

SURVIVING AND THRIVING.

ILLINOIS MANUFACTURERS
SURVIVING AND THRIVING AMID
A GLOBAL PANDEMIC.



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IMEC 
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May 2022

The pandemic changed the way we make products overnight. Instantly manufacturing leaders had to re-assess how to keep employees safe and healthy as well as how to keep production running. The nation still relied on its manufacturers, even though operating during this time was tough. There was little room for errors and flaws as manufacturers navigated supply chain shortages, contact tracing, and the changing needs of customers.

At IMEC, we had to find ways to help. Once again, our team called upon our vision, which states that IMEC is dedicated to, “Igniting Illinois manufacturing excellence and global competitiveness.” While our core services have offered support to the Illinois manufacturing community since 1996, we knew we would need to pivot as well.

So, what did we do? We asked the manufacturing community how we can help them through a statewide Organizational Needs Assessment. Ensuring sanitation and safety was an obvious initial issue, which led to us providing safety training virtually, safety certification, and a Return to Work and Recovery Guide. We shared best practices on how to not just keep employees safe, but to also keep them engaged at work.

Other urgent issues manufacturers were reporting to us included growing their customer base, improving productivity, providing leadership and strategic support, and more. Our staff worked together to quickly create free or low-cost services to address these needs and keep manufacturers operating during the pandemic. We also opened a hotline for manufacturers to contact IMEC for immediate assistance.

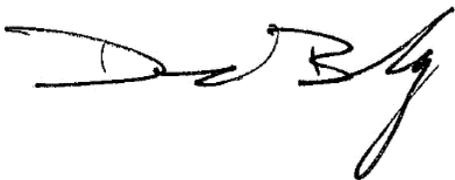
Through our strong partnerships with others committed to the Illinois manufacturing community and our larger NIST MEP network, IMEC is proud to have been able to help the manufacturing community survive and thrive during the COVID pandemic. We are appreciative for the federal funding award through the CARES Act that allowed us to step up our game and directly serve manufacturers.

- 2,600+ Manufacturers Surveyed
- 222 Manufacturers Participating in CARES programs
- \$1,110,000 in CARES Funding
- 11 IMEC Third Party Resource Partners Assisting

Here, “serve” is the key word. Our IMEC team is the Illinois manufacturing community’s support network. If the manufacturers themselves weren’t committed to pivoting and thriving during the pandemic, we would not have been able to provide the following report.

Our team is grateful to have had the opportunity to assist manufacturers who were not interested in lying down during the pandemic. These manufacturers were more committed than ever to serving their employees and customers and making the most of the pandemic. We hope this report offers you new insights on a few specific ways IMEC assisted those unsung manufacturing heroes.

Sincerely,



IMEC  **David Boulay**, President of IMEC
Plan. Implement. Excel.

MANUFACTURING IS VITAL

Manufacturing in Illinois represents a significant and vital part of our state's economy, supporting more than half a million residents with jobs earning an average annual income of **\$89,854** in 2018.¹

12.5% SHARE OF TOTAL GROSS STATE PRODUCT OUTPUT¹

\$106.7 Billion
in Total Manufacturing Output²

555,000
Illinoisans Employed
in Manufacturing⁴

266,000 Jobs Supported by Illinois Exports of Manufactured Products⁶

\$61.4 Billion in Manufactured Goods Exported from Illinois⁷

12,077
MANUFACTURING FIRMS³

#4 LARGEST MANUFACTURING STATE IN THE NATION⁵

Sources:

1-4: 2020 Illinois Manufacturing Facts, figures 2017-2020, nam.org

5: MxD, intersectillinois.org

6-7: 2020 Illinois Manufacturing Facts, nam.org





LISTENING WITH INTENT

At the onset of the COVID-19 pandemic, the Illinois Manufacturing Excellence Center (IMEC) team assessed and prioritized its resources to assist Illinois manufacturers by seeking to understand the impacts of the pandemic and the potential solutions available to the community.

In April of 2020 the IMEC team devised a telephone survey which focused on asking firms to identify their priorities on ten key assessment categories, encompassing essential best practices for long-term competitive success.

The primary goal of the survey was to directly identify the urgent needs of Illinois manufacturers, to help them navigate the early and ongoing stages of the pandemic. Given the population of more than 12,000 manufacturing firms, the IMEC team utilized the NIST Baldrige Performance Excellence Framework, a world-renown standard for excellence, to assist in the measurement, reporting, and analysis of the survey responses.

These ten issues were rated on a four-point scale of importance. To calculate an average (mean) rating on these issues a numeric value from 0 to 3 was assigned:

URGENT - start immediately (3)

IMPORTANT - in the next year (1)

PRIORITY - next 6 months (2)

NOT NOW - future plans (0)

The report's findings focus on the top-box of responses: 'Urgent - start immediately.'

MORE THAN **2,600** SURVEYS COMPLETED ACROSS ILLINOIS

- from May 2020 through August 2021





MANUFACTURERS HAVE SPOKEN

Results of the survey were affirmative in some ways and quite surprising in others. Manufacturers, pressed with the urgent and unpredictable nature of the pandemic, gave of their valuable time to identify, discuss, and address their concerns with the IMEC survey team.

Prior to the COVID-19 pandemic, digital transformation, improving operational excellence, and addressing labor needs were key pillars of the movement toward adopting Manufacturing 4.0, the Fourth Industrial Revolution. These important areas remain key to helping firms move forward, building resilience during this crisis and beyond.

Manufacturing 4.0, or more broadly speaking, investment in technology and the digital transformation of a firm’s processes, has been a ‘hot button’ topic among policymakers for quite some time, with the National Institute of Standards and Technology (NIST) identifying **Investing in Technology for the Future** as among the top 5 priorities in its report, **“The Future of Manufacturing: 2020 and Beyond.”**

The Illinois manufacturers IMEC surveyed, however, had marked differences in their priorities, relative to ‘making it through’ the pandemic and beyond. ‘Find the right technology’ consistently ranked near the bottom of Urgent Priorities across the 15-month survey timeframe.

Furthermore, these differences were most apparent relative to the size of the firm. Nearly 70% of all manufacturing firms in Illinois have less than 20 employees, making this a constituency to be reckoned with. While all firms surveyed identified ‘Create growth opportunities’ as important, their size greatly influenced their priorities.

Employees	Most Urgent Priorities
1-19	‘Create growth opportunities’ was most urgent among these firms
20-49	‘Find, train, and retain skilled workforce’ and ‘Drive productivity and efficiency in our processes’ mattered most to firms of this size
50-99	‘Improve safety, hygiene, and sanitation’ along with ‘Find, train, and retain skilled workforce’ resonated with these firms
100+	‘Improve safety, hygiene, and sanitation’ was paramount for 100+ employee firms

HERE TO HELP

IMEC’s initial response to the survey resulted in the development of six key policy recommendations as guidance for a plan of action:

1. Segment policy solutions to address differences by company size
2. Promote access to global and local markets
3. Facilitate global competitiveness through productivity and technology adoption
4. Promote connections among firms and workforce solution providers
5. Identify strengths/opportunities to increase the ease of doing business and addressing structural costs
6. Establish an ongoing method to gain insights from Illinois manufacturers



As a NIST MEP Center, IMEC is the official representative of the MEP National Network in Illinois, a unique public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing.

With more than 50 full-time staff and partners positioned statewide, IMEC delivers the local expertise to not only plan and strategize, but to implement and evaluate the effectiveness of client improvements - to help manufacturers survive and thrive - during the pandemic.

IT TAKES A TEAM

The IMEC staff has been assisted by the expertise and enthusiasm of its third-party resources and program partners, independent firms who recognize the importance of growing and supporting the Illinois manufacturing community as a vital part of our economy.

With the hard work of the team and assistance from the state and our partners, IMEC was able to establish programs to assist Illinois manufacturers through this global pandemic with a range of solutions designed to strengthen their operations.

Most of all it has been the input, enthusiasm, and desire to make improvements, on the part of the participating manufacturers, which made these initiatives so successful. Manufacturers who participated have taken the time to see the projects through, to provide valuable feedback and results data to help IMEC make informed recommendations for future efforts.

PLAN. IMPLEMENT. EXCEL.

With the hard work of the team and assistance from the state and our partners, IMEC was able to establish programs to assist Illinois manufacturers through this global pandemic with a range of solutions designed to strengthen their operations.



Initiatives and Programs

The **Move Ahead Faster** initiative consisted of a flexible grant program, fully funded through the CARES Act, with projects valued at \$5,000 each. The initiative included nine unique projects, developed to equip manufacturers with the tools and insight needed to create new growth opportunities. Projects ranged from sales development and digital marketing to finance, industrial hygiene, and cybersecurity, benefitting more than 160 participating firms.

The **Premier Domestic Manufacturing Program**, developed in partnership with the Reshoring Initiative®, assisted more than 50 manufacturing firms, with the goal of helping to shift collective thinking from “offshoring is cheaper” to “local reduces the total cost of ownership” and see real results.



IMEC’s **Illinois Manufacturing Innovation Voucher Program** provided more than \$2.5 million in matching grant funds, up to \$25,000 per firm, for small and medium-sized manufacturers, helping them accelerate technology adoption in their products and processes, identify and implement productivity improvements, and overcome organizational growth barriers.

While the **Supplier Scouting Program** had been in place prior to the pandemic, this program saw renewed importance, as the need for matching local manufacturers with local suppliers in support of PPE manufacturing needs became even more urgent. Pairing vetted OEMs with the right local suppliers enabled Illinois firms to address urgent health, safety, and national security needs.



Advance With Automation was a fully funded program designed to boost a company’s productivity and safety with the deployment of automation.

For the **Top Shops Program** IMEC partnered with Gardner Intelligence and the Modern Machine Shop’s *Top Shops Program* to provide a fully funded opportunity for select manufacturers to attain custom reports and benchmarking analysis of their current operations.

The **Healthy Manufacturing Certificate** program, created in partnership with IMEC and the Illinois Manufacturers’ Association, provided detailed training and review of existing company procedures, to ensure the proper information and guidance was available for employees to operate safely during the pandemic. CDC and OSHA guidelines were followed to create an Infectious Disease Prevention Control Plan for each participating facility or business.

A key component of IMEC's charter is to not only identify issues, but to directly implement programs, policies, and practices to address these issues head on. As a result, the report's findings led to the genesis and introduction of several programs developed to address these specific needs.



Publications

Made in Illinois: A Modern Playbook for Illinois Manufacturers to Compete and Win features seven compelling interviews with manufacturers who have 'been there and done that' along with easy-to-use checklists, planning templates, and reading guides designed to produce repeatable success.

The Future of Manufacturing in Illinois Strategic Foresight Report was produced by Future iQ in collaboration with the IMEC team. The report was undertaken with the intent of nurturing future thinking and strategic planning by manufacturers and stakeholders alike, exploring a ten-year vision for Illinois manufacturing in a post-pandemic world.

The **Automation Workforce Productivity Report** provides insight into the approaches, opportunities, and challenges small and mid-sized manufacturers face when working to improve productivity through technology investment, adoption, and upskilling the workforce.

The **Return to Work Recovery Guide** provides a detailed mitigation plan for post COVID-19 activities within Illinois manufacturing firms, including information on physical distancing, sanitation, health monitoring, and testing activities.

The **Rural Research Report**, produced in collaboration between IMEC and the Illinois Institute for Rural Affairs, outlines the effects of the COVID-19 pandemic on rural manufacturing businesses, their employees, and changes in workplace health and safety measures.



Webinars and Other Online Resources

NASA New Business Webinars consisted of a free, 3-day series of virtual events for manufacturing companies seeking to work with NASA and its contractors, including the essentials of doing business with NASA's Marshall Space Flight Center, Johnson Space Center, and its prime contractors.

The **Illinois Manufacturing Helpline** is IMEC.org's resourceful website portal for guidance and assistance with COVID-19 related issues including lost business and rapidly declining sales, safety, health and hygiene, supply chain disruption, and other key topics.

IMEC continues to produce and distribute regularly scheduled **Webinars and Events** covering the ten primary topics related to manufacturing and COVID-19. Many of these webinars continue to be available on the IMEC.org website under the Events tab.



Move Ahead Faster Initiative

In February of 2021, as the pandemic continued, manufacturers were seeking quick methods of addressing their most urgent needs, chief among those being generating new business, finding and keeping new workers, and tackling supply chain problems.

The **Move Ahead Faster Initiative** consisted of a flexible grant, fully funded through the CARES Act, with projects valued at \$5,000 each.

Open to firms with less than 500 employees, the initiative included nine distinct programs with services provided by ten IMEC third-party resources.

PROGRAM FACTS

Move Ahead Faster Initiative

- Participation: 163 companies
- Funding: \$815,000 total



DEVELOP YOUR LEADERS: THE EFFECTIVE PERSONAL PRODUCTIVITY PROGRAM

This program, for up to two leaders per company, consisted of seven virtual training and coaching sessions teaching leaders to better manage themselves, their time, and their key priorities to operate at maximum performance.

FOCUS ON MAINTENANCE: WITH A MAINTENANCE PROJECT CHECK-UP

A small group of IMEC experts toured participating manufacturing facilities, interviewed key team members on a variety of issues including equipment reliability, uptime maximization, operational safety, product quality, and overall business performance, and generated an in-depth assessment report with detailed recommendations.

GET CYBER READY: ASSESS YOUR RISKS AND EVOLVE

Each participant in this program, the Cybersecurity Maturity Model Certification (CMMC) Compliance Assessment and Gap Analysis process, underwent a two-week audit, resulting in a draft Controlled Unclassified Information (CUI) network diagram and accompanying report to assist participants in gauging their compliance with DFARS NIST 800-1 standards.

MAXIMIZE CASH FLOW: EXAMINE THE CASH GENERATION ENGINE OF YOUR BUSINESS

This program was a confidential, quantitative, and qualitative assessment of performance in various operational and financial processes, designed to identify gaps across key metrics, delivering recommendations for improvement to increase cash flow, and stabilize and increase cash reserves, giving firms more time to address operational concerns.

MAXIMIZE CASH FLOW: IMPROVE FINANCIAL STRATEGY AND PLANNING

This in-depth financial analysis provided a 360° view of each firm's financial strengths and opportunities, creating a framework for future planning. This framework would help firms be in a better position to take advantage of growth opportunities.

GROW YOUR SALES: ONLINE PERFORMANCE FOR INCREASED CUSTOMER EXPOSURE

Beginning with an assessment of each manufacturing firm's current website, the program team produced a detailed report on the effectiveness of the website's content, appearance, navigation, SEO integration, and LinkedIn presence, and included expert analysis and coaching to implement the findings.

GROW YOUR SALES: SHARPEN YOUR SALES SKILLS STRATEGY

A program designed to help firms assess the effectiveness of their sales teams, understand how they can improve, and apply best-in-class sales strategies to drive increased sales.

KEEP WORKERS SAFE: CONDUCT AN INDUSTRIAL HYGIENE FACILITY REVIEW

This program consisted of an in-depth review of each firm's facility and processes, resulting in expert recommendations to protect the health and safety of all workers, reduce the number of lost or restricted workdays due to illness and injuries, reduce the cost of insurance, and help firms better comply with OSHA regulations.

KEEP WORKERS SAFE: CONDUCT A SAFETY GAP ANALYSIS

Beginning with an on-site walk through participating manufacturers' facilities, IMEC experts reviewed all existing written programs, procedures, assessments, and training materials. The program and report, including employee interviews, helped firms determine the appropriate next steps for advancing their safety and risk programs moving forward.

Manufacturing WIN



Move Ahead Faster: Grow Your Sales with Online Performance for Increased Customer Exposure

During the pandemic, **Ultrasonic Power Corporation** was able to overhaul their digital marketing presence, generating a 200% increase in followers on LinkedIn.

THE CHALLENGE

Even with a newly improved website, the report's findings indicated very little traffic, minimal social media engagement, and a reduction in new leads. To generate new business Ultrasonic Power Corporation required a comprehensive plan to ensure their company ranked well in online search results and had a strong business profile on LinkedIn, the #1 social media channel for B2B connections and lead generation.

THE IMEC APPROACH

Of the nine available programs, Ultrasonic Power Corporation chose to move forward with Move Ahead Faster: Grow Your Sales with Online Performance for Increased Customer Exposure.

This program included three phases, with a comprehensive review of Ultrasonic Power Corporation's digital presence, delivering substantial enhancements in key areas:

PHASES

1. Assessment
2. Recommendations
3. Implementation



KEY AREAS

- Website
 - Content
 - Navigation
 - SEO
- LinkedIn Profile

With a flexible approach that mapped out a unique strategy for Ultrasonic Power Corporation, their newly launched website received updates in SEO-specific areas, while additional content and navigation adjustments were also completed. The company's LinkedIn profile benefited from copy updates and an in-depth content calendar to ensure timely, relevant content would be posted all year long.

THE RESULTS

The program took approximately 30 days to complete, and while SEO-related enhancements often take 4-6 months to see significant gains, Ultrasonic Power Corporation has experienced increased website traffic and lead generation rising, along with their improving search engine results.

Their LinkedIn business profile, with updated content and regular, relevant posting, has brought significant, immediate improvement – they now have three times as many LinkedIn company followers, as compared to pre-Move Ahead Faster program work.

“Online leads are a huge driver of our business. The (IMEC resource) combed through the site and made hundreds and hundreds of SEO updates. I’ve done a couple of other programs, but this was very simple and a great foundation for us. The LinkedIn work we really appreciate. We had about 100 followers before this program, now we have over 300!”

– Greg Nelson, Owner

Manufacturing WIN



Move Ahead Faster: Maximize Cash Flow

Even during a stressful pandemic, **Chocolate Inspirations** realized their most efficient and productive 4th quarter by employing an iterative financial strategy, aligned with their business goals, which included being able to finally NOT work weekends!

THE CHALLENGE

With consistent business expansion over three decades, Chocolate Inspirations wanted to bring new insight to the company for strategic planning, budgeting, and growth. Working overtime at nights and on weekends, the company was in a reactive, survival mode and looking for help.

Chocolate Inspirations learned of the IMEC Move Ahead Faster programs and quickly sought assistance in identifying the best approach for their business needs. Concerned about the time commitment required for a project scope, Chocolate Inspirations sought a solution which would work as quickly as reasonably possible. The program chosen would take approximately 45 days from start to finish, producing results almost immediately.

THE IMEC APPROACH

Chocolate Inspirations selected the IMEC program Move Ahead Faster: Maximize Cash Flow, which provided three key actions:

1. Financial record clean up
2. Prioritizing financial needs
3. Goal setting

In this program, Chocolate Inspirations worked with their IMEC resource to define the financial and business goals while driving additional revenue through new product initiatives.

THE RESULTS

With an iterative, strategic plan in place, Chocolate Inspirations has been able to pivot key equipment into multi-use production, budget for workforce expansion, and perhaps most importantly, begin taking weekends off!

“We’ve attended classes on this subject in the past, but this was a fantastic experience! (Our IMEC resource) was excellent – he broke down all the key parts of the plan and really tailored it to our needs. He gave us everything we needed, from prioritizing the aspects of the business we needed to really look at, to cleaning up old financial records. As a small businessperson, it is easy put things aside because you don’t have time, you are so busy. This experience actually gave us time back in our days!”

– Marcy Goetz, Partner



Reshoring Initiative: Premier Domestic Manufacturing Program

Over the course of the 15-month survey period, the topic “**address supply chain problems**” moved from eighth on the list of priorities to first, surpassing “find, train, and retain skilled workforce” in urgency of need.

The supply chain disruptions generated by the pandemic provided an opportunity for companies to generate NEW business, by partnering with firms who had previously been purchasing overseas and offering an Illinois-based solution to their needs.

Consequently, IMEC contracted with the Reshoring Initiative® in August 2020 to develop the Premier Domestic Manufacturing Program, targeting small to medium-sized manufacturers.

“While 2020 reawakened people to the challenges and disruptions that supply chains can experience, from shipping delays to transportation costs,” says IMEC President David Boulay, “the interruptions generated by the pandemic galvanized us to help make sure Illinois manufacturers are globally competitive.”

Once a firm enrolled in the program, the team used its data to help identify imports that might be a match for products they make, the potential

scale-up, and who is importing, to help participants enter a new supply chain.

IMEC was pleased with the program participation, while the 59 participating companies were extremely gratified with the output and insight they had received.

PROGRAM FACTS

Reshoring Initiative: Premier Domestic Manufacturing Program

- Participation: 59 companies
- Funding: \$295,000 total

Manufacturing WIN



Premier Domestic Manufacturing Program

Bourn & Koch has been producing American-made machine tools in Rockford, Illinois for more than 40 years. Using insight from the Premier Domestic Manufacturing Program, the company is finding new ways to become more competitive.

THE CHALLENGE

Bourn & Koch Inc. is all too familiar with supply chain challenges, disruptions, and foreign competition. The machine tool builder has seen firsthand the dramatic changes in its industry. “Imports have certainly helped to contribute to the downfall of American machine tool companies,” says Joe Goral, Director of Sales and Marketing for Bourn & Koch. “Twenty-eight different machine tool companies that we now own were once prominent in the U.S., but now no longer exist. We still make parts and provide service for many of those products.”

THE IMEC APPROACH

The company joined the Premier Domestic Manufacturing Program through IMEC. The data generated by Bourn & Koch’s in-depth company profile was revealing:

- Two primary customers were not purchasing foreign machine tools, which affirmed the company was not losing market share
- Imports for competitive grinding machines were almost nonexistent
- Gear manufacturing machine data showed a high level of imports, making the market for this category very competitive

THE RESULTS

Due in part to the insight from the program, Bourn & Koch is now introducing a new precision vertical grinder, targeting the multifunctional machine tool market. The machine can also mill and turn parts, reducing work-in-process time. Fabricators and job shops will be able to load the machine with a metal blank and take out a finished product.

“We’ve always been a solutions-based company,” Goral said. “One of the things that makes us different from those we compete against is that we believe it’s not always about technology. Many times, it’s about listening to customers and providing the right solution for their application.”

“We don’t fully know what this market looks like, but through IMEC, the program has provided good raw data about what’s coming, the price points of these machines, and which companies are using them. It’s key intel that we need to take our new vertical grinder to market.”

– Joe Goral,
Director of Sales and Marketing



Illinois Manufacturing Innovation Voucher Program

In a highly competitive market that is fueled by technology advancements, IMEC understands that small and mid-sized manufacturers need to act as quickly as possible to remain relevant. During the survey timeframe, the need identified as “Drive productivity and efficiency in our process” was among the top three most urgent concerns of responding manufacturers.

Additionally, results of the survey further identified needs including ‘Lead the organization towards high performance,’ and ‘Manage organizational assets and data,’ pointing to the urgent needs of manufacturers to incorporate technology in their processes or products to sustain their competitive advantages.

Using acquired knowledge from industry experts, voucher projects were designed to help resolve minor technological issues or outline possible solutions for a more complex problem, resulting in innovation and market growth.

The Illinois Manufacturing Innovation Voucher was designed to award up to \$25,000 in match funding to:

- **Accelerate Technology Adoption**
- **Identify and Implement Productivity Improvements**
- **Overcome Organizational Growth Barriers**

Vouchers could be used to:

- Access research or scientific expertise, including preparatory work for research and development
- Develop and explore new technologies
- Commercialize new or enhanced products, including prototyping, piloting, testing, and product validation
- Implement new technologies
- Attain consultation regarding product or service development and/or production or technology
- Perform product tests and industrial experiments
- Conduct feasibility and cost-benefit research
- Contract intellectual property legal consultation
- Acquire metrology, standardization, and certification for new products

Voucher projects were conducted solely in Illinois for existing Illinois manufacturers with between 5 and 500 employees. Projects were expected to be practical in nature and focus on productivity improvements and/or product development that would lead to **innovation** and **measurable gains**.

Manufacturing WIN



Illinois Manufacturing Innovation Voucher Program

Ivex Specialty Paper maintained their business production while undertaking a key equipment redesign and rebuild project through strategic and well timed capital expenditure funding.

THE CHALLENGE

With its original paper mill built in 1912, the current owners of Ivex Specialty Paper were at a crossroads in terms of how to move forward with key equipment rebuilds – they needed help with allocating capital expenditures when there were several business areas which needed funding.

As a single mill company, Ivex Specialty Paper does not have multiple mills to rely upon for their business. When the decision was reached to redesign and rebuild their 76” wide paper machine, time and money were top priorities.

Specifically, the drive of the paper machine required a complete overhaul, with expected costs to run between \$2-\$2.5 million.

THE IMEC APPROACH

Ivex Specialty Paper received an Illinois Manufacturing Innovation Voucher, which provided immediate funding when the drive overhaul project began. While the amount of the voucher was relatively small compared to the total cost of the project, the timing of the voucher payment meant that Ivex Specialty Paper was able to keep the project on-time and within scope.

THE RESULTS

During the uncertainty and difficulty brought on by the pandemic, the Illinois Manufacturing Innovation Voucher provided a needed ‘push’ to begin the redesign and rebuild of Ivex Specialty Paper’s 76” wide paper machine. The project began quickly, allowing the new owners to address other business needs with this key project underway.

“We found one bottleneck after another with this project, but IMEC made the Innovation Voucher process very easy. Their timing couldn’t have been better, and they bent over backwards to make it happen.”

– William Platt, President

APPENDIX

KEY FINDINGS

This analysis focuses on the top-box of responses: ‘Urgent - Start Immediately,’ **as shown on page 5.**

OVERALL PRIORITIES

When respondents are examined in aggregate, the two most important of the ten issues are:

1. ‘Find, train, and retain skilled workforce’ **(46%)**
followed closely by
2. ‘Create growth opportunities’ **(43%)**

PRIORITIES BY COMPANY SIZE

Among the smaller firms (1-19 employees) which make up the bulk of the respondents (91%) priorities focus on **‘Create growth opportunities.’** These smaller firms are more focused on bringing in new business.

Among the middle to large-sized firms (20-49 and 50-99 employees) **‘Find, train, and retain skilled workforce’** is of paramount importance, followed by **‘Drive productivity and efficiency in our processes,’ ‘Address supply chain problems,’** and **‘Improve safety, hygiene and sanitation.’** These larger firms are more focused on fulfilling demand.

The largest firms, with 100+ employees, were primarily concerned with **‘Improve safety, hygiene, and sanitation’** as the most pressing priority.

PRIORITIES BY REGION

IMEC divided the State of Illinois into regions based on Department of Commerce and Economic Opportunity (DCEO) Regions:

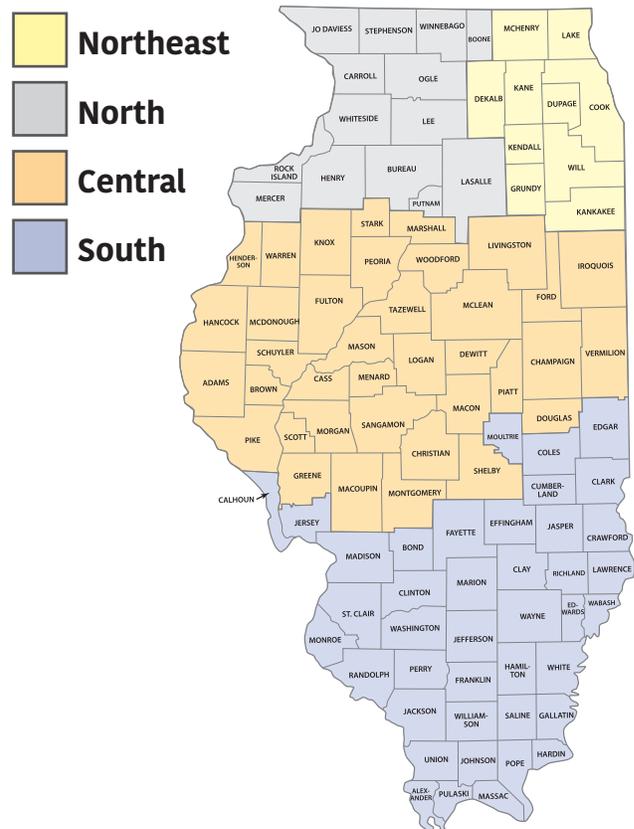
- Northeast
- North (not including Northeast)
- Central
- South

By far the largest region (Northeast - 72%) is roughly split in terms of the importance of

- ‘Create growth opportunities’ **(46%)** and
- ‘Find, train, and retain skilled workforce’ **(43%)**

The other three regions are most focused on ‘Find, train, and retain skilled workforce.’

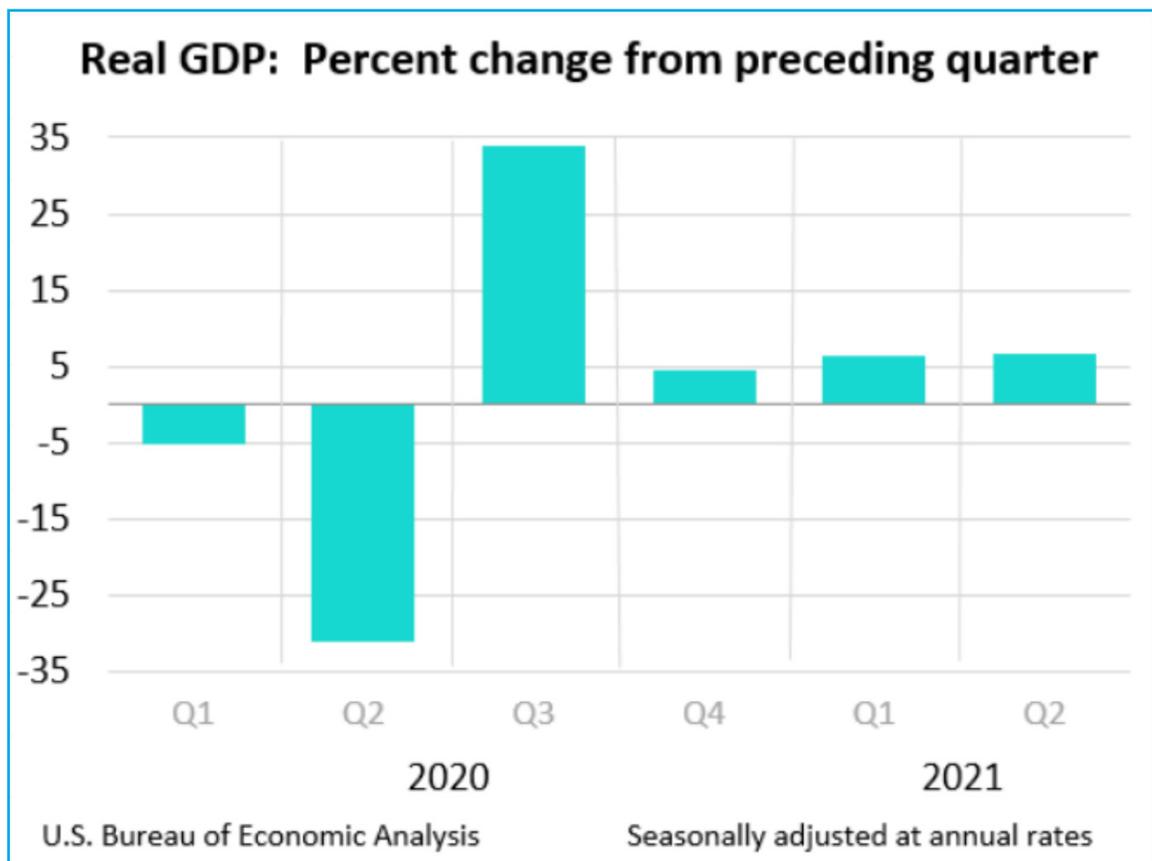
BUSINESS SUPPORT REGIONS



PRIORITIES OVER TIME

This study was not designed as a true 'tracking study' with a similar, representative sample drawn for each measurement. The length of time for data collection, however, does afford a look at what trends have emerged during this historically volatile period.

Analysis of the company characteristic variables (size and region) do show significant differences in the composition of the companies interviewed; however, these differences would not likely overwhelm the large shifts in the importance ranking we see over time.



By way of context, during the period of data collection, these companies went through one of the largest one-quarter declines in US GDP (-31%), followed by one of the largest one-quarter increases (+34%).

This economic disruption is, of course, being primarily driven by the repeated surges of COVID-19 which also undoubtedly has its own direct impact on manufacturers' attitudes beyond its influence on the economy.

VARIABLES MOST IMPACTED BY THE PANDEMIC INCLUDE:

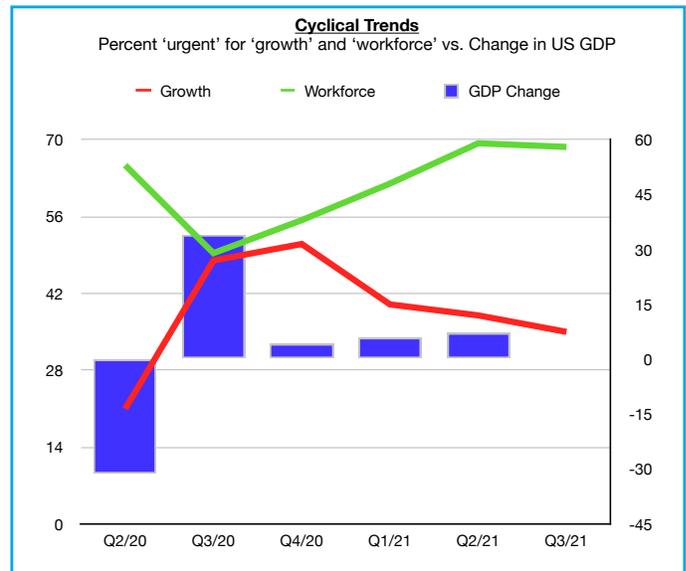
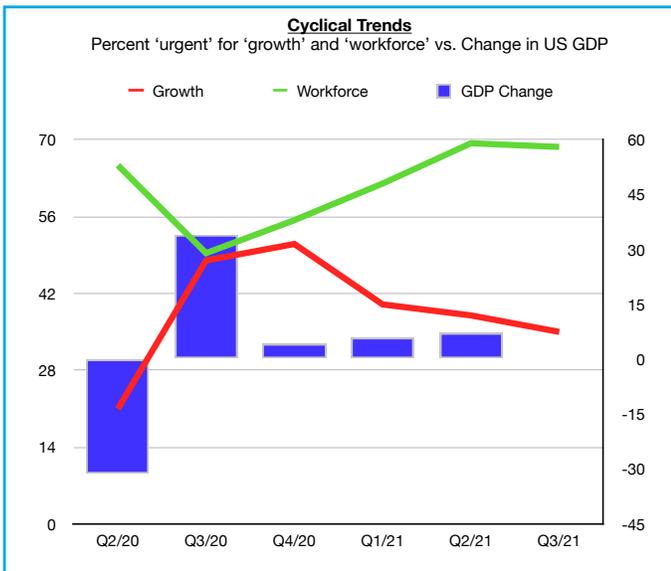
‘Creating growth opportunities’ stood at a low of 21% ‘Urgent’ in Q2/2020 - when COVID concerns dominated. It climbed to 48%/51% in the following two quarters, when the economic impact of COVID-19 was being felt, before dropping back to 35% in the most recent reading.

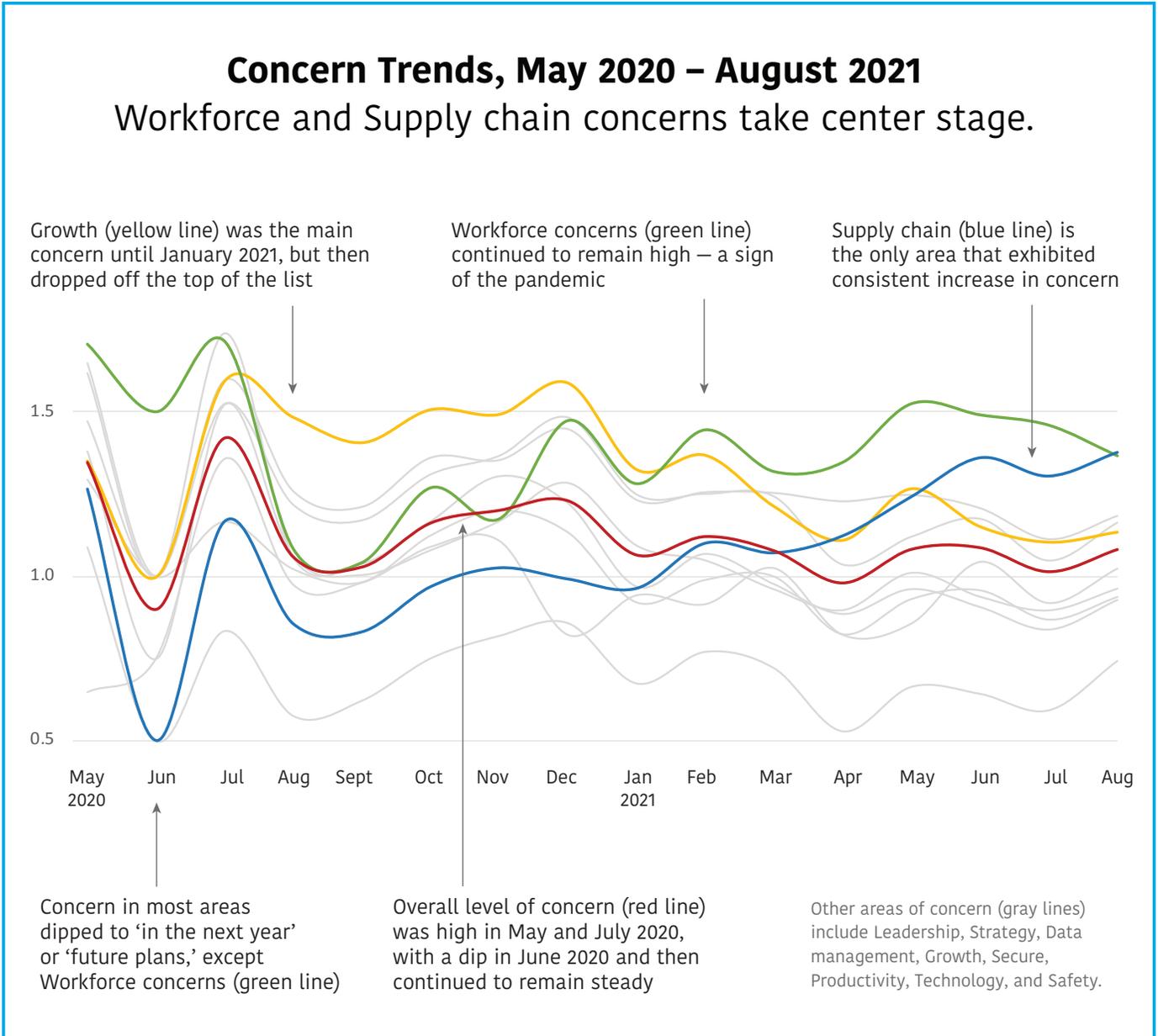
‘Find, train, and retain skilled workforce’ followed an opposite trajectory of growth, standing at 53% in Q2/2020 and dropping to 29% in the following quarter, then climbing to 58% in the most recent quarter.

‘Address supply chain problems’ was generally not seen as an urgent problem at the beginning (16%/ 24% in the first two quarters) but rose to be a top concern: 48% and 52% ‘Urgent’ in the most recent two quarters measured.

‘Improve safety hygiene and sanitation’ climbed to 68% ‘Urgent’ in the Q2/2020 (during the initial realization of the severity of COVID-19), dropping to 26% in the latest quarter.

The **‘growth’** and **‘workforce’** variables showed a cyclical pattern rising and then falling in line with changes in US GDP. While ‘safety’ and ‘supply chain’ appeared to be more secular trends, making a more unidirectional move presumably due to specific events: e.g., ongoing COVID-19 infections and the ensuing supply chain disruptions.





IMEC THIRD-PARTY RESOURCE PARTNERS:

The IMEC staff has been assisted by the expertise and enthusiasm of its third-party resources and program partners, independent firms who recognize the importance of growing and supporting the Illinois manufacturing community as a vital part of our economy.

- Cerberus Sentinel
- Custom Direct, Inc.
- D Smith CFO
- D.A.S. Consulting Services
- Falcon Safety Group
- Four Winds Consulting
- Fuss & O'Neill Manufacturing Solutions
- LMI Chicago
- OTB Solutions
- Reshoring Initiative®
- Winsor Consulting Group

MATCHING PRIORITIES WITH PROGRAMS

THE IMEC APPROACH: PLAN. IMPLEMENT. EXCEL.

As a nationwide member of the Manufacturing Extension Partnership network, IMEC is chartered with not only identifying issues of concern for manufacturers, but with directly implementing policies and practices to address the issues head on. In matching needs and priorities with solutions, the IMEC team devised a wide-ranging suite of programs and solutions. **The chart below highlights some of the programs and solutions featured prominently in this report:**

Urgent Priorities	Programs and Solutions
Lead the organization towards high performance	• Illinois Manufacturing Innovation Voucher Program
	• Move Ahead Faster: Improve Financial Strategy and Planning
	• Move Ahead Faster: Examine the Cash Generation Engine of your Business
Develop long-term company direction	• Move Ahead Faster: Improve Financial Strategy and Planning
	• Move Ahead Faster: Examine the Cash Generation Engine of your Business
Manage organizational assets and data	• Illinois Manufacturing Innovation Voucher Program
Create growth opportunities	• Premier Domestic Manufacturing Program
	• Move Ahead Faster: Online Performance for Increased Customer Exposure
	• Move Ahead Faster: Sharpen your Sales Skill Strategy
	• Move Ahead Faster: Improve Financial Strategy and Planning
	• Move Ahead Faster: Examine the Cash Generation Engine of your Business.
Protect and secure our digital information	• Move Ahead Faster: Assess your Risks and Evolve.
Find, train, and retain skilled workforce	• Move Ahead Faster: Maintenance Project Check-up
	• Move Ahead Faster: Assess your Risks and Evolve
	• Move Ahead Faster: Personal Productivity Project
	• Move Ahead Faster: Sharpen your Sales Skill Strategy
Drive productivity and efficiency in our process	• Illinois Manufacturing Innovation Voucher Program
	• Move Ahead Faster: Effective Personal Productivity Program
	• Move Ahead Faster: Maintenance Project Check-up
Address supply chain problems	• Premier Domestic Manufacturing Program
	• Supplier Scouting Program
Find the right technology	• Illinois Manufacturing Innovation Voucher Program
Improve safety, hygiene, and sanitation	• Move Ahead Faster: Industrial Hygiene Facility Review
	• Move Ahead Faster: Conduct a Safety Gap Analysis

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Table 1

Size of Firm (# of Employees)	Percent
1-19	60
20-49	22
50-99	9
100+	9

Table 2

Region of State	Percent
Central	8
North - Not NE	11
North East	72
South	9

Table 3

Overall: % ‘Urgent’	% Urgent - Start immediately
Lead the organization towards high performance	38
Develop long-term company direction	23
Managing organizational assets and data	25
Create growth opportunities	43
Protect and secure our digital information	31
Find, train, and retain a skilled workforce	46
Drive productivity and efficiency in our processes	39
Address supply chain problems	37
Find the right technology	12
Improve safety, hygiene, and sanitation	36

40-49%
of responses

50% +
of responses

Table 4

Percent 'Urgent' by Region of State	Central	North - Not NE	North East	South
Lead the organization towards high performance	44	34	38	36
Develop long-term company direction	17	19	24	21
Managing organizational assets and data	18	20	27	18
Create growth opportunities	33	35	46	36
Protect and secure our digital information	26	26	33	27
Find, train, and retain a skilled workforce	52	55	43	57
Drive productivity and efficiency in our processes	34	37	40	41
Address supply chain problems	41	39	35	46
Find the right technology	10	8	13	14
Improve safety, hygiene, and sanitation	31	35	36	38

Table 5

Percent 'Urgent' by Company Size	1-19 Employees	20-49 Employees	50-99 Employees	100+ Employees
Lead the organization towards high performance	36	41	44	42
Develop long-term company direction	22	25	25	18
Managing organizational assets and data	23	27	29	27
Create growth opportunities	43	47	44	36
Protect and secure our digital information	29	35	36	36
Find, train, and retain a skilled workforce	36	56	66	64
Drive productivity and efficiency in our processes	33	46	46	50
Address supply chain problems	35	42	43	40
Find the right technology	12	13	9	12
Improve safety, hygiene, and sanitation	31	39	50	42

40-49%
of responses

50% +
of responses

Table 6

Percent 'Urgent' by Quarter	Q2/2020	Q3/2020	Q4/2020	Q1/2021	Q2/2021	Q3/2021
Lead the organization towards high performance	37	36	42	38	37	35
Develop long-term company direction	21	24	26	23	19	19
Managing organizational assets and data	26	24	32	22	23	21
Create growth opportunities	21	48	51	40	38	35
Protect and secure our digital information	10	30	35	31	29	32
Find, train, and retain a skilled workforce	53	29	38	48	59	58
Drive productivity and efficiency in our processes	42	37	44	37	39	33
Address supply chain problems	16	24	30	33	48	52
Find the right technology	16	11	17	12	9	10
Improve safety, hygiene, and sanitation	68	38	46	32	31	26

Table 6a

Size of Firm (# of Employees)	Q2/2020	Q3/2020	Q4/2020	Q1/2021	Q2/2021	Q3/2021
1-19	-	72	60	62	48	62
20-49	-	17	21	24	27	22
50-99	-	4	9	7	14	9
100+	-	6	10	8	12	7

Table 6b

Region of State	Q2/2020	Q3/2020	Q4/2020	Q1/2021	Q2/2021	Q3/2021
Central	16	1	3	14	15	10
North - Not NE	21	2	3	28	14	12
North East	53	95	94	32	58	71
South	10	2	1	26	13	7

