

GESTE

YOUR PARTNER IN
MOBILITY & SAFETY

WITH PASSION & EXPERTISE





Continuous research for Innovation

Aryldo RUSSO

Group Innovation Director

GESTE

Main points

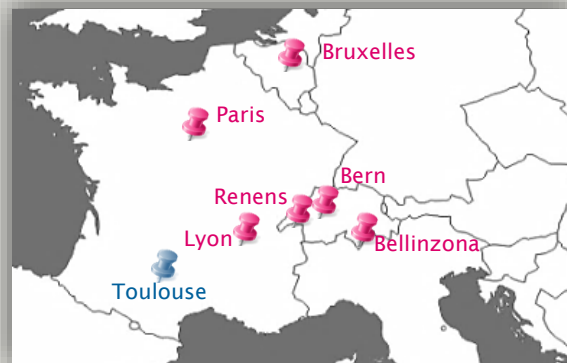
- GESTE Introduction;
- Innovation in general;
 - What is;
 - challenges
- Innovation in transportation;
 - main barriers;
 - main areas;
 - the way we do.
- Safety in innovation projects
 - Difficulties
 - Opportunities
 - Challenges



History

- 1999: setting up of GESTE in Lausanne (CH)
(Groupe d'Etudes de Systèmes de Transport dans leur Environnement / Group of Studies of Transport Systems in their Environment)
- 2001: setting up of GESTE Engineering ltd
- 2008: opening an office in Bern (CH)
- 2013: stable presence in Paris & Brussels
- 2016: setting up of GESTE Engineering France SAS and opening an office in Paris (F)
- 2017: setting up of GESTE Engineering Belgium SA and opening an office in Brussels (B)
- 2020: opening an office in Bellinzona (CH)
- 2021: stable presence in Toulouse
- 2022: setting up of the holding GESTE Group SA
- 2023: opening an office in Lyon (F)



Location always near a train station



-  GESTE offices
-  GESTE project offices

GESTE Engineering France SAS
19 Rue du 4 Septembre
75002 Paris, France



GESTE Engineering SA
Rue de la Gare de Triage 5
1020 Renens-Lausanne, Suisse



GESTE Engineering Belgium SA
Avenue des Arts 53
1000 Bruxelles, Belgique

Services

We provide **consulting engineering services** based on a **global and transdisciplinary approach**. We cover the project's entire life span, **from feasibility studies to commissioning**, including support in setting concepts for operation and maintenance.

- Studies, Engineering, Testing
- Project management, design & construction management, assistant to the contracting authority
- Consulting, expert advices, audits



1 Group, 6 Locations



CH - LAUSANNE-RENNES



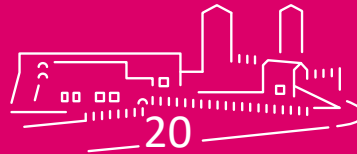
CH - BERN



F - PARIS



B - BRUSSELS



CH - BELLINZONA



F - LYON

1 Group, 5 Departments



RAIL



URBAN



ROAD



BUILDINGS



INNOVATION

1 Group, 10 Business Units



SYSTEM
ENGINEERING &
QUALITY



SIGNALLING &
AUTOMATION



ENERGY



TRACK



VEHICLE &
MAINTENANCE



EQUIPMENT



RAMS &
SAFETY



VENTILATION &
FLOWS



FIRE SAFETY



DIGITALISATION

Department Management

GESTE GROUP

CEO
Michele Mossi



RAIL

DIRECTOR
Patrice Foti



URBAN

DIRECTOR
François Rosati



ROAD

DIRECTOR
Roberto Avanti



BUILDINGS

DIRECTOR
Andrea Krpo

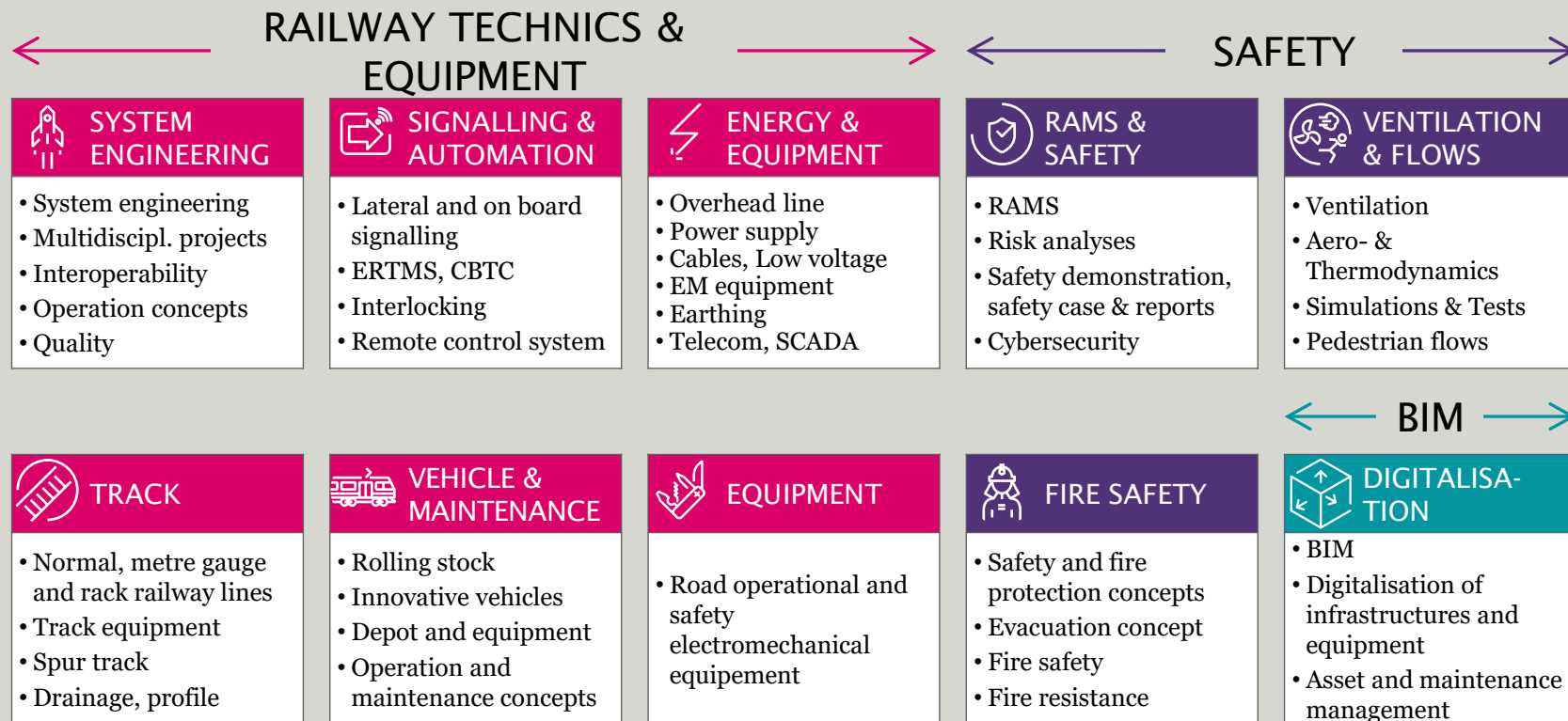


INNOVATION

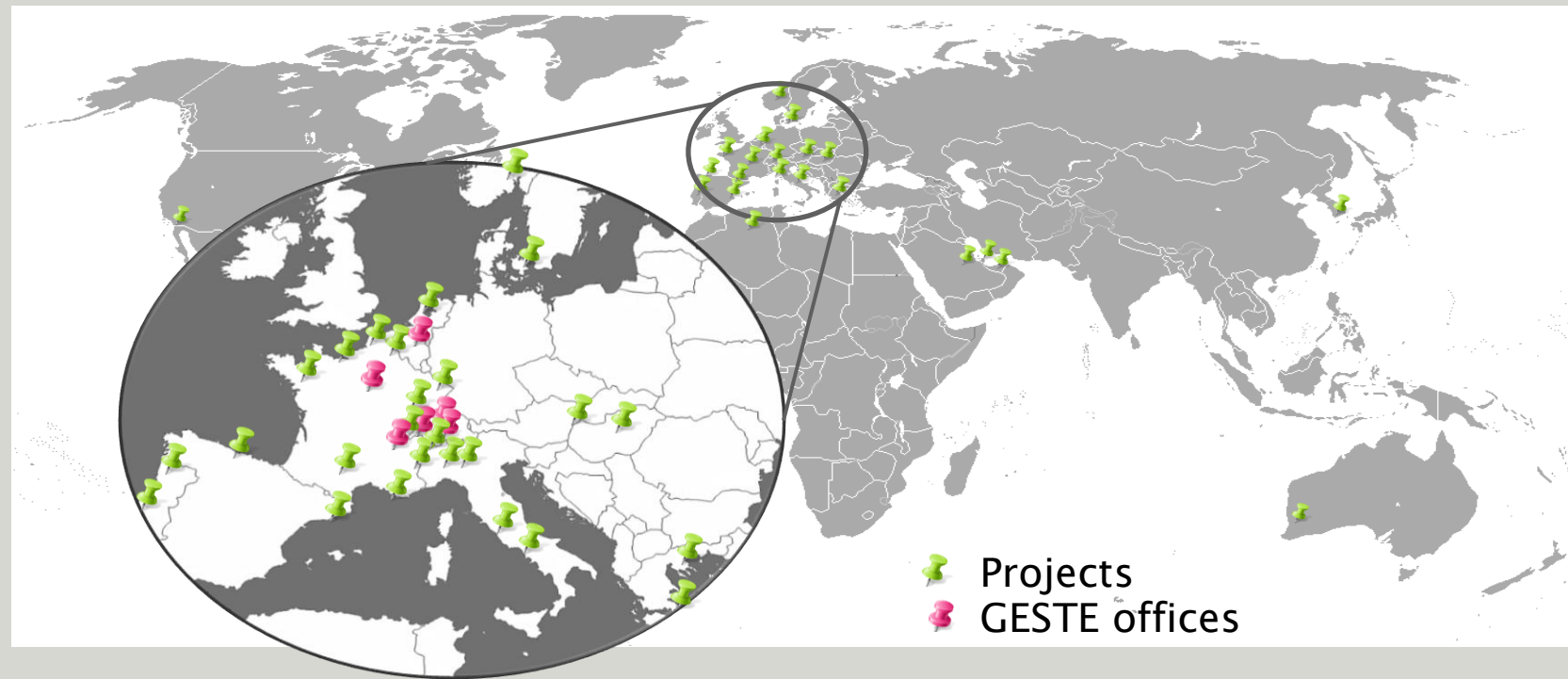
DIRECTOR
Aryldo Russo



Activities grouped into 10 business units



Projects in many countries



Innovation in general

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INNOVATION – What is?

- Anything different from what we are used to?
- New technology – new vehicles, control systems, new functions, new operation modes, hybrid systems, etc...
- New methodologies
 - Inside projects – new, faster, easier way to perform our current work.
 - Outside projects – new services, different methodologies, etc..

INNOVATION – Challenges

- conservative attitude/mind;
- The more innovative, less concrete;
- Too risky;
- The “young son tale”
 - Believe on it

Innovation in transportation

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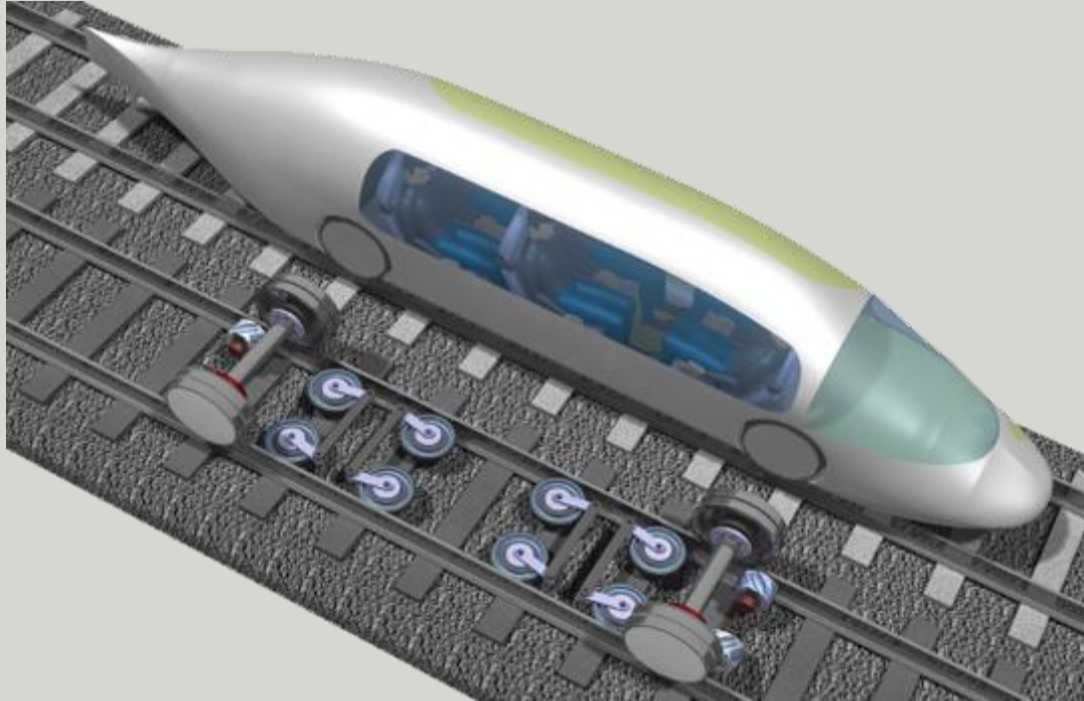
Some examples nowadays

- New signaling systems for autonomous vehicles
- New energy sources (hydrogen)
- Maintenance and operation rules
 - Early train departure
- New transportation means

CABLINE



RAILEVO



MAGRAIL

Legacy



Cargo: 120kph | 75mph
Passenger: 330kph | 205mph

Analog & hard to fully digitalize



MagRail Booster



Existing vehicles*

120kph | 75mph
 330kph | 205mph***

New digital components quickly implementable to upgrade legacy tracks

« Linear motor »
 « Magnetic levitation »

MagRail



New vehicles

160kph | 100mph
 550kph | 340mph

Hyperloop

compatible**



with:



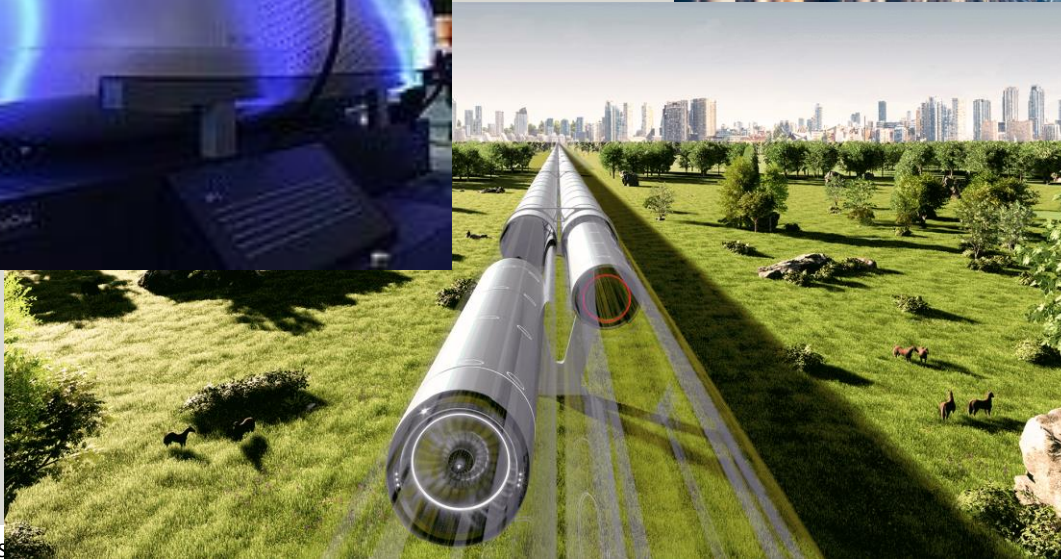
600kph | 375mph
 1200kph | 745mph

Vacuum rail of the future

FLEXY



HYPERLOOPs



Safety in innovation projects

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Safety in innovation projects

No stablished process in early phases;

No predefined standards;

Interdomain standards;

Cross acceptance ;

Hazard identification

Joint work

Europe's rail



Specific conditions

DESTINATION 8 – Exploratory Research and other activities

HORIZON-ER-JU-2023-EXPLR-02: FUTURE METRO SYSTEMS

Expected EU contribution	EUR 3.1 million
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Indicative project duration	24 months
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TRL	TRL 3/4
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Type of action	Research and Innovation Action
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Linked actions and expected interactions

The action that is expected to be funded under this topic will be complementary to the following actions:

- FP1 - MOTIONAL (GA 101101973)
- FP2 - R2DATO (GA 101102001)
- FP3 - IAM4RAIL (GA 101101966)
- Interact with EU-Rail System Pillar for the aspects related to the interface between mainline rail (SERA) and urban mobility systems of which metro is part
- Consider collaboration with cities participating in the EU Mission for Climate-Neutral and Smart Cities

Joint work

CIR – Credit Impot Recherche

Crédit d'impôt recherche (CIR)

Vérfifié le 09 juin 2023 - Direction de l'information légale et administrative (Première ministre)

Le crédit d'impôt recherche (CIR) a pour but d'encourager les entreprises à engager des activités de recherche et développement (R&D). Le taux du CIR varie selon la localisation géographique de l'entreprise.



Thank you for your attention

GESTE