

Linköping university wins the HHK Innovation Award 2018

## **Helios vehicle receives top prize for Sustainable Innovation**

**Delsbo Electric challenges students to design the world's most innovative and energy efficient rail vehicles. With Helios, Linköping university pushed the boundaries of the competition to inspire both industry and students to focus on sustainable design.**

"Helios is a beautiful concept and it inspires the industry and the world to think about energy efficiency during the whole product life cycle – not just when the product is in use. We want to award curiosity and creativity – Helios hits every mark", says Paul Bogatir, Cluster Manager at HHK and chairman of the HHK Innovation Award jury. The jury consists of technology- and innovation experts within HHK.

The HHK Innovation Award goes to the most interesting, fun and daring concept in the Delsbo Electric competition. The HHK Innovation Award is HHK's way of saying thanks for helping to inspire fellow students, the industry and society to create smarter and more sustainable transportation solutions.

"The innovation prize is very important to Delsbo Electric. To win the main competition the teams have to cut down on every solution that consumes energy, but that can also hamper innovation. The HHK Innovation Award shines a light on concepts and students that open up for new designs, technologies and new avenues of thought", says Lars Gustavsson, Competition Manager for Delsbo Electric.

The Helios team is invited to visit HHK for some fun and inspiring days where they get to sample the best Hudiksvall has to offer in food, fun and technology. The purpose of the award is to build bridges and to create meetings that can further spur innovation and knowledge-sharing between universities, students and industry.

"In the future we would like to see the sustainability concept evolve and hopefully we can pair it with autonomous technology, last mile-drone delivery and monorail solutions. Monorail would double the capacity of available tracks and the vehicles can function as a constantly moving fleet of low emission, autonomous load handling rail-drones", says Paul Bogatir.

### **World Record Attempt in Energy Efficiency**

The winner of Delsbo Electric 2018 was Dalarna University and Eximus III with an energy consumption of 0,63 Wh per person per kilometre.

On May 26th 2018 two world record attempts were carried out in Delsbo, Sweden for the world's most energy efficient person transportation. The attempts were made by

Eximus III from Dalarna University and ACUS IV from Luleå University of Technology.

The 3.36 km long track between Delsbo and Fredriksfors has the same elevation at the start- and finishing points. The passengers had an average weight of more than 50 kg and the vehicle speed was higher than 10 km/h.

The railroad vehicle Eximus III, built by students at Dalarna University, carried 6 persons from Delsbo to Fredriksfors and back again. The average energy consumption for both trips was 65,7 Wh/person/100 km.

*This is the lowest energy consumption per person-kilometre that has ever been measured for a man-made engine driven vehicle. An application will be submitted to Guinness World Records.*

### **Images & Film**

For download:

<https://drive.google.com/open?id=1VK8Hhhochtz8E9dGG4wt-FpPJoA47VhJe>

YouTube: <https://youtu.be/1pESulPBgqc>

### **About HHK**

Hudiksvalls Hydraulics Cluster (HHK), comprises a joint effort between SMEs and large industry groups all situated in and around Hudiksvall – with a core of companies specialized in hydraulic applications. Hudiksvall has a long history of innovation and is the birthplace of e.g. Voith Turbo Safeset, SMP Parts, Hiab, Sunfab, Huddig and OilQuick. HHK's mission is to strengthen the competitiveness of member companies and attract resources to the region by offering an inclusive, innovative environment to create cooperation.

*For more information:*

[www.hhk.world](http://www.hhk.world)

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### **About Delsbo Electric**

Delsbo Electric is about creating the world's most innovative rail vehicles. The competition invites students to design the future of rail travel. The challenge is to construct and pilot a battery-powered vehicle using the minimum possible amount of energy. Energy consumption is measured in Wh per person per km. Delsbo Electric's mission is to offer inspiring, hands-on projects in a rail traffic environment and to highlight the energy efficiency of rail travel.

*For more information:*

[www.delsboelectric.se](http://www.delsboelectric.se)

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