Kick-off!

Welcome to SAFER Stage 6!

Ignite your research inspiration and shape SAFER's future together!

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

KICK-OFF AGENDA

08:45	Welcome by Mats Lundqvist, Vice President Utilization, Chalmers University
08:55	Introduction to the day - SAFER Stage 6 in a nutshell, Magnus Granström, SAFER's director
09:10	Keynote #1: **Anna Nilsson-Ehle**, Chairperson of Vinnova, will share valuable insights from her point of view
09:25	Unveiling SAFER’s collaborative Research agenda, presented by SAFER's Impact Area leaders
10:00	Energizing networking break ☕
10:20	Navigating SAFER’s facilitation process, Malin Levin
10:30	Keynote #2: **Maria Krafft**, Traffic safety director, the Swedish transport administration, will outline our critical priorities for societal impact
10:45	How to leverage SAFER's Working Groups for maximum impact, Magnus Granström
10:55	Meeting our Working Group leaders and presentation about the needs they will address and expected outcome
11:45	SAFER’s funding opportunities and scouting efforts, Ines Heinig
11:55	Planning SAFER’s upcoming Research Days together
12:05	Networking lunch at Lindholmen Science Park Open Arena
13:00	End of program

SAFER STAGE 6

In a nutshell!

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

Year 2020: A new approach to traffic safety…

United Nations A/RES/74/299

General Assembly

Distr.: General
2 September 2020

Seventy-fourth session
Agenda item 12
Improving global road safety

Resolution adopted by the General Assembly on 31 August 2020

[*without reference to a Main Committee (A/74/L.86 and A/74/L.86/Add.1)*]

74/299. Improving global road safety

The General Assembly,

Recalling its resolutions 57/309 of 22 May 2003, 58/9 of 5 November 2003, 58/289 of 14 April 2004, 60/5 of 26 October 2005, 62/244 of 31 March 2008, 64/255 of 2 March 2010, 66/260 of 19 April 2012, 68/269 of 10 April 2014, 70/260 of 15 April 2016 and 72/271 of 12 April 2018, on improving global road safety,

Having considered the note by the Secretary-General transmitting the report on improving global road safety[1] and the recommendations contained therein,

Reaffirming its resolution 70/1 of 25 September 2015, entitled "Transforming our world: the 2030 Agenda for Sustainable Development", in which it adopted a comprehensive, far-reaching and people-centred set of universal and transformative Sustainable Development Goals and targets, its commitment to working tirelessly for the full implementation of the Agenda by 2030 ensuring that no one is left behind, its recognition that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development, its commitment to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner, and to building upon the achievements of the Millennium Development Goals and seeking to address their unfinished business,

Recalling that the Sustainable Development Goals and targets are integrated and indivisible and balance the three dimensions of sustainable development, and acknowledging the importance of reaching the road safety-related targets of the 2030 Agenda,

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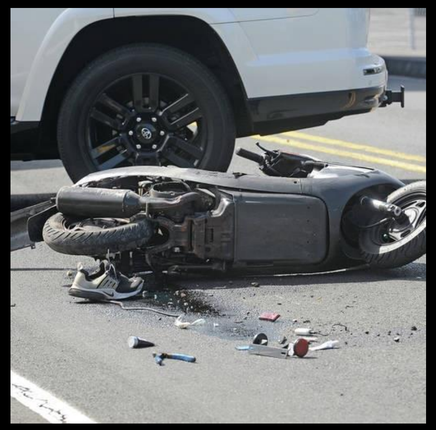
Challenges we need to address

In different ways, and a guidance to our contributions



1.2 million people killed and many more injured

Large differences globally and lack of equity

Risky behaviour and gaps in traffic safety knowledge

A rapidly changing road mobility landscape

Keep road safety on the political agenda

Our Vision:
A road transport system safe for *all.*

Our Mission
We are bringing people together, conducting research and leveraging knowledge to enable safe sustainable mobility.

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER in Stage 6

What’s new in a nutshell!

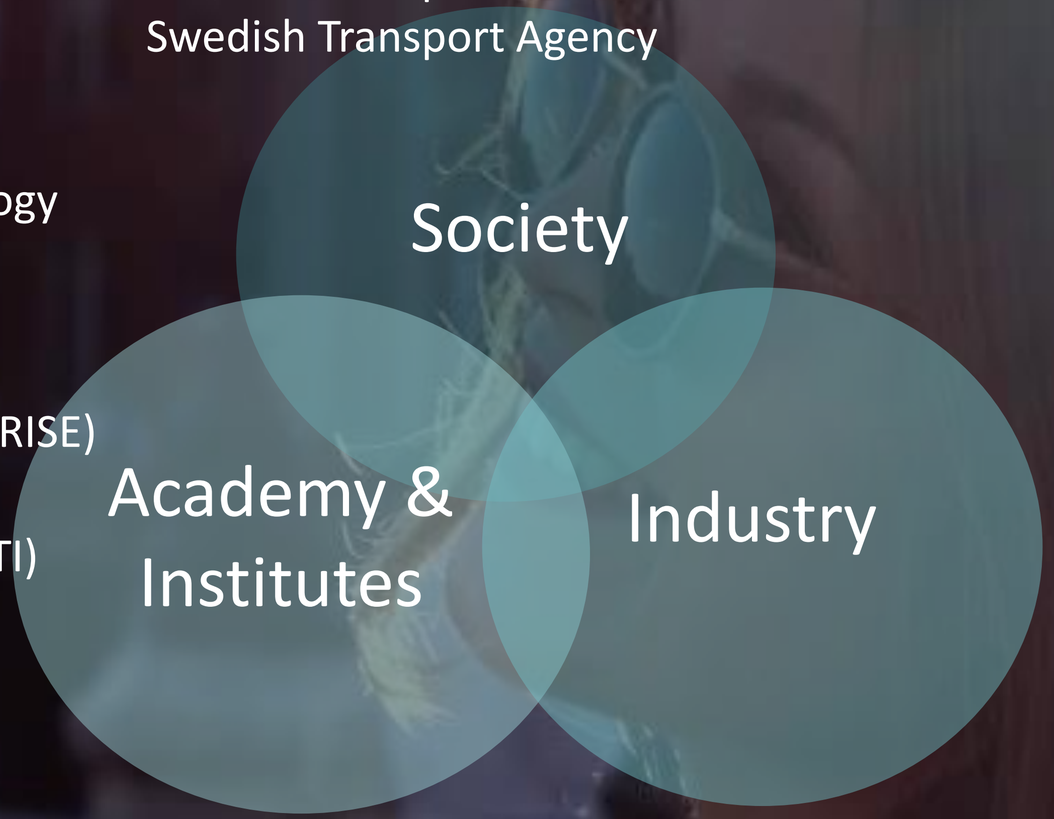
- Enhanced facilitation
- Introducing dynamic working groups
- Elevate utilization and increased system perspective

Partners

Together for safe mobility.

City of Gothenburg
NTF Väst
Swedish Transport Administration
Swedish Transport Agency

Chalmers Industriteknik
Chalmers University of Technology
Halmstad University
Jönköping University
Linköping University
Research Institutes of Sweden (RISE)
Swedish National Road and Transport Research Institute (VTI)
University of Gothenburg
University of Lund
University of Skövde



Aptiv
Axkid
ASTUS
Asymptotic
Autoliv
BETA CAE
CEVT
Combitech
Consenz
Cycleurope
DuWill
Einride
Folksam
Guidance to Zero
If Insurance

Magna Sweden
Malmeken
Movens Research
Pionate
Qualcomm
Qualisafe
Scania
Smart Eye
Strandroth Consulting
Svanberg & Svanberg
Univrses
Viscando
Volvo Car Corporation
Volvo Group
Zenseact

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

The value of SAFER

Our Value Proposition

UNIQUE NETWORK

SAFER, the premier traffic safety research platform, facilitates collaboration between key actors in Sweden, to build required knowledge, find innovative solutions for global road safety challenges and strengthen the competitiveness.

JOINT RESOURCES

Within SAFER, you have access to forums where knowledge is shared, ideas are dissected, system-level challenges are addressed, tools and solutions are identified, and research alliances are established, with opportunities to access an extensive knowledge base, research assets as well as internal funding for idea exploration.

STRATEGIC INFLUENCE

Benefit from SAFER's 15+ year track record and credibility to reach out with scientifically based knowledge to relevant stakeholders, including key financiers and decision makers both nationally and internationally, unlocking strategic advantages while making an impact on society.

VINNOVA
Sveriges innovationsmyndighet

ANNA NILSSON-EHLE

SAFER kick-off Expectations for stage 6

Vision 2006, 2012, 2016

Vision

SAFER provides excellent multi-disciplinary research and collaboration to eliminate fatalities and serious injuries, making Swedish society, academy and industry a world leader in vehicle and traffic safety.

Our Vision:
A road transport system safe for *all.*

Our Mission
We are bringing people together, conducting research and leveraging knowledge to enable safe sustainable mobility.

Cherish mission, identity, values and trust

- Be entrepreneurial
- Be brave and have an honest dialogue
- Take advantage of the Platform that SAFER offers
- Challenge assumptions and present practices
- Rethink your own role
- Contribute to the larger transport system
- Team up with the best
- Share the burdens as well as successes
- Have fun


THE GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
THE GLOBAL GOALS


thank
You

OUR COLLABORATIVE RESEARCH AGENDA

Our Impact Areas

Human body and mind

Safety performance evaluation

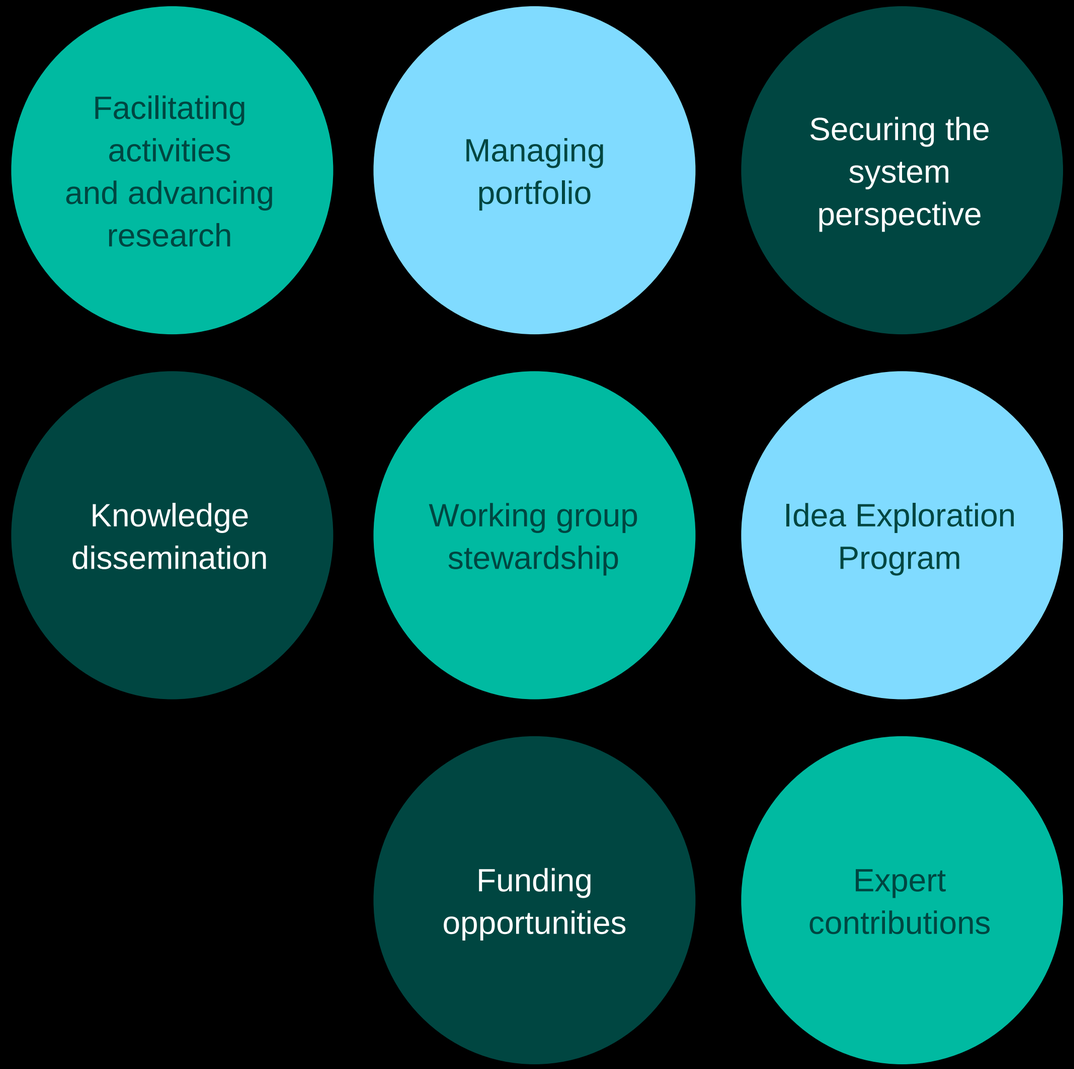
Safety principles

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER'S Research Council

Leading SAFER's scientific journey

The SAFER Research Council unites our Impact area leaders, director, communication expertise, project coordinator, and working group leaders.



SAFER’S Research Council

Leading SAFER's scientific journey

Partner	Person	Primary Impact Area
Autoliv	Nils Lübbe	Human Body & Mind
Chalmers	Jonas Bärgman	Safety Performance Evaluation
Lund University	Carmelo D'Agostino	Safety Performance Evaluation
RISE	Martin Sanfridson	Safety Principles
Trafikverket	Hanna Wennberg	Safety Performance Evaluation
VTI	Anna Sjörs Dahlman	Human Body & Mind
Volvo Cars	Mikael Ljung Aust	Human Body & Mind
Volvo Group	Katrin Sjöberg	Safety Principles

SAFER Operational Team

Magnus Granström
Malin Levin
Ines Heinig
Sophia Guerra Ekesand
Henrik Mindedal

Impact Area

Human Body and Mind

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

Human Body and Mind

Impact Area

Here we address our understanding of the human from the aspects of tolerance to mechanical loading and behaviour in traffic. The research activities typically focus on modelling of the human and studying the safety of interactions between road users and between the human and the vehicle in the mobility system.

Biomechanics & injury mechanics

Understanding and use of technology

Beaviour change

Driver monitoring and support

In-crash protection

Post-crash support systems

Human behaviour modeling

Human body modeling

Human Body and Mind

Keeping the human at the centre:

- Safe travels, door-to-door, regardless of the mode of transport.
- How to modify behaviours and positions towards a safer system.
- Monitor driver state and position, and fitness to drive.
- A major challenge here is the large differences between individuals
- Increasing need to consider different levels of automated driving

Road user behaviour aspects.

Protecting the human body.

Improving post-crash responses

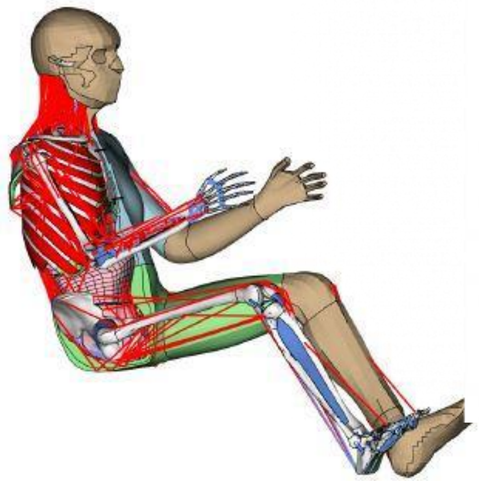
Human Body and Mind

How SAFER contributes – our tools and assets

- Within SAFER, we have a broad range of expertise that fits within this impact area. This represents a traditional and continuing strength with a unique blend of partners and competences.
- Already through existing research, SAFER is building expertise in assessing driver state and readiness to respond, postural preferences, representation of various human tolerance, amongst other topics related to the human.
- By bringing different domains together we can represent humans more completely in our safe system approach.
- Likely, there will remain some working group division into biomechanical and behavioural perspectives but SAFER can support and encourage strong links between disciplines where needed.
- Human body and mind research at SAFER is rich with resources to support our studies. Examples of the many environments available at SAFER are settings in the laboratory, proving ground, vehicle and bike simulators, finite element simulations, and even ergonomics simulations. The human models and particularly the SAFER Human Body Model are tools that we can use proudly to study potential to protect road users in crashes.

Human Body and Mind

Example of ongoing research at SAFER partners

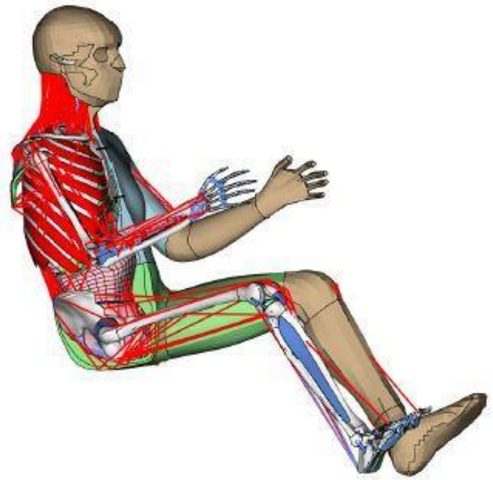


HUMAN BODY MODELS

- Further development of the SAFER Human Body Model (HBM)
- Updated SAFER HBM validated for prediction of motorcycle rider kinematics in the most common crashes.
- Virtual human models – develop methodology for advanced vehicle ergonomics analyses within simulation tools.
- Accurate posture prediction models & improved virtual human models -> input for human body models used in crash analyses.

Human Body and Mind

Example of ongoing project



GLOBAL SAFER HBM

- Taking SAFER HBM to the global arena; focusing the cervical and thoracic spine
- Make SAFER HBM a biofidelic, robust, competent, and attractive tool for the project partners' needs, also including being available to the community.
- Further improve the model, with special attention on spinal kinematics and injury risk prediction, and to enable global use of the model by preparing it for Free-Access.
- Capabilities to model the combined pre-crash and in-crash occupant response including muscle activation which is crucial for instance for prediction of cervical spine injuries.

Financier(s)
VINNOVA/ FFI

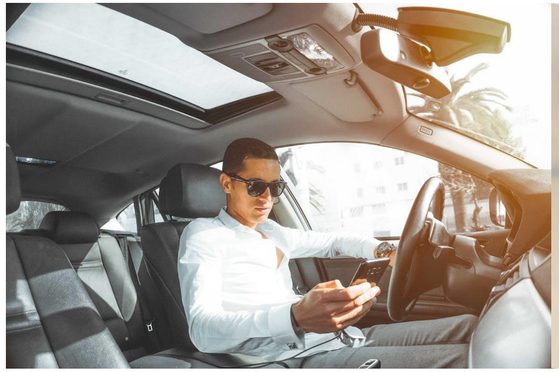
Partners
Autoliv
Chalmers
Sahlgrenska
VCC

Human Body and Mind

Example of ongoing research at SAFER partners

ENHANCED DRIVER SUPPORT AND DRIVER MONITORING

- Improve both functionality and usability of Advanced Driver Assistance Systems (ADAS)
- Occupant monitoring – state and position
- Detect and counteract driver impairments (alcohol, fatigue, distraction, sickness etc.)
- Personalization



Human Body and Mind

Example of ongoing project

ENHANCED ADAS II

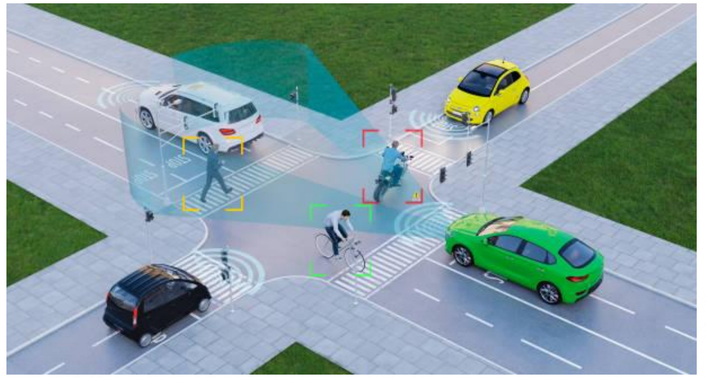
- ADAS are developed to make it safer, more efficient and comfortable to travel by car.
- For ADAS to work well, it is important that the systems are developed from a driver perspective
- A better user experience -> more frequent use of the systems
- The project intends to improve both functionality and usability in ADAS
  - customization in user interfaces
  - multimodal interfaces
  - innovative solutions for ADAS

Financier(s)
VINNOVA/ FFI

Partners
Aptiv
RISE
Smart Eye

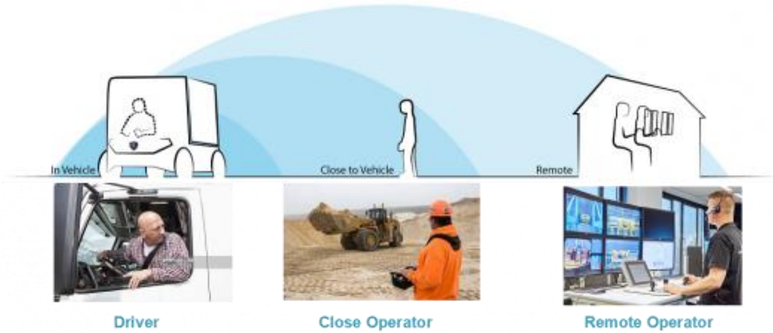
Human Body and Mind

Example of ongoing research at SAFER partners



Interactions between humans and automated vehicles

- Investigate and analyze new risks with automation from a human factors perspective.
- Remote operation of vehicles
- Communicating awareness and intent with external HMI
- Safety culture and automated vehicles - explore existing practice and knowledge of safety culture, and to identify methods to support safe introduction of automation.



Human Body and Mind

Example of ongoing research at SAFER partners

MAKING CYCLING SAFER AND MORE ATTRACTIVE

- Making rural roads more attractive for active travel
- Identify barriers to rural cycling
- Study takeover situations
- Overview of car-to-pedestrian and car-to-cyclist crash situation in Sweden.
- Development and improvement of portable sensors for logging data
- Bicycle simulator development
  - Built a prototype of a new type of bicycle simulator.
  - Focus on keeping a realistic bicycling experience.

Human Body and Mind

Expected outcome

As well as organic developments in each domain, dedicated tasks may well be necessary to form bridges between knowledge centres. For example, pre-crash behavioural choices and in-crash protection could be a focus where SAFER offers a place to collaborate across human body and mind. Not only do we need to be able to monitor driver state and position during a whole trip, but we will also need to come together and decide how to use that information to better protect against injuries and prevent crashes. Indeed, concentrated tasks may be needed so as to capture best practice principles coming from our collective research

- More sophisticated models of the human that represents our variability.
- A better understanding of how we can support road users to take safe decisions and actions.
- Safer interactions between humans and automated vehicles.
- More efficient post-crash care and rescue.

Impact Area

Safety performance evaluation

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

Safety Performance Evaluation

Impact area

What we aim to…

In the impact area Safety Performance Evaluation, our research is dedicated to advancing vehicles, infrastructure and everything connected to traffic safety through innovative analysis techniques.

The mission

Our mission is clear: to be ready for the transport system of tomorrow and shape it to be safe for everyone

Safety Performance Evaluation

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Safety Performance Evaluation

Impact area

How?

We want to deeply understand the world, to develop models that are transparent, scalable, and sustainable, all grounded in real-world data and assessment methods.

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Safety Performance Evaluation

Impact area

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Some of the challenges…

- Be ready to analyze and create added value from the new data from vehicles and infrastructures
- Measure road safety of the actual transport system and forecast the future settings in a reliable way
- Use new technology in the safety evaluation, including simulation at different levels
- Use the principles of Vision Zero in the safety performance evaluation

Safety Performance Evaluation

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Safety Performance Evaluation

In Haiku…

Roads weave tales of design's grace,

Safety steers the ride,

Safe paths, progress toward.

Safety principles

Impact Area

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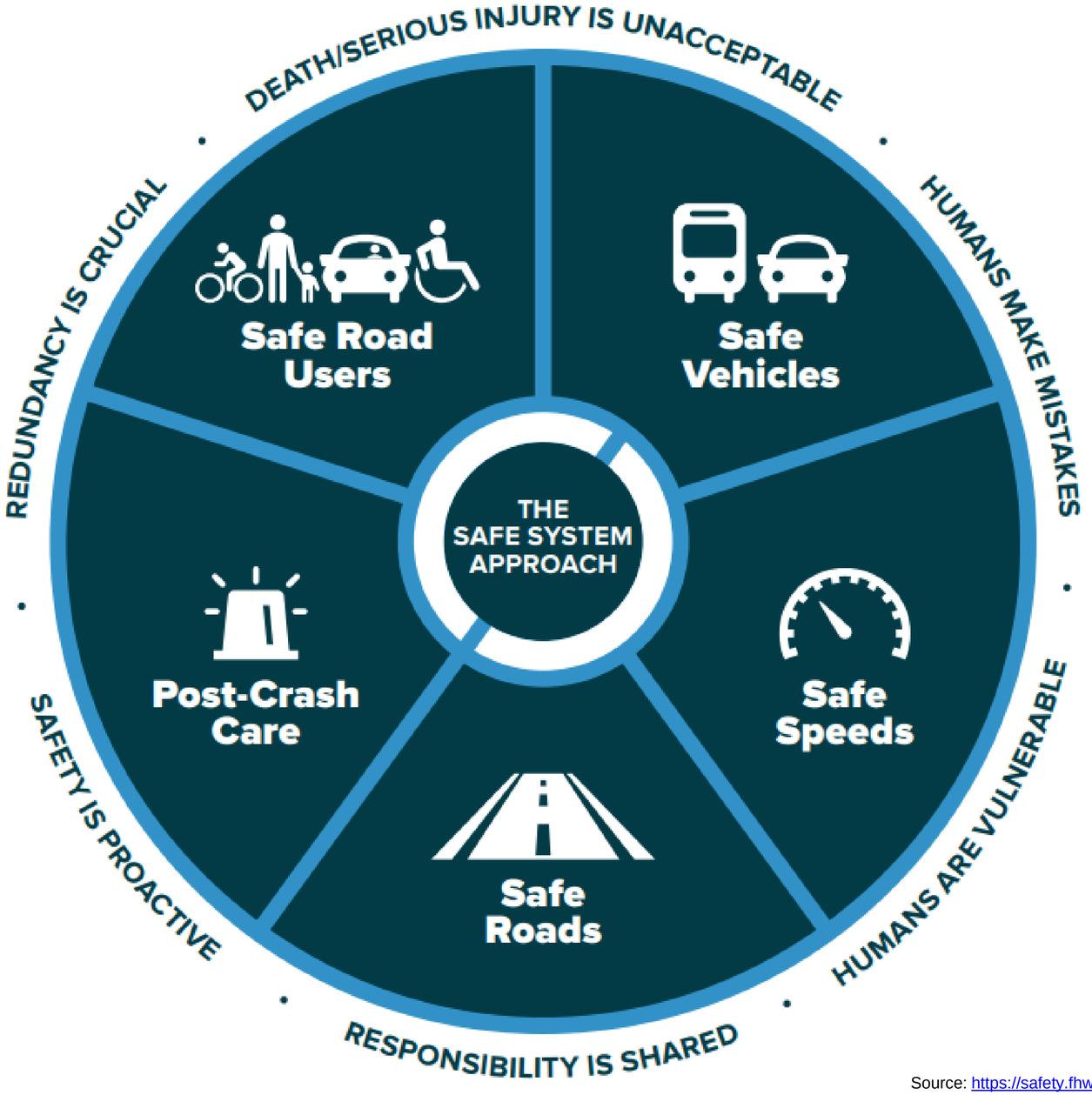
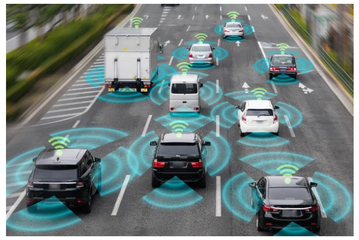


Source: https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

Impact area: Safety principles

- Automated vehicles
- Advanced driver assistance systems (ADAS)
- Sensors
  - Radar, camera, lidar, connectivity
- Functional safety
- Interactions and ecosystem
  - Infrastructure
  - Digital technologies



Welcome to Safety Principles!

Feed in needs and generate knowledge!

NAVIGATING SAFER'S FACILITATION PROCESS

How you use and benefit from the SAFER collaboration platform in practice

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SAFER’s faciliation process

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GATHERS NEEDS, FORMS CONSTELLATIONS, AND FACILITATES CO-CREATION

Catalyse research, projects and knowledge building

HOSTS A PROJECT PORTFOLIO OF HIGH SCIENTIFIC QUALITY

Knowledge

Data

Models

Methods

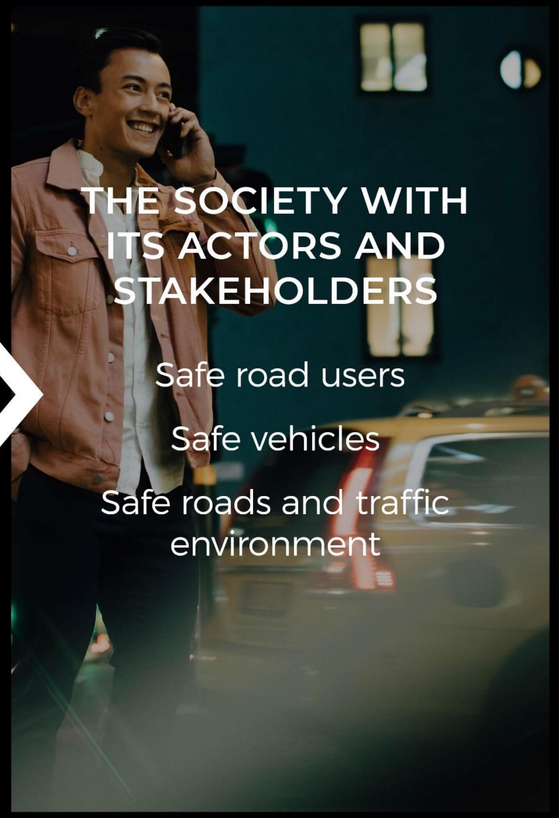
Demonstrators

PROVIDES DISSEMINATION, SCIENCE OUTREACH AND UTILIZATION

Influence

Convey

Spread



THE SOCIETY WITH ITS ACTORS AND STAKEHOLDERS

Safe road users

Safe vehicles

Safe roads and traffic environment

Step 1!

Feed in your need –

only one click away!

I need a data-set from Africa in my research project, please help me!

We need a financier to this project – where can we go?

Who can I talk to regarding driver state monitoring?

Which safety performance indicators are suitable for a certain use case?

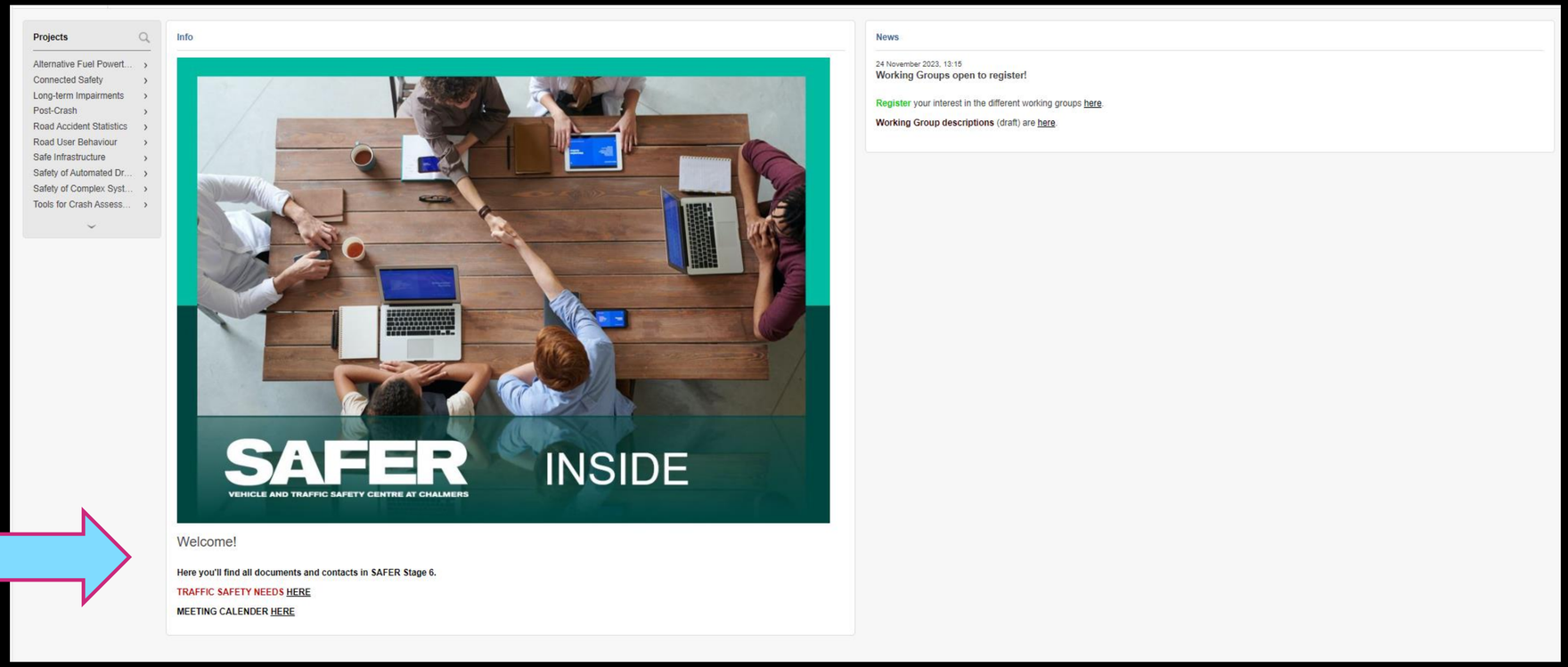
How can AI be used to support decision making in traffic safety?

How do we create a positive safety culture – based on science?

What about state-of-the-art in digital infrastructure for safe walking?

SAFER Inside

Our digital collaboration tool



You will be invited to the tool very soon!

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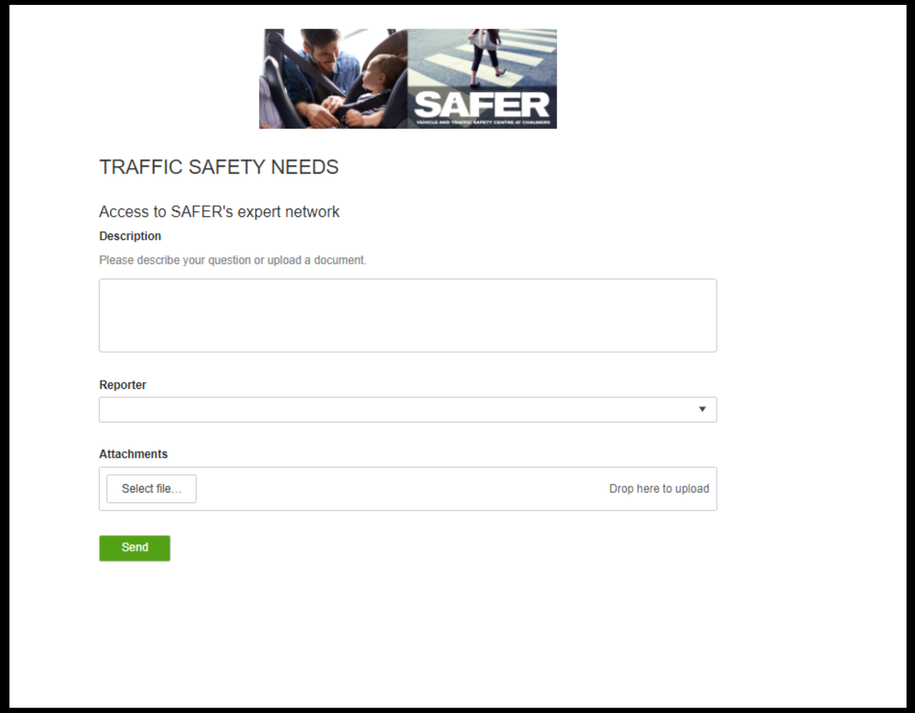
SAFER Inside

Welcome with your research needs here!



SAFER’s tool box for faciliation

- Arranging a knowledge-building **seminar**
- **Roundtable** dialogue to find state-of-the-art solutions
- Workshops for **project creation**
- Initiating new **Working Groups**
- Invite **external** experts
- Gaining insights through **meetings with experts** within the platform
- Utilizing existing knowledge in SAFER's **knowledge bank**
- Support during the **project application** phase
- Leveraging the SAFER **Idea exploration program**
- Organizing **study tours** to partners or other sources of knowledge
- Addressing matters within different parts of the **ecosystem**
- Conducting **demonstrations**, e.g., utilizing a Connected Research Resource

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

GATHERS NEEDS, FORMS CONSTELLATIONS, AND FACILITATES CO-CREATION

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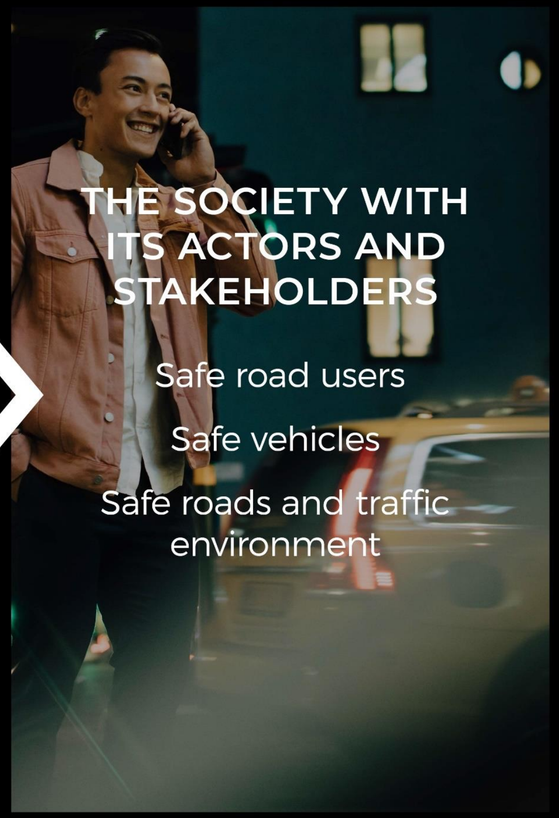


THE SOCIETY WITH ITS ACTORS AND STAKEHOLDERS

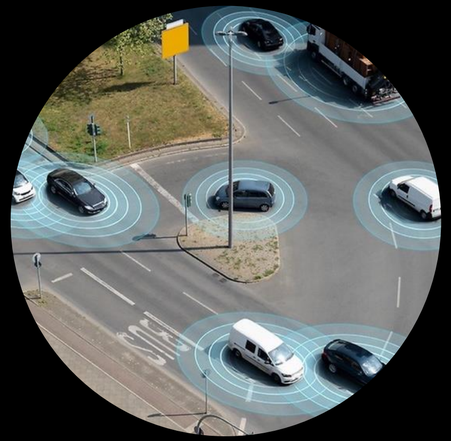
Safe road users

Safe vehicles

Safe roads and traffic environment

SAFER’s project portfolio

- Hub for excellent, cutting-edge research
- Provides access to multidisciplinary scientific competence
- Close to 500 projects and about 1200 publications over the years
- Offers guidance, support and a quality stamp for associated projects



Why connect your project to SAFER?

Being part of the project portfolio is an opportunity for dissemination and added value for you!

- Spreading knowledge and utilization
- Expert participants in project activities
- Address new research questions
- Visibility on website and social media
- Transfer results from publications
- Gain insights from the network

Advantages for SAFER

- Contribute to our joint vision.
- Gather world-leading research under one umbrella.
- Showcase collaboration opportunities for future funding and partnerships.
- Identify knowledge gaps.

SAFER

VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

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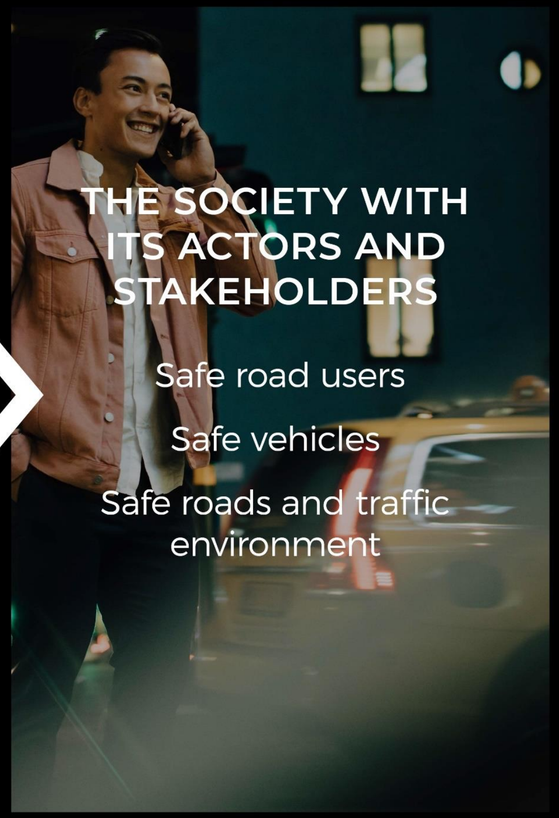


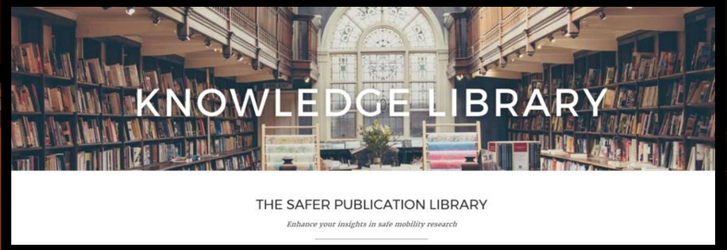
THE SOCIETY WITH ITS ACTORS AND STAKEHOLDERS

Safe road users

Safe vehicles

Safe roads and traffic environment

Dissemination and science outreach



Example of activities:

- Seminars and webinars
- SAFER Result days
- SAFER Research days
- Hosting conferences
- Workshops
- Newsletters
- SAFER Update
- Podcast
- Social media (LinkedIN)

Influence:

- Reach stakeholders
- Help ensure funding
- Use in society

SAFER’s faciliation process

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

GATHERS NEEDS, FORMS CONSTELLATIONS, AND FACILITATES CO-CREATION

Catalyse research, projects and knowledge building

HOSTS A PROJECT PORTFOLIO OF HIGH SCIENTIFIC QUALITY

Knowledge

Data

Models

Methods

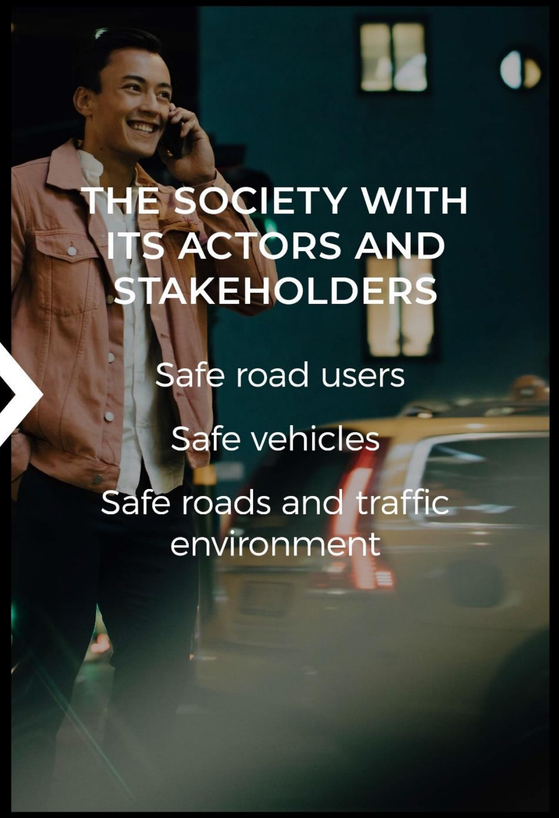
Demonstrators

PROVIDES DISSEMINATION, SCIENCE OUTREACH AND UTILIZATION

Influence

Convey

Spread



THE SOCIETY WITH ITS ACTORS AND STAKEHOLDERS

Safe road users

Safe vehicles

Safe roads and traffic environment

Maria Krafft

Traffic safety director,
The Swedish transport administration

Global outcome...

- 9 of 10 deaths occur in low- and middle-income countries
- four-wheel pedestrian cyclists P2W/P3W Others





Global	30%	23%	6%	21%	21%
Europe	49%	19%	9%	16%	7%

Forecast to year 2030 and 2050 compared to year 2020

1% annual traffic growth until 2030

	2030	2050
Safer vehicles (legal requirements, EuroNCAP, exchange of fleet)	-15%	- 50%
Safer vehicles + Speed compliance	- 30% (80% compliance)	- 65% (100% compliance)
Safer vehicles + Speed compliance + infrastructure actions*	- 40%	- 85%

*ex midseparated roads app 150 km/ year , 90 to 80 if not midseparated, side safety zones, rumble strips, separeting pedestrians and bicyclists.

Society perspective – main research focus

- The safe and sustainable city
- The safe workplace
- The vehicle that works all year round

The Safe and Sustainable City

Examples

- 30 km/h speed limits in cities
- Geofencing
- Safe cycling, walking and micromobility
- Develop more effective AEB (Autonomous Emergency Braking) for vulnearable road users

The safe workplace

Examples

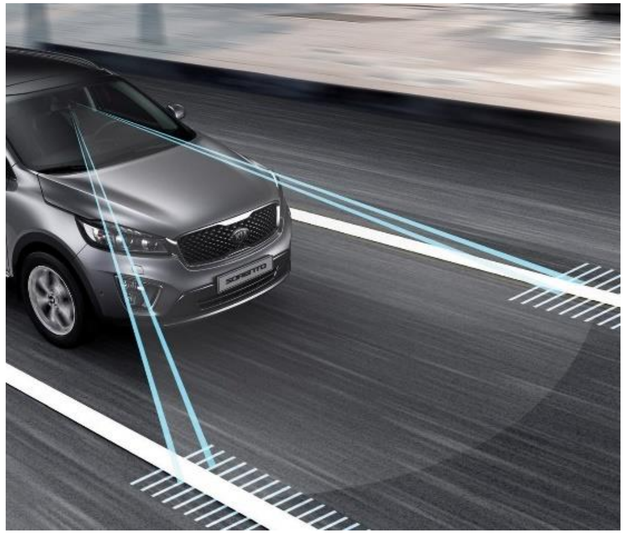
- Systematic road safety actions integrated in occupational health and safety work.
- How to handle GDPR and new technology
- Active and passive protection systems integrated in heavy vehicles

TRAFIKVERKET

The vehicle that works year round

Examples

- Systems for lateral positioning that works for different weather conditions
- V2V - positioning of vehicles in relation to each other and the road
- AEB systems that work in slippery weather



Maximising impact through SAFER's Working Groups

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER’s Working Groups

Main forum for idea generation and project development

Open for all partners to contribute to and learn from

Flexible in terms of time span and frequency.

Focused discussions on research and innovation themes

The teams!

To engage in at the start of SAFER Stage 6

- Alternative fuel powertrain safety
- Connected safety
- Long-term impairments from injuries in traffic environment
- Post crash *(run by PICTA)*
- Road accident statistics
- Road user behaviour
- Safe infrastructure
- Safety of automated driving systems
- Safety of complex systems and emerging technologies
- To identify and improve your companies’ work within traffic safety

Engage in the groups!

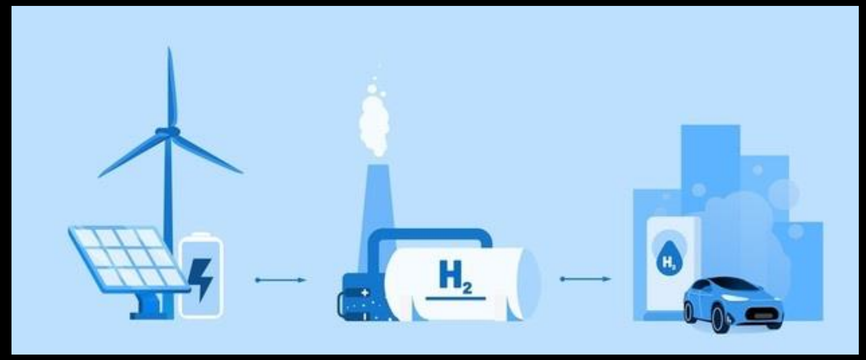
Welcome to sign up to the working groups aligned with the knowledge that you and your organisation wish to build through SAFER!

Do you have an idea for a working group? Contact the operational team!

MEET OUR WORKING GROUP LEADERS!

Short presentations about the needs to be addressed and expected outcomes

Alternative fuel powertrain safety



Examples of relevant topics

- Accident research
- Standardization and Legislation
- Learning from other domains
- Firefighting
- Organisational aspects
- Post-accident procedures

Proposed deliverables 2024:

- Identify at least one project area suitable for a pre-study or project application.
- Arrange at least one workshop/seminar jointly with the Swedish Electromobility Centre.

Planning for a first meeting second half of February

WG: Connected safety

- Connected safety is about sharing data to increase safety
  - For example cooperative intelligent transport systems (C-ITS), safety-related traffic information (SRTI), emergency call, Euro NCAP initiative etc.
- Challenges: data quality, trust and cybersecurity, digital infrastructure, etc.
- Goal: increase awareness about how connectivity can bolster safety and inspire to initiate further activities among the SAFER partners
- How: WG will kickoff with seminar series introducing the topic, invite speakers, and then we see where this takes us :)
- SAFER is the perfect platform for elaborating on connected safety, which requires involvement from both public and private entities as well as universities and research institutes

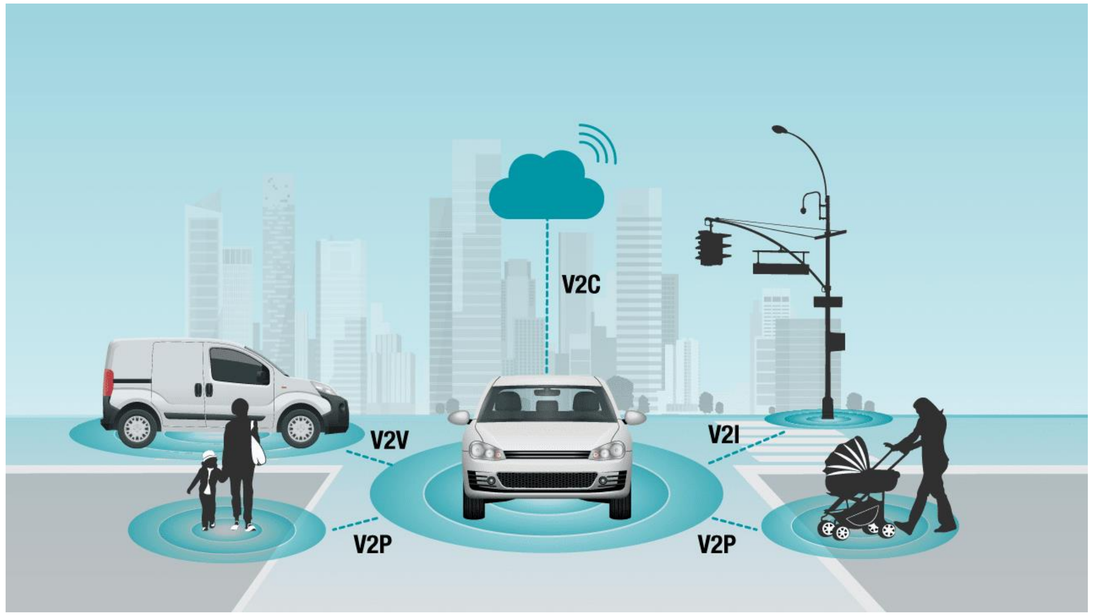


Image source: https://www.ti.com/document-viewer/lit/html/SSZT418

LONG-TERM IMPAIRMENTS FROM INJURIES IN TRAFFIC ENVIRONMENT

Challenges:
Understand the patterns and prediction of needs for non-life-threatening injuries with long-term impairment
How are persons affected in long-term by injuries acquired in traffic environment?
How to address reduction of the injuries and impairments of most importance to survivors?
Protection against injuries
Biomechanics / Injury mechanisms / Prediction of injuries
Principles for protection

Expected outcomes and deliverables
3-4 Seminars/workshops in 1 year – a start…
WG selecting tasks of importance

Inspire multiprofessional and multidisciplinary collaboration – what do we need to know and do?
Learn with survivors, rehabilitation professionals

Tools and other assets

- Patient organizations
- Medical rehabilitation
- Access to vehicle and pedestrian simulators through SAFER partners
- Human models, the SAFER Human Body Model (HBM)
- Databases (STRADA, and others)

Working Group Leader

Sara Kallin
Jönköping University

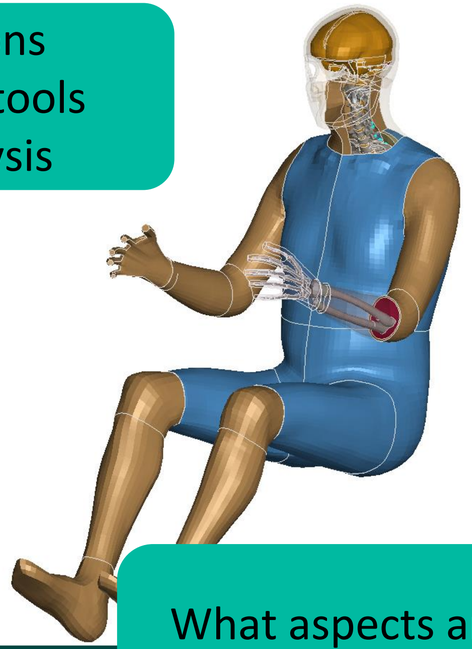
LONG-TERM IMPAIRMENTS FROM INJURIES IN TRAFFIC ENVIRONMENT

Ideas for themes:

Sources of information, data

Survivors Perspectives

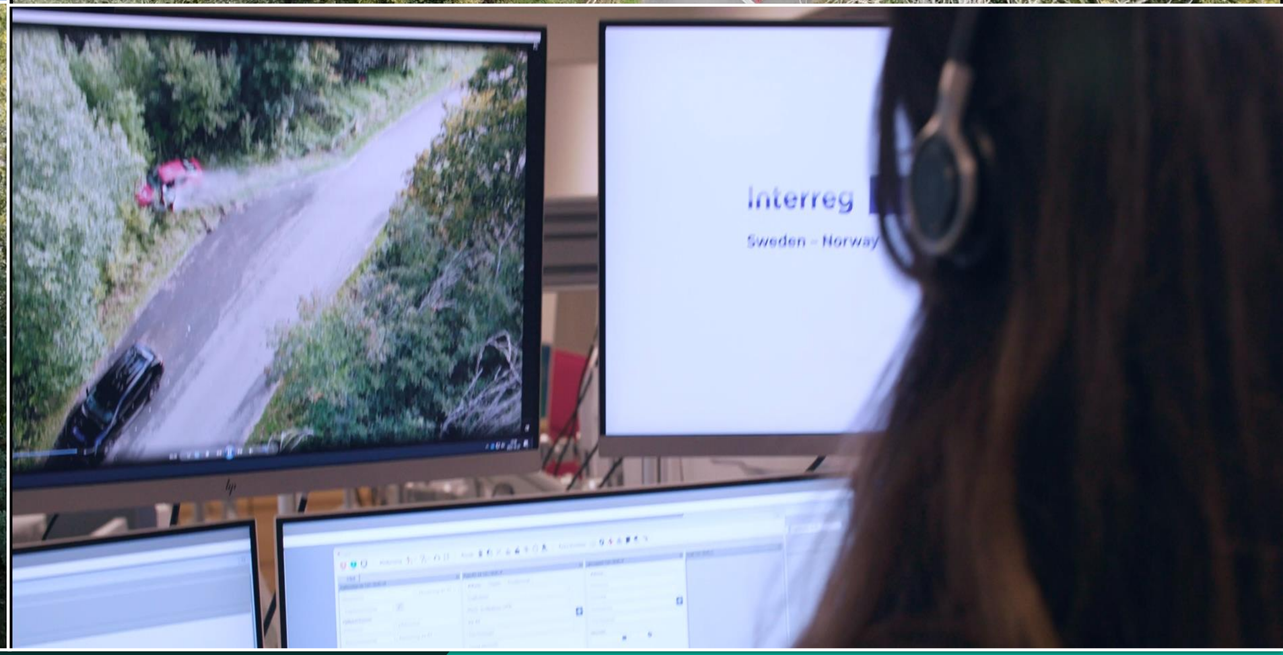
Simulations
Prediction tools
Risk analysis



What aspects are important?

Generate more collaboration and understanding

Post-crash research group



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PICTA

Road Accident Statistics

Working Group, Anna Theander

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The challenge

- Every year about 1.2 million people are killed in road traffic accidents worldwide. More than half of them is among vulnerable road users: pedestrians, cyclists, moped and motorcycle riders.

- Road traffic injuries are the leading cause of death for children and young adults aged 5–29 years.

- By understanding how and why traffic accidents occur, traffic safety improvements can be identified, and injuries reduced.

What can be answered?

By using traffic accident data, many questions can be answered:

- What type of accidents happen on our roads and what road users are involved?
- How frequent do they occur?
- Do we have the right countermeasures in place (vehicle, infrastructure, behavior etc.) to reach the target for 2030 and Vision Zero?

What do I gain as a partner?

- The working group will develop and educate *methodology* for working with accident statistics and accident databases.
- It expand partners *knowledge* in the field of accidentology and engage in reducing road fatalities.
- Free from competition, advantages building knowledge together.
- Origin from the previous Reference Group SPE, area was identified as important to continue joint research on.

Expected outcome

- Initiate *research project* e.g., to understand effectiveness of existing and hypothetical safety features using in-depth accident. Do we reach the target for 2030 and Vision Zero?

- Identify gaps and new type of accident database needs (e.g. update of STRADA database).

- The working group jointly defines desired deliverables depending on interest (welcome with your thoughts and input).

Partners registered so far

CHALMERS

if...

VOLVO

RI. SE

vti

VOLVO

Folksam

ASTUS

TRANSPORT STYRELSEN

SCANIA

JÖNKÖPING UNIVERSITY

AXKID

MAGNA

LUND UNIVERSITY

G2Z

GUIDANCE TO ZERO

Working Group

Road User Behaviour

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Traffic safety depends largely on the behaviour of the humans in the transport system. Safe behaviour is not limited to ensuring road users follow rules and regulations, it is also about supporting humans in and outside of vehicles to make safe decisions and actions.

Road User Behaviour (RUB)

Road User Behaviour has been a research area at SAFER since 2017. RUB was previously a reference group and will now continue as a Working Group.

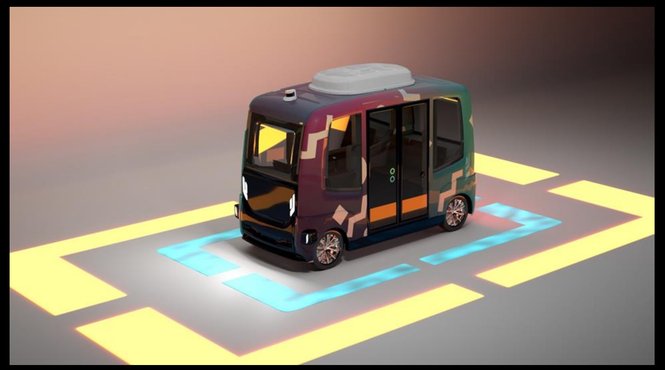
Topics include but are not limited to:

- Interactions between (automated) vehicles and humans in and outside of the vehicle (HMI design, handover situations, remote operation, personalization etc).
- Human factors aspects of the technology developed to support the human (e.g., ADAS, DMS).
- How to support understanding and correct use of vehicles, infrastructure and new technology, including new mobility solutions.
- Development of tools and models to monitor and predict road user behviour (e.g., VRU intentions).
- Monitoring of and countermeasures for driver impairments, including fatigue, distraction, drug/alcohol use, illness.
- Adaptation of safety systems and emergency actions based on driver state.
- Long-term and short-term behaviour change.

Examples of RUB research

How can we increase active mobility?

Design of internal/external HMI



Can we detect driver impairments?

Expected outcome - RUB

The main purpose of the group is to create a meeting point for researchers from different disciplines where you can discuss current challenges. The expected outcome is therefore:

- Knowledge sharing among partners
- Maintaining a strong network around road user behaviour
- Collaborative project proposals
- Position papers or other joint publications

Safe Infrastructure

Working Group

Why?

Infrastructure has not been high on the agenda for a while already.

The transport system is changing, we are facing new challenges while we have not fully succeeded in the old ones.

Infrastructure is one of the components of the transport system, and part of the Safe System principals.

(Some of) the challenges...

- The classical infrastructure safety analysis is reactive by nature. We should not wait for accidents to happen!
- The effects of the infrastructure in the safety of interaction of CAVs and conventional road users is unknown.
- European Commission has established an Expert Group on the DG Move on forgiving roads focusing on roadside.

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Safe Infrastructure

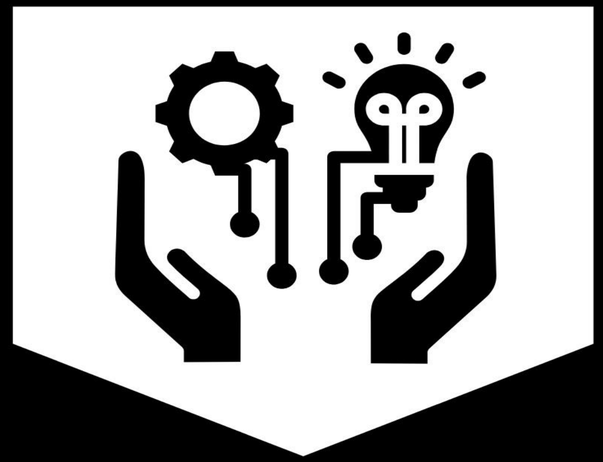
Working Group

Sometimes to safe lives you don’t need better algorithms but rather safer infrastructures.

Let’s work together!!

Safety of Complex Systems & Emerging Technology

WORKING GROUP



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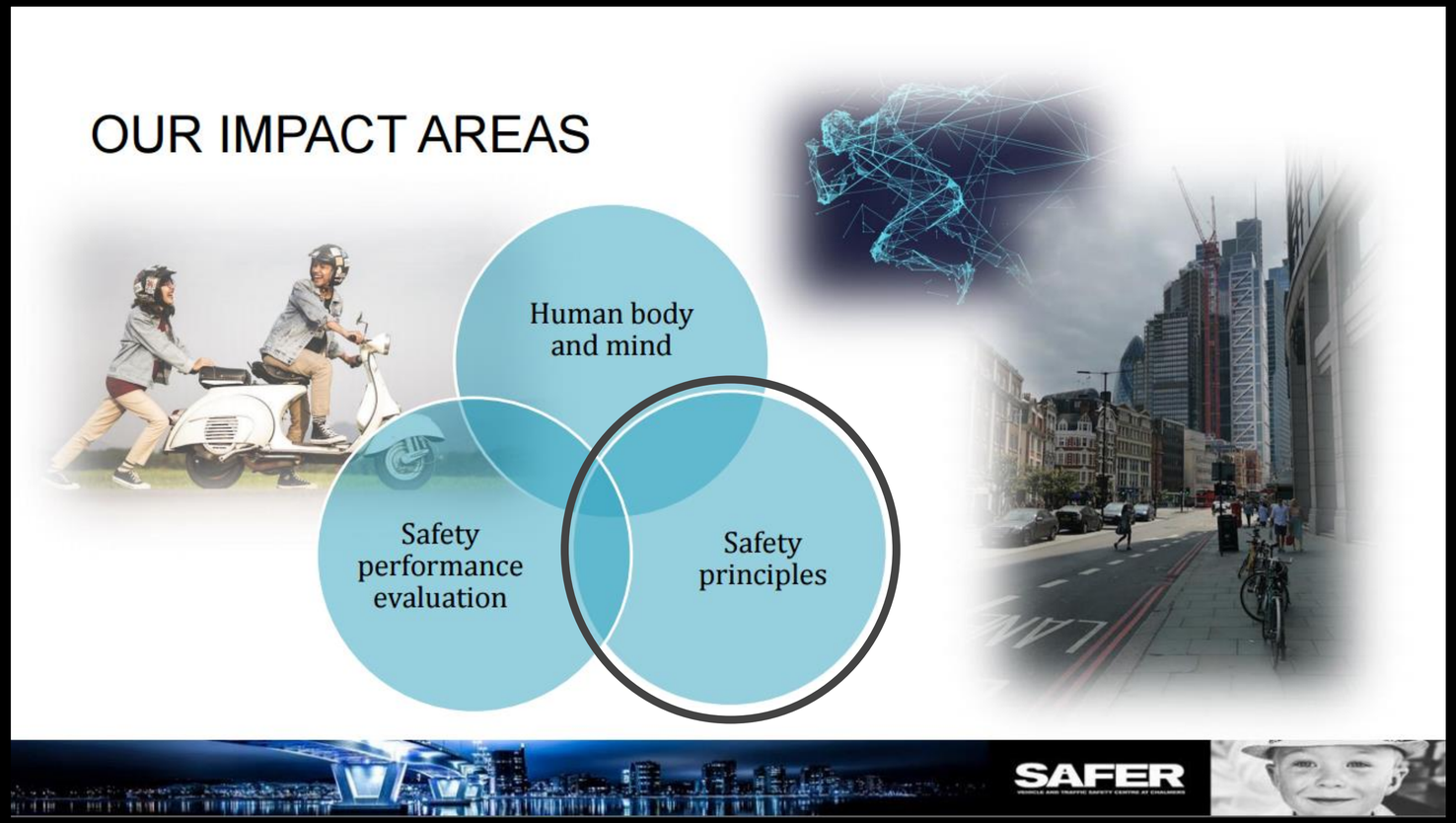
Belongs to Safety Principles impact area

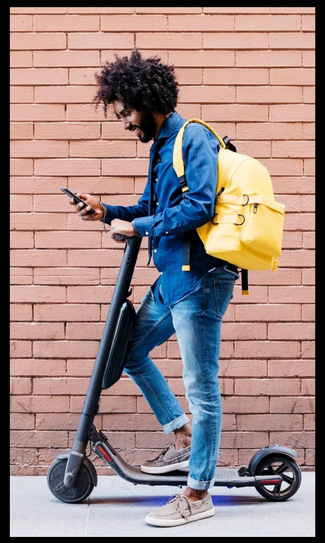
Safety of individual components

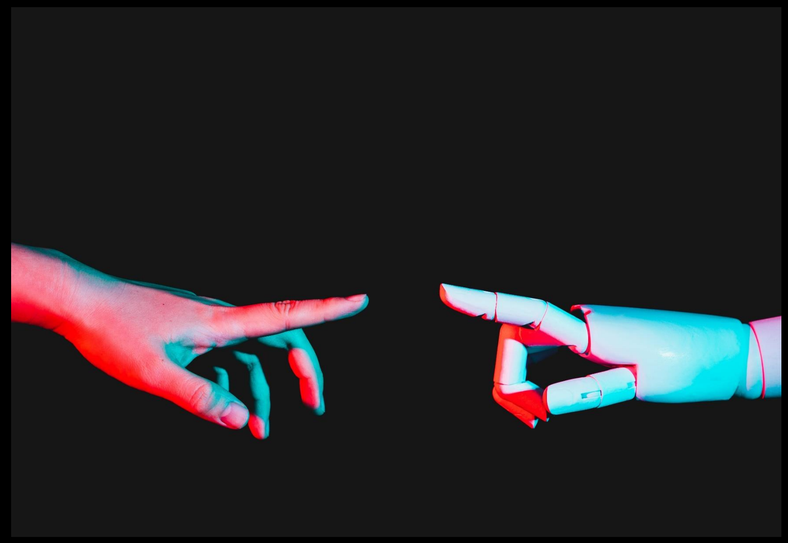
& interaction between them



Why ?

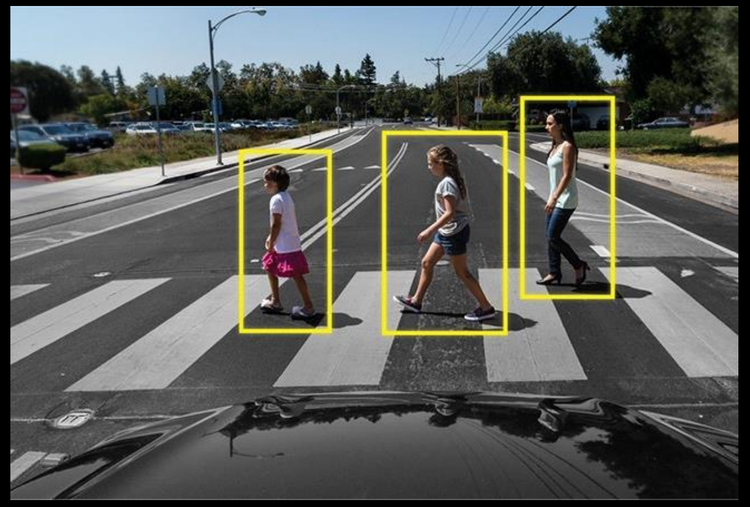
Road vehicles & their interactions are increasing in complexity





Why ?

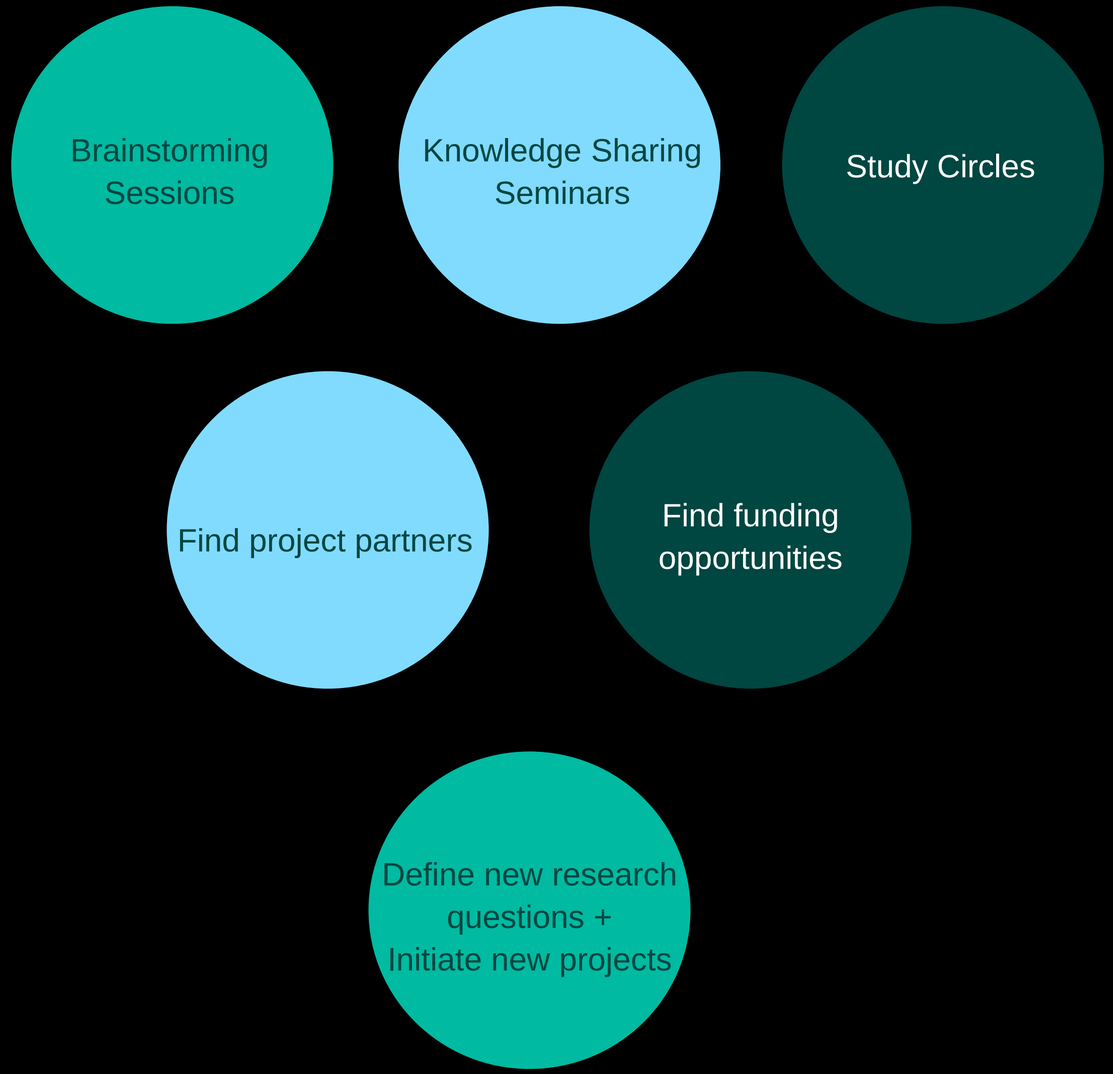
With new technologies arise new risks to safety



Our activities

Meet once / month

+ more frequently on specific topics



Examples of topics

- Safe HMI for driver interventions in automated vehicles
- Simulation-based safety assessments
- Safety culture & organisational resilience
- Standardization of safe HMI for vehicles
- Safe AI & interaction with human cognition
- Safe charging & energy storage for electromobility


Thanks for listening!

To identify and improve companies’ work within Traffic safety

Using a fictitious case

GUIDANCE TO ZERO

What?

Working group focusing on how companies can improve their safety footprint

G2Z
GUIDANCE TO ZERO

Why?

- 36% related to a work trip
- 52% related to procurement
- Private actors have an important role

- In order for companies to take their responsibility they need easy access to inspiration and information

G2Z
GUIDANCE TO ZERO

How?

Guide an imaginary company through the process on becoming aware of its safety footprint and finding the way to improve it.

In three workshops we will guide the participants through five steps, and together we'll find what this company will need in order to find and improve its Footprint. The steps are:

- Sphere of Influence
- Commitment and Plans
- Footprint
- Monitoring
- Safety Culture

G2Z
GUIDANCE TO ZERO

Outcome

Formulations, sample agreements and metrics that companies can use to take the next step.

- how to find the sphere of influence
- how to formulate corporate goals and intentions
- where to start identifying your footprint
- what demands to make on your business partners
- support in finding what to measure and how
- examples of good communication for a robust safety culture

G2Z
GUIDANCE TO ZERO

To identify and improve companies’ work within Traffic safety

Kontakt
Sanna Eveby
COO, Traffic Safety Expert

Guidance to Zero AB
sanna@guidancetozero.com
+46 722 12 22 32

GUIDANCE TO ZERO

Welcome to join the working group for

Safety of automated driving systems

Lead by Fredrik Sandblom, Zenseact

WELCOME TO SIGN UP TO THE GROUPS!

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

IDEA EXPLORATION PROGRAM

STAGE 6 / 2024

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER'S IDEA EXPLORATION PROGRAM

SUMMARY

PURPOSE

Stimulate project generation and maximize benefits of our multi-disciplinary platform

FUNDING

Max 100 kSEK (min 50% in-kind required)

ELIGIBILITY

All SAFER partners

REQUIREMENTS

Collaborative project that involves several partners

Contribution to SAFER, SAFER's vision and strategic research focus

FUNDED PRE-STUDIES on SAFER's website

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER'S IDEA EXPLORATION PROGRAM

Idea	Submission	Formal Review	Scientific Review + Q&A session	Decision	Communication
Researcher	Project Leader	Operational Team	Research Council	Board	Operational Team

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VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

SAFER'S IDEA EXPLORATION PROGRAM

Opens February 1st!

CALL #1 2024

- March 3 Submission Deadline
- March 14 Scientific Review
- March 26 Board Decision

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

TRAFFIC SAFETY CALLS

List of funding opportunities available on SAFER Inside

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

CALLS WITHIN TRAFFIC SAFETY

CALL	Funder	Deadline	Country	What can you apply for?	Who can apply?	How much can you apply for?	Comment	Funder's Website
Future Mobility – innovation collaborations between Sweden and the USA	Vinnova	**Second round: Sept 20 2023 14:00** **Third round: Nov 30 2023 14:00**	Sweden	Smaller innovation, test or demonstration projects where bilateral cooperation is the focus with a maximum project time of 18 months.	Actors in the mobility and transport sector. Project must have at least one party in Sweden and one in the USA. The project coordinator must have a place of business in Sweden.	Maximum funding SEK 1 million per project.	The call for proposals opens on March 14 and is open until November 30, 2023. Three application rounds are conducted. Each round closes at 14:00 on the specified date.	https://www.vinnova.se/en/calls-for-proposals/future-mobility/future-mobility--innovation-2023-00433/
Länsförsäkringars Forskningsfond	Länsförsäkring	**Jan 12 2024 12:00**	Sweden	Med denna öppna utlysning vill Länsförsäkringars Forskningsfond ha forskarsamhällets hjälp att identifiera de frågor som Länsförsäkringar borde beforska för att vara relevant marknads- och samhällsaktör.	Vi söker disputerade forskare som vill utforska särskilt relevanta områden för en organisation som Länsförsäkringar. Syftet är att säkra verksamhetens framtidsrelevans.	Projektbudgeten bör inte överstiga en miljon kronor per år (inklusive direkta, övriga och indirekta kostnader). Maximal projekttid är tre år.	Steg 1 Sökande lämnar in en processkiss via blanketten på webbsidan senast den 12 januari 2024 kl 12:00.	https://www.lansforsakringar.se/stockholm/privat/om-oss/hallbarhet--forskning/forskning/utlysningar/oppen-utlysning/
Trafiksäker automatisering	FFI	**Mar 19 2024 14:00**	Sweden	Forsknings- och utvecklingsaktiviteter inom säkra automatiserade fordon, säkerhet för trafikanter, integration av fordon och infrastruktur för säkra transportlösningar eller möjliggörande metoder och tekniker med tillämpning för säker automation.	Forskningsorganisationer, företag, offentliga och ideella organisationer. Samtliga projekt ska bestå av minst 2 parter.	Vinnova beviljar bidrag om max 50 procent för delprogrammet. Projekt ska ha minst 25 procent näringslivsfinansiering. Maxbelopp för förstudier och mindre studier är 500 000 kronor. Totalt budget ca 45	Öppet	https://www.vinnova.se/e/trafiksaker-automatisering-ffi/trafiksaker-automatisering-ffi-varen-2024/

Welcome to our new concept!

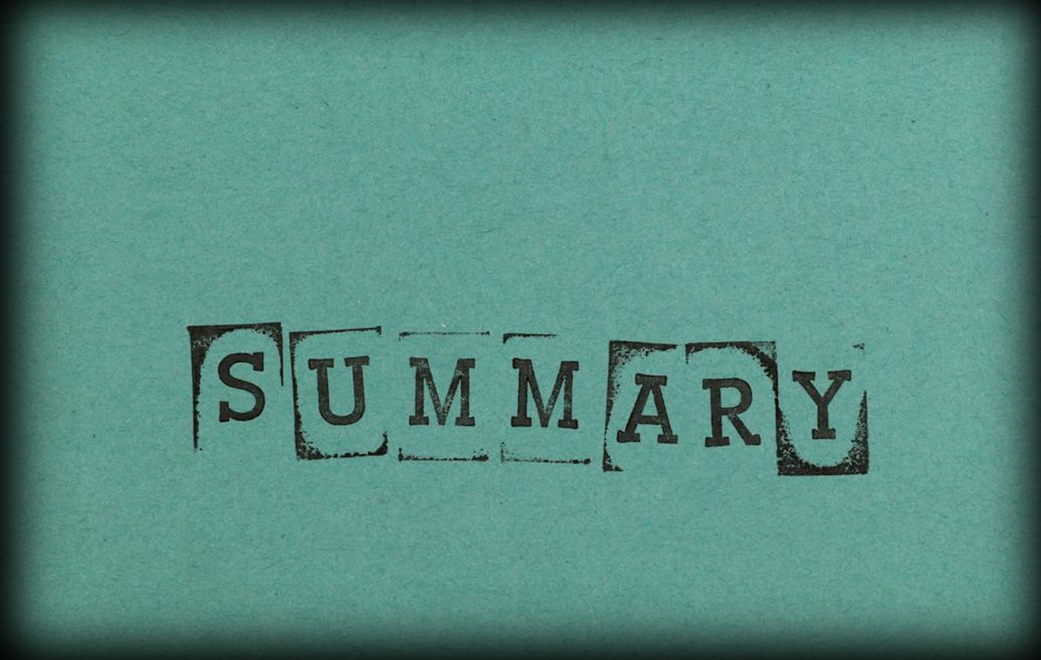
SAFER'S Research days

- Normally a half day meeting in mini-conference format, open for all to participate in – boosting the network.
- We plan for about four meetings per year – will evaluate the outcome and adapt if necessary.
- Examples of activities:
  - Deep-dive discussions and workshops
  - Networking
  - Various themes linked to the Impact areas, requested by the partners
  - Inspiration (invite special guests to inspire our research)
  - Presentations from the working groups
  - Feedback from projects and bring in new ideas and needs
  - New projects
  - Funding opportunities

Save the date
April 24!

A summary!

- Engage in the working groups to build knowledge.
- Welcome to use SAFER’s facilitation support.
- Connect your projects to SAFER to add value and transfer research results and insights.
- Contribute to the network; it will pay off in the form of increased knowledge and improved traffic safety for *all*.



Traffic Safety Nexus:
A half-decade of traffic research insights

SAFER STAGE 5 FINAL EVENT

WELCOME
MARCH 8, 2024

What do you bring home from this meeting?

2 responses