

## From classroom to startup

**Room:** Auditorium 5

Session chair: Oscar de Vries (TU/e, Van der Waals)

At the TU/e innovation is not confined to research groups. Students actively drive innovation, contributing knowledge and enthusiasm to projects and even spearheading initiatives. Join us in a deep dive of the evolution of ideas to start-ups. We are joined by four parties, who are in various stages of this evolution process, ranging from a student team tackling challenges in polar research to a spin-off in cutting edge energy storage. A spokesperson from each team or company will discuss their experience in this evolutionary process, after which all four parties will engage in a panel discussion together with Nick Hol from TU/e Innovation Space. During this discussion, the speakers will share their experiences on how student enthusiasm shapes the businesses of the future.

### **Developing a student team**

*Laurenz Edelmann*

Team Polar is a TU/e student team founded in 2019 with the mission to develop sustainable and autonomous methods for Antarctic research. As the previous team manager, Applied Physics graduate student Laurenz Edelmann, has helped grow the team from six members to its current size of 35 members. He also played a key role in developing the Ice Cube, the team's first prototype vehicle, which was tested in Norway in January 2023. In the process of developing the team, Laurenz has used the skills he picked up at Applied Physics whilst developing himself in areas where a physics education falls short.

### **From concept to reality**

*Max Winkel*

The history of student team SOLID dates to 2016, with a focus on using iron-based fuels to aid in the development of green fuels. Since its conception, the ambitious and international group of students has navigated the vibrant start-up scene in Eindhoven. After proving the viability of iron-based fuels in its iron fuel generator in 2020, its most recent project is an Iron-Based Hydrogen Storage (IRHYS) to explore the use of iron as a sustainable energy carrier for hydrogen. Max Winkel will talk about his experiences and the major learning points he encountered during his time as team manager of student team SOLID.

### **Lessons (to be) learned**

*Jan Hubers*

After the proven success of the iron fuel generator of student team SOLID, three ex-members founded the startup RIFT in 2020, dedicating themselves towards the commercial roll-out of the technology. In three years, RIFT has grown to a company of 50 employees, and raised 11 million euro. Jan Hubers has been involved since shortly after RIFT was founded and focuses on the financing strategy of this start-up. Since his graduation from the TU/e in 2017, Hubers has built up an impressive background in technological innovation projects, once leading a project organization of 80 TU/e students in company consultancy cases. He is excited to share these experiences and the lessons he has learned.

### **Challenges and milestones**

*Tijn Swinkels*

Helmond-based DENS specializes in clean generators and batteries, using hydrozine (formic acid) as a sustainable alternative to diesel. DENS started as a student team in 2015 and continued as a company in 2018. Despite obstacles such as temporary housing in a tent and electricity restrictions,

DENS thrived. Financial and technical challenges shaped the company. The nitrogen crisis in the Netherlands causes an increase in demand for zero-emission construction equipment. This led to a growth spurt in 2023, sales increased tenfold, and the workforce grew. DENS reached a milestone in 2023 with the move to a spacious building on the Automotive Campus. DENS is demonstrating that it can provide sustainable solutions and accommodate for remarkable growth.

[www.dens.one](http://www.dens.one)