Schweizerische Eidgenossenschaft
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Federal Department of the Environment,
Transport, Energy and Communications DETEC

Federal Office for the Environment FOEN

Air Pollution Control and NIR Division

Welcome to the 9th Meeting of WLTP DTP

16th to 18th April 2012
Bern (CH)

Content

- Organizational remarks
- DTP9 Background information and objectives
- Update on WLTP roadmap, DHC and VP2
- General issues DTP: family concept
- GTR drafting work
- Subgroup reports
- Wrap-up, road map and open issues

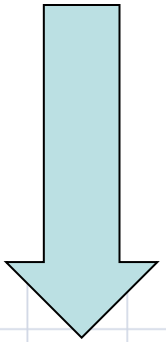
1. Introduction to DTP9

Organizational remarks (I)

- DTP meeting takes place at Hotel Bern.
- Morning and afternoon break with coffee, drink and cookies.
- Lunch on Tuesday and on Wednesday will be served in the hotel between 12.30 and 13.45.

Organizational remarks (II)

Please confirm participation in lunch and dinner

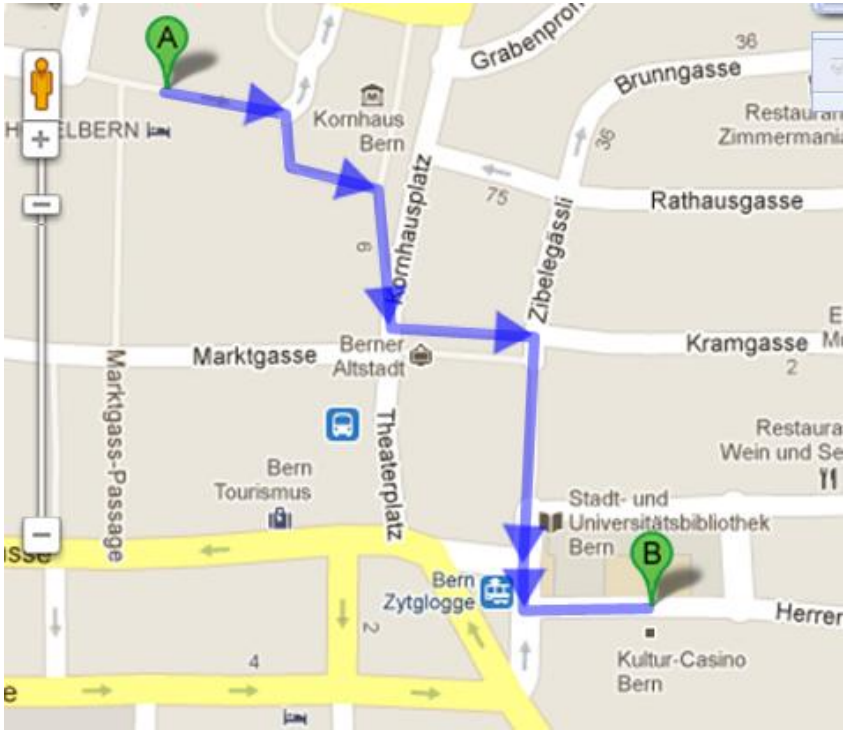


Confirmed Attendees for WLTP DTP Session 9, 16th-18th April 2012 @ Hotel Bern

DTP9 Attendees						Please confirm participation!		
	Attendee Name	Organization	Country	Remarks	Registered	Lunch on 17th April	Social dinner on 17th April	Lunch on 18th April
1	Aoyama Yuichi	JASIC	Japan	16th-18th	X			
2	Astorga-Llorens M. C.	DG JRC	EU	16th-18th	X			
3	Bigi Laura	PSA - Environmental regulation & Future Regulation	France	16th-18th	X			
4	Coleman William F (Bill)	Volkswagen AG	Germany	16th-18th	X			
5	Donati Eric	PSA - Environmental regulation & Future Regulation	France	16th-18th	X			
6	Dubuc Serge	GTR Drafting Coordinator	Gemany	16th-18th	X			

Organizational remarks (II)

- Event on Tuesday evening:
  - Common dinner at restaurant Casino Bern from 19.00 (Herrengasse 2)



Background information to DTP9

- Welcome to the new DTP secretary Dr. Jakob Seiler from VDA.
- Thank Serge Dubuc as GTR drafting coordinator for the excellent and not easy work done until now.
- Validation phase 2 (VP2) has officially started at the beginning of April for the conventional vehicles.
- VP2 for EV is going to start at beginning of May.
- Thank the validation task force (in particular A. Marotta, JRC), DHC and DTP subgroups for their efforts and support

Objectives of DTP9 (I)

- Show working progress from the subgroups and put a milestone for resolving the remaining open issues.
- Review the DTP and GTR roadmap.
- Coordination of progress between DTP and VP2.
- Validate GTR Draft Version 1 at the end of DTP9.
- Pursue GTR work on definitions taking into account the development of a frame system for terms, definitions and classifications regarding vehicle propulsion systems in GRPE.

Objectives of DTP9 (II)

- Tend towards an agreement on open issues at DTP level, which were not absolutely essential for validation phase 2.

- Have a presentation on first ideas concerning family concept for certification purposes.

Approval of Draft Agenda (Day 1)

Agenda - Day 1 - Monday, 16th April 2012

1.	Welcome and introduction (introduction of the new DTP Secretary Dr. Jakob Seiler, VDA) Objectives of DTP9 Approval of agenda and minutes of DTP8 General issues DTP	14:00 - 14:30	DTP chair (D'Urbano, Seiler)
2.	DHC Update	14:30 - 15:15	Ichikawa
3.	Update on Validation Phase 2	15:15 - 16:00	D'Urbano
	Coffee break		
4.	WLTP Roadmap	16:15 - 16:45	Ichikawa
5.	GTR development	16:45 - 18:00	Dubuc / All

Approval of Draft Agenda (Day 2)

Agenda - Day 2 - Tuesday, 17th April 2012

1.	Opening remarks	09:00 - 09:15	DTP chair
2.	State of work and open issues LP-ICE	09:15 - 10:45	Kolesa / Lopez / Redmann
Coffee break			
3.	State of work and open issues LP-EV	11:00 - 12:30	Kobayashi / Öhlund
Lunch break			
4.	State of work and open issues PM/PN	14:00 - 14:45	Hosier / Vallaude
Coffee break			
5.	State of work and open issues AP	15:00 - 15:45	Mörsch / Astorga
6.	GTR development	15:45 - 18:00	Dubuc / All
Common dinner organized by BAFU			

Approval of Draft Agenda (Day 3)

Agenda - Day 3 - Wednesday, 18th April 2012

1.	Opening remarks	09:00 - 09:15	DTP chair
2.	State of work and open issues RF	09:15 - 09:45	Coleman
3.	General issues DTP and/or GTR development	09:45 - 10:45	DTP Chair
Coffee break			
4.	Wrap-up and next meetings[a)]	11:00 - 12:30	DTP chair
Official end of the DTP9 meeting			
Possibility to have lunch (voluntary) 12:30 – 14:00			

[a)] DTP10 in Geneva on 6th June 2012 and as proposal DTP11 to be hold at JRC in Ispra from 24th to 26th September 2012.

Approval of DTP8 minutes from Geneva

DTP8·Wrap-up·an·open·issues→ → → → → → → WLTP-DTP-08-05¶

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The·8th·DTP·meeting·was·held·on·18th·January·2012·during·the·whole·day·at·UNOG·offices.·¶

General·issues·¶

¶

1. → WLTP·Roadmap·Revision¶

The·WLTP·revised·roadmap·was·presented·by·Ichikawa-san.·There·will·be·a·delay·of·about·two·months·in·the·start·of·validation·phase·2·due·to·the·prolongation·of·validation·phase·1·for·the·driving·cycle·and·gear·shift·prescription.·Validation·phase·2·and·confirmation·test·have·to·be·completed·by·the·end·of·this·year·as·previously·agreed.·VTF·will·provide·a·detailed·test·plan.·The·roadmap·has·been·adopted·by·DTP·so·far.·The·only·question·concerns·the·need·of·an·additional·GRPE·session·in·autumn.¶

¶

2. → GTR·Drafting·Coordination¶

The·new·Drafting·Coordinator·(DC)·introduced·himself.·He·mentioned·that·he·had·worked·in·Canada·for·the·Environment·Ministry·and·then·27·years·at·Porsche·AG·in·the·fields·of·emissions·testing·and·emissions/fuel·consumption·regulations.·He·was·awarded·the·contract·

2. WLTP Roadmap
&
Update on DHC

3. Update on validation phase 2

Validation phase 2 (I)

Validation Phase 2 plan (update April 2012)

	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
VP2 - ICE		Experimental tests in the Participating Laboratories			Analysis of results (VTF)		Confirmation Tests (tbd)		
VP2 - EV/HEV	Preparation of VP2		Experimental tests in the Participating Laboratories		Analysis of results (VTF)		Confirmation Tests (tbd)		
VP2 - LPV	Validation 1 (drivability tests)		tbd						

tbd = to be defined

Validation phase 2 (II)

At Ispra meeting on 30th March were convened the Validation Task Force (VTF) and the representatives of the Participating Laboratories (PLs) to present and discuss the latest version of the Information Package (surrogate of the GTR) in order to launch the Validation Phase 2 (VP2).

VP2 has been launched only for conventional vehicles (ICE).

The DTP subgroup for Electric Vehicles/ Hybrid Electric Vehicles (EV/HEV) need some more time for the finalization of the Information Package (Test Plan, Parameter List, Mode construction, etc.).

Validation phase 2 (III)

Similarly, the Low Powered Vehicles (LPV) cannot be tested in VP2 before the completion of their Validation Phase 1 (drivability of the new test cycle).

Two new driving cycles have recently been designed by H. Steven, one for the very Low Powered Vehicles (power to mass ratio < 20 kW/ton);

The second for the LPV with power to mass ration between 21 and 33 kW/ton.

These new cycles will be tested in the coming weeks by India.

VTF asked the Indian representatives to transmit to the Indian laboratories the recommendation to try to complete this task by next GRPE conference in Geneva (7-8 June 2012).

Validation phase 2 (IV)

Regarding the start of VP2 for conventional vehicle, there are still a few important pieces of information missing or incomplete, namely:

- The WLTC ver. 5, agreed during the 12th DHC meeting, held on 29 March in Ispra, Italy **(done)**
- The software tool (Steven 3) for Gear Shift prescription **(Heinz)**
- Update version of the GTM-ICE **(Nick-san, Céline, Alessandro)**
- Update version of the Parameter List (ICE, PM/PN, AP) **(Giovanni and DTP subgroups)**
- Update version of the Mode Construction **(Céline)**
- Update version of the Test Sequence **(Subgroup Labprocess-ICE)**
- Update version of the excel template for experimental results **(Heinz)**
- Credentials to access the JRC ftp server (only for some Participating Laboratories) **(Alessandro)**
- **File 0 (Read me): (Alessandro)**

The deadline to complete these actions is Friday 13 April.

The VTF has the responsibility to carry out such task.
On 16th April 2012, a new Information Package will be uploaded to folder 18 of JRC ftp server (accessible by all the PLs), containing all the above mentioned files, plus some additional information.

Validation phase 2 (V)

Parameter List (ICE)

General comments to the list:

This is a summary of the most relevant parameter of LabProcICE. **For questions contact: konrad.kolesa@audi.de**

For exact references see please the document on CIRCA Website:
http://circa.europa.eu/Public/irc/enterprise/wltp-dtp/library?l=/wltp-dtp_procedures&vm=detailed&sb=Title

current draft: WLTP-DTP-LabProcICE-112 - gtr draft LabProcICE.doc **3.04.2012 Konrad Kolesa**

(note: please check for gtr draft updates on CIRCA)

#	Item	**Set Point (means system target value)**	Variations	Remarks
1	Vehicle mileage	min. 3000 km		
2	Dyno operation mode	switched on		Mode for deactivation of devices for safe operation on the dyno (e.g. ABS, ASR etc.), if mode available on the vehicle
3	Tire pressure on dyno	up to 50 % over minimum tire pressure as specified by the manufacturer		identical tire pressure in all tests including dyno load setting
4a	Automatic gearboxes	Default mode		If there is no default mode, measure all modes Recommendation: some labs should test in all modes of "default mode" vehicles
4b	Manual gearboxes			Recommendation: If the vehicle is equipped with a gsi, it should be tested with gsi shifting points
5	Reference Fuel	Regional base ref. fuel		Calculation based on Reference Fuel, reflecting the emission level of the vehicle tested, for CNG/LPG both fuel types are recommended
6	Air condition	switched off		

Parameter List (ICE) | Parameter List (PM-PN) | Parameter List (PN Regen) | Parameter List (AP) | Parameter List (HEV-EV) | HEV_EV abbr.

Validation phase 2 (VI)

D7 fx Steps

Test Procedure during Validation 2 - Baseline test (3 bags)

< Test Cycle - TBD - >

< note > The follwing test steps are subject to change based on the mode construction.
Final test steps including mode construction will be released in the middle of December.

*) discuss later stage *) discuss later sta

	Steps	Conventional Vehicles		NOVC type HEV			OVC type HEV		
				without EV switch		with EV switch *	without EV switch		with EV switch *
		Set Points	Variation	Set Points	Variation		Set Points	Variation	
P0.	Vehicle run-in	3000km - 15000km		follow ICE	NA	run under the default mode	follow ICE Run under CS mode	NA	run under the default mode
P1.	Adjust vehicle weight	Follow NL/ICCT recommendations		follow ICE	NA		follow ICE	NA	
P2.	Set R/L	Specified by manufacturer		follow RL1.~RL6.	NA		follow RL1.~RL6.	NA	
P3.	Gear box / Multi modes (OI #33 for E-lab)	- Default mode - or if there is no default mode, measure all modes	GSI - test in addition if vehicle is equipped	follow ICE	NA		follow ICE	consider also how to handle the EV switch	
RL1.	~~Soak vehicle at least 4 hours~~			follow ICE	NA		follow ICE	NA	
RL2.	Set tire pressure	up to 50 % over minimum tire pressure as specified by the manufacturer		follow ICE	NA		follow ICE	NA	
RL3.	Warm up the dynamometer	Friction loss of dyno are stabilized		follow ICE	NA		follow ICE	NA	
RL4.	Set vehicle on dynamometer			follow ICE Set CDY mode, if necessary	NA		follow ICE Set CDY mode, if necessary	NA	
RL5.	Warm up the vehicle	30min at 80km/h (normal operating temp of vehicle, should be reached)		follow ICE	NA		follow ICE	NA	
RL6.	Derive R/L	Set Coast Down Mode mode if necessary ε ≤ 2 per cent for v0 ≥ 50 km/h ε ≤ 3 per cent for 30 km/h ≤ v0 < 50 km/h ε ≤ 10 per cent for v0 < 30 km/h	If vehicles cannot follow this recommendation, it is to be documented	follow ICE Set CD mode, if necessary	NA		follow ICE Set CD mode, if necessary	NA	
PC1.	Discharge driving	NA		NA			manufacture recommended method	NA	

Tests - 3 bags | Tests - 4 bags | Feuil1

3. General issues (Family Concenpt)

4. GTR drafting work

4. Report from the Subgroups (Day 2 & 3)