CHS² – 2026

10th International Conference on

HOT SHEET METAL FORMING OF HIGH-PERFORMANCE STEEL

June 1st to 3rd Plzen, Czech Republic

LULEÅ UNIVERSITY OF TECHNOLOGY

eurecat Centre Tecnològic de Catalunya

COMTES FHT® Complete Technological Service - Forming, Heat Treatment

HOT FORMING OF HIGH-PERFORMANCE MATERIALS – A KEY TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT

The utilization of high-performance materials is not only driven by technological requirements but is also a necessity to meet the increasing environmental demands. The automotive sector has been at the forefront of innovation and traditionally led the development of lightweight solutions. By integrating high-strength steels and advanced forming processes, carmakers have achieved significantly enhanced vehicle crashworthiness while simultaneously reducing weight. The transport sector faces new challenges linked to the rise of electromobility and the need for sustainable materials use. High strength materials, particularly steel, are the materials of choice to address these challenges in an affordable way. Producing components from these advanced materials presents its own set of challenges, and thermo-mechanical forming processes offer a favorable solution.

Hot forming, a pivotal technology, enables the creation of components with complex shapes and the desired high-performance properties such as strength and toughness. Beyond the well-established press hardening of boron steels, the market now includes advanced techniques such as light alloys forming, tailoring mechanical properties within the same component, hybrid metal-composite materials and the possibility to manufacture large parts. In addition to all these innovations incorporated in the last years, the forming processes have now to also include solutions to meet and contribute to the global sustainability goals. Hot forming of high strength steels has shown to offer better LCA results than other forming processes. Therefore, aimed at maintaining this advantage and to improve environmental impact, the sector needs to focus on enhancing the efficiency of heating technology, minimizing scrap and allowing the application of new steel grades with lower CO2 footprint.

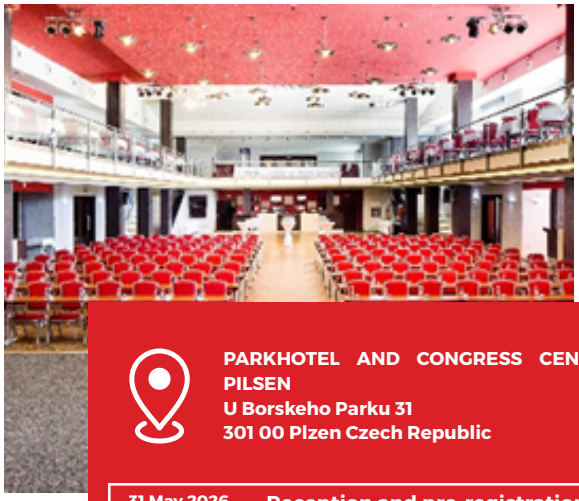
CONFERENCE SERIES AND SCOPE

Since its inception in 2008, the biannual CHS2 conference series has become the premier platform for scientific exchange in hot forming technologies. After nine successful conferences, CHS2 has established itself as the leading forum for industry experts and researchers. The journey began in Kassel, Germany, and has since traveled to Luleå, Sweden; Toronto, Canada; Atlanta, Georgia, USA; Barcelona, Spain; and most recently, Nashville, Tennessee, USA in 2024. As we look forward to the tenth CHS2 conference in Plzeň, Czech Republic, we continue to expand the scope of topics, reflecting the dynamic advancements in the field. Each edition introduces new themes, ensuring CHS2 remains at the forefront of innovation and knowledge sharing.

VENUE 2026

For the first time, the CHS² conference will be held in the Czech Republic, reflecting the growing global reach of press-hardening technology in research, industrial development, and implementation. CHS² 2026 will take place in Plzeň, Czech Republic at the Congress Center Parkhotel Plzeň.

CHS² 2026 will be organized in cooperation with COMTES FHT a.s., with its headquarters in Dobřany near Plzeň, a leading European research organization specializing in the development of forming and heat treatment processes, materials research, and technology transfer. With the state-of-the-art facilities and a strong focus on innovation, COMTES FHT a.s. supports industrial partners in advancing metallic materials and manufacturing technologies.



PARKHOTEL AND CONGRESS CENTER PILSEN
U Borskeho Parku 31
301 00 Plzen Czech Republic

31 May 2026	Reception and pre-registration
1-3 June 2026	Conference

CONFERENCE TOPICS

Material

- High-performance steels
- Sustainable and circular metallurgy
- Surface design and coatings
- Microstructure and properties
- Advanced characterization techniques

Modeling and Simulation

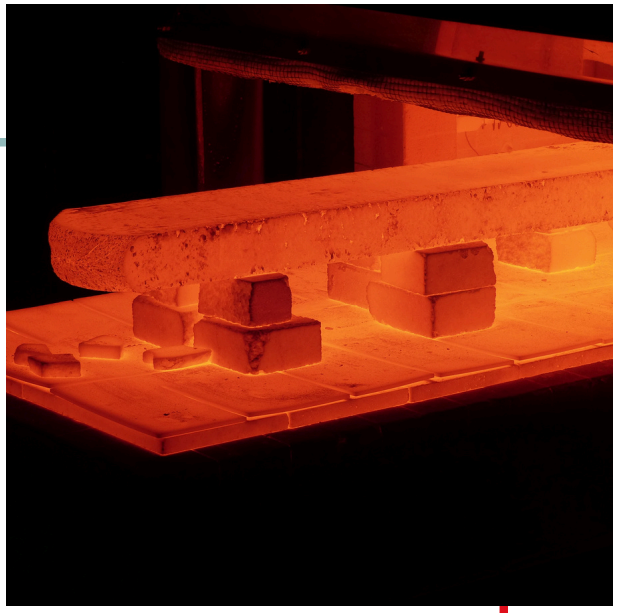
- Process modeling
- Microstructure
- Heat transfer
- Thermomechanical properties
- Friction and wear
- Component properties: fracture and fatigue

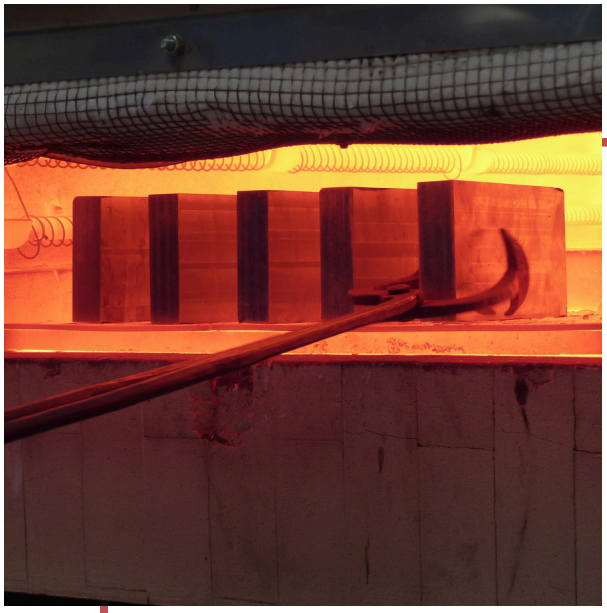
Products

- Tool systems
- Heating and cooling strategies
- Process monitoring, automation and control

Process Design

- Product innovations and optimization
- Tailored material properties
- Cutting and joining technologies
- Applications and performance
- Design and tests





CALL FOR PAPERS

All contributions on the theme of the conference are welcome. Prospective authors are invited to submit their abstracts via the conference paper submission system (see instructions below).
The full papers will be reviewedby the members of the scientific advisoryboard and, if accepted, will be published in the conference proceedings.
The organizing committee will encourage high-quality scientific conference papers to be published in international journals after the conference.

ABSTRACT SUBMISSION GUIDELINES

For submission of abstracts, please register in the conference paper submission system and upload your abstract in accordance with the abstractsubmission guidelines:

www.chs2.eu

Abstract text: **maximum 400 words**
Language: **English**

THE ABSTRACT SUBMISSION MUST INCLUDE:

- **Title of paper**
- **Presenting author**
- **Co-authors**
- **Affiliations**
- **Abstract including keywords and references**

IMPORTANT DATES

Abstract submission deadline
17 October 2025

6 February 2026
Full paper submission deadline

Revised paper submission deadline
3 April 2026

1 June 2026
Conference

ORGANIZING COMMITTEE

Prof. Jens Hardell
Luleå University of Technology, SE

Prof. Daniel Casellas
Eurecat, Technology Centre of Catalonia, ES / Luleå University of Technology, SE

Prof. Jan Dzugan,
COMTES FHT a.s.; CZE

Pavel Suchmann
COMTES FHT a.s.; CZE

CONFERENCE SECRETARY

Liudmyla Zatsna (Organizational Tasks)
COMTES FHT a.s.
Prumyslova 995
33441 Dobrany
Czech Republic

Tel.: + 420 377 197 311

email: chs2@comtesfht.cz

Updated information can be found on the conference homepage www.chs2.eu

SCIENTIFIC ADVISORY BOARD

Prof. Antti, Marta-Lena	Luleå University of Technology, SWE
Prof. Butcher, Cliff	Waterloo University, CAN
Prof. Caballero, Francisca	CSIC-CENIM, ESP
Prof. Casellas, Daniel	Eurecat, ESP / Lulea University of Technology, SWE
Prof. Colosio, Marco A.	Centro Universitario Fundação Santo André, BRA
Prof. Dzugan, Jan	COMTES FHT, CZE
Prof. Fan, Xiangfan	University of Siegen, GER
Dr. Galdos, Lander	Mondragon University, ESP
Prof. Hardell, Jens	Luleå University of Technology, SWE
Prof. Jacques,Pascal	UcLouvain, BEL
Prof. Kajberg, Jorgen	Luleå University of Technology, SWE
Prof. Karjalainen, Pentti	Oulu University, FIN
Prof. Lian, Junhe	RWTH Aachen, GER
Prof. Jianguo Lin	The Hong Kong Polytechnic University, HKG
Prof. Maier, Hans-Juergen	University of Hanover, GER
Prof. McDermid, Joe	McMaster University, CAN
Prof. Merklein, Marion	Friedrich-Alexander University of Erlangen-Nuremberg, GER
Prof. Molotnikov, Andrey	RMIT, AUS
Prof. Olsson, Erik	Luleå University of Technology, SWE
Prof. Prakash, Braham	Luleå University of Technology, SWE
Dr. Pujante, Jaume	Eurecat, ESP
Prof. Speer, John R.	Colorado School of Mines, Golden (CO), USA
Dr. Weidig, Ursula	University of Kassel, GER

www.chs2.eu