

Overview of the International Activities in 2020

Student Mobility

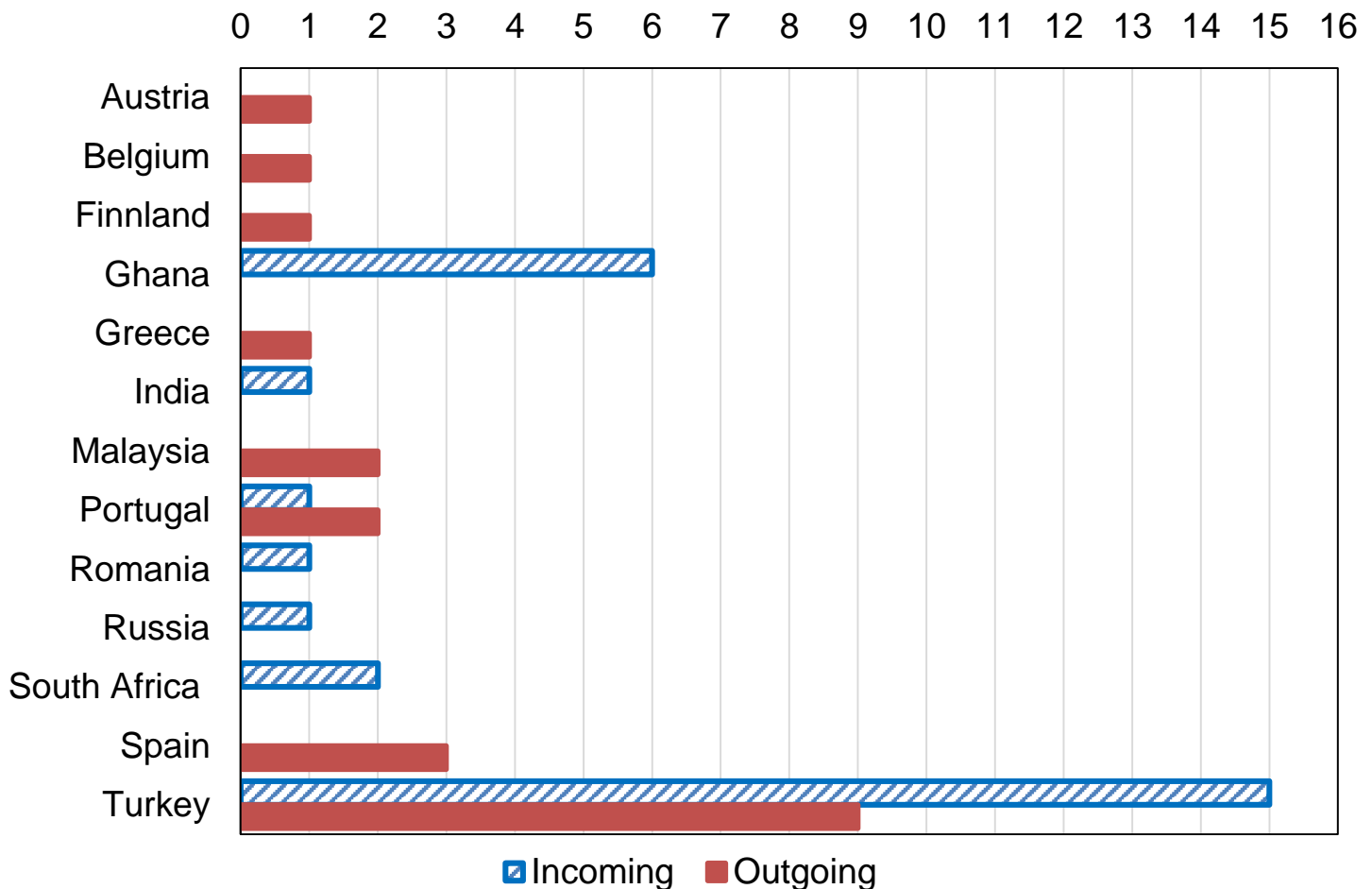
The year 2020 was dominated by the Covid-19 pandemic, which had a substantial influence in many areas of our lives, with an especially strong impeding effect on the social contacts and mobility.

We observed, however, that even under these difficult conditions, the student mobility did not significantly decline!

Incoming and outgoing students were not necessarily less in number compared to the previous years. This rather unexpected, but positive attitude can be seen as an evidence of the strong motivation and commitment of the students in the field of international interaction and mobility.

We had **Incomings** from **Ghana, India, Portugal, Romania, Russia, South Africa** and **Turkey** and **Outgoings** to **Austria, Belgium, Finland, Greece, Malaysia, Portugal, Spain** and **Turkey**.

A graphical overview of the Incoming and Outgoing mobility data is provided in the diagram below (please note that the uncertainties in the numbers are possible).



International Education Projects & More

The Institute **ZIES** (Zentrum für Innovative Energiesysteme) under the Leadership of **Prof. Adam** has been active in an **Erasmus+ Project** with **Ghana**, where ZIES (Prof. Adam, Riegebauer, R. Ille, Wohlfahrtstätter) is cooperating with three universities from Ghana (*Cape Coast Technical University, Koforidua Technical University, and Takoradi Technical University*). In the photos at the top of the next page, one can see Ghanaian incoming students during their practical training in ZIES laboratories.



Incomings from Gana at ZIES



Incomings from Gana at ZIES



In the project **Renewable Energy Education Framework (REEF) Ghana**, in addition to the above-mentioned three Ghanaian universities, the *University of Cape Coast* and the *Renewable Energy Association of Ghana* are also involved. In this project, ZIES (Prof. Adam, Riegebauer, F. Ille, Wohlfahrtstätter) collaborates with the partners to increase synergy effects in the academic education and unify curriculum modules with high practical relevance. The left photo is a screenshot taken during an online meeting of the project partners.

Prof. Niemann and his **FLiX Team** (Fussenecker, Schlösser) have performed a number of international activities within the **CE3 Project (German-Netherlands Entrepreneurial Energy Education)**. Student teams from German and Dutch universities (e.g. *TU Eindhoven*) have worked on ideas for more sustainable concepts for the transport and aviation. Electric drives for the existing aeroplanes with number of passengers less than 30, or development of an autarchic vehicle for extreme conditions are two topics, which are stated here as examples. The ideas of 9 cross-border teams were supported by Vouchers up to 2000 €. Furthermore, more than 10 cross-border workshops have been organized on topics such as Design Thinking, Entrepreneurship, Sustainability, or "How to survive in an international business environment" (for videos you may check: <https://www.youtube.com/watch?v=6TVudo4H8Qo>).

Prof. Niemann and the FLiX Team visited Cape Town, **South Africa**, in February 2020. During the visit Prof. Niemann was Examiner of 5 Bachelor and Master Theses, within the framework of the cooperation agreement. In March and August 2020, two visitors from South Africa was hosted by the FLiX Team.

The FLiX Team donated the Township Egoli in Cape Town, for supporting a soup kitchen for children and young people (the photo right).



International Conferences

In 2020, **Prof. Weber** presented the new CO₂-Drop-Probes, developed at his institute **UMT** (Umweltmesstechnik) at the international conference of the *European Geoscience Union EGU* (more than 26 000 participants) in Wien, **Austria**. Prof. Weber contributed further international conferences such as the ICES'20 Conference in Houston, Texas, **USA**, where he was also **Chairman**, and the conference of the German Geophysical Society, in Munich, Germany. The conferences were held online.



Prof. Niemann at EUROSPI2020

Prof. Niemann and his **FLiX** team attended, in March 2020, an International Conference in Sao Paulo, **Brazil**, within the framework of the **EU ERASMUS+ ASCENT Project**.

In September 2020, **Prof. Niemann Co-Chaired** the „International Conference **EUROSPI2020**“ (European System Software & Service Process Improvement & Innovation) and **hosted** the conference at our university, together with the **FLiX** team. The conference was held in a hybrid format, i.e. online and onsite. There were more than one hundred international participants from all over the world.

Prof. Benim contributed to the organization of a number of international conferences, as **Member** of the **Scientific Committee**. These were three conferences in **India** (*3rd International Conference on Modern Mathematical Methods and High Performance Computing in Science & Technology*, January 2020, Ghaziabad; *International Conference on Energy and Sustainable Development*, February 2020 Kolkata; *3rd International Conference on Frontiers in Industrial and Applied Mathematics*, December 2020, Jamshedpur) and two in **Poland** (*5th International Scientific and Technical Conference on Modern Power Systems & Units*, March 2020, Cracow; *Energy, Fuels, Environment*, December 2020, Cracow), as well as a quite major conference: „3rd Conference of the Arabian Journal of Geosciences (CAJG), November 2020“ in **Tunisia**, with 1160 contributions from 88 countries. All conferences were held online.

International Research & PhD



Meriem Ajmi, M.Sc. at CFS

Prof. Benim and the **CFS Team** (Atalay, Diederich, Nahavandi, Özman, Pfeiffelmann) hosted number of researchers and trainees from abroad in 2020. Two international **PhD students**, Ms. Ajmi from **Tunisia** (*Technical University of Monastir*), Ms. Canal from **Turkey** (*Technical University of Istanbul*), each for about three months. Prof. Benim is the official **co-supervisor** of the PhD theses of Ms. Ajmi (offset jets) and Ms. Canal (biomass combustion). Prof. Benim also acted as **External Examiner** for 4 PhD theses from **India** (*IIT Madras* (twice), *Anna Univ.*, *Univ. Hindustan*), and one PhD thesis from **Cyprus** (*Univ. Cyprus*). Prof. Benim also served the **Swiss National Science Foundation** (SNSF) and **Russian Science Foundation** (RSF) as **Reviewer** for research project proposals.



Cansu Deniz Canal, M.Sc. at CFS

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This is an overview, which is not claimed to be exhaustive. Some activities have been omitted due to space limitations. We apologize, in advance, for any activity that might have unintentionally be omitted due to an oversight.



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