



REPORT  
2014

Responsible Development  
On AREVA's  
Mining Activities

BUSINESS LINE MINES

**AREVA**  
forward-looking energy



# CHAPTER PROFILE

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Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

## FIND OUT ABOUT OUR ACTIVITIES



## AREVA GROUP

AREVA 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.**

Through partnerships, the company is active in the **renewable energy** sector.

## Corporate Social Responsibility

Ever since its creation, AREVA has given impetus to a proactive sustainable development initiative by making strong commitments to Corporate Social 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 accordance with human rights and in compliance with environmental protect interests 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, to the OECD Guidelines for Multinational Enterprises, to the Extractive Industries Transparency Initiative (EITI) and to the Nuclear Power Plant Exporters' Principles of Conduct published by the Carnegie Endowment. It follows best international practices for corporate responsibility, in particular those 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 2014, producing 8,959 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 510 tonnes of AREVA share in COMINAK, whose accounts are now deconsolidated in accordance with new 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).



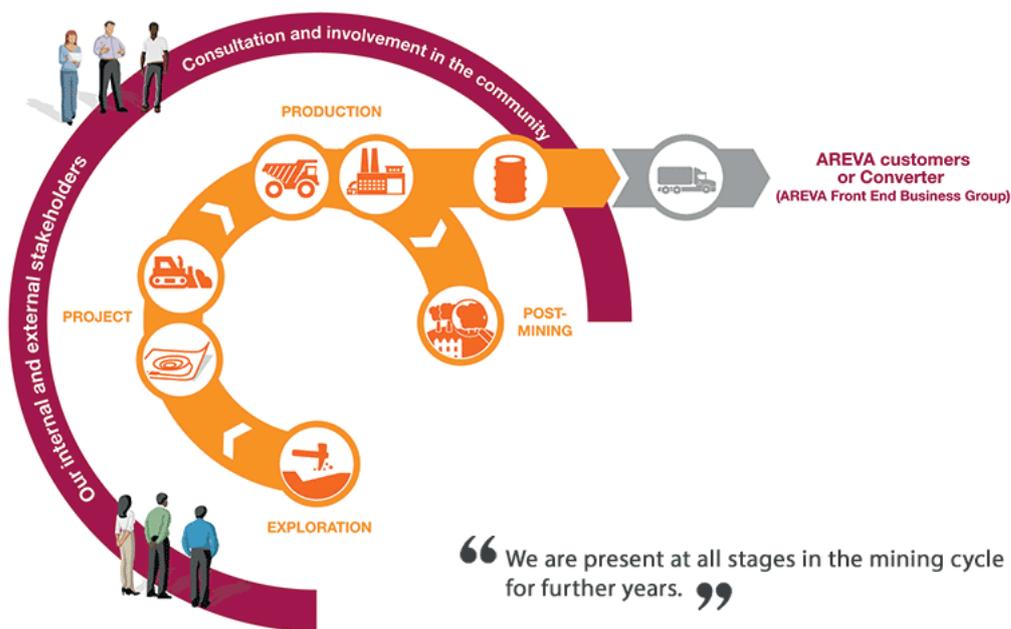
KEY FIGURES FOR 2014

- Contribution to Consolidated Revenue of 1 297 M€ (16% of AREVA group revenue) ;
- Present on 5 continents ;
- 4 952 employees\* ;
- 5 operating sites in 3 countries ;
- 8 959\*\* metric tons of uranium ;
- 13 % worldwide market share.

\* Tous les effectifs gérés par AREVA (CDD +CDI) ne tenant pas compte du % de la participation financière d'AREVA dans les joint-ventures minières.

\*\* Part consolidée financière à laquelle il faut rajouter 510 tonnes de part AREVA à Cominak, dont les comptes sont désormais déconsolidés du fait de nouvelles règles comptables.

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

## Post-mining: closure, rehabilitation and monitoring - more than 10 years

This stage covers the **dismantling, rehabilitation 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 2014

In a difficult commercial and financial context, teams met numerous successes. Take a look at the main milestones achieved during these twelve months.



JANUARY 2014

### NIGER: OFFICIAL LAUNCH OF THE IRHAZER PASTORAL PROJECT BY THE PRIME MINISTER OF NIGER

In December, the Prime Minister of Niger - Mr. Briggi Raffini - officially launched the activities of the Irhazer project with a visit to the Agharous pilot site in the department of Tchirozérine. The pastoral development project, formally initiated in April 2013 through the signing of an agreement between AREVA and the Nigerien government, will strengthen food security in the desert areas of the country.



JANUARY 2014

### MONGOLIA: COGEOBI RECEIVES THE "SOCIALY RESPONSIBLE COMPANY" REGIONAL AWARD

In January, the exploration company COGEOBI, a subsidiary of AREVA Mongol, won the "Socially responsible company" regional prize awarded by the representatives of the Assembly of Dornogobi Province, in southeastern Mongolia.



Representing the people and organisations of the global nuclear profession

JANUARY 2014

### AREVA MINES AT THE WNA : PARTICIPATION IN STANDARDIZATION WORK ON SUSTAINABLE DEVELOPMENT PERFORMANCE AUDITS

Our experts regularly participate in working groups within international industry organizations such as the International Council on Mining and Metals and the World Nuclear Association, to promote our responsible mining practices within the extractive sector. They notably contributed to the working group developing a standardized checklist that should lead to the establishment of a common standard defining the expectations of our customers in terms of sustainable development performance and to



FEBRUARY 2014

### NIGER: AREVA SUPPORTS THE 10<sup>TH</sup> EDITION OF THE AÏR FESTIVAL

This year, AREVA once again supported and participated in the Aïr Festival, which was held in Férouane in the region of Agadez in northern Niger, from 21 to 24 February. This 10<sup>th</sup> edition attracted thousands of Nigeriens who came to discover the diversity and richness of the Tuareg culture.



FEBRUARY 2014

### VIDEO - AREVA LAUNCHES PROJECT TO CREATE A "MINING INNOVATION CENTER" IN THE LIMOUSIN REGION OF FRANCE.



APRIL 2014

### NAMIBIA: INAUGURATION OF MYO LIBRARY EXTENSION IN SWAKOPMUND

True to its community engagement commitments in the Erongo Region in Namibia, AREVA officially inaugurated on April 8 and extension of the MYO Library (Mondesa Youth Opportunities) open to all residents of Swakopmund.



APRIL 2014

### MONGOLIA: AREVA MONGOL ORGANIZED AN INFORMATION DAY WITH LOCAL AUTHORITIES

AREVA Mongol organized an information day in Ulan Bator with 14 representatives of the local authorities of the province of Sukhbaatar and of its districts where Cogegobi, a subsidiary of AREVA Mongol, operates. This first seminar had a double objective: firstly to inform the stakeholders about our ongoing activities and those to be deployed in the course of the year, with specific focus on the environment, hydrogeology, and community involvement initiatives; and secondly to familiarize the audience with uranium and radioactivity.



APRIL 2014

### VIDEO - KAZAKHSTAN: CEREMONY TO CELEBRATE THE RECORD FIGURE OF 20,000 TONNES OF URANIUM PRODUCTION SINCE THE START OF INDUSTRIAL OPERATIONS.



**IAEA**  
International Atomic Energy Agency  
*Atoms For Peace*

MAY 2014

### FRANCE: IAEA WORKSHOP AT BESSINES, LONG-TERM MONITORING OF REHABILITATED FORMER MINING SITES.

AREVA gathered 40 participants for an IAEA workshop in Bessines devoted to the long-term environmental monitoring of mining sites after mining operations are wound up, as part of a program of technical cooperation with member countries. This was an opportunity to share their experience and good practices in the field of mining site remediation.



MAY 2014

### AREVA MED PRODUCED ITS FIRST NANOGRAMS OF LEAD-212 AT THE MAURICE TUBIANA LABORATORY IN BESSINES

After seven months of operation of the Maurice Tubiana Laboratory (LMT), a first generation of radionuclides was conducted using a process developed on the site of Bessines-sur-Gartempe. The first analyzes confirm the quality of the LMT's lead-212 (<sup>212</sup>Pb) production for anti-cancer treatments, the quantities of which are expected to grow as the scientific developments of AREVA Med and its partners continue to advance.



MAY 2014

### VIDEO - AREVA SIGNS A RENEWAL AGREEMENT TO CARRY FORWARD THE STRATEGIC PARTNERSHIP WITH THE STATE OF NIGER.



JUNE 2014

### NAMIBIA: RAISING AWARENESS OF WATER ISSUES WITH CHILDREN.

In collaboration with the publisher Laffont, AREVA is providing educational support in Africa, in particular by the dissemination of targeted publications. On 27 June 2014, the collection "Culture d'enfance" (Culture of childhood) was presented to 850 pupils aged 5 to 12 from the primary schools in Arandis, Namibia.



JULY 2014

### NIGER: AREVA OFFERS BURSARIES FOR NURSE AND TEACHER TRAINING IN THE AGADEZ REGION.

As part of work to develop the local communities in the region, AREVA is providing its support for the training of qualified health and education personnel.

Under the scheme, 31 health workers (nurses, laboratory technicians, midwives and healthcare assistants) and 21 teachers, a total of 52 bursary holders, have benefited from training at the Public Health Center and Teacher Training College in Agadez.



AUGUST 2014

### INSTALLATION OF A SOLAR-POWERED PUMP AT THE FERME DE L'ESPOIR

Under the third convention to support Ferme de l'Espoir (a farm producing milk, cheese and meat), the AREVA group has just supplied solar panels for the farm to provide better access to water. Ferme de l'Espoir was initiated in 2006 by the ANIAT cooperative of twenty herders from the urban community of Abalak in the north of Niger.



AUGUST 2014

### FRANCE: SUCCESSFUL COMPLETION OF FIRST PHASE AT THE BELLEZANE WORKSITE

Work to develop the former open-pit mine at Bellezane, in the Haute-Vienne, into a sediment storage site began in April 2014. The first phase was completed during the summer - a project carried out safely, on time and on budget.



SEPTEMBER 2014

### MONGOLIA: MORE FAMILIES BENEFIT FROM THE HERD RESTOCKING PROJECT.

On September 19, as part of AREVA's herd restocking project in Mongolia, more families in the Zuunban district were able to benefit from an additional 52 sheep and goats for a two year period.



SEPTEMBER 2014

### KAZAKHSTAN: A DELEGATION OF MONGOLIAN HERDERS VISITS KATCO.

From 9 to 15 September, the KATCO company, a joint venture between AREVA and KAZATOMPROM, played host to a Mongolian delegation consisting of 8 herders living close to our exploration sites, the head of a Popular Assembly and a representative of Mongolia's nuclear safety authority. The visit aimed to demonstrate the due regard given to respecting the environment during drilling activities and in the use of ISR technology.



SEPTEMBER 2014

### CANADA: ARC SUBMITS THE ENVIRONMENTAL IMPACT STUDY FOR THE KIGGAVIK PROJECT.

In late September, AREVA Resources Canada submitted the final version of the environmental impact study for the Kiggavik project to the Nunavut Environmental Assessment Board. The document represents over four years of engineering and environmental studies and consultations with stakeholders.



OCTOBER 2014

## CANADA: AREVA RESOURCES CANADA REACHING OUT TO NORTHERN COMMUNITIES.

A team from AREVA Resources Canada (ARC) comprising employees in charge of regulatory affairs, and relations with stakeholders, visited several communities in northern Saskatchewan. Residents were able to learn more about ARC activities at Cluff Lake, McClean Lake and Kiggavik, and about their commitment to northern Saskatchewan through sponsorships, donations and scholarships, as well as subcontracting and the purchasing of goods and services during the past year.



OCTOBER 2014

## VIDEO – THE AREVA PLANT AT MCCLEAN LAKE BEGINS PROCESSING URANIUM FROM CIGAR LAKE.



OCTOBER 2014

## FRANCO-MONGOLIAN RELATIONS: AREVA IS WORKING ACTIVELY TO MAKE ITS KNOW-HOW BETTER KNOWN.

In early fall several events were held in France with a view to strengthening Franco-Mongolian relations in the energy field:

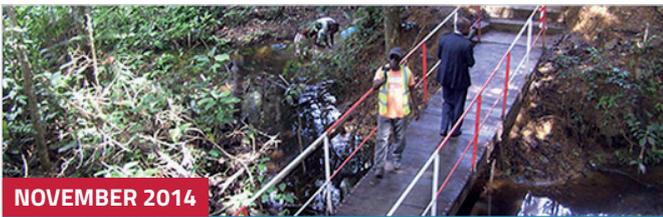
- visit of a high-level Mongolian delegation to Paris for the WNE,
- a visit to Lodève to discover an example of remediation and redevelopment conducted by AREVA,
- then a visit to the COMURHEX facility, to see the first phase in the conversion of uranium.



NOVEMBER 2014

## NIGER: THE AREVA FOUNDATION DONATES 8700 BOOKS TO YOUNG PEOPLE IN NIGER.

The donation was made possible by the partnership between the AREVA Foundation, the French Embassy in Niger and Bibliodef, a French association which has been working for the last 20 years to promote access to books and reading for underprivileged children throughout the world. This donation of 8,700 books to several different youth structures reflects AREVA's societal commitment and its policy of community involvement on the ground.



NOVEMBER 2014

## GABON: INAUGURATION OF THE NEW CROSSING TO THE VILLAGE OF MASSANGO.

COMUF - the Compagnie des Mines d'Uranium de Franceville - inaugurated the new crossing located near the village of Massango that will facilitate the daily lives of local farm workers. The structure, funded by COMUF, was built by the Mounana-based company GMI which is also a member of the association of local businesses. Their workers brought all their know-how to bear in the construction of this civil structure, fully justifying the COMUF in its desire to promote local businesses.



NOVEMBER 2014

## MONGOLIA: SUPPORTING VETS TO IMPROVE LIVESTOCK HEALTH.

AREVA Mongol has signed a partnership agreement with the Mongolian cooperative union of private veterinary clinics (the CUCVPM) to support veterinary services and collective initiatives of farmers in the Sainshand district of the province of Dornogobi.



DECEMBER 2014

## SHARING OF GOOD HEALTH, SAFETY AND ENVIRONMENT PRACTICES

Health, safety and environment specialists from AREVA Mongol visited KATCO (Kazakhstan), as part of a process of sharing good practices. These sites share commonalities in a number of areas including their activity, radiation protection and safety measurements, their similar climates and the use of the same technology for the future Mongolian operations.

**WORLDWIDE PRESENCE**



**NIGER**

- HEAD-QUARTER
- MINING PROJECT
- OPERATING MINE

**GABON**

- HEAD-QUARTER
- EXPLORATION
- REMEDIATED MINE

**NAMIBIA**

- HEAD-QUARTER
- MINING PROJECT
- DESALINATION PLANT

**KAZAKHSTAN**

- HEAD-QUARTER
- EXPLORATION
- OPERATING MINE

**CANADA**

- EXPLORATION
- MINING PROJECT
- OPERATING MINE
- REMEDIATED MINE
- HEAD-QUARTER
- TREATMENT PLANT

**FRANCE**

- REMEDIATED MINE
- HEAD-QUARTER

**MONGOLIA**

- HEAD-QUARTER
- EXPLORATION

**AUSTRALIA**

- EXPLORATION

## ■ UPDATE ON OUR ACTIVITIES IN 2014

### Australia

Exploration work launched in early 2012 under a partnership agreement with Mitsubishi Corporation continues.



### Canada

In February 2014, half a century after AREVA launched its first mineral exploration program in Canada, the group celebrated its 50th year of presence in that country.

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 an important exploration program in this uranium-rich province and in the Nunavut territory, where it also holds majority interests in several deposits:

- McClean Lake (70% interest)
- Shea Creek (51% interest)
- Midwest (69.16% interest)
- Kiggavik (64.8% interest), where a final Environmental Impact Statement (EIS) was submitted to the authorities of Nunavut in October 2014.

Additional studies are required to determine the development schedules for these deposits, which will depend on uranium market conditions.



**PROFILE**  
Worldwide presence

■ **Cigar Lake**

Cigar Lake is owned by a joint venture of Cameco Corporation (50.025%), AREVA (37.1%), Idemitsu Uranium Exploration Canada Ltd (7.875%) and Tepco Resources Inc. (5%).

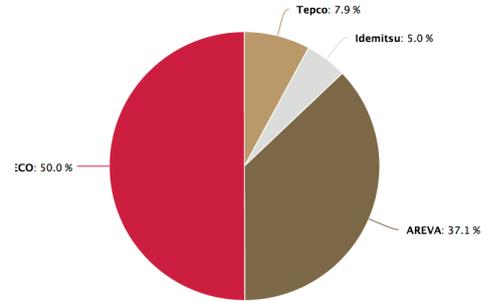
The deposit is operated by Cameco. Cigar Lake will be the world's second largest uranium deposit after McArthur River.

AREVA discovered the deposit in 1981 and contributed to the development of the mining method.

Given its very high-grade ore and its location 450 meters below the surface in fractured, water-saturated rock, 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 U<sub>3</sub>O<sub>8</sub>). The first ore was shipped from Cigar Lake to the JEB mill (see below) in March 2014.**

Composition of the Cigar Lake joint venture



■ **McClellan Lake**

AREVA operates McClellan Lake and is a 70% owner alongside Denison Mines Ltd, which has a 22.5% stake, and Overseas Uranium Resources Development Company Ltd of Japan (Ourd), which owns 7.5%.

The first uranium production at the McClellan Lake open pit mine began in 1995, and uranium concentrate production began at McClellan Lake's JEB mill in 1999.

Mining operations were stopped in early 2009 and the mill was put under care and maintenance in 2010.

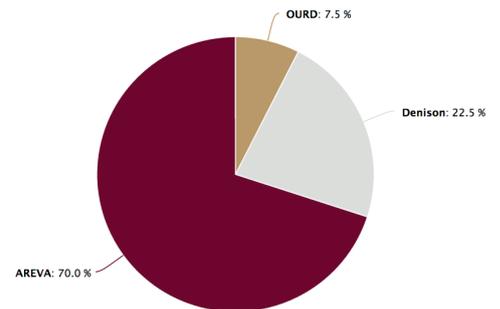
The mill is capable of processing very high-grade ore (> 15%) without diluting it.

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 McClellan Lake, the JEB mill will process all of the ore from the Cigar Lake mine. Accordingly, the mill was restarted in October 2014.

As part of JEB mill restart operations, 43 metric tons of uranium were produced from historic ore stockpiles from the McClellan Lake deposits (on a 100% basis), of which 30 metric tons correspond to AREVA's share

Composition of the McClellan Lake joint venture



■ **McArthur River**

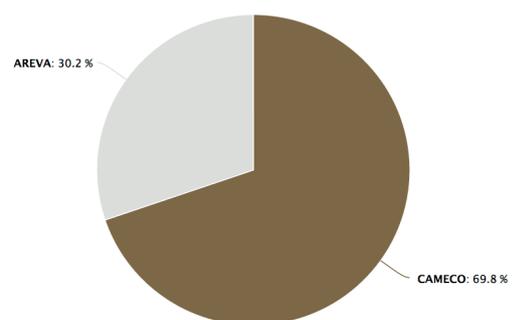
McArthur River is operated by Cameco Corporation, which holds a 69.805% interest (AREVA's stake is 30.195%). The McArthur River mine has the world's largest production capacity.

The deposit was discovered in 1988 and mining began in December 1999. Located more than 600 meters below the surface near fractured, water-saturated rock, and in view of the very high-grade uranium it contains, the deposit cannot be mined with conventional methods.

The miners are protected from direct contact with the ore body by the use of special mechanical mining methods (raise boring), 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. The 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 U<sub>3</sub>O<sub>8</sub>).**

Composition of the McArthur River joint venture



## 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

During the partnership between AREVA/COGEMA and Gabon, which spans a period of some 50 years, five deposits have been mined in the Franceville basin. With the operating phase at these sites now discontinued, AREVA takes care of their environmental monitoring. Exploration work restarted in 2006. Today, the group is carrying out uranium exploration campaigns in Gabon through its subsidiary, AREVA Gabon. If significant discoveries are made, the group may one day again mine uranium deposits in the country.



The Ministry of Mining in Gabon authorized AREVA to restart uranium prospecting activities in Gabon at the end of 2006. **Following early positive results, AREVA created the wholly-owned subsidiary AREVA Gabon, which is headquartered in Franceville in the Haut-Ogooué province.**

The historical mining concession held by Compagnie des Mines d'Uranium de Franceville (COMUF) has been the object of an agreement with AREVA Gabon authorizing the latter to conduct exploration work at the Franceville mining concession, held by the CEA, and leased to COMUF, in the Bagombé, Mikouloungou, Ndzali and Mbersé areas.

Four mining exploration permits were surrendered in 2014 (Mopia, Andjogo, Lekabi, N'Goutou), to concentrate our exploration efforts on the COMUF concession.

## Kazakhstan

Katco, a company headquartered in Almaty, 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 (51%) and the Kazakh company Kazatomprom (49%), the national natural uranium producer of Kazakhstan.

## PROFILE

Worldwide presence

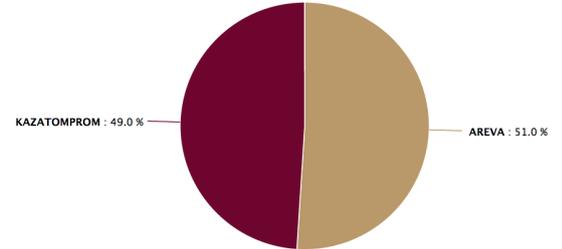
Development of the two mining sites, located approximately 60 kilometers apart, started in April 2004 after the signature of agreements between the two shareholders. The in situ recovery (ISR) technology was chosen, which allows the uranium to be solubilized directly in the rock.

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 (see below).

In April 2014, thanks to this increased capacity, Katco celebrated its 20,000th metric ton of uranium produced since the beginning of mine production.

In 2013, Katco had produced 3,558 metric tons of uranium, with 447 metric tons awaiting calcination at the end of 2013. A significant share of these volumes was drummed in 2014, giving total production of 4,322 metric tons of uranium in 2014.

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 (certification of inferred resources in 2011 and 2013 respectively).



**All future project management and mining functions will be consolidated in AREVA Mines LLC. Mon-Atom, a government-owned company supervised by the Commission for State Assets, acquired a 34% interest in that company in 2013, as allowed under the Mongolian nuclear energy law. This acquisition will be effective when the operating licenses are awarded to AREVA Mines LLC.**

An operating license was requested for Dulaan Uul in August 2011 following the successful in situ recovery test. The license application for the Zoovch Ovoo deposit was filed in June 2014. AREVA is currently assessing the mining project with its partners. In the Zoovch Ovoo area, AREVA continues to conduct the necessary works and studies to confirm the project's technical, economic and environmental feasibility and to define the most suitable mining process. In this regard, the feasibility study completed in accordance with Mongolian standards was submitted to the competent authorities in December 2014 and approved in February 2015.

## 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, due to unfavorable uranium market conditions, AREVA decided to put the project on hold in October 2012.

**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 uranium province is located west of the Air granitic body. Almost 2,500 people work at Somaïr and Cominak. 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 mining operations began in the 1970s.

AREVA also owns the Imouraren project, one of the world's largest deposits, with 174,196 metric tons of reserves after application of the recovery rate with a grade of 700 ppm.

+

**EN SAVOIR PLUS**

**Signature of a strategic partnership agreement between the State of Niger and AREVA**

On May 26, 2014, AREVA and the State of Niger signed an agreement renewing their strategic partnership:

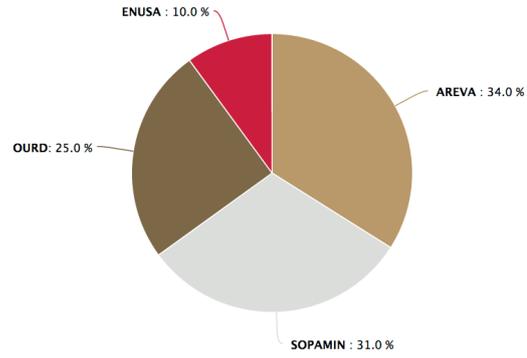
- the agreement enacts the renewal of mining agreements for Somaïr and Cominak in accordance with the Nigerien mining law of 2006 (with neutralization of the value-added tax impact);
- the Imouraren deposit cannot be operated profitably at current uranium price levels. The State of Niger and AREVA established a joint strategic committee which will decide on the schedule for the start of production, based on market conditions;
- AREVA will provide financial support to local infrastructure and development projects:
  - participation in funding of a portion of the Tahoua-Arlit route ;
  - construction of an office building for the mining companies that will belong to the State of Niger ,
  - strengthening of an agricultural development program in the Irhazer Valley of northern Niger .

■ **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 U<sub>3</sub>O<sub>8</sub>).

Composition of the COMINAK joint venture





**PROFILE**  
Worldwide presence

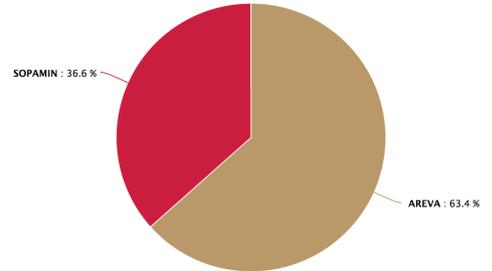
■ **SOMAÏR**

Société des mines de l'Air (Somaïr, the mining company of the Air) 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 national 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 front end of the Arlit mill.

In both cases, the uranium solutions are processed at the back end part of the mill, whose capacity was raised to 3,000 metric tons of uranium per year in 2011 (7.8 million pounds of U<sub>3</sub>O<sub>8</sub>).

Composition of the SOMAIR joint venture



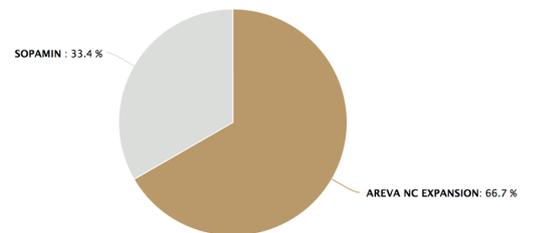
■ **IMOURAREN**

Located 80 kilometers south of Arlit, this deposit was discovered in 1966 and constitutes one of the largest deposits in the world today (174,196 metric tons of reserves). 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 of Niger holding the remaining 33.35%.

In view of market conditions, construction work was suspended. The site, equipment and facilities are currently put under care and maintenance, and all demobilization operations should be completed in the first quarter of 2015.

Composition of the IMOURAREN SA joint venture



## ■ 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. The Committees provide opinions and recommendations to the Board of Directors in areas related to corporate governance.

### **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.

## ■ MINING BUSINESS LINE WITHIN AREVA'S MINING-FRONT END BUSINESS GROUP

As part of the drive to optimize strategic and commercial synergies, AREVA's Mining Business Group and Front End Business Group came together in 2015 to form the Mining-Front End Business Group, headed by M. Olivier WANTZ, Senior Executive Vice President, member of AREVA's Executive Committee.

Reporting to the Director of the Mining-Front End Business Group, a Mining Business Line has been established, hosting all the mining activities of the former Mining Business Group, 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). M. Jacques Peythieu serves on the management committee of the Mining-Front End BG and 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. AREVA Mines SA is managed by Olivier Wantz, its Chairman and Chief Executive Officer.

It 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).

## 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 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.

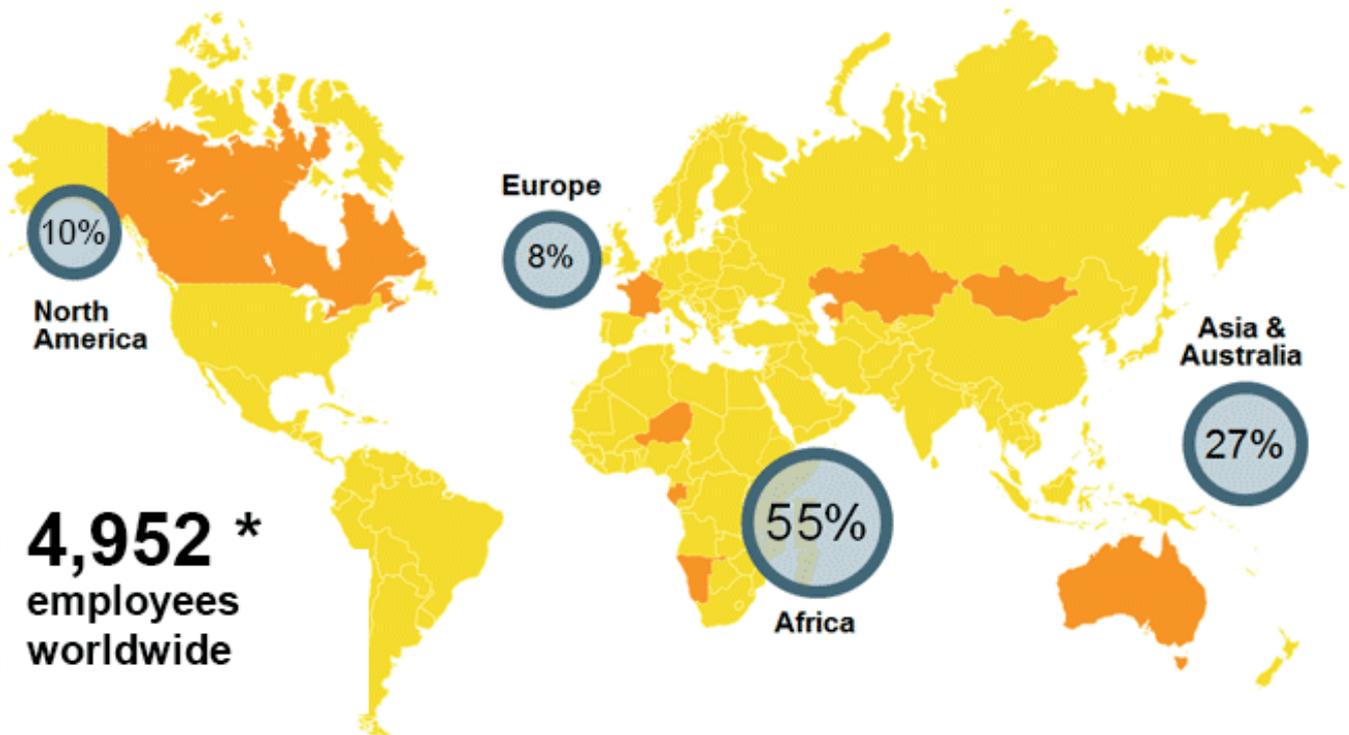
Its aim is to promote a **safety culture within mining operations**, establish and validate related objectives and ensure that the group's Health and Safety Policy is respected, along with its associated commitments.

## 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.

## INTERNATIONAL ACTIVITIES



\* 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 on five continents. There are uranium production sites in three countries: Canada, Niger and Kazakhstan.

## ■ URANIUM MARKET IN 2014

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



Its objective is to continue to optimize the competitiveness of existing sites and to develop its project portfolio by conducting the necessary studies in order to be able to launch new investment when a sustainable recovery in uranium prices is observed.

**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**, expressed in natural uranium equivalent, were about 66,000 metric tons of uranium in 2014 (source: WNA 2013), a slight increase from 2013, led in particular by demand from Asia (e.g. China), after declining from 2010 to 2013 due to the shutdown of Japanese and German reactors and the closure of some US reactors, led in particular by demand from Asia (e.g. China).

Supply consists of:

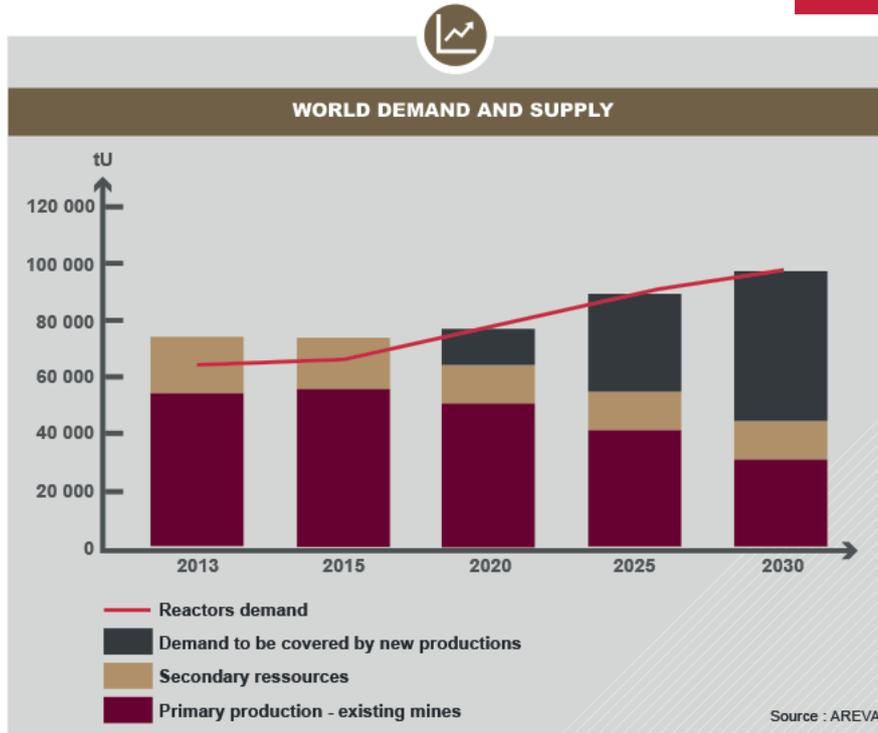
- mining production, which was around 56,000 metric tons of uranium, down from 2013 due to reduced production at existing mines and projects put under care and maintenance (e.g. Kayelekera, Honeymoon);
- secondary resources, consisting of highly enriched uranium (HEU) from dismantled Russian and US weapons, materials recovered from used fuel recycling, US Department of Energy uranium inventory market-out, the re-enrichment of tails and uranium from underfeeding.

Despite the end in 2013 of the HEU program, in which AREVA participated for several years, secondary resources - including uranium from underfeeding - should continue to play a role in the market in the coming years.

+

EN 2014 ...

**8,959 metric tons** of uranium  
(Consolidated financial share to which must be added 510 tonnes of AREVA share in COMINAK, whose accounts are now deconsolidated in accordance with new accounting rules).

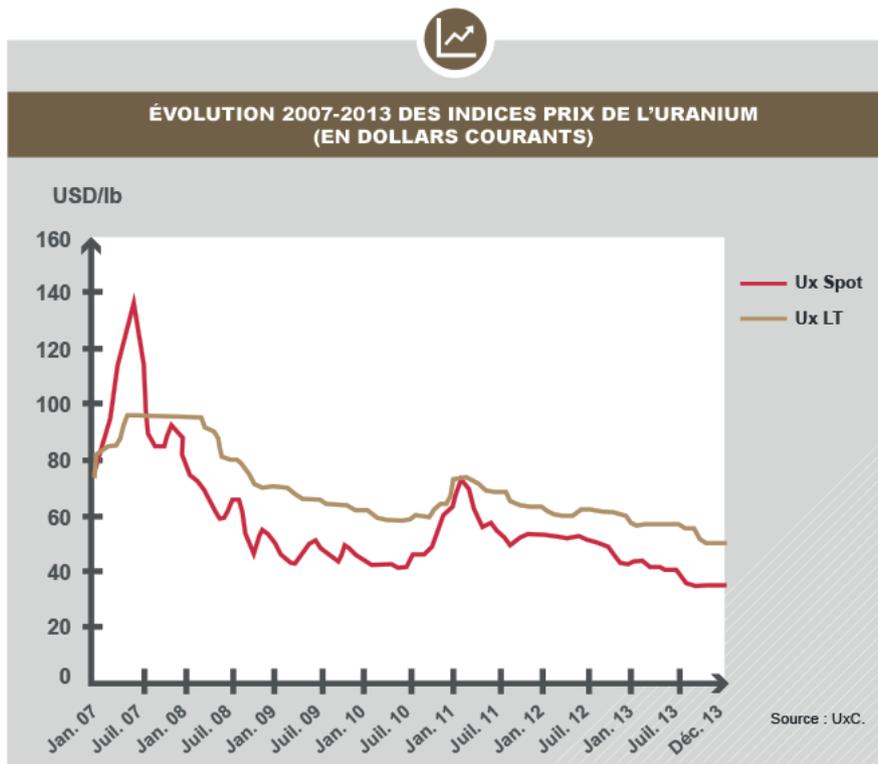


### Spot market

The spot market, which covers about 15% of uranium supplies, weakened in the summer of 2014 to \$28 per pound. It recovered in the fall, reaching \$44 per pound.

These relatively low levels reflect an imbalance between supply and demand, currently off set by opportunistic purchases and inventory-in.

The surplus of materials available on the market did not push to the signature of multiyear contracts in 2014, with the result that the average of long-term indicators stood at \$49.50 per pound at the end of 2014, compared with \$50 per pound at the end of 2013.



Since 2012, with the decline of market indicators, producers have announced numerous project postponements and the closure and/or care and maintenance of producing mines (e.g. Kayelekera in Malawi and Honeymoon in Australia). This restructuring is expected to continue in the coming months.

Longer term, the market is still expected to grow, with demand 35% higher in 2025 than in 2014 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 2014

The group sold 12,602 metric tons of uranium in 2014, versus 17,623 metric tons in 2013. This decrease reflects the exceptionally high volumes delivered in 2013 (last sales of uranium under the HEU agreement and reduction of natural uranium inventories).

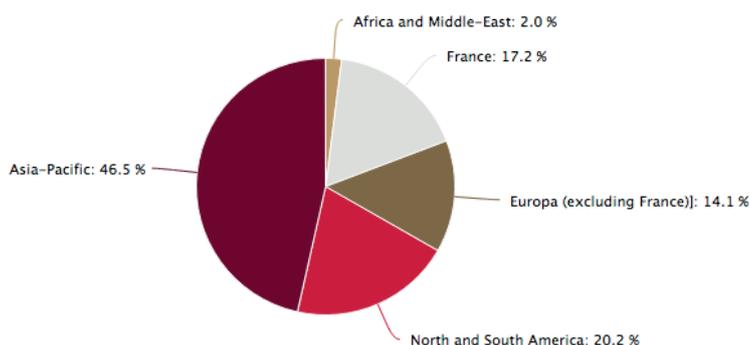


## Key figures

The Mining Business Line had an order uptake of 534 million euros, bringing the backlog to 9.539 billion euros at the end of 2014. The backlog is diversified among customers in different uranium-consuming regions.

The Mining Business Line offers its customers uranium 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



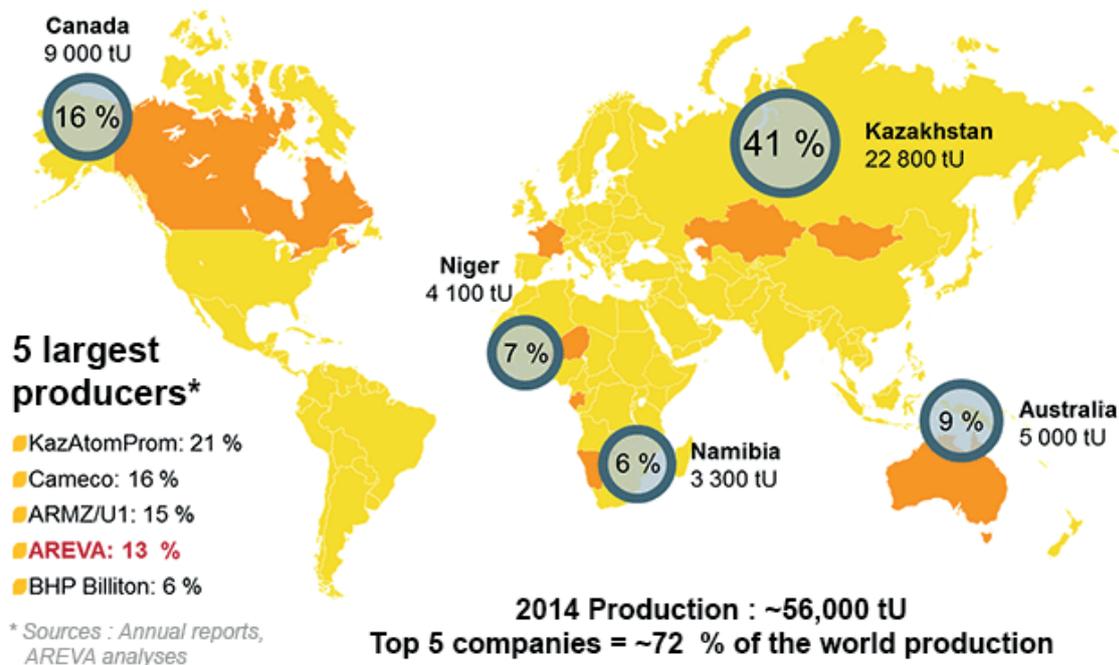
### KEY FIGURES

	2014	2013
Revenue * <i>(in millions of euros)</i>	1,297	1,717 **
Operating income <i>(in millions of euros)</i>	(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 2014



### Production of mining sites

In 2014, AREVA produced 6,499 metric tons of uranium in joint venture share (equity share of production):

- Somair produced 2,331 metric tons of uranium, for an AREVA share of 1,478 metric tons (on a 100% basis);
- Cominak produced 1,501 metric tons of uranium, for an AREVA share of 510 metric tons (on a 100% basis);
- Katco produced 4,322 metric tons of uranium (above its nominal capacity of 4,000 metric tons of uranium due to the catch-up of volumes that could not be calcined before December 31, 2013), for an AREVA share of 2,204 metric tons ;
- McArthur River/Key Lake produced 2,224 metric tons of uranium (AREVA's share);
- Cigar Lake produced 49 metric tons of uranium (AREVA's share). In addition, as part of the restart of AREVA's McClean Lake mill, which processes all of the ore from Cigar Lake, 30 metric tons of uranium (AREVA's share) were produced from historic ore stockpiles at the McClean Lake deposits.



COUNTRY	Sites	Share in JV in 2014	Available share <sup>1</sup> 2014	Financial consolidation 2014	Type <sup>2</sup>
		<b>MTU</b>	<b>MTU</b>	<b>MTU</b>	
<b>CANADA</b>	McArthur River	2,224	2,224	2,224	UG
<b>CANADA</b>	Cigar Lake	49	49	49	UG
<b>CANADA</b>	McClellan Lake	30	30	30	n.d.
<b>TOTAL</b>	<b>Canada</b>	<b>2,304</b>	<b>2,304</b>	<b>2,304</b>	
<b>FRANCE</b>	Div. Min. Hérault	3	3	3	n.d.
<b>TOTAL</b>	<b>France</b>	<b>3</b>	<b>3</b>	<b>3</b>	
<b>KAZAKHSTAN</b>	Katco	2,204	2,750	4,322	ISR
<b>TOTAL</b>	<b>Kazakhstan</b>	<b>2 204</b>	<b>2,750</b>	<b>4,322</b>	
<b>NIGER</b>	Cominak <sup>3</sup>	510	350	-	UG
<b>NIGER</b>	Somaïr	1,478	1,900	2,331	OP
<b>TOTAL</b>	<b>Niger</b>	<b>1,988</b>	<b>2,250</b>	<b>2,331</b>	
<b>TOTAL</b>		<b>6,499</b>	<b>7,307</b>	<b>8,959</b>	

<sup>1</sup> Share available to AREVA: share of resources and production sold/distributed to AREVA by the mining joint venture.

<sup>2</sup> Type of operation: ISR: In Situ Recovery; OP: Open Pit; UG: Underground; n.d.: not defined.

<sup>3</sup> Cominak has been consolidated under the equity method since January 1, 2014 .

Source : AREVA.



## CHAPTER

# CSR APPROACH

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

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:

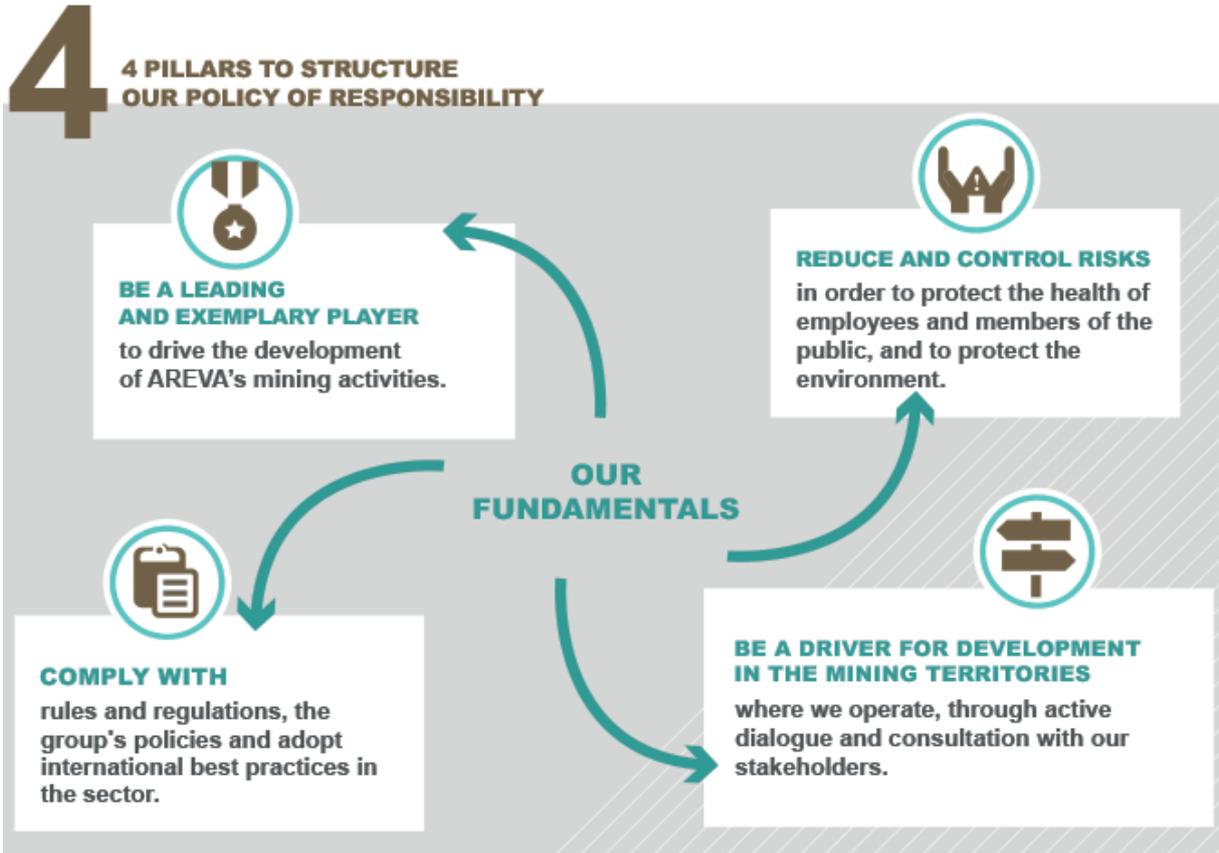
- Efforts made to improve our operational performance and to ensure a return to profitability.
- The taking of decisions that can sometimes be difficult, but are necessary for the long term.
- An integrated approach to responsibility in which health and safety, environmental protection and local development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





## 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, or even the contractual elements in projects,** 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), which constitute 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.

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

Mining is an industrial activity that can have environmental impacts.

Uranium 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).

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.

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 long term.

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

---

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

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

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## 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. The aim 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, self-assessment 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. As of 2015, the majority of our sites abroad are preparing to produce their own annual report in this format so as to be able to render their disclosures more complete for the benefit of their local stakeholders.

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.

As of 2014, we achieved GRI 3.1 "A+" assessment which we self-declared. We are preparing to transition to version G4 and the associated materiality process.



#### MOBILIZE OUR TEAMS

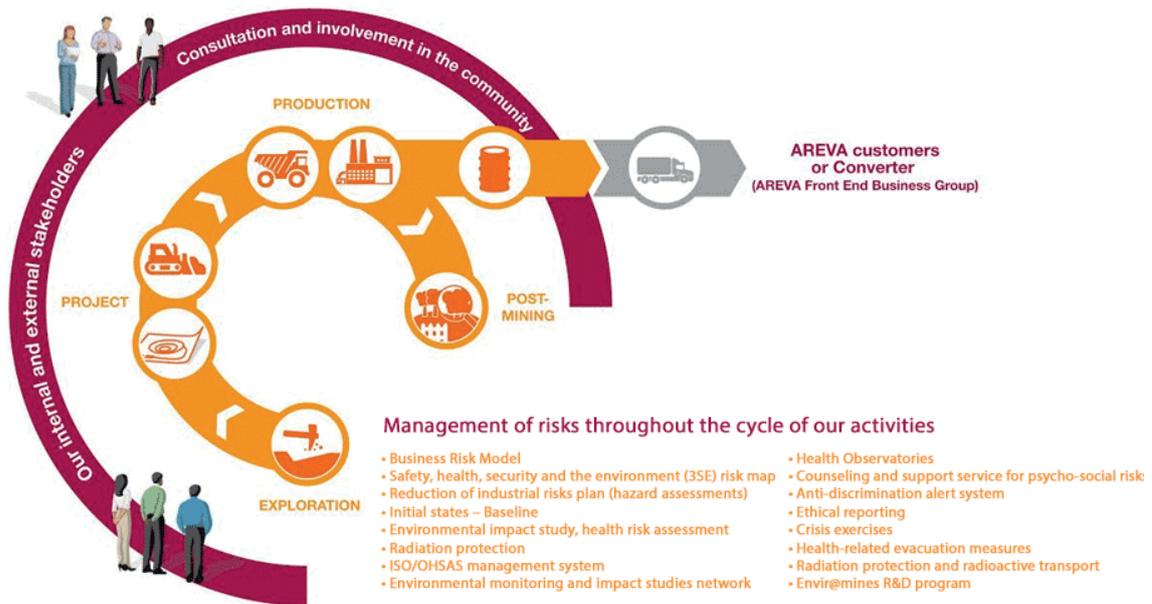
Our teams constitute the primary interface with our stakeholders. They conduct many concerted local initiatives to identify and address expectations.

They are key to the 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 economic, social and environmental 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 responsible development 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).

## AREAS FOR ACTION

### RISK MAPPING

Assessing Health - Safety -  
Environment risks



Our head office and onsite teams, in all the countries in which we have a presence, participate in the process of protection and Environmental risks: the risk mapping process.

The aims of this mapping process are to identify the major risks encountered on sites and the top priority action

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

The assessment of these risks is with regard to control of risks linked to:

- industrial facilities and processes,
- products used (e.g. chemical products ),
- performance of the management in place,
- compliance with regulations and guidance.

### 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, following the leaching tests, that the Cigar Lake ore samples showed excessive concentrations of hydrogen. The operational and engineering teams took the decision to start work with an external consultant to resolve this issue. A new design was proposed and implemented in 2014 in order to reduce the level of hydrogen to within acceptable limits according to best practice, 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 2014 two level 3 exercises were carried out on sites (in Mongolia and in France). The exercises aim to test the crisis organization put in place in the event of natural catastrophes, industrial accidents or malicious acts.

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.

Through the electronic system AHEAD (AREVA Happened Events Advanced Database), they also feed into a repository of lessons learned and experience from environmental events.

### PROGRAMMES DE R&D

Prévenir sur le long terme



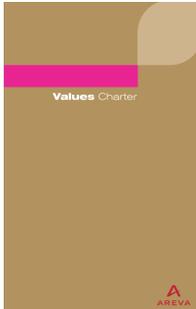
The scientific work for our R&D programs is performed by our onsite teams together with numerous research partners. The work aims above all to:

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

Several academic partnerships have been set up to help AREVA in its response to the scientific challenges. This collaborative approach means our R&D teams can enhance their work with the help of new perspectives and skills. It is also an opportunity to improve the legitimacy of reported results.

On after-mining issues, we have established partnerships with institutions including Université Paris VI, Ecole des Mines de Paris, Université de Poitiers, Université de Bruxelles, the University of Manchester, the University of Granada, and CEA.

## 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 the Mining Business Line** is held by the General Counsel for our activities, in contact 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 of the Mining Business Line. 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.

## 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.



### FIND OUT MORE

A system for alerting and issuing complaints in case of discrimination has been in place since February 2013.

Our employees can use this system or else raise any issue with the human resources teams, their managers, their staff representative, or the network of ethics officers.

In 2014, the system was used once within the scope of mining activities. The case was found not proven following an internal investigation.

*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.

**ICMM**  
International Council  
on Mining & Metals

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](http://www.icmm.com).



**THE 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.



### Setup timeline

2007

AREVA announces its intention to monitor the possible health impact of its uranium mining activities, particularly in Africa.

JUNE  
2009

A memorandum of understanding is reached by the various parties (including two NGOs that have now withdrawn) and the agreements founding the Health Observatories are signed.

OCTOBER  
2010

Launch of the Health Observatory of Mounana (OSM) in Gabon and start of post-professional monitoring for former COMUF employees.

DECEMBER  
2011

Launch of the Health Observatory for the Agadez Region (OSRA) in Niger and start of post-professional monitoring for former SOMAÏR and COMINAK employees.

## How the Health Observatories work

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

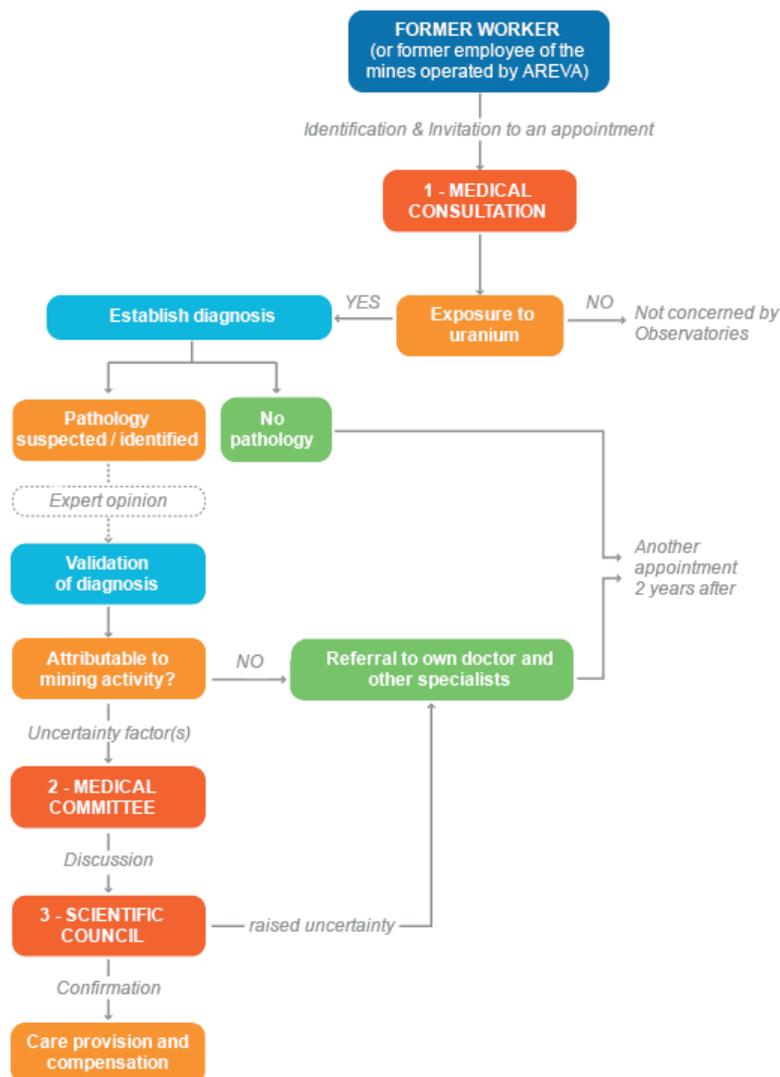
- The former employees concerned are directed to a suitable hospital facility but their case is no longer the responsibility of the Observatories.

### 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.



**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?**

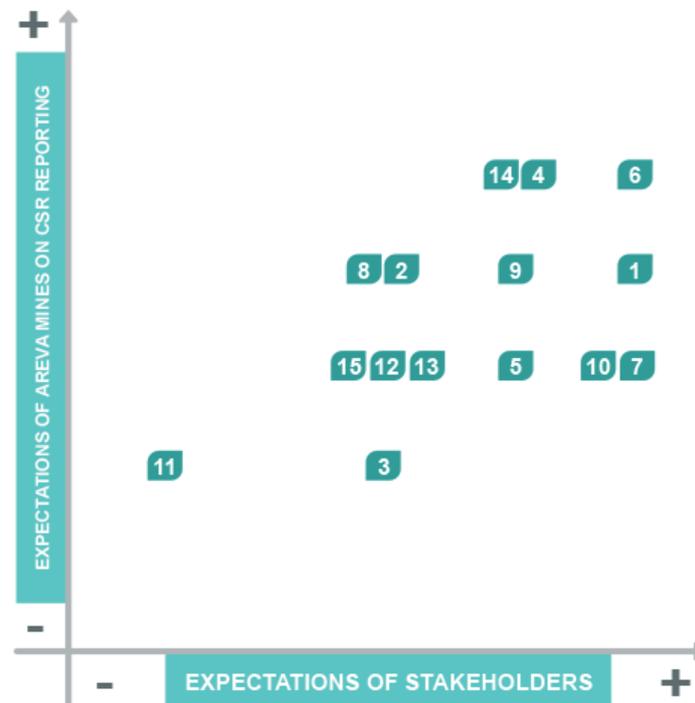
Materiality consists in identifying the CSR performance topics on which the AREVA Mining Business Line should report annually.

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 2013, 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
5. COMMUNITY INVOLVEMENT	6. HEALTH, SAFETY AND RADIOLOGICAL PROTECTION OF EMPLOYEES	7. LABOR RELATIONS	8. EMPLOYEE DEVELOPMENT
9. ENVIRONMENTAL FOOTPRINT	10. BIODIVERSITY	11. CLIMATE CHANGE	12. EMISSIONS AND WASTE
13. MANAGEMENT OF LONG-TERM IMPACT	14. OPERATIONAL PERFORMANCE	15. SHIPMENTS AND TRACEABILITY OF URANIUM	



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; After-Mine; 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 Objective

- Deploy the internal reporting protocol relating to formalization and analysis of dialog with, and the expectations of, our stakeholders within the framework of local dialog and consultation bodies (guidelines being prepared). The goal is to establish as completely as possible the levels of stakeholder expectations vis-à-vis our challenges/issues.
- Produce annual social responsibility reports for local stakeholders on the mining sites (in progress for Mongolia and Kazakhstan).
- Make a study of the process of inclusion to be adopted for this materiality exercise.
- Allow RDR readers to express themselves in a more accessible way on the issues presented in this report.

## Objective from 2016

- Self-declare the Responsible Development Report on AREVA's mining activities as per the GRI "core option" level.
- Self-declare the annual site-level RDR reports as per the GRI "core option" level.



**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 2014 on Areva's Mining Activities

The complete report is downloadable on :  
[www.csr-mines.aveva.com](http://www.csr-mines.aveva.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 performance pillar 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.

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 objectives are 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).

## RADIATION PROTECTION OF EMPLOYEES



## Exposure to ionizing radiation

Two types of exposure to ionizing radiation are possible:

- **External exposure** to ionizing radiation, where a person is externally exposed to ionizing radiation emitted by a radioactive source.

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**, in other words when radioactive elements penetrate inside the organism.

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 radiation.

In order to avoid or reduce the associated risks, radiation protection follows three main principles: justification, optimization and limitation of radiation 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 (ALARA precautionary principle);
- **the limitation of individual radiation exposure doses.**

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 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 2013, a direct-reading dosimeter (DRD) with Bluetooth technology was installed at McClean Lake in Canada, which has some of the highest uranium concentrations in the world.

In this way, doses can be monitored on a daily basis. The average dose can also be monitored, with potential for investigation when spikes are recorded.

A real-time alpha/beta dust counter has also been put in place. 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/person 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, risk analyses are conducted at workstations and the exposure of workers is monitored using suitable dosimeters.

## 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 mainly exposed to two major categories of health risk, namely the injuries that may occur following an accident in the workplace, mainly on an industrial or mining site, or the damage associated with the ionizing radiation that is intrinsic to uranium ore mining and the production of uranium oxides (U<sub>3</sub>O<sub>8</sub> – Yellow Cake). 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 November 2014 in Mongolia.
- **Counseling and support service** for psycho-social risks with provision of a psychologist from the occupational health department. From 2015, preparations will be underway to provide expatriates and their families with a personal health contact specializing in this area.
- **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 reduces harm to the health of our employees.



**KAZAKHSTAN: EMERGENCY MEDICAL INTERVENTION EXERCISE AT KATCO**

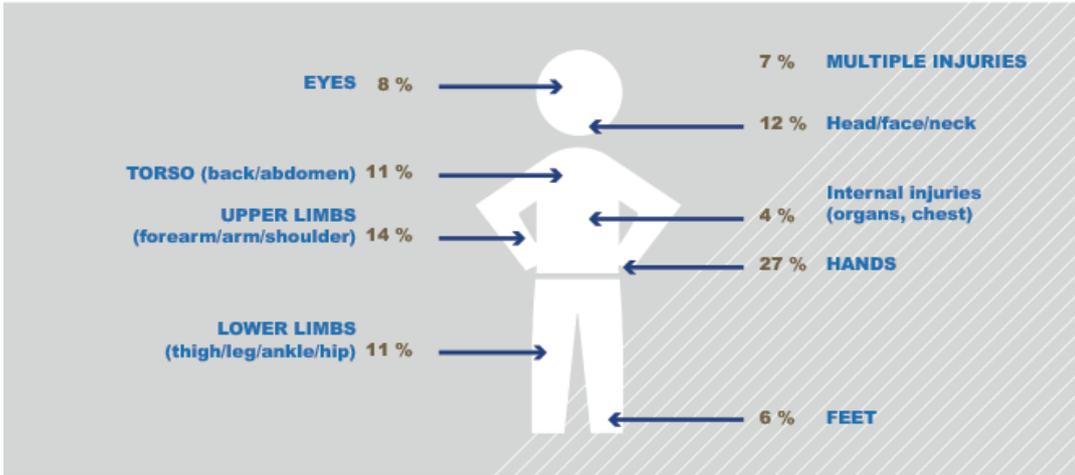
In May 2014, the KATCO site hosted a level-1 large-scale emergency medical intervention exercise. The exercise scenario involved a simulated traffic accident between a truck loaded with acid and a bus carrying passengers.

KATCO emergency staff demonstrated their ability to intervene and manage such a situation. This illustrates the commitment on the part of the Mining Business Line to establishing a system for anticipating and planning for industrial risks and testing the system's effectiveness on all of the sites.

**2014 RESULTS**

**Injuries associated with workplace accidents**

2014 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, including in countries where the national regulations are less restrictive.

**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.

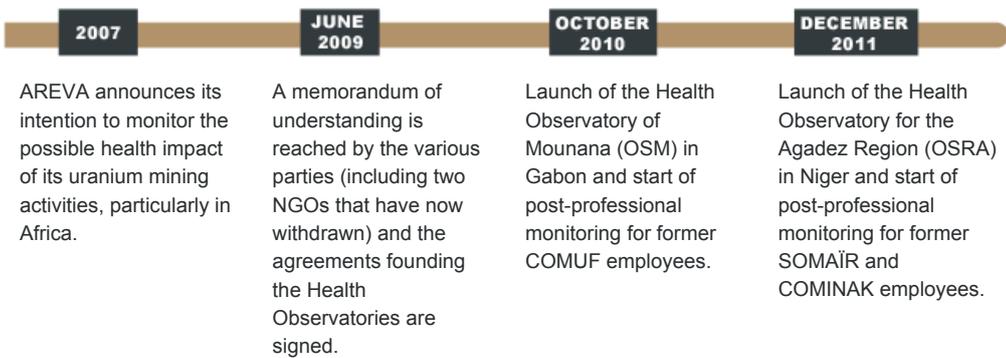
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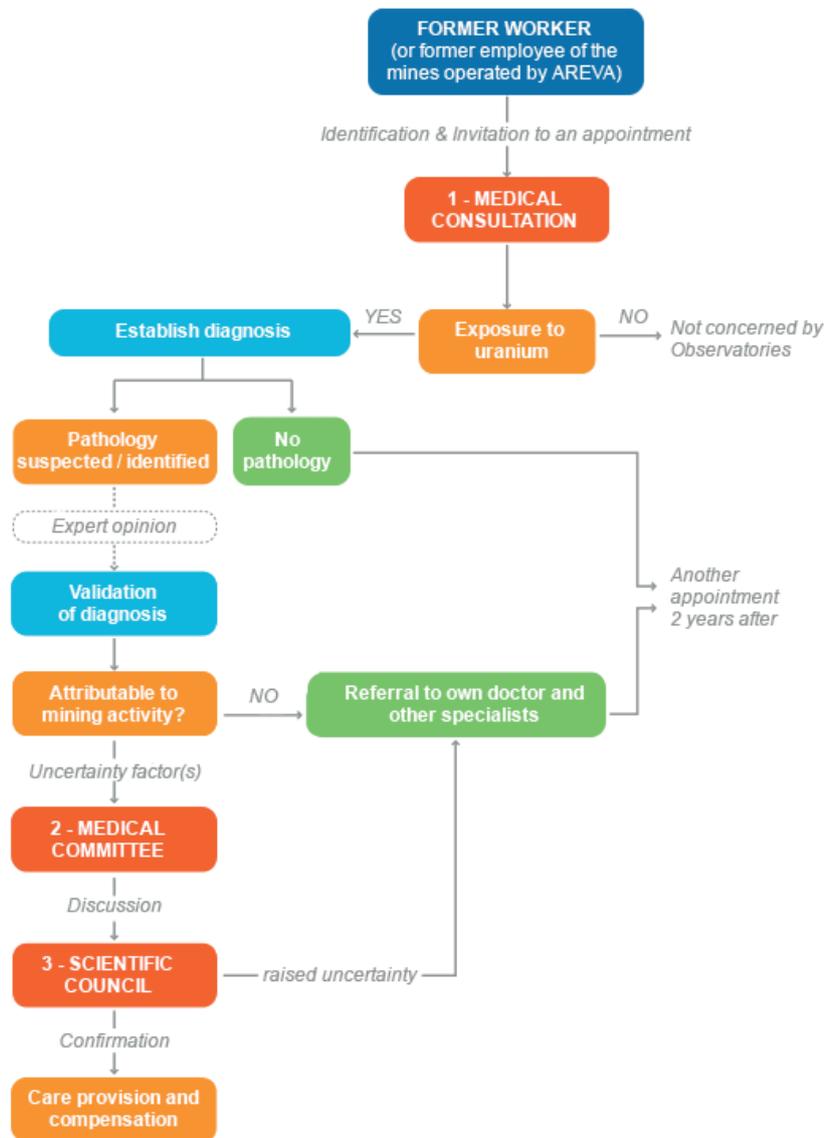
The medical consultation that forms part of this post-professional monitoring is organized every 2 years and includes an interview with a doctor, a clinical examination, a chest x-ray and a blood test. It is carried out by independent doctors whose services are provided to the Observatories.



**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:**

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## CHAPTER

# COMMITMENTS

### Occupational safety

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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## 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" program



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.

For the second year in a row, June is Safety Month in the Mining Business Line in 2014. 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 July 2013 **nine safety standards** have been applied to all activities. In 2014, three new standards were developed and these will be applicable from 1 January 2015:

- **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.

To allow opportunity for the sites to familiarize with the new rules, the three new standards were presented to all employees in the course of the security days held in June 2014. The local teams were then able to put in place the necessary action plans.



## 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.

LTIFR / TF1 (i.e. no more than 27 lost-time accidents) and consolidation of our TRIR including first aid / TF3.

*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)*

“ Our objective is zero accidents.

Just like each and every one of you, I am only satisfied provided we all get home safely to our families at the end of each day of work. My personal belief regarding safety is that to achieve **zero accidents** we have to have:

- strong and visible management commitment
- strict compliance with rules
- and commitment on the part of everyone to work in thoroughly safe conditions that go beyond simply working in conformity.

I expect each Mining Business Line employee to make an unfailing commitment to safety and to behave in an exemplary manner in all matters of safety.

*Excerpt of letter of commitment by Olivier Wantz, Member of the Executive Committee and Senior Executive Vice President, Mining and Front End.*

## 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.).

The objectives of the Safe Together! program 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, an annual safety seminar, 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:** allocate 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 Safe Together! standards, manage subcontractor safety, perform audits and improve cause analysis.
- **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. These roadmaps are validated by the Mining Business Line at top management level. Indeed, all Site directors, accompanied by their HSE teams, have presented their roadmaps to the Mining Business Line's Director of Operations and SSERP department (Health, Safety, Environment and Radiation Protection).

- EXAMPLES -



EXAMPLES OF ACTIONS CARRIED OUT IN 2014

- Bessines site supported in its compliance initiative following a General Inspection Department audit (on work at height, lock-out/tag-out, work permits and prevention plan).
- Performance of occupational risk analyses on the Katco site in preparation for OHSAS 18001 certification.
- Development of procedures for lock-out/tag-out and work at height applicable to all Mining Business Line sites.
- Continuation of the site safety day events which are becoming an essential forum.
- Training on human and organizational factors (HOF's) at the Nigerien sites for first-level managers.

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 **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.

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

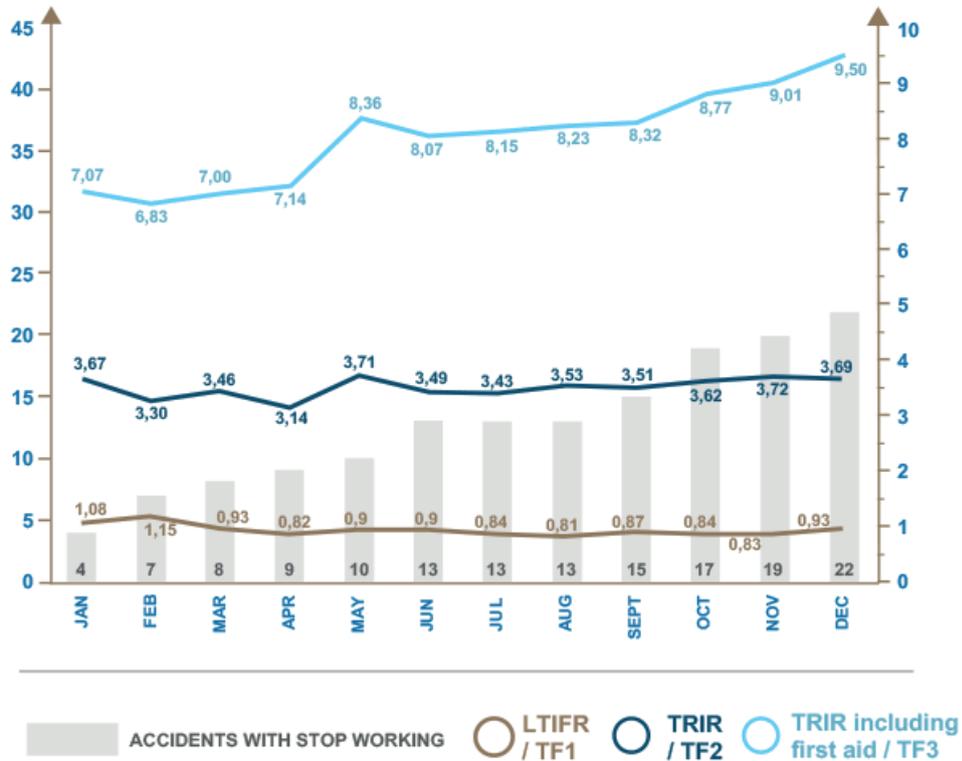


LOCATION OF OUR SITES	CERTIFICATION STATUS ON DECEMBER 31, 2014 - OHSAS
AUSTRALIA	Certified
CANADA	Certified
FRANCE	Certified
KAZAKHSTAN	2015 Objective
NAMIBIA	Non-certified
NIGER	Certified

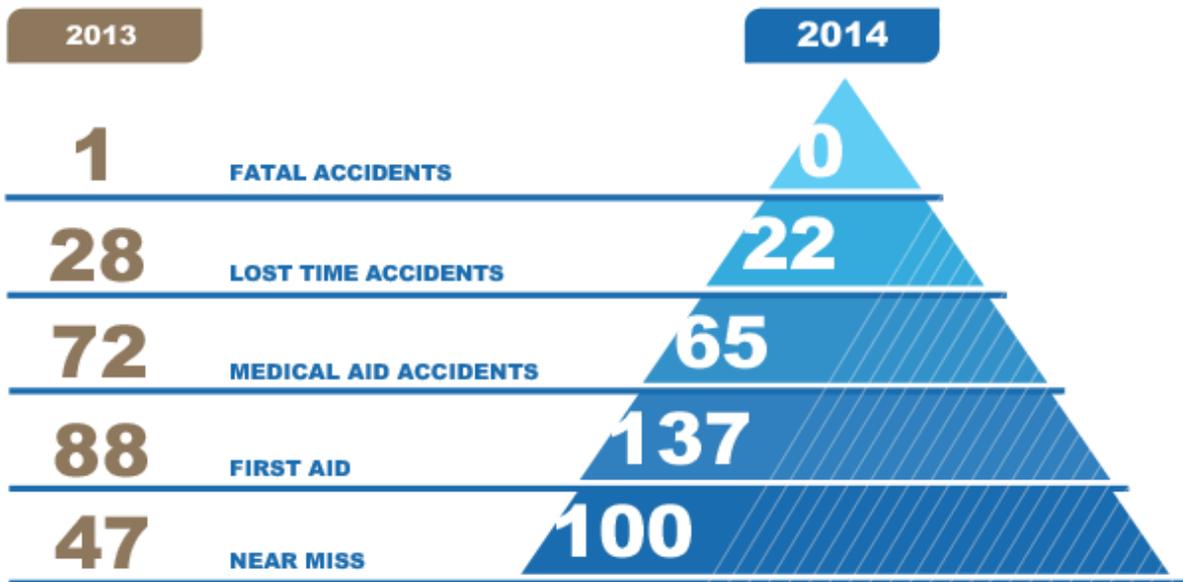
## 2014 RESULTS: TENDING TOWARDS "ZERO ACCIDENTS"

In 2014, the safety results of the Mining Business Line were met. Most importantly for all, and for the first time since 2009, there were no fatal accidents. Furthermore, the commitment to safety at all levels of the organization allowed us to achieve a lost-time accident frequency rate of less than 1 (LTIFR / TF1 = 0.93), corresponding to 22 accidents in total. Since 2011, the frequency rate has included the safety results of our subcontractors.

### AREVA MINES LTIFR / TF1 & TRIR / TF2



■ Safety events at end-2014 (from 1<sup>st</sup> January to 31 December 2014)



The Mining Business Line also experienced a period of three months without lost time accidents in the second half of 2014, another record. This result shows that the goal of zero accidents is attainable, and we continue to act every day at all levels to move towards this ultimate goal of "zero accidents".

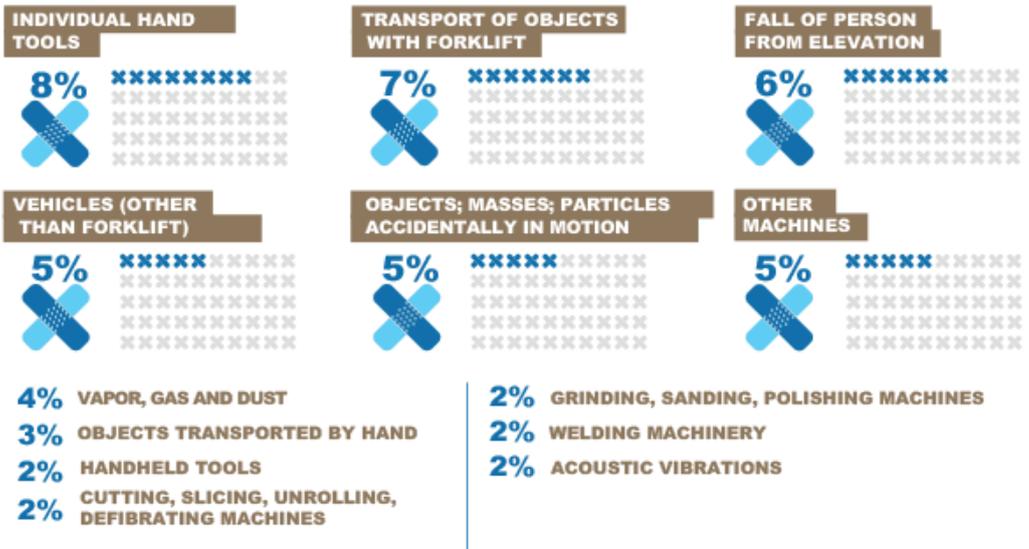
Main causes of work-related accidents

One third of our accident events involve hands, while the remaining events are equally spread between the lower limbs, face and eyes.

MAIN CAUSES OF ACCIDENTS ARE:



OTHER CAUSES ARE:



RARE CAUSES: 1%

- Lifting, mooring and gripping equipment
- Apparatus or utensils implementing hot products, incl. kilns, ovens
- Electricity
- Animals
- Working environment
- Machines for grinding, crushing, spraying, dividing
- Stirring or mixing equipment
- Pressing, molding or injection machines
- Saws
- Filling, conditioning, packing, packaging, pouring machines
- Earthmoving machinery and equipment for ancillary works
- Pressurized equipment
- Apparatus or utensils implementing caustic, corrosive products
- Flame combustible material
- Gas - steam leaks
- Assault by firearms or explosives
- Flooding / leakages
- Co-activity
- Workstation environment
- Other



## CHAPTER

# COMMITMENTS

## Environment & Biodiversity

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

## FUNDAMENTALS: ENVIRONMENT POLICY 2014-2016

*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.*



The commitment of AREVA's mining activities is shaped by the 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.

The implementation of this policy is reflected in our actions on the sites to address all the commitments.

## 2014 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.

Biodiversity



In the context of environmental impact studies (EIS), we conduct **ecological inventories** and identify **preventive and mitigation measures and offsets** to put in place to preserve these species (e.g. re-routing of piping at our Namibia facilities to preserve the habitat of an endemic lichen species, set up of a mechanism to protect amphibians during earthworks at Bellezane in France).

All our sites require **biodiversity management plans** to be drawn up and implemented. At the end of 2014, almost half of our sites had deployed such plans to better identify potentially exposed species and minimize the impacts on biodiversity that may be linked to:

- the destruction of ground cover,
- the disturbance of habitats due to the creation of open-pit mines, drilling or the construction of roads,
- modifications to the water table and the disturbance of surface water or wet areas;
- impacts associated with remediated work.

Some of our mining license areas are located near areas with rich biodiversity (e.g. mining license for almost 129,000 hectares near the Dorob National Park in Namibia).

In these areas, we undertake studies and actions to preserve sensitive zones with third parties such as local communities, consultancy firms, university specialists or natural space conservation bodies.

On our sites we also deploy **environmental monitoring systems** to monitor and check the quality of air, soils and water, as well as flora and fauna with the assistance of ecologists and naturalists. We are doing this in a participative way with local communities as part of the Athabasca Working Group in Canada, North Saskatchewan.

 BIODIVERSITY 2014 STUDIES PERFORMED ON OUR SITES	
<b>NIGER</b>	<b>KAZAKHSTAN</b>
<b>PROJECT</b>	<b>EXPLORATION AND PRODUCTION</b>
Biodiversity study to characterize pasture conditions in the immediate vicinity of sand and gravel quarries	Environmental impact study within the framework of preparations for ISO 14001 certification.
<b>FRANCE</b>	<b>GABON</b>
<b>REMEDICATION AND AFTER-MINES</b>	<b>EXPLORATION</b>
Preparation of files to request exemptions for remediation work impacting plant and animal habitats.	Establishment of a preliminary diagnosis to assess biodiversity sensitivity levels for exploration licenses.
	<b>AFTER-MINING</b>
	Conduct of an environmental and social impact assessment in the Mounana 200 project (demolition and rebuilding of 200 homes).

## Water

### ■ Main impacts

The main environmental impacts in this case concern the quantity of natural water taken, the quality of industrial effluents released into the environment (with regard to the authorized regulatory limits) and the optimization of the uptake and consumption of this resource.

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.



QUANTITY OF WATER TAKEN BY SOURCE IN 2014 - m <sup>3</sup>	2014	2013	2012	2011
VOLUME OF WATER TAKEN FROM SURFACE WATERS (including rain water)	219 009	228 775	239 541	110 927
VOLUME OF WATER TAKEN FROM THE DISTRIBUTION NETWORK	156 660	194 625	445 448	1 561 462
VOLUME OF PIT WATER TAKEN	5 147 643	5 548 605	7 152 852	6 738 599
VOLUME OF GROUNDWATER TAKEN (via pumping wells)	6 414 741	6 841 845	6 144 581	5 420 079

### ■ 2014 consumption

Gross water consumption decreased by 12.5% compared to 2013 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 Katco site in Kazakhstan continuing to implement the effluent recycling process 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. The adoption of industrial processes that consume less,
- The putting of the Trekkopje project under care and maintenance in Namibia.



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



### ENVIRONMENTAL ACTION IN OUR DRILLING ACTIVITIES

All our sites are working to minimize impacts on the environment. These actions fall under both the environmental framework and occupational health and safety. Specific support actions for sub-contractors are being conducted by the exploration teams with the assistance of Mining Business Line drilling specialists. The involvement of the operational teams is fundamental, as is supporting our sub-contractors. In this respect, the examples of best practices and improvements implemented at the Mongolia site over the past few years are quite remarkable.

Among environmental protection measures, on the Mongolian site 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).

#### ■ Water quality and consumption monitoring campaign

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

In addition, hydrogeological and hydrogeochemical studies are being carried out by external consultancy firms as well as by our internal specialists and experts (team of hydrogeologists). At the same time, action is being taken to reduce very low level radioactive water discharges and/or those containing conventional chemicals, commonly referred to as industrial effluents, at the source and minimize their toxicity, and, for those that are released into the environment, to provide appropriate treatments.



### FIND OUT MORE

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.

**News for 2014:** hydrogeological and hydrogeochemical studies are being continued on behalf of SOMAÏR and COMINAK.

## Industrial waste and emissions

#### ■ 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: 50% of conventional waste was recovered in 2014.

**The overall tonnage of conventional waste decreased by 64% in relation to 2013 for AREVA's mining activities as a whole.** This development is mainly due to the absence of exceptional events as was the case in 2013 (reconstruction of SOMAÏR facility) and to the change in scope (Imouraren, Cluff Lake).



QUANTITY OF CONVENTIONAL WASTE - METRIC TONS	2014	2013	2012	2011
QUANTITY OF HAZARDOUS WASTE	1 410	6 459	4 109	3 358
QUANTITY OF NON-HAZARDOUS WASTE	3 185	6 402	5 885	3 134

■ Emissions to air and water

- **Aqueous discharges.** Industrial effluents are either stored in dedicated ponds (e.g. at our Niger sites) or processed via dedicated treatment stations (e.g. downstream treatment of stored processing waste from our remediated former sites in France).
- **Emissions into the air.** The type and quantity of emissions into the air and industrial effluent emissions vary depending on the process in use. These emissions are identified, quantified and managed in line with the regulations in force. Atmospheric emissions mainly concern greenhouse gases such as carbon dioxide (CO<sub>2</sub>) or sulfur oxides (SO<sub>x</sub>) or nitrogen oxides (NO<sub>x</sub>).



The impact of our emissions is analyzed and assessed as part of our environmental monitoring.



ATMOSPHERIC EMISSIONS (ACROSS ALL SITES)	Unity	2014	2013	2012
<b>DIRECT GREENHOUSE GAS EMISSIONS (GHG) - SCOPE 1</b>	Metric tons CO2 equivalent	190 278	202 302	110 927
<b>DIRECT EMISSIONS OF GREENHOUSE GASES (GES) LINKED TO THE TRANSPORTATION OF FREIGHT AND PERSONNEL - SCOPE 1</b>	Metric tons CO2 equivalent	16 442	16 876	16 600
<b>INDIRECT GREENHOUSE GAS EMISSIONS - SCOPE 2</b>	Metric tons CO2 equivalent	174 215	197 608	193 724
<b>EMISSIONS OF OZONE-DEPLETING GASES</b>	Kilograms CFC-111 equivalent	65,9	55,08	5 420 079
<b>QUANTITY OF SOX EMISSIONS</b>	Metric tons SOx	1 417	1 075	1 085
<b>EMISSIONS OF VOLATILE ORGANIC COMPOUNDS (VOCs)</b>	Kilograms	809 778	1 094 975	1 258 531

The type and quantity of emissions into the air vary depending on the process in use. These emissions are identified, quantified and managed in line with the regulations in force. Atmospheric emissions mainly concern greenhouse gases such as carbon dioxide (CO<sub>2</sub>) or sulfur oxides (SO<sub>x</sub>) or nitrogen oxides (NO<sub>x</sub>). As can be seen, GHG emissions are down in 2014 compared to 2013 for the Mining Business Line overall. This development is due significantly by the fall in fossil energy consumed (putting of the Imouraren project under care and maintenance) and the decrease in uranium production. However reported SO<sub>x</sub> emissions are on the rise in 2014 due to corrections in the measurement scope of the indicator.

## Energy

As can be observed, energy consumption has declined since 2012 across the Mining Business Line. This 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 the increased activity (startup of plant in Canada, increased production at Katco).



	2014	2013	2012
<b>ENERGY CONSUMED IN (MWh)</b>	801 487	889 424	927 679
<b>FOSSIL ENERGY (MWh)</b>	574 641	640 101	690 032
<b>ELECTRICITY CONSUMED (MWh)</b>	226 847	248 922	237 177

## Environmental studies

We conduct 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 areas on which our work may have an impact.

More specifically, **environmental impact studies (EIS)** are performed for each new mining project and/or 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).

### - EXAMPLES -



#### EXAMPLES OF STUDIES PERFORMED IN 2014

##### MONGOLIA

- Detailed Environment Impact Assessment (DEIA) for the ZOOVCH OVOO pilot
- Detailed Environment Impact Assessment (DEIA) for the ZOOVCH OVOO and DULAN UUL project

##### NIGER

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

##### CANADA

- Environmental Impact Study (EIS) at Kiggavik

## ENVIRONMENTAL MONITORING

### 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, 2014 - ISO 14001
AUSTRALIA	Certified
CANADA	Certified
FRANCE	Certified
KAZAKHSTAN	2015 Objective
NAMIBIA	Non-certified
NIGER	Certified

### Environmental monitoring of our sites

#### Air monitoring

Air monitoring chiefly concerns 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 all sites well before mining operations begin. These studies allow a better understanding of the environment type 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 standards in force. Our experts are also studying the various water treatment 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

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.

#### 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.

## Accidental spills

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 2014, we had no environmental events that had an impact outside our sites.** Several 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 and the lessons learned as a result were shared.

Preventing accidental spillages is something our teams have been working on for several years.



## CHAPTER

# COMMITMENTS

### Community involvement

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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



2013-2015 is a transition period in setting our long-term community involvement strategy. During this period of reflection, we will work with our head office and onsite teams on the following areas:

### Governance:

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

### Reduce short- and medium-term risks:

- 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;
- formalize our societal lessons learned, particularly those learned from after-mining, on an international level;
- update our risk mapping tools and complaint reporting systems.

### Societal monitoring:

- set and update reporting protocols and tools based on international guidelines and standards (GRI, ICMM).

## COMMUNITY INVESTMENTS

### AREVA's Mining Social Committees

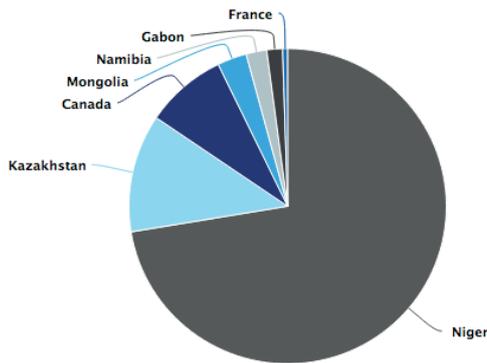
Since February 1<sup>st</sup>, 2013, the Mining Social Committees of the AREVA Mining Business Group have had the task of identifying (on an internal basis by country):

- 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.

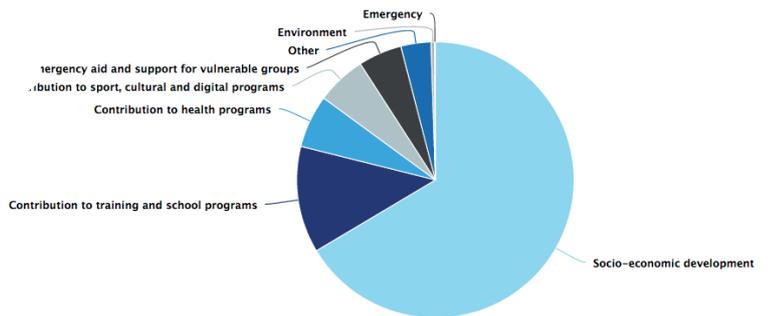
Five Mining Social Committees are now in place in Niger, Gabon, Mongolia, Namibia and Kazakhstan. They bring together the managing directors of subsidiaries, local social leaders, and coordination and support teams from head office. Meetings are held more or less frequently depending on the country, but around three times a year.

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 sponsorship programs.

2014 budget breakdown by country for Mining Business Line - across all project categories



2014 budget breakdown by budget category - Consolidated for Mining Business Line



**Funds spent in 2014**

In 2014, AREVA's mining activities (*head office funds passed down to subsidiaries*) advanced 3.6 million euros to finance more than 300 projects in the realms of health, education and economic development.

**Examples of societal projects supported by AREVA's mining activities**

**CANADA – Career training program**

- Allows North Saskatchewan communities to access professional training leading to qualifications and local jobs.
- Enables beneficiaries to complete university or vocational courses. Five training programs of three months duration have been proposed. Subsequently 46 participants have been hired by AREVA.
- The next training program is planned from March to May, 2015.



#### GABON - Pilot local development project in agronomy & pisciculture

- Support fish farmers in the development of their business to help ensure sustainability of their sales while meeting a key objective for Gabon.
- AREVA financing: 5,000 euros.

#### NAMIBIA – Microloan facility

- Project run in partnership with the *Erongo Development Foundation*, providing microloans for entrepreneurial projects carried out by the population in the Erongo province.
- The project was launched in 2013 and renewed in 2014.
- AREVA financing: 15,000 euros over 2 years.

#### NIGER - Participation in development of spirulina industry

- Spirulina is an algae rich in protein, vitamins, minerals and trace elements and is useful in addressing problems of malnutrition. AREVA is supporting the development of a local spirulina sector in Niger.
- A spirulina farm was funded in 2014. The next steps (2015 and after) will be devoted to building the spirulina supply chain in the country.
- AREVA financing: 10,000 euros.

#### 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.
- A deployment phase will be 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.
- 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 will 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 CUCVPM). 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

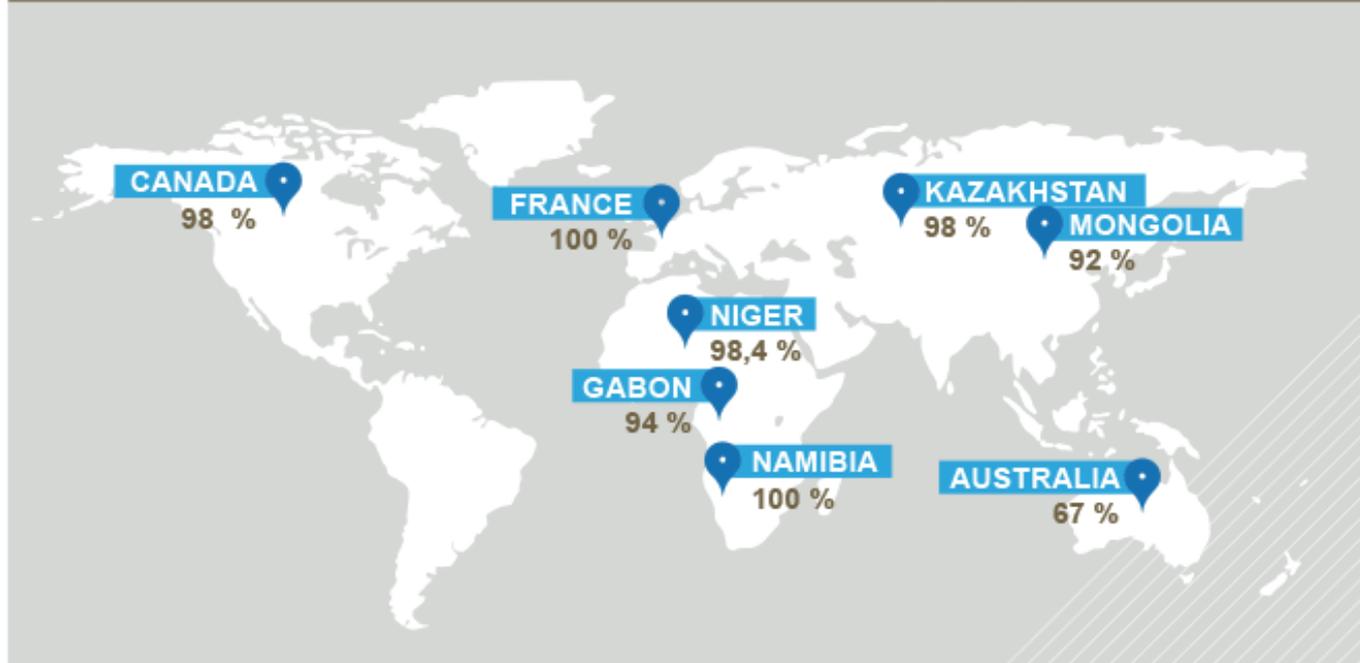
## CONTRIBUTION TO LOCAL DEVELOPMENT

### Recruitment of employees

AREVA's 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% (consolidated Mining BG figure – 2014 – outside France).

### 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, 49% of our purchasing volume comes from the countries in which we are based, and 48% 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 a local company took over from a European supplier. Contractual commitments become key indicators, which are monitored over time. The caterer was asked to pay special attention to the variety of dishes, and the quality and freshness of products used. Surveys will be conducted throughout the life of the contract with employees to assess their perception of the services rendered.



#### 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.**

### 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, which has been present in Niger for over 50 years, is the main shareholder in **Société des Mines de l'Air (SOMAÏR)** 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: **SOMAÏR** and **COMINAK**, with AREVA as the operator. **SOMAÏR** 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 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.

## Examples of dialog bodies

There are bodies equivalent to the CHSCT in France at our sites worldwide, such as in Niger (the "Comité Santé Sécurité au Travail"), in Canada (*the Occupational Health Committee*) and in Kazakhstan (*the Labour Collective*). They are all set up within the framework of collective bargaining agreements and perform the same role as the French body. The number of staff representatives may vary, while meetings are held on a monthly basis in Niger, on a quarterly basis in Canada and as necessary in Kazakhstan.

In communities where our activities have a significant impact on local players, dialog and consultation bodies are set up. These bodies are multi-party and form part of a regulatory or voluntary framework.



Who attends, 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.

Here are some of the different types of dialog and consultation bodies and events in the main areas in which we work (list not exhaustive):

### ■ 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.

### ■ 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 month, the operator provides the committee with a summary of site activities, focusing on environmental monitoring and risk prevention.
- In 2014 there were 11 committee meetings across France.

### ■ GABON and NIGER – Health Observatories

- The establishment of health observatories in both Gabon (Health Observatory of Mounana (OSM)) and in Niger (Health Observatory for the Agadez Region (OSRA)) is a multi-party initiative led by AREVA, the states and civil society.
- Its aim is to provide post-professional monitoring for retired miners who may have been exposed to ionizing radiation.
- OSM was started up in October 2010 and OSRA in November 2011.
- An annual report is available for both OSM and OSRA.

#### ■ 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 Information Committees

- These committees were run on a voluntary basis for the first time in October 2013 by local AREVA teams together with representatives and elected officials from local communities to present the exploration phase of the mining project and the associated issues.
- In 2014, Local Information Committees were organized by AREVA Mongol teams in the province of Dornogobi, attended by the local authorities, representatives of civil society and herder associations.

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

- Created in May 2006 to help strengthen the local governance of societal 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.
- Despite care and maintenance of the Imouraren project, the budget is maintained.



#### FIND OUT MORE

##### FRANCE – AREVADELFI

- The group Local Economic Development Department (DDEL - Direction du Développement Économique Local) supports small- and medium-sized businesses and industries that generate work and economic diversity within their region. It is assisted in this by AREVADELFI, a development capital company created by AREVA that has already supported 150 projects, investing 18 million euros and generating around 3,500 jobs across all the group's industrial areas.
- Within AREVA MINES activity, AREVADELFI is more specifically involved in the Limousin region, co-financing innovative industrial companies in the area of influence of the Bessines site. This project involves local and regional authority representatives, and local economic development players, in close liaison with the management of the Bessines-sur-Gartempe site. One project was completed in 2014, creating 17 jobs in Limoges.



## CHAPTER

# COMMITMENTS

### Commitment to employees

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

**ROADMAP: STRATEGIC ORIENTATION 2013-2016**

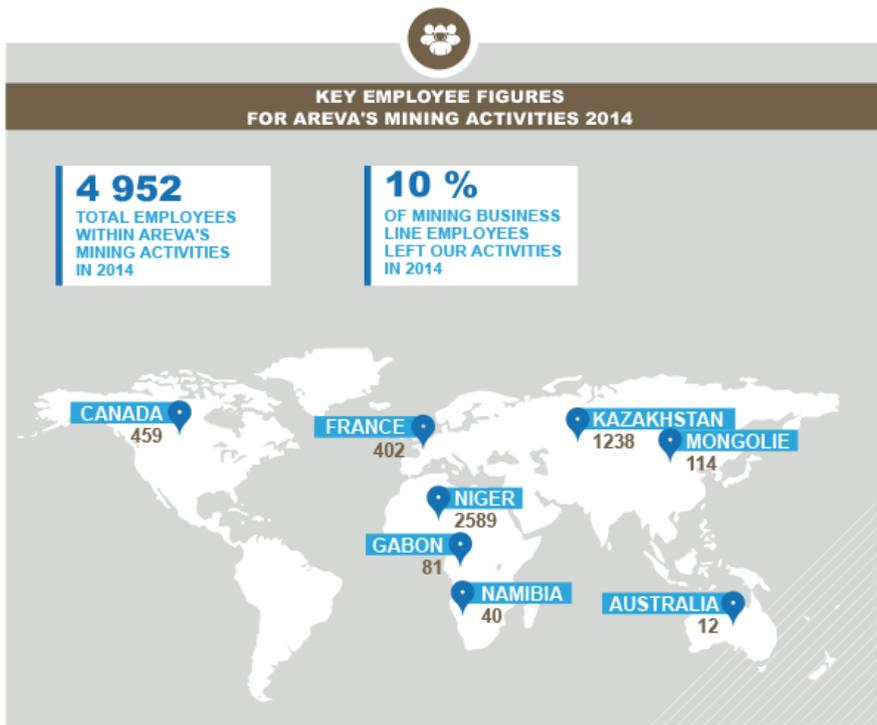
*Our commitment to employees in 2014 within the scope of mining activities has seen the strengthening of policies to improve quality of life at work. This has been achieved in areas relating to work-life balance, psycho-social risks and support for people with disabilities.*



**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 diversity policy.

**2014 : Key figures**



## Safety roadmap

A note by the members of the AREVA Mining Business Line Management 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 the Mining Business Line's 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 (3,73%)**, recruit and integrate all talents by favoring skills and raise awareness about disability among employees and management.

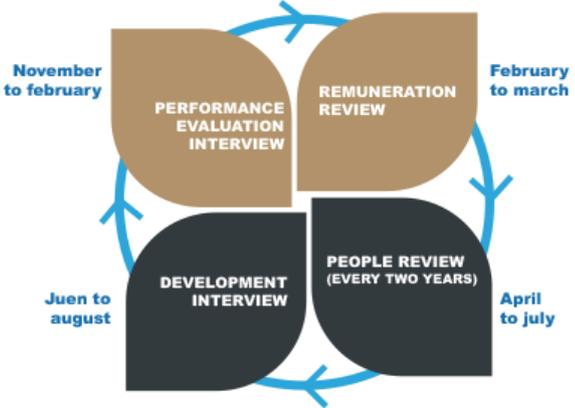
### ■ Social, ethnic and cultural diversity

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

In 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 2014: 99.5% of engineers and managers, 92% 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

One of the tools offered is the Training Passport, which offers an average of 30 hours of training per year per employee. In the same way, in France the "Droit Individuel à la Formation" (DIF - a system offering individual entitlement to training) offers 20 hours of training credits per year on the employee's initiative.

+

**KEY FIGURES**

Training plan share: 8,041 hours of which 43% are dedicated to technical/functional knowledge and disciplines.

DIF share: 552 hours of which 60% are devoted to learning foreign languages.

## ■ 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.

Founded in 2007, the objective of the Mining College was initially to train and develop the professional skills of engineers newly recruited by the Mining Business Line. Today, our needs have evolved towards skills strengthening and development, particularly in key disciplines.

The Mining College is for:

- Mining Business Line 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 new 2013/2014 training program aims to:

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



### THE MINING COLLEGE HAS...

- **13 modules** divided into **21 theoretical and practical training sessions**.
- Trainers who are **experts and specialists** in our activities.
- Courses deployed across **all of our sites**.
- An **internal certification** system.

## Age diversity

### ■ Age pyramid (employees in France) 2014

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 2014 is to maintain the level of work-study participants at 5% of our France employees.



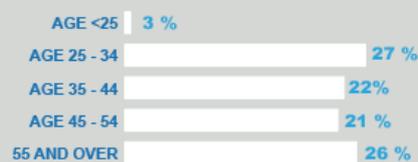
### A SIGNIFICANT POPULATION OF OLDER WORKERS

Almost 38% of employees over 50 in the AREVA Mines France workforce.

AREVA group cross-generation agreement signed in August 2013.

The most experienced employees are identified for career reviews (50+) or experience reviews (55+).

#### AGE PYRAMID (employees in France)



College of Experts



The Mining Business Line has to mobilize all of its expertise to support its technological excellence. To achieve this, it relies on a "college of experts" system. Highly integrated into the operational teams, these experts continually develop their expertise through the conduct of their missions.

Our activities count **55 experts** including **18 newly identified in 2013** (following the experts renewal campaign which takes place every two years), five **promotions to level 2** and two to level 3.

The results of the 2013 campaign show a greater international diversification of the College of Experts. They are also in line with the geographic diversity goal set by the Mining Business Line, to better meet the needs for specific local knowledge of the sites.

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

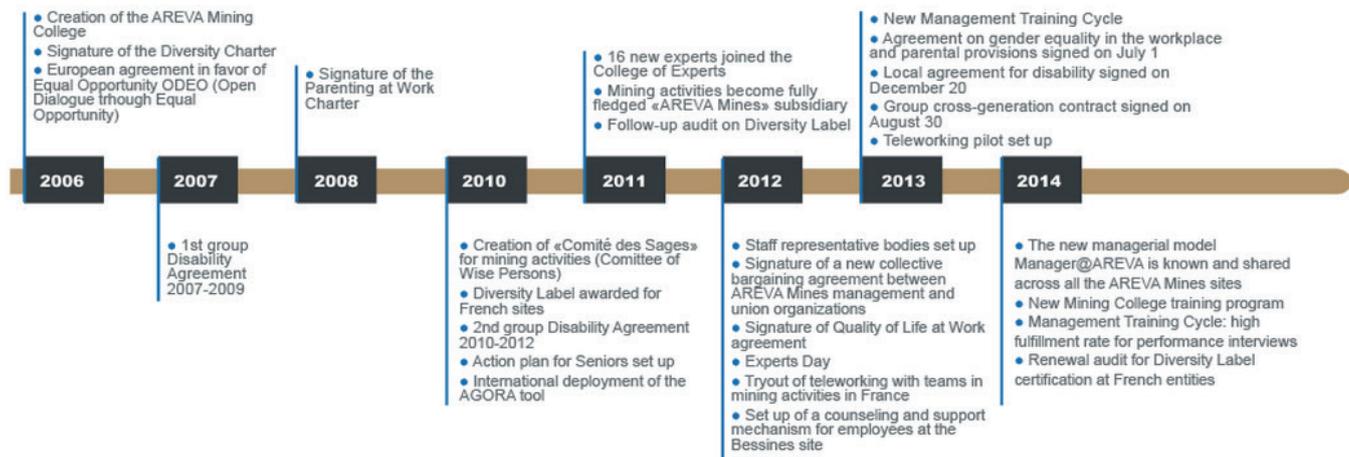
The Mining Business Line now counts:

- **32 level-1 experts**, representing **4% of the Group-wide College of Experts;**
- **19 level-2 experts**, representing **6% of the Group-wide College of Senior Experts;**
- **4 level-3 experts**, representing **12% of the Group-wide College of Level-3 Experts.**

In addition, in order to more actively promote operational know-how, a complementary system of "**Specialists**" has been created within the Group. Nine 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.

QUALITY OF LIFE AT WORK





## 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.

## 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.



RATIO OF FEMALE/MALE BASIC SALARY by employee category for 2013 (France)	Operators	Technicians	Administrative staff	Supervisors	Engineers and Managers
		1.12	0.98	0.9	0.92

\* Key figure only available for 2013.

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

### 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

### After-mines

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## FORMER MINING SITES

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

- establishing a remediation project (studies, options and costs);
- placing the site in a safe condition/performing site clean-up;
- dismantling the facilities;
- installing radiometric coverage where necessary;
- performing remodeling and revegetation;
- 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.

### The French case

#### ■ Environmental monitoring

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.

**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 environment to ensure it meets the environmental standards in force. Our experts study various water treatment processes which are then 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

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.

#### ■ Waste rock and tailings

**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.

**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. They are stored in former mining sites.

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.

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.

## ■ ENVIR@MINES PROGRAM

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

- the long-term future of processing waste in France 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, notably in preparation for the regulatory changes regarding the new Water Quality Standard (NQE) in France,
- the remediation of aquifers used for in situ recovery in Kazakhstan and Mongolia,
- the development of technological measuring tools (e.g. prototype for measuring bioavailability in natural waters).



FIND OUT MORE

"Envir@Mines" R&D in figures:

- 11 collaborative partners
- 2 theses defended in 2014 (1 planned for 2015)
- 67 scientific communications since 2010 (+5 public reports)
- 3 feasibility studies for patents

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 public health and safety.

**The remediation and monitoring of these sites** comes under the scope of a demanding regulatory framework, evolving over the long term. 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

- Social and societal acceptability of uranium projects.
- Implementation of ISR technology.

#### Identity card of the mining project

- 25 mining licenses 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

## PLANNING FOR THE REMEDIATION OF A MINING SITE IN OPERATION FOR 15 YEARS

### Example in Kazakhstan

#### Challenges

- Start remediation during an activity in operation.
- Model the overall behavior of the remediation of aquifers.

#### Identity card of Katco site

- Operated by Katco since 1996
- Mining of uranium deposits by In-Situ Recovery (ISR) using acid
- Uranium concentration, purification and attachment plants
- 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

## PLANNING THE REMEDIATION OF A MINING SITE IN OPERATION FOR MORE THAN 30 YEARS

### Example in Niger

#### Challenges

- 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.

#### Identity card for the SOMAİR ssite in Niger

- 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

- Transfer of a remediated site to the U.S. Department of Energy (U.S DOE).

#### Identity card of the American mines

- 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 200 dwellings for populations following the detection of a radiologically contaminated dwelling (cumulative dose comprised between 1 and 5 mSv/year).

#### 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	Identity card of the remediated mine of Bosc-Soumont
<ul style="list-style-type: none"> <li>■ Acceptance of the project by stakeholders.</li> <li>■ Ensure the restructuring of this pilot site.</li> </ul>	<ul style="list-style-type: none"> <li>■ Site in Hérault mined from 1959 to 1997 and remediation from 2001 to 2005.</li> <li>■ Open-pit mine and underground mining works, processing plant.</li> <li>■ 4 million tonnes of tailings.</li> <li>■ Production of Yellow Cake: 14,630 tonnes.</li> <li>■ Site undergoing restructuring.</li> </ul>

## ■ Review of monitoring (lightening) or new related project to give the site a second life



- December 2005: urban part of the site (around 115 hectares) sold by AREVA to the Communauté des Communes du Lodévois [association of Lodévois municipalities].
- 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.

## ■ IMPROVE THE EXISTING REMEDIATION

### Example in France

Challenges	Identity card of the SITE of Bois Noirs in Limouzat, France
<ul style="list-style-type: none"> <li>■ Acceptance of the remediation changes by the stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>■ Site located in the Forez, mined from 1955 to 1980.</li> <li>■ Open-pit mine and underground mining works with a processing plant.</li> <li>■ Production of Yellow Cake: 6,800 tonnes (average content of 2.6 ‰)</li> </ul>

■ **Drafting of the administrative file and validation by supervisory authorities (consultation with stakeholders, impact assessment, etc.)**



- Initial remediation of the site from 1980 to 1987 then dismantling of the plant in 2006.
- Storage of 1.3 million tonnes of tailings under a layer of water and behind a dike (large dam of 42 m in height and 500 m in length).
- Request from the authorities to offer a sustainable remediation of the storage of tailings to limit the maintenance of facilities (large dam and connected works):
  - replacement of the layer of water with a mineral covering (1 million m<sup>3</sup> of materials)
  - creation of a new river bed ensuring ecological continuity.



# CHAPTER COMMITMENTS

## Innovation

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Extract from Responsible Development  
report 2014 on Areva's Mining Activities

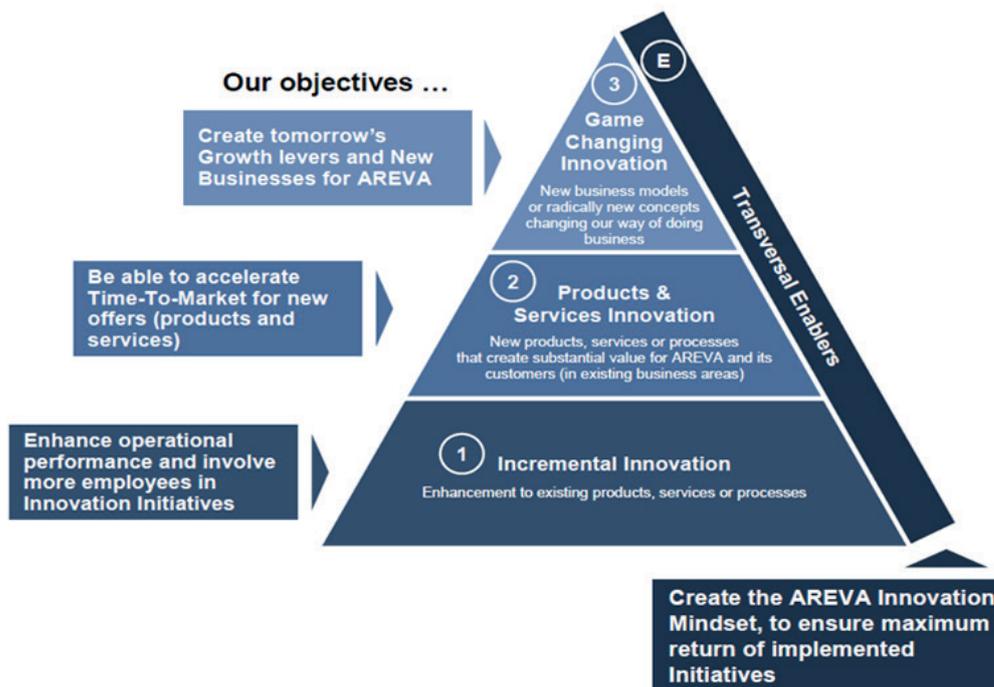
The complete report is downloadable on :  
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## ■ INNOV'ACTION PROGRAM

Under AREVA's strategy, one performance area is devoted to "Technology and Innovation". Within the Mining Business Line, 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.

## ENVIRONMENTAL INNOVATION: REDUCING LONG-TERM RISKS

### R&D serving the environment

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

More specifically, the environmental issues on which research efforts are focused include:

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



#### INFORMATION

In 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.

In order to support our operating teams throughout the world, we have developed a **high level of expertise thanks to our international teams of researchers and experts** and in partnership with external 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 and NAGRA).

### Envir@Mines program

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

- the long-term future of processing waste in France 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),
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- the rehabilitation of aquifers used for in situ recovery in Kazakhstan and Mongolia,
- development of technological measuring tools (e.g. prototype for measuring bioavailability in natural waters).



"ENVIR@MINES" R&D  
IN FIGURES

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- 3 feasibility studies for patents

OPERATIONAL INNOVATION



Our definition of performance

The performance plan for AREVA's mining activities has been drawn up to serve our industrial ambitions in an unfavorable uranium market. 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.

On a day-to-day basis, our teams are mobilized in several areas, such as the deployment of *lean management* tools across all our sites (details are not exhaustive for reasons of confidentiality).

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 2014, just over 450 additional people were familiarized with or trained on performance tools in Kazakhstan, Niger, Canada and France, meaning that in the Mining Business Line a total of over 950 people have now been familiarized with the tools.

« *Lean Management* » culture

In 2014, our teams continued to deploy the following initiatives 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.

**i**

**EN SAVOIR PLUS**

We do not provide details of the savings made for reasons of confidentiality. However, the first results are promising and have encouraged our teams to continue the effort begun in 2013.

**+**

**INFORMATION**

**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, taking the title of "Green Belt" or even "Black Belt" (for those with greater management and supervision skills) when certified.

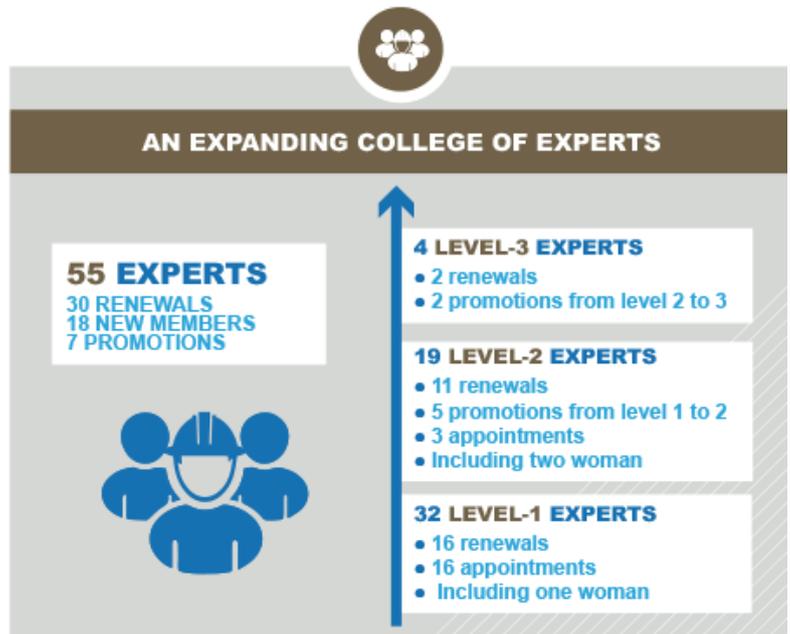
Our teams within AREVA's Mining Business Group have count four Green Belt-certified employees among their number at our Niger and Kazakhstan sites. The target for 2015 is to train and certify 10 *Green Belts* on each operating site.

OUR TEAMS AT THE HEART OF INNOVATION

College of Experts

The Mining Business Line has to mobilize all of its expertise to support its technological excellence. To achieve this, it relies on a "college of experts" system. Highly integrated into the operational teams, these experts continually develop their expertise through the conduct of their missions.

Our activities count 55 experts including 18 newly identified in 2013 (following the experts renewal campaign which takes place every two years), five promotions to level 2 and two to level 3.



The results of the 2013 campaign show a greater international diversification of the College of Experts. They are also in line with the geographic diversity goal set by the Mining Business Line, to better meet the needs for specific local knowledge of the sites.

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

The Mining Business Line now counts:

- **32 level-1 experts**, representing **4% of the Group-wide College of Experts**;
- **19 level-2 experts**, representing **6% of the Group-wide College of Senior Experts**;
- **4 level-3 experts**, representing **12% of the Group-wide College of Level-3 Experts**.

In addition, in order to more actively promote operational know-how, a complementary system of "**Specialists**" has been created within the Group. Nine 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 the Mining Business Line Management Committee, this committee works to:

- outline strategic areas for research and development,
- share comments or opinions on Mining Business Line issues,
- validate innovative ideas.

In 2014, as part of Innov'Action, the AREVA Mining Business Line Committee of Wise Persons launched "Sag'Innov 2014", with the aim of obtaining two patents via an internal contest that would reward innovative ideas with a development budget supported by the Management Committee.

## 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.

In order to stimulate initiatives, promote and support projects in the field and inspire individuals to play an active role in innovation and sustainable development policies, since 2005 **AREVA has organized an internal competition that runs every two years: the AREVA Awards.**

This competition recognizes **projects that improve group performance, respect environmental, social and societal issues** and set an example for all AREVA entities worldwide.

Everyone is invited to participate, regardless of role, discipline or entity. The last AREVA Awards session, in 2013, saw the participation of **182 teams from across the group**. 22 projects reached the finals, and among the eight eventual winners were two teams from AREVA's mining activities.

The launch of the following edition of the AREVA Awards was in 2014 with the call for applications. The full selection process and the awards ceremony took place during the first half of 2015.



# CHAPTER PERFORMANCE

Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

KEY INDICATORS

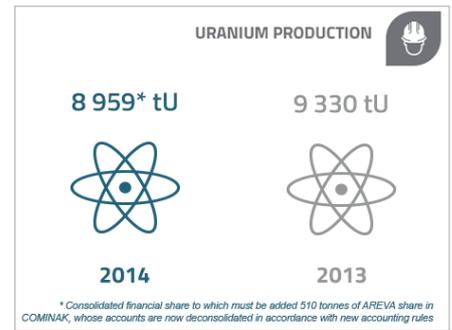
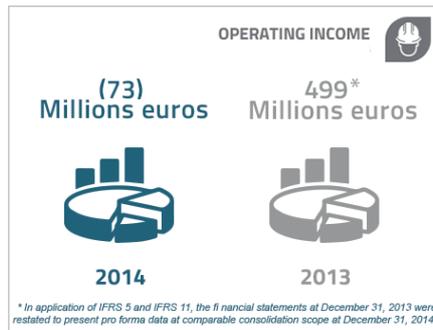
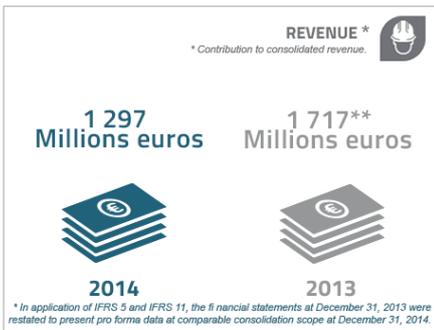
The quantitative data presented is consolidated for all AREVA Mining Business Line operations.

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.

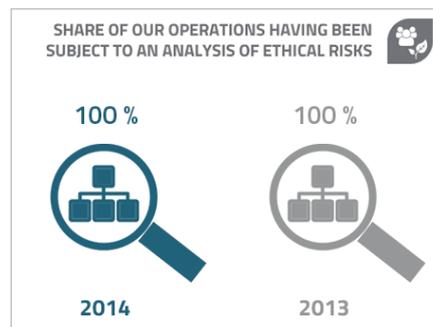
This list is likely to change over the next RDRs, depending on materiality results (to 2016), and/or if the indicators can cover the entire scope, and/or if we have been able to deploy new reporting protocols to justify the presentation of other indicators.



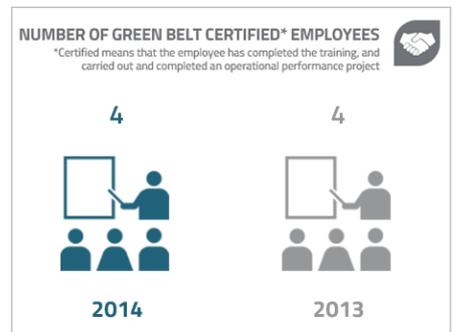
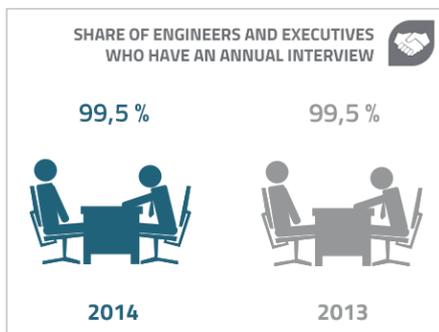
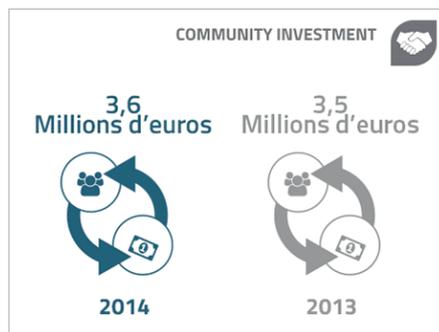
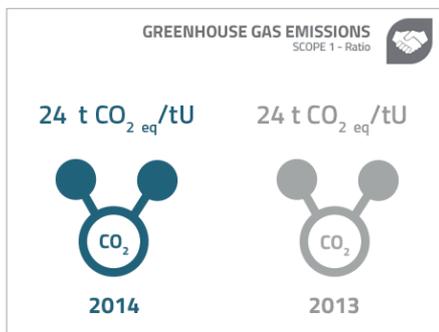
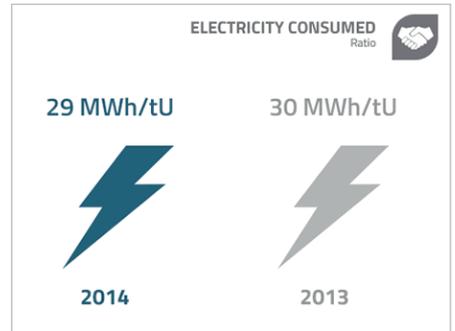
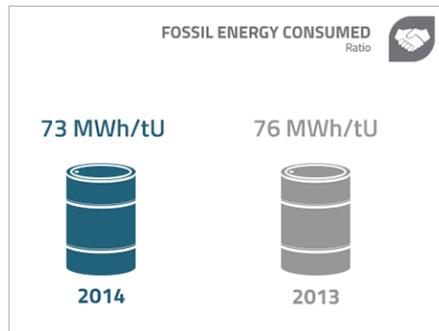
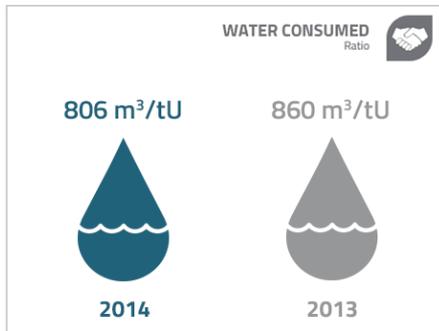
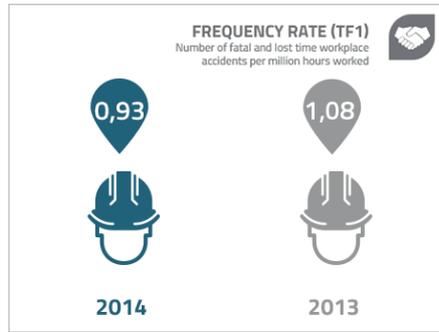
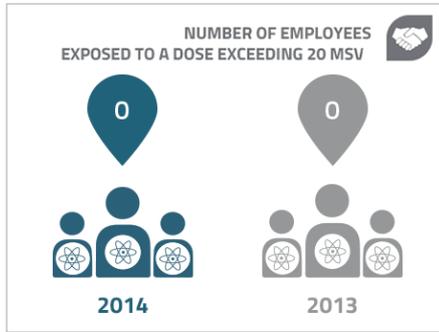
PROFILE



CSR APPROACH



COMMITMENTS



## ■ OBJECTIVES OF RESPONSABILITY

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.

**Risk management and prevention** are two of our priority goals, 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 2013 and 2014 Responsible Development Reports (RDRs) 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 2015 RDR.

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. We must pursue this approach by defining training plans and/or operational tools specific to Human Rights.

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	
<ul style="list-style-type: none"> <li>Integrate into the operational roadmap of the Mining Business Line 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.</li> </ul>	<p><b>Examples of practical implementation in 2014:</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>Given the specific nature of the mining sector with its activities often being conducted in isolated environments, the "employees on business travel" policy continues to improve.</li> <li>No employee has been exposed to a dose exceeding 20 mSv</li> </ul>
Occupational safety	
<ul style="list-style-type: none"> <li>Pursue the implementation of the Mining Business Line roadmap, based on four pillars: leadership and culture, organization and skills, standards and procedures, and risk analysis.</li> <li>Zero fatal accidents.</li> <li>Frequency rate (IR1) of less than 1, equivalent to no more than 27 lost-time accidents.</li> <li>Complete the deployment of the OHSAS 18001-certified occupational health and safety management system at our sites in Kazakhstan and Mongolia.</li> </ul>	<p><b>Examples of practical implementation in 2014:</b></p> <ul style="list-style-type: none"> <li>There have been no fatal accidents.</li> <li>The frequency rate recorded is less than 1 (0.93).</li> <li>Deployment of the OHSAS 18001-certified occupational health and safety management system at our sites in Kazakhstan and Mongolia is ongoing.</li> </ul>
Environment & Biodiversity	
<ul style="list-style-type: none"> <li>Integrate the goals of the AREVA 2014-2016 Environment policy and improvement plans relating to the results of the 2013/2014 Health, Safety and Environment mapping into the operational roadmap.</li> </ul>	<p><b>Examples of practical implementation in 2014:</b></p> <ul style="list-style-type: none"> <li>Under group provisions, the 2014-2016 environmental policy continues to be rolled out and applied in France and abroad.</li> <li>Two exercises in preparation for level-3 emergency situations were carried out (in Mongolia and in France).</li> </ul>

## Community involvement and relations with our stakeholders

- Define the Mining Business Line 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 2014:

- Deployment of Mining Social Committees or CSM (Comités Sociétaux Mines), constituting real governing bodies in which societal issues are addressed in Mongolia (4 in 2014), Gabon (1 in 2014), Niger (1 in 2014), Namibia (1 in 2014) and Kazakhstan (1 in 2014).
- Mapping of stakeholders in Gabon and Mongolia.
- Realization of projects with a structural impact for a sustainable response to stakeholder expectations through projects such as the "veterinarian project" in Mongolia and "Irhazer valley irrigation project" in Niger.

## Commitment to employees

- Deploy the Management Training Cycle.
- The Mining College training plan for 2015 includes training for 179 trainees, with 14 sessions deployed on-site and 11 sessions in France, representing 15 out of the 21 courses offered in the catalog.
- 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.

### Examples of practical implementation in 2014:

- Management Training Cycle: the fulfilment rate for 2014/2015 performance interviews was 99.5% for managerial categories and 92% for non-managerial. 70% of key positions in the Mining Business Line are held by Talents.
- The new managerial model Manager@AREVA is known and shared across all the Mining Business Line 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.
- New Mining College training program: 52 Mining Business Line employees were trained under the new formula of the Mining College implemented in September 2014, representing 7 training sessions for 5 modules.

Innovation	
<ul style="list-style-type: none"> <li>Operational efficiency: continue the training and awareness-raising sessions on performance tools in order to make savings. Reach target of 10 employees per operational site at "greenbelt" level or equivalent.</li> <li>Innov'Action: identify feasibility for two patents in 2015 and in 2016.</li> </ul>	<p><b>Examples of practical implementation in 2014:</b></p> <ul style="list-style-type: none"> <li>just over 450 additional people were familiarized with or trained on the performance tools.</li> <li>the AREVA Mining Business Line Committee of Wise Persons launched "Sag'Innov 2014".</li> </ul>
Ethics & Transparency	
<ul style="list-style-type: none"> <li>Define the roadmap relating to the improvement of our operational practices in terms of Human Rights.</li> <li>For the RDR, meet level of application GRI A+ and prepare the transition to G4 (in particular through materiality).</li> <li>Preventively align the GRI requirements and those of the Grenelle II regulation art. 225 for reporting.</li> </ul>	<p><b>Examples of practical implementation in 2014:</b></p> <ul style="list-style-type: none"> <li>Regarding the roadmap on the improvement of our operational practices in relation to human rights, an analysis of the existing situation has been carried out.</li> <li>This report has been submitted to GRI Report Services for assessment at Application Level GRI A+, and a certificate has been issued.</li> </ul>



### "Paperless"

This annual report, the Responsible Development Report on AREVA's mining activities (RDR), prepared by the Corporate Social Responsibility Department of AREVA Mines, is the result of the mobilization of all our teams at our mining activities headquarters 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 RDR report and contribute to a questions forum in the **"Contact us"** section, which we will answer in our reports.

### Changes to the reporting period

The 2014 RDR is the fifth edition of this annual exercise. The previous reports are available for download in the **"Media Center"**.

**The availability schedule for the RDR serves to:**

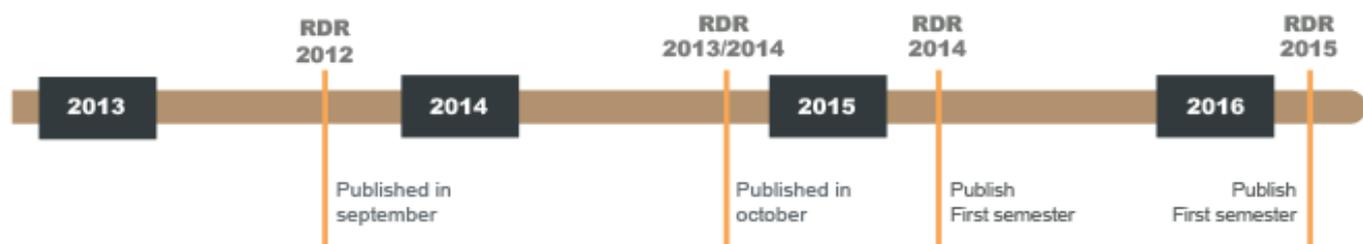
- provide the report to our stakeholders earlier in the year, to allow them to better assess the performance of year n-1,
- align the publication of the RDR with that of financial documents, generally published at the end of the first quarter of each year (March / April), to anticipate the requirements of the Grenelle II law, which AREVA Mines SA may be subject to from 2015/2016, and to align the audit period of the Mining Business Line's RDR with that of the AREVA Statutory Auditors exercise,
- start to prepare ourselves for the move to version 4 of the GRI, better integrating the materiality exercise upstream from the RDR process, as well as updating our reporting protocols.

**RDR 2014 is a report with the following characteristics:**

- it covers our responsible commitments performance for the year 2014, which means the reporting ran up to December 31, 2014,
- 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,
- we meet the GRI "A+" level of application,
- we provide our stakeholders with a new **"Participate"** feature to allow them to take part in the 2015 RDR production process.

**The 2015 RDR will be th niveau d'application GRI « A+ » ; approach, with:**

- a presentation of the consolidated results of our materiality exercise, integrating the feedback of our stakeholders through the **"Contribute"** 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, community involvement, commitment to employees, after-mines, innovation.

The CSR Policy section has changed to better set out our underpinning commitments.

The data given cover 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).

## GRI and third party verification

Within the scope of mining activities, our teams currently apply the guidelines set out in version G3.1 of the Global Reporting Initiative (GRI), Mining and Metals Sector Supplement (MMSS). The logo for the A+ application level is available on the dedicated [GRI Index page](#). **By 2016 we will be preparing for the transition to version G4.**

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 RDR 2012. This approach is carried out in compliance with the Grenelle II law, which provides regulatory guidance on the extra-financial reporting of companies.

In 2014, for the first time, 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 group conducts an audit on a sample of environmental indicators as part of the independent verification of the extra-financial chapter of the AREVA Reference Document. As such, a number of our mining sites may be selected for the review of these indicators. The Katco site (Kazakhstan) and the Bessines site (France) were audited in 2014.

## Reporting protocol

For environmental, social, economic and ethical topics, **internal technical protocols** have been developed for several years. Although they enable us to meet most of the indicators set out in the GRI guidelines, they do not systematically correspond to the calculation unit or formula set out in the GRI reporting protocols.

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.

**Note: regarding the "Responsibility with regards to products" indicators.** Most of this data is managed by AREVA corporate entities or downstream of AREVA's mining activities in the nuclear fuel cycle, and are not applicable to the Mining Business Line scope.



## CHAPTER

# CASE STUDIES

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Extract from Responsible Development  
report 2014 on Areva's Mining Activities

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

■ OCCUPATIONAL SAFETY

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



In Niamey, the screening of an interview with Olivier Wantz – Senior Executive Vice President of the Mining Business Line – on safety was followed by presentation of the safety results of the Mining Business Line 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)



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 Uul 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 subject of "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.

## Risk prevention : Crisis exercises

The goal: to prevent and control risks related to an extraordinary event.

### ■ BESSINES – 2014



France

On September 17, 2014, a level 3 crisis exercise (the highest level) recreated the scenario of **an explosion in an ore storage building**, causing a fire and injuring several people.

Objectives of the exercise: to test the responsiveness of the site in the event of a serious incident, and assess the level of proficiency in crisis management.

Mobilizing both teams from the Bessines site and teams from the Mining Business Line in Paris, this **full-scale exercise** provided the opportunity to check the proper implementation of procedures, test the alert system, and ensure the consistency of information shared with the local authorities (Prefecture, Regional departments for the environment, town and country planning and housing – DREAL), as well as the fluidity of interfaces with internal stakeholders. Once the crisis exercise had been completed, participants shared their **feedback** and identified improvement actions to be put into effect.

### ■ KAZAKHSTAN – 2013



Kazakhstan

On January 10, 2013, a large-scale crisis exercise simulating a **climatic event** was conducted in Kazakhstan involving teams from KATCO JV LLP, AREVA Mines and AREVA Corporate. The aim of exercise was to check the site's capacity to manage incidents that may occur in relation to a climatic event: traffic accidents, pollution due to an ammonia cloud, interruption of communications, etc.

The objective: to test how teams would respond and whether the necessary means of communication were used.

**The various incident scenarios** involved not only teams from KATCO (local and expatriate staff), but also **sub-contractors and suppliers**. The goal of the simulation was to check the capacity of **a number of entities to work together on an international scale**: the site at local level (advance command post), the emergency crisis control center (local command and management post), the crisis control center at Almaty (regional command and management post) and the AREVA crisis management center (AREVA command and management post), with the support of the AREVA Mines crisis technical team.



## ■ COMMUNITY INVOLVEMENT

### Establishing a sustainable partnership with herders from Ulaanbadrakh, in Mongolia



Mongolia

The goal: to assume responsibilities that extend beyond our own activities to raise our level of acceptability in regions where we are based.

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 the Mining Business Line for the 2015 AREVA AWARDS. 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.*

## Financing of an agricultural and pastoral irrigation project to improve food security in desert areas



Niger

**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

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.

### A pilot project with 100 hectares of crops

A test with irrigated crops on 100 hectares of land is currently underway on the sites of Agharous and Tiguirwit. 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.

Once the pilot phase is complete, 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.

### Under the guidance and supervision of AREVA

AREVA has a place on the Steering Committee with the State of Niger and is playing an active part in the steering of the program. In June 2014, the members of the steering committee (representatives of the national, regional and local authorities, farmers, members of the general public, and a delegation from AREVA lead by Ibrahim Courmo, Social Responsibility Director, AREVA Mines) met in Agadez. They drew up a positive assessment of the actions taken so far and issued recommendations for the future. These included the need to speed up the assessment of the results of the pilot phase, a better overview of the actions being taken and the closer involvement of stakeholders.

According to Serge Martinez, Managing Director of COMINAK, « *"This project aims to radically transform agricultural production systems in Niger in order to protect rural populations from the threat of famine and guarantee them the conditions for full participation in the enrichment and distribution of their country's resources. It is an integral part of the 3N initiative being implemented by the Nigerien authorities: Nigeriens Nourish Nigeriens."* »



## ■ COMMITMENT TO EMPLOYEES

### Creating new opportunities locally for developing skills and recruiting skilled employees



Canada

The goal: to meet needs for the recruitment of skilled employees on our sites.

With a view to the resumption of activity and mining at the [McClellan Lake plant](#), as of 2012, AREVA initiated a training project for local communities. This long-term program aims to meet AREVA needs in terms of recruitment and offers isolated communities with limited employment opportunities training in professional skills.

#### "CAREER TRAINING" program

The communities of the Athabasca basin are the closest to the McClellan Lake site. Residents of these remote communities in Northern Saskatchewan, for the most part Indian, have very limited opportunities for employment or the development of skills. Since 2012, AREVA has been developing several training and development programs.

These training programs are structured towards achieving six goals:

- **Preparation for employment:** prepare young people from these Northern communities for the world of work
- **Operator training:** modules adapted to the very technologically advanced McClellan Lake mill
- **Training of supervisors:** develop knowledge and skills through mentoring and leadership training
- **Program for laboratory technicians:** on- and off-site technical training
- **Work placements** for secondary school students
- **Career guidance** for opportunities in mining upstream of apprenticeships.

#### Shared benefits over the long term

The implementation of this program makes it possible for the teams at McClellan Lake to develop a **long-term solution** and to secure their future needs in terms of recruitment. Since the launch of the program in 2012, 35 young people from the Northern Saskatchewan region have completed their operator training. In 2014, five training programs of three months duration have been proposed and have resulted in 46 recruitments. The number of candidate applications continues to increase and the rate of these graduates remaining in their jobs is 100%. Partnerships are envisaged with representatives of the local community, educational establishments and financing bodies. The next program is to be held from March to May, 2015.



This project won an award in the internal AREVA Awards program in 2013.

## ■ AFTER-MINE

### R&D program relating to the remediation and environmental monitoring of former mining sites



France

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 2011. 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 after-mine risks.

Though the Envir@Mines project concerns all the mining sites of the group, here we will 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**.

**11 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 a normal scenario 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 risk for the natural environment. A **multi-year** study is ongoing to develop predictive models of the 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. 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 risks for 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.



## INNOVATION

### "SAGES'INNOV": a promising internal innovation competition



The goal: to develop, at grassroots level, our capacity to deploy solutions for the future

Within the framework of AREVA's Innov'Action program, the Mining Business Line's 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



Niger

**The goal: to reduce the volume of sulfuric acid used to dissolve uranium without reducing yield.**

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 SO<sub>2</sub> 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



France

**The goal: to make the most of our skills in nuclear medicine**

**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

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 (<sup>212</sup>Pb) from an abundant source thorium drawn from AREVA's former industrial activities. This rare radioactive isotope, of a high level of purity, is currently at the heart of promising research projects in nuclear medicine.

### Targeted alpha therapy with <sup>212</sup>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 <sup>212</sup>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



Kazakhstan

**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 Value 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 the Mining Business Line's 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 2014 on Areva's Mining Activities

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

## INDEX GRI

The Responsible Development Report on AREVA's mining activities 2014 (RDR 2014) has been prepared in accordance with the GRI G3.1 guidelines. The mining and metals sector supplement (MMSS) has also been used. We report primarily on the core indicators and those linked to the Sector Supplement (MMSS or with a specific comment COMM).



For each indicator, we specify whether we report:

- fully (in blue);
- partially (in purple): the indicator is not relevant in its globality or the information is only partially available or on a non-consolidated basis for the Mining Business Line;
- or not (in grey): for reasons of unavailability, confidentiality or protocol under consideration.

## Profile disclosure

### 1. Strategy and analysis

Elements	Description	Reporting	Link to information
1.1	Statement from the most senior decision-maker of the organization	Totally	<ul style="list-style-type: none"> <li>■ Statement from the Senior Executive Vice President</li> </ul>
1.2	Description of key impacts, risks and opportunities	Totally	<ul style="list-style-type: none"> <li>■ Statement from the Senior Executive Vice President</li> <li>■ Main risks</li> <li>■ Operational Examples</li> <li>■ Focus on after-mining</li> <li>■ Nos 7 engagements</li> <li>■ Objectives</li> <li>■ Materiality</li> </ul>

### 2. Organizational profile

Elements	Description	Reporting	Link to information
2.1	Name of organization	Totally	<ul style="list-style-type: none"> <li>■ About us</li> </ul>
2.2	Primary brands, products and services	Totally	<ul style="list-style-type: none"> <li>■ Uranium market</li> </ul>
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries and joint ventures	Totally	<ul style="list-style-type: none"> <li>■ Update on our activities</li> </ul>
2.4	Location of organization's headquarters	Totally	<ul style="list-style-type: none"> <li>■ Worldwide presence</li> </ul>
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	Totally	<ul style="list-style-type: none"> <li>■ About us</li> <li>■ Worldwide presence</li> </ul>
2.6	Nature of ownership and legal form	Totally	<ul style="list-style-type: none"> <li>■ Governance</li> </ul>
2.7	Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries)	Totally	<ul style="list-style-type: none"> <li>■ Uranium market</li> </ul>

2.8	Size of the organization	Totally	<ul style="list-style-type: none"> <li>■ Overview</li> <li>■ Financial Performance of Business Line Mines</li> <li>■ Revenue by geographical area</li> </ul>
2.9	Significant changes during the reporting period regarding size, structure or ownership	Totally	<ul style="list-style-type: none"> <li>■ Governance of our activities</li> </ul>
2.10	Awards received in the reporting period	Totally	AREVA Mines SA did not receive awards over the given period

### 3. Paramètres du rapport

Elements	Description	Reporting	Link to information
3.1	Reporting period	Totally	<ul style="list-style-type: none"> <li>■ Reporting period</li> </ul>
3.2	Date of most recent previous report	Totally	<ul style="list-style-type: none"> <li>■ Responsible Development Report</li> <li>■ RDR 2013/2014 archive</li> </ul>
3.3	Reporting cycle	Totally	<ul style="list-style-type: none"> <li>■ Report overview</li> </ul>
3.4	Contact point for questions regarding the report or its contents	Totally	<ul style="list-style-type: none"> <li>■ Contact us</li> </ul>
3.5	Process for defining report content	Totally	<ul style="list-style-type: none"> <li>■ Materiality</li> </ul>
3.6	Scope of information	Totally	<ul style="list-style-type: none"> <li>■ Scope of information</li> </ul>
3.7	Limitations on scope or boundary of report	Totally	<ul style="list-style-type: none"> <li>■ Reporting Protocol</li> <li>■ Information on our objectives of responsibility</li> </ul>
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	Totally	<ul style="list-style-type: none"> <li>■ Scope of information</li> </ul>
3.9	Data measurement techniques and the bases of calculations	Totally	<ul style="list-style-type: none"> <li>■ Reporting Protocol</li> </ul>
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	Totally	<ul style="list-style-type: none"> <li>■ No printed version</li> </ul>
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report	Totally	<ul style="list-style-type: none"> <li>■ Our key indicators</li> <li>■ Information on our objectives of responsibility</li> <li>■ Reporting Protocol</li> </ul>
3.12	Table identifying the location of the Standard Disclosures in the report	Totally	<ul style="list-style-type: none"> <li>■ GRI Index</li> </ul>
3.13	Policy and current practice with regard to seeking external	Totally	<ul style="list-style-type: none"> <li>■ GRI and external audit</li> </ul>

4. Governance, commitments and engagement			
Elements	Description	Reporting	Link to information
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight	Partially	■ Governance of our activities
4.2	Indicate whether chair of highest governance body is also an executive officer	Totally	■ Board of Directors
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members	Totally	■ Board of Directors
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	Totally	■ Social Relations ■ Staff representative bodies
4.5	Linkage between compensation for members of the highest governance body, senior managers and executives (including departure arrangements), and the organization's performance (including social and environmental performance)	Totally	■ Find out more about AREVA
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	Totally	■ Find out more about AREVA
4.7	Process for determining the qualifications and expertise required of the members of the highest governance body, in order to take decisions on the strategic orientations of the organization with respect to economic, environmental and social issues	Totally	■ Find out more about AREVA
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	Totally	■ Values charter ■ Structure of our approach
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles	Totally	■ Responsible Governance
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	Not reported	If the data are considered material, we project to study the GRI technical protocols by the end of 2016
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	Totally	■ Risks prevention ■ Radiation protection of employees

4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	Totally	<ul style="list-style-type: none"> <li>Our voluntary initiatives</li> </ul>
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations	Totally	<ul style="list-style-type: none"> <li>Our voluntary initiatives</li> </ul>
4.14	List of stakeholder groups engaged by the organization	Totally	<ul style="list-style-type: none"> <li>Relations with stakeholders</li> </ul>
4.15	Basis for identification and selection of stakeholders with whom to engage	Totally	<ul style="list-style-type: none"> <li>Relations with stakeholders</li> </ul>
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	Partially	<ul style="list-style-type: none"> <li>Relation with our employees</li> <li>Examples of dialog and consultation</li> </ul>
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	Totally	<ul style="list-style-type: none"> <li>Commitments</li> </ul>

## Management approach

Management approach			
Elements	Description	Reporting	Link to information
DMA EC	Management approach « Economic »	Partially	<ul style="list-style-type: none"> <li>Economic Performance</li> <li>Market presence</li> <li>Indirect Economic Impacts</li> </ul>
DMA EN	Management approach « Environment »	Partially	<ul style="list-style-type: none"> <li>Water</li> <li>Biodiversity</li> <li>Emissions, effluents, and waste COMM</li> <li>Energy</li> </ul> <p>Other DMA EN aspects: the GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.</p>
DMA LA	Management Approach "Labor practices and decent work"	Totally	<ul style="list-style-type: none"> <li>Employment</li> <li>Labor/Management relations</li> <li>Health and radiation protection</li> <li>Occupational Safety</li> <li>Training &amp; Education</li> <li>Diversity and Equal Opportunities</li> <li>Gender Equality</li> </ul>

DMA HR	Management Approach « Human Rights »	Partially	<ul style="list-style-type: none"> <li>■ <b>Investment and Procurement Practices</b></li> <li>■ <b>Non discrimination</b></li> <li>■ <b>Freedom of Association and Collective Bargaining</b></li> <li>■ <b>Abolition of Child Labor</b></li> <li>■ <b>Prevention of Forced and Compulsory Labor</b></li> <li>■ <b>Practices related to the protection of people, property and assets:</b> this topic is outside the scope of this responsible development report.</li> <li>■ <b>Indigenous peoples' rights</b></li> <li>■ <b>Evaluation, Compensation</b></li> </ul>
DMA SO	Management Approach « Society »	Partially	<ul style="list-style-type: none"> <li>■ <b>Local Communities</b></li> <li>■ <b>Artisanal and Small-Scale Mining / Resettlement:</b> this subject is not of material relevance to AREVA's mining activities in 2014.</li> <li>■ <b>Closure Planning</b></li> <li>■ <b>Procedures and mechanisms for reporting grievances / Preparing for emergency situations</b> The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of materiality exercise.</li> <li>■ <b>Corruption / Public Policy / Anti-competitive behaviour / Legislation compliance</b></li> </ul>
DMA PR	Management Approach « Product responsibility »	Partially	<ul style="list-style-type: none"> <li>■ <b>Materials stewardship</b></li> </ul> <p>Other aspects : the other aspects are not deemed material in 2014 or the GRI reporting technical protocols are being considered for inclusion of this information.</p>

## Performance indicators « Economic »

Performance indicators « Economic »			
Elements	Description	Reporting	Link to information
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	Partially	<ul style="list-style-type: none"> <li>■ <b>Projects for local communities</b></li> <li>■ <b>Contribution to local development</b></li> <li>■ <b>Revenues from our activities</b></li> </ul>
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise

EC3	Coverage of the organization's defined benefit plan obligations	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EC4	Significant financial assistance received from government	Partially	■ Governance of our activities
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	Totally	■ Responsible purchasing
EC7	Procedures for local hiring and proportion of senior management and workforce hired from the local community at locations of significant operation	Totally	■ Policy of local recruitment
EC8	Development and impact of infrastructure investments and	Totally	■ Social investments

### Performance indicators « Environment »

Elements	Description	Reporting	Link to information
EN1	Materials used by weight or volume	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EN2	Percentage of mainput materials used that are recycled input materials	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EN3	Direct energy consumption by primary energy source	Partially	■ Energy
EN4	Indirect energy consumption by primary energy source	Partially	■ Energy
EN8	Total water withdrawal by source	Totally	■ Consumption
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Partially	■ Biodiversity areas
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Partially	■ Impacts on biodiversity
MM1	Amount of land disturbed or rehabilitated	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise. ■ Update on our activities in France

EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	Totally	■ Strategy for biodiversity
MM2	The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	Totally	■ Planning program for biodiversity
EN16	Total direct and indirect greenhouse gas emissions by weight (teq CO <sub>2</sub> )	Totally	■ Emissions The standard and the methodology used for calculating the reporting data are presented in AREVA's sustainability reporting protocol STAR (Sustainability Tool for Advanced Reporting).
EN17	Other relevant indirect greenhouse gas emissions by weight (teq CO <sub>2</sub> )	Totally	■ Emissions
EN19	Emissions of ozone-depleting substances by weight	Totally	■ Emissions
EN20	NO <sub>x</sub> , SO <sub>x</sub> and other significant air emissions by type and weight	Partially	■ Emissions
EN21	Total water discharge by quality and destination	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EN22	Total weight of waste by type and disposal method	Partially	■ Weight of waste
MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks	Partially	■ After-mine
EN23	Total number and volume of significant spills	Partially	■ Accidental spills
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.

Performance indicators: « Employment, labor practices and decent work »			
Elements	Description	Reporting	Link to information
LA1	Total workforce by employment type, employment contract, and region	Partially	■ <b>Employees</b>
LA2	Total number and rate of employee turnover by age group, gender, and region	Partially	Number of employees who left the organization voluntarily or due to death, retirement or release from employment: 226 - Niger ; 1 - Gabon ; 4 - Namibia ; 83 - Kazakhstan ; 13 - Mongolia ; 31 - France ; 24 - Canada ; 4 - Australia. We do not provide a breakdown by age or gender.
LA15	Rates of return to work and retention following a period of parental leave, by gender	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
LA4	Percentage of employees covered by collective bargaining agreements	Totally	■ 100% of French employees
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements	Totally	■ <b>Prevention of psycho-social risks during organizational changes</b>
MM4	Number of strikes and lock-outs exceeding one week's duration	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of workrelated fatalities by region	Partially	■ <b>Occupational disease</b> ■ <b>Occupational Safety</b>
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	Totally	■ <b>Training</b> ■ <b>Health Observatories</b> ■ <b>Awareness of employees</b>
LA10	Average hours of training per year per employee by employee category	Partially	■ <b>Training</b>
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	Partially	■ <b>Gender balance in Board of Directors</b>
LA14	Ratio of basic salary of men to women by employee category	Partially	■ <b>Equality of remuneration provision</b>

Performance indicators « Human rights »			
Elements	Description	Reporting	Link to information
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR4	Total number of incidents of discrimination and actions taken	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
MM5	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
HR10	Percentage and total number of operations having been subject to a human rights review and/or an impact assessment	Totally	■ Ethical Reporting 100% of sites / year
HR11	Number of complaints relating to human rights, addressed and resolved through formal mechanisms	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.

Performance indicators « Society »			
Elements	Description	Reporting	Link to information
SO1 MMSS	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	Partially	■ Focus Niger
SO1 G3.1	Percentage of operations with a local community engagement plan, impact studies and development programs	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
MM6	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous Peoples	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
MM7	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
MM8	Number (and percentage) of company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	Not reported	Indicator not relevant to the scope of our activities.
MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	Partially	■ No resettlements during the period in question.
MM10	Number and percentage of operations with closure plans	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
SO9	Operations with significant potential or actual negative impacts on local communities	Partially	■ Local Purchasing
SO10	Prevention and mitigation measures implemented in operations with a significant potential or actual impact on local communities	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
SO2	Percentage and total number of business units analyzed for risks related to corruption	Totally	■ Ethical reporting: 100% of sites / year
SO3	Percentage of employees trained in organization's anti-corruption policies and procedure	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
SO4	Actions taken in response to incidents of corruption	Partially	■ Ethical reporting ■ Case study
SO5	Public policy positions and participation in public policy development and lobbying	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.

SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
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### Performance Indicators « Product responsibility »

Elements	Description	Reporting	Link to information
MM11	Programs and progress relating to materials stewardship	Totally	<ul style="list-style-type: none"> <li>■ Operational Efficiency</li> <li>■ Preventing long-term risks</li> </ul>
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	Totally	<ul style="list-style-type: none"> <li>■ Preventing risks during the life cycle</li> </ul>
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Not reported	The GRI reporting technical protocols are being considered for inclusion of this information as of 2016 if deemed relevant in the context of the materiality exercise.

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**AREVA - BG Mines**  
Exercice clos le 31 décembre 2014

**Rapport du vérificateur indépendant relatif aux informations figurant  
dans le rapport de croissance responsable 2014 au regard des critères  
définis par le Conseil International des Mines et Métaux (ICMM)**

ERNST & YOUNG et Associés



## **AREVA - BG Mines**

Exercice clos le 31 décembre 2014

### **Rapport du vérificateur indépendant relatif aux informations figurant dans le rapport de croissance responsable 2014 au regard des critères définis par le Conseil International des Mines et Métaux (ICMM)**

A l'attention de la Direction Générale,

En notre qualité de vérificateur indépendant et en réponse à votre demande, nous vous présentons notre rapport sur les informations présentées par le Business Group Mines d'AREVA (ci-après « BG Mines ») dans le Rapport de Croissance Responsable des activités minières du groupe (ci-après « le Rapport ») pour l'exercice clos le 31 décembre 2014 au regard des critères définis par le Conseil International des Mines et Métaux (ICMM).

Les cinq critères définissant le cadre de nos travaux sont ceux requis par la procédure de vérification du plan de développement durable de l'ICMM, à savoir :

- l'alignement des pratiques du BG Mines avec les dix principes de Développement Durable de l'ICMM et les conditions obligatoires définies dans les déclarations de position ;
- l'analyse des risques et opportunités en matière de développement durable tenant compte de la vision interne du BG Mines et des attentes de ses parties prenantes ;
- l'existence et le niveau de déploiement de systèmes destinés au traitement des enjeux de développement durable matériels identifiés ;
- le niveau de performance du BG Mines pour une sélection de sujets matériels identifiés pour la période donnée ;
- l'auto-déclaration du BG Mines au regard des guidelines du Global Reporting Initiative (GRI 3).

#### **Responsabilité du BG Mines**

Il appartient à la direction du BG Mines de sélectionner et appliquer les cinq critères mentionnés précédemment et de préparer et présenter le Rapport et les informations qui y sont incluses en accord avec ces critères.



Cette responsabilité inclut : la création, la mise en œuvre et le maintien de systèmes de management de la performance appropriés pour enregistrer, piloter et accroître la précision, l'exhaustivité et la fiabilité des données de développement durable, et s'assurer que les informations rapportées remplissent les exigences de pertinence, d'exhaustivité, de fiabilité, de neutralité et de caractère compréhensible et comprennent toute information complémentaire susceptible d'en affecter les conclusions et que le rapport ne comporte pas d'anomalies significatives, que celles-ci proviennent de fraudes ou résultent d'erreurs.

### **Indépendance et contrôle qualité**

Notre indépendance est définie par les textes réglementaires, le Code de déontologie de la profession ainsi que les dispositions prévues à l'article L. 822-11 du Code de commerce. Par ailleurs, nous avons mis en place un système de contrôle qualité qui comprend des politiques et des procédures documentées visant à assurer le respect des règles déontologiques, des normes professionnelles et des textes légaux et réglementaires applicables.

### **Responsabilité du vérificateur indépendant**

Il nous appartient d'exprimer une conclusion d'assurance modérée sur la conformité des informations présentées dans le Rapport aux cinq critères de l'ICMM.

Nous avons conduit pour cela les travaux décrits ci-après en nous référant aux bonnes pratiques établies dans les normes professionnelles de vérification et d'audit que sont la norme internationale sur les contrats de vérification (ISAE 3000), la norme de vérification AccountAbility 1000 (AA1000 AS), et les Directives ISO 19011 pour la qualité et l'audit de systèmes de gestion environnementale.

### **Nature et étendue des travaux**

Nous avons effectué les travaux suivants :

- Nous avons apprécié les moyens déployés par le BG Mines pour respecter les attentes définies par les cinq critères de l'ICMM précédemment cités.
- Nous avons pris connaissance des différents supports de documentation internes (politiques, chartes, déclarations et supports de communication, etc.) afin de mesurer leur niveau d'adéquation avec les dix principes de développement durable de l'ICMM. Nous avons mené des entretiens auprès des personnes responsables du déploiement de ces politiques au niveau du BG Mines, en tenant compte des travaux ayant été réalisés lors des années précédentes sur ces sujets et en focalisant nos investigations sur une sélection de sujets considérés matériels au regard de l'actualité du BG Mines<sup>1</sup>.
- Nous avons apprécié le caractère approprié du processus d'identification et de caractérisation des risques et opportunités en matière de développement durable au regard des principes clé d'inclusion, de matérialité et de réactivité.
- Nous avons vérifié l'existence et apprécié le caractère approprié des systèmes de management des sujets de développement durable considérés comme matériels pour l'activité du BG Mines.

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<sup>1</sup> Les sujets ayant fait l'objet d'une investigation détaillée lors de cet exercice ont été (i) la planification et la gestion environnementale et sociétale de l'après-mine, (ii) la prise en compte des enjeux de préservation de la biodiversité, et (iii) la réalisation d'une analyse de matérialité intégrant les attentes de l'ensemble des parties prenantes.

- Au niveau des entités que nous avons sélectionnées<sup>2</sup> en fonction de leur activité, de leur contribution à l'impact du BG Mines en matière de développement durable, de leur implantation et d'une analyse de risques, nous avons mené des entretiens pour vérifier la correcte application des procédures du BG Mines, et mis en œuvre des tests de détail sur la base d'échantillonnages, consistant à évaluer la correcte application de ces procédures.
- Nous avons revu l'auto-déclaration GRI incluse dans le Rapport.

Nous estimons que les méthodes d'échantillonnage et tailles d'échantillons que nous avons retenues en exerçant notre jugement professionnel nous permettent de formuler une conclusion d'assurance modérée ; une assurance de niveau supérieur aurait nécessité des travaux de vérification plus étendus. Du fait du recours à l'utilisation de techniques d'échantillonnage ainsi que des autres limites inhérentes au fonctionnement de tout système d'information et de contrôle interne, le risque de non-détection d'une anomalie significative dans les Informations affichées par le BG Mines au regard des critères de l'ICMM ne peut être totalement éliminé.

#### **Commentaires sur le Rapport**

La présentation de la performance du BG Mines en matière de développement durable au sein du Rapport appelle de notre part le commentaire suivant :

Une rubrique dédiée du rapport en ligne permet aux parties prenantes externes de communiquer leurs attentes vis-à-vis du BG Mines en matière de prise en compte des enjeux de développement durable. Cette démarche participative initiée en 2014 permettra d'enrichir l'analyse de matérialité de ces enjeux conformément au critère 2 de l'ICMM.

#### **Conclusion (Assurance modérée)**

Sur la base de nos travaux, nous n'avons pas relevé d'anomalie significative de nature à remettre en cause le fait que les informations présentées au sein du Rapport sont conformes aux cinq critères de l'ICMM.

Paris-La Défense, le 4 août 2015

Le Vérificateur Indépendant  
ERNST & YOUNG et Associés



Christophe Schmeitzky

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<sup>2</sup> COGEGOBI et Areva Mongol LLC (Mongolie)