GreenChips-EDU

Building a Digitally-Supported Education Ecosystem for Next Generation Microelectronics Experts in Sustainable Chips

Programm / Ausschreibung	Digital Europe (FZÖ), Digital Europe FZOE 2022 (Ver), Nationale Ko-Finanzierung Digital Europe 3. Call	**Status**	laufend
Projektstart	01.10.2023	**Projektende**	30.09.2027
Zeitraum	2023 - 2027	**Projektlaufzeit**	48 Monate
Keywords	Enhancing personal skills; Integration and upscaling of digital technologies and media in education; Digital Services and Platforms; Teaching materials; Education and Training		

Projektbeschreibung

Der European Chips Act soll die europäische Mikrochip-Industrie auf ein neues Level heben, mehrere Milliarden Euro fließen in den Bau neuer Halbleiterfertigungsstätten, u.a. in Deutschland, Polen und Italien. Für den Betrieb dieser neuen High-Tech-Standorte braucht es eine große Zahl an Ingenieur*innen und Techniker*innen und bisher ist unklar, woher diese kommen sollen. Schon heute fehlt der Elektronik-Branche qualifiziertes Personal – alleine in Österreich werden 14.000 zusätzliche Fachkräfte benötigt, europaweit liegen die Schätzungen bei 60.000 bis 150.000.
Um diesem Fachkräftemangel gezielt entgegenzuwirken, haben sich sieben europäische Hochschulen mit weiteren acht Partnern aus der Industrie und Forschung in dem Projekt „GreenChips-EDU“ zusammengeschlossen. Gemeinsam möchten sie die Ausbildung von Fachkräften im Bereich der Mikroelektronik forcieren.

Abstract

The EU Chips Act aims to increase Europe's global production share of semiconductors to 20% by 2030, leading to a need for a skilled workforce to support this growth. Additionally, the EU's Green Deal initiative focuses on a transition to sustainable and energy efficient technologies, further emphasizing the need for expertise in sustainable chip development and green applications. There is an EU wide shortage of skilled workers in microelectronics. Addressing this shortage will be crucial in meeting the goals of both the EU Chips Act and the Green Deal. Furthermore, the next generation of students is largely interested in contributing to a sustainable environment. Providing them with the opportunity to gain deeper expertise in this field will align their skills with the industry's future needs. The proposed project "GreenChips-EDU" supports the aforementioned goals by addressing the needs and challenges of a green and digital transition in the microelectronics industry. The consortium, made up of 15 key players from 7 EU countries, aims to build an attractive education ecosystem in green microelectronics by integrating the knowledge triangle of excellent education, industries needs and research challenges. The consortium includes 6 Unite! partners working on a harmonized curriculum focusing on energy efficiency and the development of sustainable integrated circuits. The project addresses all objectives from the call by offering a wide range of degree programs including mutual recognition as well as self-standing modules, implementing staff and student mobility, digital learning formats and upgrading infrastructure. About 600 students are planned to receive degrees or

certificates in green electronics. In addition, summer schools, sustainability hackathons, learn-repair cafés as well as expert lectures by the partner companies and research institutions are organized to attract and train students to counteract the skills shortage in microelectronics in the EU.

Projektpartner

- Technische Universität Graz