## **Request for Prolongation of WLTP Phase2b Activities**

WLTP-21-02e

		2017	2018	2019	2020	
Current	source : ECE/TRANS/WP.29/	Phase 2a	76th GRPE			
	2016/29	Phase 2b		78th GRPE		
Proposals	no change	Phase 2a	76th GRPE			
	PROLONGATION	Phase 2b			<b></b> 82nd	d 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.

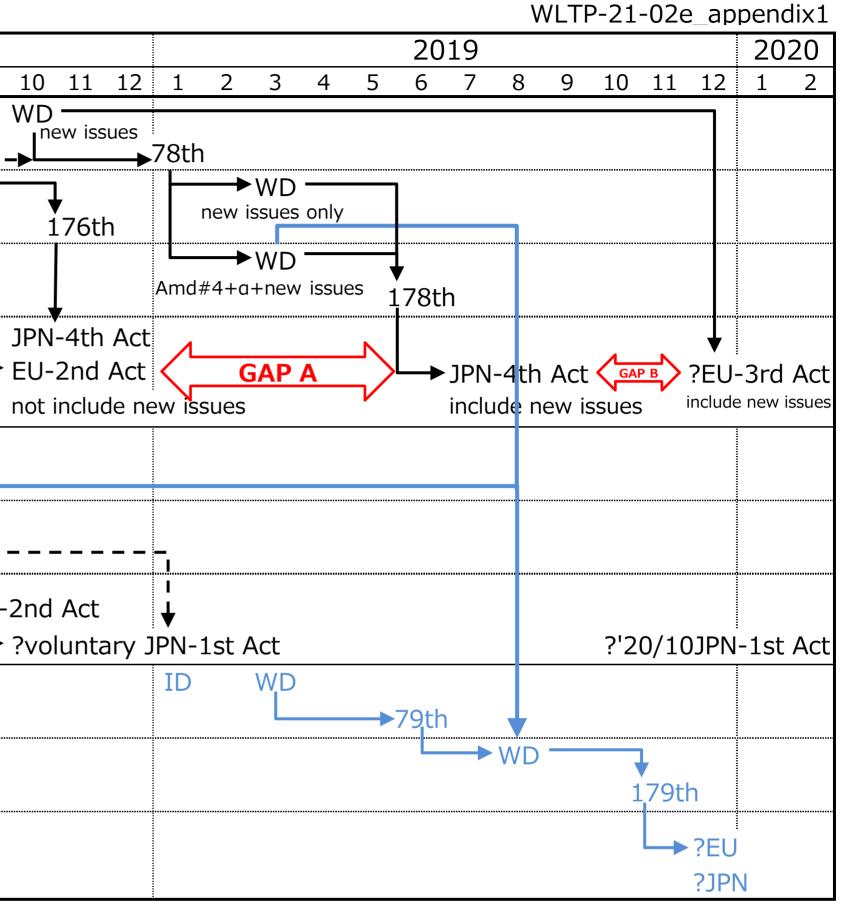
[ please refer WLTP-21-02e\_appendix2 for detailed issues and proposed schedule ]

## **Amendment Scenario of GTR**

				201	7						20	18		
			10	11	12	1	2	3	4	5	6	7	8	9
GTR#15	GRPE	Documents	WD	)		ID		ΨD			ID			
				md#4		76th	) <u>+a</u> *	<			Z7th	L		
	WP.29	Documents											WD	
	< origina	al scenario >										An	nd#4-	⊦a
	WP.29	Documents												
	< less adm	iini. scenario >												
	regional	regulation												
GTR#19	GRPE	Documents	WD	Amd#	£1	ID 76th	ו							
	WP.29	Documents						WD		-	175tl	n <b>–</b> -		
	regional	regulation												EU-
UNR_WLTP	GRPE	Documents									ID			
	WP.29	Documents												
	regional	regulation												

## in case of <less admin. scenario>

- **GAP A**
- ✓ 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.
- $\checkmark$  set minimum delta of R/L and interpolation family
- ✓ make it clear for permissible wind speed during R/L testing
- $\checkmark$  drive trace indices
- ✓ Ki determination
- ✓ EV run-in
- ✓ EV warm-up procedure





please refer appendix2 for more detail

		current	Justification of	-		ID : Informal Document to GRPE not on the table WD : Working Document to GRPE at this moment 2019								WLTP-21-02e_Appendix2									
ITEMS		status	proposed time		<b>201</b>		9 10	Э 10 1		2 1	1 2	2 3	<b>2019</b> 4 5 6 7 8	3 9 10 11 12	1	2 3	3 4	5			9 10 11 12		
UNR	TypeI & IV	on going	Higher Priority in 2018						- 10	D		W	D					I	<u>כ</u>		WD		
	others, if necessary	-	-															IC	<b>&gt;</b>		WD		
GTR #15	Amendment	-	-	WD*		I be combined into 2018 WD ID #4		1 1	echnica Report	al			ID #5	WD Technica #5				IC #6			WD Technica #6		
GTR #19	Amendment	-	-	wD*	<								ID #2	WD Technica #2				- IC #3			WD Technica #3		
Cycle	Gear Shift	close to FINALIZATION	-	WD*	1	I be combined into 2018 WD	W	D					re-open when necessary	WD			re-o	pen v	when	necessary	WD		
	Trace Indices	difficult to reach agreement	incorporate to Amd#4				w	D I	echnica Report	al t													
	HEV System Power	developed the methods	validation test will be completed in fall 2018			Image: Second			1	D		WI	Technical Report										
Supplemental Test	Low Temp	on going	no specific deadline is required by CPs.						- 10	D				WD Technica Report	l improv	ve, if ne	cessary	/					
	МАС	under the discussion	-			Image: selection of the selection																	
	Crankcase & Idle	not active	link to Japan internal schedule															IL	D		WD Report		
Evapo.		COMPLETED (Amd#1)	no specific requirement from CPs. Re-open from 2019 if necessary	WD		port				re	e-open	, if nece	essary					- 10	<b>D</b>		WD		
Durability	ICE	on going	2 steps approach, (1) same timing as UNR, (2) new, if needed				W		echnica Report	al	ew req	uireme	ent, if needed					- 10	D		WD Technica Report		
	Battery	on going	due to technical difficulty, hard to develop the schedule			Image: state																	
OBD		not active	OK if completed by 2020															IC	ם    כ		WD Technica Report		
СОР		not active	same timing as UNR(TypeI&IV)				w	D															
ISC		not active	consider each region current process																				
New Issues	Family definition	under the discussion	tbd (based on discussion between ICCT and Japan)																IC	D	WD		
	Dual-axis dyno.	under the text development					w	D			Lo	w Tem	p. Test ID	WD									
	Improvement of R/L determination	under the active discussion	incorporate to Amd#4				w		echnica Report	al t													
	a Position of payload	FINALIZED	-	WD*	*) w	ill be combined into 2018 WD																	
	b Wind Speed Criteria	on going	incorporate to Amd#4			ID	W	D															
	c Split run	will start soon	$\uparrow$			ID	W	D															
	d Movable aero parts	on going	$\uparrow$			ID	W	D															
	e EV warm-up for coasting down	close to FINALIZATION	$\uparrow$			ID	W	D															



						nformal Docum Working Docum					momen							1-026	_Appei	
ITEMS		current status	Justification of proposed time	<b>201</b> 10 11	1		2 <b>018</b> 5 7	8	9 10	11 12	1 2	3 4	<b>201</b>	 10 11	2 1 2	3 4		<b>020</b> 7 8	9 10	11
New Issues	f Chassis dynamometer load setting	will start soon	$\uparrow$			ID			WD											
	g ambient temp. 5C and more	will start soon	$\uparrow$			ID			WD											
	h CFD	tbd	tbd																	
	Wind Tunnel	under the active	incorporate to Amd#4			ID			WD	Technical Report										
	Methods	discussion																		
	i Min and Max measurement point	on going	1			ID			WD											
	ii Wind tunnel criteria (facility spec)	↑	1			ID			WD											
	iii # of measurement points	↑	1			ID			WD											
	iv facility approval and homolo. test procedure	1	1			ID			WD											
	v ⊿Cd for V <sub>ind</sub>	↑	1			ID			WD											
	vi Wind tunnel for RL matrix	close to FINALIZATION	$\uparrow$			ID			WD											
	vii RL Matrix definition precision	<b>↑</b>	$\uparrow$			ID			WD											
	Exhaust Gas Dilution System	close to FINALIZATION	$\uparrow$						WD	Technical Report										
	Time accuracy of	close to	$\uparrow$			ID			wD	Technical Report										
	dynamometer	FINALIZATION	avoid confusion(keep																	
	Interporation Methods (Tyre RRC)	will come backlater	current process), same timing as UNR117 re-														ID	?	WD?	
	Interporation Methods (others)	under the active discussion				ID			WD	Technical Report										
	I 3g/km extension	on going	1			ID			WD											
	II Apply Vehicle_M concept to ICE	$\uparrow$	1			ID			WD											
	II I Full load curve	$\uparrow$	1			ID			WD											
	IV Set minimum range for IPF and R/L Family	<b>↑</b>	$\uparrow$			ID			WD											
	V increase individual CO2	$\uparrow$	$\uparrow$			ID			WD											
	VI readability	↑ (	$\uparrow$			ID			WD											
	VI how to develop $f_0$ and I $f_2$ with fixed $f_1$	$\uparrow$	$\uparrow$			ID			WD											
	I $f_2$ with fixed $f_1$ VI augusted $f_{0,L}$ and $f_{0,H}$ and/or $f_{0,H}$ and/or II $f_2$	· ↑	$\uparrow$			ID			WD											
	IX adjust $f_{1,L}$ to $f_{1,H}$	↑	$\uparrow$			ID			WD											
	X CO2 calculatoin fo Vind phase L, M,H,ex-	↑	$\uparrow$			ID			WD											
	REESS balance measurement	will start soon	$\uparrow$			ID			WD											
	measurement of oil and coolant temperature	close to FINALIZATION	1			ID			WD											







