About two years ago, scientists of KIT met to discuss projects with colleagues in Chile. Andreas Braun remembers: “Many participants were well informed about the country and culture.” This marked the fruitful start of a series of talks “that eventually gave rise to a network identity—a ‘we’ feeling,” says the professor of the Institute of Regional Science (IfR). By and by, more than 45 scientists from 17 KIT institutes joined the network. The round table for information exchange was initiated by Pascale Kohler. During alumni seminars in Chile, the Head of the Regional Strategy and Information Section of the International Affairs Business Unit had become aware of the large number of collaborative projects between KIT institutes and institutions in Chile. These activities had been combined in the Chile Cluster, which had become a very strong consortium by 2016 when the Federal Ministry of Education and Research (BMBF) invited applications for funding “research structures with Argentina, Brazil, Chile, Columbia, and Mexico.” The Cluster succeeded in convincing the BMBF to establish the German-Chilean Institute for Eco-Industrial Development (IEDE).

On November 01, 2017, BMBF started to fund the establishment of the virtual institute. KIT closely cooperates with the Universidad de Chile UCh (Santiago), the Universidad de Concepción UdeC (Concepción), and the Universidad Austral de Chile UACh (Valdivia). In the initial phase of two years, the KIT consortium will be granted nearly EUR 300,000. After an evaluation, it will receive another EUR 600,000 in the consolidation phase of three years.

The name of the institute refers to the conception of “industrial ecology.” It is related to business concepts for efficient production with little impact on the environment and society. According to Andreas Braun, the scientific spokesperson of the Chile Cluster, this leads to a number of fascinating topics for international collaboration. “Industry of developed countries often has to make its structures more sustainable over time. Countries, whose industrialization is just beginning, by contrast, have the opportunity to directly implement sustainable technologies.”
In the opinion of Professor Thomas Hirth, KIT Vice President for Innovation and International Affairs, it is only logical that the new virtual institute has partners in Chile: “Chile is the most stable country in Latin America. Politics in Chile stress modernization and specifically looks for strategic partnerships with high-performance international institutions.” Chilean partners are highly interested in long-term cooperation with KIT: “Chile’s economy is growing strongly, the demand for energy will increase – this results in the necessity to invest in renewable energies and increasingly complex technologies. Joint research is the basis.”

Within the new virtual institute, the partners plan to work on scientific projects that are of high relevance to practice. From the very beginning, industry of both countries will be involved. The three topics “Resources and Water,” “Energy,” and “Climate” will be studied in the frame of an eight-week project. Andreas Braun, Professor at the Institute for Regional Development (IFR), says: “It is sufficiently broad for many companies in Chile to understand the necessity to invest in renewable energies and increasingly complex technologies. Joint research is the basis.”

The approach is to enhance international cooperation by digital interconnection,” Gidion says. “Further development of academic education in Chile is important,” Andreas Braun says. “There will also be physical structures, he points out: Offices will be established on both sides. Dr. Fredy Ross will work at the KIT office. The next big step will consist in developing these structures at KIT and in Chile. The devil is in the details. Legal aspects play a central role, Braun says, but so do specific features that distinguish Chile from Germany. An example: Usually, obstacles between departments are much higher in Chile than in Germany. Andreas Braun knows this from teaching collaborative projects with Chilean partners. The first students are now completing the double-degree program of KIT and Concepción. "Aca-

demic education at Chilean universities is organ-

dized differently; the master’s program usually is a part-time program parallel to the job," Braun says. Consequently, two models are now being offered in Concepción – a scientific master’s program for a double degree with KIT and a part-time master’s program. According to Braun, language acquisition by the students is most important.

Without committed partners at the Chilean universities it would be impossible to develop these structures. People are needed to establish new contacts, build up confidence and trust, overcome reservations, and convince the boards of institutes and universities. At Valdivia, Gonzalo Tampier does this. In February, the professor for ship technology and marine engineering returned from a research stay of six months at TU Berlin. During a visit in Karlsruhe, he explained the tasks of the contact partners at the Chilean universities.

Tampier coordinates institutional cooperation between UACH and KIT. “We need small, concrete objectives, new projects that are of interest to both sides,” he says. That is how he thinks the relationship between industry and research can be strengthened by IIDE. “Many companies in Chile are fighting for daily survival and are hardly concerned with research,” he says. Tampier also hopes that IIDE will contribute to enhancing interdisciplinary cooperation in the area of energy and sustainability at UACH.

Tampier’s research focuses on how renewable energy can be produced in oceans and marine facilities. He thinks that sustainability in science is gaining importance, particularly in Chile. In the eight programs offered by the Department of Engineering in Valdivia, sustainability is a cross-sectional topic. “This fits the profile of IIDE,” Tampier says.

Andreas Braun emphasizes that the “commitment of the KIT board” is important to both the universities in Chile and the Chile Cluster. Strong support of the Chile Cluster by KIT and KIT’s Presidential Committee, in particular by Vice President Hirth, was an encouraging sign. When he traveled to Chile in November last year, Hirth was accompanied by some Cluster members, talked to representatives of the partner universities, participated in scientific workshops, visited the German Chamber of Commerce and the DAAD, and additionally met alumni of KIT: “All partners expressed their interest in close cooperation,” Hirth says.

Doctoral students play a central role in planning, a graduate school, for instance, is to be established. “Further development of academic education in Chile is important,” Andreas Braun explains. “A graduate engineer in Chile is not that highly regarded – we want to change that.” Research will profit, as doctoral students spend all of their time on research. “They are living joint research.”

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Audio Interview with Andreas Braun: http://www.intl.kit.edu/download/Braun_Interview.mp3