

It's business planning time!

“Business planning is a critical area. If you don't feel you can manage it all on your own, get help.”



Mark Zweig

EDITORIAL

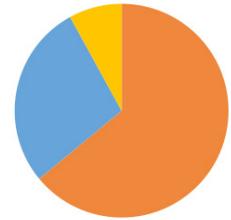
In addition to it being time to renew your Amazon Prime account so you can buy presents for people who don't actually need a thing, it is also business planning time! One of my favorite times of the year!

Not every AEC firm has a plan. Some people (claim) they are too busy to sharpen their axe. Others think you can't predict the future so why try? Others have had bad experiences such as word-smithing a mission for three days and still ending up with something as profound as “ABC Associates provides innovative, cost-effective solutions.” No matter what, though, the truth is **EVERY** firm needs a business plan. It guides daily decision-making, provides direction to the firm, and helps get everyone who works in the company on the same page as far as what you are trying to achieve.

Here are some things I would be thinking about related to your business planning for 2017:

- 1) **Get input from your current and desired clients.** You need to know what their plans are, what they like and don't like about you and other similar service providers, and much, much more. Doing a plan without consulting the people you are doing business with or want to do business with is insane. Think about it.
- 2) **Get input from all of your employees.** Some call them your “internal clients.” They have to be happy in order to properly serve your firm's clients. What tools do they need? What are the impediments to them doing a first class project every time? How can you help them be more successful? What frustrates them? Again – you need to know the answers to all of these questions and a lot more.

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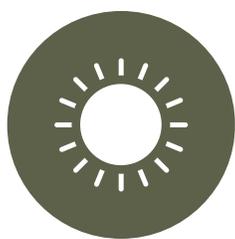
According to Zweig Group's 2016 Information Technology Survey, 64 percent of firms plan to **increase spending on IT** next year. Twenty-eight percent plan to **keep their spending the same**, and only 8 percent of firms expect to **decrease their IT spending**. Software upgrades and cloud computing were the two highest priorities for increased spending, whereas website/app development was most cited for decreased spending in 2017. (Special discount to TZL subscribers: Use code **SRVY35off** to order surveys at 35 percent off at zweiggroup.myshopify.com/collections/frontpage)

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ON THE MOVE

ARCADIS WELCOMES WORLD-RENOWNED EXPERT TO EXPANDING RAIL TEAM

Arcadis, the leading global design and consultancy firm for natural and built assets, announced Peter Turton, PE, will join the company as vice president and project director. In his role at Arcadis, Turton will be responsible for managing the construction of the firm's future multi-billion-dollar rail transit projects. Turton brings more than 40 years of professional experience to Arcadis and is among an elite handful of world-renowned rail construction management experts.

"We are delighted to welcome Peter to our national transit team as we continue to diversify and expand our rail transit construction management resources," commented Wassim Selman, president of infrastructure for Arcadis.

Turton has extensive experience as construction manager, having overseen over \$20 billion in major infrastructure projects both domestically and overseas, including rail transit. Notable projects include the \$1.9 billion John F. Kennedy International Airport AirTrain Light Rail Project and New York City's Jamaica Intermodal Terminal Complex and \$2.5 billion Seven-Line Subway Extension Phase One.

He has significant international experience, including the management of design and construction of Heathrow Airport's \$500 million Terminal Five Tube Project, securing the \$3.5 billion Green Line Rail Tunnel and Underground Station Project in Doha, Qatar, and the \$8 billion North West Rail Link Complex Rail Tunnel and Underground Stations Project in Sydney.

Turton holds both an M.S. and B.S. degree in civil engineering from the University of Birmingham, United Kingdom. He is a registered professional engineer in the state of California and a chartered engineer in the United Kingdom.

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3) Work on the broad philosophical stuff, but also work on the concrete, tactical stuff. Business plans need both. Some call the broad brush, big picture plans "strategic plans," whereas the detailed, shorter-range plans are often called "tactical plans" or just "business plans." I don't care what you call it. I just know it is important to have both elements in your plan and, at a minimum, look at all of it at least once a year.

4) Keep your "do" list to a reasonable length. We all know what happens when you try to do too much. You either don't get it done and feel bad or rush through it and do a less-than-best job at it. Neither is acceptable when it comes to your business planning. I like a reasonably short "do" list that will get done. And once it is you can always make up a new "do" list.

5) Keep the jargon down to a minimum. I read a plan earlier today that had so much in it that it was virtually unreadable. On top of that it was repetitive and used the same paragraphs more than once. Aaackkk!!! Why make your readers suffer?

One last point. Business planning is a critical area. If you don't feel you can manage it all on your own, get help. But be sure to ask on qualified people for their help. I would look for someone, who at a minimum, runs or has run a successful enterprise – not someone who has just read a bunch of books on business planning! ▀

MARK ZWEIG is Zweig Group's founder and CEO. Contact him at mzweig@zweiggroup.com.

ATKINS HIRES GEORGE NASH AS CEO FOR NORTH AMERICA REGION

Atkins, one of the world's leading design, engineering, and project management consultancies, hired George Nash as CEO of its North America region.

Nash has 30 years of experience providing a wide range of consulting, engineering, design, construction, and commissioning services to markets worldwide. His executive roles have included senior business development, operational, and profit and loss responsibilities.

At **AECOM** he served as president of energy, infrastructure, and industrial construction. Prior to AECOM, Nash was with URS Corporation in a variety of senior leadership positions including president and COO of the energy and construction division. The division consisted of the power, industrial, infrastructure, mining, oil and gas, and federal environmental businesses.

Uwe Krueger, Atkins' CEO, said: "An accomplished executive in the infrastructure industry, Mr. Nash has demonstrated ability in executive leadership, operations, and business development. His knowledge, expertise, and collaborative approach will be instrumental in addressing some of North America's most complex infrastructure challenges and in further growing our business there."

A registered professional engineer, Nash earned his bachelor's degree in mechanical engineering from Brown University. In addition to his experience at AECOM and URS, he held a number of executive roles with Washington Group International, including president of their power business unit where he led the merger and integration of that business with URS Corporation. Nash started his career with Stone & Webster, Inc. with various roles in project and program execution.



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PROFILE



McKim & Creed does a lot of work on solar projects.

Carolina conquest for Lucey

McKim & Creed's Building, Energy, and Infrastructure division is taking off in North Carolina and is set to expand in Florida and Texas.

By LIISA ANDREASSEN
Correspondent



John Lucey,
President and
CEO, McKim
& Creed Inc.

In 1978 **McKim & Creed, Inc.** (Best Firm #47 Multidiscipline and Best Firm #39 Civil for 2016), started out as a two-person structural engineering firm. Today, the firm based in Wilmington, North Carolina employs 380 professionals in 19 offices throughout the south and provides civil, structural, mechanical, electrical, and plumbing engineering services. John Lucey came on board in 2014 as its president and CEO.

"I was contacted by a recruiting company to consider this position," he says. "After several meetings and interviews, the founders, Mike Creed and Herb McKim, felt that I was a good fit. I was fortunate to have had the opportunity to serve as president of a similar firm in Pittsburgh and have also served in management and leadership positions in the engineering business for the last 20 years."

A CONVERSATION WITH LUCEY.

The Zweig Letter: How have you seen McKim & Creed evolve since you have been there?

John Lucey: We have developed a 2020 strategic plan that charts our growth during that period. We are now completing the second year of that plan and are slightly ahead of the goals that were established. That creates a certain amount of pride among our employee owners. We've also recruited many talented individuals to complement the great core staff that have been long-term employee owners of McKim & Creed.

"I feel that my job is to serve all of our employees by providing them the direction and the tools that they need to accomplish their jobs every day."

TZL: What are your key leadership strengths?

JL: A strong work ethic coupled with my background as an engineer and engineering leader. I also have a genuine interest in and concern for our employees.

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Q&A, from page 3

TZL: How would you describe your leadership style?

JL: I feel that my job is to serve all of our employees by providing them the direction and the tools that they need to accomplish their jobs every day. As a result, I'd characterize my leadership style as being a bit of a cheerleader by encouraging and assisting them in making key decisions – quickly and efficiently.

“My greatest challenge was to quickly learn the company culture and to gain the trust and respect of all of those employees who had worked with the founders to create a wonderful company.”

TZL: To date, what has been your greatest challenge at McKim & Creed? How did you handle it?

JL: Since its inception, the company had been run by the two founders. My greatest challenge was to quickly learn the company culture and to gain the trust and respect of all of those employees who had worked with the founders to create a wonderful company.

TZL: What is your vision for the future of McKim & Creed?

JL: My vision is for us to be a sustainable, employee-owned firm where employees enjoy coming to work every day to contribute to the steady increase in our shareholder value.

TZL: Tell me about a recent project that you are especially proud of and why.

JL: Our firm has completed work on almost 100 solar projects. Many of these are collaborative efforts between our surveyors, land development engineers, and electrical engineers. This is the type of collaboration that will foster future company growth and success.

“My vision is for us to be a sustainable, employee-owned firm where employees enjoy coming to work every day to contribute to the steady increase in our shareholder value.”

TZL: How have you helped your firm to outperform some competitors? What do you feel sets you apart?

JL: Our firm has a great culture of client satisfaction and doing what we need to do to maintain a long-term relationship with those clients. I believe that our employee ownership helps to create that culture.

TZL: Is there any news you care to share about McKim & Creed projects or anything else?

JL: Our Building, Energy, and Infrastructure group is

rapidly developing into one of the leading groups in North Carolina. It provides mechanical and electrical engineering for universities, health care, and industrial clients. We expect to grow that business into our Florida and Texas markets in the next few years.

TZL: Are you married? Do you have children?

JL: I've been married for 36 years. We have three children. One daughter is a TV newscaster in Connecticut. The other daughter is a dietician in Salt Lake City. My son is a snowboard video maker in Seattle.

TZL: What's one thing most people at the firm don't know about you?

JL: I'm an open book – they know everything about me.

TZL: Do you have a favorite vacation spot or dream destination?

JL: To date, my favorite vacation has been skiing in Salt Lake City. One day I'd like to visit Australia and New Zealand.

“Our firm has a great culture of client satisfaction and doing what we need to do to maintain a long-term relationship with those clients. I believe that our employee ownership helps to create that culture.”

TZL: What's the last book you read?

JL: *Winning Every Day: The Game Plan for Success* by Lou Holtz.

TZL: What's the last movie you saw in the theater?

JL: *Sully*.

TZL: What's the best piece of work-related advice you've ever gotten?

JL: Your employees will accomplish amazing things if you empower them, give them respect, and encourage them to have a balance of entrepreneurialism and discipline.

TZL: Who is a leader you really admire?

JL: Wayne Alderson. He had a successful business career and wrote a book, *Theory R Management*. The book's premise is that every person hungers to be treated with value.

TZL: When you're not working, what types of activities do you enjoy?

JL: I love to exercise outdoors – biking, running, walking, golfing, skiing, and kayaking.

TZL: What's your favorite lunch?

JL: Fruit. ▀



Environmental restoration

How we treat the environment is coming full circle, from the sustainability of the Native Americans, to the factory and dump era, and, finally, to remediation.



**Marian
Young**

**GUEST
SPEAKER**

We are in the midst of an environmental restoration renaissance. It's taken almost 50 years, but the momentum is building. After decades of investigating, remediating, and redeveloping contaminated brownfields to construct new buildings, we are turning our sights to serious restoration of our urban wetlands and waterways, and to "green infrastructure" systems to help manage and clean stormwater.

When William Penn first set foot on American soil in 1682, he saw a wooded land filled with birds and animals, sparkling rivers and lakes full of fish. Native Americans lived sustainably, taking care not to decimate populations of plants and wildlife.

Philadelphia's incoming European colonists were farmers, shipbuilders, miners, artisans, and tradespeople. From small shops – leather tanners, shoemakers, millers, woodworkers, metalsmiths, bakers, and brewers – they turned raw products into all the goods needed for food, clothing, shelter, and entertainment. Wastes were minimal and mostly recycled.

By 1800, Philadelphia was a bustling port and America's largest city. The Industrial Revolution brought manufacturing prominence, propelled by coal and iron mines, factories, railroads, and banks. As goods were produced faster and in larger quantities, waste dumping also accelerated,

"We are in the midst of an environmental restoration renaissance. It's taken almost 50 years, but the momentum is building."

polluting land, creeks, and rivers. Wars sped up production urgency. Like yeast reproducing in a vat until they eventually perish in the alcohol they create, no thought was given to the mass poisoning that lay ahead.

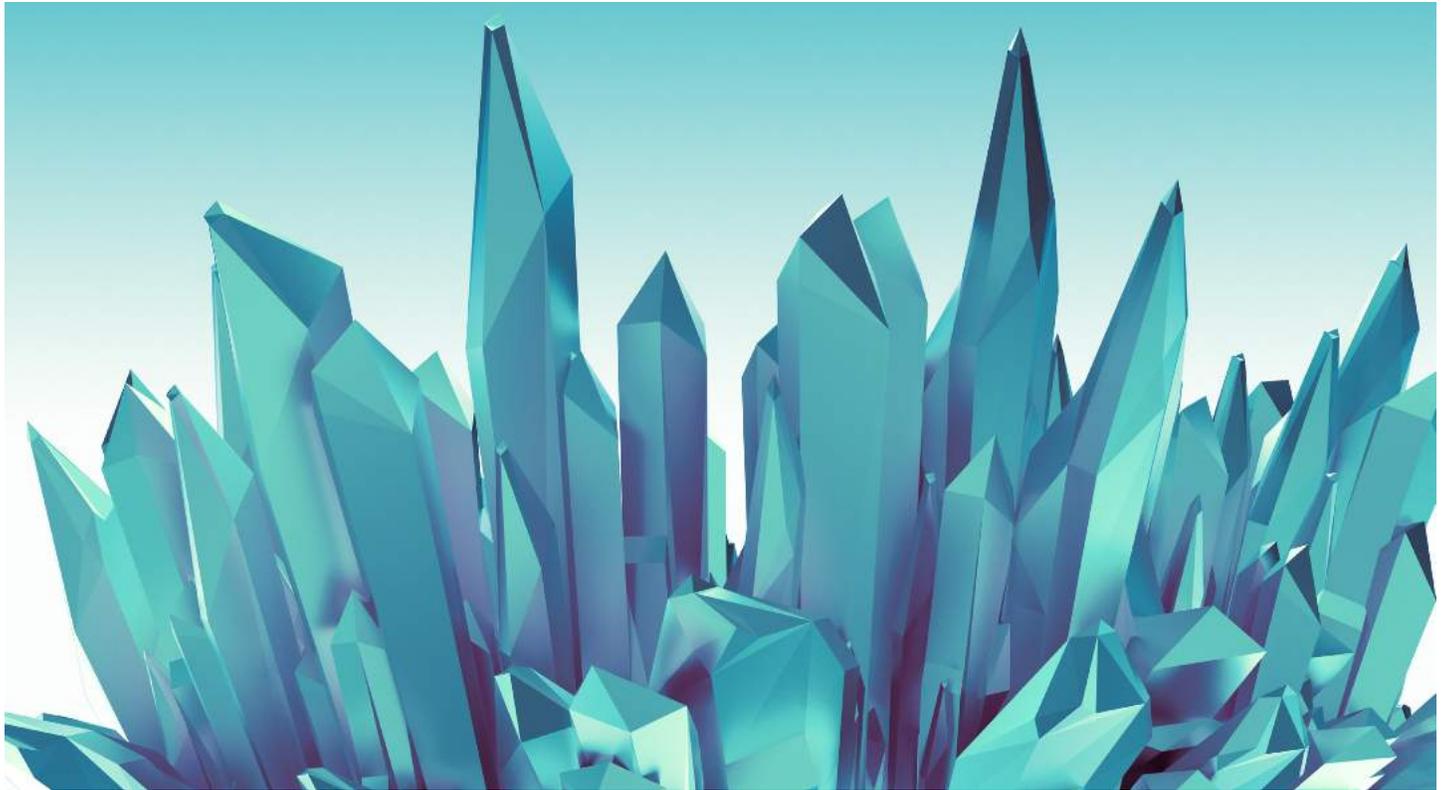
In the 1950s, as factory production skyrocketed, the costs of goods dropped, and our daily conveniences increased, many people did not notice that chemical and plastics production and

See MARIAN YOUNG, page 8



SPOTLIGHT ON: America

OPINION



The sophistication of amenities

Office amenities are shifting from a focus on whimsy to a focus on meaning, and that adds up to improved productivity and increased profitability.



Ryan
Mullenix

GUEST
SPEAKER

As someone who designs workplace environments, it's fascinating to participate in the "amenity one-upmanship" happening at corporations around the world and at tech firms in particular. From ping pong tables and kegerators to massage and nap spaces, amenities are now ubiquitous to the workday experience. They reduce the formality of the office environment and encourage a higher level of socialization and camaraderie, each key contributors to workplace satisfaction. They make culture more tangible and visible, which in a red-hot market plays a strong role in recruitment, retention, and differentiation.

But amenities are also engineered for greater productivity. Keeping people on-site longer (with food and fitness centers), removing mundane hassles (by administering dry cleaning and haircuts), and providing time to explore one's personal ideas – each perk is embedded with the hope that "found" time will increase returns to the company's bottom line.

The formula is fairly straightforward: at work, more engagement + less stress = elevated creativity = improved productivity = increased profitability. When companies stay true to themselves and avoid a "copy and paste" approach, the outcome is usually a win-win for both the individual and management. This amenity surge has enabled organizations – through both



enities:

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intention and luck – to better understand and augment work-life integration, and the resulting alchemy has led to transitioning amenities from a focus on whimsy to a focus on meaning. In the quest for the perfect balance, here are other factors being tested in the amenity equation that could soon change the look, feel, and impact of your office:

“The pressure on newly forming teams to excel on a project can lead to either a defining moment or a divisive unravelling. Research shows that teams built with high theory of mind, less interruption, and more women solve more problems with greater creativity.”

MAKING THE DIGITAL PHYSICAL. In San Francisco, the Autodesk Workshop – a hybrid workshop, laboratory, and office space – offers the intriguing potential to fuse technological progress with the intrinsically human satisfaction of making things. This space encourages employees to design stronger digital design experiences through their learnings with the tactile and the tangible. Even megabank Barclays is getting in on the trend by sponsoring a series of maker spaces throughout Cambridge that it calls “Eagle Labs.”

INDIVIDUALITY AS BRAND. I am genuinely moved when friends in less expressive professions share their hidden artistic talents. Most of them do this outside of work, so imagine being able to tap into those skills while still inside the office. The Samsung headquarters in San Jose offers a music room for jamming, recording, learning, or, if you’re like me, just making noise. Graffiti walls in company spaces are growing in popularity as well, where you can remain anonymous or permanently leave your name – until the next person paints over it. Data walls enable the same customization and personalization in a digital context. As Android so aptly puts it, “Be together, not the same.”

TEAM BUILD-ING. The pressure on newly forming teams to excel on a project can lead to either a defining moment or a divisive unravelling. Research shows that teams built with high theory of mind, less interruption, and more women solve more problems with greater creativity. Providing projects that have little to do with business success yet create a heightened theory of mind can yield both short- and long-term gains. ArgoDesign in Austin has been noted for building a Shelby as a side project – not in the garage, not in a back corner, but in the lobby. Using your hands and brains to create something real for fun, before you use your hands and brains to create something real for profit, can be a great way to bring people together.

FROM FILLING TO FULFILLING. I remember walking the halls of a tech campus with the person who oversaw food operations,

and he noted his frustration with people drooling over the multitude of free snacks. As we walked, we noticed a colleague stuffing his pockets full of the many bite-size foods offered. At the time, this type of experience was completely new in the workplace and therefore somewhat forgivable, but excess snacking was later linked to greediness and weight gain across the industry. Now, many companies like data analytics firm Appeagle still offer snacks but have transitioned to offer healthier options. The smartest companies have shifted strategy completely, with some offering rooftop vineyards and personalized gardens that encourage people to grow, harvest, eat, and share their own food.

COMPLETE HEALTH. With obesity and other weight-related diseases on the rise, many companies are taking employee health into their own hands. Nearly 30 percent of companies with 5,000 or more employees now have on-site medical clinics, including on Microsoft’s main campus, and this trend is expected to continue. But holistic, preventative measures are being taken as well. Companies are introducing “winter gardens,” as research has shown simply looking at green or open space can improve overall mental health, including a reduction of stress levels and an increase in cognitive performance. Mindfulness, the hot topic of the day, is taken quite seriously by the suitably named Headspace because of its long-term, age-independent benefits.

“Even moving back into urban locales, where diversity of scale and people has always been prevalent, now is considered an amenity – as is the shortened commute that usually comes with the location. This isn’t just more convenient and environmentally-friendly, it’s healthier too, as longer commutes are linked to health problems.”

HISTORY ... AGAIN. During the Industrial Revolution, workplaces commonly featured high ceilings, daylight, and fresh air, small consolations during the incredibly long workdays that eventually inspired revolts in the late 1880s. In the 1950s, drop ceilings, artificial daylight, and conditioned air were seen as new amenities – and ironically, these amenities began to extend the workday again. Half a century later we’ve realized that better daylight, fresh air, and shorter workdays are still true amenities. And they’ll remain as such until all have access to such simple staples of good health. Even moving back into urban locales, where diversity of scale and people has always been prevalent, now is

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disposal began killing fish, amphibians, and birds. But some did notice, like Rachel Carson who wrote *Silent Spring* in 1962.

Concerns about pollution and environmental protection crystallized in nationwide Earth Day demonstrations in 1970. The Environmental Protection Agency was established and new laws were rapidly passed to protect air, water, endangered species, and the oceans. In 1976, with the Resource Conservation & Recovery Act, wastes could no longer be indiscriminately dumped; they had to be tracked from cradle to grave. We finally understood that there is no “away.” There is no magical place we can send all our garbage where it will never come back to haunt us. We stopped dumping and began the long slow process of restoration.

In 1980, EPA’s Superfund Program began investigating and cleaning up contaminated sites where no viable owners could be found. In the early 2000s, cities, states, and developers partnered to rebuild on old industrial brownfields, and return these underutilized sites to the tax rolls. **BrightFields** (Best Firm #7 Environmental for 2016) remediated the Bartram North and South properties and portions of the Frankford Arsenal that are now ready for new construction. The EPA calculates an average return of \$17 on every public dollar spent toward brownfield redevelopment. So in 2016, we pause and reflect on 150 years of industrial dumping and less than 50 years of cleanup and restoration.

Today’s focus is on pulling up sections of impervious concrete and pavement, cleaning up polluted soil, restoring floodplains, revegetating riverbanks, and creating new ponds, wetlands, bioswales, and tree boxes to manage storm water and mitigate flooding. These green infrastructure projects are bringing environmental, social, and economic benefits to cities across the county.

Philadelphia Water Department’s 2011 Green City, Clean Waters Plan, the first in the nation, lays out a visionary 25-year blueprint to clean the city’s stormwater by infiltrating

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considered an amenity – as is the shortened commute that usually comes with the location. This isn’t just more convenient and environmentally-friendly, it’s healthier too, as longer commutes are linked to health problems.

“Those concerned with employee health and office culture are maturing their work environments through experiences, not moments. And, when done right, the upside is a formula that continues to result in a win-win for all.”

WHAT’S NEXT? WILL AMENITY CONTINUE TO INFLUENCE “AGE,” OR WILL AGE INFLUENCE “AMENITY”? Amenity spaces have come full-circle since the personal tech boom of the late 1970s and early

it into thousands of green installations. Already, the difference is visible in hundreds of new projects that provide park-like beauty and functional ecosystem value. Research shows when people are exposed to green plantings and healthy ecosystems, they will be calmer, happier, more inquisitive, and alert.

A special focus has been placed on showcasing green infrastructure projects in schools. Understanding and caring for the environment is critical for our children and their future. If we can teach kids how to care for the land and water, we can grow more environmentally-aware generations of people. I’d like to see Environmental Science taught in pre-schools and kindergarten. I love the Green Woods Charter School in Roxborough, it is a national model for teaching the EIC Program – Environment as an Integrating Context.

“Understanding and caring for the environment is critical for our children and their future. If we can teach kids how to care for the land and water, we can grow more environmentally-aware generations of people.”

There are many partners working to green-up the city, from community gardeners and urban farms like GreensGrow in Kensington and Walnut Hill Community Farm, to the Philadelphia Orchard Project and the Pennsylvania Horticulture Society’s Pop-Up Gardens. Talented design and construction teams are working on the Schuylkill River Trail, Frankford Creek Greenway, and Bartram’s Mile. Corporations like PECO and Brandywine Realty have installed green roofs on top of their buildings. So what’s my vision? I see a bright green future for the city of Philadelphia! ▀

MARIAN YOUNG is president of BrightFields, Inc., an environmental consulting and remediation firm focusing on brownfield redevelopment and ecosystem restoration. She can be reached at myoung@brightfieldsinc.com. This article first appeared in *Philly Biz*.

‘80s changed how people viewed work. I hope we don’t lose sight of the risks taken – and benefits uncovered – through the whimsical and eccentric in the workplace, where the initial youthfulness of tech encouraged people to dress more comfortably, to hang out for a beer during the day, and to feel it was okay to take ping pong lessons where everyone could see. These experimental attitudes have questioned the atmosphere of the office building, where many of us will spend more than half our lives. But I also sense companies understand the gravity of taking a position through what they offer their talent pool. Those concerned with employee health and office culture are maturing their work environments through experiences, not moments. And, when done right, the upside is a formula that continues to result in a win-win for all. ▀

RYAN MULLENIX is a partner with **NBBJ**. He can be reached at [@ryanjmullenix](https://twitter.com/ryanjmullenix). This post was originally published by *Entrepreneur*.



Don't over-analyze

Remember, thinkers and modelers, there is plenty of time to get to the bottom of whatever pressing issue we are facing.



Jamie
Claire
Kiser

M&A INSIGHTS

I'm an analytical person by nature. I am in a committed relationship with Microsoft Excel and can find a way to model most decisions if given enough time. "Enough time," however, means enough time to help a client or colleague make an important decision with limited information on a deadline of yesterday. It is hard for us over-thinkers to make snap decisions, but it's also a job requirement for any leader, and especially for any leader engaged in mergers and acquisitions.

I have learned that time is the enemy in M&A. The longer we spend scrutinizing the details before we talk about value and the future, the more we risk overlooking the big picture and finding some reason not to close a deal. No firm is perfect, and no M&A transaction is without the exposure of some weaknesses in one (or both!) sides of the discussion. In my experience, there is a correlation between how quickly we can agree to a value (or even agree to an approach to valuation), and a theoretical deal structure and the likelihood that we will get to the closing table. That idea is counterintuitive – and downright uncomfortable – to the over-analyzers in the room. I want to have every piece of information at my disposal to make a recommendation.

"I have learned that time is the enemy in M&A. The longer we spend scrutinizing the details before we talk about value and the future, the more we risk overlooking the big picture and finding some reason not to close a deal."

The dividing line between firms that do well in M&A and firms that do not could possibly be drawn at the informational threshold. Although

See JAMIE CLAIRE KISER, page 10



BUSINESS NEWS

WINNING STUDENTS SELECTED FOR FUTURE ENGINEERS' THINK OUTSIDE THE BOX CHALLENGE

Future Engineers, along with NASA and the American Society of Mechanical Engineers Foundation, announced the two winners from Future Engineers' Think Outside the Box Challenge, a national design challenge issued to K-12 students to celebrate the launch of the Bigelow Expandable Activity Module, the first expandable habitat on the space station.

Out of 122 submitted designs from 26 states, one national winner from each age division was chosen by a panel that included retired astronaut Nicole Stott. The winner from the Teen Group was the Expanding Pod designed by Thomas Salverson, a Gretna, Nebraska native, now a freshman at the University of Alabama in Huntsville. The winner of the Junior Group is the Space Anchor designed by Emily Takara of Cupertino, California. These students will receive a grand-prize trip to Las Vegas for a tour of Bigelow Aerospace – the space technology company that developed BEAM under contract to NASA.

The Think Outside the Box challenge asked students to design a 3-D printable object that assembles or expands to become larger than the printing bounds of Made In Space's AMF 3-D printer, located on the International Space Station – with the ultimate goal of creating an object that is useful for an astronaut living in microgravity.

Salverson's Expanding Pod is a set of containers intended for astronauts to store small items on the International Space Station. His design is comprised of multiple cylinders that slide and twist to create five sealed stowage compartments that lock into place.

"I enjoyed the difficulty of this challenge since it made me think in terms of 'expanding' an object, which was something I had never considered before when 3-D printing," said Salverson. "It took me many prototypes before I had successfully made my completed design, making it all the more rewarding now that I've been selected as a grand-prize winner."

While researching some of the challenges that astronauts face while working in space, Emily Takara discovered that astronauts sometimes have trouble moving easily in large, open spaces. That led Emily to design the Space Anchor, an extendable arm and grabber set that prevents astronauts from getting stuck while floating in microgravity.

"This challenge taught me to persevere and be creative," said Takara. "It has also inspired me to continue designing, as well as teach others computer-aided design."

Teen Finalists (Ages 13-19):

- Ansel Austin, Cupertino, California – Bio-Fold Lab Rack
- Parker Jones, Auburn, Alabama – Footshield
- Thomas Salverson, Gretna, Nebraska – Expanding Pod
- Noah Tatman, Spring, Texas – Space Clamp

Junior Finalists (Ages 5-12):

- Owen DuFrene, Portland, Oregon – The Gamemaker
- Lauren Lee, Cupertino, California – California Odyssey
- Trisha Sathish, Cupertino, California – Nature Lamp
- Emily Takara, Cupertino, California – Space Anchor

Each student finalist has been awarded an exploration worthy Heimplanet inflatable tent for their family and a \$50 3-D printing gift certificate from Shapeways.

The Think Outside the Box challenge was the fourth in a series of space innovation challenges developed by Future Engineers with the ASME Foundation, and with technical assistance provided by NASA. The series was designed to extend the reach of NASA's In-Space Manufacturing research by inspiring and educating the next generation of scientists and engineers about 3-D printing technology,

space exploration, and digital design skills. Previous Future Engineers challenges have called upon students to design 3-D models of space tools, containers, and objects needed for the future of space exploration. The next challenge launched in October 2016.

ECOSYSTEM ENGINEER NAMED AEE YOUNG ENERGY PROFESSIONAL OF THE YEAR

Ecosystem Energy Services design engineer Jean-Philippe "JP" Drouin has been awarded Young Energy Professional of the Year 2016 by the Association of Energy Engineers.

The award is granted annually to individuals 35 years of age or younger to recognize outstanding contributions to the energy profession and to the community. It was presented at the World Energy Engineering Conference in Washington, D.C. on September 21.

Drouin joined Ecosystem nine years ago, after receiving his degree in mechanical engineering from McGill University. As a design engineer with Ecosystem, he has been responsible for leading multi-million-dollar projects and proposals in Canada and the U.S. for more than 100 healthcare, educational, commercial, municipal, and industrial buildings that incorporate cutting-edge technologies to achieve meaningful energy and cost savings. His projects include the Mount Sinai Brooklyn Hospital project, an innovative cogeneration and steam-to-hot-water conversion that won AEE's 2014 Energy Project of the Year Award for Region 1. He is also an active member of the NYC distributed generation community and in 2013 participated in an initiative of the Mayor's Office of Long-Term Planning and Sustainability to identify a strategic roadmap for DG development in NYC.

With this award, the AEE recognized Drouin's innovative approach to energy efficiency engineering. "I am fortunate to work with Ecosystem's multidisciplinary teams, which encourage creative thinking and exceeding expectations of what we can achieve in terms of efficiency and cost savings," Drouin said.

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basic information is needed for a cursory analysis, it is crippling in M&A to wait for more information or to hit pause to update the analysis with every detail. We have to tolerate a high level of uncertainty in so many facets of a target firm's operations, and that can be unnerving. While it is contrary to my background in law and credit risk to feel comfortable pressing onward with half the story, it is something that has to be done if I want to help my client close a deal.

The good news is that once we have agreement on the basic structure, we have due diligence to confirm that what we believed when we drafted the offer is, in fact, reality. The process gives time for the analysis, but the risk that we

"While it is contrary to my background in law and credit risk to feel comfortable pressing onward with half the story, it is something that has to be done if I want to help my client close a deal."

oftentimes see is firms that want to finish due diligence before they begin discussions of value. Remember, thinkers and modelers, there is plenty of time to get to the bottom of whatever pressing issue we are facing – let's just keep our eyes fixed on the target while we get there. ▀

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OPINION

Conscious Capitalism is a way of thinking about **CAPITALISM** and business that better reflects where we are in the **HUMAN** journey, the state of our world today, and the innate potential of business to make a **POSITIVE IMPACT** on the world. **CONSCIOUS** businesses are galvanized by higher purposes that serve, align, and integrate the interests of all their major stakeholders. Their higher state of consciousness makes **VISIBLE** to them the interdependencies that exist across all stakeholders, allowing them to **DISCOVER** and harvest synergies from situations that otherwise seem replete with trade-offs. They have **CONSCIOUS** leaders who are driven by service to the company's **PURPOSE**, all the people the business touches and the planet we all share together. Conscious businesses have trusting, authentic, **INNOVATIVE**, and caring cultures that make working there a source of both personal growth and professional fulfillment. They **ENDEAVOR** to create financial, intellectual, social, cultural, emotional, spiritual, physical, and ecological **WEALTH** for all their stakeholders.

Conscious Capitalism

Through enlightened business practices, young firm leaders are embracing a world of freedom, harmony, prosperity and compassion.



Ed
Friedrichs

FROM THE
CHAIRMAN

It's energizing to be around young entrepreneurs with exciting ideas. My wife and I are honored to be mentors to a few start-ups in Reno, a delightful experience allowing us to work with and learn from a new crop of business owners, many of whom are focused on company culture as they launch and grow their enterprises.

It occurred to me that what's old might actually be new again. At a recent mentor meeting, two colleagues told us they are starting a local chapter of Conscious Capitalism (consciouscapitalism.org), an organization with chapters globally.

"As I've advised clients over the years on how best to define the culture of an organization they would be proud to be a part of, I've used anecdotal stories from my career and other firms I've worked with."

As I've advised clients over the years on how best to define the culture of an organization they would be proud to be a part of, I've used anecdotal stories from my career and other firms I've worked with. But when I read The Conscious Capitalist Credo, I found a wrap-around definition I will use from this

day forward as I work with clients. I'm publishing the group's credo here in the hope you find it as helpful as I have:

We believe that business is good because it creates value, it is ethical because it is based on voluntary exchange, it is noble because it can elevate our existence, and it is heroic because it lifts people out of poverty and creates prosperity. Free enterprise capitalism is the most powerful system for social cooperation and human progress ever conceived. It is one of the most compelling ideas we humans have ever had. But we can aspire to even more.

Conscious Capitalism is a way of thinking about capitalism and business that better reflects where we are in the human journey, the state of our world today, and the innate potential of business to make a positive impact on the world. Conscious businesses are galvanized by higher purposes that serve, align, and integrate the interests of all their

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major stakeholders. Their higher state of consciousness makes visible to them the interdependencies that exist across all stakeholders, allowing them to discover and harvest synergies from situations that otherwise seem replete with trade-offs. They have conscious leaders who are driven by service to the company’s purpose, all the people the business touches and the planet we all share together. Conscious businesses have trusting, authentic, innovative and caring cultures that make working there a source of both personal growth and professional fulfillment. They endeavor to create financial, intellectual, social, cultural, emotional, spiritual, physical, and ecological wealth for all their stakeholders.

“Conscious businesses will help evolve our world so that billions of people can flourish, leading lives infused with passion, purpose, love, and creativity; a world of freedom, harmony, prosperity, and compassion.”

Conscious businesses will help evolve our world so that billions of people can flourish, leading lives infused with passion, purpose, love, and creativity; a world of freedom, harmony, prosperity, and compassion.

You can find the credo on the organization’s web site which contains a wonderful and brief set of four principles of a conscious business (consciouscapitalism.org/content-page):

- 1) Higher purpose
- 2) Stakeholder orientation
- 3) Conscious leadership
- 4) Conscious culture

These principles are consistent with the way I have tried to guide the firms I’ve worked with over the years. I wish I had been as articulate. I feel I spent my life rambling on about these things but never with such clarity and brevity.

I’ve written about Reno’s West 2nd District recently, a project I’m very proud to be involved with. As I perused the full Conscious Capitalism website, I was astounded at the consistent parallels to the way we’re pursuing this project.

Wikipedia also has some excellent citations on “Conscious Business,” including several principles we at West 2nd District have embraced from the beginning:

Do no harm:

- 1) The product or service of a conscious business should not be intrinsically harmful to humans or the environment
- 2) Adopt more beneficial social and environmental practices

Adopt a triple bottom line model: Aim to provide positive value in the domains of people, planet, and profit:

- 1) Profit** is what distinguishes a business from a general social enterprise. How much is too much, where does it go?



2) People: Here are some trends conscious businesses are pursuing:

- The forming of wellness affirming workplace cultures
- Improved employee benefits programs
- Use of fair trade materials for manufacture or sale
- Assistance to communities who supply raw materials and who manufacture materials or products
- Local community outreach programs

3) Planet: Trends include:

- Robust recycling programs
- Building “green” or “zero-impact” workplace facilities
- Using solar or wind energy in the workplace
- Purchasing materials from organic or sustainable farmers
- Purchasing renewable and sustainable materials
- Working with environmentally conscious distributors to adopt better environmental practices
- Adopting sustainable product packaging

“It’s gratifying to know many of today’s young entrepreneurs see these principles as embodying the way they want to build and conduct their businesses. They’re ahead of the game out of the chute.”

Does this sound like your enterprise today? Would your stakeholders (employees, contractors, city officials, clients) respond favorably and work more effectively with you and your community if you adopted these principles? In my experience at Gensler and now on the Reno West 2nd District project, I’ve seen that these principles in action are good for business and they receive high praise and very positive responses from stakeholders. It’s gratifying to know many of today’s young entrepreneurs see these principles as embodying the way they want to build and conduct their businesses. They’re ahead of the game out of the chute. ▀

ED FRIEDRICHS, FAIA, FIIDA, is a consultant with Zweig Group and the former CEO and president of Gensler. Contact him at efriedrichs@zweiggroup.com.