

with products exported to more than 80 countries. In fact, Acadian Seaplants was recently named Nova Scotia's 2015 Exporter of the Year.


While ocean-based seaweed cultivation certainly dwarfs the operation with respect to scale, Deveau says studies show that by the year 2050, the world will need to produce about 50% more food than it's producing now in order to feed the population. "Either the existing acres have to become more effective or the

number of acres has to be increased on land or on water," he says. "Here in Nova Scotia, we have a tremendous opportunity to increase the acreage of both water cultivation and fish farming."

Creating more of these value-added exports will help drive the regional economy, but long-term success will require sustainable resource management. "Two of our 13 PhD researchers are tasked with ensuring that our harvesting methods are sustainable," says Deveau.

"We have the research to prove that every year we harvest less than the annual growth of seaweed." The company uses specially designed hand-harvesting tools operated by well-trained staff to minimize the impact on the resource and ecosystem. Aspects of the company's sustainable harvesting techniques and resource-management model practices have been adopted by other countries to ensure the future of their own seaweed resources.

"We've built our business by finding the value in marine plants and harvesting those plants responsibly," says Deveau. "In Atlantic Canada, we have this tremendous resource that we can use to our advantage. There's no question that cultivation and aquaculture are important economic drivers in our region's future. Our goal is to continue to develop new and exciting products to offer the global market." — SARA LESLIE

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[start-up]

## Ride the swell

A Halifax-based start-up's new app is putting boaters front and centre



Craig Sheppard (left) and Iaian Archibald

There are plenty of boating apps on the market, but one Halifax-based start-up is determined to set itself apart from the competition. "We want to be the only app you need once you leave the shoreline," says Iaian Archibald, the co-founder and CEO of Swell Advantage.

Launched in June, the company has spent the past few months working out of the start-up incubator Volta. It's main product, a social networking and navigation app for recreational boaters, is the brainchild of Archibald, an MBA graduate, and Craig Sheppard, a computer and electrical engineer. The two knew each other in high school and later connected through surfing, but it wasn't until a few chance meetings at the Lion & Bright Café on Agricola Street that they began talking business.

Archibald comes from a long line

of entrepreneurs, and after years spent on or near the water, starting an ocean technology company seemed like a perfect fit. Sheppard had no prior entrepreneurial experience, but when Archibald approached him about the idea, he jumped at the chance to get involved.

The final design for the app was based on months of discussions with local boaters. "We owe what we're putting into the market to the people who gave us their feedback," says Sheppard. While most navigational apps are based on a map-centric design, he decided to position the user at the middle of the interface to make it "boater-centric." Another design characteristic is simplicity; critical information has been strategically placed to make it more accessible for the user. "One glance should give you all the information you need," says Sheppard.

This new take on a traditional interface isn't the only element that makes Swell Advantage unique. "The social component of boating is also important," says Archibald. "We wanted to help facilitate that." Users can take advantage of the built-in social network by inviting friends to join and share their current location, represented by an icon on the main screen. For anyone searching for solitude, the app offers a ghost mode "in case you don't want to reveal your favourite fishing spot," says Archibald.

Development of the app is ongoing, and it won't be long before the phone sensors can be used to collect wave information, essentially turning the boat into a wave buoy. Archibald plans to incorporate data from outside models, which will allow the app to aggregate and analyze ocean conditions in real time. "It will pull information from a variety of sources," he says, "from wave buoys and wind models to Environment Canada and the Canadian Hydrological Society."

Four other employees comprise the Swell Advantage team. With different backgrounds, they have this in common: "Everyone is committed to this idea," says Archibald. The team's support echoes the encouragement the company has received from the ocean technology community as a whole. "It feels almost like we're being cheered on by the industry," says Sheppard. "The connections, advice, and time have been invaluable." As for the app itself, Archibald sums it up succinctly: "It's technology to make your boating life better."

— AMANDA LESLIE

[APEC report]

## Atlantic Canada's food-processing waistline is shrinking

A recent Atlantic Provinces Economic Council (APEC) Report Card on food manufacturing shows that over the last 10 years, the sector has shed 10,300 jobs and seen the number of processing facilities drop by 25%.

A 25% decline in catches in the key seafood sector, changing eating habits (North Americans are eating less seafood and dairy and fewer french fries and meat products), and various economic factors, including a higher Canadian dollar, have all contributed to the thinning of the sector. But despite the nation-leading decline in jobs—the regional loss represents 86% of all employment reductions in food manufacturing across Canada—APEC senior policy analyst Fred Bergman notes that food processing remains the second-largest manufacturing sector in Atlantic Canada.

Food-manufacturing sales were \$7.3 billion last year, accounting for 22% of the region's manufacturing sales and 36% of its manufacturing exports (excluding refined petroleum). About 21,000 workers were employed in more than 800 plants across the region.

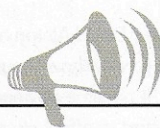
Atlantic food-manufacturing shipments expanded by almost one-quarter over the last decade, and there are growth possibilities on the horizon. Industry restructuring in seafood manufacturing could result in a competitive advantage. Larger operations have greater capabilities to export seafood products, adopt product and process innovation, maximize economies of scale, and improve labour productivity.

Bergman says the sector could bulk up by expanding its seafood exports to countries with rising per capita consumption of seafood, such as China, and taking advantage of opportunities that may come with the ratification of the Comprehensive Trade and Economic Agreement between Canada and the European Union. EU sales already account for 13% of Atlantic Canada's seafood-manufacturing exports.

Promotion of the region's focus on the sustainability certification of wild fisheries could have some impact. Over 60% of international consumers say it's important that their seafood be sustainably caught, and a large share of the region's processed-seafood products have Marine Stewardship Council (MSC) or other sustainability certifications.

Blueberries also offer a bright spot. Now the second most popular fruit in North America next to strawberries, per capita consumption continues to grow and feed demand. The volume of Maritime blueberries produced since 2005 has increased by 124%, and the value of the region's frozen-blueberry exports has jumped 26%. Efforts to expand blueberry acreage in the Maritimes could boost production even more. — STEVE PROCTOR

### PRODUCT PLACEMENT

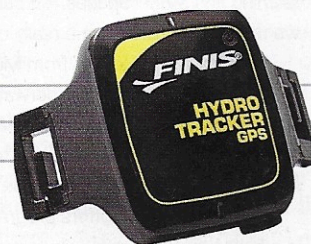


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