

Progress report of  
Sub Group EV  
(WLTP-19-14e)

19<sup>th</sup> WLTP IWG  
6 June 2017

# 1. Summary

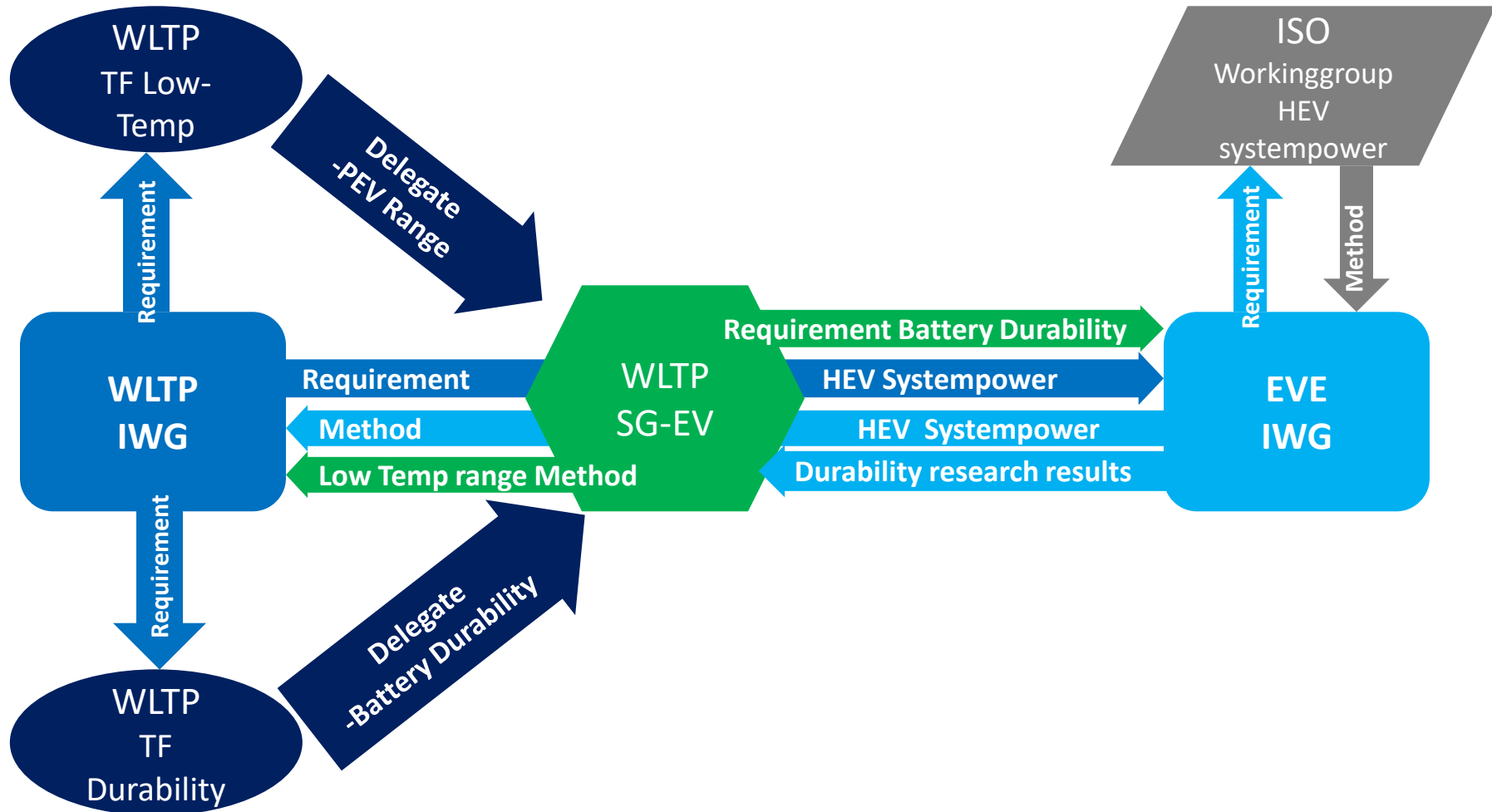
#	items	RESULTS	status	remarks
EV_1	HEV system power	EVE procedure to be based on ISO procedure. WLTP IWG discussed answers of questions from EVE IWG. WLTP IWG waits for EVE's draft gtr. SG EV will collaborate with EVE in June GRPE.	OPEN	Classification, Downscaling
EV_2	Normalization or Drive Trace Indexes	JP proposed indexes and criteria in 18 <sup>th</sup> IWG. WLTP IWG is discussing JP's proposal.	OPEN	Study the applicability to HEV
EV_3	Supplemental Test (low temp./high altitude)	TOR and work plan were presented at 18 <sup>th</sup> WLTP IWG. JP introduces low temp. test study in 18 <sup>th</sup> IWG. <b>JP also introduce the data of REESS stabilization in TF.</b> <b>SG EV started discussing pre-setting and soak procedure with TF.</b>	OPEN	Handle EV unique portions
EV_4	Supplemental Test (auxiliary device)	Not active at this moment.	OPEN	Handle EV unique portions
EV_5	Post processing	Adapted	CLOSED	Handle EV unique portions

# 1. Summary

#	items	RESULTS	status	remarks
EV_6	Durability	WLTP IWG is discussing answers of questions from EVE IWG. SG EV will collaborate with EVE in EVE IWG on 7 June.	OPEN	study on battery durability
EV_7	OBD	No progress. Continue to follow OBD TF.	OPEN	Handle EV unique portions
EV_8	FCHV	OVC-FCHVs proposal from ACEA is still under discussion and topic will be shifted to Phase 2b. JP is waiting for answer from ACEA for clarification	OPEN	OVC-FCHV Flow Method
EV_9	gtr amendment	ACEA proposed several items.	OPEN	

# 2. Collaboration with IWG EVE

## EV Communication in the UNECE Framework



## 2. Collaboration with IWG EVE

### EV\_1 HEV system power

EVE IWG's questions to WLTP IWG

- WLTP IWG's draft answers to EVE IWG

Q1. Is only peak power still okay? i.e. is there a need for a power curve, or is a curve just a "nice to have?"

- For now, peak power should be ok for WLTP needs (cycle classification and downscaling)

Q2. What timing is acceptable? Specifically, would a final procedure approved by November 2019 be acceptable?

- Acceptable (No CP needs system power at this moment).

Q3. Would two step approach be acceptable, with the reference method developed/validated first, and then candidate method (calculation based on component data) developed at a future time?

- WLTP also needs to decide if candidate method should still be considered or if reference method is sufficient.

- Candidate method development is depending on industry contribution and need/interest.

Q4. Is there a need for a different power value for charge-depleting vs charge-sustaining mode?

-There is a need only one peak system power because WLTP needs it for cycle classification and downscaling as mentioned above.

## 2. Collaboration with IWG EVE

### EV\_6 Durability

Matrix of durability requirements from EVE for WLTP to consider

	air pollutants	CO <sub>2</sub> /energy consumption	range
HEV	Is requirement for in-use compliance sufficient? (5 year, 100,000 km already in place in EU)	???	X
PHEV	Is requirement for in-use compliance sufficient? (5 year, 100,000 km already in place in EU)	???	???
PEV	X	???	Is WLTP goal to regulate range maintenance of PEVs, or is this a manufacturer/customer satisfaction issue only?

CPs have different requirements respectively at this moment.  
WLTP IWG needs further discussion.

JP will share JP's requirement in EVE IWG on 7 June.

# 3. Next Actions

We are here now!

#	items	2016	2017	2018	2019
EV_1	HEV system power	collaborate with EVE		★ Consider classification threshold and	★ downscale ratio
EV_2	Normalization or Drive Trace Indexes	★	additional study "Indexes"		★
EV_3	Supplemental Test (low temp./high altitude)	collaborate with TF		Amend_2, if necessary	★
EV_4	Supplemental Test (auxiliary device)	collaborate with TF		Amend_2, if necessary	★
EV_5	Post processing	→ ★ complete			
EV_6	Durability	collaborate with EVE and TF		★ decision for next step	★
EV_7	OBD		collaborate with OBD TF	takes care of EV unique items	★
EV_8	FCV	OVC-FCHV ★ proposal		★ finalization	
EV_9	gtr amendment	Amend_1 ★		Amend_2, if necessary	★