

# Spotlight on Liechtenstein



## A Global Business Success Story

**A principality nestled between Switzerland and Austria fosters a prosperous, highly industrialized economy**

Liechtenstein has the second-highest gross domestic product (GDP) per capita globally, the second-lowest unemployment rate, and is the world's least indebted nation. Although small in size, the sovereign nation of Liechtenstein is well-integrated globally. It is a member of several multilateral organizations, including the European Free Trade Association (EFTA), the European Economic Area (EEA), and the World Trade Organization (WTO).

The principality of Liechtenstein is a monarchical sovereign state. The current reigning monarch and head of state is the 15th Prince of the House of Liechtenstein, His Serene Highness Prince Hans-Adam II of Liechtenstein. Prince Hans-Adam II leads one of the world's most prosperous states. The Princely House of Liechtenstein is one of Europe's wealthiest monarchies and owns and manages the LGT banking group.

**“Liechtenstein has traditionally been a desirable location for companies, a crucial incubator for global innovation, and a valuable supplier to the USA.”**

With a well-developed manufacturing sector, strong financial center, and a knack for innovation, the principality of Liechtenstein is a global industrial, business, and economic powerhouse. Nestled between Austria and Switzerland, this landlocked Central European mini-state is the sixth smallest country in the world, covering 62 square miles in total land area. Despite its small size, the country makes for an excellent investment

destination with incredible growth prospects.



Although it is most famous for its financial center, Liechtenstein also has a highly industrialized free-enterprise economy. The largest contributor to the nation's economy is its manufacturing sector. Liechtenstein has a diverse national economy comprised of over 4,700 active businesses, many con-

centrated in industry, manufacturing, and the services sector. Its companies design and manufacture leading products and services that are sold across the globe.

**“The largest contributor to the nation's economy is its manufacturing sector.”**

Companies based in Liechtenstein benefit from its location in the heart of Europe, with access to all European Union markets, and close ties with neighboring Switzerland. The two countries share open borders and a customs union. Liechtenstein even uses the Swiss franc as its national

*By Fadrique Álvarez de Toledo*

## A Desirable Location for Companies

**Liechtenstein's unique value-added proposition offers an attractive location for European operations and complements the Swiss ecosystem**



**Dr. Daniel Risch**  
Deputy Prime Minister  
Principality of Liechtenstein

**How do you assess relations with the USA?**

Relations are founded on shared values and historically strong social and economic interests. Liechtenstein has traditionally been a desirable location for companies, a crucial

incubator for global innovation, and a valuable supplier to the USA.

**What are some benefits of Liechtenstein's business ecosystem?**

Liechtenstein's unique value-added proposition offers an attractive location for European operations and complements the Swiss ecosystem. The combination of our corporate environment, regulatory framework, professional financial center, innovative industry, and efforts to maintain

economic diversification forms a solid business foundation. Corporations have long valued Liechtenstein's highly skilled and productive workforce, excellence in R&D, infrastructure, trusted legal framework, competitive tax system, and a balanced quality of life. With ever-changing global dynamics and growing regional competition, Liechtenstein is consistently developing world-class, value-added propositions for clusters to develop.

**What is the most valued local asset for residents?**

Perhaps above all else, Liechtenstein offers an excellent quality of life and a pristine, calm environment for people to thrive. Liechtenstein provides varied leisure, cultural, and tourism opportunities. We are proud of ceaselessly striving to improve this quality of life for all our residents, while developing a balanced tourism offering. ■

## A Welcoming Location for Business

**Liechtenstein's stability and reliability enables business**

Liechtenstein's pro-business environment and attractive taxation system lures foreign investors. At 12.5 percent, the country's corporation tax is competitive within the European continent.

Liechtenstein enjoys a high level of stability and reliability, reflected in the country's AAA credit rating, and possesses excellent infrastructure. Liechtenstein also has free-market access to 31 states through EEA's participation in the EU which has approximately 500 million people, and additional trade agreements with other nations. It is an excellent gateway for European or global operations and there are many opportunities to collaborate with companies. ■

*By Paul Arnold*



# Improving the World Through Disruptive Dental Innovation

How a revolutionary dental technology company is making millions of people smile



Diego Gabathuler, CEO of Ivoclar Vivadent, inspects technological progress within the company's inhouse R&D department.

Diego Gabathuler is a man on a mission to improve people's lives and make them smile. The CEO of Ivoclar Vivadent, one of the world's leading dental companies, is passionate about the life-changing effects of good oral health and a beautiful smile. It is what drives him to succeed, and his passion and enthusiasm inspires the same in his employees.

While leafing through correspondence in his office, Gabathuler picked out a personal letter from a patient. Her life was transformed following treatment with Ivoclar Vivadent's IPS e.max, an advanced ceramic tooth restoration system. While looking at the letter, Gabathuler explained, "The young woman had very severe problems with her teeth and wrote to thank me for how much we changed her life. She was not fully enjoying life and could not be the mother she wanted to be for her kids because she lacked self-confidence. After the treatment, she became a completely dif-

ferent person; her happiness was visible through her sparkling eyes and confident smile."

The woman is one of 150 million people who is smiling thanks to Ivoclar Vivadent's worldwide leading restoration system IPS e.max. The transformative effects they are enjoying result from the international dental technology company's core aim of changing the world and creating beautiful natural smiles with innovative and aesthetic solutions. "We are not just a technology company, what we are doing here touches lives," continued Gabathuler.

#### Improving Quality of Life

As Ivoclar Vivadent's CEO is keen to point out, having good teeth is not only about aesthetics, but also contributes to physical and emotional wellbeing. Researchers discovered that a healthy mouth may help ward off medical disorders, while an unhealthy oral environment increases the risk of severe

health problems such as cardiovascular disease and some types of cancer. A healthy, happy, bright smile also improves quality of life by boosting confidence, self-esteem, and general happiness.

#### Pioneering Spirit

With disruptive solutions and a comprehensive product and system range for dentists and dental technicians, Ivoclar Vivadent is making a huge impact on patient health and happiness, and how dentistry is practiced. From its headquarters in business-friendly Liechtenstein, the technology pioneer has been an industry-changing force in the dental industry for almost 100 years. Essential to its success is strong in-house R&D and technology.

"We have disruption in our DNA and have disrupted the market more than once in the last 100 years," said Gabathuler. "For me, innovation and disruption are two different things. Innovation

incrementally makes things better, while disruption completely rethinks the way things are done. I find this [disruption] fascinating, and this is who we are. This describes Ivoclar Vivadent. Most companies can innovate, but very few can disrupt."

For Gabathuler, disrupting the industry involves upending previous dental practices and re-inventing outdated equipment. Ivoclar Vivadent's product offerings aim to improve oral health and aesthetics as well as add value for customers and shareholders. "But first and foremost, the focus of thinking should be on how can we make people's lives better."

Ivoclar Vivadent's roll call of disruptive innovations includes the new "Ivotion" Digital Denture System, a complete processing chain for the digital production of removable dentures, and OpraGate. This unique, soft, and latex-free mouth-opener is still one of the fastest-growing products. It has radically improved the efficiency and comfort of dental treatments.

Previous lip and cheek retractors were rigid devices made of hard plastic or metal that were painful for patients and obstructed dentists while they were working. But thanks to OpraGate's unique flexibility and elasticity, patients can keep their mouth open and relax in the chair while dentists have an easily accessible and manageable treatment field.

#### Future Plans

Improving the world through disruptive innovation is an ongoing mission at Ivoclar Vivadent. Gabathuler is excited about the company's future, which includes continued expansion into USA markets. He cannot comment specifically about what is coming along the product pipeline in the near future. However, in-house innovation teams are working on several novel products to improve the customer experience through intelligent, streamlined workflows. Ultimately, Ivoclar Vivadent is set to make life easier and more productive for dental professionals, which in turn will improve patient outcomes, in terms of aesthetics and longevity. ■

By Paul Arnold

## A Robust Industrial Sector

Liechtenstein is heavily export-oriented, focuses on high-quality goods, and swiftly became one of the world's most industrialized countries



For centuries, the tiny alpine nation with no natural resources relied on agriculture as its primary industry. However, following World War II, the country evolved into a modern, export-oriented society. During the intervening years, it has gone from one strength to another, and transformed into one of the world's most highly industrialized countries by concentrating on innovation.

Liechtenstein has evolved into an industrial state with a focus on high-quality goods and services. Approximately 38 percent of workers are employed by industry, a surprisingly large pro-

portion by international standards. Together with manufacturing, it accounts for 46.6 percent of gross domestic product (GDP). The country can attribute its success to a well-developed innovation hub. In figures, Liechtenstein-based entities spend 5.6 percent of GDP on research and development per year, developing innovative solutions that tackle ongoing global challenges. Given Liechtenstein's small population and few natural resources, efficiency and adaptability are ingrained in the national cultural identity.

The principality understood the value of reinvestment and the need for

research to foster industrial growth early in its history. It has made industrial innovation a strong driving force of the economy. In addition, businesses in Liechtenstein benefit from access to highly educated professionals. The University of Liechtenstein offers degrees in business administration, finance, and even architecture. International students are always welcome, and the university encourages exchange programs with other institutions abroad.

While Liechtenstein is home to major international companies, small and medium-sized enterprises (SME) form the backbone of Liechtenstein's economy. There is a vibrant and internationally successful SME landscape, many of them family-run. The SME Center at the Liechtenstein University of Applied Sciences promotes the tradition of entrepreneurship and fosters company formation.

Liechtenstein's industrial companies cultivated a diverse array of highly specialized products and services. Coincidentally, or by design, they target niche markets that are strikingly distinct. Therefore, their products and approach avoid head-to-head conflicts over clients, and support a healthy collaborative mindset.

Liechtenstein is home to industry leaders in their respective fields, including Ivoclar Vivadent, Hilti, Oerlikon Balzers, Kaiser, Neutrik, Intamin, Optics Balzers, and Hilcona. Ivoclar Vivadent consistently receives accolades for its high-tech prosthesis material solutions disrupting the dental sector. Hilti, a manufacturer of professional-user construction technology tools, facilitates international construction work with award-winning product innovation such as its iconic drills.

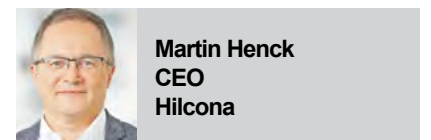
Others include Oerlikon Balzers, a subsidiary of Swiss OC Oerlikon with extensive operations in Liechtenstein, shapes the future in what is possible in aerospace with groundbreaking surface technologies. Kaiser continues to set new industry standards, most recently with customized high-pressure pumps, as a specialized manufacturer of mission-critical vehicles.

Neutrik produces audio connectors used in audio and video productions, and connects 50 percent of the world's professional audio systems including iconic microphones and audio devices used at the United States Congress in Washington, D.C.

Intamin manufactures amusement rides, such as record-breaking roller-coasters, to the delight of thrill-seekers around the world. Optics Balzers,

a producer of optical thin-film coatings and components for the photonics industry, has become a globally recognized leader supplying next-generation solutions for the automotive sector.

Finally, Hilcona is a regional food processing company that has grown into one of Liechtenstein's most important employers, providing convenient fresh foods to neighboring countries. Companies in Liechtenstein have diverse specialties, but share a global mindset and strive to innovate within their niche.



**Martin Henck**  
CEO  
Hilcona



Dr. Martin Henck, CEO of Hilcona, emphasized, "Innovation is part of the local culture within the valley. At Hilcona we have consistently sought to innovate and develop new product ideas that satiate changing eating habits. Our in-house Taste Factory Center focuses on researching plant-based foods and developed 'The Green Mountain Burger.' The award-winning burger looks and tastes like meat, yet is entirely suitable for vegetarian diets and an excellent option for consumers seeking to reduce meat consumption."

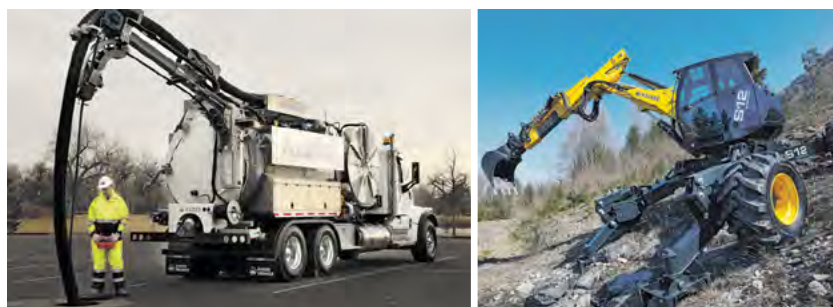
In all these areas, companies shy away from cheap, mass-marketed products, and focus on producing high-tech, value-added products of the highest quality that sell for a premium. Whether researching plant-based foods, creating high-tech dental prosthesis materials, setting new industry standards for pumps, or shaping the future of aerospace and the automotive industry, companies in Liechtenstein all have one mission in common - innovate and export better solutions globally.

#### A Land of Opportunity

As a business location with one of the most highly industrialized global economies, Liechtenstein has much to offer. The country is open to new opportunities for both domestic and foreign companies to expand their customer base and range of products and ser-

By Fadrique Álvarez de Toledo

Kaiser. Performance counts.



### DRIVEN BY INNOVATION

KAISER PREMIER is the North American entity of the KAISER Group and a premier manufacturer of sewer cleaning equipment with recycling and hydro excavation based in Colorado.

KAISER PREMIER will present many new products in 2021.

Stay informed: [www.kaiserpremier.com](http://www.kaiserpremier.com)

# An Innovative Industrial Ecosystem is Developing Within Liechtenstein



Founded in 1913 in Schaanwald Liechtenstein, the family-run company Kaiser manufactures specialized vehicles for mission-critical tasks in sewer cleaning, industrial disposal, and mobile walking excavators. They also design highly specialized components, including customized high-pressure pumps which have consistently set a new standard within the industry.



**Markus Kaiser**  
CEO  
Kaiser



## What drives you to innovate?

Innovation is within our DNA, and local values have been a powerful driver. Liechtensteiners have a strong inner culture that encourages entities to become leaders in innovation with-

in a niche segment and, step by step, grow to captivate global market share.

As people on the ground are quick to point out, Liechtenstein does not have a central industrial cluster or individual manufacturing specialization. Every industrial company has focused on an entirely different industry and specialized in a unique niche segment.

Because of Liechtenstein's small local market size, we understand that to survive, our companies have to be strong in innovations and maintain a defined differentiation. We never solve problems through cost reductions alone. We strive to become more competitive, efficient, and optimized. This is the base of all successful export-oriented industrial companies in Liechtenstein.

In particular, Liechtenstein has many successful family-owned industrial companies. What you typically find in their management is an entrepreneurial approach focusing strongly on innovation and technology.

We cultivate a flexible mindset that allows us to look inside a market to understand its needs and then use our combined experience and skills to customize solutions.

A benefit of being a family-owned company with strong finances is the ability to have a long-term strategy without the short-term corporate constraints of being publicly owned.

This dynamic entrepreneurial approach is a question of local philosophy. We have a grassroots entrepreneurial spirit that is driven by

individuals more than government strategy.



## How important has R&D been to Kaiser's development?

Technological innovation has always been a priority for Kaiser. Kaiser keeps a large technical department full of engineers, and this in-house R&D has been a core pillar behind the company's success in developing its high value-added product range.

Our department is bigger than at similar companies in our industry. It allows us to solve problems by offering unique customized solutions for regional markets.

Our in-house expertise has led Kaiser to become a global driver behind high-pressure pump technologies. We do not just do the assembly. We develop all core components including high-pressure pumps, vacuum

pumps, recycling systems, pressure transformers, and relevant software. Everything is Kaiser's in-house technology.

While we collaborate with universities and other companies in a variety of areas, it has been our in-house engineers working on R&D that ensure Kaiser's superior technological expertise, particularly with our sustainable environmental solutions.

## How are Kaiser's solutions more environmentally sustainable?

Kaiser is the leading company worldwide in sewer cleaning and industrial disposal vehicles thanks to its leading-edge technology.

Our vehicles offer rugged reliability, high productivity, and innovative water recycling technologies. At a time regions like California are experiencing drought and water resources become a higher priority, Kaiser can offer municipalities a highly efficient patented water recycling system solution that is more sustainable.

Kaiser's vehicles suck materials from sewers using water, which is recycled in the truck and reused. This requires no new intake of freshwater during their continuous cleaning, which saves time and millions of gallons of precious freshwater per year.

It is one of Kaiser's biggest value-added solutions and a key differentiator compared with our competition.

## What are Kaiser's ambitions for the USA market?

Kaiser's internationalization is one of the most important steps in its long history. The USA is one of our core target markets, and it makes sense for us to manufacture locally within our Kaiser Premier manufacturing facility in Fort Morgan, Colorado. We now proudly produce our UrbanX, CV Series Hydrovac, and AquaStar recycler trucks also in the USA.

We have a simple strategy, to remain the market leader for high-end sewer cleaning solutions with pioneering water recycling technology.

Kaiser offers more modern technology than what is locally available in the USA market, and our new generation AquaStar recycler will continue to set future benchmarks in performance and efficiency. In addition, we have a variety of new products ready to launch, including a new utility application for the CV Series Hydrovac.

Another niche solution is Kaiser's innovative mobile walking excavator, which is produced in Europe and exported to the USA. Its technical strengths allow it to operate where others cannot, including steep slopes in Alpine regions, or Florida's swamps.

Contractors, private customers, and municipalities in the USA find in Kaiser a reliable partner. ■

*By Fadique Álvarez de Toledo*

## A Stable Financial Center

### Liechtenstein's new Blockchain Act opens new opportunities



Despite its worldwide reputation as a center for finance and banking, the financial sector is not the country's largest economic sector, and actually plays a smaller role in the national economy than factories. Since the founding of Liechtenstein's first bank in 1861, the country's financial sector has grown to play an essential role in the national and global economy. It accounts for approximately 20 percent of Liechtenstein's gross domestic product (GDP) and accounts for more than half of the principality's taxable income. When considering Liechtenstein's relatively small population, the economic significance of this contribution is disproportionately high when compared to other European countries, highlighting its oversized importance. Liechtenstein has been recognized by international organizations for its cooperation in tax matters.

**“Fintech, blockchain, and crypto communities have found a well-regulated environment in Liechtenstein.”**

Due to the limited domestic market, the principality's banks are internationally oriented and have a presence in more than 20 countries. They boast financial strength and stability, specializing in investment funds, insurance solutions, private asset management, and international asset structuring. The Prince of Liechtenstein remains the owner of the Liechtenstein Global Trust (LGT), which is the largest family-owned private wealth firm in Europe.

In January 2020, the principality took a bold step forward. It enacted the first law in the world to specifically address the governance of blockchain technology and the token economy. In general, legislation is stable, yet swift and agile within Liechtenstein. This allows legislators to provide businesses with clear and succinct legal framework. In fact, an entire department was established to deal exclusively with financial technology (fintech) including blockchain technology and bitcoin, which has brought legal certainty and transparency for this niche segment.

Therefore, Liechtenstein has become an obvious choice for many fintech, blockchain, and crypto entrepreneurs. It complements the evolving Swiss Crypto Valley in the Canton of Zug. Although Liechtenstein does

not offer financial incentives to crypto investors, local regulators and tax authorities understand the specialized nuances. A symbolic gesture of welcome includes the ability to open a company using cryptocurrency.

Being a member of the European Economic Area (EEA), but not the European Union (EU), has its advantages. It allows Liechtenstein's financial firms to capitalize on the EEA passport system, allowing firms to trade freely with minimal additional authorization in financial services and circumnavigate complex EU regulations. While

some European financial centers hesitate to handle cryptocurrency, most Liechtenstein banks confidently handle crypto investments, and even offer advice on initial coin offerings.

Fintech, blockchain, and crypto communities have found a well-regulated environment in Liechtenstein and a collaborative ecosystem. The approach has enticed entrepreneurs to establish and begin trading. Monthly blockchain social events and meet-ups draw a surprisingly large number of attendees for such a small country. Liechtenstein represents the next generation of modern financial solutions. ■

*By Jennifer Jendusa*



Making People Smile

ivoclarvivadent.com

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# Bilateral Relations with the USA

Liechtenstein has invested nearly half a billion dollars in the USA



Liechtenstein established diplomatic relations with the United States in 1997 and has sought to foster an active relationship on all levels. The two countries enjoy warm and friendly relations based on mutual support of free markets, democracy, human rights, and close commercial interactions.

Every year, the principality exports goods worth nearly half a billion dollars to the USA, making it Liechten-

stein's second-largest trading partner after Germany. When accounting only for the principality's largest companies, the United States then becomes the most important export destination.

It is often a surprising fact to learn that a principality with a population of a mere 39,000 people employs 70,000 people domestically and globally, and nearly 5,000 of those jobs are in the USA. With such a small population, Liechtenstein's footprint is

more extensive than expected. In fact, Liechtenstein's foreign direct investment (FDI) in the USA is nearly half a billion dollars.

The principality's companies are heavily involved in the supply chain of goods for many of the USA's industries such as automotive, construction, dentistry, coating, and audio-visual sectors. Many Americans inadvertently utilize products that come from Liechtenstein without realizing it.



**Christoph Loos**  
CEO  
Hilti

**“We have major operations in the USA. Hilti North America has employees across all 50 states, and we will continue to expand our presence.”**

Many forward-thinking and outward-looking Liechtenstein enterprises such as Hilti, a multinational manufacturing company, have forged strong relationships with USA-based businesses. “We see the value in collaborating internationally and having joint ventures to find innovative solutions,” said Dr. Christoph Loos, Chief Executive Officer at Hilti. He added, “For instance, we partnered with Boston Dynamics and Trimble to explore the use of autonomous robots in construction. This venture strives to improve safety, productivity, and quality. We have major operations in the USA. Hilti North America has employees across all 50 states, and we will continue to expand our presence. While implementing our corporate strategy, we also have a focus on strengthening the future sustainability of the group.” ■

*By Paul Arnold*

## Castles Worthy of a Fairy Tale

A cultural journey of discovery through quaint valleys and legendary castles



As a year-round tourist destination, Liechtenstein offers a diverse mix of alpine scenery, outdoor pursuits, and a rich blend of cultural attractions such as museums, galleries, and medieval castles worthy of a fairy tale. During winter, the snow-covered Alps attract thousands of skiers and snowboarders. Impressively, Liechtenstein has won ten Olympic medals in Alpine skiing, the most per capita of any country. One of Liechtenstein's top outdoor destinations is the mountain village of Malbun, which offers ice skating, tobogganing, and both downhill and cross-country skiing. When the snow starts to melt, there are plenty of hiking and biking opportunities along a 400-kilometer network of trails that crisscross the principality. Numerous quaint valleys and fairytale castles await.

**“The snow-covered Alps attract thousands of skiers and snowboarders.”**

For culture lovers, there is Vaduz, the country's capital. It is home to stunning scenery and a wealth of

cultural treasures. Vaduz Castle, the royal residence, overlooks the pedestrian-friendly town center, anchored by the centuries-old St. Florin Church. Vaduz offers a wide variety of modern and contemporary art galleries and historical museums. Sculptures by world-famous artists dot the streets and are worthy detours while admiring the varied architecture along the town's main street. Curiously, Vaduz is not Liechtenstein's largest city. Schaan, a few minutes away, is larger with a population of 6,300 people.

**“A wealth of cultural treasures.”**

Other Liechtenstein tourist highlights include small-scale vineyards. The vineyard of The Prince of Liechtenstein Winery, offers visitors a beautiful panoramic view of Vaduz Castle and the city center of Vaduz.

The Treasure Chamber of the Principality of Liechtenstein in Vaduz holds exhibits, including crown jewels, weaponry, Fabergé eggs, and the works of master smiths belonging to the Prince of Liechtenstein and other private collectors. The Kunstmuseum displays

130 years of modern and contemporary art history, and since 2000 includes the Hilti Art Foundation collection. The iconic façade of the museum, opened in 2000, is eye-catching. It is in the center of Vaduz and made of seamlessly cast tinted concrete and black basalt stone.

**“The Kunstmuseum displays 130 years of modern and contemporary art history.”**

The Liechtenstein National Museum displays historic artifacts describing the local history and contains a selection of natural history exhibits. It also incorporates the landmark Postal Museum with its large collection of postage stamps, test prints, and original plates. In line with the principality's industrial roots, the Lawena Museum nearby in Triesen offers fascinating insights into the history of electricity, and the development of domestic electric devices over the past hundred years.

For those seeking an understanding of historic local lifestyles, several museums commemorate the days of yore. The Walser Museum in Triesenberg was designed by the local parish

priest to exhibit 19th-century native customs, crafts, and traditions, and showcases a well maintained 400-year-old traditional house. The self-explanatory “Traditional Farmhouse Museum,” built-in 1518, showcases farming and construction techniques common to the region in the late Middle Ages. MuseumMura is a prestigious institution that hosts more than 10,000 cultural artifacts documenting daily life and customs in the principality, including handicrafts and relics from homes and schools.

The small principality is one of two doubly landlocked countries in the world. This means that its direct neighbors, Switzerland and Austria, are also landlocked nations confined to freshwater bodies, and with no access to an ocean. Although Liechtenstein has no international airport, the country is easily accessible by road. Also, excellent public transport links the principality through a local bus with Switzerland's SBB train station across the Rhine River. One advantage of visiting the small principality is the ability to see a large majority of the country in one day on an excursion from nearby Zurich or Lucerne. ■

*By Jennifer Jendusa*