20/20 VISION:
The Future of the Canadian Electrical Contractor
Most industries are set to undergo more transformations during this decade than in any other past time period. The electrical industry is not immune to this. Many of the changes coincide with the emergence of new technology, shifting age demographics, economic conditions and changing customer expectations. All players within the electrical industry will be challenged to adjust their business strategies to keep pace with new market demands.

Electro-Federation Canada’s latest research report examines the changing trends, as experienced by our largest customer segment—electrical contractors. The findings in this report offer insight on the strengths, challenges, opportunities and threats that Canadian electrical contractors are experiencing due to the emergence of a number of factors.

The interests and viewpoints of electrical contractors were gathered through two focus group discussions and an online survey to a sample base of electrical contractors from across the country.

The research revealed several key findings that shape the overall scope of this report:

1. The uptake of pre-purchasing trends by end customers is driving new concerns among contractors. A growing percentage of electrical contractors are tasked with taking on labour-only roles, which undermines their overall value proposition, results in a loss of control over projects, reduces their margins, and raises safety, warranty and liability concerns. This trend has also led to some mistrust within the channel; namely by contractors towards those manufacturers and distributors who may be selling directly to end users.

2. With the emergence of new products and technologies paving the path to a new subset of market demands, electrical contractors are re-evaluating their business models to reflect current realities. Many contractors are deciding between one of two strategies: diversify to offer a wider range of services or specialize to offer expertise in core services.

3. Electrical contractors are facing an abundance of new products, technologies and tech-based services. They increasingly rely on manufacturers and distributors to provide more Web-based training programs and product updates for education on emerging product trends to offer safe, reliable service and relevant expertise to meet new customer demands.

Electrical contractors will have to consider ways they can reignite value with manufacturer and distributor partners.

Considerations

The findings in this report are believed to have a profound effect on electrical contractors in the coming years. Strong support from manufacturers and distributors will be critical for the future success of electrical contractors. Electrical contractors will have to consider ways they can reignite value with manufacturer and distributor partners. In fact, all channel partners will need to band together to mend, what is perceived to be the onset of, fragmented partnerships. Together, we must take a close look at how to strengthen partnerships and renew our focus on the strengths that each segment within the channel provides. This strengthened collaboration must also be communicated in unison to end customers to ensure they understand our common objectives and interests.
2. FOREWARD

by Canadian Electrical Contractors Association (CECA)

It’s getting harder to make a buck as an electrical contractor. Simply keeping abreast of the ever-changing regulatory and health and safety requirements of the job might seem daunting enough, but then add in customer demands for pricing, speed and efficiency, flexibility in anticipating and adapting to change orders, incomplete design specifications, razor-thin margins, and it’s hard to imagine why anyone would ever want to go into business as an electrical contractor. Oh, and by the way, don’t expect to get paid for the work you’ve done for three or four months afterward.

Purchasers of construction are also more frequently providing the materials in a misguided attempt to lower costs, oftentimes without properly understanding what materials are needed for the project or the impact on what the contractor has priced.

If we take things a step further, unionized contractors have virtually no control over their labour supply or the cost of that labour. The union controls who the contractor can hire and who is accepted into training as a new apprentice, as well as what the labour rate will be in a competitive bid. Non-unionized contractors, by contrast, can hire and fire at will and bid jobs at whatever labour rate they are willing to pay, having much greater control over their business model.

Electro-Federation Canada seems to understand the challenges that our contractors face daily and they want to conduct meaningful research designed to better assist our contractors in navigating the constantly-evolving economic situation and the business challenges they regularly face. We wholeheartedly support and endorse their efforts.

Jeff Koller
Executive Director
Electrical Contractors Association of Ontario

3. INTRODUCTION: WHAT’S YOUR 20/20 VISION?

The Canadian electrical industry has come to an important crossroad. The emergence of new technology, shifts in age demographics, volatile economic conditions and changing customer expectations have given rise to new challenges and opportunities within the industry.

Technological advancements in products and services are leading to new customer expectations and the need for increased training support. Millennials – who now represent the largest workforce in Canada¹ – are challenging traditional employment and business practices. The economic downturn is forcing Canadian companies to re-examine overall business operations. All of these factors are happening simultaneously and are challenging the way businesses have always operated.

To address these changes, companies must think forward and explore some important factors: What will their business model look like by 2020? Who will their primary customers be? How will they adjust business strategies to meet new customer and employee expectations? This forward-thinking approach is critical for businesses today. After all, you need to have a vision of where you are going, to build a path to get there.

You need to have a vision of where you are going, to build a path to get there.

The purpose of this research report is to provide members of Electro-Federation Canada (EFC) with insight on the challenges that their largest customer base, electrical contractors, are experiencing in this new era of change, and how manufacturers and distributors can help support this important customer segment and advance the industry.

To gain a wide perspective on the electrical contracting market, EFC collaborated with a number of organizations, including:

- the Canadian Electrical Contractors Association (CECA), a national association that represents provincial and territorial electrical contractor groups;
- Kerrwil Publications, a leading online market resource for the Canadian electrical industry; and
- various provincial electrical leagues, including the Ontario Electrical League.

EFC also enlisted support from a Market Research Committee, comprised of industry professionals from member companies. See page 2 for a list of committee members.

Environics, a leading market research firm, was also chosen to support focus group efforts.

Through this collaboration, EFC organized two focus groups, with union and non-union contractors, and deployed an online survey to electrical contractors across Canada. The findings from the two focus groups and the national survey form the premise of this report.

4.1 THE SAMPLE BASE

Focus Groups
The objective of each focus group was to gain qualitative insight based on a framework of questions developed by EFC’s Market Research Committee. This qualitative research drew out a range of opinions held within each sample group of electrical contractors.
The first focus group meeting took place in January 2016 and featured a two-hour teleconference discussion with eight electrical contractors from CECA. Environics moderated this focus group and provided interpretation and an analysis of the discussion. Focus group participants were all in senior management roles at unionized contracting firms from regions across Canada. See Appendix A for a list of participating companies.

The second focus group also took place in January 2016 and included a one-hour session with the Ontario Electrical League’s contractor committee. The group of 16 participants were all senior-level electrical contractors based in Ontario. The majority of participants in this group were non-union contractors. See Appendix A for a list of participating companies.

Online Industry Survey
To gain a wider perspective, quantitative research was also conducted by means of a national survey that was sent to electrical contractors across Canada. The survey was made available online and in both English and French. The survey was deployed and ran throughout the month of February 2016. Kerwil, CECA, and various regional electrical leagues (Ontario Electrical League, Alberta Electrical League, Electrical Association of Manitoba and the British Columbia Electrical Association) distributed the survey through their respective databases. A total of 343 survey responses were collected, giving responses a 95% confidence level with a margin of error of +/- 5.25% (bias not withstanding). See Appendix C for survey questions.

Profile of Survey Respondents
The sample base from the survey profiled a diverse mix of respondents from different regions, age demographics and business segments. The majority of respondents were between the ages of 46 and 64. Most respondents were in management/owner positions (88%) at small-to-mid-sized businesses ($20 million and under) with 50 employees and under.

From a market segment perspective, almost half of all respondents said they conduct business in the Commercial sector; one in four are in Residential; and another quarter are in Industrial.

Most respondents were non-unionized contractors (67%), which is reflective of the broader mix of union versus non-union contracting firms in Canada.
Over time, each segment in any industry undergoes shifts that require the re-examination of core strengths and values. In the Canadian electrical industry, contractors are experiencing a surge of changes that challenge their core competencies. While many of the changes are not new (customer and supplier demands have always been at the forefront of market challenges), the complexity of new technologies, skill requirements and employment trends are driving new levels of challenges for the channel.

This section of the report spotlights some of the growing trends in the electrical channel, as outlined by contractors during the focus group discussions and in survey responses. The trends are categorized into six core areas:
- Customer Relationships
- Business Scope
- Technological Advancements
- Training & Development
- Demographics & Staffing
- Business Profitability Impacts

These areas provide a number of opportunities for manufacturers and distributors to consider as they scope out their strategic plans.

5.1 CUSTOMER RELATIONSHIPS

Pre-purchasing Trends

Electrical contractors are an integral part of the supply chain. They are depended upon by the channel to source materials and conduct installation and maintenance work. However, a growing trend towards the pre-purchasing of materials by end users is impacting the traditional “source-buy-install” role that contractors have normally held.

The notion that end users are increasingly purchasing their own materials and relegating contractors to only perform labour, was a top concern for participants in both
focus groups. In all instances, contractors raised concerns about the significant risks and loss of control that result from end users sourcing their own materials from suppliers, whether it be direct or through online sources. Focus group participants expressed that this trend is weakening the overall channel and putting safety measures and business profitability at risk—all of which, they feel, is creating in ill-will among contractors.

A growing trend towards the pre-purchasing of materials by end users is impacting the traditional “source-buy-install” role that contractors have normally held.

Contractors are not interested in assuming the role of “labour-brokers” as this is a negative shift away from their core competency. In fact, during one of the focus groups, contractors shared that nearly one-third of their projects are now labour-only contracts and many are turning away these projects.

“You don’t really know where they’re [end user] sourcing material from, which causes us a lot of grief for us, with respect to delivery, installation, and tight timelines on projects,” said a focus group participant.

Another participant added, “Liability and warranty issues arise because who assumes responsibility if a product that’s pre-purchased by an end customer doesn’t work?”

Transference of Risk
With each project, contractors always run the risk when installing unfamiliar materials. Much of this risk is understood by the contractor when they are responsible for sourcing products. However, as end users begin sourcing their own materials directly from suppliers, contractors are faced with several risks: installing materials that could be uncertified for use in Canada (this is becoming more prevalent with online and offshore purchasing) and/or being asked to install products that may be unfamiliar to the contractor (products that are not part of typical project specifications). Time plays a key role as well; end users are increasingly demanding that work be performed within a tight timeframe, yet contractors have no control over the delivery of parts sourced by the end user, nor can they be sure that all parts required have been ordered (e.g. solar panels arrive on the jobsite, but no-one has sourced the mounting brackets).

Warranty/Liability
Risk factors are even greater when you consider maintenance and warranty issues. When products are purchased by an end user and the system becomes inoperable because of a faulty product, who is ultimately liable and held accountable? The purchaser? The contractor? The supplier? Many end users are placing the onus on contractors to uphold warranties and repair/replace faulty products.

Safety
Sourced products are not always certified to Canadian standards—at times, products do not have any safety certifications at all. This can especially be true for products that are sourced from online sites or offshore suppliers. This is especially important as it relates to consumer safety and to the overall credibility of electrical contractors in general.

Also, consider safety as it relates to counterfeit electrical products. In a study conducted by Electrical Safety Foundation International (ESFI), a majority of respondents (primarily manufacturers, distributors, contractors and inspectors) said they were “extremely concerned” about counterfeit electrical products. One-third of ESFI survey respondents reported that they have encountered a counterfeit electrical product and, even more alarming, they reported discovering, on average, five counterfeits within a 12-month period.4

All of these factors demonstrate the growing safety and risk concerns that contractors face due to this pre-purchasing trend.

5.2 BUSINESS SCOPE

This next section addresses how market changes and customer pressures are impacting contractors’ business frameworks, requiring many to re-examine their current practices and seek out alternative models.

In the survey, contractors were asked to rank four key areas that would have the most impact on their business in the next five years. Options included ‘new product technology’, ‘new supplier technology’, ‘changing demands from customers’ and ‘internal employee challenges’. Nearly 40% of survey respondents believe that ‘changing demands from customers’ will have the most impact on their business going forward. This might correlate to the pre-purchasing trends contractors expressed concern with in the previous section. New product technology and internal employee challenges, were other areas that were said to have a pending impact. These factors are explored below and serve to demonstrate the changes that electrical contractors will be required to undergo to remain competitive.

Diversification vs. Specialization

Electrical contractors are all too aware of how market changes will impact their business. With technological advancements, demographic shifts and changing customer needs, a growing number of contractors feel that they must adjust their business models to reflect current realities. During both focus group discussions, participants shared two strategies that many plan to implement in the coming years to address the changes: diversify to offer a wider range of services, or specialize to offer expertise in core services – two strategies that are at opposite ends of the spectrum.

According to the survey results, nearly one-third of survey respondents (32%) said they will diversify to include new areas of business in the next five years—upon delving deeper, the results showed that unionized contractors find more value in diversification than non-union contractors. This sentiment was also shared during discussions with non-union contractors. One participant said “a diversification of services might yield results when we need to create new customers in a less-than-stellar local market.”

Most contractors expect to remain within the territories where they conduct business. From a geographical perspective, regional diversification appears to be the least popular choice for businesses. Only 6% of all respondents indicated that they will expand their business into other regions.

Both diversification and specialization are good strategies to consider and they offer different advantages. Diversification, or expansion, can help buffer against economic shifts and well as

### FIGURE 7: BUSINESS OUTLOOK IN FIVE YEARS

Which of the following BEST represents your business in five years?

- Expand into other regions, 6%
- Diversify to include new areas of business, 32%
- Offer additional services to existing customers, 20%
- Fewer but bigger customers, 19%
- More smaller customers, 22%
- Fewer customers, 20%

Nearly 40% of survey respondents believe that ‘changing demands from customers’ will have the most impact on their business going forward.

Price Exposure

Another area that challenges the overall scope of contractor businesses is the world-wide web and its growing role in exposing product pricing. It is no secret that the Internet has paved the way to a whole new world for purchasing. While e-Commerce offers a number of advantages and is even gaining some traction among contractor customers in our industry, online price exposure has been a growing concern for electrical contractors. End users are more informed about product pricing than ever before. Many end users are doing their own online research to check pricing prior to consulting contractors. This results in shrinking margins and no recognition for value-added services.

Tendering Process

Contractors generally agree that that tendering process has become shorter and more fragmented due to customer expectations to deliver projects within tighter timelines. This process has led to many feeling a loss of control over bidding practices. This loss of control, coupled with diminishing margins, make it challenging for them to remain cost-competitive during the tendering process.

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1 Those who responded to the survey were primarily from Ontario (38%) and Alberta (40%). Respondents were asked which region(s) their company conducted business in. The option to choose more than one region was allowed. 2 In an e-Commerce study conducted by EFC, almost three of every four survey respondents said they purchased electrical products, with half buying more than 10% of their total annual electrical product purchases online. Source: Click and Order: Examining Online Research & Purchasing Trends of Canadian Electrical Customers. Electro-Federation Canada. May 2014, p. 9.
The dynamics between losing business to the lowest bidder and the value in relationships continues to be at play—and will have a bigger impact with continued online price exposure and new players in the industry. Re-establishing the importance of relationships and partnerships is a key notion that will be discussed later in this report.

 Specifications  
In recent years, specifications have become a point of contention for many electrical contractors; many feel that they are being removed from the overall specification process, resulting in a loss of control over projects. Focus group participants shared concern with this growing trend; they said that it not only impacts the tendering process, but also affects their work: “owners are spending less on design. We then get incomplete designs and are expected to still carry out work within compressed timelines for partially-designed projects.”

Electrical contractors are also required to make ad-hoc purchases to meet schedule demands: “in the end, we’re responsible for making sure that everything is there [onsite] for a complete project. If a connector is missing, we’re the ones who have to run around and find it,” said another focus group participant.

As contractors are forced to take a back seat during the specification process, many must also undergo a steep learning curve in order to install products that they may not be familiar with, which again, can impact installation times and also increase the risk of errors.

As pricing pressures heighten, contractors and users who are involved in the specification process often opt to use alternative products to reduce costs. “I think right now, based on the economy, more people are looking at alternatives as long as it does the job and meets the criteria, they’re willing to accept the alternatives.”

This movement towards replacing materials with alternatives begs the question “what about brand and supplier loyalty?” Well, according to the survey, product and supplier loyalty were shown to have the least impact on contractors’ purchasing decisions. This factor might be associated with the growing use of alternative products to lower overall project costs and the weakening relationship among channel partners. More on this, later in the report.

5.3 TECHNOLOGICAL ADVANCEMENTS

Electrical contractors recognize the need to stay current with new emerging product technologies and tech-based services in order to remain competitive. New technologies require investments in training existing staff and hiring new staff with skilled expertise.

New Technologies

With the convergence of technology and the growing interconnectivity of products and services, the electrical industry is undergoing a rapid expansion that now includes other market players (e.g. HVAC, Datacom)—this is occurring at a pace faster than ever experienced before. The entire electrical channel is feeling the pressure to keep pace—end customers, contractors, distributors and manufacturers.

When asked about the impact various trending technologies will have on business growth, electrical contractors said the following technologies will have the most impact:

87% of survey respondents indicated that Lighting Technology (OLED, LED, LIFI) will have a positive impact on their business growth in the coming years. While Lighting Technology is regarded as having a positive impact, contractors should take heed and note that as they offer more lighting technology services, direct purchasing could increase because lighting is a commodity and lighting projects often result in more direct buys.

Other technologies expected to have a positive impact include Fire/Life Safety Systems (53%) and Building Automation and Controls (52%).

Other areas of interest are associated with EV Charging Stations and Alternative Energy. The survey shows both at 45%, indicating continued growth likely in these areas over the next five years.

During a focus group session, energy efficiency and renewables was discussed at some length. One focus group participant said, “Three-quarters of our business right now is based on new technology, so this has a big impact on my business. We primarily do energy-saving projects….and have the need to design and build energy-saving projects, so we use all the kinds of new technology, mechanical and electrical equipment. Just five years ago, it was the contrary; new technology made up 25% of our business and 75% were regular electrical jobs.”

FIGURE 8: TECHNOLOGY IMPACTS IN NEXT FIVE YEARS

What impact will the following areas have on your business?

<table>
<thead>
<tr>
<th>Area</th>
<th>Positive impact</th>
<th>Neutral</th>
<th>Negative impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting Technology (OLED, LED, LIFI)</td>
<td>87%</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>Fire/Life Safety Systems</td>
<td>53%</td>
<td>42%</td>
<td>4%</td>
</tr>
<tr>
<td>Building Automation and Controls</td>
<td>52%</td>
<td>44%</td>
<td>4%</td>
</tr>
<tr>
<td>EV Charging Stations</td>
<td>45%</td>
<td>51%</td>
<td>5%</td>
</tr>
<tr>
<td>Alternative Energy (Solar, Wind, Batteries, Etc.)</td>
<td>45%</td>
<td>49%</td>
<td>6%</td>
</tr>
<tr>
<td>Home Automation and Controls</td>
<td>42%</td>
<td>52%</td>
<td>6%</td>
</tr>
<tr>
<td>The Internet of Things (Power over Ethernet, Etc.)</td>
<td>39%</td>
<td>54%</td>
<td>7%</td>
</tr>
<tr>
<td>Industrial Automation (Robotics, Factory Automation)</td>
<td>33%</td>
<td>61%</td>
<td>6%</td>
</tr>
<tr>
<td>Low-Voltage DC Power</td>
<td>30%</td>
<td>64%</td>
<td>7%</td>
</tr>
</tbody>
</table>
Low-voltage Power
It is important to take note of where Low-voltage DC Power fits in with the overall picture. DC Power has received wide acclaim over the past year. While just less than 30% consider this technology to likely have a positive impact, 64% remain neutral. There is opportunity for suppliers to work closely with contractors to better inform them about the growing trend towards DC power—especially as service-provider roles for low-voltage installations begin to blur, as IT specialists and other non-electricians begin moving into this space. One focus group participant stated, “with new product technologies such as wireless lighting controls, existing staff will be required to reinvent themselves and learn to adapt to new technological advancements—if we don’t, other skilled workers, will.”

Several contractors remarked that they have already begun setting up IT and labour divisions within their businesses to address fast-paced technological changes. A focus group participant remarked, “in five years, there may no longer be the need for a sole electrician—this role will have to expand to capture other technologies and installations.”

A unionized focus group participant commented, “Power over Ethernet (PoE) is going to dramatically affect our business. I see that it will reduce our scope by 25% to 30% in the ICI sector. Not so much in the manufacturing sector, but in the ICI sector, where they not only have lighting products now that are powered over Ethernet, but they also have VAV boxes and fans and other products that are powered over Ethernet. As this sort of technology advances, this work is going to be done by less-skilled labourers, wiping out a considerable percentage of our business. The unions have to keep up with this, whether they like it or not. They have to start recognizing this problem; they have to start dealing with it and creating a different classification within our unionized sector.”

What does this all mean?
These technology splits provide areas that contractors might consider as part of their diversification or specialization strategies; contractors may diversify to offer a range of these technology services, or focus on one or two main areas and specialize.

Interestingly, very few respondents regard any of the named technologies as having a negative impact on their business. This shows that contractors feel up to the challenge for taking on new services that extend their traditional scope—and are ready to pursue the required training and expertise needed to offer the new services to end customers.

Tech-based Services
With advancements in technology providing more innovative solutions, it is necessary for services to also expand to augment contractors’ business needs. Electrical contractors were asked how important various supplier services would be in the coming years—and many of the top-rated choices are technology-based. Here are the key services that survey respondents named as most important to their businesses in the coming years:

Note that 80% ranked ‘access to online product specifications’ as a very important or extremely important service from suppliers. This shows that contractors are increasingly interested in conducting product research online and will expect a platform in place from suppliers in order to do so. Other top-rated services include: ‘flexible delivery options’ and ‘access to a network of experts’, which is increasingly important given the complexity of new products and technologies.

During the focus group discussions, participants raised concern with the growing gap between online services available to contractors in Canada versus in the United States. Many feel that the Canadian market is lagging behind the U.S.; a few shared the example of distributors in the United States providing electrical contractors with direct access to their purchasing/inventory...
software, allowing them to see what products are available, how fast they can be delivered, and various other options. This direct access from some U.S. distributors eliminates the need for contractors to contact distributors, who in turn, provide product information from the manufacturer.

Participants shared concern that there is too much red tape and turf protection among Canadian distributors and manufacturers, which prevents contractors from accessing online inventory levels; only a small subset of Canadian distributors currently offer this access. This access is perhaps of particular concern to contractors given the tighter and tighter timelines they are expected to contend with.

These results and discussions point towards one common element: contractors’ growing need for online availability to a wide range of services that offer access to product specifications, product inventory, delivery times and support.

5.4 TRAINING & DEVELOPMENT

This next section addresses the training and development requirements that have become increasingly necessary given the new technology and tech-based services.

“With all of the new technology, we have to make an investment in training our employees,” said a focus group participant. “Technology is going to come whether we like it or not, so we need to get on board with training our workforce to be able to be the best that they can be when it comes to the new technologies.”

Figure 10 shows the high regard that contractors place on training; 86% of survey respondents said they will train current employees in order to implement new opportunities, as previously outlined in Figure 8. With the influx of new products and technology making waves in the industry, the majority of respondents (86%) plan to train existing employees versus hiring new skilled workers with relevant expertise. Only 23% expect to contract external support for new services.

Staffing Considerations

Hiring new skilled workers is the next most chosen measure (41%). With impending retirements and the influx of new technologies, contractors will need to look beyond just training their current staff to acquire the skillsets needed to meet market demands. There is some promising news in this regard: new measures are already in place by industry organizations to prepare the next generation of electricians for the onset of new technologies. For instance, the National Electrical Trade Council (NETCO) has introduced a program that offers blended learning opportunities, allowing apprentices to learn about advanced technologies in lighting, automation and other areas of growth.

The data also shows that contractors are less likely to contract out the services to providers. Only 15% expect to make acquisitions to help implement new products and technologies—upon doing a deeper dive, results show that unionized contractors seem a little more likely to make acquisitions (21%) versus their non-union counterparts (11%).

Support from Suppliers

Contractors also expressed their reliance on suppliers to support training efforts and offer certification programs so they can maintain installation privileges, rather than being by-passed and then held accountable for work.

One focus group participant commented, “manufacturers can help provide more training opportunities for us to learn more about the new technology and how to apply it. I think in the long run it will help the manufacturer as well, because when people are specifying the new technology, they want to know that there are contractors out there who are qualified to install it properly.”

When asked how contractors prefer to obtain updates on new products and technology, the top three preferred methods stated were through Web-based programs, in-person meetings with sales representatives, and email communication (this also includes blogs and podcasts).
5.5 DEMOGRAPHICS & STAFFING

Another area this report strives to shed light on is how shifts in demographics will impact our industry. It is widely understood that technology and online access allow end customers to be more knowledgeable than ever before—especially the next-generation of end customers who are digital natives and expect 24/7 online access. But this heightened level of knowledge also holds true for the rest of the supply chain: contractors, distributors and manufacturers are also hiring younger staff who retrieve information and use technology in ways never experienced before.

Demographic Mix
Currently, many contractors are managing two segments of employees and customers: millennials and traditional groups. Those surveyed realize the fact that millennials are increasing in size in the market. Over half of all survey respondents said the millennial segment will have a significant impact on their customer relationships going forward. As a result, relationships will transform to include practices and measures that meet the needs and requirements of a younger customer base (i.e. mobile technology, digital services, social media and other marketing strategies).

**FIGURE 12: DEMOGRAPHIC IMPACTS ON CUSTOMER RELATIONSHIPS**

<table>
<thead>
<tr>
<th>Demographic Change</th>
<th>Ranked 1st &amp; 2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Customers Not Adaptive to Change</td>
<td>59%</td>
</tr>
<tr>
<td>Millennial Customers (Under 35 Years of Age)</td>
<td>57%</td>
</tr>
<tr>
<td>Language/Cultural Diversity</td>
<td>27%</td>
</tr>
<tr>
<td>Women in the Workforce</td>
<td>23%</td>
</tr>
</tbody>
</table>

Despite knowing that business practices will need to evolve to meet the next generation of end users’ needs, contractors are still expected to also meet traditional customers’ needs by retaining sufficient resources and practices. It’s no surprise that the majority of respondents cited ‘challenges with traditional customers who are not adaptive to change’ and ‘millennial customers’ as having the greatest impacts on their customer relationships. This split in customer types that need to be serviced will be even more significant in the next five years.

**Hiring Needs & Practices**
With changes occurring in how contractors interface with customers, one would expect internal staffing needs to also undergo some adjustments. Focus group members place value in finding and retaining skilled workers who will understand the new generation of customers’ needs, but they recognize their hiring limitations:

> "Our access to labour is governed by essentially who’s available at the union hall," shared a focus group participant. "We can bring in some apprentices through sponsorship, but most of the apprentices that we get in, all of the manpower that we get, is through the union hall. So, we don’t necessarily have full control of our workforce, nor do we really have full control on who the union brings into the union."

Non-unionized contractors are independent entities and can therefore conduct their own searches and implement their own hiring practices. This disparity could further separate unionized contractors from the non-union sector.

Moreover, there seems to be some regional disparity when it comes to hiring younger staff, as expressed by the following two focus group participants:

> "The B.C. government is really putting a focus on trades and training and we are getting a fair amount of young people that are interested in the trade. But, as I look five years out, I will have to replace an awful lot of talented people who will be retiring. I haven’t quite hit that yet, but I am trying to plan for it."

> Said another participant, “I think in Alberta we’re kind of in an anomaly right now, compared to a year ago when we were short of workers and we had people from all over Canada coming to Alberta to work. Now, all those people are going back home, because the economy is so deflated. So, getting those people back might be an issue, depending on what the oil price comes up to again. It will be really interesting over the next five years to see how what will happen.”

The survey results are less promising. While 41% of survey respondents recognize the need to hire new skilled staff (see Figure 10), a staggering 68% do not expect to make any changes to their hiring practices in the coming years!

The possible deregulation of some portions of our trade will allow unlicensed individuals to do work that is currently electricians’ work.”

– survey respondent commenting on what regulatory impacts the industry will face
5.6 Business Profitability Impacts

Contractors think several factors are expected to impact their business’ profitability over the next five years. The top three factors that are expected to have a positive impact are: government incentives (57%), information technology (55%) and employee training (54%). At the opposite end of the spectrum, the following factors are believed to have a negative impact on business profitability for contractors: insurance costs (52%), government legislation (48%) and health/safety costs (42%).

Electrical code and safety regulations continue to be of prime importance to contracting businesses but there are many challenges that contractors are not optimistic about. As shown in Figure 13, nearly half of all respondents are expecting government legislation to have a negative impact on their company’s profitability over the next five years.

Two specific regulatory concerns were raised by contractors during both focus groups: prompt payment legislation and Bill 112.

Prompt Payment Legislation

This is not a new concern, but is one that is becoming more pervasive over time. Increasingly, end customers are slow to pay for products and installation. When payment is received by general contractors, it often takes time for those further down the sub-contracting chain to receive funds, resulting in challenges for the electrical contractor. You’ll notice that close to 40% of survey respondents cited the collection of receivables as a concern; a contracting firm’s profitability strongly depends on when receivables are collected. Cash-flow risks often prevent contractors from investing in skilled workers, new machinery and technology—an impediment given the new competitive environment that contractors are facing. The concept in proposed legislation is simple: pay for completed construction work within 30 days.

Canada is the outlier; many other nations have adopted a prompt payment directive. Canada is one of the few remaining jurisdictions that still relies on liens and retainage to secure and enforce lawfully due payments in the construction industry.

Bill 112: Provisions to Ontario Energy Board Act

The Ontario government’s proposed Bill 112 would remove provisions of the Ontario Energy Board Act which restrict local distribution companies (i.e. utilities) from competing directly with licensed electrical contractors in non-regulated markets, such as street lighting. This Bill would also allow non-licensed electrical contractors to conduct EV charging station installations.

Government rules such as these impact contractors significantly; many feel a sense of loss of control over projects that they once had in full reign. “If we don’t hold onto our market share when it comes to the installation of these new technologies, we can lose it forever,” said one focus group member.

This issue transcends all provinces. Said another focus group participant, “when it comes to installing photovoltaic panels and electric vehicle charging stations, it’s not always the electrical contractor doing the work. It’s technologists and other people. We’ve had numerous challenges in B.C. over allowing...”

7 http://www.ontariopromptpayment.com
technologists to have restricted electrical licenses and taking out permits for a certain amount of work. We have to hang on to that work, because if we give it up, it will be gone forever.”

Safety Matters
Contractors continue to work closely with organizations such as the Canadian Electrical Contractors Association (CECA) and other related provincial groups to lobby for fair legislation. While electrical contractors fear a loss of control over the installation of new technology, safety remains at the forefront for contractors. Safety might perhaps be more important now than ever before. Contractors are increasingly relying on certification bodies and regulators to enforce safety measures. During the focus group discussions, several participants expressed the need for increased inspection activity for those who are bypassing safety regulations and getting away with it—versus those who are following the rules and are absorbing additional costs for compliance, whether it be training, equipment or practices.

When asked which regulations will most impact their business in the coming years, electrical safety topped the charts, closely followed by product certification.

This should come as no surprise. After all, licensed electrical contractors are recognizing that certification and safety are what sets them apart from “trunk-slammers” or non-licensed workers.

Market Conditions
Volatile market conditions in Canada are having a profound impact on contracting firms—as they are for most other segments within our market and other industries in general. With the low Canadian dollar and the dramatic drop in oil price, Canadian businesses are challenged. In the survey, 66% of respondents cited market economic conditions as likely to have a high impact on their project profitability. Close to half of respondents also said commodity price volatility is expected to have a negative impact on project availability. Construction projects have taken a backseat as end customers determine how to best manage their own businesses during these trying times.

“It will be an interesting time ahead if there’s more downturn in the overall economy and how that’s going to affect foreign investment within the markets that we all work in,” said one focus group participant.

Some contractors are still quite optimistic despite the poor economic conditions: “the downturn in the economy has really not affected us yet as we’ve been much more selective in the clients that we’re going after and we’re focused more on ICI work,” said one focus group member. He added, “however, I do see prices tightening up quite a bit, so our overall growth revenues and profits are going to be down.”

Said another participant, “it really depends on what part of the economy that you’re playing in. Definitely, oil prices have affected part of our business, but in the Greater Toronto area, for instance, we have so much infrastructure work going on right now, so we really haven’t felt as much of the downturn as others who are more reliant on the oil and gas business and manufacturing. I also think we’re going to start seeing more competition from people who traditionally don’t play in that market, just because there’s nothing else for them to do.”

5.7 WHERE DO WE GO FROM HERE?
This section has cast light on the top opportunities and challenges that Canadian electrical contractors feel they face in the changing industry. Economic conditions and advancements in products, technologies and services, appear to be the driving forces behind changes in purchasing trends, training and development, customer and staff needs as well as the regulatory importance.

The findings outlined offer insight on a number of opportunities electrical manufacturers and distributors might consider as they continue working with electrical contractors. The next section of this report delves into key areas such as: partnerships, training programs, support services and business practices that the manufacturing-distribution channel might implement to adapt.
6.1 THE VALUE OF PARTNERSHIPS

"We’ve gone away from the days of valuing relationships…some of us have businesses that we’ve built over many years and prided ourselves on the quality of work that we’ve done and the customer relationships we have. And, it’s getting harder and harder to hang on to those relationships."

– focus group participant

This quote is quite telling of the sentiment many electrical contractors share today.

But why is there a perceived shift in relationship dynamics? Some argue that pricing is the primary cause of the relationship gap; as customers face more cost pressures and have increased exposure to online price points and margins, they place less emphasis on who supplies the products and services. This results in contractors experiencing a loss of control over projects and reduced margins.

But pricing alone cannot be the sole reason. Many also believe that channel partners are placing less importance on relationships in general.

During the focus group discussions, contractors shared their growing concern with lacklustre relationships between channel partners—namely, with end customers and with suppliers. Contractors believe that customer and supplier relationships are now beginning to play second fiddle. The trust and partnership that contractors have built with suppliers is breaking down.

However, contractors must also recognize their role in the fragmentation of relationships. As more contractors override product specifications and their ability to recommend products and upsell to end users diminishes, manufacturers and distributors will look at alternative ways to get their products to market.

Contractors must also realize that pre-purchasing trends are impacting most other industries as well, and customer dynamics are changing within the entire landscape of buyer-seller relationships.
Interestingly, focus group participants viewed this differently. They believe channel relations are strong in other industries that have similar structures to the electrical sector.

Said one focus group participant, “the biggest problem is electrical equipment. If you look at the mechanical sector, there’s more respect for the contractor. Suppliers of electrical materials don’t respect the contractor, and they sell products to customers directly. You don’t see that in mechanical.”

The following are other dynamics that are at play:

**End-customer Perceptions**
As stated earlier, end customers are more aware of their project needs and costs than ever before. Online product availability and direct delivery options have led end customers to more easily access the materials they need.

Suppliers will need to evaluate the benefits and risks associated with this direct-buy method and decide how to best support the industry. Above all other criteria, safety and liability concerns should be considered as products may be sourced from unknown suppliers.

**Purchasing Decision Factors**
When making a purchasing decision, the following three factors are most considered by contractors: product reliability/warranty (57%), product availability (44%) and customer specifications (35%).

Brand loyalty has a play in partner relationships. As shown in the survey results (ranked the lowest at 12%), brand loyalty is expected to have a smaller role over the next five years. Survey respondents indicated that they place low emphasis on brand and supplier loyalty, unless particular products are hard-specified for a project.

### FIGURE 16: IMPORTANCE OF FACTORS WHEN CONTRACTORS MAKE PURCHASING DECISIONS

<table>
<thead>
<tr>
<th>Factor</th>
<th>RANKED 1ST &amp; 2ND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Reliability/Warranty</td>
<td>57%</td>
</tr>
<tr>
<td>Product Availability</td>
<td>44%</td>
</tr>
<tr>
<td>Customer Specifications</td>
<td>35%</td>
</tr>
<tr>
<td>Supplier Loyalty</td>
<td>19%</td>
</tr>
<tr>
<td>Social Responsibility</td>
<td>16%</td>
</tr>
<tr>
<td>Product Brand Loyalty</td>
<td>12%</td>
</tr>
</tbody>
</table>

When asked how much of a role product brand plays in project considerations, focus group participants had the following thoughts to share:

“The only time I think it plays a factor is if that product or item has been hard spec’d by a consultant and we don’t have any choices, we have to use that on the project. Otherwise, as long as it’s something that meets the specifications, then we can use whatever we want to use.”

“I think in a lot of cases the brand isn’t all that important, especially on commodity items, but I think when it gets to some of the larger equipment, then product brand does play a part. Because, it’s great to have a piece of equipment that’s a low price, but if you’re going to be servicing it for the next couple of years and you have problems with it or installation problems, warranty issues, that’s going to hurt you in the long run. So, there is some product loyalty certainly on the larger equipment.”

“The amount of electrical material that we’re supplying that is hard spec’d is getting less and less every year. I think right now, based on the economy, more clients are willing to accept alternatives.”

This brand impartiality could be because of pricing and timeline pressures put on by end customers, or might perhaps be another indication of weakening partnerships.

Despite the disruptions that are impacting channel relationships, we must renew our focus on strengthening relationships and repairing the lost trust between market players. Together, we can build a more resilient channel and promote the integrity, safety and reliability of this important sector.

6.2 BUSINESS PRACTICES & SUPPORT

In Section 5 of this report, a number of key business challenges facing electrical contractors were identified. Electrical manufacturers and distributors have a role to play in alleviating some of the challenges. The following are some opportunities that businesses might take advantage of to support their contractor customers during these changing times:

**Valued Tech-based Services**
There is still a growing dependency on suppliers to provide contractors with online product specifications, online access to product inventory and access to a network of experts. You might recall that these services were among those ranked highest by survey respondents (see Figure 9 on page 11). These rankings show that contractors still place significant value on the services that suppliers offer. Suppliers might consider strengthening their online services (product specification details, product inventory) and professional services (training, customer/technical support, access to experts) to solidify partnerships with contractor customers. Enhancements made to these services might just be a value-added way of restoring partnerships.
Training Programs
Training programs allow electrical contractors to stay on top of new products and technology trends so they can sharpen their knowledge and extend new levels of expertise to end customers. Effective training also enables contractors to safely and efficiently install new products and technology. With the rapid emergence of new technologies entering the electrical market—and with other hybrid technologies (e.g. wireless lighting controls or PoE lighting) getting more play in our industry—training programs are increasingly becoming more important. In fact, you might recall that 86% of survey respondents indicated that they are committed to training current employees (versus hiring new skilled workers) (see Figure 10 on page 12).

Manufacturers and distributors should assess their current training programs to ensure they offer timely, relevant updates on new products and technologies. In terms of delivery, contractors are most interested in the following training methods:

• Close to 70% prefer to learn about new products and technologies on Websites. This might include training podcasts, blogs, digital brochures and other online tools that contractors can access on demand;
• 50% of respondents prefer email communication. This could include regular newsletter updates.
• In-person meetings with sales representatives appear to be another preferred option—another good reason that our industry must strengthen partnerships; close to 60% like to receive updates in-person.

All of these factors point toward one primary consideration: the need for manufacturers and distributors to offer more training support to nurture positive partner relationships and allow for the effective application and installation of products, creating expertise among contractors who will know how to work with emerging products.

Jobsite Support
As contractors face increasing pressure to work within compressed timelines, many have expressed an interest in having access to the various support measures so they can work more effectively while on the job.

Figure 17 shows that the vast majority of survey respondents believe that digital devices on the jobsite would improve the overall productivity of their business. Distributors might consider introducing such devices or apps that allow contractors to access product updates, specification details, real-time inventory and availability information, delivery updates and a host of other details that are required onsite.

An interesting conversation related to on-the-job product information access sparked during an EFC Market Research Committee meeting. Committee members shared insight that a number of contracting companies are now employing “runners” to pick up and place orders at distributor branches. This is limiting the opportunity for distributors to offer additional products to contractors at the counter. As a direct result, merchandising displays are also not seemingly as important as before. Distributors might consider investing some of their marketing budget towards resources that allow those decision-makers who are increasingly remaining on-the-job (and coincidentally, paying less visits to branches) to see the latest products.
Pre-fabricated construction is another measure that survey respondents expressed interest in. Over 44% of survey respondents said they would benefit from having products pre-fabricated before being delivered to a jobsite. Manufacturers and distributors might consider offering kitted/pre-assembled solutions to help contractors speed up installation time. Another significant benefit to end-to-end solutions is the added value contractors could extend to end users. After all, if end users were made aware of the time savings afforded by pre-fabricated construction offered by contractors, they may re-consider pre-purchasing individual products.

The vast majority of survey respondents believe that digital devices on the jobsite would improve the overall productivity of their business. There is a large trickle-down effect and prices must increase to make up for any loss."

With on-time payment and more reliable cash flow, contractors can ensure prompt payment to their suppliers and also invest in new people, products and technology to bring their business up-to-speed with changing market demands.

**Emerging Markets**

As contractors consider broadening their service offerings to meet end-user needs, distributors and manufacturers might also have the option of diversifying to offer a range of other products that extend outside of electrical. For instance, Figure 8 on page 10 showed areas of growth that contractors are projecting in the next five years. While Lighting Technology, Business/Industrial/ Home Automation and Controls are trending steadily within our industry, other market segments are rapidly gaining traction, including Fire/Life Safety Systems, EV Charging Stations, Low-voltage DC Power—just to name a few.

**6.3 MOVING FORWARD**

As industry members explore some of the considerations to determine next steps for their businesses, a few other questions are raised that relate to trends addressed in this report:

- Who is the end customer making pre-purchases from when they buy direct? Are manufacturers increasingly selling direct to end users, or is there another purchasing trend at play?
- How prevalent is the pre-purchasing trend in other industries? What are other industries doing to address this trend?
- What must Canadian legislation adopt to enhance prompt payment practices? What countries have strong prompt payment directives and what can we learn from them? What role can manufacturers play in moving this important issue forward?

As our industry undergoes shifts and transformations, questions such as these will continue to have a role in shaping the relationships we form with customers moving forward. Manufacturers and distributors must examine the value proposition that contractors offer to their business—and to the industry as a whole. The next five years will be about how your company can differentiate itself and be recognized as a strong industry partner during these transformative times.

**FIGURE 17: TECHNOLOGICAL ADVANCEMENTS AND BUSINESS PRODUCTIVITY**

**Q** Do you foresee any of the following technological advancements improving the productivity of your business in the next five years?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Yes</th>
<th>Unsure</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digital Devices on Jobsites</strong></td>
<td>63%</td>
<td>24%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Pre-fabricated Construction</strong></td>
<td>44%</td>
<td>31%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Cameras/AV/monitoring (Jobsite Security)</strong></td>
<td>45%</td>
<td>32%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>3D Printing</strong></td>
<td>16%</td>
<td>40%</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Robotics</strong></td>
<td>12%</td>
<td>38%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Drones</strong></td>
<td>5%</td>
<td>35%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Other jobsite technology such as cameras, AV and monitoring solutions were also referenced as tools that would help improve onsite productivity. Manufacturers and distributors may want to offer these tools as extended services.

**Prompt-payment Support**

As discussed earlier, focus group participants raised concern with the growing impact that delayed payments from end customers are having on overall business operations. Contractors ask suppliers to support their prompt payment cause: “when we’re talking about manufacturers and suppliers, it would be nice to see them help us with prompt payment more. If anybody is going to benefit from it, they’re probably going to benefit the most,” said a focus group participant.

Another participant said, “I think a lot of it is publicity, support of it and understanding that it’s a necessary part of doing business. I haven’t heard too much from suppliers about how much it costs them every year by not getting prompt payment themselves. There is a large trickle-down effect and prices must increase to make up for any loss.”
transformation, to any varying degree, is always daunting. The speed of change in the Canadian electrical industry is constantly accelerating and our largest customer segment—electrical contractors—are feeling the impact of these changing times. Many are challenged with a sense of lost control over projects, reduced margins, strained partner relationships and have expressed heightened safety, warranty and liability concerns related to pre-purchasing trends. Contractors will be required to adjust their business practices and explore new avenues to ensure their services remain relevant and a valued part of the supply chain.

Pre-purchasing trends, warranty and liability issues, new products and technologies, training needs and shifts in customer and employee demographics will alter the way electrical contracting firms plan for their business in the coming years. Some will opt to diversify, while others find a niche market to specialize in. As well, with the growing diversification of new technology (such as low-voltage DC power) and related installation work having more play, contractors will have to decide if they will embrace or challenge technological advancements.

This report has also provided observations that manufacturers and distributors can assess to adjust their own business models. While electrical contractors must recognize the role they play in fostering positive relationships and a strong channel, manufacturers and distributors are also encouraged to support partnerships by offering services that help contractors bridge the gap between end user expectations and the scope of their own business.

From a macro perspective, further consideration must be given to the impact of these emerging trends on the entire electrical industry. To best support the electrical industry, we must become more familiar with other market players and the intelligence they have to offer, such as specialty electronic distributors, fire/safety providers and IT service providers. It is also critical to examine how much electrical product is sold through different channels (contractors, retail, online, direct).

This deeper understanding will shape the overall industry into a progressive market that can remain relevant to meet new customer demands—all the while, allowing us to stay on the right path during ongoing crossroads of change.
8. APPENDIX A:

Focus Groups – Participating Companies
Canadian Electrical Contractors Association (CECA) Focus Group, Conducted on January 18, 2016

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLTRADE INDUSTRIAL CONTRACTORS</td>
<td>ONTARIO</td>
</tr>
<tr>
<td>AMPERE LIMITED</td>
<td>ONTARIO</td>
</tr>
<tr>
<td>BLACK AND MCDONALD</td>
<td>ONTARIO</td>
</tr>
<tr>
<td>CHEMCO ELECTRICAL</td>
<td>ALBERTA</td>
</tr>
<tr>
<td>FUSION ENERGIE</td>
<td>QUEBEC</td>
</tr>
<tr>
<td>GUILD ELECTRIC</td>
<td>ONTARIO</td>
</tr>
<tr>
<td>MOTT ELECTRIC</td>
<td>BRITISH COLUMBIA</td>
</tr>
<tr>
<td>ROCKINGHAM ELECTRIC</td>
<td>NOVA SCOTIA</td>
</tr>
</tbody>
</table>

Ontario Electrical League Focus Group, Conducted on January 22, 2016

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3E POWER SERVICES</td>
<td></td>
</tr>
<tr>
<td>ACKISON ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>ANEW ELECTRICAL</td>
<td></td>
</tr>
<tr>
<td>BERGERON ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>EPG ELECTRICAL</td>
<td></td>
</tr>
<tr>
<td>FOUR-O-ONE ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>JPR ELECTRICAL SERVICES</td>
<td></td>
</tr>
<tr>
<td>LANGSTAFF &amp; SLOAN</td>
<td></td>
</tr>
<tr>
<td>OOSTERHOF ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>POWERQUEST ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>PRECISION ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>ROSEMONT ELECTRIC</td>
<td></td>
</tr>
<tr>
<td>STURDY POWER LINES</td>
<td></td>
</tr>
<tr>
<td>TOWNSEND ELECTRIC LTD.</td>
<td></td>
</tr>
<tr>
<td>Z-TECH ELECTRICAL</td>
<td></td>
</tr>
</tbody>
</table>

8.2 APPENDIX B:

Summary of Findings from Focus Group
By Environics Research

- Customer demands and practices are changing the way of doing business and creating challenges for electrical contractors (ECs), especially regarding control over the process;
- Demographic shifts have a slight impact, raised more around HR rather than customers;
- Staffing/Labour is a key difference for unionized contractors and impacts business;
- Economic shifts impact ECs and their profitability, particularly related to increasing competition in the face of a smaller pool of jobs, diminishing margins, exchange rate and commodity price fluctuations, and other businesses dynamics;
- Business practices and challenges tend to revolve around bidding pressures during tenders, terms of payment, pre-purchasing practices, delivery reliability and lead times, and specialized knowledge requirements;
- Supplier reliability and relationships, product availability, as well as cost, are key influences and criteria considered in purchase decisions;
- New (product) technologies are recognized as constantly emerging and evolving, though the extent to which they are used depends on the EC and sector – challenges related to new technology revolve around training, and staying up to date, while new tech mentioned tends to centre around lighting, low voltage power and alternative energy;
- Tech-based services expected by ECs are related to training, education, and certification programs that will enhance their knowledge base, as well as stronger integration across the process, with suppliers expected to play a key role in supporting these initiatives; and
- Perspectives and outlook on their business in five years tend to revolve around the need to focus, make smarter decisions and build up competitive advantage in an increasingly competitive environment.

Note: The findings/comments from the OEL focus group were consistent with the above summary.
SECTION A: PROFILE

1. Please indicate your age group:
   ❑ 30 and under
   ❑ 31-45
   ❑ 46-64
   ❑ 65 or over

2. Size of Business:
   ❑ $20M and under
   ❑ $21M to $50M
   ❑ $51M to $100M
   ❑ Over $100M

3. Number of employees (nationally):
   ❑ 10 employees and under
   ❑ 11-50 employees
   ❑ 51-100 employees
   ❑ Over 100 employees

4. Over the next 5 years, what percentage of employees are anticipated to retire? _______%

5. Which regions does your company conduct business in?
   ❑ Atlantic provinces
   ❑ Quebec
   ❑ Ontario
   ❑ Manitoba
   ❑ Saskatchewan
   ❑ Alberta
   ❑ British Columbia
   ❑ Northern territories
   ❑ Outside of Canada

6. A) What percentage of your business is:
   (total must equal 100%)
   Residential: ___ %
   Commercial: ___ %
   Industrial: ___ %
   Other: __________ please specify ___ %

   B) In 5 years, what percentage of your business do you expect to be in:
   (total must equal 100%):
   Residential: ___ %
   Commercial: ___ %
   Industrial: ___ %
   Other: __________ please specify ___ %

SECTION B: BUSINESS OPPORTUNITIES & CHALLENGES

7. Which of the following BEST represents your business in 5 years? (choose one only)
   ❑ I will have fewer but bigger customers
   ❑ I will have more smaller customers
   ❑ I will diversify to include new areas of business
   ❑ I will offer additional services to existing customers
   ❑ I will expand my business into other regions

8. Over the next 5 years, which of the following areas will have the most impact on your business?
   Rank 1-4 (least - most impact)
   ❑ New product technology
   ❑ New supplier technology (e-Commerce)
   ❑ Changing demands from customers
   ❑ Internal employee challenges

9. What impact will the following areas have on your business? Positive Impact, Neutral, Negative Impact
   ❑ Alternative energy (solar, wind, batteries, etc.)
   ❑ The Internet of Things (Power over Ethernet, etc.)
   ❑ Low-voltage DC Power
   ❑ Home Automation and Controls
   ❑ Building Automation and Controls
   ❑ Lighting Technology (OLED, LED, LIFI)
   ❑ Industrial Automation (robotics, factory automation)
   ❑ Fire/life safety systems
   ❑ EV charging stations
   ❑ other - please specify: ____________

10. Based on your responses to question #9, how will your company implement these new opportunities?
    ❑ Hire new skilled workers
    ❑ Contract new services
    ❑ Train current employees
    ❑ Acquisitions
    ❑ Other: ________

11. In the next 5 years, how important will it be for your suppliers to provide the following services?
    Not Important - Important (1-5)
    ❑ Online purchasing options
    ❑ Online access to product inventory
    ❑ Online product specifications
    ❑ Flexible delivery options
    ❑ Access to a network of experts
    ❑ Online support
12. In the next 5 years, how important will each of the following be when making purchasing decisions? 
**Rank in order of importance**
- product brand loyalty
- supplier loyalty
- customer specifications
- product availability
- social responsibility
- product reliability/warranty

13. How do you see the following regulations impacting your business over the next five years? 
**Positive Impact, Neutral, Negative Impact**
- Product certification (CSA, UL)
- Workplace safety (WHIMIS/GIS)
- Electrical safety (NBC/CEC/provincial authorities)
- Business practices (CASL, ISO)

14. How do you prefer to learn about product/technology and regulatory information? (choose top 3 methods)
- Websites
- In-class Training
- Newsletters
- Social media
- other - please specify: ________________

15. A. Which of the following demographic changes will impact your customer relationships the most, over the next five years? Rank in order of impact
- Language/cultural diversity
- Millennial customers (under 35 years of age)
- Traditional customers not adaptive to change
- Women in the workforce
- Other - please specify: ________________

B. Based on these changes, will you be adapting your hiring practices?  
- Yes  
- No

16. Over the next five years, how will these business issues impact your company's profitability? 
**Negative, Neutral, Positive**
- Government legislation
- Government incentives (ex: energy efficiency upgrades)
- Business Development (sales & marketing)

17. Which of the following factors will most impact the profitability of your project work over the next five years? (choose three only)
- Volatility in commodity prices
- Market economic conditions (currency, etc.)
- Product specifications
- Commissioning/start-up
- Estimating accuracy
- Loss of project cost control
- Unqualified staff
- Labour availability
- Product/equipment delays on projects
- Design/build and P3 demands
- other - please specify: ________________

18. Do you foresee any of the following technological advancements improving the productivity of your business in the next 5 years? 

A. Digital devices on jobsites
- Yes  
- Unsure  
- No

B. Robotics
- Yes  
- Unsure  
- No

C. Pre-fabricated construction
- Yes  
- Unsure  
- No

D. Drones
- Yes  
- Unsure  
- No

E. 3D printing
- Yes  
- Unsure  
- No

F. Cameras/AV/monitoring (jobsite security)
- Yes  
- Unsure  
- No

G. other - please specify: _________________________

19. What is your biggest concern for your business in the coming years? ________________

(Optional) – enter your contact details
First & Last Name: _____________________________________
Company Name: ______________________________________
Email: ________________________________________________
Phone:________________________________________________

May we contact you for further details/clarification on your responses? This would be helpful with our research process.  
- Yes  
- No
Electro-Federation Canada (EFC) is a national, not-for-profit industry association that represents over 250 member companies that manufacture, distribute and service electrical and electronics products in Canada. EFC members contribute over $10B to the Canadian economy, employing approx. 40,000 workers in more than 1,200 facilities across the country.

EFC members manufacture, distribute, market and sell a wide range of electrical products, including distribution equipment, industrial controls, lighting, motors and generators, transformers, wire and cable, wiring supplies and electric heating. These categories form the basis of EFC’s Product Sections, offering a strong nucleus for members to discuss issues and opportunities pertaining to their company’s product focus. In addition, EFC maintains a strong focus on electrical safety, sustainability, advocacy, codes and standards, and also serves as a hub of networking, education, and industry research. Learn more at [www.electrofed.com](http://www.electrofed.com).

The Canadian Electrical Contractors Association (CECA) is a federation of provincial and territorial electrical contractor groups and undertakes to represent electrical contractors at the national level. CECA represents the interests of more than 8,000 electrical contractors across Canada who generate over $5 billion in revenues and who directly employ 70,000 persons. Find out more at [www.ceca.org](http://www.ceca.org).

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