

From the Chair of the PDA board

Dear members of the PDA community! We are rapidly approaching the end of a very busy and eventful year. I am sure we are all looking forward to a break and a bit of recuperation, reflection and forward-looking towards 2025. In this newsletter, we report on some of the recent highlights and gaze ahead into the near future.

As we have reported before, Vinnova announced in March that the Net Zero Industry proposal we as PDA participated in writing was funded through the Impact Innovation call. Since then, PDA has been actively working on prioritised aspects of the Net Zero Industry project, including the essential role of academia through research, PhD education and basic education. We are particularly promoting the critical role of product development, innovation and design to reach long term goals of sustainability and circularity in collaboration with industry and society. This will be a prioritized activity for PDA going forward with the programme.

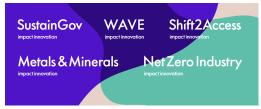
During the year we have had several activities connected to Net Zero Industry, for example our hybrid workshop on product development, a very nice distributed event which connected our technical universities all over Sweden online. Moreover, it was a great opportunity to further build on our local academic networks. In collaboration with our sister organisation SIG-PM, we have enjoyed site visits at Saab in Linköping and at Thule in Hillerstorp. Furthermore, PDA had good representation at the NordDesign conference in Reykjavik in August, where we also held a meeting with the Nordic Chapter of the Design Society. More on these events below.

We would like to thank you all for your commitment and efforts during the past year and wish you a nice relaxing holiday season. Looking forward to continuing our important work in 2025!

PDA chair Anders Warell, LTH

Net Zero Industry

The Impact Innovation programme Net Zero Industry is one of five approved. PDA and the Swedish Production Academy put a lot of effort in writing the application together with many actors, led by Teknikföretagen and RISE, and the proposal was accepted in March 2024.



The five Impact Innovation programmes.

The long-term impact of Net Zero Industry is assessed based on innovative products, services, and manufacturing processes aimed at the following goals:

 REDUCE (tenfold) primary resource usage in the production process and 75% of greenhouse gas emissions and energy consumption from materials and processes in all phases of the product lifecycle and the industrial value chain.

- DEVELOP circular, efficient, sustainable and long-term profitable value chains.
- PREPARE the industrial system to withstand cyber-attacks and digital disruptions.
- INSPIRE future leaders and employees to create a highly skilled and motivated workforce.

The programme focuses on two key areas of change: (1) optimal resource efficiency and (2) resilience. It is expected to run for ten years, allocating 150 million SEK per year in research funding. It will serve as a platform for innovation, knowledge sharing,



demonstration, and implementation of new capabilities and technologies that contribute to reaching the goals by 2040. Read more at the programme website.

PDA is represented by professor Anna Öhrwall Rönnbäck in the steering group and professor Ola Isaksson in the Net Zero Industry Forum, an advisory group where Margareta Groth (head of LTU) and Monica Bellgran (professor MDU) also participate. The program office is staffed by Rise and Teknikföretagen with professors Magnus Wiktorsson (KTH) and Björn Johansson (Chalmers) from the Swedish Production Academy.

On December 4, 2024, a workshop on future competence and skills supply was arranged to prepare content for the planned initiatives Net Zero Readiness and Net Zero Champions. The ongoing Strategic Innovation Programmes (SIPs) Lighter, RE:Source, Smarter Electronic Systems, and Produktion2030 presented their developed educational tools and methods. After the workshop, PDA and SPA have formed a joint working group under the leadership of professor B-G Rosén (Halmstad University).

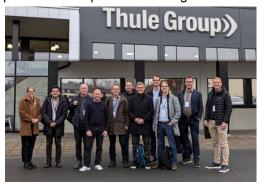
PDA workshop on product development

On October 18, PDA together with the sister organisation SIG-PM organised a hybrid workshop. The topic for the workshop was the urgency and impact of product development, that connects disciplines and eco-systems in design, innovation and engineering. A shared online introduction and keynote was given followed by local workshops at all "PDA universities". The goal was to generate an agenda for raising the strategic importance of product development in industry, academia, innovation systems and policy making.

Thule Group, Hillerstorp

On November 15th, members of the Product Development Academy and the

Special Interest Group in Product Modelling visited Thule Group in Hillerstorp. Thule exemplifies the Swedish tradition of innovation, investing heavily in product development knowledge and skills.



Participants at the Thule Group site visit.

The visit featured presentations and demonstrations on various topics, including CAD/PLM business integration, Al for design and visualization, advanced sheet-metal tooling design, automated production. smart scanning and verification, and cutting-edge car seat simulation. safety The continuous enhancement of product development expertise and the integration of new technologies and sustainability practices are crucial for Thule's future growth.

Design Society Nordic Chapter



Nordic Chapter meeting at NordDesign 2024.

From the left: Niels Henrik Mortensen, Rúnar Unnþórsson, Ola Isaksson, Marina Candi, Anders Warell, Rögnvaldur Jóhann Sæmundsson, Martin Steinert, Anna Öhrwall Rönnbäck, Johan Malmqvist. Missing in picture: Josef Oehmen, Casper Boks.



The purpose of the Nordic Chapter is to enhance a Nordic approach to product development in industry, education and research.

The Nordic Chapter of the Design Society meets three times per year. The most recent physical meeting was at the **2024 NordDesign Conference** in Reykjavik, Iceland. Coming meetings are planned in January, April and at ICED, Texas 2025.

All activities and reports from the **Design Society** can be found at https://designsociety.org/

PhD activities

Our PhD courses are open for anyone with an interest in product development, both PhD students and industrial participants. All participants receive a certificate after completing a course. Details and dates for our PhD courses are available at Kunskapsförmedlingen. A few of them are listed below.

PDA product development courses: The 20 HEC course suite with 4 courses are part of the Graduate School Produktion2030: P06, P09, P13, P61.

- 1. PDA Module 1 (P06): Critical Review of the Product Development Process. Planned Spring 2026.
- 2. PDA Module 2 (P13): Sustainability in Engineering Product Development. Planned Fall 2026.
- 3. PDA Module 3 (P61): Modeling/ Simulation/Optimization. Planned Spring 2026.
- 4. PDA Module 4 (P09): Engineering Management. Planned Fall 2025.

Other courses during 2025 include:

PM3: Research Methodology in Product Realisation #5, starts 6 October.

PM4: Engineering Design Research Methodology #5, starts 1 September.

PM9: Get your paper published #10, starts 12-13 May (at KTH).

P63: Metrology and Properties of Engineering Surfaces #4, starts 4 November.

P64: Product platforms #4, starts 21 August.

Conferences and Calls

ICED 2025: The 25th International Conference on Engineering Design (ICED), August 11-14, 2025 in Dallas, Texas, USA. ICED 2025 will also be the 25th anniversary of the Design Society!

IDETC-CIE 2025: International Design Engineering Technical Conferences & Computers and Information in Engineering

Anaheim, California, USA.

SPS2026: Our national Swedish Production Symposium is co-arranged by Swedish Production Academy and PDA.

Conference, ASME, August 17-20, 2025,

Membership

24-26 March 2026 in Luleå.

Support our work by becoming a member of our networks:

<u>PDA</u>: Join us! Please fill in this short form. Please, also join the <u>PDA LinkedIn</u> group.

<u>SIG-PM</u>, the special interest group for product modelling: Join SIG-PM <u>here</u> (fee 200 SEK).

If you are a PhD student within product development and production, join the PhD student network PADOK.

Finally

Thank you for your enthusiasm and great work during 2024. The PDA Board wishes you a Merry Christmas and a Happy New Year!