



International Road Federation  
Fédération Routière Internationale  
Federación Internacional de Carreteras



# Road Mobility: Are we on the Brink of a new Era?

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Assisting **Public and Private**  
stakeholders in Roads & Mobility  
sector for the past **72 years**.

**3 Strategic Pillars of  
Activities:**

**Knowledge**

**Connections**

**Advocacy**



**Global, Independent,  
Not-for-Profit  
Organisation  
Established in 1948.**

**Based in Geneva, Switzerland.**  
**UN ECOSOC status since 1951.**

# Our Industry



- 700.000 Km of new roads built per year.
- 500 bn Euros/year for road construction and maintenance.
- 40.000 tons of materials are needed to build 1 km of highway.
- 18.5% of global carbon emissions come from road transportation.

# Challenges

- Rapid urbanisation.
- Growing demand for transport infrastructure.
- Increasing expectations from businesses, service users and the public.
- Need to reduce carbon emissions and waste.

**INNOVATION IS NO  
LONGER OPTIONAL**



Budget



Environment



Durability



Resources

# Digital Revolution

- Adopting and mainstreaming digitalization and new technologies will be a game-changer for the industry.
- AI, big data, cloud computing and analytics, BIM can solve the current infrastructure challenge and deliver a true circular economy.

The benefits of digitalization:

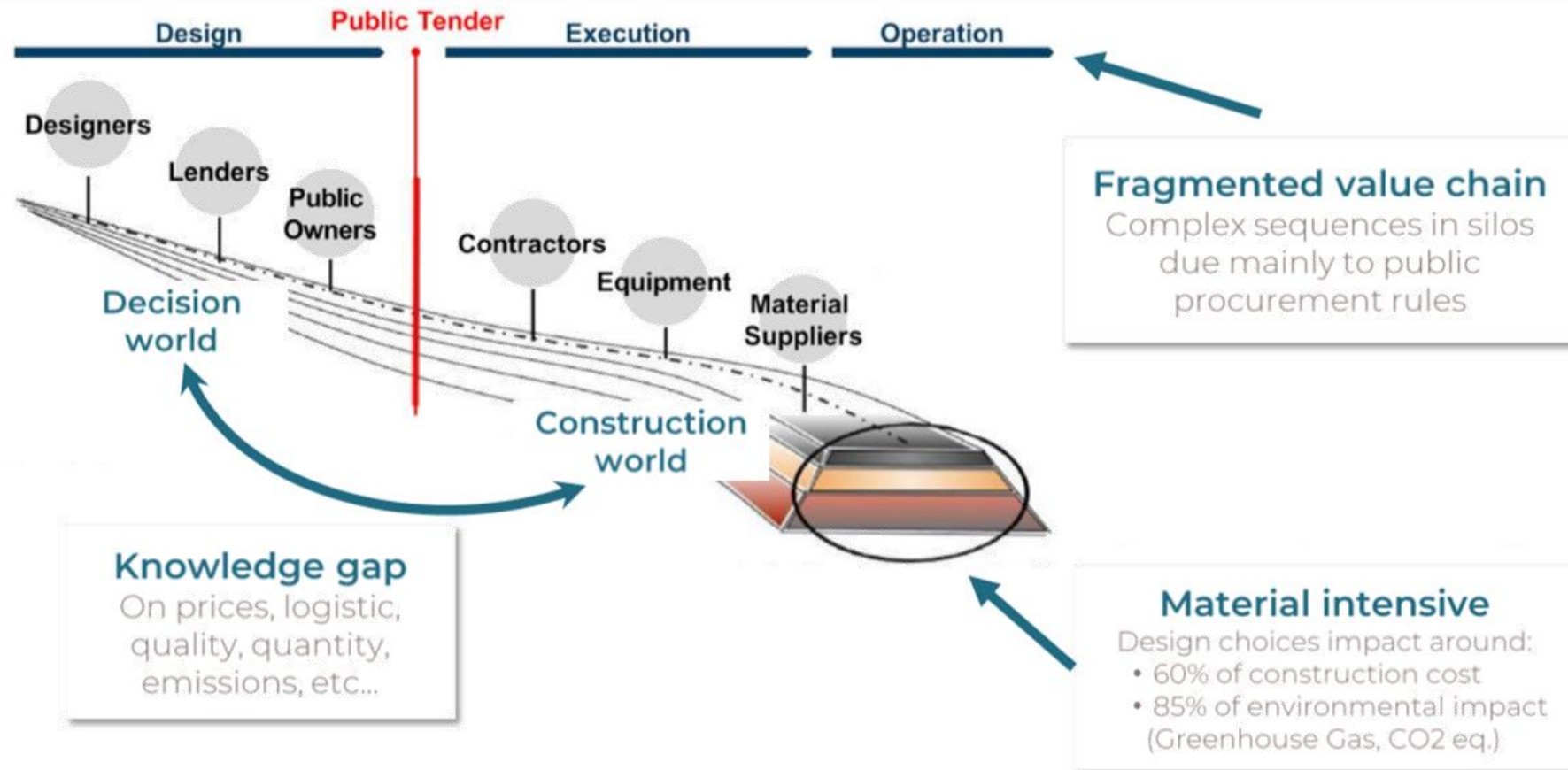
Projects can be delivered more effectively and efficiently

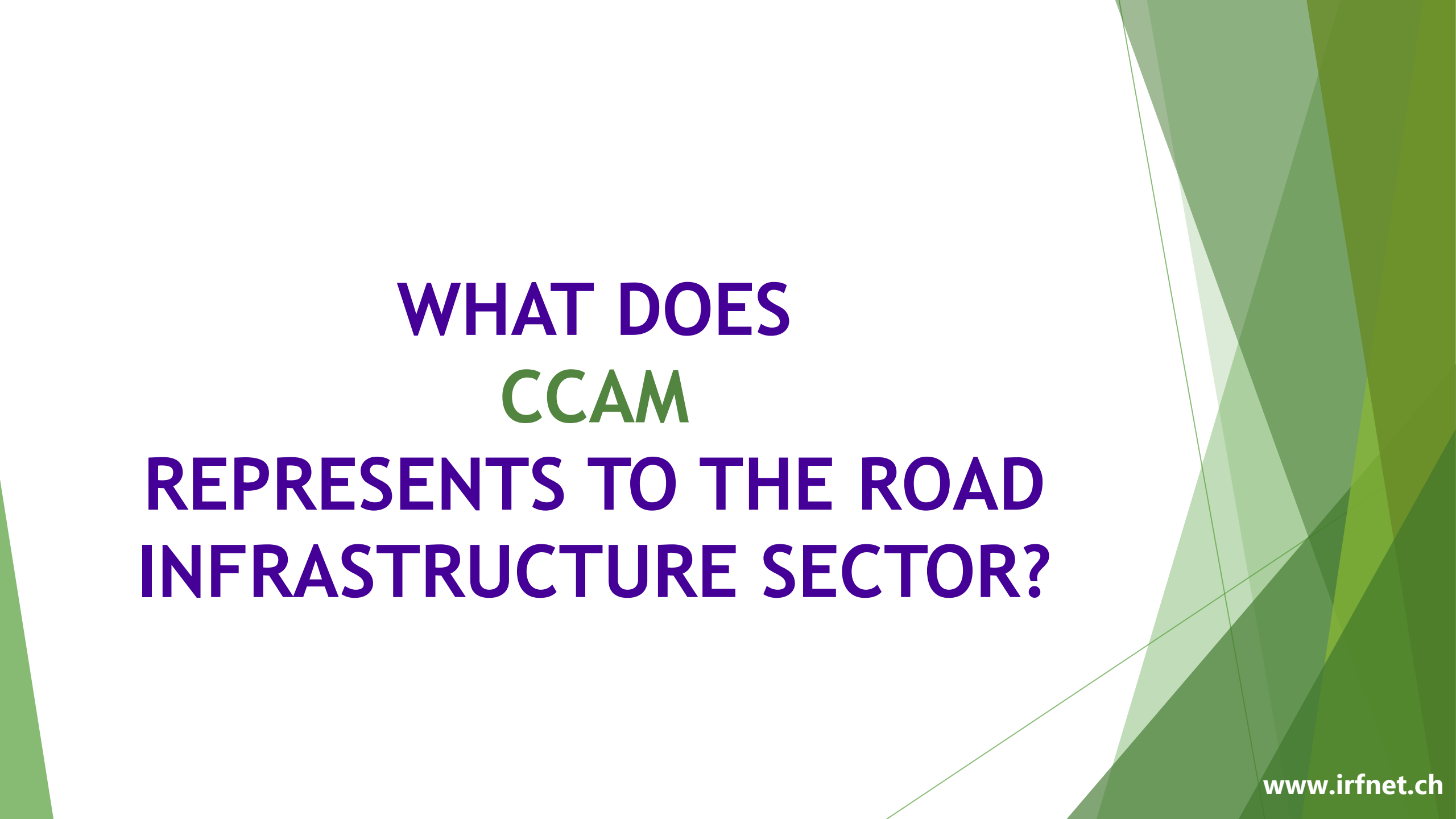
# Going Forward

1. The Role of Infrastructure planners, designers and contractors will fundamentally change.
2. To embrace new technologies as they emerge, countries and lending institutions will need to have the Proper Processes & Regulatory Frameworks in place.
3. Infrastructure providers will need to ensure that they have the Skills, Knowledge & Systems in place to build the associated infrastructure.



# Going Forward



The background features abstract, overlapping green geometric shapes in various shades, creating a modern, layered effect on the right side of the slide.

# **WHAT DOES CCAM REPRESENTS TO THE ROAD INFRASTRUCTURE SECTOR?**



# New Mobility Eco System

Technology Suppliers      Data Providers      Service Providers  
Vehicle Manufacturers      Road Infrastructure  
Transportation Software Companies      Users

*...the mobility ecosystem is complex and is composed  
by different stakeholders.*

*Vehicles are just one piece of the puzzle and the Road Infrastructure has  
a very important role in connecting all the pieces together.*

# More challenges

- A lot of uncertainty.
- Sustainable Autonomous Mobility might turn out to be **NOT** that sustainable...
- Areas could be potentially **locked** due to the increase of kilometers driven by AVs.
- There will be a **long transition period** where infrastructure will be shared by mixed traffic (traditional cars and AVs).

# Past Evolution: From Horses to Automobiles (1)



**New York 5<sup>th</sup> Avenue, Easter 1900**  
**A hundred Horses & just one Automobile!**

## Past Evolution: From Horses to Automobiles (2)



**New York 1901-1913**

**Days of coexistence of Horses & Automobiles.**



## Past Evolution: From Horses to Automobiles (3)



**New York 5<sup>th</sup> Avenue, Easter 1913**  
**A hundred Automobiles & just one Horse!**

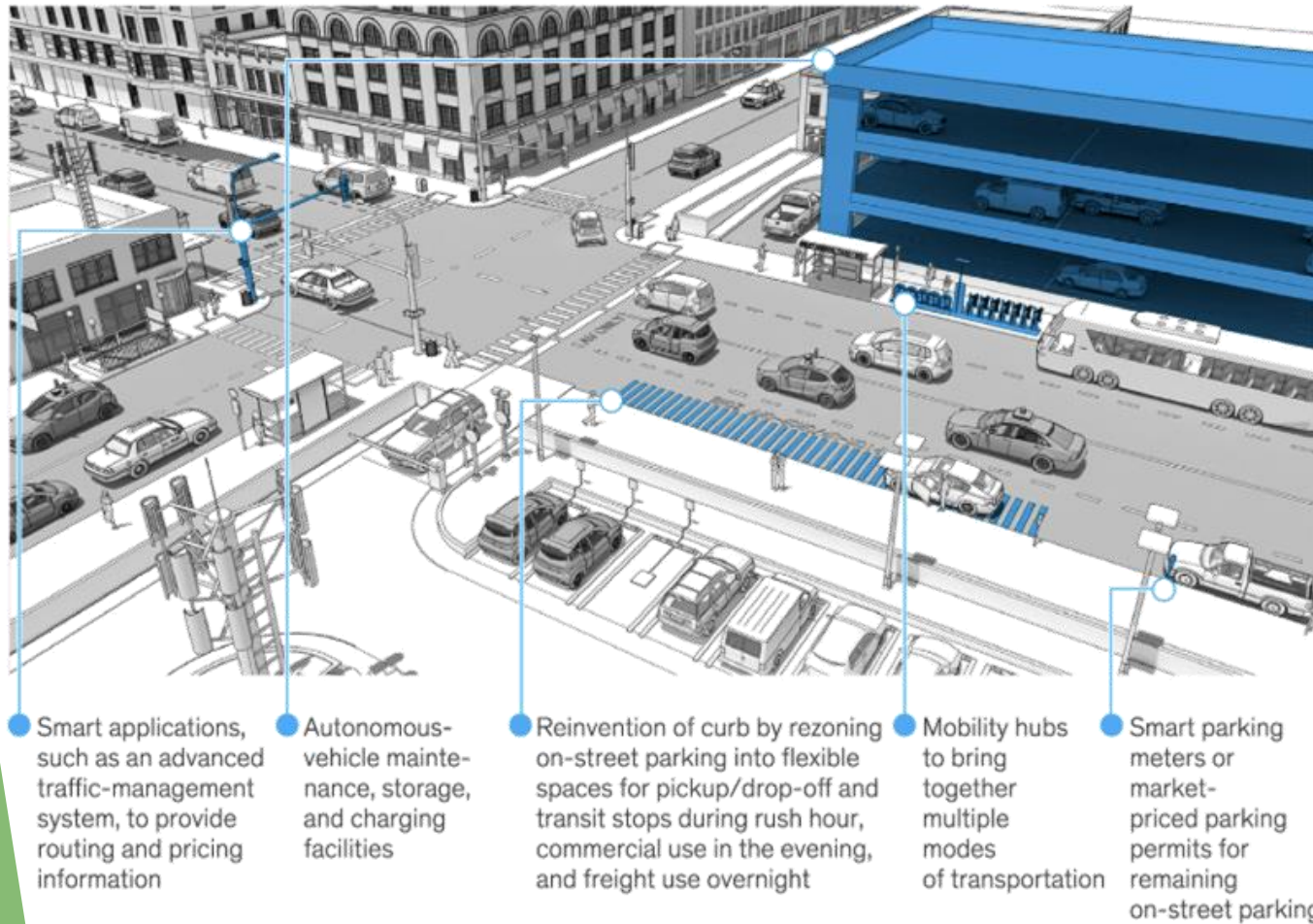
# New Opportunities



- Adopt a phased approach:
  1. pilot
  2. mixed
  3. full transition.
- Start now to avoid costly modifications later!
- Zone pricing, zoning, licensing, etc.



# The Future



- Rethink Road Space.
- Repurpose existing facilities.  
(Storage, maintenance & charging facilities).
- Reinvent curb  
(Flexible spaces)
- Mobility hubs



**Concrete Action from IRF  
to Tackle all these Issues...**



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# IRF Committee Connected & Autonomous Mobility (CAMC)

In collaboration with



[www.irfnet.ch](http://www.irfnet.ch)



# IRF Connected & Autonomous Mobility (CAMC) Rational

- Connectivity, automation, electrification, and digitalization has kicked-off a challenging and exciting transformation of the transport sector.
- The Road Infrastructure sector will play a significant role in ensuring that all the relevant parts of this new ecosystem work together and in the same direction, ensuring seamless, safe, efficient, and sustainable transport.



Define the role, vision and challenges of the Road Infrastructure sector towards Cooperative, Connected and Automated Mobility (CCAM).

# IRF Connected & Autonomous Mobility (CAMC) Objectives

01

- **Build a common vision** for the role of the road infrastructure sector concerning the upcoming transition period of a mixed-traffic scenario.

02

- **Facilitate cooperation** between all stakeholders to ensure a high level of safety, efficiency, and sustainability in the road infrastructure sector.

03

- **Support ongoing processes & initiatives** by providing input and guidance.

# IRF Connected & Autonomous Mobility (CAMC) Workplan



More details in our website  
<https://irfnet.ch/committees/>



January 2020  
Internal kick-off



Q4 2020  
Publication of the  
IRF CAMC Manifesto



April 2020  
CAMC Public launch

*Thank you  
for your attention!*



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