

# LUXEMBOURG BUSINESS JOURNAL

### Luxembourg-American Chamber of Commerce

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Left to right: Mr. Jean-Jacques Dordain, former Director General of ESA (European Space Agency), and Étienne Schneider, Luxembourg Deputy Prime Minister, Ministry of the Economy.

# BECOMES FIRST EU COUNTRY TO LAUNCH A CLEAR FRAMEWORK TO SUPPORT THE FUTURE

Luxembourg, February 3, 2016 – The Luxembourg Government announces a series of measures to position Luxembourg as a European hub in the exploration and use of space resources. Amongst the key steps undertaken, as part of the spaceresources.lu will be the development of a legal and regulatory framework confirming certainty about the future ownership of minerals extracted in space from Near Earth Objects (NEO's) such as asteroids.

Luxembourg is the first European country to announce its intention to set out a formal legal framework which ensures that private operators working in space can be confident about their rights to the resources they extract, for example, rare minerals from asteroids. Such a legal framework will be worked out in full consideration of international law. Luxembourg is eager to engage with other countries on this matter within a multilateral framework.

Luxembourg will also invest in relevant R&D projects and consider direct capital investment in companies active in this field.

The spaceresources.lu initiative will nurture an exciting and entirely new space industry. This industry will offer unprecedented access to mineral resources to be used essentially in Earthorbit and beyond. The aim is to stimulate economic growth on Earth and offer new horizons in space exploration.

Luxembourg's Deputy Prime Minister and Minister of the Economy Étienne Schneider, announced the spaceresources. lu initiative today: "Our aim is to open access to a wealth of previously unexplored mineral resources on lifeless rocks hurling through space, without damaging natural habitats. We will support the long-term economic development of new, innovative activities in the space and satellite communications industries as a key high-tech sector for Luxembourg."

Jean-Jacques Dordain, the former Director General of ESA and now an advisor to the Government of Luxembourg on spaceresources.lu, said: "This initiative is a clear demonstration that Europeans are innovative and able to take risks when the stakes are high. While futuristic, the project is based on solid grounds, i.e. technical prowess that already exists in Europe and around the world."

Chris Lewicki, President and CEO of Planetary Resources stated: "We commend the Government of Luxembourg in leading the world by establishing this new resource industry, thereby enabling the economic development of near-Earth asteroid resources. Planetary Resources looks forward to working with Luxembourg."

Yves Elsen, Chairperson of the Luxembourg Space Cluster stated: "Over the past three decades, Luxembourg has built up extensive know-how in world-class space related activities. Luxembourg can write history once again by further sustaining the attractiveness of the country for a host of next generation space activities."

Source: Luxembourg Ministry of the Economy



Redundantly equipped ultrafiltration in the OilPaq container

# APATEQ DELIVERS OILPAQ TO THE US OIL **AND GAS INDUSTRY**

### APATEQ'S INNOVATIVE ONE-STOP SOLUTION FOR FRACKING FLOWBACK AND PRODUCED WATER TREATMENT IS GOING TO BE IMPLEMENTED IN THE MARCELLUS AND UTICA SHALE PLAY.

After recently opening a first subsidiary in the USA, Luxembourg clean-tech company APATEQ commissions an industrial size "OilPaq" in Ohio. The containerized plant will treat 2,000 barrel per day of fracking flowback and produced water from oil and gas extraction, producing an effluent that is suitable for reuse such as re-injection into the borehole for enhanced oil recovery. The customer, located in Ohio, is a service provider to the US oil and gas industry in the Marcellus and Utica shale play. Commissioning of the plant is scheduled for March 2016 in Ohio. Interested parties are invited to visit the OilPaq on-site upon prior agreement.

With the OilPaq, APATEQ developed a cost-effective, green process technology based on long-lasting membranes that efficiently separate hydrocarbons from fracking flowback and produced water without using chemicals in the treatment process. The mobile OilPaq covers almost the entire treatment chain as one single device, reducing free and emulsified oil from 500-2,000 ppm (parts per million) down to 1-2 ppm, suspended solids from 500-1,000 ppm to 1-2 ppm, thus exceling over other fracking flowback and produced water treatment solutions available on the market. The OilPaq is designed according to the highest standards of quality and is suitable to operate with potentially hazardous substances, such as explosive and toxic gases. Remote monitoring and operation is part of the basic configuration while safety and operational alarms inform the operator in case there is an unscheduled event. The OilPaq's critical operational sub-systems are built redundant to avoid processing disruptions. In the unlikely event that such a sub-system fails, the OilPag's software is programmed in such a way that immediate action is taken by switching from the defective device to its backup unit.

Besides to the latest OilPag delivery in the US, APATEQ in Luxembourg entered the maritime market by recently closing a contract with the Danish shipping company Scandlines ApS about the development, built and supply of a harbor installation of its new, membranebased solution for scrubber water treatment. The containerized plant will treat the wastewater produced during the exhaust gas cleaning process on Scandlines' two new ferries connecting Rostock (D) and Gedser (DK); the resulting clean water will exceed current and future legislation for direct discharge. Scrubber wastewater is typically highly contaminated with heavy metals, hydrocarbons and soot arising from the combustion of heavy bunker oil that is typically used by large ships. By means of APATEQ's "MarinePaq" solution, even the smallest particles are reliably removed, providing an effluent that allows a direct discharge into open water.

## **TINDER-FOR-RECRUITERS' APP**

### TINDER-FOR-RECRUITERS' APP GETS \$10 MILLION TO EXPAND IN EUROPE

It was only a matter of time before the left-swipe-for-no, right-swipe-for-yes approach to screening personal profiles left the confines of dating apps and entered the corporate world. Enter Job Today -- an app already successful in Spain -- which connects small employers, especially in the retail and hospitality sectors, with potential hires over a mobile platform.

Since the service rolled in April 2015, Job Today has signed up more than 20,000 businesses and processed more than 2 million job applications in Barcelona, Madrid, London and Paris. The Luxembourg-based startup will announce Thursday that it has secured \$10 million in venture capital to fuel its continued expansion throughout Europe. Fueling the hiring process

Running a chain of Shell gas stations in Luxembourg, Polina Montano always struggled to hire staff, especially last minute replacements for employees who called in sick or quit suddenly. Classifieds were expensive and job boards slow. Meanwhile digital sites like Monster.com and LinkedIn were aimed mostly at graduates, not those looking for the kind of work Montano had to offer.

"The existing recruitment process does not serve the small business market," Montano said in an interview.

Montano and Eugene Mizin, a fellow master's program student of entrepreneurship and innovation at the University of Luxembourg -- and who had worked as a product manager for EBay and Skype -- set about trying to solve this problem.

Together they founded Job Today. The app uses a locationbased search to help employers filter through the personal profiles created by potential candidates and a Tinder-like swipe left-or-right system for them to create a short-list of applicants. The app also provides a messaging system for employers to contact short-listed candidates -something that Job Today forces recruiters to do within 24 hours after highlighting a strong contender. Next steps

The \$10 million Series A fund round announced Thursday is being led by Accel Partners, with Felix Capital and Luxembourg-based Mangrove Capital Partners, which provided seed money to Job Today, also participating.

The company will use the the money from its funding round to grow its service in London and Paris, where it recently debuted, as well as to expand to other cities in Europe and beyond. "We always thought of this as a global product," Montano said. "We want to become the LinkedIn for blue collar workers."

Sonali De Rycker, a partner at Accel who will be joining Job Today's board, said the venture capital firm had been looking to invest in a company that addressed today's changing European job market -- with high levels of youth unemployment in many countries and a growing "gig economy," in which people work in temporary and freelance jobs. She also wanted a product that was designed from the start for mobile technology, she said. "It ticked every box for us," De Rycker said of Job Today in an interview. Source: Jeremy Kahn, Bloomberg Business