

Emergency Vehicle Approaching



Lissabon May 2023



SCANIA

V O L V O



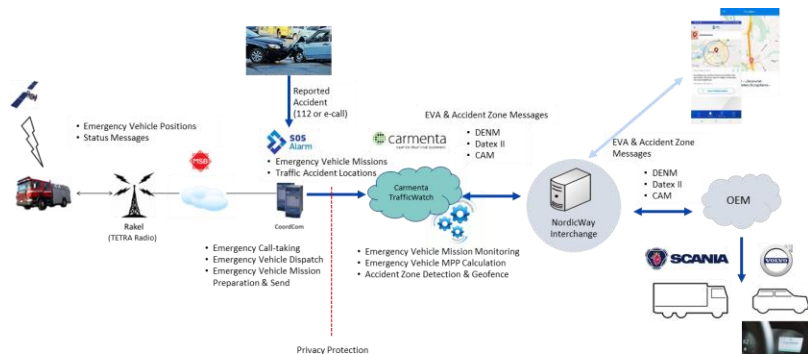
vti



Co-financed by the European Union
Connecting Europe Facility

NordicWay 3 Flagship EVA

Flagship pilot Emergency Vehicle Approaching – aims for setting the foundation for a national deployment of EVA warning C-ITS service in Sweden and performs studies of the potential effects of EVA services in operation.



VOLVO



SCANIA

Evam



vti

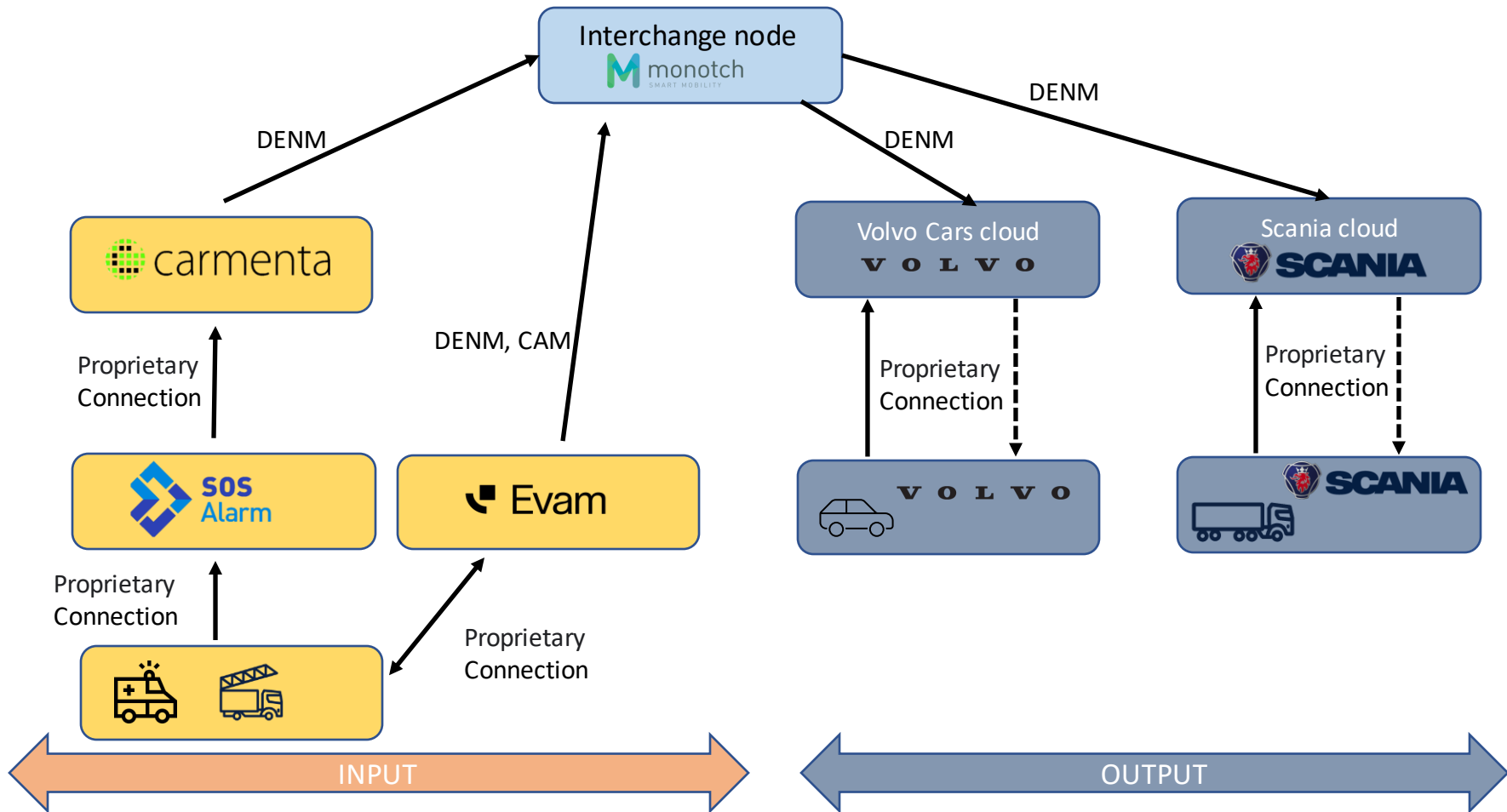
Planned for Swedish
Highways and National
Roads

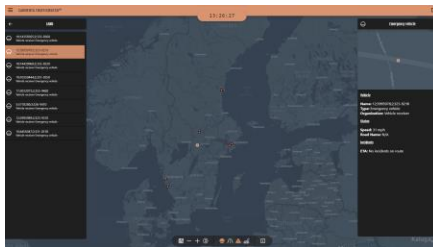
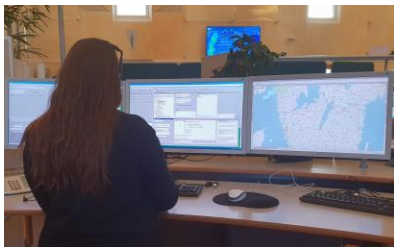
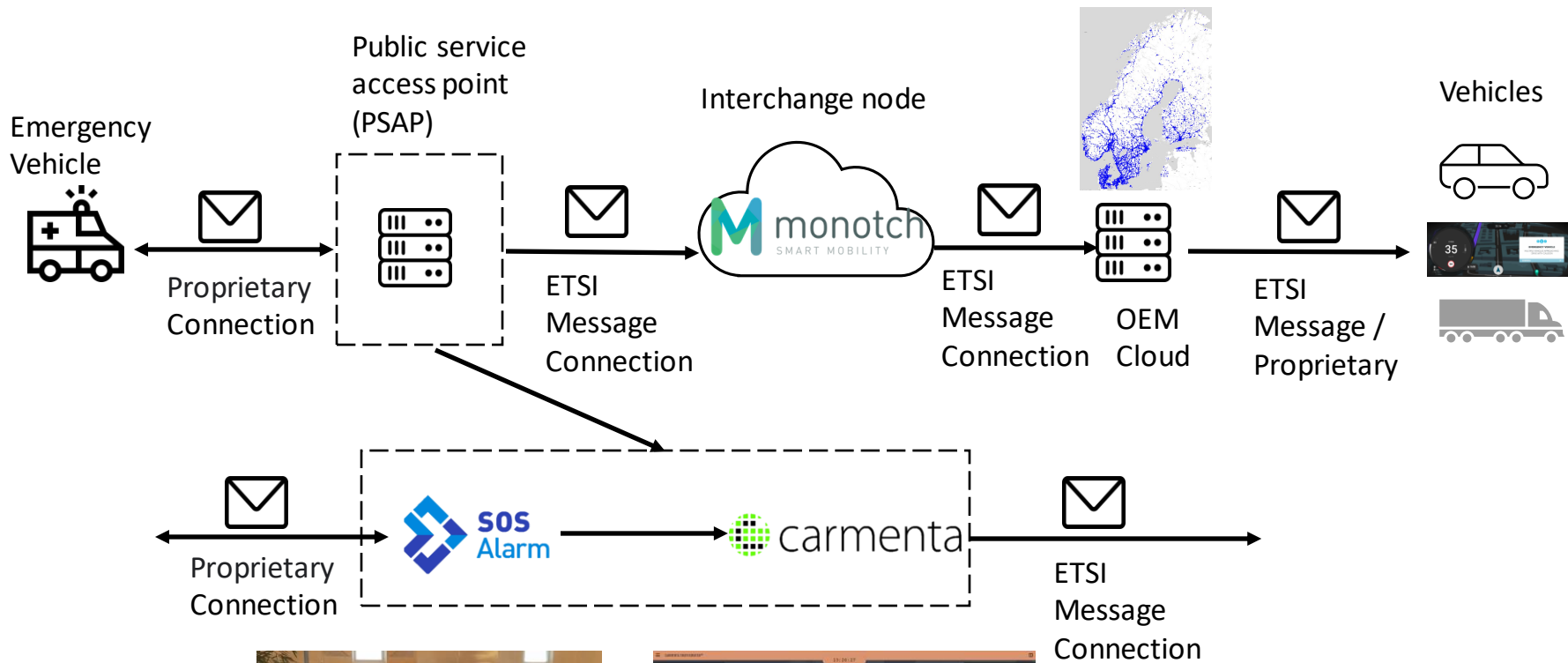
EVA Data Flow Overview

EVA Flagship Participants



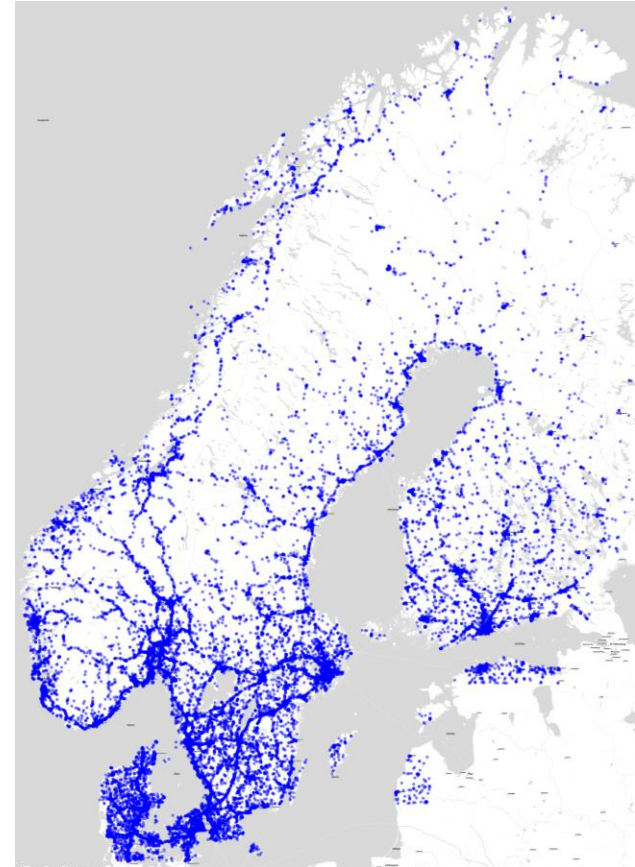
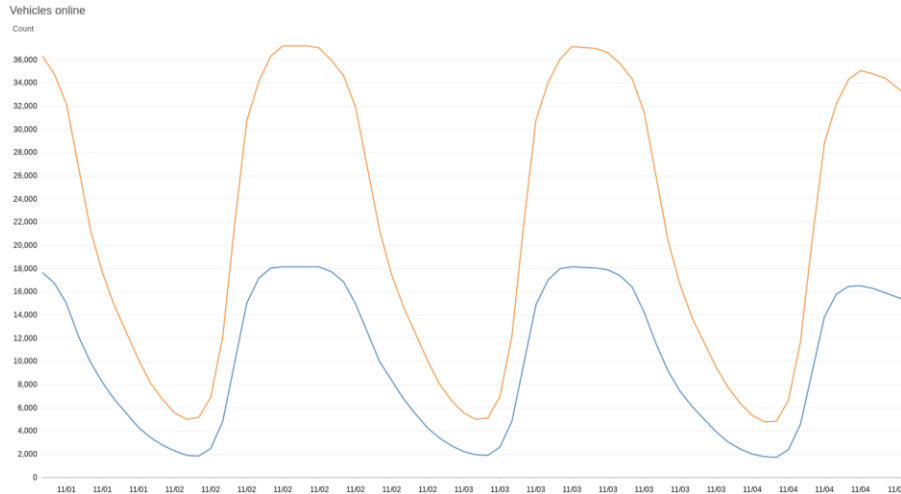
Co-financed by the European Union
Connecting Europe Facility



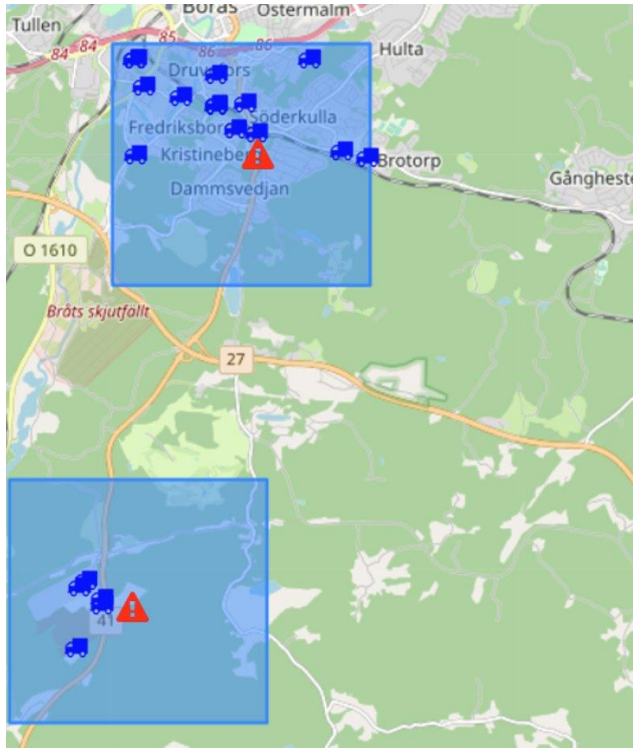


Real position data from connected fleet

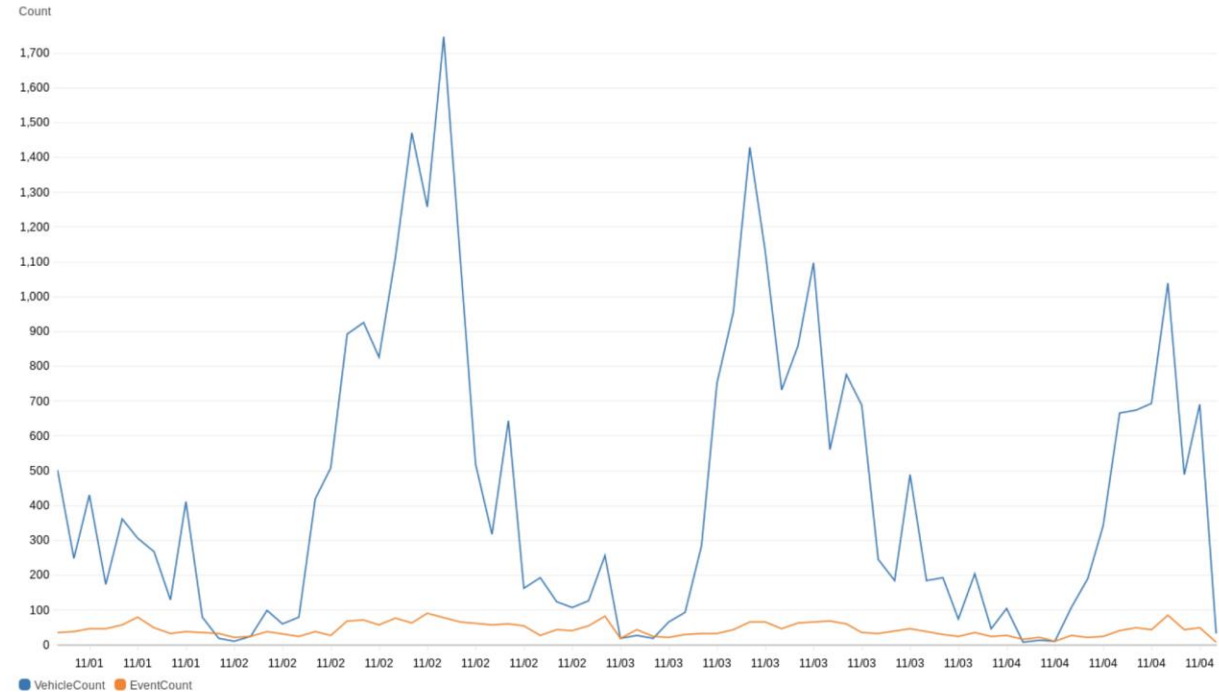
- In Scandinavia,
- During a typical working day
- ~ 40 000 Scania vehicles simultaneously online
 - ~50% is on the larger roads



Match vehicles with events



Matched Vehicle Count by Pub-id SE00010 per 3600s



Support in emergency vehicle interactions

- Emergency vehicles have a difficult task, and must get where they need to go as quick as possible
- Surrounding road users can hinder the emergency vehicle's path
- It is difficult for drivers to hear and localize sirens and warning lights in time
- EVA warnings can support drivers when interacting with an emergency vehicle in traffic



EVA's effect on traffic behavior

- Studies from VTI show that drivers that receive EVA warnings move over more quickly and maintain a lower speed (Lidestam, 2020; Weibull, 2023)
- Driver may need one interaction to change their driver behavior (Weibull, 2023)
- EVA warnings can decrease delay time for emergency vehicles response time



The case of Swedish cardiac arrests

- Each year there are 6 000 out-of-hospital cardiac arrests (HLR-rådet, 2022)
- If response time decreases with one minute, chances of survival increase from 3.9 to 4.6 % (Sund, 2010)
- This would mean that an additional ~40 would survival out-of-hospital cardiac arrests each year if we can lower response time with one minute





- Thank you!
- Any questions?

