



AUTOMOTIVE
SUMMIT 2015

ASEAN...the emerging
Automotive Hub of the World

24th - 25th June 2015

Bitec Bangna, Bangkok

“European Homologation Process”

AUTOMOTIVE 
SUMMIT 2015

By: Manfred Lottig
TÜV Rheinland Malaysia Sdn. Bhd.

Content:

- Brief Introduction of  TÜVRheinland®
- Basics about Europe / European Union
- Historical Development
- Homologation Process

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24-25 JUNE 2015
BITEC, Bangkok



Our Facts and Figures



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Our Automotive related services



- **Homologation of Motor Vehicles / Components:**
 - Type approval tests according to EC-directives/ regulations and ECE-regulations, resulting in official EC- or ECE-approvals, e.g. Complete vehicles, vehicle systems, lighting, glass, tire, mirror, etc
- **Engineering Testing of Motor Vehicle Components:**
 - Physical & mechanical test for Interior & Exterior material or components according to OEM's and international standards.
 - Chemical test for material/components according to OEM's standards, international standards, regulations & directives
- **Workshop Services:**
 - Audits of workshops according to client's standards
 - Workshop Evaluation with prepared vehicles
- **Periodical Technical Inspections (PTI)**

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The European Union at a glance:



Member States

- [Belgium](#)
- [Denmark](#)
- [Germany](#)
- [Greece](#)
- [Spain](#)
- [France](#)
- [Ireland](#)
- [Italy](#)
- [Luxembourg](#)
- [the Netherlands](#)
- [Austria](#)
- [Portugal](#)
- [Finland](#)
- [Sweden](#)
- [United Kingdom](#)
- [Bulgaria](#)
- [Czech Republic](#)
- [Estonia](#)
- [Cyprus](#)
- [Latvia](#)
- [Lithuania](#)
- [Hungary](#)
- [Malta](#)
- [Poland](#)
- [Romania](#)
- [Slovenia](#)
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The European Union at a glance:

The European Union (EU) was set up after the 2nd World War. The process of European integration was launched on 9 May 1950 when France officially proposed to create 'the first concrete foundation of a European federation'. Six countries (Belgium, Germany, France, Italy, Luxembourg and the Netherlands) joined from the very beginning. Today, after six waves of accessions (1973: Denmark, Ireland and the United Kingdom; 1981: Greece; 1986: Spain and Portugal; 1995: Austria, Finland and Sweden; 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia; 2007: Romania and Bulgaria) the EU has 28 Member States.

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The European Union at a glance:

The European Union is based on the rule of law and democracy. It is neither a new State replacing existing ones nor is it comparable to other international organisations. Its Member States delegate sovereignty to common institutions representing the interests of the Union as a whole on questions of joint interest. All decisions and procedures are derived from the basic treaties ratified by the Member States.

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The European Union at a glance:

The EU is run by five institutions, each playing a specific role:

- *European Parliament* (elected by the peoples of the Member States);
- *Council of the Union* (composed of the governments of the Member States);
- *European Commission* (driving force and executive body);
- *Court of Justice* (compliance with the law);
- *Court of Auditors* (sound and lawful management of the EU budget).

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The European Union at a glance:

Five further bodies are part of the institutional system:

- *European Economic and Social Committee* (expresses the opinions of organized civil society on economic and social issues);
- *Committee of the Regions* (expresses the opinions of regional and local authorities on regional policy, environment, and education);
- *European Ombudsman* (deals with complaints from citizens concerning mal-administration by an EU institution or body);
- *European Investment Bank* (contributes to EU objectives by financing public and private long-term investments);
- *European Central Bank* (responsible for monetary policy and foreign exchange operations).

A number of agencies and bodies complete the system.

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Homologation

is a technical term, derived from the Greek homologos (ομόλογος) for "agree", which is generally used in English to signify the granting of approval by an official authority.

Type-Approvals for vehicles and vehicle components which are made in series production are granted on the basis of applications submitted by manufacturers, test reports by accredited Technical Services, examination of administrative regulations and the authority's initial assessment of the manufacturer.

Within the type-approval certificate the accuracy of the manufacturer's description in the attached information document and the applicability of the attached test results are certified by the authority.

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General

Vehicles and vehicle parts have to comply with standards required by national and international laws and regulations. A type approval certificate is issued as proof of such compliance.

Type approval certificates are issued by official approval authorities (AA) (e.g. for Germany: KBA; for the Netherlands: RDW, for Luxembourg: SNCH; each one appointed by the Ministry of Transport of the respective country);

- to a manufacturer of vehicles and/or vehicle parts;
- for a certain type of vehicle or vehicle part.

For the sales of motor vehicles and their components in Europe, approvals according to the standards of the destination countries are essential.

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The type approval in the EU is regulated with the Framework Directives

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EC framework Directives (WVTA Directive) in force formerly:

70/156/EEC



Motor vehicles and their trailers
(Compulsory for M1-vehicles (passenger cars))

2003/37/EC



Agricultural and forestry vehicles
(Compulsory for tractors up to 40 km/h)

92/61/EEC



2- or 3-wheeled motor vehicles
(Compulsory for all kinds of motorcycles,
„Quads“ and similar vehicles)

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EC framework Directives (WVTA Directive) in force today:

2007/46/EC



Motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles

2003/37/EC



**Agricultural and forestry vehicles
(Compulsory for tractors up to 40 km/h)**

2002/24/EC



**2- or 3-wheeled motor vehicles
(Compulsory for all kinds of motorcycles,
„Quads“ and similar vehicles)**

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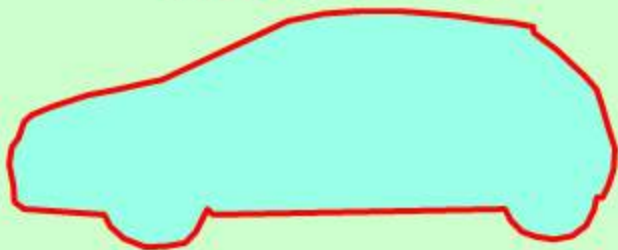


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European Union

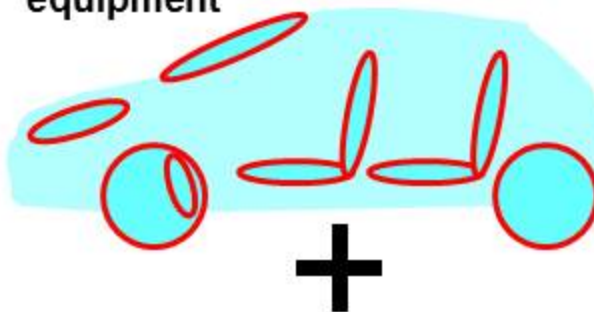
Mutual recognition of approval at the whole vehicle level



Vehicle type approval must not be granted in each Member State

UNECE Current System

Mutual recognition of approval of vehicle construction and equipment



Vehicle type approval required to be obtained from each country

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Sound Level

70/157/EEC

ECER51

Emissions

70/220/EEC & (EC) 715/2007

ECER83

Fuel Tank

70/221/EEC

ECER34

ECER67 (LPG)

ECER110 (CNG)

Rear Registration Plate

70/222/EEC

Steering Effort

70/311/EEC

ECER79

Doors Latches & Hinges

70/387/EEC

ECER11

Audible Warning

70/388/EEC

ECER28

Indirect Vision

2003/97/EC

ECER46

Braking

71/320/EEC

ECER13 / ECER13H

Electromagnetic Compatibility

72/245/EEC

ECER10

Diesel Smoke

72/306/EEC

ECER24

Interior Fittings

74/60/EEC

ECER21

Anti Theft

74/61/EEC

ECER18 & ECER97 & ECER116

Protective Steering

74/297/EEC

ECER12

Seat Strength & Head Restraints

74/408/EEC

ECER17

Exterior Projections

74/483/EEC

ECER26

Speedometer, Reverse Gear

75/443/EEC

ECER39

Plates

76/114/EEC

Seat Belt Anchorages

76/115/EEC

ECER14

Installation of Lighting

76/756/EEC

ECER48

Towing Hook

77/389/EEC

Seat Belts & Restraint Systems

77/541/EEC

ECER16 & ECER44

Forward Vision

77/649/EEC

ECE125

Identification of Controls

78/316/EEC

ECE121

Defrost, Demist

78/317/EEC

Wash, Wipe

78/318/EEC

Heating Systems

2001/56/EC

ECE122

Wheel Guards

78/549/EEC

Fuel Consumption

80/1268/EEC

ECER101

Engine Power

80/1269/EEC

ECER85

Masses and Dimensions

92/21/EEC

Safety Glass

92/22/EEC

ECER43

Tyres

92/23/EEC

ECER30 & ECER64

Couplings

94/20/EC

ECER55

Frontal Impact

96/79/EC

ECER94

Side Impact

96/27/EC

ECER95

Pedestrian Protection

78/2009/EC

Recyclability

2005/64/EC

Air Conditioning Systems

2006/40/EC

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The EC- Directives

EC Directives are required by the European Union (EU)

The European Council issues these directives and all member states must accept products approved in one of the member states according to European law

All EC Directives are published in the official languages of the European communities

Commission proposals are also published in the Official Journal (OJ) of the EC

This system allows interested parties to have an input into the process at varying levels

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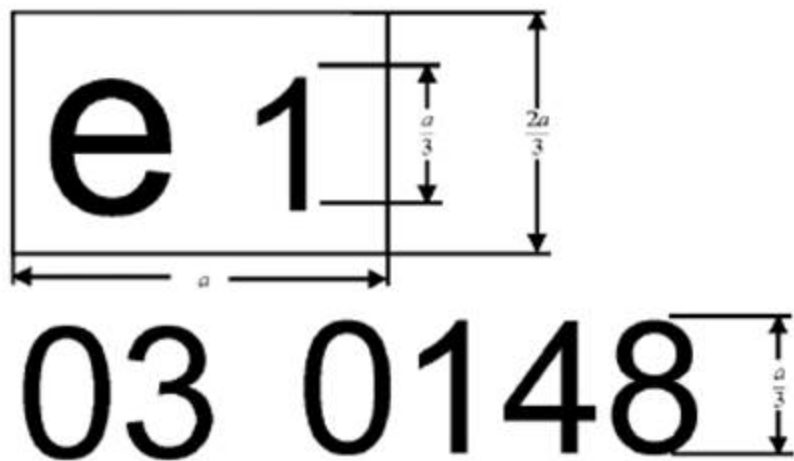
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EC Directives will apply for 'e' mark as per example below

Model for the EC type-approval mark



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The UNECE Regulations:

UNECE Regulations are issued by the Economic Commission for Europe under United Nations.

The Membership is regulated in the so called 1958 Agreement.

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UNECE Regulations will apply for 'E' mark as per example below



10 R - 02 2439 $\frac{a}{3}$

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UNECE Regulations will apply for 'E' mark as per example below



10 R - 02 2439 $\frac{a}{3}$

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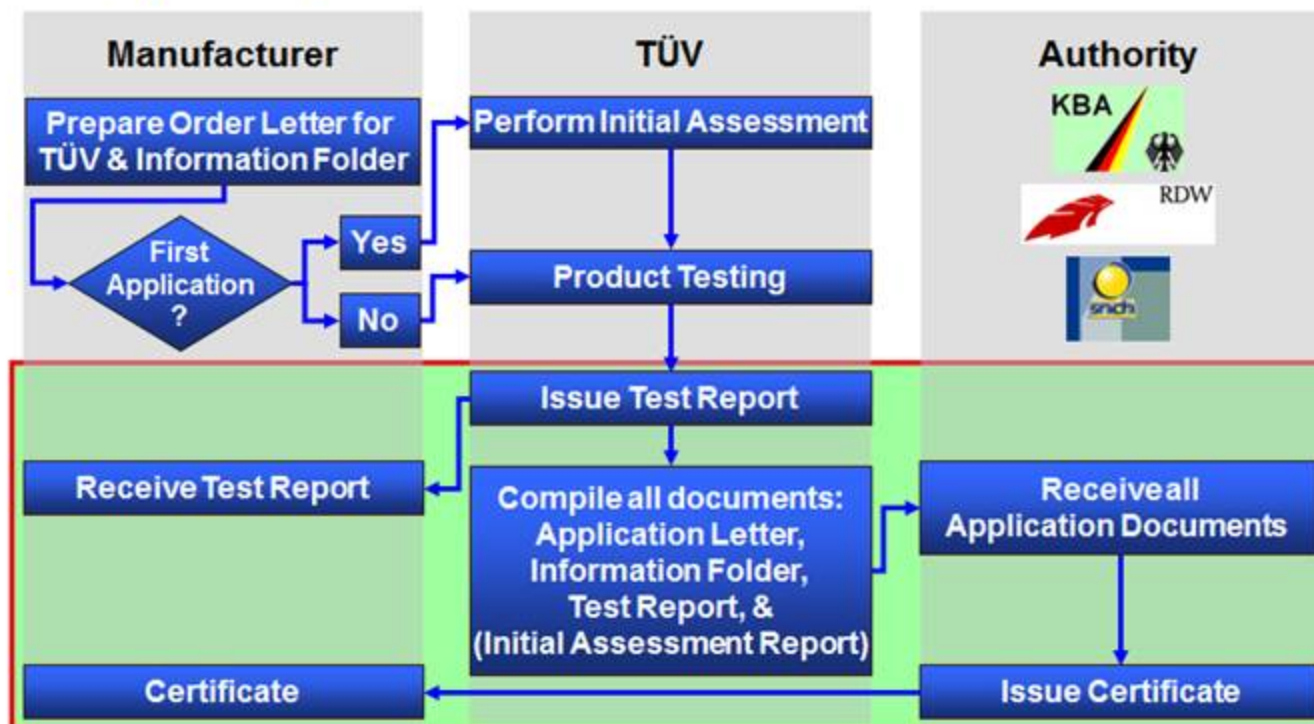
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EC- Approval System



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The approval process has two main aspects:

1. Examination of the product. > **Type Approval**
2. Examination of the manufacturer for compliance with statutory requirements > **Initial Assessment**



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Task in the type approval process

Member States (MS)

- notifies approval authorities
- notifies technical services

Approval authority (AA)

- is responsible for ALL aspects of type approval
- appoints technical services
- communicates with other approval authorities
- verifies conformity of production arrangements
- issues certificates
- gives reports to the Commission

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Task in the type approval process

Technical services (TS)

fulfill ISO 17025

carry out type approval tests and inspections

report to approval authority

Manufacturer (M)

is responsible to the approval authority for:

type approval process

ensuring conformity of production

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