# **SIEMENS** | Stiftung

#### Press release

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## "Design Thinking in STEM" expands to Latin America

#### Contact

#### Press:

Karolin Timm-Wachter
Head of Communications
Siemens Stiftung
Tel.: +49 / 89 / 54 04 87-1 11
karolin.timm-wachter@siemensstiftung.org

#### Project manager:

#### Christine Niewöhner

Siemens Stiftung Tel.: +49 / 89 / 54 04 87-1 19 <u>christine.niewoehner@siemens-</u> <u>stiftung.org</u>

- After a successful start in South Africa, the education program from Siemens Stiftung and The Index Project continues to grow
- Teaching and learning methods combine STEM and creativity in the classroom
- Workshops for educators and multipliers from Chile, Mexico, and Colombia

Following a successful launch in South Africa, Siemens Stiftung and The Index Project are bringing their education project Design Thinking in STEM to Latin America. The first workshop for teachers and multipliers from Chile, Mexico, and Colombia started on 16 December at Pontificia Universidad Católica de Chile in Villarrica. Siemens Stiftung's efforts focus on combining science and technology education with creative processes to encourage innovative thinking in young people.

Skills such as creative problem solving, the ability to innovate, and critical thinking – known as "21st century skills" – are increasingly relevant for developing conscientious solutions to complex issues such as climate change, globalization, and digitalization that will shape the future. Current examples from the project's implementation in South Africa show how teachers and students can integrate creative processes into STEM lessons using innovative teaching and learning methods such as Design Thinking. Since February 2019, schools in Cape Town, Johannesburg, and Durban have been working with the Design Thinking method.

### Supporting STEM and creativity

Expanding the project to Chile takes the experiences gained in South Africa and adapts them to a new context. The participating teachers and multipliers from Chile, Mexico, and Colombia will learn the basic principles of the Design Thinking learning method. The group will then co-create ways in which Design Thinking can be implemented in STEM lessons.

The method shows students how to address challenges with empathy by shifting their own perspective to explore an alternative point of view. Early in the process, ideas and theories are turned into tangible prototypes so they can be tested and evaluated. Teamwork and transcending the boundaries of traditional classroom subjects are important aspects of this process.

The workshop is taking place as part of Congreso Internacional de Educación para un Desarrollo Sustentable (CIEDS) 2019 at Pontificia Universidad Católica de Chile's new CEDEL (Centro UC Desarrollo Local) sustainability center in Villarrica. International stakeholders are meeting at the congress on 16 and 17 December to discuss the findings of research on sustainable development education and to share ideas on potential paths forward.

## Design Thinking in STEM as concept for sustainable development education

With an emphasis on creative solutions and an interdisciplinary approach, the innovative Design Thinking method of teaching and learning is well-suited for sustainable development education. In addition to introducing the creative

Siemens Stiftung Kaiserstraße 16 80801 Munich Germany

Tel.: +49 / 89 / 54 04 87-0 Fax: +49 / 89 / 54 04 87-4 40 Information number: SST201908 process to STEM subjects, Design Thinking in STEM brings the UN Sustainable Development Goals to the classroom. The complex STEM challenges of the current century are reflected in local issues, such as clean drinking water or sustainable power generation, with the aim of pursuing concrete solutions.

The Index Project is a Danish nonprofit organization, founded in 2001, with a focus on design for good — what we call 'Design to Improve Life'. We believe design is no longer just about fashion or furniture but is a powerful tool that can help solve real-world challenges and secure a more sustainable future. Our education programs teach people how to address critical problems in our society, like food waste or climate change, using design-based knowledge and methods. Using our innovative and certified 'Design to Improve Life' framework, we aim to foster the current and next generation of change-makers. https://theindexproject.org/

Siemens Stiftung – As a nonprofit corporate foundation, Siemens Stiftung promotes sustainable social development, which is crucially dependent on access to basic services, high-quality education, and an understanding of culture. In the Education working area, Siemens Stiftung pursues modern science and technology education that strengthens the knowledge and abilities of school children. Together with our partners, we develop materials and methods for teaching and learning that are creative, discovery-based, handson, and value-building. Our efforts are focused on the challenges of a changing, globalized, and technical world to provide young people with a future full of opportunity. <a href="https://www.siemens-stiftung.org">www.siemens-stiftung.org</a>