Optimized SOC solutions for cars

»The focus is solely on automotive!«

Two years ago, indie Semiconductor founded the design center in Dresden, which has now become the Engineering Center of Excellence.

Markt&Technik spoke to Brendan Mc Kearney, Head of Sales & Business Development Europe, about indie's unique selling propositions, strategy and goals.

Markt&Technik: You speak of a special strategy that indie Semiconductor is pursuing. What is it?

Brendan Mc Kearney: indie is totally focused on the automotive market. Within Automotive we focus on the growth areas ADAS, User Experience and Electrification. indie's core competence lies in the area of mixed signal. In close cooperation with our customers, we develop highly integrated semiconductor solutions optimized for the "automotive use case", both standard products and customer-specific components. The approach of developing for the automotive use case from the ground up requires close cooperation with the customers. This cooperation pays off because it results in low system costs and higher system performance.

Where do you see the unique selling points of indie?

This is best explained using the example of our standard products: Our portfolio of standard products is characterized by a very high level of integration of analog and digital functions. This leads to reduced system costs, a smaller number of external components on the circuit board - which is particularly advantageous in times of poor availability - as well as lower power consumption and increased reliability. The high integration density

is in turn due to the selection of the architecture, which was designed from the start for automotive use cases. Some of these products, e.g. Solution for LED Lighting, Ultrasonic, Wireless Charging and the new USB Power Delivery IC, are implemented with our innovative multi-chip system-in-package approach, which enables the best integration density for these applications. Our LiDAR SoC is on the other hand a monolithic design but also offers best-in-class integration and performance for this application. The choice of architecture is always crucial.

What role does Germany play in the strategy?

Of course, Germany plays a very important role as a large sales market and also as an R&D location for the automotive business. That's why we founded the Design Center in Dresden two years ago. At the end of 2020, there were six of us there and we quickly grew to more than 30 employees today. Now we offer the full spectrum of engineering services: analog and digital design, verification, test and applications, all with the necessary functional safety expertise. There are also reliability and failure analysis laboratories, product quality and product engineering as well as program management. A test center is also currently under construction. The physical proximity with local language and same time zone support is critical for customers who need to reliably meet tight deadlines.

Why is customer proximity so important in the automotive sector?

In order to develop optimized solutions, we must have a deep understanding of market and customer requirements at a very early stage. In the case of complex mixed-signal systems, in which the architecture and partitioning play a decisive role for use in the respective application in the car, this can only be achieved through an in-depth exchange

Brendan Mc Kearney, indie Semiconductor

❝*With now more than 100 engineers in Europe, we are well prepared for further growth.*❞

between the development engineers on both sides. That is why early and direct access to engineering expertise in all relevant disciplines, including quality, functional safety and cyber security, is a great advantage in this area.

The company name »indie« is derived from »independent«. How do you define "independent" in relation to the company and what are the benefits for customers?

As a completely independent company, we can select the most suitable foundries, IP providers and other partners for each project in order to be able to develop and deliver the optimal systems. Last but not least, this independence has helped us to grow further over the past two years. As the automotive IC market is currently characterized by strong consolidation – customers are very open to new suppliers.

What are the biggest challenges for indie Semiconductor over the next two years in Dresden and what goals have you set yourself?

We are fully focused on achieving our published business goals, which in turn will mean further growth for Dresden and our other locations.

Interviewed by Heinz Arnold | Source: Markt&Technik