

. INNOVATING IN ROAD SAFETY

# SUSTAINABLE SOLUTIONS FOR SAFER ROADS AND COMMUNITIES



We envisage a world of forgiving roads where no human or technological mistake would seriously harm human beings.

Our mission is helping authorities, institutions and companies to reduce traffic fatalities and injuries on roads and in urban areas all over the world through sustainable and innovating road safety solutions.

**We offer** highly specialised consultancy and services on all road safety aspects.

**We intervene** on any of the 5 Road Safety Pillars: Road Safety Management - Safer Roads and Mobility - Safer Vehicles - Safer Road Users - Post-Crash Response.

**We rely on** a multidisciplinary, expert team of professionals, researchers and innovators.

**We deliver** hands-on road safety solutions, which are fast, concrete, effective and scientifically consistent.

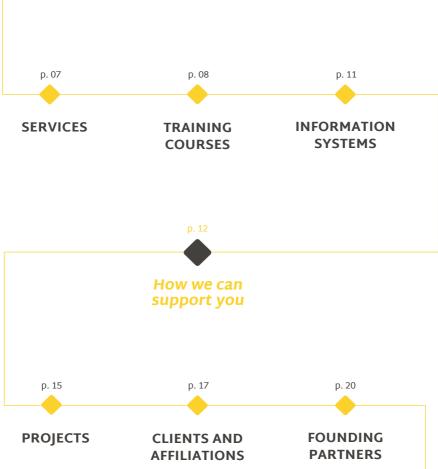
**We work with** public administrations, development banks, research institutions, businesses and local stakeholders.

We work worldwide, with a special focus on developing countries.



### **DISCOVER**





# WE are a multidisciplinary, expert team of road safety innovators

## FRED Engineering is an international consulting firm specialized in road safety.

We contribute to sustainable development through impactful, place-based solutions for road safety.

We rely on a multidisciplinary pool of partners, experts and consultants, including civil and mechanical engineers, sociologists, psychologists, lawyers, economists, paramedics, professional trainers and educators, project managers and researchers.

We cover all aspects of road safety through a holistic and sustainable approach.

### WE stand for a world of forgiving roads

FRED Engineering envisages a world of safe transport systems for all.

The **Safe System approach** inspires our vision. A world of forgiving roads, where no serious injury or human death should occur on the network, irrespectively of human mistake.

We partner with clients, national and local stakeholders to make the right to safe and sustainable movement a reality for all human beings, in any context.

We constantly invest in research and development to enforce our vision at best.

# WE design road safety to save lives and reduce road traffic crash risks

FRED Engineering provides technical assistance and leads R&D projects, covering all aspects of road safety.

We design and implement targeted interventions on the entire spectrum of the **Road Safety Pillars**: Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users, Post-Crash Response.

We provide technical assistance, consultancy, training and tools to improve safety in rural, inter-urban, urban roads and highways.

Our interventions are realized all over the world, with a specific focus on developing countries.

This is made possible by our team members' variety of professional expertise and long-term experience on road safety.

### **OUR** services



	ROAD SAFETY MANAGEMENT	SAFER ROADS AND MOBILITY	SAFER VEHICLES	SAFER ROAD USERS	POST-CRASH RESPONSE
Road safety audits and inspections	MANAGEMENT	·····	VERICLES	USERS	KESI GIISE
Road safety education ·····		• • • • • • • • • • • • • • • • • • • •		••••	
Awareness campaigns ·····				····· •	
Training and capacity building	••••••	•••••	•••••	•••••	••••
Road infrastructure feasibility and design					
Crash database development ·	•				
Road safety manuals and guidelines	•	•••••	•••••	•••••	♦
Blackspot analysis ······		••••			
Network wide road safety assessment		·····•			
Road safety risk assessment ····		•••••		•••••	
Road safety plans ······	········•				
Review of road safety management capabilities	•••••				
Solutions for vulnerable road user	·s·	•••••	•••••	•••••	••••
Software development ······	••••••	•••••			
Research & Development	•	••••	•••••	•••••	••••

# WE head for capacity building to pave the way to impact

FRED Engineering develops original, hands-on road safety training courses on a full range of topics.

ROAD SAFETY AUDITS AND INSPECTIONS

ROAD SAFETY ENGINEERING AND BLACK SPOT MANAGEMENT

ROAD TRAFFIC CRASH DATA COLLECTION AND MANAGEMENT

VEHICLE TECHNICAL INSPECTIONS

POST-CRASH CARE

**ROAD SAFETY EDUCATION** 

# **WE** work with national and local actors to enhance road safety

• FRED Engineering supports governments and institutions to improve road safety management.

We support **institutional strengthening**, we **deliver capacity building** programmes, we assist with the preparation of **national strategies** and action plans and with **road traffic crash databases** establishment. We enhance **policy and legislation development**; we carry out regular **road safety audits and inspections** in a wide range of developing countries.

Tight cooperation with regional, national and local stakeholders is a distinctive feature of our approach to road safety.

### WE work worldwide, we act locally

FRED Engineering is able to intervene in any context, regardless of local culture, religion and language.

FRED Engineering work is based on its **well-acknowledged founding partners expertise**, supported by a pool of international experts, with a proven track record on the field.

The entire team is **prepared to travel everywhere** in the world.



We work closely **with our national and local partners**, investing in capacity building and stakeholder engagement to deliver sustainable, ad-hoc road safety solutions.

The quality of our work is powered by a wide network of clients and partners all over the world we can rely on at any time

We work on the field, tailoring international best practices to meet local needs and circumstances.

# **OUR** commitment to impact is anchored in research and innovation

• FRED Engineering solutions are developed through a consistent research and innovation approach.

We never stop researching for efficient methodologies and tools to be implemented and for a wider impact to be generated. In doing so, we regularly partner with the most prominent road safety research institutes worldwide.

Through **research** on specific topics and areas and the development of **information systems**, strategic R&D investment allows us to offer **unique solutions**.

FRED Engineering partners and consultants' in-depth, long-term experience together with the unique blend of scientific, multidisciplinary background is the guarantee for the highest quality in road safety solutions design and delivery.

Innovative features and customization characterize our road safety solutions.

# FRED Engineering branded new information systems for road safety management support







### ADaMS - Accident Data Management System

A web application **for road traffic crash data collection, storage and analysis.** It allows to manage both national and local road traffic crash databases.





### AuRoRa - Automatic Road Risk Assessment

A software to perform low-cost road safety assessments of road networks through automatic analysis of road infrastructure video images. It is the fastest solution to assess road traffic crash risks due to road infrastructure characteristics.





### **ASIA** - Assistant for Safety Inspections and Audits

A software allowing **to perform road safety audits and inspections**. It helps identifying road safety issues, selecting recommendations and creating reports.

### You NEED to

### **Together we CAN**

Oefine road safety interventions	<ul> <li>Draft a strategic road safety plan</li> </ul>
<ul> <li>Increase capabilities of technicians / decision makers</li> </ul>	<ul> <li>Design and implement professional training on a full range of topics</li> </ul>
Oldentify road infrastructure risks	<ul> <li>Perform:</li> <li>Road safety audits &amp; inspections</li> <li>Black spot treatment</li> <li>Risk assessment</li> </ul>
<ul> <li>Make evidence-based strategic decisions</li> </ul>	<ul> <li>Setup road traffic crash databases and information systems</li> <li>Assess social cost of road traffic crashes</li> </ul>
◇ Improve road users' behaviours	<ul> <li>Design and implement road safety awareness campaigns and communication</li> <li>Design driver training programs</li> <li>Design solutions for driver-licensing improvement</li> </ul>
Oldentify vehicle safety threats	<ul> <li>Assess current practices         for vehicle registration and         homologation</li> <li>Design programs for periodic         vehicle inspection</li> </ul>

# COVER ALL NEEDS FOR ROAD SAFETY





### A vision powered by experience

### **PROJECTS**











# RES

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VIEW ALL THE PROJECTS

### **WE** work with

### **CLIENTS**

The World Bank

European Commission

European Investment Bank

Caribbean Development Bank

Asian Development Bank

African Development Bank

UK aid

### **ASSOCIATIONS**

Albanian Development Fund

Italian Association of Engineering, Architectural and Technical-Economic Consulting Organizations





International Traffic Safety Data and Analysis Group



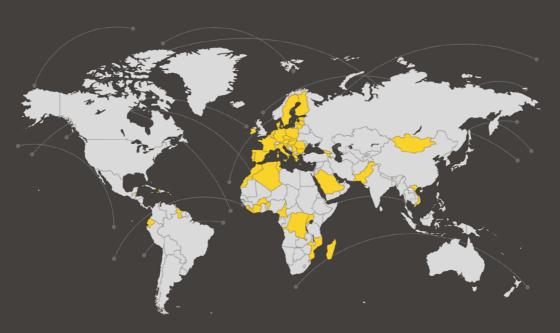
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### ACCREDITED SUPPLIER

International Road Assessment Programme



### **WE** work worlwide



Albania	Burkina Faso	Guyana	Morocco	Sierra Leone
Algeria	Democratic Republic of Congo	Georgia	Mozambique	Tunisia
Antigua and Barbuda	Cameroon	Haiti	Pakistan	Uganda
Armenia	Côte d'Ivoire	Liberia	Rwanda	Vietnam
Belize	Ecuador	Madagascar	Saudi Arabia	<i>&amp;</i> ~
Benin	EU27	Mongolia	Serbia	X



### **Founding partners**









### **EDOARDO MAZZIA**

### FRANCISCO REINA BARRANCO

### **ANTONINO TRIPODI**

Managing Director

**Business Development Director** 

Technical Director

Engineer with long term international experience in road safety engineering, transport planning and road operation.

He is an approved Road Safety Auditor.

He works to make roads safer and self-explaining.

Engineer with long term experience in road transport infrastructure and road safety engineering. His expertise in road safety covers strategies and action plans, institutional strengthening, policy support and capacity building.

He is an enthusiastic entrepreneur always looking for innovating engineering solutions. Civil Engineer with a Ph.D. in Transport Engineering. His main fields of expertise are transport and mobility planning, impact assessment, road safety management, road traffic crash databases and systems, road safety analysis.

He strongly believes evidence-based decisions are the first step to save road user lives.

### **ROAD SAFETY**

### has no borders to us

• FRED Engineering was established in 2017 by its three founding partners.

FRED Engineering was born to offer highly specialized services covering all range of needs in the field of road safety, in any region of the world regardless of geographical, cultural and religious aspects.



After a long professional career in the field of engineering consultancy, we decided to give birth to a new and innovative entrepreneurial project.

We created therefore FRED Engineering to help authorities, institutions, and companies to reduce road traffic fatalities and injuries on roads and in urban areas all over the world, through sustainable and innovating road safety solutions.

We are conscious that road safety developments can never be delayed due to exceptional social conditions. Implementing actions to avoid road deaths and injuries should never be postponed.

For this reason we are always and in any condition searching for innovative solutions to continue delivering our contribution to safe, affordable, accessible and sustainable transport systems.

This is our work, and this is precisely the reason why we are deeply passionate about it.

E. Mazzia F. Reina Barranci A. Tripodi





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