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Erasmus Mundus Joint Master "Copernicus Master in Digital Earth-CDE"; Integrated work experience in geospatial curriculum to enhance graduate employability.

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Copernicus Master in Digital Earth (CDE) is a distinct Erasmus Mundus Joint Master (EMJM) program in the geospatial domain. EMJM is co-funded by the European Union, and is coordinated by Paris-Lodron University Salzburg, Department of Geoinformatics, together with Palacky University Olomouc and University of South Brittany. CDE, as a unique role model for obtaining a joint Master's degree in the EO*GI (Earth observation and Geoinformatics) discipline, is focusing on the European Union's Copernicus EO programme, and received the quality seal from the Agency for Quality Assurance and Accreditation Austria¹ under the European Approach "accreditation" 2022-2028. CDE aims at equipping students with knowledge and skills from spatial sciences and concepts from various geospatial disciplines, applying a "Digital Earth" perspective. The first year provides profound EO*GI application-oriented expertise based on relevant theories and methods. Within the second year, the student completes an alternative specialization track, *GeoData Science* or *Geovisualisation* leading to a joint Master's Thesis.

Geospatial technologies and underlying concepts have become indispensable elements in today's information society; location connects ('joins') information assets and provides the context for perceptions, decisions and actions. A lack of qualifications has been identified by multiple actors as a key bottleneck and impediment for more broadly leveraging the potential of EO*GI to managing our world in all its geospatial facets, including addressing the Sustainable Development Goals and related ambitious policy frameworks such as the European Green Deal. Compulsory skills-based internships (work placement) and a research-based work placement twinned with the Master's Thesis enable students to use the knowledge and skills they have gained during their studies and to increase their awareness of application areas within the sector, allowing the transition of skills from university to industry and vice versa. Adequate learning experiences shall be agreed upon prior to start. The added value has so far been emphasized by all students.

Internships have taken place in numerous institutions; we highlighted some: Developing methodology for matching trajectories using different sensors with the cooperation of Salzburg Research⁴, studying and improving fire detection algorithm using Copernicus data with cooperation of ICube_SERTIT⁵, quantification of a natural and built-up environment with advanced EO methods with the cooperation of IFO Institute of Economic Research⁶ and DLR⁷, developing a platform for data access handling the Data Science for Social Development (DSSD)⁸, geospatial analysis for a sustainable and resilient future, or using EO and deep learning to support humanitarian aids within Spatial Services GmbH⁹.

The employability of graduates is closely linked to integrated work experiences and domain-specific skills and knowledge they gain from the postgraduate program. CDE alumni are confident in using key technologies pertinent to spatial information handling and upcoming trends in the Copernicus and Digital Earth field, improving key competence for STEM (Science, Technology, Engineering, and Mathematics) areas, communication and interpretation of outcomes in a decision support context.

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¹ <https://www.master-cde.eu/programme/accreditation/>

² <https://esco.ec.europa.eu/en>

³ <https://arcg.is/0Pev1H>

⁴ <https://www.salzburgresearch.at/>

⁵ <https://www.copernicus.eu/en/icube-sertit>

⁶ <https://www.ifo.de/en>

⁷ <https://www.dlr.de/en>

⁸ <https://dssdglobal.org/>

⁹ <https://www.spatial-services.com/>