Biodiversity
At Your Fingertips

Through the creation of a free application, downloaadable to iPads, Agence Iter France is enabling the general public to enter into the heart of Cadarache forest: old oaks, kiosks, rose-bushes, the gigantic house, glades, insects, plants, animals inhabiting the forest and the influence of the Vernon and Durance towns.

This educational application combines discoveries and knowledge through the senses of sight and sound and is the first of its kind. It is the proof in the fact that it has already attracted the attention of the organizers of ‘Carrefour des possibles’ which brings together creative projects in the digital field. They are interested in this application designed with the Office National des Forêts (ONF) and the company intuitive Travel.

It is easy to download, go to: https://itunes.apple.com/fr/app/parcours-biodiversite-cadarache/id568967475?mt=8. It is easy to use, download it and participate in the biodiversity.

Intercultural, in a work context

How do you promote professional interaction in a multinational environment such as ITER, UNESCO or the European Space Agency? This is the question Elisa André, in charge of Agence Iter France’s intercultural and languages programme, is trying to tackle.

Presented at the International Congress on Education, Research and Innovation (ICERI) held in Valencia in September last year, her article is clear: intercultural training is useful provided that it is carried out in a work context with employes participating in or teach- ing the course. It is the result of her experience over the past six years working on the programme she has established with ITER, a knowledge transfer from people themselves is essential. This implies an ability to bring people together around themes based on the subtle differences of each culture. Understanding through these various activities is the key to enrichment of members of an organisation and therefore the organisation’s project. It is the way.

ITER Robots

The second edition of the ITER Robots competition has been launched. Provencal schools and colleges are invited to submit their application before 30 November 2012.

The first qualifying round is scheduled for April 12, 2013 and will determine the five establishments which are to take part in the final. This interscholastic meeting encourages creative and innovative projects in the digital domain, with the help of companies working on the ITER construction site and the Office National des Forêts (ONF) and the company intuitive Travel.

The final round is scheduled for October 6, 2012 and will determine the five establishments in Provence which are to take part in the final. This interscholastic meeting encourages creative and innovative projects in the digital domain, with the help of companies working on the ITER construction site and the Office National des Forêts (ONF) and the company intuitive Travel.

More than 50 000 Visitors since 2007

The milestone of 50 000 visitors welcomed to the ITER construction site since 2007 was reached in September 2012. With the 2 500 people who attended the open day held on 6 October included, the total number of visitors to the site since the work started in 2007 has now reached 212 391. Although the general trend has stabilized over the last four years with more than forty visits per month, the percentage of schoolchildren is increasing steadily and the number of families well exceeded 2012’s total in January 2013, ranging from primary schools to universities. For younger children, the programme consists of workshops and interactive experiences, with surprises and discoveries. Discover our videos: www.itercadarache.org.

Local News

Provence Attracts Promising Investments

This was true during the application phase to host ITER in Cadarache and is even more so today: the attractiveness of an area is important for funding projects, attracting interest from investors, maintaining and creating jobs. This is the main conclusion of the multinational programme committed to promoting and investments in the field of research and innovation, notably in the fields of energy and bioenergy, « The Jules Horowitz reactor which will be the flagship of nuclear research in Europe in a few years time and the Astrid project which will develop future reactors, but also work on alternative energies including the nuclear platform of activities. Meanwhile, Agence Iter France presented the opportunity to learn about the ITER construction site, its functioning, the organisation, the road to its completion and the deadlines. »

Open Day:
More than 5 000 people in Cadarache

A total of nearly 5 000 visitors were welcomed by the EEA and ITER during the Open Day on October 6, 2012. All the personnel worked hard to welcome their families and friends and show them round the unique facilities.

The Commission for Atomic Energy and Alternative Energies (CEA) contains a multitude of research facilities which are unique in the world and often unknown. When opening its doors to families and friends of the personnel, Maurice Mauclair, Director of the research centre in Cadarache, had one main objec- tive: to show the diversity of the research and the pas- sion of those without whom technological progress would be impossible. + We are preparing for this country’s energy future with new facilities such as the Jules Horowitz reactor which will be the flagship of nuclear research in Europe in a few years time and the Astrid project which will develop future reactors, but also work on alternative energies including the nuclear platform of activities. Meanwhile, Agence Iter France presented the opportunity to learn about the ITER construction site, its functioning, the organisation, the road to its completion and the deadlines. +

Just a few meters away, the ITER construction site was also open to the public, with a flurry of buses crossing the 50 hectare developed site to take visitors to see the 424 miconic plant forming a sort of huge man-made. Finally, for those who still had some energy left at the end of the day, there was also the opportunity to discover the heri- tage of Cadarache, its castle and the nearby biodiversity trail.

In Brief

ITER Headquarters: A Retrospective

First French on the Biodiversity Trail

Dressing the Front façade of the Head-quarters, the vertical sundails produce a spectacular effect as they fans out and move according to their design. Laurent Bettembourg and Rudy Ricciotti, both architects from the Var, had imagined. Besides their role as a sunscreen, these thin strips of concrete facilitate the smooth integration of the building into the landscape. They are made of exceptionally strong fibre-reinforced concrete.
On the embankment which reinforces the platform where the 39 technical buildings will be built, the twenty metre high ITER headquarters office building is an imposing structure.

As announced, it took about two years to complete this architectural ensemble of over 24 000m² created by architects Rudy Ricciotti and Laurent bonhomme from the Var.

**March:** Structural work starts on the ITER welcoming building. With a surface area of 350m². A third of the façade of the building is covered with mesh of architectural concrete with augenformtablettes to shape the interior.

**April:** The appearance and asymmetrical openings of the mesh of the concrete building are created through a special process using self-placing concrete. To create the mesh effect, dummy bars are fixed inside the formwork used for augenformtablettes. During pouring, the high fluidity of the concrete allows it to fill even the most inaccessible parts of the moulds.

**June:** Structural work is completed. It took less than a year to build these three buildings and works are in progress to continue.

**September:** The shape and size of the office building became apparent at ground level with forty employees working in this area and fraternization room over 150m². The workforce increases in number from the following months, exceeding 200 people.

**October:** The first walls of the main building rise up out of the ground at a rate of ten linear meters per day. The building is secured to the ground by 398 metal rods each 5 cm in diameter and anchored in the ground at a rate of ten linear meters per day. The building is secured from the construction site.

**November:** During the seventh ITER Council held in Cadarache, representations from the seven ITER parties gather around the General Director Dina Marzocca on November 17 for the symbolic laying of the first stone of the ITER headquarters. They all sign a parchment to mark this historical moment before slipping it into a huge stone extracted from the construction site.

**January to April:** The 3.5m long footbridge that connects the headquarters to the ITER platform is assembled on site before being crane-lifted and secured. The installation of glazed panels and the interior are completed in April.

**From April to September:** Founding work starts on both the inside and outside of the headquarters buildings: 350m² car parking spaces and bus parking are marked out on the car parks that stretch from the access roundabout at the site entrance to the foot of the headquarters buildings. The lighting network is also installed. Inside, 12 rows of partition walls define the workplaces.

**September:** After AIE France and Leon Grosse-Axima conduct the technical reception of premises for future occupants.

**October 6:** Some of the ITER Organization teams move into their new offices.

**August:** Works installation of the Leon Grosse-Axima consortium in preparation for the construction of three buildings: one for welcoming, another for access to the research platform and the medical services and the third for the offices, meeting rooms, a pro-sect amphitheatre and a restaurant with a seating capacity for a thousand meals per day.

**End of October:** The raft of the assembly hall (5 400 m²) has been completed. The hall will eventually house the assembly of the ITER tokamak complex, the production of heavy lifting components, the nuclear ventilation system and the ITER tokamak control room, the production of heavy lifting components, the nuclear ventilation system and the ITER tokamak control room.

**November:** The reinforcement is being carried out by a team of Japanese companies before assembly. The hall is ready in Spring 2013.

**December:** Concrete work starts on the entire floor of the office building to support a dome 14 m in diameter and 1.4 m thick.

**1 One of the components of the Tokamak's magnetic field is called the plasma confinement system.**

**2 One of the components of the plasma confinement system is called the plasma current lead.**

**3 One of the components of the plasma breeding system is called the plasma current lead.**

**News**

**Preparing for the Arrival of Future Companies on the construction Site**

On the forty acre platform, Fusion for Energy (F4E) is preparing the construction of the 39 technical buildings of the ITER research facility. A new, significantly large work area of 300m² long and 160m wide is now under construction. It is the second subcontractor area on site, set up in accordance with the European commitments (EUR), and it will host some of the 3 200 persons expected between 2014 and 2016. This area will be made available to future companies and will consist of approximately 280 m² of temporary buildings. A team of 30 people from the company COMSA are working on the construction of foundations for the restaurant (1 500 meals per day) and offices for the construction site supervisors and also the installation of the network necessary for this unit to be operational. It should be operational at the end of January 2013 with the offices ready in Spring 2013.

**ITER and French companies**

Out of a total of approximately 1 000 contracts issued by Agence Iter France, Dreal, the PACA region, ITER and F4E since 2008, nearly half have been won by companies based in France. These contracts are for industrial projects, construction work or services and engineering. Beneficiaries include Daher, who are in charge of manufacturing the large ITER components; Anyssor and ISOIS industries for the project management of 39 technical buildings; Airforce France technologies for project management assistance, SFR Béziers for the assembly hall of the poloidal field coils; AREVA NET and AREVA NP for prototype modules to cover the vacuum chamber; SNCMA Propulsion Solide for the development of the power plant and Time Drives SA for the development of the plasma prototype. A total of 3 300 people work on the ITER tokamak complex, the production of heavy lifting components for the assembly of the various components of the machine, the nuclear ventilation system for buildings, hydraulic and electrofluid networks, but also the production of certain superconducting magnet systems for ITER.

**Reinforcement work**

The raft of the assembly hall (5 400 m²) has been completed and is now under construction. The work includes a total of 4 200 tons of steel for 3 500 m² of concrete. The hall will eventually house the ITER components before assembly. The reinforcement is being carried out by a team of 66 people from the company GTM, managed by F4E.

**The way to learning**

In France, apprentices who have been working as assistant to the manager of the communication unit led by Sylvie André-Mitsialis. On the legal side, a law degree mainly works on the transport of ITER components and on dismantling, a specialist Beaunon Baly, Legal Officer for AIF. She also interacts with Chadwick Borel who has been working as assistant to the manager of the intercultural events.

Preparing an apprentice for his future career while helping him to integrate into a professional environment on a daily basis. It is with this intention that the Agence Iter France welcomes apprentices. Joris Coucoureux, who is preparing a higher diploma in communication, and Marie Alfouni, a BTS in communication, have joined the communication unit led by Sylvie André-Mitsialis. On the legal side, a law degree mainly works on the transport of ITER components and on dismantling, a specialist Beaunon Baly, Legal Officer for AIF. She also interacts with Chadwick Borel who has been working as assistant to the manager of the intercultural events. Finally, as part of her Bachelor’s Degree in Marketing and Sales, Rhoda Want is working with Shawn Simpson on intercultural events.