GLOBALFOUNDRIES and Chengdu Partner to Expand FD-SOI Ecosystem in China

May 23, 2017

More than $100M investment to establish a center of excellence for FDX ™FD-SOI design

Chengdu, People's Republic of China, May 23, 2017 -- GLOBALFOUNDRIES and the Chengdu municipality today announced an investment to spur innovation in China's semiconductor industry. The partners plan to build a world-class FD-SOI ecosystem including multiple design centers in Chengdu and university programs across China. The investment of more than $100 million is expected to attract leading semiconductor companies to Chengdu, making it a center of excellence for designing next-generation chips in mobile, Internet-of-Things (IoT), automotive and other high-growth markets.

GF and Chengdu recently launched a joint venture to build a 300mm fab to meet accelerating global demand for GF's 22FDX® FD-SOI technology. Connected to this manufacturing partnership, Chengdu is now focusing on developing the city as a center of excellence for 22FDX design. The partners plan to establish multiple centers focused on IP development, IC design and incubating fabless companies in Chengdu, with the expectation of hiring more than 500 engineers to support semiconductor and systems companies in developing products using 22FDX for mobile, connectivity, 5G, IoT, and automotive. There will also be a focus on creating partnerships with universities across China to develop relevant FD-SOI coursework, research programs and design contests.

"China is the largest semiconductor market and is leading the way with a nationwide commitment to smart cities, IoT, smart vision and other advanced, mobile or battery-powered connected systems" said Alain Mutricy, senior vice president of product management at GF. "FDX is especially well suited for Chinese customers, and the FD-SOI ecosystem in Chengdu will provide the support system necessary to help chip designers take full advantage of the technology's capabilities. We are committed to extend our partnership with Chengdu to accelerate adoption of FDX in China."

"Following the ribbon cutting marking the signing of our Investment Cooperation Agreement, and to deepen our cooperation and attract more best-in-class semiconductor companies to Chengdu, the Chengdu Municipal Government is delighted to cooperate with GlobalFoundries on this FD-SOI ecosystem action plan," said Gou Zheng Li, Vice Mayor of City of Chengdu. "Over the next six years, we aim to build a world-class ecosystem for FD-SOI and make Chengdu a Center of Excellence for the design and manufacturing of integrated circuits."

GF's 22FDX technology employs a 22nm Fully-Depleted Silicon-On-Insulator (FD-SOI) transistor architecture to deliver the industry's best combination of performance, power and area for wireless, battery-powered intelligent systems. Construction of the new Chengdu fab has commenced and is on schedule with an expected completion date in early 2018. The fab will begin production of mainstream process technologies in 2018 and then focus on manufacturing 22FDX, with volume production expected to start in 2019.

Supporting Quotes

"MediaTek established our site in Chengdu back to 2010. Chengdu is quickly becoming an international destination for cutting-edge technology companies. We are thrilled to see continued investment to establish the region as a center of excellence for both manufacturing and design of GF's FDX technology."

Joe Chen, Executive Vice President and Co-COO of MediaTek

"The Chengdu Hi-tech Industrial Development Zone is quickly becoming an international center for technology innovation, and we are delighted to see Chengdu's growing partnership with GF on advanced semiconductor design and manufacturing."

Spencer Pan, AMD President, Greater China

"We are pleased to see Chengdu investing in an ecosystem to support GF's innovative FDX technology. These types of partnerships are critical to supporting China's growing fabless semiconductor industry and helping companies like Rockchip differentiate in the mobile SoC market."

Min Li, CEO of Rockchip

"We congratulate Chengdu and GF for establishing an innovative partnership to support advanced semiconductor design and manufacturing of FD-SOI in China. This investment in a design ecosystem will help Fudan continue to be the leader in delivering innovative solutions in integrated circuit design."

Shen Lei, VP, Technology Engineering and QA, Shanghai Fudan Microelectronics Group Company Limited

“This new design and IP ecosystem in Chengdu is exactly what the Chinese fabless industry needs to take advantage of the game-changing features of FD-SOI. The initiative is well positioned for success, considering GF’s track record of positive private-public partnerships to grow ecosystems around its fabs in Germany and New York.”

Dan Hutcheson, CEO and Chairman of VLSI Research

“GF’s FDX offerings bring together the best in low-power FD-SOI technology to provide real-time trade-offs in power, performance and cost. We see it as a very good fit for multiple applications and expect rapid growth in demand for FD-SOI in China. This new collaboration between GF and Chengdu to invest in expanding the design ecosystem for FD-SOI in China will accelerate its adoption and deployment.”

Handel Jones, CEO of International Business Strategies

“GF’s 22FDX technology is well suited for high-volume, mainstream applications like mobile, IoT, 5G and automotive. China is driving unprecedented growth in these markets, underpinned by an emerging group of domestic chip designers. Chengdu’s commitment to building a world-class semiconductor ecosystem will help spur continued innovation in this space.”

Patrick Moorhead, President and Principal Analyst, Moor Insights & Strategy

“Our customers demand the highest quality design tools and process technologies to help them deliver optimized SoCs. Through our ongoing collaboration with GF, we look forward to being a part of this FD-SOI ecosystem in Chengdu to enable customers with our tools and design flows.”

Dr. Anirudh Devgan, Executive Vice President and General Manager, Digital & Signoff Group and System & Verification Group at Cadence

“FD-SOI is an ideal technology for the fast-growing Chinese semiconductor market since it results in better performance as well as lower die costs. Invecas is pleased that Chengdu and GF are investing in developing a design ecosystem for FD-SOI in the region, and looks forward to being a part of that ecosystem by setting up a development center in the region which will leverage its strong semiconductor expertise and develop advanced IP to help customers win with their FD-SOI designs.”

Dasaradha Gude, CEO of Invecas

“The SOI Industry Consortium expects the market for FD-SOI technology to grow rapidly in China enabling numerous opportunities. We are pleased to see the Chengdu government investing in developing an extensive design ecosystem for this technology. China's design community will benefit from a robust ecosystem of design IP suppliers to support their innovations towards the next-generation chips.”

Carlos Mazure, Chairman and Executive Director of the SOI Industry Consortium

“FD-SOI continues to see strong momentum and adoption from customers across the globe. China is driving a new wave of connected applications, and Chengdu and GF’s investment in expanding the design ecosystem should accelerate the use of FD-SOI for customers in China. Soitec is committed to support GF with high volumes of quality FD-SOI substrates to support the growing demand from customers.”

Paul Boudre, CEO of Soitec

“As a charter member of the GF FDXcelerator ecosystem initiative, Synopsys enables our mutual customers to realize the full entitlement of the GF FDX process for their complex designs. The collaboration between Synopsys and GF on the FDX platform provides designers with FD-SOI optimized Synopsys IP, tools and streamlined design flow to speed development and accelerate their time-to-market. Synopsys looks forward to actively participating as Chengdu and GF expand the FD-SOI ecosystem in China.”

Sassine Ghazi, SVP and co-GM, Design Group at Synopsys

“Chengdu and GF are demonstrating great leadership by investing in the development of a design ecosystem for FD-SOI in Chengdu. VeriSilicon has experience designing SoCs in FD-SOI for more than five years and we have demonstrated its benefits in addressing ultra-low power and low energy applications. Being a Silicon Platform as a Service (SiPaaS) company and with more than 500 R&D engineers in China including more than 150 R&D engineers in Chengdu, VeriSilicon looks forward to continue to play a major role in this expanding FD-SOI ecosystem to enable customers to deliver optimized System on a Chip (SoC) and System in a Package (SiP) solutions for a wide range of end markets including ‘intelligent’ devices, smart homes, smart cars, and smart cities especially for the China market.”

Wayne Dai, CEO of VeriSilicon

ABOUT GLOBALFOUNDRIES

GLOBALFOUNDRIES is a leading full-service semiconductor foundry providing a unique combination of design, development, and fabrication services to some of the world’s most inspired technology companies. With a global manufacturing footprint spanning

three continents, GLOBALFOUNDRIES makes possible the technologies and systems that transform industries and give customers the power to shape their markets. GLOBALFOUNDRIES is owned by Mubadala Development Company. For more information, visit http://www.globalfoundries.com.

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