Request for Prolongation of WLTP Phase2b Activities

WLTP-21-02e

		2017	2018	2019	2020	
Current	source:	Phase 2a	76th GRPE		**************************************	
	ECE/TRANS/WP.29/ 2016/29	Phase 2b		78th GRPE		
Proposals	no change	Phase 2a	76th GRPE		A CONTROL OF THE CONT	
	PROLONGATION	Phase 2b			82nd	GRPE
	IMPROVEMENT of GTR#15		urgent issues		remaining issues	
	UNR_WLTP		first step UNR_WLTP	79th GRPE		

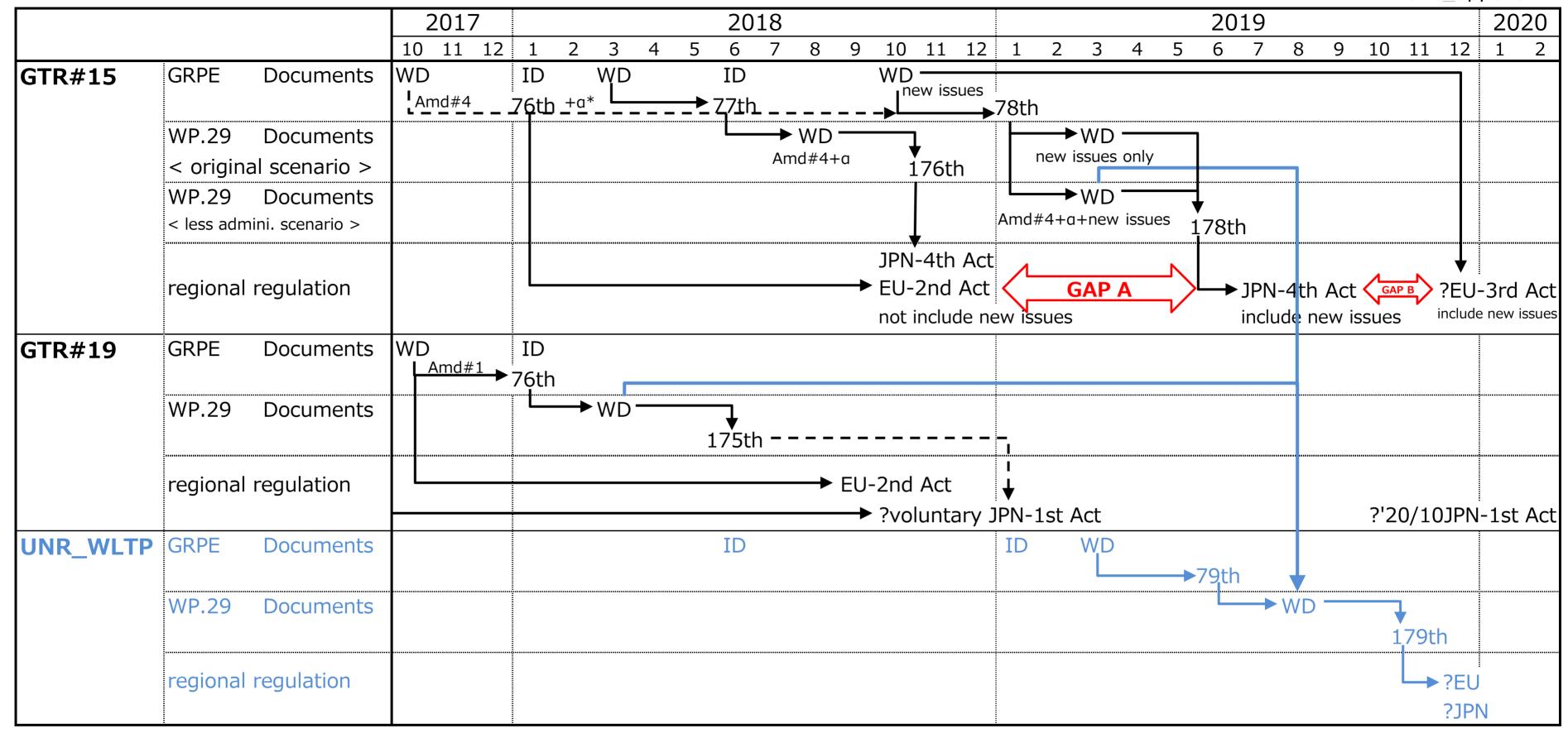
< Justification of Prolongation >

- 1. All CPs accept the prolongation of Phase2b activities based on their regional demands.
- 2. Practical homologation process in EU and Japan reveals the potential problems and/or concerns in GTR#15 which need to be solved in urgent.
- 3. Due to its complexity of "UNR_WLTP" construction, earlier completion of UNR_WLTP is highly expected among WLTP and IWVTA IWG.
- 4. Development of "UNR_WLTP" and Improvement of GTR #15 shrink the available resources of WLTP IWG colleagues.

[please refer WLTP-21-02e_appendix2 for detailed issues and proposed schedule]

Amendment Scenario of GTR

WLTP-21-02e_appendix1





- √ the gear shifting procedures (nrated, nmin_drive_up/down) + a
- √ bi-fuel and bi-fuel gas vehicles
- \checkmark positioning of payload mass during R/L determination
- \checkmark exclude REESSs that do not contribute to vehicle propulsion from monitoring.
- ✓ set minimum delta of R/L and interpolation family
- ✓ make it clear for permissible wind speed during R/L testing
- ✓ drive trace indices
- ✓ Ki determination
- ✓ EV run-in
- ✓ EV warm-up procedure



✓ new issues please refer appendix2 for more detail Legend ID: Informal Document to GRPE not on the table at this moment

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	ITEMS	current	Justification of	2017 10 11 12	1 2	2	4 5	20	018	10 11 1	2 1	2 2	1	5	2019	9	9 10 11 12 1 2	3 4 5	2020 6 7		9 10	11 12		
UNR	TypeI & IV	status on going	Proposed time Higher Priority in 2018		1 2	3	ID	0	7 8 9	TI	D	WE) -	3	6 /	0	9 10 11 12 1 2	ID		0	WD-			
	others,	on going	Trigrici Triority iii 2010																					
	if necessary	-	-	*) will be co	mhined int	o 2018 V	WD			Tablesia							Tackwisel	ID			WD			
GTR #15	Amendment	-	-	WD*	mbined inc	.0 2010 V	ID #4			WD Technic Report	t ===			ID #5			WD Technical Report	ID #6			WD #6	Technical Report		
GTR #19	Amendment	-	-	WD*										ID #2			WD Technical Report	ID #3				Technical Report		
Cycle	Gear Shift	close to	-	*) will be co	mbined int			hen r	necessary	WD			re-op		en neces	ssary	WD	re-open wh	nen necess	sary	WD			
	Trace Indices	difficult to reach agreement	incorporate to Amd#4				ID			WD Technic Report	cal t					,								
	HEV System Power	developed the methods	validation test will be completed in fall 2018							I	D	WE	Tech Rep	nical port										
Supplemental Test	Low Temp	on going	no specific deadline is required by CPs.							I	D			ID			WD Technical Report improve, if	f necessary						
	MAC	under the discussion	-																					
	Crankcase & Idle	not active	link to Japan internal schedule															ID			WD	Technical Report		
Evapo.		COMPLETED (Amd#1)	no specific requirement from CPs. Re-open from 2019 if necessary								re-o	pen, if nece	essary					ID			WD			
Durability	ICE	on going	2 steps approach, (1) same timing as UNR, (2) new, if needed				ID		\	Technic Report	cal	requiremen	nt, if ne	eeded				ID				Technical Report		
	Battery	on going	due to technical difficulty, hard to develop the schedule																					
OBD		not active	OK if completed by 2020															ID			WD	Technical Report		
СОР		not active	same timing as UNR(TypeI&IV)				ID		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WD														
ISC		not active	consider each region current process																					
New Issues	Family definition	under the discussion	tbd (based on discussion between ICCT and Japan)																ID		WD			
	Dual-axis dyno.	under the text development	incorporate to Amd#4	ID			ID		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WD		Low Temp	o. Test	ID			WD							
	Improvement of R/L determination	under the active discussion	incorporate to Amd#4				ID		\	WD Technic	cal													
	a Position of payload	FINALIZED	-	WD* *) will be	combined	d into 2	018 WD																	
	b Wind Speed Criteria	on going	incorporate to Amd#4				ID		,	WD														
	c Split run	will start soon	1				ID		Ì	WD														
	d Movable aero parts	on going	1				ID			WD														
	e EV warm-up for coasting down	close to FINALIZATION	1				ID			WD														

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ITEMS		current	Justification of	2017 2018 2019							WLTP-21-02e_Appendix2 2020										
		status	proposed time	10 11 12	1			9 10	11 12	1 2 3	4 5	 	10 11	. 12	1 2	3 4			8 9	10 11	12
New Issues	f Chassis dynamometer load setting	will start soon	<u> </u>			ID		WD													
	g ambient temp. 5C and more	will start soon	<u> </u>			ID		WD													
	h CFD	tbd	tbd																		
	Wind Tunnel Methods	under the active discussion	incorporate to Amd#4			ID		WD	Technical Report												
	Min and Max measurement point	on going	↑			ID		WD													
	ii Wind tunnel criteria (facility spec)	1	1			ID		WD													
	# of measurement points	↑	↑			ID		WD													
	iv facility approval and homolo. test procedure	↑	↑			ID		WD													
	v ⊿Cd for V _{ind}	↑	↑			ID		WD													
	vi Wind tunnel for RL matrix	close to FINALIZATION	↑			ID		WD													
	vii RL Matrix definition precision	↑	↑			ID		WD													
	Exhaust Gas Dilution System	close to FINALIZATION	↑			ID		WD	Technical Report												
	Time accuracy of dynamometer	close to FINALIZATION	↑			ID		WD	Technical Report												
	Interporation Methods (Tyre RRC)	will come backlater	avoid confusion(keep current process), same timing as UNR117 re-														I	D?		WD?	
	Interporation Methods (others)	under the active discussion	incorporate to Amd#4			ID		WD	Technical Report												
	I 3g/km extension	on going	↑			ID		WD													
	II Apply Vehicle_M concept to ICE	↑	↑			ID		WD													
	II Full load curve	1	↑			ID		WD													
	IV Set minimum range for IPF and R/L Family	↑	↑			ID		WD													
	V increase individual CO2	↑	↑			ID		WD													
	VI readability	↑	↑			ID		WD													
	VI how to develop f ₀ and I f ₂ with fixed f ₁	↑	↑			ID		WD													
	$\begin{bmatrix} VI \\ II \end{bmatrix}_{f=2}$ are bigger than $f_{0,H}$ and/or	↑	↑			ID		WD													
	IX huge error when adjust $f_{1,L}$ to $f_{1,H}$	↑	↑			ID		WD													
	X CO2 calculatoin fo Vind phase L, M,H,ex-	1	↑			ID		WD													
	REESS balance measurement	will start soon	↑			ID		WD													
	measurement of oil and coolant temperature	close to FINALIZATION	↑			ID		WD													