

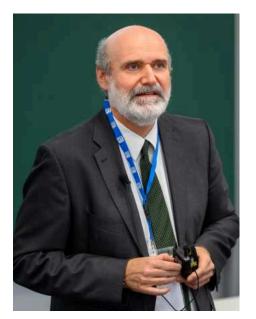
Gefördert durch die Wirtschaftsagentur Wien. Ein Fonds der Stadt Wien

TWIN TRANSITION IN MANUFACTURING





TWIN TRANSITION IN MANUFACTURING



Univ.Prof. Dipl.-Ing. Dr.techn. Friedrich Bleicher

Europe has a strong tradition in the manufacturing industry that was not born digital, nor adapted to a green economy. The plan of the European Commission to develop a climate-neutral society, the so-called "Green Deal", is expected to transform the EU into a resource-efficient and competitive economy.

In global volatile markets, highly efficient technologies are a prerequisite to meet sustainability goals. Likewise, the industrial strategy shaping Europe's future for resilient manufacturing reflects the necessity to deploy digital technologies to enable this change. Accelerating the twin-green and digital – transition will not only require new technologies but will rely on a reskilled workforce.

Green and digital production is likely to turn into a competitive advantage in the future. Front-runners in global value chains will increasingly rely on green supply chains whose production methods can be traced and verified. Suppliers will thus have to comply with green and digital standards to participate in the global economy.

The WPK2024 congress, which is subject to the central theme of the Twin Transition in Manufacturing, reports on the current challenges and enabling technologies on the way toward highly efficient, resilient, and sustainable production. Best practice examples from both industries and research illustrate how smart and circular manufacturing approaches can accelerate the twin transformation.

Take the opportunity to discuss with international experts about these challenges and opportunities. I cordially invite you to attend WPK2024. Together with my organizing team, I would be delighted to welcome you to our event.

Univ.Prof. Dr. Friedrich Bleicher Head of the IFT of the TU Wien





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EVENT TIMELINE

Tuesday, October 8, 2024: Come Together

TU Wien – TUtheSky Getreidemarkt 9, 1060 Vienna, BA Building, 11. OG

from 18:00	Arrival of Guests
19:00	Welcome address by Professor Friedrich Bleicher
22:30	Estimated end

Wednesday, October 9, 2024: Congress – Day 1

Palais Ferstel – Strauc	hgasse 4, 1010 Vienna

from 8:00	Arrival of Guests
09:00 - 10:30	Opening and Welcome Address - Keynote Semiconducter Industry
10:30 - 11:00	Coffee break
11:00 - 12:30	Keynote Session 1 - Machine Tools and Production Systems
12:30 - 13:30	Lunch
13:30 - 15:30	Keynote Session 2 - Machine Tools and Production Systems
15:30 - 16:00	Coffee break
16:00 - 17:30	Keynote Session 3 - Primary Shaping and Forming

Wednesday, October 9, 2024: Gala Dinner

Naturhistorisches Museum Wien – Burgring 7, 1010 Vienna

from 18:00	Arrival of Guests
18:30 - 19:30	Special tour of Naturhistorisches Museum Wien
20:00 - 23:00	Gala Dinner

EVENT TIMELINE

Thursday, October 10, 2024: Congress – Day 2

Palais Ferstel – Strauchgasse 4, 1010 Vienna

from 8:00	Arrival of Guests
09:00 - 10:30	Keynote Session 4 - Machining
10:30 - 11:00	Coffee break
11:00 - 12:30	Keynote Session 5 - Machining
12:30 - 13:30	Lunch
13:30 - 15:00	Keynote Session 6 - Machining
15:00 - 15:30	Coffee break
15:30 - 16:45	Keynote Session 7 - Data driven manufacturing

Thursday, October 10, 2024: Get Together

TEC-Lab Laboratory for Production Engineering Franz Grill Straße 4, Objekt 221, 1030 Vien

17:00	Bus transfer from Palais Ferstel to the Laboratory for Production Engineering
from 18:00	Visit the TEC-Lab Laboratory for Production Engineering Networking with catering

VENUES

Vienna, Austria



Known as the heart of Europe, is a city where history and modern life come together beautifully. Its charming old streets and buildings show off its rich past, while the city also embraces innovation and progress. With excellent public transport, plenty of parks, and a lively cultural scene, Vienna offers a perfect mix of tradition and modern life. From cozy coffeehouses to modern art and business, the city values its history while looking towards the future, making it one of the best places to live in the world.

TUtheSky, TU Wien

Getreidemarkt 9, BA, 11.floor, 1060 Vienna

Palais Ferstel Strauchgasse 4, 1010 Vienna

Natural History Museum Vienna Maria-Theresien-Platz, 1010 Vienna

TEC-Lab Laboratory for Manufacturing Technology, TU Wien Franz Grill Straße 4, Object OA, 1030 Vienna

VENUES

TUtheSky, TU Wien

Getreidemarkt 9, BA, 11.floor, 1060 Vienna

TUtheSky, located on the 11th floor of Getreidemarkt 9, offers 230 m² of stunning conference space with breathtaking views of Vienna.

Our top-floor venue is perfect for conferences, providing a panoramic cityscape, especially during sunset. It combines modern facilities with a beautiful setting, making it an exceptional location for any event.



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Your way to us

By subway

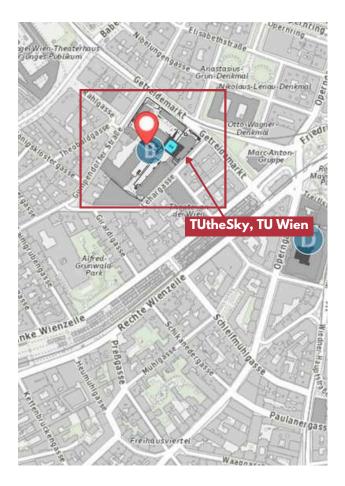
Nearest subway stations: U1, U4 station Karlsplatz / U2 station Museumsquartier / U3 station Neubaugasse

By car

The nearest parking garage is located right at the Campus Getreidemarkt area.

Access is via Lehargasse (a one-way street, accessible from Gumpendorfer Straße).







VENUES

Palais Ferstel Strauchgasse 4, 1010 Vienna

Bank and Stock Exchange.

A historic and elegant venue in the heart of Vienna, known for its grand architecture and rich history. Built in the 19th century, it

Today, Palais Ferstel serves as a stunning location for events, offering magnificent ballrooms and a beautiful arcade, combining old-world charm with modern amenities.

originally housed the Austrian National



https://palaisevents.at/en/palais-ferstel/

Your way to us

By subway

Nearest subway stations: U2 station Museumsquartier / U3 station Neubaugasse / U1, U4 station Karlsplatz

By car

The nearest parking garage is located near Palais Ferstel at Strauchgasse 4.

Access is via Tuchlauben, which connects to the main roads leading into the city center.







VENUES

Palais Ferstel Strauchgasse 4, 1010 Vienna



VENUES

Natural History Museum Vienna

Maria-Theresien-Platz, 1010 Vienna

One of the world's most renowned museums, housing a vast collection of over 30 million objects.

Its iconic building, located in Vienna's Museum Quarter, combines impressive architecture with fascinating displays, making it a must-visit for anyone interested in science, history, and the wonders of nature.



https://wienkultur.info/naturhistorisches_museum/



ATTENTION!

The two museums look nearly identical! Coming from "Heldenplatz", you are looking at the front of the statue of Maria Theresia. Then the "Naturhistorisches Museum" is to your right.

Following the conference, we will proceed directly to the Natural History Museum in Vienna, passing through the beautiful Hofburg.

Please ensure that you follow the IFT colleagues to reach the appropriate locations.





VENUES

TEC-Lab Laboratory for Manufacturing Technology, TU Wien

Franz Grill Straße 4, Object OA, 1030 Vienna

A state-of-the-art facility dedicated to advanced manufacturing technology research. The lab plays a key role in fostering innovation and practical applications in manufacturing, providing researchers and students with access to modern equipment and technology for experimental and industrial projects.



© IFT, TU Wien

ATTENTION!

A bus transfer will be provided from Palais Frerstel, the conference venue, to the TEC Lab. Please follow the IFT colleagues for assistance.

Your way to us

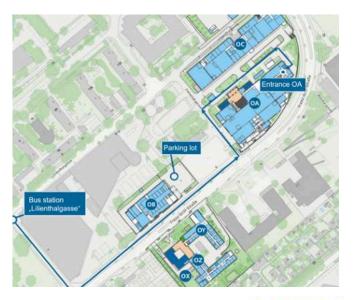
By car

From A23, take the Landstraßer Gürtel exit (keeping left). Turn left onto Ghegastraße at the first traffic light after the underpass, then turn left onto Arsenalstraße, followed by another left onto Lillienthalgasse. Within the Science Center of TU Wien, take the first right and then an immediate left.

Paid short-term parking can be found on Franz-Grill-Straße; a short-term parking ticket from the City of Vienna is required."

By public transportation

U3 - Schlachthausgasse station -> tram line 18 - Wildganzplatz station S-Bahn (S7 in the direction of the airport or Wien-Mitte) – St. Marx station -> tram line 18 (in the direction of Burggasse, one stop) – Wildgansplatz station

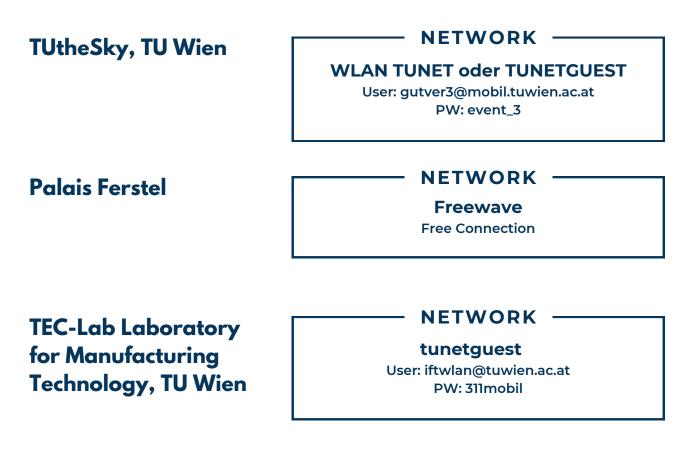






WIFI INFORMATION

During the congress, you may use the following Wi-Fi connections as outlined below:



CONGRESS PROCEDURE

Please scan the QR code below to access the WPK2024 procedure



CONGRESS PROGRAM

8:00 - 9:00 - REGISTRATION 9:00 - 10:35 - OPENING & OPENING KEYNOTE

9:00 - 9:10 - Welcome Address - Twin Transition in Manufacturing Univ.Prof. Dr. Friedrich Bleicher

Head of the Institute of Production Engineering and Photonic Technologies, Technische Universität Wien

9:10 - 9:20 - Opening Address

Prof. Dr.-Ing. Jens Schneider Rector, Technische Universität Wien

9:20 - 9:30 - Opening Address

Henriette Spyra, MA Director General Innovation & Technology, Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation & Technology

9:30 - 9:40 - Opening Address Mag. Gerhard Hirczi Head of Vienna Business Agency, Managing Director

9:40 - 10:00 - European manufacturing: leading and shaping our green and digital future Caroline Viarouge

Chief Executive Officer, EIT Manufacturing

10:00 - 10:30 - Digitalisation as enabler to foster the twin transition and ensure competitiveness

Dipl.-Ing. Dr. Sabine Herlitschka, MBA Chief Executive Officer, Infineon Technologies Austria AG

10:30 – 11:00 COFFEE BREAK 11:00 - 12:30 PLENARY SESSION 1

11:00 - 11:30 The Future of Automotive Production in Europe: Transformation and Challenges at SEAT S.A. Markus Haupt Board Member for Production and Logistics, SEAT S.A

11:30 - 12:00 Industrial Intelligence - improving efficiency and sustainability in manufacturing
Dr. Ansgar Kriwet
Member of the Management Board Research and Development, Festo SE & Co.

12:00 - 12:30 Machining Transformation (MX) Dr. Eng. Masahiko Mori President of DMG MORI CO., LTD.



CONGRESS PROGRAM

12:30 - 13:30 LUNCH 13:30 - 15:30 PLENARY SESSION 2

13:30 - 14:00 - The role of the digital twin for the machine tool business Dr. Stefanie Frank Senior Vice President for Machine Tool Systems, Siemens AG

14:00 - 14:30 - Innovative CNC technology for sustainable and highly efficient manufacturing Dr. Jens Kummetz Head of Technical Training, DR. JOHANNES HEIDENHAIN GmbH

14:30 - 15:00 - Technical solutions for sector-coupling systems as enablers for a successful energy transition in production
Dr. Chris-Jörg Rosen
Vice President Manufacturing Solutions, Phoenix Contact GmbH & Co. KG

15:00 - 15:30 - The future of machining - Automated today, autonomous soon Prof. Dr.-Ing. Berend Denkena Head of the Institute of Production Engieering and Machine Tools, Leibniz University Hannover

15:30 - 16:00 - COFFEE BREAK 16:00 - 17:30 - PLENARY SESSION 3

16:00 - 16:30 - Digital Steel Foundry Dipl.-Ing. Michael Krainz Managing Director, voestalpine Foundry Group

16:30 - 17:00 - Data driven process optimization in metal forming
Prof. Dr.-Ing. Wolfram Volk
Chair of Metal Forming and Casting, TUM School of Engineering and Design, Technical University of Munich

17:00 - 17:30 - SMART STAMPING - Adaptive Processes for competitive & sustainable automotive components Dipl.-Ing. Christian Juricek Manager R&D, MAGNA Cosma

> **18:00 GALA DINNER** Natural History Museum Vienna

CONGRESS PROGRAM

9:00 - 10:30 - PLENARY SESSION 4

9:00 - 9:30 - Efficient Machining Solutions for Sustainable Aircraft Production Dr.-Ing. Matthias Lange HO R&T Varel, Premium AEROTEC

9:30 - 10:00 - Extending the application range of cutting Prof. em. Dr.-Ing. Dr. h.c. Konrad Wegener Senior Advisor, Inspire-iwf Werkzeugmaschinen Fertigung

10:00 - 10:30 - Efficiency improvements of machining processes based on novel simulation developments and detailed process chain analyses
Prof. Dr.-Ing. Prof. h.c. Dirk Biermann
Institute of Machining Technology, TU Dortmund University

10:30 - 11:00 - COFFEE BREAK

11:00 - 12:30 - PLENARY SESSION 5

11:00 - 11:30 - Adapt, innovate, transform: The future of the machining industry in a volatile world Dipl.-Ing. Jacek Kruszyński Member of the Executive Board, Chief Technology Officer MAPAL Fabrik für Praezisionswerkzeuge Dr. Kress KG

11:30 - 12:00 - Simulation-based Control of Tool Wear and Lifetime for Titanium Machining Dr.-Ing. habil. Dipl.-Inform. Tobias Surmann NC- Programming, Airbus GmbH, Business Unit Premium AEROTEC

12:00 - 12:30 - Development and industrial application of digital twins for cutting processes and machine tools Prof. Kaan Erkorkmaz, PEng

Professor in the Department of Mechanical and Mechatronics Engineering, University of Waterloo

12:30 - 13:30 - LUNCH



CONGRESS PROGRAM

13:30 - 15:00 - PLENARY SESSION 6

13:30 - 14:00 - Improving machining efficiency by machine system intelligence Prof. Dr.-Ing. Hans-Christian Möhring Chair and Director, Institute for Machine Tools Management, University of Stuttgart

14:00 - 14:30 - Innovative PCD tools for the effective processing of ceramic materials Dipl.-Ing. Jens Boos Managing Partner, 6C Tools AG

14:30 - 15:00 - Development of process chains, integrating Wire Arc Additive Manufacturing, Multi-Axis Machining and Laser Hardening, for low series parts manufacturing

Prof. Dr. Ir. Bert Lauwers Academic Director KU for KU Leuven, Kempen-Mechelen & Limburg Dean of the Faculty of Engineering Technology

15:00 - 15:30 - COFFEE BREAK

15:30 - 16:45 - PLENARY SESSION 7

15:30 - 16:00 - Twin Transition in Metrology – Framework for successful implementation Prof. Dr. Heiko Wenzel-Schinzer CDO, Wenzel Group

16:00 - 16:30 - Shared data ecosystems - enabler for a green production
Prof. Dr.-Ing. Matthias Weigold
Head of the Institute for Production Management, Technology and Machine Tools, TU Darmstadt

16:30 - 16:45 - Summary and Closing Univ.Prof. Dipl.-Ing. Dr.techn. Friedrich Bleicher Head of the Institute of Production Engineering and Photonic Technologies, Technische Universität Wien

17:00 - BUS TRANSFER

18:00 - VISIT THE TEC-LAB Laboratory for Production Engineering Franz Grill Straße 4, Object OA, 1030 Vienna

Networking with catering





HOST & ORGANIZATION TEAM



TU Wien

TU Wien is Austria's largest research institution for technology and natural sciences, with over 4,000 scientists across eight faculties. Its research-driven education benefits over 27,000 students in 55 degree programs. As a hub for innovation, TU Wien supports the economy, fosters collaboration, and contributes to societal prosperity.



IFT

The Institute of Production Engineering and Photonic Technologies (IFT) develops innovative manufacturing processes and systems, emphasizing the twin transition in production. It explores digital technologies for optimizing economic and ecological value creation. Alongside education and research, IFT prioritizes technology transfer through industry collaboration.

ORGANIZATION TEAM

Univ.Prof. Dipl.-Ing. Dr.techn. Friedrich Bleicher Head of the Institute <u>bleicher@ift.at</u>

Ass.Prof. Dipl.-Ing. Dr.techn. **Thomas Trautner** Head of Research group <u>trautner@ift.at</u>

Mariia Kostrova, MSc PR & Communication kostrova@ift.at +43 1 58801 311980 Dipl.-Ing. Gernot Pöchgraber, BSc poechgraber@ift.at

Dr.techn. **Osman Bodur, MSc** <u>bodur@ift.at</u>



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FEEDBACK

Your Feedback Matters: Help Us Improve Future Congresses

Dear Guest,

We would like to extend our sincere thanks for your participation in our congress. Your involvement was a vital part of the event's success, and we truly appreciate the time and effort you dedicated to being with us.

In our continuous effort to improve and enhance the experience for future congresses, we would be grateful if you could take a few moments to provide us with your valuable feedback. Your thoughts and suggestions are important to us and will help us identify areas where we can make improvements.

Please access the feedback form on our website using the unique code provided below. We greatly appreciate your time and effort in sharing your thoughts, and rest assured, every piece of feedback is highly valued and will be carefully considered in our planning for future events.

Thank you once again for your participation and support.

WPK2024 Organization Team





BE OUR FIRST GUESTS AT 7. PRODUKTIONSTECHNIK KONGRESS WITH EARLY BIRD TICKETS

Only available until 31.01.2025

You're invited to our 7. Wiener Produktionstechnik Kongress on October 7-8, 2026, in Vienna!

Wiener Produktionstechnik Kongress happens every two years and brings together the leaders of the production technology industry. It's a great chance to meet others in the field and learn about the newest ideas and developments.

Would you like to share your expertise? *Register now for early bird access and receive a 50% discount*, available only until 31.01.2025.

Please don't hesitate to email us at wpk@ift.at if you would like to be a sponsor or speaker, or have any questions.

WPK2026 Organization Team







NOTE



NOTE