

Natural resources and resilience to drive rapid economic recovery

Iceland's incredible natural assets make it a magnet for tourists, and although the pandemic has slowed visitor arrivals, its range of resources and valuable experience of previous economic crises mean it is coping better than larger nations in mainland Europe.

ICELAND



Publication distributed with
FOREIGN POLICY
- January 2021



Land of Fire and Ice forges new openings

After bouncing back strongly from the 2008 Global Financial Crisis, Iceland's resilient economy is today outperforming those of far larger countries

Although its strong economic growth trajectory has temporarily slowed due to the COVID-19 pandemic, Iceland nevertheless remains favorably positioned for the waves of international spending and investment forecast for the post-vaccine world.

Famous for its incredible landscapes and rich fishing waters, the country of 360,000 people has embraced sustainability and innovation to maximize the opportunities generated by its natural resources.

Tourism and fisheries are key sources of foreign exchange earnings, but the renewable energies and creative industries are growing and attracting attention and investment in various sectors, including from its single largest trading partner and investor: the U.S.

"We have had more stability in recent years, and this will hopefully create more opportunities," says Bjarni Benediktsson, Minister of Finance and Economic Affairs. "We have valuable resources that the world is on the look out for at the moment, such as clean water and sustainable energy production. We are seeing an increase in foreign direct investment in Iceland and hope we will continue to develop our business relationship with the U.S."



Bjarni Benediktsson
Minister of Finance and Economic Affairs

Dedicated to innovation and sustainability in the country's energy sector, HS Orka is an important provider of clean energy – more than a quarter of the national electricity supply comes from geothermal power – to Iceland's growing needs and a leader in geothermal research. An authority in its field, HS Orka has developed state-of-the-art heat exchange technology utilizing existing plants and resources, with a 30MW expansion project of a facility launched recently.

One asset that helps HS Orka stand out from the crowd is the Resource Park, billed as "sustainability in action". HS Orka's geothermal power plants deliver multiple resource streams to



Reykjavik is regarded as the world's most sustainable capital city

businesses close to Reykjavik, with the enterprise having placed sustainability at its core long before it became a buzzword.

"We have a number of projects, especially in the food sector, like fish farming and greenhouses," says CEO Tómas Már Sigurðsson. "We see great interest and opportunities in hydrogen production, or other power-to-gas production. We are utilizing the CO₂ from our plant and have a special focus on algae farming."

We are seeing an increase in FDI and hope to continue to develop our business relationship with the U.S."

Bjarni Benediktsson, Minister of Finance and Economic Affairs

Another very successful Icelandic company flying the flag for sustainability and the fight against climate change is Carbfix. The firm is developing innovative solutions like capturing CO₂ and injecting it at selected geological sites – where it turns to stone in two years – to reduce

harmful emissions. Founded in 2007, Carbfix is also the poster child for successful collaboration between industry and academia, and is open to dialogue with external investors looking to explore potential opportunities.

In 2020, the award-winning company became a subsidiary of Reykjavík Energy (OR), as Dr. Edda Sif Pind Aradóttir, CEO of Carbfix, explains. "The aim of separating Carbfix operations from the core activities of OR are

to further support climate action by providing interested parties the opportunity to reduce their carbon footprint. Our method has tremendous potential to grow fast on a global scale and we have seen greater interest in the Carbfix method to carbon disposal."

Banking sector enjoys remarkable recovery

Market players' fortunes have improved greatly in recent years as more transparency and stricter regulatory environment facilitate the industry's contribution to innovation and sustainability

Over the past decade, a bright new dawn has greeted the Icelandic banking sector following its impressive recovery from the dark days of the 2008 global financial crisis. Although unprecedented at the time, the government's decision not to nationalize debt-laden banks and instead let them fail, meant the industry bounced back faster than it otherwise would have.

Now noted for its resilience and transparency, the banking and financial services sector is at the heart of the country's fiscal resurgence and a key conduit for COVID-19 financial assistance packages provided by the government to scores of enterprises and individuals. "We have built a lot of buffers in our system. Our large currency reserves are probably 10 times higher than in the financial crisis. The same applies for the financial sectors, as we have built buffers that have made us stronger. We can give oxygen to the private sector," states Benedikt Gíslason.



Benedikt Gíslason
CEO, Arion Bank

"The key to responsible banking is to have your operations responsibly run while being profitable," he says. "Having your house in order comes first and that's been a primary focus of ours over the last 12-18 months to improve our underlying operating performance. We have been privileged to have a diversified business model that includes an insurance business and the largest asset manager in

We have a diversified business model that includes an insurance business and the largest asset manager in Iceland for investment services."

Benedikt Gíslason, CEO, Arion Bank

With a commitment to the principles of responsible banking and sustainable finance, Arion Bank is at the forefront of Iceland's banking sector thanks to innovative products and a focus on digitalization. Benedikt Gíslason, CEO of Arion Bank notes the country's heavy-touch regulatory approach means Iceland has faced the pandemic downturn with a solid and strong banking system, one that has not incurred higher credit losses than banks elsewhere in Europe.

Iceland for investment services. We also own the largest payment solutions firm in Iceland. In addition to our retail and corporate banking, we are strong in investment banking operation."

As the leading specialized bank in Iceland and the country's second largest asset management company and investment services provider, Kvika has gone from strength to strength over the past few years. Offering a selection of tailor-made services. Kvika's size gives flexibility to utilize its



infrastructure – it has offices in Iceland and the U.K. – balance sheet and relationships with other international financial services providers to deliver unique solutions. "Our asset management has over \$4 billion in assets compared to a balance sheet of less than \$1 billion a decade ago," reveals CEO, Marinó Örn Tryggvason. "This demonstrates the asset management operation of the bank is larger than retail banking. We have a different business model than the big three banks here. "The Icelandic pension system is the largest in the world per person and the system is increasing its allocation in foreign assets – around 50% of which are in the U.S. The financial part of the Icelandic economy is closely linked to the U.S. through pension funds' investments in U.S. firms and investments in asset managers, plus U.S.-based asset management companies. Also, we are at a great place when it comes to digitalization. We launched our first FinTech offering in 2019 and aim to continue on this path with new offerings and solutions. There are many firms globally that have succeeded through this route."

Arion Bank

The true north of finance

Arion Bank is a leading Icelandic bank offering universal financial services to companies, institutional investors and individuals.

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Innovation island

Iceland ranks highly in the Global Talent Competitive Index and boasts exciting innovations in the energy, biotech, sustainability and creative industries

Iceland's increasing presence on the world stage in a broad range of sectors is testament to its excellent education that nurtures young minds and encourages them to explore creative and original ways of thinking and problem solving.

The largest and oldest educational establishment of its kind in the country, the University of Iceland offers a broad selection of courses to around 15,000 students - an impressive 70% of all univer-

versity and prominent industry partners, like players from fields such as biotech and pharmaceuticals. The university also has more than 400 agreements with foreign counterparts, including American universities. "One of our biggest accomplishments in this area happened in 2019 when we completed an agreement with the University of California Education Abroad Program (UCEAP)," says Jón Atli Benediktsson, Rector of the Uni-

In 2019, we completed an agreement with the University of California Education Abroad Program."

Jón Atli Benediktsson, Rector, University of Iceland

sity students nationwide. Founded in 1911 as a small local university, the popular seat of learning has expanded to become an international research university with a hi-tech science park involving the

versity of Iceland. "We had been working on this agreement for around 25 years."

Nestled in the country's attractive northeast, the University of Akureyri is a medium-sized

Film production paradise

Top shows like Game of Thrones have flocked to Iceland's rugged landscapes, yet post-COVID-19, few nations offer such a safe environment

From the the big screen, to the small screen and the games console screen, Iceland's vibrant creative industries ecosystem is being showcased more than ever before, with its beautiful environment and creative talent pool flying the flag around the world.

Tax breaks and financial incentives have helped entice top international directors to its shores and mountains, with revenue from the movie industry tripling in the last decade alone. "The creation of new film clusters is important to boost film related-activities outside Reykjavik," says Laufey Guðjónsdóttir, Director of the Icelandic Film Centre (IFC). The IFC provides

financial support for the production and co-production of Icelandic feature films, documentaries, short films and TV fiction.

Iceland's creative talents are also increasingly being utilized by the lucrative video gaming industry, as underlined by innovative CCP Games' creation of the award-winning intergalactic game, EVE Online. Lockdowns have only boosted its popularity and grown its huge fan-base. "There is maybe some uniqueness that comes from being a tiny country in the middle of nowhere and that makes for a different type of originality," comments CCP Games' CEO, Hilmar Veigar Pétursson.



Iceland offers the perfect conditions for its thriving data center sector

versity which two decades ago adopted a special focus on online education. Professors and teachers record their lectures and upload them to digital platforms to ensure they are accessed by as many students as possible. The university is a leading education venue for nurses, police officers and other public sector workers. With the attractive town located near the Arctic Circle, the University of Akureyri eagerly promotes sustainability through its courses, which include a program on fisheries management to develop the next generation of workers for the vital fishing industry. The growing importance

of tourism to the economy and employment means the university also runs a travel research center designed to optimize the sector's business potential given the surge in foreign visitor numbers.

Eyjólfur Guðmundsson, Rector of the University of Akureyri says: "Fisheries management is very important for the sustainable future of the fisheries industry, from an environmental and a utilization perspective. We have created a learning environment that is very popular; our student population has increased by 50% since 2014 when we chose to fully tap the online environment."

Family firm flourishes

Very active in the fast-moving consumer goods (FMCG) sector, 1912 is also involved in the food service, duty-free and industry segments

A household name for more than a century, 1912 is one of Iceland's oldest family-owned firms, as well as one of its most successful through its core focus on technology, knowledge, and resources to maximize performance. Headed by Ari Fenger for the past 13 years, the dynamic executive - who is the fourth generation of his famous family to lead the company - has tripled turnover while at the helm and provided strategic direction in an increasingly competitive sector.

Subsidiary Nathan & Olsen specializes in the sale and marketing of brands in the cosmetics and grocery market, sibling Ekran provides large-scale kitch-

ens and the food industry with daily supplies, while Emmessís is a leading producer of ice-cream.

"The U.S. market is very important for us in Iceland as it is our single largest trading partner and investor," the CEO states. "Icelanders welcome foreign investment and with the strong infrastructure in place, natural resources and well-educated workforce we should be an alternative option for foreign investors." Fenger, who is also Chairman of the Iceland Chamber of Commerce, adds: "We are still growing internally after recent acquisitions, but are looking for opportunities to acquire businesses if they fit our strategy."

Major investment to improve gateways

The government is investing heavily in transport infrastructure ahead of the predicted rebound in passenger numbers once travel resumes

Like other island nations, excellent transport infrastructure and air and sea portals for passengers and freight are prerequisites for robust economic growth, with Iceland no exception to this rule, even against the backdrop of a pandemic that has slashed international travel.

The journey we have been on and the transformation we have done is something people should look at."

Vilhelm Már Þorsteinsson, CEO, Eimskip

The government has committed tens of millions of dollars to the construction of key port, airport and marine infrastructure, "Government policy is to open more international gateways,"

says Sigurður Ingi Jóhannsson, Minister of Transport and Local Government. "Our strategy is to make the best of this unprecedented situation and invest wisely in infrastructure."

Such projects involve support from entities like Faxaflóahafnir

sf. (Associated Icelandic Ports), which is responsible for port activities in Old Reykjavik Harbor, Sundahöfn, Grundartangi, Akranes, plus facilities for smaller boats in Borgarnes. The leading

Fisheries catches the eye

Marine life is so embedded in Iceland's DNA that images of fish feature on its coins; this monetary theme is also seen in more aquaculture exports

Boasting some of the world's finest fishing waters, Iceland's seafood industry has a long, rich and proud heritage built on traditional techniques, but is moving with the times by embracing modernization and efficient methods through the twin channels of innovation and new technologies. Aquaculture is rapidly becoming an important contributor to export earnings, as illustrated by the 92% year-on-year surge in 2019. With healthy eating becoming more and more popular, global salmon consumption has tripled since 1980, and farmed salmon is the fastest growing food production system globally.

As the country's leading producer of sustainably reared salmon, Icelandic Salmon AS is setting the benchmark with major

investment in the streamlining of operations concentrated on responsible production methods certified by the ASC (Aquaculture Stewardship Council), as company Chairman, Kjartan Olafsson, explains proudly: "We work with multiple local and international suppliers and enjoy the rapid technological innovation. The investment we have already made for our smolt facilities has been working very nicely."

"Securing global food supply and the importance of healthy, sustainable food production is something to which we can significantly contribute. Providing healthy proteins and quality fresh food is something we need to focus on and secure access to. Our Icelandic salmon makes the world a slightly better place."



The Atlantic nation is home to first-class ports and excellent fishing waters

provider of shipping solutions and structures for imports and exports, Eimskip is a national icon and is benefiting from digitalization and automatization. The firm is the only true carrier connecting Europe through Iceland to the northern parts of the U.S. and Canada.

"The journey we have been on, and the transformation we have done is something people should look at, both as an investment opportunity and as a partner for logistics services," says CEO, Vilhelm Már Þorsteinsson.



Sigurður Ingi Jóhannsson
Minister of Transport and Local Government

Kvika is a specialized bank focusing on asset management and investment services

KVIKA
kvika.is

Strong U.S. trade ties will help economic recovery

Having survived the 2008 financial collapse, Iceland was better placed than most countries to deal with the COVID-19 crisis, as Bjarni Benediktsson, Iceland's Minister of Finance and Economic Affairs, details

Q: Please give us an overview on the implementation post COVID-19 and the distribution of resources according to the latest priorities?

A: We initially started with a macro examination of what was happening, making our decisions based on statements from the world's most prominent institutions, including the International Monetary Fund (IMF).

Looking at our experience in 2008, when the banking sector collapsed, we entered our economic program with the IMF. This included tax measures but also adjustment on our expenditure side through austerity measures. I was clear in my mind we needed to take a different approach on this occasion.

We decided to analyze the offers we had in our systems and we picked up the ratios that were most favorable

“Iceland has competitive advantages over many other countries. Once the pandemic is over, it will be more attractive for visitors to come to an exclusive place like Iceland, with clean air, fresh water and our vastness.”

Bjarni Benediktsson, Minister of Finance and Economic Affairs

for the Icelandic treasury. That made us realize the strength of the treasury, using it as the fiscal space that has been created to reduce the economic cost of the pandemic, based on the assumption that this was to be a temporary situation.

Specifically, one of the measures we came up with is an unemployment scheme which is made for companies, guaranteeing them the possibility to lay off people while allowing them to maintain the position.

This means the employer-employee relationship is intact. Other countries have done similar initiatives, but our measure made sure that employees got most of their salaries, whilst employers who did not have use of the employees could lay them off partially.

Q: The U.S. is Iceland's single largest trading partner as well as its biggest investor. U.S. investments have diversified to areas such as hotel chains, consumer goods and retail, with the entrance of several U.S. brands and franchises. What is your assessment of the overall state of relations between the two countries, especially those concerning investments and economic partnership?

A: Looking back at what would have characterized Iceland as an investment opportunity, was the fact we had very little foreign direct investments, unless we signed bilateral investment agreements.

This was the case for the first aluminum smelters that arrived, as they only came in for those big investment agreements, getting exemp-

tions from a lot of the domestic rules relating to taxing and other important issues.

When we now look at the landscape where we are attracting foreign direct investment from other countries, but specifically the U.S., I'm extremely happy about it. It's an example of increasing strength, that Iceland has to do business with other countries. In part, it's related to the extensive connections we have had in recent years through our main airport in Iceland and all those very extensive flight connections to the U.S.

This has created a lot of attention and we have attracted a lot of opportunities in recent years. In 2018, we had around half a million U.S. guests, which had a lot of spillover effect. A lot of people go back to



The welcoming city of Reykjavik is rated one of Europe's most attractive capitals

their home country and they take with them ideas from what they have experienced in Iceland. The general environment in Iceland has been more favorable. We have had more stability in recent years and this will hopefully create more opportunities in the future.

On top of that, we have things that the world is on the lookout for at the moment, such as clean water and sustainable energy production. Our image is of a very clean and healthy nation, this also in itself attracts attention and is something that investors are on the lookout for.

We are seeing an increase in foreign direct investment and we hope that we will continue to develop our business relationship with the U.S. This can be difficult for a relatively scarcely populated nation like ours, as bilateral talks with all of the EU countries are via a single channel.

They have decided that those who are in the EU will handle everything through a single channel, whilst we rely on our bilateral talks individually. It can be challenging to get the attention necessary to conclude a new foreign trade agreement with the U.S.

Q: During the last decade, Iceland has positioned itself as an emerging tourist destination. What is the overall strategy to regenerate the critical tourism industry for Iceland, taking into account global travel restrictions and testing requirements?

A: The tourism sector and its reactivation pose a huge challenge. The strategy we are applying is to

assist those companies through the most difficult period. We have assisted them in laying off people and in delays in due dates for public taxes. For the entire sector, we have assisted in minimizing their operating costs. We are giving loan guarantees for those that have a longer-term viability, putting money aside to start the marketing campaign for Iceland.

The capacity of the tourism sector is very significant, as we could accommodate two million tourists a year again without building new hotels or anything similar. People, roads, accommodation, knowledge and the airport are here. Restaurants and many other services are in place and we are ready to welcome everyone as soon as the skies are open again.

If this tracks along and there is no tourism in 2021, we will see even more bankruptcies and more difficulties. My belief is we will bounce back quickly but it's not all reliant on what we are doing ourselves, but also the reliance on the willingness of tourists to travel again and for travel connections to be in place as well.

Iceland has competitive advantages over many other countries. Once the pandemic is over, it will be more attractive for visitors to come to an exclusive place like Iceland, where you have clean air, fresh water and the vastness we can offer.

You can stand in the middle of nowhere, watching the rivers run, seeing the newest lava, or the glacier and compare that to being in a big city anywhere in the U.S. or in Europe.

HS Orka energizes the Icelandic economy

The geothermal energy company's power plants and Resource Park heat many homes and businesses and fight climate change, as CEO Tómas Már Sigurðsson highlights

Q: Geothermal energy is a leading source of renewable energy in Iceland, contributing about 27% of the energy mix. Do you see further growth?

A: In the early 1900s, we started to heat houses using this geothermal energy. For HS Orka, it has always been our mission to let no resource go to waste. With geothermal energy you drill down deeper into wells and bring up steam and fluid at a very, very high temperature under immense pressure. Once you generate the electricity and heat the houses, you have other resources like steam and CO₂, and we have focused on building up opportunities in both.

We have also developed a lot of interesting site projects around our Resource Park. We see this as a responsible way of working with the resource and try not to over utilize so as to sustainably maintain its potential. This approach has been a great success. We have been a successful company for a long time, and have seen a lot of offsprings in our resource products become very successful and grow with us.

That is very rewarding to see: the sustainable economy that we are creating around this and generating a lot of jobs for the communities.

Q: At the global level, what do you see as the biggest obstacles to boosting investments in geothermal production, and what regions have the most potential to tap such opportunities?

A: The obvious obstacle is that the resource isn't everywhere, but with the heightened awareness of global warming and the environmental impact of such utilization, geothermal energy becomes much more attractive.

“Geothermal drilling brings up a lot of different resources, which we have converted into a valuable resource.”

Tómas Már Sigurðsson, CEO, HS Orka

Coal is a very prominent medium to produce heat. When people start to explore geothermal areas and resources, there are actually possibilities for replacement and a lot of potential for this particular method going forward.

It's not all around energy production. It's also around heating houses and heating water. Obviously, the primary resource lies where you have geothermally active areas or seismically active areas. Iceland is remote, and those areas are not necessarily close to big capital areas. There are

certain geological constraints, but with more technology and increased focus we overcame most constraints and transfer technology much better.

Q: What makes your Resource Park so unique?

A: It's completely unique because it's about letting no resource go to waste. With geothermal drilling you bring up a lot of different resources, not only just the energy, but also brine, steam, and CO₂.

We have converted that traditional waste into a valuable resource, for example, next door is a hydrogen production facility.

We also use the heat to warm up water for fish farming. We have a small economy thriving on the



Tómas Már Sigurðsson
CEO, HS Orka

utilization of the resource. You have a long-term natural resource where you develop multiple applications, and nothing goes to waste.

Q: Do you have a final message to the readers of Foreign Policy?

A: Utilizing resources in a sustainable way is possible, and good business. We have a society without waste and have fully utilized all our natural resources.

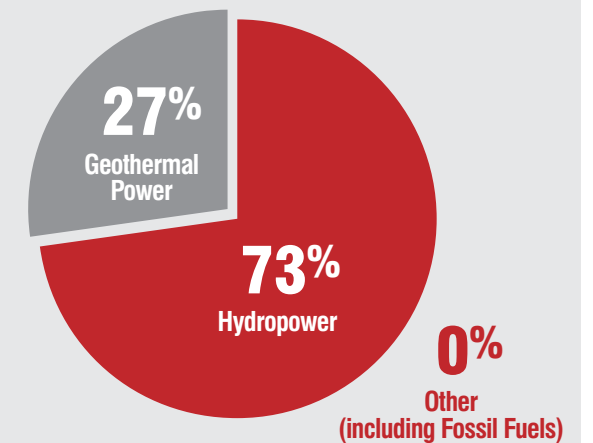
That has built us a healthy company, and multiple healthy firms around us in our society and provided jobs in the community. We think that approach is both best practice and good business.



Iceland's geothermal potential makes it a magnet for renewable energy technology

ELECTRICITY GENERATION SHARE BY SOURCE

Iceland's total primary energy supply is nearly all derived from domestically produced renewable energy sources



NB: A small portion of the electricity in Iceland is generated by wind power and fossil fuels. This generation is such a small amount it can not be measured as a percentage on the scale of this table.

Combatting climate change by turning CO₂ into stone

The Carbfix method is a low-cost, safe and natural process with almost unlimited storage capacity, says CEO Dr. Edda Sif Pind Aradóttir

Q: Carbfix has received a lot of international attention due to its innovative approach in capturing CO₂ from emissions and turning it into stone. How do you achieve this innovative process and what does this approach mean for the fight to reduce global carbon emissions?

A: Our technology allows us to imitate and accelerate a natural process. Rocks provide the largest carbon reservoir on earth, we are just not so much aware of it.

Our technology takes CO₂ from emissions and dissolves it in water, effectively making carbonated water. The water is then injected into specific rock formations that react with the CO₂ and transform it into stone.

We have tested and applied this for over a decade now and can turn CO₂ into stone in less than two years. The scientific background is firm, with more than 100 published papers.

Now the technology is ready for dramatic upscaling throughout the world. The rock formations that we inject into are typically made out of basalt, but also other similar rock formations.

Basalt is one of the most common rock types on Earth, so the global potential for using these geologic formations in fighting climate change is massive. In fact, the storage capacity is greater than the burning of all fossil fuels on Earth.

Due to the simplicity of the technology we only require electricity



Carbfix: An idea transformed to a rock-solid climate solution

and water. What is also a plus is we can scale it rather flexibly, since we are typically injecting CO₂ into shallower formations.

The process is low-cost, as low as \$10/tonne of CO₂, with low up-front capital costs. It is also a permanent removal, one that will remain stable for thousands of years, with no long-term monitoring needed.

Q: You have numerous projects underway, as well as plans to take your process offshore. What are your major projects and where do they stand today in terms of progress?

A: Our flagship project is at the Hellisheiði Geothermal Power Plant, the largest in Iceland and one of the biggest in the world. It is operated by our sister company, ON-Power.

In 2020, we signed an agreement with Climeworks, a Swiss company that captures CO₂ from the atmosphere, for a plant to capture and



Dr. Edda Sif Pind Aradóttir
CEO, Carbfix

This has generated a positive result for us in the long run. We are also working on creating hubs for our technology across Iceland to test all different aspects to see which process or tools are the best to further improve our operations. That is where we will define the blueprint to eventually roll out hubs globally.

“We are open for business and in dialogue with businesses worldwide who are thinking about reducing their emissions.”

Dr. Edda Sif Pind Aradóttir, CEO, Carbfix

store CO₂. It will be built in the Hellisheiði Geopark and will significantly scale-up carbon removal and storage, permanently removing 4,000 tonnes/year of CO₂ from the air.

We are also in collaboration with research institutions across Europe and will be starting pilot injections into field sites in Germany and Turkey in 2021.

Beyond that, we are open for business and in dialogue with numerous businesses across the world which are thinking about reducing their emissions. Many companies are starting to align their sustainability goals with their country's climate goals.

Q: Iceland is considered a leader in both innovation and sustainability. What are Iceland's competitive advantages in terms of the capture and storage of CO₂?

A: The most important factor Iceland can offer is our bedrock, as Iceland is more or less fully made of basalt, which is the ideal rock for storing CO₂.

We can be a leader in demonstrating how our technology can be brought to scale, not just in Iceland, but through the establishment of hubs and then linking different hubs and capture sites in Europe through a distribution of transport networks.

BIO: Carbfix formed as joint project

Carbfix started out as a project in 2006 and was formalized by four founding partners a year later. They were Reykjavik Energy, the University of Iceland, CNRS (France's National Centre for Scientific Research) in Toulouse and the Earth Institute at Columbia University in the U.S.

Over the past 15 years, several universities and research institutes have participated in the innovative project under the scope of EU funded sub-projects, including Amphos 21, Climeworks and the University of Copenhagen. Following the success of pilot injections, the injection process was scaled up to industrial scale at Hellisheiði Geothermal Power Plant.

In 2020, Carbfix became a subsidiary of national energy provider OR, allowing further support of climate action by providing interested parties in Iceland and abroad the opportunity to reduce their carbon footprint with the Carbfix process.

Carbfix's innovative technology has caught the attention of leading international figures, underlined by

its recent success in the International Keeling Curve Award. The annual award – named after Dr. Charles D. Keeling who began measuring the strength of CO₂ in the atmosphere in 1956 – recognizes pioneer organizations who have made notable progress in reducing emissions or increasing the immobilization of CO₂ to help fight climate crisis.

“We were thrilled to receive this award and we regard it as an important recognition of our work at Carbfix,” commented a delighted Dr. Edda Sif Pind Aradóttir. “Obviously, the world is calling for various solutions to the climate crisis. This award underlines our method has tremendous potential to grow fast on a global scale

“Many interesting projects were nominated, which made for fierce competition, and we feel very honored to have won. We've seen an increasing interest in the Carbfix method to carbon disposal and this award will increase awareness of one of the scientific solutions applicable to the fight against climate crisis.”



“Vatnajökull National Park (UNESCO World Heritage), a milestone in natural conservation in Iceland and our largest contribution to natural conservation worldwide so far”

Guðmundur Ingi Guðbrandsson, Minister for the Environment and Natural Resources

Digitalization drive boosts Arion Bank's bottom line

One of the country's leading banks, Arion Bank adopted a proactive and innovative approach to helping many of its customers and business clients during the dark times of the pandemic, as CEO Benedikt Gíslason explains

Q: Please tell us about Iceland's resilience in dealing with shocks of the magnitude of the COVID-19 pandemic? To what extent have you shifted or refocused your priorities to tackle new challenges, but also leverage opportunities that have emerged as a result?

A: We have suffered an economic impact like most countries, of course. If you compare the economic downturn to the rest of Europe, Iceland is positioned somewhere in the middle in terms of the magnitude of the downturn. Part of this is due to our reliance on tourism, which developed quickly in the last decade.

Our economy has not faced an emergency downturn because we have other solid sectors like the fisheries industry, energy intensive industries and a robust fiscal position. The fiscal measures have helped support the economy through

The key to responsible banking, and it may seem obvious, is to have your operations responsibly run while being profitable. It's clear that a company that is not profitable loses its ability to provide services at competitive price."

Benedikt Gíslason, CEO, Arion Bank

furlough schemes, subsidies and grants to companies.

We have one of the largest fully-funded private pension schemes in Europe and it has helped during such an unusual situation. Those schemes have been opened to the pension holders, so they can tap into their savings. It has been built quite rapidly over the past few years and if we look at the savings rate of Iceland, we had a positive current account surplus for the last seven years.

The accumulated national savings rate over this period is approximately 60% of GDP. Going into this downturn, both households and corporates have a relatively low level of borrowing compared to what they had historically.

Q: Despite the difficult economic environment, Arion Bank has demonstrated its robust financial position. How is the bank's complete commitment to the principles of responsible banking helping to not only contribute to its positive development, but supporting the economic recovery of Iceland at this time?

A: The key to responsible banking, and it may sound obvious, is to have your operations responsibly run while being profitable. It's clear that a company that is not profitable loses its ability to provide services at competitive prices, or to invest in new services, or to develop its business and service its clients in the best way.

Having your house in order comes first and that's been a primary focus of ours over the last 12 to 18 months to improve our underlying operating

performance. We have been privileged to have a diversified business model with an emphasis on supporting our clients, which includes an insurance business and the largest asset manager in Iceland for investment services. On top of that, we own the largest payment solutions company in Iceland and are strong in investment banking operations.

From the outset, we were the first bank which rolled out the payment holiday scheme. We have demonstrated through this scheme that we are working with our clients and ensuring they can navigate through these challenging times. In cases where our corporate clients need restructuring, we have always made sure we come to the table as a con-



Arion Bank has set out on an innovation journey to deliver digital financial services

structive creditor trying to facilitate this process. In some cases, it's a mixture of new equity coming into the company and part of the debt being restructured, both of which are very important.

We build relationships over decades, not just years. That's our approach to maintaining our market share and hopefully increasing it. Despite the challenging downturn, the focus on environmental goals and sustainability can't be put aside. To the contrary, many companies are looking to make new investments which bring about improvements in environmental factors and sustainability.

Q: Two major shifts brought about by the pandemic have been the creation of more flexible corporate structures, and the need for business to go online. Arion Bank was already ahead of the game in online banking, but how has your digital strategy been impacted? Have any new digitalization projects launched?

A: This investment has been key and our most important investment in recent years. Our ability to service our clients was greatly enhanced and the app has outgrown the online portal in utilization.

When it comes to behaviors adopted during lockdown, we have seen those who were previously not keen to use these services, learning and wanting to use them. We had introduced contactless payments into the phone and smart watches before the pandemic in Iceland, and that

has been very helpful as well.

Things functioned well and we've brought in new users of our online services and banking app. This was also due to the collective approach led by the government that enabled more e-signatures for contracts. For example, you could execute the payments holiday measure through the online web portal or the banking app and sign it electronically. This has demonstrated that there is a willingness and a collective effort to continue to digitize Iceland. This work is led by the Ministry of Finance and Economic Affairs, which has a special task force and a project management team leading the effort.

We acquired a small Fintech company that is the market leader in the housing rental market, bringing together those who own a flat with those who want to rent. This service will also be included in our app. We started selling insurance products too. The bank is developing into an ecosystem orchestrator where people can buy financial services and financial-related services in many different categories. Not only from us, but from other vendors and service providers as well.

Q: What is your final message to readers of Foreign Policy?

A: When it comes to transatlantic flights, Iceland's connections are incredibly favorable. We have more flights a week to North America than all the major airports of the Nordic countries combined. When the travel situation normalizes, this will be a huge advantage for us.

Kvika sets the standard in specialized service provision

The bank focuses on providing high quality and tailor made financial services, as CEO Marínó Örn Tryggvason details

Q: Please walk us through Kvika's journey over the last decade? How has it evolved into the specialized bank of today?

A: Kvika's asset management has over \$4 billion in assets compared to our balance sheet of less than \$1 billion, demonstrating where our focus is. In other words, the asset management operation of the bank is larger than retail banking.

The asset management operations are the fastest growing segment for us. When I joined five years ago the bank had merged with smaller asset management companies, already committing on the route. Since then, assets under management have more than quadrupled and Kvika is now the second largest asset manager in Iceland. To further support this strategy, of profitable asset management operations, we have a small operation in the U.K. too.

Q: Could you share with us your experience, leading the bank during these turbulent times? What key elements have contributed to the bank's growth?

Kvika is now Iceland's second largest asset manager. To support this strategy, we have a small U.K. operation."

Marínó Örn Tryggvason, CEO, Kvika

A: If you compare Kvika to its main rivals, the key factor is different income segments. The big three generate around 20% of their income from fees, compared to Kvika's 70%. For Kvika, loans to customers consist of around only a quarter of our total assets, so lending operations are relatively small.

As such, we have a different business model than the big three, focusing more on operations that do not directly require the bank's balance sheet to generate revenue. Nonetheless, the uncertainty following the pandemic regarding the value of many assets was a real issue for us. In terms of growth, a bank – at a fundamental level – operates just like any other business.

However, for banks the main op-



Marínó Örn Tryggvason
CEO, Kvika

erational elements are equity and liquidity. These elements and constraints in conjunction with strategic planning, affect growth.

By focusing on asset management, we have a considerable proportion of our operations requiring less, or being less constrained, by equity and liquidity. The key elements in asset management business are simply creativity and customers. This is an entirely different business model.

Q: The issue of transparency always places banks in the spotlight. As an institution that has consistently been ranked among the leaders in Iceland in terms of corporate governance, what are your views on transparency? How does Kvika's responsible banking values embrace this?

A: This is a very important and crucial topic. The government and the authorities have increasingly focused on this area in recent years. We have been working closely with start-up companies to further support corporate governance.

On the subject of transparency and the cyber-threats in-play, we are in cooperation with a company that aims to identify this type of threats as rapidly as possible, if they arise.

Q: One of the outcomes of COVID-19 has been more flexible corporate structures and the need for businesses to go online. Kvika was ahead of the game in online banking, but how has Kvika's digital strategy been impacted by COVID-19? Are there any new projects in the pipeline in terms of digitalization?

A: We are at a great place when it comes to digitalization, with the pandemic meaning people should expect further behavioral changes. For example, I used to visit our London office or attend meetings every six weeks, but once the pandemic is over, I'll go every eight to ten weeks.

Compared to before the pandemic, people have become more used to online meetings. We may not stop travelling, but some of the meetings we used to attend in person will be held online. In terms of adopting new technology and behavior, it's always a challenge to implement a new IT tool.

For example, a few years back we adopted a new system, which was a very difficult task, as you have to get all employees on the same path of using a new customer relationship

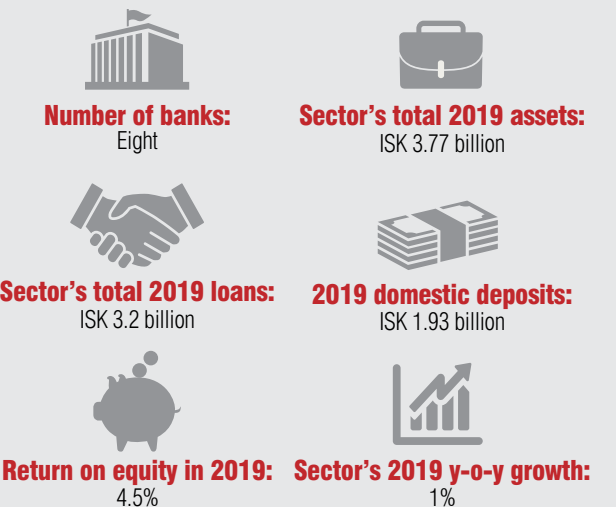
management (CRM) system to work on. The most difficult part was to shift their behavior, as people want familiarity and to work in a way they are used to. However, the pandemic has changed people's behavior by force and acted as an accelerator, leading people into becoming more capable and familiar with using newer iterations of work systems.

On development and in terms of new products, one of our priorities is Fintech. There are many companies globally that have managed to succeed through this route. We could say that the reason, or a key element, why smaller banks and insurance companies have succeeded, is financial infrastructure. They are offering customer-tailored solutions using their existing infrastructure. This can be a very profitable, or at least interesting, for smaller banks or insurance companies, in taking the plunge towards Fintech.

We launched our first Fintech offering in 2019 and aim to continue on this path with new offerings and solutions. For us, the negative COVID-19 impact in the Fintech equation has primarily been related to the belated launch of the products.

Overview of Iceland's Banking Industry

According to The European Banking Federation (EBF), Iceland's commercial banking sector comprises four universal banks and four small savings banks – that operate in rural areas. Together, they employ about 2,700 people nationwide across 80 branches.



University of Iceland reaps the rewards of innovation

Based in the capital, the country's most important seat of learning has gone from strength to strength recently through national and international collaboration, as Rector, Jón Atli Benediktsson, reveals

Q: As rector since 2015, please tell us about the evolution of the university during your time at the helm and its major milestones and achievements?

A: The University of Iceland was established in 1911 and is the oldest and largest university in the country with about 15,000 students – some 70% of all university students in Iceland. We are an international research university and have five schools covering almost all subjects: humanities, social sciences, engineering and natural sciences, health sciences and education. We have all levels of degrees: bachelor's, master's and PhD.

In the recent past we have focused strongly on research and innovation, and awarded doctoral degrees have increased substantially. The university plays a vital role in Icelandic society, being a large and established institution in the Icelandic context. Because Iceland is small, a student body of 15,000 individuals is 5% of the population, so is significant.

Our 2016-2021 strategic plan set high goals, called UI 21. The plan has four main chapters: teaching, research, service to society and human resources. We strive for excellence with respect to all our resources and have been successful in implementing this plan, which is an important achievement.

Q: Please tell us more about this strategic plan and the doors it opened for the university?

A: There was a big focus on teaching and learning, in particular digital means for teaching. For example, the University of Iceland was invited to join edX – an American massive open online course provider created by prestigious education providers Harvard and the Massachusetts Institute of Technology (MIT) – during this period which is also a recognition of our accomplishments.



Jón Atli Benediktsson
Rector, University of Iceland

Being a partner of edX also helped us strengthen our international contacts, which is vital.

It was an important milestone for the university to join edX, but even more importantly, we put a lot of effort into improving the teaching environment with the introduction of a new learning management system and a digital exam platform. When the university closed due to COVID-19, we were able to handle the online situation. If we had not invested significantly in IT and an electronic teaching environment, our situation would have been dire.

The University of Iceland also took an important step in international collaboration when we joined the Aurora Network of Universities – a network of nine strong research universities that have shown great social responsibility in their countries. We joined the Aurora Network as a founding member in 2016 and recently the Aurora Network with a few other universities under the name of Aurora Alliance, were selected as a European University Alliance.

This initiative is a key pillar of the European Education Area which attempts to strengthen the global competitiveness of European universities through the joining of forces across international borders.



Q: You also operate a science park so how is that helping your students learn key new skills?

A: The science park is a community of university partners and partners from industry. The science park is important in terms of innovation, has been growing and has already attracted important companies. The first company established in the area was deCode Genetics, a pivotal player in biotech and genetic research; they are a global leader in their field.

Then we have a pharmaceutical company, Alvotech, and a computer gaming company, CCP Games. We also have startup incubators located in the science park. We work closely with all the companies located in the science park as they are a part of the university community.

Q: Tell us a bit more about your strategy to continue fostering symbiotic relationships with international institutions and plans to expand this network?

A: We have more than 400 agreements with partner universities and

Q: The University of Iceland is known as a research focused university. Researchers have conducted studies on various aspects of the pandemic. Can you tell us more about this?

A: There are several, but the best known here in the Icelandic society is the prediction model that the government has been using for estimating the number of COVID-19 infections. That model came from research by the University of Iceland, statisticians and public health experts.

In collaboration with the National University Hospital of Iceland, which is not a part of the university but a very close collaborator – in my words the largest lecture room of the university – our researchers have designed an algorithm to design the flow of how patients are treated. Overall, we have more than 40 research and innovative projects on COVID-19 at the University of Iceland. Also, deCode Genetics, which is a very close collaborator of ours, has been a very significant player here in testing and analysis of the pandemic, and has

“ We welcome international collaboration and international students at the University of Iceland. We are always open to partnerships in new regions. We have also joined edX to help us strengthen our international contacts.”

Jón Atli Benediktsson, Rector, University of Iceland

continue to be open towards agreements with universities in other nations because international collaborations are extremely important. We particularly like to work with top universities, with many of whom we now have agreements.

Most of our partner universities are in Europe, but we have seen growth in the last few years in agreements with universities in Asia and the South Pacific, especially Japan and China, but also places like Singapore and Australia. We are always open to partnerships in new regions.

published several important articles with the University of Iceland co-authorship on the pandemic.

Q: Any final words for readers of Foreign Policy?

A: We welcome international collaboration and international students at the University of Iceland. Our country is an exciting place to visit so I would encourage people to look towards us in the future, whether as potential faculty or staff, or as potential student or a visitor. We strive to be successful.

University of Akureyri rates top of the class for online education provision

The first university established outside of Iceland's capital, the University of Akureyri ensures knowledge is available to everyone, as Rector Eyjólfur Guðmundsson explains

Q: How much has the university grown since its foundation in 1987, and what have been your proudest accomplishments and achievements?

A: We have increased access to university education. Back in 1987, people still needed to move to cities. This meant a divide in the educational level. You need expertise across the country. The university is a door to knowledge. In 2014, we noticed huge interest in our digital platform for online education. We followed this new path and made available online all of our on-site programs.

We had to adapt to our own reality of how we distribute the educational content and also to become a research institution with doctoral education. I'm very proud we have increased the student population by over 50% since



Eyjólfur Guðmundsson
Rector, University of Akureyri

2014 and have acquired accreditation for doctoral degrees for several subject levels fields. In Iceland we have a specific system to measure research: this is measured by the number of citations, collaboration with society, and



Knowledge innovation at its core

The University of Akureyri's 2018-2023 strategy focuses on four categories: Research and Innovation; Learning; Social Responsibility; and Internal Functioning and Human Resources.

"During its first 30 years, the university has demonstrated how technological change can be utilized to adopt a flexible form of study – and to strengthen its research environment," states Rector Eyjólfur Guðmundsson. "With accreditations that autho-

rize it to establish doctoral studies in its fields of expertise, it is equipped to become a creative learning and research community with knowledge innovation as a guiding principle.

"By carrying out the actions within the framework of this strategy, the university builds a strong foundation to fulfil the role of strengthening Icelandic society so it can address the great changes that await us in the next quarter century."



The University of Akureyri is based in the beautiful town in Iceland's northeast

published papers in different types of journals.

We've been able to increase our total research output measured by this point system, meaning that we have published more papers and got more impact with the research that we're doing. This we have done with the same number of staff members as we had in 2008. I'm very proud our staff has been able to make this institution a fully-fledged university, open to the entire island and specifically servicing the areas outside of the capital.

So, the University of Akureyri is an

Q: How can the University of Akureyri contribute to scientific innovation, sustainability and Iceland's economy?

A: We are providing education for nurses, police officers and other authorized public sector employees. These are basic governmental services where you need to have highly trained people that can work all over the island. Research shows if you take our distance learning programmes from your home town, you are more likely to still be living there and working in your field five years later than if you move

“The University of Akureyri is an important part of increasing the overall human capacity throughout the island because the future is knowledge and if you don't have access to knowledge, you're going to lag behind.”

Eyjólfur Guðmundsson, Rector, University of Akureyri

important part of increasing the overall human capacity throughout the island because the future is knowledge and if you don't have access to such knowledge, you're just going to lag behind in living standards, creating a division in society.

Q: What are your competitive advantages and how do you differentiate yourself?

A: We've been able to create a learning environment that is very popular and offer a wide variety of degrees online, so you don't have to move to Akureyri to carry out coursework.

We are relatively small and accessible as an institution and have this small community, but with a rich environment.

away from your home town to acquire those degrees. We are helping Iceland as a whole to have access to this manpower that is needed to run every single society.

Q: Any final comments or messages for the readers of Foreign Policy magazine?

A: To young people all over the world, I want to say that we will get through this pandemic together. You will have learned a lot about the importance of having dialogue and discussions among nations.

Nations need to work together and that means students around the world need to work together. That is the way forward for better societies and better lives for all of us.

Management expert 1912 sets the pace in key fields

Taking its name from the year its first unit was launched, the diverse family business is thriving through its values of initiative, team spirit, reliability and passion

Q: Iceland has demonstrated before it can quickly bounce back from severe economic shocks. What makes the economy and society so resilient?

A: Iceland is filled with natural resources which, historically, we have exploited when creating value for our scarce population. In addition, our strong mentality enables us to continue our improvement. This island is not for everyone due to the harsh weather and lack of daylight in winter. For those who can live here, it fills them with strength and they develop a fighting spirit which has been a key influence on economic and societal developments.

Q: What are the family values that make up the 1912 ethos?

A: We are very proud of our history and how we have evolved. We put great effort in having the right people in place. One of our strengths is looking for ways to improve, by adjusting strategy, acquiring businesses and entering new markets.

Q: Given the success of previous purchases, are you targeting further acquisitions?

A: We are still growing internally after our recent acquisitions, but are



Ari Fenger
CEO, 1912

always looking for opportunities to acquire other businesses if it fits well with our strategy. We have been taking over new businesses and that has helped us grow our business through the years. We like to move forward and try new things.

Sometimes we make mistakes, but at least we are evolving and trying to be better than we were: that is really the key for any business – not only for us, but any business in general.

Q: The U.S. is Iceland's single largest trading partner and biggest investor. U.S. investments

BIO: 1912 CEO Ari Fenger is one of Iceland's best known business figures

One of only three shareholders in the highly-successful and fast-growing family-run and family-oriented company – the others are his mother and sister – the dynamic executive has been at the helm of the historic enterprise since 2008, but has tripled earnings in that relatively short spell.

Despite only just turning 40, his extensive resume includes his previous role of Managing Director of subsidiary Nathan & Olsen. He juggles his current position with that of Chairman of the Iceland Chamber of Commerce as well as with that of a

board member of the American-Icelandic Chamber of Commerce.

When asked if he was daunted back in 2007 when appointed to the head role of one of the country's most famous and well-established enterprises, he says he was in fact excited about the challenge and adventure ahead.

"First of all, I decided to be myself and not try to copy my father's legacy or leadership style, I believe that's very important," he explains. "One of our group's strengths is we cover most of the segments in the market.



Fast-growing group 1912 has bolstered its product portfolio through acquisitions

have diversified to areas such as hotel chains, consumer goods, and retail with the entrance of several U.S. brands and franchises. As a board member of the American-Icelandic Chamber, what is your assessment of the overall state of U.S.-Icelandic relations, and what kinds of opportunities do you see right now, especially in areas related to your business?

A: The U.S. market is very important for us in Iceland. As you say the U.S. is Iceland's single largest trading partner and investor. It has also been enjoyable to see Americans grow as tourists in Iceland in the last years and becoming one of our key markets.

Icelanders are positive towards the U.S. and have always been. In many ways, if you look at Ice-

land compared to other countries in Scandinavia, we are the most Americanized society. In retail, if you look at stores in Iceland compared to other in Scandinavia, we are much more Americanized in terms of brands and assortment and so on.

Q: Do you have a final message to the readers of Foreign Policy around the globe?

A: If you haven't visited Iceland then I strongly recommend you put it on your map as a travel destination. I promise beautiful nature, good food and friendly people.

Icelanders also welcome foreign investment and with the strong infrastructure in place, natural resources and well educated workforce we should be an alternative destination for foreign investment.

Fenger is confident Iceland can reach the forefront of major developments in infrastructure, human capital and technology.

"The nation is highly educated, with a capable workforce aware of the trends shaping the new normal. This will speed up our alignment to the future and boost a new growth cycle – based on innovation, sustainable solutions, global connections and cooperation. We'll take full advantage of the lessons of the crisis and emerge with a stronger and more dynamic economy – as once before."

Despite the COVID-19 pandem-

The Icelandic Film Centre helps create movie magic

Iceland's incredible landscapes often steal the scene on the big screen, although TV productions are increasingly being filmed in the country, Laufey Guðjónsdóttir, Director of The Icelandic Film Centre (IFC), reveals why

Q: Iceland's vibrant film industry has really evolved in recent years and registered dynamic growth. What are some of the major milestones and achievements of Iceland's film and television industry and what key elements have contributed to the 300% growth of the last decade?

A: For Iceland, filmmaking and TV are relatively new industries compared to other countries. It's only in 2020 that we celebrated the 40th anniversary of the first premiere (Land and Sons) which marked the start of regular film production in the country.

The first decade was very much about building up the infrastructure and the know-how, based on close collaborations with filmmakers who had studied abroad and who had established contacts and networks. Iceland has benefitted from such co-productions along the years and one of the first success stories was through Eurimages, when an Icelandic film Children of Nature (1992) received an Oscar nomination. Right after this, infrastructure became stronger.

At the start of the new millennium, a new generation of filmmakers came to the fore, and entered a more mature Icelandic film industry. In the ten years after the financial crash and the digital change, Icelandic filmmakers were very quick to utilize the digital world. The history of art is very limited in Iceland besides literature, which are the manuscripts and Icelandic sagas. Nothing really happened for centuries until mid-last century, when things started evolving in the visual arts and most other fields.

On the TV side, things have grown very quickly in the last decade, international interest in Nordic crime dramas was very helpful. There was also a cultural revolution that happened which was subtitled, making the international audience more willing to consume content from countries other than just the English speaking world. Filmmak-



Laufey Guðjónsdóttir
Director, Icelandic Film Centre

ers have been able to take advantage of the framework that has been built over the years and make the most of the limited resources that they have.

Q: The size of your country's international footprint in the arts and creative industries is impressive. For such a small country it packs a powerful punch. What is the essence of Icelandic creativity and what makes your culture so unique?

A: It's much harder to explain when you are so close to the source, but as nothing happened for centuries, so much creativity had built up and all of a sudden we exploded with culture.

It has a lot to do with the natural forces in Iceland being very unreliable so people are used to working spontaneously and reacting and doing things while they can. This also allows us to act quickly when we see an opportunity. Bureaucracy here is minimal which helps when pushing films forward in terms of permissions.

Q: How is innovation and forward-thinking rooted in the country's past, but also a key driver in today's economy and film industry?

A: There is the same psyche behind the economy in general as in the film



From the big screen to the small screen, Iceland is a magnet for leading film crews

industry. The social structure in Nordic countries is an element that works in our favor, so you cannot fail unless you totally fall into disrepair.

The school system, for example, is very flexible; only at the age of 20 are students asked if they want to continue with academia or another form of further education. It's easy to navigate and change your mind which is a key factor in being innovative.

Q: 2020 was certainly a landmark year for Iceland's film industry, with the launch of the first film policy – under the auspices of the Ministry of Education, Science and Culture. Let's talk about the four main pillars which the policy revolves around?

Icelandic people work spontaneously and react and do things while they can. This allows us to act quickly when we see an opportunity. Bureaucracy here is minimal which helps when pushing films forward in terms of permissions."

Laufey Guðjónsdóttir, Director, Icelandic Film Centre

A: It was a logical step to take as we have grown very fast and needed a moment to stop, breathe and reflect. It's an important issue because we now have very technically sound crews and a strong tradition of storytelling, which is wonderful as there is an international interest for our stories.

One of the pillars was to strengthen the Film Fund, which until now has proven to be a very successful public-private financing formula. On average 30% is invested by the Film Fund and the rest by producers. With the growth of TV series there is more need

to make high quality local productions.

Talking about the main pillars, they are now separating the fund for supporting TV series from the main fund, so it will be more of a soft investment fund, rather than grants which are the typical financing vehicle in Iceland.

Another pillar is the educational side which is where we have been weak until now. There has been limited education in elementary schools, but we are now seeing a more structured form. There is also a two-year film school for creative skills, crew members and actors.

Q: What are some of the international productions to have taken place here in Iceland, both well-known, and lesser known?

A: International productions are increasing. The first such film to benefit from the reimbursement scheme was James Bond's Die Another Day in 2002 which featured the glacial lagoons around the south eastern coast.

Then it really started rolling when Clint Eastwood came here with a large part of the production for Flags Of Our Fathers. What is positive is foreign crews are working more with Icelandic creatives and actors: Ben Stiller's The Secret Life of Walter Mitty had more actors with lines than planned and they then won other roles internationally.

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Gaming genius CCP Games is truly out of this world

CEO Hilmar Veigar Pétursson says his team was inspired by Iceland's lunar-like landscapes for game EVE Online

Q: Iceland has become the perfect home for a vibrant creative industries ecosystem. What are the key ingredients that make your country such a great place for tech-driven start-ups?

A: One of the keys is having a very high education level, while there is maybe some uniqueness that comes from being a tiny country in the middle of nowhere. That makes for a different type of originality because you are consuming a different atmosphere when you live in a tiny place in the middle of the Atlantic than if you live in a big city in Europe. It's just different, not necessarily better, but it's different. You see it a lot in Icelandic products; people find them unique, whether it is a song by Björk, EVE Online, or a Netflix show taking place in Iceland, it's different.

Also, CCP Games had a lot of unusual people working for it. You would not necessarily find them in computer game firms at the time. We had economists, physicists, fashion designers, all sorts of people making EVE Online. As a consequence, it has this kind of multi-faceted cultural aspect.



Hilmar Veigar Pétursson
CEO, CCP Games

“We spent a lot of time creating the world in which EVE Online takes place. A lot of the amazing and ancient Icelandic sagas, stories, and traditions are a huge component.”

Hilmar Veigar Pétursson
CEO, CCP Games



CCP Games' attractive headquarters helped nurture its game designers' creativity

Q: Please describe the creative development process that a massively multiplayer online game (MMO) like EVE Online undergoes to become so popular?

A: There are a few ingredients. Firstly, you need to build a world that people are interested in. We spent a lot of time creating the world in which EVE Online is set. A lot of the Icelandic sagas, stories, and traditions are a huge component. Iceland is well known for having a high degree of literacy. The Icelandic sagas are amazing literary feats made thousands of years ago.

Secondly, you have to come up with a game design: what kind of game takes place inside this world? In our case, when we are making a huge intergalactic space game, it's very natural that you are flying around in a small spaceship and you want to have a bigger spaceship and a bigger impact on the world. The game flows from that.

Thirdly, you need a distinct visual style. Your game has to stand out from

other games. Our look is really distinct and often ahead of its time. EVE Online looks very artistic compared to other space games. Finally, you need a lot of technology. There is a big technology mountain that you have to climb to be able to get everything to work – having enough servers, having everyone connected and seeing the same thing at the same time, the ability to talk to each other and fight and trade. There is a huge technology component, which is usually the most difficult one.

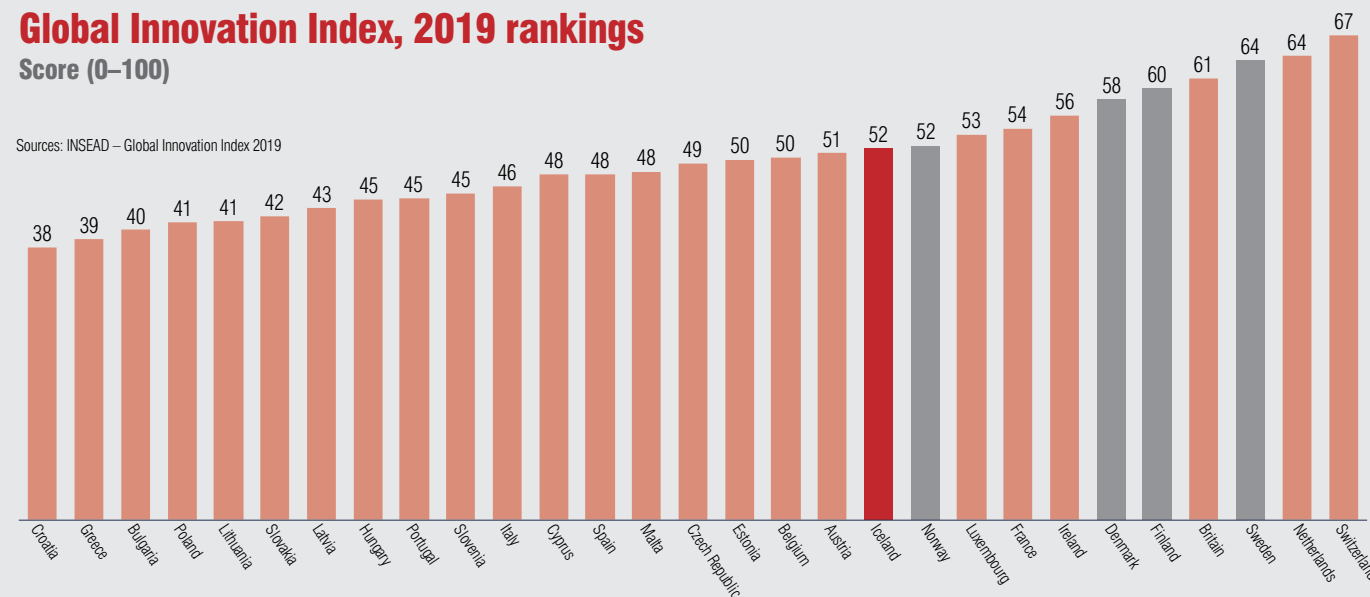
Q: What is your vision for the future development of Virtual Reality (VR) in the industry?

A: We put quite a bit of investment into virtual reality from 2013 to 2017 and released four games which are still doing well. We shifted our focus more to PC and mobile as the VR market is still maturing. Our R&D team is mainly focused on PC and mobile. They've been doing a lot of research into back-end technologies.

Global Innovation Index, 2019 rankings

Score (0–100)

Sources: INSEAD – Global Innovation Index 2019



“Iceland’s flat structure, ambitious workforce and direct communication between institutions have allowed us to quickly adapt our strategies and keep growing as a nation.”

Konráð S. Guðjónsson
Deputy Director and Chief Economist at the Iceland Chamber of Commerce

Green light to investment in transport infrastructure

The government has allocated substantial funding to new transport projects, as Sigurður Ingi Jóhannsson, Minister of Transport and Local Government explains

Q: What can you tell us about Iceland's resilience when dealing with shocks of the magnitude of COVID-19? What is your assessment of the impact at the socioeconomic and cultural levels?

A: Our goal is very clear: we want to ensure stability and keep society going, given the circumstances of the pandemic. Our pledge is to meet the crisis on the offensive. We will not raise taxes or make heavy cuts to the budget. On the contrary, we will meet the challenges by increasing investment in infrastructure and safeguarding jobs and the welfare system.

The criteria for transport projects to receive funding was safety, economic viability and job creation."

Sigurður Ingi Jóhannsson, Minister of Transport and Local Government

Our strategy is to make the best of this unprecedented situation and to invest wisely in infrastructure. For instance, investments in roads and public transport construction for the creation of jobs to stimulate the economy and foster innovation and infrastructure for tourism. We are using the time to build up our infrastructure for the future. When demand for travel rises again, we will be the preferred destination and perhaps more because of how we have dealt with the pandemic.

Q: Since the beginning of the pandemic you have been very involved in developing the recovery program and the implementation of pertinent measures to protect Iceland and Icelanders. What new priorities have you established at your ministry and what are some of the measures you have implemented at your international transport hubs?

A: Tourism is a major economic force in Iceland and aviation has become an increasingly important industry, being a major contributor to GDP. In 2010, Oxford Economics estimated aviation and related activities was about 6.6% of our GDP, but since then

— and before COVID-19 — the number of passengers using Keflavik International Airport rose from two million to about ten million at its peak in 2018.

The estimate for air transport and tourism surged to 38.3% of GDP and 72,000 jobs based on 2017 figures. We have witnessed phenomenal growth in this sector in the last 10 years but, clearly, not in the past year.

The objective of our aviation policy is to support economic growth and the creation of jobs. We want to open more international gateways and support the expansion of aviation, not only in the southwest area of Iceland, where Kefla-

vik is found, but in the whole country. We are renovating and expanding the terminal in Akureyri, the largest town in the northern part of Iceland.

We are also making improvements to the airport in Egilsstaðir, where the main airport in the eastern part of Iceland is located. The main function of this airport is to serve as a reserve airport for Keflavik. We have also looked at our harbors as they are important for fisheries and the transport of goods.

The ports are mostly operated by municipalities, but the goal is to improve their capacity for the transport of goods. Iceland relies on shipping for almost 99% of its goods transportation, even though we had — and will have again — great aviation.

Q: Please tell us more about the Icelandic Krona (ISK) 20 billion (\$160 million) investment initiative focused on upgrading and expanding infrastructure, both transport and technology?

A: The criteria for transport projects to receive funding was safety, economic viability and job creation. These investments in transport were added to our existing plans for investment in infrastructure which are part of the 15-



Driving is one of the best ways to enjoy Iceland's vast array of stunning landscapes

year national transport plan. The 2008 economic crisis and the jump in tourism after 2012 paralysed the plan, with a lot of infrastructure still to be built.

The investment initiative allowed us to speed up the construction of large economically feasible expansion projects in all modes of transport. In our highways system, we are planning to speed up construction to increase safety and capacity in the main cities and to and from the capital area.

With regard to harbors, we are studying opportunities in a number of places that could greatly boost

BIO: Sigurður Ingi Jóhannsson

As a former Icelandic Prime Minister, Sigurður Ingi Jóhannsson is one of the most experienced and best known politicians in the country, and has held his current position of Minister of Transport and Local Government since late 2017.

Born in Selfoss — the largest town in southern Iceland and the region's main center of trade and industry — to a farmer and his wife, the 58-year-old is a fully-qualified vet, having gained his degree in veterinary medicine from the Royal Veterinary and Agricultural University of Copenhagen, Denmark.

His resume includes agricultural work in parallel with studies between 1970 and 1984, as well as sales and labor jobs at Mjólkursamsálan in Reykjavik between 1982 and 1983. He was also a farmer in Dalbær in

economic activity and investments in buildings and logistics. In aviation, we continue to invest in our main international airport at Keflavik.

However, the investment initiative has put the long overdue focus on all of Iceland's international airports. We hope this will allow them to develop and create more international links, so as to support the local tourism industry in each of these areas in the years to come. Tourists that come through Keflavik mostly utilize the infrastructure there, but not as much in the northeastern or the western part of the country.

Ports giant Faxaflóahafnir sf. key to trade and tourism

Port operator Faxaflóahafnir sf. (Associated Icelandic Ports) is a vital cog in Iceland's goods and services engine, CEO and Port Director, Magnús Ásmundsson, states

Q: You were only established in 2005, so please tell us about the evolution of the company, as well as your most recent major milestones and achievements?

A: We were established and are owned by four municipalities surrounding the Reykjavik area, including Reykjavik. The company operates and runs five ports in the four municipalities and actually services some other ports with tugboats. This is the hub with the most important export-oriented ports in Iceland.

As such, we are at the heart of the economy and connect Reykjavik's capital area with the economy and business life in Iceland. One of the ports in Reykjavik is an industrial port receiving container ships. The big port at Grundartangi supports our intensive industry in that area, where we have an

We're at the core of the economy and connect Reykjavik's capital area with the economy and national business life."

Magnús Ásmundsson, CEO and Port Director, Faxaflóahafnir sf.

aluminum smelter center and a metal alloy plant as well as some other industrial companies.

With the rise of tourism in Iceland, there are three main pillars to the economy: fishing, tourism, and aluminum. The ports are a vital part in logistics for all of these three pillars. Our intensive industry is attractive because of renewable energy, but the location is still far from the consumption of the material so that aluminum, for example, is shipped to either countries in Europe or the Americas.

Besides ports operation, the company develops the areas around the ports, so we are landowners as well. We are developing these areas to support the economy and businesses that are in some way dependent on logistics or the ports operation. Here we have opportunities to go even further in developing land.

At Grundartangi, we have plans to develop a green industrial park. We could produce hydrogen from renew-



Magnús Ásmundsson
CEO and Port Director, Faxaflóahafnir sf.

able surplus energy, and then alternative fuels while capturing CO₂ from companies like the metal alloy plant into alternative fuels. That product could then be exported or be utilized domestically.

Q: COVID-19 has had a major impact on the tourist and travel industries. How have you navigated the crisis and what were the best practices learned?

A: The pandemic has had a bearing on the company, mainly in that cruise ships have not been arriving. Our revenue is well down on last year, but Faxaflóahafnir sf. is a company with a strong balance sheet. It will not affect the port operation or the company.

This is because we have seen great growth in this area in the recent years. This puts us back again a few years. I know the cruise lines are still interested in Iceland and as soon as the pandemic is over we will see that again. It's not just the cruise ships, but also tourist activities like whale watching and sightseeing, that have been hit. When something like this happens, we need to be innovative and ensure we don't put all our actions in the same basket.

Tourism has obviously been an important part of the revenue of Faxa-



Faxaflóahafnir sf. ensures smooth import and export handling for firms like Eimskip

flóahafnir sf. We need to think about alternative ways for creating revenues to boost the economy again.

In addition, we need to explore how can we utilize the resources we have, to do something more. Tourism is important and will continue to be, but something like the pandemic always reminds us that we need to be dynamic, and it triggers innovation.

Q: Sustainability and renewable energy are hot topics as climate change increasingly dominates public discourse. How has your forward-thinking company adopted green energy or climate-friendly technologies and policies?

A: We are working on land connections for the container ships, and on the horizon, we have the land connections for the cruise ships, but that is a bigger project and we will start developing when we see that on the rise again.

We need to have our operations all involved in that. Faxaflóahafnir sf. will

be carbon neutral in 2020. We are creating a strategy for all our land-based vehicles to not use fossil fuels. We will implement that for our tugboats too, although that is a longer-term project.

For something like lighting in the port areas, we want to switch to light sources which can be better controlled and consume less energy. That is a policy that we have and is under constant development. We can have a greater green impact in such a way that it does not only impact the operations of Faxaflóahafnir sf., but also supports logistics to and from the company in general, by offering alternative solutions to shipping lines.

This could also take the form of making available new solutions like liquid natural gas and fuels for shipping. We are watching very carefully where shipping in general is developing and how we can support alternative power resources for shipping. We want to develop our operations in such a way that it supports the climate change movement.

Cruise liners boost tourism in Iceland

Faxaflóahafnir sf. data shows pre-COVID-19 cruise ship success



2019 cruise passengers:
188,630



2019 cruise ship arrivals:
190



2019 top pax nationalities:
Germany, U.S., U.K., Canada



2019 pax turnarounds:
86

Icelandic shipping company Eimskip on crest of a wave

Providing safe and efficient logistics and transportation solutions to the Americas and European countries makes Eimskip one of Iceland's most important enterprises, as CEO Vilhelm Már Þorsteinsson proudly details

Q: Please give our readers a brief introduction to Eimskip and a quick overview of your own major milestones and achievements in recent years?

A: Eimskip was founded by close to 25% of the population during very challenging times in Iceland in the early 20th century. The company has been an integral part of Iceland, the Icelandic business community, the development of the country and households for many decades. Today, we are one of the largest companies in Iceland and also a growing international firm.

After the collapse of the banking sector in Iceland, Eimskip was relisted again on the stock market in 2012 and went on a journey of both organic development and growth, as well as external growth. Between 2012 and 2017, there were numerous acquisitions in the international market, primarily in so-called asset light businesses on the freight forwarding side.

In early 2019, I joined Eimskip and since then the journey has been to leverage the platform of that growth. We have been removing many operational complications, both on the cost side and revenue side, in order to improve margins and profitability.

That has been the journey now for close to two years – to leverage the Eimskip platform. We have reduced the number of employees, offices (through consolidation) and vessels in our fleet; container vessels, as well as reefer vessels in Norway. So, the focus has been on eliminating revenue and cost synergies; and preserving profitability.

In October, we introduced a new sailing system – to replace one implemented in spring during the early stages of COVID-19 – that better meets customers' needs and with new larger and more powerful vessels, the service is more reliable and also more environmentally friendly.



Vilhelm Már Þorsteinsson
CEO, Eimskip

Q: Eimskip competes in the shipping and logistics industries, both in Iceland and abroad. What do you see as your competitive advantages and how do you stay ahead of the competition?

A: We are in an environment where there is strong competition, both to and from Iceland, and to and from the Faroe Islands. These are definitely our core home markets, especially in the traditional container liner and transportation markets. The competition has increased if anything, with additional players sailing to and from both those countries.

We are a very strong niche player in the North Atlantic and the only true carrier connecting Europe through Iceland to the northern part of the U.S. and Canada. We have seen our transatlantic volume grow quite significantly in recent years. We service the U.S. and Canada on a weekly basis, which we could not do with volume from only Iceland and the Faroes. That's because of the transatlantic volume connecting the two continents.

Because of our origins and then our later acquisition of Faroe Ship in the Faroes – dating back decades and centuries, we have real expertise in the transportation of fish and reefer cargo. That has developed



into Eimskip being very strong in the reefer forwarding part. We have a deep understanding of everything that is either cooled or frozen in terms of transportation. That has helped us as an international player on the forwarding side. We have seen that despite COVID-19, that part has grown for us this year, despite the challenging environment.

Many of our international offices have actually done quite well in 2020. When the outlook was the bleakest, I doubt we'd have guessed we would grow our forwarding business so soon. But we have and that has a lot to do with our expertise on the reefer and chilled side.

Q: Through expansion, Eimskip now owns storage facilities and warehouses in over 15 countries. Where does that strategy stand today and what promising markets do you hope to capture?

A: Internationally, we are well known for our freight forwarding and being especially focused on the reefer forwarding. If we look a few years

“ We are a very strong niche player in the North Atlantic and the only true carrier connecting Europe through Iceland to the northern part of the U.S. and Canada. Our transatlantic volume has grown quite significantly.”

Vilhelm Már Þorsteinsson, CEO, Eimskip

down the road, both of those aspects will continue to develop.

We can either increase the capacity on our vessels, or reduce it to match market conditions. We have started the renewal of our fleet and that is important for us and important for our customers as well, as it allows us to offer solutions that have less of a carbon footprint.

On the international freight forwarding side, we will look into whether there are some products or small companies we can add to our platform. We recently formally start-

ed the vessels sharing agreement with the Greenlandic carrier, Royal Arctic Line. We're very excited about that cooperation and want to increase trade to and from Greenland, which is why we recently opened an office in Greenland.

Q: The global spread of COVID-19 had a particular impact on businesses and governments worldwide. How did you navigate the crisis, what were the biggest challenges, and what best practices were learned?

A: When it first spread we had some insight as we have five offices and more than 100 people in China, so we were prepared a little. Having said that, when it fully hit Europe in March and subsequent weeks, there was much uncertainty.

Within just a few days we changed the management board to a crisis team. Instead of weekly management board meetings, we met twice a day. We talked through everything happening, everything we were learning, what was happening in different mar-

kets to our employees and customers. We examined closely the flow of products in case of restrictions.

Q: Do you have any final comments for the readers of Foreign Policy magazine?

A: The journey and our transformation is something people should look to, both in terms of an investment opportunity, but also as a partner for logistics services.

We are very committed to the markets where we operate and are a good partner.

Innovation and alliances boost Icelandic Salmon AS

Home to some of the world's best fishing waters, Iceland has a major competitive advantage when it comes to quality seafood, as Kjartan Olafsson, Chairman of Icelandic Salmon AS reveals

Q: The company was established a decade ago and has enjoyed tremendous growth. What are your proudest accomplishments and milestones to date?

A: In 2020, we were listed on the Oslo Stock Exchange, which is the world stock exchange for seafood companies. This gave us important access to funding with wide backing from financial investors and a very strong industry partner: SalMar ASA, which has a 51% holding.

The second largest shareholder is Gildi, one of the largest Icelandic pension funds. We produced around 12,000 tonnes of salmon in 2020, about half of all production in the country. We are proud of being well received in the market.

We are a little bit different from some firms in Norway, which is the world's leading producer. For us at Icelandic Salmon AS, all of our production is ASC (Aquaculture Stewardship Council) certified. There are strong requirements on the sustainability of our production and the way we handle and work with our communities and employees.



Iceland's fisheries industry is a source of national pride and is vital for employment

We're proud of that certification and are working on a branding, sales and marketing strategy.

Q: What technologies and innovations are you using to improve both efficiency and sustainability in your operations?

A: We work closely with successful equipment producers like Skaginn and Marel. They have developed efficient processing equipment for the seafood industry. We work with multiple local and international suppliers and enjoy the rapid technological innovation in the industry.

The investment we have already built in our smolt facilities has been working nicely. In the past few years, we have invested considerably in the freshwater part of the industry where strong and healthy smolts are of great importance.

Q: What is your strategic vision and what do you aim to achieve in the medium to long term?

A: The strategy in the medium to long term is to realize our growth ambitions and to get a premium



Kjartan Olafsson
Chairman, Icelandic Salmon AS

“ Securing global food supply and the importance of healthy, sustainable food production is something that should be of great interest to us all, and we can contribute significantly to that.”

Kjartan Olafsson
Chairman, Icelandic Salmon AS

product established in the market. We have a job to do in the sales and marketing.

Further down the road, I hope for significantly increased volume, improved logistics and more value-added production, but these features are quite dependent upon predictable regulatory framework and competitive terms for our Icelandic farming industry. I have high hopes for the prospects there.

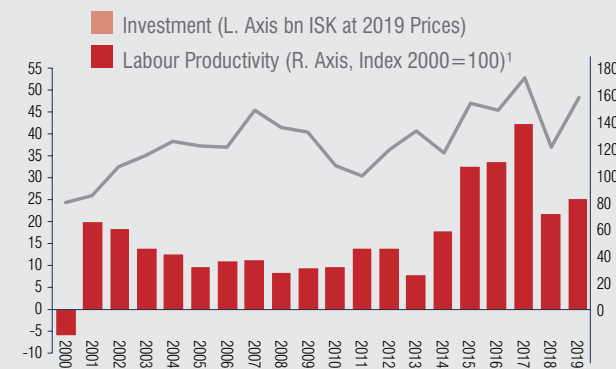
Q: Do you have any final comments for the readers of Foreign Policy magazine around the world?

A: Securing global food supply and the importance of healthy, sustainable food production is something that should be of great interest to us all, and we can contribute significantly to that.

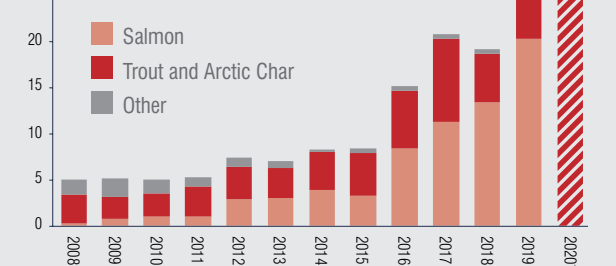
Taking healthy proteins and quality fresh food to the global market is something we need to focus on and secure access to. In that sense, I believe our salmon makes the world a slightly better place.

Icelandic aquaculture

Seafood (including aquaculture)
Investment and productivity



Aquaculture production
Thousand tons



* Projection of total production based on year on year growth in January-June 2020.
Sources: Iceland Chamber of Commerce; Statistics Iceland

