

A WORLD OF BEST PRACTICES

FOR THE ELECTRONIC
COMPONENTS INDUSTRY

April 20, 2020



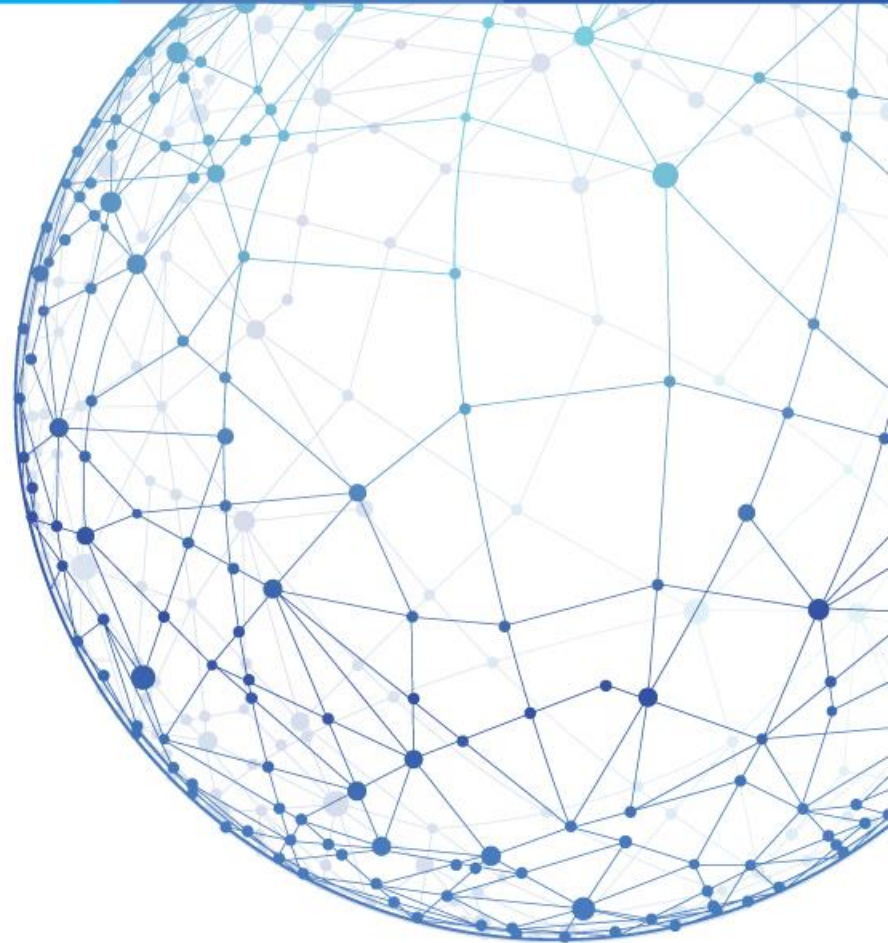
Electronic Components Industry Association

A large graphic on the right side of the slide depicting a globe. The globe is composed of a network of blue dots connected by thin blue lines, creating a mesh-like structure. The dots vary in size and are distributed across the surface of the globe. The text "GIPC" is overlaid on this graphic in a large, light blue, sans-serif font.

GIPC

Agenda:

1. ECIA with David Loftus, ECIA President and CEO
2. COVID-19 with Dale Ford, ECIA Chief Analyst
3. Paperless Manufacturer COC with Pete Shopp, Sr. VP Business Operations at Mouser Electronics
4. COVID-19 Warehouse Best Practices with Teri Ivaniszyn, VP Operational Excellence at Digi-Key
5. Design Registration Project with the Manufacturers Council
6. The Channel Channel Podcast with Christophe Beque from IBM
7. The Trust Bridge with ECIA
8. Compliance & Risks with ECIA
9. The SME Pool – Why register? and What's the time commitment?



ECIA

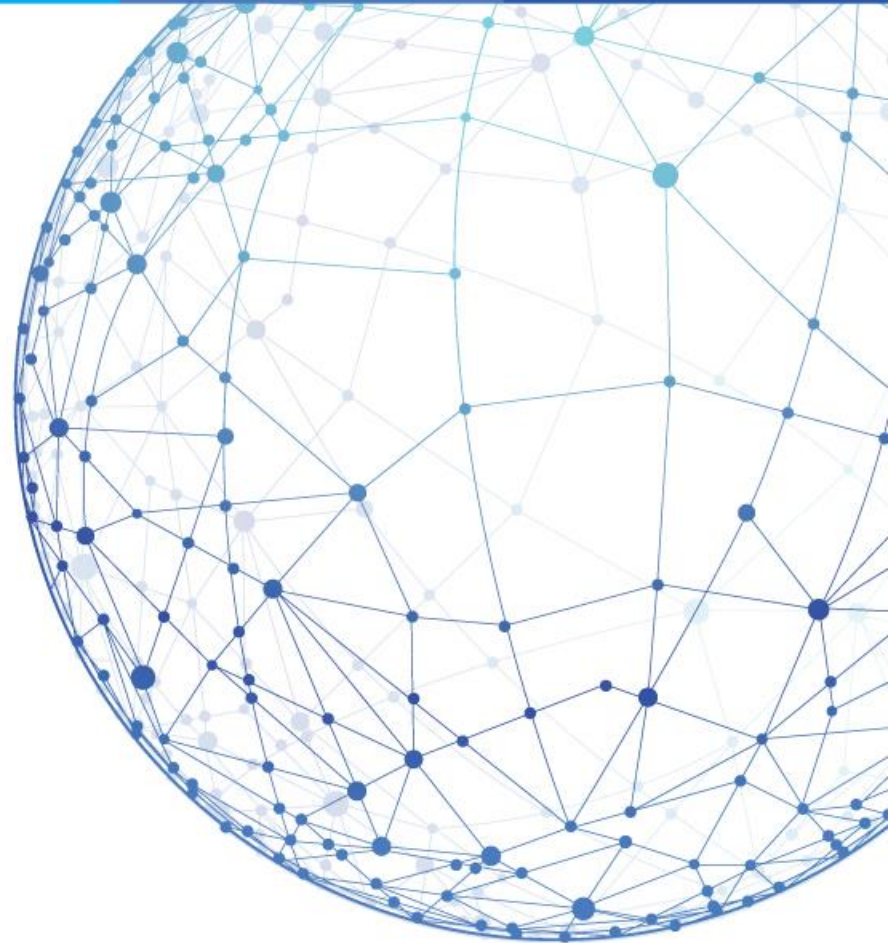
with

David Loftus

ECIA President and CEO



Electronic Components Industry Association

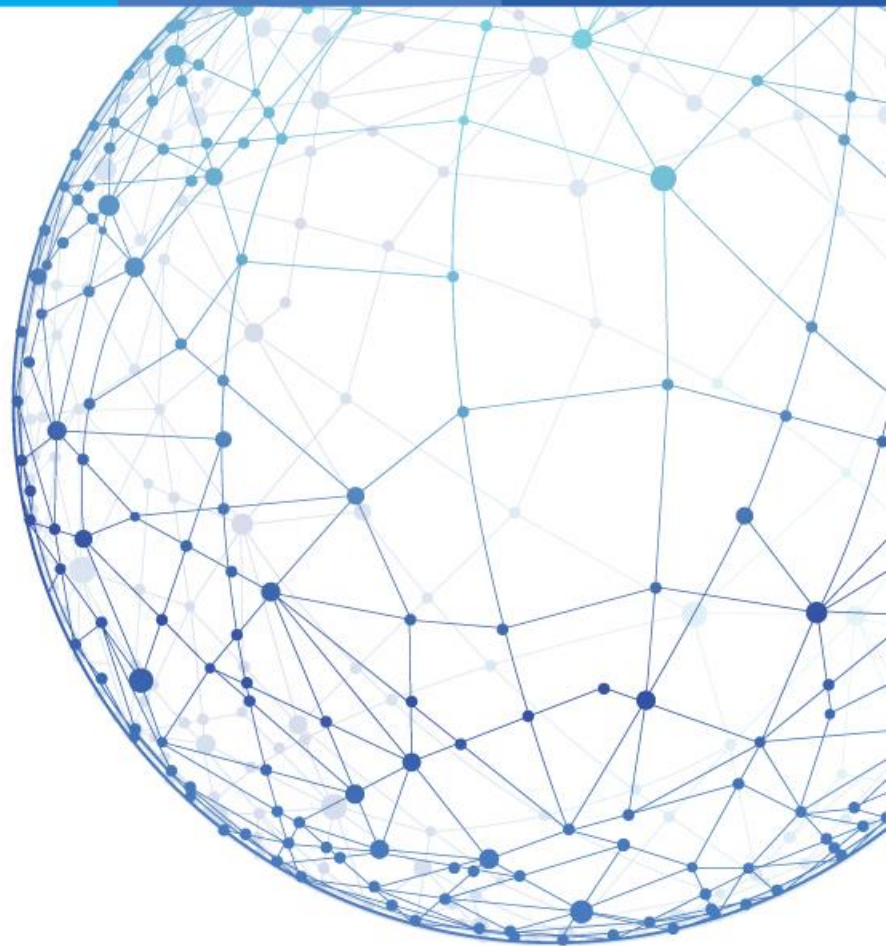


The Long Electronics Winter was Ending

Is Spring in the Air ... or a Virus?

Dale Ford – Chief Analyst

April 20, 2020

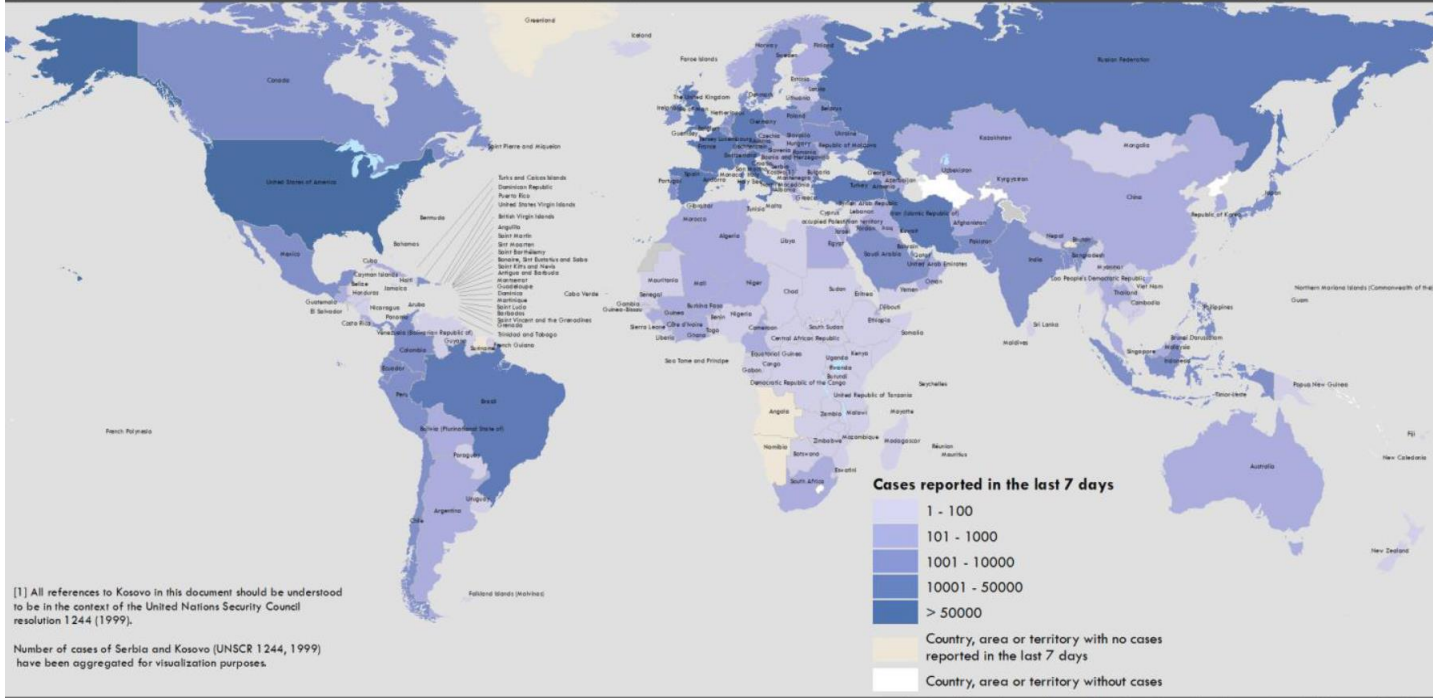


The Future Was Bright – Then COVID-19 ...

Countries, areas or territories with COVID-19 cases reported in the last 7 days
(From 11 April 2020, 10:00AM to 17 April 2020, 10:00AM (CEST))

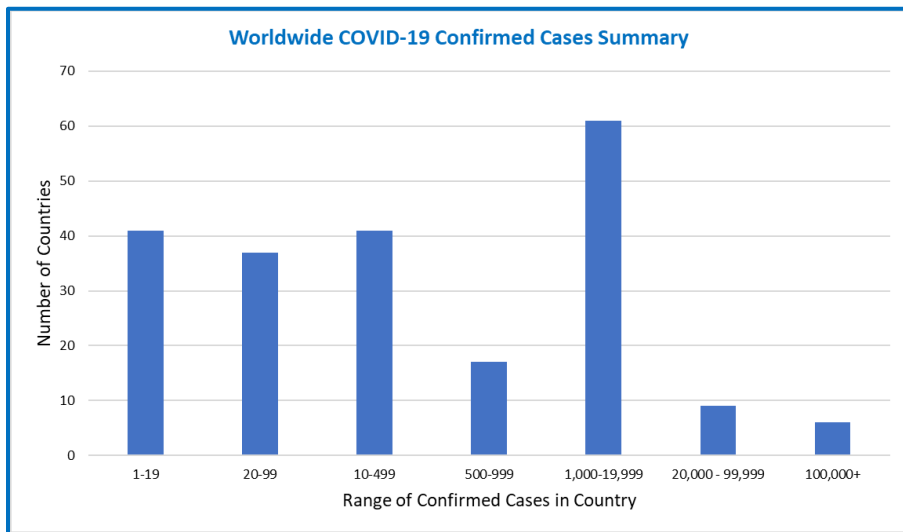


World Health Organization

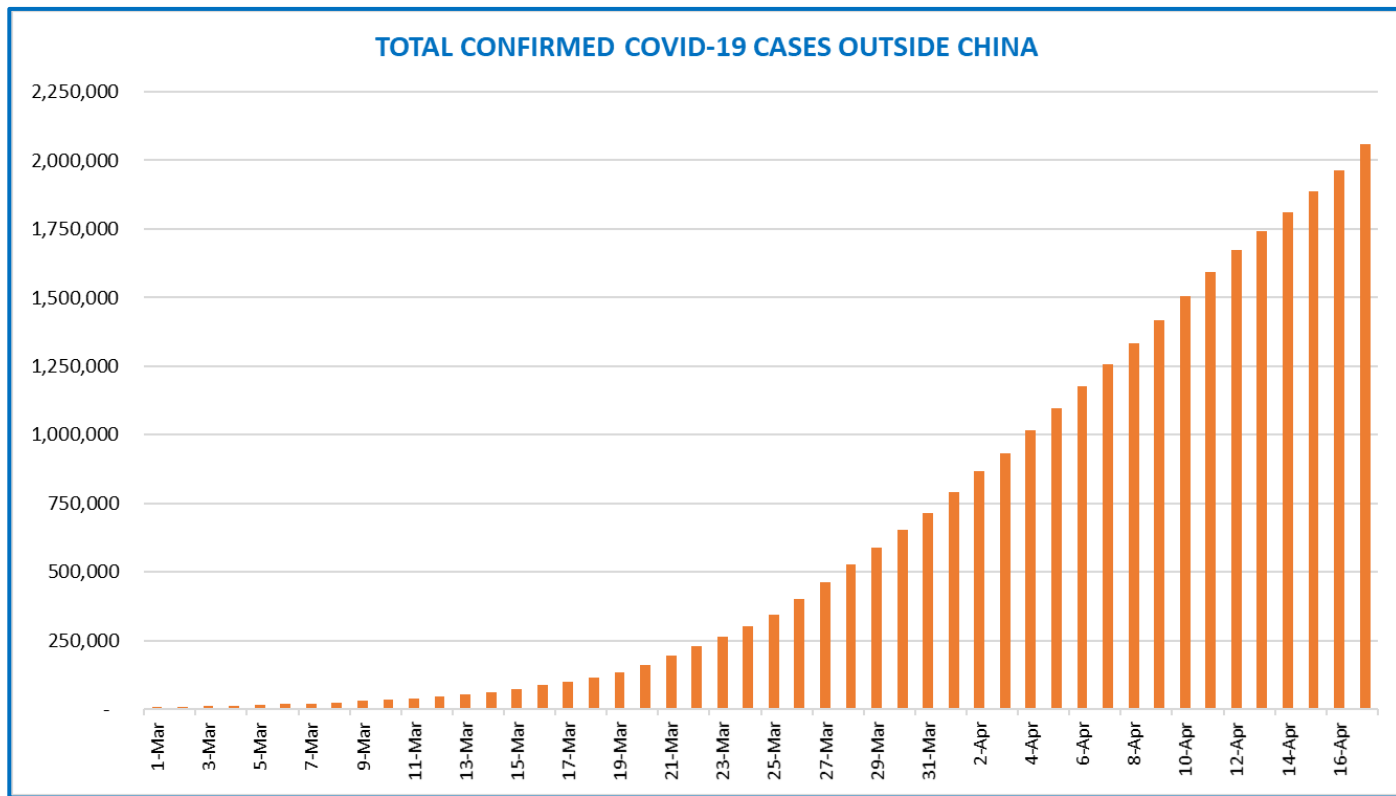


Connect. Influence. Optimize.

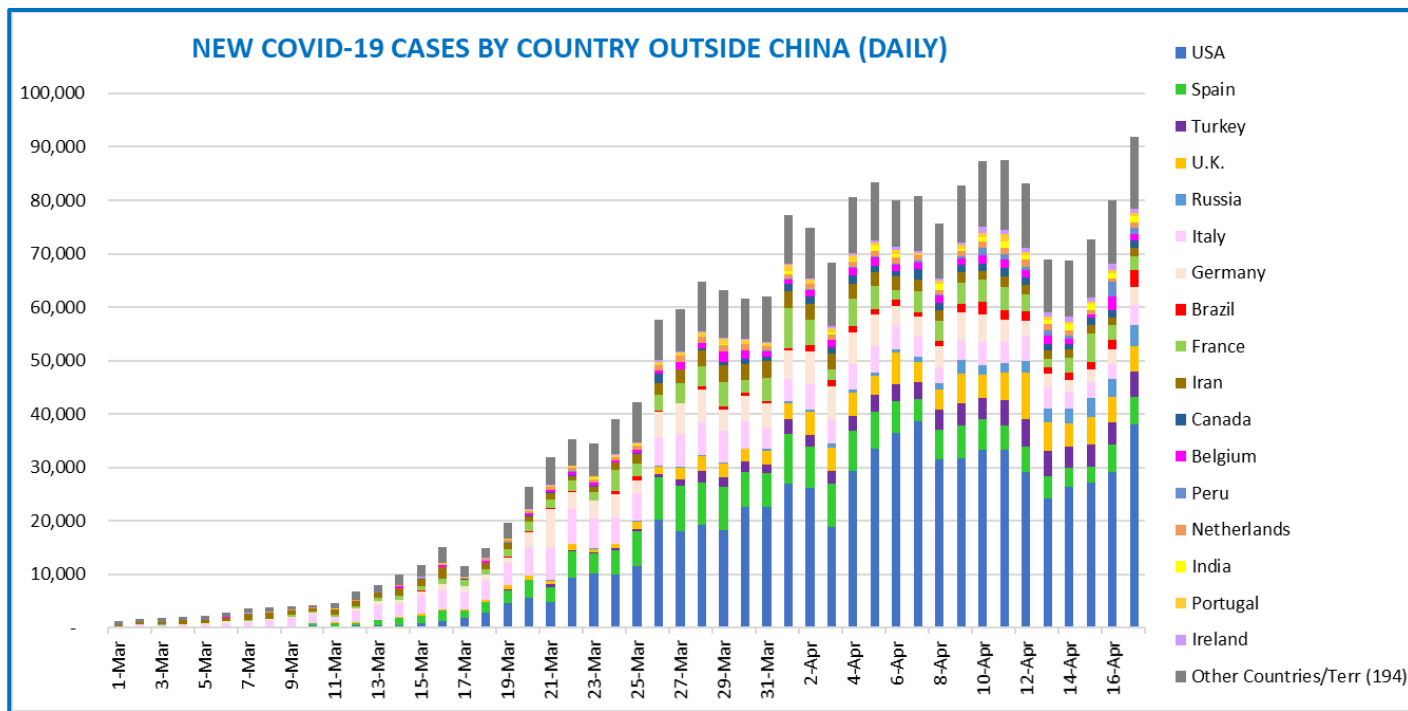
The Global Spread of COVID-19



- Confirmed cases in 211 countries/territories
 - All but 24
- These countries represent 7.64 billion people; 99.4% of the global population
- Strongest presence in northern hemisphere where it is colder

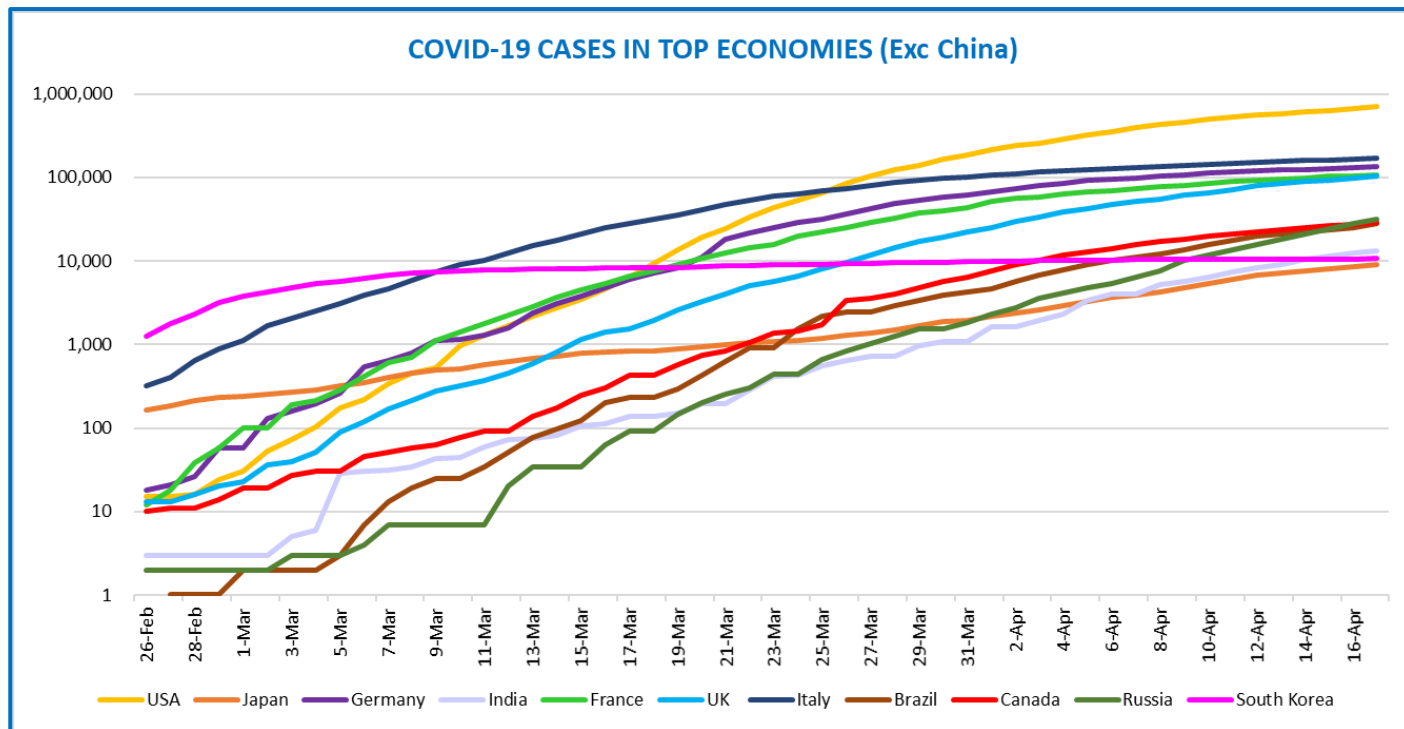


Source: WHO



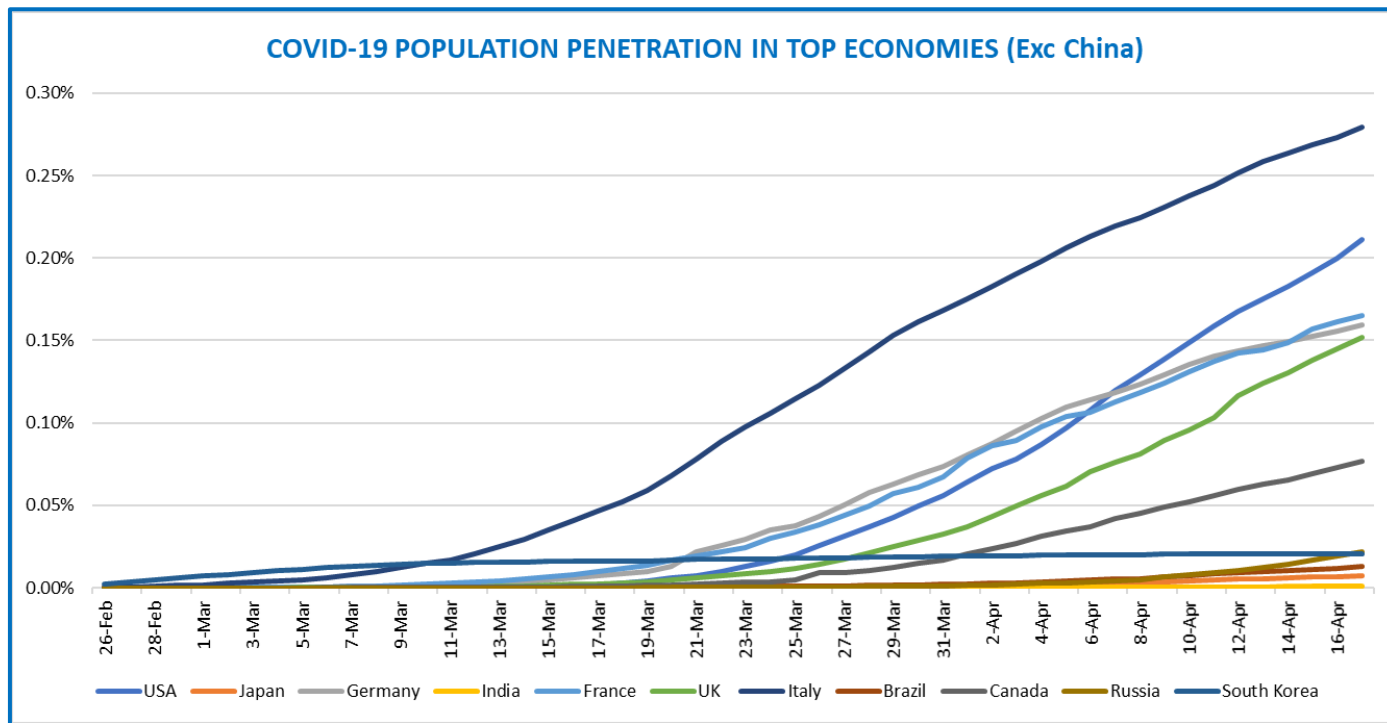
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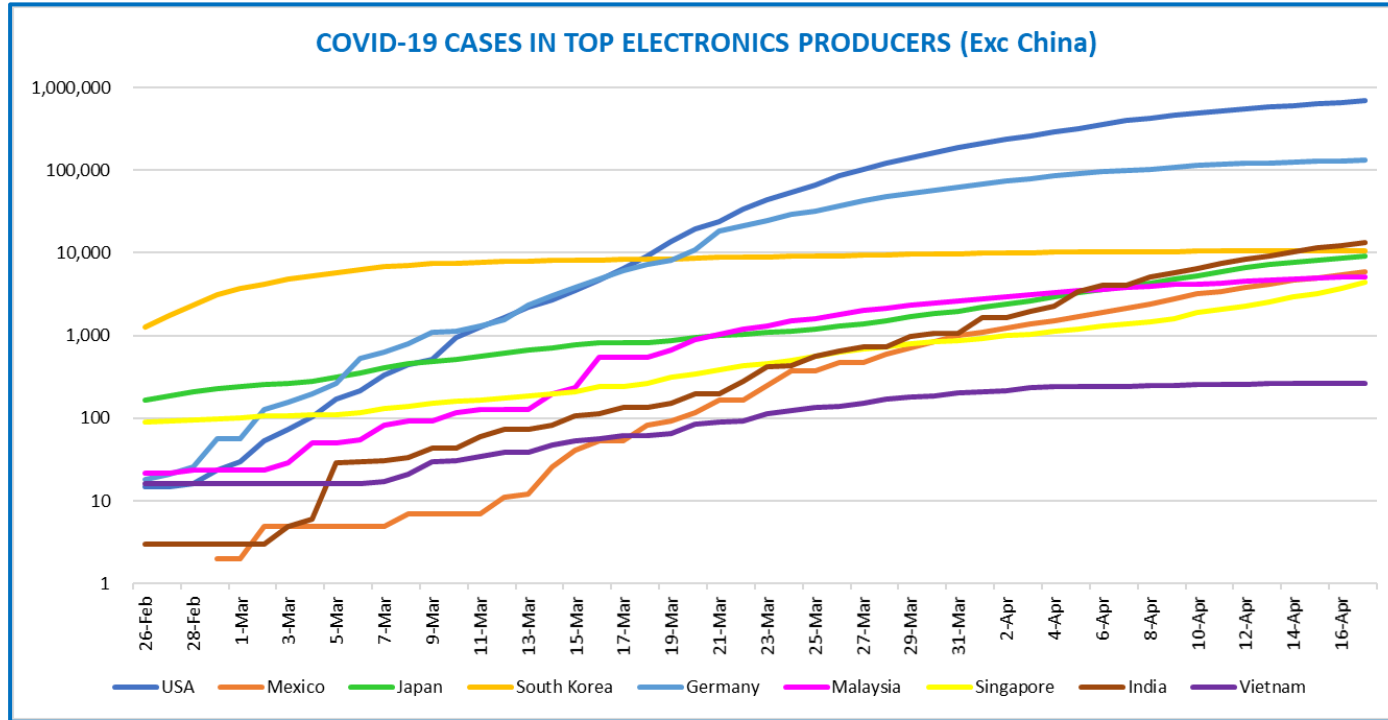
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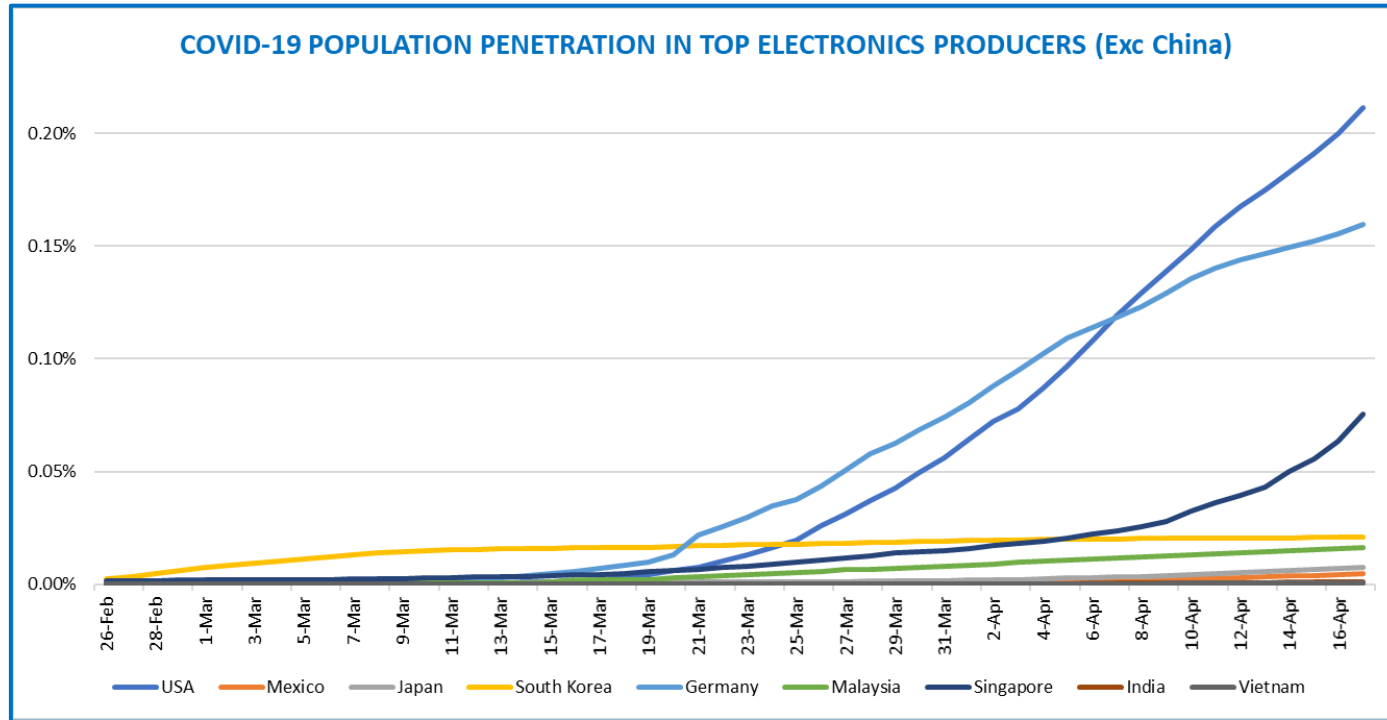
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Source: WHO

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Source: WHO

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Placing Viruses in Perspective

VIRUS	YEAR IDENTIFIED	CASES	DEATHS	FATALITY RATE	NUMBER OF COUNTRIES
Marberg	1967	466	373	80.0%	11
Ebola	1976	33,577	13,562	40.4%	9
Hendra	1994	7	4	57.1%	1
H5N1 Bird Flu	1997	861	455	52.8%	18
Nipah	1998	513	398	77.6%	2
SARS	2002	8,096	774	9.6%	29
H1N1*	2009	1,632,258	284,500	17.4%	214
MERS	2012	2,494	858	34.4%	28
H2N9 Bird Flu	2013	1,568	616	39.3%	3
COVID-19**	2020	2,330,259	160,917	6.9%	196

** Between 2009 and 2010; ** As of April 18, 2020*

Sources: CDC; UN; World Health Organization; New England Journal of Medicine; Malaysian Journal of Pathology; CGTN; The Lancet

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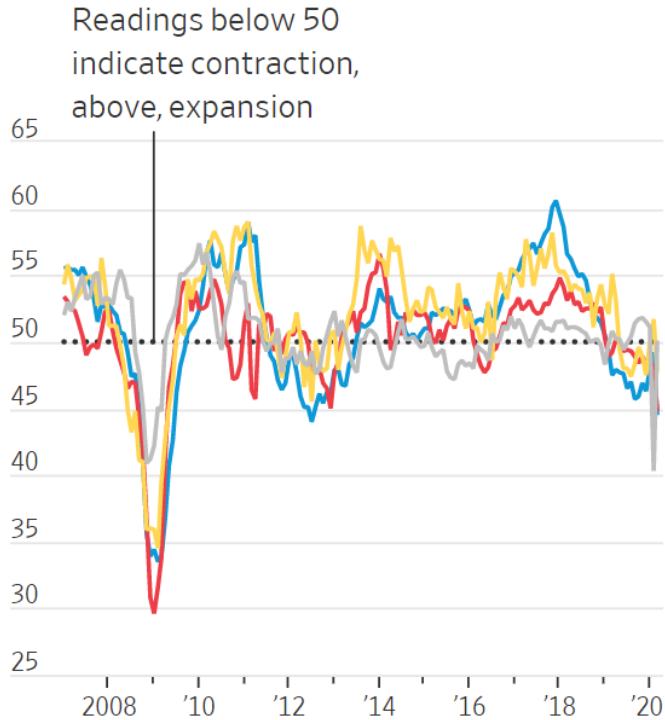
Grim Economic Forecast from IHS Markit

The rapid spread of the COVID-19 virus beyond mainland China has set the global economy up for the worst growth downturn since the 2008-09 financial crisis

- The United States, Europe, and Japan are headed for recession
 - The IHS Markit forecast for world real GDP growth in 2020 has been revised down to 0.7% in response to the spread of the virus
- Growth below 2.0% is classified as a global recession
- The number of active world cases is assumed to top out by the third quarter
- Nevertheless, the result will be a U-shaped rather than V-shaped cycle, as a sharp reduction in near-term growth is followed by a slow recovery
- Forecast risks are overwhelmingly on the downside and depend crucially on how governments respond
- Central banks have already taken emergency actions, but the fiscal response is more uncertain

National Purchasing Managers' Indexes

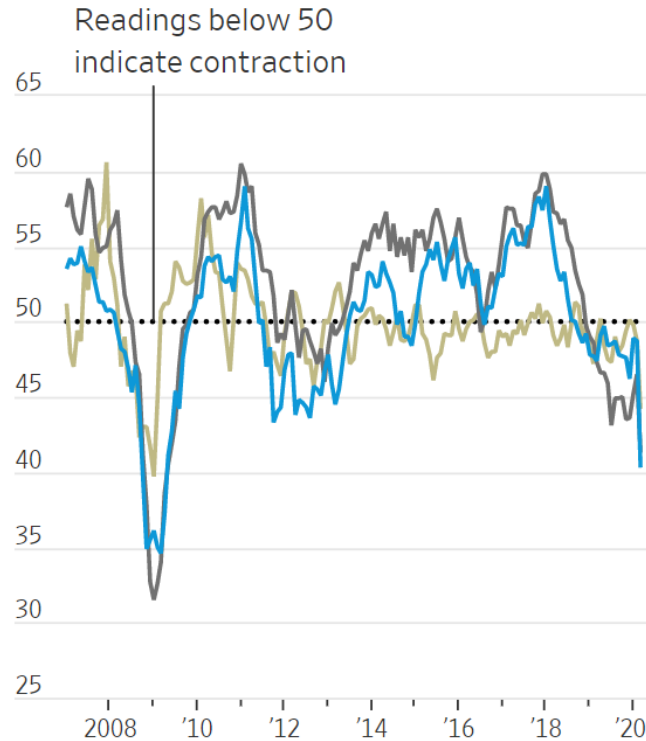
■ China ■ U.K. ■ Japan ■ Eurozone



Sources: all via IHS Markit, from Caixan (China); IHS Markit/CIPS (U.K.); Jibun Bank (Japan)

National Purchasing Managers' Indexes

■ Italy ■ Czech Republic ■ South Korea



Source: IHS Markit

New World Economics Manufacturing Forecast

U.S. Manufacturing Growth



F=Forecast

Source(s): Federal Reserve Board and New World Economics

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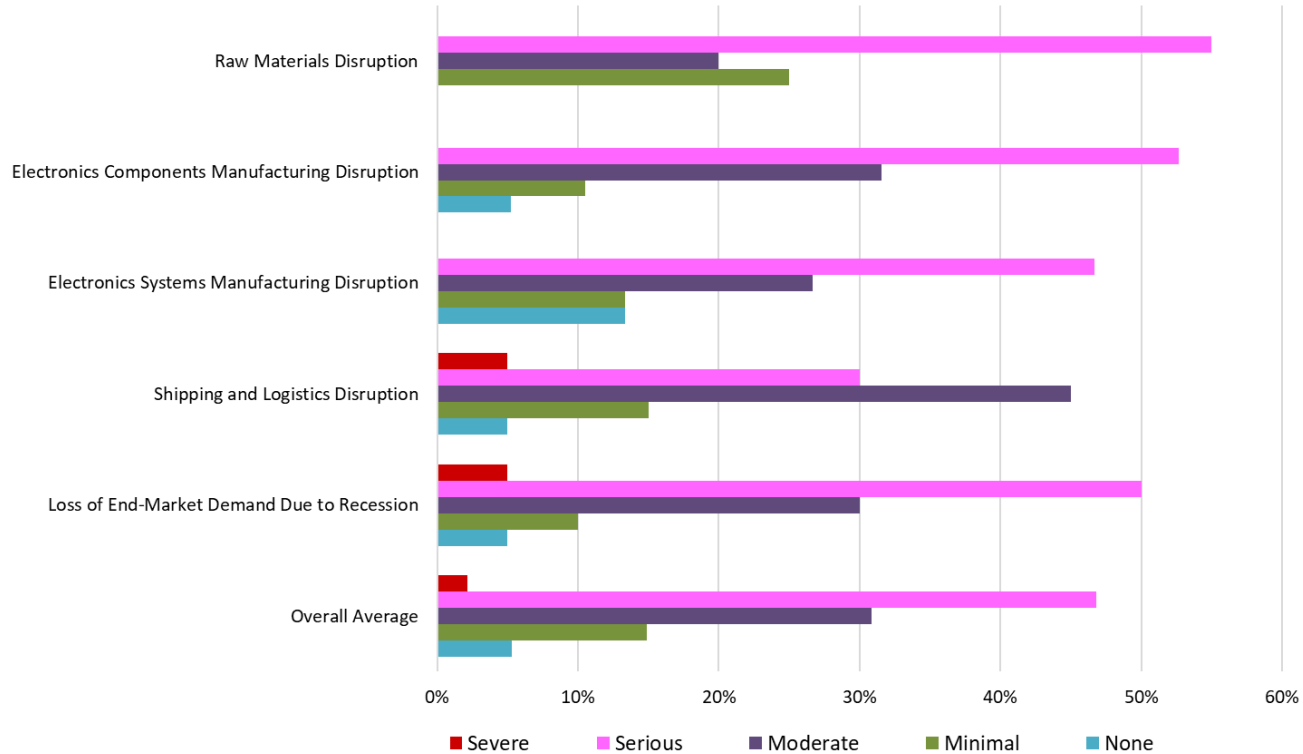
Long-Term Manufacturing Impacts of the Pandemic

- **Supply Chain and Sourcing**
 - Localized
 - Flexible
 - Diverse Sourcing
- **Automation**
 - Accelerated Private Investment
 - Public Automation Strategy?
- **Additive Manufacturing**
 - Accelerated Private and Public R&D?
 - Regional Strategy?
- **Biotech Investment**
 - Spillover Impacts?

NWE

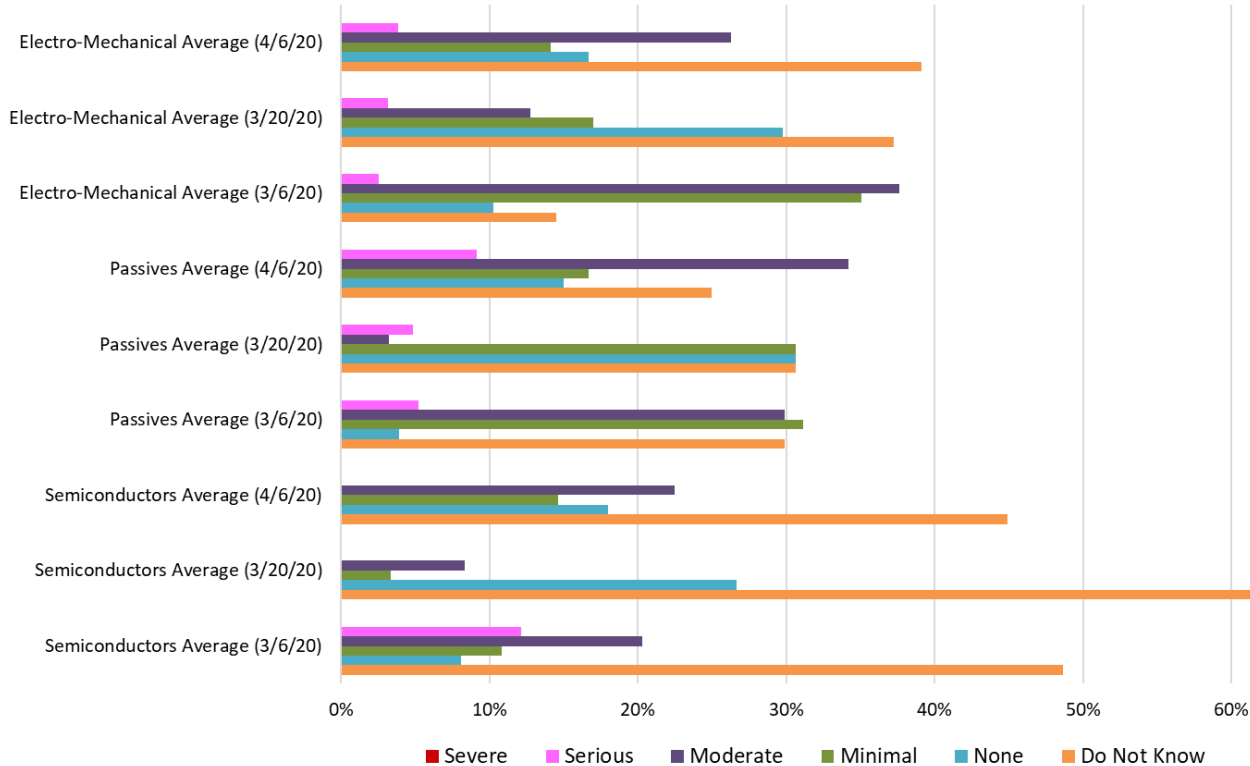
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Rate your level of concern regarding these issues due to the Coronavirus / COVID-19 impact through 2020.

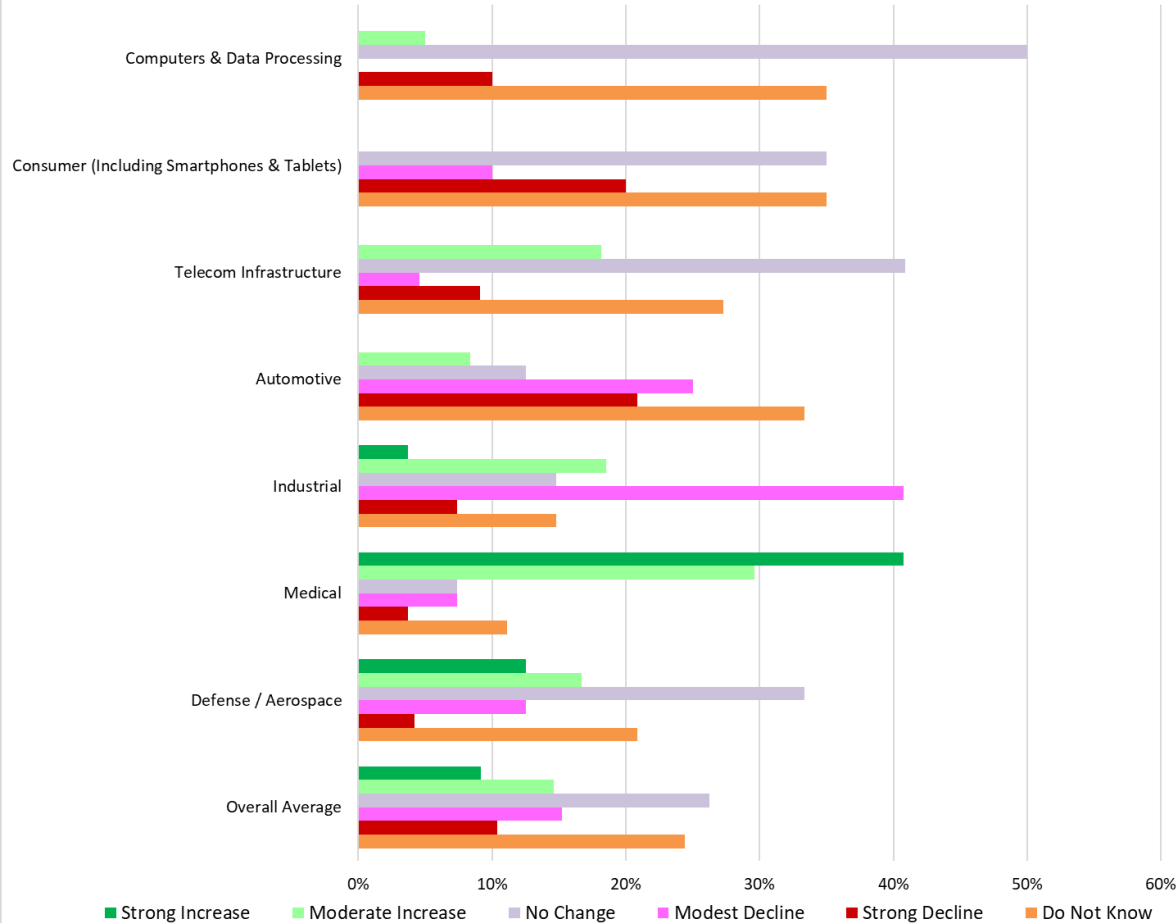


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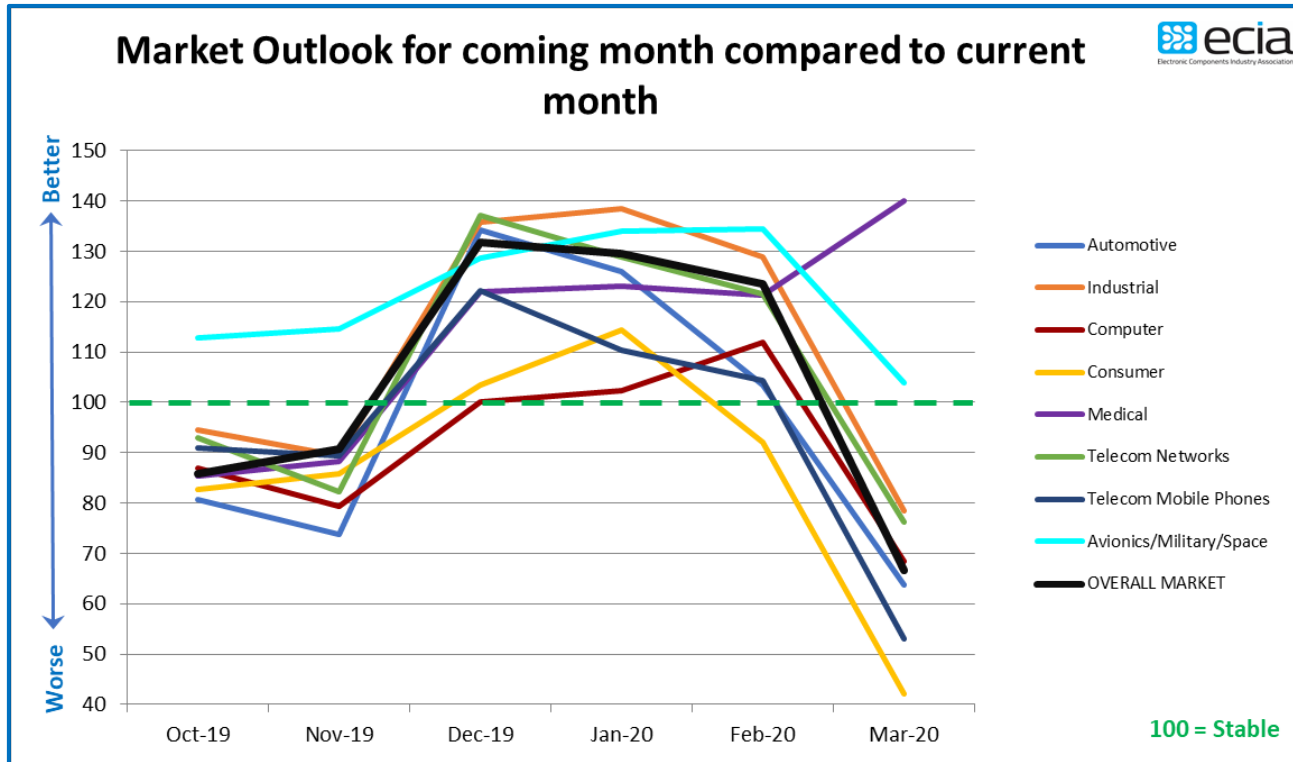
What is the impact level of the Coronavirus / COVID-19 on your company's ability to supply your customers on time? - CATEGORY AVERAGE



How much will demand for your products from your customers increase or decrease due to the impact on demand due to the Coronavirus / COVID-19? - Apr 6



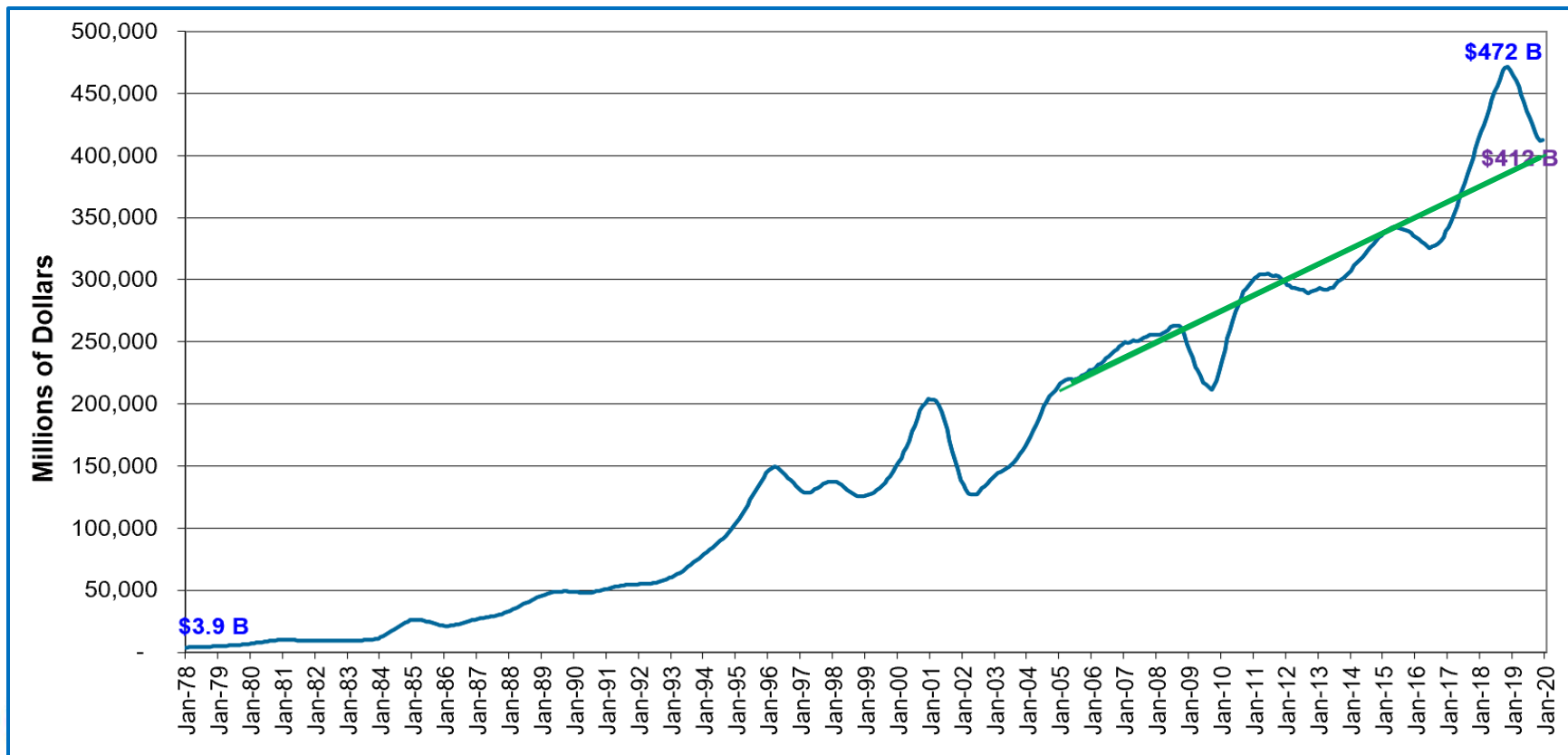
North America Sentiment Survey Trends Turning Down



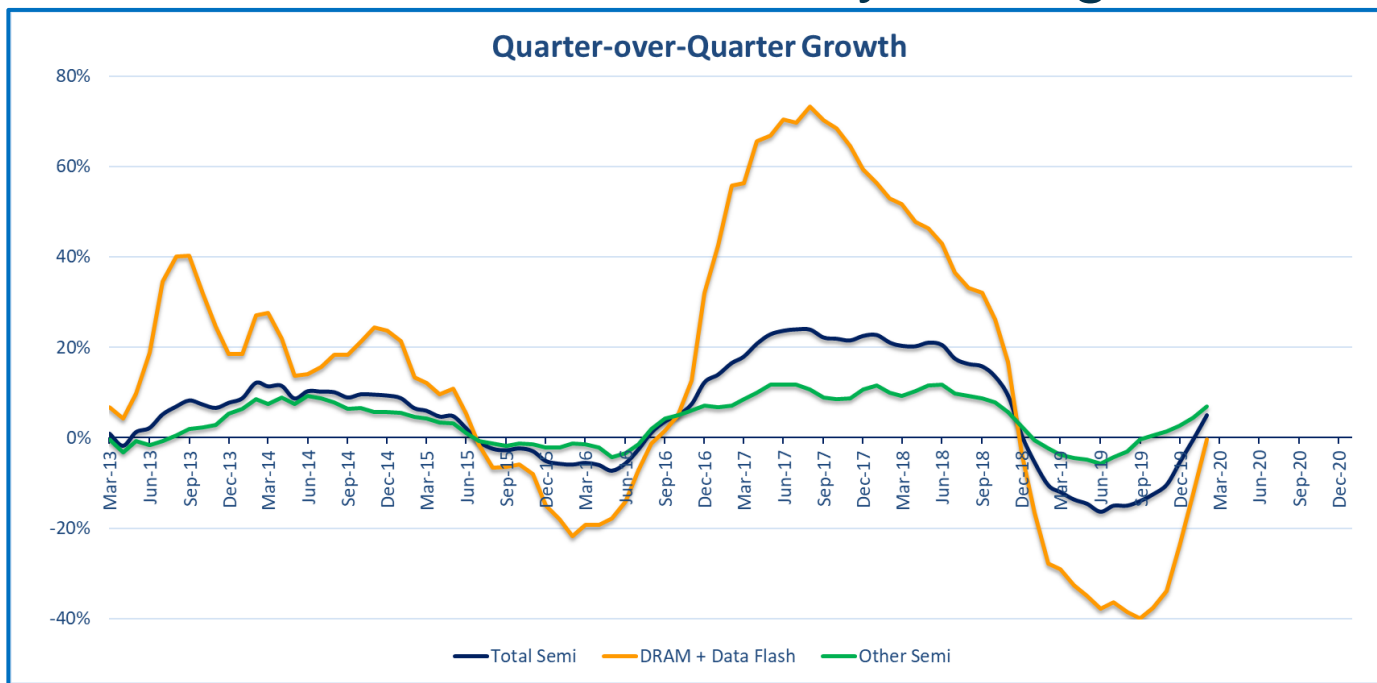
Source: ECIA Electronic Component Sales Trends Survey

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Long-term Semiconductor Growth Trends



Overall Semiconductor Growth Cycle Aligned



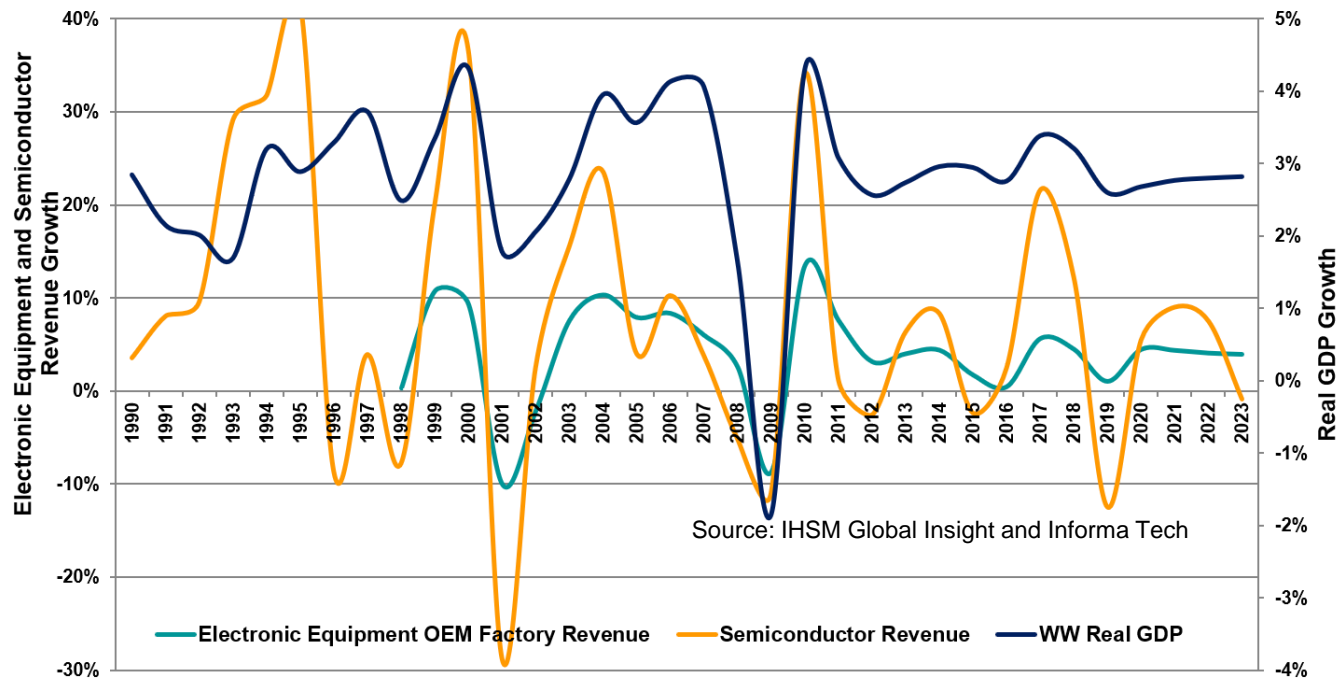
Source – WSTS

- Memory ICs pull out of their steep dive
- Other Semiconductors break into positive growth by end of 2019
- Recovery killed in Q1; Potential to revitalize in H2??

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Semiconductor Revenue Growth Cycle

GDP Relationship



- Current Cycle – Continues 20-year pattern of alignment with GDP
- Technology/Market forces aligning to support growth beyond 2020

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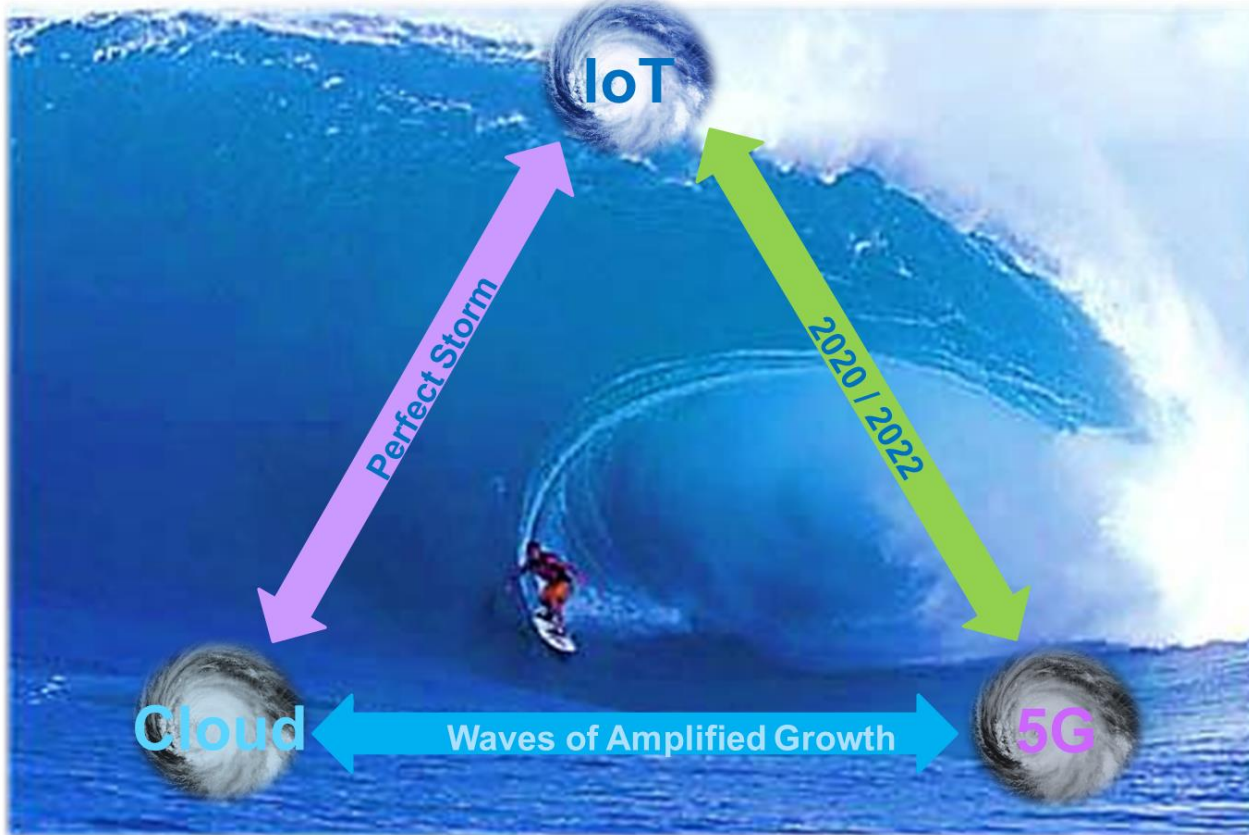
Semiconductor / Electronics Components Market Outlook – Near-Term

Multiple potential scenarios:

- “Containment” of virus by March / April
 - Market dip through H1
 - Market snapback in H2 that could drive revenue growth up to 3% to 5%
- Large, regionally focused outbreaks extend into Q3
 - Market will not recover in 2020 and potential for revenue collapse by 20%
- Global pandemic continues into Q4
 - Global economic decline could suppress semiconductor market for multiple years
 - Potential for multiple company failures and market consolidation

Market Outlook – Long Term Future Still Bright!

The Developing Technology Triumverate



Manufacturer COC

with

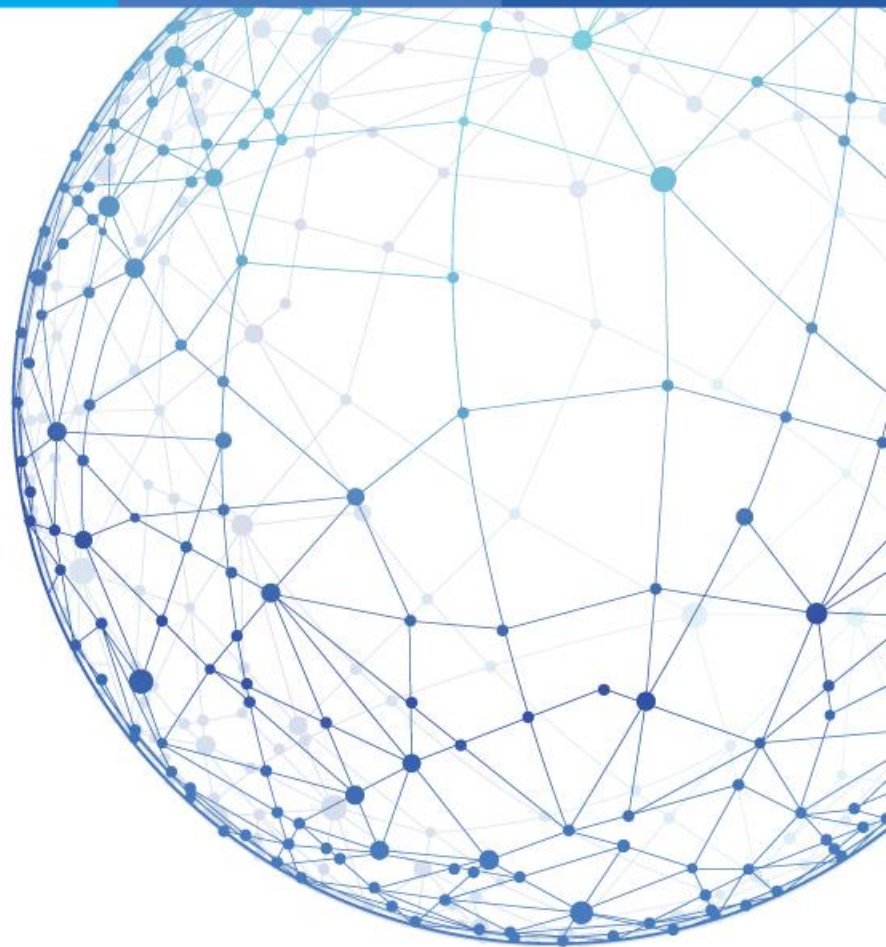
Pete Shopp

Sr. Vice President Business
Operations

Mouser Electronics



Electronic Components Industry Association



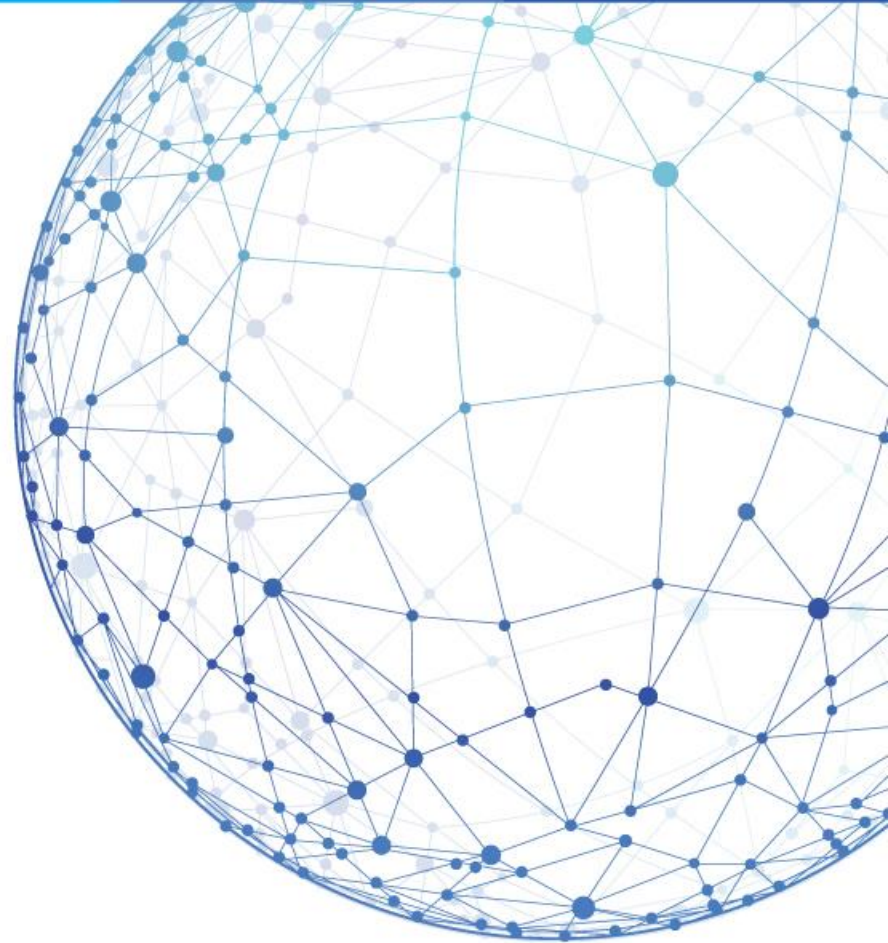
COVID-19 Warehouse Best Practices

with

Teri Ivaniszyn

VP Operational Excellence

Digi-Key



Industry Issue:

The design registration process has been active in the electronic component industry for over 3 decades, serving manufacturers, manufacture representatives and distributors. It has been requested we review this process for (A) Current State (B) Desired State (C) Future State:

Across Technology – Active/Semi, Electromechanical, Passives

• Success Vs. Pain-points– identify where the process does and does not work

- **Key Differences** – between programs in the supply chain
- **Levels of Satisfaction** – survey key stakeholders/analyze/publish results
- **Process Flowcharts** – document collective best practice process in each technology highlighting mechanics and policies
- **New Business Models “disrupting” D-Reg** – industry examples
- **Future State** – research, ideas and recommendations
 - **Technology options** – API, Blockchain, ETL, Software, etc..

Industry Benefits:

- Modernizing the process using new and/or current technology
- Streamlining data exchange
- Improve speed and accuracy of decision process
- Improved inventory management
- Harmonization of industry partnerships
- Positive financial impact

Assignment Proposed by: Manufacture Council

Additional Collaboration Required: ERA, GEDA, ECIA – Distributor Council, Manufacture Rep Council

Subject Matter Expert Group: Business Process/Operations, Sales, Marketing, Finance

Working Group Resources: Work Group Leader, 10-12 SMEs, GIPC member

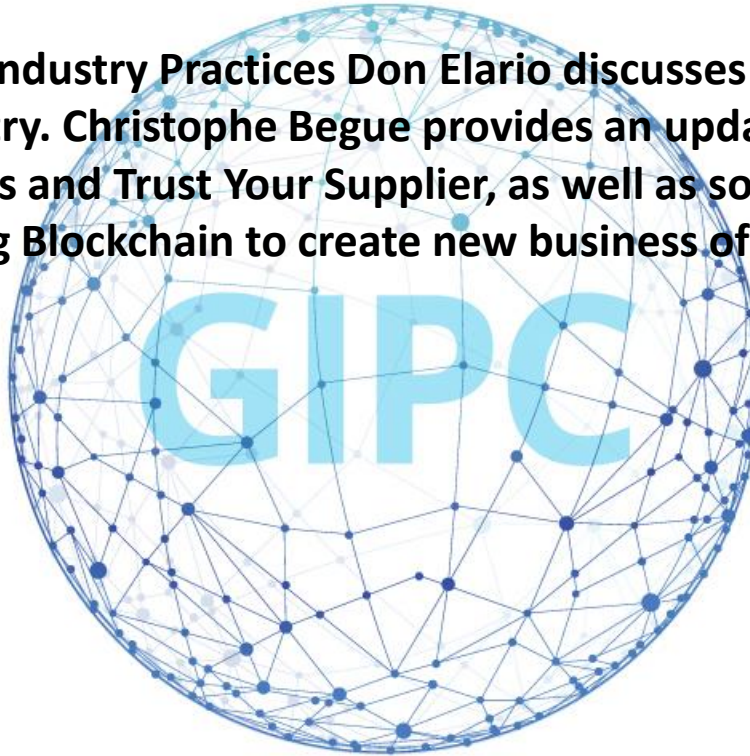
BOD Approval:

Date:



#	Key Deliverables:	Timeline:
1 A	Best Practices Document covering each technology; Active/Semi, Electromechanical, Passive	
1 B	Recommendation to modernize the D-Reg process using new and/or current technology	
2	Distribution of “Best Practices Document” for members only (Press Release, Website posting)	
3	Podcast with D-Reg work group leader	
#	Key Issues/Challenges:	
1	Industry collaboration and SME support from ERA, GEDA, ECIA board executives.	
#	Key Decisions:	
1	Approval and support from ECIA BOD and Councils to include ERA and GEDA	
2	GIPC recruitment/selection of Work Group Leader; endorsed by ECIA BOD and Councils, ERA, GEDA	
3	Guidance on 1B (see above)	

ECIA's Vice President of Industry Practices Don Elario discusses IBM's blockchain solutions for the electronics industry. Christophe Begue provides an update on how the industry is adopting IBM's TradeLens and Trust Your Supplier, as well as some insights into how some companies are leveraging Blockchain to create new business offerings.





Company Website

[Thetrustbridge.co.uk](https://thetrustbridge.co.uk)

Company Description

The Trust Bridge™ offers organizations a unique combination of expertise, advice, and practical implementation, combined with independently accredited training, in the data protection and operations area, and in cyber security. We operate with all the touchpoints of data protection: GDPR (General Data Protection Act), CCPA (California Consumer Privacy Act), and other global data privacy regulations, PECR (Privacy and Electronic Communications Regulations) and linked e-privacy laws.

The Trust Bridge™ team delivers confidence and reassurance that wherever you operate and however you engage in data protection and privacy issues across one or multiple locations, our knowledge and approach can be tailored to the needs of your business, organization or association.

Global Industry Practices Committee (GIPC)





Compliance & Risks helps manufacturers, retailers and their supply chain partners monitor and manage requirements, regulations and standards for a cleaner, safer and better world.

We create business advantage for clients by providing reliable legislative information, insights and actions through C2P, our knowledge management software platform, consulting, market access, managed services and other solutions. The company is recognized as the end to end global regulatory solutions provider across the technology, consumer goods and retail, industrial goods and life sciences sectors. Headquartered in Cork, Ireland, we also have offices in Brussels, California, London and New York.

In the beginning

When Damien McGovern, an Irish barrister, was working with Deloitte in Brussels, he was overwhelmed by the amount of EU official journals being delivered daily to his desk. Realizing that there must be another option, he conceived a more efficient way to assess the risks and opportunities in proposed legislation. Damien's experience with legal, regulatory, and compliance issues, and an understanding of the problems for his customers of not having suitable tools for a difficult job, gave rise to our knowledge management platform, C2P and the establishment of Compliance & Risks in 2002.

Global Industry Practices Committee (GIPC)

Why *(Participate in the GIPC or a Subject Matter Expert pool?)*

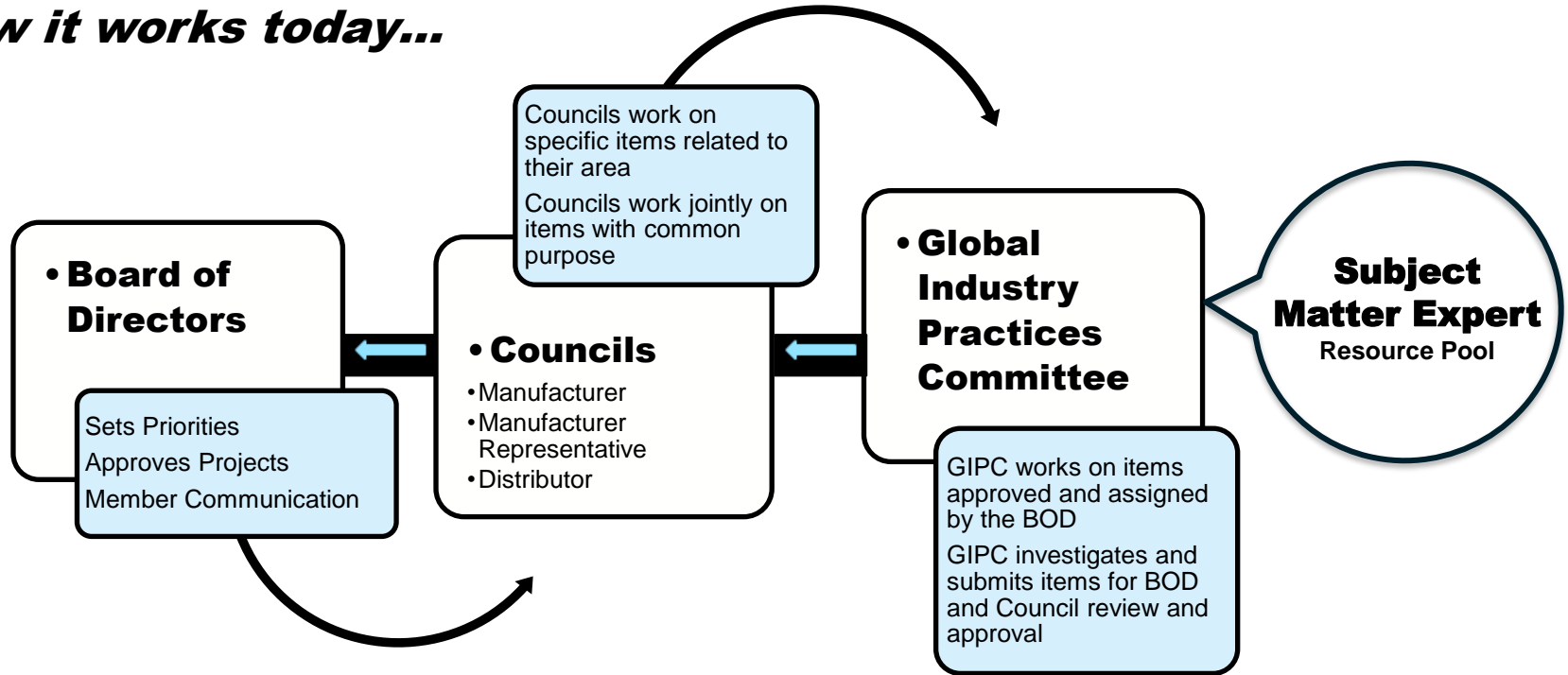
- Opportunity to Influence
- Impact Your Company's Efficiencies and Standardization through Best Practice Awareness
- Collaborate on Common Challenges and Obstacles in Your Area of Expertise
- Industry Networking
- Take Advantage of this Talent Development Platform

Time Commitment

- Quarterly GIPC Update – 45 min/quarter
- Occasional ECIA website review and group emails to keep up with news and project activity – 30 min/month
- When you see a project that is in your area of expertise and interest you...get involved in that working group – 3-to-5 hours/month



How it works today...



Global Industry Practices Committee (GIPC)

Teri Ivaniszyn – VP Operational Excellence, Digi-Key [Chair](#)
 Dawn Manhart – Director Global Sales Operations, Littelfuse [Past Chair](#)
 Melanie Pizzey – VP Global Business Operations, TTI
 Pete Shopp – SVP Business Operations, Mouser Electronics
 Tom Griffin – President, Catalyst Sales
 Kimberly Appleton – VP Global Sales Operations, ON Semi
 Russ Dzielak – Director of Channel & Key Accounts, Phoenix Contact
 Victor Meijers – SVP ECIA
 Don Elario – VP Industry Practices ECIA

GIPC

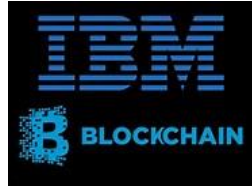
Subject Matter Experts from ECIA Member Companies						
International Trade Compliance	IT Security	Business Operations	Blockchain Solutions	Environmental Compliance	Quality	Logistics Services

Manufacturer COC Paperless Process: [Logistics Services](#) – IT Project – ADI and Mouser Electronics
Design Registration: [Business Operations](#) – Scope Document – Manufacturer Council Work Group Q1'2020
IBM Podcast: [ECIA/GIPC: Blockchain](#) – Christophe Begue speaks on Blockchain Solutions; Podcast release week of February 17th
Trust Bridge: [IT Security](#) – New ECIA Service partner; working on 1-day virtual workshop to address Privacy and Cyber Security trends
Compliance & Risk: [Environmental Compliance](#), [Quality](#) – working on 1-day virtual workshop to address Environmental/Regulatory trends
Recruitment: [GIPC](#) – recruiting 1 small manufacture and 1 small distributor to join committee level above, 1H 2020
SME Resource Pool – we review why you should register and what is the time commitment
GIPC Quarterly Update: scheduled for Monday, April 20, 2020 for GIPC, SME Pool, all ECIA members

*Updated March 2020

Global Industry Practices Committee (GIPC)

BAR CODE
G R A P H I C S



M. NATIONAL ASSOCIATION OF
Manufacturers



 **compliance & risks**

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bridge™**

pri
PERFORMANCE
REVIEW INSTITUTE



RoHS Umbrella Industry Project