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ConnecTA

Technical Assistance to Connectivity in the Western Balkans



Connecta: a TA to contribute in filling in the gaps of project preparation and transport reform measures in WB6 in the frame of Connectivity Agenda.

Its purpose is:

- ***Bringing high priority energy and transport infrastructure projects to maturity for investment co-financing; and***
- ***Supporting the preparation and implementation of short and medium term regional reform measures in the transport sector***

The Connecta mechanism is an organised interaction between four groups of stakeholders to achieve a common vision:

- EU (DG NEAR, DG MOVE)
- IFIs (EIB, EBRD, World Bank, KfW)
- Regional Organisations of Transport and Energy (SEETO and EnCS)
- WB6 Beneficiaries

General

- ❑ Contracting Authority: EC – DG NEAR
- ❑ KoM: at 20-1-2017
- ❑ Duration: 48 months
- ❑ Budget contracted: around 7 mil EUR (possible extension up to 21-23 mil)
- ❑ Area covered: Western Balkans (WB6), focus on regional approach
- ❑ Sectors covered: Transport – Energy (focus on transport)
- ❑ Consortium: led by MMD (plus COWI, WYG and more)
- ❑ Key experts: TL-Transport, DTL-Transport, Energy
- ❑ Pool of NKEs for specific sub-projects/assignments
- ❑ *Missions in WB6 countries performed during February/March 2017*
- ❑ ***Inception Report submitted to DG NEAR – Approved in March 2017***
- ❑ ***1st Semester Progress Report (Jan-Jun 2017) – Approved in Aug 2017***

Transport Sector

Scope of work (as per ToR)

- **Preparation of documentation for priority infrastructure projects (along core network-indicative TEN-T extensions to WB6), preferably matured for co-financing, mostly:**
 - Bridging gaps (documentation, physical)
 - Small scale FS, designs or other TA services
 - *JUST STARTED: Budva bypass PD*
- **Support in connectivity transport reform measures (in the context of SEETO CRMMP) on core (mostly) and comprehensive networks:**
 - *ONGOING: Intelligent transport systems, road/rail maintenance, road safety*
 - *STARTING SOON: Effective border crossings*
 - **POSSIBLE FUTURE: Network resilience**

Connectivity Transport Reform Measures

- Currently, concrete progress on reform measures (adoption/implementation) is a pre-condition for co-financing of infrastructure development in WB6
- Targets are to approximate EU legislation and Acquis and proceed to reforms that will ensure integration and harmonization of WB6 with EU (mostly along TEN-T indicative extensions in WB6) but also between WB6 participant States
- **Connecta will support specific reform actions, mostly by preparing plans and strategies at regional level (in line with EU Directives and standards) but also by assisting RPs to develop their own**
- *Overlapping with other initiatives and relevant TAs (EC, IFIs) to be avoided – target is complementarity*

Connectivity Transport Reform Measures

Ongoing Assignments (sub-projects) of Connecta

- Strategic framework for implementation of ITS on TEN-T core/comprehensive networks in Western Balkans
all transport modes and interfaces
- Preparation of 5 year maintenance plan for the indicative extension of TEN-T **Road/Rail** core/comprehensive networks in Western Balkans
- Preparation of road safety Inspection and Audit plans for the core/comprehensive **road** networks in Western Balkans and Pilot

STARTING SOON

- Feasibility study for border crossing facilitation and improvement on indicative extension of TEN-T **Road** core/comprehensive network in Western Balkans

Road Safety sub-project

- ***Preparation of Road Safety Inspection and Audit plans for the core/comprehensive road networks in Western Balkans and Pilot***
- **Status**
 - Initiated 5-6-2017 (KoM at 13-6-2017)
 - IR submitted 30-6-2017 (draft) and 18-8-2017 (final) - Agreed
 - Ongoing missions and data collection, as well as RSI pilots
- **Indicative Plan**
 - Duration 12 months (expected completion June 2018)
 - Interim Report (3 components) due till end 2017
 - Team of 8 NKEs, most are international experts
 - PM: Jesper Mertner

Scope – Components – Results (1/2)

- ***Prepare a three-year RSI plan for the core and comprehensive network and pilot RSIs on high accident sections***
 - Map existing core/comprehensive networks in Western Balkans
 - Compile list with all RSI undertaken (and recommendations provided) during last 3 years (2014-2016) including those that followed EuroRAP/iRAP methodology
 - Prepare a three-year Plan (2018- 2020) for road safety inspection for the core and comprehensive road network (SEETO RSI Guidelines, EuroRAP)
 - Undertake road safety inspections using SEETO's Road Safety Inspection Guidelines on 10% (higher risk) of the core/comprehensive network (and covering all WB6)

Scope – Components – Results (2/2)

- ***Carry road safety audits as per the Directive 2008/96/EC on projects on the core and comprehensive road network***
 - Compile list of all new road projects under preparation (with available documentation) along core/comprehensive networks
 - Prepare a plan to undertake road safety audits, at various stages as per the Directive 2008/96/EC and SEETO's Road Safety Audit Handbook for new projects (with documentation at CD and/or PD stage)
 - Undertake Road Safety Audits for a sample of 6 projects, one in every SEETO member
- ***Support RPs in preparing new crash data collection and analysis systems***
 - Road map for establishing national systems for continuous road crash data collection

Road Safety sub-project – Work plan

Task TOR	MAIN ACTIVITIES - REPORTS - MILESTONES	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18
	Mobilization - Inception period (assuming start in mid May 2017)		█													
	INCEPTION REPORT (common for Road and Rail)		★													
Comp 1	ROAD SAFETY INSPECTION PLANS for Core/Comprehensive Networks in WB6 - Pilot															
1.1	Map existing core and comprehensive networks in WB6			█	█	█										
1.2	List of undertaken RSI in 2014-2016 including recommendations provided			█	█	█										
1.3	Preparation of 3-year RSI Plans (2018-2020) under two methods and estimate of inputs-cost					█	█	█	█							
	Interim Report 1: Inventory of network and conducted RSI and RSI Plan 2018-2020							★								
1.4	Undertake RSI on 10% (high risk) of core/comprehensive network (field work 2m - reporting 2m)					█	█	█	█	█	█					
1.5	DRAFT FINAL REPORT (consolidation of key findings of component 1 activities)											█				
	<i>Review and comments by stakeholders</i>											█				
	FINAL REPORT (component 1)												█	★		
Comp 2	ROAD SAFETY AUDIT PLANS for Core/Comprehensive Networks in WB6 - Pilot															
2.1	List of current (rehabilitation-new construction) road projects in preparation			█	█	█										
2.2	Preparation of RSA Plan (as per 2008/96/EC and SEETO RSA Handbook) and estimate of inputs-cost				█	█	█									
	Interim Report 2: Inventory of projects and RSA Plan							★								
2.3	Undertake RSA for sample of 6 projects, one per SEETO member (1m per project)						█	█	█	█	█	█	█			
2.4	DRAFT FINAL REPORT (consolidation of key findings of component 2 activities)												█			
	<i>Review and comments by stakeholders</i>												█			
	FINAL REPORT (component 2)													█	★	
Comp 3	Support to RPs in implementing new crash data collection & analysis systems															
3.1	Undertake missions in WB6 to assess current road crash data collection-analysis systems				█	█	█									
3.2	Set up a concept for common system in WB6 based on EU practice						█	█								
	Interim Report 3: common system in WB6 based on EU practice							★								
3.3	Prepare road map for establishing national system for continuous road crash data collection and analysis							█	█	█	█	█	█			
3.4	DRAFT FINAL REPORT (component 3)												█			
	<i>Review and comments by stakeholders</i>												█			
	FINAL REPORT (component 3)													█	★	
FR	Consolidation of Final Report (all components)														█	
	<i>Approval by Contracting Authority</i>														█	
	Progress Reports (common for all components)			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

Road Safety – RSI pilots progress status

- Agreed Road Sections for RSI pilots in WB6: 23 sections – 560.5 km
 - ALB: 4 – 112.5
 - BIH: 5 – 121.5
 - KOS: 3 – 46.5
 - MKD: 2 – 69.0
 - MNE: 1 – 54.0
 - SRB: 8 – 157.0

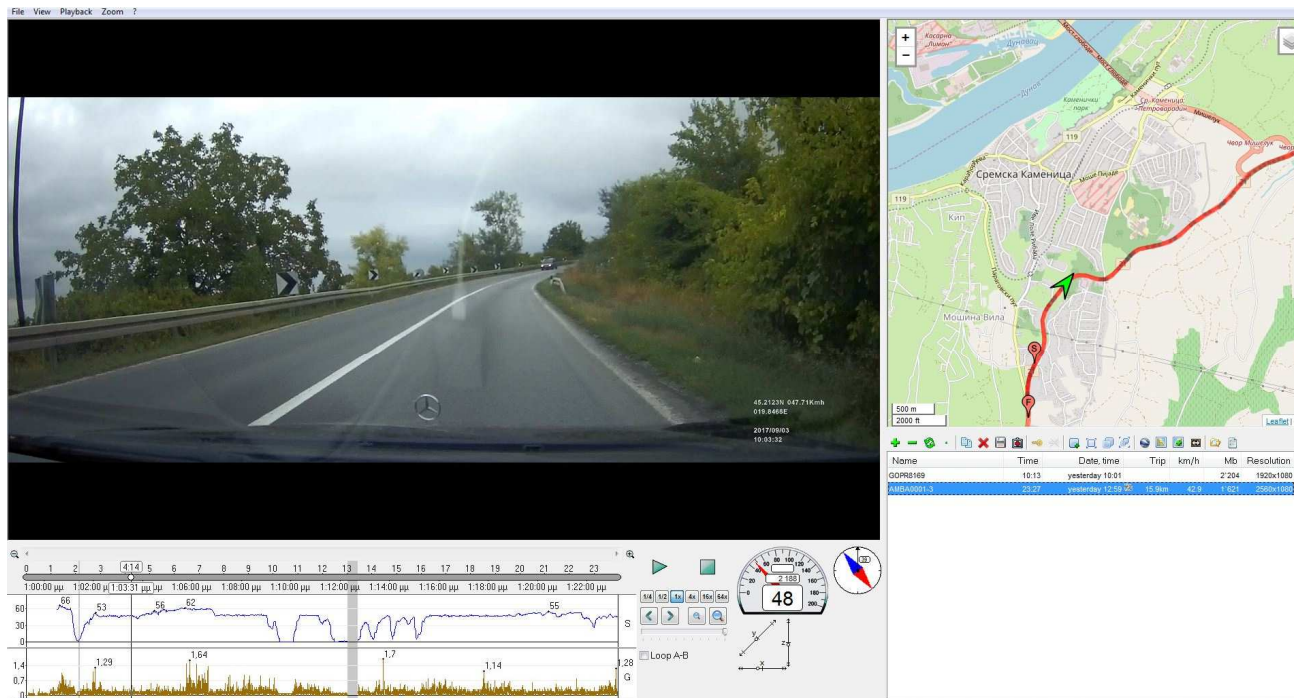
Till 24-9-2017, 130 km inspected

Week 25-29/9 in ALB, week 2-6/10 in MNE

- Expected completion of RSI pilots in mid December 2017

RSI pilots – issues

- Not allowed to do RSI on road in Republic of Srpska (BiH) due to own regulations, procedures and guidelines
 - *Looking at different options to resolve*
- Still need final information on inspections carried out for 3y RSI plan



Road Safety – RSA pilots agreed projects

	Corridor/ Route/Node	Name of the Project (sections)
ALB		Bypass Gjirokastra – new suggested project for RSA
BiH	Coridor Vc	M-17, sections from Modrica 1 to MEL Karuse
MNE		M-2 Kolašin (Crkvine) - Mojkovac - Bijelo polje (Ribarevine)
MKD	Corridor Xd	Prilep to Raec (Reconstruction of the road section from Prilep to the bridge of the river of Lenishka and construction of third lane on the road section from Belovodica to the quarry of Mavrovo)
SRB		Motorway E-763 Belgrade - Požega, part Surčin - Obrenovac, sections from 2 to 5 (bridges and motorway alignment) – will be replaced by new project for RSA (still pending)
KOS	Route 7	Pristina to Merdare – Proposed (waiting confirmation from EBRD)

Road Safety – RSA pilots progress status and issues

- Audits are planned to start beginning October
- Planned completion end of 2017
- Pending
 - Audit project in KOS – proposed but awaiting EBRD Approval
 - Audit (new) project in SRB - to be suggested
- During audits the project sites will be visited and meetings held with RPs on:
 - The RSA projects – allow knowledge transfer and involvement in Audit Process
 - Missing data for list of all rehabilitation and new construction road projects on the core and comprehensive road network that are currently under preparation. Still need details on all road projects for 3-year plan – expect to follow up during site visits

Road Safety – Crash Data Collection approach, progress status and issues

Approach presented to stakeholders at Trebinje RSWG meeting – finding:

- The accident databases in the countries are at different stages thus may need different type of assistance:
 - Serbia has implemented CADAS system and have done a lot of training of police
 - Albania and BiH are in process of launching new accident database projects
 - Best assistance may be to review ToR as fast as possible and help them get the project in right direction, e.g. CADAS.
 - Received ToR from Albania
 - Montenegro, Macedonia and Kosovo
 - Assistance could be to help draft ToR to make sure they ask for the right things
 - Ought as minimum to go for CADAS
 - Should be able to provide similar information to the SEETO Observatory

Road Safety – Crash Data Collection approach, progress status and issues

- SAFEGE report has some elements on accident database and also had a questionnaire send out
 - Review SAFEGE questionnaire to avoid asking the same questions
 - SEETO will provide report when it is ready
- Meeting with SEETO to agree on final approach
 - Some are far in process some are not
 - Some are in process of tendering for new accident databases
 - Questionnaire has been submitted in other project
- Agreed that Traffic Police would also be a stakeholder to this component.

Intelligent Transport Systems sub-project

➤ ***Strategic Framework for implementation of ITS on TEN-T core/comprehensive networks in Western Balkans***

➤ **Status**

- Initiated 9-6-2017 (KoM at 26-6-2017)
- IR submitted 3-7-2017 (draft) and 2-8-2017 (final) - Agreed
- Ongoing missions and data collection

➤ **Indicative Plan**

- Duration 15 months (expected completion September 2018)
- Interim Report (needs assessment - scoping) due till end 2017
- Team of 9 NKEs, most are international experts
- PM: Marios Miltiadou

Scope – Components – Results (1/2)

- ***Covers all transport modes and their interfaces and mostly concerns ITS road applications, ERTMS, VTMS and RIS as well as ICT applications***

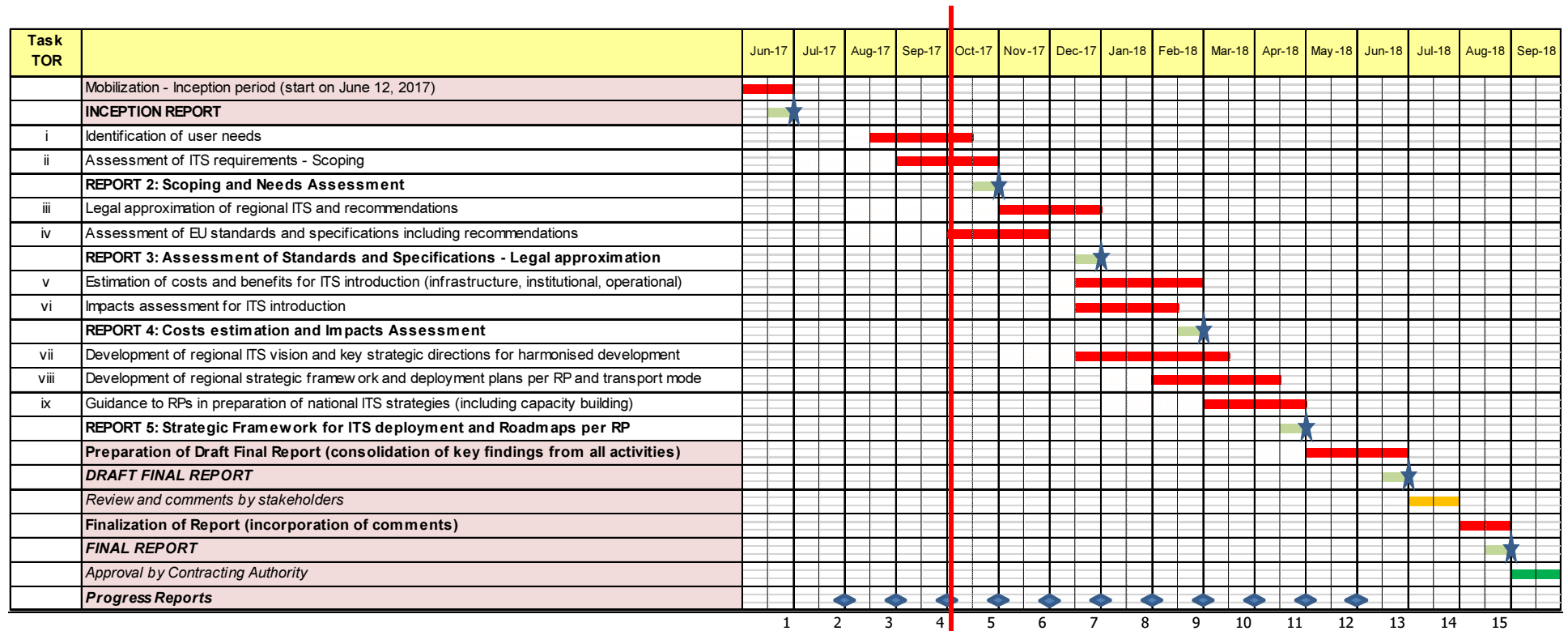
- ***Activities***
 - Identify user needs and specific objectives at national level
 - Assess ITS status, needs and priorities for specific services in WB6
 - Develop regional ITS vision and key strategic directions to ensure harmonized regional development
 - Recommend EU standards and specifications relevant to specific ITS applications for WB6
 - Recommend necessary legal approximation with EU

Scope – Components – Results (2/2)

➤ *Activities (cont)*

- Estimate costs and benefits from ITS deployment (infrastructure, operational, institutional)
- Carry out impacts assessment from introduction of ITS in WB6
- Develop regional ITS strategic framework as well as road maps and deployment plans for each RP and transport mode and in accordance with national strategies
- Provide guidance and assistance to RPs for preparation of national ITS strategies including capacity building

ITS sub-project – Work plan



ITS – Road ITS approach, progress status and issues

➤ **Status:**

- Importance of ITS deployment recognized by all RPs, but this has not been expressed in all cases in dedicated Strategies, Laws, reference architectures and deployment programmes
- Limited applications of ITS on newly built motorway sections and in tunnels

➤ **Approach:**

- ITS Directive and Action Plan (Priority and Action Areas) as main reference
- Mapping of existing situation (deployment, standards, investments and KPIs) according to EIP (European ITS Platform)
- Gap analysis, impacts assessment and rough cost-benefits analysis
- FRAME Architecture and subsets (User needs and Functional areas) as the base for vision and strategic planning

ITS – Rail ITS/ ERTMS approach, progress status and issues

➤ **Status:**

- Only few completed projects with ERTMS deployment
- Several ERTMS projects are foreseen, not coordinated at regional level – no coherency and consistency in the relevant legislation in WB6

➤ **Approach:**

- Interoperability Directive and Technical Specifications as main reference + Specifications of Regulation for Control Command and Signalling + SUBSET-026 of System Required Specifications
- Mapping of existing situation (deployment, standards, investments and KPIs)
- Gap analysis, impacts assessment and rough cost-benefits analysis
- Identification of managers, operators and users needs and expectations as the base for vision and strategic planning

ITS – Maritime/ Ports/ VTMIS approach, progress status and issues

➤ **Status (relevant only for ALB and MNE):**

- No ITS institutional framework for all maritime involved parties
- No connection so far with the requirements of IMO regulatory regime
- No common understanding for the obligatory implementation in relation to the ITS

➤ **Approach:**

- Gap analysis regarding legal, institutional and technical framework
- Definition of users involved in WB6 and outside EU (non EU flag)
- Identification of users needs and specific objectives for ports and their port facilities and for approaching vessels
- Comparison of set of required information by Ports with existing IMO/EU requirements as base reference
- Framework for e-maritime services, particularly single window, including EU, WB6 or other users out of EU

ITS – Inland Waterways/ RIS approach, progress status and issues

➤ **Status (only relevant for BIH and SRB):**

- Different level of development of RIS along different rivers and countries
- Differences in institutional/ administrative capacities

➤ **Approach:**

- Gap analysis of institutional, legal and technical requirements
- Address the needs of existing and potential users
- Examine possibilities for knowledge and best practices transfer
- Examine potentials for improvement of existing RIS based on international experience
- Impacts assessment and rough cost benefit analysis for investments and/or services

➤ **Issues:**

- Sava River need for upgrade to Class IV

ITS – ICT/ Interfaces approach, progress status and issues

➤ **Status:**

- Need for a System Architecture which would allow multimodal and transnational interaction through data exchange

➤ **Approach:**

- Mapping existing services, potentials and plans
- Gap analysis of institutional, legal and technical requirements
- Consideration of interoperable solutions for addressing the needs of infrastructure managers, operators, services providers and the users (e-freight, e-documents, e-tolling, multimodal journey planners, etc.)

➤ **Issues:**

- Complexity due to different competent Ministries (Transport and Infrastructure, Interior, Customs and Trade, Telecommunications etc.), especially regarding multimodal and cross-border services (where coordination of multiple countries is required)

ITS – Issues overall/ Challenges

➤ **General issues:**

- Missions still on-going due to complexity of subject (involvement of 4 transport modes and their interfaces and many stakeholders)
- “Market study” for listening to the users needs is time consuming through meetings/ missions and e-questionnaire has been developed for this purpose; encompassing thus a risk of low correspondence
- Different speeds of readiness (legally, institutionally, technically) and different priorities between RPs leads to different aspirations and (mainly) needs
- Aim is to establish a Regional Strategy and provide tailored-made recommendations and guidance through capacity building activities to each of the RPs, according to their status, for institutional setup and development of national strategies/ policies for ITS deployment
- Further TA in drafting legal documents in more detail, if requested by RPs, will be examined later (subject of additional RFA in Connecta)

Road/Rail Maintenance Plans sub-project

➤ ***Preparation of 5 year Maintenance Plans (2018-2022) for the indicative extension of TEN-T Road/Rail core/comprehensive networks in Western Balkans***

➤ **Status**

- Initiated 5-6-2017 (KoM at 26-6-2017)
- IR submitted 7-7-2017 (draft) and 2-8-2017 (final) - Agreed
- Ongoing missions and data collection

➤ **Indicative Plan**

- Duration 16 months (expected completion October 2018)
- Interim Reports (needs assessment - scoping) due till end 2017
- Team of 8 NKEs
- PM: Giorgos Xanthakos

Scope – Components – Results (1/2)

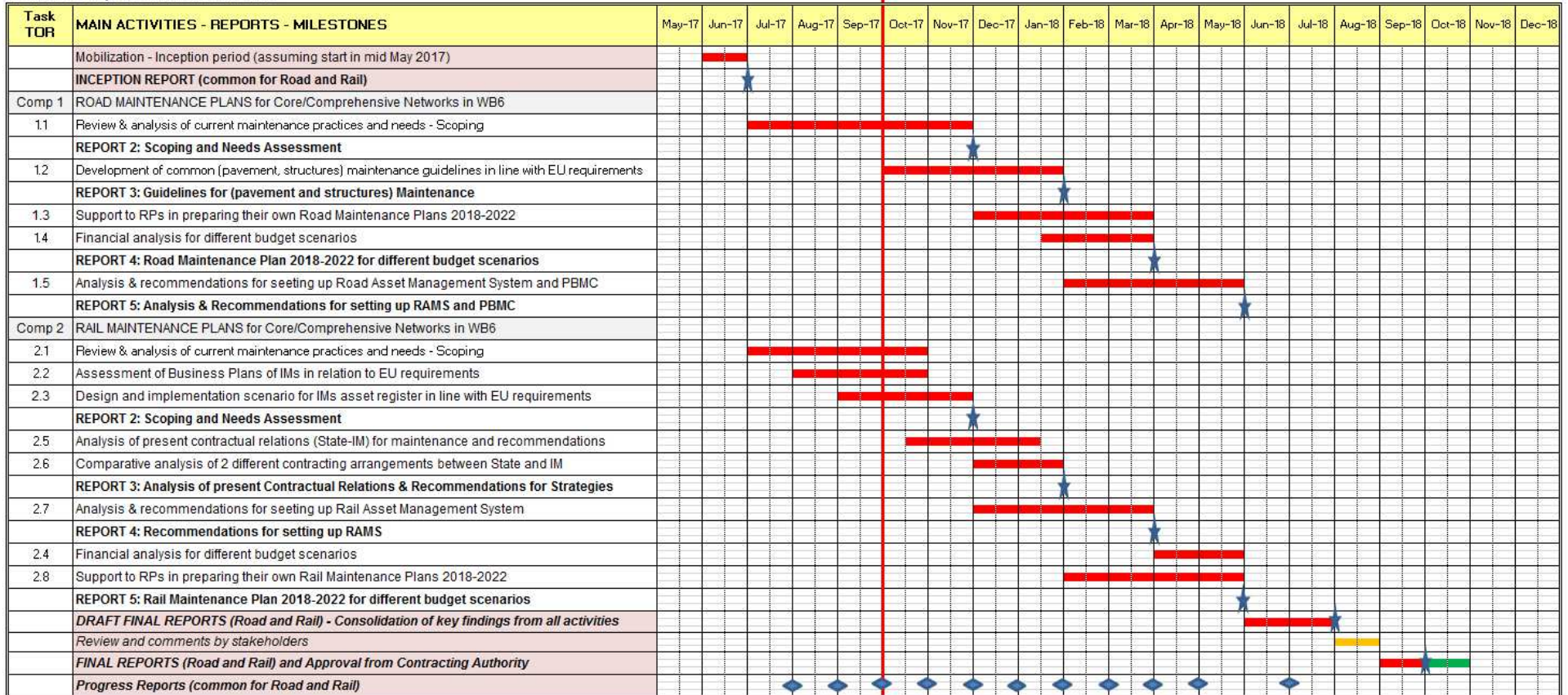
- ***Road Core/Comprehensive network Maintenance Plans 2018-2022***
 - Scoping and needs assessment per RP
 - Analyze maintenance needs in core/comprehensive network in WB6
 - Carry out financial analysis under different budget scenarios including cost breakdown per road category (corridor, route)
 - Develop common pavement and structures maintenance guidelines in the region in line with EU best practices
 - Support RPs in preparing their own maintenance plans reflecting their specific development characteristics
 - Provide analysis and recommendations for setting Road Asset Management Systems (RAMS) and Performance Based Maintenance Contracts (PBMC)

Scope – Components – Results (2/2)

- ***Rail Core/Comprehensive network Maintenance Plans 2018-2022***
 - Scoping and analysis of maintenance needs in core/comprehensive network in WB6
 - Assessment of Business Plans of IMs as per 2012/34/EU compliance
 - Design implementation scenario for an IM asset register as per 2012/34/EU
 - Carry out financial analysis under different budget scenarios including cost breakdown per road category (corridor, route)
 - Analysis of IM current contracting strategies and recommendations including comparative analysis of 2 different contracting arrangements
 - Analysis and recommendations for setting RAMS in the region
 - Support RPs in preparing their own maintenance plans reflecting their specific development characteristics

Maintenance Plans sub-project – Work plan

Tentative Implementation Schedule



Maintenance Plans – Road: approach, progress status and issues

➤ *Review and analysis of the current maintenance practices and needs*

- establish current maintenance practice and network condition
- compare network condition and relevant indicator values
- current activities: data collection and analysis
- issues: condition data may be significantly outdated

➤ *Support to regional participants in preparing maintenance plans 2018-2022 (2019-2023)*

- establishment of maintenance standards (trigger values)
- strategic analysis and establishment of “standard” activities in relation to main network characteristics (target IRI approach)
- develop five-year maintenance program, including analysis within different budget scenarios

Maintenance Plans – Road: approach, progress status and issues

➤ Development of common maintenance guidelines

- enabling unified approach and establishment of routine in maintenance management
- elements: road network and traffic data, data collection, road maintenance planning and programming, RAMS, operationalization
- current activities: definition of scope

➤ Analysis and recommendations for setting up PBMCs

- analysis of past and current experience, including identification of challenges and recommendation of solutions that would enable successful PBMC implementation
- **elements:** description of PBMC key concepts, define enabling conditions, typical stages of PBMC program, instructions for eventual PBMC piloting, recommendations for the way forward after the pilot stage, instructions in performance monitoring

Maintenance Plans – Rail: approach, progress status and issues

➤ Scoping and analysis of maintenance & renewal (M&R) needs in core/comprehensive network in WB6

- Establish current M&R practices and network condition
- Establish current situation concerning condition-monitoring (e.g. track recording vehicles)
- Establish current situation concerning **asset register & RI-AMS**
- Compare network condition and relevant indicator values
- **Current activities:** data collection and analysis
- **Identified issues:** condition data may be missing or significantly outdated

➤ Support RPs in preparing their own M&R plans for the period 2018-2022 (2019-2023) reflecting their specific characteristics

- Establishment of M&R standards, thresholds and asset service lives
- Strategic analysis and focus on the key/costliest M&R activities, accounting for the largest part of the M&R budgets, e.g. track components renewals
- Develop five-year M&R program for the key M&R works, including analysis within different budget scenarios, & extrapolate for others works

Maintenance Plans – Rail: approach, progress status and issues

➤ **Analysis of IM current M&R contracting strategies and recommendations including comparative analysis**

- Analysis of past and current experiences with either PBC, COST+, etc. concepts, including identification of challenges and recommendations of optimal concepts under the given circumstances
- **Elements:** description of PBMC, COST+, etc. key concepts, analyze possible KPIs, identify prerequisites, draft typical stages, provide instructions for eventual piloting, set recommendations for further steps following the pilot stage and instructions in performance monitoring (KPIs)

➤ **Analysis and recommendations for setting RI-AMS in the region**

- Propose optimal concepts and methods for condition-monitoring (e.g. acquisition of measuring services rather than acquisition of costly measuring vehicles & systems, or sharing measuring vehicles & systems, etc.)
- Definition of the optimal concept, size and level of complexity of RI-AMS for the given circumstances and technological level of IMs
- Definition of the necessary RI-AMS modules and most effective decision-rules and thresholds.

Effective Border Crossings sub-project

- ***Feasibility study for border crossing facilitation and improvement on indicative extension of TEN-T Road core/comprehensive network in Western Balkans***
- **Status**
 - ToR approved
 - Staffing-work plan-budget under completion
 - RFA to be submitted to DG NEAR for issuing of A.O
- **Indicative Plan**
 - Expected start: mid October 2017
 - Duration 14 months (expected completion December 2018)
 - Inception Report due 1 month after start
 - Team of 6-7 NKEs

Border Crossings facilitation sub-project

Scope – Components – Results (1/2)

- ***FS for implementation of one-stop-shops at BCP of TEN-T indicative extensions in WB6***
 - Site visits and data collection (28 pairs of BCP)
 - Analyze current status (legal/institutional, traffic/facilities, BC procedures)
 - Carry out CBA for each BCP against one stop shop and justifications
 - Preparation of road map for introducing one stop shop (joint controls) at BCP
 - Preparation of “template” for bilateral agreements/protocols for joint border controls

Clustering of BCP: Intra WB6 – WB6/EU non Shengen – WB6/EU Shengen

Border Crossings facilitation sub-project

Scope – Components – Results (2/2)

- ***FS for introducing e-QMS at 5 more advantageous BCP (based on previous Pre-FS recommendations)***
 - Site visits and data collection (at 5 pairs of BCP, more detailed)
 - Prepare CBA and financial scenarios for implementation models
 - Recommendations (legal/institutional, restructuring, technical, operational/procedural) for implementing each model

Potential extension (new sub-project):

-Further advise on actual implementation of one-stop-shops

-S/W development and design for e-QMS

-Pilots

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CONNECTA Project team

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