

Design Factory
STUTTGART

2022

**ANNUAL
REVIEW**

At the intersection of student and industry collaboration

INNOVATION THRIVES

Hi there!

We are happy to look back at a successful year 2022 full of events. You are invited to recap our activities and formats for students and partners at ARENA2036 with us. Highlights where definitely our one-year project 'Greenesto - adVANce your mindset', funded by the Climate Innovation Fund of the City of Stuttgart, followed by the first Summer Gala on site at ARENA2036 of our semester course. For the first time, we could join the International Design Factory Week, and Scarlett worked three weeks at Design Factory Melbourne, Australia. Last but not least, our new coach David Reichert joined us in the middle of this year and was crazy enough to shape the vision and mission of Design Factory Stuttgart with us!

Make yourself a coffee - humans come first - and enjoy reading!

Many greetings and a wonderful start into the year 2023!

Scarlett and David

What you will read about

- Team news
- Semester course "Design Thinking - innovation process in practice"
- Semester course "Prototyping insights"
- GREENESTO
- DF Task Force projects
- Design Thinking training for beginners with STARTUP AUTOBAHN
- Design Sprint with a team from Mercedes Benz
- IDFW22
- Visit at Design Factory Aalto
- Collaboration at Design Factory Melbourne
- More activities at ARENA2036

TEAM NEWS

In the past 12 months the Design Factory Stuttgart has grown enormously. Five students from different study backgrounds became part of our team. Also, our ARENA2036 colleague Michael Dick joined us, co-leading the GREENESTO-project. Most exciting news in summer were definitely that David Reichert started at the Design Factory Stuttgart. After finishing his doctoral studies in Biophotonics and obtaining a certification as Professional Scrum Master, he has been an energetic addition to the Design Factory and ARENA2036 research coordination team.

As always, there's not only happy moments. We had to say goodbye to our colleague Laura Rehberg, who was working at the Institute of Entrepreneurship and Innovation Science (ENI) and complemented our concepts with an academic perspective. She also initiated a course called "Design Factory – Prototyping insights". Now she is moving on to new challenges. Thank you Laura!

We shortly present ourselves:



David Franjičević
Student of technical cybernetics



Lucienne Huppert
Student of medical engineering



Lenard Willmann
Student of technology management



Alina Hirschbolz
Student of educational science



Julian Wermter
Student of philosophy



Laura Rehberg
Projectmanager at ENI



Dr. David Reichert
Program Lead of Design Factory Stuttgart



Michael Dick
Co-Projectmanager of GREENESTO



Scarlett Spiegeler Castañeda
Head of Design Factory Stuttgart

We have also more amazing people working with us. Thank you especially **Ferran Giones, Briggitte Schönberger** and **Christopher Mimra!**

Semester course "Design Thinking - innovation process in practice"

During the pandemic, we managed to get very creative in our course design and were able to offer our course on site for the first time in the winter semester 2021/2022. Working on different challenges from industry partners, the student teams met in various meeting rooms and each session was concluded all together outside the building.



Starting the year 2022, we had our first winter gala on site. The gala is the final event of our semester course. Due to restrictions, the booths presenting the students' prototypes as well as for food and drinks had to be spread all over the ARENA2036 building. For our students and industry partners, it was still wonderful to engage face to face and it was a great evening to discuss the prototyped ideas and to celebrate!



Since this years' summer semester, we can use our co-working space at the Design Factory Stuttgart for our semester course. The space is set up to methodically guide the students through the Design Thinking process. The grand finale of the course was the Summer Gala, with an exciting framework program, including pitches of the student teams' prototypes, workshops, an introduction to Design Factory formats and excellent African food.

We're enormously happy to be in the middle of the winter semester course, with more than 30 motivated students from the University of Stuttgart and University of Media working in 6 multidisciplinary teams.

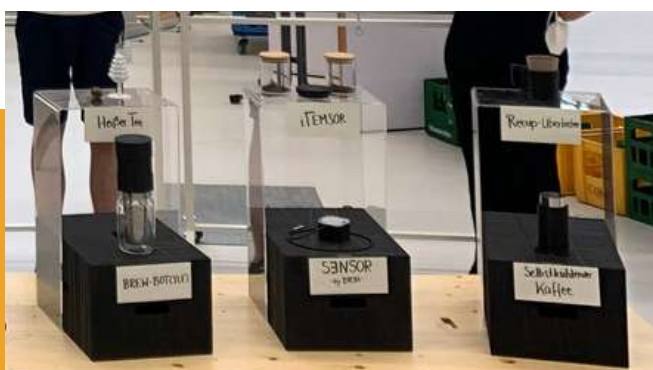
Our galas are a great opportunity to get to know us, our mindset and formats better. As an industry partner you will see different perspectives and solutions for the given challenges, networking with students and learning more about innovative methods. Mini workshops can offer you first hands-on experiences.

Register for our winter gala via <https://www.eventbrite.de/e/design-factory-stuttgart-winter-gala-tickets-466247608147>



Semester course Prototyping insights

This course was initiated by Laura Rehberg from the ENI. She designed a format to introduce prototyping tools to students. Organized as a block SQ, students tackled the challenge 'Cold Coffee?!' with roles inside the team and many methods such as TRIZ and biomimicry. Teams first had to decide if they were pro or con cold coffee. Using the makerspace at ARENA2036, teams came up with creative prototypes and presented them also at the Summer Gala. As this was a pilot course, we will keep you updated about its development in the future.





GREENESTO

What was GREENESTO about

“GREENESTO – advance your Mindset” is the name of our one-year project, funded by the Climate Innovation Fund Stuttgart. “Ernesto” is our Design Factorys' mascot when it comes to train our brain 'muscle' with a specific mindset. At ARENA2036, we have been focusing on the mindset of empathy in 2020 and creativity is the focus of our ARENAAdvent with our Ernesto Claus Advent calendar in December. Greenesto is a project that focuses on the mindset of sustainability, a topic that is not only important for ARENA2036, but also for the city of Stuttgart. We wondered how we could open a safe space to talk and experience the meaning of sustainability with all generations and reflect about our own capability to take action. Therefore, the project team (Green Office and ENI from the University of Stuttgart and us) developed several workshop formats for different groups. As sustainability is perfectly experienced outside, we created a mobile workshop platform with an electric van.

MOBILE WORKSHOP FORMAT

Whether indoors or outdoors, the workshops can take place anywhere.



MOBILITY

Fully electric van with workshop material



The core of the project was our Kintsugi workshop format. This method uses a metaphor to personally approach the topic of sustainability and participants experienced the method step by step on their own. In this way, self-reflection was encouraged but participants could also get inspiration from the group. Especially pupils were able to benefit from this approach, as it supported them to understand their impact on the environment and to transform frustrating aspects into small changes for their everyday life. Participants could apply this hands-on approach also in the other workshops we offered. From bicycle repair workshops to beeswax cloth workshops as well as workshops to experience fair trade aspects and ecological footprint workshops.



As special highlights of the project, GREENESTO participated in this year's Science Festival of the City of Stuttgart as well as in the Stuttgart Mobility Week.



DF Task Force projects



Design Factory Task Forces are teams of students that support research and development projects at ARENA2036. This format was introduced to combine the young and innovative mindset of students with the experience of our industry and academic partners. The teams are coached by the Design Factory, develop methodical and creative skills, and learn how to function as a team.



This summer, our first Task Force successfully completed a 6-month project and implemented a SLAM algorithm for autonomous mapping and navigation of the FlexCar.

(<https://www.arena2036.de/de/flexcar>)



We're now happy to have 4 motivated students working on a follow-up Task Force of this project. In this interdisciplinary team, two students focus on fusing the SLAM algorithm with data from other sensors. The other two students have a background in design and develop a visualization that allows non-technical users to understand what the sensors are 'seeing' and build trust while traveling with an autonomous car. The 6 months project follows the Scrum framework with regular feedback loops with our partners.

Design Thinking for beginners training with STARTUP AUTOBAHN

Our 'Design Thinking for beginners' training was this year booked by STARTUP AUTOBAHN as an internal training. A team with 8 participants learned the mindset and tools important for a successful implementation of Design Thinking as an holistic approach. While tackling an internal challenge, they went through the process and tested three prototypes with colleagues, who were not part of the training. As a last module, they reflected on the methods and on how to adapt them in their daily business. Also, the benefits and limits of the approach were discussed. The team has now a common understanding of Design Thinking and is eager to integrate customer perspective into their tasks even more.



Google Design Sprint



Innovation challenges at ARENA2036 can be very different. That's why we offer individual workshops and external moderation with appropriate methods and tools. With a team from Mercedes-Benz, we did a three day workshop using the Design Sprint defined by Google Ventures. Prototyping and user testing were extended to two weeks and done independently by the team.

This approach to innovation tackles challenges by first agreeing on a wider vision, getting a structured overview of the existing knowledge from experts, researching on missing ideas and then re-combining and transferring all to new ideas. Our highlight was definitely the "museum exhibition" of idea sketches.

IDFW22

The International Design Factory Week (IDFW) is an annual event for the DFGN to foster collaboration projects among Design Factories and to exchange ideas and best practices. This year, the IDFW was brilliantly hosted by the Future Design Factory in Leeuwarden (NHL Stenden University of Applied Sciences, Netherlands). A former prison is now used as a venue for applied teaching and contains a library and multiple workshops; what a setting for this years IDFW.



Over the past years, networking had only been possible online. It was a great opportunity to finally meet with representatives of more than 25 Design Factories on site! Project planning sessions were held to initiate new teaching formats across universities and together with the Design Factory Barcelona, we drafted a course covering the basics of 'coaching' for students. Also, we took the opportunity to connect with our local partners Inno.Space Mannheim and the Design Factory Pforzheim.



For the first time, a research conference (DFGN.R) was hosted within the IDFW with the motto 'Designing the Future'. Three consecutive sessions featured talks on the topics of 'Teaching and Workshops', 'Cooperative Team-Work' and 'Sustainability'. The Design Factory Stuttgart contributed with a presentation about the developed Kintsugi method.

(<https://www.linkedin.com/feed/update/urn:li:activity:6942842537632038913>).

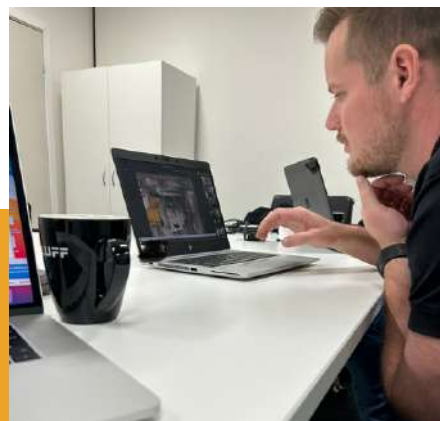
Visit of DF Aalto

Being the first Design Factory worldwide, visiting Aalto DF is a clear 'must' for all Design Factories. Aalto DF also is hosting the organizing team of the Global Design Factory Network (DFGN). In September, David and Scarlett were able to travel to Helsinki and to get to know coaches and best practices there. One key purpose of the visit was to learn and to bring back ideas that could be beneficial for ARENA2036. Among many other things, we were especially excited about the lobby atmosphere, the makerspaces and the autonomy of the students.



Collaboration at DF Melbourne

As part of the ARENA2036 delegation, Scarlett visited the ARENA2036 partner Swinburne University of Technology and worked together with DF Melbourne for 3 weeks. One goal was to understand international needs of industry partners. Therefore, she took the chance to join two of our German Balluff colleagues and visited Balluff Australia.



What did she learn? Informal communication and investing in inter-team-relationships can boost learning from each other, open up horizons and encourage innovative team work. Also, we detected a very good example for our “being visual” mindset. The German engineers benefitted from seeing pictures and from understanding Australian customers and user needs better. As DF, we highly recommend everyone to enforce the usage of a visual communication and of integrating customer perspectives at all time.



On the teaching side, Scarlett learned a lot from the CBI A3 course, which is an international course with different DFs working together to find new applications of the CERN technologies for the SDG's. DF Melbourne has currently two student teams involved. Besides that, brainstorming- and design-workshops led to a list of collaboration ideas for the future.

Stay tuned and be part of our international collaboration!

More activities at ARENA2036

At ARENA2036, proximity is key to successful collaboration between our partners. Our Design Factory space contributes to this by providing a workshop space that can be modified and support the teams individually. Just as we outgrew ourselves, our container also got a second level. It is a co-working space for our team and it is open to all partners. Furthermore, anyone who would like to pick up informative materials about innovation methods from time to time is welcome to make themselves comfortable on the sofa and browse through the available books. As our space is not limited by walls, we also love to see the usage of our Xbricks all over the ARENA2036 shopfloor. This mindset of working flexible is valuable to support innovative thinking.



To offer more informal touchpoints during daily work at ARENA2036, everyone is invited to join us on Wednesdays at the Design Factory container for a short co-creative coffee break. We meet for 15 minutes, work on a small creative task and get to know new faces. In December, we were happy to integrate also our German tradition of an Advent calendar into work at ARENA2036. Every morning, partners could start the day together with a creativity challenge, Christmas music and cereals.

LET'S GROW TOGETHER!

