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## 3D PRINTING

Additive manufacturing/3D printing, which builds a complete part by fusing material layer by layer, is revolutionizing manufacturing today and will continue to be a breakthrough technology. As President Obama assessed in his second State of the Union address, 3D printing has the potential to revolutionize the way we make everything. Because the technology will change our clients' businesses, Benesch has formed a 3D Printing Industry Group, a multidisciplinary team led by core members of the firm's Innovations, Information Technology & Intellectual (3IP) Property Group.

### **THE SEA CHANGE IS HERE. ARE YOU PREPARED TO RIDE THE WAVE?**

3D printing is not for tchotchkes anymore—the technology is being applied in sometimes unimaginable ways: For example, apartment buildings are being printed with large 3D printers. This is phenomenal technology with groundbreaking implications for numerous types of industries.

Consider the parts industry. Most of know the frustration of trying to assemble a purchase only to find a part is missing. With a 3D printer and access to the digital file for the part, you could print out the part on your printer. Or you could go online to GrabCAD or Thingiverse (or an increasing number of other sites) and download the file you need. Or, you could simply scan one of the other parts that was included and print out an exact copy of the one you need.

This is a sea change for spare parts industries. If your business makes money by selling replacement parts, pay attention. You should be planning and taking certain steps today to meet the challenges and avail your business of opportunities afforded by 3D printing technology. Our team can help you.

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# 3D PRINTING

“We will see a de-commoditization of those products that are offered in sizes right now into customized products that are made just for you. What happens when we start having people choose the color, the feel, the shape, the functionality of products going into their homes and businesses?”

## PROFESSOR BRETT CONNER

Associate Professor of Mechanical & Industrial Engineering  
Director of the Advanced Manufacturing Workforce Initiatives  
Youngstown State University

*Speaking at Benesch's May 6, 2015, 3D printing conference in Cleveland, OH*

Consider industries where “custom” has traditionally meant a premium offering at a premium price, such as clothing. Customization is an area where 3D printing excels. Anybody can now design a 3D-printed item and determine the color, shape and functionality, creating increased opportunities for people to customize their products. No tooling. No need to accept “small, medium or large” or a standard size that’s not quite right—just make it custom. With digital manufacturing, you will get a product that is tailored just for your human anatomy.

## THIS IS A VERY DIFFERENT BUSINESS MODEL THAN WHAT WE HAVE TODAY.

In addition to these industries, 3D printing will have a profound effect on biomedical industries (including bio-printing and prosthetics), mobile commerce, software industries, chemicals, polymers and other materials industries, as well as countless other consumer products and heavy metal industries. A wide range of products—even electronics—are being printed in metal, ceramics and cement. A goal is to print out a fully functioning smartphone in 10 years. And many companies are right now creating files and products related to printing food.

3D printing will also revolutionize what we now known as the supply chain. No reason to carry heavy inventories of products as a retailer when many products will be printed locally and on-demand. As a result, what will the labor market look like in 10 years? How will this affect transportation companies? Logistics companies are already installing 3D printing kiosks at certain stores.

The not-for-profit world is affected as well. Creative, forward-looking museums have established programs to encourage patrons to interact with exhibits in novel ways by using 3D printing. Museums and libraries should have 3D printing policies in place for their patrons.

## BENESCH CAN HELP YOU NAVIGATE THESE UNFAMILIAR WATERS.

Benesch’s 3D Printing group is extremely knowledgeable about 3D technology and has the experience to counsel your company to be ready for the revolution. New patent, copyright/trade dress and trademark strategies should be considered to put your company in the best position to win claims of infringement in a digital world.

Benesch pays particular attention to “materials” companies and companies producing spare parts. Consider that someone in the United

States could send a digital file to someone in another country and that person can print the object on a 3D printer. This is a boon in some cases and a curse in others. **Gartner analysts predict \$100 billion in intellectual property losses per year by 2018.** We know from the music industry’s fight against illegal downloads that suing customers will not work. Our clients require thoughtful planning and counseling now.

Warranties and supplier agreements should be revised to contemplate 3D printing of aftermarket parts. For example, who is liable for a 3D-printed part that injures someone? Benesch has product liability and contract lawyers thinking about these unique issues.

In addition we are leading a 3D printing consortium composed of leading consumer products and industrial companies and government, civic and academic leaders. The consortium aims to influence future legislative solutions (at both a state and federal level) in order to maintain a healthy balance of, on the one hand, consumers’ freedom to share and create and, on the other hand, producers’ incentive to innovate.

## LEVERAGE THE OPPORTUNITIES, PREPARE FOR THE RISKS.

For more information on 3D printing opportunities and risks, or if your company or organization would like to be a part of the consortium, please contact Mark Avsec at [mavsec@beneschlaw.com](mailto:mavsec@beneschlaw.com) or (216) 363-4151.