

State of play
WLTP phase 2
Sub Group EV

EVE 18

11 of April 2016

WLTP Phase 2

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- General Information
- Road Map
- Subgroup EV
- Next steps

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WLTP Phase 2

- Mandate document of WLTP Phase 2 WP.29-167-29
- Two sub phases 2a and 2b
 - Phase 2a adoption 2017
 - Phase 2b adoption 2020

WLTP Phase 2

Organisation structure

WLTP Informal Group

Chair : S. REDMANN(GER)
Vice Chair : D.KAWANO(JPN)
co-TSs : M. BERGMANN(OICA)
N. ICHIKAWA(JPN)
Drafting
Coordinator : OPEN

Task Forces

refer to next slide

E-Lab. Sub-group

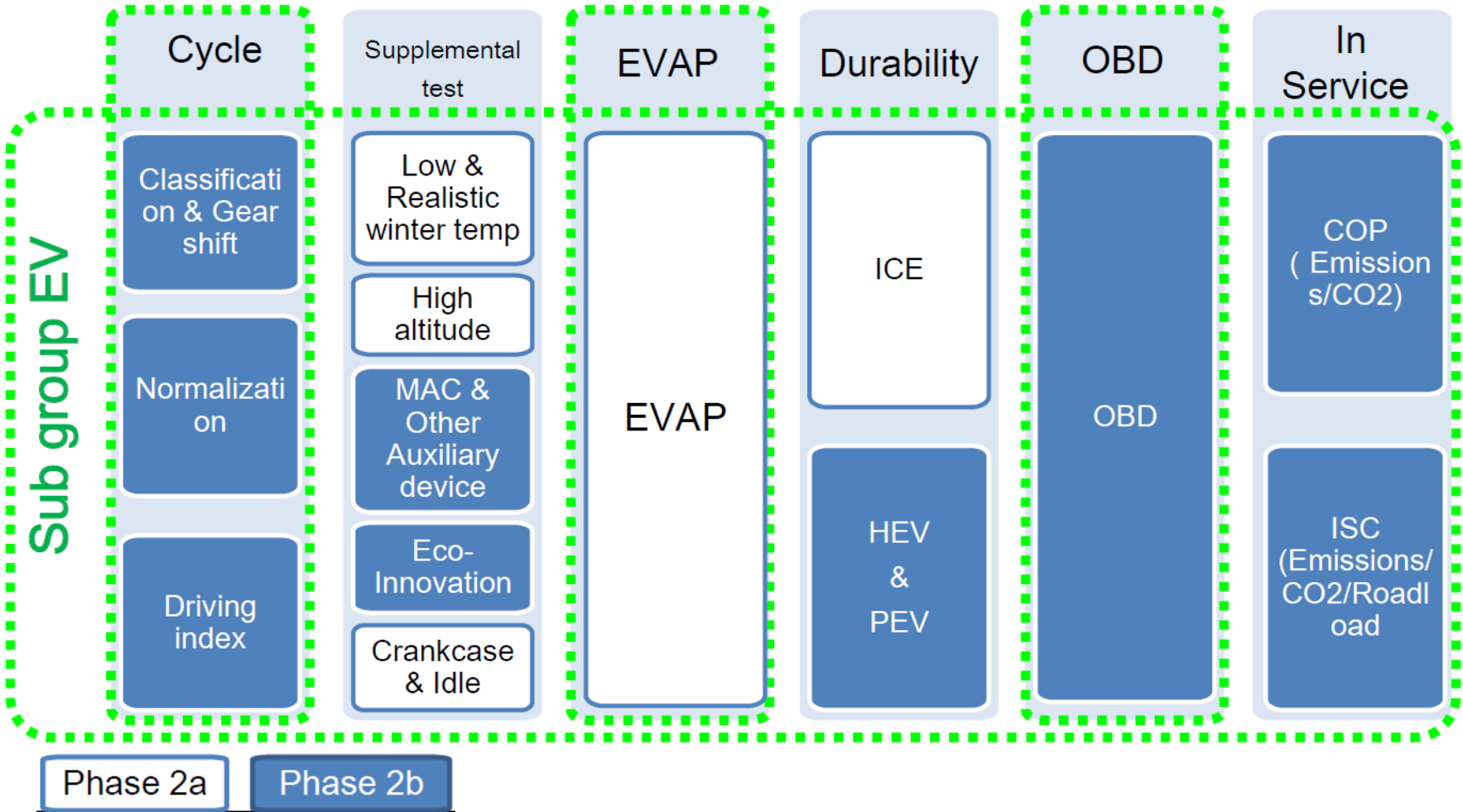
co-Chairs : P. OHLUND (SWE)
N.MIZUSHIMA (JPN)
co-TSs : M. NAEGELI (OICA)
N. ICHIKAWA (JPN)

WLTP Phase 2

Task Forces and Subgroups

Working Categories		Lead by	Collaboration with EVE-IWG	remark
Cycles	ICE	EU Japan	/	
	EV		✓ (HEV system power)	System Power for HEV cycle classification and Downscaling,
			/	Normalization
Supplemental Tests	ICE	EU	✓	Low temperature, High altitude Auxiliary devices, etc.
	EV			
Evaporative Tests	ICE	Japan	/	Strong desire from CPs to develop GTR by 74 th GRPE
	EV			
Durability	ICE	EU	/	Pollutants Road-load CO2/EC/Range, etc
	EV		✓ (study on battery durability)	
OBD	ICE	Japan	/	
	EV			
In service	ICE	EU	/	COP ISC, etc.
	EV			
Electrified Vehicles	EV	EU Japan	/	Post processing OVC-FCHVs
Carryover items from Phase1b		(same as phase1b)	/	

WLTP Phase 2 Task Forces



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WLTP Phase 2 Road Map

Phase2 Working Items and Schedule

remark
 : in active
✔ : gtr amendment

WLTP-13-09e

Working Items				Schedule															
Sub-Group Task Force	secondary category	brief description	remark	collaboration with EVE	2015 4th Qtr	2016 1st	2016 2nd Qtr	2016 3rd Qtr	2016 4th Qtr	2017 1st	2017 2nd Qtr	2017 3rd Qtr	2017 4th Qtr	2018 1st	2018 2nd Qtr	2018 3rd Qtr	2018 4th Qtr		
gtr amendment										Phase2								Phase2	
CYCLE TF																			
	Classification&Gear shift	Annex1&2	downscale/gear shift per system power of HEV	informed EVE IWG of clear WLTP needs 1. necessity of system power 2. how to deal with gear shift	Germany/ Korea	preparation				EVE work									✔
	Power to mass ratio n_min_drive	Annex1&2	Definition of mass VCC proposal for n_min_drive	carryover from Phase1b						✔									
	Normalization	Annex7	mainly ICE (remaining item)	Electrified vehicle (ICE - COMPLETED)														✔	
	Drive Index	Annex6	Collaborate with "Normalization"	re-wait necessity of trace index when apply normalization										Obtain data via homologation test					
Supplemental Test TF																			
	Boundary Conditions	Annex6																	
	Low & Realistic Winter Temp		correction of R/L and fuel specification (need to change cycle ?)	CP Option						✔									
	High Altitude		correction of R/L and fuel specification (need to change cycle ?)							✔									
	Auxiliary Devices	Annex8																	
	MAC		vehicle test ? Component evaluation ? Simplified test ?															✔	
	others		vehicle test ? Component evaluation ? Simplified test ?	Electrified vehicle : JAPAN will lead														✔	
	Eco-Innovation	new Annex		i.e. sailing														✔	
	Crankcase & Idle Emissions	new Annex								✔									
EVAP TF										✔									
Durability TF																			
	ICE		pollutants only (rapid aging method)							✔									
	HEV & PEV		pollutants and CO2/FC/Range (study possibility of rapid aging on battery)		✔													✔	
OBD TF																		✔	
In Service TF																			
	R/L	new Annex	COP & ISC	blank new														✔	
	Pollutants			same requirement as current ?														✔	
	CO2/FC/Range			blank new														✔	
E-Lab. SG																			
	Classification&Gear shift	Annex1&2	method of HEV system power	inform EVE IWG of clear WLTP needs 1. necessity of system power 2. how to deal with gear shift	✔	preparation				EVE work									✔
	Normalization	Annex7	HEV study and methodology should be completed															✔	
	Supplemental Test (low temp./high altitude)	Annex8	vehicle test ? Component evaluation ? Simplified test ?	effect on EV's parameter	✔					✔									
	Supplemental Test (auxiliary device)	Annex8	vehicle test ? Component evaluation ? Simplified test ?	effect on EV's parameter	✔													✔	
	Post processing	Annex7&8		carryover from Phase1b						✔									
	Durability	new Annex	pollutants and CO2/FC/Range (study possibility of rapid aging on battery)	WLTP : provide the durability conditions EVE : develop the rapid aging method, if available	✔							collaborate with EVE IWG						✔	
	OBD	new Annex	EV Unique issues	take care of unique EV's items only														✔	
	FCV	Annex8	OVC-FCV Flow Method	ACEA needs						✔									
Carryover from Phase1b																			
	Defear Device	Definition		handled by Leading Team														✔	
	Annex4 items	Annex4	refer to WLTP-13-04e							✔									
	Additional Pollutant	Annex5	refer to WLTP-13-04e															✔	

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Sub Group EV

Subgroup EV delivers EV-specific input to the responsible task force :

Sub-Group Task Force	Secondary category		Brief description	Remark	Collaboration with EVE	2017 74th GRPE	2020 80th GRPE
Sub Group EV						Phase2a	Phase2b
	Classification and Gear shift	Annex 1 and 2	Method of HEV system power		✓		✓
	Normalization	Annex 7	HEV study and methodology should be completed				✓
	Supplemental Test (low temp./high altitude)	Annex 8		Apply to EV ? or not ?		(✓)	
	Supplemental Test (auxiliary device)	Annex 8	Vehicle test ? Component evaluation ? Simplified test ?	Effect on EV parameter	✓		✓
	Durability	new Annex	pollutants and CO2/FC/Range (study on battery durability)		✓		✓
	OBD	new Annex	EV Unique issues	Take care of unique EV items only			✓

Only Subgroup EV responsible:

Sub Group EV						Phase2a	Phase2b
	Post processing	Annex 7 and 8		Carryover from Phase1b		(✓)	
	FCV	Annex 8	OVC-FCV Flow Method	ACEA needs		(✓)	

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Next steps

- WLTP IWG
 - First Phase 2 meeting: 26th to 28th of April in Paris
- Sub Group EV
 - Web-Audio conference: 18th of April
 - First Phase 2 meeting: 25th of April in Paris

THANK YOU FOR YOUR ATTENTION!