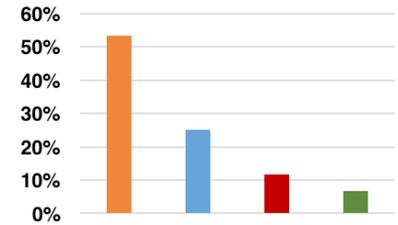


TRENDLINES

Incentive compensation programs



According to the 2016 *Incentive Compensation Survey*, 53.3 percent of firms say that **performance bonuses** are their most successful incentive compensation program. In a distant second place, 25 percent of firms think **profit sharing** is the most successful program, followed by **spot bonuses** at 11.7 percent, and **holiday bonuses** at 6.7 percent. (Special discount to TZL subscribers: Use code **TLICS2016** to order this survey at 15 percent off on zweiggroup.com)

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Those ever-increasing costs

“As good as business is in the AEC world – and believe me, it’s really good for most everyone right now – we are seeing a lot of companies developing profitability problems.”



Mark Zweig

EDITORIAL

As good as business is in the AEC world – and believe me, it’s really good for most everyone right now – we are seeing a lot of companies developing profitability problems. It’s pretty simple: their costs are going up faster than their revenues.

Don’t be one of these companies. Costs rise easily but are much harder to reduce. It’s kind of like my tendency to buy lots of old cars and motorcycles. They are a lot easier to acquire than they are to get rid of!

Here are some places where we see AEC firms letting their costs get out of control:

- 1) Existing labor.** This is always the biggie. We’ve got multiple issues here. First, we’re giving away too many raises. Maybe it is fear of losing someone who’s good – or it’s guilt over the bad times when we couldn’t pay more. But no matter what, pay is going up faster than fees are in many companies. And then on top of it we’re compounding our problems with too-generous bonus schemes that reduce both our profitability and our working capital position too quickly. We need to pull back some here before we ostensibly “need” to.
- 2) New labor.** Everyone’s busy. And we don’t have good systems in place to predict what’s coming down the road. Plus, we hate to say “no” to people we have charged with running a profit center. So when a manager of a unit comes to us and says he or she wants to hire, the answer is usually “go for it.” But this could be a huge mistake. We need to be a lot more careful about hiring than we’re being. It could sink us later if we don’t change our ways!
- 3) Benefits.** Company-paid 401K matches that went away during the hard times are back. And healthcare premiums are up while employee

See MARK ZWEIG, page 2

MORE COLUMNS

- **MARKETING MATTERS:** Are you in a marketing rut? Page 3
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A tech note on antiterrorism

Page 6

ON THE MOVE

IQBAL HOSSAIN, PE, JOINS RPS KLOTZ ASSOCIATES
Iqbal Hossain, PE, has joined Texas-based civil engineering firm **RPS Klotz Associates** as a senior project manager in public utilities.

Hossain brings nearly 25 years of experience, specializing in water and wastewater treatment plants, pipelines, pumping stations, compressors and hydraulic structures. He holds a bachelor's degree from the Bangladesh University of Engineering & Technology and a master's degree from the University of Texas at Arlington.

"Water and wastewater is a critical area for us this year as we begin work on the Northeast Houston Water Purification Plant – the largest water project currently underway in the United States," said D. Wayne Klotz, PE, D.WRE, president of RPS Klotz Associates. "We welcome Iqbal, and look forward to leveraging his specialized expertise."

MINDTECK EXPANDS FOOTPRINT IN THE MIDWEST
Mindteck, a global product engineering and IT services company since 1991, has appointed **Tom Toerner** to lead the company's expansion into the Midwest as part of its U.S. growth strategy. The company's present U.S. footprint encompasses a presence in Pennsylvania, New Jersey, Missouri, Texas, California, and a

roster of more than 250 professional services employees across 34 states. Globally, the company has offices in the UK, India, Germany, Netherlands, Singapore, Malaysia, the Philippines, and Bahrain; also four development centers – two in India and one each in the U.S. and Singapore.

Toerner has more than 20 years of experience in sales, IT consulting services, and account management. His primary focus at Mindteck is driving sales and developing new strategic relationships in Ohio, Indiana, and Kentucky from a base in Cincinnati. Prior roles include regional director at Compuware Corporation and senior account executive at Keane, Inc. Toerner holds a mechanical/engineering degree from Cincinnati State, and he also studied business management at Xavier University.

"Tom is a seasoned leader who is passionate about what he does. Aside from his enthusiasm and prowess, he brings a level of expertise at a time of incredible momentum in our business, so we're pleased to have him on board," commented Meenaz Dhanani, president of Mindteck.

The company is presently gaining traction in the smart cities space, embedded design, storage and data center transformation.

COUNTDOWN



WEEKS

Until Zweig Group's 2016 Hot Firm and A/E Industry Awards Conference!



GOOD TO KNOW

Conference registration is **OPEN!** Please visit zweiggroup.com/conference/ for more details.

MARK ZWEIG, from page 1

portions paid for them are not. It's a recipe for profit-reducing disaster. Once you give a benefit it's nearly impossible to take it away without damaging staff morale and motivation. Think hard before increasing these things!

4) Meals and entertainment. Along with good times often comes a relaxation of the company's policies and practices on meals and entertainment. Everyone goes to a slightly better place than they did during the hard times and now they get the optional cold-water lobster tail to accompany their steaks along with the more expensive bottle(s) of wine. You have to rein this in now before everyone gets so spoiled they forget how they used to live.

5) Office space. Do you really need 3,500 square feet for that new satellite office start-up? And does it have to be in the location where it costs \$60/SF per year to rent? Or how about having 50,000 square feet when 25,000 would do just fine if we packed people in a little tighter. Too much space actually hurts morale as the place can lose its "buzz." We, as a group of companies, keep repeating this mistake from the past. Instead of getting more space than you need why not go into a multi-tenant building with options to expand – or not – if your business performs like you think it will.

These are some of the biggies. There are many others to keep an eye on. Company cars. Sports tickets. Nepotism. I could go on but nothing will change. If you are smart you will need to watch those costs! ▀

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

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Are you in a marketing rut?

Take a good hard look at your firm and what it's saying to the world. If things appear stale, it's because they are. Fix it or lose out.



**Christina
Zweig**

**MARKETING
MATTERS**

Here are 10 signs it's time to make a change:

- 1) Your marketing plan has been updated every year, but almost nothing has changed since 2007.
- 2) Your social media strategy consists of the following:
 - Your boss routinely asks you how many Facebook followers the company page has and each new one is celebrated.
 - You haven't had the time or inspiration to post anything on Twitter in a couple months, but it's on the schedule for next week.
 - The most exciting thing on your Facebook is a picture of the company BBQ from the 4th of July – it even has a picture of Kathy from accounting eating some ribs that Bob made.
- 3) Your firm's president still thinks SEO is "one of those useless trendy marketing acronyms."
- 4) You only have one target audience and it's mostly repeat clients.
- 5) You're very excited to start designing the firm's Christmas card – in June!
- 6) All of your press releases focus on new hires, except one from that time three years ago when a bridge project you were affiliated with was finally finished after 10 months of delays.

"If things are going well for you, and they probably are, you might be feeling that a shake-up or change would be unwise. But if you're guilty of one or more of the above, it might be time to reevaluate your marketing plan, budget, and staff."

- 7) You've been planning a website update for the past three years, but no one from the management team can decide if your firm's name should be changed to a five letter acronym or keep all the last names of the founding partners in full.
- 8) The professional photographer you used to take

See CHRISTINA ZWEIG, page 4



AUGUST RELEASE

2016 FINANCIAL PERFORMANCE SURVEY. If you want to know how your firm's performance stacks up, the *2016 Financial Performance Survey of Architecture, Engineering, Planning & Environmental Consulting Firms* has all the answers you're looking for.

The *2016 Financial Performance Survey* contains all the financial statistics you need to find out exactly where your firm stands among your peers. The most comprehensive data on operating expenses, personnel costs, and more are at your fingertips. And these statistics are just the beginning of this report – this year's edition will have more charts, trend lines, and visuals, so you can really see the areas where your firm could improve.

The *2016 Financial Performance Survey of A/E/P & Environmental Consulting Firms* will help you:

- Compare your firm's financial performance to your competitors'
- Improve financial statements and accounting methods
- Maximize profitability

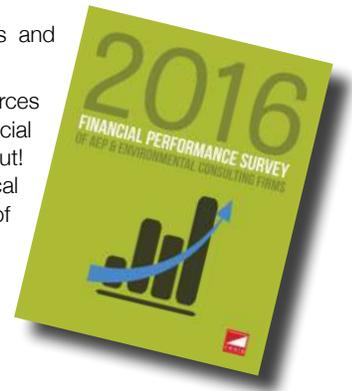
- Get a handle on the latest issues and challenges facing the A/E industry

Does your firm have the staff resources it needs to stay on top of all financial and administration issues? Find out! This survey will show you the typical breakdown of F&A staff for a firm of your size.

Topics covered in this comprehensive report include:

- Key financial statistics
- Personnel costs
- Other financial statistics

Order your Financial Performance survey today at zweiggroup.com/survey.php



BUSINESS NEWS

CALORIS ENGINEERING, LLC COMMEMORATES 10TH ANNIVERSARY JULY 1 July 1, 2016, marked one decade since four partners founded **Caloris Engineering** in Easton, Maryland. In the past decade, the evaporation, membrane filtration, and drying firm has grown to more than 30 employees with offices both in Easton and in Modesto, California.

Caloris celebrated the milestone with a ribbon-cutting at its Easton office and an anniversary picnic for employees, customers, and partners on June 17.

"We would like to thank all of our customers over the past 10 years for their support," said Caloris President Jim Peterson. "The next 10 years promise even more growth and innovation as we continue to expand our technology and service offerings."

Caloris' technical innovations over the past 10 years have helped customers in the dairy and juice industries to process fine food and

beverage products with increasing efficiency.

"We take great pride in standing behind each system we provide," said Artur Zimmer, co-founder and CEO of Caloris. "I want to thank our customers for placing their trust in us over our 10-year history. I am equally proud of our success in creating an eminently competent workforce of more than 30 employees, including highly trained individuals in design, engineering, business, and other professional disciplines."

Besides the core dairy and juice industries, Caloris systems are increasingly used by manufacturers to treat industrial wastewater, allowing them to reduce hauling costs and reuse clean water in their facilities. Caloris' highly energy efficient mechanical vapor recompression systems treat industrial wastewater, recover clean water, and minimize waste volumes. Caloris' new reverse osmosis and membrane treatment options assist with processing these

streams, while the company's new thin film dryer technology removes the remaining water to achieve zero liquid discharge.

Caloris offers custom-designed evaporator systems for a multitude of applications, pre-engineered packaged evaporators, membrane filtration solutions, and spray drying systems, in addition to providing expertise in upgrading existing systems for higher production capacity and energy efficiency. Caloris also offers field services for installation, commissioning, and maintenance to Caloris customers.

Caloris Engineering was founded in 2006 by Art Zimmer, Linda Zimmer, Daniel Neth, and Barry McFarland. In 2014, Caloris entered into a strategic partnership with 3A Ventures of Minneapolis, Minnesota, and Jim Peterson joined as president of the company. In 2015, Caloris expanded its presence on the West Coast, with the establishment of an office in Modesto, California.

CHRISTINA ZWEIG, from page 3

pictures of projects for your brochure has since retired and now lives in Pensacola.

9) All of your graphic design work is done in MS Paint.

10) Your prospective client list still contains the names from a tradeshow you attended in 2008.

"Change, invest, and reinvigorate yourself before it's too late."

If things are going well for you, and they probably are, you might be feeling that a shake-up or change would be unwise. But if you're guilty of one or more of the above, it might be time to reevaluate your marketing plan, budget, and staff. Change, invest, and reinvigorate yourself before it's too late.

"Don't sit still and get comfortable with the same marketing methods and the same clients. It's a matter of when, not if, you will get beaten by the competition."

If you're like much of the industry, 70 percent or more of your work comes from repeat clients. It's a precarious position to be in. Would you like to ride your current wave of prosperity until you crash on the shore during the next market downturn? New firms are entering the market every day and old firms are finding new ways to innovate and market themselves. Don't sit still and get comfortable with the same marketing methods and the same clients. It's a matter of when, not if, you will get beaten by the competition. ▀

CHRISTINA ZWEIG is Zweig Group's director of research and marketing. Contact her at christinaz@zweiggroup.com.



Google Images

The new age of selling

Creating a hybrid seller-doer team comprised of business development people and technical experts is a good way to win new work.



Stephen
Lucy

BEST PRACTICES

As few as 25 years ago, our industry relied almost exclusively on relationships as the means to obtain work. It was actually taboo to use the word “sell” as it implied that we as architects and engineers were no different than a street vendor, hawking his wares to anyone who happened to walk past. Just like that vendor, we only sold to those who happened to pass by. Our only difference was that we were not as vocal.

Fortunately, times have changed and our industry has grown to appreciate the value and absolute necessity of marketing and business development. But as we have grown to embrace selling, are we as effective as we can be in positioning our firms to obtain work? After all, we are just one of many options from which the consumer can choose.

In the recently released *2016 Fellows Survey* by the SMPS Foundation, several trends highlight evolving methods of selling that will impact both technical and non-technical professionals in the AEC world. Although seller-doer remains the prevalent overarching business development/procurement model, enhancements to the process must be implemented to assure maximizing firm success.

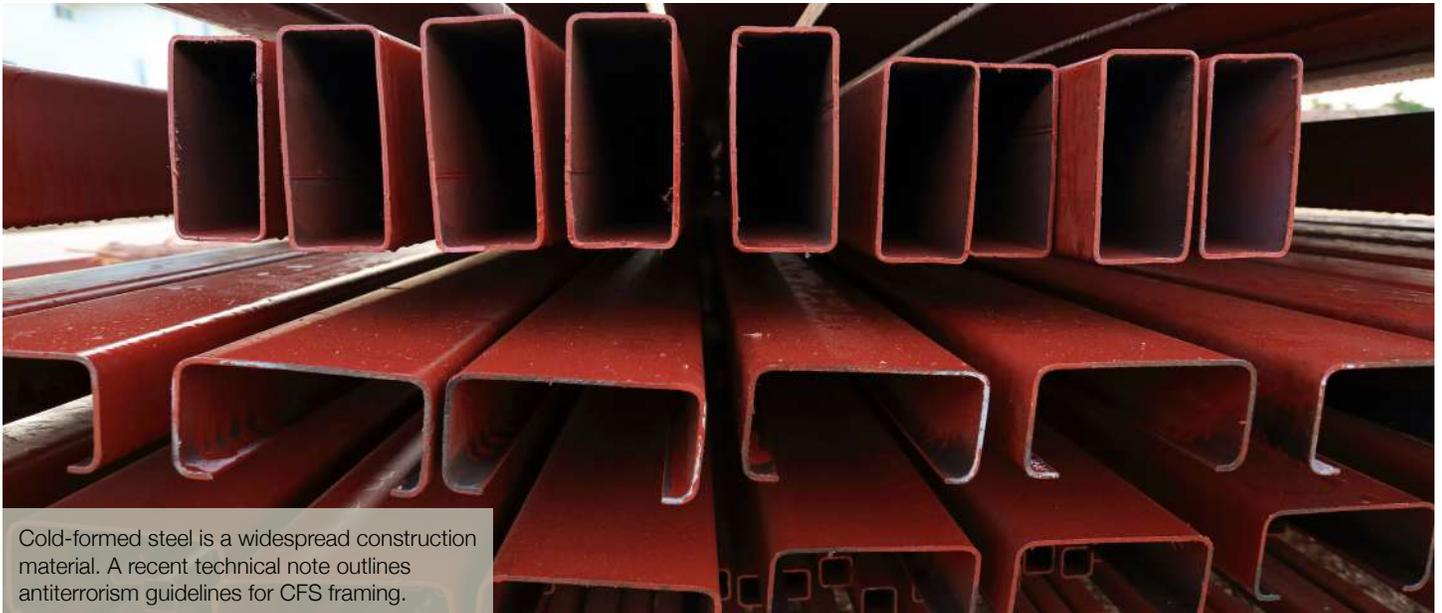
MARKET RESEARCH WILL DRIVE SUCCESS. Research must be a cornerstone to maintain existing markets and clients, and in the expansion into new markets and acquisition of new clients. Strong business developers must perform due diligence that dives deep into their firm’s market sectors and analyzes those trends that impact our industry, such as the economic environment, population growth, and more global issues based on local, state, or federal policy changes or funding opportunities. The most important role of the business developer is to acquire knowledge that informs you about what you should or shouldn’t be doing in targeting prospects. All firms tend to tout the technical knowledge of their professional staff, but market

See STEPHEN LUCY, page 8



SPOTLIGHT ON: Antit

PROFILE



Cold-formed steel is a widespread construction material. A recent technical note outlines antiterrorism guidelines for CFS framing.

A tech note on antiterrorism

Engineering duo publishes a report on cold-formed steel and how it can be used to make buildings more resistant to the external blast from a terrorist attack.



Nabil Rahman,
Director of
Engineering
and R&D,
The Steel
Network Inc.

By RICHARD MASSEY
Managing Editor

The Cold-Formed Steel Engineers Institute recently released a technical note that should make it easier to design and build structures with exterior blast protection against terrorist attacks, and the information is good for both the public and private sectors.

“This technical note guides engineers on where they need to go. I wanted to share this information and not keep it for myself.”

The technical note, *Antiterrorism Design Requirements for Cold-Formed Steel Framing*, was co-authored by Nabil Rahman of the Steel Network Inc., and Casey O’Laughlin of **Jacobs Technology**, and comes at a time when terrorism is increasingly seen as a fact of life, not a fleeting aberration.

Eighteen months in the making, the technical note

also comes as engineers, contractors, and developers are searching for ways to make structures more durable in an uncertain age. Even as he developed the technical paper, Rahman conducted multiple seminars on cold-formed steel and blast protection.

“This technical note guides engineers on where they need to go,” Rahman says. “I wanted to share this information and not keep it for myself.”

The report focuses on external blast, standoff distances, controlled perimeters, windows, static and dynamic design, stud framing, Unified Facilities Criteria 4-010-01, and basic equations that determine building specifications.

In the introduction, Rahman and O’Laughlin spell out why they wrote the report.

“Understanding and implementing antiterrorism requirements into cold-formed steel framing design can be a daunting task for a designer,” they write. “The building can be subject to different AT requirements depending on whether it is owned by the Federal Government or by the private sector.



Ady Aviram,
Ph.D.,
SGH

errorism:

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Jamb Section	Blast Load	Ductility Response Ratio from SDOF Analysis (μ)	End Rotation from SDOF Analysis (θ)	Peak Reaction based on Ultimate Flexural Capacity (lbs)
(1)600S162-68, 50 ksi	CW II @ 82 ft	1.53	1.95	2234

Excerpts from *Antiterrorism Design Requirements for Cold-Formed Steel Framing.*

Member		B1 Superficial Damage		B2 Moderate Damage		B3 Heavy Damage		B4 Hazardous Failure	
		μ	θ	μ	θ	μ	θ	μ	θ
Steel Studs	Top slip track stud walls	0.5	--	0.8	--	0.9	--	1	--
	Studs connected top & bottom	0.5	--	1	--	2	--	3	--
	Stud ends anchored to develop full tensile membrane capacity	0.5	--	1	0.5°	2	2°	5	5°

In recent years, the DoD Unified Facilities Criteria program has developed documents to help walk a designer through the process; however, a considerable confusion still exists.”

Pat Ford, technical director at the Steel Framing Industry Association and principal at **Matsen Ford Design Associates** in Wisconsin, says blast standards for cold-formed steel are still relatively new, as are antiterrorism design and construction guidelines in general.

“Understanding and implementing antiterrorism requirements into cold-formed steel framing design can be a daunting task for a designer.”

That being the case, a technical note like the one created by Rahman and O’Laughlin is important because, as Ford says, “Not many people [builders and designers] know how to do it.”

While there’s currently not much of a demand for blast-

“You don’t need much to come up with a design to save people.”

resistant construction in the private sector, that could change.

“There’s nowhere to go but up,” Ford says.

Made by rolling or pressing steel into semi-finished or finished goods at relatively low temperatures, cold-formed steel is affordable, easy to use, and can be erected much quicker than masonry or concrete. The material is straighter than wood, and is resistant to termites and fire. While there are many applications for cold-formed steel, its primary use is in construction for curtain walls and partitions. According to Rahman, it can be used as the primary structural system for buildings as tall as seven or eight stories.

Pulling together expert information from a dozen sources, the technical note is touted as an authoritative resource on cold-formed steel and its application to blast protection of

See ANTITERRORISM, page 8

STEPHEN LUCY, from page 5

knowledge is the real differentiator of successful firms.

FOCUS ON WHERE THE WORK IS AND WILL BE. Random business development, based on meeting people at conferences and networking events, may help to build relationships but will not accelerate growth. Your business development professionals will need to not just focus on where the work is, but also on where the work will be. The effort must be much more strategic as the primary function of selling is to secure the future of the firm, not simply the present. You must be able to address these questions: What markets will be relevant a year from now or five years from now? How can you position your firm to be a leader and not a follower in the market?

TECHNOLOGY IS A LIBERATOR. The good news about research is that it doesn't take an army to dig up information in this digital age. What was once reserved for only the largest and most affluent firms is now easily accomplished by any firm willing to devote time to the process. Research is now just a click away.

Just as important as external research is cataloging, maintaining, and updating internal knowledge. Otherwise, you are perpetually recreating your firm history and record of what makes your firm unique and most qualified. Utilizing a robust CRM platform which is geared toward the AEC industry is a wise decision and will pay long-term dividends on that investment of time and capital.

BUSINESS DEVELOPMENT TRAINING FOR ALL STAFF. State statutes require most of us to participate in continuing education as a condition for maintaining our licensure. We understand that absent this continuous learning experience, the technical training we received in college will become dated and hinder our ability to provide quality service to our clients. However, what was missing from most of our collegiate experiences was training in how to market and sell.

ANTITERRORISM, from page 7

building envelopes, specifically exterior walls. Peer reviewers were Farid Alfawakhiri of the American Iron and Steel Institute, Kelvin Chan of the U.S. Army Corps of Engineers, and Ady Aviram of **Simpson Gumpertz & Heger** (Hot Firm #82 for 2016).

“In recent years, the DoD Unified Facilities Criteria program has developed documents to help walk a designer through the process; however, a considerable confusion still exists.”

Aviram, a Ph.D. in structural engineering, says blast regulations are mandated for U.S. military structures. But the information highlighted in the technical note, she says, is also meant for private sector use. In particular, those who are interested in low-level protection, not battlefield-grade bunkers, should find the report illuminating.

Given that selling is the lifeblood of our firms, we cannot afford not to invest in training our staffs in how to best accomplish this all-important task. And who best to train your technical people in selling than your business development and marketing staff? Not only will your technical staff be better prepared, but your non-technical staff will gain a better understanding of the technical services offered by your firm.

“Times have changed and our industry has grown to appreciate the value and absolute necessity of marketing and business development.”

THE FUTURE: A HYBRID SELLING MODEL. The most successful business development is accomplished by someone who has the technical expertise to address the specific needs of your clients, combined with the market knowledge to position the firm, and the social skills to engage the client. People with these skills are few and far between, especially when you consider the old joke that an extroverted engineer is one who looks at your shoes instead of his during a conversation.

To overcome this shortage, use seller-doer teams consisting of non-technical marketing and business development staff (the seller), to do the research, maintain the knowledge base, and make the cold calls combined with technical staff (the doer), who can convey the specific expertise to win over the clients. This also relieves the preparation burden from the technical professional so they can maintain utilization on billable work. This synergy of expertise is a win-win approach for everyone. ▀

STEPHEN LUCY is CEO of JQ with offices in Austin, Dallas, Fort Worth, Houston and Lubbock, Texas. Contact him at slucy@jqeng.com.

“It provides the basic steps on how to approach the problem,” says Aviram. “This is a good place to start [for the private sector].”

The information in the technical note is vetted by experts, consolidated in one place, and is easy to purchase and digest. Though the technical note might intimidate those who are not in the industry, for those who are, the formulas are easy.

“If you were a structural engineer, you would say, ‘Oh, I can do this,’” Aviram says.

She referenced the Boston Marathon bombing of April 2013, when two pressure cooker devices exploded, killing three and injuring more than 260. Detonated on a city street, far from a military installation, the Boston bombs highlighted the fact that a terrorist attack can take place anywhere and at anytime, and that blast standards can have great currency in the civilian world.

“You don't need much to come up with a design to save people,” Aviram says. ▀



Crafton Tull recently acquired a drone for topographic surveys.

Do you have a new tech culture?

You should if you want more business and enhanced services for your clients, and besides, the new generation of engineers has to have it.



**Matt
Crafton**

ENGINEERING INSIGHTS

In 1971 the founders of our firm went to their local banker and asked to borrow \$130,000 to invest in a new technology for their business. They told the banker how it would set their company apart and give them a competitive advantage over other firms due to the time savings it would provide. The banker skeptically agreed and loaned the money.

With that loan they bought an IBM 1130 mainframe computer – it filled an entire room, required a paid staff of people to run it, and was the first of its kind in the state. But, it did what the founders hoped it would do and gave the firm a significant advantage at the time. They were able to run calculations many times faster than the average firm, and if a project needed to change midstream, they didn't have to start over from scratch. It was such an innovation at the time that civil engineering students from our local university would take field trips to go see "the **Crafton Tull** computer."

It's amazing how far and how fast technology has leapt ahead over the past few decades. For those of us who've been around a while, we remember when CAD was first introduced to the industry and how some people scoffed at it being a passing fad. We remember when we could first send electronic mail messages to other people, the rise

(and passing) of the fax machine, and the move from hand drafting to plotters.

"We've leaned out pretty far on some new technologies over the past couple of decades, and more often than not it has worked out well for us."

Why were all of these technologies created? For the same reason our founders went begging for a loan in 1971 – to allow companies to produce work faster and more accurately, thereby giving a competitive advantage.

We've tried to keep the same culture of being

See MATT CRAFTON, page 10



BUSINESS NEWS

SIEMENS FURTHER EXPANDS FRONTIER PARTNER PROGRAM

Combining Silicon Valley's entrepreneurial spirit with its own engineering expertise, **Siemens** announced that it will add a new focus in industrial augmented/virtual reality to its startup Frontier Partner. The Frontier program currently supports startups in the areas of 3-D printing and robotics.

"Digitalization is transforming industries across the globe, shortening innovation cycles even as products become more complex," said Chuck Grindstaff, CEO and president, Siemens PLM Software. "We are helping our customers, in industries from autos to aerospace to consumer electronics, transform their operations. From ideation to realization and utilization, and from the top floor to the shop floor, our customers are creating digital enterprises with the most complete solution portfolio for digitalization in the industry. We're proud to offer these same tools to Frontier Partner startups as they work to bring their own manufacturing-focused innovations to market."

There are 20 Frontier partners in 3-D printing and robotics, with more to be added with this announced expansion into augmented/virtual reality.

The program supports startups in the product development phase. Startups receive a year-

long development license to a comprehensive suite of Siemens' PLM software that enables them to develop the new product. Additionally participants have access to Siemens development mentors and other technology partners who utilize Siemens' software.

Some current examples:

- Frustum is currently working to integrate its design optimization tools into Siemens' NX software for integrated computer-aided design, manufacturing, and engineering analysis. This will allow Frustum's tools to guide a designer toward the optimal shape of a 3-D metal part that could, for example, minimize part weight while maintaining part strength. The resulting part design may be 3-D-printed directly.
- Identify 3D – a leader in software for the digital supply chain enabling companies to have the confidence that their intellectual property, processes, and products are both secure and aligned with established engineering standards – is collaborating with Siemens PLM Software and Siemens Motion Control business unit to secure part designs from CAD through to the final machined or printed part. This is a critical piece for any truly digital supply chain.

The Frontier program is jointly managed by Siemens Technology to Business and Siemens

PLM Software. TTB is part of the Siemens Corporate Technology unit and is chartered with discovering and launching emerging technologies into profitable businesses. Siemens PLM Software is a leading global provider of digital software solutions that address areas such as product development, manufacturing, product data management, and manufacturing operations management.

In addition to the more than \$1 billion Siemens invests annually in the U.S. for research and development, this entrepreneurial initiative from Siemens is aimed at getting innovations to market quicker by building on existing, industry-proven tools. With a presence in Silicon Valley since the '50s, Siemens envisions a future where Silicon Valley companies will infuse the excitement and creativity seen in consumer-focused apps into industrial software.

"Over the past year, Siemens has made many structural and organizational changes to access more innovation, both inside and outside the company," said Chenyang Xu, general manager, Siemens Technology to Business, Berkeley. "The Frontier program is a great example of how Siemens is successfully working with many startups to bring their visionary technology to industrial scale and applicability which, in the end, benefits all of us."

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a technology friendly company since the time of our founders. We've leaned out pretty far on some new technologies over the past couple of decades, and more often than not it has worked out well for us. We've been able to translate those investments into new business for us and better service and products for our clients.

We've developed such a technology culture that sometimes I have to remind people in our company that we don't just buy new technologies because we like to play with new toys or because we're "tech junkies." We invest in those things to help us be faster and more accurate; characteristics we should be able to capitalize on to sell our services more effectively. If you can't see a way for the technology to make you more profitable and/or more marketable, why buy it?

"The generation of people entering the workforce now can't imagine a world without fast computers, fast networks, lightning-fast data, and feel completely at home in a paperless world of 3-D modeling."

One other reason to stay invested in new technology is that your people expect it. This is particularly true for the

"If you're going to recruit and retain the best and brightest of this generation, a workplace filled with the latest hardware and software is the expectation."

younger generation coming into the workforce. They aren't just used to technology, it has been a natural part of their lives since they can remember. The generation of people entering the workforce now can't imagine a world without fast computers, fast networks, lightning-fast data, and feel completely at home in a paperless world of 3-D modeling. If you're going to recruit and retain the best and brightest of this generation, a workplace filled with the latest hardware and software is the expectation.

Our latest technology investment is a new drone for topographic surveys. We applied for an FAA exemption to operate a drone, and after enduring a nine-month approval process, were approved. The new drone arrived a couple of weeks ago, and our guys had their first training flights last week. Why did we buy this? Besides the cool factor (and yes, it's cool), we expect it to allow us to produce topo surveys for certain clients in a much shorter timeframe, and our clients are already asking for the service.

"We're going supersonic, Mav!" ▀

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OPINION



A strong brand: What does it take?

Familiarity, loyalty, promotion, marketing investment, staff satisfaction, and corporate reputation – to achieve these things you must be consistent.



**Paul
Greenhagen**

**FIRM
FOUNDATION**

Disney is the world's most powerful brand. The *Brand Finance Global 500* report also ranked Lego and Ferrari on the No. 1 spot in recent years. Though it is a pretty tall order for an AEC firm to set our sights on this position, there is a lot these big companies can teach us about strengthening our brands.

First, what is brand? There are many definitions, but, I like this simple version: "Brand" is what your target audience thinks of when they hear or see your brand name.

When I hear the name Disney, or see its logo, I automatically associate it with a certain level of quality and experience. Other entertainment companies might do the same, but the image I get with Disney is simply different than, say, Warner Brothers.

Lego brings back early memories of constructing things with my kids, and Ferrari makes me think of taking sharp corners at high speeds in absolute luxury. OK, I've never owned a Ferrari, but hey, a guy can dream.

The point is, these are all instant and good feelings

that I get when I come across these brand names. Each of these companies works hard to instill a certain response from us because they understand the value it adds to their business and bottom line.

"Familiarity and loyalty are the outside results we get when we make a concentrated effort to promote and market, and consistently do a good job."

A 2015 study by Brand Finance showed that highly branded businesses and those with strong brands can outperform the market. So, how do we

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ON THE MOVE

ATWELL APPOINTS ALAN HARRIS TO VICE PRESIDENT AND GENERAL COUNSEL Consulting, engineering, and construction services firm **Atwell, LLC** named **Alan Harris** to vice president and general counsel. Harris will provide legal counsel in the areas of risk management, governance, mergers and acquisitions, litigation, contract review, compliance, licensing, and health and safety.

Harris has 25 years of experience in the legal profession. He worked in private practice in both the Washington, D.C. and metro Detroit areas representing clients in a variety of industries, ranging from Fortune 100 organizations to private clients.

"I am pleased to bring Alan's legal expertise to our team," said Atwell President and CEO,

Brian Wenzel. "I have no doubt his counsel will help build and strengthen our company."

WESTWOOD APPOINTS CARLSON TO LEAD SURVEY FOR MIDWEST REGION **Westwood Professional Services, Inc.** (Hot Firm #9 and Best Firm Multidiscipline #24 for 2016), a multi-disciplined surveying and engineering firm, has promoted **Nate Carlson** from the position of St. Cloud office leader to regional director of survey.

In this role, Carlson will provide surveying leadership and guidance to support teams in Westwood's Minneapolis, St. Cloud, Dickinson, and Kansas City locations. He will focus on building business in Westwood's Land Division and collaborating with company leadership to identify regional and national

growth opportunities for surveying services.

National Survey Services leader and firm vice president, Jay Wittstock has worked closely with Carlson on projects and while managing the St. Cloud office himself. Wittstock says, "Nate is a highly effective manager and leader and this transition is a logical next step. He understands the needs of our clients and our business, and knows how to align teams to deliver great service. I look forward to working more closely with him on survey strategy as we continue to grow throughout the U.S."

Carlson is a licensed land surveyor in seven states and has experience in all of Westwood's markets, including residential and commercial development, wind and solar energy, power delivery, and oil, gas, and pipeline.

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strengthen our brands? A good place to start is by looking at the categories that Brand Finance uses to assess a company's brand strength: familiarity, loyalty, promotion, marketing investment, staff satisfaction, and corporate reputation.

This list makes it apparent to me that we need to take a holistic view of our business in order to optimize our brands. Assuming our leaders and staff are aligned, and the vision and strategic plan for our companies is clear (alignment and clarity are critical first steps and a whole separate topic), we can view this with an inside-outside approach.

"We may not ever be 'the world's most powerful brand,' but when Westwood's target audience comes across our name, it is my hope that they automatically associate it with a high level of quality and experience."

Inside, we must work at creating a thriving work environment for our staff and ensuring they have what they need to serve our clients well, which is what builds a positive corporate reputation. Familiarity and loyalty are the outside results we get when we make a concentrated effort to promote and market, and consistently do a good job.

In order to create a thriving work environment, it is important to provide employees with opportunities to grow and develop professionally, in addition to the tools and technologies to do their best work. This is an investment that we are happy to make because we've seen how it helps them stay focused on what they do best. As a result, our people are happy and our clients often get more than they expect. Furthermore, if our people are satisfied in their jobs and passionate about where we are headed as a company, they will proudly represent the image and

culture we desire at Westwood, which helps us retain (build loyalty with) existing employees and clients, and attract new ones.

So, now that we have everything running smoothly on the inside and we are successfully demonstrating the value to our clients, we have to increase awareness of our name (familiarity) in our marketplace to add value to our bottom line.

A wise man once said to me: "Investing in a consistent brand and marketing is the best use of your money if you want to grow." Mark Zweig was right – and consistency is a key word here; consistent brand and marketing requires attention to frequency, positioning, and the image you want to portray.

One ad or blog post likely won't establish familiarity. And, if it is placed somewhere irrelevant to your target market, the effort will be even less effective. Worse yet, if your brand is out there in lots of places, but it is inconsistent in how it looks and the message it sends, it can do more damage than good. Brand image is especially challenging to manage in a highly-diversified business, but I can say from experience that it is possible.

Whether we market through face-to-face or email communications, traditional or social media, or promoting the company on trucks and shirts – we focus on sending the right consistent message. In an industry that is constantly changing, it will never be perfect, but having taken that holistic approach, we've created a foundation that supports our brand from the inside-out. Westwood even has a function dedicated to brand communications to help keep us on track.

We may not ever be "the world's most powerful brand," but when Westwood's target audience comes across our name, it is my hope that they automatically associate it with a high level of quality and experience. I'd like to know that our logo, or the simple mention of the word, Westwood, instills a certain response in our clients that brings them instant and positive feelings about working with us. ▀

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