



SAFER SUCCESS STORY: CoAct – building competence in active safety and connected vehicles, preparing for automated driving

“The CoAct project has led to an increased interest from the universities for the Automotive Sector in general and vehicle automation in particular. VCC has employed several former CoAct participants.”

*Henrik Lind
Technical Expert
Volvo Car Corporation*

- **Competent students attractive to industry**
- **Collaboration opportunity for Swedish industry and academia around Automated Vehicles**
- **Vehicle automation moving from single-vendor to a more realistic multi-vendor approach**
- **Cost-effective and challenge driven innovation**

In 2010 SAFER entered the GCDC student competition with the aim to form a strong coordinated initiative for competence building. The ambition was to make Sweden a center for active systems research, development and testing. This initiative is named CoAct (Cooperative Active Safety). It is a part of the vision to globally rollout automated and cooperative vehicles for increased safety and reduced carbon footprints. Challenge driven innovation is used as an engine to create cost-effective and innovative solutions in collaboration between industry, institutes and academia.

Benefit to the project partners and impact on society:

- Attracting and educating students and researchers in cooperative driving
- Contribution to and validation of existing ETSI and CEN communication standards for advanced automated vehicle maneuvers
- Increased collaboration between universities (course planning and content) and industry (requirements on technical skills)
- Building valuable international networks in relevant areas of business and technology
- Facilitating roll-out of automated vehicles on an international level

Step-by-step to lead position:

Industrial partners in SAFER identified a competence gap in active safety and cooperative driving. Decision was taken to enter an international student competition, the first Grand Cooperative Driving Challenge (GCDC) taking place in Helmond (NL) in May of 2011. Three Swedish student teams, supervised by senior researchers and industry experts, participated successfully. SAFER with partner Viktoria Swedish ICT as project lead, fostered the acquired knowledge and in 2013 were awarded an FP7-project together with TNO, IDIADA and TU/e to organize the challenge in 2016. SAFER decided to sponsor the participation of the Swedish teams under the CoAct name. Swedish OEMs are contributing with vehicles and expertise. Universities supervise student teams.

Measurable results:

- Successful participation by three Swedish teams in the Grand Cooperative Driving Challenge (GCDC) 2011 with places 2, 3 and 4 out of 9 participating teams
- Currently four Swedish universities (five teams) have signed up for GCDC 2016
- 90% of the individual participants in CoAct 2011 were absorbed by the automotive industry within 3 months after the competition
- Numerous technical papers and positive and visible media attention
- Testing of systems at AstaZero
- CoAct teams collaborating with in-house development projects at OEMs
- Viktoria Swedish ICT is a core team partner of EU-project iGames organizing GCDC 2016

Funding: 3 MSEK SAFER internal (cash and inkind) and 14,2 MSEK external

Partners: AB Volvo, AstaZero, Chalmers, Halmstad University, KTH, Linköping University, Scania, Swedish Transport Administration, Viktoria Swedish ICT, Volvo Cars, and a number of 2:nd tier suppliers for the OEM industry.

Funders: IVSS, FFI

Period: 2013 - 2016