

PROJECT PERIODIC REPORT



Development Platform for Safe and Efficient Drive



JU Grant Agreement number: 295364

Project acronym: DESERVE

Project title: DEvelopment platform for Safe and Efficient dRiVE

Date of latest version of Annex I against which the assessment will be made:

Periodic report: 1st 2nd 3rd 4th

Period covered: from Sep 1, 2012 to Aug 31, 2013

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Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the JU Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate):
 - has fully achieved its objectives and technical goals for the period;
 - has achieved most of its objectives and technical goals for the period with relatively minor deviations¹;
 - has failed to achieve critical objectives and/or is not at all on schedule².
- The public website is up to date, if applicable.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 5 (Project Management) in accordance with Article III.2.f and IV.1.f of the JU Grant Agreement.

Name of scientific representative of the Coordinator:

Date://

Signature of scientific representative of the Coordinator:

¹ If either of these boxes is ticked, the report should reflect these and any remedial actions taken.
² If either of these boxes is ticked, the report should reflect these and any remedial actions taken.

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1. Publishable summary

To manage the expected increase of function complexity together with the required reduction of costs (fixed and variable) DESERVE will design and build an ARTEMIS Tool Platform based on the standardisation of the interfaces, software (SW) reuse, development of common non-competitive SW modules, and easy and safety-compliant integration of standardised hardware (HW) or SW from different suppliers. With innovative design space exploration (DSE) methods system design costs can be reduced by more than 15%.

DESERVE will build an innovation ecosystem for European leadership in ADAS embedded systems, based on the automotive R&D actors, with possible applications in other industrial domains. Since the purpose of ADAS functions is also to support the driver, an advanced human-centred design strategy will be integrated in the Tool Platform. Therefore, the developed applications will provide natural and friendly support to the driver, with proper levels of overall functional safety also during complex or emergency manoeuvres.

During the first project year, the requirements and specifications concerning the project have been created. The project has identified the following driver and rider assistance support applications to be further developed as joint effort of the DESERVE partners:

- *Lane change assistance system*
- *Pedestrian safety systems*
- *Forward/Rearward looking system (distant range)*
- *Adaptive light control*
- *Park assistant*
- *Night vision system*
- *Cruise Control System*
- *Traffic sign and traffic light recognition*
- *Map supported systems (Note: only DAS scope, no driver information)*
- *Vehicle interior observation*

The architecture includes various environment perception modules and the architecture has been adapted in order to be compatible with the interactIVe-EU-FP7 project. In addition, the plan concerning the prototypes has been created in order to connect radars, cameras and digital maps to the different DESERVE demonstrators.

The project is coordinated by Dr. Matti Kutila from VTT Technical Research Centre of Finland. His phone number is +358 40 820 8334 and email address matti.kutila@vtt.fi. Further information concerning the project is available in the project web site: <http://www.deserve-project.eu/>



Development Platform for Safe and Efficient Drive

Figure 1 Deserve logo



Figure 2. Motorcycle pilot vehicle

2. Project objectives for the period

The main aim of the first reporting period was to create common definitions and requirements for the DESERVE embedded software platform. The project includes four different types of demonstration vehicles:

- Passenger cars (no. 2)
- Heavy commercial vehicle (no. 1)
- Light commercial vehicle (no. 1)
- Motorcycle

Additionally the driver monitoring system will be demonstrated in the truck simulator for ensuring the exhaustive evaluation of different driver states (drowsy, distracted, etc.). The developed application, modules and requirements are also different due to their use for different purposes of vehicles and traffic environment where they are typically used.

The overall objective of the DESERVE project is to build an innovative platform for compositional development of ADAS systems, contributing to safe and highly efficient driving and designed to be economically viable in the low volume vehicle market. The project objectives stated in Annex I – Part B are:

Scientific and Technical objectives	Measurable and verifiable form	Objectives in 1 st reporting period
<p>The definition and implementation of a model-driven process for the compositional development of safety critical systems that allows the smoothly integration of existing components and functions in a new framework</p>	<p>By defining an analysis methodology to establish an industrially applicable process for exploration of design spaces and multi-criteria constraint satisfaction, with particular regard to safety properties.</p> <p>Verification: 90% or more of the applications identified could be developed with the proposed platform</p>	<p>Define user needs, application domains and requirements for the DESERVE system mainly done in SP1. Start designing the vehicle model and perception layer components in SP2.</p>
<p>The development of an innovative embedded vehicle platform capable of supporting the fast and reliable development of ADAS and efficient Eco-driving functions</p>	<p>By implementing demonstrators for active and passive safety of drivers and all road users in the three macro-areas in the automotive domain such as:</p> <ul style="list-style-type: none"> - Technical, safety and efficiency impact assessment of resulting prototypes following the evaluation methodologies identified in project PREVAL and in line with INTERACTIVE evaluation methodologies; - Cost-Benefits analysis - Evaluation of cost reduction in comparison with conventional Driver Assistance Systems. <p>Verification: 90% or more of the developed applications showed more than 15% of reduction in development time and cost.</p>	<p>Design and specify the embedded vehicle platform tools and components to be implemented.</p>
<p>The integration of existing vehicle sensors and actuators in a unified SW framework for multiple safety and Eco-driving applications</p>	<p>Existence of a cost-effective and flexible SW platform, able to be used with available sensors/actuators.</p> <p>Verification: 90% or more of the developed applications show more than 15% reduction in development duration and cost.</p>	<p>Not valid for the 1st project year</p>
<p>The adaptation of the current data fusion, HMI and driver's behaviour modules to provide suitable and harmonised middleware for the different safety and Eco-driving functions</p>	<p>By applying the V-model and developing high level services and Application Protocol Interface (API) that can be used in a wide range of safety-related use cases (also considering the possible emerging risk-prone use cases for the next generation vehicles)</p> <p>Via multi-modal HMI with user related and driver behaviour assessment through tests in driving simulator and in prototype vehicles By using EU project PELOPS</p>	<p>Create driver model for behaviour analysis. Specification of data sources and applications for the data fusion platform to be implemented.</p>

	<p>simulation in the driver behaviour modules and providing benchmarking between PELOPS virtual driver and real driver.</p> <p>Verification: Statistical evidence of improvement of driver acceptance between existing (on the market) and DESERVE-developed functions. Subjective evaluation through questionnaires.</p>	
<p>The implementation of a new method and relative tools for ADAS functions development</p>	<p>Existence of new tools for development of Driver Assistance Systems, including data fusion visualisation, algorithm development, actuation simulation, etc.</p> <p>Verification: Evidence that the method is suitable for effective ADAS developments:</p> <ul style="list-style-type: none"> - Results of the test case development - Results of workshops with main stakeholders, OEMs and Automotive suppliers. 	<p>Not valid for the 1st project year.</p>

3. Work progress and achievements during the period

Figure 3 shows the originally planned timeline of the DESERVE sub-projects. All SPs started within 3 months delay and the major consequence was extension needed to complete SP1 with 6 months later than originally planned. Still D13.1 (Development Platform Specification) is under internal review process but will be submitted by Nov. The other SPs started parallel development work are currently about 3 months behind of their originally planned schedule.

		Year 1													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Requirements							Extension							
1.1	Application Needs	D11.1, D11.2													
1.2	Requirements			D12.1											
1.3	Specifications					D13.1, D13.2									
2	ADAS Development platform														
2.1	Tools and Development System							D21.1, D21.3							
2.2	Perception Layer							D22.1							
2.3	Vehicle Modelling							D23.1		D23.2					
2.4	Arbitration/Control							D24.1		D24.2, D24.3					
2.5	Platform System Architecture									D25.1, D25.3, D25.4					
2.6	Virtual Testing							D26.1		D26.2					
3	Driver Behaviour - HMI														
3.1	Driver Modelling							D31.1							
3.2	Driver Monitoring							D32.1							
3.3	Integrated HMI Needs and Specifications					D33.1		D33.2							
3.4	Innovative Integrated HMI									D34.1					
4	Test Case Functions														
4.1	Warning Functions							D41.1							
4.2	Control Functions							D42.1							
4.3	Vulnerable Road User Protection Functions							D43.1							
4.4	Automated Functions							D44.1							
4.5	Cooperative System Functions							D45.1							
4.6	Inter-urban Assist							D46.1							
5	Integration and Tests														
5.1	Passanger Car Applications							D51.1							
5.2	Commercial Vehicle Applications							D52.1							
5.3	Motorcycle Applications							D53.1							
6	Validation and Evaluation														
6.1	Validation Plan							D61.1							
6.2	Validation Tests														
6.3	Evaluation														
7	Dissemination and Exploitation														
7.1	Dissimination							D71.1, D71.2							
7.2	Exploitation, Standartisation and Regulatory Issues														
8	Project Management														
8.1	Project Management							D81.1							
8.2	Technical Coordinator							D82.1, D82.2							

Figure 3. The project status on Oct 30.

3.1 Work package summaries

SP1 Requirements (DAIMLER)

1 st year objectives:	The objective of SP1 was to identify and aggregate the
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	requirements and the specifications for the DESERVE platform; the specific needs of the stakeholders (i.e. OEMs, suppliers, drivers, developers, etc.) were considered and investigated. The subproject was started by considering all possible applications and their needs. From these, the requirements of the platform were identified. Finally, the specification of the methods and tools were defined that will realise the platform.
<i>Summary of progress:</i>	All tasks of SP1 are successfully completed within the first project year.
<i>Major results:</i>	Working results are documented in the Deliverable D11.1, D11.2, D12.1, D13.1 [in progress] and D13.2.
<i>Deviations from Annex I and planned corrective actions:</i>	Due to the reorganisation of the project management, the project started with a delay of 3 month. This project delay could be almost completely compensated by the end of SP1. Corrective actions aiming to finalize all deliverables by the end of the first project year and to speed up the SP1 were focussing the men power in the SP and very intense communication with the project partners via emails, teleconferences, and two Workshops in Orbassano (Italy).
<i>Statement of used resources:</i>	The resources were used by the partners as planned with only slight under- or overspending in some cases.
<i>Statement concerning interaction with other projects:</i>	The interaction with other research project was mainly concentrated in balancing and adjusting the already existing definitions and specifications, especially with the ADASIS Forum and with the two FP7 research programmes INTERACTIVE and HAVE-IT.
<i>Dissemination and exploitation:</i>	In this first year there are no dissemination activities planned or done.
WP11 Applications Needs (DAIMLER)	
<i>1st year objectives:</i>	The objective of WP11 was to identify the generic building blocks of the future DESERVE platform (the basic platform modules), derived from all possible existing and future applications in the field of ADAS functions.
<i>Summary of progress:</i>	All tasks of WP11 could be successfully completed within the first project year.
<i>Major results:</i>	Working results are documented in the Deliverable D11.1 "Application Database" and D11.2 "Platform needs". Analyzing all existing and future applications in the field of ADAS functions results in the identification of 12 basic platform modules with which all currently available driver assistance systems could be implemented.
<i>Deviations from Annex I and planned corrective actions:</i>	Due to the delayed project start of (more than) 3 month, the work as planned in Annex 1- DoW could be finished with a delay of one month. Corrective action to speed up the work was to intensify the work and to do the work in WP11 whenever possible in parallel.
<i>Statement of used resources:</i>	The resources were used by the partners as planned with only slight under- or overspending in some cases.
<i>Statement concerning interaction with other projects:</i>	The interaction with other research project was mainly concentrated in balancing and adjusting the already existing definitions and specifications, especially with the ADASIS Forum and with the two FP7 research programmes INTERACTIVE and HAVE-IT.

<i>Dissemination and exploitation:</i>	In this first year there are no dissemination activities planned or done.
WP12 Requirements (CRF)	
<i>1st year objectives:</i>	The objective is the definition of the requirements of the DESERVE development platform. The needs identified in the previous work package are translated into requirements for the DESERVE platform.
<i>Summary of progress:</i>	<p>Two workshops have been organised focusing on the definition of requirements and specifications: CRF, Orbassano, 07.12.2012 and 08.05.2013.</p> <p>D121 deliverable defines the requirements of the DESERVE Development Platform. The needs identified in D112 "Platforms needs" have been translated into "requirements" for the DESERVE Platform, based on a common software architecture and suitable for the development and simulation of several DAS functions, as identified in deliverable D111 "Application Database".</p> <p>The <u>basic requirements</u> of the DESERVE development platform have been listed having in mind what is mandatory for industrial use and what will be implemented and demonstrated in the project.</p> <p>The <u>basic software architecture</u> to be addressed by the DESERVE development framework has been defined: it is based on three layers, Perception, Application and Information Warning Intervention (IWI) platforms.</p> <p>For each Platform the complete <u>list of software modules</u> has been defined in order to cover all the 33 DAS functions described in D111 deliverable report. The functional requirements have been defined only for the modules to be developed and integrated in the target applications (demo vehicle/motorcycle, test bench, simulator).</p> <p>The report represents a <u>first release of the development platform requirements</u>. Further updates during the course of the project and in particular of the development activities within SP2, SP3, SP4 and SP5 may happen as appropriate and useful.</p>
<i>Major results:</i>	Deliverable D121 Development Platform Requirements
<i>Deviations from Annex I and planned corrective actions:</i>	The deliverable was delayed with respect to the original schedule. Despite of that some inputs were provided to the other SPs and workpackages in order to limit as much as possible the delay of the other activities.
<i>Statement of used resources:</i>	The resources were used by the partners as planned with only slight under- or overspending in some cases.
<i>Statement concerning interaction with other projects:</i>	<p>The baseline for DESERVE is represented by the results of past and on-going research projects, and in particular of interactIVe addressing the development of a common perception framework for multiple safety applications with unified output interface from the perception layer to the application layer.</p> <p>The challenge of DESERVE is to go beyond interactIVe, targeting the standardisation of a wider software architecture including the Application and the Information Warning Intervention (IWI) platforms, in addition to the Perception platform already developed within interactIVe.</p>

	A link with interactive was set but only public documents were shared up to now.
<i>Dissemination and exploitation:</i>	Specific dissemination activities have not been undertaken.
WP13 Specifications (CRF)	
<i>1st year objectives:</i>	The objective was the definition of the complete specification of the DESERVE development platform.
<i>Summary of progress:</i>	<p>D131 deliverable defines the specifications of the DESERVE Development Platform, and in particular the specifications (in terms of input, output) of the addressed perception, application and IWI modules. The report is in progress and will be submitted in November.</p> <p>D132 Method and Tools Specifications (output of work package 1.3, dealing with the complete specification of the DESERVE development platform) defines the methodology to be followed during the development of the safety applications, together with the specifications of the development tools to be used in the DESERVE platform. The different tool-chain variants are described in the light of their requirements, functionalities and needs.</p> <p>The report is also strictly linked with "D213 Development method (first release)" (output of work package 2.1 focusing on the identification, development and integration of tools and development systems of the overall platform), where more detailed guidelines will be given on how to use the DESERVE platform. D132 report introduces the methodology from a more general point of view with an overview of possible tools, D213 is focused on the specific tools associated with the DESERVE Development Platform and rapid prototyping.</p>
<i>Major results:</i>	D131 Development Platform Specification [in progress] D132 Method and Tools Specifications
<i>Deviations from Annex I and planned corrective actions:</i>	The deliverables were submitted in delay with respect to the original schedule. Despite of that some input were provided to the other SPs and workpackages in order to limit the delay as much as possible of the other activities.
<i>Statement of used resources:</i>	The resources were used by the partners as planned with only slight under- or overspending in some cases.
<i>Statement concerning interaction with other projects:</i>	<p>The baseline for DESERVE is represented by the results of past and on-going research projects. It is represented also in particular of interactive addressing the development of a common perception framework for multiple safety applications with unified output interface from the perception layer to the application layer.</p> <p>The challenge of DESERVE is to go beyond interactive. This means targeting the standardisation of a wider software architecture including the Application and the Information Warning Intervention (IWI) platforms, in addition to the Perception platform already developed within interactive.</p> <p>A link with interactive was set but only public documents were shared up to now.</p>
<i>Dissemination and exploitation:</i>	Specific dissemination activities have not been undertaken.

SP2 ADAS Development Platform (*INRIA*)

<p><i>1st year objectives:</i></p>	<p>The main objective of the SP2 (ADAS development Platform) is the definition of the methodology and platform applications in each of the WPs, such as: development systems, perception system, vehicle modelling, arbitration and control, the platform system architecture and the virtual testing tools.</p> <p>Different deliverables (mainly first releases) are provided in each WP.</p> <p>Mainly, two demonstrators are considered in this SP (Daimler and CRF).</p>
<p><i>Summary of progress:</i></p>	<p>First interaction between all partners started in March 2013. Some of them had already started to work together (chiefly, they are in charge of the Daimler demonstrator).</p> <p>The KoM was held in Paris –April 17 and 18- (between both partners: INRIA and Armines).</p> <p>Each partners exposed (briefly) their expectative and contributions in the SP2 (CONTINENTAL, CRF, DAIMLER, FICOSA, NXP-NL, INFINEON, DSPACE, INTEMPORA, ASL VISION, VISLAB, IRSEEM, ARMINES, CTAG, TECHNOLUTION, INRIA).</p> <p>The presentations of the KoM are available in the web side (SP8\WP81 Project Management\Meetings\SP2 KoM Paris 17-18_04_2013).</p> <p>Based on the components layout template, proposed by CRF, the responsibilities of the partner in the CRF demonstrator were defined.</p> <p>Two main tools (ADTF and RTMaps) have been selected to test the robustness and modularity of our approaches.</p>
<p><i>Major results:</i></p>	<p>Detailed development architectures were defined, and currently the partners are working on their assigned tasks, for all the use cases and platforms.</p> <p>Details include input and outputs definitions (sensors, modules, functions).</p>
<p><i>Deviations from Annex I and planned corrective actions:</i></p>	<p>No technical or scientific deviations.</p> <p>The first round of deliverables (M9 and M12) has been slightly delayed. Some of them are already submitted to the peer-review process and some (D22.1, D23.1, D23.2) are already published in the workspace of the project.</p> <p>The rest of the deliverables are under development (mainly in final version). We are working to catch few delays of the project.</p>
<p><i>Statement of used resources:</i></p>	<p>The expected human resources were almost respected. However, it is important to underline that the French partners have some modifications in their person-months efforts in the project including SP2.</p>
<p><i>Statement concerning interaction with other projects:</i></p>	<p>Some SP2 partners had important interaction with interactive-EU-FP7 project as well as the former EU-FP7-Have-IT project and the French ABV (Low Speed Automation) project.</p>
<p><i>Dissemination and exploitation:</i></p>	<p>There have been some dissemination efforts within SP2 (international conference, e.g IEEE-IV 2013)</p>
<p><i>WP21 Tools and Development Systems (dSpace)</i></p>	

<i>1st year objectives:</i>	The objective is the analysis of tools and development systems to identify tools and development systems for the overall platform.
<i>Summary of progress:</i>	<p>The work package started in January 2014 with an analysis and study of already available development tools. It has been investigating which of the tools should be used in the DESERVE platform.</p> <p>The ADTF tool from Elektrobit has been selected as general framework tool. Furthermore, RTMaps key features have been identified for the integration into the Virtual Testing Framework (WP5.2).</p> <p>The rough architecture of the software environment has been discussed with the partners. The hardware architecture of a universal development platform has been defined.</p> <p>Research of the State-of-the-Art in hardware cost modeling and multi-criteria analysis (i.e., design space exploration) was initiated. Moreover, in cooperation with dSPACE, a first commercial FPGA has been selected for the implementation of dedicated algorithms.</p>
<i>Major results:</i>	<ul style="list-style-type: none"> • Selection of tools, • Definition of development platform architecture, • Implementation of different basic processing blocks, • Availability of a first demonstrations system on a ML605 board and controlled by a host PC that runs an ADTF environment
<i>Deviations from Annex I and planned corrective actions:</i>	Up to now the project partners didn't report any significant deviations. The deliverables are on time.
<i>Statement of used resources:</i>	So far the project partners didn't report delays for this work package.
<i>Statement concerning interaction with other projects:</i>	There was no interaction with other project on work package level.
<i>Dissemination and exploitation:</i>	The work package has been started. There were no actions concerning dissemination and exploitation.
WP22 Perception Layer (Bosch)	
<i>1st year objectives:</i>	First year objectives of "WP 22 – Perception Layer" are the definition and development of the DESERVE platform parts that interface with the typical information sources and outputs, i.e. the sensors, digital maps, actuators, cooperative communication, sensor fusion, processing and modelling of sensor interfaces for System on Chip (SoC) implementations. The main challenge is to define and generate a virtual abstraction layer that can both provide the required information to all the DESERVE platform modules and is mostly independent of the real physical implementation. This kind of standardized information flow is already used in computer systems since many years with key words like hardware abstraction layer (HAL), application programming interface (API), Portable Operating System Interface (POSIX), etc.
<i>Summary of progress:</i>	In the first year the DESERVE perception layer was defined, analyzed and described in an abstracted and hierarchical form for all the seven perception sub-layers sensors(1), digital maps(2), actuators(3), cooperative communication(4), sensor fusion(5), processing(6) and modelling of sensor interfaces for System on Chip (SoC) implementations(7).

	As far as possible reuse or adaption of already existing preliminary work like the ADASIS standard for digital maps or the concepts developed by the FP7 research projects INTERACTIVE and HAVE-IT was done. Working results are documented in the first Deliverable D2.2.1
<i>Major results:</i>	Deliverable D2.2.1 – DESERVE Perception layer – First Preliminary Release
<i>Deviations from Annex I and planned corrective actions:</i>	There is no significant deviation from the work planned in Annex 1-DoW. No corrective actions are currently planned or implemented. Despite the view and opinion of some partners, that especially Task 2.2.3 (Actuators) may not belong to the perception layer module, the initial planned approach was maintained.
<i>Statement of used resources:</i>	The resources were used by the partners as planned with only slight under- or overspending in some cases.
<i>Statement concerning interaction with other projects:</i>	The interaction with other research project was mainly concentrated in balancing and adjusting the already existing definitions and specifications, especially with the ADASIS Forum and with the two FP7 research programmes INTERACTIVE and HAVE-IT.
<i>Dissemination and exploitation:</i>	In this first year there are no dissemination activities planned or done.
WP23 Vehicle Modelling (CRF)	
<i>1st year objectives:</i>	The objectives of WP23 Vehicle modelling is to analyse existing vehicle models (user interface, I/O managing, pre/post-processing, controlled system integration features, etc.) and to evaluate them in term of “output fidelity” in steady state, lateral dynamics, longitudinal dynamics, combined lateral/longitudinal. Then a Reference vehicle is defined and detailed data collection is performed. Model set-up and functional verification, vehicle handling experimental characterization are the main activities.
<i>Summary of progress:</i>	<p>The purpose of D231 deliverable (work package 2.3, task 2.3.1) is to benchmark commercially available tools based of 14 degree of freedom models.</p> <p>The activity has been done analysing the available information (from OEMS, Automotive suppliers, academic and literature) and evaluating the fidelity of simulation results by a comparison with a reference Multibody vehicle model.</p> <p>After the definition of the basic features of 14 degrees of freedom models, the report identifies the main commercially available vehicle models and two of them, CarRealTime v14 and CarSim v8.0.3, have been analysed more in details.</p> <p>The relevant input data required by CarRealTime and CarSim for vehicle model definitions are quite similar for car body, wheels & tires and powertrain. The main differences have been found in the case of primary suspensions and steering systems.</p> <p>Both CarRealTime and CarSim allow an easy integration of external subsystem models (ICT-based safety systems, brakes ...) developed in Matlab/Simulink.</p> <p>The accuracy of simulation results in terms of lateral and longitudinal dynamics and related body movements, evaluated through the comparison with a reference Multibody model, is quite</p>

	<p>good for CarRealTime and fairly good for CarSim.</p> <p>The purpose of D232 deliverable – first release (work package 2.3, task 2.3.2) is to collect the input data related to the reference vehicle defined for the Project, to develop the corresponding vehicle model and to make a first functional verification of it. The following activities have been completed:</p> <ul style="list-style-type: none"> • Definition of the reference vehicle; • Collection of detailed geometric and elastic input data of vehicle primary suspensions; • Generation of detailed Multibody models for front & rear suspensions; • Virtual evaluation of the suspension characteristic curves necessary to describe suspensions in the 14 d.of. model; • Collection of all other data necessary for the vehicle model (inertial properties, driveline data, tire model parameters).
<i>Major results:</i>	<p>D2.3.1 – Existing vehicle models</p> <p>D2.3.2 - Generic Vehicle Model – First Release</p>
<i>Deviations from Annex I and planned corrective actions:</i>	D2.3.1 /D23.2 reports have been submitted with a delay of two months but it has not had a negative impact on other activities / deliverable report.
<i>Statement of used resources:</i>	Resources have been used according to plan.
<i>Statement concerning interaction with other projects:</i>	No
<i>Dissemination and exploitation:</i>	No dissemination activities.
WP24 Arbitration/Control (INRIA)	
<i>1st year objectives:</i>	<p>The analysis of existing vehicle control (and arbitration) solutions. These solutions should consider the driver in the control loop. Sharing control techniques and different solutions in the task management are considered.</p> <p>3 deliverables (D24.1, D24.2 and D24.3) are provided.</p>
<i>Summary of progress:</i>	<p>There is a constant collaboration between INRIA and CTAG to work in this WP. The deliverable D24.1 was already submitted to the peer-review process. In this document an analysis of existing vehicle control solutions for the different DESERVE platforms is presented. Both longitudinal and lateral control will be considered in the next deliverables (D24.3 Generic ADAS control) and these perspectives will consider the driver in the control loop. Moreover, a study of different arbitration solutions is in process.</p>
<i>Major results:</i>	<p>A study of the main previous work in ADAS applications and autonomous driving.</p> <p>Analysis of existing vehicle control solutions in the market.</p> <p>A description of the main applications and platform needs, based on the D11.1 (Application Database) and D11.2 (platform needs) and D12.1 Development Platform Requirements.</p> <p>Review of the different solutions in the shared between the vehicle and the driver.</p> <p>First release of the generic ADAS control solutions.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	<p>2 months delay is presented in the D24.1. The final document will be uploaded in the project website when the peer-review is finished.</p> <p>D24.2 and D24.3 are developing.</p>

<i>Statement of used resources:</i>	There are not modifications in the person-month assigned to INRIA in this WP. The resources are used on time.
<i>Statement concerning interaction with other projects:</i>	There is no interaction with other WPs.
<i>Dissemination and exploitation:</i>	This WP is just started. There are not dissemination results yet.
WP25 Platform System Architecture (INFINEON)	
<i>1st year objectives:</i>	The main goal of the first year is the definition of the Platform System Architecture. This requires alignment with all involved partners to cover all the needs and the planning of the later implementation.
<i>Summary of progress:</i>	The initial definitions have been made. This paves the road for work in year 2. Based on the experience in year 1, this will be an iterative process. This includes: <ul style="list-style-type: none"> • D25.1 Platform System Architecture – First Release • D25.3 Standard Interfaces definition – First Release • D25.5 Guidelines for applications development – First Release
<i>Major results:</i>	Deliverables D25.1, D25.3 and D25.5 are available as initial versions
<i>Deviations from Annex I and planned corrective actions:</i>	Deliverables will be available as soon as possible by the schedule.
<i>Statement of used resources:</i>	Resources have been used according to plan.
<i>Statement concerning interaction with other projects:</i>	n/a
<i>Dissemination and exploitation:</i>	In the current stage of work, results of WP25 are intended for the next development steps within DESERVE, they are not planned for external dissemination. The exploitation will start later in the project, currently there are no exploitable results.
WP26 Virtual Testing (INTEMPORA)	
<i>1st year objectives:</i>	The objectives of the first year were mainly to define specifications and interfaces between RTMaps and the simulator and to establish the state of the art of virtual testing. The goal is to simulate scenarios using the DESERVE processing toolchain.
<i>Summary of progress:</i>	We have made a brief State of the Art of virtual testing. The chosen solution will involve Simulink, dSPACE and a simulator (PreSCAN, CIVITEC). Intempora is RTMaps software editor and has no interest in a specific simulator. Partners have to choose a simulator and we will develop an interface for it.
<i>Major results:</i>	We have defined the architecture for the interaction with Simulink (shared memory) and with dSPACE tools (through XML file). Some major work needs to be done, but we are expecting significant results by the end of 2013.
<i>Deviations from Annex I and planned corrective actions:</i>	There is no serious deviation here, just a slight delay.
<i>Statement of used resources:</i>	3 engineers have been working on DESERVE, part time with direct interaction with INRIA and dSPACE.
<i>Statement concerning interaction with other projects:</i>	The interaction with other research project was mainly concentrated in balancing and adjusting the already existing definitions and specifications.
<i>Dissemination and exploitation:</i>	none

SP3 Driver Behaviour – HMI (ICOOR)

<i>1st year objectives:</i>	In SP3 the driver behaviour (including driving monitoring) modules and the HMI supporting the DESERVE platform will be defined. Their integration within the overall platform will be defined.
<i>Summary of progress:</i>	Several conference calls have been organized with wp leaders. Moreover periodic calls have been organized in wp3.1. Some of them have included both wp3.1 and 3.2 partners. A physical SP3 meeting was held in February 2013 in the engineering center of Ficosa at Viladecavalls (Barcelona), where Wp3.1 issues were discussed.
<i>Major results:</i>	Definition of layout, characteristics and requirements of the Driver Intention Detection Module (DIDM), of the virtual driver and of the tool for platform testing. Draft of D31.1. Deliverable D32.1 ongoing. Development of an experimental driver monitoring module; Definition of the different modules to be included in the experimental driver monitoring module. Deliverables 3.3 and 3.4 are ongoing.
<i>Deviations from Annex I and planned corrective actions:</i>	Deliverable D32.1 will be issued for peer review by the end of September 2013 (M12 of the project). Deliverables 3.3 and 3.4 are ongoing.
<i>Statement of used resources:</i>	
<i>Statement concerning interaction with other projects:</i>	Continuous benchmark with Interactive. Consideration of achievements from previous research projects (e.g. AIDE, ISIPADAS)
<i>Dissemination and exploitation:</i>	-
WP31 Driver Modelling (ICOOR)	
<i>1st year objectives:</i>	<ul style="list-style-type: none"> • Definition of a general driver model module that will be integrated into the DESERVE platform. • Analysis of existing solutions for driver model and then defining the overall architecture and the characteristics of a driver model module by taking into consideration all requirements and features.
<i>Summary of progress:</i>	<ul style="list-style-type: none"> • Definition of a general driver model module that will be integrated into the DESERVE platform. It will include a DIDM and a tool (virtual driver) for platform testing. • Analysis of existing solutions for driver model; • Definition of the requirements and the characteristics of the DIDM by taking into consideration also input and output. • Identification of D31.1 structure and content. • Several conference calls have been organized, both with wp3.1 partners and between wp3.1 and 3.2 partners.
<i>Major results:</i>	Definition of layout, characteristics and requirements of the DIDM and of the tool (virtual driver) for platform testing. Draft of D3.1.1
<i>Deviations from Annex I and planned corrective actions:</i>	Slight delay for the issue of the Deliverable.
<i>Statement of used resources:</i>	
<i>Statement concerning interaction with other projects:</i>	Interactive EU project achievements have been taken into consideration for the identification of the DIDM and its requirements. AIDE and ISIPADAS EU projects have been also taken

	into consideration as a State of the Art for T3.1.1 “Analysis of existing solutions for driver model”
<i>Dissemination and exploitation:</i>	Transport Research Arena 2014
WP32 Driver Monitoring (FICOSA)	
<i>1st year objectives:</i>	<p>Objectives were:</p> <ul style="list-style-type: none"> • Definition of a general driver monitoring module that will be integrated into the DESERVE platform. • Analysis of existing solutions for driver monitoring and then defining the overall architecture and the characteristics of a driver monitoring module by taking into consideration all sensors and software modules that can be connected to the system.
<i>Summary of progress:</i>	<p>Several conference calls have been organized and a physical meeting was held in February 2013 in the engineering center of Ficoso at Viladecavalls (Barcelona). During this face-to-face meeting and in the following conference calls all the different topics related with Work Package 3.2 were discussed. Moreover, two conference calls were held among FICOSA and Continental to clarify the specific approaches to Driver monitoring.</p> <p>First deliverable: D32.1 General driver monitoring module definition.</p>
<i>Major results:</i>	<p>Deliverable D32.1 is a report including:</p> <ul style="list-style-type: none"> • Summary of existing solutions. Detailed analysis the different market solutions regarding drowsiness detection, cognitive distraction and visual distraction. • Definition of a general driver monitoring module. Architecture layout of the general driver monitoring modules to be include in DESERVE platform. • Development of an experimental driver monitoring module: Definition of the different modules to be included in the experimental driver monitoring module.
<i>Deviations from Annex I and planned corrective actions:</i>	Deliverable D32.1 issued by the end of September 2013 (M12 or M13) of the project).
<i>Statement of used resources:</i>	No deviations in the number of planned person-months
<i>Statement concerning interaction with other projects:</i>	<p>For the preparation of the State of the Art and definition of the DESERVE architecture for driver monitoring we have consulted others, documentation from the following projects:</p> <p>DETER (1992-1995) EU-funded project. Work on driver impairment and the development of telematic systems to monitor driver impairment</p> <p>SAVE FP4 (1994-1998) System for Effective Assessment of Driver State and Vehicle Control in Emergency Situations</p> <p>PROMETHEUS-PROCHIP(1995) R+D project for Improving the Reliability and Safety of Automotive Electronics</p> <p>AWAKE (2000) FP5 EU granted project Development of Systems for effective Assessment of driver vigilance and Warning According to traffic risk Estimation</p> <p>SENSATION(2004) FP6 EU granted project Deliverables (2004-2008)</p>

	<p>'Advance sensor development for attention Stress vigilance & sleep Wakefulness Monitoring'</p> <p>PReVENT (2004-2008) Supporting the driver, preventing accidents</p> <p>For more information, see documents in 'D32.1 General driver monitoring module definition' deliverable</p>
<i>Dissemination and exploitation:</i>	<p>Press release by FICOSA on 27/12/2012 entitled:</p> <p>'FICOSA participates in the European Project DESERVE "DEvelopment platform for Safe and Efficient dRIVE"',</p> <p>[http://www.ficosa.com/wps/wcm/connect/ficosa/WebPublica_ES/SalaDePrensa/Noticias/ListadoNoticias2012#]</p>
WP33 Integrated HMI Needs and Specifications (ReLab)	
<i>1st year objectives:</i>	<p>D33.1 "HMI Needs Analysis and Specifications" in finalization</p> <p>D33.2 "Definition of a general integrated HMI solution" in preparation</p>
<i>Summary of progress:</i>	<p>A state of the art of existing HMI solutions for a wide range of embedded systems in terms of context of use (commercial vehicles, passenger cars, other types of vehicles) has been conducted.</p> <p>In addition to that, a wide analysis of users HMI needs has been performed by applying a User Centred Design (UCD) approach. Furthermore, Project partners are being involved in activities related to the design of the most suitable HMI, and participating in the specification of integrated HMI needs.</p>
<i>Major results:</i>	There have been delays compared to the Description of work due to the interdependencies among work packages
<i>Deviations from Annex I and planned corrective actions:</i>	Resources have been spent for personnel and travel costs.
<i>Statement of used resources:</i>	Interaction with D3Cos representatives took place and has fruitfully supported the definition of the HMI solution.
<i>Statement concerning interaction with other projects:</i>	<p>D33.1 "HMI Needs Analysis and Specifications" in finalization</p> <p>D33.2 "Definition of a general integrated HMI solution" in preparation</p>
<i>Dissemination and exploitation:</i>	
WP34 Innovative Integrated HMI (CRF)	
<i>1st year objectives:</i>	The integrated HMI supporting the DESERVE platform will be defined
<i>Summary of progress:</i>	The HMI solution design is defined, according to the inputs given from WP33 on user needs analysis and HMI requirements.
<i>Major results:</i>	Deliverable 34.1 is in progress.
<i>Deviations from Annex I and planned corrective actions:</i>	Deliverable 34.1 is in progress and it would be submitted within December 2013.
<i>Statement of used resources:</i>	No deviations with respect to the planned person/month
<i>Statement concerning interaction with other projects:</i>	Documentation have been used especially from AIDE and INTERACTIVE Projects
<i>Dissemination and exploitation:</i>	No dissemination activities in the period

SP4 Test Case Functions (BOSCH)

<i>1st year objectives:</i>	In SP4 – Test case functions the main objective for the first year is to conduct the preparatory work for the different DESERVE platform modules, namely the warning functions, the control functions, the vulnerable road user protection functions, the automated functions, the cooperative system functions and the Inter-urban assist specific functions. Implementation and testing both on laboratory level and in sub-module is crucial for the final transfer in the demonstrators of SP5.
<i>Summary of progress:</i>	All six WP's of SP4 started their work in 2013. Discussion and collaboration was mainly done within the WP's and, where necessary, with the partners working in SP1 and SP2 on the respective requirement specification and platform architecture definition.
<i>Major results:</i>	The major results elaborated in the WP's are documented in the respective deliverables, namely D4.1.1 – Warning functions solution design, D4.2.1 – Control functions solution design, D4.3.1 – VRU protection functions design, D4.4.1 – Automated functions solution design, D4.5.1 – cooperative systems functions solution design and D4.6.1 – Platform requirements and specification for inter-urban assist.
<i>Deviations from Annex I and planned corrective actions:</i>	Some of the Deliverables for Month12 are already submitted while others are in the final drafting stage or in the peer review process. The delayed deliverables are tightly monitored and distinct deadlines to proceed with the finalizations are taken by the respective deliverable responsables.
<i>Statement of used resources:</i>	Resources are used as planned with some over- or under-spending by individual reasons, expressed in the respective partner section, where applicable.
<i>Statement concerning interaction with other projects:</i>	Interaction with other projects was minor because the SP4 work is rather focussed on the DESERVE demonstrators in SP5.
<i>Dissemination and exploitation:</i>	No dissemination activities in year 1.
WP41 Warning Functions (ASL)	
<i>1st year objectives:</i>	Objectives were: <ul style="list-style-type: none"> • Identify the set of warning functions to be used as test cases for the project. • Establish functional requirements for the identified warning functions. • Establish process requirements for development of the warning functions. • Propose input requirements to SP2 and SP5.
<i>Summary of progress:</i>	This WP has used inputs from SP1 to identify a set of warning functions to be used as test cases for the project. The WP has held teleconference calls to agree work share and partners have made contributions to subtasks. These contributions are being collated into a draft deliverable. The WP is approximately 2 months behind schedule due to delays in the availability of requirements from SP1. This delay can be corrected during the next phase as the deliverable is an interim deliverable.

<i>Major results:</i>	Draft Deliverable D4.1.1
<i>Deviations from Annex I and planned corrective actions:</i>	Deliverable delayed by 2 months due to unavailability of requirements from SP1.
<i>Statement of used resources:</i>	Partners have used less resources than planned with some of the work being shifted from phase 1 to phase.
<i>Statement concerning interaction with other projects:</i>	This WP has used inputs from SP1 and has proposed inputs to SP2 and SP5.
<i>Dissemination and exploitation:</i>	No dissemination and exploitation so far.
WP42 Control Functions (IKA)	
<i>1st year objectives:</i>	Requirements for test-case function have been analysed by the partners. Solution identification and design have been done. The results will be part of D4.2.1
<i>Summary of progress:</i>	<p>Initial phase:</p> <ul style="list-style-type: none"> • Partners with links to other WPs were identified • Needs for control function for testing DESERVE have been clarified • Partners presented draft concepts for control function <ul style="list-style-type: none"> ○ IKA will develop an inter-urban ACC ○ TTS will develop test case scenarios, test databases and test data for VTT and RAMBOLL in close cooperation with WP3.2 ○ IRSEEM focuses on vision-based solutions of location and mapping ○ VOLVO will implement a full-speed ACC with AEB integration for trucks • Possible tool chains have been discussed (Connection with SP2 important) • First draft structure of interfaces have been created
<i>Major results:</i>	<p>Deliverable D43.1 is a report including:</p> <ul style="list-style-type: none"> • Control function solution design to be developed. Therefore DESERVE test-case functions are analysed and related constrains are highlighted • Different requirements for different vehicle types are analysed and integrated • Requirements from the sensing, processing units , actuators, etc. are analysed
<i>Deviations from Annex I and planned corrective actions:</i>	Due to communication problems and missing input from other partners for D42.1, delay in deliverable. Remaining funds need to be shifted to 2nd year.
<i>Statement of used resources:</i>	Most resources are used for personal costs
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP
<i>Dissemination and exploitation:</i>	No dissemination or exploitation activities related to this WP during this period
WP43 Vulnerable Road User Protection Functions (CTAG)	
<i>1st year objectives:</i>	All partners have been working on requirements analysis and design solution. That information has been included on the Draft of Deliverable D.4.3.1
<i>Summary of progress:</i>	Initial phase:

	<ul style="list-style-type: none"> • Definition of the targeted application to be developed within the WP4.3. • Clarification in terms of partners' contributions: T4.3.1 will be carried out by CONTI, VISLAB and CTAG, whereas T.4.3.2 and 4.3.3 will be carried out only by VISLAB and CTAG. • VISLAB has proposed the use of a stereo color camera system to acquire images, detect ROIs and pass them to CTAG. • CTAG will implement an algorithm for pedestrian detection that will use the above mentioned ROIs as an input for their algorithm. • Function and interface definition. • Analysis of VRU module within the perception platform of the CRF demonstrator vehicle • Elaboration of deliverable D4.3.1
<i>Major results:</i>	Deliverable D4.3.1.
<i>Deviations from Annex I and planned corrective actions:</i>	No major deviations from the planning
<i>Statement of used resources:</i>	No deviations in the number of planned person-months
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP
<i>Dissemination and exploitation:</i>	No dissemination or exploitation activities related to this WP during this period
WP44 Automated Functions (INRIA)	
<i>1st year objectives:</i>	To define the case test functions for the different platforms of DESERVE. The outline of the first deliverable D44.1 will be provided for the WP partners when the information of WP13 (D13 Development Platform Specification) will be provided.
<i>Summary of progress:</i>	Since some delays are presented in SP1 and SP2, the definition of the requirements analysis and solutions for each platform is delayed. However, all the partners will focus in the deliverable D44.1 (Automated functions solution design), to get back on the planned schedule
<i>Major results:</i>	Definition of the requirements analysis. Deliverable D44.1 Automated functions solution design.
<i>Deviations from Annex I and planned corrective actions:</i>	It has to be defined in September. This WP has a delay of 2 months because it needs inputs from others WPs.
<i>Statement of used resources:</i>	INRIA has some modification in the estimated person-months. Now, we have 12 P/M instead of 42 P/M.
<i>Statement concerning interaction with other projects:</i>	There is an interaction with other SP. Specifically with WP51 and WP52 (Passenger Car Applications and Passenger Car Applications). It is very important the contributions from WP13.
<i>Dissemination and exploitation:</i>	This WP is just started. There are not dissemination results yet.
WP45 Cooperative Systems Functions (NXP)	
<i>1st year objectives:</i>	<ul style="list-style-type: none"> • Understanding role V2X technology as a virtual sensor in the context of ADAS systems in general and the DESERVE platform in particular. • Development of the V2X technology as a 802.11p

	<p>communication link including relevant standards (such as ETSI).</p> <ul style="list-style-type: none"> • High level design of interfaces and functions to enable V2X technology as virtual sensor for cooperative systems.
<i>Summary of progress:</i>	<p>During this first period progress has been made in Task 4.5.1 and task 4.5.3. Other 2 tasks in the WP will logically start during the second year when these 2 first tasks are finalized.</p> <ul style="list-style-type: none"> • Task 4.5.1: First specification and design of cooperative system functions and interfaces is proceeding including the relevant standards and interfaces with the Deserve platform. Main result • Task 4.5.3: First prototype of V2X technology including small sharkfin antenna concept, advanced reception algorithms and flexible software defined radio is in final state. It will be used during the November ETSI Plugtest to prove interoperability.
<i>Major results:</i>	<ul style="list-style-type: none"> • Basic infrastructure hardware and interfaces defined to support cooperative systems in the context of ADAS in Deserve. • Started prototype technology development as small form factor tuner/baseband procesor/etsi stacks according to the latest standard • Planning and preparing ETSI plug test in November • First prototype for V2X (802.11p modem) technology in final stage.
<i>Deviations from Annex I and planned corrective actions:</i>	<p>In contrast to original FPP plan, deliverable D4.5.1. which describes the design of cooperative systems function has been delayed for 2 months. The main reason is the delay finding a suitable candidate due to business priorities. A new WP leader has been appointed by NXP as from August 15th and progress is speeding up. This delay will not impact other deliverables in this WP nor in the project.</p>
<i>Statement of used resources:</i>	<p>According to plan</p>
<i>Statement concerning interaction with other projects:</i>	<p>This WP takes as input the Deserve platform architecture as defined by SP1 and SP2 and aligns the interface towards the virtual sensor.</p> <p>Furthermore, requirements are checked vis-à-vis projects as TEAM, VRUITS and MOBINET.</p>
<i>Dissemination and exploitation:</i>	<p>V2X technology design and architecture has been discussed and validated with key customers and OEMs.</p>
WP46 Inter-urban Assist (DAIMLER)	
<i>1st year objectives:</i>	<p>Specification of the function of the Inter-Urban Assist as well as the identification and specification of its platform modules.</p>
<i>Summary of progress:</i>	<p>The functionality and the architecture of the IUA were specified. Different sub modules were identified and described in Deliverable D46.1 – Platform requirements and specification for inter urban assist.</p>
<i>Major results:</i>	<p>Deliverable D46.1 – Platform requirements and specification for Inter-Urban Assist.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	<p>The delay of the project start of (more than) 3 month could be significantly reduced to 1 month delay. There is no (more) significant deviation from the work planned in Annex 1- DoW. No</p>

	corrective actions are currently planned or implemented.
<i>Statement of used resources:</i>	Due to the delayed project start, slightly less resources as planned were used.
<i>Statement concerning interaction with other projects:</i>	The interaction with other research project was mainly concentrated in balancing and adjusting the already existing definitions and specifications, especially with the ADASIS Forum.
<i>Dissemination and exploitation:</i>	In this first year there are no dissemination activities planned or done.

SP5 Integration and Tests (CRF)

<i>1st year objectives:</i>	The functions developed in SP4 "Test Case functions" will be integrated and tested in SP5 "Integration and tests" by considering different applications in passenger cars (WP5.1), commercial vehicles (WP5.2) and motorcycle (WP5.3). The different prototypes will be tested in virtual and real traffic scenarios. In the first year a draft definition of the applications that will be integrated in the demonstrator vehicles of DESERVE should be made in the early stages of the project, in order to impose the applicable requirements and constraints on the DESERVE platform characteristics and design.
<i>Summary of progress:</i>	The kick-off meeting (webconference) of SP5 was organised by CRF at the beginning of May 2013 in order to define roles (deliverables and task responsibilities) and partner contributions. Starting from the results of the analysis carried out in the requirement and in the specification phases of DESERVE, a draft definition of the ADAS applications that will be integrated in the DESERVE vehicle demonstrators is provided: - passenger car (CRF, Daimler) - commercial vehicle (Volvo, CRF) - motorcycle (Ramboll) The same template has been used for the planned deliverables (D511, D521, D531), with some deviations from the template structure in D531 due to the specificity of the application.
<i>Major results:</i>	The major results are represented by the following deliverables: D511 - Passenger Car - Application definition design . D521 - Commercial Vehicle – Application definition design. D531 - Motorcycle application definition design
<i>Deviations from Annex I and planned corrective actions:</i>	Delay in submission of planned deliverables.
<i>Statement of used resources:</i>	No deviations in the number of planned person-months
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP
<i>Dissemination and exploitation:</i>	None
WP51 Passenger Car Applications (CRF)	
<i>1st year objectives:</i>	In the first year a draft definition of the applications that will be integrated in the passenger car demonstrators (CRF, Daimler) should be available.
<i>Summary of progress:</i>	The purpose of D511 deliverable (output of work package 5.1,

	<p>dealing with “Passenger Car Applications” from the application definition up to the integration and testing of the platform functions) is to provide a draft definition of the ADAS applications that will be integrated in the passenger car demonstrators (CRF, Daimler) of DESERVE project.</p> <p>From one side D511 contributes to impose the applicable requirements and constraints on the DESERVE platform characteristics and design, from the other the results of the analysis carried out in the requirement phase of DESERVE platform (D121 Development Platform Requirements) allow finalising the definition of use cases.</p> <p>D511 provides also the basic inputs to guide the development activities related to: driver modelling and monitoring, integrated HMI, and basic ADAS functions (detection, warning, automated, control, etc.).</p>
<i>Major results:</i>	D511 - Passenger Car - Application definition design.
<i>Deviations from Annex I and planned corrective actions:</i>	Delayed submission of the planned deliverable.
<i>Statement of used resources:</i>	No deviations in the number of planned person-months
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP.
<i>Dissemination and exploitation:</i>	None
<i>WP52 Commercial Vehicle Applications (VOLVO)</i>	
<i>1st year objectives:</i>	Startup of SP5 (Integration and Test) related to commercial demonstrator vehicles, including draft definitions of applications to integrate in commercial demonstrator vehicles from Volvo and CRF.
<i>Summary of progress:</i>	Partners (Volvo, CRF and IRSEEM) have been working on draft definition of applications to be integrated in commercial demonstrator vehicles from Volvo and CRF. Deliverable 5.2.1 “Commercial Vehicle- Application definition design” describes the planned applications to be integrated in the commercial demonstrator vehicles from Volvo and CRF.
<i>Major results:</i>	D5.2.1 Commercial Vehicle- Application definition design
<i>Deviations from Annex I and planned corrective actions:</i>	Delayed submission of the planned deliverable.
<i>Statement of used resources:</i>	No deviation from planned resources.
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP.
<i>Dissemination and exploitation:</i>	None
<i>W53 Motorcycle Applications (VTT)</i>	
<i>1st year objectives:</i>	<p>All partners have been working on developing motorcycle and simulator pilot for implementing driver monitoring system. Deliverable D.5.3.1 - Motorcycle application integration describes integration of the driver monitoring system as part of simulator and motorcycle environment.</p> <ul style="list-style-type: none"> • Definition of a general driver monitoring module for simulator and motorcycle environment. • Defining the overall architecture and the characteristics of a driver monitoring module by taking into consideration all sensors and software modules that can be connected to the

	system.
<i>Summary of progress:</i>	Major progress steps were: <ul style="list-style-type: none"> • Partners (VTT, TTS and Ramboll) have provided contribution to deliverable D5.3.1. • VTT has developed driver monitoring application to simulator and motorcycle environment. • TTS has provided simulator environment for test. • Ramboll has provided test material (video, helmets) for the development process and test driver monitoring software. • characteristics of a driver monitoring module by taking into consideration all sensors and software modules that can be connected to the system. Input for Deliverable 1.2.1 architecture.
<i>Major results:</i>	D531 - Motorcycle application definition design
<i>Deviations from Annex I and planned corrective actions:</i>	The whole project runs slightly behind schedule. Delay in submission of the planned deliverable.
<i>Statement of used resources:</i>	No deviations in the number of planned person-months
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects in relation with this WP
<i>Dissemination and exploitation:</i>	

SP6 Validation and Evaluation (CRF)

<i>1st year objectives:</i>	The output of SP5 "Integration and tests" will feed SP6 "Validation and evaluation" that will be focused on the validation of the DESERVE Platform by defining a detailed validation plan (WP6.1) to assess the benefit during the design and development of the prototyped functions and systems (such as development costs, software reusability and reduction of time for development) during a complete validation test (WP6.2). The evaluation and the compliance with the DESERVE high level objectives will be also addressed in SP6 (WP6.3). In the first year only WP6.1 is active which is expected to deliver D611 deliverable.
<i>Summary of progress:</i>	The kick-off meeting (webconference) of SP6 was organised by CRF at the beginning of May 2013 in order to define roles (deliverables and task responsibilities) and partner contributions.
<i>Major results:</i>	D611 Research Hypothesis and performance indicators
<i>Deviations from Annex I and planned corrective actions:</i>	Delayed submission of the planned deliverable (+2 months).
<i>Statement of used resources:</i>	No deviations in the number of planned person-months.
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects
<i>Dissemination and exploitation:</i>	None
WP61 Validation Plan (INRIA)	
<i>1st year objectives:</i>	The definition and criteria for the research hypothesis of the project. The definition of performance indicators.

	The deliverable D61.1 (Research hypothesis and performance indicators) is planned.
<i>Summary of progress:</i>	D61.1 report provides the research hypothesis and performance indicators, according to the Artemis targets, for the future definition of the validation plan in the DESERVE project. The key performance indicators will be measured throughout of the project or when first prototypes are completed (platforms and demonstrators). A first list of performance indicators is provided in the document. However, these can be improved and adapted during the project development, either in the validation plan (D61.2) or in the validation tests (WP62).
<i>Major results:</i>	D61.1, Research Hypothesis and performance indicators.
<i>Deviations from Annex I and planned corrective actions:</i>	Delayed submission of the planned deliverable (+2 months).
<i>Statement of used resources:</i>	INRIA has 4 PMs instead of 6 PMs in this WP.
<i>Statement concerning interaction with other projects:</i>	There is no interaction with other WPs.
<i>Dissemination and exploitation:</i>	This WP is just started. There are not dissemination results yet.

SP7 Dissemination and Exploitation (ReLab)

<i>1st year objectives:</i>	Set up of the website. Definition of Dissemination procedures. First edition of the dissemination plan. Layout of project documents, poster, leaflet to be created. Planning of first newsletter and press releases. Planning of workshops. Planning of participation to events and conference, presentation of DESERVE's goals and first achievements, publications e.g. articles. 7.2 objectives missing
<i>Summary of progress:</i>	Set up of the website. and a first edition of the dissemination plan. Layout of project documents, poster, leaflet have been created. First newsletter to be published in September, at the end of PY1. Presentation of DESERVE at conferences. Inclusion of internal (e.g.workshops) and external events (e.g. conferences) in an Event roadmap, included in the Dissemination plan
<i>Major results:</i>	D711 Dissemination Plan has been released. Procedures for Dissemination have been defined and shared with partners. Partners have been encouraged to disseminate project goals and results: articles and papers have been presented and published; an event roadmap has been created.
<i>Deviations from Annex I and planned corrective actions:</i>	First official newsletter and press release planned in September, at the end of PY1 Final release of D7.1.1 in July 2013 in order to include events, workshops, refine dissemination procedures drafted in the Quality Report Final release of D7.1.2 in July 2013 in order to include last changes and updates of the website
<i>Statement of used resources:</i>	Used resources are adequate
<i>Statement concerning interaction with other projects:</i>	Benchmark with Dissemination activities in previous EU projects (e.g. TeleFOT)

<i>Dissemination and exploitation:</i>	See activities outlined in WP 7.1
WP71 Dissemination (ICOOR)	
<i>1st year objectives:</i>	Set up of the website. Definition of Dissemination procedures. First edition of the dissemination plan. Layout of project documents, poster, leaflet to be created. Planning of first newsletter and press releases. Planning of workshops. Planning of participation to events and conference, presentation of DESERVE's goals and first achievements, publications (e.g. articles).
<i>Summary of progress:</i>	Set up of the website. First edition of the dissemination plan. Layout of project documents, poster, leaflet have been created. First newsletter to be published in September, at the end of PY1. Presentation of DESERVE at conferences. Inclusion of internal (e.g. workshops) and external events (e.g. conferences) in an Event roadmap, included in the Dissemination plan
<i>Major results:</i>	D711 Dissemination Plan has been released. Procedures for Dissemination have been defined and shared with partners. Partners have been encouraged to disseminate project goals and results: articles and papers have been presented and published; an event roadmap has been created.
<i>Deviations from Annex I and planned corrective actions:</i>	First official newsletter and press release planned in September, at the end of PY1 Final release of D7.1.1 in July 2013 in order to include events, workshops, refine dissemination procedures drafted in the Quality Report Final release of D7.1.2 in July 2013 in order to include last changes and updates of the website
<i>Statement of used resources:</i>	adequate
<i>Statement concerning interaction with other projects:</i>	Benchmark with Dissemination activities in previous EU projects e.g. TeleFOT; a page "Links" to other projects, similar or useful to DESERVE scopes, has been created on the website
<i>Dissemination and exploitation:</i>	See next pages
WP72 Exploitation, Standardisation and Regulatory Issues (CRF)	
<i>1st year objectives:</i>	The main objective of WP7.2 is to identify and analyse existing and new markets related to the DESERVE developments and outcomes and to perform a cost benefit analysis at the level of each project exploitable result. It will also perform an evaluation of the project results from a cost effectiveness perspective and develop and validate alternative business scenarios for the market introduction and diffusion of the DESERVE results. The start of the activities is planned at month 7, but the first deliverable, D72.3 Regulatory Report, is planned in month 18.
<i>Summary of progress:</i>	The workpackage has just started.
<i>Major results:</i>	No significant results are expected in the first year.
<i>Deviations from Annex I and planned corrective actions:</i>	None
<i>Statement of used resources:</i>	As planned.
<i>Statement concerning interaction with other projects:</i>	None
<i>Dissemination and exploitation:</i>	None

3.2 Partners progress reports

Finland (VTT)

<i>1st year objectives:</i>	<p>All the Finnish partners are collaborating in WPs in SP1, SP3, SP5 and SP6. Ramboll and TTS are collaborating also to WPs in SP2, SP4, SP7.</p> <p>There is a co-operation with the monitoring applications in the passenger cars of the CRF (driving monitoring).</p>
<i>Summary of progress:</i>	<p>VTT and Ramboll participated 1st and 2nd steering group meetings and SP3 kick-off meeting in Barcelona 20.02.2013. VTT also participated 06.05.2013 SP5 and SP6 kick-off meeting by web conference. Partners also participated WP1.2-1.3 workshop, 8 May 2013 in CRF Italy, VTT and Ramboll participated DESERVE kick-off meeting in Espoo 20.11.2012. All the Finnish partners participated Finland steering group meetings.</p> <p>Partners provided input for deliverables D1.3.2 – Method and Tools Specifications and D1.2.1 – Development Platform Requirements. All partners participated to deliverable D5.3.1 – Motorcycle application definition design.</p>
<i>Major results:</i>	<p>Ramboll, VTT and TTS are concentrated on motorcycle and simulator pilot with driver/rider monitoring applications. Partners provided the information needed in various tasks and took part in the areas where the expertise has been needed.</p> <p>First version of the VTT's driver monitoring application installed on TTS's simulator platform and Ramboll's motorcycle platform. First preliminary tests are performed during June 2013 – Oct 2013.</p> <p>Partners provided input for deliverables D1.3.2 – Method and Tools Specifications and D1.2.1 – Development Platform Requirements. All partners participated to deliverable D5.3.1 – Motorcycle application definition design.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	<p>The whole project runs slightly behind schedule. The project consortium aims catching up the schedule.</p>
<i>Statement of used resources:</i>	<p>The Finnish partners have used the resources as planned with minor over- and under spending. VTT received funding from TEKES for coordination of project. Resources used so far mainly in SP5.3 – Motorcycle applications, SP4.2 (Control functions), SP5.2 (Commercial vehicle application), SP1 (Requirements and specifications) and 2 (ADAS development platform).</p>
<i>Statement concerning interaction with other projects:</i>	<p>Partner (mainly VTT) is in co-operation with FICOSA and CONTINENTAL for driver monitoring application design. Co-operation is needed to ensure that VTT's driver monitoring application is compatible with DESERVE ADAS framework. VTT, Ramboll, TTS, FICOSA and CONTINENTAL co-operated with publication concerning driver monitoring with motorcycle.</p>

<i>Dissemination and exploitation:</i>	Ramboll has prepared technical paper which will be presented in ITS Tokyo World Congress October 14-18, 2013. VTT, Ramboll, TTS, CONTINENTAL and FICOSA are contributing (accepted to conference) conference paper with TTS and Ramboll to SPIE "Video Surveillance and Transportation Imaging Applications 2014" conference.
TEKNOLOGIAN TUTKIMUSKESKUS VTT (VTT)	
<i>Partner number:</i>	1
<i>1st year objectives:</i>	VTT has progressed with SP1, SP2, SP3, SP5 and SP6. VTT's main focus is driver monitoring for simulator and motorcycle applications. Objective is the definition of a driver monitoring module that for motorcycle applications. VTT gave contribution to the SP5.3 motorcycle applications. VTT has been in close cooperation with Ramboll and TTS especially with the development of the face recognition for motorcycle riders.
<i>Summary of progress:</i>	VTT has developed driver monitoring software for simulator and motorcycle environments. VTT has done co-operation with Finnish partners Ramboll and TTS. First deliverable: D53.1 Motorcycle application definition design.
<i>Major results:</i>	VTT concentrated on motorcycle and simulator pilot with driver monitoring applications. Partners provided the information needed in various tasks and taken part in the areas where its expertise has been needed. First version of the VTT's driver monitoring application installed on TTS's simulator platform and Ramboll's motorcycle platform. First preliminary test are performed during June 2013 – Oct 2013. VTT has participated to deliverable D5.3.1 – Motorcycle application definition design. Two internal invention disclosures of driver monitoring in two-wheeler and multi-camera based driver monitoring.
<i>Deviations from Annex I and planned corrective actions:</i>	The whole project runs slightly behind schedule. The project consortium aims catching up the schedule.
<i>Statement of used resources:</i>	Resources used so far mainly in SP5.3 – Motorcycle applications
<i>Statement concerning interaction with other projects:</i>	VTT is in co-operation with FICOSA and CONTINENTAL for driver monitoring application design. Co-operation is needed to ensure that VTT's driver monitoring application is compatible with DESERVE ADAS framework. VTT, Ramboll, TTS, FICOSA and CONTINENTAL co-operated with publication concerning driver monitoring with motorcycle.
<i>Dissemination and exploitation:</i>	VTT will contribute to a conference paper with TTS and Ramboll to SPIE "Video Surveillance and Transportation Imaging Applications 2014" conference.
TYÖTEHOSEURA RY (TTS)	
<i>Partner number:</i>	22
<i>1st year objectives:</i>	TTS has progressed with SP4, SP5 and SP6. TTS's main focus is driver monitoring and driver skills recognition for simulator and commercial vehicle applications.

	<p>TTS's main focus includes educational functionality of driver monitoring applications.</p> <p>Objectives are the test cases planning and test platform developing of a driver monitoring module.</p> <p>TTS has been in close cooperation with Ramboll and VTT especially with the development of the face recognition for commercial vehicles driver simulator tests.</p>
<i>Summary of progress:</i>	TTS has produced test platform for driver monitoring software. Test platform has developed mainly for simulator use, but is possible to use with real vehicles at future tests. TTS has done co-operation with Finnish partners Ramboll and VTT.
<i>Major results:</i>	
<i>Deviations from Annex I and planned corrective actions:</i>	The whole project runs slightly behind schedule. The project consortium aims at catching up the schedule but TTS has no major role on this at the current stage.
<i>Statement of used resources:</i>	Resources used so far mainly in SP4.2 (Control functions) and SP5.2 (Commercial vehicle application)
<i>Statement concerning interaction with other projects:</i>	
<i>Dissemination and exploitation:</i>	
RAMBOLL FINLAND OY (RAMB)	
<i>Partner number:</i>	24
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	<p>Ramboll has progressed with SP1, SP2, SP3, SP5 and SP7. Ramboll's main focus is on motorcycles. In the early stages of the project Ramboll took part in the SP1 by giving the application needs and requirements.</p> <p>Ramboll has also participated on HMI specifications (SP3), but the HMI design in the project is still on early stages.</p> <p>Ramboll gave contribution to the SP5.3 motorcycle applications.</p> <p>Ramboll has been in close cooperation with VTT and TTS especially with the development of the face recognition for motorcycle riders. Ramboll has also developed an OBU for the motorcycle: OBU is able to work e.g. with face recognition system.</p>
<i>Major results:</i>	Ramboll has provided the information needed in various tasks and taken part in the areas where its expertise has been needed. The project in general runs slightly behind schedule and that has an effect on all project participants but the effect for Ramboll's activities have been minor.
<i>Deviations from Annex I and planned corrective actions:</i>	The whole project runs slightly behind schedule. The project consortium aims at catching up the schedule but Ramboll has no major role on this at this point.
<i>Statement of used resources:</i>	Resources used so far mainly in SP1 (Requirements and specifications) and SP2 (ADAS development platform)
<i>Statement concerning interaction with other projects:</i>	Ramboll has cooperated closely e.g. with projects TEAM (7th EU Framework Programme project) and HeERO (ICT PSP programme).
<i>Dissemination and exploitation:</i>	<p>Ramboll has prepared technical paper which will be presented in ITS Tokyo World Congress October 14-18, 2013.</p> <p>Ramboll has also taken high quality pictures from the pilot</p>

	motorcycle and the material is available for all project members.
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France (INRIA)

<i>1st year objectives:</i>	All the French partners are collaborating in WPs in SP1, SP2, SP3, SP4, SP5 and SP6. There is a direct cooperation with the passenger cars of the CRF (driving monitoring, vehicle control and software integration). The integration of all the functions and solutions proposed will be tested in the RTMaps software (from Intempora).
<i>Summary of progress:</i>	All the French partners participated in the SP2 Kick-off in Paris, organized by INRIA and Armines. Different work groups were defined in order to collaborate in the definition of functions and applications. Most of the contributions are focused in the CRF demonstrators. A seminar will held in Paris next Septembet, by Intempora, to introduce to all the interested partners in the RTMaps developments.
<i>Major results:</i>	Contributions in the database of applications, platform needs and requirements for different platforms, specifically CRF passenger cars have been done. All the French partners have participated in the development of the architecture and their assigned tasks, for all the use cases and platforms.
<i>Deviations from Annex I and planned corrective actions:</i>	No technical or scientific deviations. The WP is delayed for almost 2 months - the goal is to catch up this delay.
<i>Statement of used resources:</i>	The person-months of the French partner were redefined.
<i>Statement concerning interaction with other projects:</i>	Some partners have direct collaboration, e.g.: INRIA has interaction with ARMINES and INTEMPORA, related to common works, projects and students.
<i>Dissemination and exploitation:</i>	There have been some dissemination efforts within SP2 (international conference, e.g IEEE-IV 2013)

CONTINENTAL AUTOMOTIVE (CONTINENTAL)

<i>Partner number:</i>	2
<i>1st year objectives:</i>	Continental has progressed with SP1, SP2, SP3, SP4 and SP5. Continental's main focus is ADAS integration and driver monitoring for passenger car applications in SP2, SP3 and SP5. Continental has been in close cooperation with Ficosa and CRF in the specification of the driver monitoring application for the passenger car application.
<i>Summary of progress:</i>	Participation in the kick off meeting in Espoo (Finland) in VTT 20/21th November 2012. SP1: Participation to phone conferences for the specifications. SP2: Participation in the meeting of Paris in April 2013, training course for RTMAP's and several conference calls. SP3 Participation to face to face meeting organized in FICOSA technical center of Barcelona on February 18th, 2013. Participation to conference calls SP4 Participation in several conference calls for Vulnerable Road

	Users (VRU) requirement and definition. SP5 participation in phone conference for the definition of passenger car application.
<i>Major results:</i>	<p>WP1: (Requirements and specifications): Preparation of the database of applications, analysis of the needs for each one of the applications, and preparation of requirements and specification for the platform to develop. Contribution to Del 1.2.1, 1.3.1</p> <p>WP2: (Tools and development systems): Analysis and adaptation of the SW for the driver monitoring application to the DESERVE platform. Contribution to Del 2.2.1 and 2.5.</p> <p>WP3: In cooperation with Ficosa, definition of a general driver monitoring module that will be integrated into the DESERVE platform. Analysis of existing solutions for driver monitoring and definition of the overall architecture and the characteristics of a driver monitoring module by taking into consideration all sensors and software modules that can be connected to the system for direct and indirect monitoring of the driver. Contribution to Del 3.2.1.</p> <p>WP4: Definition of requirements and specifications of VRU detection system. Contribution to Del 4.3.1.</p> <p>WP6: Set up of a first validation plan for Driver Monitoring functions.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	No major deviation from the plan.
<i>Statement of used resources:</i>	No differences from the DOW
<i>Statement concerning interaction with other projects:</i>	<p>For the preparation of the state of the art and definition of the DESERVE architecture for driver monitoring were consulted among others, documents from the following projects:</p> <p>See Ficosa list plus</p> <ul style="list-style-type: none"> • AIDE (2004-2008) EU project • HAVE IT (2008-2011) EU project • AKTIV (2008-2010) German funded project • ATLAS (2008-2012) French funded project • ABV (2008- 2012) French funded project
<i>Dissemination and exploitation:</i>	
INSTITUT DE RECHERCHE EN SYSTEMES ELECTRONIQUES EMBARQUES (IRSEEM)	
<i>Partner number:</i>	14
<i>1st year objectives:</i>	<p>Analysis of current ADAS state of the art (SP1)</p> <p>Innovative perception systems design and testing framework (SP2)</p> <p>Virtual testing framework design (WP2,4,5)</p>
<i>Summary of progress:</i>	<p>Analysis of current ADAS functions was done and leads to a preliminary architecture design for virtual testing framework.</p> <p>Pro-Sivic and RTMaps software has been evaluated for integration with the virtual testing framework.</p> <p>A SLAM library have been evaluated and wide angle camera for environment acquisition has been tested.</p>
<i>Major results:</i>	Vision-based algorithm for ADAS perception layer using wide angle

	camera
<i>Deviations from Annex I and planned corrective actions:</i>	No deviations so far
<i>Statement of used resources:</i>	Personnel costs are below what's expected as the PhD student has quitted. Another PhD student will be recruited.
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects
<i>Dissemination and exploitation:</i>	1 accepted paper in an international conference: Boutteau and al., International Transportation System Conference, Den Haag, 2013
INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE (INRIA)	
<i>Partner number:</i>	16
<i>1st year objectives:</i>	To lead the SP2. To coordinates the activities in different WPs (as leader): WP24, WP44, WP61 To collaborate in different WPs in SP1, SP2, SP4, SP5 and SP6.
<i>Summary of progress:</i>	As SP2 leaders, we had organized the KoM in Paris. This meeting was a good scenario to exchange ideas among partners. We have contacts with all the WP leader of SP2. We are working closely to Intempora in the dissemination of RTMaps as useful tool for the integration of the perception and control algorithms in the projects. We are working in the definition of the use case of the CRF demonstrators. Besides, we are working in the WP24, especially finishing the deliverables D24.1, D24.2 and D24.3, the arbitration and control strategies for sharing control between driver and ADAS systems. Moreover, we are the leader of WP44, which is in charge of automated functions. In the last 2 months we were working in the definition of research hypothesis and factor indicator for WP61.
<i>Major results:</i>	Integration of the partners in the SP2. Definition of the control functions in the CRF demonstrator. Definition of the validation plan (research hypothesis and Factor Indicators). Integration of the different sub-modules with RTMaps. Deliverable D24.1. We are finalizing (and leading) the deliverables D24.2, D24.3, D44.1 and D61.1.
<i>Deviations from Annex I and planned corrective actions:</i>	To be defined
<i>Statement of used resources:</i>	The person-months in each WP are as follows: - WP1.X = 2 P/M x 3 (instead of 4). - WP21 = 16 P/M (instead of 28). - WP22 = 6 P/M (instead of 12). - WP24 = the same. - WP25 = 4 P/M (instead of 7). - WP26 = 11 P/M (instead of 18). - WP44 = 12 P/M (instead of 42). - WP51 = 5 P/M (instead of 10). - WP61= 4 P/M (instead of 6).

	- WP82 = 2 P/M (instead of 4).
<i>Statement concerning interaction with other projects:</i>	INRIA has interaction with the French partners, especially with ARMINES and INTEMPORA, who has some common works and students.
<i>Dissemination and exploitation:</i>	Two papers have published in the IEEE and IFAC International conferences, related to our works in autonomous driving: - J. Perez et al Control agents for autonomous vehicles in urban and highways scenarios, 2013 IFAC Intelligent Autonomous Vehicles Symposium, June 26-28, 2013. Gold Coast, Australia. - D. Gonzalez and J. Pérez, Control architecture for Cybernetic Transportation Systems in urban environments, 2013 IEEE Intelligent Vehicles Symposium (IV) June 23-26, 2013, Gold Coast, Australia.
ASSOCIATION POUR LA RECHERCHE ET LE DEVELOPPEMENT DES METHODES ET PROCESSUS INDUSTRIELS - ARMINES (ARMINES)	
<i>Partner number:</i>	21
<i>1st year objectives:</i>	Launching the discussions in SP2, for the definition of the requirements for the perception layer (under the leadership of INRIA).
<i>Summary of progress:</i>	ARMINES has co-organized with INRIA the kick-off meeting for launching the work on the SP2, where it is expected the main scientific contribution of ARMINES. (4P/M for the entire project). ARMINES collaborates with INTEMPORA for organising the RTMAPS training session in September for the project partners.
<i>Major results:</i>	Initialling the collaboration of the partners in the SP2. Participation in the first preliminary release of the perception layer specifications
<i>Deviations from Annex I and planned corrective actions:</i>	No deviation for the Annex I.
<i>Statement of used resources:</i>	The person-month of ARMINES in DESERVE are: -WP22 (Perception Layer) = 4 P/M (instead of 13) -WP71 (Dissemination) = 2 P/M (instead of 2).
<i>Statement concerning interaction with other projects:</i>	ARMINES has interacted mostly with the French partners, INRIA and INTEMPORA in organizing the KoM for the SP2, and RTMAPS training session for the European partners.
<i>Dissemination and exploitation:</i>	No dissemination or communication yet.
INTEMPORA SA (INT)	
<i>Partner number:</i>	23
<i>1st year objectives:</i>	The first year objective was to make sure that Intempora was part of the tools chosen for the project, and contribute to platform specifications and expectations.
<i>Summary of progress:</i>	Intempora has participated in all the active Work packages of the project: WP0, WP1, WP2, WP3 attending to the personal meetings and conference calls in which they were involved. Intempora has presented RTMaps to the partners. Intempora has worked on the compatibility of RTMaps and Simulink and dSPACE tools.
<i>Major results:</i>	<ul style="list-style-type: none"> • Short conference to present RTMaps technology: 1 hour conference to present RTMaps studio and what can be done with RTMaps.

	<ul style="list-style-type: none"> • Organisation of a 2 days training for DESERVE partners in September. The goal is to give a full training (studio + SDK) to partners for them to be efficient right now with RTMaps within the DESERVE project. • Start working with dSPACE. A few technical meetings were settled. Work still in progress here.
<i>Deviations from Annex I and planned corrective actions:</i>	There is no serious deviation here, just a slight delay.
<i>Statement of used resources:</i>	
<i>Statement concerning interaction with other projects:</i>	none
<i>Dissemination and exploitation:</i>	none

Spain (FICOMIRRORS)

<i>1st year objectives:</i>	CTAG as leader of WP4.3 Vulnerable users protections and FicoMirrors leader of WP3.2 Driver Monitoring and Task 5.1.3 Laboratory and virtual testing , have coordinated the different activities developed within these Work Packages and tasks.
<i>Summary of progress:</i>	CTAG and FicoMirrors have participated in all the active Work packages of the project: WP0, WP1, WP2, WP3, WP4 ,WP5 and WP6, attending to the personal meetings and conference calls in which they were involved.
<i>Major results:</i>	CTAG - Deliverable D.4.3.1 is a report for the VRU protection functions solution design. In this report, the specific requirements for the VRU detection and protection will be analysed coming from the general requirements defined on the DESERVE platform. FicoMirrors Deliverable D32.1 is a report for the Definition of DESERVE architecture for Driver Monitoring including: <ul style="list-style-type: none"> • Summary of existing solutions. • Definition of a general driver monitoring module. • Definition of the different modules to be included in the experimental driver monitoring module.
<i>Deviations from Annex I and planned corrective actions:</i>	No major deviation from the plan.
<i>Statement of used resources:</i>	See table 4.3 Personnel, subcontracting and other major Direct cost items for Beneficiary FicoMirrors. See table 4.18 Personnel, subcontracting and other major Direct cost items for Beneficiary CTAG.
<i>Statement concerning interaction with other projects:</i>	In WP3.2. Driver Monitoring for the preparation of the state of the art and definition of the DESERVE architecture for driver monitoring were consulted several projects: DETER, SAVE, PROMETHEUS-PROCHIP, AWAKE, SENSATION, PReVENT...
<i>Dissemination and exploitation:</i>	As leaders of the Spanish consortium FicoMirrors published a Press release at the beginning of the project (27/12/2012) . CTAG published a news on its webpage to announce the participation on DESERVE project.
FICOMIRRORS SA (FICOSA)	
<i>Partner number:</i>	3
<i>1st year objectives:</i>	- Participate to SP1 - SP2 -SP3 - SP4 activities

	<ul style="list-style-type: none"> - Supply the data needed to define the architecture needs and specifications - Lead WP 3.2 - Prepare Deliverable D32.1
<i>Summary of progress:</i>	<p>Participation in the kick off meeting in Espoo Finland in VTT 20/21th November 2012.</p> <p>WP1: Participation in the face-to-face meeting in Turin on May 2013.</p> <p>WP2: Participation in the meeting of Paris in April 2013, training course for RTMAP's and several conference calls.</p> <p>WP3 As leaders of the WP3.2 for Driver Monitoring FICOSA organized several conference calls and a face-to-face meeting in its technical center of Barcelona on February 18th, 2013.</p> <p>WP4 Roles definition and participation in several conference calls. Face-to-face meeting planned in September 2013.</p> <p>WP5 Participation in several conference calls.</p> <p>WP6: Participation in SP6 kick-off meeting (through phone conference)</p>
<i>Major results:</i>	<p>WP1: (Requirements and specifications): Preparation of the database of applications, analysis of the needs for each one of the applications, and preparation of requirements and specification for the platform to develop.</p> <p>WP2: (Tools and development systems): Analysis and adaptation of the SW and HW for contactless drowsiness detection to the DESERVE platform.</p> <p>WP3: Leader of WP3.2. Definition of a general driver monitoring module that will be integrated into the DESERVE platform.</p> <p>Analysis of existing solutions for driver monitoring and then defining the overall architecture and the characteristics of a driver monitoring module by taking into consideration all sensors and software modules that can be connected to the system.</p> <p>WP4: Contributions to the deliverable D41.1 Warning functions solution design regarding Task 4.1.1.1 Establish functional requirements and 4.1.1.4 Design of warning functions.</p> <p>WP5: Definition of passenger car scenarios and assignation for task leader's roles. Ficosa Task leader of 5.1.3 Laboratory and virtual testing.</p> <p>WP6: Validation plan for Driver Monitoring functions.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	No major deviation from the plan
<i>Statement of used resources:</i>	See table 4.3 Personnel, subcontracting and other major Direct cost items for Beneficiary Ficosa.
<i>Statement concerning interaction with other projects:</i>	<p>For the preparation of the state of the art and definition of the DESERVE architecture for driver monitoring were consulted among others, documents from the following projects:</p> <p>DETER(1992-1995) EU-funded project. Work on driver impairment and the development of telematic systems to monitor driver impairment</p> <p>SAVE 4th FP (1994-1998) System for Effective Assessment of Driver State and</p>

	<p>Vehicle Control in Emergency Situations PROMETHEUS-PROCHIP(1995) R+D project for Improving the Reliability and Safety of Automotive Electronics AWAKE (2000) FP5 EU granted project Development of Systems for effective Assessment of driver vigilance and Warning According to traffic risk Estimation SENSATION(2004) FP6 EU granted project Deliverables (2004-2008) 'Advance sensor development for attention Stress vigilance & sleep Wakefulness Monitoring' PReVENT (2004-2008) Supporting the driver, preventing accidents</p> <p>For more information, see documents in 'D32.1 General driver monitoring module definition' deliverable</p>
<i>Dissemination and exploitation:</i>	<p>Press note released by FICOSA on 27/12/2012 entitled: FICOSA participates in the European Project DESERVE "DEvelopment platform for Safe and Efficient dRIVE"</p> <p>[http://www.ficosa.com/wps/wcm/connect/ficosa/WebPublica_ES/SalaDePrensa/Noticias/ListadoNoticias2012#]</p>
FUNDACION PARA LA PROMOCION DE LA INNOVACION, INVESTIGACION Y DESARROLLO TECNOLOGICO EN LA INDUSTRIA DE AUTOMOCION DE GALICIA (CTAG)	
<i>Partner number:</i>	19
<i>1st year objectives:</i>	<p>CTAG's first year objectives are:</p> <ul style="list-style-type: none"> - Getting a general overview of the project through the collaboration and interaction with the rest of partners. - Support to application needs definition (WP1.1 – D1.1.1 and D1.1.2) - Contribution to Perception layer and Arbitration/Control (WP2.2 – D2.2.1 and WP2.4 – D2.4.2 to D2.4.3) - Peer review of D2.4.1 whose responsible is INRIA - Contribution to Integrated HMI needs and specifications (WP3.3 – D3.3.1 and D3.3.2) - Involvement in WP3.4 – Innovative Integrated HMI - Coordination of tasks related to Wp4.3 – Vulnerable Road User protection functions – as CTAG is the WP leader. CTAG will gather all the information from the partners and will be the leader for the definition of deliverable D4.3.1 - Contribution to Automated Functions (WP4.4 – D4.4.1) - Support in Cooperative system functions (WP4.5 – D4.5.1) - Contribution to Validation Plan (WP6.1 – D6.1.1) - CTAG will carry out dissemination actions if possible. (WP7.1)
<i>Summary of progress:</i>	<p>WP1.1 – CTAG has contributed to the elaboration of the deliverables D1.1.1 and D1.1.2</p> <p>WP2.2 – CTAG has contributed to the elaboration of the deliverable D2.2.1.</p> <p>WP2.4 – CTAG has attended the SP2 kick off meeting and some tasks have been assigned to CTAG within this WP. INRIA is on charge of T.2.4.1 whereas INRIA and CTAG will carry out together T.2.4.2 and T.2.4.3. CTAG has contributed to the elaboration of</p>

	<p>deliverables D2.4.2 and D2.4.3</p> <p>WP3.3 – CTAG has contributed with the requested information regarding the D3.3.1. Moreover, CTAG has stated where they can contribute but no specific request has been received for the moment.</p> <p>WP3.4 - CTAG has stated where they can contribute but no specific request has been received for the moment.</p> <p>WP4.3 - CTAG has organized an specific WP4.3 kick off meeting by phone conference and WebEx in order to clarify more in detail the scope and the activities of this WP. Moreover, CTAG has been in contact with CRF regarding the VRU module within the CRF perception platform architecture. In a second phone conference, the scope of the development within the WP has been defined. Tasks related to D4.3.1 have been carried out.</p> <p>WP4.4 – CTAG has been collaborating with INRIA in the elaboration of the deliverable D4.4.1</p> <p>WP4.5 – CTAG sent out requested contribution to NXP and now CTAG is waiting for task assignment.</p> <p>WP6.1- CTAG sent out requested contribution and attended the SP5 & SP6 kick-off meeting (through phone conference). CTAG has been working with INRIA in the elaboration of the draft of the deliverable D6.1.1</p> <p>WP7.1 – No dissemination activities have been carried out by CTAG during this period except for the contribution for the project webpage and the publication of a piece of news about DESERVE in CTAG webpage.</p>
<i>Major results:</i>	<p>WP1.1 – Contribution to Deliverable D1.1.1 and D1.1.2</p> <p>WP2.2 – Contribution to Deliverable D2.2.1</p> <p>WP2.4 – Collaboration in the elaboration of deliverables D2.4.2 and D2.4.3</p> <p>WP4.3 – Deliverable D4.3.1</p> <p>WP4.4 – Collaboration in the elaboration of deliverable D4.4.1</p> <p>WP6.1 – Collaboration in the definition of the structure of D6.1.1 and contribution to its elaboration.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	<p>WP3.3 has a delay that is expected to be corrected within the next months.</p> <p>WP3.4 is active according to the DoW, but WP3.3 is key for the beginning of this WP, so it seems that this WP will have some delay.</p> <p>WP4.5, CTAG answered to the requested contribution but the tasks were not assigned yet. The WP progress has been delayed but it has been resolved and no further delays are expected.</p>
<i>Statement of used resources:</i>	See table 4.18 Personnel, subcontracting and other major Direct cost items for Beneficiary CTAG.
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects
<i>Dissemination and exploitation:</i>	No dissemination activities have been carried out by CTAG during this period except for the contribution for the project webpage and the publication of a piece of news about DESERVE in CTAG

	webpage.
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Austria

AVL LIST GMBH (AVL)	
<i>Partner number:</i>	5
<i>1st year objectives:</i>	Connect the model-based Optimization process tool (CAMEO) with the virtual vehicle and simulation environment (InMotion).
<i>Summary of progress:</i>	The 2 tools are connected with a prototype online interface that allows transfer of variation-parameters and online values.
<i>Major results:</i>	Prototype interface implemented Use case virtual vehicle optimization executed and results published.
<i>Deviations from Annex I and planned corrective actions:</i>	It was discovered and decided in the first year that the planned in-vehicle measurement platform is not appropriate in this phase of the project and therefore the optimization environment together with virtual vehicle simulation environment are used instead.
<i>Statement of used resources:</i>	The budget and efforts in this first year are a bit higher as planned and have already exceeded in July the sum of first year's planned budget.
<i>Statement concerning interaction with other projects:</i>	No direct interaction with other projects in the first year.
<i>Dissemination and exploitation:</i>	

Germany (DAIMLER)

<i>Summary of progress:</i>	The German project partners defined the DESERVE platform concept and development tools to be used and applied for the German Demonstrator "Inter-Urban Assist" in three face-to-face meetings and several conference calls and e-mail correspondence.
<i>1st year objectives:</i>	Prepare all the necessary pre-work, definition and specification for both the general DESERVE platform concept and the specific Inter-urban assist demonstrator.
<i>Major results:</i>	Toolchain and HW platform concept for Inter-urban assist demonstrator are defined.
<i>Deviations from Annex I and planned corrective actions:</i>	No deviation or corrective action in this reporting period
<i>Statement of used resources:</i>	The German partners mainly used the resources as planned with minor over- and underspending over the individual month 1 to 12.
<i>Statement concerning interaction with other projects:</i>	Main interaction with ADASIS forum on the specification ADASISv2.
<i>Dissemination and exploitation:</i>	Not yet any dissemination activity done
ROBERT BOSCH GMBH (BOSCH)	
<i>Partner number:</i>	6
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	Participation in the project kick off meeting in Espoo Finland in VTT 20/21th November 2012 and in several SP-leader steering group telecons. Coordination of 3 DESERVE national face-to-face meetings in

	<p>Germany.</p> <p>SP1: Contribution and participation in the Tasks and Deliverables of WP11, WP12 and WP13. Participation in the telecon's and meetings to exchange the work items and achieved results</p> <p>SP2: Participation in the work program of WP21, WP22 and WP2.5. Main lead in the drafting of the Deliverable D2.2.1 – Perception layer, first preliminary release</p> <p>SP3: No participation in this sub-project</p> <p>SP4: As leaders of this SP conducting the management aspects for the 6 WP's (Definition of partner roles, organization of the WP's and supervising of the timeline). Intensive discussion with German partners on WP4.6 –Inter urban assist.</p> <p>SP5/SP6: Participation in kick-off meeting and conference calls.</p>
<i>Major results:</i>	<p>Within the German Inter-urban Assist project cooperation:</p> <ul style="list-style-type: none"> • Specification of the rapid prototyping platform • Definition of development platform architecture • First steps on circuit diagram for prototype I/O FPGA board • Selection of ADTF tool as general framework tool <p>With the European partners on the general DESERVE platform concept:</p> <ul style="list-style-type: none"> • Definition of common DESERVE platform modules • Specification of platform requirements and perception abstraction layer
<i>Deviations from Annex I and planned corrective actions:</i>	Deviation from DoW/Annex1 is mainly in delayed work and resulting missing PM hours for the first three month.
<i>Statement of used resources:</i>	Due to delayed project start some underspending of the planned resources for the first 3 months.
<i>Statement concerning interaction with other projects:</i>	Interaction as needed mainly with ADASIS Forum (WP2.2), HAVE-IT (WP1.1 and WP1.2) and ITERACTIVE (on general approach)
<i>Dissemination and exploitation:</i>	No dissemination activities in this period
INFINEON TECHNOLOGIES AG (INFINEON)	
<i>Partner number:</i>	8
<i>1st year objectives:</i>	The main contribution of Infineon is focused on WP25 which is the definition of a common Platform System Architecture.
<i>Summary of progress:</i>	all necessary definitions are available
<i>Major results:</i>	Deliverables D25.1, D25.3 and D25.5 are available as initial versions
<i>Deviations from Annex I and planned corrective actions:</i>	n/a
<i>Statement of used resources:</i>	Resources have been used according to plan.
<i>Statement concerning interaction with other projects:</i>	n/a
<i>Dissemination and exploitation:</i>	In the current stage of work, results of WP25 are intended for the next development steps within DESERVE, they are not planned for external dissemination. The exploitation will start towards the end of the project, currently there are no exploitable results.

DAIMLER AG (DAIMLER)	
<i>Partner number:</i>	9
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	<ul style="list-style-type: none"> • Participation in the project kick-off-meeting in Espoo Finland in VTT 20/21th November 2012 and in several SP-leader steering group telecons. • Participation in DESERVE SP2 Kick-off-Meeting in Paris on 17.04.2013. • Participation in 3 DESERVE national face-to-face meetings in Germany. <p>SP1: As leader of this SP conducting the management aspects for the 3 WP's. (Definition of partner roles, organization of the WP's and supervising of the timeline). Main lead in the drafting of the Deliverable D11.1 and D11.2 in WP11. Contribution and participation in the Tasks and Deliverables of WP12 and WP13. Participation in telecons and meetings to exchange the work items and achieved results</p> <p>SP2: Participation in the Tasks and Deliverables of WP21, WP22 and WP25. Participation in drafting Deliverable D22.1 – Perception layer, first preliminary release</p> <p>SP4: Intensive discussion with German partners on WP46 – Inter-Urban Assist. Main lead in the drafting of the Deliverable D46.1 – Platform requirements and specification for inter urban assist, first preliminary release.</p> <p>SP5: Participation in the work of program WP51. Participation in drafting Deliverable D51.1</p>
<i>Major results:</i>	<p>Deliverables D11.1, D11.2. Deliverable D46.1 for peer review, participation in Deliverable 51.1.</p> <p>Within the German "Inter-urban Assist" project cooperation, the rapid prototyping platform was specified, the development platform architecture defined, the first draft of a circuit diagram for prototype I/O FPGA board nearly made and the ADTF tool chosen as general framework tool.</p> <p>With the European partners on the general DESERVE platform concept common DESERVE platform modules have been defined and platform requirements and the perception abstraction layer have been specified.</p>
<i>Deviations from Annex I and planned corrective actions:</i>	Deviation from DoW/Annex1 is mainly in delayed work and resulting missing PM hours for the first three month.
<i>Statement of used resources:</i>	Due to the delayed project start, slightly less resources as planned were used.
<i>Statement concerning interaction</i>	Interaction as needed mainly with ADASIS Forum (WP2.2), HAVE-IT

<i>with other projects:</i>	(WP1.1 and WP1.2) and INTERACTIVE (on general approach)
<i>Dissemination and exploitation:</i>	No dissemination activities in this period
DSPACE DIGITAL SIGNAL PROCESSING AND CONTROL ENGINEERING GMBH (dSPACE)	
<i>Partner number:</i>	15
<i>1st year objectives:</i>	The main objective of dSPACE is the specification and definition of platform architecture and first evaluations.
<i>Summary of progress:</i>	<p>In WP 1.2 dSPACE had basic discussions on needs for next generation of ADAS systems with Daimler, Bosch and IMS, University of Hannover and resulting requirements on a flexible rapid prototyping platform. Together with IMS, Hannover basic requirements for rapid prototyping platform have been determined. The requirements on the rapid prototyping platform were refined and finalized. dSPACE contributed on the finalization of Deliverable 1.2.1.</p> <p>In WP 1.3 intensive discussions have taken place with different project partners and especially with IMS to specify the development platform. Certain hardware requirements like memory bandwidth and sensor interfaces have been considered and documented. dSPACE contributed to the finalization of Deliverable 1.3.1 and 1.3.2.</p> <p>In WP 2.1 The rough architecture of the software environment has already been discussed with partners. In a next step, the fine specification will be done soon. The architecture of a universal development platform has been defined.</p> <p>Within WP2.2 dSPACE is working on the circuit diagram of the FPGA board and on concepts concerning the integration of image sensors.</p> <p>In WP 2.5 concept evaluations have been started. ADTF concepts have been evaluated and discussed with project partners.</p>
<i>Major results:</i>	<ul style="list-style-type: none"> ● Specification of the rapid prototyping platform ● Definition of development platform architecture ● First steps on circuit diagram for prototype I/O FPGA board ● Selection of ADTF tool as general framework tool
<i>Deviations from Annex I and planned corrective actions:</i>	dSPACE has shifted 31272 € of personnel costs to subcontracting. A certain hardware component of the planned rapid prototyping platform should be developed by a subcontractor. Further on dSPACE has changed 23 872 € consumables and personnel costs into durable equipment and other costs to be able to buy a software license, which should be used in the project.
<i>Statement of used resources:</i>	
<i>Statement concerning interaction with other projects:</i>	
<i>Dissemination and exploitation:</i>	
RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN (IKA)	
<i>Partner number:</i>	18
<i>1st year objectives:</i>	The first year objectives of ika are the analysis of the state of the art and the definition of a standard driver model. Also objectives

	are the analysis of needed requirements for control functions to test the DESERVE platform and creation of draft for a control function to be developed by ika.
<i>Summary of progress:</i>	<p>WP3.1 Driver Model</p> <ul style="list-style-type: none"> • Basic concepts of DMs from the literature have been reviewed and analysed for the use in DESERVE • Concrete solutions of cognitive and descriptive driver model have been reviewed and analysed for the use in DESERVE • Draft of Deliverable has been created • Link to other WPs of partners have been identified : WP3.2 Driver monitoring, WP4.2 Control function <p>WP4.2 Control Function</p> <ul style="list-style-type: none"> • Tool chain has been discussed • Brief draft of interface design has been developed • Link to other WPs by partners has been identified • Needs and role of partners have been clarified <p>National Consortium</p> <ul style="list-style-type: none"> • Testing function needs for DESERVE have been identified • Testing Platform were identified as reasonable basis for implementation • Link between IKA and other German project partners have been identified
<i>Major results:</i>	<ul style="list-style-type: none"> • IKA develops a virtual driver (driver model) for the usage in simulation environments. PELOPS will be basis for simulation a virtual driver, vehicle and environment • A tool chain concept for the virtual testing have been created • IKA will develop an inter-urban ACC as a test case function. The implementation will be done in Matlab/Simulink and will be implemented as HiW solution with PELOPS and DSpace AutoBox • For that suitable driver models have been analysed. An extended Wiedemann driver model and a very basic descriptive model such as McRuer have been identified
<i>Deviations from Annex I and planned corrective actions:</i>	
<i>Statement of used resources:</i>	
<i>Statement concerning interaction with other projects:</i>	Interaction as needed mainly with ADASIS Forum (WP2.2), HAVE-IT (WP1.1 and WP1.2) and INTERACTIVE (on general approach)
<i>Dissemination and exploitation:</i>	Not in this reporting period
GOTTFRIED WILHELM LEIBNIZ UNIVERSITAET HANNOVER (IMS)	
<i>Partner number:</i>	26
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	<p>In WP1.2, IMS discussed application needs and requirements with other project partners (DAIMLER, dSPACE).</p> <ul style="list-style-type: none"> • Two relevant ADAS algorithms were identified in cooperation with DAIMLER in reference to DESERVE_ApplicationList. • Requirements of rapid prototyping platform were determined in cooperation with dSPACE. • IMS contributed to Deliverable 1.2.1 <p>In WP1.3, exemplary relevant ADAS algorithms were analysed in</p>

	<p>order to derive hardware platform requirements and specifications in collaboration with other DESERVE partners (e.g., DAIMLER, dSPACE). In cooperation with dSPACE, the rapid prototype platform was specified.</p> <ul style="list-style-type: none"> • Hardware platform requirements derived from analysis of exemplary ADAS algorithms. • Specification of rapid prototype platform was elaborated in cooperation with dSPACE. <p>In WP2.1, IMS initiated the analysis of the state-of-the-art in hardware cost modelling. In cooperation with dSPACE a first commercial FPGA-based rapid prototyping board (Xilinx ML605) was selected.</p> <ul style="list-style-type: none"> • Specification of cost modelling of basic building blocks was reported in Deliverable 1.3.2 • Basic processing blocks were implemented in hardware. • A first demonstration system based on ML605 Development board controlled by ADTF was developed. <p>In WP2.2, IMS discussed the specification of the sensor interfaces with dSPACE, DAIMLER and Infineon.</p> <ul style="list-style-type: none"> • Video streaming interface via Giga-Ethernet implemented on ML605 FPGA development board. • Basic demonstrator performing image processing on ML605 FPGA board communicating with ADTF on a host PC was implemented. <p>In WP2.5, IMS performed a quantitative analysis of resource needs of relevant ADAS algorithms for guiding decisions concerning the integration of an FPGA on the final platform system architecture together with dSPACE.</p> <p>In WP4.6, a first reference implementation of selected ADAS algorithm selected in collaboration with other DESERVE partners was generated.</p>
<i>Major results:</i>	<ul style="list-style-type: none"> • Rapid prototype platform specification • Specification of hardware cost modelling • First demonstration system based on Xilinx ML605 board controlled by ADTF <p>Reference implementation of selected ADAS algorithm</p>
<i>Deviations from Annex I and planned corrective actions:</i>	No deviations from plan.
<i>Statement of used resources:</i>	Most resources used as personal costs in SP 1 and SP 2.
<i>Statement concerning interaction with other projects:</i>	No interaction with other projects
<i>Dissemination and exploitation:</i>	Not in this reporting period

The Netherlands (TECHNOLUTION B.V.)

<i>1st year objectives:</i>	<p>The Dutch project partners defined:</p> <ul style="list-style-type: none"> • a “dynamic lane guidance” as a service that should be supported by the DESERVE platform and the ADAS function ‘collision warning’ and ‘merge assistance’;
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	<ul style="list-style-type: none"> the interfacing between a (next generation lane based) navigation device and the DESERVE platform; the demonstration platform that will be developed for the demonstration of a DESERVE based “dynamic lane guidance” service. <p>The Dutch partners collaborated in the DITCM initiative towards a permanent Dutch Integrated test site for cooperative mobility. Physically DITCM is partially operational between Eindhoven and Helmond. For DESERVE the essential components will be added for the defined demonstrator.</p> <p>These definitions have been made in a series of face-to-face meetings (specifically focussed at DESERVE en focussed on DITCM as test site for the DESERVE demonstrator), several conference calls and e-mail correspondence.</p>
<i>Summary of progress:</i>	All the necessary pre-work and definitions have been done for the “dynamic lane guidance” service and the position of this service on the DESERVE platform. “Dynamic lane guidance” is a service that links ADAS to connected navigation.
<i>Major results:</i>	Toolchain and HW platform concept for Inter-urban assist demonstrator are defined.
<i>Deviations from Annex I and planned corrective actions:</i>	No deviation or corrective action in this reporting period
<i>Statement of used resources:</i>	The Dutch partners mainly used the resources as planned with minor underspending over the individual month 1 to 12.
<i>Statement concerning interaction with other projects:</i>	<p>Main interaction with:</p> <ul style="list-style-type: none"> the developing DITCM organisation. NXP has plaid a leading role in developing the DITCM concept and organisation; TomTom (not a partner in DESERVE) on the definition of the interfacing between a (next generation lane based) navigation device and the DESERVE platform.
<i>Dissemination and exploitation:</i>	No dissemination activity have been done yet
NXP SEMICONDUCTORS NETHERLANDS BV (NXP-NL)	
<i>Partner number:</i>	7
<i>1st year objectives:</i>	<ul style="list-style-type: none"> Development of the V2X technology as a 802.11p communication link including relevant standards (such as ETSI). Understanding and defining the role of V2X virtual sensor for cooperative system functions.
<i>Summary of progress:</i>	NXP participates in SP1 and SP2 contributing to the architecture definition. NXP leads WP4.5 to provide the cooperative systems functions in Deserve and supporting the development of applications by other parties with the 802.11p technology in SP5 and SP6.
<i>Major results:</i>	<ul style="list-style-type: none"> Development of the V2X technology as a 802.11p communication link including relevant standards (such as ETSI).
<i>Deviations from Annex I and planned corrective actions:</i>	
<i>Statement of used resources:</i>	According to plan

<i>Statement concerning interaction with other projects:</i>	Requirements are checked vis-à-vis projects as TEAM, VRUITS and MOBINET as well as in the Dutch DITCM consortium.
<i>Dissemination and exploitation:</i>	V2X technology design and architecture has been discussed and validated with key customers and OEMs.
TECHNOLUTION B.V. (TECHNO)	
<i>Partner number:</i>	25
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	<p>With respect of the DESERVE work packages Technolution participated in:</p> <ul style="list-style-type: none"> • SP1 in the identification of the needs of the stakeholders (WP1.1) and the requirements (WP1.2) and the specifications (WP1.3) for the DESERVE platform; • SP2 with a focus on the perception layer (WP2.2) and the platform system architecture (WP2.5); • SP4 and the definition of the requirements for the functions: warning (WP4.1) and cooperative systems (WP4.5); • The preparation of SP5 and more specifically the Dutch test site DITCM. <p>In parallel Technolution:</p> <ul style="list-style-type: none"> • gained hands-on experience with common-off-the-shelf, low cost camera systems, both intelligent camera's and non-intelligent camera's; • explored the possibilities of common-off-the-shelf, low cost radars; • explored the potential of GPU's as alternative for FPGA's.
<i>Major results:</i>	<p>Definition of:</p> <ul style="list-style-type: none"> • the potential of ADAS functions in combination with the (next generation lane based) navigation device to be supported by the DESERVE platform.
<i>Deviations from Annex I and planned corrective actions:</i>	No significant deviations from plan. More time has been spent on the definition of the service and the demonstrator site and less on the hardware platform than was envisaged. In the next period this will be the other way around.
<i>Statement of used resources:</i>	Most resources used as personal costs in SP 1, SP 2, SP 4 and SP 5.
<i>Statement concerning interaction with other projects:</i>	First explorations are done as follow-up on the Connected Cruise Control project, where the potential of combining ADAS with navigation has been explored.
<i>Dissemination and exploitation:</i>	No dissemination activity have been done yet

Sweden

VOLVO TECHNOLOGY AB (VOLVO)	
<i>Partner number:</i>	10
<i>1st year objectives:</i>	Participation in project Kickoff and several WP Kickoffs. Finalization of SP1 "Requirement and Specification" contribution. Contribution to WP4.2 "Control functions". Startup of WP5.2 "Commercial Vehicle Applications", including definition of commercial vehicle

	applications in D5.1.2.
<i>Summary of progress:</i>	Finalization of SP1 “Requirement and Specification” contribution. Participation in Kickoff and initial work in WP4.2 “Control functions”. Startup of WP5.2 “Commercial Vehicle Applications”, including draft definition of commercial vehicle applications in D5.1.2.
<i>Major results:</i>	Specification and requirements for ACC and AEBS.
<i>Deviations from Annex I and planned corrective actions:</i>	No special deviations from plan.
<i>Statement of used resources:</i>	Most resources have been used as personal costs in SP1 and SP5, and partly also in SP3 and SP4.
<i>Statement concerning interaction with other projects:</i>	Synergies found with FP7 project “Interactive”, related to Deserve SP1 “Requirements and specifications”.
<i>Dissemination and exploitation:</i>	No project disseminations yet.

Italy (CRF)

<i>1st year objectives:</i>	<p>SP coordination (SP3>ICOOR; SP5, SP6, SP8>CRF; SP7>ReLab)</p> <p>WP coordination (1.2, 1.3, 2.3, 3.1, 3.3, 3.4, 5.1, 6.2, 7.1, 7.2)</p> <p>Task coordination</p> <p>Submission of deliverable of own responsibility</p> <p>Attending meetings and webconferences</p> <p>Technical contribution as planned.</p>
<i>Summary of progress:</i>	<p>The Italian project partners coordinated five subprojects and several workpackages organising physical / webconference / call meetings.</p> <p>They submitted eleven deliverables of own responsibility out of fourteen as originally planned.</p> <p>The Italian partners contributed to the following main technical results:</p> <p>SP1 - Major contribution was set in proposing common software architecture and in defining the process to collect the requirements & specifications of the general DESERVE platform. Definition of a methodology for the ADAS application development based on DESERVE platform.</p> <p>SP2 - Analysis of state-of-the-art tools (e.g. ADTF, RTMaps, PreSCAN, ...) to be used for the DESERVE development platform. Definition of selected hardware and software platform used on CRF vehicle demonstrators (D213). Analysis and evaluation of existing vehicle models (D231).</p> <p>SP3 – Coordination of SP3 (ICOOR). Analysis of existing driver models and definition of a Standard Driver Model (D311). Analysis of existing driver monitoring systems. Analysis and definition of HMI needs.</p> <p>SP4 - Design of test case functions (warning, cooperative, control) to be integrated on target vehicle demonstrators</p> <p>SP5 - Coordination of SP5 (CRF). CRF defined also the target applications to be integrated and demonstrated on two vehicle demonstrators:</p>

	<p>- AEB pedestrian+driver distraction+driver intention (passenger car) - AEB interurban+driver drowsiness+driver intention (light commercial vehicle).</p> <p>The relevant use and test cases were defined providing the necessary input to software development activities.</p> <p>SP6 - Coordination of SP6 (CRF). Definition of research Hypothesis and performance indicators, draft of validation plan.</p> <p>SP7 - Coordination of SP7 (ReLab). Dissemination activities mainly by ICOOR as WP responsible. Organisation of dissemination events. Preliminary actions on exploitation, standardisation and regulatory issues</p> <p>SP8 - Definition of Quality plan and Risk management</p>
<i>Major results:</i>	<p>D12.1 Development Platform Requirements D13.1 Development Platform Specification [in progress] D13.2 Method and Tools Specifications D23.1 Report on existing vehicle D23.2 Generic Vehicle Model - First Release D31.1 Standard driver model definition D33.1 HMI needs analysis and specifications D33.2 Definition of a general integrated HMI solution D34.1 HMI solution design [in progress] D51.1 Passenger Car - Application definition design D71.1 Dissemination plan D71.2 WEB Site D82.1 Quality Plan D82.2 Risk Management and Contingency Plan [in progress]</p>
<i>Deviations from Annex I and planned corrective actions:</i>	<p>CRF is not coordinating the project as originally planned due to pending national funding decision.</p> <p>The project is about 3 months behind of the originally planned schedule.</p>
<i>Statement of used resources:</i>	<p>Minor efforts performed by CRF during the first year are due to: (a) delay in starting the project (3 months), (b) delay in signing the contract at national level, (c) some overlapping projects/tasks. Corrective actions have been implemented by CRF and it is expected to recover the project status at the end of 2013 when most of deliverables of own responsibility will be submitted.</p>
<i>Statement concerning interaction with other projects:</i>	<p>CRF managed the official link with interactive EU project during the requirement and specification definition phase.</p> <p>In SP3 previous research projects have been considered in the SoA for Driver Model definition (e.g. Isi-PADAS, AIDE, INTERACTIVE). Interesting projects for DESERVE are linked in DESERVE website.</p>
<i>Dissemination and exploitation:</i>	<p>Dissemination activities have been performed mainly by ICOOR as responsible of WP71.</p> <p>D711 Dissemination Plan has been released. Procedures for dissemination have been defined and shared with partners. Partners have been encouraged to disseminate project goals and results: articles and papers have been presented and published; an event roadmap has been created.</p>
CONSORZIO INTERUNIVERSITARIO PER L'OTTIMIZZAZIONE E LA RICERCA OPERATIVA (ICOOR)	

<i>Partner number:</i>	11
<i>1st year objectives:</i>	Participation to conf calls and meetings. Participation to the definition of Requirements of the Platform. Liaison with other SPs. Definition of a Standard Driver Model to be presented in D311. Production of Dissemination material and Dissemination Plan.
<i>Summary of progress:</i>	Participation in the kick off meeting in Espoo Finland in VTT 20/21th November 2012. As SP3 leader ICOOR joined Steering Committee conf calls. SP1: Participation to deliverable writing, working material production and identification of Requirements of the platform. Participation to the meeting in Turin on May, 8 2013. SP3: As leader of the SP3 and of Wp3.1 Driver Modelling in particular, ICOOR organized several conference calls, an online SP3 kick off meeting on January 31 2013 and a face-to-face meeting at FICOSA technical center in Barcelona on February 18th, 2013. SP4 Roles definition and participation in several conference calls. Face-to-face meeting planned in September 2013. As leader of T4113 ICOOR is carrying out liaison activities with Sp2/Sp5. SP5/SP6: Participation to the kick-off meeting (via phone conference) and production of material. SP7: as responsible of all WPs ICOOR has carried out all of the Dissemination activities and has presented them during Steering Committee meetings.
<i>Major results:</i>	Liaison activities among SP1,3, 4,5 and 6. Definition of the Driver Model, presented in D311. Production of Dissemination material and Dissemination Plan.
<i>Deviations from Annex I and planned corrective actions:</i>	-
<i>Statement of used resources:</i>	Used resources are adequate
<i>Statement concerning interaction with other projects:</i>	In particular in Sp3 previous research projects have been considered in the SoA for Driver Model definition (e.g. Isi-PADAS, AIDE, INTERACTIVE). Interesting projects for DESERVE are linked in DESERVE website.
<i>Dissemination and exploitation:</i>	See section on SP7
RE:LAB S.R.L. (ReLab)	
<i>Partner number:</i>	12
<i>1st year objectives:</i>	Coordination of SP7 Dissemination and exploitation. Coordination of WP33 and collection of inputs for D33.1 "HMI Needs Analysis and Specifications"
<i>Summary of progress:</i>	RELAB has been involved in the activities related to the design of the most suitable HMI, by performing a state of the art analysis, collecting users' needs and inputs from partners. RELAB has also led SP 7 (Dissemination and exploitation) activities, by coordinating partners' effort.
<i>Major results:</i>	
<i>Deviations from Annex I and planned corrective actions:</i>	There have been some delays due to interdependencies among work packages but corrective actions have been implemented so to minimize the risk of further delays in the future.
<i>Statement of used resources:</i>	Resources have been spent for personnel and travel costs.
<i>Statement concerning interaction</i>	Interaction with D3Cos representatives took place and has fruitfully

<i>with other projects:</i>	supported the definition of the HMI solution.
<i>Dissemination and exploitation:</i>	RELAB has led SP 7 (Dissemination and exploitation) activities, by coordinating partners' effort.
UNIVERSITA DEGLI STUDI DI PARMA (VISLAB)	
<i>Partner number:</i>	13
<i>1st year objectives:</i>	
<i>Summary of progress:</i>	Participation in the kick off meeting in Espoo Finland in VTT 20/21st November 2012. Participation in the SP2 initial meeting Paris France 17/18th April 2013 Interaction with other partners on phone conferences mainly on WP43 and WP2x
<i>Major results:</i>	Contributions to definition of perception architecture and processing systems. Specifically for WP43 the use of a stereo vision system has been proposed for VRU detection. The same perception system is currently under evaluation for lane detection Contribution to deliverables for SP2 and SP4.
<i>Deviations from Annex I and planned corrective actions:</i>	
<i>Statement of used resources:</i>	We experienced an underspending due to slowness in reallocating resources for the start of the project.
<i>Statement concerning interaction with other projects:</i>	
<i>Dissemination and exploitation:</i>	No specific or relevant dissemination activities.
CENTRO RICERCHE FIAT SCPA (CRF)	
<i>Partner number:</i>	20
<i>1st year objectives:</i>	SP coordination (SP5, SP6, SP8) WP coordination (1.2, 1.3, 2.3, 3.4, 5.1, 6.2, 7.2) Task coordination Submission of deliverable of own responsibility Attending meetings and webconferences Technical contribution as planned.
<i>Summary of progress:</i>	CRF coordinated three subprojects (SP5, SP6, SP8) and seven workpackages (1.2, 1.3, 2.3, 3.4, 5.1, 6.2, 7.2) organising physical / webconference / call meetings. CRF contributed to the following main technical results: SP1 - Major contribution was set in proposing a common software architecture and in defining the process to collect the requirements & specifications of the general DESERVE platform. Definition of a methodology for the ADAS application development based on DESERVE platform. SP2 - Analysis of state-of-the art tools (e.g. ADTF, RTMaps, PreSCAN, ...) to be used for the DESERVE development platform. Definition of selected hardware and software platform used on CRF vehicle demonstrators (D213). Analysis and evaluation of existing vehicle models (D231). SP3 - Analysis of existing driver models and definition of a Standard Driver Model (D311). Analysis of existing driver monitoring systems. Analysis and definition of HMI needs.

	<p>SP4 - Design of test case functions (warning, cooperative, control) to be integrated on target vehicle demonstrators</p> <p>SP5 - CRF defined also the target applications to be integrated and demonstrated on two vehicle demonstrators:</p> <ul style="list-style-type: none"> - AEB pedestrian+driver distraction+driver intention (passenger car) - AEB interurban+driver drowsiness+driver intention (light commercial vehicle). <p>The relevant use and test cases were defined providing the necessary input to software development activities.</p> <p>SP6 - Definition of research Hypothesis and performance indicators, draft of validation plan.</p> <p>SP7 - Minor contributions for dissemination events. Preliminary actions on exploitation, standardisation and regulatory issues</p> <p>SP8 - Definition of Quality plan and Risk management</p>
<i>Major results:</i>	<p>Submission of the following deliverables of responsibility:</p> <ul style="list-style-type: none"> D12.1 Development Platform Requirements (R) D13.1 Development Platform Specification (R) [in progress] D13.2 Method and Tools Specifications (R) D23.1 Report on existing vehicle models (R) D23.2 Generic Vehicle Model - First Release (O) D34.1 HMI solution design (R) [in progress] D51.1 Passenger Car - Application definition design (R) D82.1 Quality Plan (R) D82.2 Risk Management and Contingency Plan (R) [in progress]
<i>Deviations from Annex I and planned corrective actions:</i>	<p>CRF is not coordinating the project as originally planned due to pending national funding decision.</p> <p>The project is about 3 months behind of the originally planned schedule.</p>
<i>Statement of used resources:</i>	<p>Minor efforts performed by CRF during the first year are due to: (a) delay in starting the project (3 months), (b) delay in signing the contract at national level, (c) some overlapping projects/tasks. Corrective actions have been implemented by CRF and it is expected to recover the project status at the end of 2013 when most of deliverables of own responsibility will be submitted.</p>
<i>Statement concerning interaction with other projects:</i>	<p>CRF managed the official link with interactive EU project during the requirement and specification definition phase.</p>
<i>Dissemination and exploitation:</i>	<p>Contribution in preparation of events (e.g. poster for EUCAR) for the relevant period.</p>

United Kingdom

APPLICATION SOLUTIONS (ELECTRONICS AND VISION) LTD	
<i>Partner number:</i>	17
<i>1st year objectives:</i>	<ul style="list-style-type: none"> • WP41 coordination • SP2 contribution • Attending meetings and webconferences • Technical contribution as planned.
<i>Summary of progress:</i>	ASL has presented the DESERVE project at the Advanced

	Automotive Electronics conference. ASL has attended the SP2 kick-off meeting. ASL has coordinated WP41 to identify warning functions to be used as test cases for the project. This has involved liaising with WP partners (ICOOR, FICOSA, CRF, VISLAB, RAMB, TTS), organising and running a WP kick-off, follow-up tele-conferences, eliciting and collating contributions, identifying disseminating and eliciting partner process requirements. ASL has liaised with CRF, DAIMLER and VOLVO to determine opportunities and requirements to contribute to the DESERVE demonstrators. ASL has identified wide-angle camera Road Detection as their primary demonstration opportunity for SP2.
<i>Major results:</i>	ASL has coordinated WP41. ASL has agreed contributions to end demonstrators with OEMs. ASL has progressed Road Detection in the context of the DESERVE platform.
<i>Deviations from Annex I and planned corrective actions:</i>	The preliminary design and implementation tasks for WP4.1 have shifted from phase 1 to phase 2.
<i>Statement of used resources:</i>	See the table 4.16
<i>Statement concerning interaction with other projects:</i>	ASL has interacted with SP1, SP2 and SP5 through WP41.
<i>Dissemination and exploitation:</i>	ASL presented the DESERVE project at the Advanced Automotive Electronics conference.

3.3 Deliverables and milestones tables

The following tables provides figures the submission rates and status of submitted deliverables on 30 Oct 2013.

	Submitted	Expected	Rate
SP1 Requirements (DAIMLER)	4	5	80 %
SP2 ADAS Development Platform (INRIA)	12	14	86 %
SP3 Driver Behaviour – HMI (ICOOR)	3	5	60 %
SP4 Test Case Functions (BOSCH)	2	6	33 %
SP5 Integration and Tests (CRF)	3	3	100 %
SP6 Validation and Evaluation (CRF)	1	1	100 %
SP7 Dissemination and Exploitation (ReLab)	2	2	100 %
SP8 Project Management (CRF)	2	3	67 %
TOTAL:	29	39	74 %

WP no.	Del. no.	Deliverable name	Lead beneficiary	Nature	Dissemination level	Delivery date from Annex I (proj month)	Delivered Yes/No	Actual / Forecast delivery date
SP1 Requirements (Daimler)								
1.1	1	Application Database	DAIMLER AG	Report	PU	31/10/2012 (2 months)	Yes	6.3.2013
1.1	2	Platform needs	DAIMLER AG	Report	PP	30/11/2012 (3 months)	Yes	11.4.2013
1.2	1	Development Platform Requirements	CENTRO RICERCHE FIAT SCPA	Report	PP	31/12/2012 (4 months)	Yes	2.8.2013
1.3	1	Development Platform Specification	CENTRO RICERCHE FIAT SCPA	Report	RE	28/02/2013 (6 months)	No	

1.3	2	Method and Tools Specifications	CENTRO RICERCHE FIAT SCPA	Report	PU	28/02/2013 (6 months)	Yes	3.8.2013
SP2 ADAS Development platform (INRIA)								
2.1	1	Development system (First Release)	DSPACE DIGITAL SIGNAL PROCESSING AND CONTROL ENGINEERING GMBH	Other	RE	31/08/2013 (12 months)	Yes	25.10.2013
2.1	3	Development method (First Release)	DSPACE DIGITAL SIGNAL PROCESSING AND CONTROL ENGINEERING GMBH	Report	RE	31/08/2013 (12 months)	Yes	15.10.2013
2.2	1	DESERVE Perception layer – First Preliminary Release	ROBERT BOSCH GMBH	Report	RE	31/08/2013 (12 months)	Yes	4.9.2013
2.3	1	Report on existing vehicle	CENTRO RICERCHE FIAT SCPA	Report	RE	31/05/2013 (9 months)	Yes	1.8.2013
2.3	2	Generic Vehicle Model – First Release	CENTRO RICERCHE FIAT SCPA	Other	RE	31/08/2013 (12 months)	Yes	28.10.2013

2.4	1	Vehicle control solutions	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	Report	PU	31/05/2013 (9 months)	Yes	18.10.2013
2.4	2	Control Strategies for sharing vehicle control between driver and ADAS systems	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	Report	RE	31/08/2013 (12 months)	Yes	28.10.013
2.4	3	Generic ADAS Control – First Release	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	Other	RE	31/08/2013 (12 months)	No	
2.5	1	Platform System Architecture – First Release	INFINEON TECHNOLOGIES AG	Report	RE	31/08/2013 (12 months)	Yes	21.10.2013
2.5	3	Standard Interfaces definition – First Release	INFINEON TECHNOLOGIES AG	Report	RE	31/08/2013 (12 months)	Yes	21.10.2013
2.5	5	Guidelines for applications development – First Release	INFINEON TECHNOLOGIES AG	Report	RE	31/08/2013 (12 months)	Yes	21.10.2013

2.5	7	DESERVE Platform – First Release	INFINEON TECHNOLOGIES AG	Other	RE	31/08/2013 (12 months)	Yes	21.10.2013
2.6	1	Virtual testing solutions analysis	INTEMPORA SA	Report	PP	31/05/2013 (9 months)	Yes	28.10.2013
2.6	2	Specification of DESERVE platform optimised for virtual testing	INTEMPORA SA	Report	PU	31/08/2013 (12 months)	No	
SP3 Driver behaviour - HMI (ICOOR)								
3.1	1	Standard driver model definition	CONSORZIO INTERUNIVERSITARIO PER L'OTTIMIZZAZIONE E LA RICERCA OPERATIVA	Report	PU	31/08/2013 (12 months)	Yes	22.10.2013
3.2	1	General driver monitoring module definition	FICOMIRRORS SA	Report	PU	31/08/2013 (12 months)	No	
3.3	1	HMI needs analysis and specifications	RE:LAB S.R.L.	Report	PU	28/02/2013 (6 months)	Yes	22.10.2013
3.3	2	Definition of a general integrated HMI solution	RE:LAB S.R.L.	Report	PU	30/04/2013 (8 months)	Yes	22.10.2013
3.4	1	HMI solution design	CENTRO RICERCHE FIAT SCPA	Report	PU	31/08/2013 (12 months)	No	
SP4 Test Case Functions (BOSCH)								
4.1	1	Warning functions solution design	APPLICATION SOLUTIONS (ELECTRONICS AND VISION) LTD	Report	PU	31/08/2013 (12 months)	No	

4.2	1	Control functions solution design	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	Report	PU	31/08/2013 (12 months)	No	
4.3	1	VRU protection functions solution design	FUNDACION PARA LA PROMOCION DE LA INNOVACION, INVESTIGACION Y DESARROLLO TECNOLOGICO EN LA INDUSTRIA DE AUTOMOCION DE GALICIA	Report	PU	31/08/2013 (12 months)	Yes	16.10.2013
4.4	1	Automated functions solution design	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	Report	PU	31/08/2013 (12 months)	No	
4.5	1	Cooperative systems functions solution design	NXP SEMICONDUCTORS NETHERLANDS BV	Report	PU	31/08/2013 (12 months)	No	
4.6	1	Platform requirements and specification for inter urban assist	DAIMLER AG	Report	PU	31/08/2013 (12 months)	Yes	25.9.2013

SP5 Integration and Tests (CRF)								
5.1	1	Passenger Car - Application definition design	CENTRO RICERCHE FIAT SCPA	Report	PU	31/05/2013 (9 months)	Yes	19.10.2013
5.2	1	Commercial Vehicle - Application definition design	VOLVO TECHNOLOGY AB	Report	PU	31/05/2013 (9 months)	Yes	21.10.2013
5.3	1	Motorcycle application definition design	TEKNOLOGIAN TUTKIMUSKESKUS VTT	Report	PU	31/05/2013 (9 months)	Yes	31.7.2013
SP6 Validation and Evaluation (CRF)								
6.1	1	Research Hypothesis and performance indicators	INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE	Report	RE	31/08/2013 (12 months)	Yes	29.10.2013
SP7 Dissemination and Exploitation (ReLab)								
7.1	1	Dissemination plan	CONSORZIO INTERUNIVERSITARIO PER L'OTTIMIZZAZIONE E LA RICERCA OPERATIVA	Report	PU	28/02/2013 (6 months)	Yes	10.7.2013
7.1	2	WEB Site	CONSORZIO INTERUNIVERSITARIO PER L'OTTIMIZZAZIONE E LA RICERCA OPERATIVA	Other	PU	28/02/2013 (6 months)	Yes	11.7.2013

SP8 Project Management (CRF)								
8.1	1	First period report	CENTRO RICERCHE FIAT SCPA	Report	PU	31/08/2013 (12 months)	Yes	4.10.2013
8.2	1	Quality Plan	CENTRO RICERCHE FIAT SCPA	Report	PP	28/02/2013 (6 months)	Yes	7.6.2013
8.2	2	Risk Management and Contingency Plan	CENTRO RICERCHE FIAT SCPA	Report	RE	28/02/2013 (6 months)	No	

Milestones

TABLE 2. MILESTONES							
Milestone no.	Milestone name	Work package no	Lead beneficiary	Delivery date from Annex I	Achieved Yes/No	Actual / Forecast achievement date	Comments
1	Requirements definition	12	CENTRO RICERCHE FIAT SCPA	4	Yes	8	Verification: completed documents
2	General Specifications	13	CENTRO RICERCHE FIAT SCPA	6	Yes	13	Verification: completed documents
3	Platform specification	25	INFINEON TECHNOLOGIES AG	12	No	15	Complete documents of WP2.5 has been submitted

3.4 Project management

The project kick off meeting was held in VTT, Finland on 20-21 Nov 2013. All project partners were present in the meeting except TRW which have thereafter withdrawn from the project due to internal reasons.

The biggest challenge from project management viewpoint has been the availability of the financial resources. TEKES (national funding agency in Finland) and Artemis-JU provided an additional support for VTT to be the coordinator for the 1st project year. However, most of man powers for project management are allocated for CRF according to the original plan. CRF have kindly provided support in management duties as agreed when switching the coordinator role to VTT. The purpose is that the CRF will take over the coordinator after 1st of September 2013 if their national funding has been confirmed by that time.

Project meetings during the 1st project year:

- Kick off meeting, Espoo Finland on 20-21 Nov 2013
- 1st steering group meeting, Conference call, 27 Mar 2013
- 2nd steering group meeting, Conference call, 10 June 2013
- Finnish consortium steering group meeting, Vantaa, 7 Feb 2013
- Finnish steering group meeting, Vantaa, 20 May 2013
- SP1 Workshop, Italy, 8th of May 2013
- SP2 Kick off meeting, Paris, 17-18 Apr 2013
- SP2 Workshop – RTMaps Training, Paris, 17-18 Sept 2013
- SP3 Kick off meeting, Conference call, 31 Jan 2013
- SP3 Kick off meeting, Barcelona, 20 Feb 2013
- WP4.2 Kick off meeting, Aachen, 19 June 2013
- WP4.3 Meeting, Conference call, 19 June 2013
- German partner SP4 meeting, Leonberg, 15 Feb 2013
- SP5 and SP6 Kick off meeting, Conference call, 6th of May 2013
- General Assembly, Ulm, Germany, 9-10 Oct 2013
- DESERVE 1st year review, Brussels, 30 Oct 2013

Due to slow start and pending national funding decisions the project is about 4 months behind of the originally planned schedule. During Spring 2013 the development process has been speed up. The forecast is that the original schedule will be reached during the 2nd project year if current development speed is maintained. Some deliverables have been submitted within 10 months delay due to ensuring quality of outcomes. 80 % of the deliverables have been submitted on during the 1st project year which can be considered as reasonable taking into account all changes in the project execution process.

Delays in creating the SP1 specifications delayed all other SPs to start working efficiently and also will delay start of demonstration implementations. However, the specifications currently exist which also allows all other SPs to work more independently and efficiently. On the other hand some challenges exist in harmonising vision of all partners and ensuring sufficient information exchange between SPs. Moreover, the national consortium agreements set objectives which are not completely in line with the project vision. Fortunately, these are minor challenges and the 5 project demonstrator platforms (2 passenger cars, 1 truck, 1 light commercial vehicle and 1 motorcycle) keeps development of ADAS/ARAS focused.

In the beginning of the project TRW changed their strategic plans and they decided to withdraw from the project. Their main duties were related to the video monitoring of vehicle surrounding and data fusion. The consortium tried to find new partner from UK to substitute TRW duties but unfortunately, no high quality candidates were available. Tasks and role of TRW are taken over by the consortium under the supervision of the project coordinator who commits to execute the work with a view to achieve all project technical objectives (specifically Continental and ASL Vision will contribute for vehicle surrounding).

The baseline for DESERVE is represented by the results of past and on-going research projects, and in particular of interactIVe addressing the development of a common perception framework for multiple safety applications with unified output interface from the perception layer to the application layer. The challenge of DESERVE is to go beyond interactIVe, targeting the standardisation of a wider software architecture including the Application and the Information Warning Intervention (IWI) platforms, in addition to the Perception platform already developed within interactIVe.

An official link was established with interactIVe EU project in order share public documents concerning the general software architecture. Only high level information was exchanged with interactIVe consortium, therefore all software modules needed for the target applications to be demonstrated (passenger car, commercial vehicle, motorcycle) will be developed in DESERVE.

Dissemination activities:

- Artemisia Co-summit 2012. **Sharing a vision of ICT innovation.** DESERVE presentation: dedicated booth and dissemination material. Paris, France, at the CNIT Paris La Défense. 31 Oct 2012. About 650-700 participants from all over Europe.
- Brimble, R. 2012. **DESERVE overview.** Presentation in The Advanced Automotive Electronics (AAE2012) conference. Daventry, U.K. 29 Nov 2012.
- Kutila, M., Jokela, M., Fruttaldo, S., Montanari, R. & Miglietta, M. 2013. **Project ownership and steering group challenges in in an international project environment.** Submitted to *the International Journal of Project Organisation and Management (IJPOM)* on 24th of Apr 2013.
- Kutila, M. & Fruttaldo, S. 2013. **DESERVE project. Design and development of an innovative platform for ADAS.** Accepted to the TRA 2014 Transport Research Arena 2014. Paris, France. 14-17 Apr 2014.
- Morignot, P. 2013. **Artificial Intelligence and Applications (AIA'13) conference.** Innsbruck, Austria. 11-13 Feb 2013. 20 attendees.
- Kutila, M. & Fruttaldo, S. 2013. **DESERVE project. Design and development of an innovative platform for ADAS.** Accepted to the *TRA 2014 Transport Research Arena 2014.* Paris, France. 14-17 Apr 2014.
- Pyykönen, P., Kutila, M., Niemeläinen, T., Saccagno, A. Daurenjou, D. & Boverie, S. 2013. **Driver workload monitoring in heavy good vehicles and on powered two-wheelers.** Submitted to the Video Surveillance and Transportation Imaging Applications 2014. San Francisco, U.S.A. 2-6 Feb 2014.
- **DESERVE poster.** EUCAR Reception & Conference. Brussels. 5-6 Nov 2013.
- **DESERVE poster and demonstration.** Booth registrated to the Artemis & ITEA Co-summit. 4-5 Dec 2013.

3.5 Explanation of the use of the resources

The figures 5 and 6 indicate the costs and person months reported per partner during the first year. The figures are indicative and give an impression how the work has been distributed.

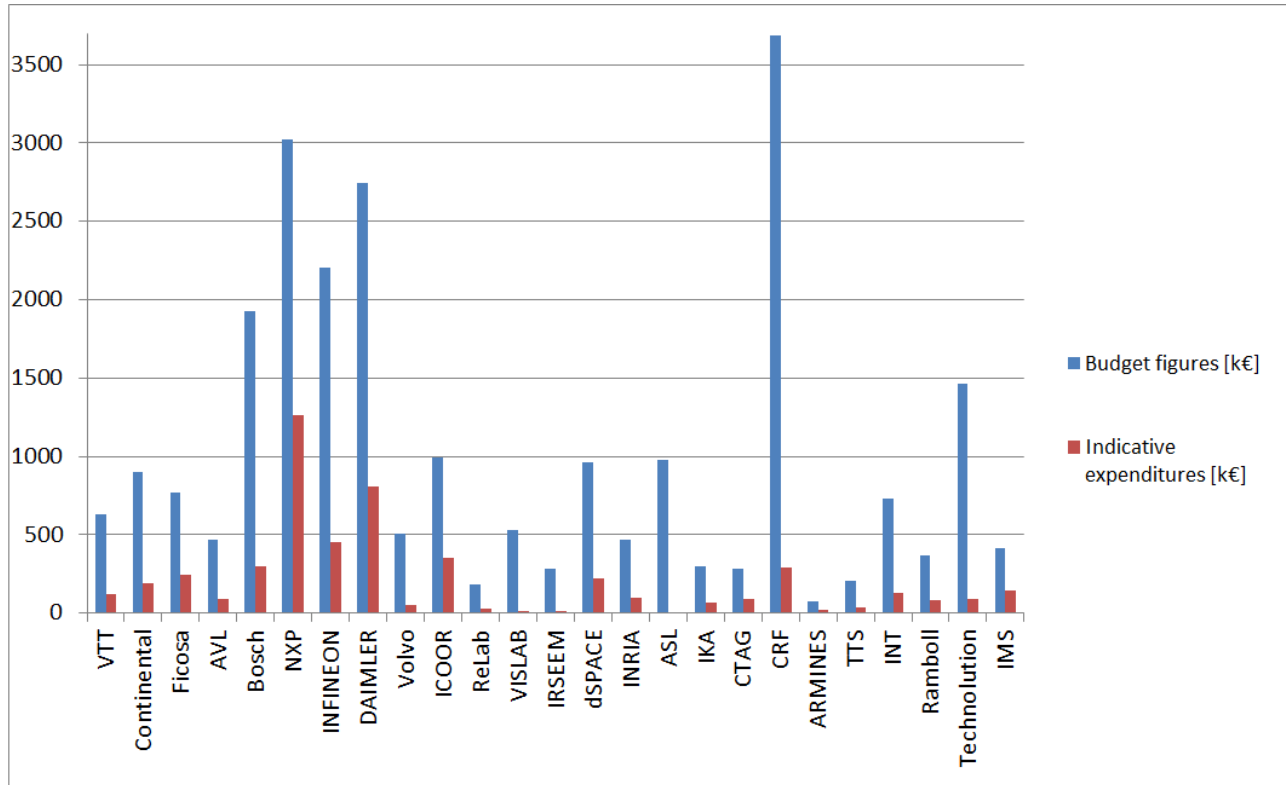


Figure 4. The reported costs per partner during the first year

The discrepancy, occurred during the first project year, between the planned CRF person months and the exposed costs is due to the following reasons:

- Uncertainty related to the pending signature of the national funding contract (the project coordination has been temporarily managed by VTT, therefore any coordination task was not performed by CRF during the first project year and the related planned efforts have not been charged);
- Overlapping of other CRF projects / tasks in the relevant period due to internal company reorganisation that prevented the allocation of the planned person months.

CRF assigned higher priority in completing the deliverables of own responsibility (seven of ten were submitted within the review meeting held in Brussels on 30.10.2013, and the pending three deliverables will be submitted within the end of 2013) and that justifies the discrepancy between the exposed efforts (25%) and the submitted deliverables of own responsibility (70%).

Corrective actions have been implemented by CRF from the beginning of the project (as shown in Figure 5) by an increasing allocation of resources in the project quarters (Q1, Q2, Q3). It is expected to submit the deliverables of own responsibility within the end of 2013 and from the beginning of 2014 the technical team involved in the project will be strengthened.

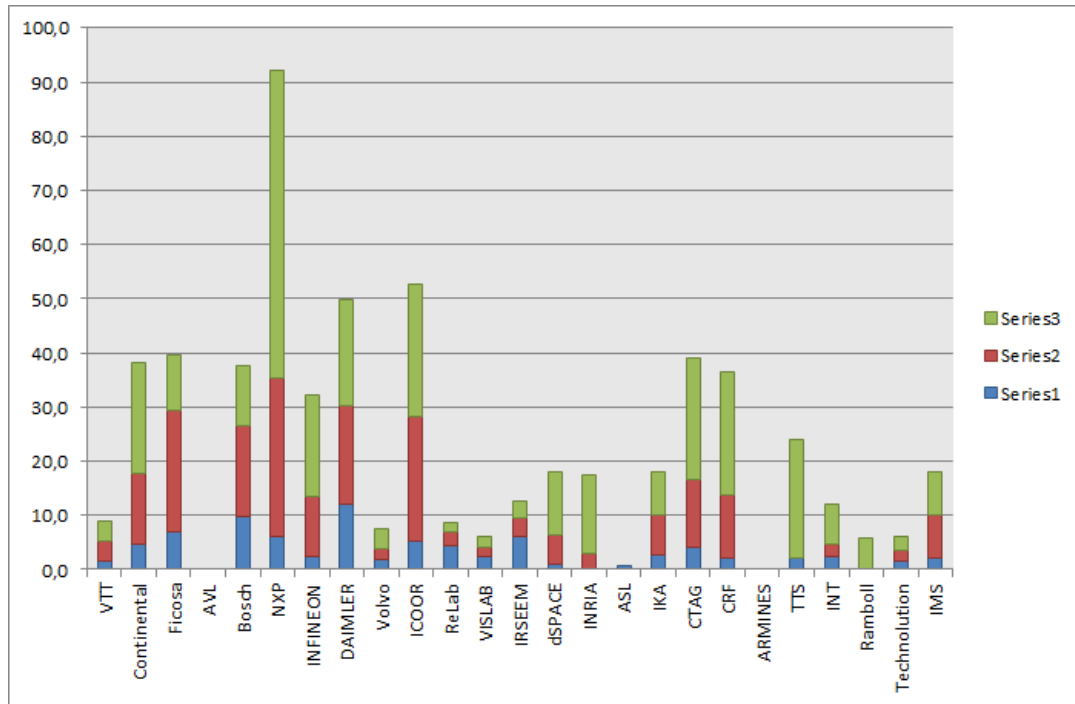


Figure 5. The reported person months per partner during the first year

The person months per WP per partner is given in the Table 4.0 and cost figures during the first project year in Tables 4.1 -4.26.

TABLE 4.0 Person-Month Status table

		Partner - Person-month per Workpackage																								
		TOTALS	1 VTT	2 CONTINENTAL	3 FICOSA	5 AVL	6 BOSCH	7 NXP	8 INFINEON	9 DAIMLER	10 VOLVO	11 ICOOR	12 RELAB	13 VISLAB	14 IRSEEM	15 DSAPCE	16 INRIA	17 ASL	18 IKA	19 CTAG	20 CRF	21 ARMINES	22 TTS	23 INTEMPORA	24 RAMBOLL	25 TECHNO
CONTRACT N°: 295364																										
ACRONYM: DESERVE																										
PERIOD: 1 Sep 2012 - 31 Aug 2013																										
Workpackage 11: Applications Needs	Actual WP total:	32,7	0	1	0,8	0	4	1	2	8	0,5	3,1	0	0	2	0	0	0	0	4	1,8	1	1,5	1	1	0
	Planned WP total:	47	0	1	1	0	4	1	2	8	0,5	4	0	0	2	0	2	0	4	4	6	1	1,5	1	4	0
	Cumulative* Actual WP total:	32,7	0	1	0,8	0	4	1	2	8	0,5	3,1	0	0	2	0	0	0	0	4	1,8	1	1,5	1	1	0
	Cumulative Planned WP total:	47	0	1	1	0	4	1	2	8	0,5	4	0	0	2	0	2	0	4	4	6	1	1,5	1	4	0
Workpackage 12: Requirements	Actual WP total:	52,9	1,1	1	0,9	1	4	3	4	8	2	2,7	0	2	4	2	3	0,7	0	0	6	1	1,5	2	1	2
	Planned WP total:	66,5	1	1	1	1	4	3	4	8	2	4	2	2	4	3	2	2	0	0	12	1	1,5	2	4	2
	Cumulative Actual WP total:	52,9	1,1	1	0,9	1	4	3	4	8	2	2,7	0	2	4	2	3	0,7	0	0	6	1	1,5	2	1	2
	Cumulative Planned WP total:	66,5	1	1	1	1	4	3	4	8	2	4	2	2	4	3	2	2	0	0	12	1	1,5	2	4	2
Workpackage 13: Specifications	Actual WP total:	39,2	0,6	2	1	0	3,6	3	4	4	3	0,8	0	1,5	0	2,5	3,2	0	0	0	5	0	1	1	1	2
	Planned WP total:	57	3	2	1	2	4	3	4	4	3	4	0	2	0	3	2	2	0	0	10	0	1	1	4	2
	Cumulative Actual WP total:	39,2	0,6	2	1	0	3,6	3	4	4	3	0,8	0	1,5	0	2,5	3,2	0	0	0	5	0	1	1	1	2
	Cumulative Planned WP total:	57	3	2	1	2	4	3	4	4	3	4	0	2	0	3	2	2	0	0	10	0	1	1	4	2
Workpackage 21: Tools and Development Systems	Actual WP total:	40,4	0	0	3	0	3	3	0	10	0	0	0	1,1	1,5	3,6	3,5	0	0	0	2	0	3,7	0	0	6
	Planned WP total:	172	0	0	3	0	10	3	24	10	0	0	0	5	10	31	6	0	0	0	16	0	24	0	0	30
	Cumulative Actual WP total:	40,4	0	0	3	0	3	3	0	10	0	0	0	1,1	1,5	3,6	3,5	0	0	0	2	0	3,7	0	0	6
	Cumulative Planned WP total:	172	0	0	3	0	10	3	24	10	0	0	0	5	10	31	6	0	0	0	16	0	24	0	0	30

Workpackage 22: Perception Layer	Actual WP total:	69,8	0	3	18	0	5,5	6	0	21	0	0	0	0,5	1,5	5	2,9	0	0	4,8	0	0	0	1	0	1
	Planned WP total:	326	0	12	41	0	36	8	45	34	0	0	0	13	18	20	16	36	0	9	30	0	0	2	0	6
	Cumulative Actual WP total:	69,8	0	3	18	0	5,5	6	0	21	0	0	0	0,5	1,5	5	2,9	0	0	4,8	0	0	0	1	0	1
	Cumulative Planned WP total:	326	0	12	41	0	36	8	45	34	0	0	0	13	18	20	16	36	0	9	30	0	0	2	0	6
Workpackage 23: Vehicle Modelling	Actual WP total:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Planned WP total:	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0
	Cumulative Actual WP total:	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative Planned WP total:	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0
Workpackage 24: Arbitration/Control	Actual WP total:	2,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,3	0	0	0	0	0	0	0	0	0
	Planned WP total:	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
	Cumulative Actual WP total:	2,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,3	0	0	0	0	0	0	0	0	0
	Cumulative Planned WP total:	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
Workpackage 25: Platform System Architecture	Actual WP total:	45,4	0	1	0	0	1	8	22	4,4	0	0	0	0	0	5,7	0	0	0	0	0	0	0	0	1	2
	Planned WP total:	142	0	2	0	0	8	11	40	14	0	0	0	0	0	15	4	6	0	0	16	0	0	0	20	6
	Cumulative Actual WP total:	45,4	0	1	0	0	1	8	22	4,4	0	0	0	0	0	5,7	0	0	0	0	0	0	0	0	1	2
	Cumulative Planned WP total:	142	0	2	0	0	8	11	40	14	0	0	0	0	0	15	4	6	0	0	16	0	0	0	20	6
Workpackage 26: Virtual Testing	Actual WP total:	10,2	0	0	0	0	0	0	0	0	0	0	0	1	0	3,4	0	0	0	1,5	0	4,3	0	0	0	0
	Planned WP total:	51,2	0	0	0	0	0	0	0	0	0	0	7,2	0	5	0	11	0	0	16	0	12	0	0	0	0
	Cumulative Actual WP total:	45,4	0	1	0	0	1	8	22	4,4	0	0	0	0	0	5,7	0	0	0	0	0	0	0	0	1	2
	Cumulative Planned WP total:	142	0	2	0	0	8	11	40	14	0	0	0	0	0	15	4	6	0	0	16	0	0	0	20	6
Workpackage 31: Driver Modelling	Actual WP total:	38	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	12	0	3	0	0	0	0	0	0
	Planned WP total:	85	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	25	0	12	0	0	0	0	0	0
	Cumulative Actual WP total:	38	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	12	0	3	0	0	0	0	0	0
	Cumulative Planned WP total:	85	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	25	0	12	0	0	0	0	0	0
Workpackage 32: Driver Monitoring	Actual WP total:	20	0	6	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,5	0	0	0	0	0	0
	Planned WP total:	55	11	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
	Cumulative Actual WP total:	20	0	6	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,5	0	0	0	0	0	0

	Cumulative Planned WP total:	55	11	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
Workpackage 33: Integrated HMI Needs and Specifications	Actual WP total:	21	0	3	0	0	0	0	0	0,5	6,4	4,7	0	0	0	0	0	0	4,6	1,5	0	0	0,3	0	0	
	Planned WP total:	38	3	3	4	0	0	0	0	1	8	4	0	0	0	0	0	0	6	8	0	0	1	0	0	
	Cumulative Actual WP total:	21	0	3	0	0	0	0	0	0,5	6,4	4,7	0	0	0	0	0	0	4,6	1,5	0	0	0,3	0	0	
	Cumulative Planned WP total:	38	3	3	4	0	0	0	0	1	8	4	0	0	0	0	0	0	6	8	0	0	1	0	0	
Workpackage 34: Innovative Integrated HMI	Actual WP total:	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0		
	Planned WP total:	69,8	0	6	12	0	0	0	0	1	12	7,8	2	0	0	0	0	0	6	20	0	0	3	0	0	
	Cumulative Actual WP total:	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0		
	Cumulative Planned WP total:	69,8	0	6	12	0	0	0	0	1	12	7,8	2	0	0	0	0	0	6	20	0	0	3	0	0	
Workpackage 41: Warning Functions	Actual WP total:	9,9	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0,8	5	0	0,1	0	0		
	Planned WP total:	88	0	0	18	0	0	0	0	0	12	0	2	0	0	0	0	26	0	0	22	5	0	3	0	0
	Cumulative Actual WP total:	9,9	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0,8	5	0	0,1	0	0		
	Cumulative Planned WP total:	88	0	0	18	0	0	0	0	0	12	0	2	0	0	0	0	26	0	0	22	5	0	3	0	0
Workpackage 42: Control Functions	Actual WP total:	13,1	0	0	0	0	0	0	0	0,9	0	0	0	0	0	0	0	5,9	0	0,8	5	0	0	0,5	0	
	Planned WP total:	86	0	0	0	0	0	0	0	8	0	0	0	12	0	0	0	35	0	22	5	0	0	4	0	
	Cumulative Actual WP total:	13,1	0	0	0	0	0	0	0	0,9	0	0	0	0	0	0	0	5,9	0	0,8	5	0	0	0,5	0	
	Cumulative Planned WP total:	86	0	0	0	0	0	0	0	8	0	0	0	12	0	0	0	35	0	22	5	0	0	4	0	
Workpackage 43: Vulnerable Road User Protection Functions	Actual WP total:	6,9	0	1	0	0	0	0	0	0	0	0	1,1	0	0	0	0	4	0,8	0	0	0	0	0		
	Planned WP total:	40	0	2	0	0	0	0	0	0	0	0	4	0	0	0	0	12	22	0	0	0	0	0		
	Cumulative Actual WP total:	6,9	0	1	0	0	0	0	0	0	0	0	1,1	0	0	0	0	4	0,8	0	0	0	0	0		
	Cumulative Planned WP total:	40	0	2	0	0	0	0	0	0	0	0	4	0	0	0	0	12	22	0	0	0	0	0		
Workpackage 44: Automated Functions	Actual WP total:	3,6	0	0	0	0	0	0	0	0	0,9	0	0	0	0	0	0	2,7	0	0	0	0	0	0		
	Planned WP total:	26	0	0	0	0	0	0	0	0	1	0	0	0	0	12	0	0	9	0	0	0	0	4	0	
	Cumulative Actual WP total:	3,6	0	0	0	0	0	0	0	0	0,9	0	0	0	0	0	0	2,7	0	0	0	0	0	0		
	Cumulative Planned WP total:	26	0	0	0	0	0	0	0	0	1	0	0	0	0	12	0	0	9	0	0	0	0	4	0	
Workpackage 45: Cooperative Systems Functions	Actual WP total:	59	0	0	0	0	0	58	0	0	0	0	0	0,5	0	0	0	0	0	0	0	0	0,5	0		
	Planned WP total:	217	0	0	0	0	0	148	0	0	0	0	0	11	0	0	0	6	22	0	0	0	30	0		

	Cumulative Actual WP total:	59	0	0	0	0	0	58	0	0	0	0	0	0	0	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,5	0	
	Cumulative Planned WP total:	217	0	0	0	0	0	148	0	0	0	0	0	0	0	11	0	0	0	0	6	22	0	0	0	0	30	0											
Workpackage 46: Inter-urban Assist	Actual WP total:	10,2	0	0	0	0	1	0	0	4,1	0	0	0	0	0	0,1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	Planned WP total:	112	0	0	0	0	26	0	6	39	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	26													
	Cumulative Actual WP total:	10,2	0	0	0	0	1	0	0	4,1	0	0	0	0	0	0,1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
	Cumulative Planned WP total:	112	0	0	0	0	26	0	6	39	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	26													
Workpackage 51: Passenger Car Applications	Actual WP total:	10,2	0	0,6	0,5	0	0	6	0	0,1	0	1,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Planned WP total:	170	0	9	20	8	0	11	2	15	0	16	0	17	0	10	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Actual WP total:	10,2	0	0,6	0,5	0	0	6	0	0,1	0	1,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Planned WP total:	170	0	9	20	8	0	11	2	15	0	16	0	17	0	10	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Workpackage 52: Commercial Vehicle Applications	Actual WP total:	2,8	0	0	0	0	0	0	0	0	1,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Planned WP total:	60	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Actual WP total:	2,8	0	0	0	0	0	0	0	0	1,3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Planned WP total:	60	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Workpackage 53: Motorcycle Applications	Actual WP total:	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Planned WP total:	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Actual WP total:	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Planned WP total:	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Workpackage 61: Validation Plan	Actual WP total:	6,5	0	0,9	0,5	0	0	3	0	0,1	0	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Planned WP total:	41	1	2	2	0	2	3	2	2	2	4	0	3	0	0	4	0	0	2	10	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative Actual WP total:	6,5	0	0,9	0,5	0	0	3	0	0,1	0	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Planned WP total:	41	1	2	2	0	2	3	2	2	2	4	0	3	0	0	4	0	0	2	10	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Workpackage 62: Validation Tests	Actual WP total:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Planned WP total:	72	1	3	6	2	4	6	5	4	3	6	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative Actual WP total:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative Planned WP total:	72	1	3	6	2	4	6	5	4	3	6	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Workpackage 63: Evaluation	Actual WP total:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	Planned WP total:	33	2	3	2	1	0	0	0	0	0	4	0	3	0	0	4	0	0	4	0	8	0	0	2	0		
	Cumulative Actual WP total:	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0		
	Cumulative Planned WP total:	33	2	3	2	1	0	0	0	0	0	4	0	3	0	0	4	0	0	4	0	8	0	0	2	0		
Workpackage 71: Dissemination	Actual WP total:	7,6	0,1	0,9	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0,4	0	0	0	0,2	0	0			
	Planned WP total:	49,5	2,5	3	4	2	2	1	3	2	1	12	0	2	2	0	0	0	0	4	4	0	2	2	1	0		
	Cumulative Actual WP total:	7,6	0,1	0,9	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0,4	0	0	0	0,2	0	0			
	Cumulative Planned WP total:	49,5	2,5	3	4	2	2	1	3	2	1	12	0	2	2	0	0	0	0	4	4	0	2	2	1	0		
Workpackage 72: Exploitation, Standardisation and Regulatory Issues	Actual WP total:	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,3	0	0	0,2	0	0			
	Planned WP total:	31,5	0	2	2	0	4	0	4	6	0,5	0	0	2	0	0	0	0	0	0	8	0	0	3	0	0		
	Cumulative Actual WP total:	0,5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,3	0	0	0,2	0	0			
	Cumulative Planned WP total:	31,5	0	2	2	0	4	0	4	6	0,5	0	0	2	0	0	0	0	0	0	8	0	0	3	0	0		
Workpackage 81: Project Management	Actual WP total:	2	1,3	0	0	0	0	0	0	0	0	0,7	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Planned WP total:	31,5	3,5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	24	0	0	0	0	0		
	Cumulative Actual WP total:	2	1,3	0	0	0	0	0	0	0	0	0,7	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cumulative Planned WP total:	31,5	3,5	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	24	0	0	0	0	0		
Workpackage 82: Technical Coordination	Actual WP total:	4,7	0	0	0	0	0,1	0	0	1,5	0	0	0	0	0	0	0,1	0	0	0	2	0	0	0	1	0		
	Planned WP total:	30,8	0	0	0	0	4	0	0	4	0	4	0	0	0	0	2	4	0	0	0,8	0	0	0	12	0		
	Cumulative Actual WP total:	4,7	0	0	0	0	0,1	0	0	1,5	0	0	0	0	0	0	0,1	0	0	0	2	0	0	0	1	0		
	Cumulative Planned WP total:	30,8	0	0	0	0	4	0	0	4	0	4	0	0	0	0	2	4	0	0	0,8	0	0	0	12	0		
Total Project Person-month		Actual total:	528	3,1	20	39	1	22	92	32	61	8,2	49	4,7	6,2	11	19	18	0,7	18	22	37	0	22	12	6,8	6	18
		Planned total:	2249	36	63	141	16	108	198	141	150	34	143	21	61	64	97	82	80	64	64	433	0	22	42	23	94	72

TABLE 4.1 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY VTT FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		47 924 €		47 924 €	
	Subcontracting					
	Major cost item "x"		6 987 €		6 987 €	travel costs
	Major cost item 'y'		2 302 €		2 302 €	materials, equipment
	Major cost item "		11 709 €		11 709 €	research facility costs
	Remaining direct costs		7 993 €		7 993 €	
TOTAL DIRECT COSTS [‡]			76 915 €		76 915 €	
TOTAL INDIRECT COSTS			41 604 €		41 604 €	overhead rate 87% of personnel costs

TABLE 4.2 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY CONTINENTAL FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		181805,0 €		181805,0 €	Salaries of 6 engineers part time from September 2012 to August 31 th 2013.
	Subcontracting					
	Major cost item 'X'		4161,23 €		4161,23 €	Travel costs, 4 trips
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS			185966,23 €		185966,23 €	
TOTAL INDIRECT COSTS			123918,69 €		123918,69 €	

[‡] Total direct and indirect costs have to be consistent with the direct and indirect costs claimed to the National funding Institution or, when applicable, to the JU.

TABLE 4.3 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY FICOSA FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
WP1, WP2, WP3, WP5	Personnel costs		165 217 €		165 217 €	Salaries of 5 senior engineers and 3 juniors with 50% average dedication to this project
WP2	Subcontracting		40 000 €		40 000 €	Universitat Politècnica de Catalunya: ADAS development platform + Drowsiness detection SW integration to Deserve Platform + SW test tasks
WP2, WP3, WP5	Major cost item 'X'		2 995 €		2 995 €	Hardware equipment for the implementation & adaptation of algorithms
WP2, WP3, WP5	Major cost item 'Y'		1.993 €		1.993 €	Equipments for camera test
	Remaining direct costs					
TOTAL DIRECT COSTS			210 205 €		210 205 €	
TOTAL INDIRECT COSTS			42 041 €		42.041 €	

TABLE 4.4 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY AVL FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		167 000 €		167 000 €	Kick-off meeting, SP-meetings, prototype implementation, use-case implementation
	Subcontracting					
	Major cost item 'X'					
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS			92 011 €		92 011 €	
TOTAL INDIRECT COSTS			74 989 €		74 989 €	

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TABLE 4.5 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY BOSCH FOR THE PERIOD *(All the figures given above are only indicative with no right of accuracy and completeness. The only financial figures counting are those delivered under the national grant agreement to the German office DLR. In case of discrepancy the numbers submitted to the DLR office are valid.)*

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		192 994 €		192 994 €	20,45 PM Scientists, 12,13 PM Engineers and 4 PM assistance by a doctoral candidate
	Subcontracting					
	Travel and Subsistence		868 €		868 €	Kunert, Martin:: Kick-Off-Meeting, Helsinki/Finland, 20.11.-21.11.12; National Meeting, Neubiberg/Germany, 04.06.2013; Meinel, Frank: Meeting with Prof. Dr.-Ing. Blume, Leibniz University Hanover/Germany, 11.06.2013
	Remaining direct costs					
TOTAL DIRECT COSTS			193 862 €		193 862 €	
TOTAL INDIRECT COSTS			211 496 €		211 496 €	

TABLE 4.6 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY NXP-NL FOR THE PERIOD

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
WP1, WP2, WP4, WP5, WP6, WP7	Personnel costs		1 263 775 €		1 263 775 €	Salaries of 18 R&D employees. This is based on the Integrall cost system. Therefore this includes also indirect personnel costs.
	Subcontracting					
	Major cost item 'X'					
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS			1 263 775 €		1 263 775 €	
TOTAL INDIRECT COSTS						

TABLE 4.7 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY INFINEON FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs	0	452 591 €	0	452 591 €	accounting has no separation between direct/indirect cost
	Subcontracting	0	0	0	0	
	Major cost item 'X'					
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS						
TOTAL INDIRECT COSTS					452 591 €	accounting has no separation between direct/indirect cost

TABLE 4.8 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY DAIMLER FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
SP1; SP2; SP4; SP6; SP8	Personnel costs		339.732 €		339.732 €	7,71 MM of Dr. Werner Ritter; 6,51 MM of Mr. Joachim Gloger; 5,99 MM of Mr. Stefan Franz; 7,58 MM of Mr. Oliver Hartmann; 7,08 MM of Mr. Matthias Limmer; 0,37 MM of Mr. Lars Krüger; 2,58 MM of Mr. Florian Schüle; 4,69 MM of Dr. Roland Schweiger; 7,16 MM of Mrs. Nora von Egloffstein
	Subcontracting					
	Major cost item 'X'		25.421 €		25.421 €	Computers for measurement technic and training purposes
	Major cost item 'Y'		2.415 €		2.415 €	Travel costs
	Remaining direct costs		9.710 €		9.710 €	Other incidentals
TOTAL DIRECT COSTS			377.278 €		377.278 €	
TOTAL INDIRECT COSTS			432.340 €		432.340 €	

TABLE 4.9 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY VOLVO FOR THE PERIOD

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
SP1, SP3, SP4, SP5	Personnel costs		49 854 €			
	Subcontracting					
SP1	Major cost item 'X'		564 €			Travel costs to project KickOff in Espoo
	Major cost item 'Y'					
SP1, SP3, SP4, SP5	Remaining direct costs		3268 €			
TOTAL DIRECT COSTS						
TOTAL INDIRECT COSTS						

Table 4.11 Personnel, subcontracting and other major Direct cost items for Beneficiary ICOOR for the period 1/9/2012-30/8/2013 *

Work Package	Item description	Amounts				Explanations
		Fundamental research	industrial research	Experimental development	Total	
SP1; SP3; SP4; SP5; SP6; Sp7; Sp8	Personnel costs		€ 251.768,20		€ 251.768,20	Salary of one Young Researcher for 7 MM; Salary of one Full Professor for 7,97 MM; Salary of one Senior Researcher for 5,44 MM; Salary of one Medium experienced researcher for 7,94 MM; Salary of one Young Researcher for 5 MM; Salary of one Full Professor for 7,98 MM; Salary of one Associate Professor for 4,8 MM; Salary of one Senior Researcher for 5,2 MM; Salary of one Young Researcher for 5,2 MM; Salary of one Senior

						Researcher for 0,45 MM ;
	Subcontracting					
	Website realization		€ 1.714,00		€ 1.714,00	Website realization
	Other direct cost					
TOTAL DIRECT COSTS			€ 253.482,20		€ 253.482,20	
TOTAL INDIRECT COSTS			€ 125.884,10 €		€ 125.884,10	overhead rate 50% of personnel costs

TABLE 4.12 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY VISLAB FOR THE PERIOD

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		10 456 €			Around 4 MM of personnel involved onto the project
	Subcontracting					
	Major cost item 'X'					
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS			10 456 €		10 456 €	
TOTAL INDIRECT COSTS						

TABLE 4.13 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY IRSEEM FOR THE PERIOD

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		15221.36 €		15221.36€	6 month PhD
	Subcontracting					
	Major cost item 'X'					
	Major cost item 'Y'					

	Remaining direct costs		2963.35 €		2963.35 €	Travel costs
TOTAL DIRECT COSTS			18184.71 €		18184.71 €	
TOTAL INDIRECT COSTS			1454.78 €		1454.78 €	Overhead rate of 8% on all costs

TABLE 4.14 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **DSPACE FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		102 444 €		102 444 €	Personnel costs from 01.09.12-30.06.13
	Subcontracting		7 950 €		7 950 €	Development of hardware component
	Major cost item 'travelling costs'		1.855 €		1.855 €	
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS			112 249 €		112 249 €	
TOTAL INDIRECT COSTS			43 696 €		43 696 €	

TABLE 4.15 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **INRIA FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
WP 12, 13, 21, 22, 24, 26, 82	Personnel costs	73 435 €			73 435 €	1 Research director, Salaries of 2 Expert Engineers and one PhD student.
	Subcontracting	8 000 €			8 000 €	1 Contract of a Cybercar and autonomous vehicle expert.
	Major cost item 'Equipment'	2.829 €			2.829 €	Computers and cameras.
	Major cost item 'Material and Kick-off meeting'	3.480 €			3.480 €	Diner and cafes for the Kick-off Meeting (Paris).
	Major cost item 'Travel and conferences'	6 814 €			6 814 €	IEEE IV-2013, IFAC IAV- 2013.
TOTAL DIRECT COSTS		94 558 €			94 558 €	
TOTAL INDIRECT COSTS		74 156 €			74 156 €	

TABLE 4.16 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY ASL FOR THE PERIOD (NOT AVAILABLE ON SEP 27)						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs					
	Subcontracting					
	Major cost item 'X'					
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS						
TOTAL INDIRECT COSTS						

TABLE 4.17 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY IKA FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs	60 936 €			60 936 €	Salaries of engineers and student workers from September 2012 to August 2013
	Subcontracting					
	Major cost item 'X'	3 160 €			3 160 €	Travels for project kick-off in Espoo; WP 3.1 kick-off in Barcelona, quarterly national consortium meetings in Ulm, Munich, Leonberg (WP4.2).
	Major cost item 'Y'					
	Remaining direct costs	166 €			166 €	Hospitality cost for meeting in Aachen
TOTAL DIRECT COSTS		64 262 €			64 262 €	
TOTAL INDIRECT COSTS		12 852 €			12 852 €	Overhead rate of 20% total cost

TABLE 4.18 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY CTAG FOR THE PERIOD						
Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	

1.1; 2.2; 2.4; 3.3; 4.3; 6.1	Personnel costs	71557,58 €			71557,58€	Salaries of 10 engineers part time from September 2012 to August 31 st 2013.
	Subcontracting					
All; WP2.2 & 2.4; WP3.3 & 3.4	Major cost item 'X'	2367,69 €			2367,69 €	Travels for general kick-off meeting (Espoo) and SP2 (Paris) and SP3 (Barcelona) kick off meetings
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS		73925,27 €			73925,27 €	
TOTAL INDIRECT COSTS		14311,52 €			14311,52 €	overhead rate 20% of personnel costs

TABLE 4.19 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY CRF FOR THE PERIOD

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
1.1, 1.2, 1.3 2.1, 2.3, 2.6 3.1, 3.2, 3.3, 3.4 4.1, 4.2, 4.5 5.1, 5.2 6.1 7.2 8.2	Personnel costs		167824,67 €		167824,67 €	5140,69 h Salaries of workers involved in the activities.
SP2 (all WPs)	Travel		*		*	Attendance of the following meetings: -Kick off meeting, Espoo Finland on 20-21 Nov 2013; -SP2 Kick off meeting, Paris, 17-18 Apr 2013; -SP2 Workshop – RTMaps Training, Paris, 17-18 Sept 2013.
WP1.2, 1.3, 4.1, 4.2, 2.6	Consumables		23.400 €		23.400 €	Use of an external resource working at CRF premises under the supervision of a CRF's senior specialist.
	Remaining direct costs		-			
TOTAL DIRECT COSTS			191224,67 €		191224,67 €	
TOTAL INDIRECT COSTS			95612,35 €		95612,335 €	Overhead rate 50% of personnel costs

* The travel costs are not exposed since this category cost cannot be funded in agreement with the national funding rules.

TABLE 4.20 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **ARMINES FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
WP22	Personnel costs	11 114 €			11 114 €	178 h senior engineer
	Subcontracting					
WP22	Major cost item 'Kick-off meeting'	69 €			69 €	
	Major cost item 'Y'					
	Remaining direct costs					
TOTAL DIRECT COSTS		11 184 €			11 184 €	
TOTAL INDIRECT COSTS		7 563 €			7 563 €	

TABLE 4.21 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **TTS FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
4.2.1, 5.3., 6.3.	Personnel costs		28 096,25 €			
5.3.	Subcontracting		1 714 €			
4.2.	Major cost item 'Travel costs'		4 042 €			
4.2.1, 5.3., 6.3.	Major cost item 'Overhead costs/Indirect costs'		14 048,13 €			
4.2.1, 5.3., 6.3.	Major cost item 'Others'		339 €			
	Remaining direct costs		89 168,75 €			
TOTAL DIRECT COSTS			34 191,25 €			
TOTAL INDIRECT COSTS			14 048,13 €			

TABLE 4.22 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **INTEMPORA FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs	117 668 €				
	Subcontracting					
	Simulink licence	7 602 €				
	Remaining direct costs	2 172 €				Travels : Kick-off meeting Espoo CRFiat Orbassano Mines paris-tech
TOTAL DIRECT COSTS		127 442 €				
TOTAL INDIRECT COSTS						

TABLE 4.23 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **RAMBOLL FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		48 561 €			
	Subcontracting		2 466 €			Artemis participation fees
	Travel costs		3 319 €			
	Other costs		1 218 €			
	Remaining direct costs					
TOTAL DIRECT COSTS			55 564 €			
TOTAL INDIRECT COSTS			24 280 €			overhead rate 50% of personnel costs

TABLE 4.24 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **TECHNOLUTION FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs		52 417 €			
	Subcontracting					
	Travel costs		2 094 €			
	Remaining direct costs					
TOTAL DIRECT COSTS			54 511 €		54 511 €	
TOTAL INDIRECT COSTS			31 450 €		31 450 €	Technolution follows the integral cost method

TABLE 4.25 PERSONNEL, SUBCONTRACTING AND OTHER MAJOR DIRECT COST ITEMS FOR BENEFICIARY **IMS FOR THE PERIOD**

Work Package	Item description	Amounts				Explanations
		Fundamental research	Industrial research	Experimental development	Total	
	Personnel costs	116 194 €			116 194 €	salaries
	Subcontracting					
	Major cost item '1'	2 137 €			2 137 €	travel costs Ulm/Paderborn, Munich/Helsinki
	Consumables	91 €			91 €	
	Remaining direct costs					
TOTAL DIRECT COSTS		118.421 €			118.421 €	
TOTAL INDIRECT COSTS		23 684 €			23 684 €	overhead 20%

Table 4.26 Personnel, subcontracting and other major Direct cost items for Beneficiary RELAB for the period 1/9/2012-30/8/2013 *

Work Package	Item description	Amounts				Explanations
		Fundamental research	industrial research	Experimental development	Total	
SP3	Personnel costs		€ 16.672,82		€ 16.672,82	Salary of one Young Researcher for 1,31 MM; Salary of one Young Researcher for 1,58 MM ;Salary of one Young Researcher for 1,17 MM
	Subcontracting				0	
	Website realization		€ -		€ -	
	Other direct cost		€ -			
TOTAL DIRECT COSTS			14.756,42 €	€ 16.672,82	€ -	€ 16.672,82
TOTAL INDIRECT COSTS			7.378,21 €	€ 8.336,41	€ -	€ 8.336,41

4. Beneficiaries without a corresponding National Grant Agreement

Certificates

Beneficiary	Organisation short name	Certificate on the financial statements provided? yes / no	Any useful comment, in particular if a certificate is not provided

1	VTT	no	Expenditure threshold not reached
2	Conti	no	Expenditure threshold not reached
3	FICOSA	no	Expenditure threshold not reached
5	AVL	no	Expenditure threshold not reached
6	Bosch	no	Expenditure threshold not reached
7	NXP-NL	no	Expenditure threshold not reached
8	Infineon	no	Expenditure threshold not reached
9	Daimler	no	Expenditure threshold not reached
10	Volvo	no	Expenditure threshold not reached
11	ICOOR	no	Expenditure threshold not reached
12	ReLab	no	Expenditure threshold not reached
13	VISLAB	no	Expenditure threshold not reached
14	IRSEEM	no	Expenditure threshold not reached
15	dSPACE	no	Expenditure threshold not reached
16	INRIA	no	Expenditure threshold not reached
17	ASL	no	Expenditure threshold not reached
18	IKA	no	Expenditure threshold not reached
19	CTAG	no	Expenditure threshold not reached
20	CRF	no	Expenditure threshold not reached
21	ARMINES	no	Expenditure threshold not reached
22	TTS	no	Expenditure threshold not reached
23	INTEMPORA	no	Expenditure threshold not reached
24	Ramboll	no	Expenditure threshold not reached
25	Technolution	no	Expenditure threshold not reached
26	IMS	no	Expenditure threshold not reached