ETNA 2020



MASTERING EXCELLENCE

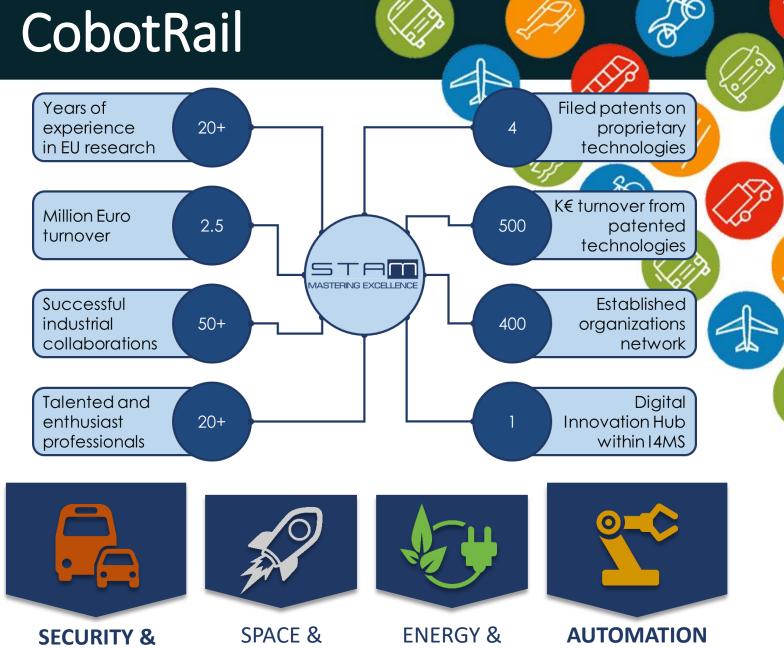
www.stamtech.com



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ENVIRONMENT

& ROBOTICS

DEFENCE

TRANSPORT



Relevant Track Record



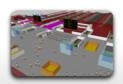


SECURITY & TRANSPORT





AGREE



FAIR Stations (H2020, <u>Coordinator</u>) "Future secure and accessible rail stations"

Crowd modelling – PTI system design

www.fairstations.eu





SECUREMETRO (FP7, Partner) "Inherently secure blast resistant and fire safe metro vehicles"

securemetro.inrets.fr





RAMPART (CIPS, Partner) "Development of a risk assessment toolbox for the prevention and reduction of terrorist attacks on metro and light-rail critical infrastructures"

www.rampart-project.eu



Protect



TRAINSAFE (FP5, Partner) "Railway interoperable manufacture and modular safety"



EUProtect (ISFP, <u>Coordinator</u>) "Development of New Solutions for the Protection of European Citizens and Infrastructures Against Terrorist Threats"

www.euprotect-project.eu



SHAREWORK (H2020, Partner) "Safe and effective HumAn-Robot coopEration toWards a better cOmpetiveness on current automation lack manufacturing processes"

www.sharework-project.eu



SOFTMANBOT (H2020, Partner) "Advanced RoBOTic Technology for Handling SOFT Materials in MANufacturing Sectors"

www.softmanbot.eu



AGREE (POR-FESR, Partner) "Arm exoskeleton and Grip assistance for REhabilitation and indipEndent living"



NU-ELBOW (Eurostars, **Coordinator**) "Elbow actuation of orthopaedic prostheses based on the NUGEAR principle"



FLEXICOIL (FP7, Partner) "Development of a robotic cell for coils winding"



CobotRail Proposal Idea



S2R-OC-IP3-03-2020 Advanced tools and equipment: collaborative robots & wearable mobile machines

Current Consortium

- Stam (IT): cobots, ROS, system integration, mechatronics, exoskeletons
- Metro de Madrid (ES): rail operator and use-case
- University of Newcastle (UK): mechatronics, HFE
- Italian Institute of Technology (IT): robotics, Human-Robot Interaction (HRI)

Partners sought

- Plant equipment providers
- Experts in exoskeletons control
- Environment recognition
- Dynamic trajectory planning
- Additional use-cases





S2R Topics and Expertise



- S2R-OC-IP3-02-2020 Technology Development for Railway Systems Asset Management
 - ODSS, machine learning, AI, optimization, data-driven models, risk assessment
- S2R-OC-IP1-01-2020 Support to Development of next generation of Traction systems
 - AI, predictive maintenance, virtual validation, Additive Manufacturing
- S2R-OC-IP4-01-2020 Supporting the implementation of the IP4 ecosystem
 - Urban demo site, interface, user needs & expectations
- S2R-OC-IP2-01-2020 Modelling of the Moving Block system specification and support for Railway Minimum Operational Performance Standards
 - Data fusion, simulations
- S2R-OC-IP1-03-2020 Innovative technologies for Carbodies and Running Gear of the future
 - LCC running gear components





Thank You!





Italian High-Tech Engineering SME

- High-skilled multidisciplinary team
- 50+ successful EU projects completed
- First in EU to have an SME-Instrument Phase 2 project awarded



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Open and willing to collaborate on any topic where we can bring added value

