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On the Cover: Waterloo Brewery's George Croft, and the state of the craft beer industry.

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DIGITAL HURON PATHOLOGY GROUNDBREAKING; LEFT TO RIGHT, PATRICK MYLES, CHRISTINE CHAMBERLAIN, SAVVAS CHAMBERLAIN, MIKE PANAYI, RYAN MARTIN AND TED DIXON - PAGE 6
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EXCHANGE

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PASSION FOR PRODUCTIVITY

From blockchain to breweries, productivity is the key to success

by PAUL KNOWLES



PAUL KNOWLES is editor of Exchange Magazine.
email: paul.knowles@exchangemagazine.com

The means of measuring productivity can vary significantly from sector to sector, but all businesses share one essential reality – you must be productive, or you die. And you cannot stand still, assuming that what made you successful last

decade – or last week – will continue to ensure a sustainable level of productivity.

Productivity is the theme of this issue of Exchange magazine. The truth is, we could have done a feature on any successful enterprise, and it would have fit this universal theme.

So we chose from across a wide spectrum. We talked to business leaders in revolutionary blockchain innovation, and to business leaders who make beer. We interviewed leaders in the digital field, and leaders who are marrying digital technology with human interaction, human resources recruitment. All have discovered new secrets of productivity.

Among the most interesting elements of this issue are our articles about three community-serving enterprises in Waterloo Region, all of which are struggling to become more “productive”. We talked to the new CEO of United Way of Waterloo Region Communities, who was refreshingly frank about the challenges United Way faces, and the need to become more productive. We talked to people on both sides of a current Oktoberfest controversy, and discovered that while they may disagree on the way forward, they do want to see the venerable festival succeed even while it must embrace change.

And we talked to the Region’s point man on Light Rail Transit, who discussed how we will actually produce a functional system, given the productivity challenges faced by the contracted supplier.

Productivity – whether it means new ways of brewing, or global interconnection through blockchains – it is the key to survival.

X



MARK BINGEMAN GOES OKTOBERFESTING WITH NEIGHBOUR GEORGE CROFT, CEO OF WATERLOO BREWERY; “FESTBEER” LAUNCHED FOR KOOLHAUS - PAGE 26

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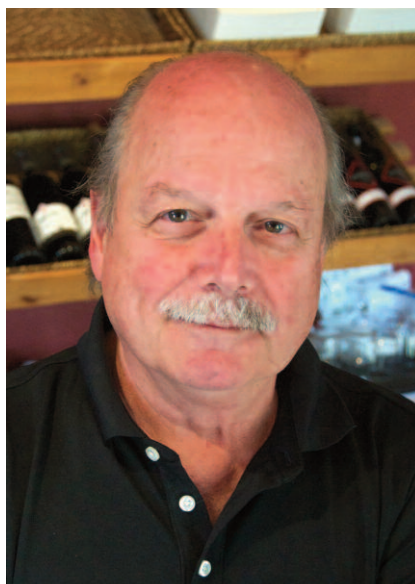
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ALL ABOUT ALGORITHMS

**It may just be math, but properly employing algorithms
“separates the winners from the losers”**

BY JON ROHR

Algorithms – you can’t live without them, but the odds are, you really may not understand what they are.

Mathematician and data scientist Cathy O’Neil says that, as a tool for productivity, there is nothing better. “Algorithms are everywhere,” she says. “They sort and separate the winners from the losers”. O’Neil was a hedge-fund quantitative trading expert during the 2008 Wall Street crash caused largely by mis-use of mathematics.

A simple definition of “algorithm” could be, “a step by step procedure for solving a problem or accomplishing some end, especially by a computer” (Miriam-Webster). Businessdictionary.com expands on this: “A step by step procedure designed to perform an operation, and which (like a map or flowchart) will lead to the sought result if followed correctly. Algorithms have a definite beginning and a definite end, and a finite number of steps. An algorithm produces the same output information given the same input information, and several short algorithms can be combined to perform complex tasks such as writing a computer program.” This defini-

The concept of algorithms dates back many centuries, but today, the extreme speed of digital calculation means that problem-solving by algorithm is mind-bogglingly fast and efficient.

tion adds, “A cookbook recipe, a diagnosis, a problem solving routine, are some common examples of simple algorithms.”

The concept of algorithms dates back many centuries, but today, the extreme speed of digital calculation means that problem-solving by algorithm is mind-bogglingly fast and efficient. And that means this methodology is very popular, and very effective. Calculated with a top end processor, you have productivity like we’ve never seen before, at speeds we can’t even imagine.

Going back to the fact that algorithms need “a beginning and an end”, business applications require data (historical information) and a definition of success – the object of the process.

O’Neil points out that while we may not use the term “algorithm,” the very act of preparing a meal from a set of instructions, with a clearly understood goal in mind (following a recipe to produce a vegetable dish that your kids will eat, for example) is in fact, using an algorithm.

So developing a definition of success is paramount; how else will you measure whether you’ve attained success? A well-written algorithm has a degree of predictive power.

Of course, the success is dependent on the quality of the data; bad data produced algorithms related to the collapse of

Wall Street’s financial markets in 2008, and the to extreme market valuations of some leading internet businesses.

They are also inherent in the process that causes digital ads to show up in your device, soon after you digitally search the related subject.

Properly employed, algorithms are the foundation of the digital economy and an absolute productivity plus.

But as suggested off the top, the issue is, it’s all math, and very few of us have mathematical background, or even know someone who does.

Except, we live in a region whose mathematicians are some of the best in of the world. Not only have Waterloo



Shinydocs CEO Jason Cassidy

math whizzes carried their expertise around the world; many of them have stayed right here, empowering a multitude of algorithm-driven success stories.

In this article, we feature three local companies that use algorithms as a their secret sauce. The first helps manage digital content and increase more than just productivity; the second uses algorithms to match people to companies; and the third is on the frontier’s edge in using digital scans to help identify health problems before they kill you.

Shinydocs

“I worked at OpenText until 2004,” says Shinydocs Corporation CEO Jason Cassidy. Then, “we had a consulting company called Enterprise File System Inc.... We had some good success ... We had the first concept of content management in the Cloud, we built up a team of 55 people, it was a cool spot to work, funded by OpenText, but independent. That [concept] is still going on today.”

Then came Shinydocs, a business whose overarching premise is that, “changing the way your company manages its information should not change the way that you work”.

Today’s companies have an enormous challenge in managing information. Employees are expected not only to create current documents in the course of their work, they are also expected to categorize, archive and sometimes obey laws that demand the timely destruction of the documents. The problem is, of course, that they don’t.

The vast majority of documents are not dealt with proper-

ly, and thus lose their value to the company – and may even present legal challenges.

So service providers have moved to try to solve that problem. Cassidy says, “there is a movement out there to try to capture your data, called consumption”. He’s referring to a software program geared to funnel user data to what he refers to as a “vault”, in which a company that you hire to provide a service is going to “get you to use” their “proprietary interface, so that you’re locked in. And then you’re going to pay them over and over again for the same storage on the same server, for your data.”

The Shinydocs CEO sees this as a solution that needs a solution – it creates new and different problems for the consumer.

He says the initial problem is that the service supplier never really took their customer into account: “What you do, day in and day out, the current interfaces that have worked great for 20 years. They [your existing systems] work with every one of your applications. Your entire experience is designed around doing your email and day to day document management.

“But now these organizations are saying ‘We want you to change how you’re doing that’ ... under the guise of ‘It’s driving our consumption and it’s good for us.’

“Ultimately, you’re paying the penalty for someone else’s benefit,” says Cassidy, “and we thought that is completely backwards”.

Cassidy is focused on user experience. If something is working well for a customer, Shinydocs is determined that does not need to change. Instead, their new technology is installed “back-ended”. He explains, “instead of changing your interface, we’re going to keep your interface exactly the same”.

Solving that problem wasn’t the challenge, because the solution came first. “We started building that... toying with it for a number of years. In 2013, we started breaking down and productizing it. We got to a point where we had money in the bank from consulting, we had intellectual property we were sure is good.”

So they decided, “If we use our technology, we can solve this problem. So

Shinydocs’ overarching premise is that, “changing the way your company manages its information should not change the way that you work”.

one has tried this before, but we’re convinced.”

So they persevered. He says that some initial feedback saw the sense in

that’s exactly what we did.”

The challenge came after the solution – convincing customers. It was like “pushing a rock up a hill. We’re new, no

their product, and “we had some early adopters who went, ‘absolutely!’”

Those early adapters produced some amazing success stories. “One of our earliest customers, Derby City Council, in the UK, deployed this in June, 2015. And immediately, they realized a 600% increase in utilization. A massive productivity gain.”

He points out that benefits go beyond productivity: “It actually starts capturing the information that you are legally bound to capture, records that have to be captured by a knowledge management system...

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Jim Gimmel, President of Donaldson and James

and have to be destroyed in a particular period of time. If you're not using the system, you're out of compliance".

Shinydocs is working in the fields of Artificial Intelligence, and Blockchain. Says Cassidy, "Blockchain for us is kind of a neat technology. The application that everybody has heard is Bitcoin, but most people don't know why it's interesting. The interesting part of Bitcoin is the audit history associated with it. The non-repudiation. From our perspective, audit history is very interesting. To be able to demonstrate that you did, in fact, view this document on this date. That this document was actually deleted on the date it was supposed to be deleted. This is where Blockchain comes into our arena. To be able to demon-

strate the activities that actually happened with this information."

He adds, "Blockchain makes it very, very difficult to forge things. Obviously, monetary transactions is just a slam-dunk for it. In our area, where you have to demonstrate your use of information, it's equally applicable.... We do have audit history associated with every activity that happens within our product.... That's one of the big value propositions."

And, says Cassidy, there's more to come. "What's really next is realizing the vision. We've come up with some amazing Artificial Intelligence technology. It's our plan to

"This is a human interaction. Chemistry is very important. Each company has its own culture, and the person coming in has to be cohesive with that culture."

change the world with it."

He talks enthusiastically about "Our ability to crawl your historical file shares, crawl your knowledge management system, see the behaviours that have happened before. We build up the model based upon that. So we can now go and crawl any piece of information within your organization and identify the real file types for your organization."

The software will learn; it will be able to identify not only documents, but "entities" – the key words or phrases in a

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document – “and start doing activities based upon that. We can bring them into the knowledge management system. We can start driving your productivity.”

Cassidy explains that the Shinydocs systems let people do what they do best, and let the machines take care of the sorting, filing, and compliance. “You want to do the thing that drives your business, and do it once.”

He cites some stats: “People doing categorizing are only about 30% accurate. Machines are a thousand times faster and much more accurate. A rote activity is now being taken over by robots with crazy accuracy.”

This is the future – not a decade away, but perhaps tomorrow afternoon. Says Cassidy, “I think it’s happening faster than people think. But it’s kind of like the internet in 1994 – getting to know this technology, you know it’s going to affect your business, but now we look back... nobody really knew who the winners were going to be.”

Although he does think he knows who will win – the companies that adopt the kind of leading edge knowledge management system his company is promoting.

“Talk to a CEO – say to them, ‘Did you know that 85% of your information in your company right now is un-structured and not being used as an asset? Did you know we can fix that? Make 100% of your information an asset that you can recall and drive future workload? We can increase productivity of every one of your users. If you don’t start right now and your competitor does, you can never catch up to them.’”

Donaldson and James

Jim Gimmel is President of Donaldson and James, with its head office Waterloo. He wants it made clear that “We are not a technology company, we are a recruitment company.”

But at the same time, there is no doubt that cutting-edge technology plays a major factor in how his company serves its customers. He adds, “This is where old world hands-on recruitment meets new world technology. To do that, we partner with a company that has an on-line platform with imbedded AI, to marry up our services

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so that we’re delivering the best of both worlds”.

The first world, Gimmel suggests, was corporate recruitment carried out entirely by human recruiters. The second was a tech wave, in which everything was done by computer programs.

“For quite a while, there’s been a lot of technology that says, we’re going to replace the recruitment industry. But it’s a hard industry to replace, because there’s a lot of hands-on and personal touch that’s necessary”.

Gimmel acknowledges that technology can make a big difference in the delivery of his service, “so we’re marrying things to have the best of both worlds”.

The tech lets the company do the search and matching much, much faster, “then we insert the human touch, to add the missing piece, which is validating. Sometimes you just want to talk to a human.”

His company works with a tech firm from Toronto – Kahurso – who were in the business of matching executives with companies looking to hire. But the service was incomplete. Says Gimmel, “Sometimes, further vetting is needed... in fact, most of the time. That’s where we come in, to provide further vetting, and then validate both parties. We also payroll the executives so they’re not concerned with when and how they’re getting paid.”

Gimmel is watching for ways that his industry is going to get disrupted, and ways that his company can disrupt the industry “for the better”.

The technology provides unprecedented speed to the process, and in today’s world of rapid change, that’s essential. He says that employee turnover is much higher than it used to be. “In 1990, an individual would take a job, on average for 8 ½ to ten years. Now, an individual is going to take a job for 4 ½ years. Then with millennials, it’s one to two years.”

The nature of jobs has changed, as well. “Many people want to work on contract, they want to work on freelance, they want to work a number of different ways apart from ‘normal’ employment. By 2020, 40% of the workforce will be freelance.”



Patrick Myles, CEO of Huron Digital Pathology

PRODUCTIVITY

that really brings out what they are really interested in, and what is their strong skill set. It's very informative for the executive. The software is able to hone in on details about this individual."

But there was human activity even before that. "We work with companies to help them identify what they're after. Once we have that, we put that into the software with the details and now it does the matching to say, 'Here are your five top matches'."

It doesn't end there. "We take that, have conversations

"The reality is that pathologists are getting older, they're retiring, fewer pathologists are getting in, but while that's happening there are a lot more people that are getting cancer. Technology has to find its way in there."

with those five individuals, and because we know the customer, we can then do the best match between the executive and the customer. That's where the personal touch comes in."

He says the results support his enthusiasm about their system which employs the best algorithmic technology, but also uses top-notch human expertise. "We're not on Amazon buying a pen. This is a human interaction. Chemistry is very important. Each company has its own culture, and the per-

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son coming in has to be cohesive with that culture. If we feel that we have a pretty good idea what this company is, the individual may have all the qualities, but if there is a culture difference, they aren't a match. A human can identify. It's a touchy-feely thing. It's not something you can write code for."

Huron Digital Pathology

Patrick Myles is CEO of Huron Digital Pathology in Waterloo. The company, originally named Biomedical Photometrics, was started by Ted Dixon, a UW electrical engineering professor, in 1994. In 2009-2010, Savvas Chamberlain, then CEO of Dalsa got involved. Chamberlain sold Dalsa to Teledyne and soon bought

"We want to get more into the Artificial Intelligence, machine-learning side of things."

the new company outright and changed its name to Huron Technologies, in 2015 rebranded as Huron Digital Pathology.

Like many companies, Huron Digital Pathology found a niche product via an existing customer, a researcher at Sunnybrook Hospital. Martin Jaffe, one of the world's leading breast cancer researchers and digital imaging experts, had the desire to image a whole-mount breast tissue. "He believed" says Myles, "that if you could image the entire slice of that tissue, you'll get a much better indication of what's happening and also a better clinical outcome".

Huron's technology had this capability to image large tissue slices. "We developed our tissue scope system with him, and then we started to find other customers. We have some excellent customers in the neuroscience area who are looking at large brain tissue".

Typically, the use is for brain analysis. They take a brain, slice it into up to 8,000 slices and analyse. Myles says that, "in the past, one slice would take a day and a half. We can do them in 17 minutes, because of our ability to image at a microscopic level very quickly and very efficiently".

Myles says that "we've been able to come up with this way of imaging large tissue where everything is in focus ... quickly and in an automated fashion".

He adds that they have the ability to do "large tissue really, really well, and small tissue exceptionally well".

Like many companies on the leading edge of digital innovation, Huron is focusing on helping humans be more efficient and effective in their work. Myles told Exchange, "The reality is that pathologists are getting older, they're retiring, fewer pathologists are getting in, but while that's happening there are a lot more people that are getting cancer. The workload has gone way up, the supply of pathologists is not increasing, so technology has to find its way in there."

There are lots of players in the field of digital technology, but most the larger companies lack the quickness and flexibility of his firm, says Myles. Even the big players are adapting – but more slowly, he says. "The industry is becoming more open, because a lot of these larger companies are recognizing that the customer may not want their piece of hardware, they may want something different, something they can do telepathology with." Telepathology is where you have a pathologist who is remote, but he's actually driving the system.

"Basically" says Myles, "what we do is similar to Google maps. Once we have it on our server, all you're doing is downloading a view. It's as quick and responsive as Google maps".

Part of Huron Digital Pathology's strategy is to build relationships with some of those larger companies that are already in the market. "They have brand, they have regulatory and they have distribution" says Myles. "They want to go in at the enterprise level, and hardware – they're not really crazy

about building and manufacturing hardware".

Myles believes Huron Digital Pathology is positioned perfectly at the first onset of change in the pathology lab. He says that across the market, only about five per cent of slides are digitized. Most are looked at through a microscope. "So we've got an excellent opportunity to be a premier supplier of these instruments for the industry through various channels".

Myles says they are ready to seize the opportunity. "First of all, we have a product. Sometimes you hear about all these start-up companies, but do they have a product? We have pokers in the fire with a local university. We want to get more into the Artificial Intelligence machine-learning side of things... When you get into the whole area of Artificial Intelligence and deep learning – right now, there's so much data in the world. Five million, ten million digital slides. That number's going to explode – the number of digital images out there."

He has no doubt that there is an unprecedented problem crying out for his company's solution. "Part of the challenge right now is, if the pathologist is looking at a slide, and goes 'I have no idea what that is,' he needs to send it somewhere, it has to get packed up and Fedexed out... it could be a week, two weeks. Poor patient! In some cases it could be around the world.

"But with Digital – the pathologist can look at it at the same time. It can make the pathologist's life better. It can remove routine so the pathologist is using more of their experience to diagnose things that are more difficult. " X



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SWEEPING CHANGES PROPOSED FOR TAXATION OF PRIVATE CORPORATIONS

For Exchange Magazine

by Jeff Howald and Carlo Ciaramitaro



The Department of Finance recently announced drastic proposed changes to the taxation of private corporations. Based on comments in the March 2017 Federal Budget, businesses and taxpayers were expecting to see some changes put forth, but few envisioned the sweeping proposals tabled on July 18, 2017. Some say that the proposals will somewhat level the playing field, while others argue that every private business in Canada will be affected and if adopted, could hurt job creation and Canada's competitiveness on the global stage.

The proposal focuses on three tax planning strategies commonly used by private corporations:

- Sprinkling Income Using Private Corporations
- Holding a Passive Investment Portfolio inside a Private Corporation
- Conversion of Dividends paid by a Private Corporation Into Capital Gains

Here is an overview of what the proposal could mean for you as an owner or shareholder of a private company.

Income Sprinkling

A common technique employed by private corporations is to "sprinkle" income to family members by way of salary, wages or dividends. This strategy can result in tax savings by shifting income from an individual taxed at the highest marginal tax rate to family members subject to lower marginal tax rates.

Current tax rules exist to prevent the payment of unreasonable salaries or wages to family members who are not actively involved in the business. The Income Tax Act also has provisions to tax dividend distributions paid to minor children

(under the age of 18) at the highest marginal personal income tax rate. This special tax is commonly referred to as the "kiddie tax".

The proposed changes significantly expand the scope in which income sprinkling techniques can be taxed through:

- Broadening the definition of Tax on Split Income ("TOSI") to "specified individuals" defined as spouses, minor and adult children, parents, siblings, aunts, uncles, nephews and nieces.
- Curtailing the Multiplication of the Lifetime Capital Gains Exemption ("LCGE"), and

- Taxation of Second Generation Income.

Compared to the previous regime, the net has been cast much more broadly under the new TOSI rules. The new measures are intended to more heavily tax additional types of income such as income from a partnership or trust originating from a

business of a related person, income from private company debt, capital gains on private company shares, compound interest on property subject to TOSI, certain shareholder benefits, and dividends received on private company shares subject to the current kiddie tax rules.

TOSI rules will apply where the income received by the specified individual is deemed unreasonable in relation to his or her contribution to the company. Reasonableness is assessed by comparing the payments received by the specified individual to what would have been paid to an arm's length person, taking into account the specific functions performed, assets contributed, risks assumed on the amounts received by the specified individual and all previous amounts paid or payable.

Here is an overview of what the new, proposed federal tax laws could mean for you as an owner or shareholder of a private company.

The reasonableness test can only be satisfied in situations where the company is engaged in an active business. If TOSI rules apply, income received by the specified individual is taxed at the highest marginal personal tax rate (currently 53.5% in Ontario).

So, what is reasonable in the circumstances? The answer is subjective and could produce widely differing results. It will be imperative to document the labour and capital contributions made by each specified individual

Individuals between the ages of 18 to 24 must be actively engaged on a regular, continuous and substantial basis in the activities of the business.

in order to assess whether amounts paid are reasonable.

The proposed legislation provides some guidance in assessing the "reasonableness" of amounts paid relative to the individual's age, labour and capital contributions. Individuals between the ages of 18 to 24 must be actively engaged on a regular, continuous and substantial basis in the activities of the business, and will only be entitled to receive a return on their investment equal to the prescribed rate under the Income Tax Act (currently at 1%). Individuals who are 25 or older must only be involved in the activities of the business, and assessing reasonableness of returns will be determined based on both the assets contributed to the business as well as risks assumed.

Multiplication of the Lifetime Capital Gains Exemption

A very common structure utilized by private corporations contains an operating company whereby the founder owns fixed value non-growth preferred shares, and a family trust owning common shares which typically increase in value over time. The beneficiaries of the family trust typically include the spouse and children.

Upon the sale of common shares, capital gains realized on the transac-

tion are allocated to the beneficiaries of the trust (including minor beneficiaries under the age of 18). This enables the individuals to shelter the first \$835,716 (2017 figure) of capital gains through the use of the LCGE, assuming the shares meet the criteria to qualify as Qualified Small Business Corporation ("QSBC") shares.

Under the proposals commencing in 2018, the ability to multiply the LCGE will be significantly curtailed. Subject to transitional provisions, minor children under the age of 18 will no longer be eligible to claim the LCGE on a disposal of QSBC shares.

Moreover, any gains that accrue to an individual prior to attaining the age of 18 will no longer qualify for the LCGE.

Given that gains accruing after the child turns 18 may qualify for the LCGE, a valuation of the private company shares may be required at the time the child turns 18 in order to document the growth in value occurring after that time.

In addition, capital gains allocated by a family trust to a beneficiary will no longer be eligible for the LCGE com-



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mencing in 2018. Thereby eliminating the opportunity to access multiple unused LCGE's of family members. Note that certain exceptions will apply to capital gains allocated by Alter Ego Trusts, Spousal Trusts and certain Employee Share Ownership Trusts. Further, anti-avoidance provisions will be put in place to restrict the ability to claim the LCGE when a trust distributes common shares of the operating company to a beneficiary prior to the sale of the shares.

A trust can continue to allocate capital gains to a minor beneficiary realized prior to December 31, 2017 or 2018 through certain transitional relief provisions in order to utilize the LCGE. However, relief is only provided on a sale of shares in arm's length transactions.

Transitional provisions are also proposed to enable adult taxpayers to crystallize their LCGE on eligible property by electing to dispose their private company shares at an amount between cost and fair market value. The adjusted cost base of the shares would be increased by the elected amount with any resulting gain offset with the LCGE. This election may be filed at any time in 2018.

Overall, the new TOSI rules are quite complex and will come into effect on January 1, 2018. Opportunities to sprinkle income to adult family members will be considerably restricted. Existing corporate structures that allow for payment of dividends to adult family members should be reviewed with your tax advisor as the new proposed tax rules may result in higher overall tax liabilities to dividends paid to non-active family members. While opportunities to multiply the LCGE will be restricted, you may consider taking advantage of certain transitional provisions afforded to minor children and adults in 2018.

Holding a Passive Investment Portfolio inside a Private Corporation

Integration, a fundamental principle in the Canadian income tax system states that the taxes paid on corporate earnings plus the personal taxes paid on dividend distributions should equal

the personal taxes paid on that same income if earned directly by a self-employed individual.

In their proposal, Finance has advanced their position that the use of private corporations has facilitated the accumulation of personal savings for shareholders by deferring corporate taxes over an indefinite period of time. Effectively, an individual using his or her private corporation to carry on an active business has more capital to invest (or savings to accumulate) than an employee.

This position results from the fact that corporate earnings taxed at the small business rate (15% in Ontario) is considerably lower than the highest marginal personal tax rate that approximates 50%. Some argue that this tax deferral is necessary as it compensates the incorporated individual for the financial and business risks

assumed, and allows them to accumulate funds that can be reinvested into the business or held as a rainy day fund for economic downturns.

Finance's consultation paper discusses several alternative approaches to handle the issue noted above; namely the Apportionment Method, the Elective Method, and an election for Corporations Focused on Passive Investments.

The Apportionment Method requires the corporation's taxable income be tracked in three separate pools: the Small Business Rate ("SBD") Pool (15% in Ontario); the General Rate Pool (26.5% in Ontario); and the Shareholder Contribution Pool which tracks investment contributions made by the shareholders.

The passive investment income earned in the current year would be allocated to each of these pools. A corporation would then designate which pool the dividends were paid from.

Dividends from the SBD pool would be taxed personally as non-eligible dividends (approximately 45% in Ontario), dividends paid by out of the General Rate Pool would be personally taxed as eligible dividends (approximately 40% in Ontario),

A trust can continue to allocate capital gains to a minor beneficiary realized ... through certain transitional relief provisions



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and distributions paid by out of the Shareholder Contribution Pool would be returned to the shareholder tax free.

The Elective Method provides two treatment options, both of which eliminate tracking taxable income by separate pools.

The Default Treatment proposes to treat all dividends paid as non-eligible dividends. Under the Elective Treatment, a private corporation can elect to tax all active business income at the general corporate rate of 26.5%, resulting in dividends being paid to individuals taxed as eligible dividends. Both the Default and Elective Treatments eliminate the payment of tax-free dividends through the Capital Dividend Account and the concept of refundable taxes at the corporate level.

Under both the Apportionment Method and Elective Method, a further election for private corporations that focus on passive investments is possible. The corporation could file an additional election to tax income under the current refundable tax system which attracts a tax that approximates the highest marginal personal tax rate. Additional refundable taxes may also apply to inter corporate dividends received. It is unclear whether the tax free portion of capital gains could be paid out to shareholders on a tax free basis under this new system.

According to the Department of Finance the new rules on passive investments will only apply on a go-forward basis and are intended to have limited impact on existing passive investments accumulated by private corporations to-date.

Conversion of Dividends paid by a Private Corporation into Capital Gains

Finance is concerned that taxpayers are triggering capital gains to distribute after-tax earnings from private corporations that would otherwise have been taxed as dividends at much higher dividend personal tax rates (i.e. 26.7% for capital gains vs. 45.3% for non-eligible dividends in Ontario). In other words, taxpayers were undertaking transactions to enable the distribution of corporate surplus at a much lower capital gains tax rate whereby one spouse sell shares to the other spouse for a promissory note

and triggering a capital gain on the transfer. The purchasing spouse would transfer the newly-acquired shares to another private corporation and extract corporate funds tax free in order to repay the promissory note.

Finance proposes to expand the existing anti-avoidance provisions found in the Income Tax Act to apply to non-arm's length sale of shares to curtail these type of transactions. However, if enacted in their current form, the proposed changes

These are significant changes that will surely affect many owners of private corporations.

will inherently increase the tax payable on certain post-mortem planning strategies. These strategies have historically enabled the use of non-arm's length transactions by Estates to mitigate double taxation issues that arise on the death of a shareholder. This could have a significant impact on the overall tax burden for existing estate plans drafted under the rules of the previous regime.

Recommendations for Canadian Businesses

These are significant changes that will surely affect many owners of private corporations. We will be following the progress of this consultation closely, including continuing to assess the impact on tax planning for these owners. In the meantime, your tax adviser can help you assess the impact of any potential changes to you and your family.

Carlo Ciaramitaro, CPA, CA is the Partner-In-Charge of the KPMG in Waterloo office's Canadian tax practice. He provides privately-held companies advice with respect to Canadian tax challenges, including compensation planning, tax efficient structures, and acquisitions and divestitures. Carlo is the former National Practice Leader of KPMG's R&D Incentives Practice.

Jeff Howald, CPA, CA is a Partner in the Canadian tax practice and based in the KPMG Waterloo office. He brings almost 15 years of corporate and personal tax experience in public accounting, advising owner manager clients on tax compliance and advisory matters to support the growth of their business.

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A TIME OF OPPORTUNITY FOR SME OWNERS

BY CARSON O'NEILL

Small to Medium Enterprises (SME's) play a major role in the Canadian economy generating more than 90% of new private sector jobs in the last 10 years. With the average SME owner now approaching 60, over the next few years, many owners will be looking to sell their business to comfortably retire.

This unprecedented change in ownership will bring opportunities for both buyers and sellers. Buyers who can acquire a company which allows them to leverage their current infrastructure will benefit from post purchase synergies such as better utilization of their manufacturing facility or sales force. The key is to be selective in screening acquisition targets to find a good fit.

Sellers who are looking to maximize the value of their business should focus on building transferable value in most cases deter-

mined by EBITDA. But it also helps to have insulation in the business in the form of strong intellectual property and exclusive rights or capabilities.

Many buyers and sellers are looking for a 'quick deal'. The acquisition/divestiture process takes time, 6 months or longer including due diligence and many of the buyers will make their offer conditional on the owner remaining involved for a predetermined time frame post purchase. All of which underscores the need for proactively planning on both sides.

Carson O'Neill is Founder & Principal of Rincroft Inc. a Waterloo based firm which facilitates the divestiture of medium sized businesses.

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Panelists



Patrick Westaway
BA (Hons.), JD
Sorbara Law



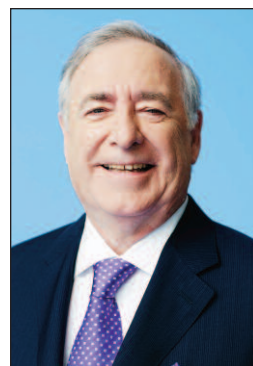
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REENERGIZING THE UNITED WAY

Turning things around at United Way

BY PAUL KNOWLES

Joan Fisk comes to her new role acknowledging that she has become the community face of a brand that she describes as “tarnished,” “out of date” and “hidden.” But she also brings an obvious conviction that she lead the charge to change all that. Fisk was named CEO of the newly amalgamated United Way Waterloo Region Communities on July 13. The organization is a marriage of the previous Kitchener-Waterloo and Cambridge-North Dumfries United Ways.

Fisk admits, right up front, that she has taken on “a challenge”. She came on board in the immediate wake of an announcement that 2017 grants by the local United Way had been cut by 13%, a decrease of about \$500,000 and affecting up to 90 community programs. She says that she knows it will not be easy, but she is looking well beyond the failed 2017 target – \$7 million – to make a bold prediction for the years 2019. “My goal for 2019 is \$10 million,” she told Exchange. “It’s a big stretch, but I believe we should be able to do that.”

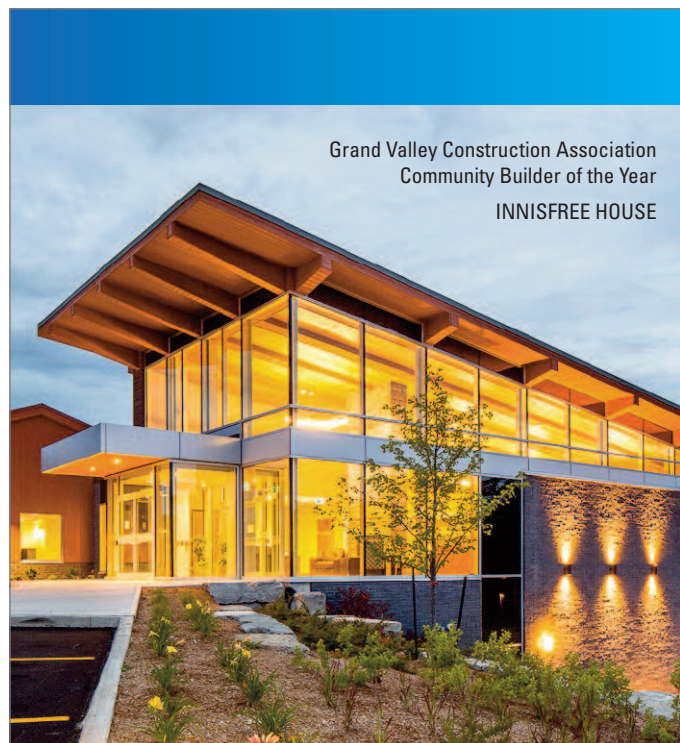
And she has already begun taking her vision to the region’s business leaders. Fisk believes that its’ time for a change – in the approach of the United Way, and in the response from the



community.

Fisk comes to her new job after a six-year term as full-time Chair of the Waterloo Wellington Local Health Integration Network (LHIN). She has also been President of the Greater KW Chamber of Commerce.

A release from United Way quotes Co-Chair Frank Voss: “Joan is a long-time resident of Cambridge, and has strong relationships across the business, education and community sectors. Her recent term with the LHIN demonstrated her ability to work collaboratively with a diverse group of agencies while building stronger health services. She’s the charismatic leader we need to move ahead on bringing lasting impacts to the areas on which we focus; youth, poverty, and community.”



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A nation-wide search brought the Board right back home. Fisk had just completed her six-year, fixed term with the LHIN; she says her experience with the health organization has provided a very solid background for her new role with United Way. "I loved that role... and again, it was a challenging situation. We really needed people and agencies to work together."

She says that her LHIN responsibilities taught her, above all, about "the most vulnerable population that needs the most health care," and she is convinced that meeting the needs of vulnerable people is exactly the mandate of the United Way. "The United Way is a good fit for me, because we serve the most vulnerable part of the population."

Fisk says that her new organization has to adapt to new realities – and that the communities of Waterloo Region have to recognize that their responsibilities to their neighbours has not, in fact, changed. What has changed is the fund-raising model. United Way funds programs in every part of the region, programs delivered by community partners.

But funding has been harder to come by, as evidenced by

"The United Way is a good fit for me, because we serve the most vulnerable part of the population."

the 2017 short-fall. Fisk believes that her organization has to change its approach. Once upon a time, much of the United Way funding came from fundraising programs carried out in and by the largest companies in the region. Employees were canvassed, and often, the employer offered matching funds.

But some of the one-time leaders in the United Way campaign are no longer in the community. As well, many local companies have been acquired by multi-national corporations, which often abandon United Way programs.

Fisk obviously believes these companies have made the wrong move. While multi-nationals may not have a commitment to the local community, she says, "their employees do."

Fisk also agrees that many of the typical start-up success stories in the Region are driven by young, inward-focused leaders whose attention and energy is on succeeding in tough markets, and not on philanthropy. But in Fisk's eyes, this has to change, and she and her team are the people to initiate that change. Less than a month into the job, she talks about her conversations with community and business leaders; she calls it "trying to get my tentacles out." She drops big names freely in a clear effort to re-establish credibility for her agency. She has asked people to get on board – people including both university presidents, Chief of Police Bryan Larkin, Regional Chair Ken Seiling, business leaders from across the Region, and key people in the not-for-profit sector – and they are responding.

She believes that her experience in community-facing jobs, including the Chamber, was a major factor in her hiring. "One of the reasons they didn't hire a social worker or an academic is, they were looking for somebody with a broad profile."

She doesn't feel like she has much time to make the difference that is needed. While she will not project fundraising figures for the immediate future, pointing ahead instead to 2019, she does talk about "the challenges that are out there today," specifically citing "the opioid crisis".

And making a difference requires money. "United Way can-

not serve well if it doesn't have the capacity to serve." That service, she says, means "working beside our agencies." Fisk notes that there is a myth that donations to United Way all go to the general fund; in fact, she says, donors can certainly give targeted donations, given to specific causes and agencies.

She applauds the bold move to amalgamate the two United Way organizations – and now, the two boards, into one – and she sees this as a real opportunity for a fresh start. "The integration of the seven communities is really the beginning," she says. She mourns the necessary step, prior to her arrival, of reducing grants to agencies. "The United Way forced to cut funding – that's devastating," she says. In response to the crises of low funds and low profile, she takes on her new role with what she describes as "a mandate to reenergize our community."

She says the United Way vision cannot focus on "giving a grant here and a grant here," although that may be the historic perception. The agency's focus has to be on fostering cooperation and collaboration to serve the needs of the most vulnerable in the community. "I really want to build the capacity of this integrated model."

The agency is currently operating in two locations – their homes when they were two separate entities – but Fisk is hoping to bring the team together at one location. The United Way team, totalling 22, is "pretty lean," she says.

Fisk knows that, however hard she works at raising the profile of United Water Waterloo Region Communities, it is unlikely that it will ever be "sexy". That's because United Way's job is to serve "the very bottom level," the most vulnerable people who need the most help. "United Way is that hand up... through the generosity of our community." **X**

LOOKING AHEAD TO GTAN 2.0

Local Angel Network focuses on education, recruitment

BY EXCHANGE MAGAZINE

After almost a decade since it was founded, the Gold Triangle Angel Network is looking to move "to the next level". That's the word from founder and president Rob Douglas, who says, "We've done really well in eight years, we have nothing to regret. But we can see we're coming up towards a wall. It's a long way away yet... we're smart enough that we'll get better."

GTAN was founded in 2009, with the goal of bringing angel investors together with early-stage companies from the Kitchener-Waterloo, Cambridge, Guelph and Stratford area.

And it has done so. Since its inception, GTAN angels have invested \$35 million (matching funds have brought that to \$70 million) in 70 different start-ups. Douglas says that the large majority of those are thriving; a few, like Kik and Clearpath Robotics, are "boomers".

GTAN's mandate has expanded since it began. Today, in addition to its fundamental function of introducing investors to entrepreneurs, the organization is involved in education.



GTAN's Rob Douglas

Says Douglas, "Part of GTAN's DNA is to provide education which will raise the bar for Angel Investors, so best practices become part of what we do and what we strive for. These courses support that effort.

"We do courses that range anywhere from what we call Angel 101, which is the opportunity for a new angel investor to learn the ropes about how to do angel investing – how to find companies, how to do due diligence and so on. Then we get into ones that are more specialized. We may do a complete course on due diligence... for somebody who is already in our fold, and they may need some more skills and knowledge. Another course on how to prepare term sheets, another course on exits.

"We do as many courses as we can on an ongoing basis in order to raise the standard of knowledge and capability of angel investors."

"There needs to be somebody who will come along some day and say, 'We'll take this to the next level'. This thing needs to evolve."

Douglas says that they have learned that the winning formula for these courses involves panel discussions, as experts from a variety of perspectives share their knowledge with the potential investors. "Panelists share all their personal experiences – they are entrepreneurs, lawyers, accountants, investors. The format is just perfect. It's all engagement, interaction between the audience and the panel."

Those programs are important, but Douglas says that the GTAN board is looking beyond such successful endeavours. He dreams big: "My dream is that GTAN 2.0 will have the earmarks of Communitech. There needs to be somebody who will come along some day and say, 'We'll take this to the next level'. This thing needs to evolve. We talk about this at the board level... we will be engaging more of our community partners."

He adds, with surprising candor, "We're going to invite more people in, with more ideas. Make this less of an elite club, and more of a community movement."

Douglas admits that the original angels have, by and large, invested their resources in the 70 companies already on board, so new members – with new money – are essential if GTAN is to grow.

"We're carefully trying to define who our next generation of members will be. It gets harder and harder to recruit members. We're trying to assess who our members of the future should be. Are they super-wealthy guys? Are they average guys so we'll have hundreds of them instead of 100? We don't know."

But they will figure it out, of this Douglas is sure. "Then we have to design a plan to reach out into the market place and bring these people out of the shadows... We're trying to make sure that there are people out there who will observe that, if you want to support what's going on in this community and see that more local companies become globally competitive, this is a good vehicle. This is a good place to start." **X**

THE ALTERNATIVE BLOCKCHAIN

Two area experts explain why we need blockchain

BY JON ROHR

They are two different worlds – blockchain and machine learning. Completely different, says Gaston Gonnet, professor in Informatik at ETH Zurich in Zurich, Switzerland.

"Blockchain is, in very simple terms, a way of getting a record of something and somehow agreeing that that is for real, that is indisputable, and that a system of independent people all agree that that block, is 'it'."

Gonnet is Chief Scientist at two Canadian startups – CeeqIT and Porfiau, located in Waterloo. In 1980 he co-founded the Symbolic Computation Group at the University of Waterloo, and in 1984 he co-founded the New Oxford English Dictionary project at UW, which culminated in another successful commercial venture – OpenText Corporation, now Canada's largest software company. Gonnet was Chairman of the board of Open Text until 1994. And in 1988, he co-founded Waterloo Maple Inc. later to become MapleSoft, another commercially successful company originating here, and whose head office is located in Waterloo.

His explanation of blockchain seems simple, but it's much harder to bring to reality, since one has to "make sure that everybody is in agreement," and that's never been a simple matter. To accomplish that, adds Gonnet, "there is a way of doing this, by running an algorithm to find a peculiar number, which doesn't have any significance other than it's difficult to get". And when you get such a number, because you spend a lot of computing power to get it, you are paid a bitcoin, and "that's the way you reward the person that guarantees a blockchain".

Tim Snider, Lead Developer at Porfiau, says "that's how the blockchain initiates. The other thing the blockchain does is keep track of all the transactions. Because of this uniqueness, you're guaranteed that those transactions are



Tim Snider, left, and Gaston Gonnet - explaining "blockchain"

done, recorded forever. Sometimes it's like a serial number on a bill, except that it's much, much, much harder to compute, therefore nobody can just copy it, and say 'this is another dollar bill'. It takes a huge amount of computing power, to create that number, but once that number is created, it has everybody's fingerprint that has ever touched this bill, now in the blockchain."

Snider, whose initial work was as a primary developer, realized the first successful indexing of the Internet. He says that you can trace the transactions that dollar bill went through, and "you can also prove that that dollar, is that dollar".

"That's why we need the blockchain" says Gonnet, "we need something that records, and that everybody will agree."

Snider explains that where machine learning might be used, is to analyze the types of payments, or the way payments are flowing, so machine learning could look at blockchain, and be used to track down money laundering, or other unethical usages, by analyzing certain patterns of payment. "The actual blockchain algorithm itself, really is to keep track of the sequence".

When looking at money transaction, right now you have a bank account to keep track of your money. The bank keeps track of how much is in the account and how much money is out, "but," says Snider, "nobody is keeping track of where that money goes. The blockchain is not about, 'I know what you spent your money on'. It's that I know that you spent some money, that this other person has now received the money. And that way, it's not just the bank internally, that agrees to have the money flowed around, it's that, everybody agrees, and that's why it has to go there - I mean it just has to. We're just so much more in a global system where everybody has to agree that this is what happen."

Applications are just now expanding beyond the initial uses of blockchain. Alternative blockchains, also known as altchains, are based on the same concept and code. Altchains target performance, anonymity, storage and applications such as smart contracts or computer protocols

intended to facilitate, verify, or enforce the negotiation or performance of a contract. In this form, blockchain technology is extending to activities including decentralized applications working in collaborative organizations that intend to eliminate a middleman, thusly increasing the ROI or increasing the performance of the business or organization.

Gonnet says blockchain basically is a way "of globally agreeing on something. A mechanism on which you can agree, with a distributed number of parties, that this is the truth, even if there are enemies, even if there are people, trying to screw up".

Cost of a Blockchain

There is a cost to produce blockchains. "you have to give a reward," says Gonnet. The whole system is initially geared toward digital currency, "so when we create the blockchains, somebody has to record the history of the coins, of the electronic coins, where they go, who produced it first, and where did it go".

The algorithms for blockchain are geared so that, in the whole world, a blockchain can only be produced every ten minutes. "It's approximately every ten minutes, it's quite accurate and it's correct," states Gonnet. "The more people that work, the more people that will produce it, the algorithm changes automatically, and makes it more difficult to produce... So every ten minutes we have a new blockchain in the world. And there are by now, thousands of people producing blockchains, or trying to produce blockchains."

"Blockchain keeps track of all the transactions. Because of this uniqueness, you're guaranteed that those transactions are done, recorded forever." - Tim Snider

Electrical connection

Snider states that there is a valid argument that the value of a Bitcoin is equivalent to cost of electricity. "Because it costs electricity to run your computer and by producing one of these numbers, it allows you to be allocated a Bitcoin."

Gonnet believes that when you produce electricity from fossil fuels, there is a price paid, when you produce it by atomic means, uranium, there is also a cost. It's a huge investment, but in so many years that way of producing electricity is going to be obsolete.

"But what about when you produce electricity with wind? The turbine cost money, initially, but when it's windy, it produces a lot of electricity." His reasoning stems from the knowledge that consumers are used to a price paid for their electricity. "They know that if they run their computer with electricity, it going to cost me so much. In essence, there is no real link to the price of electricity, except the offering that demand for the electricity creates. And that fluctuating demand sets the price." Gonnet believes "there is no real link that says electricity should cost this much, in general, except with Bitcoin, I think, it's sort of a theory that I have. It's the first time that money and electricity get linked together, by how much it takes to compute."

It would be a monumental task, to get all the managers of electrical grids in the world to agree to his thinking, but if anyone in the world could reason and accomplish it, it would be Gonnet.

LIGHT AT THE END OF THE TUNNEL? MIXED RESULTS FROM LRT PROJECTS

"Smart money finding its way into Cambridge"

BY PAUL KNOWLES

It's a mixed bag of results. Asked about the current state of the ION Light Rail Transit project, regional councillor Tom Galloway – the Region of Waterloo's point person on the LRT – uses words ranging from "frustration" to "confident", from "challenges" to "very satisfied." It just depends on what aspect of the project you're talking about.

The key frustration, according to Galloway, lies with the delays in delivery and outfitting of the actual LRT vehicles. "There is frustration, certainly, with the Bombardier situation," he told Exchange in an exclusive interview.

But he sees a light at the end of the tunnel – and perhaps, it actually is a train. "We're relatively confident that Bombardier has been able to solve their production problems. They have two more completed for us [one has been delivered] and number seven of 14 vehicles is underway."

Galloway says "they should be able to meet the new schedule": delivery of all 14 vehicles by the end of this year.

*"Production of the vehicles is one thing,
but making them totally functional is
now more the issue."*

So the schedule for launching the ION? It's "Spring 2018, still," he says. "We do think that's doable." Unless...

Galloway admits that there is a potential hold-up. Once the vehicles are built, they then have to be made totally functional on the Waterloo Region system. That's a major job it itself – equipping and programming the vehicles, the switches, and all the other equipment to operate on Waterloo's unique system. "Production of the vehicles is one thing," says Galloway, "but making them totally functional is now more the issue."

The Waterloo vehicles are the first of their kind that Bombardier has built for the Canadian market. The initial vehicle delivered to the Region is not "functional" – it was delivered so it could at least be used to test the parameters of the storage yard, but is not yet functional to go on the tracks. "We don't have a vehicle we can send out on the track to test... we don't have a vehicle that's functional." From now on, the other 13 vehicles will be made functional at the Kingston plant, says Galloway, instead of bringing them here for these final stages.

The councillor says it is to responsibility of Grandling, the consortium chosen by the Region to build and operate the LRT, to ensure that complete functionality along the entire 19-kilometer corridor, and "that has been a bit of an



issue, from an engineering point of view... They're still facing some challenges. It will get done, but... it's time [that is the factor]." Galloway believes that the kinks are being worked out. "As soon as the first vehicle is functional... it's like dominos after that." But he admits, "That's the bottleneck, right now."

Galloway says that the construction phase is nearing completion, although there are still construction sites around the region, including Courtland Avenue, and final details like landscaping will not be completed for some months.

Although some businesses have clearly disappeared or moved during the construction process, Galloway rejects the idea that the project has forced many people out of business. "We knew there was going to be an impact," he says. "Any road project has its impacts, and this was certainly larger and more significant, but I don't think this was any more than we thought.... There are very few closures."

Galloway has long contended that while the LRT would seem to be a transportation project, it is at its heart a planning project – a way to change the core of the cities, and to change the balance of where people live, luring them away from "greenfield" developments to the revitalized city centres. In this area, he says, "I'm very satisfied," and he points to the fact that the project has engendered a whopping \$2.1 billion in investment along the LRT route, largely for new residential projects. "And I know there's a lot more in the hopper that hasn't been announced."

There is fall-out from these changes, including increased rents in increasingly desirable retail spaces.

Municipal elections are a little more than a year away, in October, 2018. Does Galloway think that the disruption caused by the LRT project might also disrupt some political careers? He says no. "Who knew, when we placed the order, that three years later you wouldn't have the vehicles? People seem to be fairly understanding of that." Besides, he stands behind his prediction that the LRT will be fully operational next spring, well before the municipal elections.

Galloway notes that 2018 is not the end of the story; there is still the opportunity to extend the LRT to Cambridge. In fact, he told Exchange, "the smart money is finding its way into Cambridge." No final decisions have been made, and no exact route chosen, but he says "the terminus of that route will be at the new pedestrian bridge, basically at Southworks," the Cambridge district now rebranded and developed by HIP Developments as the Gaslight District. **X**



DAN CHAPMAN, FORMERLY THE DEPUTY CAO of the city of Kitchener, has been named the new CAO for the city. Chapman has been with the city for 12 years, and was chosen as CAO after an extensive search and rigorous competition that attracted high-quality external candidates from across the country.

"Dan brings a wealth of knowledge and experience with him to the role of CAO," said Mayor Berry Vrbancovic. "In his time at the city, he has proven himself to be a talented and thoughtful leader that sets and achieves strategic results. He is trusted by staff and council alike. I am confident that Kitchener will continue to advance its reputation

for excellence in public administration and a high quality of life under his leadership."


Chapman joined the City of Kitchener in 2005 as director of financial planning. He has progressively taken on greater responsibilities, first as general manager of financial services in 2008, and then assuming his most recent position of deputy CAO in 2010.

KITCHENER COUNCIL HAS APPROVED THE SALE of 48 Ontario Street North, known as the Legion Building, to Voisin Capital. "Voisin Capital is thrilled to have the opportunity to redevelop this iconic piece of our cultural heritage. We look for projects with meaningful histories that are vacant or underutilized, where we can restore a building and its connection to the community. 48 Ontario, with its long and storied history, opportunity for renewal and intensification, and ideal position in the core of Kitchener is the embodiment of our ideal project," said Frank Voisin, President of Voisin Capital.

THE CAMBRIDGE MEMORIAL HOSPITAL FOUNDATION has announced Lisa Short as its new Executive Director. She comes to the CMHF from the Cambridge & North Dumfries Community Foundation, where she was Executive Director. Under her leadership, assets were increased by \$3.8M and their granting rate was increased by 100% within three years. She is no stranger to health care, having also worked at St. Mary's General Hospital Foundation as a Development Officer.

NEW TECHNOLOGY BEING DEVELOPED by researchers at the University of Waterloo and the Sunnybrook Research Institute is using artificial intelligence (AI) to help detect melanoma skin cancer earlier. The technology employs machine-learning software to analyze images of skin lesions and provide doctors with objective data on telltale biomarkers of melanoma, which is deadly if detected too late, but highly treatable if caught early.

"This could be a very powerful tool for skin cancer clinical decision support," said Alexander Wong, a professor of systems design engineering at Waterloo. "The more interpretable information there is, the better the



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decisions are."

"There can be a huge lag time before doctors even figure out what is going on with the patient," said Wong who is also the Canada Research Chair in Medical Imaging Systems. "Our goal is to shorten that process." Wong developed the technology in collaboration with Daniel Cho, a former PhD student at Waterloo, David Clausi, a professor of systems design engineering professor at Waterloo, and Farzad Khalvati, an adjunct professor at Waterloo and scientist at Sunnybrook.

ALEX MUSTAKAS, ARTISTIC DIRECTOR of Drayton Entertainment, has announced that the Dunfield Theatre Cambridge will be renamed the Hamilton Family Theatre in recognition of the sustained support of local philanthropists John & Terry Hamilton. The new name will take effect for the 2018 Season.

Shiplake Properties assumed the original naming rights for the theatre in 2013, as a brand extension of the Dunfield Retirement Residence. The Toronto-based company sold the building to Revera last summer, and it was subsequently renamed Granite Landing. The naming rights did not transfer with the new ownership.

The Hamilton Family initially contributed \$500,000 in 2013 during the theatre's inaugural season, in exchange for naming the auditorium. They have since pledged another \$500,000 to assume the exclusive 20-year venue naming rights, valued at \$1 million.



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Since opening in 2013, Cambridge's cultural facility routinely attracts an annual audience exceeding 100,000 for live theatre programming alongside community events and other artistic exhibitions.

KITCHENER AND WATERLOO COMMUNITY FOUNDATION has named Elizabeth Heald as the organization's new President & Chief Executive Officer. A seasoned senior executive in both the corporate world and the not-for-profit sector, Heald has spent the last 25-plus years in diverse leadership roles with Scotiabank. Her most recent position with the Bank was as Director & Head of Scotia Private Client Group where she stewarded high net worth client fund holders in the Kitchener and Waterloo region, managing a multi-million dollar growth plan. In May 2014, she co-founded and launched a national charity, Kawasaki Disease Canada, leading the organization, serving on the Board, and fulfilling the role of passionate spokesperson.

UNIVERSITY OF GUELPH PROJECTS, ranging from converting agri-food waste into energy to improving health of young children, have received more than \$630,000 in federal funds. Five U of G projects will receive funding from the Canada Foundation for Innovation.

ST. PAUL'S UNIVERSITY COLLEGE at the University of Waterloo has named J.P. Gladu its next chancellor. Gladu is the president and CEO of the Canadian Council for Aboriginal Business, one of Cana-

da's premier organizations for Indigenous entrepreneurs. Gladu is Anishinaabe from Thunder Bay, and has more than two decades of experience in the natural resource sector. His career path includes work with Indigenous communities and organizations, environmental non-government organizations, industry, and governments from across Canada. He currently serves on the boards of Ontario Power Generation and Noront Resources and is a member of the public advisory panel of the Canadian Electricity Association.

OPENTEXT HAS ACQUIRED GUIDANCE SOFTWARE, the makers of EnCase, the gold standard in forensic security, that includes digital discovery solutions and endpoint information security. The acquisition of Guidance is expected to complement the OpenText Discovery portfolio of software and services that provide search, extraction, classification, review and analysis of information, and to broaden OpenText Information Security capabilities through the addition of digital investigation, forensic security, and endpoint solutions.

A BIOTECHNOLOGY COMPANY THAT CREATED a spray that helps farmers and growers protect crops from frost damage was among the big winners at the Velocity Fund Finals held at the University of Waterloo. Velocity is a comprehensive entrepreneurship program at Waterloo. Innovative Protein Technologies created Frost Armour, a spray-on-foam, after witnessing the effects of a devastating spring frost in 2012 that knocked out about 80 per cent of Ontario's apple crop. Farmers would remove it after several days with another solution that converts it into a fertilizer. Three other companies were also grand-prize winners of \$25,000 and space at Velocity. Altius Analytics Lab is a health-tech startup that helps occupational groups better manage musculoskeletal injuries. EPOCH is a skills and services marketplace that connects refugees and community members, using time as a means of exchange. VivaSpire is making lightweight wearable machines that purify oxygen from the air without the need for high pressure. The prize of \$10,000 for best hardware or science

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company went to a team that was not among the grand-prize winners, Vena Medical is making navigating through arteries easier by providing physicians with a camera that sees through blood.

PNI CANADA ACQUIRECO CORP., an affiliate of Francisco Partners and Procera Networks, Inc., has acquired Sandvine Corporation, for cash consideration of CAD\$4.40 per share. The price per share implies an aggregate fully-diluted equity value for Sandvine of approximately CAD \$562 million. The combined company will be led by Procera's Chief Executive Officer, Lyndon Cantor, and Procera's Chief Financial Officer, Richard Deggs, and retain the Sandvine name. Dave Caputo, Sandvine's President and Chief Executive Officer, joins the Board of Directors of the combined company as Non-Executive Chairman. **X**

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George Croft, left, and Mark Bingeman: partnering at KoolHaus

CHANGES COMING TO OKTOBERFEST

External and internal issues bring some surprises

BY PAUL KNOWLES

Kitchener-Waterloo Oktoberfest is going to look and act a little differently this year – and most of the changes could not have been anticipated a few months ago.

Change has come because of the resignation of the organization's executive director; because of the impact of Light Rail Transit on the traditional parade route; and because at least one new venue is opening. But perhaps the biggest change hitting the venerable festival is simply about the beer.

K-W Oktoberfest has one significant beer sponsor – Molson – and therefore, it's Molson products that are served at the Festhalls. You can also get Creemore – which is owned by Molsons.

And that monopoly is partly the inspiration for a surprising change in Oktoberfest, as founding member Bingemans has decided not to have an accredited Festhall. Oh, there will still be Oktoberfesting at Bingemans' KoolHaus, but it will not be officially linked to the festival. Instead, in an independent operation, Bingemans will serve Waterloo Brewery products (including a specially crafted Festbeer), as well as two German beers – Paulaner and Hacker-Pschorr – imported directly from Munich.

There will also be two other locally produced craft beers, in addition to the Waterloo Brewery offerings. Bingemans has invited visitors to their website to vote for two favourites, among ten nominees.

Despite the changes, Oktoberfest's acting executive director Alfred Lowrick – who is also the immediate past president of Oktoberfest – says his commitment is "to keep the party going." Lowrick assumed the position, at this point temporary although he says he'll see what the future holds, after the sudden resignation of executive director Dave MacNeil, who left to take a new position at Festival and Events Ontario.

Concerning MacNeil's departure, Lowrick told Exchange, "I saw the writing on the wall for a while. The timing was not something we thought a lot of."

MacNeil has guided Oktoberfest for more than four years, and as a board member before that, he was involved in the festival for "well over 20 years," he says.

Commenting on his departure, he said, "It's always a tough decision to leave. The timing was terrible, but the board was totally understanding of the situation." MacNeil added that, since Festivals and Events Ontario is headquartered in Kitchener-Waterloo, he remains "committed to making the 2017 festival successful."

He added, "It's time for someone new to come in."

Asked about the Bingemans decision, Lowrick initially said, "I cannot comment on that," but then added, "I'm sad to see them go. I'm hoping at time point in time Mark [Bingeman] may see the light and come back."

MacNeil went so far as to describe the Bingemans' decision as "a blip".

In an exclusive interview, Mark Bingeman told Exchange,

"It wasn't a decision we took lightly. We've been having ongoing discussions with Oktoberfest Inc. for the past several years... We have a different view that didn't match where Oktoberfest was going."

He says the goal is "to modernize the Festhall," a need driven by "changing dynamics and the tastes of consumers." Consumers, he says, don't understand "not having German beer at a German festival... and with the amount of craft beer [being made locally], not having the ability to have a craft component."

He adds, though, "It's not about beer, it's about choice." Koolhaus will also serve wine and German sangria.

There is a significant financial issue, as well. Bingeman says, "Every Festhall pays a fee, based on your size." The capacity at Koolhaus is 4,500 people; the Festhall will run Fridays and Saturdays during Oktoberfest, and may also be used in partnership with community organizations on other days.

Bingeman added, "Our decision wasn't primarily a financial one, but you have to make sure you're receiving a return on your investment."

It may not be directly related to the decision about one Festhall, but Lowrick pointed out that one of his priorities is to "make sure the Festival is financially balanced. We're reducing our costs, and eliminating some things [he cited the bicycle race as an example] that don't make sense."

It's of interest that Lowrick, MacNeil and Bingeman all talk about the need to modernize – but at this point, they don't agree on the directions that should take. Bingeman is changing the product offered at his Festhall; Lowrick is touting new features of the annual festival, including the move of several events into Lot 42, the new performance and event venue on Ardel Place in Kitchener. This will be the venue for the Gala, the "Blooming Affair" and the Women of the Year event. Lowrick says, "It's different from the venues of the past – a little bit more edgy."

The executive director also points to 40 cultural and family events that are part of Oktoberfest, and he presents the new parade route, using Weber, as a plus.

Lowrick insists that the fundamental nature of Oktoberfest must not change – "The Bavarian theme is part and parcel of what we do."

MacNeil says, "The whole event space is changing. Everybody has to adopt to what the new norm is." And he admitted that other festhalls are facing challenges: "Some service clubs and not for profits running festhalls couldn't keep with the new legislation" and the mandated cost of increased security.

One innovation that Mark Bingeman is enjoying is the vote for favourite craft beers to be featured at Koolhaus. The response, he says, has been "Unbelievable. We thought it would be popular, a fun thing, but the amount of people voting is really incredible."

At the time of the interview, he said, the voting was "a

"It wasn't a decision we took lightly. We've been having ongoing discussions with Oktoberfest Inc. for the past several years... We have a different view that didn't match where Oktoberfest was going." – Mark Bingeman



horse race", and the plan was to begin to publish the totals, thus encouraging more voting right up to close of balloting on September 19.

Bingeman is very pleased with the involvement of Waterloo Brewing, the local business that was the first craft brewer in Ontario, and probably, according to President and CEO George Croft, the first in the country. Bingeman says, "Waterloo Brewery stepped up to the plate."

The brewery's unique Festbeer beer will be available not only at Koolhaus, but at other Bingeman outlets, and through 30 area LCBOs.

Croft told Exchange that Waterloo Brewery – founded in

1984 as The Brick – did have a role in Oktoberfest when he jointed the company in 2008, but "we really didn't have any representation

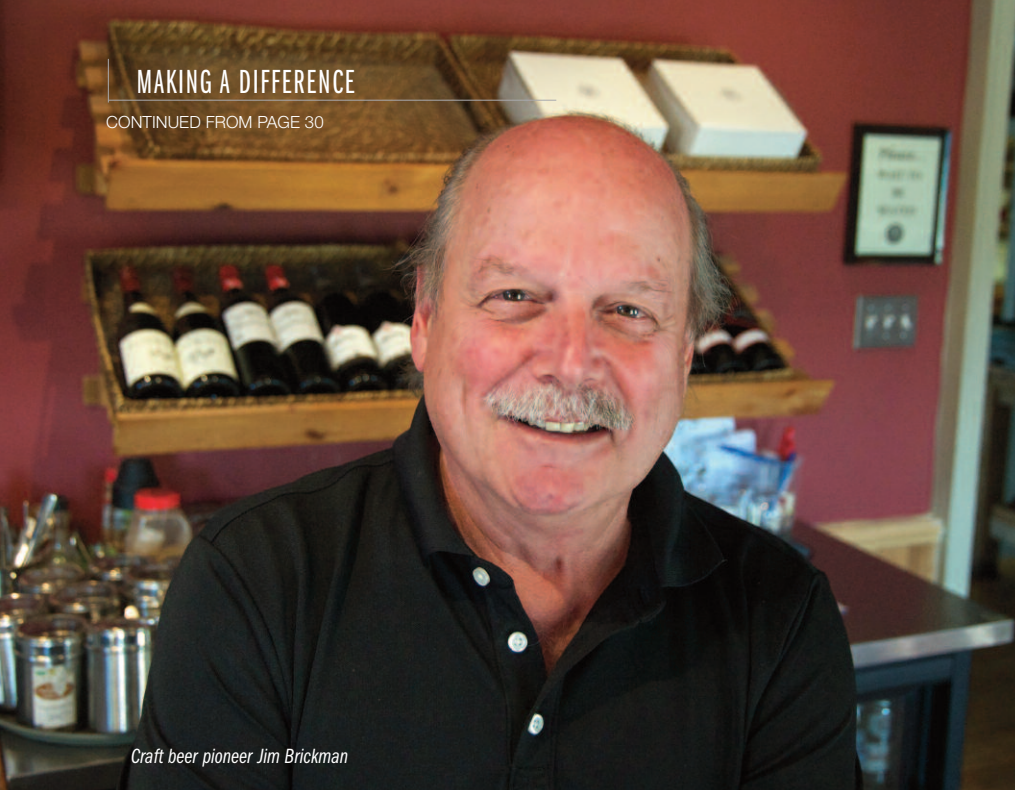
of our brands at any festhalls." He adds, "The company was in significant financial trouble," so the decision was made to withdraw from its limited involvement with the festival. A decision that even today, Brick founder Jim Brickman disagrees with, as he told Exchange.

However, Croft adds that "Oktoberfest is one of the premier beer festivals in Canada. We always had an appetite to get reinvolved with Oktoberfest. That desire was well-known." That didn't happen, because of "existing agreements in place," so he's thrilled his brewery is back on the playing field, partnering with its nearby neighbour, Bingemans, in a three-year commitment. "When Mark made the decision, we were really excited."

Both Bingeman and Croft say they believe the changes may have a long-term, positive impact on the future of Oktoberfest. Croft says, "This will be good for the Festival in general... I think competition makes you better."

Even though Bingemans will not have an accredited Festhall, there is no doubt that they will still be a major Oktoberfest player. Mark Bingeman told Exchange, "Oktoberfest will be around for a long period of time. It's in the fibre of the community. But there has to be change. That takes leadership, guts and effort."

X



Craft beer pioneer Jim Brickman

dramatically, production numbers have, probably by more than double.

Waterloo Brewery invested \$9.5 million in a new brew house and other facilities, just two years ago; in total, \$30 million has been spent on capital expenses over the last five years, and planning is underway for another addition.

So the future seems bright for Waterloo Brewery, and for the craft beer industry – if not for everyone currently involved in it.

Croft points to the statistics – “In the United States the craft beer business has significantly slowed in terms of growth.” The boom that once saw double-digit expansion has eased to “low single digits,” he says. “And typically, Canada follows the U.S.”

He is obviously a huge fan of the craft beer industry, saying that, “the explosion of the craft beer business in Canada has brought excitement to the category.”

But he cautions, “You will reach the point of saturation. I think we’re very close. There are going to be winners and there are going to be losers.” Croft says it will depend on “the quality of your product” and the bottom line financials.

He points out that getting properly started in the business requires a lot of front-end investment, and that some start-ups will find themselves over-extended financially.

And this is where there is a perfect meeting of the minds between George Croft and Jim Brickman. Brickman left Brick in an atmosphere of acrimony and litigation almost ten years ago, but his love for beer and the beer business has never waned. Today, he serves as a consultant – often unofficially – to craft brewers.

He told Exchange, “I’m always involved with something with beer. There are a lot of breweries out there eager to

have some advice. I try to help out where I can. But I’m an outsider now.”

While he clearly loves the craft beer business, Brickman is not wearing rose-coloured glasses. While there are positives, he also points to the significant threats.

On the upside, he’s delighted that the industry has grown so exponentially. “I remember going to a small brewers’ convention, and there were 12 of us. Now, it’s massive.”

And, on one hand, he enjoys the variety of tastes that the craft beer industry can offer: “Right now, anything’s game in the beer business, any flavor. There’s no rules... it’s great. It’s like being a chef. You can be really adventurous.”

But he pauses for only a moment, and then adds, “There are lots of

risks.... Now, it’s almost gone too far, with flavours, with craft beers. There are too many craft brewers, too many going into it for the wrong reason, too many that don’t know what they’re doing, too many that don’t understand quality control.”

Brickman says there are two points of view on this issue: “For the consumer, it’s fantastic. They can experiment and do all sorts of stuff. ”

But... “For a craft brewer trying to make a business, it’s so competitive.”

Brickman predicts that the fall-out will be almost immediate. He told Exchange, “There are 35 more craft breweries coming on board in Ontario by the time December rolls out. And there’s going to be 40 that will go belly-up. It’s over-crowded.” He unwittingly echoes Croft: “I think it’s kind of met its saturation point.”

Both men agree on the need for high quality, and for financial stability. Brickman explains that while

every brewing operation is unique, there is a point where the finances work – and he says many small craft brewers simply are not at that point.

Brickman says, “Everybody thinks it’s easy... but you have to make money at it. The wrong ones are home brewers who are now going commercial. They’re just trying to come up with the next invention, and they have no business sense at all. In a perfect partnership, one of the partners should be an accountant.”

He quantifies the level need for success, while again noting that this could change, to some extent, operation to operation: “The sweet spot is probably 5,000 hectolitres a year at a premium price. That’s about 60,000 cases.”

That’s a much, much smaller number than Waterloo Brewery is producing, and a lot less than Brickman’s busi-

“There are too many craft brewers, too many going into it for the wrong reason, too many that don’t know what they’re doing, too many that don’t understand quality control.” –

Jim Brickman

ness was doing at the time he left – Brick Brewery was producing about 180,000 hectolitres annually, he says.

However, Brickman believes that several local craft brewers are well under the break-even point; some are augmenting the business with food sales, some may have patient investors; and some may simply be struggling.

It's not rare to hear brewers – like wine-makers – complain about Ontario's marketing monopoly – everything has to be sold through the Beer Store or the LCBO.

Croft disagrees with the complaints – and he's a director on the board of the Beer Store, which he says gives craft brewers "a voice".

In fact, Croft says, "I think we're fortunate. We have just two accounts receivable, the LCBO and the Beer Store, and they both always pay!"

There's no doubt that this simplifies the financials for brewers.

Brickman doesn't completely agree. While he says that in his early days, post-1984, "the LCBO and the Beer Store were never thorns in my side," he cites the evolution of the Beer Store to illustrate what he sees as a problem. It was started as a co-op, with many breweries as members. But those breweries were bought up by larger entities, which in turn, he says, were purchased by multi-nationals.

So today, says Brickman, "It's owned by three. Those breweries are foreign-owned. So now, we have a monopoly that's run by foreigners."

However, Brickman notes that, "At the Beer Store, the consumer is buying direct from the manufacturer. In a grocery store, they want a mark-up."

Croft points out a change for the better at the LCBO, which will now carry product in a specific market. For example, Waterloo Brewery's "Festbeer", which is being produced for the Bingeman Koolhaus, will also be available for a limited time in 30 area LCBO outlets. That same local distribution possibility is available to local craft breweries, he says.

The future for individual, small craft breweries is unclear, according to both Croft and Brickman. Some will certainly disappear. Some will thrive, because, as Brickman notes, "It's really the young people who have driven craft sales."

Personally, Brickman is not ready to talk about his own future, although he's clearly considering some business opportunities.

As for Croft, business is booming at Waterloo Brewery – which produces the four beers marketed under the Waterloo name (Amber, Pilsner, IPA and the venerable Waterloo Dark), as well as "Radlers", ciders, and Laker beers.



Another expansion planned, says Croft.

"I think we're fortunate. We have just two accounts receivable, the LCBO and the Beer Store, and they both always pay!" – George Croft

And therein lies a story, told by Brickman. The brewery was co-packing Mike's Hard Lemonade, "and it was flying," says Brickman, until Smirnoff introduced Ice, which captured a chunk of Mike's business. Within a month, Mike's withdrew its business from Brick.

However, Brickman had previously purchased the Laker trademark from a company that was not planning to market Laker, so "We got it, really, really cheap."

So when Mike's pulled their business, says Brickman, "We're kind of blind-sided. I said, 'Well, we've got Laker.

Can you tell me the cheapest, lowest price we can discount it at?' Ironically, it worked out to \$24 [for a case of 24]. The margin was twice what we were getting for Mike's! I asked, 'Why did we not do this years ago?' So we went buck a beer – it flew off the shelves. We didn't even have to advertise.

"And the good news, it was a

good product."

Today, Laker still accounts for 35%-40% of Waterloo Brewery's business. Croft says, "Value is always important." So in the ever-changing world of beer, some things still might just stay the same.

And speaking of change, Exchange asked Croft is Waterloo Brewery will remain an independent brewery, or might it be a target for yet another take-over by a large international company.

He said that the company is "not for sale," but added that as CEO of a publically-traded company, if an "interesting offer" come forward, "I would have an obligation to take that to my board."

However, he stressed that his focus is on expansion of the brewery facility, consolidation of the operation into one facility and – in the very near term, supplying Bingeman's Koolhaus with the best new craft beer in town – Waterloo Brewery's Festbeer.

X

SATURATION POINT FOR CRAFT BEER

Craft brewing is a boom industry, but there will be fallout

BY PAUL KNOWLES

Waterloo Brewery CEO George Croft

Jim Brickman and George Croft may disagree about a lot of things. The two men were major players in the 2008 change that saw Brickman acrimoniously depart Brick Brewery, which he founded in 1984. He had brought Croft into the company earlier in 2008.

But they do agree about the future of the craft beer business, an industry in which they are both deeply involved. Both men suggest that the sudden growth of craft breweries has reached the saturation point, and that while the huge variety of craft beers and related products now available is great news for consumers, it is not necessarily in the best interests of the craft brewers, themselves.

There is no doubt that craft brewing has made an enormous difference in the economy and the consumption patterns of Waterloo Region – and the country as a whole. When Waterloo Brewery – then Brick Brewery – was founded in 1984, it was the first craft brewer in Ontario, and probably, says Croft (today President and CEO of the company) the first in Canada.

Today, there are perhaps 500 across the country, and at least a dozen in Waterloo Region and the immediate vicinity.

They have changed how people drink beer. They have expanded the number of varieties available, exponentially. And, in a dramatic move, craft beer is part of the reason one of Oktoberfest's largest Feshalls will not be officially affiliated with the annual festival this year, as Bingemans goes it alone.

Bingemans' Koolhaus will not be accredited with Okto-

berfest, and it will be serving beer from Waterloo Brewery and two other craft breweries, still to be chosen by a public ballot (see accompanying article).

All of this sounds like great news for the craft beer industry – and, say both Croft and Brickman, it is, for the breweries that have quality produces and a solid business plan.

But according to both of these experts, many newer craft breweries may struggle with the former, and definitely lack the latter. Change, they say is in the wind.

George Croft definitely knows a thing or two about craft beer. Waterloo Brewery – a publically traded company (BRB on the TSX), is one of the largest craft breweries in the country, producing 245,000 hectolitres (almost 3 million cases) of their own brands, annually. When their “co-pack-ing” operation is involved (brewing beer for other brands not their own), the total is 410,000 hectolitres (just over 5 million cases a year).

They're in an entirely different league than some of the local craft breweries, whose annual output might be measured in four figures.

Waterloo Brewery once had three operating facilities. Croft has reduced that to two, and will consolidate the operation into just one in the near future. “We're close to being just one,” with expansion planned at the current Bingemans Centre Drive location.

Waterloo Brewery employs 125 people (with another 20 added seasonally). That's not too many more than the company employed in 2008, when Croft joined what was then Brick Brewery, but while staff numbers have not increased

“You will reach the point of saturation. I think we're very close. There are going to be winners and there are going to be losers.” – George Croft



Celebrating 100 years in Waterloo Region

Through all the changes in personnel and moves to new locations, our core values have endured – to provide high quality service in response to complex business challenges for our clients. As KPMG celebrates our centennial in Waterloo Region, we reflect on the opportunities we have had to contribute to the success of this community as an organization and as individuals.

Thank you for being part of our story.

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