BACKGROUND

1958 Agreement - Geneva
- Adopt uniform technical prescriptions for wheeled vehicles, equipment, and conditions for reciprocal recognition of approval granted on the basis of these prescriptions.

1998 Global Agreement - Geneva
- Establish Global Technical Regulation for wheeled vehicles, equipment and parts which can be fitted or used on wheeled vehicles.
WP 29 - 133 (06-2004): GTR for Tyres relaunched

AC3 - Executive Committee considered and adopted the proposal to develop a GTR for Tyres

(with France as sponsoring Contracting Party)
Previous GTR not successful

Our analysis of the lack of success of the previous attempt at a GTR for tyres indicates that one of the main causes was:

A unique & rigid tyre global regulation is not an appropriate answer in respect to the full purpose of the 1998 Agreement.
Why propose a GTR?

ETRTO analysis of current market situation
Current problems for tyre industry

• In markets covered by Contracting Parties of 1958 Agreements:
  – new regulations induce review of actual legal marking and legal marking proliferation

• In the global market
  – test proliferation
  – legal marking proliferation (1958 Agreements regulations + others)
  – several factory code lists
ETRTO vision

In the global market it would be preferable to have

• A GTR with:
  – A unique test menu
  – A unique legal marking structure
  – A world wide factory code
ETRTO analysis

Situation in Global market:

- A more detailed worldwide analysis leads to approximately:
  - 27 different test methods
  - 6 different legal sidewall markings
  - 2 factory code lists

- Various administrative prescriptions (complicated, costly, time consuming)
- Small markets are usually the most demanding
# Proliferation of Tests & Legal Marking

<table>
<thead>
<tr>
<th>Tests (Pass. Car tyres)</th>
<th>ECE 1958</th>
<th>UE D.92/23</th>
<th>DOT 109/139</th>
<th>ADR</th>
<th>SASO</th>
<th>CCC</th>
<th>NIS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Speed test</td>
<td>X1</td>
<td>X1</td>
<td>X2</td>
<td>X3</td>
<td>X4</td>
<td>X5</td>
<td>X6</td>
<td>6</td>
</tr>
<tr>
<td>Endurance</td>
<td></td>
<td>Y1</td>
<td>Y2</td>
<td>Y3</td>
<td>Y4</td>
<td>Y5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Breaking Energy</td>
<td></td>
<td></td>
<td>Z1</td>
<td>Z1</td>
<td>Z2</td>
<td>Z3</td>
<td>Z4</td>
<td>4</td>
</tr>
<tr>
<td>Low pressure Perf.</td>
<td></td>
<td>L1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Bead Unseating</td>
<td></td>
<td>U1</td>
<td>U2</td>
<td>U3</td>
<td>U4</td>
<td>U5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>5 different &quot;safety&quot; tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical dimensions</td>
<td>M1</td>
<td>M1</td>
<td>M2</td>
<td>M3</td>
<td>M4</td>
<td>M5</td>
<td>M6</td>
<td></td>
</tr>
</tbody>
</table>

- 21 different test methods for a worldwide approval for the same tyre design
- 6 different methods to measure the same tyre design

**Specific sidewall legal marking**
- Yes
- Yes
- Yes
- No
- Yes
- Yes
- Yes

**Large Cost Impact !!**
ETRTO proposals in the framework of 1998 Agreements
Proposal to build the test menu

- Invite WP 29 C.P. to submit the tests they want to include in the test menu
- C.P. will select the most appropriate tests
- Obtain approval from WP29 and AC3 for the GTR test menu for tyres
- Define the procedure for the possible evolutions in the framework of WP29

(C.P. : Contracting Parties)
Proposal to build the test menu

The test menu for GTR will include:

– all the type of tests already used in the main regulations

– for each type of performance, only one test will be selected

– the best regulatory practice to be defined as reference benchmark
**A unique test menu:**

*Countries select tests from a standardised list that corresponds to their needs*

<table>
<thead>
<tr>
<th>General framework</th>
<th>EU</th>
<th>CHINA</th>
<th>USA</th>
<th>X ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyre Geometry</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>R30 1958 Agreement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Speed</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endurance</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Breaking energy</td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling Resistance</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Etc…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet Grip</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling Sound</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc…</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other tests are possible in the Menu

ETRTO - 56th GRRF - GTR - Tyres
A unique legal marking structure

Within GTR 1998 Agreements, the legal marking structure will contain:

- a global logo
- an area for type approval basic registration number:

\[ \text{XX XXXXX} \] related to R30 or R54 approval.

- an area for all other performances assessed:

\[ \text{S = Noise Emissions; W = Wet Grip; R = Rolling Resistance; B = Braking Energy; U = Bead Unseating; N = Low speed endurance, etc.} \]

- a unique Tyre Identification Number (including factory code)
Example of legal tyre marking in GTR

1 - A Basic Reference

GTR World logo

W E2 XX XXXX
S W R U N

S : Noise
R : Rolling Resistance
N : Endurance
W : Wet Grip
U : Bead Unseating

1958 agreement
Additional GTR tests

2 – A Unique Tyre Identification Number (TIN, including factory code)

ETRTO - 56th GRRF - GTR - Tyres
Factory codes

Creation of a UN factory code list
- In WP 29 define the coding logic and structure
- Alternate solution to existing factory codes

Remarks:
A universal and unique factory code list will be needed. If not, the proliferation cannot be stopped.
CONCLUSION

• GTR for Tyres is still very attractive and feasible

• A huge reduction of costs and lead-time is possible especially by using a unique legal marking

• GTR will reduce lead-time for certification of the vehicle industry

• The tyre industry is ready to commit itself to:
  – Participate in a GTR ad hoc WG
  – Participate in setting up a database for complementary administrative work that would be necessary, for instance for factory codes, or other information to be shared
Thank you for your attention