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# SCVP

Smartest Cars Video Project



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## Summary

The Smartest Cars Video Project (SCVP) produced a high quality one-hour TV programme intended for broadcast throughout Europe. The intent of SCVP was to raise public awareness about the dangers on the road and the greater safety offered by active safety systems, including electronic stability control, forward collision mitigation, lane departure prevention, eCall, and others. SCVP aims to educate viewers about these systems so that they will consider asking for active safety in their next car purchase.

The project was motivated by the stated need for such television documentaries in the i2010 Intelligent Car Initiative. The project directly addressed the ICT Work Programme Challenge 6: ICT for Mobility, Environmental Sustainability and Energy Efficiency in terms of the goals of achieving a 50% reduction in road fatalities by 2010.

Titled “The Thinking Cars,” the resulting TV programme is engaging, entertaining, and educational for the everyday TV viewer. The TV programme was completed in March 2010. A specific project task focused on making arrangements with major broadcasters in Europe in 2010.

For many years car technology has appeared on TV in terms of advertising, short pieces on news programmes, and TV shows focusing on vehicle technology. Therefore, documentary TV teams visiting car-makers and suppliers for filming is not unusual. However, to-date there has never been an objective full length documentary TV programme that allows the wider societal benefits of research and development in active safety and intelligent vehicle technologies to be fully presented to a wide audience.

The “new” aspect introduced by SCVP is the creation of a full length TV programme on active safety technology, with the active involvement of the vehicle industry and eSafety stakeholders, combined with public funding of the project through the European Commission. This creates opportunities as well as challenges – the opportunity is to facilitate the creation of a top quality and educational TV programme via Commission funding, but the challenge is to make a programme interesting to broadcasters and consistent with programmes now on TV; therefore, the programme material created within the SCVP project had to be highly engaging, must contain elements of creative tension, and cannot appear to be promotional or an “infomercial.”

A core aspect of the SCVP project design was to involve the European vehicle industry and other eSafety stakeholders through an Industry Advisory Council (IAC). The purpose of the IAC was to understand and take advantage of existing “safety messaging” by the vehicle industry and road authorities, in the areas of crash protection and crash avoidance, and to provide feedback on the initial version of the programme treatment.

In fact, creating a television documentary with the creative involvement of the European Commission and the Industry Advisory Council constituted a grand experiment – could the various priorities and imperatives key to these organizations be addressed in a manner that would make for a watch-able television programme? According to comments from the Commission, the auto industry, road authorities, and television professionals, “Thinking Cars” has accomplished this aim.

How successful was the project in placing the documentary with European broadcasters? Via a commercial distributor process, broadcasts are pending in Hungary and possibly other channels in eastern Europe. Via a process with the European Broadcasting Union, broadcasts of all or portions of the documentary have been confirmed in Austria, Belgium, Finland, Lithuania, Portugal, and Serbia, with decisions pending in other countries.

The broadcast premiere occurred on December 10, 2010 in Serbia. Viewership figures are in the 300,000 range for Serbia alone. . Adding Austria, Belgium, Finland, Hungary, Lithuania, and Portugal will increase this figure substantially.

A companion website with more information on SCVP can be found at [www.thinkingcars.com](http://www.thinkingcars.com).

SCVP began in January 2008 and concluded in December 2010.

# 1 Introduction

## 1.1 Rationale and Motivation for Project

Within the initiative “i2010: European Information Society 2010 for growth and employment,” the European Commission launched the Intelligent Car flagship initiative to raise the visibility of the contributions of information and communications technologies (ICT) in the area of Advanced Driver Assistance Systems (ADAS).

*With today's technology, we can reduce the crash rate more rapidly on European roads.*

*But first, citizens must purchase these advanced systems -  
- how can they purchase them when they don't know about them?*

Increasing public awareness of ADAS, purchase incentives, and holding annual Intelligent Car events are emphasized to “bring R&D results to the citizens.”

A key motivation for the project as a support action was that the Commission had noted the trend for the large scale deployment of active safety systems can take a very long time. For example, Anti-lock Braking Systems took 20 years to become a mass market feature, and Electronic Stability Control took 10 years to reach 40% market penetration. The European Commission's desire is to accelerate this process to the degree possible, for the benefit of those who would otherwise lose their lives or be severely injured in road crashes.

The Intelligent Car Initiative is organized around three “pillars” or foundations:

- research
- the eSafety Forum composed of safety stakeholders and
- awareness-raising actions.

Regarding the last item, the Third Pillar focuses on awareness actions promoting active information dissemination to a wide audience. The Third Pillar intends to:

- raise drivers and policy maker's knowledge about the potential of intelligent vehicle systems
- stimulate user's demand and create socioeconomic acceptance.

- facilitate the deployment of mature technologies and systems in the initial phase of market penetration
- encourage stakeholders initiatives supporting i2010

The Commission has stated that communications to the public plays a key role in the Intelligent Car Initiative, specifically emphasizing the production of TV series or documentaries for the mass media.

The eSafety forum recommended the creation of a communications platform itself based on three pillars:

- involvement of stakeholders
- media and
- policy

Within this context, the Smartest Cars Video Project focused on creating a broadcast quality television documentary programme on crash-avoiding vehicles targeted at this goal of raising awareness. The documentary is titled "Thinking Cars."

According to the Eurobarometer Special Study on Intelligent Vehicle Systems, safety ranks high in the minds of European drivers. But what does safety mean to them? Typically, safety is thought of as crash protection in the form of vehicle stiffness and energy absorption, as well as occupant protection systems such as airbags.<sup>1</sup>

***".....But to never crash at all is clearly the better way"***

#### *SCVP Aimed to Transform the Public's Idea of Road Safety.*

The project sought to broaden the customer's idea of safety – from crash protection to crash avoidance. Thinking Cars was aimed at convincing European citizens that it is important to invest in active safety technology for their next vehicle. Further, an aim of the documentary was to provide a tool that could be used to educate the public about current and soon-to-be-introduced systems, how they work, and why they can trust them. The intention being that viewing the programme will enable them to walk into a car showroom and specify ADAS systems because they perceive these systems to be capable of better protecting themselves and their families. For example, in a crash depicted in the programme the use of eCall is graphically demonstrated in a case where the persons involved in the crash were not able to call for assistance.

With the Thinking Cars documentary, the project has produced results that can be taken forward by others, e.g. car companies,

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<sup>1</sup> [http://ec.europa.eu/public\\_opinion/archives/ebs/ebs\\_267\\_en.pdf](http://ec.europa.eu/public_opinion/archives/ebs/ebs_267_en.pdf)



motoring organisations, and broadcasters to further spread the message.

*Thinking Cars is Engaging and Educational for Viewers.*

The documentary programme is engaging, entertaining, and educational for the everyday TV viewer. It must be, in order to catch the attention of viewers in their homes while channel surfing. A key requirement was for the key messages in the programme to be “sticky” and the video images to be high-impact so as to emphasize the key concepts.

Thinking cars uses engaging and understandable scenarios to address how everyone on the road is vulnerable to a crash and introduces a variety of ADAS systems currently on the market, and those coming available in the near future. The systems described include electronic stability control, lane departure warning, emergency braking, and eCall.

The project also includes a companion website with more

The full one-hour format goes far beyond what can be accomplished by existing television tools such as short news pieces or car company advertisements. Indeed Thinking Cars was able to use excellent footage that would end on the cutting room floor in a car company advertising campaign but which is ideal to convey the message of wider societal benefits of research carried out by the EC in the area of active safety

information, video clips available for on-line viewing, and an up-to-date guide as to which vehicle manufacturers currently offer specific active safety systems. This website is intended as a resource for viewers wanting to buy the safest car possible, as well as a resource for schools and auto clubs.

Broadcasting this video programme into European homes can be expected to have a significant impact in accelerating the market penetration of life-saving active safety systems, leading towards the ultimate eSafety goal of a future virtually free of road crashes.

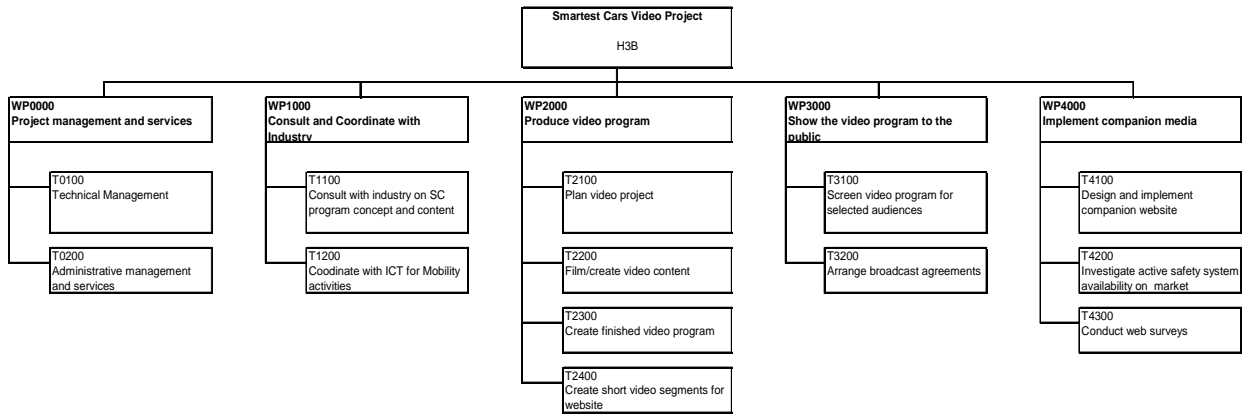
## 1.2 Structure of Project

SCVP was organized into the following work-packages:

- WP0000 Project Management
- WP1000 Consult and Coordinate with Industry on eSafety Public Awareness
- WP2000 Produce Video Programme
- WP3000 Show the Video Programme to the Public
- WP4000 Implement Companion Media

An Industry Advisory Council was established at project start to provide buy-in and gain perspective and assistance from the

eSafety Community (WP1000). The core function of producing the documentary occurred in WP2000, starting with content research and concept development, moving into filming, followed by editing and final production. WP3000 supported the process of bringing the programme to the public, and WP4000 provided the accompanying website. The Workpackage structure is shown below.



### 1.3 Project Team

The Smartest Cars project requires expertise in Intelligent Transport Systems and intelligent vehicles in particular, as well as in documentary film making. H3B provides a comprehensive team for this purpose. The H3B team includes founder Luis Hill with extensive experience in ITS media; Richard Bishop, a well-known expert in the intelligent vehicles field; and Roxana Spicer, an experienced technology documentary filmmaker.

Key roles were contracted, using highly respected professionals in the television documentary field. This included

- Michael Ellis, Director of Photography
- Greg West, Editor
- Deborah Parks, Line Producer
- David Wall, Composer

Additionally a management partner played a critical role in ensuring the project was well-managed and deliverables were of the highest quality. During 2008 the initial management partner was Irion Management Consulting. For 2009-2010 the management partner was Ian Catling Consultancy, with the lead role played by Mike Hayward, a consultant with many years experience in ITS and the automotive industry.

## 2 Content Research and Concept Development

### 2.1 Industry Advisory Council Process

A core aspect of the SCVP project approach was to involve the European vehicle industry and other eSafety stakeholders through an Industry Advisory Council (IAC). The purpose of the IAC was to understand and take advantage of existing safety messages being provided by car manufacturers and suppliers, in the areas of crash protection and crash avoidance. The vehicle industry has a wealth of experience in communicating system functions and benefits to public, and as a result has some knowledge as to which techniques are effective or ineffective. The IAC helped H3B align Thinking Cars with these safety messages and to understand car industry viewpoints on their customers and the needs of the driving public as perceived by all stakeholders represented on the IAC. Further, the IAC created interface points with the involved organizations for producing the TV programme.

The project plan called for three IAC meetings. The first meeting focused on introducing the project and receiving high-level input on the programme content. The second meeting focused on review and comment of the programme concept. The third meeting was a screening of the final programme.

#### IAC Membership

During the first months of the project, H3B canvassed auto manufacturers, suppliers, road authorities, and eSafety organizations to invite their participation on the IAC. As a result, the following organizations joined the Council:

- Vehicle Manufacturers
  - BMW
  - Daimler
  - Fiat
  - Ford
  - Honda
  - Nissan
  - Toyota
  - Volvo Cars
- Suppliers
  - Autoliv
  - Bosch
  - Continental
  - Delphi
  - Mobileye
  - Valeo

- Road Authorities
  - Dutch Rijkswaterstaat
  - Swedish Road Administration
- Organizations / Associations
  - ACEA
  - CLEPA
  - ERTICO
  - FIA / Choose ESC

### First IAC Meeting

The first IAC meeting was hosted by BMW Group and held in Munich, Germany in February 2008. The SCVP team introduced the project to the group and provided an overview of the process of making TV documentaries.

General discussion during the meeting touched on several points.

Frustration with the public's current view of road safety was expressed: plane crashes with relatively few lives lost get more media attention than the daily toll of over 100 fatalities on the road! Several noted that, in the showroom, standalone safety systems are a "difficult sell." Also, the multitude of system types and the complexity of the system functions are daunting to the public and even to automotive journalists – the TV programme must make it all comprehensible. It is not the industry's intent to make "technology toys" but sometimes the media characterizes new technology this way.

Finally, it is important to note that cars today are safer than ever, due to crash protection. This is an important area of success to build upon in Thinking Cars.

Several participants noted the extensive activity now occurring in cooperative systems using vehicle-vehicle and vehicle-infrastructure communications to realise safety and other wider societal benefits. The project team responded that the primary focus of Thinking Cars is on safety systems which can be purchased by citizens either now or in the near future; the guidance from the Commission is that cooperative systems are too far in the future to play a major role in the programme. However, the project team noted that cooperative systems could at least be part of the context for Thinking Cars.

The IAC agreed on the following core messages and principles as a basis to proceed in further development of Thinking Cars:

- Establishing that any driver could be involved in a crash, no matter how carefully they drive and how even a minor crash ripples through one's personal life
- Elicit public opinions about road safety
- How human drivers are responsible for over 90 per cent of crashes (distraction, fatigue, etc.)

- Impacts of road crashes on traffic congestion, fuel consumption, and emissions
- Government initiatives to improve road safety
- eSafety goals and the Intelligent Car Initiative
- How automotive engineers address challenges, such as false alarms, cost, and human-machine interfaces aiming to achieve reliable, trustworthy, and usable systems in the end
- How heavy trucks are becoming safer due to ADAS, giving the public reason to feel more secure when sharing the road with trucks.

Valuable input was received regarding the specific systems to be addressed, including terminology and misconceptions commonly encountered when attempting to communicate active safety functions to the public – this information proved to be helpful in framing the approach to the documentary. One example was the many terms used for the different active safety functions, i.e. electronic stability control is also known as “electronic stability program” and “vehicle dynamic control” as well as other names. ESC also tends to be confused with Anti-Lock Braking and Traction Control. Misconceptions about privacy protections were noted for eCall. As a further example, IAC noted concerns from their customers about automatic braking, i.e. “I’m afraid my car will brake when I don’t want it to.”

In summary, the IAC strongly supported the basic approach, rationale, and core messages defined for Thinking Cars.

#### 2<sup>nd</sup> IAC Meeting

At the second IAC meeting, held in July 2008 in Brussels, the candidate approach to the documentary was presented and discussed.

H3B Media prepared for this Advisory Council meeting with an emphasis on getting the most possible viewers via a programme highly attractive to broadcasters. As stated in the SCVP workplan, “the key messages in the programme must be ‘sticky’ and the video images must be high-impact so as to emphasize the key concepts” in order to achieve the stated project goal of mass media broadcasting of the documentary. A “trailer” was produced to illustrate a candidate tone, and a “treatment document” was produced to illustrate how story and characters could be interwoven to depict the active safety content and message in a compelling way.

In response, several areas were emphasized by the IAC:

**Addressing Questions on the Mind of the Viewers:** Several IAC members commented that discussing controversial aspects of a particular system – such as potential driver underload – can be fitting for a legitimate TV documentary, in that this allows for questions on the minds of viewers to be addressed. The key is to talk about how “the industry” has introduced it, rather than focusing solely on a particular car model that implements the system.

**Brand Neutrality:** The documentary should be neutral regarding brands, so that there is no “promotion” – either positive or negative.

**Advanced Research:** There were many comments about the advanced research and robotics content in the treatment. They noted that it is important to tie this work to very practical goals so that this research is not seen incorrectly as speculative. Further, make sure the point is clear that active safety systems are available now. Another commented to avoid positioning autonomous driving as the ultimate goal.

**Driver Issues:** Several organizations explicitly supported going into driver issues, since the driver plays such a strong role in crashes and also since the viewers can easily relate to these human-level issues. Further, that we must solve HMI issues of active safety, such as too many or too frequent warnings. One caution was noted -- HMI is a very interesting topic which should be addressed, but it is important to make no judgments about which types or HMI are better or worse than others.

**Limitations:** Thinking Cars must not over-promise about active safety. "Passive safety is still needed and you can't unhook your seat belt." Also, it is important to be clear and frank about the limitations of today's active safety systems – this also provides the opportunity to emphasize that enhanced systems are on the way.

**Geographic Diversity:** Europe is multi-cultural – therefore seek to include more south and east Europe in filming locations.

**Programme Length:** It may be difficult to use the topics covered by Thinking Cars topic to fill two hours of television.

**Core Message:** Address the reality that 40,000 people die per year, plus that "the numbers are shrinking due to the efforts made so far." In relative terms, the number is low compared to the past and number of cars and miles driven every year. However even one death is one too many. We should focus on how driving is complex for everyone, focus more on what can happen – with distractions from phone calls, eating, children – the overall complexity of traffic these days -- therefore the necessity of help from smart cars. Crashes are mainly caused by human errors, or mismatches between human capabilities and complex situations. Active safety steps in when human error happens, or in order to reduce the risk of human error occurring. One should not pay for a mistake on the road with their lives.

Based on the IAC comments, a clear goal emerged:

The goal of the TV documentary is to make people aware of active safety systems, educate them, and show that it makes sense to invest in active safety. The documentary must be "neutral but engaging." The core message should be that the systems are on the market, and describe what they do. The total impression from the documentary is hoped to be that cars bring benefit to people's lives, accidents are mainly caused by human errors, and active safety systems work when human error happens, or in order to reduce the risk of human error. The focus should be on new technologies that will help the driver to better be in control that is, being better informed of ambient and internal conditions such that he or she will become a better, more efficient driver. Emphasize that too many people get killed and show some scenarios, and then explain that there are actually systems out there that can help you to avoid getting into these problems. Keep it simple for the

viewer. In the end, the viewer should have the knowledge that active safety systems exist and that they are helpful.

### Guidance to Go Forward

The comments on the trailer were very helpful to H3B at this stage in providing guidance for the tone of the documentary. The group supported the creative concept in general while also noting areas of concern in language and tone. These comments were taken into account going forward.

The process was productive in several ways. It created liaisons for research and filming opportunities, provided a means for the SCVP team to gain access to a wealth of pre-existing video and computer generated imagery that could be useful in the documentary, and offered a means whereby industry comments on the creative approach could be heard and incorporated into the final programme treatment.

This process provided the SCVP team with the sufficient feedback to proceed to the production (filming) phase.

## **2.2 Content Research for Documentary**

Following the first IAC meeting, project activities focused on gathering the necessary information about active safety in a manner to enable this content to be “transformed” into a television documentary. These activities have included site visits for pre-interviews, vehicle demonstrations, and facility tours, as well as gathering and reviewing an extensive set of information, videos and computer graphics provided to the team by IAC members. A wide range of organizations were involved in this process, including car and truck manufacturers, suppliers, road authorities, research laboratories, universities, and associations. These included:

- Autoliv
- BMW
- Robert Bosch GmbH
- Centro Ricerche Fiat
- Chalmers University
- Continental
- CTAG
- Daimler
- Dutch Rijkswaterstaat
- Dutch Road Police (KLPD)
- Ecole des Mines
- EuroRAP
- Ford
- Honda
- Ibeo

- Intermap
- MOVEO
- Navteq
- Newcastle University
- Nissan
- Swedish National Road Administration
- Toyota
- TNO
- Loughborough University
- University of Wurzburg
- University of Parma
- Valeo
- Volvo Cars
- Volvo Trucks
- Volvo Technology

This process resulted in a large body of knowledge as to current ADAS systems, the development processes, and also some of the challenges facing the industry. From these meetings specific characters and situations emerged which were promising for the overall storyline of the film.

Based on these discussions, the targeted active safety functions for Thinking Cars were expanded as shown here:

- Starting List:
  - eCall
  - electronic stability control
  - brake assist
  - adaptive cruise control
  - forward collision warning
  - collision mitigation braking
  - lane departure warning / lane keeping assist
  - blind spot monitoring
  - night vision
  - pedestrian detection
- Added based on stakeholder input:
  - map-supported safety systems
  - wireless local danger warning
  - intersection collision avoidance
  - adaptive lighting
  - impaired driver alert



Key policy areas to be included were:

- the crash problem in Europe, in terms of numbers of crashes and broad societal costs
- the EC investment in R&D to enable active safety for almost 20 years
- the EC's efforts to galvanize the industry around the goal of a 50% fatality reduction by 2010
- how some success has been achieved – the road fatality rate is going down -- but so far not enough to meet the goal
- Commission initiatives towards mandatory fitment of Brake Assist, ESC, LDW, and Advanced Emergency Braking in future years in cars and/or trucks

## 2.3 Resulting Programme Concept

Based on the large array of information collected during the research phase, the SCVP team prepared a programme concept, called a “treatment” document, which originated and blended a variety of creative elements as a means of engaging viewers. The original programme concept was for a two-part two-hour documentary, although the focus changed to a one hour documentary later in the project.

The treatment document provided a comprehensive look at the elements to be included in the two part documentary series. The programme concept consisted of several “acts” for each one-hour episode. A key technique in the documentary was to focus on a small number of key characters who have a personal story relating to active safety. These are persons working in the active safety domain who have themselves been in car crashes. This was designed to maximize their credibility in the eyes of the viewer as well as to provide a strong back story. As part of the documentary, these characters could experience recreations of the crashes (in simulation, driving simulators, and even crash test facilities) showing how the outcome could have been different with active safety.

The treatment included programme elements such as:

- “today's active safety systems” – emphasizing the systems now on the market
- “realistic testing” -- the world of simulators and test tracks
- “the changing relationship between man and machine” – the complex field of human-machine interfaces
- “the critical three seconds” – biomechanics experts describe the effect of a crash on the human body, and how relatively small decreases in crash speed make a huge difference
- “human limitations” -- findings from the latest naturalistic driving studies including the role of distraction and drowsiness

- how driver overload/underload issues interact with active safety

The concept emphasized that the most important safety 'system' in the loop, despite all of our very human limitations, is still considered the driver.

As is typical for documentaries, the treatment document constituted the initial phase of the creative process, serving as a "blueprint" going into the filming phase. In contrast to corporate or promotional videos, TV documentaries evolve – once the treatment is drafted, it is used to create a "shooting script" which guides the filming process at the level of individual scenes. The final programme is a product of the editing process, in which the most compelling segments are used to tell a compelling story.

## 3 Producing the Film

### 3.1 Filming Locations

Based on the programme concept, the team identified key storylines, characters, and settings for the filming, developing a scene-based filming plan and schedule for each location. A diverse set of filming locations were desired, within the limitations of the project budget. The filming locations used were as follows:

- Gothenburg, Sweden -- Volvo Cars, local fire brigade, local crash victims, Chalmers University, Swedish Road Administration, Autoliv, Karolinska Hospital
- Stuttgart, Germany: Daimler
- Wurzburg, Germany: University of Wurzburg
- Munich, Germany: BMW
- Soesterberg, Netherlands: TNO (Desdemona driving simulator)
- Utrecht, Netherlands: Dutch National Police
- Vigo, Spain: CTAG

In order to ensure the most efficient use of the film crew, a filming plan was created prior to travelling to these locations, which involved extensive coordination with the organizations at these locations. To meet current broadcast standards, all filming was done in High Definition.

Specific scenes filmed in Sweden included:

- Volvo crash test dummies and facility
- Interviews with Volvo Cars safety experts
- Interviews with a Swedish family involved in a serious head-on crash; hospital and doctors where crash victims in film were treated; recreation of crash on actual road location where it happened, including Volvo Crash Research team
- "Jaws of Life" crew simulating the extrication of crash victims from a damaged vehicle
- Staging of crash types and countermeasures at Volvo test track: pedestrian detection, lane departure warning, emergency braking
- Illustrating lab research into eye tracking for drowsy driver detection



*Recreation of Swedish Head-on Crash*

Scenes filmed in Germany included:

- Interviews with car company safety experts
- Interviews with academic researchers in driving psychology
- A marketing meeting to devise approaches to marketing new ADAS systems
- On-road driving with the “Brain Cap” driving assessment tool
- Manoeuvres and testing within driving simulators
- Demonstrations of systems on the market (head-up display, electronic stability control, emergency braking)
- Demonstrations of systems in development (pedestrian detection, advanced vehicle tracking)
- Hospital where a victim from a crash portrayed in the film was taken
- On-road demonstrations of lane-keeping and adaptive cruise control with Infiniti, Ford, and Honda vehicles



*Filming Pedestrian Detection Testing at Daimler*



*Daimler "Brain Cap" experimental setup with door-mount camera*

Scenes filmed in the Netherlands included:

- Recreation of actual crash using Desdemona driving simulator, with original driver driving the simulator
- Home interview with human factors researcher
- The Dutch 112 call centre
- Interviews with Dutch police regarding eCall
- Recreation of police response to a crash



*Filming of the Control Panel at the Desdemona Driving Simulator*

Scenes filmed in Spain included:

- CTAG driving simulator and human factors laboratory
- Tuning ADAS systems in on-road testing



*Filming at the CTAG Driving Simulator*

### **3.2 Finding the Storylines: The Edit Process**

The editing process transforms the raw film footage into a finished film. It is a creative collaboration between the director, writer, and editor. The main elements are:

- editing
- script writing
- animation
- sourcing third party footage

### Editing

The editing process consists of both creative and technical elements. Technically, all filmed videotapes must be digitized and catalogued to enable the “off line” editing process. The “off line” editing is done at a high-powered computer console using special purpose software.

Working with the “treatment” or blueprint document, the editing team identified potential film clips which could support the desired scenes in the film. They reviewed the various interviews as to which persons were more effective on-camera. All actions and demonstrations were reviewed as to which were more vivid and could best tell the story. Not only were storylines identified, but the various techniques to interweave several stories with key ADAS information were created, tested, and revised in a painstaking and highly detailed process.

The editor also worked with the music composer to create a music track which supported the desired tone of the documentary.

Also, the editor produced a two-minute trailer about Thinking Cars for promotion of the film.

### Script Writing

An experienced narration writer for documentaries provided the film script. This required extensive research to make sure facts were accurate, as well as careful translation of the many interviews.

For specific crash scenarios, concrete figures were needed for the script. The team worked with Volvo and BMW to calculate the reduction in crash speed and crash energy if the cars had been equipped with collision mitigation braking (both today’s systems and future systems). For example, in the Swedish head-on crash, which occurred at 70 kph, today’s auto-braking system using 50% braking could have reduced the speed to 57 kph, resulting in 33% lower crash energy. A future auto-braking system using 90% braking could lower the speed to 44 kph, reducing the crash energy by 60%.

### Animation

High quality animation (computer generated graphics) is one of the key requirements of today’s broadcasters; therefore the team contracted with an experienced animation studio to provide animations customized for Thinking Cars. In focusing on several specific crashes, in some cases animation was employed to “re-play” these crashes with various active safety features operating to show the benefit.

Broadcasters also have high journalistic standards for documentaries. For this reason, the team gathered detailed

information about the specific crashes so that animators could replicate the crash as closely as possible.

#### Sourcing Third Party Footage

SCVP coordinated with numerous companies in the automotive industry to identify and review any animations or depictions of ADAS they had created for marketing purposes. A wealth of material was reviewed; however, given the High Definition format requirement only a small number of items were acceptable. Nevertheless these were very effective for the film and the rights for their use were granted by individual car companies, enabling the team to conserve project budget compared to SCVP creating custom animations..

Additionally, the team identified “stock footage” needed to round out the film, such as traffic in locations across Europe and various types of crash testing. The rights were acquired for the selected segments.

#### Review and Revision Process

The original project requirement was to deliver Thinking Cars as two one-hour programmes. For review purposes, in June 2009 the team presented the Commission with a “rough cut” 100 minute single episode version which would later be split into the two one-hour episodes. In addition to several comments provided as to the content and approach, the Commission concluded that the two-hour format was too long and requested a one-hour film.

To create the one-hour version, the team went back into the editing process to “take apart” the various story lines and re-work them for a one-hour film. Decisions were made as to which content items needed to be eliminated, including some of the more future-oriented ADAS systems. The revised version was resubmitted to the Commission in December 2009 and after a comment and revision period the film’s content was finalized in January 2010.

#### Finalizing the Film

With Commission approval, the film-making process entered its final phase. A narrator was selected, who recorded the script. The editor and music composer worked together to precisely match the scenes with specific musical moods. A sound editor carefully adjusted all sound levels and added sound effects where needed. The final finishing process was done by an “on-line” post-production company which provided color correction, sound balancing, credits, and other technical items. They designed the DVD cover and made copies in both PAL and NTSC formats.

The Thinking Car was completed in March 2010.



## 4 Broadcast Industry Interactions

### 4.1 Initial Efforts

A key SCVP objective was to establish broadcast agreements with major broadcasters in Europe to show Thinking Cars via mass media television.

The creative approach was aimed at a broad target audience, since the goal of SCVP is to stimulate broad acceptance and uptake of active safety systems. Therefore, even though auto or technology enthusiasts might be naturally interested in the topic, the programme has a strong human element, and is geared towards personal stories interwoven with the active safety content. This approach will hold the viewer's attention regardless of their level of interest in cars or technology.

The original workplan called for approaching major media outlets in Europe to involve them in the project as soon as possible.

To this end, discussions were held with several broadcasters in 2008, including Discovery and Der Spiegel. Discovery was very interested in the subject matter of Thinking Cars such that they were interested in further discussions as the project progresses. Letters of interest were provided by Discovery in terms of their potential interest in both broadcasting and distributing Thinking Cars, based on a review of the final product. In meetings with 'Der Spiegel' and Spiegel TV in Germany, their representatives noted that broadcasters will need the programme to have significant "wow" factors, and suggested that Thinking Cars will most likely appeal to broadcasters within the science and technology genre. They emphasized the need for a strong story line, and expressed concern about government influence in promoting a specific agenda.

Der Spiegel gave an interesting perspective on the fact that Thinking Cars is a publicly-funded TV production. It could be expected that broadcasters would welcome a documentary they didn't have to pay for, and that this would be a major factor in making Thinking Cars appealing to broadcasters. But these representatives noted that this actually causes greater cautiousness on the part of the broadcasters, again due to a concern the programme is biased.

While these and other discussions proved useful in gaining initial feedback and advice on the approach to Thinking Cars, the first year of the project was clearly too early for any substantial discussions regarding broadcast agreements.

This is primarily due to key questions for the broadcasters. First, what degree of creative control rests with vested interests, such as the European Commission or the car industry? Public broadcasters in particular have also expressed concern that the documentary could be

compromised by a strong government 'propaganda' message as opposed to a strong consumer story geared towards viewers. Second, will the show appear to be promotional? There are concerns about the appearance of car logos -- any appearance of an agenda to sell cars would limit the show's appeal for broadcasters.

These were issues which could not be addressed simply with assurances to put these concerns to rest. Broadcasters made it clear that they need to "see" the programme and make their own assessments. Therefore it was necessary for the project to proceed in an "acquisition" mode going forward, with marketing deferred until the film was in its final form.

## 4.2 Marketing Thinking Cars Through a Distributor

As noted above, the review process on the final film was completed with the Commission in January 2010. Online production (the final step in TV production) was begun in February 2010 and the documentary was completed in March 2010. This completion of the documentary marked the beginning of the marketing phase of Thinking Cars.

In order to begin the marketing process as soon as possible once Thinking Cars was completed, H3B had previously arranged a distribution agreement with Exploration Productions, Inc. (EPI) which has a very strong presence across the entire television industry. (For example, some current offerings are Mighty Ships, Forensic Factor, Daily Planet, Birth of a Sports Car, Sci Q, Science to Go, and Into the Wild.)

The strategy of using a television distributor took advantage of an "open door" to broadcasters due to the strong industry presence of this distributor – and a vastly superior approach to an alternative in which the SCVP team attempts to do this directly as relative unknowns in the broadcast industry.

EPI identified over 30 European broadcasters and approximately 30 more elsewhere in the world for the initial marketing push. The particular broadcasters targeted were carefully selected by the distributor as those whose typical content was a good match for Thinking Cars, plus professional knowledge regarding their current receptivity to an acquisition.

The European broadcasters targeted included ARTE France, BBC, Canal Plus, Channel 4, Channel 5, Discovery Europe, Hellas Sat Greece, RAI Italy, Spiegel TV Germany, SVT Sweden, ZDF Germany, RTV Belgium, VARA Netherlands, and Czech TV.


The SCVP team worked with EPI to create a marketing flyer (see below) and provide DVD copies of the film. This activity occurred in March 2010 in preparation for MIP TV, the major documentary TV conference that occurs each April in Cannes. Thinking Cars was displayed as part of the EPI stand and the EPI representative, Mr. Tony Leadman, had numerous discussions with interested broadcasters from around the world. Particular interest from


Europe came from Planeté France, Sky Italy, ProSieben and Der Spiegel in Germany, and National Geographic International.

• • •

Every 10 minutes, someone gets killed in a car crash somewhere in Europe or North America. The latest studies have even shocked the experts - 95% of the time, the guy behind the wheel is to blame. At the same time, everyone consistently overestimates their own driving skills ... With drivers being dumber than we thought, and cars getting smarter, is it time for the 'brains' to change places?

• • •





**THE THINKING CAR: A ONE HOUR DOCUMENTARY**

Start your engines! The international race to build the world's first crash-proof car is on. The stakes are enormous. Every 27 seconds someone gets killed behind the wheel of a car. This year more than a million will die world-wide. What if engineers could design a car too smart to crash? Will drivers trust the car to take over the decision-making in the critical seconds before impact?

Thinking Cars takes viewers behind closed doors into the secret and controversial world of brain caps, eye-trackers, heat-sensing cameras, and sophisticated sensors—the tools of the automotive visionaries who dare to dream of a world in which cars are smarter than the driver. A car that monitors the driver—is he paying attention or on the verge of falling asleep? With the exponential growth of computer and vision technology, the thinking car can see in the dark, around corners, and 360 degrees around itself. It reacts with superhuman speed, braking and even steering by itself to avoid a devastating collision.

But will the technology backfire by creating a population of zombies behind the wheel? From the man who crashes 200 cars a year to medical detectives searching for clues in the human body, the secret to developing a crash proof car, lies in the critical one tenth of a second of impact.

For the first time, engineers who have survived or even caused devastating collisions, relive the most terrifying seconds of their lives in the world's most sophisticated driving simulator. They are trying to unlock the mysterious physics and psychology of what happens in those key microseconds before a car crash.


Unprecedented access to the secret test tracks and engineering labs of the world's leading auto manufacturers gives viewers a ring side seat in a technological race with billions at stake.

Driving in the 21st century will never be the same. The relationship between man and his most beloved machine is about to change forever.

.....

**For more information please contact:**

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H B MEDIA

*Thinking Cars Marketing Flyer*

EPI also enlisted the assistance of a distribution partner, Upside TV, which focused specifically on the French market.

Based on extensive experience with television programming acquisitions, EPI noted that the decision process for a broadcaster typically takes several months or more. The expectation was that fall 2010 would be a typical timeline for a broadcaster sale.

In December 2010, EPI entered into negotiations to license The Thinking Car to Spektrum TV in Hungary. They are part of the Chello

family of channels and the program is eventually planned to air in Hungary, Czech Republic, and Slovakia. The negotiation was expected to be complete in early 2011.

The full list of targeted broadcasters, is provided in Appendix A. Many broadcasters simply did not respond, as is the typical industry practice when there is no interest, as broadcasters are inundated with candidate programs. Three broadcasters specifically declined to air the film: BBC, Ten Network Australia, and CBC Canada. In general, their comments were that The Thinking Car is an interesting and well done programme; however they did not have an appropriate programming slot available.

### **4.3 Enlisting Industry and Government Stakeholders in Seeking Broadcasters**

#### Industry

In parallel with the EPI process described above, H3B enlisted the help of key members of the auto and research industry who play a role in the film. Based on the favourable reception the film received at the June 2010 premiere in Brussels, the SCVP team contacted key organizations appearing in the film and made specific requests that any existing relationships between major companies and broadcasters be called upon to raise the profile of The Thinking Car and possibly facilitate a sale of the programme. Volvo Cars, BMW, CTAG, and TNO allied with the team in this regard. Despite these efforts, there were no broadcaster sales as a result.

#### Government

Based on interest expressed during the June premiere of The Thinking Car, H3B followed-up with several national ministries of transport, to enlist them in contacting their local national broadcasters to promote the film. Transport Ministries in Belgium, Lithuania, Netherlands, Norway, and Sweden were contacted, with varying results. A member of the Policy Unit of the Belgian Ministry of Mobility and Transport contacted H3B to say that this documentary is well suited to increase public awareness about road safety and ITS-applications. He offered to work with the Belgian Institute for Road Safety to recommend the documentary to Belgian public broadcasting companies (VRT and RTBF). H3B provided copies of the documentary to support this effort. The possibility was investigated during August-September 2010 but ultimately a placement of the program did not result.

A member of the Lithuanian Transport Ministry made contact with a national broadcaster to promote the documentary. In December 2010 H3B was contacted by this broadcaster, LNK. Arrangements were made to air the film in early January.

#### eSafetyChallenge Event

At the eSafetyChallenge event in Millbrook, UK during July 2010, H3B had an exhibit and was continuously showing The Thinking Car on a television monitor. This resulted in several promising conversations.

The producer of the program “paqpaq” on Television Malta was very interested in the film and offered to work with TV Malta to arrange a deal. H3B pursued this opportunity during August – October 2010 but it did not yield any results in the end.

Also, discussions were held with a car leasing company. They were quite interested in seeing the programme offered to decision-makers amongst their customer base. H3B pursued this opportunity during August – September 2010 but ultimately the leasing company decided that they needed a short (~10 minute) summary of the film for this purpose. As a result, H3B opened a discussion with the Commission to fund such a film summary.

#### **4.4 Using Film Festivals to Enhance Marketability**

As part of the overall marketing effort, The Thinking Car was entered into several film festivals. A selection by a festival would make the film more attractive to broadcasters. Festivals (generally in Europe) which had their selections finishing within the final project period were chosen.

The festivals entered were:

- London United Film Festival
- European Film Festival
- Newport International Film Festival Wales
- Women’s International Film Festival
- ION International Film Festival

Unfortunately, The Thinking Car was not selected by these festivals.

#### **4.5 Distribution via the European Broadcasting Union (EBU)**

##### EBU Distribution Discussions

In July 2010, at the suggestion of the Commission, the SCVP team made contact with the European Broadcasting Union (EBU) as a potential distributor of The Thinking Car. The EBU represents 75 members in Europe (see Appendix B). They operate Eurovision, advocate for the public broadcasters, and serve as a clearinghouse for content that can be shared among the members.

The EBU representatives reviewed The Thinking Car and were very impressed with it. While not being a distributor per se, they were willing to act as a promoter of the film to their members. Their proposal was to offer The Thinking Car at no cost to the public broadcasters, since there is a precedent for films funded by the European Commission to be offered free of charge, and the broadcasters therefore expect this.

The EBU requested a fee to cover the administrative costs of providing this service. H3B explored the possibility of the Commission covering this cost, but there was no timely mechanism. Therefore, H3B covered this cost out of internal funds.

H3B re-negotiated with EPI to arrange for H3B to take over European distribution and work with the EBU.

#### EBU Distribution Process

The Eurovision Operation Department (DOP) within the EBU operates the Eurovision network and other distribution means for their members and the broader television market. Specifically, the DOP operates a web-based delivery platform in Standard Broadcast definition called WorldLink. (<http://www.eurovision.net/worldlink>). On this platform it is possible to stream and download audiovisual content in broadcast quality. It is possible to grant access to this service to targeted recipients by delivering an access code to them.

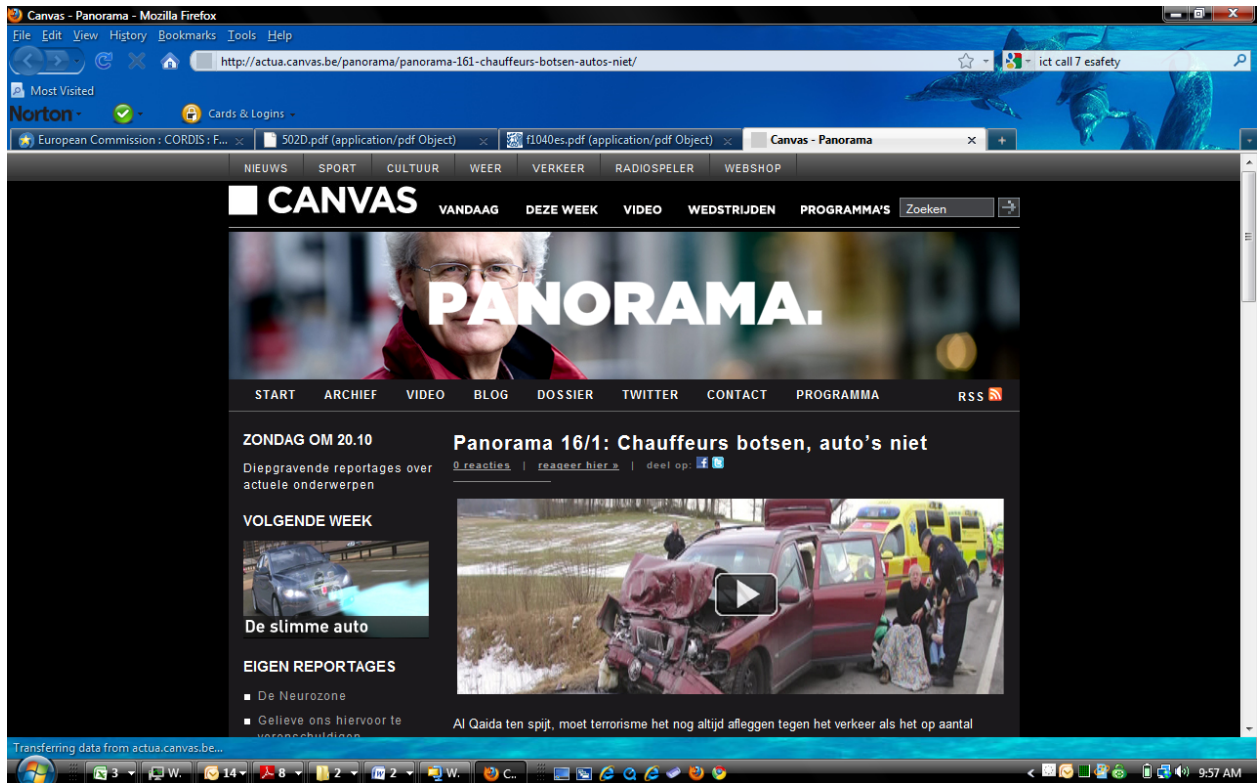
For The Thinking Car, the documentary was encoded and uploaded to the world link server, where it remained online for three months. The DOP distributed the film's flyer with the offer (free of charge) and sent it to selected recipients at member broadcasters (including the news department and documentary acquisitions). Those wishing to screen the film were sent the access code.

The EBU considered this approach as the ideal way to reach the widest possible range of broadcasters with a potential interest in the programme.

#### Results of EBU Offering

The EBU announcement went out to its members on October 15, 2010. As a result, the film received substantial interest. Broadcasters who notified H3B that they wanted to air the film were sent master tapes.

Broadcasts of all or portions of the documentary have been confirmed in Austria, Belgium, Finland, Lithuania, Portugal, and Serbia, with decisions pending in other countries.



*The Thinking Car – promotion on VRT Belgium, their second channel Canvas.*

Viewership levels were sought from broadcasters. The responses received indicate viewership figures in the 500,000 range for Serbia and Belgium alone. Adding Finland, Austria, Lithuania, and Portugal will increase this figure substantially.

Each broadcaster was asked to display the accompanying website, [www.thinkingcars.com](http://www.thinkingcars.com), at appropriate points in the broadcast, to enable viewers to learn more, including which cars have this technology available.

Additional broadcasters are actively interested in the film and the coordinator H3B will continue to work with interested broadcasters to maximize airplay after the project's conclusion.

#### 4.6 Plans for Direct Marketing to Auto Clubs and Schools

It is useful to make Thinking Cars available to auto clubs, schools, and other interested organizations and individuals. The specific approach to this goal varies based on the broadcaster agreements put in place. Persons interested in a copy may email H3B ([luis@h3bmedia.com](mailto:luis@h3bmedia.com)) to inquire on the proper approach for their region.

## **5 Co-ordination and Horizontal Activities**

### **5.1 eSafety**

The SCVP team coordinated the project with ERTICO, eSafetyAware, the FIA Foundation, and other key eSafety players. Regular updates about the project and film were provided in Thinking Highways magazine.



## 6 Results

### 6.1 Expected Audience for Thinking Cars

Thinking Cars was produced for the general public across Europe.

Via the commercial distributor process, broadcasts are pending in Hungary and possibly other channels in eastern Europe.

Via the EBU process, broadcasts of all or portions of the documentary have been confirmed in Austria, Belgium, Finland, Lithuania, Portugal, and Serbia, with decisions pending in other countries.

Viewership levels were sought from broadcasters. The responses received indicate viewership figures in the 500,000 range for Serbia and Belgium alone. . Adding Austria, Finland, Hungary, Lithuania, and Portugal will increase this figure substantially.

Each broadcaster was asked to display the accompanying website, [www.thinkingcars.com](http://www.thinkingcars.com), at appropriate points in the broadcast, to enable viewers to learn more, including which cars have this technology available.

### 6.2 Deliverables Produced

The project has produced the following publicly available deliverables:

- D1.1 Project Overview Leaflet
- D1.2 Results of Industry Consultation
- D4.1 Smartest Cars web site set-up
- D2.1 Smartest Cars Video Treatment
- D3.1 Process and Results in Talks with Broadcasters
- D2.2 Smartest Cars Video Programme
- D2.3 Short Videos for download at Smartest Cars web site
- D3.2 First broadcast agreements settled
- D3.3 Video programme public screenings complete
- D0.1 Final Report

### 6.3 Thinking Cars Website (D4.1 and D2.3)

The project's companion website – [www.thinkingcars.com](http://www.thinkingcars.com) – provides viewers of Thinking Cars with additional resources, and as such the website is planned to remain active for at least two years after the project is completed. The site contains more information on specific ADAS systems, extended video clips available for on-line viewing, and an up-to-date guide as to which vehicle models currently on the market have specific active safety systems. This website is a resource for a citizen wanting to buy the safest car possible, as well as a resource for schools and auto clubs.

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The public's understanding of ADAS and their views about buying ADAS systems can be assessed via the website, via a survey tool.

#### **6.4 Video Programme Public Screenings (D3.3)**

The Thinking Cars trailer was shown at the 2009 eSafetyChallenge Event in Rome, the Geneva Auto Show, ITS World Congress 2009 in Stockholm, as well as at InterTraffic 2010 and other venues.

#### **6.5 Thinking Cars Premiere (D3.3)**

Thinking Cars was premiered to the eSafety Community as part of the Transport Research Arena event in June 2010 in Brussels. Approximately 80 people attended from auto companies, road authorities, associations, and academia. A survey completed by the attendees showed broad support for the approach to the film and its content.

#### **6.6 Other showings (D3.3)**

The film was also shown at the 2010 eSafetyChallenge event in Millbrook, and other showings are planned within various organizations, such as the UK Department for Transport and the USDOT Research and Innovative Technology Administration.

#### **6.7 Thinking Cars Magazine (Additional Deliverable)**

As an additional deliverable, a 45 page magazine was produced which combined project information and ADAS system information called "Thinking Cars" was created. The magazine was written in a style to communicate to the general public. Over 1000 copies of the magazine were distributed at conferences, and an electronic version of the magazine is viewable at [www.thinkingcars.com](http://www.thinkingcars.com).

#### **6.8 Wider Benefits**

In addition to the formal deliverables from the project, the project has produced a lasting legacy through the catalogue of archive material that has been assembled by the production team.

#### **6.9 Socio-Economic Impacts**

The project was motivated by the potential for a mass media television documentary on ADAS to educate the public and potentially stimulate increased uptake of ADAS. To the degree this occurs, a resulting reduction in crashes will be the outcome.

However this link cannot be directly monitored or quantified.

#### **6.10 Efforts to Include Other Actors**

As noted in the previous sections, the SCVP team worked formally with the Industry Advisory Council to gain feedback on the programme approach. In addition, contacts were made across a wide swath of industry, government, and research actors in researching and filming the documentary.

The IAC encouraged the team to seek geographic diversity in the documentary, which was accomplished by filming in multiple cities in four countries.

The SCVP team also worked closely with the European Broadcasting Union to offer the documentary free of charge to their 70+ members.

### **6.11 Gender Equality**

The professional staff for SCVP was composed of a good representation of both genders. Specifically one of the three executive producers – the creative lead -- was female. Additionally, approximately half of the individuals contracted for the film production work were female.

### **6.12 Ethical Issues**

No ethical issues arose in the course of the project. Using typical documentary production practices, the team received the legal permission of all on-camera participants prior to their participation.

### **6.13 Conclusions**

SCVP has proved that it is possible for project funded by the European Commission to successfully interact with the automotive industry and other eSafety stakeholders and produce a television programme suitable for broadcast to the general public.

The project has successfully achieved a balance between the needs and priorities of the Automotive industry and the European Commission in the promotion of eSafety issues and solutions, in the context of broadcast industry requirements and constraints.

Given the success with broadcasting the documentary to hundreds of thousands of European citizens, the project has demonstrated the effectiveness of using a TV programme format as an effective way to reach the public in a way that is engaging and memorable and has a good potential to motivate them to seriously consider purchasing eSafety systems.

Making a TV documentary at a cost of approximately one million euro can be seen as a very cost-effective method of ensuring the results of the billions of Euros invested by the European Commission and industry in eSafety research and development are seen by and promoted to as a wide an audience as possible.

Finally, the SCVP project has provided a powerful tool in the programme to enable the European Commission and the wider eSafety Community to move forward in the process of increasing the market uptake of ADAS.

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## Appendix A – Broadcasters Targeted by EPI

### Europe

Arte France  
BBC  
Canal Plus/Planete  
Channel 4  
Channel 5  
Danish Broadcasting Corp  
Discovery Europe/UK  
France TV  
Hellas Sat Greece  
Monaco Films  
National Geographic International  
NRK Norway  
RAI Italy  
RTL Group  
Spiegel TV Germany  
STV Scotland  
SVT Sweden  
TV 6 Sweden  
TV2 Norway  
UKTV  
YLE Finland  
ZDF Germany  
ProSieban Media Germany  
Nordic World  
RTV Belgium  
VARA Netherlands  
Spain  
Antena 1 Romania  
Channel One Russia  
Czech TV  
First HD Russia

### North America

Discovery Channel Canada  
National Geographic US

CBC Canada  
Science Channel US

**Australia/New Zealand**

ABC  
Foxtel  
Maori  
Nine Network  
Seven Network  
Sky New Zealand  
Ten Network  
XYZ Australia

**Asia**

CITVC  
Discovery Asia/India  
Korea NCS Media  
NHK  
Star TV  
Sky HD Korea  
Coign Media Korea  
Plus Media Partners Korea  
Intercom Media Korea  
Munhwa Broadcasting Corp  
RGBPL India

**Latin America**

Discovery Latin America  
GloboSat Brazil  
Pramer

**Middle East**

Ananey – Israel

## Appendix B – European Broadcasting Union Active Members

(as of October 2010)

### **Albania**

- Radiotelevizione Shqiptar

### **Algeria**

- Entreprise Nationale de Télévision/Entreprise Nationale de Radiodiffusion Sonore/Télédiffusion d'Algérie

### **Andorra**

- Ràdio i Televisió d'Andorra, S.A.

### **Armenia**

- Public Television & Radio Armenia, comprising:
  - Public Television of Armenia
  - Public Radio of Armenia

### **Austria**

- Österreichischer Rundfunk

### **Azerbaijan**

- İctimai

### **Belarus**

- Belaruskaja Tele-Radio Campanija

### **Belgium**

- Vlaamse Radio- en Televisieomroep and Radio-Télévision Belge de la Communauté française

### **Bosnia-Herzegovina**

- Javna Radio Televizijska servis Bosnie i Hercegovine

### **Bulgaria**

- Bâlgarsko Nationalno Radio
- Bâlgarska Nationalna Televizija

### **Croatia**

- Hrvatska Radiotelevizija

### **Cyprus**

- Cyprus Broadcasting Corporation

### **Czech Republic**

- Český Rozhlas
- Česká Televize

### **Denmark**

- Danmarks Radio
- TV2/Danmark

### **Egypt**

- Egyptian Radio and Television Union

### **Estonia**

- Eesti Rahvusringhääling

### **Finland**

- MTV Oy
- Oy Yleisradio Ab

### **France**

- Europe 1
- Groupement des Radiodiffuseurs français de l'UER, grouping the following organizations:
  - Télévision Française 1
  - France Télévisions (France 2, France 3, France 4, France 5 and Réseau France Outre-mer)
  - Canal Plus

- Radio France
- Radio France Internationale

**Georgia**

- Georgian TV and Radio Broadcasting

**Germany**

- Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland (ARD), comprising:
  - Bayerischer Rundfunk
  - Hessischer Rundfunk
  - Mitteldeutscher Rundfunk
  - Norddeutscher Rundfunk
  - Radio Bremen
  - Rundfunk Berlin-Brandenburg
  - Saarländischer Rundfunk
  - Südwestrundfunk
  - Westdeutscher Rundfunk
  - Deutsche Welle
  - DeutschlandRadio
- Zweites Deutsches Fernsehen

**Greece**

- Elliniki Radiophonia-Tileorassi SA

**Hungary**

- Magyar Rádió
- Magyar Televízió

**Iceland**

- Ríkisútvarpid

**Ireland**

- Radio Telefís Éireann
- TG4

**Israel**

- Israel Broadcasting Authority

**Italy**

- Radiotelevisione Italiana

**Jordan**

- Jordan Radio and Television Corporation

**Latvia**

- Latvijas Televizija
- Latvijas Radio

**Lebanon**

- Télé-Liban

**Libya**

- Libyan Jamahiriya Broadcasting

**Lithuania**

- Lietuvos Radijas ir Televizija

**Luxembourg**

- CLT Multi Media
- Établissement de Radiodiffusion Socioculturelle du Grand-Duché de Luxembourg

**Former Yugoslav Republic of Macedonia**

- MKRTV

**Malta**

- Public Broadcasting Services Ltd

**Moldova**

- Teleradio-Moldova

**Monaco**

- Groupement de Radiodiffusion monégasque, comprising:
  - Radio Monte-Carlo
  - Télé Monte-Carlo
  - Monte-Carlo Radiodiffusion

**Morocco**

- Société Nationale de Radio Télévision

**Montenegro**

- Radiotelevizija Crne Gore

**Netherlands**

- Nederlandse Publieke Omroep, comprising:
  - Algemene Omroepvereniging AVRO
  - Omroepvereniging BNN
  - Vereniging De Evangelische Omroep
  - Katholieke Radio Omroep
  - Omroep MAX
  - Nederlandse Christelijke Radio Vereniging
  - Nederlandse Omroep Stichting
  - NTR (replaces NPS)
  - TROS
  - Omroepvereniging VARA
  - Omroepvereniging VPRO

**Norway**

- Norsk rikskringkasting
- TV 2 AS

**Poland**

- Polskie Radio i Telewizja:
  - Telewizja Polska SA
  - Polskie Radio SA

**Portugal**

- Rádio e Televisão de Portugal

**Romania**

- Societatea Româna de Radiodifuziune
- Societatea Româna de Televiziune

**Russian Federation**

- Channel One Russia
- Radio Dom Ostankino, comprising:
  - Radio Mayak
  - Radio Orpheus
  - Radio Voice of Russia
- Rossijskoe Teleradio

**San Marino**

- San Marino RTV

**Serbia**

- Radiotelevizija Srbije

**Slovakia**

- Slovensky Rozhlas
- Slovenská Televizia

**Slovenia**

- Radiotelevizija Slovenija

**Spain**

- Radio Popular SA COPE
- Radiotelevisión Española
- Sociedad Española de Radiodifusión

**Sweden**

- Sveriges Television och Radio Grupp, comprising:



- Sveriges Television Ab
- Sveriges Radio Ab
- Sveriges Utbildningsradio Ab
- TV4

**Switzerland**

- SRG SSR idée suisse

**Tunisia**

- Radio tunisienne et Télévision tunisienne:
  - Radio tunisienne
  - Télévision tunisienne

**Turkey**

- Türkiye Radyo-Televizyon Kurumu

**Ukraine**

- Natsionalna Radiokompanya Ukraïny and Natsionalna Telekompanya Ukraïny

**United Kingdom**

- British Broadcasting Corporation
- United Kingdom Independent Broadcasting, comprising: Independent Television: The Network Centre, grouping:
  - ITV Anglia Television
  - ITV Border Television
  - ITV Central Television
  - Channel Television
  - ITV Granada Television
  - Grampian TV
  - ITV Wales Television
  - ITV West Television
  - ITV London Television
  - ITV Meridian Television
  - Scottish TV
  - ITV Tyne Tees Television
  - Ulster Television
  - ITV Westcountry Television
  - ITV Yorkshire Television
- Channel 4, Sianel 4 Cymru

**Vatican State**

- Radio Vaticana