

InterCor overview

15-11-2017

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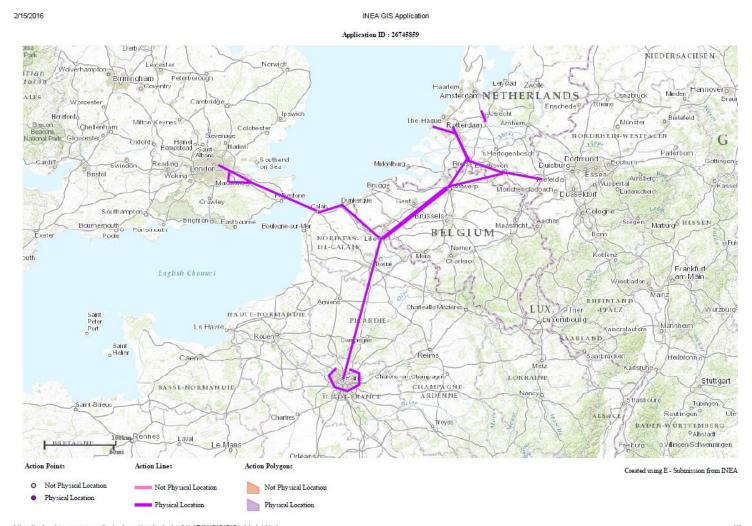
In erCor topics

- Overview InterCor objectives
- Milestones InterCor
- Timelines for delivering input to InterCor



Connecting C-ITS corridors

By harmonising specifications





In erCor Planned C-ITS services

Services	the Netherlands	France	Belgium	UK
In vehicle signage	x	x	(x)	X
Probe data	x	X		X
Road works warning	X	X	X	X
GLOSA	x	x	X	x
Multimodal cargo transport optimisation	X (incl tunnel logistics)	x	?	
Truck Parking	X (?)	x	?	
Tunnel surveillance			X	

In erCor Project structure

Activity 1, Project management, Sept 2016- Aug 2019 Leader RWS (assisted by ERTICO)

Activity 1.3: alignment with C-Roads

Activity 2, pilot roll out preparation, Sept 2016-Oct 2018 Leader RWS (TNO)

Activity 2.1a: ITS – G5 service consistency, Sept 2016–Aug 2017.

Activity 2.1b: Hybrid communication, Sept 2016-Aug 2018

Activity 2.1c: PKI specification, Sept 2016–Aug 2018

Activity 2.1d: C-ITS Services, Sept 2016-Aug 2018.

Activity 3, pilot operation, Sept 2016- august 2019 Leader ERTICO, RWS, MEEM, DfT, MoW

Activity 4, pilot evaluation, Sept 2016- august 2019 Leader UK (Department of Transport)



In erCor List/status of milestones

No	Milestone description	Indicative	Status	
		completion		
		date		
1	Completion of the preparation of Project Management	30/11/2016	Submitted 31/08/2017	
	documents and Communication plan			
2	Signature of C-Roads Platform Agreement	31/12/2016	closed	
3	Common set of upgraded specifications for ITS-G5	31/08/2017	Submitted 20/10/2017	
4	Common set of upgraded specifications for Hybrid	31/08/2018	Stable version needed before pilot	
	communication		procurement (Nov 2017), new completion	
			date 30/11/2018 after hybrid TESTFEST	
5	Common set of upgraded specifications for PKI	31/08/2018	Stable version needed before pilot	
			procurement (Nov 2017)	
6	Common set of upgraded specifications for services	31/08/2018	Stable version needed before pilot	
			procurement (Nov 2017), new completion	
			date 31/03/2019 after services TESTFEST	
7	Completion of validation of specifications	15/10/2018	New completion date 31/03/2019 after last	
			TESTFEST	
8	Pilot planning finalized	31/08/2017	Submitted 31/08/2017	
9	Start of Pilot operation in the four MS	31/05/2018	Not achievable for all MS	
10	Publication of Roll out guidelines and best practices of pilot	30/11/2018	Should be moved after last pilot has started	
	operation			
11	Pilot operation finalized	31/08/2019	Allows only for short parallel pilot operation!	
12	Evaluation framework finalized	31/08/2017	Submitted 31/08/2017	
13	Technical evaluation, Impact assessment and User	31/08/2019	No sufficient inputs from pilot operation	
	acceptance finalised		available	



Detailed timelines specifications InterCor (1)

2.1a: ITS – G5 service consistency

- •Final deliverable with RWW, IVS, PVD and GLOSA specifications available since sept 2017
 - •RWW, IVS and PVD input pre-discussed with RWS, based on C-ITS Corridor specs. Actively harmonized mainly with France (SCOOP@F). UK and BE reviewed
 - •GLOSA input from Talking traffic. Reviewed by FR, UK and BE
- •Specifications were tested in testfest July 2017 in Dordrecht (IVS, RWW)
 - •GLOSA was postponed to Hybrid testfest in 2018
- •Incorporated in C-Roads 1.0 profile, supported by FR, BE, UK and NL
- •Further harmonization with other members states and updates of profiles takes place in C-Roads
 - → Dutch input and review (through A&I) remains necessary for this as further harmonization result in (suggestions for) adaptations
- •C-Roads profile 1.1 planned for Jan 2018. What exactly will be included, and to what level of detail, is not completely clear.



Detailed timelines specifications InterCor (2)

2.1b: Hybrid communication

- •Version 1 <u>currently</u> under review.
 - Based on requirements from RWW, IVS and GLOSA
 - Input gathered from multiple stakeholders in NL
 - Deliverable should be final end November 2017
 - •Specifications will be tested in Testfest UK (sept 2018). UK, NL and FR will participate, at least (others will be invited)
 - GLOSA will be pre-tested in June 2018 in NL test event. Participation of UK

Version 2

- Based on requirements from PVD, MCTO, truck parking, tunnel surveillance and additional observations from RWW, IVS and GLOSA
- Option to extend to other architectural solution, if based on concrete input from national projects
- Integrate results of PKI activities, when necessary
- Specifications should be final draft April 2018
 - → review from A&I in April
- •Specifications will be tested in final testfest BE (end 2018 / early 2019), all member states will participate (and more)
- Milestone deliverable "Common set of upgraded specifications for Hybrid communication" available November 2018. Review from A&I in Oktober 2018?



Detailed timelines specifications InterCor (3)

- ETSI specifications (used versions) have been agreed on in September 2017, except one (see slide slide).
- They will be tested in PKI-TestFest, April 2018. Output gap analysis:
 - ETSI TS 102 941 v1.2.1 not yet finalised Best stable draft TBD this week
 - ECTL of EC will not be up and running in 2018 InterCor will built project-ECTL (France)
 - Request for new certificates not over G5 communication, satndard is not ready for this, but probably this approach will not be used in NL anyway
 - Test fest will probably be combined with ETSI plugtest voor PKI en security
 - This will have to be investigated (versions, scope, etc..)
- •Final PKI Specifications will be tested in Testfest BE (end 2018 / early 2019).
- Alignement in NL on implemented versions is necessary



Standaarden/ versies voor InterCor (Testfest)

Reference	Type	Title	Version	Scope	Origin
EEGI 102722	TS	TS 102 723-8	V1.1.1	This standards specifies interfaces between the ITS security entity and the	ETSI
ETSI_102723		OSI cross-layer	(2016-04)	ITS network and transport layers .It specifies as well related procedures and	
		topics; Part 8.		common parameters.	
ETSI_102731	TS	TS 102 731:	V1.1.1	This standard specifies mechanisms at the stage 2 level defined by ETSI 300	ETSI
		ITS, Security	(2010-09)	387 for secure and privacy-preserving communication in ITS environments.	
		services and			
		architecture			
ETSI_102893	TR	TR 102 893:	v1.1.1	The document summarizes the results of a Threat, Vulnerability and Risk	ETSI
		ITS Security:	(2010-03)	Analysis (TVRA) of 5,9 GHz radio communications in an Intelligent	
		(TVRA)		Transport System (ITS).	
ETSI_102940	TS	TS 102 940: ITS	v1.2.1	This standard specifies a security architecture for Intelligent Transport	ETSI
		Security	(2016-11)	System (ITS) communications. Based upon the security services defined in	
				ETSI TS 102 731.	
ETSI_102941	TS	TS 102 941: ITS	v1.1.15	This standard identifies the trust establishment and privacy management	ETSI
		Security: Trust		required to support security in an ITS environment and the relationships that	
		and Privacy		exist between the entities themselves and the elements of the ITS reference	
		Management		architecture.	
ETSI_102965	TR	TR 102 965:	V1.2.1	This report is in support of a preliminary global registration list for ITS-AID	ETSI
		Application	(2015-06)	values. It provides an overview of the registration procedure of a new ITS-	
		Object Identifier		AID value.	
		(ITS-AID)			
ETSI_103097	TS	TS 103 097 : ITS	v1.2.1	This standard specifies security header and certificate formats for Intelligent	ETSI
		security: security	(2015-06)	Transport Systems. These formats are defined specifically for securing G5	
		header and		communication.	
		certificate formats			



Detailed timelines specifications InterCor (4)

•2.1D: C-ITS services

- •Functional description of use cases, high level technical description, national implementation plans.
- •Final (draft) specifications ready in August 2018, draft specifications have to be ready November 2017. Input from other member states is not according to what was agreed.
- Specifications will be tested in Testfest BE (end 2018 / early 2019),
 NL, FR, UK and BE will participate, others (at least all C-Roads members) will be invited
- Not only interoperability of services will be tested, also PKI and/or Hybrid in combination with these services are being tested