



**EUROPEAN NEW CAR ASSESSMENT PROGRAMME  
(Euro NCAP)**

**VEHICLE SELECTION, SPECIFICATION, TESTING AND RETESTING  
(VSSTR)  
PROTOCOL**

Version 7.3  
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**VSSSTR PROTOCOL**

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## **1 INTRODUCTION**

This protocol details Euro NCAP's procedures relating to the sponsorship, nomination and selection of models to be assessed by Euro NCAP, the specification of vehicles to be tested, their testing arrangements, the circumstances when re-testing is allowed and the rules of publication.

### **1.1 Definitions**

In this document, frequent references are made to terms as model release date, variant, model range, safety equipment, etc. A list of definitions for these terms in the context of this protocol can be found in the Appendix.

'The market' refers to the Euro NCAP Area of Application (EAA), defined in Technical Bulletin 002.

## **2 THE ASSESSMENT YEAR**

The Assessment Year is defined as the calendar year in which the rating is first published by Euro NCAP or by ANCAP if the result is being republished (see Section 7.3).

### 3 SPONSORSHIP AND MODEL NOMINATION

Euro NCAP's internal rules stipulate that each of the Members sponsors at least one vehicle model a year. In addition, vehicle manufacturers often wish to sponsor a vehicle so that the results may be published at a preferred time, such as the vehicle's public launch. Euro NCAP applies a set of rules to address the most common situations where conflicts may occur.

#### 3.1 Euro NCAP Preconditions

- 3.1.1 Vehicle models can be nominated for inclusion in Euro NCAP's assessment programme by a Euro NCAP Member, a vehicle manufacturer, or any third party. By nominating a model, the party agrees to accept the costs related to the assessment and publication of the result.
- 3.1.2 Subject to 3.1.3, any vehicle model currently on sale in the EEA can be nominated. No consideration is given to:
- Sales volume;
  - Method of type-approval (whole vehicle, low volume, etc.).
- 3.1.3 Vehicles that have a valid rating cannot be nominated, except in case of a re-assessment (see 6.3).
- Note: The validity of the rating is defined in the Application of Star Ratings protocol.*
- 3.1.4 The choice of vehicle model to be assessed by Euro NCAP shall be made by the sponsor. Sponsors are encouraged to nominate their choice of vehicle as soon as possible but no later than 1st of September of the year in which tests must take place.
- 3.1.5 A vehicle model must be on sale in the same calendar year that the Euro NCAP star rating is awarded. 'On sale' means that cars must be at dealers in some parts of the EEA before the end of the year, and these cars must be sellable i.e. customers should be able to buy the vehicles if they wish.

#### 3.2 Member Sponsored Models

- 3.2.1 Where a Manufacturer wishes to sponsor a vehicle model already nominated a Member, the Member will have the first right, subject to section 3.2.2.
- 3.2.2 Where a manufacturer wishes to sponsor the testing of a new vehicle model already nominated by a Member, the following conditions apply:
- 3.2.2.1. Up to 12 months before the model release date, the manufacturer has exclusive rights to sponsor the testing of that vehicle. Once the formal agreement to sponsor the vehicle is made, it cannot be cancelled, and the manufacturer is obliged to inform Euro NCAP of any changes in the model release date.

3.2.2.2. After 12 months prior to the model release date, the manufacturer loses the exclusive right to sponsor the vehicle. A manufacturer may take over the sponsorship commitment from the Member or third party, provided they agree to comply with the following requirements:

- The choice of drive (LHD or RHD) and the choice of test laboratory are not changed.
- The publication date of the Euro NCAP result is not later than 3 months after customers first receive their cars;
- If the rating is delayed beyond the 3-month deadline, the car being sold becomes eligible for testing. If a member wishes to assume or resume sponsorship, the car on sale to the public will be tested.
- The manufacturer may continue with sponsorship of the model if different results are expected from later cars. However, publication of the rating will not be sooner than publication of the member-sponsored tests on earlier cars.

3.2.2.3. If the member-sponsored tests on earlier cars cannot be completed against the current assessment year, the car will be assessed against the protocols of the following year. In the case where the manufacturer has taken over sponsorship, the Member may nominate an alternative vehicle model.

3.2.3 Where a manufacturer wishes to sponsor the testing of any other vehicle model already nominated by a Member or third party, the following conditions apply:

3.2.3.1. The manufacturer may take over the sponsorship commitment from the Member, provided they agree to comply with the following requirements:

- The publication date is not delayed by more than 3 months.
- The choice of drive (LHD or RHD) and the choice of test laboratory are not changed.
- If publication is delayed by more than 3 months, the car being sold becomes eligible for testing. See section 3.3.2.

3.2.3.2. A manufacturer may advise Euro NCAP that a vehicle model which has been chosen for sponsorship by a Member is soon to be replaced by a newer version. If so, the manufacturer may request that the updated model be tested.

- If this is expected to delay publication by more than 3 months, the request will only be accepted if the manufacturer agrees to take over sponsorship of the vehicle. The choice of drive (LHD or RHD) must not be affected;
- Publication of the results for the updated vehicle model cannot be delayed beyond 3 months after customers first deliveries of the newer version to customers;
- Euro NCAP reserves the right to test the original vehicle model if the above conditions are not met (see 3.3.2).

### 3.3 Manufacturer Sponsored Models

3.3.1 Where a third party wishes to sponsor the testing of any vehicle model already nominated by a manufacturer, the manufacturer will have the first right.

3.3.2 Where the manufacturer has nominated a new vehicle or an updated vehicle which is not yet made available to consumers at the time of nomination, the following needs to be taken into account:

- The publication date of the Euro NCAP result must not be later than 3 months after customers first receive their cars;  
*Note: This requirement will be waived if the schedule cannot be met because of a test or other failure on Euro NCAP's part.*
- If the rating is delayed beyond the 3-month deadline, the car being sold becomes eligible for testing. If a member wishes to assume or resume sponsorship, the car on sale to the public will be tested.
- The manufacturer may continue with sponsorship of the model if different results are expected from later cars. However, publication of the rating will not be sooner than publication of the member -sponsored tests on earlier cars.
- If the member -sponsored tests on earlier cars cannot be completed against the current assessment year, the car will be assessed against the protocols of the following year.

*Note: these restrictions shall not apply if the manufacturer wishes to sponsor a vehicle which is currently on sale and which is not going to be updated.*

3.3.3 Up to 12 months before the model release date, the manufacturer has exclusive rights to sponsor the testing of that vehicle. Once the formal agreement to sponsor the vehicle is made, it cannot be cancelled, and the manufacturer is obliged to inform Euro NCAP of any changes in the model release date.

3.3.4 After 12 months prior to the model release date, the manufacturer loses the exclusive right to sponsor the vehicle. A manufacturer may take over the sponsorship commitment from the Member, provided they agree to comply with the following requirements:

- The choice of drive (LHD or RHD) and the choice of test laboratory are not changed.
- The publication date of the Euro NCAP result is not later than 3 months after customers first receive their cars;
- If the rating is delayed beyond the 3-month deadline, the car being sold becomes eligible for testing. If a member wishes to assume or resume sponsorship, the car on sale to the public will be tested.
- The manufacturer may continue with sponsorship of the model if different results are expected from later cars. However, publication of the rating will not be sooner than publication of the member -sponsored tests on earlier cars.

3.3.5 Where a manufacturer wishes to sponsor the testing of a vehicle model already nominated by a Member or third party, the manufacturer may take over the sponsorship commitment from the Member or third party, provided they agree to comply with the following requirements:

- The publication date is not delayed by more than 3 months;
- The choice of drive (LHD or RHD) and the choice of test laboratory are not changed.

### **3.4 Third Party Sponsored Models**

3.4.1 Where a third party (for example an organisation which wishes to sponsor the testing of a vehicle or vehicle type which is of particular relevance to its activities) wishes to sponsor the testing of a vehicle model already nominated by a manufacturer or Member, the manufacturer or Member will have the first right.



## 4 SPECIFICATION OF TEST VEHICLES

Even though different vehicle variants may offer different levels of protection, it is not always possible for Euro NCAP to rate all variants of a vehicle model available in the EAA individually. The star rating is intended to cover the most popular variant(s) and represent the lowest safety specification at the same time. For this reason, the test variant of the model is derived from manufacturers' data that includes model range availability and safety equipment fitted in the EAA. The choice of test variant is independent from the sponsorship model. This section covers vehicle test specification for base rating and optional dual rating.

ANCAP reserves the right of final choice of test variant for vehicles included in its test program.

*Note: Euro NCAP applies conditions for the assessment of model variants set out in the Application of Star Ratings protocol, whereby ratings can be extended to include additional variants within a model range, subject to the terms and conditions of the policy.*

### 4.1 Basic Level Safety

4.1.1 The base test variant will have Basic Level Safety Equipment. The Basic Level will comprise those items that are fitted as standard across the model range. Only safety equipment which is part of the Basic Level will be eligible for assessment and may contribute towards the scoring of the vehicle.

4.1.2 Notwithstanding paragraph 4.1.1, some protocols also consider equipment that does not qualify as Basic Level Safety Equipment. This might apply, for example, where optional equipment might compromise the ability of the vehicle to accommodate certain occupants in certain positions (e.g. optional front passenger airbag), or where optional equipment is relevant to a full assessment of the vehicle (e.g. optional third row seats). Details are given in individual protocols.

4.1.3 The Basic Level will be determined as follows. The manufacturer will be asked to complete an Equipment Matrix template, which will be supplied by Euro NCAP. In the matrix, the manufacturer must identify all items of safety equipment available in the model range and state whether they are standard on all variants or optional on some.

*Note 1: in identifying the Basic Level equipment, Euro NCAP may exempt certain low volume variants where the fitting of such safety equipment cannot be expected. For example, this might include low sales volume variants specially produced for motor sport or other special purposes.*

*Note 2: Delete options are not allowed. An item of safety equipment offered with a delete option anywhere in the EAA will be considered not to be standard equipment.*

- 4.1.3.1. For new models, the data in the completed Equipment Matrix must be based on sales forecasts over the period of 1 year from the date of the publication of the rating result. Euro NCAP will ask the manufacturer to confirm the projected fitment figures one year after publication and each subsequent year as long as the rating is valid (Annual review, see Application of Star Ratings protocol).
- 4.1.3.2. For models already on sale for one year or more, the data in the completed Equipment Matrix must be based on actual sales figures over the previous year. Euro NCAP will ask the manufacturer to confirm the fitment figures one year after publication and each subsequent year if the rating is valid (Annual review, see Application of Star Ratings protocol).

## **4.2 Test Variant**

4.2.1 Regarding all non-safety related features and equipment of the vehicle, the test variant will be based on the best-selling variant in the EAA. However, if the exact specification of the best-selling variant is not readily available or cannot be acquired, Euro NCAP may test a variant with non-safety equipment other than the best-seller. In all cases, the safety equipment will be based on the base safety level and the engine transmission and powertrain will be based on the best-seller.

4.2.2 The best-selling variant will be identified from the information supplied by the manufacturer or sales data. Where Euro NCAP chooses to test a particular, less common, variant such as “open-top” or “estate vehicle,” the choice will be restricted to the best-selling variant of that type. Manufacturers can also sponsor such tests, provided that the vehicle model has already been rated without this constraint.

*Note: Where OEMs can demonstrate that a rating for a model can be extended to such less common variants in accordance with the Application of Star Ratings protocol, official tests may not be required.*

4.2.3 Where the best-selling variant is fitted with safety equipment above the Basic Level, the choice of variant will be adjusted to obtain a Basic Level safety specification variant. The aim will be to minimise the extent of the other changes to the vehicle’s specification. This adjustment may be done with reference to limits and criteria set out within the Application of Star Rating protocol.

4.2.4 Where a vehicle, or the required variant, is to be available only in one hand of drive, that hand of drive will be tested. Where a manufacturer sponsors a vehicle model for publication at the time of its launch, and where only one hand of drive is available on that date, that hand of drive will be tested. In all other circumstances, Euro NCAP will be responsible for randomly choosing the drive layout for all vehicle models to be tested.

*Note 1: Euro NCAP will report the proportion of vehicles tested in LHD and RHD to the Board of Directors. Overall, the aim will be to ensure that 20 percent of vehicle models tested will be in RHD configuration.*

*Note 2: the manufacturer is asked to supply information about the performance of the opposite hand of drive. Where necessary, the manufacturer will be asked to provide evidence that the necessary adjustments have not significantly affected the passenger compartment's intrusion or deceleration pulse.*

4.2.5 Whiplash seats will be tested separately from the vehicle. The manufacturer will be required to supply Euro NCAP with details about the full range of seats available for that model of vehicle and of any differences between the driver and front passenger's seats in the Basic Level vehicle that might influence Whiplash protection. Euro NCAP will choose whether to test the driver's or front passenger's seat. Where no significant differences exist, this will be on a random basis. Where there are differences, the seat considered least likely to offer good protection will be chosen. Manufacturers are allowed to sponsor the testing of other versions of their seats and the whiplash ratings of those seats will also be published.




4.2.6 If the vehicle manufacturer does not submit the Equipment Matrix, Euro NCAP will test the vehicles with the lowest specification that can be readily obtained in the EEA.



### 4.3 Optional Safety Equipment

If a vehicle has achieved a base rating of three stars or greater, it becomes eligible for an optional star rating showing the benefit of optional safety equipment. Regardless of the sponsor of the base safety rating, all activities required to establish the optional star rating will be paid for by the manufacturer. A request for a dual star rating can only be made by the manufacturer and must be made before test vehicle selection.

#### 4.3.1 Safety Equipment

4.3.1.1. The assessment for the optional star rating may include those items of safety equipment for which Euro NCAP gives credit in the year of assessment (see table below) but which are not eligible for inclusion in the base rating because they are not fitted as standard to the model range.

		2018	2019	2020	2021	2022	2023	2024
	AEB City							
	Rescue (Advanced e-Call)							
	AEB Pedestrian							
	AEB Pedestrian (CPTA, CPRA, ESS/AES)							
	AEB Cyclist (all scenarios, ESS/AES)							
	AEB/LSS PTW							
	AEB Inter-Urban							
	AEB C2C (CCRs, CCFtap, Crossing, ESS/AES)							
	LSS (ELK)							
	SAS (ISA)							
	OSM (Direct Driver Monitoring)							

	Roadmap 2015-2020
	Roadmap 2020-2025

4.3.1.2. No passive safety technologies (airbags, inflatable seatbelts, etc.) are eligible for assessment as optional equipment (i.e. for inclusion in Table 1 below).

4.3.1.3. Euro NCAP may over time add or update items on the list of eligible technologies and establish for each item on a case per case basis the duration for which inclusion in the optional pack will be allowed.

#### 4.3.2 Safety Pack

4.3.2.1. The additional items of safety equipment must be combined in a ‘safety pack’. The ‘safety pack’ must:

- Include all the technologies needed to achieve the targeted optional rating. The minimum number of safety technologies included in a pack is one.
- Be available, at least as an option, on all variants in the model range, independent of engine, transmission, body style or trim-level (grade) and separately from any other option offered by the manufacturer, for:
  - all countries of the Euro NCAP Area of Application.
- Not change in (rating relevant) content during the lifetime of the Euro NCAP star rating, other than when relevant technologies are made standard on all variants, or when equivalent performance can be achieved by a different technology (for example, a camera-based AEB system may be replaced by a radar + camera based system if its performance can be shown to be at least as good)

4.3.2.2. The safety pack may:

- Include only those items of safety equipment which are needed for the manufacturer to achieve the targeted optional rating.
- Include other items of equipment, not relevant to Euro NCAP’s rating, which the manufacturer sees fit to include in the safety pack for marketing or other purposes.
- Not be the only way in which the manufacturer sells safety technology relevant to the optional rating. The manufacturer may sell safety technologies individually or in other option packs. However, Euro NCAP will consider fitment rates of the safety pack only i.e. the fitment rates referred to in 4.3.3 refer to sales of the safety pack and not to individual safety items or technologies.
- Contain a sub-set of the technologies needed for the optional star rating, depending on country or region. For example, where all relevant technologies are fitted as standard to all variants there is no need for a safety pack; where one or more technology is standard on all variants, the safety pack may contain only those other technologies needed to achieve the optional rating.

### 4.3.3 Installation Rates

- 4.3.3.1. For a vehicle to be eligible for an optional rating, the manufacturer must confirm that they expect that 25 percent (average percentage) of the cars sold in the first three years following publication of the optional rating will be equipped with the safety pack, either as standard equipment or as an option. In the second three years, the manufacturer confirms a fitment of 55 percent average. The rating expires after six years, as today.
- 4.3.3.2. Two years after the publication of the optional rating, the manufacturer must contact the Euro NCAP Programme Manager with sales data demonstrating that 25 percent of cars sold in the previous two years were equipped with the safety pack, either as standard equipment or as an option. Where the content of the safety pack differs between regions or countries, a check will be made that 25 percent of cars sold were simultaneously equipped, as standard or as an option, with all the technologies relevant to the optional star rating.
- 4.3.3.3. Five years after the publication of the optional rating, the manufacturer must contact the Euro NCAP Programme Manager with sales data demonstrating that 55 percent of cars sold in the previous two years were equipped with the safety pack, either as standard equipment or as an option. Where the content of the safety pack differs between regions or countries, a check will be made that 55 percent of cars sold were simultaneously equipped, as standard or as an option, with all the technologies relevant to the optional star rating.
- 4.3.3.4. Failure to contact Euro NCAP with the data required, or failure to meet the fitment rates identified in 4.3.3.2 and 4.3.3.3, will result in the following actions:
  - A comment will immediately be added to the vehicle's web page on Euro NCAP's website to say that the manufacturer is not currently meeting its commitment to promote and sell the safety pack.
  - A period of one year will be given to the manufacturer to meet the fitment rates
- 4.3.3.5. If the two-year target is missed then three years after the release of the optional star rating 25 percent of cars sold over the first three years must have been equipped with the safety pack, either as standard equipment or as an option.
- 4.3.3.6. If the five-year target is missed then six years after the release of the optional star rating 55 percent of cars sold over the second three years must have been equipped with the safety pack, either as standard equipment or as an option.
- 4.3.3.7. Failure to meet the fitment rates identified in 4.3.3.5 or 4.3.3.6 will result in the optional star rating being removed from Euro NCAP's website and the manufacturer being precluded from making any further use of the optional rating for that specific model. Euro NCAP may exclude the manufacturer from making use of the dual rating for future assessments.

#### 4.3.4 Test Variant

4.3.4.1. The variant tested for the optional rating shall be the same as identified for the base rating (section 4). This includes engine, transmission, body style and hand of drive.

### 4.4 Heavy Vehicles

4.4.1 A vehicle type may be defined as a ‘Heavy Vehicle’ if there exists within the model range at least one variant meeting all of the following criteria:

- M1 category.
- Maximum Mass (Gross Vehicle Weight) > 2500kg and <3500kg.
- 8 or 9 seats, including the driver’s seat.
- Derived from commercial vehicle.

Euro NCAP does not intend to assess vehicles intended primarily for commercial use or those where the majority of variants have a gross vehicle weight greater than 3500kg, even if the criteria set out above are met. In such cases, the manufacturer should discuss with the programme manager whether the application of this protocol is appropriate.

4.4.2 For vehicles which fall into this category, the following table details how ‘Base Safety Equipment’ is defined:

Item of Safety Equipment	Criteria in order to be included in Base Safety Rating
Frontal airbags	Standard on M1 (up to 3500kg) and at least optional on N1 excluding chassis cab variants of both categories
Seatbelt Reminder (rear SBR not applicable to N1)	
All other safety equipment	Standard on M1 only (up to 3500kg)

4.4.3 For ‘Heavy Vehicles’, the test variant is identified as follows. The manufacturer shall identify the M1 variant (excluding chassis cabs) which sells better than any other single M1 variant (excluding chassis cabs). The test vehicle shall be the variant which is nearest to the best seller having the following characteristics:

- Is equipped only with the base safety equipment identified in 3.1.1.
- Has two distinct front seats (no bench seats).
- Has eight or nine seats.

## 5 VEHICLE SELECTION AND STATUS OF TEST VEHICLE

To ensure that the rating remains credible at all times, it is essential that all vehicles selected for testing are exactly the same as those vehicles offered for sale to consumers. Ideally this means that test vehicles are taken from the production line. Many times, however, this is conflicting with the manufactures' time line where ratings must be available at model release date and small adjustments to production are made during ramp up of production. The following provides guidance on these matters.

### 5.1 Status of Test Vehicle

5.1.1 The vehicles tested must be of the same production status as for those offered for sale to consumers at or before the time of publication of the new result.

5.1.2 The method of procuring test vehicles of the correct specification will be chosen by Euro NCAP. The vehicles selected for testing must be:

- Fully type-approved (i.e. a certificate of conformity/Identification Plate Approval (IPA) should be available for the vehicles, if requested)
- From serial production.
- Capable of being legally sold, new or in the aftermarket, to the general public without modification
- Selected at random.

*Note: New models are generally produced in small numbers during the early stages of production ("ramp-up"), leading to full-volume production within a few months. Vehicles from such early production phases are acceptable, so long as they comply with the requirements set out above.*

5.1.3 At least three seats are required for Whiplash testing, which may be procured separately from the vehicle. Where unrealistically high charges or long lead times for the selected test seats are quoted by the manufacturer, Euro NCAP is given discretion to refrain from testing seats. In such cases, the Whiplash score will be set to zero.

5.1.4 The manufacturer may advise Euro NCAP that a vehicle scheduled for testing will have certain safety components changed prior to the expected publication date. Where this happens, the updated components may be retrofitted to the test vehicles, provided the following requirements are met:

- The components are installed to the same standard as used in production.
- The components are manufactured using production procedures. Prototype components are not allowed.
- Where the component has to be certified by an approval authority, such certification has been carried out.
- Once a vehicle has been tested, assessment and testing of modified components are subject to the requirements of section 6.2.

## **5.2 Fitment of Non-Standard Components**

- 5.2.1 The fitment of prototype components, or any parts not fitted to mainstream production vehicles, is not allowed, whether safety related or not. Where non-standard or prototype components are thought to have been fitted to any of the vehicles tested (e.g. ‘sample’ or ‘prototype’ labels are found during inspection), the following will apply:
- 5.2.1.1. Selection using the 20 VIN method will not be allowed for the next two vehicle models of the manufacturer concerned. Selection by other methods will be required (select from dealer stock, plant visit etc.) and will be done no sooner than 1 month after customers first take delivery of cars.
  - 5.2.1.2. Euro NCAP may carry out an audit of the production plant to understand the cause of the anomalous parts or labels.
  - 5.2.1.3. The manufacturer may be required to sponsor one or more audit tests. These will be repeats of at least one of the main impact tests using vehicles known to have come from mainstream production. The results of the tests will be compared with the original results. Guidance regarding audit testing and the use that is made of the results are given in section 5.2.2.
  - 5.2.1.4. The star rating will not be published until the results of the audit test are known. If this delays publication of the rating to the following calendar year, the manufacturer will be required to sponsor any additional or repeat testing that may be needed to generate a valid rating for that following year.
  - 5.2.1.5. Where the manufacturer does not agree to sponsor testing of the standard specification vehicle, its testing may be sponsored by Euro NCAP and the presence of prototype components will be published.
- 5.2.2 It is not possible to foresee every circumstance in which Euro NCAP may need to repeat tests in order to confirm results and vehicle ratings. The following is intended as a guide to when audit tests are likely to be required and the use that will be made of the results of those tests.
- 5.2.3 The need for an audit test depends on the method by which the original test vehicles were obtained. Where cars were originally selected from a list of VINs supplied by the manufacturer or selected in person from a limited number of pre-prepared cars, the need for an audit test will be considered high in any of the circumstances outlined in 5.2.1. Where cars were bought anonymously from dealers, the need for an audit test will be considered low. In other cases, consideration will be given to the methods used and the possibility of interference by the OEM with the test vehicles.



- 5.2.4 Audit tests may be required even if the labels found are not on safety-specific components. The presence of labels stating, for example, ‘prototype’ or ‘sample’ throws into question the production status of the vehicles, regardless of the specific components on which they are found.

Where labels have been found on a safety-related component, an audit test may be required for the crash configuration to which that component relates (e.g. frontal impact tests where a label has been found on the driver’s frontal airbag). However, it may also be necessary to perform audit tests in other configurations not directly related to the safety function of the labelled component if, for example, there is reason to question the broader production status of the original test vehicles.

- 5.2.5 Cars for audit testing will be obtained either

- From a dealer
- From pre-built stock vehicles (e.g. at a distribution centre)
- From a production line

All cars must be transported immediately to the test laboratory

- 5.2.6 Where possible, the test laboratory for the audit test shall be the same one used for the original tests.

- 5.2.7 Where an audit test has been performed, the results will be compared with those of the original tests. The following will apply:

- The original test results will be used if the audit test shows:
  - Scores for all adult body-regions and relevant child dynamic scores no poorer than 0.85 x original test result and
  - No differences in structural behaviour or safety equipment performance (such as door opening, incorrect airbag deployment etc.) from the original test.
- It will be concluded that a non-production component was used in the original test and the results of the audit test will be published where the audit test shows:
  - A score for an adult body-region relevant to the suspect component (or the relevant child dynamic score) less than 0.85 x original test result and all other values are within 15% of the original or
  - Differences in relevant structural behaviour or relevant safety equipment performance (such as door opening, incorrect airbag deployment etc.) from the original test.
- Where the score for an adult body-region relevant to the function of the suspect component (or the relevant child dynamic score) is within 85% of the original test result but an unrelated body region differs by more than 15%, or where a safety issue has been found which is or is not related to the original reason for the audit test, the requirements governing re-testing will be applied (section 6.2). Where a manufacturer does not comply with these rules, the result of the audit test will be published. Where a manufacturer chooses to improve the performance of the vehicle, publication of a result will be postponed until the modified vehicle can be tested and a valid rating established.

*Note: The fitment of non-standard components is not the only reason for which audit tests may be conducted. Audit tests may be conducted on any make / model at any point in the life of a vehicle or its existing rating, as determined by Euro NCAP.*

## **6 TESTING, RETESTING AND REASSESSMENT**

### **6.1 Testing**

- 6.1.1 Euro NCAP will be ultimately responsible for choosing the test laboratory for all vehicles. A vehicle will be tested at the laboratory chosen by the sponsor unless there are compelling reasons to do otherwise. Such reasons could include cost or operational factors influencing the timing of publication or over-use of a single laboratory by the same manufacturer.
- 6.1.2 All tests will be carried out according to the latest protocols published on Euro NCAP's website. The laboratory is responsible for accurate application of the protocols and keeping test equipment up to date.
- 6.1.3 Before each test, the laboratory must check that vehicles and other components scheduled for testing meet the vehicle test specification (see 4.2). Testing of vehicles that do not meet the test specification may invalidate the result and lead to retesting at the expense of the laboratory.

### **6.2 Retesting**

- 6.2.1 In some cases, a retest may be requested by Euro NCAP, the laboratory or manufacturer. A re-test may be allowed under the following circumstances:
- 6.2.1.1. Where a test does not meet Euro NCAP Test Protocol requirements it will be repeated unless the failure does not materially affect the rating of the vehicle.
- Where the failure is the responsibility of the test laboratory, they shall be responsible for carrying out the retest without charge.
  - The responsibility for funding the replacement vehicle and components is that of the test's sponsor.
- 6.2.1.2. Modification and re-testing is allowed if an Unexpected or Undesired Vehicle Performance problem is identified at a Euro NCAP test carried out not later than four months from the time when public customers first take delivery of their vehicles. In such cases, the following conditions must be met for a re-test to be allowed:
- The manufacturer has identified deficiencies and can satisfy Euro NCAP and inspectors that the proposed modifications will significantly improve safety.
  - The improvement will be incorporated in all production vehicles by the time Euro NCAP publishes its assessment of the vehicle.
  - By an official recall or by equivalent market action acceptable to Euro NCAP, the manufacturer makes provision to update all vehicles already in use in the EEA. This includes vehicles which have not been offered for sale to the public but have been provided on loan to the press, management etc. The recall must be specific to the identified problem and must be initiated by the time the assessment is published.
  - The results of the retested vehicles are available prior to the vehicle being first offered for sale in the EEA.
  - Publication of the vehicle's assessment is not delayed by more than 3 months.

- The manufacturer funds all work related to the retest.

*Note: Where there is a failure, or partial failure, of safety related equipment, Euro NCAP may withhold publication of the test results, pending investigation of the failure.*

### **6.3 Reassessment**

6.3.1 A vehicle model which has previously been rated may be reassessed under one or other of the following circumstances:

6.3.1.1. A manufacturer wishes to have the vehicle reassessed to reflect changes which have been made to the performance of the vehicle. Reassessment in such circumstances is allowed if:

- The result of the vehicle has not been re-calculated in the same calendar year;
- The manufacturer can demonstrate that there has been a significant improvement to safety, either through better performance (e.g. improved knee protection or airbag response) or to fitment (e.g. standardisation of ESC)

6.3.1.2. A vehicle's original rating is no longer considered valid as a result of an annual or facelift review (see Application of Star Ratings protocol) or because the original rating is more than six years old. In such cases, the vehicle becomes eligible for reassessment by Euro NCAP member, the vehicle manufacturer or third party.

*Note: A vehicle model is not eligible for reassessment if, at all annual and facelift reviews, its original rating is considered valid for the current vehicle.*

## **7 PUBLICATION OF RESULTS**

### **7.1 General Guidelines**

- 7.1.1 Under normal circumstances, once the vehicle has been tested and the data are available and verified, the results will be published by Euro NCAP. Manufacturers will not be able to propose further modifications leading to a retest and may not make use of the star rating, or make reference to it, until the result has been published by Euro NCAP.
- 7.1.2 The rating with the details of the test vehicle specification will be published as part of the normal release schedule on the date agreed with the sponsor. Euro NCAP will publish the base star rating (and optional rating if available) and additional information (percentage scores, coloured men etc.) on its website.
- 7.1.3 An optional rating must be published at the same time as the base rating, using the protocols relevant to the assessments in the year of publication (i.e. both ratings must carry the ‘date-stamp’ of the year when the rating was done). This means that an optional rating cannot be requested after the publication of a base rating has occurred.
- 7.1.4 Euro NCAP will inform the vehicle manufacturer in advance of the target date for publication of the result on the website. In general, this target date will be no later than two months from the date of arrival of test vehicles at the laboratory. This target date is generally no later than two months from the date of completion of testing and assessment.
- 7.1.5 Where a vehicle has been retested, the following applies:
  - 7.1.5.1. The rating will, if possible, be published as originally intended. If the original release date cannot be met, the result will be published as soon as possible after the originally-intended launch date (but no more delayed than 3 months).
  - 7.1.5.2. If all the above conditions are met and Euro NCAP is satisfied that no member of the public will receive a vehicle of the specification originally tested, Euro NCAP will not publish information about the problem identified or the manufacturer’s actions. Where specific market action has been required by the manufacturer a part of the retest, Euro NCAP reserves the right to bring this to the attention of the consumer at the time of the publication of the result.
- 7.1.6 Where a vehicle has been re-assessed, the following applies:
  - 7.1.6.1. The rating will be published as part of the normal release schedule.
  - 7.1.6.2. The result of a reassessment will be published alongside the original rating, with a VIN build date identifying the first vehicle produced to which the new assessment applies. The original rating will identify, by means of a VINbuild date, the final vehicle to which it applied.

7.1.7 Where an audit test is required, the following applies:

7.1.7.1. A vehicle's rating will not be published until the results of the audit test (including inspection) are known and demonstrate good correlation with the original test results.

7.1.7.2. The rating will be based on the original test data and published as part of the normal release schedule if the results of the audit test demonstrate that the performance difference is acceptable.

7.1.7.3. If the differences between the results of the audit test differ unacceptably from the original results, Euro NCAP may require that all relevant tests are repeated on vehicles whose production status is certain, and publication of the rating will be delayed.

7.1.7.4. Euro NCAP reserves the right to publish information about the presence of non-standard or prototype components.

## **7.2 Recalculation**

7.2.1 Euro NCAP gives manufacturers the exclusive right to update a vehicle's rating to a later assessment regime (year) than was originally applied, based on the original test data.

7.2.2 The following conditions apply for recalculation:

7.2.2.1. Euro NCAP's assessment scheme has changed with respect to the original rules under which the car was rated.

7.2.2.2. The safety performance of the vehicle to which the new rating applies has not changed compared to the original tested model.

7.2.2.3. The original test data are not older than 3 years.

7.2.2.4. The vehicle to which the new rating applies will be on sale for at least two more years.

7.2.3 The requirements (threshold, balance values etc.) applicable to the year of recalculation will be used to recalculate the result.

7.2.4 By requesting a recalculation, the manufacturer agrees to sponsor the required tests.

7.2.5 Re-calculation of a vehicle result will preclude a reassessment in the same year. If the vehicle has an optional rating, both base and optional rating must be recalculated. The original safety Pack fitment requirements will continue to apply.

7.2.6 The deadline for request to recalculate a vehicle rating shall be December 1 of the preceding year, allowing time for Euro NCAP to schedule additional tests, if required.

7.2.7 The results of recalculations will be released at the first opportunity in the year.

## **7.3 Republication of Existing Ratings**

7.3.1 Launch dates may vary by region and as a result it is possible for vehicle models to be tested in one region (e.g. the EAA) before those models are offered as new in another (eg. Australasia). In these cases, Euro NCAP may republish an existing Euro NCAP rating, provided that each of the following conditions are met:

a. The following tests must be repeated by Euro NCAP:

- Frontal ODB
- Side AE-MDB
- CRS installation (using Euro NCAP's CRS list)

The manufacturer demonstrates that the existing ANCAP tests are also applicable to model variants in the EAA in accordance with the Application of Star Ratings protocol.

b. The rating in Australasia is issued within 12 months of local market introduction<sup>1</sup> in Australasia.

c. The rating is re-published in the EAA at the time of local market introduction.

d. The rating is published in the EAA no more than one calendar year after the original ANCAP rating was published.

Where Euro NCAP and ANCAP publish the rating in the same calendar year, conditions 7.3.1b) and 7.3.1c) may not apply.

7.3.2 Where a vehicle model meets the conditions of 7.3.1, the manufacturer may request Recalculation in accordance Section 7.2. Sections 7.2.6 and 7.2.7 will not be applied in these cases.

7.3.3 Where the Base Level safety differs between markets, Euro NCAP may reassess the vehicle model based on the criteria of the Assessment Year (Section 2.) applicable to the original rating.

7.3.4 Where the conditions of Section 7.3.1 are not met, the vehicle becomes eligible for assessment against the latest requirements.

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<sup>1</sup> 'Local market introduction' means the date of first retail customer registration of the vehicle in the EAA/Australasian market.

**Example 1:**

*A model is introduced in the EAA in February 2018 and a rating published by Euro NCAP in September 2018 (within twelve months of introduction). That model is then introduced to Australasia during 2019. ANCAP may republish the 2018 Euro NCAP rating provided that:*

- b) The manufacturer demonstrates that the existing Euro NCAP star rating is applicable to Australasian variants.*
- c) The rating is published by ANCAP at local launch before 1 January 2020.*

**Example 2:**

*A model has a rating published by ANCAP in 2018 and that model is then introduced to the EAA during 2020. Euro NCAP will not republish the 2018 ANCAP rating. This model becomes eligible for assessment against the latest requirements.*



## Appendix – Definitions

Model Range	All the variants (i.e. all body styles, engine and equipment grades) available across Europe under a common model name or designation
Minimum Percentage	The lowest proportion of sales, expressed as a percentage, which an item of safety equipment must meet as standard equipment to be included as part of the Basic Level equipment.
Model release date	The date set by the manufacturer at which a new vehicle is first being offered to consumers in any part of Europe.
Reassessment	A new assessment by Euro NCAP of a vehicle which has previously been rated but has undergone a significant safety update. The re-assessed rating is based on all requirements (Minimum Percentage for Basic Level equipment, threshold, balance values etc.) applicable at the time of reassessment. Depending on the changes made to the vehicle, it may not be necessary to repeat all aspects of the assessment. The results of a re-assessment are published alongside the original rating.
Recalculation	The updating of a vehicle's rating to a later assessment regime than was originally applied where the vehicle's safety performance has not changed. The recalculated rating is based on all requirements (Minimum Percentage for Basic Level equipment, threshold, balance values etc.) applicable at the time of recalculation. Additional tests may or may not be necessary, but the exercise utilizes results already obtained and applies the updated requirements to them.
Retest	A repeat of one or more parts of a vehicle's assessment which replaces the original result. The original invalid result is not published by Euro NCAP.
Safety Equipment	That equipment which is overtly aimed at improving safety. It includes but is not necessarily limited to: Restraint systems, including head restraints, child restraints and anchorages; Knee and leg protection; Breakaway pedal arrangements; Pedestrian friendly devices (unless they are only required for particular engine compartment packages); Seat belt reminder systems, Safety marking/labels and switches. <i>Note: It does not include: Engine/transmission volume; Road wheel/tyre size, Sun roof, etc.</i>
Variant	A unique combination of body style, engine and equipment grade or specification.