



Safer Cars for ASEAN Region

ASEAN NCAP 2026-2030 ROADMAP

TS. YAHAYA AHMAD
TECHNICAL LEADER



FIA Foundation
for the Automobile and Society

Bloomberg
Philanthropies

GLOBAL



NCAP



AUTOMOBILE ASSOCIATION
OF SINGAPORE



ASEAN NCAP 2026-2030 Roadmap

- Please scan the QR code for the 2026-2030 Roadmap.



2026-2030 Assessment

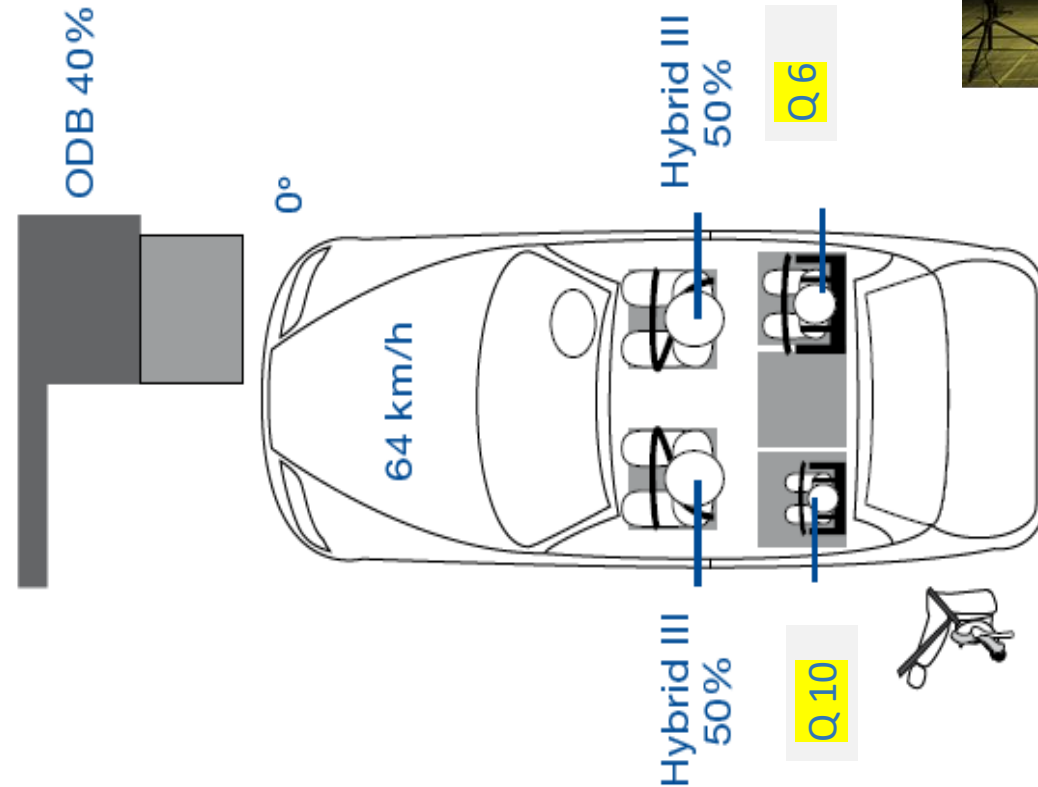
 2026-2030	AOP		COP		Safety Assist		Motorcyclist Safety	
	Item	Max	Item	Max	Item	Max	Item	Max
	Frontal	16	Frontal	16	EBA	6	BSD / BSV	8
	Side	8	Side	8	SBR	6	Rear View Technology	3
	HPT Evaluation	8	CRS Installation	12	AEB City	2.5	AHB / ADB	3
			Vehicle Based Assessment	13	AEB Inter Urban	5	Pedestrian Protection	2
			Child Presence Detection	5	Lane Support	2	AEB MC	6
					Advanced SAT	2	Advanced MST	2
Score		32		54		23.5		24
Weighting		40%		20%		20%		20%
Slanting = Fitement Rating System								
	AOP (%)		COP (%)		Safety Assist (%)		Motorcyclist Safety (%)	
5 ★	80		75		75		60	
4 ★	70		60		60		50	
3 ★	60		50		40		40	
2 ★	50		40		30		30	
1 ★	40		30		20		20	

Application of Fitment Rating Scheme

AOP		COP		Safety Assist		Motorcyclist Safety	
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Frontal Offset Test-



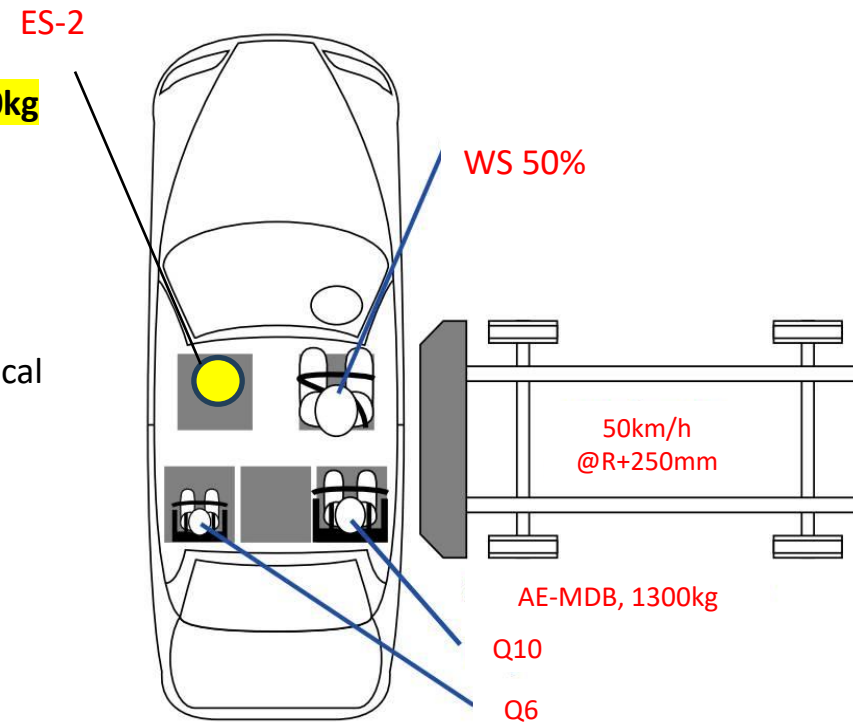
There is no significant change in-term of AOP since no changes on adult dummies & speed

Side impact testing protocol

- Crash Mass: **see Protocol**
- Impact Angle in Degree: **90**
- Overlap in %: **100**
- v0 Opponent: **50 km/h**
- v0 Target Vehicle: 0 km/h 0 mph
- Opponent: **Advanced European MDB (Side) -1300kg**
- Dummy (front left): **WorldSID 50th%ile Male**
- Dummy (front right): **ES 2 (non-instrumented)**
- Dummy (rear right): **Q10 Child Dummy**
- Dummy (rear left): **Q6 Child Dummy**
- Features:Target Speed: **50 km/h $\pm$ 1.0 km/h**
- Barrier Alignment with R-Point +/- 250 mm / Vertical Alignment +/- 25 mm

9.3 Alignment

**9.3.3.TARGET ALIGNMENT =
CENTRELINE OF BARRIER
COINCIDENT WITH PLANE 250mm
REARWARD OF 'R' POINT $\pm$ 25mm**



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Dynamic performance Frontal & Side Impact Test Protocol

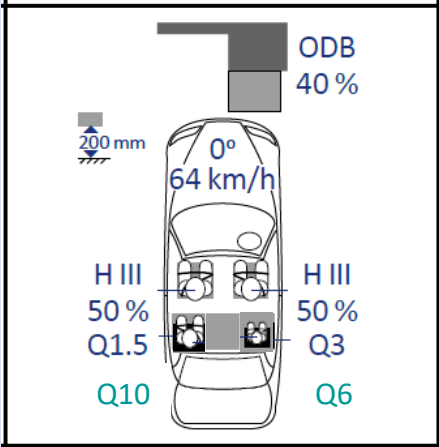
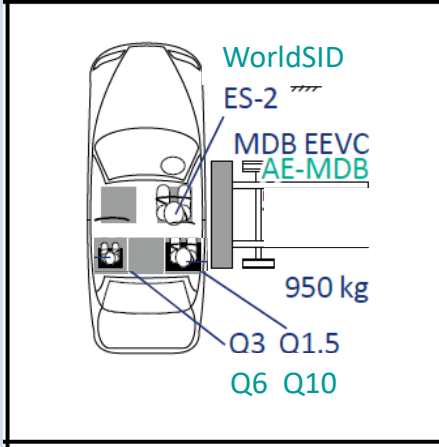
	FRONTAL IMPACT	SIDE IMPACT
DUMMY POSITION		
	Q6	Q10
CRS TYPE	Forward facing CRS for a child with a stature of 125cm. CRS recommended by the vehicle manufacturer, or selection CRS from the top pick list. Rearwards facing CRS is not allowed	Booster cushion with backrest. recommended by the vehicle manufacturer or selection from the top pick list. Foot/toe touch front seat – booster cushion Head touch roof – seatbelt only.

Table 2. Example of top pick list installations

CRS Installation Assessment					SEATING POSITION						SCORING				
					Front		2nd row		3rd row		Pass	Fail	Exempt	Score	
					Left	Centre	Left	Centre	Right	Left					Right
					i-Size	Belt	i-Size	Belt	i-Size	Belt	Belt				
UNIVERSAL	Group 0+	Maxi Cosi Cabriofix	B _ _ _	U	Pass	Fail	Pass	Pass	Pass	Fail	Fail	4	3		57.1%
		Maxi Cosi Cabriofix & EasyFix	B _ L _	VEHICLE LIST	Pass	Exempt	Pass	Pass	Pass	Exempt	Exempt	4	0	3	100.0%
	Group I	Britax Römer King II LS	B _ _ _	U / UF	Pass	Fail	Pass	Pass	Pass	P Fail	P Fail	4	3		57.1%
	Group II/III	Cybex Solution Z I-Fix	B _ _ _	U / UF	Pass	Fail	Pass	Pass	Pass	P Fail	P Fail	4	3		57.1%
ISOFIX	Group 0+/I	BeSafe iZi Combi X4 ISOfix	_ I L _	ISO/R3	Pass	N/A	Fail	N/A	Fail	N/A	N/A	1	2	0	33.3%
	Group II/III	Cybex Solution Z I-Fix	B I _ _	VEHICLE LIST	Pass	N/A	P Fail	N/A	P Fail	N/A	N/A	1	2		33.3%
I-Size	67-105cm	Maxi Cosi 2way Pearl & 2wayFix	_ I L _	I-Size	Pass	N/A	Pass	N/A	Pass	N/A	N/A	3	0		100.0%
	>15m-105cm		Pass	N/A	Pass	N/A	Pass	N/A	N/A	3	0		100.0%		
	61-105cm	BeSafe iZi Kid X2 I-Size	_ I L _	I-Size	Pass	N/A	Pass	N/A	Pass	N/A	N/A	3	0		100.0%
	76-105cm	Britax Römer Trifix ² I-Size	_ I L _	I-Size	Pass	N/A	Pass	N/A	Pass	N/A	N/A	3	0		100.0%
	100-135cm	BeSafe iZi Flex FIX I-Size	B I _ _	I-Size	Pass	N/A	Pass	N/A	Pass	N/A	N/A	3	0		100.0%
OEM	Group 0+	Britax Römer Baby Safe Plus SHR I	B _ _ _	U											
	Group I	Britax Römer TRIFIX	_ I _ S	U											1.000
	Group II	Britax Römer KidFix XP SICT	B I _ _	VEHICLE LIST			Pass		Pass			2	0		
	Group III	Britax Römer KidFix XP SICT	B I _ _	VEHICLE LIST			Pass		Pass			2	0		1.000
SUMMARY															
Universal assessment					2.714										
ISOFIX assessment					0.667										
I-Size assessment					4.000										
OEM assessment					2.000										
TOTAL INSTALLATION ASSESSMENT					9.381										

Legend:

Pass
P Fail

CRS can be installed correctly

CRS can be installed correctly but more actions are needed that do not meet

- Review grouping of CRS type
- Work in progress – due Dec 2023

CRS Installation

- Introduce ASEAN NCAP Manikin according to ASEAN data
- Preferable to use
 - Manikin 6YO (105-135cm) & Manikin 10YO (~135cm)
 - If not available, allowed to used Q6,Q10 or equivalent.



6.1.2 Respiration (Work in progress – proposed rate)

The following respiration rates shall be used for sleeping children:

- New-born infant 30bpm
- One year old 22bpm
- Three year old child 20bpm
- Six year old 18bpm



SBR



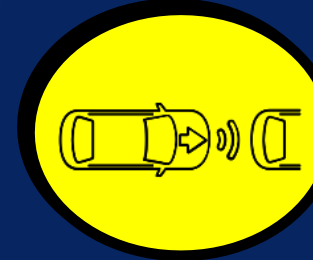
Seat Belt Reminder

EBA



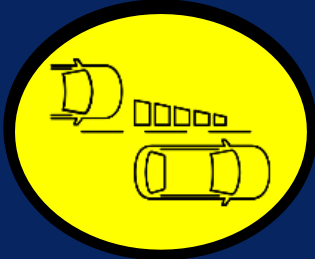
Effective Braking
Avoidance

AEB



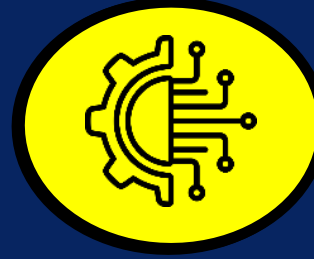
Autonomous
Emergency Braking

LS

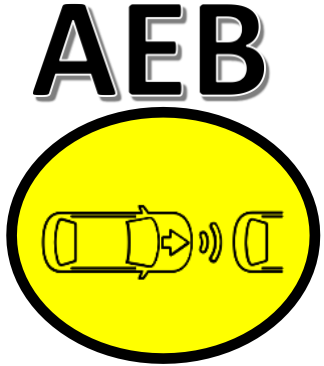


Lane Support

SAT



Advance Safety
Assist



AEB CITY

- CCRs



AEB INTER-URBAN

- CCRm
- CCRb

PROPOSAL

PROTOCOL

TESTING

ASSESSMENT

AOP

- Frontal (16)
- Side (8)
- HPT (4)

COP

- Frontal (16)
- Side (8)
- Installation (12)
- Vehicle-Based (13)
- CPD (5)

SA

- EBA (6)
- SBR (6)
- AEB City (2.5)
- AEB Interurban (5)
- Lane Support (2)
- Advanced SAT (2)

MS

- BST/BSV (8)
- ARV (3)
- AHB+ADB (2+1)
- Pedestrian Protection (2)
- AEB MC (6)
- Advanced MST (2)

TEST SCENARIO FOR 2026-2030

BST/BSV

ARV

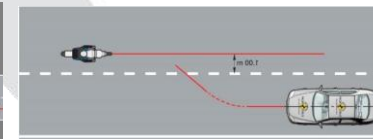
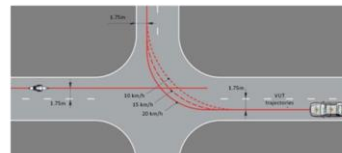
PP

AHB/ADB

AEB MC

ADV MST

	CMRm		CMFtap	CMCrossing	CM Oncoming
	Car to Motorcycle Rear-end moving		Car to Motorcycle Front Turn Across Path	Car-to-Motorcycle Crossing	Car-to-Motorcycle Oncoming
Type of test	AEB	FCW	AEB	AEB	LSS
VUT Speed [km/h]	40 - 60	40 - 80	10,20	20-60	72
VUT direction	Forward		Far side turn	Far side and nearside	Far side
Target speed [km/h]	30,45,60		30,45,60	20	60
Impact location [%VUT width]	50	50 and 25	50	50 -50% motorcycle length	10
Lighting condition	Day		Day	Day	Day
Number of test	36 speed combinations (best case: 22 tests)		6 tests	9 speed combinations (best case: 5 tests)	4 – 5 tests



- A newly developed motorcycle target for ASEAN NCAP assessment dedicated to the Motorcyclist Safety pillar.
- **Testing materials**
 - Driving robot
 - Test platform
- **Light condition**
 - Day
- **Weather condition**
 - Dry surface



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