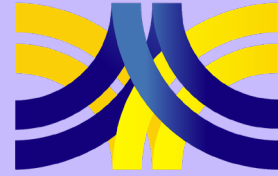


# 49<sup>th</sup> ASECAP DAYS

*Decarbonizing Road Infrastructure : Challenges,  
Perspectives and Actions in Tough Economy*

**ASECAP DAYS**

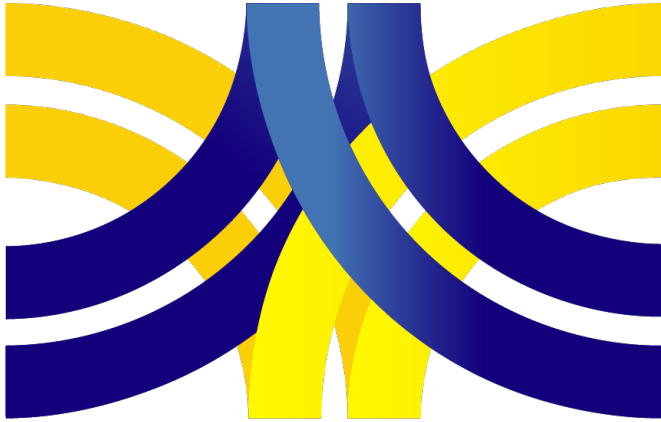


**BRUSSELS 2022**



Hotel Marriott Grand Place, Brussels  
24 – 25 November 2022

# **ASECAP DAYS**



**BRUSSELS 2022**

## **C-ITS V2I implementation in Italy paves the way for a new generation of mobility services**

**Sabino Titomanlio**

Commercial Director, Movyon  
Autostrade per l'Italia Group



# Successful pilot with Volkswagen



34

Roadside units  
ITS-G5



52 km

(Firenze, Bologna)



500

Vehicles/day \*



200k+

Cooperative  
Awareness  
Messages/day\*



Coming soon 2023:

Genova A10 – 52 km

Firenze-Bologna – 86 km



Ready for  
«over-ip»  
service



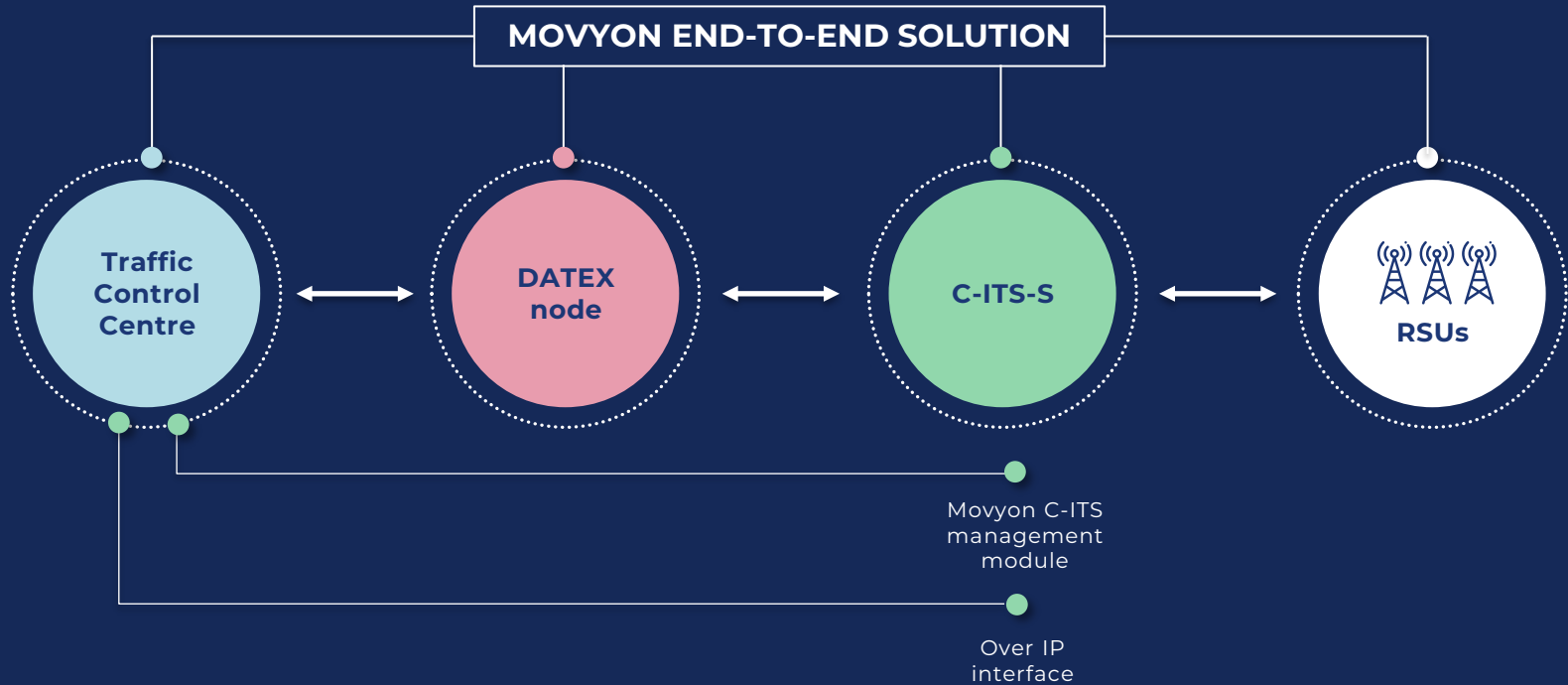
Compliant with  
C-Roads  
specifications



Contract  
with C-ITS PKI  
(Trusted Secure Source)

\*data from  
Jul to Oct 2022

# C-ITS system architecture



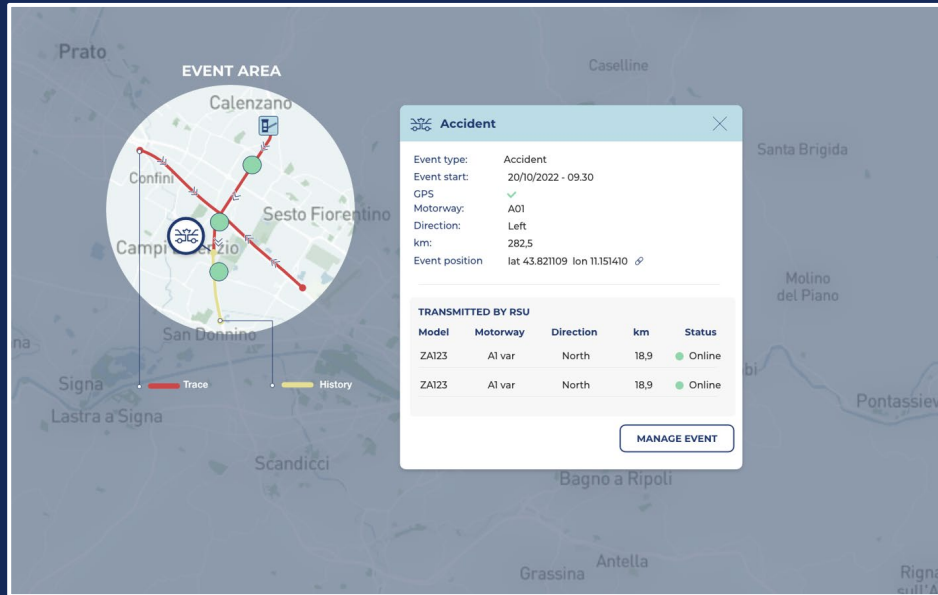
# V2X Roadside Equipment

C-ITS roadside unit **entirely designed and manufactured by Movyon Electronics**, the Movyon brand working on critical hardware equipment used in Movyon's solutions.



- Dual-Mode: DSRC/802.11p and C-V2X
- Compliant with all V2X standards
- 5.9 GHz Radio: 1 x IEEE 802.11p / C-V2X (3GPP Rel. 14/15)
- Receiver sensitivity up to -97 dBm (802.11p)
- Quad core CPU 1200 Mhz , 2 GB DDR RAM, 8 GB Flash
- PCIe expansion slot for optional modem (LTE or 5G)
- GNSS module (GPS, Galileo, GLONASS, Beidou)
- Ethernet with PoE (48V PoE 802.3at)
- **NO licensed 3rd party software used in the firmware**
- Secure key storage
- ITS G5 Software stack
- Browser GUI for configuration, diagnostic and SW update
- IP67 enclosure protection
- CE RED compliant
- Operating temperature: -40 to +75°C

# C-ITS management module



Picture shows C-ITS management module currently integrated with Movyon Traffic Management Platform

C-ITS management module entirely developed *in house*.

It can be easily adapted and customized to the specific needs of the concessionaries and integrated with any other software platforms (e.g. service providers).

No licensed third-party software is used.

*History: area of the event*

*Trace: route entering the event area*

# Benefits

## For customers

### SAFER JOURNEYS

Context-sensitive and certified **data made available where and when are actually needed** make journey safer.



## For concessionaries

### REPUTATION AND VISIBILITY

Safer journeys improve reputation. Vehicle infotainment might increase brand visibility for concessionaries and infrastructure managers.



### BETTER CUSTOMER EXPERIENCE

Data available in the car enable new services, improve experience and the perception of customers of being cared.



### FUTURE-PROOF

Conceive new business models to anticipate customer needs in smart mobility.

Ready for autonomous drive.



# Movyon value for C-ITS



## **One-Stop-Shop for RSE and Platform**

- Highly customizable and easily interoperable with the Traffic Control Centres of Concessionaries and with the platform of service and content providers
- Dual-Protocol (ITS-G5 and C-V2X) proprietary RSU entirely designed and manufactured by Movyon



## **Tested on a real motorway environment**



## **Validated and approved by a primary carmaker already selling C-ITS equipped vehicles**





# MOVYON

Digital Engineering for Smart Mobility

We are an Italian company leader in development and integration of Intelligent Transport Systems Solutions and Centre of Excellence for Research and Innovation of Autostrade per l'Italia Group.

## Our numbers



## Our solutions



Traffic and Safety Management



Infrastructure Management



Tolling



Smart Cities

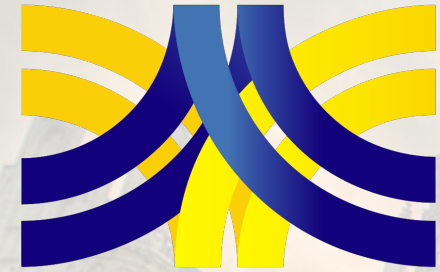


Smart Roads

Video

**CLIK HERE TO WATCH THE VIDEO**

**ASECAP DAYS**



**BRUSSELS 2022**

**THANK YOU FOR  
YOUR ATTENTION**

**Sabino Titomanlio**

*Commercial Director, Movyon*

*Autostrade per l'Italia Group*