

Press release

## PLC2 as partner of the EU ECSEL FRACTAL project

**Freiburg, 7 June, 2022 - PLC2 is an expert in the field of FPGAs and as a full-service provider for training, design services and products PLC2 is also a predestined partner for the EU ECSEL FRACTAL project. The aim of FRACTAL is to create a reliable computing platform node, realizing a so-called Cognitive Edge under industry standards. To learn more about PLC2 and the FRACTAL project interested parties can attend the FPGA Conference Europe 2022, taking place 5 – 7 July, 2022 at the NH München Ost Conference Center.**

PLC2 supports the deployment of Xilinx' Versal ACAP technology as foundation of a commercial FRACTAL node definition with a wide range of application. One particular focus for PLC2 is on deploying the AI / ML and hardware acceleration capabilities on the edge within an industrial environment.

The lecture "FRACTAL: A Versal based Edge Node deploying a Cloud Infrastructure" at the FPGA Conference Europe 2022 will show the concepts of these approaches with orchestrated microservices as investigated in a prototypical Versal platform. Based on this setup an inference application can be deployed on such an edge system, that can scale according to the current execution environment.

Use cases within the project are also looking to deploy a larger infrastructure that will support model preparation and repository provision for such models and data in the cloud. In that way a variety of workloads can scale on the edge platforms, shared workloads on a network of nodes as well as using the backbone of a traditional data center.

For real life and actual applications the FRACTAL project scales from research to practice and embraces several industrial use cases in transport, digital life, Industry 4.0 and in the energy field regarding consumption and the environment.

One use case aims to create an intelligent control system to reduce emissions while reacting to changes in traffic, traffic light pre-emption and others. Another approach to deploy FRACTAL helps to enable autonomous (driverless) train operations with automatic accurate stopping and safe passenger transfer through an AI-powered system. And since modern warehouse operations are highly complex and critical the FRACTAL technology will be utilized to control a warehouse with intelligent autonomous shuttles. In this scenario cognitive computing will enable swarm intelligence while improving availability, throughput and safety.

Further information about the FRACTAL project: <https://fractal-project.eu>

Further information about the FPGA Conference Europe 2022: <https://www.fpga-conference.eu>

The FRACTAL project has received funding from the ECSEL Joint Undertaking (JU) under grant agreement No 877056. The JU receives support from the European Union's Horizon 2020 research and innovation program and Spain, Italy, Austria, Germany, France, Finland, Switzerland.



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## About PLC2

PLC2 stands for design services, products and training around FPGAs and embedded systems. As a full-service provider PLC2 can deliver exclusive solutions for your complex requirements.

PLC2 stands for professional **design** services. This includes FPGA design, FPGA validation, functional safety (DO-254), high-speed design, video & image processing, embedded software (Baremetal and RTOS), OS driver & application development (Embedded Linux, Windows and QNX) and continuous integration with Git.

PLC2 provides in-house developed **products** and solutions in certain domains: Offloading engines, streamlined systems and IP cores for high-speed data capturing and data logging. On the market there are e.g. PLC2's L5 (De)-Compression IP and the PGC-1000, a high-performance grabber card.

Since 1995 PLC2 stands for personal **training** and education around Xilinx technologies and programming languages. In Germany and Poland we are your exclusive Xilinx training partner.

Great experience and high commitment are essential characteristics for the successful training and groundbreaking design and product developments from PLC2. For customers, PLC2 is a long-term partner in the entire process - so that one can find their customized solution together with PLC2.

## About the FPGA Conference Europe

The FPGA Conference Europe is the largest FPGA-dedicated event in Europe, jointly hosted by Redaktion Elektronikpraxis and PLC2 and is this year taking place from July 5th to 7th 2022 at the NH München Ost Conference Center.

The FPGA Conference Europe is an important platform throughout Europe for manufacturer- and technology-independent and cross-application exchange between experts and developers. After all, areas of application for programmable logic are as diverse as the available solutions with which they can be developed - be they FPGAs, GPUs or adaptive computing SoCs.

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