining and consolidating our work-study figures to contribute effectively to the professional integration of young people and preparing for the future.

The employment of people with disabilities

Our objectives are to improve our **employment rate for people with disabilities (2,72%)**. We want to recruit and integrate all talents by favoring skills and raise awareness about disability among employees and management.

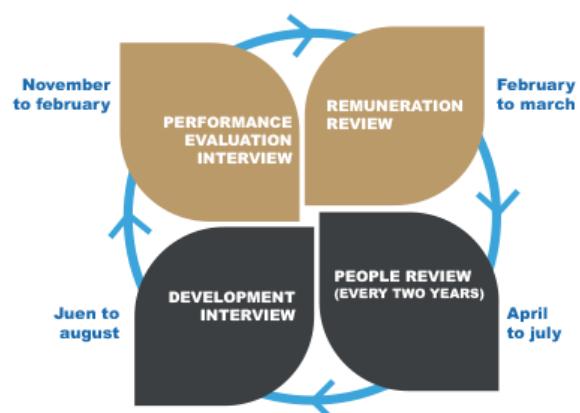
Social, ethnic and cultural diversity

We aim to develop local skills and promote mobility in order to reflect the international and multicultural dimension of our mining activities.

MANAGEMENT OF SKILLS: MANAGEMENT TRAINING CYCLE

Since 2013, we updated our support scheme for engineers and managers, known as the "Management Training Cycle". The annual review now takes place on two separate occasions during the year:

- a performance review, in which the year's performance is evaluated and targets are set for the year to come (in 2015: 99.5% of engineers and managers, 84% of non-managers);
- a development review, in which the training plan is drawn up (technical, managerial, expertise, industrial performance training, etc.).

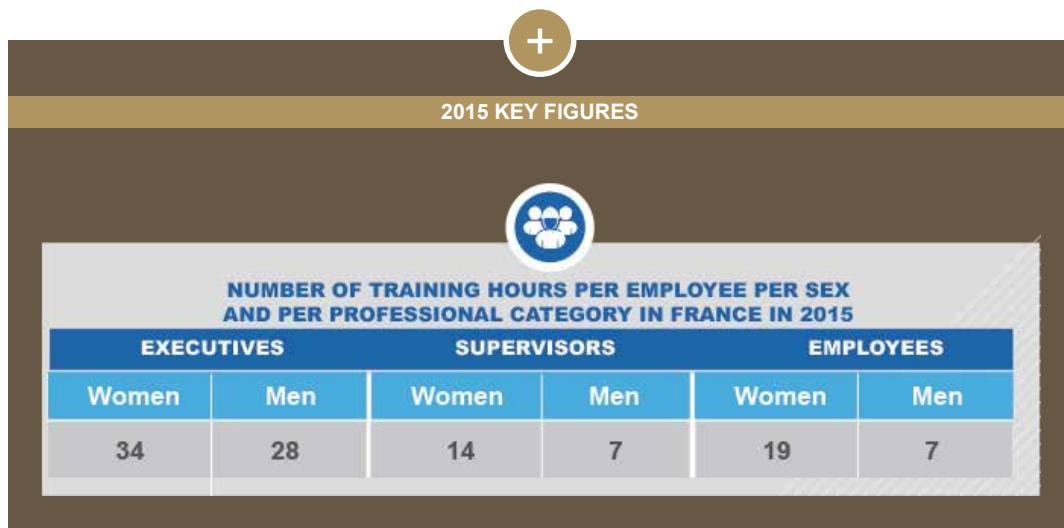


KNOWLEDGE TRANSFER

■ Access to training

■ Training Passport in France

Training is a key factor in skills development and career advancement. It also makes it possible to improve performance. In France, provision includes an individual Training Plan for each employee and access to a Personal Training Account (CPF - Compte Personnel de Formation).



■ Mining College

The AREVA Mining College offers the only technical training courses of their kind in France for activities related to the uranium mining cycle.

When it was created in 2006, the objective of the Mining College was initially to train and develop the professional skills of engineers newly recruited by AREVA Mines. Today, our needs have evolved towards supporting maintenance and development of technical skills in our core businesses of Mining, Ore Processing and Geology through a period of negative growth.

The Mining College is for:

- AREVA Mines engineers, managers and technicians from technical or support functions;
- employees of other AREVA entities who need to learn a technical skill in which the Mining College provides training, as part of a move to the group's mining activities for the purposes of job mobility.

With a view to maintaining a high level of performance, the Mining College aims to:

- meet the operational needs of sites;
- adapt to changes in our technical activities;
- help transfer our expertise.



THE MINING COLLEGE HAS...

- 24 theoretical and practical training courses
- trainers who are experts and specialists inside our activities
- courses deployed across all of our sites and at headquarters
- An internal certification system.

■ Age diversity



Age pyramid (employees in France)

Our policy with regard to older employees aims to harness the value of our most experienced workers by ensuring knowledge is passed on. These employees benefit from support to manage their careers more effectively, in a context in which people are now working for longer and planning is needed to fulfil future skills requirements.

With regard to young people, since 2005 the group has been committed to promoting work-study programs, offering annual apprenticeship and vocational training opportunities to young people and jobseekers in France. The aim for 2015 is to maintain the level of work-study participants at 5% of our France employees.

QUALITY OF LIFE AT WORK



● Creation of the AREVA Mining College	● Signature of the Diversity Charter	● European agreement in favor of Equal Opportunity ODEO (Open Dialogue through Equal Opportunity)	● Signature of the Parenting at Work Charter	● 16 new experts joined the College of Experts	● Mining activities become fully fledged «AREVA Mines» subsidiary	● Follow-up audit on Diversity Label	● New Management Training Cycle	● Agreement on gender equality in the workplace and parental provisions signed on July 1	● Local agreement for disability signed on December 20	● Group cross-generation contract signed on August 30	● Teleworking pilot set up
2006	2007	2008	2010	2011	2012	2013	2014 / 2015				
● 1st group Disability Agreement 2007-2009			● Creation of «Comité des Sages» for mining activities (Committee of Wise Persons)	● Diversity Label awarded for French sites	● Staff representative bodies set up	● Signature of a new collective bargaining agreement between AREVA Mines management and union organizations	● The new managerial model Manager@AREVA is known and shared across all the AREVA Mines sites	● New Mining College training program	● Management Training Cycle: high fulfillment rate for performance interviews	● Renewal audit for Diversity Label certification at French entities	
			● 2nd group Disability Agreement 2010-2012	● Action plan for Seniors set up	● Signature of Quality of Life at Work agreement	● Experts Day					
			● International deployment of the AGORA tool		● Tryout of teleworking with teams in mining activities in France	● Set up of a counseling and support mechanism for employees at the Bessines site					

■ Programs for work-life balance

■ Work-life balance

The issue of work-life balance occupies an important place in the Quality of Life at Work agreement. Following the signature in 2008 of the parenting at work charter, several changes have been made: more creches have been set up, a pre- and post-maternity leave review has been introduced and pay is continued during paternity leave.

■ Teleworking

On May 31, 2012, AREVA signed a "Quality of life at work" (QVT) agreement with labor and management. In July 2013, an amendment was made to include a clause on "teleworking", leading to the subsequent introduction of a pilot teleworking scheme at the AREVA Mines sites in France. This scheme has been confirmed for 2014 following the success of the pilot.

■ Prevention of psycho-social risks during organizational changes

The "Quality of life at work" or QVT agreement also launched the drafting of common guidelines for all AREVA group entities to evaluate the human impact of organizational changes, as well as the creation, in France, of a joint national observatory for quality of life at work.

Any organizational changes are made with the participation of staff representative bodies (within varying notice periods enshrined in a collective bargaining agreement) and a presentation is given to the Site Committee (Comité d'Etablissement).

Any project that requires significant development and changes to working conditions must be given special attention and examined in terms of its psycho-social impact, using an analysis table comprising around 20 elements (e.g. *clarity of roles, change management, skills development, etc.*).

■ Employee benefits

The AREVA Mines collective agreement signed in 2012 governs the relationship between the company and its employees and demonstrates the common willingness of the company and union organizations to maintain a good level of employee benefits at its French sites. The agreement deals with all provisions relating to union law and management-labor dialog, careers and professional development, working hours including leave and absences, health and contingency costs, retirement management, etc.

■ Parental Leave

All employees are entitled to take this leave and be maintained in their post following the leave.

A salary supplement is paid by AREVA Mines for maternity, paternity and adoption leaves.

For maternity and adoption leave, there is an interview conducted at the start of the leave and on return.

Employees are also entitled to take leave to look after a sick child. This applies to women and men. The retention rate after one of the three parental leaves is 100%.

EQUAL OPPORTUNITIES



Promoting diversity is vital to be able to guarantee respect for the cultures and differences of all our employees. This is a multi-faceted commitment that simultaneously covers the development of gender balance in the workplace, support for employees with disabilities, and diversity in terms of age, and social, ethnic and cultural background. As part of this commitment, in 2014 AREVA's mining activities underwent an audit to renew its Diversity Label certification at its French entities.

■ Gender equality in the workplace



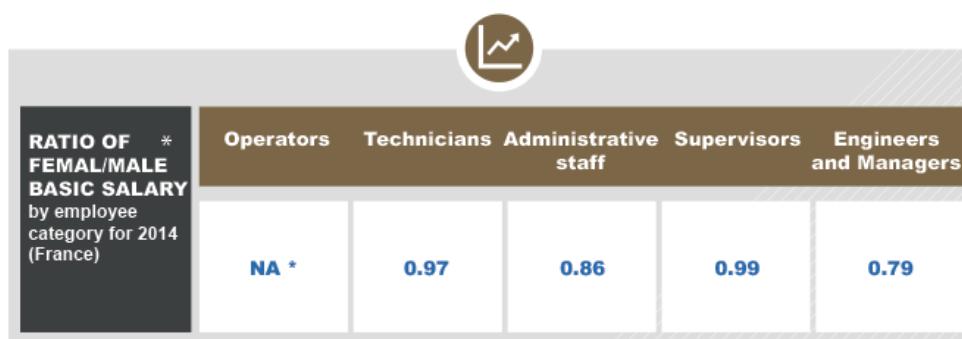
Agreement on gender equality and parenting

The agreement on gender equality and parenting dated July 1, 2013 aims to guarantee the following provisions within the French entities of AREVA's mining activities:

- Equivalent remuneration levels for men and women;
- neutralization of the impact of maternity or adoption leave when assessing the performance of managers for their variable share (bonus) and for individual raises;
- pre- and post-leave reviews for maternity/adoption/parental leave;
- adjustments to working conditions and hours during pregnancy;
- use of the leave entitlement account (CET) to finance full-time parental leave;
- consideration of working hours.

Equality of remuneration provision

An equality budget of 0.05% allows salary adjustment in the event of a discrepancy for women and older employees.



* only one person

A presentation is given to union organizations as part of the obligatory annual negotiations.

In France, the total compensation is broken down into:

- Fixed remuneration: basic salary, seniority pay, etc.
- Variable compensation related either to the post (premiums for constraints, on-call work, etc.) or to individual performance (bonus/variable portion or premium)
- Benefits: health cover, death and invalidity insurance, same for all companies in France
- Incentive and profit-sharing schemes, which operate with criteria used to remunerate collective performance.

The remuneration depends on the branch agreements and collective agreements. Every year, negotiations are held with the trade union organizations to determine the budget allocated to changes in remuneration.

■ Provisions for people with disabilities

On July 4, 2013, a "disability agreement" was signed for the period 2013-2016. The agreement covers the recruitment, integration and training of employees with disabilities, as well as support for the supported employment sector, awareness-raising actions and employee retention measures.

The main commitments formalized for the duration of the agreement include a **1.5% recruitment target** for workers with disabilities (in relation to total recruitments, proportional to group commitments).



CHAPTER

COMMITMENTS

Mining closure

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com



Mining site remediation is the final phase of the mining cycle: which consists of the exploration, project, production and post-mining phases. This phase is taken into account from the development of the mining project and starts when mining operations cease due to depletion of resources or for economic reasons. It is followed by a monitoring phase to ensure that the site does not have any impact on the environment. There is not only a technical side to the closure of any mine, but there is also a labor relations and social side to the process that seeks to limit the socio-economic impact of the closure.

FORMER MINING SITES

As part of mine remediation, the operator must limit the former mining site impact on the environment and the population to a level that is as low as reasonably achievable, by:

- establishing a remediation project as early as possible (studies, options and costs);
- placing the site in a safe condition/performing site clean-up;
- dismantling the facilities;
- installing a radiation barrier where necessary (coverage of storage areas);
- remodeling of waste rock piles and revegetation where necessary;
- implementing the environmental and radiological monitoring plan;

All these actions are implemented in accordance with existing regulations, in connection with the competent authorities and in consultation with stakeholders.

All our mining sites are covered by a specific remediation plan.



CLUFF LAKE

The Cluff Lake mining site, located in the North-West of the State of Saskatchewan in Canada, operated for 22 years (1980/2002) and produced 23,500 t of U. It consisted of 4 open-pit mines, 2 underground mines, and an ore processing plant with storage of tailings. The site underwent remediation from 2004 to 2006: filling-in of open-pit mines, rendering secure of underground mining works, demolition of the plant, coverage of tailings and revegetation of the entire site. The site continues to be monitored. The environmental results of this monitoring are compliant with regulatory requirements meaning a transfer of responsibility for the site to the State of Saskatchewan can now be envisaged.

THE DIFFERENT PHASES OF TECHNICAL REMEDIATION

There are several phases involved in the remediation of a mining site: a study phase, a works phase and a post-works monitoring phase.

■ Studies

The first study consists of defining the remediation strategy best suited to the site by taking account of its specific constraints: location, topography, climate, real estate and regulatory constraints, type of works, requirements from impact studies, environmental constraints, socio-economic environment, commitments made to different stakeholders (local authorities, residents) and by planning ahead to take into consideration new usages of the land for new agricultural, forestry or artisanal activities, etc.

The subsequent phases include a detailed inventory of the site, its history, and additional technical studies (hydrogeological, geotechnical, radiological studies, etc.) making it possible to prepare a remediation plan and draw up a proposal to be submitted to the Authorities.

■ Mining works

Mining works are determined depending on the nature of the mine and the facilities concerned:

For underground mines, the aim is to ensure the stability of the works and to seal off access to all pit bottom to ground level connecting structures: pits, cross-cuts, ascending and descending shafts. Stability calculations are done for works close to the surface and, depending on the their results, reinforcement works may be conducted. If safety cannot permanently be assured, safety perimeters may be set out on the surface, established physically in the form of enclosures, within which usage restrictions may apply; specific monitoring of upwelling of waters and potential points of emergence is planned for in advance, with particular attention devoted to an improvement in water quality. Hydrodynamic and hydrogeochemical modeling studies may be used as an aid for the forward planning of additional measures such as water treatment for example.

Open-pit mines may be either filled in with available waste rock or transformed into water features after partial filling-in. The chosen option depends on the commitments made (for example within the framework of requests for mining permits), the configuration of the site, the availability of materials, the need for water expressed by a local authority, and costs, whilst of course treating the safety of local residents as a matter of top priority. Waste rock stockpiles are remodeled and revegetated depending on the local context. In the case of operations involving mining by ISR, particular attention is paid to the quality of the water table in which the mined deposit is located. In general, regulations require that water quality returns to its original level. It is worth noting that the initial quality of these waters (waters that are naturally saline and radioactive due to the local geological context) is such as to prevent anything other than industrial use. There are several methods of restoring these water tables, such as the pumping out of waters, treating them in a surface facility and reinjecting them, or alternatively the injection of reagents enabling the treatment of waters in situ. The preferred method is natural attenuation: naturally-present or newly-formed minerals "trap" the pollutants by adsorption. Numerous studies are currently being carried out to gain a better understanding of this phenomenon and to see how it can be speeded up.

■ Ore processing facilities

To extract the uranium, the ores are processed by static or dynamic leaching depending on their uranium content (0.03 to several %) in accordance with the following process: crushing, grinding, leaching with acid or base chemicals, extraction, purification and precipitation. At the end of the process, uranium is put into solid form, known as "yellow cake" with a uranium concentration of around 750 kg/t. The solutions with uranium content pumped out as part of ISR mining operations are processed using the same extraction and purification processes.

When mining activity comes to an end, these facilities, specific to the processing of uranium ore cannot be reused, except for a similar purpose. They are dismantled and demolished. The materials resulting from dismantling and demolition are stored on site (see storage of processing residues).

	MINING TAILINGS
<p>Mining tailings are the part of the finely crushed ore which does not contain uranium, or only contains very little, and is produced following the separation of rock and uranium in the ore processing plant (production of uranium concentrate). They resemble very fine sands and contain 70% of initial radioactivity. They are stored near processing plants. Their storage and inspection make up a considerable portion of remediation and monitoring operations.</p> <p>Under the PNGMDR (Plan National de Gestion des Matières et Déchets Radioactifs - French National Plan for the Management of Radioactive Materials and Waste), AREVA is required to continue the study of the evolution of ore tailings stored in France. This action must ultimately be accompanied by the development of models to predict the long-term impact of the tailings, taking into account a normal scenario and degraded scenarios.</p>	
	WASTE ROCK
<p>Waste rock is made up of earth, sand or rocks which do not contain mineable uranium ore, or contain no uranium at all. It still needs to be extracted, however, to access the ore itself. These substances have very low levels of radioactivity. This waste rock are mostly used for the remediation of former mining sites, or stored in piles in the immediate vicinity of where the works were carried out.</p> <p>Also under the PNGMDR, AREVA has conducted sampling campaigns on several remediated sites to characterize the evolution of waste rock storage and its potential risk for the natural environment. A multi-year study is ongoing to develop predictive models of migration of uranium from the rock piles to the environment.</p>	

■ Storage of processing residues

Processing residues are the solid part that is left over and unusable after the uranium has been put into solution when the ore is processed. Residues from dynamic leaching take the form of fine clay sands with the same mineralogical composition as the original ore, along with various other additional chemical precipitates, and contain approximately 5% of the initial uranium content and most descendants of the decay chains of uranium. Their level of radioactivity is around 70% of that of the original ore. Residues from static leaching are of a coarser grain size (10 to 100 mm) and have a uranium content of several tens to hundreds of ppm. These residues are thus naturally radioactive (total radioactivity of several hundred Bq/g) and have a long lifetime.

They are stored in former open-pit mines, in ponds enclosed by containment dikes or behind a dike blocking a thalweg. These storage areas may cover tens of hectares and hold millions of tonnes of residue. These pose a major challenge when it comes to remediation.

The remediation of residue storage areas: Given their dimensions and the tonnages involved, the storage areas formed during the operating period of plants are kept in place at the end of operations. A cover, in most cases in solid form, is placed over the residues to form a geo-mechanical and radiological protective barrier, with a low level of permeability making it possible to limit risks of intrusion, erosion, dispersion, infiltration and radiological exposure of surrounding populations. This cover, of around 2 m thick, is, where possible, made of the materials available on site (waste rock from mining), creating a topography favorable to the proper management of meteoric waters and taking account of risks of future settling of the ground. When residues from static leaching are present on site, they can be put in the primary layer, which means it is possible to put all the different types of residue together in one place. Depending on the climatic context, a final covering layer of topsoil is added to allow the site to be revegetated. Tests are carried out before the start of works to check the effectiveness of the chosen materials, optimize the thickness and the geotechnical characteristics of the cover.

Storage areas can also be covered by a layer of water, which offers considerable radiological protection, in particular with regard to air quality. Certain sites are enclosed by dikes, while others may be classified as "large dams" ["grands barrages"] in the regulatory sense of the term. Stability studies are conducted and reprofiling or reinforcement works may be undertaken if necessary. It is worth noting that one of the benefits of the method of mining by ISR is the absence of residues to be managed.

All residue storage areas in France are monitored in a way which is adapted to the particular challenges of each of the sites concerned.

■ Monitoring of sites

The role of the mining operator is to limit the impact on populations and the environment to a level that is as low as possible and to achieve this through systematic and regular monitoring. This monitoring involves checking the ways in which uranium and its decay products, as well as various other substances related to mining activities, such as drained-off acid, may be transferred at sites and in the surrounding area. The monitoring network established concerns the checking of water (underground and surface water), the atmosphere (dose rate, radon, dust) on site and in its immediate environment, bio-indicators (sediments, aquatic plant life) and the food chain (samples of vegetables, fruits, milk, and fish taken close to sites). If necessary, waters originating from mining works and storage areas are treated to correct one or more of their radiological and chemical characteristics before being released into the surrounding environment. The treatments carried out are of a physical-chemical nature (addition of reagents, resins) or sometimes passive methods may be used (limestone drains, wetlands).

All these checks allow the actual dose added to the local background level of radiation (radiological impact) to be assessed on an annual basis for populations living close to sites. In France, in accordance with the French Public Health Code, this dose must be less than 1 mSv/year. It should be noted that the main factor leading to exposure is generally radon. It is difficult to determine the origin of radon, whether it is of natural or industrial origin, bearing in mind that sites are located in areas where concentrations can be naturally high (areas of granite or with the presence of naturally occurring veins of rock in situ). To adapt to the specificities of each site, measurement stations are installed which are not subject to any influence from mining activity, in an area with similar geological and topographical context to the site being monitored. The results obtained provide a benchmark for the "natural environment", and thus make it possible to reliably assess the potential impact of the site on its environment.



NIGER: PLANNING AND UNDERTAKING REMEDIATION OF THE MINING SITES THAT HAVE BEEN IN OPERATION FOR 40 YEARS

For around 40 years, SOMAIR and COMINAK have exploited the uranium deposits in the department of Arlit, using open-pit mining techniques in the case of SOMAIR and underground mining techniques for COMINAK, and practically the same ore processing techniques to produce the Uranate concentrates for the market.

In accordance with the existing regulations, the mining companies have each prepared a master plan for the remediation of their operated sites and a surveillance network to monitor the effectiveness of the measures.

The objectives of a remediation plan are as follows:

- Ensure long-term stability in terms of public health and safety
- Reduce residual impacts to levels that are as low as reasonably possible (ALARA)
- Limit the land surface subject to usage restrictions
- Successfully integrate the site into the landscape of its environment
- Support the reconversion of the site
- Inform of and share remediation options with stakeholders
- Comply with the regulations in force

These master plans are regularly reviewed as mining operations evolve.

In 2015, an update study was launched in line with the development plans for the mines and the projected closure dates. The aim is to plan ahead so that the projects are adapted for implementing the closures that will ultimately be put into effect.

A funding mechanism for future remediation work has been defined and implemented through the establishment of a stock of finished product.

"Site remediation project" teams have been set up on the two mining sites.

The project objective is to propose and secure stakeholder approval for a technically proven and financially secure solution for the remediation of each site. The technical solutions adopted must meet the requirements of the Nigerien law and international standards, including AREVA standards. The study will also include societal issues related to mine closure projects.

A technical committee has been set up to assess the technical studies prepared for these remediation projects. Members include representatives of the different shareholders and the authorities in charge of these areas of expertise.

ENVIRONMENTAL MONITORING IN FRANCE

Monitoring the environment involves checking all the ways in which uranium and its decay products may be transferred at former mining sites and in the surrounding area. This mainly means monitoring water, the atmosphere, the food chain and plants.

This monitoring is carried out within the framework of prefectoral orders, specific to each of the sites and covered by reports submitted to the Government authorities on a regular basis.

Each year, over 6,500 analyses of air, water and the food chain are performed.

■ Air monitoring

This monitoring chiefly consists in measuring exposure to ambient radioactivity, namely ionizing radiation and the air inhaled. Measurements are taken continuously, both at the site and in the nearby area, using specific dosimeters.

■ Water monitoring

Hydrological and hydrogeological studies are performed at sites before mining operations even begin, allowing better understanding of the environment type and the composition of local water. On certain sites, the water undergoes treatment every year before being discharged back into the natural environment to ensure it meets the environmental standards in force. Our experts study new water treatment processes which are then applied. One process they have implemented, for example, is so-called "passive" treatment using limestone drains, by adsorption into beds of sludge or turf, and they have also optimized the physical-chemical treatment method, which is currently the method most frequently used.

■ Monitoring of plants and the food chain

In addition, sampling and analysis are regularly carried out on plants and other components of the food chain, including aquatic and land fauna, aquatic flora, the fruit and vegetables produced in nearby gardens, and the milk supplied by animals that have grazed in meadows near sites or drunk from receiving water courses.

ENVIR@MINES PROGRAM

Our teams of researchers and experts are working in the following fields under our "**Envir@Mines**" research and development program:

- The long-term evolution of mines processing waste in France, Gabon and Niger,
- The environmental footprint of waste rock in France under the French National Plan for The Management of Radioactive Materials and Radioactive Waste (PNGMDR),
- Water treatment, in preparation for the regulatory changes regarding the new Water Quality Standard (NQE) in France,
- The understanding of the evolution of aquifers used for in situ recovery in Kazakhstan and Mongolia in the middle and long term,
- The development of new technological measuring tools (e.g. prototype for measuring bioavailability in natural waters).



FIND OUT MORE

"Envir@Mines" R&D in figures:

- 12 collaborative partners
- 5 theses defended since the creation of the program in 2010 (2 planned for 2016)
- 88 scientific communications since 2010 (6 public reports)

Source AREVA

MAJOR CHALLENGES OF TODAY AND TOMORROW: MANAGEMENT OF POST-MINING FOR AREVA MINING ACTIVITIES

Following the mining of uranium ore, mining sites are remediated to limit the residual impact of activities and ensure safety and respect of the environment.

The remediation and monitoring of these sites comes under the scope of a demanding and evolving regulatory framework. While these activities comprise risks, we also see them as an opportunity to draw on and highlight the areas of expertise of our teams, covering the major phases of the remediation and post-mining cycle.

This phase must be prepared as far upstream as possible, from the exploration phase. It requires the mobilization of specific scientific expertise as well as technical, economic or even societal and labor relations expertise



We would therefore like to offer you the opportunity to learn about the major challenges related to these businesses, and to come with us around the world to better understand the main environments in which we work. The main challenges we encounter on this scope we work in are:

- Management of waste rock and tailings
- Water management
- Stability of the mine and dikes
- Social acceptability
- Sustainable monitoring and long-term prospects
- Radiological impact
- Economic optimum

■ Preparing for remediation from the exploration phase

Example in Mongolia

Challenges	Identity card of the mining project
<ul style="list-style-type: none">■ Social and societal acceptability of exploitation of uranium deposits projects.■ Implementation of ISR technology.	<ul style="list-style-type: none">■ 25 mining licenses (in 2014) in the Sainshand basin (Dulaan Uul and Zoovch Ovoo) and the Dariganga basin.■ ISR (In Situ Recovery) process pilot project in 2011 at the Dulan Uul site.■ Launch of the feasibility study in February 2014.

Remediation Plan – Starting Point



- Periodic monitoring through a network of piezometers
- Remediation of drilling platforms
- R&D Program: demonstration of the natural demineralization of aquifers
- Hydrogeological studies
- Plantation of Saxauls (local trees, preserved) in rehabilitated areas.

■ Planning for the remediation of a mining site in operation for 15 years

Example in Kazakhstan

Challenges	Identity card of Katco site
<ul style="list-style-type: none">■ Start remediation during an activity in operation.■ Management of waste generated by mining operations■ Model the overall behavior of the remediation of aquifers.	<ul style="list-style-type: none">■ Operated by Katco since 1996■ Mining of uranium deposits by In-Situ Recovery (ISR) using acid■ Uranium concentration, purification and attachment plants■ Mine in operation and in-depth remediation plan■ Uranium reserves: sized for a production of 4,000 tU/year

Mine in operation and in-depth remediation plan



- Closure of production wells at the end of their lifecycle
- More in-depth remediation plan
- Feasibility study to restore the site to its primary use (forestry)
- R&D program to confirm and speed up the remediation of the aquifers tested on-site mainly through natural mitigation

■ Planning the remediation of a mining site in operation for more than 30 years

Example in Niger

Challenges	Identity card for the SOMAÏR ssite in Niger
<ul style="list-style-type: none">■ Remediate a site with a history of several decades in a desert area.■ Social and societal impact of the closure, in particular for the town of Arlit.	<ul style="list-style-type: none">■ Site mined since 1971■ Mining of uranium deposit in Open-Pit Mines then dynamic and static processing plant■ Production of Yellow Cake: nearly 60,000 tonnes with a target of 2,100 tU/year.

Mine in operation and in-depth remediation plan



- Site subject to environmental monitoring.
- Overall remediation plan developed, comprising nine areas to remediate and additional studies underway.
- Modeling of the flooding of the open-pit mine.
- Re-estimate of the volumes to implement.
- Stripping test to estimate the volume of radiologically contaminated materials.
- Test area for the implementation of the covering over tailings.

■ Preparing the transfer of a remediated site to a supervisory authority

Example in the USA

Challenges	Identity card of the American mines
<ul style="list-style-type: none">■ Transfer of a remediated site to the U.S. Department of Energy (U.S DOE).	<ul style="list-style-type: none">■ 2 main sites: Lucky Mc & Shirley Basin, mined from 1953 to 1993.■ Open-pit mine, underground mining works with processing plant and In Situ Recovery – by alkaline leaching (first industrial application in the USA).■ More than 27,000 tonnes produced and 20 million tonnes of tailings.

Monitoring of the remediated site



- Full remediation and transfer of site to the U.S. Department of Energy (DOE).
- Supervisory authority: US Nuclear Regulatory Commission (NRC), supervising monitoring of the site through the issuing of a license.
- Monitoring of the storage of tailings: Lucky Mc (5 boreholes), Shirley Basin (14 boreholes), all analyzed 4 times/year; parameters analyzed: level of water, pH, temperature, heavy metals, uranium, radium and thorium.
- Monitoring of two mining sites in their entirety: 26 boreholes, 5 surface water areas, 2 times/year.

■ Ensuring the monitoring and inspection of the remediated sites

Example in Gabon

Challenges

- Reconstruction of 201 dwellings for populations following the detection of a radiologically contaminated dwelling into the former mining city (cumulative dose comprised between 1 and 5 mSv/year), in cooperation with the Gabonese State.

Identity card of the COMUF remediated mine

- 5 deposits in the Haut-Ogoué in Mounana mined from 1958 to 1999.
- Open-pit mine and underground mining works with a processing plant.
- 7,600,000 tonnes of ore extracted at 3.73 %.
- Production of Yellow Cake: 26,600 tonnes.

Monitoring of the remediated site



- Remediation of the site from 1999 to 2004, validated by the IAEA upon request by the Gabonese authorities: official report - August 2006.
- Parameters used:
 - Water: 100 samples per year
 - Air: 14 measurement stations
 - Food chain: manioc
 - Stability of the dike (topographical measurements)
- Independent inspections of the environment performed by the National center for prevention and protection against ionizing radiation and by the IAEA.
- Follow-up of former workers through the Mounana Health Observatory.

■ Providing a second life for a remediated site

Example in France

Challenges

- Ensure the restructuring of the former mining site in an economic context for implanting new projects.

Identity card of the remediated mine of Bosc-Soumont

- Site in Hérault mined from 1959 to 1997 and remediation from 2001 to 2005.
- Open-pit mine and underground mining works, processing plant.
- 4 million tonnes of tailings.
- Production of Yellow Cake: 14,630 tonnes.
- Site reconverted into a zone for artisanal activities and installation of a solar power plant

Site reconversion and community involvement



- December 2005: urban part of the site (around 115 hectares) sold by AREVA to the Communauté des Communes du Lodévois [association of Lodevois municipalities]. This zone for industrial, artisanal and office activities, with a total surface area of 120 ha, is now home to three companies, employing a total of 125 members of staff.
- Launch of the project to install 35,354 solar panels over 16 hectares: - 13,397,000 kw = annual electrical consumption of around 7,400 people living near the solar power plant.
- Inauguration of the solar power plant in November 2013.



CHAPTER

COMMITMENTS

Innovation

Extract from Responsible Development
report 2015 on Areva's Mining Activities

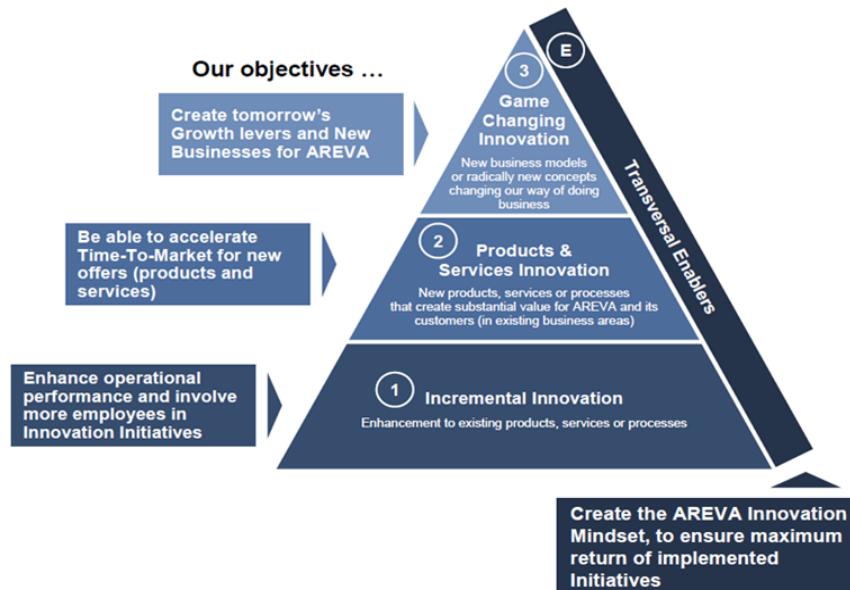
The complete report is downloadable on :
www.csr-mines.areva.com

INNOV'ACTION PROGRAM

“ Under AREVA's strategy, one performance area is devoted to "Technology and Innovation". Within AREVA Mines, the promotion of innovation to serve performance is the goal of a specific program: Innov'Action.

Innov'Action aims to:

- Strengthen the culture of innovation,
- encourage teams to propose innovative ideas and help them make these ideas a success,
- accelerate the rate at which new solutions are developed and brought to market,
- bring technological breakthroughs and new areas of activity to maturity for AREVA.



These aims are based on three major levels of innovation:

- **incremental innovation** (the improvement of existing solutions),
- **the creation of new products and services** within existing businesses, or finally
- **breakthrough innovation**, with the creation of new models of the future.

At AREVA Mines, an innovation steering committee was created in 2015 to enable decisions to be taken on the pursuit of certain innovative ideas, in particular those with high-added value that require the investment of additional budget. This committee is chaired by a member of the management committee of AREVA Mines, the Operations Department, the Geosciences Department or Senior Management depending on the topics addressed.

ENVIRONMENTAL INNOVATION: IDENTIFY, EVALUATE AND LIMIT LONG-TERM RISKS

R&D serving the environment

In the face of regulatory and societal demands, our mining activities must meet the expectations of external stakeholders (authorities, associations/NGOs, employees, governments, the scientific community, etc.) in a **scientifically proven and transparent** manner.

The environmental issues on which research efforts are focused are:

- issues relating to water management and treatment,
- understanding, prediction and modeling of contaminant migration over the long term,
- anticipation of regulatory changes and the requirements of authorities,
- development of new tools for the sampling and analysis to understand environmental impacts.



INFORMATION

Since 2014, actions relating to the Circulars of 22 July 2009 and 8 August 2013 (conduct of environmental assessments and inventory of mining waste rock reused outside of mining sites) and to the French National Plan for the Management of Radioactive Materials and Radioactive Waste (PNGMDR) (stability of dikes, water treatment, effectiveness of coverings with respect to radon, survey of waste rock stockpiles, study of sedimentary accumulations downstream of the sites) continued and led to a number of reports that were submitted to the public authorities.

Our high level of expertise, animated by our international teams of researchers and College of experts, in partnership with bodies from academia and the professional world (the Universities of Poitiers, Paris VI, Paris VII, Granada, Brussels, Manchester, Washington, Ecole Polytechnique Fédérale de Lausanne, as well as the CEA, CREGU, NAGRA, Mines PariTech) are working with operational teams based on our sites.

Envir@Mines program

Our teams of researchers and experts are working in the following fields under our « Envir@Mines » research and development program:

- The long-term evolution of mines processing waste in France, Gabon and Niger,
- The environmental footprint of waste rock in France under the French National Plan for The Management of Radioactive Materials and Radioactive Waste (PNGMDR),
- Water treatment, in preparation for the regulatory changes regarding the new Water Quality Standard (NQE) in France,
- The understanding of the evolution of aquifers used for in situ recovery in Kazakhstan and Mongolia in the middle and long term,
- The development of new technological measuring tools (e.g. prototype for measuring bioavailability in natural waters).



OPERATIONAL INNOVATION



■ Our definition of performance

The performance plan for AREVA's mining activities has been drawn up to serve our industrial ambitions. Cost control and the improvement of our processes are therefore vital components to:

- ensure our mining activities remain sustainable while upholding the best standards,
- improve our performance in terms of health, safety and the preservation of the environment.

The role of our Performance teams is to:

- help define and apply the operational strategy of sites through Long-Term Mining Plans (Long-term production plans combined with actions to work on to achieve the levels of Performance necessary to meet the objectives set by these Plans)
- participate in the process of identifying, assessing and managing risks or opportunities to achieve production objectives
- to help sites steer their operational performance on a daily basis and identify new opportunities to make savings and avoid wastage.
- to help teams to strengthen our Performance culture through coaching or training initiatives.
- We believe that in order to succeed it is essential to ensure that all our teams are mobilized and that we are thorough in ensuring our everyday work is carried out in compliance with the rules of best industry practice in the field.
- The aim is simple: allow our teams to work efficiently in a secure environment with the aim of identifying new opportunities to make savings and avoid wastage.



FIND OUT MORE

In 2015, over 300 additional people were familiarized with or trained on performance tools in Kazakhstan, Niger, Canada and France, meaning that in AREVA Mines a total of over 1200 people have now been familiarized with the tools, which represents almost 25% of our associates.

We have also opened up access to our training courses to certain of our sub-contractors present on our sites, in Kazakhstan in particular.

■ « Lean Management » culture

In 2015, our teams continued to deploy the Lean Management tools on our operating sites:

- a program of awareness-raising and training in Lean Management in order to generalize the implementation of the tools: e.g. 6 sigma, 5S, visual performance management, *value stream mapping* (identifying the physical and information flows of a process and checking its capacity to meet customer expectations), CONQ (identifying and controlling the costs of non-quality), etc.
- a *Lean Six Sigma* training program leading to qualification, provided by AREVA University and our sites,
- "Green Belt" projects.



FIND OUT MORE

We do not provide details of the savings made for reasons of confidentiality. However, the first results surpassed the principal thanks to the efforts made by our team on the field.



FIND OUT MORE

Focus on our performance culture: Green Belts within our mining activities.

The Lean Six Sigma initiative is one of a number of performance improvement tools that can be applied across a range of sectors, although it had its origins in the automobile industry

"6 Sigma" projects are led and coordinated by our employees who are trained in these techniques. When an associate ran several projects successfully, he takes the title of "Green Belt".

Our teams within AREVA Mines have count 410 Green Belt-certified employees among their number at our Niger, Kazakhstan and France sites

OUR TEAMS AT THE HEART OF INNOVATION

■ College of Experts

AREVA Mines intends to mobilize all of its expertise to support its technological excellence. To achieve this, it relies on a "college of experts" system and organizes a renewal campaign every two years. Highly integrated into the operational teams, these experts continually develop their expertise through the conduct of their missions.

The Mining Business Line now counts:

- 33 level-1 experts;
- 24 level-2 experts;
- 4 level-3 experts.



AN EXPANDING COLLEGE OF EXPERTS

61 EXPERTS



46 RENEWALS

8 NEW EXPERTS

7 UPGRADED

While the France-based experts form the majority (69%), six other countries are now represented: Canada, United States, Niger, Kazakhstan, Gabon, Australia and since 2015 Mongolia too. The experts in our mining activities are specialized in disciplines including **geology, mining, processing, radiation protection / environment, and medicine**.

The results of the 2015 campaign show a greater international diversification of the College of Experts. They are also in line with the geographic diversity goal set by AREVA Mines, to better meet the needs for specific local knowledge of the sites.

In addition, in order to more actively promote operational know-how, a complementary system of "**Specialists**" has been created within the Group. Eight of these specialist profiles have been identified within our activities, some of whom will be able to join the College of Experts in the future.

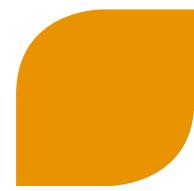
■ Committee of Wise Persons

Since 2010, the mining activity Committee of Wise Persons has united experts from levels 2 and 3. Along with AREVA Mines Management Committee, this committee works to:

- outline strategic areas for research and development,
- share comments or opinions on AREVA Mines,
- validate innovative ideas.

■ AREVA Awards

The success of our approach to responsibility also depends on the engagement of all our teams, at all levels and in all areas.



CHAPTER PERFORMANCE

Extract from Responsible Development
report 2015 on Areva's Mining Activities

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www.csr-mines.areva.com



*Our approach aims to improve our practices based on
seven major responsibility commitments*

For us, "Being a responsible mining company" means identifying key challenges and opportunities while prioritizing our actions.

OBJECTIVES OF RESPONSIBILITY

Risk management and prevention are two of the pillars of our daily management, in particular in the fields of occupational safety and security, radiation protection and the environment. We are continuing the work already begun.

The context of the uranium market has led our teams to focus efforts in the field of industrial performance, to continue **to supply our customers by achieving the best production costs** while maintaining our mining activities in the countries in which we have a presence, in compliance with our corporate responsibility commitments.

Around the world, our practices must be strengthened in the fields of **community involvement and post-mining management**. This therefore requires the identification and implementation of a mid-to-long-term strategy, which we are currently defining.

INFORMATION

The former CSR Reports bear witness to a transitional period, during which our strategies, related roadmaps or even reporting protocols are evolving. We have set the goal of reporting on our level of performance in a more fine-tuned manner in the 2016 CSR Report.

AREVA's mining activities respect fundamental human rights and put this respect into practice by complying with the regulations in force, implementing the AREVA Values Charter, and managing risks. In 2015 we developed operational tools specific to Human Rights, in 2016 a specific plan for its deployment will be implemented.

Finally, the acceptability of our mining activities is essential, requiring constant dialogue and consultation with our local stakeholders over these key areas of responsibility. We are pursuing these relationships and keeping our commitments in terms of transparency and partnerships.

OBJECTIVES INDEX

Occupational health and Radiation protection

- Integrate into the operational roadmap of AREVA Mines the goals of the AREVA 2014-2016 Health and Safety policy and improvement plans relating to the "health" diagnostics carried out in 2013/2014 in the countries in which we have a presence.

Examples of practical implementation in 2015:

- The operational roadmap of the Business Line Mines continues to be integrated both in France, where for instance an INDEPENDENT Group occupational health service has been created, and also internationally, in countries where we operate.
- No employee has been exposed to a dose exceeding 20 mSv

Occupational safety

- Pursue the implementation of the AREVA Mines roadmap, based on four pillars: leadership and culture, organization and skills, standards and procedures, and risk analysis.
- Zero fatal accidents.
- Frequency rate (IR1) of less than 0.8.
- Complete the deployment of the OHSAS 18001-certified occupational health and safety management system at KATCO.

Examples of practical implementation in 2015:

- The frequency rate recorded is less than 0.8 (0.77).
- All of the mines in operation are OHSAS18001 certified.
- A safety culture diagnostic has been carried out for the full scope of AREVA Mines.

Environment & Biodiversity

- Integrate the goals of the AREVA 2014-2016 Environment policy and improvement plans relating to the results of the Health, Safety and Environment mapping into the operational roadmap.

Examples of practical implementation in 2014:

- Under group provisions, the 2014-2016 environmental policy continues to be rolled out and applied in France and abroad.
- Exercises in preparation for emergency situations were regularly carried out on our sites.
- All of the mines in operation are OHSAS14001 certified.

Relations with our stakeholders

- Define the AREVA Mines strategy and roadmap around three pillars relating to governance, risk reduction in the short and medium-term and societal monitoring, taking into account the challenges related to post-mining.

Examples of practical implementation in 2015:

- Continued operation of the Mining Social Committees (CSM), which have gained in maturity in the handling of social issues in addition to validating the societal projects of the countries. 9 committees have been implemented.
- Revision of our stakeholder mapping methodology
- Definition of the program covering deployment over the next 5 years of the Irhazer project in northern Niger with participation of the stakeholders. This development project will build in synergies from other actions already initiated in the area.

Commitment to employees

- Deploy the Management Training Cycle.
- Diversity commitments: 26% women on the Management Committee, renew the experts campaign, improve the employment rate of disabled persons, promote mobility for the development of skills between the countries in which we have a presence.
- Supporting maintenance and development of technical skills in our core businesses of Mining, Ore Processing and Geology.
- The Mining College training plan for 2016 provides for training of over 179 trainees, with 6 sessions deployed on-site and 17 sessions in France

Examples of practical implementation in 2014:

- Management Training Cycle: the fulfilment rate for 2014/2015 performance interviews was 99.5% for managerial categories and 84% for non-managerial. 70% of key positions in AREVA Mines are held by Talents.
- The managerial model Manager@AREVA is known and shared across all AREVA Mines sites in order to better equip managers to support their teams in dealing with the challenges they face every day in the current context of the Group's transformation. Our managers, in France and on our mining sites - Australia, Canada, Kazakhstan, Namibia, Niger, Mongolia - have received training and now share the same management approach in terms of skills and behaviors.
- 210 AREVA Mines employees were trained under the Mining College implemented in 2015, representing 16 training sessions (10 in France and 6 in the sites).

Innovation

- Operational performance: develop our results-oriented culture, improve our productivity and generate gains.
- Innov'Action: identify feasibility for two patents in 2015 and in 2016.

Examples of practical implementation in 2015:

- Over 300 additional people were familiarized with or trained on the performance tool which represents almost 25% of our associates.
- Innov'Action : dépôt de quatre brevets, objectif dépassé.
- Création du comité de pilotage de l'innovation AREVA Mines

Ethics & Transparency

- Define the roadmap relating to the improvement of our operational practices in terms of Human Rights.
- To base on the GRI G4 version "core" level to prepare the 2015 AVREVA Mines CSR Report.

Examples of practical implementation in 2014:

- As part of the updating of the Environmental and Social Impact Study for the Imouraren project, the Human Rights section was treated.
- The redaction of this report was based on the GRI G4 version « core » level.

KEY INDICATORS

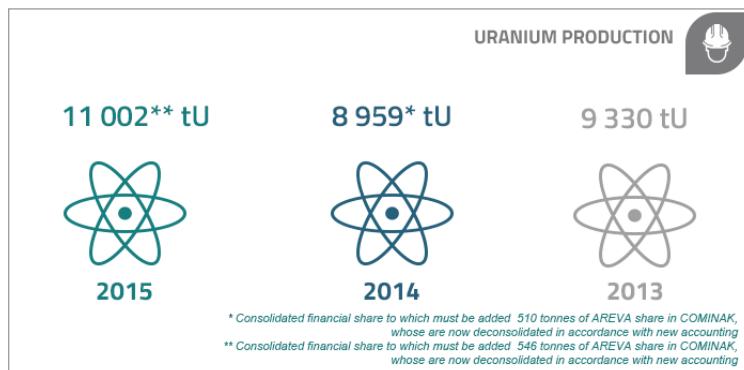
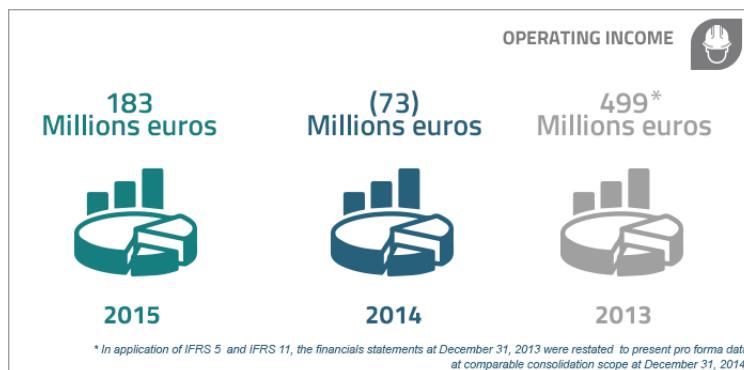
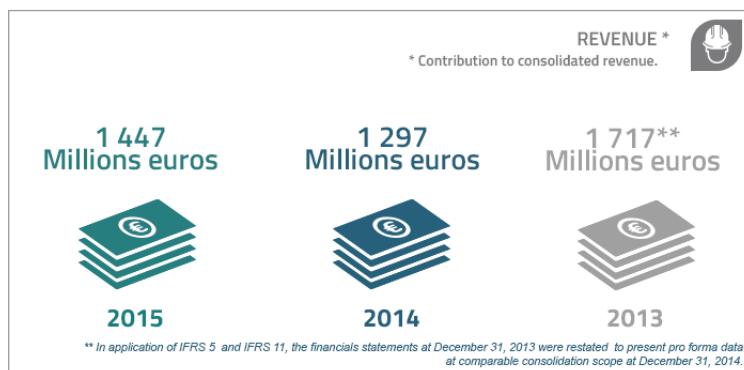
The quantitative data presented is consolidated for all AREVA Mining Business Line operations.

The data provided covers the period up to December 31, 2014. Indicators pertaining to radiation protection and occupational safety cover "our workers", which in this case refers to both employees and sub-contractors.

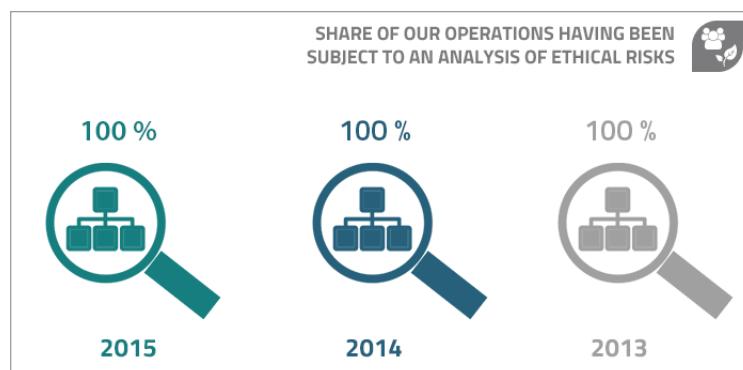
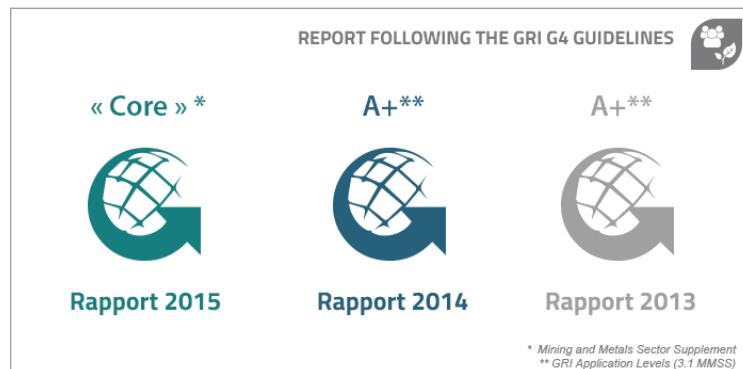
This list is likely to change over the next RDRs, depending on materiality results (to 2016), and/or if the indicators can cover the entire scope, and/or if we have been able to deploy new reporting protocols to justify the presentation of other indicators.



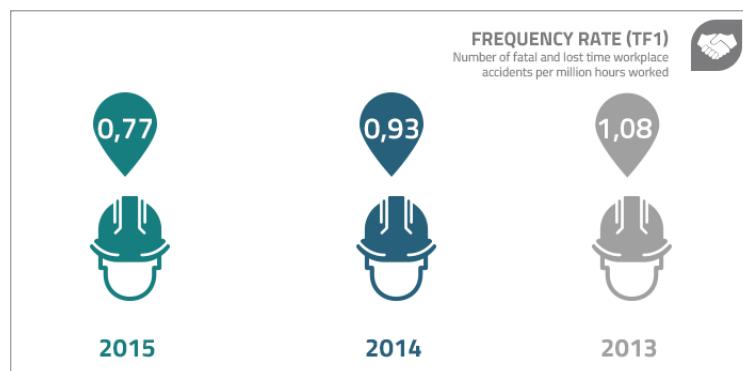
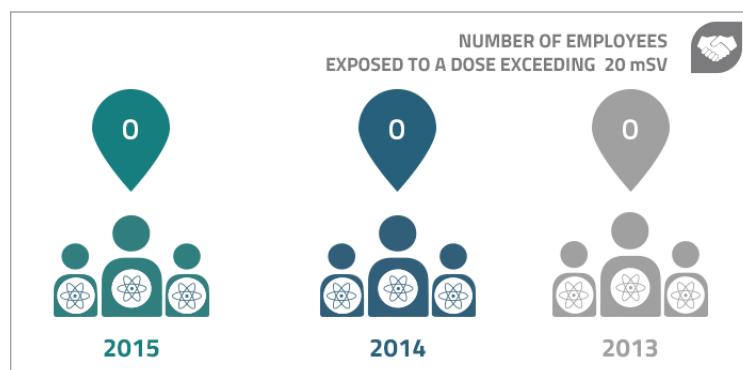
PROFILE

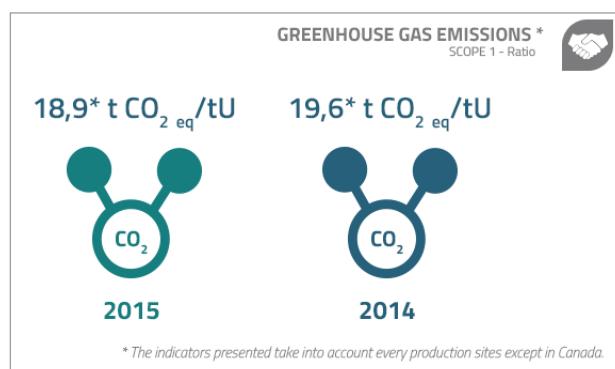
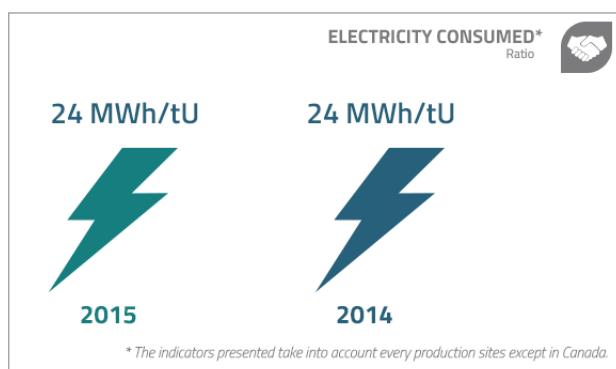
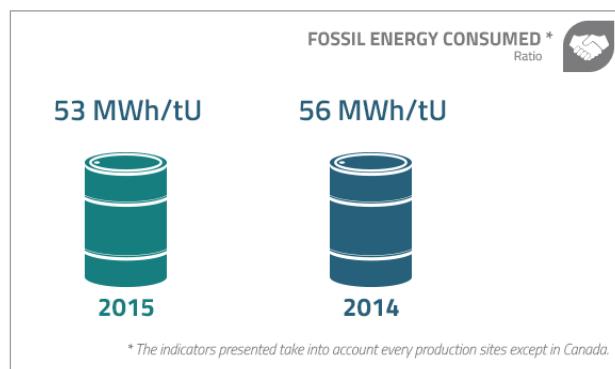
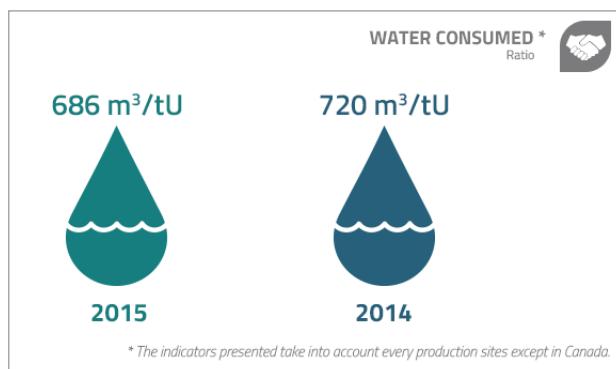


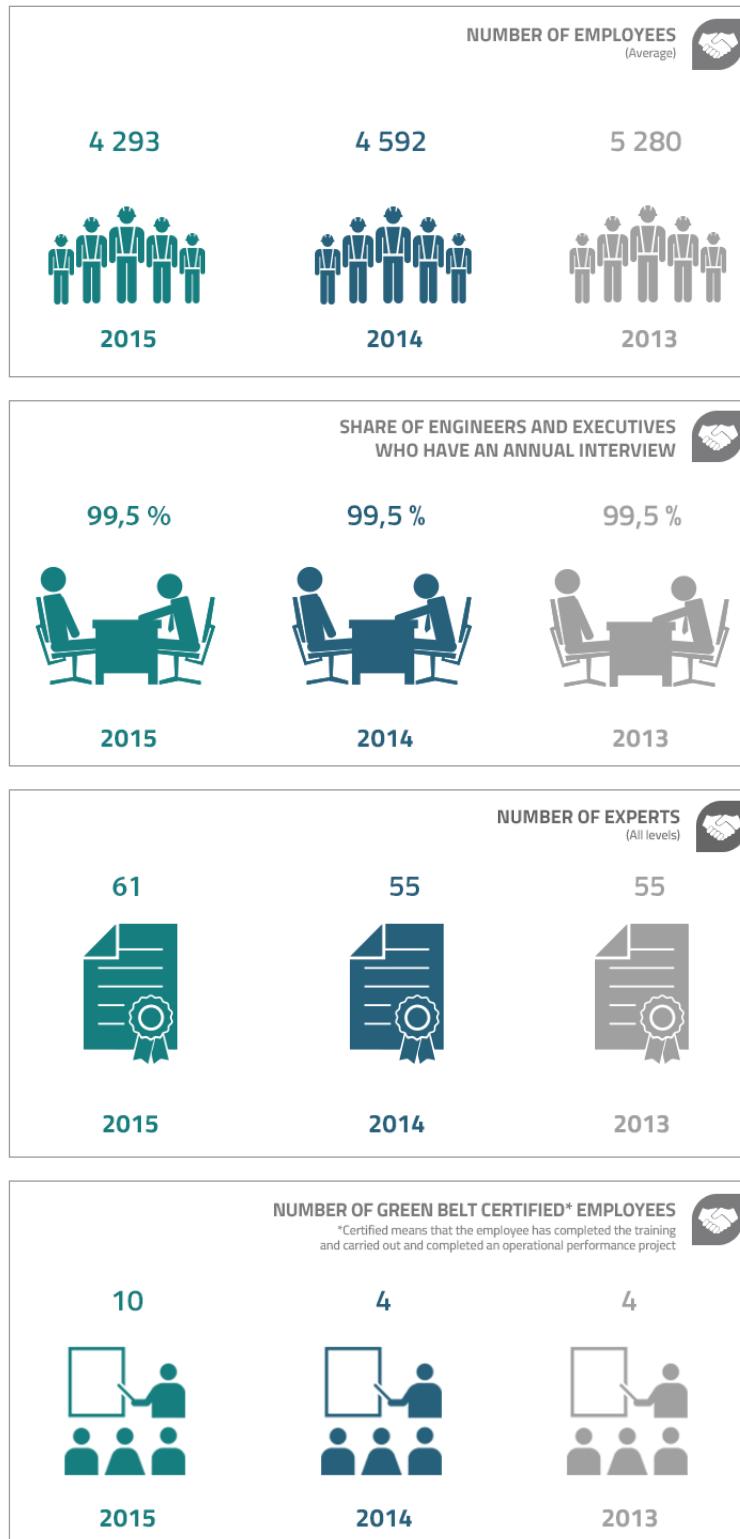
CSR APPROACH



COMMITMENTS









"Paperless"

This annual report, the Corporate Social Responsibility Report, prepared by the Corporate Social Responsibility Department of AREVA Mines, is the result of the mobilization of all our teams at our headquarter and our sites.

We have created a **website completely devoted to this annual report**, and have discontinued the production of a hardcopy version. Our readers can build their own PDF version of the report, targeting subjects of interest to them, in the "**Download**" section.

Although this report cannot provide an exhaustive response to all our stakeholders, we have endeavored to present the most relevant performance data for the period covered.

We would like the various groups of stakeholders associated with our mining activities to become progressively more involved in the preparation of this report. To this end, we offer a "**Participate**" feature, so that people interested in our activities can take part in the materiality exercise for the 2015 CSR Report and contribute to a questions forum in the "**Contact us**" section, which we will answer in our reports.

Reporting period

The 2015 CSR Report is the sixth edition of this annual exercise. The previous reports are available for download in the "**Media Center**" and at the foot of each page of the website.

The availability schedule for the CSR report serves to:

- provide the report to our stakeholders earlier in the year, to allow them to better assess the performance of year n-1,
- bring closer the publication of the CSR report with that of financial documents, generally published at the end of the first quarter of each year (March / April), to anticipate the requirements of the Grenelle II law, which AREVA Mines SA may be subject to, and to align the audit period of the AREVA Mines' CSR Report with that of the AREVA Statutory Auditors exercise on non-financial informations,
- Work on the G4 version of the GRI, better integrating the materiality exercise upstream from the CSR Report process, as well as updating our reporting protocols.

2015 CSR Report is a report with the following characteristics:

- it covers our responsible commitments performance for the year 2015, which means the reporting ran up to December 31, 2015,
- it has been prepared according to the initial orientations of the materiality exercise underway within our activities, which is why we have identified seven responsible commitment families,
- it is based on the essentials or "core" criteria of the G4 version of the GRI,
- we provide our stakeholders with a new "**Participate**" feature to allow them to take part in the next CSR Reports production process.

The 2015 CSR Report will be the outcome of a dynamic reporting approach, with:

- a presentation of the consolidated results of our materiality exercise, integrating the feedback of our stakeholders through the "**Participate**" feature,
- a more fine-tuned analysis of performance with regards to our commitments,
- improved coverage of international data (for example the "commitment to employees" chapter mainly covers France),
- in parallel, the ramp-up of the sustainable development reports of our sites.



■ Scope of information

In application of AREVA's strategy and policies and the initial indications provided by our 2013-2014 materiality matrix, this report aims to **present the performance linked to the main responsibility challenges** of the mining activities under seven main commitment families: occupational safety, health and radiation protection, environment and biodiversity, societal commitment, commitment to employees, mining closure, innovation.

The CSR Policy section sets out our underpinning commitments.

The data given cover, as the previous report, the assets for which AREVA acts as operator in uranium mining activities: **exploration, project development, production and remediation**. The consolidated data target activities in **France, Canada, Niger, Kazakhstan, Mongolia, Gabon and Namibia**. When the scope only covers one given country, this is mentioned (in particular in the commitment to employees chapter).

In the case of certain quantified social data, the only available information is for year n-2.

There has been no reformulation of information in this CSR Report in relation to previous reports.

There are no issues identified outside the organization as relevant.

■ GRI and third party verification

Within the scope of mining activities, our teams applied, for the first time, the guidelines set out in version G4 of the Global Reporting Initiative (GRI), Mining and Metals Sector Supplement (MSSS).

We therefore meet the commitments made as part of our involvement in the International Council on Mining and Metals (ICMM), and the related schedule of targets which we announced in the 2012 CSR Report. This approach is carried out in compliance with the Grenelle II law, which provides regulatory guidance on the extra-financial reporting of companies.

Once again, this year, we conducted an independent verification of the content of this report in compliance with the ICMM Audit procedure and the AA1000 ethical auditing principles. The acknowledgement received from the auditing firm is available for [download](#).

Each year the AREVA group conducts an audit on a sample of extra-financial indicators as part of the independent verification of the Reference Document. As such, a number of our mining sites may be selected for the review of these indicators. Our sites in Niger (Cominak and Somair) and our site in Canada were audited in 2016.

■ Reporting protocol

For environmental, social, economic and ethical topics, **internal technical protocols** have been developed for several years. They enable us to answer to several indicators set out in the GRI guidelines.

French regulatory constraints do not allow us to report on categories of indicators relating to diversity covered by other national regulations.

Finally, as far as possible, for all topics on which we do not have or are updating technical protocols, we strive to **take the GRI approach into account** when relevant and applicable to the scope of our activities.



CHAPTER CASE STUDIES

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HEALTH AND RADIATION PROTECTION

■ Health activities for employees and the community

■ Niger, Health activities for employees and the community at large



Niger

The goal: Outbreaks of meningococcal meningitis occur seasonally every Winter in sub-Saharan Africa. Niger is no exception. In January 2015, a severe outbreak occurred in Niger, particularly in its southern area in Niamey.

In addition to awareness raising activity and vaccination recommendations for our employees, AREVA Mines Niger, along with SOMAÏR, COMINAK and IMOURAREN, decided to support the Nigerien Ministry of Public Health and the Centre for Medical and Health Research (CERMES) in their efforts to eradicate the disease.

To help it in this fight, CERMES received a donation of laboratory equipment for carrying out analyses, worth a total of more than € 68,500. This assistance will enable CERMES to improve laboratory diagnosis of infection and therefore patients to receive treatment more quickly.

According to the director of AREVA Mines Niger, "Health is a major priority and in view of the health challenge that we face with meningitis, it was important for our mining companies to mobilize to support the public authorities and healthcare stakeholders. Our assistance will help strengthen the effectiveness of diagnosis and therefore combat the disease more effectively".

■ Reducing the exposure of workers

■ Quick change pumps, an innovation to serve radiation protection and occupational safety



Canada

The goal: Introducing standardized pumps in the ore pulp reception and storage areas has made it possible to considerably shorten maintenance times, for the benefit of the health and safety of workers.

Reduced maintenance times

Four hours: that's the length of time that maintenance operators used to spend in the ore pulp reception and storage areas of the McClean Lake mill, when they carried out inspection and repair work on the different pumps. This is a long period of time, because the uranium content of the ore processed at the mill exposes them to around 0.3 mSv* during that period. To reduce the impact of these operations on the operators, the maintenance teams have displayed their talent for innovation by establishing a single model of pump. The innovation has proven to be a genuine industrial success, with operation times falling to around 10 minutes per operation, representing a 96% reduction in exposure of the workers.

Ergonomics completely rethought

The main advantage of these new pumps: their ergonomics. The quick removal system eliminates manual handling operations and enables the use of an electrical device to move the pumps into the maintenance workshop. Injuries and back pain are reduced considerably. Today, operators can replace standardized and interchangeable equipment quickly and safely. And if proof were needed that health and safety is everyone's business at AREVA, this innovation was one of the winners in the Risk Hunter category at the 2015 AREVA AWARDS.

* The Sievert (Sv) is a unit used in radiation protection which is expressed in "equivalent dose" and takes into account the characteristics both of the radiation and of the irradiated organism. On average, the annual exposure of a member of the public in France is 3.5 mSv

OCCUPATIONAL SAFETY

■ 2015 - International safety day, for our employees and our sub-contractors

The goal: to develop a safety culture among AREVA employees and sub-contractors to move towards achieving the objective of "zero accidents".

This year, the Health, Safety, Environment and Radiation Protection (SSERP) teams and the corporate communication teams have also contributed to the safety days by creating two awareness modules ("how I improve my own safety and the safety of my colleagues? " and "General principles of prevention") and by promoting the creation of testimonies in video: "what would I do differently today? "(accounts by people on the sites following the occurrence of occupational accidents).



SITE	SCHEDULED DATE
AREVA Resources Australia	06/01/2015
AREVA Gabon and COMUF	06/05/2015
AREVA McClean Lake	From 06/06/2015 to 06/13/2015
AREVA Saskatoon	06/09/2015
AREVA Resources Namibia	06/10/2015
Bessines	06/12/2015
The AREVA tower, Paris	From 06/12/2015 to 06/30/2015
SOMAIR	06/16/2015
IMOURAREN (site)	06/17/2015
KATCO	06/24/2015
COMINAK	06/25/2015
AREVA Mines Niger / Arlit / Niamey	06/26/2015
AREVA Mongol	06/26/2015
Nyamey (COMINAK SOMAIR IMSA)	06/30/2015

■ AREVA Mines Niger



The safety day that was celebrated in Arlit (at the COFITECH base) was broken down as follows: Presentation of the safety results for AREVA Mines and the AMN Exploration department, The 12 AREVA Standards, Safety culture, Workshops / theme stands on "how I improve my own safety and the safety of my colleagues", Presentation of posters marking Safety and Environment events.

■ Imouraren (Niger)



On Wednesday, June 17, the IMOURAREN site organized an "Occupational Health and Safety Day". The purpose of the event was to raise awareness on the prevention of occupational accidents and illnesses. Three workshops were run in the course of the day: mechanical handling, moving around, and working at height. The workshops were designed to illustrate the risk factors present in these activities, how to prevent them and how the verification of work tools and systems is beneficial for everyone. They were also an opportunity to run through the prevention principles and safety standards again. Lasting one hour and a quarter in total, these activities were conducted by management and the QSE representative before the start of each of the 3 shifts at the site.



■ COMINAK (Niger)



Niger

COMINAK organized its safety day in AKOUTA. It brought together employees, sub-contractors and the administrative authorities of Arlit. The goal was to strengthen the safety culture and **compliance with standards** through the adoption of exemplary behavior and good safety habits.

The safety day was marked by two workshops delivered by corporate teams. A specific communication was prepared on the group intranet.

■ SOMAÏR (Niger)

June, 16th 2015, SOMAÏR, Niger



Niger



1,200 employees and subcontractors gathered for the information and communication sessions organized at the Mine and at the Plant. The director of operations, the SOMAÏR managing director, and the Director of AREVA Mines restated that safety is groups number one priority and that zero accidents is the only acceptable goal. Following these speeches, the employees followed an awareness session on lockout/tagout and the identification of risks. They also followed animated sequences on the 9 risk prevention principles as well as films on accidents that have occurred within the AREVA group.

■ KATCO (Kazakhstan)



Kazakhstan

The subsidiary KATCO structured its event around practical workshops. Time was also scheduled in to share experiences on safety topics. The day was brought to close with an awards ceremony rewarding the hard work and commitment of employees and sub-contractors.

■ Mongolia



Mongolia

The safety day organized in Mongolia was entitled "Establishing a culture of safety in the workplace". This day event was attended by more than 90 employees and sub-contractors and offered workshops on topics such as "Fundamentals on hazards and risks", "Establishing safety habits," and "Learning to recognize dangerous and at-risk situations". This safety day was attended by the Director of Areva Mongol.

■ AREVA Resources Canada

June, the 9th 2015, Saskatoon, Canada



Canada

In Saskatoon, the Safety day began with a message from the management, followed by the very moving account of a person whose life was dislocated by one instant. Employees attended a presentation of the ARC family support program. The day ended with a Safety-themed game.



**June, 6 and 13 2015, McClean Lake,
Canada**

At McClean Lake, each of the two Safety Days consisted of a series of presentations and group activities. During these group activities organized in the afternoon, employees engaged in awareness activities on lockout/tagout, risk identification, sleep issues, and attended demonstrations delivered by the emergency response team and by the metallurgical laboratory. Topics covered during the presentations focused on topics including ARC safety results, risk identification, the safety diagnostic, the employee Safety award, and the results of the emergency response team competition.



■ **Bessines (France)**

June, the 12th 2015, Bessines-sur-Gartempe, France



In the morning, the establishment's employees and contractors were able to test their knowledge of the 12 AREVA safety standards with a quiz commented by HSE team. The fire and rescue services of the Haute-Vienne département also presented on the subject of fire hazards on production sites, covering methods of intervention used on facilities containing radioactive materials.

■ **Trekkopje (Namibia)**

10 juin 2015, Swakopmund, Namibia



The event, which brought together 66 employees, was structured around videos, discussions and role plays. The Managing Director of AREVA Resources Namibia gave a speech on the group's safety culture and on the challenges facing the Namibian mining industry. The site also organized a competition around presenting different safety topics such as manual tasks and working at height. The wind-up of the day included collecting feedback, which was very positive, and the proposal of topics such as how to manage fatigue or mechanical lifting.



■ **Australia**

June, the 1st 2015, Australia



The group of employees from AREVA Resources Australia toured the facilities of the Royal Flying Doctor Service in Adelaide. In the course of the visit, there were discussions about medical evacuations of personnel deployed in remote areas that had taken place, as well as on best practices applicable to exploration operations.



■ Gabon



Gabon

June, the 5th 2015, Gabon

June 5, 2015 saw the annual AREVA Gabon/COMUF Safety Day held in Franceville. Around one hundred people in total - including AREVA Gabon and COMUF employees and subcontractors - were there to attend presentations of group safety policy and standards, as well as the results of AREVA safety initiatives in Gabon and at COMUF. The day also featured workshops on road safety and awareness raising on PPE quality.



■ 2014 - International safety day, for our employees and our sub-contractors

The goal: to develop a safety culture among AREVA employees and sub-contractors to move towards achieving the objective of "zero accidents".



■ AREVA Mines Niger



Niger

In Niamey, the screening of an interview with Olivier Wantz – Senior Executive Vice President of AREVA Mines – on safety was followed by presentation of the safety results of AREVA Mines in 2013, of the 9 new safety standards for 2014, and of the analysis of accidentology and addictions.

The day organized in Arlit by the geologists from AREVA Mines Niger consisted of a workshop seminar providing information and raising awareness on safety standards.

■ Imouraren (Niger)



Niger

On the Imouraren site, the teams organized sessions to **hunt for anomalies** in the following defined areas of activity: Imouraren living compound, workshops, worksites, warehouses, open-pit mines, etc.

■ COMINAK (Niger)



Niger

COMINAK organized its safety day in AKOUTA. It brought together employees, sub-contractors and the administrative authorities of Arlit. The goal was to strengthen the safety culture and **compliance with standards** through the adoption of exemplary behavior and good safety habits.

■ SOMAIR (Niger)



Niger

The SOMAIR day brought together employees and sub-contractors with a focus on the 9 **new safety standards**, being promoted since 2013. Everyone was mobilized to watch a demonstration of an emergency rescue operation performed by the SOMAIR fire service. Awards were handed out to safety award winners and SOMAIR "Employees of the month". The event was brought to a close with a guided tour of the stands for employees and the general public.

■ KATCO (Kazakhstan)



Kazakhstan

The subsidiary KATCO structured its event around practical workshops: emergency response, acid risks, work at heights, first aid and resuscitation, etc. Time was also scheduled in to share experiences on safety topics. The day was brought to close with an awards ceremony rewarding the hard work and commitment of employees and sub-contractors.

■ Mongolia



Mongolia

Two safety days were organized in Mongolia. The first held on the Dulaan Uui site took the form of a game: entitled "Live free from danger" organized with teams from AREVA and its sub-contractors. The second event at the Ulan Bator offices provided an opportunity to remind everyone of the importance of safety in all locations, both in offices and on-site.

■ AREVA Resources Canada



Canada

In Saskatoon, more than 130 employees, sub-contractors and suppliers were invited to put safety at the top of their agenda. The Director of AREVA Resources Canada stated his personal commitment to safety and initiated a series of workshops on everyday hazards: distractions while driving, the safety of car seats for children, an urban system for the crowdsourced identification of emergencies, drugs screening and chemical hazards.

■ **Bessines (France)**



France

Bessines set the pace for its day with a giant snakes and ladders game. Based around six themes (road safety, chemical hazards, work at heights, stakeholder relations, radiation protection, machines and tools), the safety topics were covered in the form of educational mini-games.

■ **Trekkopje (Namibia)**



Namibia

Trekkopje opted for a mixed format: slide shows, videos, role-playing games and discussions, making it possible to cover a wide range of topics. Time was specifically devoted to the "defensive driving", to address the specific risk of driving on gravel roads. Finally, the safety team reminded everyone of the best way raise awareness of safety issues through interaction ("Safety eye to eye interaction"). 57 employees and sub-contractors – corresponding to 89% of the teams - took part.

■ **Australia**



Australia

The key goal of driver training was the central theme of the Australian safety day. Personnel were trained in how to drive to save lives, time and money, despite surrounding conditions and the actions of others.

ENVIRONNEMENT AND BIODIVERSITY

■ **Water management and conservation at McClean Lake**



Canada

The goal: Protecting the quality of surface water is one of the areas where AREVA is keen to make an impact under its overall program of environmental protection - it is a very important aspect of our program.

At the McClean Lake site, there are many water sources that come in contact with our mine area and mill workings that require treatment. These include water used in ore processing, from the tailings management facility, surface runoff from the mill terrace, sewage and sanitary water, the mined out open pits and others. For water treatment, we adopt a three-phased approach, in which the water is treated separately three times using different chemicals. Before the treated water is released from the holding ponds, it is checked to make sure it meets our regulatory quality criteria. This water is called the Treated Effluent.

Treated Effluent is released into the Sink Vulture Treated Effluent Management System (SV/TEMS) – a central system made up of the Sink and Vulture reservoirs linked by a berm that is located on our surface lease. From the SV/TEMS, the water flows towards Collins Creek, which is a very important location for our water monitoring program. It is here where our Surface Lease ends, and we must ensure that the water quality meets Saskatchewan Surface Water Quality Objectives (SSWQO).

From this point, Collins Creek travels about 33km downstream until it reaches Wollaston Lake. The Hatchet Lake First Nation and Wollaston Lake community are a further 40km across the lake. Once the water enters into Wollaston Lake, it flows towards the Cochrane River and the Fond du Lac River.

The regular community-led environmental monitoring program, in two directions, that samples water near each of the Athabasca Basin communities, continues to show that the surface water quality is meeting all provincial objectives. These results are published annually in the Athabasca Working Group Environmental Monitoring Program report by community, issued by CanNorth.

Collins Creek is where the water quality must comply with the Saskatchewan Surface Water Quality Objectives (SSWQO)



■ Energy management: the KATCO site shows the way



Kazakhstan

The goal: to implement systems and processes to improve energy management.

As part of its policy to improve energy management, the KATCO site, in Kazakhstan, recently received Energy Management Systems accreditation for compliance with the requirements of international standard ISO 50001-2012. In true pioneering fashion, the site is showing the way forward for the other AREVA sites.

The purpose of this international standard ISO 50001-2012 is to help organizations implement systems and processes for improving energy management, by taking account of energy efficiency, utilization and the amount of energy consumed. The standard also helps reduce greenhouse gas emissions and energy costs, by adopting an optimal system of energy management.

Recognition for a painstaking process

To obtain this accreditation, the KATCO maintenance department has accomplished a considerable amount of work. To begin with, it required the preparation of documents detailing KATCO's energy policy and program, and the performance of an internal audit to assess the company's energy management system. Following all this groundwork, the company then set itself a series of goals and associated measures, and conducted a certification audit which led to the award of the certificate of compliance.

KATCO is the first AREVA Mining site to obtain this accreditation. AREVA Mines Safety, Health, Security, Environment and Radiation Protection Department underlines its support for certification initiatives leading to improved management of costs through reductions in energy consumption, and limiting the environmental footprint of its sites.

■ Water and electricity savings: our employees get involved



Niger

The goal: To achieve a 10% reduction in the consumption of water and electricity in the mining settlement at COMINAK's Arlit site, COMINAK conducted an awareness campaign targeting all the stakeholders of the site. A win-win approach, both economically and environmentally.

A sustainable approach

After establishing the levels of consumption in 2013 and the high cost associated with water and electricity at the mining town of COMINAK in Niger, a working group was set up locally in the spring of 2014 to conduct a true policy of rational management of resources. The goal: to change patterns of behavior, both individually and collectively, and to reduce consumption by at least 10% per year over 3 years, without compromising people's quality of life. And beyond that, to demonstrate AREVA's ability to manage its environmental footprint in its various mining sites.

Simple but effective changes in behavior

To achieve this, information meetings were set up, coupled with awareness campaigns through local radio, to raise awareness about the initiative among internal and external workers and stakeholders. To help all these stakeholders to take concrete action, the teams in charge of the project gave practical advice: think to check the individual water and electricity meter readings regularly in order to manage them better, upgrade installations where necessary to make them compliant, turn off lights in rooms with daylight, and check the plumbing and repair any water leaks, etc.

In other words, these were simple measures and they have already proven to be very productive, because energy consumption fell by 5% in 2014 and 7% in 2015. Thanks in large part to the involvement of 700 women, including many wives of COMINAK employees. Today the goal is in sight with the trend expected to continue in 2016 thanks to the impetus of measures taken in late 2015.

Trekkopje site in Namibia: a sanctuary for reptiles



The goal: Currently mothballed, mining of the Trekkopje project has not yet begun. However, this territory is still under the supervision of our HSE (Health, Safety and Environment) team, which continues to monitor biodiversity. In Namibia, AREVA Mines has a mining license for a territory covering 37,368 hectares.

The Trekkopje project is located near the Dorob National Park in the central Namib Desert. The Namib is thought to be the oldest desert in the world. It contains many species that have adapted to the harsh and extremely arid environment over several million years. The Namib central desert may seem empty, but its climate, its soils and its diverse landscapes, are home to a great variety of animal species. The greatest diversity is found in groups that often go unnoticed: reptiles and invertebrates. This area is considered a "hotspot" of biodiversity for these groups, especially geckos, sand lizards, beetles, scorpions and camel spiders.

Measuring impact, for better control

Mining activity can affect biodiversity by reducing the size of habitats or disrupting ecological processes. This may threaten the survival of species of plants or animals that are now perfectly adapted to the central Namib Desert and found only in small, localized areas.

However, the impact of the Trekkopje mine on biodiversity can not be evaluated in isolation, as there are other mines and projects nearby. Each of these developments potentially contributes to the degradation or fragmentation of habitat through the mining activity, the processing and the construction of linear infrastructures. Habitat loss is harmful to endemic or endangered plants and animals.

Most potential impacts on soils, which were identified in the EIA (Environmental Impact Assessment) for the Trekkopje mine, affect the conservation of ecosystems and habitats for the fauna and flora. Any deterioration of the soils due to mining or construction will reduce their ability to support plants and animals. Soil disturbances that jeopardize the functioning of ecosystems can lead to long-term changes in their use after closure of the mine. It is therefore essential to take these factors into account at a very early stage in order to minimize them.

Restoring the vegetation

Once in service, the main impact of the mine on biodiversity will be on the local flora, which includes many endemic plants, especially grasses found only in the Namib Desert. To mitigate the impact of the mine, the area of operations will be minimized and the affected land will be restored as far as possible to its original state. For several years, AREVA Mines has been testing methods for restoring vegetation and monitoring the regrowth of plants on reclaimed land. This monitoring takes place every year and includes: identification of species, quantitative estimates of vegetation density and physical and chemical analysis of soil samples.

For this method to work optimally, it is necessary to determine the distribution of plant species. The habitats of the Trekkopje mine were mapped in 2009, and the map was updated in 2011 when vegetation cover was especially dense due to the heavy rains. This study brought to light rare and critical ecosystems, based on the distribution of flora, as mapping of fauna remains a challenge in the Namib. To monitor the evolution of the habitats, AREVA Namibia is using the Biotope Method developed by the Swedish power company Vattenfall. The classification of biotopes as general, rare or critical, is based on the number of rare and endemic species in a given area.

Mongolia: taking concrete action to protect fauna and flora



The goal: to help herders control the diseases affecting their livestock in the Ulaanbadrakh region, not only by providing access to care, but also by familiarizing them with basic hygiene practices

AREVA Mines has been present in Mongolia since 1997. While the activities are still at the exploration stage in the region of the Sainshand and Dariganga basins, AREVA Mines has already set up local programs for the protection of the fauna and flora.

Currently, AREVA Mines holds eight exploration licenses in the Sainshand area covering 146,937 ha. The land is also used as pasture for the herders' livestock. Eight families have also established camps, mainly for wintering purposes.

Several biodiversity protection programs have been launched by AREVA Mines in the Gobi region, particularly in support of wild species, which we provide food for in winter. A major veterinary project started up in 2014, to help herders control the diseases affecting their livestock in the Ulaanbadrakh region, not only by providing access to veterinary care, but also by giving instruction to herders in basic hygiene practices.

Plants to combat desertification

In the field of flora protection, AREVA Mines has implemented, together with local stakeholders, a number of measures to protect and plant saxaul trees, one of the most important vegetation features of the Gobi Desert.

- AREVA Mines has trained volunteers how to plant saxaul seeds and tend their growth. When the plants are mature, AREVA Mines buys them back to replant them directly in the ground, in areas agreed with residents and local authorities.

- A research program has been initiated with experts from the Laboratory of plant physiology and genetics at the National University of Mongolia, to better understand propagation of the shrubs and improve the regrowth of the natural vegetation.
- Large scale monitoring of the vegetation: this methodology is based on comparison of remote sensing images shot at different dates. A first set of images was purchased in June 2011. A new study is to take place in the coming years. The comparison of these two sets of images will allow us to assess the evolution of the flora in the areas covered by our exploration licenses.
- The siting of the drilling platforms is optimized.

The Brudene Bulag Nature Reserve is the closest area to the project site that is "specially protected by the state" and is located 60 km away. Other protected areas are located more than 100 km from the project zone. However, 2,512 hectares of "locally protected" Khar Zag land are located at the edge of the Zoovch Ovoo site. It is therefore necessary to organize regular awareness campaigns for project employees and subcontractors.

Absolute transparency

In addition to this work on the flora and fauna, AREVA Mongol has initiated a participatory environmental monitoring program, in order to make its approach open and transparent with respect to the authorities and the local population. This has been successfully deployed since 2013.

Environmental monitoring program with the participation of local communities in Mongolia



The goal: to analyze and monitor water, soil and plant samples, in order to produce reports, assessments and recommendations.

Mongolia

This year, the AREVA Mongol team has decided to focus on informal training of the local population with various focus areas, as well as on water monitoring. The team has also responded positively to requests from herders to analyze the well water they consume.

In line with the program underway, independent experts and scientists in the fields of soil, vegetation and water have carried out measurements, studies and sampling on land in the districts of Argalant, Bayanbogd and Zuunbayan. Samples were sent for analysis to the certified laboratory at the Nuclear Research Centre and to the Central Geological Laboratory.

Radioactivity measurements were also performed on site. AREVA Mongol radiation protection specialist gave the local community detailed explanations on radioactive elements.



AREVA Mongol's Director of health, safety, environment, sustainable development and local affairs, stressed that: "This is a very important program for us: its purpose is to present the environmental monitoring work straightforwardly and transparently to the local people and authorities. It was successfully implemented in 2013, 2014 and 2015 within a trilateral cooperation framework including the COGEGOBI team, the authorities and the local citizens. It is carried out each year with equal success."

The participatory environmental monitoring program which took place in October, was for the first time conducted with the participation of the school children and their teachers.

On site, the children were introduced to the methodology of the program for example by participating in taking the water samples, and then preparing and labeling the samples to be sent to the laboratories.



The participatory environmental monitoring program was initiated by AREVA Mongol in order to make the approach open and transparent with respect to the authorities and the local population. It has been deployed successfully since 2013.

COMMUNITY INVOLVEMENT

■ AREVA Canada is fully engaged with the communities



The goal: A very hot summer in 2015: forest fires

Canada

For many communities in northern Saskatchewan, including those of the Athabasca Basin, the end of June and the first two weeks of July were particularly difficult. The numerous difficulties encountered included mandatory evacuations, families separated for long periods, road closures that prevented deliveries of goods to the Far North, and losses of property including cabins and land plots.

During this period, however, we witnessed a series of incredible actions and initiatives among the northern communities that made us proud to work in northern Saskatchewan. We know that communities in the basin worked with West Wind Aviation to deliver necessities to the centers where there were many evacuees. In La Ronge and surrounding area, many volunteer firefighters worked tirelessly with other volunteers and officials to protect communities from the threat of fire. In Prince Albert, the Prince Albert Grand Council worked day and night to ensure that the evacuees had food, clothing, medical support and leisure activities and, generally speaking, that they were safe and healthy. And in Saskatoon, many companies operating in northern Saskatchewan, such as AREVA, Cameco, Athabasca Catering, NRT, West Wind and others, gathered to support the efforts of the Red Cross and the provincial government's emergency social services, to house, feed and provide for the well-being of evacuees. AREVA employees devoted over 400 hours - to cite only the time taken out during working hours - during the evacuations! Many of them also spent many hours taken on their rest time to assist in various ways.

The commitment shown by all organizations, the First Nations, the municipalities and businesses was exceptional, and reminded AREVA that northern Saskatchewan is truly a special place for our McClean Lake site.



Left to right: Marilyn Highway, Glenn Lafleur Rose and Charles AREVA offering transport services to evacuees from the north to Prince Albert

■ Veterinary support: Establishing a sustainable partnership with herders from Ulaanbadrakh, in Mongolia



The goal: to assume responsibilities that extend beyond our own activities to raise our level of acceptability in regions where we are based.

Mongolia

Our presence has an impact on these regions and the people who live there. The **dialogue** engaged in with local stakeholders is becoming stronger every year, highlighting the difficulties and issues encountered. It then becomes easier to identify substantive and worthwhile solutions, such as the project to provide veterinary support to herders from Ulaanbadrakh in Mongolia. **Funded and coordinated over a two-year period**, this program is being developed in partnership with a Mongolian veterinary association and a French NGO.

Veterinary consultations

In 2014, teams from AREVA Mongolia initiated a project in the Dornogovi region, in south-eastern Mongolia. The aim is to provide veterinary support in the form of **consultations and training for herders**. This support allows them to understand and control the diseases which affect animals present in the area where AREVA Mongolia conducts its activities.

Training of herders

The breeding of herds of livestock is an important economic activity for Mongolia. It accounts for 20 % of GDP and employs 40 % of the population. By improving the knowledge of Mongolian breeders through discussion groups and training sessions, this project enables them to play an active role in ensuring the health of their herd and helps to promote their development.

This initiative is one of the 24 projects put forward by AREVA Mining for the AREVA AWARDS 2015. Organized every two years since 2005, this internal competition recognizes innovative projects that improve group performance, respect environmental, social and societal issues and set an example for all AREVA entities worldwide.

■ Irhazer project: Financing of an agricultural and pastoral irrigation project to improve food security in desert areas



The goal: to boost the vitality of the partnership between the government of Niger and AREVA, through the financing of large-scale infrastructure and local development projects.

AREVA has been present in Niger since the 1970s with its mining companies SOMAÏR and COMINAK which employ over 2,500 people, to the west of the granite massif of the Air. Under the terms of a strategic partnership agreement with the State of Niger, AREVA is providing its financial support for several development programs. One of these is the "IRHAZER" project.

An irrigated agriculture program in the IRHAZER valley

In 2014, teams from AREVA Mongolia initiated a project in the Dornogovi region, in south-eastern Mongolia. The aim is to provide veterinary support in the form of consultations and training for herders. This support allows them to understand and control the diseases which affect animals present in the area where AREVA Mongolia conducts its activities.

Training of herders

IRHAZER is a valley located in the north of the country. It is of notable importance due to the availability of over 100,000 hectares of irrigable land and the presence of significant groundwater tables. AREVA has signed an agreement with the Nigerien government and undertakes to fund a vast program, worth 17 million euros, to develop irrigated agriculture in this valley. Under the supervision of the Nigerian Ministry of Agriculture, this project is to last six years – with a pilot phase lasting two years. Its objective: to improve food security in the country by developing irrigation systems in desert areas.

For AREVA Mines' Social Responsibility Director: "The success factors also lie in the ownership of this project by the beneficiaries and the ultimate total self-sufficiency of the production sites. The funded initiatives will quickly be called on to demonstrate that they are generating profits and these will be reinvested to ensure the sustainability of the operations. More than an agricultural project, this is a project for the economic development of a region, and will only succeed if it is profitable. The 17 million euros are therefore an investment whose return will fully benefit the local people. To achieve this goal, the project will quickly put in place mechanisms to secure the status of the land in the areas concerned. It is important to specify that the choice of sites must follow the relevant criteria to ensure feasibility and the best chance of success."

A pilot project with 100 hectares of crops

A test with irrigated crops on 100 hectares of land was underway on the sites of Agharous and Tiguirwit in 2015. An agropastoral farm and a crop farm have been set up. Preparation and remediation work is underway with the implementation of irrigation networks and water storage basins, the installation of new pumps at boreholes, the construction of shelters and fencing around the perimeter of the sites, the creation of stocks of manure, as well as the installation of power generators.

Outlay of 3 million euros to date. Over the same period, an agreement has been signed for the development phase (validation of the outstanding envelope of € 14 million). The overall development strategy for the next five years has been established. The project will be deployed on a larger scale in the IRHAZER valley and on the TAMESNA plain. Eventually, nearly 5,000 hectares in the open desert will be equipped with irrigation infrastructure for vegetable farming, benefiting over 2,000 households brought together in producer organizations.



SOCIAL COMMITMENT

■ Creating new opportunities locally for developing skills and recruiting skilled employees



The goal: to meet needs for the recruitment of skilled employees on our sites.

Canada

Local communities forming a talent pool

One of AREVA's objectives in Saskatchewan is to maximize the number of employees who live in the communities of the north of the province in the area where the McClean Lake site is located. To support the recruitment of young northerners, AREVA has set up a training program targeting the local communities. The aim is twofold: to secure recruitment needs, whilst equally playing a positive role in terms of local socio-economic activity.

Skill-enhancing training initiative

Over recent years, AREVA has implemented an extensive training project designed for the isolated communities in the Athabasca basin situated closest to the McClean Lake site in northern Saskatchewan. For the most part aboriginal, these communities have very limited opportunities for employment or skills development.

Since 2012, AREVA has developed a number of dedicated training programs with six focus areas:

- **Employability:** informing and preparing young people from these Northern communities for the world of work
- **Training operators:** modules adapted to the very technologically advanced McClean Lake mill
- **Training of supervisors:** developing knowledge and skills through mentoring, but also introducing leadership training
- **Training in a range of disciplines or trades,** offering learning opportunities on site and in partnership with technical institutes offsite
- **Promoting workplace observation placements** for secondary school students
- **Career guidance** for opportunities in mining upstream of apprenticeships.



Shared benefits over the long term

This program allows the teams at McClean Lake to secure their future recruitment needs and contribute to the economic and social development of the region. With convincing results. Since 2012, 68 young people from the region have completed their operator training and 55 of them have been recruited. In 2015, AREVA delivered a 3-months training program which resulted in 11 hires with a retention rate of 82% of the trainees.

As the number of applications continues to increase, more partnerships have been set up with representatives of the local community, educational establishments and financing bodies.

This project won an award in the internal AREVA Awards program in 2013.



MINING CLOSURE

■ R&D program relating to the remediation and environmental monitoring of former mining sites



The goal: forward planning to remain compliant with regulatory requirements address social concerns relating to the management of former mining sites as effectively as possible.

The "Envir@mines" R&D program was created in 2010. It aims to meet and plan ahead to maintain compliance with the requirements of the

National plan for the management of radioactive materials and radioactive waste (in French) (Plan National de Gestion des Matières et Déchets Radioactifs – PNGMDR) on the question of mining closure risks.

Though the Envir@Mines program concerns all the mining sites of the group, here we focus on **our actions in France**, on mines that have already been remediated. Our goal: to improve **knowledge** of the environmental footprint of mining sites and offer new technologies to optimize the **management and treatment of water**.

12 academic partners (Université Paris VI, Ecole des Mines de Paris, Université de Poitiers, Université de Bruxelles, the University of Manchester, the University of Granada, and the CEA, etc.) are working with AREVA's teams in France. Their research work is focused on **3 themes**: management of waste rock, management of tailings and management of aqueous discharges. A review of the progress that has been made so far as well as the work currently in progress is provided below.

Management of tailings

AREVA is studying the evolution of ore tailings and working on the **development of models to predict their long-term environmental impact**, based on normal scenarios and degraded scenarios.



Management of waste rock

AREVA has conducted **sampling campaigns** on several remediated sites to characterize the evolution of waste rock storage and its potential impact on the natural environment. A **multi-year** study is ongoing to develop predictive models of the potential migration of uranium from the rock piles to the environment.

Aqueous discharge and bioavailability

The **future French standards** on the environmental quality of aquatic environments will take into account the bioavailability of contaminants. In order to meet these new requirements, AREVA is **building its knowledge on the bioavailability** of several metals of interest (Uranium, Radium, Barium, Aluminum, Manganese and Iron) and their potential impacts on ecosystems. A **tool for direct measurement** of the bioavailability of dissolved elements in the aquatic environment is being developed and new methods of water treatment are being studied.

■ Remediation of the mining site of Bellezane



The goal: The environmental impact of a mining site is considered for all stages of the site's life cycle, and that includes in the context of subsequent additional remediation work.

The former open-cast mine at Bellezane (Limousin, France) underwent remediation between 1992 and 1997. It is now used to store residues from the processing of uranium ore, and is an ICPE (French classified facility for environmental protection) subject to regular monitoring carried out within the framework of prefectoral orders.

A project has been launched to build a new storage capacity, designed to accommodate radioactively marked sediments resulting from the dredging of local water bodies. The installation is dimensioned for a maximum capacity of 200,000 m³ and is located above the existing ore processing residues storage site.

Several environmental studies including inventories of fauna and flora have been conducted and validated by the authorities. The fauna and flora have greatly developed in the former mine. AREVA has proposed additional measures to preserve biodiversity during the construction phase. A number of mechanisms for avoidance, mitigation and offsets have been implemented such as:

- Adjustment of the work schedules according to the seasons and the life cycle of animals to limit the impact on wildlife (especially birds: falcon and skylark)
- Construction of a barrier for amphibians to limit the risk of burial during trenching operations

- The creation of ponds to attract amphibians outside the construction area
- Collaboration with an association and a specialist in bats, to plan work in an old gallery according to the inventories performed.

An independent expert has verified that the actions presented have been implemented and effective.

Mine tailings survey campaign



The goal: use of mine tailings in the public domain: a large-scale survey

France

In 2009, AREVA devoted major human and material resources to the task of identifying potential locations where tailings from former uranium mines could be reused. An initiative that is in line with AREVA's CSR approach.

Tailings

Between 1947 and 2001, 76,000 tonnes of uranium were extracted from French soil, from 237 mining sites located throughout the territory. To access these deposits, it was necessary to remove 187 million tonnes of earth, sand or rock containing no or little uranium, referred to as tailings. In accordance with the commonly accepted approach at that time, until around 1995, some of these materials, presenting very low levels of activity, was used in the public domain for embankments, backfill, roads, etc. From 1984, a register was set up to provide traceability of tailings from mining activities carried out by of AREVA and its subsidiaries. However, this traceability was not established for sites that AREVA was not operating.

Of helicopter and men

In 2009, that the Ministry of Ecology, Energy, Sustainable Development and the Sea asked AREVA to make a survey of the places where tailings from all these former uranium mines have been reused.

To do this, a helicopter equipped with measuring equipment, performed more than 800 hours of flight at very low altitude, thereby identifying in total 19,041 areas of interest. These zones were then subject to inspections on the ground, between 2011 and 2013, to determine which ones were linked to actual reuse of mine tailings and which ones were of natural origin (related to the geological characteristics of the region). In total, 1,284 zones with tailings were identified.

Decontaminating the zones

Of these sites, 58 zones exceeded the reference threshold of 0.6 mSv/year*, beyond which remediation work must be performed, and 165 zones were found to be between 0.3 mSv/year and 0.6 mSv/year, requiring consultation to determine whether an intervention was necessary. Having studied and prepared the areas to be treated, in autumn 2015 the AREVA teams started the cleanup work by removing the tailing material. This work is being carried out in agreement with the local administrations, who area allowing them to be stored at sites where studies have shown their lack of impact on the environment and people. The work has now already been completed in Haute-Vienne and Auvergne, and will continue in 2016 and 2017 in certain other départements.

* The Sievert (Sv) is a unit used in radiation protection which is expressed in "equivalent dose" and takes into account the characteristics of the radiation and of the irradiated organism. On average it amounts to 2.4 mSv per year in France. This value depends partly on the geological setting and can range from 1 mSv in the Paris basin to 4 mSv in granitic regions (Limousin, Brittany, Auvergne, etc.). In accordance with the French Public Health Code, this dose must be less than 1 mSv above the natural background level. The circular of August 8, 2013 describes a generic methodology for the management of areas affected by the presence of mining waste. It sets a guideline value for the added dose, triggering performance of work from a value of 0.6 mSv/year.

INNOVATION



"SAGES'INNOV": a promising internal innovation competition

The goal: to develop, at grassroots level, our capacity to deploy solutions for the future

France

Within the framework of AREVA's Innov'Action program, AREVA Mines' Committee of Wise Persons (Comité des Sages) launched the competition "Sages'Innov" in 2014. Designed to encourage pragmatic and operational innovation, this competition aims to **stimulate creativity and audacity** of teams at grassroots level.

Selection of ideas

Ideas are selected by AREVA's **community of experts**. The process involves the eight technical domains of AREVA Mines. The representatives of each technical domain collect and pre-select projects. With the support of their network, they assess the potential of each idea then submit the most promising of them to the Committee of Wise Persons.

For the first edition (in 2014), more than **80 ideas** were put forward, 19 of which were selected to be presented to the Committee. In addition to revealing the emerging solutions of tomorrow, SAGES'INNOV also speeds up the development of patents and the time-to-market for new solutions. The winners receive a **prize of € 50,000** to help them to bring their idea to life.

3 projects selected to receive awards

The winners receive prizes in 3 categories

THE QUICK WIN PRIZE: Awarded to an idea which can be implemented rapidly and at a moderate cost

THE TECHNICAL INNOVATION PRIZE: Awarded to an idea which is highly innovative in technical terms

THE PRIZE FOR THE HIGHEST POTENTIAL: Awarded to an idea with high potential for return on investment

■ Optimizing volumes of sulfuric acid used during chemical processing



The goal: to reduce the volume of sulfuric acid used to dissolve uranium without reducing yield.

Niger

One of the leading innovations in the field of the chemical processing of uranium was unveiled by the internal **AREVA Awards**, which recognized the work of teams from COMINAK. To understand the importance of this innovation, it should be noted that sulfuric acid is used to transform the uranium contained in the ore from a solid to a liquid. The leading chemical reagent in terms of cost and volume used in AREVA mines in Niger, it accounts for 10% of the production costs at COMINAK. Every year, 20,000 tonnes of sulfur have to be transported to the site for use in on-site production.

A more efficient and cleaner process for producing uranium

The story began in 2012 when the teams at COMINAK observed that the chemical process for the processing of ore was consuming increasing amounts of sulfuric acid. At that time, the acid was being injected at a single point and in excessive amounts. Though the quantity of acid to be used in the process has to be optimized to dissolve as much uranium as possible whilst keeping costs at an optimum, it also has to be sufficient to prevent clogging and deposits which would be harmful to the proper operation of the installations.



In a few months, the teams from COMINAK worked in **close collaboration** (in areas such as quality, process, manufacturing, maintenance, etc.) to develop a completely new process that helped to reduce acid consumption, thus reducing the **environmental footprint** of the process whilst optimizing uranium production.

The benefits

Since May 2012, the results achieved have been significant: decrease in sulfuric acid consumption by nearly 10% of annual volume; maintaining of the uranium recovery yield at the same levels as before; decrease in production and maintenance costs; reduction in carbon footprint (190 tonnes per year, equivalent to 40 trucks transporting 1,800 tonnes of sulfur); decrease in SO₂ emissions (80 tonnes per year); reduction in the risk of road accidents involved in the transportation of sulfur or sulfuric acid by truck.

This project received recognition for its **performance in three areas**: operational, functional and environmental performance. It sets an example for all AREVA entities worldwide as it is potentially applicable to other mining installations.

■ Taking part in the fight against cancer



The goal: to make the most of our skills in nuclear medicine

France

AREVA Med is a subsidiary of AREVA created in 2009, whose activities are focused on the development of new therapies in the fight against cancer.



Nuclear medicine is a medical specialty involving the application of radioactive substances in the diagnosis and treatment of some of the most aggressive types of cancer. The combination of nuclear technology and nuclear medicine provide an innovative approach, known as "**targeted alpha therapy**".

Based on an R&D program started in 2005, AREVA Med has been able to develop new processes for producing high-purity lead-212 (^{212}Pb) from an abundant source thorium drawn from AREVA's former industrial activities. This rare radioactive isotope, of a high level purity, is currently at the heart of promising research projects in nuclear medicine.

Targeted alpha therapy with ^{212}Pb

Targeted alpha therapy (TAT) works by combining the targeting capabilities of cancer cell-specific carriers (e.g., antibodies) with the short-range destroying capabilities of the radioactive isotope ^{212}Pb . This approach targets and destroys cancer cells without damaging nearby healthy cells.

AREVA MINES and AREVA Med

AREVA MINES provides its support to AREVA Med in the form of the expertise of the **Mining Innovation Center (Centre d'Innovation Minière – CIM)** - a uranium ore research and development center responsible for developing and implementing new techniques for processing and using mineral ores. With a staff of 80 employees, this center which is renowned worldwide for its research work and expertise in uranium ore on all continents, is located on the Bessines site (Limousin, France).

* Nuclear medicine is a medical specialty involving the application of radioactive substances in the diagnosis and treatment of diseases, most frequently very aggressive types of cancer.



ETHICS AND HUMAN RIGHTS

Fighting against corruption - Creation of a new department devoted to the fight against corruption



The goal: raise awareness of the need to fight against corruption, from the very highest level of management through to operational teams, in all the countries where we are present.

The **fight against corruption** is governed by the AREVA Values Charter. More than just a framework document, it lays the foundations for the ethical governance of our activities.

Over the 2013/2014 period, the members of AREVA Mines' Management Committee and the directors of foreign subsidiaries have completed a course of **training in ethics**. The Managing Director of the KATCO subsidiary in Kazakhstan took the opportunity to present an initiative launched by his subsidiary in 2014: **the creation of an internal control team** which reports directly to him.

This two-person audit team (one person from the finance department, and another currently being recruited to work under the supervision of the former) has been incorporated into the company's new organization chart. Several procedures have been drafted to guide the approach. An annual roadmap is currently being defined to set priorities for the work of the team.



CHAPTER ANNEXES

Extract from Responsible Development
report 2015 on Areva's Mining Activities

The complete report is downloadable on :
www.csr-mines.areva.com

GRI INDEX

The AREVA's mining activities CSR Report 2015 has been prepared in accordance with the GRI G4 guidelines. The mining and metals sector supplement (MMSS) has also been used.

We report primarily on the general standard disclosures called « core ». Then the table set out in details the specific standard disclosures called "essentials" and the indicator linked to each identified material aspect. All of these informations consider the mining and metals sector supplement.

GENERAL STANDARD DISCLOSURES

Strategy and Analysis		
Disclosures	Description	Link to the information
G4-1	Statement from the most senior decision-maker of the organization	<ul style="list-style-type: none"> ■ Statement from the Senior Executive Vice President
Organizational Profile		
Disclosures	Description	Link to the information
G4-3	Name of the organization	<ul style="list-style-type: none"> ■ Governance and organization
G4-4	Primary brands, products, and services	<ul style="list-style-type: none"> ■ Uranium market
G4-5	Location of the organization's headquarters	<ul style="list-style-type: none"> ■ Governance and organization
G4-6	Company's countries of operation	<ul style="list-style-type: none"> ■ Worldwide presence
G4-7	Nature of ownership and legal form	<ul style="list-style-type: none"> ■ Governance and organization
G4-8	Markets served	<ul style="list-style-type: none"> ■ Uranium market
G4-9	Scale of the organization	<ul style="list-style-type: none"> ■ Overview ■ Governance and organization ■ Worldwide presence
G4-10	Breakdown of employees	<ul style="list-style-type: none"> ■ Commitment to employees ■ Governance and organization ■ Worldwide presence
G4-11	Percentage of total employees covered by collective bargaining agreements	<ul style="list-style-type: none"> ■ Governance and organization ■ Commitment to employees
G4-12	The organization's supply chain.	<ul style="list-style-type: none"> ■ Overview ■ Uranium market
G4-13	Changes during the reporting period	<ul style="list-style-type: none"> ■ Worldwide presence

G4-14	Precautionary approach or principle addressed by the organization	<ul style="list-style-type: none"> ■ Risk management ■ 2015 Reference document of the AREVA Group
G4-15	Externally charters, principles, or other initiatives subscribed	<ul style="list-style-type: none"> ■ Voluntary initiatives
G4-16	Memberships of associations and national or international advocacy organizations	<ul style="list-style-type: none"> ■ Voluntary initiatives

Identified material aspects and boundaries

Disclosures	Description	Link to the information
G4-17	Entities included in the organization's consolidated financial statements	<ul style="list-style-type: none"> ■ 2015 Reference document of the AREVA Group
G4-18	Process for defining the report content	<ul style="list-style-type: none"> ■ Materiality
G4-19	Material Aspects identified in the process for defining report content.	<ul style="list-style-type: none"> ■ GRI
G4-20	Aspect Boundary within the organization	<ul style="list-style-type: none"> ■ GRI ■ Reporting Parameters
G4-21	Aspect Boundary outside the organization	<ul style="list-style-type: none"> ■ Reporting Parameters
G4-22	Restatements of information provided in previous reports	<ul style="list-style-type: none"> ■ Reporting Parameters
G4-23	Changes from previous reporting periods in the Scope and Aspect Boundaries	<ul style="list-style-type: none"> ■ Reporting Parameters

Stakeholder Engagement

Disclosures	Description	Link to the information
G4-24	List of stakeholder groups engaged by the organization	<ul style="list-style-type: none"> ■ Our approach
G4-25	Basis for identification and selection of stakeholders	<ul style="list-style-type: none"> ■ Community involvement
G4-26	Stakeholder engagement	<ul style="list-style-type: none"> ■ Community involvement
G4-27	Key topics and concerns that have been raised through stakeholder engagement	<ul style="list-style-type: none"> ■ Community involvement

Report profile

Disclosures	Description	Link to the information
G4-28	Reporting period	<ul style="list-style-type: none"> ■ Reporting Parameters
G4-29	Date of most recent previous report	<ul style="list-style-type: none"> ■ Our last CSR Reports (website footer)
G4-30	Reporting cycle	<ul style="list-style-type: none"> ■ Reporting Parameters
G4-31	Contact point for questions	<ul style="list-style-type: none"> ■ Contact us

G4-32	'In accordance' option the organization has chosen	■ GRI
G4-33	External Assurance	■ EY Certificate

Governance

Disclosures	Description	Link to the information
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G4-34	Governance structure of the organization	■ Governance and organization
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Ethics and Integrity

Disclosures	Description	Link to the information
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G4-56	Organization's values, principles, standards and norms of behavior	■ Ethics and Human Rights
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SPECIFIC STANDARD DISCLOSURES

■ ECONOMIC

Economic performance		
Disclosures	Description	Link to the information

G4-EC4	Financial assistance received from government	■ Governance and organization
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Market Presence

Disclosures	Description	Link to the information
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G4-EC6	Proportion of senior management hired from the local community	■ Community involvement
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Indirect economic impacts

Disclosures	Description	Link to the information
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G4-EC7	Development and impact of infrastructure investments and services supported	■ Community involvement
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Procurement practices

Disclosures	Description	Link to the information
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G4-EC9	Proportion of spending on local suppliers at significant locations of operation	■ Community involvement
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■ ENVIRONMENT

Energy		
Disclosures	Description	Link to the information

G4-EN3	Energy consumption within the organization	■ Environment and biodiversity
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Water

Disclosures Description

[Link to the information](#)

G4-EN8 Total water withdrawal by source

■ Environment and biodiversity

Biodiversité

Disclosures Description

[Link to the information](#)

G4-EN11 Operational sites owned, leased, managed in protected areas and areas of high biodiversity value

■ Environment and biodiversity

Emissions

Disclosures Description

[Link to the information](#)

G4-EN15 Direct greenhouse gas (GHG) emissions (Scope 1)

■ Environment and biodiversity

Effluents et déchets

Disclosures Description

[Link to the information](#)

G4-EN23 Total weight of waste by type and disposal method

■ Environment and biodiversity

■ SOCIAL / LABOR PRACTICES AND DECENT WORK

Employment

Disclosures Description

[Link to the information](#)

G4-LA3 Return to work and retention rates after parental leave

■ Commitment to employees

Labor/Management relations

Disclosures Description

[Link to the information](#)

G4-LA4 Minimum notice periods regarding operational changes

■ Commitment to employees

Occupational health and safety

Disclosures Description

[Link to the information](#)

G4-LA7 Workers with high incidence or high risk of diseases related to their occupation

■ Health and radiation protection

Training and education

Disclosures Description

[Link to the information](#)

G4-LA9 Average hours of training per year

■ Commitment to employees

Diversity and equal opportunity

Disclosures Description

Link to the information

G4-LA12 Composition of governance bodies and breakdown of employees

■ Governance and organization

SOCIAL / HUMAN RIGHTS

Non-discrimination

Disclosures Description

Link to the information

G4-HR3 Total number of incidents of discrimination and corrective actions taken

■ Ethics and Human Rights

Assessment

Disclosures Description

Link to the information

G4-HR9 Human rights reviews

■ Ethics and Human Rights

Anti-corruption

Disclosures Description

Link to the information

G4-SO3 % of operations assessed for risks related to corruption

■ Ethics and Human Rights

■ Key indicators

MINING AND METALS SECTOR SUPPLEMENT

Sector specific disclosures

Disclosures Description

Link to the information

MM9 Sites where resettlements took place

■ No relocation of populations during the concerned period

MM10 Closure plans

■ Mining closure