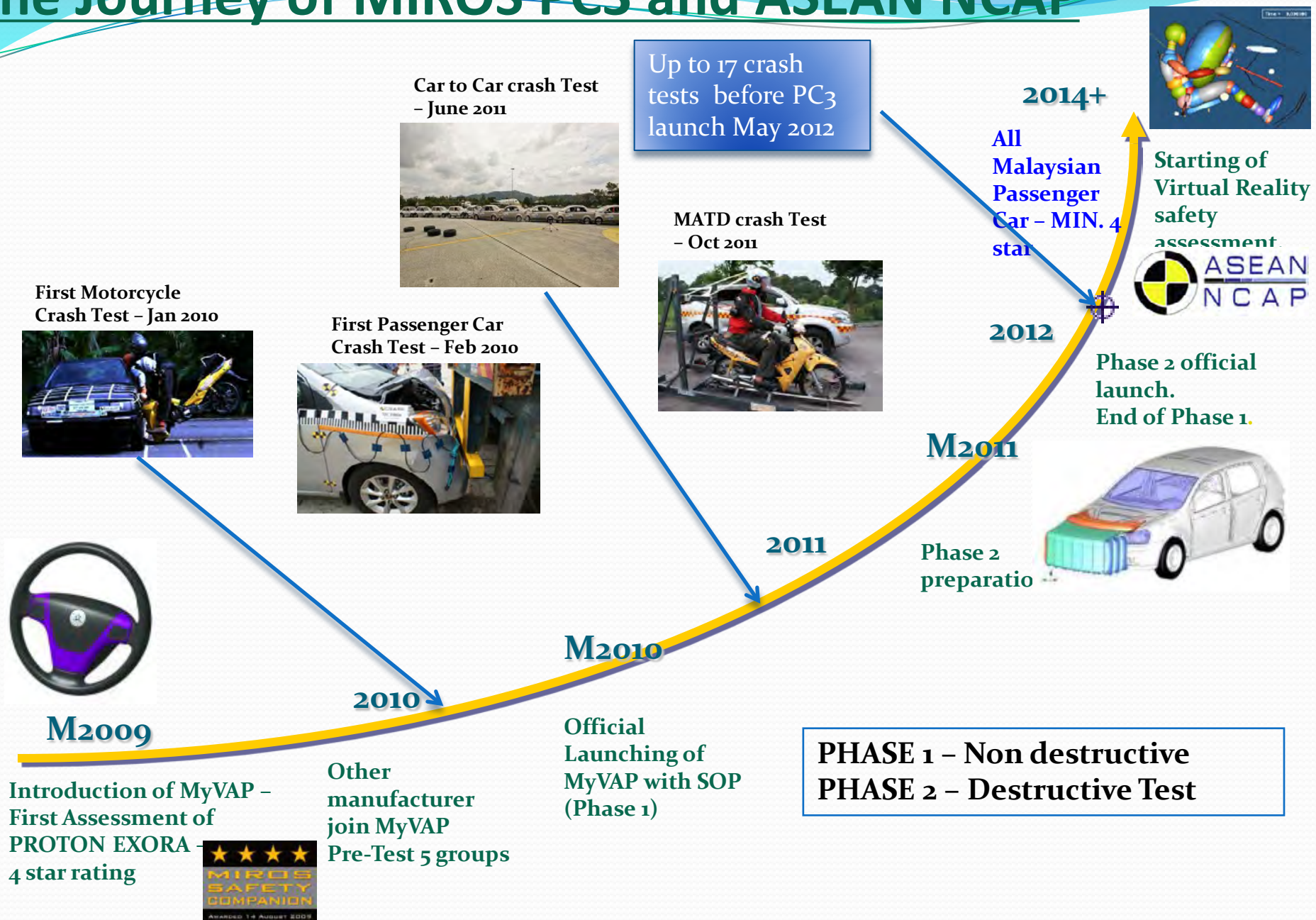










New Horizon; ASEAN NCAP

KHAIRIL ANWAR
Chairman
ASEAN NCAP Technical Committee

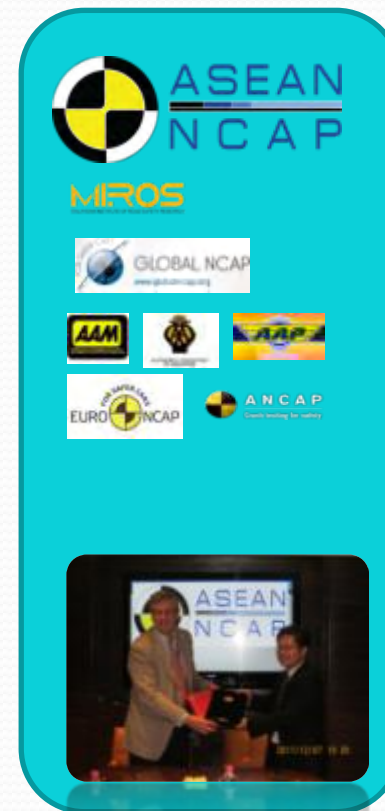
The Journey of MIROS PC3 and ASEAN NCAP



NCAPs around the world

Continent	Program Name	Label	Countries
ASIA	China New Car Assessment Program <i>Acronym: C-NCAP</i>		• China
	Japan New Car Assessment Program <i>Acronym: JNCAP Established 1991</i>		• Japan
	Korean New Car Assessment Program <i>Acronym: KNCAP Established 1999</i>		• Korea
AUSTRALIA	Australasian New Car Assessment Program <i>Acronym: ANCAP Established 1992</i>		• Australia • New Zealand
EUROPE	European New Car Assessment Program <i>Acronym: Euro NCAP Established 1997</i>		• France • Germany • Italy • Spain (Catalonia) • Sweden • The Netherlands • UK • European region as a whole
NORTH AMERICA	Insurance Institute for Highway Safety – Vehicle Ratings <i>Acronym: US IIHS</i>		• USA
	New Car Assessment Program (NHTSA) <i>Acronym: US NCAP Established 1978</i>		• USA
SOUTH AMERICA	Latin American & Caribbean New Car Assessment Program <i>Acronym: Latin NCAP</i>		• Latin America and Caribbean region as a whole

NEW



First Test – 24th May 2012

Support from Related Parties



*Stake
Holders*



GLOBAL NCAP
www.globalncap.org



FIA Foundation
for the Automobile and Society

*Financial
Support*



*Technical
Support*



*Program
Advisory*

Support from Related Parties



*Financial
Support*



*Technical
Support*



KYOWA

Product Support

ASEAN NCAP Organization Chart

Steering Committee

(MIROS, AAM, AAS, AAP & AAC) + (Global NCAP, Latin NCAP & Australasian NCAP – Advisory Panel)

Technical Committee

(MIROS, TGGs, UOP, Latin NCAP & ANCAP)

WG

Frontal Impact

WG

Side Impact

WG

Child Restraint

WG

Safety Assist

ASEAN NCAP Official Result Phase 1

- An event whereby the full result of 7 cars tested in Phase 1 is presented.
- Unique combination of knowledge and thematic events brings participants and visitors to witness the achievement of current development of passive safety level in the country.
- Safety demonstration to increase the level of public awareness (Side Impact Test – UN R95)



ASEAN NCAP Official Result Release - Phase 1

- Where : MIROS PC₃ [MIROS Crash Lab],
Akademi Pengangkutan Jalan (APJ) Melaka,
- When : 31st January 2013
- Highlights :
 - Malaysia Book of Record: MIROS PC₃
 - UN R95 Side Impact Crash Demonstration – New Honda CIVIC.
 - ASEAN NCAP Official Result Release – Phase 1
 - Manufacturer Viewing
 - Release plan of Phase 2
- Participants : World wide (approximate 300 participants)

Event location: MIROS PC3



Event location: MIROS PC3 (Top View)





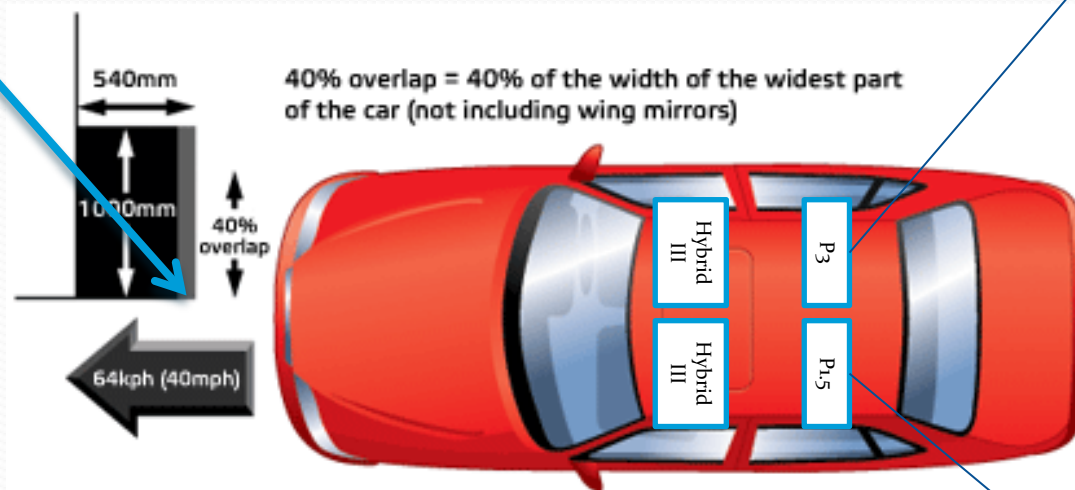
How do we test?

Offset Deformable Barrier (ODB64) Frontal Crash Test

Accuracy
 $0 \pm 20 \text{ mm}$



Hybrid III
50th %tile
dummies



Speed Tolerance
 $63 \sim 65 \text{ km/h (64} \pm 1 \text{)}$



Injury Data



Ratings explained

Manufacturer &
Vehicle Model

LAMBORGHINI
DIABLO
WITH 2 AIRBAGS



Star rating for
adult occupant
from 0 ~ 5 star;
5 stars is the best.

ADULT
OCCUPANT



CHILD
OCCUPANT



100 %

Percentage of
safety for child
occupant from
0 ~ 100%;
100% is the best.

CRASH TEST JUNE 2012

Month of crash
test conducted

No. of airbag for
tested vehicle

Vehicle involved in Phase 1

FORD FIESTA

HONDA CITY

TOYOTA VIOS

NISSAN MARCH

PERODUA MYVI

HYUNDAI i10

PROTON SAGA

Data Comparison

- Repeatability – Comparison between Pre-Test and Official ASEAN NCAP Test of same variant using JASTI dummies.

JASTI vs. JASTI

- Comparison 1 – Performance comparison between JASTI and HUMANETICS dummies of the same variant.

JASTI vs. HUMANETICS

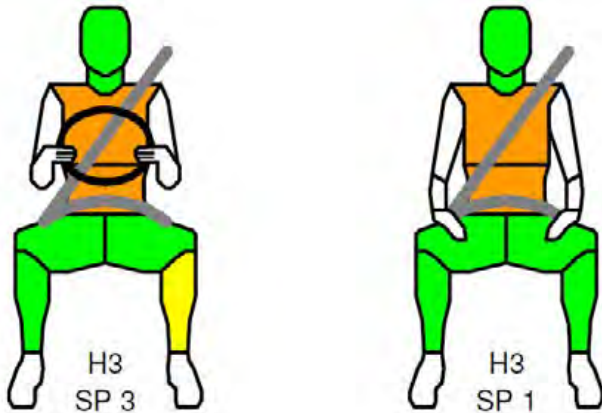
- Comparison 2 - Performance comparison between JASTI (tested in PC₃) and HUMANETICS (tested in Crashlab, Australia) dummies of the same variant.

JASTI [PC₃] vs. HUMANETICS [CRASHLAB]

Data Comparison – Toyota VIOS

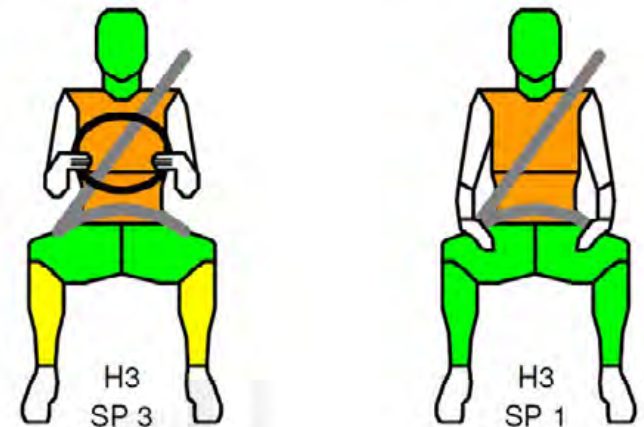
- **Repeatability** – Comparison between Pre-Test and Official ASEAN NCAP Test of same variant using JASTI dummies.

Pre-NCAP



$$\Delta V = 1.4 \text{ km/h}$$

Official



Data Comparison – Toyota VIOS

- **Repeatability** – Comparison between Pre-Test and Official ASEAN NCAP Test of same variant using JASTI dummies.

Comparison Items	Driver	Passenger
HIC ₃₆	(86.76)	(27.72)
Resultant	(2.82)	(0.24)
Extension	(0.9)	(16.07)
Chest Compression	5.37	0.39
VC	0.05	0
Right Knee displacement	(0.71)	(0.87)
Left Knee displacement	(0.82)	(1.28)
Right Upper/Lower tibia	0.14/(0.07)	0.1/0.01
Left Upper/Lower tibia	(0.02)/(0.11)	0.16/(0.01)
Right Upper/Lower tibia Fz	0.44/0.47	0.06/0.21
Left Upper/Lower tibia Fz	0.52/0.51	0.06/0.08

TOYOTA VIOS



Data Comparison – PERODUA MYVI

- **Comparison 1** – Comparison between Pre-Test using JASTI dummies and Official ASEAN NCAP Test using HUMANETICS dummies.

Pre-NCAP



JASTI

$$\Delta V = 0.23 \text{ km/h}$$

Official



HUMANETICS

Data Comparison – PERODUA MYVI

- **Comparison 1** – Comparison between Pre-Test using JASTI dummies and Official ASEAN NCAP Test using HUMANETICS dummies.

Comparison Items	Driver	Passenger
HIC ₃₆	(305.47)	250.93
Resultant	(20.78)	(18.61)
Extension	(10.72)	(18.14)
Chest Compression	0.26	3.01
VC	(0.03)	(0.02)
Right Knee displacement	3.63	4.3
Left Knee displacement	(0.3)	(0.35)
Right Upper/Lower tibia	0.44/(0.18)	(0.05)/(0.03)
Left Upper/Lower tibia	(0.16)/0.26	0.09/0
Right Upper/Lower tibia Fz	2.06/2.56	1.31/1.95
Left Upper/Lower tibia Fz	1.65/2.22	1.43/1.85

PERODUA MYVI



Data Comparison – HONDA CITY

- **Comparison 2** Performance comparison between JASTI (tested in PC₃) and HUMANETICS (tested in Crashlab, Australia) dummies of the same variant.

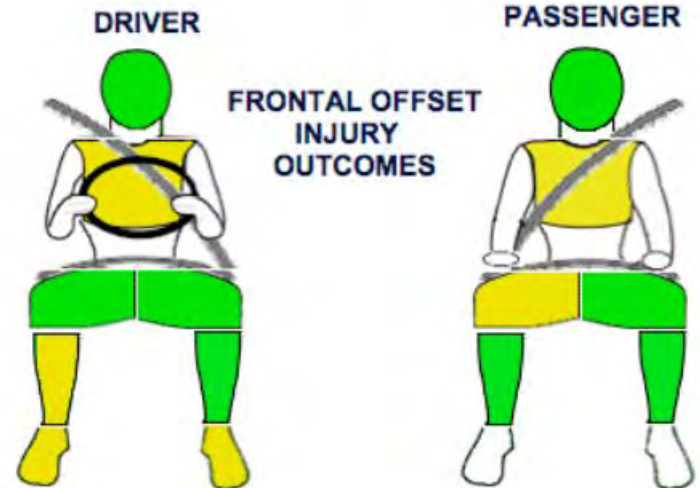
ASEAN NCAP



$\Delta V = 0.2 \text{ km/h}$

JASTI
[MIROS PC₃]

ANCAP



HUMANETICS
[CRASHLAB]

Data Comparison – HONDA CITY

- **Comparison 2** Performance comparison between JASTI (tested in PC₃) and HUMANETICS (tested in Crashlab, Australia) dummies of the same variant.

Comparison Items	Driver	Passenger
HIC ₃₆	63.87	(13.62)
Resultant	4.93	7.94
Extension	7.59	17.27
Chest Compression	(10.18)	(7.51)
VC	0.03	0.01
Right Knee displacement	(0.45)	2.37
Left Knee displacement	1.49	(0.41)
Right Upper/Lower tibia	(0.09)/(0.07)	0.06/0.05
Left Upper/Lower tibia	0.04/0.07	(0.04)/0.01
Right Upper/Lower tibia Fz	(1.07)/(0.72)	(0.38)/(0.17)
Left Upper/Lower tibia Fz	1.14/0.58	0.95/(0.26)

HONDA CITY



The way forward;



15th November;
ASEAN NCAP Phase 1 started

10th Jan 2013;
ASEAN NCAP Phase 1 – all car tested

31st Jan 2013;
Phase 1 Result release and
Manufacturer Viewing

1 Feb – 30 Jun 2013;
Phase 2 (MPV, SUV and others)

1 July – 31 Dec 2013
Phase 3 (Mix)

>>>>> ASEAN NCAP as Independent Non-
Profit Organization





THANK YOU

www.miros.gov.my

www.aseancap.org