

# INDIA - LUXEMBOURG: VIBRANT INVESTMENT IN LONG TERM TIES

While Luxembourg and India's diplomatic links are decades old, both nations continue to look at new areas of engagement for growth opportunities and concerns of global relevance. Fortune India Exchange in conversation with Jean Claude Kugener, Ambassador of Luxembourg.

Photo credit: Prem Kumar



**Jean Claude Kugener**  
Ambassador of Luxembourg

**Could you please share with us when Luxembourg and India established diplomatic relations and what were the issues of interest at that time for both nations to establish these diplomatic ties?**

In 2018, we celebrated 70 years of diplomatic relations. 90 years ago we opened our first Consulate in Bombay. Luxembourg and India have always had strong political, economic and cultural relations. Over the decades, our countries have become partners in the areas of steel, manufacturing, IT, satellites, finance and now also Green Bonds and Start-ups. If we look at the 36% increase in business and tourist visa applications in 2018 compared to 2017, we see that the people-to-people contacts between Luxembourg and India are also increasing. Our Consulate in Delhi this year became the first Luxembourg Consulate in the world in issuing Schengen visas.

**What are the sectors that are of primary importance in your engagement with India?**

Luxembourgish companies have been "Making in India" for more than two decades. I am thinking of PAUL WURTH, which has equipped and

built blast furnaces for a majority of Indian steel producers throughout the country. With a presence in West Bengal and Karnataka, CERATIZIT provides hard cutting materials for different industries. The Luxembourg-Indian joint Venture AMER-SIL KETEX in West Bengal is producing highly sophisticated gauntlets for the automotive industry. IEE produces car seatbelt reminders and is expanding its presence in Pune. The Luxembourg satellite company SES works with ISRO and has 5 satellites over India. In Luxembourg, we have attracted a lot of interest from Indian companies, especially in the IT sector like TCS, WIPRO, INFOSYS and TECH MAHINDRA to name just a few. With the takeover of Essar Steel, the Luxembourg headquartered ARCELOR-MITTAL is as well increasing its presence in India.

**How do you see India as an investment destination for your country and vice-versa?**

The large presence of Luxembourgish companies here and of Indian companies in my country shows that there is a lot of investment already happening. Let me also point out that the Luxembourg Stock Exchange listed its first Masala bond in 2008 and that in 2016 it launched the Luxembourg Green Exchange (LGX), the first platform in the world fully dedicated to issuing Green Bonds. The Indian government and Indian companies can use the LGX to raise investments for sustainable and green projects.

**Could you shed light on how both your country and India have come together on matters of global concern today...terrorism, security..climate change and trade relations?**

Luxembourg is a strong supporter of multilateralism and works very actively with India on matters of global concern in the international fora. As 16<sup>th</sup> Foreign Direct Investor in India, Luxembourg's bilateral relations in trade and finance keep on growing. Luxembourg is a founding member of the UN, WTO and NATO among others. My country was the first non-Asian country to become a founding member of the Asian Infrastructure Investment Bank (AIIB) in 2015 and hosted its annual governors' meeting in June 2019, the first outside Asia.

**What have been the cultural exchanges between two countries?**

Allow me to highlight among others the modernist sculptor Mr. Amar Nath Sehgal, who had a very rich and sustained relationship with Luxembourg where he lived for more than two decades. The artist left a remarkable heritage with numerous sculptures, paintings and drawings and every Indian tourist will find the bust of Mahatma Gandhi created by the artist in the Municipal Park in the Capital. The Luxembourg Post recently launched a commemorative stamp in honour of his 150<sup>th</sup> birthday Anniversary with a picture of Gandhi's bust. In Mumbai we currently have a rising Luxembourg Bollywood star of Indian origins, Niharica Raizada, who contributes to our presence as well in the very impressive film industry. ✨



**Etienne Schneider**  
Deputy Prime Minister and  
Minister of the Economy

## THE GRAND DUCHY OF LUXEMBOURG A NATION DRIVING GROWTH IN THE DIGITAL ECONOMY

**I**n today's data-driven digital world success depends greatly on one's ability to adapt. Over the last few decades, Luxembourg has been constantly opening up to new ideas, innovating and reinventing its economy by continually adapting to economic framework changes and challenges.

After developing a powerful steel industry at the end of the 19th century, in the 1980's Luxembourg became a global financial centre. More than three decades ago Luxembourg also identified the importance of information and communication technologies (ICT) for the successful diversification of its economy. Initially developed to support Luxembourg's flourishing financial, broadcasting and space sectors, the rapidly growing ICT industry has enabled other key business sectors to thrive, including the life sciences, automotive, clean technologies, fintech and logistics, all of which are highly connected to and dependent on ongoing best-in-class ICT developments.

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### A HOLISTIC APPROACH

"Luxembourg strives to seize the latest digital technological developments to achieve the digital economy of tomorrow. Our approach to this transformation is holistic, in the sense that it does not only cover strategic adoption, but also includes developing appropriate skills and building infrastructures and ecosystems as well as designing efficient policies and support in order to ensure a sustainable development," says Luxembourg's Deputy Prime Minister and Minister of the Economy, Étienne Schneider. Mr Schneider is confident in his country's ability to perform well in those times of technological upheaval that is disrupting business and impacting many of our preconceived ideas. "Today, the country enjoys solid foundations for facing future ICT-enabled opportunities and challenges. With its competitive business environment and

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Photo credit: Luxembourg Tourist Office

digitally. As we enter the third decade of this 21st century, digital data, digital infrastructure and digital knowledge will be considered as strategic economic and competitive assets in all advanced nations," explains the Deputy Prime Minister and Minister of the Economy.

Luxembourg's data-driven innovation strategy is based around a vision of a sustainable Luxembourg economy, that is developing and enabling the use of digital technologies by companies, be it large groups, SMEs or start-ups, to drive future growth. Those technologies can be Artificial Intelligence (AI), the Internet of Things, smart components, systems and networks, HPC or Big Data analytics, to name only a few. Parallel to this, a dedicated Artificial Intelligence strategic vision for Luxembourg was developed to further support Luxembourg's ambition to be amongst the most advanced digital societies in the world.

According to Mr Schneider: "Our openness has always been the key for Luxembourg's economic success; attracting international entrepreneurs, investors and activities has made the success of our manufacturing industry as well as of our

oriented environment. Multilingual, multicultural and diversified, Luxembourg can be used by start-ups as an ideal test market to develop concepts and evaluate new products and services.

The country has a dedicated national platform for fintech start-ups –the Luxembourg House of Financial Technology (LHoFT). As the main driver of innovation for financial technologies, LHoFT brings together financial institutions, fintech innovators, research, academia and public authorities, to help drive forward the development of products which meet specific industry needs. It also makes connections with other fintech nodes around the world, encouraging domestic and international collaboration, working groups and initiatives.

Besides the LHoFT, Luxembourg offers numerous other support mechanisms for start-ups; since the creation of the country's first incubator Technoport in 1998 the start-up landscape has been enriched with numerous public and private initiatives. The Technoport has participated twice in the Europe-India Innovation Partnership programme, which has brought together incubators from the EU and India in



Photo credit: Fit 4 Start : Marie De Decker/Luxinnovation

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smart policies, Luxembourg has all the assets needed to be an innovative forerunner in the data-driven economy and a perfect location for digital activities in general," he confirms.

Major infrastructure investments over the past decades have resulted in extensive broadband networks, ensuring international connectivity, and state-of-the-art high-end data centres being located in the Grand Duchy. One of the latest initiatives is the investment in a business-oriented high performance computer. The initiative is part of a Europe-wide initiative to boost HPC capacities in the European Union. It was set up to pool all financial means available for developing top-of-the-range exa- and petascale supercomputers for processing big data.

"The emerging data-driven economy surely constitutes both an opportunity and a competitive challenge for all countries. The opportunities will come predominately to those nations that are best prepared and equipped to compete

financial sector. I am convinced that the same is true for the ICT sector; we attract established companies as well as start-ups from all over the world. In Luxembourg, they can develop their activities to serve not only the national market, but further to serve customers all over Europe and beyond." Luxembourg's reliability and dynamism indeed go hand in hand with its spirit of openness. People from more than 175 nationalities live in Luxembourg – one of the greatest resources of the open and outward-looking country – and around 70% of the workforce is foreigners. The Indian diaspora has also been growing at a steady rate over the last couple of years with many Indians working in financial services and the IT sector as companies like Amazon, TCS, Wipro, Tech Mahindra or Syncordis have a big presence in Luxembourg.

### A FERTILE GROUND FOR START-UPS

Numerous multinational companies have established their worldwide or European headquarters in Luxembourg alongside well-known local companies. The development of the start-up ecosystem was a natural next step for which the country focused on its main asset– a dynamic and international business-

Bengaluru, Bhubaneshwar and Delhi. In addition to hosting facilities Luxembourg also offers a wide range of support services for young entrepreneurs, including those provided by Luxinnovation, the national agency for innovation, and the House of Startups which is located in the City of Luxembourg.

The interest of global start-ups for Luxembourg can also be measured by the enthusiasm for the Fit 4 Start programme. This national acceleration programme offers to the selected start-ups a grant of €50.000, personalised and intensive coaching as well as access to a free co-working space in an incubator during 4 months. An additional grant of €100.000 is awarded to start-ups which have successfully completed the programme and which have managed to raise at least €50.000 in private capital. Over the past 5 years, 78 start-ups have participated in Fit 4 Start and in 2019 alone, more than 600 start-ups from over 50 different countries applied, including from India. "These initiatives, together with a growing start-up ecosystem and a strong economic fabric of major ICT industry players, RTL Group, SES, Amazon, Pay-Pal, eBay, Rakuten and Vodafone, ensure that Luxembourg stands on solid foundations to face future ICT enabled opportunities and challenges," concludes Étienne Schneider. 🇪🇺

# A EUROPEAN HUB FOR COMMERCIAL SPACE

Luxembourg is the European focal point for the 'new space' industry - the next generation of space technologies.



Photo credit: Kleos

The space industry has entered a new phase of development. No longer the province of nation states alone, the next generation of space technologies is being designed and built by a steadily growing community of entrepreneurs, scientists, researchers and engineers. Luxembourg is the European focal point for this 'new space' industry.

Developing high technology for the space industry has an exacting set of requirements. Research, finance and technical services are all essential; as is access to valuable scientific data gathered from space. Each of these needs is well satisfied in Luxembourg and as a result, the space sector is thriving.

## CONNECTING SPACE AND NON-SPACE IN LUXEMBOURG, WHILE LAUNCHING IN INDIA

Huge data sets, gathered from space, represent an essential source of insight and opportunity for the space industry. Meanwhile, these same data sets are being used by non-space businesses searching for better ways to work on planet Earth. Data is the point of intersection for many high technology businesses.

The Luxembourg Space Agency (LSA) Data Center was created to support businesses in Luxembourg with reliable, fast and intuitive access to data streams from the European Copernicus Earth Observation programme. The detailed optical and radar imaging data which this project makes available, helps to manage the environment, understand and mitigate the effects of climate change, and ensure civil security.

New products which make use of this data are of interest to businesses in many sectors including the environment, maritime, meteorology, agriculture, mobility,

aviation and health, thus leading to a massive uptake of satellite-based products by end users. Furthermore, Luxembourg is now home to one of the world's largest Data Lakes, for further fostering space data analytics.

Spire Global, an international player in space-to-cloud analytics, has made its data lake accessible, free of charge, to all start-ups, research institutes, and public agencies, in Luxembourg. These entities will be provided with sets of proprietary, differentiating, high-quality data for research and non-commercial product development activities. This collaborative initiative, co-funded by the Luxembourg Space Agency through its national space programme (LuxIMPULSE), is intended to give impetus to the development of commercial space research.

The data sets include Automatic Identification System (AIS) data, which is used for tracking the movements of ships and vessels across the world, and Automatic Dependent Surveillance-Broadcast (ADS-B) data, which is used for tracking airplanes across global airways. It also contains cutting-edge Radio Occultation data (GNSS-RO), a key element of weather forecasts.

On 11 December 2019, four satellites from Spire were launched by the Indian Space Research Organisation, ISRO, in Sriharikota, where proximity to the Equator helps satellites reach the fastest speed. The Luxembourg office is part of a team that develops the collection of reflected-satellite signals to measure soil moisture and ocean winds with the help of two of the launched satellites.

Also Kleos Space, a Luxembourg-based space-powered Radio Frequency Reconnaissance (RF) data provider, has received confirmation that the Kleos Scouting Mission will launch on a Polar Satellite Launch Vehicle (PSLV) rocket from Chennai, India in December 2019.

## THE BIG PICTURE

Luxembourg's nurturing of high-tech businesses is part of a wider program of economic diversification. The nation has a raft of policies and programs aimed squarely at supporting a resilient, forward-looking economy. Data is the latest facet in this story, with Luxembourg's Ministry of the Economy keen to support the further emergence of a trusted data-driven economy, accelerating the digital transformation of its strategic sectors.

Space is one of these strategic sectors but not the only one. Luxembourg will proactively invest in companies using space infrastructure and data to develop their services and competitive position, regardless of whether that business is focused on planet Earth or looking at the stars.

## THE FUTURE

The pace of innovation in space-related technology continues to accelerate year after year. To make tomorrow's technical possibilities a reality requires practical support today. In Luxembourg, the space industry finds a nurturing and supportive environment with an established community of high-tech businesses, researchers, and entrepreneurs. All the necessary services and facilities, people and finances are in place. The next phase of space development is about to begin in earnest. ✖

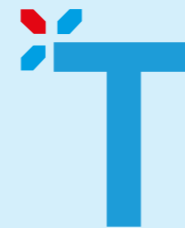
# UNLOCKING SUSTAINABLE CAPITAL

Unlocking sustainable capital and helping redirect capital flows towards sustainable investment projects.

Robert Scharfe  
CEO, Luxembourg Stock Exchange



Photo credit: Luxembourg Stock Exchange



The Luxembourg Stock Exchange founded the Luxembourg Green Exchange (LGX) in 2016 as a response to the Paris Climate Agreement and the UN Sustainable Development Goals. Our objective was to unlock sustainable finance and help redirect capital flows towards sustainable investment projects.

LGX is the world's first platform dedicated entirely to sustainable finance instruments. We started with green bonds and then we extended the scope of LGX to include social and sustainability bonds. In 2018, we also opened the platform for SRI investment funds as a response to growing interest in the market. However, the Luxembourg Stock Exchange's role in green finance dates back to 2007, when the European Investment Bank issued the world's first Climate Awareness bond. The World Bank followed suit with its first Green Bond the following year, and both of these bonds were listed on the Luxembourg Stock Exchange.

As of November 2019, more than 580 sustainable securities were displayed on LGX, representing USD 230 billion in total issuance. We work with issuers from all around the world, and from multiple sectors, such as sovereigns and supranational institutions, municipalities, financial institutions and corporates. LGX has a 50 % market share of listed green, social and sustainability bonds worldwide, and issuers keep coming to Luxembourg to list their sustainable finance securities.

## MORE THAN FINANCE

Today, investors care about the environmental and societal impact of their investments. They want to invest with purpose, and increasingly search for investments that contribute to sustainable development in addition to bringing a financial return. LGX brings visibility to such investment projects and their issuers.

Sustainable finance has seen an impressive growth over the past years, both in terms of the range of financial instruments available and in terms of investment volumes. Global cumulative sustainable debt issuance reached the USD 1 trillion mark in October 2019. Green bonds were the first sustainable finance instruments on the market and still are the leading type of sustainable debt security. The green bond market is booming: at the end of November 2019, annual new green bond issuance had reached USD 230 billion globally, according to CBI. This trend is likely to continue.

A few years ago, sustainable finance was a niche, but now it is becoming mainstream. LGX is committed to continuing to promote the global sustainable finance agenda and facilitate investment in sustainable development projects. If we are to reach the sustainable development goals and curb climate change, we need to mobilise trillions of dollars and reorient capital flows into investment projects that contribute to a more inclusive economy and a more sustainable world. ✖