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Siemens PLM Software and Local Motors partner to advance the future of manufacturing

- **Siemens technology to support Local Motors' leadership in 3D-printed cars**
- **Local Motors Labs program to leverage Siemens' digital twin expertise**
- **Companies share vision of digitalization in product design and production**

Siemens and Local Motors have formed a new partnership which is intended to help advance the future of manufacturing by optimizing the development and large-scale 3D printing of cars. The partnership combines the power of Siemens' product lifecycle management (PLM) software technology with Local Motors' leadership in co-created and 3D-printed vehicles – a process called direct digital manufacturing (DDM). With a shared vision for the future of product development, Local Motors plans to enhance productivity in its innovative Local Motors (LM) Labs program by leveraging Siemens' expertise in creating "digital twins", while Siemens expects to further enhance its digital enterprise software suite to support the latest advances in additive manufacturing and 3D printing.

"We have been partners with Siemens since 2011, and today's announcement takes that partnership to the next level by enabling our community of co-creators to innovate even faster," said Jay Rogers, CEO of Local Motors. "We developed the world's first co-created vehicle and 3D-printed car, and now our LM Labs program is providing the world's makers with a way – both online and offline – to create new technologies to advance the future of transportation. Open to anyone, LM Labs helps brilliant minds create new technologies the world needs. While our primary focus is on developing vehicles, LM Labs is a place where the community can advance any technology."

Siemens' Solid Edge® software, a mainstream computer-aided design (CAD)

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application, has been in use at Local Motors for several years and has been crucial in facilitating its co-creation model. Using Siemens' exclusive synchronous technology, Local Motors is able to seamlessly import into Solid Edge non-native CAD models from design collaborators around the world, and then use Solid Edge to easily edit these models.

This new partnership expands the use of Solid Edge and adds Siemens' NX™ software and its Fibersim™ portfolio to all Local Motors facilities around the world. NX, a comprehensive computer-aided design, manufacturing and engineering simulation (CAD/CAM/CAE) solution and Fibersim, a portfolio of software for composites engineering, are both leading solutions in the global manufacturing industry with a high concentration in the automotive sector. By expanding its use of Siemens' digital enterprise software suite, Local Motors and its community of co-creators can leverage digital twins to increase productivity and quality in product design and DDM.

DDM and digital twins save time, reduce costs and increase quality by integrating and streamlining the design and production processes. The DDM process, which takes advantage of additive manufacturing technologies including 3D printing, produces parts directly from 3D models. DDM helps eliminate the need for tooling, removes time lag between design and production, and simplifies redesign. Siemens' digital twin software technology links design and production by enabling the creation of virtual models that accurately represent the form, function and performance of a product and its production system. These high fidelity digital twins enable engineers to test the functionality of the products and manufacturing processes in the virtual world in order to predict and optimize performance in the physical world.

"By focusing on initiatives like Industrie 4.0, the Industrial Internet of Things, big data analytics, cloud computing and much more, Siemens leads the way in advancing the future of manufacturing, said Dr. Helmuth Ludwig - Executive Vice President, Chief Digital Officer, Siemens PLM Software. "As part of this leadership, we recognize the growing importance of additive manufacturing and 3D printing for the global manufacturing industry. That is why we are delighted to partner with innovative companies like Local Motors who are leading the way for large-scale 3D printing. By working closely together, we can help advance this technology so that all manufacturers can better realize innovation."

Local Motors plans to open three new facilities this year, all of which will feature LM Labs. Siemens PLM Software plans to be a sponsor of all three LM Labs. A lab space plus a showroom and demonstration facility is scheduled to open near Washington DC in National Harbor, Maryland this summer. The National Harbor opening is slated to be followed by the debut of a lab facility in Berlin and a full-scale DDM microfactory in Knoxville, Tennessee later this year. The microfactory in Knoxville will serve as the main Local Motors facility for the development and construction of 3D-printed vehicles.

Local Motors is a technology company that designs, builds, and sells vehicles. From bytes-to-bits, the Local Motors platform combines global co-creation with local micro-manufacturing to bring hardware innovations, like the world's first 3D-printed car, to market at unprecedented speed. Discover more at www.localmotors.com and https://www.youtube.com/watch?v=daioWlkH7ZI.

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a leading global provider of product lifecycle management (PLM) and manufacturing operations management (MOM) software, systems and services with over 15 million licensed seats and more than 140,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with its customers to provide industry software solutions that help companies everywhere achieve a sustainable competitive advantage by making real the innovations that matter. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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