INTRODUCTORY PART | PLENARY SESSION
Artificial Intelligence – Setting the scene
10.00-13.00

Welcome greetings and Intro to the event goal and methodology and the EU projects involved | *Veronica Elena Bocci, DITECFER*

Key-note speech #1 Day 1: AI in Railway and Mobility: Why we should all care about it. First inspirations from leading industrial players | *Luigi Rucher, Thales GTS-Ground Transportation Systems GBU*
Following Round-Table:
Topics to be covered: *The fundamentals of AI: What AI (neural vs. stochastics vs. …), Ubiquitous AI, X-AI / Explainable AI, Development of AI tools, ChatGPT, Ethics*
Moderator: *Alessandro Monti, Foundation for Research and Innovation University of Florence*

Key-note speech #2 Day 1: AI for Europe's Railway system in 2030 – Towards Common European Data Spaces | *xxx, Europe's Rail Joint Undertaking*
Following Round-Table:
Topics to be covered: *Focus on the 'source' of AI: Big data / Data sets, Fake injection, Anomaly detection, Frugal AI, What is done in Europe (Open Data consortia), What is done in Italy*
Moderator: *Veronica Elena Bocci, DITECFER*

AWARD CEREMONY
OF THE STARS HACK&MATCH #3 "BLOCKCHAIN FOR RAILWAY PROCESSES, PRODUCTS AND SERVICES"

Networking Lunch buffet at 13.00-14.30

THEMATIC SESSIONS AND WORKING GROUPS ON AI APPLICATIONS
14.30-17.45

- AI and Railway SMEs: state of the art and future plans **|** *Veronica Elena Bocci, DITECFER*
- Bringing AI close to home: short intro to the new EDIH-European Digital Innovation Hubs and the Digital Innovation Hubs | *AI MAGISTER, Tuscany X.0, DIH Toscana*
- Presentations of use-cases developed in the sector:
  *KEY TOPIC 1: **PROFITABILITY AND PERFORMANCE IN DESIGN AND MANUFACTURING***
  - **Better Design, Production and Operational Management of Industrial Processes, Assets and Systems** | *Francesco Franchini, EnginSoft*
  - **AI for Increased Process Efficiency – The case of Batteries Manufacturing** | *Pasqualina Potena, RISE*
  *KEY TOPIC 2: **RAILWAY DIAGNOSTICS AND MAINTENANCE***
  - **AID4Train: AI-based Diagnostics for Trains** | *Luigi Fratelli, Hitachi Rail STS*

- ==Xxx== | *Almawave*

KEY TOPIC 3: **AUTONOMOUS VEHICLES**

- Traffic detection and prediction of behaviours | *Silvio Abrate, LINKS Foundation*
- AI-enabled Assisted Driving | *Luigi Fratelli, Hitachi Rail STS*

DAY #2 - 8 JUNE 2023 - 10.00–17.30

**OPENING: SUMMARY DAY 1 OF THE KEY POINTS DISCUSSED AND KEY LESSONS LEARNT
10.00-10.10**

**SESSIONS AND WORKING GROUPS ON AI APPLICATIONS
10.00-13.00**

Key-note Speech Day 2: AI in Railway Transport: Taxonomy, Regulations and Applications |
Valeria Vittorini, University of Naples Federico II - ==*tbc*==

Following Round-Table:
Topics to be covered: The future of Railway certification: possibilities and limits of AI
Moderator:

Presentations of use-cases developed in the sector
KEY TOPIC 4: **RAILWAY SAFETY AND SECURITY**

- ==Xxx== | *MerMec*
- **Artificial Vision/Intelligence for Improved Safety and Security in Public Transit** | *Davide Moroni, Andrea Carboni, ISTI-CNR (Italy)*
- **AI for Obstacle detection/recognition** | *Paolo Mattera, Knorr Bremse* ==*– tbc (go/no go entro 15/20 maggio)*==
- **Fire safety in Railway tunnels** | *Antonio Bongiovanni, Bosch –* ==*tbc (99% yes; go/no go entro 10/11 maggio)*==

KEY TOPIC 5: **MULTIMODAL TRANSPORT, LAST-MILE LOGISTICS**

- **Supply Chain Platform for Collaborative and Smart Logistics** |*WENDA*

Networking Lunch buffet at 13.00-14.30

**PLENARY SESSION | WHAT TOOLS, SKILLS, ORGANISATIONS AND FUNDS FOR AI
14.30-17.00**

- **Looking for new AI use-cases in the sector and the role of SMEs – Presentations and Working Groups also in view of the running STARS Hack&Match event #4 "AI and Digital Twins for Railway and Mobility Processes, Products and Services"** | *Animators: Silvio Abrate, Guido Ancarani, Veronica Elena Bocci, Francesco Franchini*

- **Available public and private AI tools and funds for the industries and how to use them: Focus on** *AI-on demand platform, Futurepedia, AiWave, EDIH | University of Bologna + Almawave + EDIH AI MAGISTER and Tuscany X.0*
- **Skills and organisations for AI: key lessons for industries, with special attention to SMEs |** *EDIH Tuscany X.0 + one Large Company (Intecs Solutions) & one SME testimonial (xxx) having adopted AI and upskilled/reskilled employees*

Suggested evening activities:

- *All evenings: 1h Arno Cruise (at 18.30, 19.30, 21.30):* Arno Boat Firenze - Crociera sul fiume Arno
- *All evenings: 2h Aperitivo Tasting Tour (from 18.00):* Florence Aperitivo Tasting Tour
- *On 7th June: "The Four Seasons, Air and Little Night Music" Concert:* The Four Seasons, Air and Little Night Music - Florence Concerts
- *On 8th June: Night visit at Palazzo Strozzi art exhibitions:* https://www.palazzostrozzi.org/en

THE SPEAKERS

Abrate Silvio, Head of Industry 4.0, LINKS Foundation (Italy)

Bocci Veronica Elena, Coordinator DITECFER, and Vice President ERCI-European Railway Clusters Initiative (Italy)

Bongiovanni Antonio, Building Technologies, Sales Channel Management SI, Bosch Security Systems (Italy)

Carboni Andrea, Researcher Signals and Images (SI), ISTI-CNR (Italy)

Chierroni Niccolò, CEO, MerMec Engineering (Italy)

Dragoni Aldo Franco, Associate Professor of Artificial Intelligence, Marche Polytechnic University (Italy)

Fantechi Alessandro, Full Professor in Information Science and President of the School of Engineering of the University of Florence, and Research Associate at ISTI CNR-National Research Council of Italy in the Formal Methods && Tools Group (Italy)

Franchini Francesco, BU Manager, EnginSoft (Italy)

Fratelli Luigi, Head of R&D Department, Hitachi Rail STS (Italy)

Garriga Mas Laia, Promoter of Technological Advancement in Artificial Intelligence and Digitalisation, EURECAT – Technological Centre of Catalunya (Spain)

Genovese Dario, Head of Innovative Projects Electrical Systems and Rail Cybersecurity, Italcertifer-Italian State Railways Group (Italy)

Mattera Paolo, Head of Innovation, Knorr Bremse Rail Systems Italia (Italy)

Monti Alessandro, General Manager, Foundation for Research and Innovation of the University of Florence (Italy)

Moroni Davide, First Researcher Signals and Images (SI), ISTI-CNR (Italy)

Potena Pasqualina, Senior Researcher, RISE (Sweden)

Pipelnino Antonio, xxx Almawave (Italy)

Ramondetta Silvia, Coordinator, Digital Innovation Hub Tuscany (Italy)

Rucher Luigi, International Innovation Director, Thales GTS-Ground Transport Systems GBU (Italy)

Vangelista Valeria, EU Funding Advisor and Project Manager, EEN Eurosportello Confesercenti (Italy)

Vatta Lorna, President, EDIH-European Digital Innovation Hub Tuscany X.0 (Italy)

Vittorini Valeria, Professor of Information Processing Systems, University of Naples Federico II (Italy)