

**ISO activity
for
Motorcycle OBD connector**

ISO TC22/SC38/WG4

29th Jan. 2016

Status of the standardization

Result for ISO/DIS 19689 ballot

DIS(Draft International Standard) ballot was closed on 30th Dec. 2015

< Result >

12 **positive** votes

+

0 **negative** vote

↓

ISO/DIS 19689 was approved.

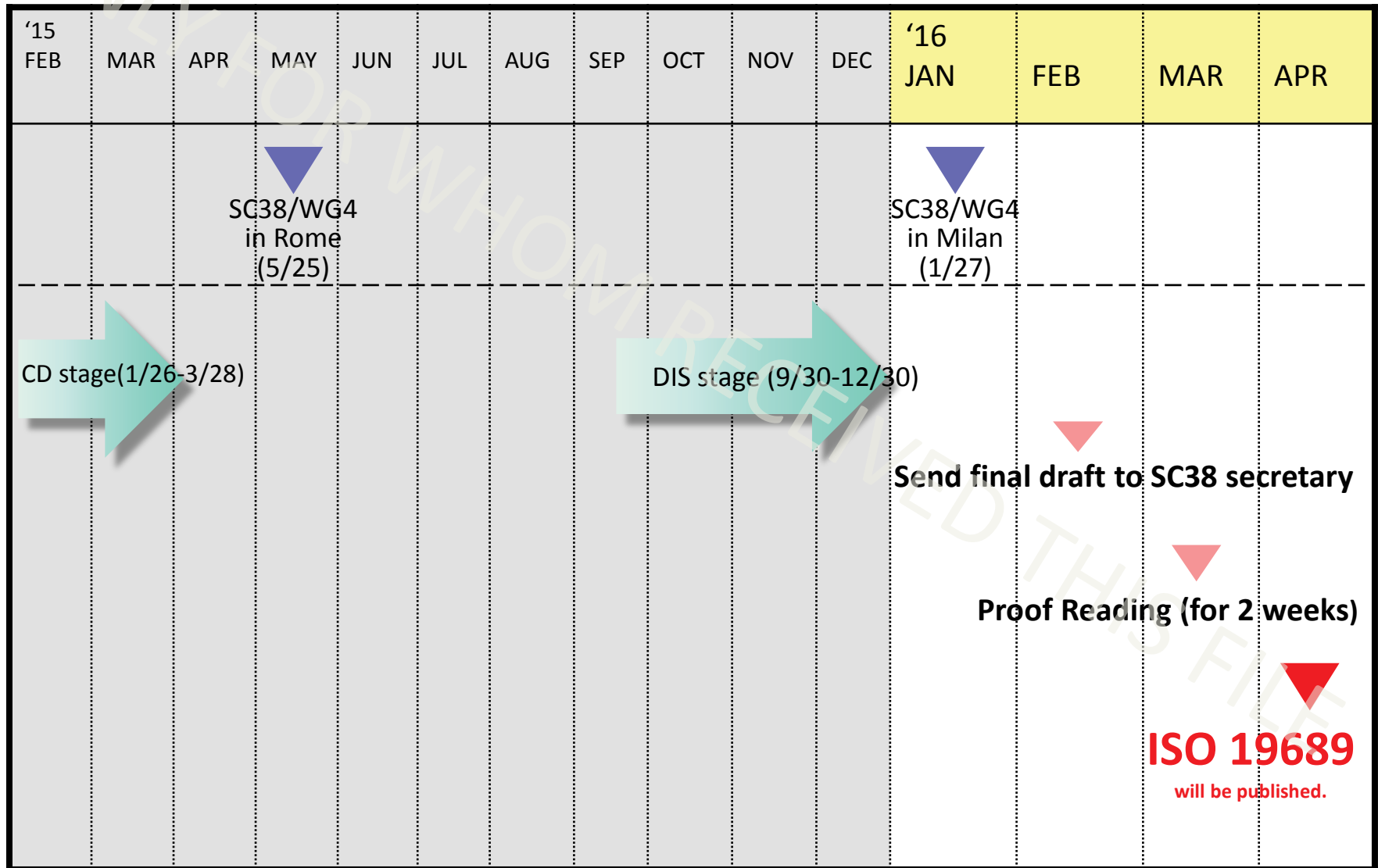
Ballot Information			
Reference	ISO/DIS 19689	Committee	ISO/TC 22/SC 38
Edition number	1		
English title	Motorcycles and Mopeds – Communication between vehicle and external equipment for diagnostics – Diagnostic connector and related electrical circuits, specification and use		
French title	titre manqué		
Start date	2015-09-30	End date	2015-12-30
Opened on	2015-09-30 00:02:00	Closed on	2016-01-01 00:00:20
Status	Closed		
Voting stage	Enquiry	Version number	1
Note			

Result of voting	
P-Members voting in favour	12 out of 12 = 100 % (requirement \geq 66.66%)
<i>(Members having abstained are not counted in this vote.)</i>	
Members voting	0 negative votes out of 13 = 0 % (requirement \leq 25%)
Approved	

Voting by members					
Country	Member	Status	Approval	Disapproval	Abstention
Austria	ASI	P-Member	X		
Belarus	BELST	O-Member			X
Belgium	NBH	P-Member	X		
China	SAC	P-Member	X		
Egypt	EOS	P-Member			X
France	AFNOR	P-Member			X
Germany	DIN	P-Member			X
Greece	NGIS ELOT				X
India	BIS	P-Member			X
Italy	UNI	Secretariat	X		
Japan	JISC	P-Member	X		
Korea, Republic of	KATS	P-Member	X		
Malaysia	DSM	P-Member	X		

Double click **the pin** for the details.

Expected schedule until the publication of ISO 19689



EU commission related matter

1. Questions from EU Commission on 5th Nov. 2014

Mr. Gielen asked several questions on Nov 5th 2014 in Brussels, and some were not answered specifically yet.

Following are our answer and comment from WG4 side.

Q : Does the connector support ODX? WG4 to check and respond.

A : WG4 concluded our new ISO connector can be compatible with ODX. No specific requirement for ODX is necessary for our new ISO.

Q : Can EU Commission delete (in future revisions to RVCR) references to any obsolete OBD communication protocols? ACEM will check with members.

⇒ **WG4 would like to know the current status of this issue at ACEM side.**

EU commission related matter

2. Predicted timing of RVCR revision

Mr. Gielen stated on 5th Nov. 2014 that RVCR will be revised in mid-2015. Revision work is still not completed yet.

⇒ WG4 would like to know the predicted timing. ACEM's prediction would be appreciated.

3. Certainty of the adoption of new connector ISO

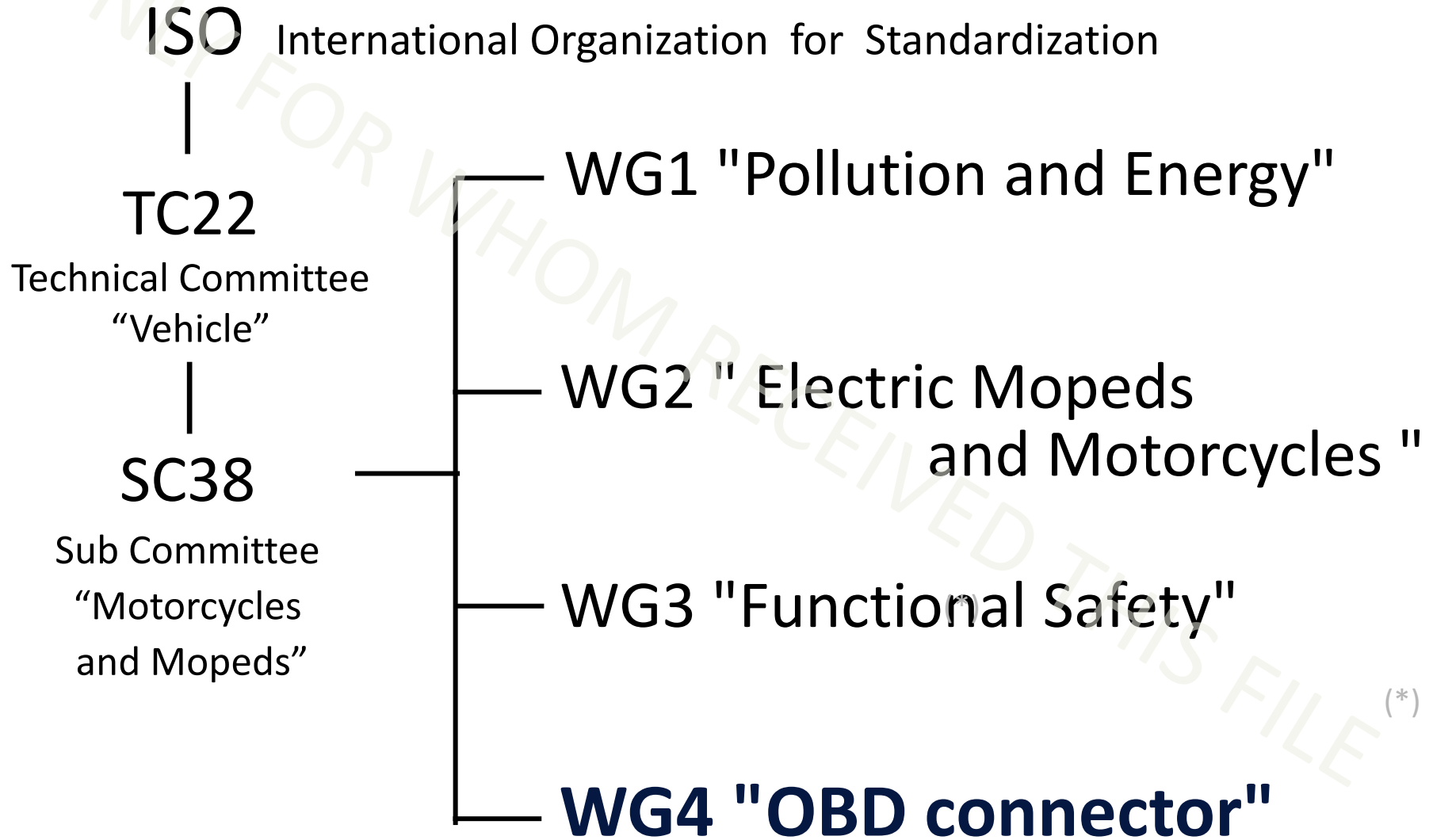
Mr. Gielen also stated the new revision could make reference to a new MC ISO.

⇒ WG4 would like to know how certain the revised RVCR will make reference to the new connector ISO. ACEM's comments would be appreciated.

Explanation of WG4 activity

Revised on 29th Jan. 2016

International Organization for Standardization



(*)

(*)

Establishment of SC38/WG4

1. On 18th Jun. 2013 in Pontedera Italy,

WG17(Pollution and Energy) agreed to establish OBD connector standard for motorcycles/mopeds exclusively.

2. On 24th ,25th Oct. 2013 in Vienna Austria,

SC(Sub Committee) agreed to organize new WG handling the standardization activity for Motorcycle OBD connector.

Establishment of SC38/WG4

3. On Mar. 2014,

New Work Item Proposal(NWIP) was approved by P-members.
New WG4 was established.

4. On 27th May 2014,

Kick-of meeting was held in Turin and following were agreed;

- target and timeline of WG4,
- to define the "one type of connector with 6 pins" in the standard,
- possibility of faster process (skipping WD stage and FDIS stage) ,
- drafting will be finished by the next meeting in Kyoto, Japan on 25th Nov. 2014.

Target of SC38/WG4

Extracted from NWIP

Why we are not using ISO 15031-3 connector

The existing OBD standards such as ISO15031 series are for passenger cars. Amongst of them, ISO 15031-3 is particularly not applicable for motorcycle/mopeds since connector for motorcycle/mopeds needs **to satisfy specific requirements such as water tightness and smaller size.**

Target (Goal) of SC38/WG4

Establish OBD connector ISO standard

- to meet specific requirement for motorcycle/mopeds

(water tightness, suitable size, optimized contacts, accessibility & chemical resistance)

Target of SC38/WG4

Target of WG4 is to standardize for;

1. Water tightness
2. Suitable size
3. Optimized contacts
4. Accessibility
5. Chemical resistance

Target of SC38/WG4

1. Water tightness

Motorcycle does not have a watertight compartment.

5.7.4 Connector system performance requirements

Extracted from ISO DIS

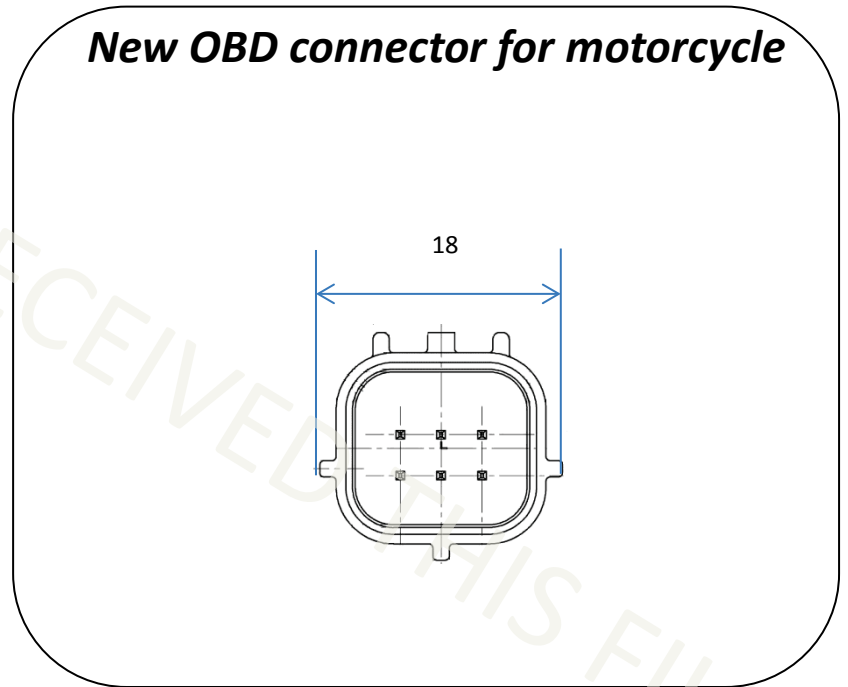
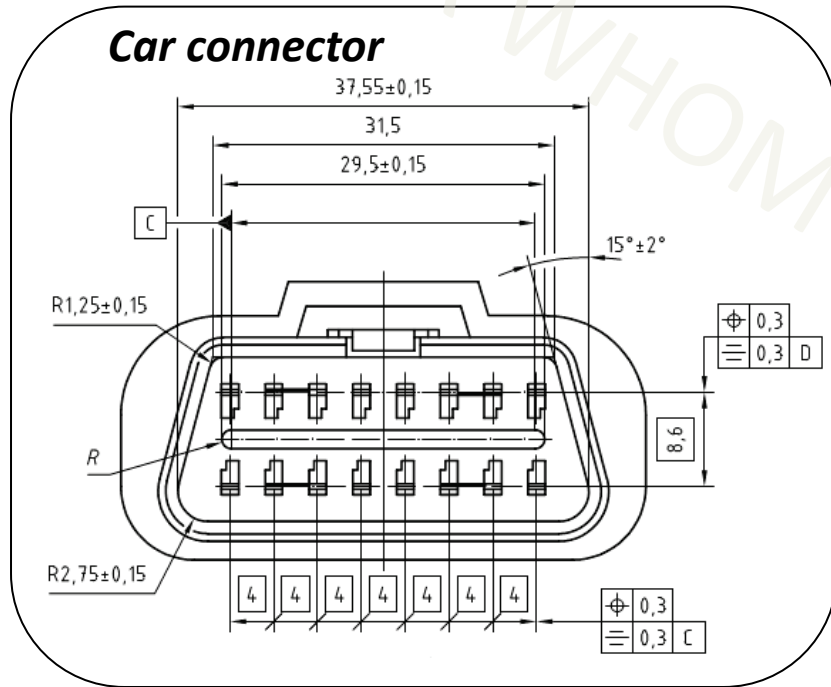
Water tightness test in accordance with ISO 8092-2:2005, 4.9.1.1.2: leakage current \leq 50 μ A at 48V and 4.9.1.1.3. Water tightness tested in accordance with ISO 8092-2:2005, 4.9.1.1.2: leakage current \leq 50 μ A at 48V and 4.9.1.1.3,

Define water tightness according to ISO 8092-2-2005.

Target of SC38/WG4

2. Suitable size

Car connector is not suitable size for compact motorcycles/mopeds

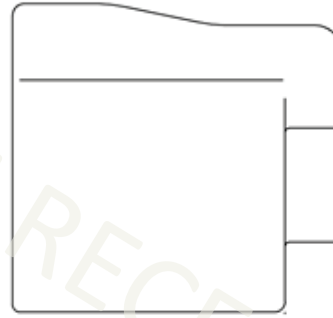
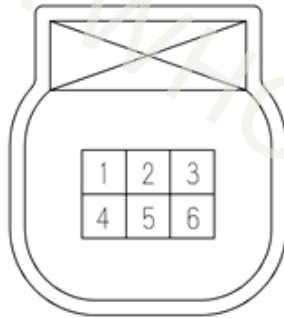


Design new OBD connector less than half size of car connector

Target of SC38/WG4

3. Optimized contacts

Only 6 pins are necessary/enough for motorcycles/mopeds.



Contact	General allocation
1	Discretionary
2	CAN_ H line of ISO 15765-4 ¹
3	Ground
4	Permanent positive voltage/ Switched vehicle battery voltage (Ignition on/off)
5	CAN _L line of ISO 15765-4 ¹
6	K line according to ISO 9141-2 and ISO 14230-4 ¹

Eliminate unnecessary pins for motorcycle from car connector

Target of SC38/WG4

4. Accessibility

The connector shall meet the requirements for position/ accessibility/protection defined by EU regulation No.44/2014.

(3.12)

Extracted from EU regulation

The preferred installation position is **under the seating position**. Any other position of the diagnostic connector shall be subject to the approval authority's agreement and be **readily accessible by service personnel** but **protected from tampering by non-qualified personnel**.

Smaller connector is necessary for limited space in motorcycle to meet requirement of EU regulation 44/2014

Target of SC38/WG4

5. Chemical resistance

The connector for motorcycle could be influenced by chemical fluids such as engine oil, brake fluid, and engine coolant, etc.

(5.7.5) Chemical fluids

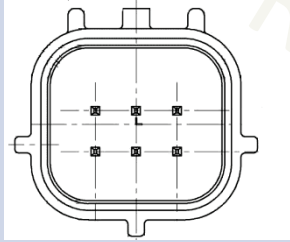
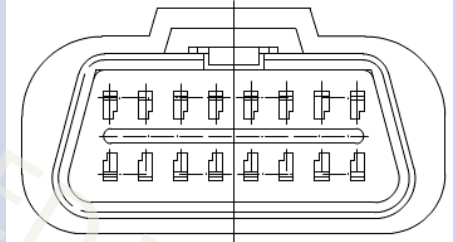
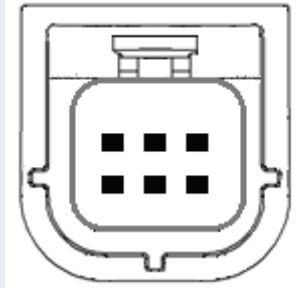
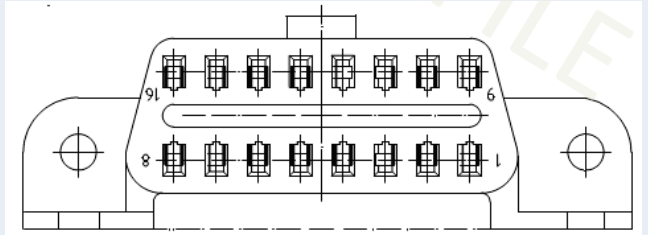
Extracted from ISO 8092-2-2005

(4.23.1) Principle and application

The resistance to chemical fluids is only required for connectors likely to be exposed to such fluids. For this purpose, a list of chemicals and tests common to automotive use has been established (see Table 7). The vehicle manufacturer and supplier should choose the fluids and tests depending on the connector application.

Define chemical resistance according to ISO 8092-2-2005

Comparison –reference-

		Motorcycle connector	Car connector
Product		Sealed 6 Pin Connector	Unsealed 16 Pin Connector
Terminal Tab Size Inch(mm)		025(0.64)	060(1.50)
SCAN TOOL Side	Area ratio	1	2.10
	Cost ratio	1	Unknown
	Appearance		
Vehicle Side	Area ratio	1	1.54
	Cost ratio	1	---
	Appearance		

Timeline



SC22/WG17
in Pisa

Jun/2013

00: Proposal

Proposed Studying
Standardization OBD connector



SC22/WG17
in Vienna

Oct/2013

May/2014 SC38/WG4 in Turin

10: NP

New Working Group Kick Off



Discussing for WD

Autumn/2015

40: DIS

We are
here

Spring/2015

Nov/2014 in Japan

30: CD

Spring/2016

60: IS

NP : New Work Item Proposal

WD : Working Draft

CD : Committee Draft

DIS : Draft International Standard

FDIS: Final Draft International Standard

IS : International Standard

Conclusion

1. ISO 19689 will be published by around spring (April or May) this year.

WG4 is pleased to report the result of DIS ballot and the new ISO for motorcycle OBD connector will be published soon, thanks to your best effort.

2. Revised RVCR must make reference to ISO 19689.

A remaining issue is for us to make sure the revised RVCR will make reference to the new ISO. WG4 would like to ask ACEM members to keep supporting EU commission to adopt our new ISO.