



08:40

### Registration

09:00

### Greetings, opening

#### **Strauss Pierre**

OBO BETTERMANN Hungary Kft., Plant manager - MTM Hungária Association, Board member

#### **Eur. Erg. Dr. Szabó Gyula**

Hungarian Ergonomics Society (MET), President - Óbuda University, Donát Bánki Faculty of Mechanical Engineering and Security Technology

#### **Michael Wichtl**

Austrian Ergonomics Society, Secretary General - AUVA Wien

#### **Dunajcsik Zoltán**

MTM Hungária Association, chairman

09:20

### Applying Artificial Intelligence for Preventing MSD and vocational accidents via Manpower Selection

- The aim is to present a promising concept, the essence of which is to apply suitable performance parameters measured by the ErgoScope general-purpose worksimulator as input to the ATOM (Artificial intelligence for Testing Occupational success of Manpower) software developed by us at the CIVIL Plc.
- If we have these relevant parameters as predictors recorded for at least 100 workers part of whom succeeded and another part of whom did not in a given job, the ATOM is able to predict the propensity of new candidates to develop MSD or to become victims of vocational accidents from only the predictors alone with a known high probability based on the model built up this way.

#### **Prof. Izsó Lajos**

Budapesti University of Technology and Economics, Department of Ergonomics and Psychology, Professor emeritus - CIVIL Plc.

- Hungarian Academy of Sciences, DSc degree (psychology)
- Main research topics: human-computer interaction (HCI), human factors of safety, ergonomics and psychological aspects of vocational rehabilitation.
- Director of the Research Centre for Vocational Rehabilitation, President of MET 2013-15



10:10

### Coffee break

10:40

### ISO/TR 23076:2021: Recovery model for cyclical industrial work and further ongoing developments

- ISO TR 23076 provides a methodological reference for the procedures to determine the fair quantity of work within a working day in industrial operations with repetitive manual work cycles.
- The goal of the model is to guide industrial engineers to keep the biomechanical load or local muscle fatigue generated by the planned cyclical work within the limits defined in the ISO 11228 series and ISO 11226.

#### **Gabriele Caragnano**

PwC, Partner - Fondazione Ergo, Technical Director

- He has 30 years of international experience in Management Consulting, Operations Strategy.
- He founded MTM Italy in 1998, which turned into the Fondazione Ergo in 2012, to promote research and development of innovative approaches to industrial work organization, ergonomics and progressive productivity improvement
- Italian expert in the CEN/TC 122/WG 4 'Biomechanics' and ISO/TC 159/SC 3/WG 4 'Human physical strength – Manual handling and force limits'.



11:20

### Ergonomics with MTM in theory and practice at the Volkswagen Group – Insights and Outlooks

- Changes in products, technologies and employees in the automotive industry have a significant impact on industrial engineering.
- New, easy-to-use support systems are needed to master the increasing complexity and to manage production work from an economic and human perspective.
- MTM-HWD's new MTM Process Builder element system provides an important link between digital tools for work planning.

#### **Dr. Johannes Sternatz**

Volkswagen AG, Head of Industrial Engineering Methods and Ergonomics at VW Group

- Head of Industrial Engineering Methods and Ergonomics at the Volkswagen Group since 2017. Previously he held various design and IE positions at the Volkswagen brand.
- He studied Business Informatics at the Friedrich Schiller University in Jena and received his PhD in the field of Management Science.



12:00

### Lauch break



13:30

## Industrial Engineering at Audi Hungaria Vehicle Plant

- Presentation of actual and planned IE system
- HWP cloud-based IE system details
- Planned usage of MTM-HWD (Human Work Design)



### Gergely Bálint

Audi Hungária Zrt., Industrial engineer

- Graduated in Electrical Engineering at BMF (today Óbuda University), gained professional experience at Nokia Komárom and Philips at Győr.
- Since 2011, at the IE department of Audi Hungária automotive plant he is designing and implementing more efficient manufacturing processes, by using Lean and MTM methods.

14:00

## MTM-HWD case study - in connection with other MTM building block systems

- MTM-HWD live demonstration with software support
- User group - regular contact between users and developers



### Prof. Dr. Peter Kuhlant

MTM ASSOCIATION e. V., CEO - MTM Institute, Director

### Dr. Thomas Finsterbusch

MTM ASSOCIATION e. V., MTM-Academy Director

### Dunajcsik Zoltán

MTM Hungária Association, chairman - MTM Productivity Kft., Managing Director



- Prof. Kuhlant habilitated in 2013 at TU Wien. Currently, he is leading the research and development activities for deriving MTM process descriptions from digital motion data using AI.
- Dr. Finsterbusch was doctorate in 2015 at the TU Dresden. He is one of the developer of the new process building block system MTM-HWD and head of the examination board.
- Zoltán has been promoting and teaching MTM since the revival of MTM in Hungary since 2008. As an International MTM/EAWS Instructor, he is organizing several IE projects and events.

14:30

## Coffee break

15:00

## Automated MTM Analysis for Efficient Evaluation with High Process Variance @REWE

- For an individual assessment of a picking order, be it for the scheduling of employees or for an objective, transparent performance assessment, the average value is no longer meaningful. This is especially true for processes with high variance or high deviation in relation to the average.
- The knowledge-based systems take into account the individual routes through the warehouse and the characteristics (weight and dimensions) of the products to be picked, warehouse heights. In this way, the planned time for each picking order and ergonomic load evaluation can be calculated in real time.



### Póczi Anett

TU Wien, student - Fraunhofer Austria Research GmbH, research assistant

### Thomas Gehart

THANOS GmbH, Managing Director - Austrian MTM-Association, president



- Anett is studying mechanical engineering at TU Wien. Since 2019 she is involved in data-driven and sustainable logistics research. Currently she is working with THANOS on a project to develop an MTM-based solution for food retail.
- Thomas is a European Industrial Engineer and an International MTM-Instructor leading several international industry projects. As Head of THANOS, he has extensive experience in process design, development, digitization and automation.

15:30

## Austrians Activities within the Campaign „Lighten the Load“

- Austrian Workers Compensation Board (AUVA) together with Austrian Ergonomic Society (ÖAE) implement the European campaign „Lighten the load“ in Austria.
- The cooperation of AUVA, an institution that can very intensely spread the necessary basic information concerning the impacts of Musculo Skeletal Disorders (MSD) to a large amount of enterprises and their employees all over Austria and ÖAE, that covers special aspects, such as the impact of digitalization and MSD's or MSD's and psychological problems to the campaign is explained in the contribution.



### Michael Wichtl

Austrian Ergonomics Society, Secretary General - AUVA Wien

- As an Ergonomist Expert at AUVA he is focusing prevention in many projects since 1982.
- He graduated as Mechanical Engineer and Ergonomist at TU Wien. He has 30 years of consultation experience in System Ergonomics, Work Place Design and Standardization.

16:00

## Getting prepared for next day plant visit

### Strauss Pierre

OBO BETTERMANN Hungary Kft., Plant manager - MTM Hungária Association, Board member