

WMF VIDEO CONTEST FINALISTS ANNOUNCED

#WMF2018 VIDEO CONTEST Watch the 3 finalist videos



In March, The World Manufacturing Forum launched a video contest to promote business culture and the vital importance of manufacturing to be presented at the 2018 Annual Meeting “Manufacturing Revolution to Promote Global Resilience - How the Industrial Transformation Inspires Education, Sustainable Development and Societal Impact” (September 27 and 28th, Cernobbio - Italy). The WMF received over twenty submissions for the competition including videographers, freelancers, technical institutes and creative industrialists from nations such as the United States, Turkey, Italy, the Philippines. Among these twenty, three videos were selected by the WMF Board of Directors. All participants of the WMF Annual meeting will vote during the first day of the forum to select the winner.

The WMF Foundation President, Alberto Ribolla, commented that, "The first edition of the video contest can already be considered a success, both from a numerical and cultural point of view. Over 20 artists and videomakers from around the world gave their interpretation of Industry 4.0. This is a tremendous turnout for the first video contest. Furthermore, the messages contained in these videos and the use of creativity will enable us to disseminate the message of intelligent manufacturing more efficiently, both in the developed sectors as well as in those less involved in the digitalisation of industrial processes. The subjective interpretation of this phenomenon as displayed by the

film makers has greatly enriched our experience in this sense. On September 27th, the participants at the Annual meeting in Cernobbio will vote for their favorite video and the initiative will receive an ‘official certification’ from an international audience of the highest level."

The three finalists are as follows:

[“The 4th Industrial Revolution, a Medical Perspective”](#) by Yuri Tegas - Italy

[“Youth & Technology”](#) by Alex Oh - USA

[“Here and Now”](#) by Simon Rivera - USA

The finalists’ videos will be presented through the Clas CNBC channel and the EconomyUp web magazine, two of the media partners of the World Manufacturing Forum. The winner will be announced on the evening of September 27th at the end of the first day of the Annual Meeting.

IMS AT SOUTH CAROLINA MANUFACTURING CONFERENCE

Join IMS at the South Carolina Manufacturing Conference on September 11th and 12th for a panel discussion and a special announcement. IMS will also be hosting a booth with information regarding the ManuVation 4.0 program and ways to get involved in the program. We look forward to meeting South Carolinian manufacturers at the conference and future collaboration opportunities.

IMS GUIDEBOOK SEVEN IS NOW AVAILABLE



The IMS ManuVation Guidebook Series number seven is available online. The ManuVation Guidebooks are a resource available to all IMS members that help to outline best practices and resources for small-to-medium enterprises (SMEs). The seventh installment focuses on Cybersecurity for SMEs. The first six installments cover topics including: Advanced Manufacturing; Virtual Reality and Augmented Reality; Robotics and Automation; Enterprise Resource Planning; Digital B2B Platforms; and Data Analytics. You can read the IMS guidebooks on www.ims.org/publications

UPCOMING EVENTS

South Carolina Manufacturing Conference

Join IMS for a panel and visit our booth at the 2018 South Carolina Manufacturing Conference at the TD Convention Center in Greenville, South Carolina on **September 11-12, 2018**. For more information and to register for the event please visit: www.scmanufacturingconference.com

World Manufacturing Forum 2018

The 2018 World Manufacturing Forum: Manufacturing Revolution to Promote Global Resilience will take place from **September 27-28, 2018** at the Villa Erba in Cernobbio, Italy. Register now for the forum on our [website](#).

[Boeing, Lockheed Make Big Commitments to STEM Jobs, Training](#)

(American Machinist – Staff: 7-20-18) Boeing and Lockheed Martin announced near-term commitments to provide employees with better training opportunities. Boeing will offer a combination of increased work-based learning (apprenticeships and internships), continuing education, on-the-job training, and “re-skilling.” Lockheed Martin committed to create 8,000 apprenticeship opportunities and invest \$5 million in vocational and trade programs over the next five years. Both companies are responding to the President Trump’s National Council for the American Worker, which will foster development of a national strategy to address “urgent workforce issues” by developing a campaign to raise awareness about the “skills crisis” and the importance of STEM education; create plans for recognizing companies that demonstrate excellence in workplace education, training, retraining policies, and workforce investment; and expand the number of apprenticeships and promote investment in training/re-training of workers. Boeing plans to work with *Degreed.com* to provide employees with access to online lessons, certification and degree programs; and will invest in “re-skilling programs” to help employees enhance technical skills and understand technological trends.

[Industrial Internet: GE and Microsoft Expand Alliance](#)

(IoT Institute – Brian Buntz: 7-19-18) It wasn’t long ago that GE focused on building itself anew. Several of its executives seemed to revel in calling the firm a startup in 2016 and 2017. The company’s former CEO Jeff Immelt vowed to make the company into a “top 10 software company” by 2020. One of its plans was to lay the groundwork for its own cloud infrastructure for its IoT platform Predix. The company also acquired several IoT-related and software firms including ServiceMax, BitStew, Wise.io, ShipXpress and Daintree Networks. And in 2017, it also announced partnerships with heavyweight tech firms like Apple, Amazon Web Services and Microsoft. Now, under the leadership of CEO John L. Flannery, GE is slimming down, selling off, for instance, a health care unit and its rail business, while beefing up its collaborations with big-name tech vendors. The most recent evidence of that comes courtesy of a renewed partnership with Microsoft. While GE touted interoperability of Predix with Azure

last year, the latest announcement expands that relationship, integrating Predix with tools such as Azure IoT and Azure Data and Analytics. GE will also deploy internally.

[High School Students Earning Free Associate Degree in STEM](#)

(IW – Adrienne Selko: 7-16-18) In 2011, looking to bring more students into the STEM pipeline, IBM worked with educators, policymakers and elected officials to create the Pathways in Technology Early College High Schools (P-TECH) model. Starting with one school in 2011, there are now 100 schools that participate in this program. Students can enroll in the six-year program, which begins in high school and earns both a high school and an associate's degree in a science, tech, engineering or math-related field. The schools map skills that employers value into the curriculum, preparing P-TECH graduates to enter the workforce after graduation. In order to ensure that students can find jobs in their field, the program is supported by 400 business partners that work directly with 79 schools across the U.S. The business partners ensure that students are career-ready by providing mentoring, site visits and paid internships. In addition to filling the many STEM jobs in the market today, P-TECH is also helping these graduates move to “new collar” jobs which can range from associate analyst to digital design developer.

[Why Productivity Isn’t Keeping Up with Technology](#)

(Bloomberg View – Peter R. Orszag: 7-13-18) Existing advances in technology from smart phones to new car services affect our everyday lives. Yet aggregate productivity has been growing very sluggishly. In 2016 and 2017, for example, output per hour in the U.S. non farm business sector rose by less than 1% per year on average. The disconnect between productivity growth and the technology revolution has triggered a sharp debate in economics. A scintillating new paper by Ada Turner of the Institute for New Economic Thinking suggests that rather than presenting a puzzle, the combination of technological innovation and low measured productivity growth is what we should expect. Before turning to Turner’s argument, it’s worth revisiting previous attempts to resolve the apparent puzzle. One perspective argues that slow productivity growth is at least partly a mirage. For example, if new inventions improve the quality of goods and services but the improvements are not properly incorporated into the economic statistics, the result would be that

measured productivity is lower than actual productivity. The challenge is to determine whether the measurement errors are any bigger today than in the past and how large they plausibly are in any case.

[Heavy-asset industries are ripe for renewal](#)

(Plant Services -- Sheila Kennedy: 7-10-18) When it comes to sustaining profitability, *better/faster/cheaper* is no longer sufficient in heavy-asset industries. Simply making and delivering large products is not enough for the manufacturers to survive and thrive in an unpredictable economy. Even consumers of the assets are open to new ways of doing business. *It is time to step outside of long-held comfort zones and find new ways to drive revenue while optimizing reliability.* This is essential to countering the high capital intensity, stiff competition, and cyclical sales, investments, and employment of the sector. *Companies with creative and visionary leadership have begun embracing the concept of servitization.* They are incorporating new value-added, after-market services in their portfolios, with the best-in-class adopting pure outcome-based business models where they maintain ownership of the assets and instead make them available as a service. Servitization is represented by strategic services that complement, or replace, product sales. Not only do customers require product and parts replacements, but there is growing interest in field service for break/fix repairs, aftermarket maintenance contracts and guaranteed service level agreements (SLAs).

[In a Global Trade War, How Should Supply Chain Professionals Defend Their Companies?](#)

(Supply Chain Management Review – Rosemary Coates: 7-9-18) After three rounds of failed trade negotiations, a trade war between the U.S. and China, the world's two largest economies, begins today. China's Ministry of Commerce has announced that China will fight back against the U.S. by imposing retaliatory tariffs on imports to China such as American soybeans and autos. Other countries including Canada, Mexico, and the EU are already fighting back after the imposition of tariffs a few weeks ago. So what should global supply chain professionals do now? If you are like many of us, you are already losing sleep over these events. The idea behind the imposition of tariffs is to increase the cost of imported goods to the point where American manufacturers can compete more effectively, and to punish other countries for unfair trade practices. But the reality is that the global economy is so

intertwined that most U.S. manufacturers rely heavily on imported parts to support their own U.S. production. Purchasing and Sourcing managers are already scrambling to find alternate sources in countries where these new U.S. import tariffs do not apply – at least not yet.

[Get to Industry 4.0 with a smart factory roadmap](#)

(TechTarget – Albert McKeon: 7-6-18) The term smart factory likely brings to mind a shiny new manufacturing building with end-to-end, modern, connected technology. However, an old factory that integrates modern technology with select old machinery can enable data-driven decisions about processes, capabilities that are at the heart of what is meant by smart. That's a central lesson to learn about creating a smart factory roadmap, one that's espoused by several experts who closely observe the trend of digital transformation, automation and information sharing in manufacturing. To them, a factory doesn't require the newest, best or even the most technology to be smart. Instead, any level of digital connectedness is a smart step toward understanding precisely how manufacturing processes work, which, in turn, helps companies make the best decisions. "It's all about connecting data to make smart decisions to improve manufacturing," said *Thomas Hedberg*, co-leader of National Institute of Standards and Technology's Smart Manufacturing Systems Test Bed and the project leader of NIST's Digital Thread for Smart Manufacturing project. Hedberg is suggesting *even old factories can learn new digital tricks.*

[Leaders: It's OK not to know everything](#)

(McKinsey Insight -- Johanne Lavoie and Jens Riese: 7-2-18) Recently, a CEO confided that the accelerated disruptions occurring in her industry with the advent of new technologies, new entrants and new business models were shaking her usual confidence. While an expert in her field, she was doubting her adaptability to the increasingly complex nature of the challenges leaders face today, from work to home life. She is far from alone. More and more, leaders tell us they feel out of their usual comfort zone and on unstable grounds. They complain they're "efforting" too much, working harder for weaker results in a 24/7 environment of crammed agendas and information overload. *What's the solution? We think it's about building your inner agility.* Disruptive times call for transformational leaders to let go and become more complex themselves to navigate effectively. Little attention has been paid to

the cognitive and emotional load that dynamic change creates for leaders. It's an especially onerous burden because the very nature of disruption means that leaders must steer their organizations into – and through – a fog of uncertainty. It's increasingly clear that to “do” agile, you must “be” agile.

[Can AI Really Improve Industrial Production Efficiency?](#)

(Forbes – Arnie Gordon: 7-2-18) Production may well be the next breakthrough after automation that artificial intelligence (AI) can bring to new heights of efficiency and productivity. While this is not a new concept, certain recent developments have demonstrated that this future may be approaching far more quickly than we think. Technologies like cloud computing, big data and improved machine learning algorithms are going through the long process of mainstreaming and could make a world of AI-empowered production a reality. To begin with, early success with AI means that development in this field is likely to grow and continue. AI has already been used to create superior processes in healthcare, finance utilities and e-commerce. To frame this in terms of manufacturing, the Annual Manufacturing Report of 2018 from *The Manufacturer* discovered that 92% of senior manufacturing executives believe that "Smart Factory" digital technologies such as artificial intelligence will allow them to improve their degrees of productivity and empower their staff to work more intelligently. Despite this bright outlook, doubt still exists.

[Here comes the sun: Solar plus storage energy solutions get competitive](#)

(GreenBiz – Daniel Rothberg: 6-25-18) The energy dynamic around renewables is changing so quickly in Colorado that Zach Pierce, a senior campaign representative for the Sierra Club, can hardly keep up with it. "I feel like we're having to rewrite the talking points on the drawing board every month in Colorado," he said. In December, the state's largest utility — Xcel Energy — released a short report summarizing the responses to the solicitation it had issued to power suppliers for bids to bring new sources of electricity to the grid. The utility received 430 bids, and 350 of those were for renewable energy projects. That was remarkable on its own, but what surprised people even more were the bids for projects that added battery storage to the mix. They were cheaper than anyone expected. "It's a testament to how quickly the market is changing," Pierce said. For years, renewable energy

advocates have pushed utilities and regulators to consider adding battery storage to their electrical generation portfolios for flexibility and to reduce intermittency problems that come with solar and wind. Until recently, it wasn't considered a realistic option.

[A transformative experience for leading a transformation](#)

(McKinsey Article -- Anika Becker, Alessandro Delfino, Alessandro Faure Ragani, Ulrich Huber, and Cinzia Lacopeta: June 2018) Picture a global manufacturing company. It could be in any industry—the essential point is that it is very good at what it does. It has a long history of innovative products, and has grown to serve a global customer base. The company's leaders are increasingly concerned, however. Its longstanding competitive advantages are under threat, as Industry 4.0 technologies enable entirely new levels of product quality, manufacturing agility, and on-time delivery performance. Old competitors are catching up and new competitors are popping up in all directions. Meanwhile, customer expectations are rising even faster than competitors' performance. Rather than wait for others to take the lead, the company decides to set new standards for itself, starting now. To do so, the company would need to bring lean management, Six Sigma, and Ops 4.0 together in an ambitious, enterprise-wide transformation. But the leaders foresee a gap. Success would, crucially, depend on the engagement and influence of senior managers—only some of whom had fully embraced the concepts that would make the transformation possible.

[The Digital Future is Here, Now](#)

(American Machinist – Ramona Schindler: 6-26-18) The manufacturing technology industry is in flux right now as it seeks to find its way in the digital world, and the entire process chain necessitates the integration of suppliers who can respond to the needs of the industry. This situation has very little “history”, and so large end-customers and machine shops of all sizes are seeking assistance from suppliers, while the machine tool builders are likewise seeking to partner with developers and providers of hardware, software, communications, and controls, to bring to market the most-needed types of machines and technologies. Within this general scenario, large manufacturers focus on the “big picture” as they link their production departments, often located in different cities or even countries throughout the supply chain,

while small contract manufacturers with a dozen local customers wonders how this drive to the digital factory will impact their enterprise — and it will. The good news about the digitalization process now underway is that manufacturers already can use the IT, apps and communication devices in place in many of advanced machine tools ...

MANUFACTURING FACT OF THE MONTH

Manufacturing Jobs are Increasing though qualified workers are not.

Over the next ten years, the US is slated to add 3.5 million manufacturing jobs. However, 2 million of them will go unfilled due to the skills and knowledge gap present. This is indicative of the global phenomenon of skills and workforce retraining to meet industrial needs.

(Source: Deloitte and The Manufacturing Institute)

For More Information on IMS and its services please contact IMS Inter-Regional Secretariat Managing Director, Dan Nagy (dnagy@ims.org) or IMS ISC Chairman, Jack Harris (jack.harris@ims.org).