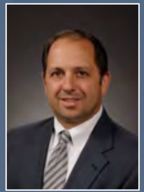
Our Thoughts On...
the 2018 Schneider Downs

MANUFACTURERS' ECONOMIC SURVEY

SCHNEIDER DOWNS
Big Thinking. Personal Focus.

Our Thoughts On...

INTRODUCTION



Edward R. Friel

The Schneider Downs Manufacturing Industry Group proudly presents the results of our 2018 survey. We would like to thank all of the participants for sharing insightful information on the issues impacting their current-year operations as well as matters that they are preparing for in the future.

Here are a few interesting tidbits that we identified when summarizing the survey responses:

Over 90% of the respondents stated 2018 revenues are consistent with or exceeded 2017 revenue results. Of those increases, 36% stated that 2018 revenues increased slightly, while 45% reported 2018 revenues were significantly above 2017 revenues.

Investment in the industry continues to be strong and important to the respondents, as 52% indicated that their capital budget will increase in fiscal 2019.

Human capital continues to be an area of concern. Almost 68% of the respondents believe this will be a significant hurdle over the next five years. Nearly 55% of the survey takers plan to increase their workforce in fiscal 2019. Manufacturers have indicated that they are working on a number of ways to build the labor force, including apprenticeship programs (50%), community outreach (45%) and social media recruiting (48%), but increasing wages (66%) appears to be the most common way to recruit and retain workers.

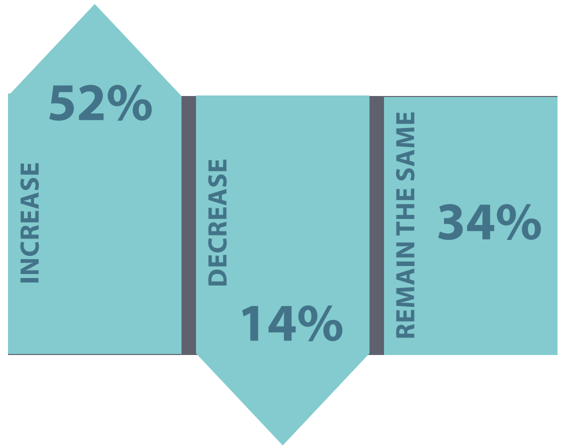
Even with some concerns and uncertainties that exist, 70% of the respondents believe that the outlook for manufacturers continues to be bright and are optimistic about the future. Investment in manufacturing continues to increase, and the optimism continues to grow for the industry.

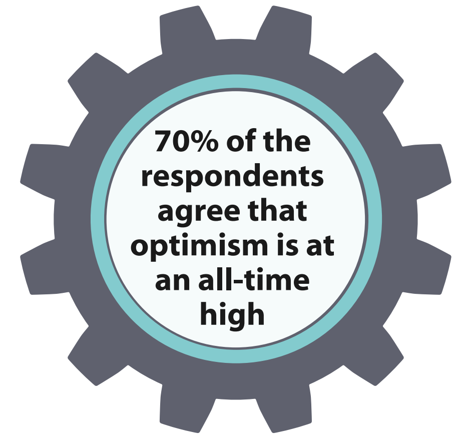
Thank you for your participation, and best wishes for a healthy and prosperous 2019!

Survey Result

MANUFACTURERS ARE OPTIMISTIC

2019 Capital Budget:





2018 Revenues Compared to 2017 Results

45%	Significantly above (>5%)
36%	Slightly above
9%	Consistent
7%	Slightly below
3%	Significantly below (>5%)

Survey Result

TOP 6:

IMPACTS AND CHALLENGES

MOST IMPACT ON THE INDUSTRY OVER THE NEXT 5 YEARS

- **68%** Development of labor force, filling the labor gap and talent acquisition strategies
- **46%** Automation, robotics and other technology advancements
- **36%** Maintaining market share and identifying new markets
- **27%** Supply chain management
- **25%** Government regulations and compliance
- **16%** Cybersecurity, data breaches and cyber compliance

TOUGHEST CHALLENGES

- **78%** Lack of skilled workers
- **64%** Rising cost of labor, including health care costs
- **27%** Government and environmental regulation (compliance)
- **25%** Technology and automation
- **16%** Succession planning
- **13%** IT security

Survey Result
SKILLED WORKER SHORTAGE

In 2019, 55% of the survey respondents plan to increase their workforce. Lack of skilled workers and rising cost of labor continue to be the toughest challenges for our survey responders.

ACTIONS TAKEN TO ADDRESS SKILLED WORKER SHORTAGE

66% Wage increases

50% Apprenticeships/In-house training

48% Social media engagement (i.e., recruiting, marketing)

45% Community outreach/Academic partnership

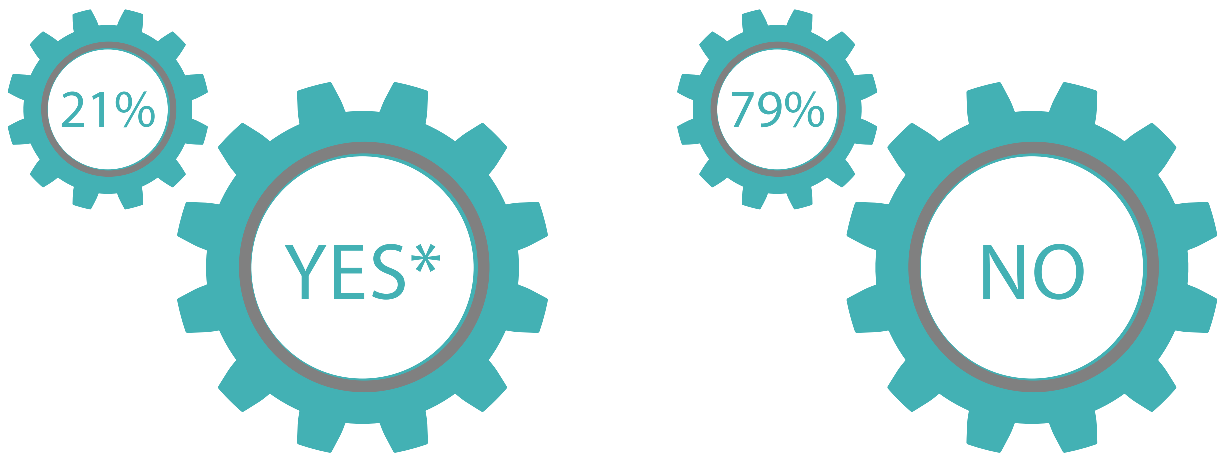
16% Tuition reimbursement

13% Additional employee benefits (more PTO, flexible hours, recruiting bonuses, cover 100% insurance, profit sharing through 401(k))

Survey Result
TAX CUTS AND JOBS ACT (TCJA)

71% of respondents believe the TCJA will **positively** impact their company

Will the respondents increase capital spending as a result of the savings realized from TCJA?



*Respondents who answered yes say they will invest their savings in capital equipment and human capital.

Our Thoughts On...

THE TAX CUTS AND JOBS ACT

Evan C. Ogrodnik

The Tax Cuts and Jobs Act (TCJA or Act) was enacted on December 22, 2017, marking the largest overhaul of the Internal Revenue Code (IRC) in over 30 years. President Trump, backed by a Republican-controlled House and Senate, passed the legislation through the budget reconciliation process (bypassing the generally required 60-senator vote). With the TCJA came several incentives to manufacturers across all entity types.

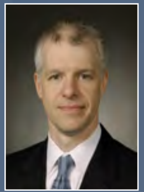
The major headline was the reduced corporate tax rate. Up through December 31, 2017, manufacturers taxed as C corporations were taxed at a maximum rate of 35%. The TCJA lowered the corporate tax rate to a flat 21% in an effort to make U.S. companies more competitive on a global basis. Authors of the TCJA anticipated that the reduction in the corporate tax rate would spur job growth and increase pay, capital investment and debt reduction. We have also seen large U.S. companies increasing shareholder dividends and making stock buybacks.

The TCJA included a new deduction for eligible pass-through entities (primarily those non-service-based businesses). The Qualified Business Income (QBI) deduction is an immediate 20% deduction from operating income, effectively bringing the top marginal rate for individual taxpayers down from 37% to 29.6% on eligible income. Most manufacturers structured as pass-through entities likely qualify for this deduction and will realize a significant tax reduction.

Manufacturers also have certainty as to available depreciation/expensing incentives for capital equipment purchases into the foreseeable future. The Act brings 100% bonus depreciation on qualifying property placed in service prior to December 31, 2022. Subsequently, there is a phase out through 2026. Bonus depreciation now also applies to both new and used property. For manufacturers that are acquisition-minded, amounts assigned to machinery and equipment in an asset purchase may now be fully expensed in the year of acquisition, which may yield significant year-one cash-tax benefits. Additionally, the IRC Section 179 expensing limit was increased to $1.0 million. A significant percentage of our respondents indicated that the tax savings realized from the TCJA would be reinvested in capital equipment.

Our Thoughts On...

THE TAX CUTS AND JOBS ACT



Evan C. Ogrodnik

The TCJA provides opportunities to reduce some administrative tax burden on smaller manufacturers (less than $25 million average annual gross receipts), including the availability to use the cash-basis method of accounting and the removal of the requirement to capitalize indirect/overhead costs into the tax basis of inventory (IRC Section 263A). There are also some changes with the requirements to track inventories.

There are provisions of the TCJA that will offset some of the tax benefits noted above. The Section 199 Domestic Production Activities Deduction was repealed, and in years beginning after December 31, 2021, research and development expenses will be required to be capitalized and amortized over a five-year period (15 years if the research is performed outside of the United States). However, the research and development tax credit remains intact. Additionally, companies will face a new business interest expense limitation whereby the deduction for interest expense will be limited to 30% of “adjusted taxable income,” which is effectively EBITDA on a tax basis. For years beginning after December 31, 2021, that limitation changes to 30% of EBIT. Highly leveraged companies, including those owned by private-equity firms, will likely face significant limitations in the amount of tax-deductible interest.

The TCJA changed the U.S. tax regime going from taxing income on a worldwide basis to that of a territorial structure (domestic operations only). Manufacturers with global operations likely faced the implications of the IRC Section 965 transition tax with their 2017 tax filings, a one-time “toll charge” on accumulated and deferred foreign earnings. On a prospective basis, U.S. manufacturers will only be taxed on domestic operations, and amounts repatriated from foreign subsidiaries will not be subject to U.S. tax.

There will be winners and losers with tax reform; however, manufacturers, in large part, should realize tax savings as a result. The majority of our respondents (71%) believe that the TCJA will positively impact their company.

CLICK HERE TO LEARN MORE

TAX REFORM

- **27%** FULL UNDERSTANDING/IMPLEMENTATION COMPLETE
- **49%** CURRENTLY ANALYZING IMPACT/IN PROGRESS
- **17%** LIMITED UNDERSTANDING/NOT STARTED
- **7%** N/A

REVENUE RECOGNITION

- **31%** FULL UNDERSTANDING/IMPLEMENTATION COMPLETE
- **45%** CURRENTLY ANALYZING IMPACT/IN PROGRESS
- **15%** LIMITED UNDERSTANDING/NOT STARTED
- **9%** N/A

LEASE ACCOUNTING

- **16%** FULL UNDERSTANDING/IMPLEMENTATION COMPLETE
- **33%** CURRENTLY ANALYZING IMPACT/IN PROGRESS
- **24%** LIMITED UNDERSTANDING/NOT STARTED
- **27%** N/A

Survey Result

NEW IMPACT TO CONSIDER

As a result of the tariffs, companies plan to:

- **72%** Pass on increased costs to customers
- **43%** Source raw materials from different regions (including domestic)
- **43%** Enact cost-saving measures to offset increased materials cost
- **4%** Increase workforce

82% of respondents believe they will be impacted by recently enacted tariffs

Survey Result

RECENTLY ENACTED TARIFFS

Our Thoughts On...

TARIFFS: WHERE ARE WE NOW?

Mark A. Sarver

In March 2018, President Trump announced his plan to impose tariffs on imported steel and aluminum. Ultimately, the Trump administration decided that 25% and 10% taxes were to be levied on imported steel and imported aluminum, respectively. These tariffs became effective on June 1, and the goals of executing them were to strengthen the country's global position and to bring manufacturing back to the United States. What's been the impact thus far?

U.S. Steel announced it was reopening one of two blast furnaces at its Granite City, Illinois location, where the company anticipated it would create an additional 500 jobs.

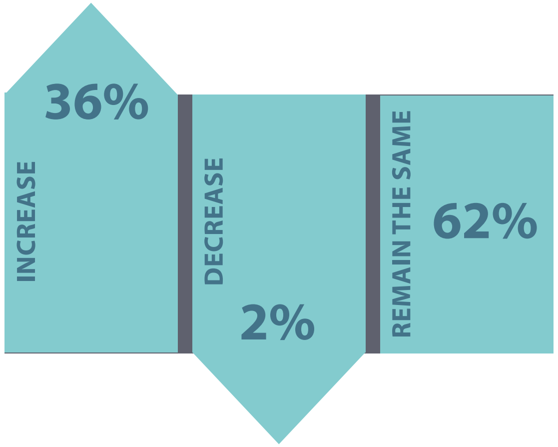
Responses to the enacted tariffs have not been positive among the many countries affected; however, the largest measure of retaliation was taken by China. One of the world's leading exporters of steel, China imposed retaliatory tariffs on the United States, affecting approximately $60 billion of U.S. goods. President Trump has threatened additional tariffs if China does not offer trade concessions.

During the second quarter, prices of U.S.-made steel rose by 5%, and the industry saw similar increases in overall revenues and profits. Since then, however, there has been some negative impact, as well, as a result of the retaliatory tariffs. As America has imported more steel than it exports over the last few decades, some companies have been put in a position in which they may need to begin to cut jobs. Roughly 21,000 U.S. companies have filed for tariff exclusions.

After initial positive results, it appears the retaliatory tariffs, coupled with the amount of steel imported, may put certain companies in a difficult position in the coming months. Most recently, the Trump administration announced that U.S. tariffs on $200 billion of Chinese goods will not increase from 10% to 25% on January 1 as originally declared. Accordingly, China has agreed to reduce and potentially remove tariffs on American automobiles coming in to its country (the tax is currently 40%). As of mid-January, the feeling among industry analysts is that the originally proposed January 1st tariff increases likely will be further suspended, as China's trade surplus has hit a record-high $323 billion.

There will no doubt be further changes along the way, but it remains to be seen how any additional tariffs or concessions will impact the nations involved.

2019 Information Security Budget:



Actions taken to improve security against cyber-attacks

57%	Performed a vulnerability assessment
50%	Held security awareness training
41%	Conducted a high-level security assessment
34%	Performed an independent penetration test
20%	Hired new key personnel to manage the risk

Survey Result

INFORMATION SECURITY

Our Thoughts On...

IT SECURITY

David B. Murphy

Respondents to our annual manufacturing survey have told us that they've been devoting more effort to information security by increasing their cybersecurity budgets. Approximately 36% of respondents indicated that they've increased dollars allotted to information security equipment and software, while only 2% noted a decrease.

An increased budget to focus on cybersecurity is always money well spent, since manufacturers have long been targeted by viruses, ransomware, Trojans, and even nation state-sponsored threat actors. These threat actors are after more than just your money or access to your personal accounts; they're often targeting intellectual property, especially if you've achieved success in proprietary manufacturing technology and/or technique.

The latest Verizon data breach report reflects the critical need for investment into cybersecurity, especially in the industrial sector. Of the manufacturers we surveyed, almost half of those breached involved the theft of intellectual property with the goal of gaining a competitive advantage.

Respondents revealed that cybersecurity investment focus areas include vulnerability assessments, security awareness training, high-level security assessments and penetration tests, all of which are great ways to manage security risks and should be funded and conducted on a yearly basis, if possible. Manufacturers should also test their organization against the defenses they have built. Take the following quote as an example from which to draw your cybersecurity posture and wisdom:

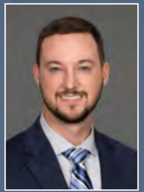
"The greatest victory is that which requires no battle." — Sun Tzu, The Art of War

If you're currently questioning what you can do today to help secure yourself against an attack, here are some simple steps that can be achieved quickly and efficiently with a limited budget:

Take time to understand what you're up against.

Researching new threats is critical, since malware authors are constantly finding new ways to invade expensive hardware or software installations. Research the most common malware variants and the

IT SECURITY



David B. Murphy

corresponding mitigation strategies, then try to determine if you have sufficient countermeasures in place.

Learn from other companies' costly mistakes.
Approximately 64% of survey respondents indicated that malicious actors attempted to infiltrate their corporate network, and 12.5% indicated that data was, in fact, taken as a result of a breach. The cybersecurity community benefits from those members who publicly disclose what weaknesses the malicious actors took advantage of, and are a great source of knowledge to dodge potential future malware infections.
Leverage an independent review of security practices.

Sometimes you and your IT security team can be so ingrained in day-to-day battles that you might lose sight of the big picture (in this case, the overall cybersecurity picture). Take the time to have a third party look at your processes and ensure that you're as prepared as you need to be, and open-minded and willing to accept the recommended improvements.

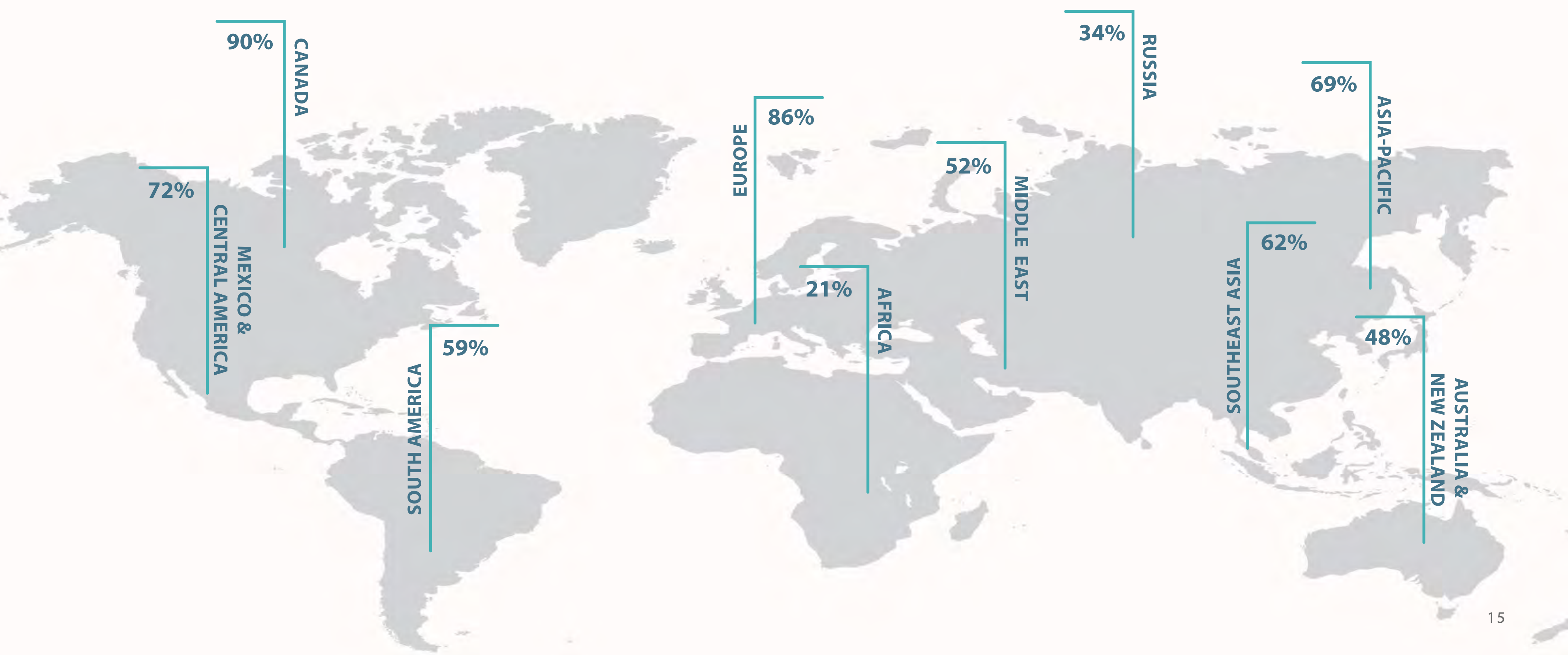
Survey Result

INTERNATIONAL CUSTOMERS

50% of the respondents have an international customer base.

INTERNATIONAL OPERATIONS

- 72% Sales agents/independent representatives
- 41% Manufacturing facilities
- 28% Shipping and distribution facilities
- 24% Administrative offices
- 14% Outsourced operations



Our Thoughts On...

THE UNITED STATES-MEXICO-CANADA AGREEMENT

Brian W. Matthews

The United States-Mexico-Canada Agreement (USMCA) will be effective in 2020 and will replace the North American Free Trade Agreement (NAFTA). The agreement, like NAFTA, will govern trade between the United States of America, Mexico and Canada but will have additional changes.

In the automobile industry, changes will be made to the country-of-origin rules to qualify for zero tariffs and labor requirements. To qualify for zero tariffs, 75% of a vehicle's components must be manufactured in the United States, Mexico or Canada, compared to 62.5% under the previous agreement. Also, 30% of a vehicle's production must be performed by workers earning at least $16 per hour; the percentage of which increases to 40% in 2023. Workers will also have the right to union representation in Mexico.

The USMCA will ease restrictions in the Canadian dairy market and will allow U.S. farmers to export up to $560 million worth of dairy products, which represents about 3.6% of the Canadian market. That percentage is up from 3.25% under the Trans-Pacific Partnership, of which the U.S. is no longer a member, and a significant increase from the 1% of goods allowed under NAFTA.

Intellectual property and digital rules have been extended and stiffened. The USMCA will extend the life of copyrights from 50 years to 70 years past the author's life and extends pharmaceutical drug protection from generic competition. Enforcement will also be governed by USMCA for suspected pirated and counterfeit materials between the three countries.

The USMCA will expire 16 years from its effective date and will be reviewed every six years, which differs from the predecessor agreement, which had no expiration date. The agreement can be extended through 2052.

The USMCA is subject to ratification by all three countries, which is expected by Mexico and Canada. However, with the results of the November midterms, the ratification by the U.S. Congress may be more a challenge than when President Trump negotiated the terms of USMCA.

Survey Result

GENERAL DATA PROTECTION REGULATION (GDPR)

Top steps taken to be compliant with the European Union's GDPR:

- **35%** No action has been taken
- **24%** Performed a comprehensive compliance and gap assessment and remediated as necessary
- **14%** Instituted GDPR training and awareness
- **10%** Instituted an erasure or "right to be forgotten" program
- **4%** Anonymized or pseudonymized all personal data
- **4%** Updated privacy statements

Our Thoughts On...

THE GDPR: WHAT'S HAPPENING SO FAR

Eric M. Fair

The General Data Protection Regulation (GDPR) became fully effective on May 25, 2018, enforcing the privacy and protection of EU personal data. After the inception of the regulation, many organizations still have to undertake major initiatives before they become fully compliant.

Common GDPR Roadblocks

We've seen many organizations run into common roadblocks as they try to avoid the heavy potential fines – up to 4% of annual revenue or €20 million – introduced by the GDPR:

- Lack of resources (staff, expertise, budget) to devote to compliance efforts to ensure appropriate changes are made effectively;
- "Data Sprawl" – the same personal data exists across a wide range of applications, email, file systems, desktops and cloud solutions;
- Lack of control over document workflow related to the transfer of personal data; and
- Efficiently and effectively identifying a data subject's information across all structured and unstructured systems.

As a reminder, the GDPR extends to non-European businesses that offer goods and services to data subjects in the EU, and also to those non-European businesses that monitor EU data subjects' behavior.

Impact Thus Far

Although the Information Commissioner's Office (ICO) – the UK's independent authority to uphold information rights in the public interest – has yet to issue a maximum fine, several organizations have already been penalized under the new regulation. Organizations that have not yet taken steps to become fully compliant can't think this regulation is behind them. Fact is, awareness surrounding the privacy and protection of personal data has never been higher, and the number of breach complaints to the ICO is on the rise.

What's the United States Doing to Address Privacy?

As the GDPR set the standard for the privacy and protection of personal data, other international laws, bills and initiatives continue to surface. So what's our country doing to address these privacy concerns?

Our Thoughts On...

THE GDPR: WHAT'S HAPPENING SO FAR

Eric M. Fair

Within the United States, a number of privacy acts with statewide jurisdiction have been established, including:

- The Colorado Data Privacy Act, passed in September 2018
- Vermont's H.764, also known as the Data Broker Privacy Law, effective beginning January 2019
- The California Consumer Privacy Act, effective beginning January 2020

Remember, your reputation and revenue are on the line, so invest in the necessary resources to ensure your organization has an effective long-term GDPR compliance strategy.

Survey Result

ABOUT THE SURVEY RESPONDERS

Karen M. Lang

What does the U.S. manufacturing industry need to do to remain competitive?

"

Automate

Educate

Evolve

Innovate

"

SECTORS

- Metals
- Industrial
- Wholesale Distribution
- Assembly
- Consumer Goods
- Plastics
- Chemicals
- Mixed Materials
- Food Services
- Automotive
- Print Finishing
- Home and Building
- Rubber
- Electronics

EMPLOYEES

- Fewer than 50 - 27%
- 51-150 - 29%
- 151-250 - 15%
- 251-500 - 10%
- More than 500 - 19%

ANNUAL REVENUES

- Under $10 million - 19%
- $10 to $25 million - 29%
- $26 to $50 million - 15%
- $51 to $100 million - 12%
- $101 to $250 million - 10%
- Over $500 million - 15%

ABOUT THE SCHNEIDER DOWNS MANUFACTURING INDUSTRY GROUP

Schneider Downs provides accounting, tax and business advisory services to the manufacturing industry in Western Pennsylvania, Central Ohio and around the world. Our team of business advisors works with a range of manufacturers from high-tech startups to publicly traded industrial manufacturers.

Our Manufacturing Industry Group helps our clients streamline operations, improve internal controls, save taxes and grow profitability. Our dedicated team of professionals has the experience and knowledge to create solutions specific to your manufacturing organization, solutions that will help you achieve your business goals.

Stay current with changes as they happen and subscribe to our weekly *Our Thoughts On* articles. Sign up on our website: **http://www.schneiderdowns.com/subscribe**.

For more information about our services to the manufacturing industry, visit our website or contact one of our Manufacturing Industry Group Team Members:

Evan C. Ogrodnik – eogrodnik@schneiderdowns.com
Edward R. Friel – efriel@schneiderdowns.com
Brian W. Matthews – bmatthews@schneiderdowns.com
Brian C. Reitz – breitz@schneiderdowns.com
Mark A. Sarver – msarver@schneiderdowns.com
Karen M. Lang – klang@schneiderdowns.com

Pittsburgh:
p 412.261.3644

Columbus:
p 614.621.4060

schneiderdowns.com

CLICK HERE TO LEARN MORE

PrimeGlobal
An Association of Independent Accounting Firms