Driving Harmonisation into the Future

UNECE 1958 Agreement | Update on Impact Assessment of the draft proposal for Revision 3 of the Agreement

Brussels, 19 May 2015

Intermediate Presentation to the European Commission
DRAFT IN PROGRESS
Warning

The present document has been drafted as a base for discussion with the European Commission, reflects our view of the main automotive industry trends and just highlights our preliminary understandings of the current situation and potential impacts of the Third Review of the UNECE 1958 Agreement on the competitive dynamics in the automotive arena.

In this respect, its content is strictly confidential and may be incomplete without oral presentation, implying significant risks of misinterpretation by any Non-Authorised Reader.

In any case, only our Final Report will include our findings and conclusions on the project.
Agenda

1. Project Background and Methodology

2. Key Findings :: Thought Pillars

3. Driving Harmonisation into the Future
Agenda

1. Project Background and Methodology
2. Key Findings :: Thought Pillars
3. Driving Harmonisation into the Future
About PwC

- A multi-disciplinary network active in 158 countries with around 200 thousands Professionals.

- A practice composed by c. 5 thousands Assurance, Advisory and Tax and Legal Professionals specialised in Automotive.

- A research team (PwC Autofacts) focused on the Automotive sector and providing industry players with analysis and forecast.

- A project team able to combine deep industry expertise and impact assessment methodology and relevant experience.
**Project Background**
Quality of air, road safety and free trade are long-lasting EU objectives

EU is committed to provide its citizens with quality of air and road safety, as well as to improve competitiveness of its industry players in the automotive competitive arena.

UNECE 1958 Agreement pursues technical harmonization as an enabling factor paving the way to the above.
**Project Methodology**

A Phased Approach to Get Expert Industry Insights and Stakeholders' Views

---

**Key for Engagement Tasks**
- Task 1: descriptive analysis of automotive sector
- Task 2: impact assessment of draft proposals for Rev 3
- Task 3: executive summary
- Task 4: presentation of results

---

**Timeline (2015)**

<table>
<thead>
<tr>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TO DO</strong></td>
<td><strong>TO GET</strong></td>
<td><strong>Scrubinise</strong></td>
<td><strong>Tuning</strong></td>
<td><strong>Assess</strong></td>
<td><strong>Tuning</strong></td>
<td><strong>Final Report (Draft)</strong></td>
</tr>
<tr>
<td>Mobilise</td>
<td>Signature of the contract – Kick off meeting</td>
<td>Intermediate Report (Draft)</td>
<td>WP.29 Meeting</td>
<td>Final Report (Draft)</td>
<td>Presentation of the results</td>
<td></td>
</tr>
<tr>
<td><strong>TO DO</strong></td>
<td><strong>TO GET</strong></td>
<td><strong>Scrubinise</strong></td>
<td><strong>Tuning</strong></td>
<td><strong>Assess</strong></td>
<td><strong>Tuning</strong></td>
<td><strong>Final Report (Draft)</strong></td>
</tr>
<tr>
<td>Mobilise</td>
<td>Signature of the contract – Kick off meeting</td>
<td>Intermediate Report (Draft)</td>
<td>WP.29 Meeting</td>
<td>Final Report (Draft)</td>
<td>Presentation of the results</td>
<td></td>
</tr>
</tbody>
</table>

**Scrubinise**
- Gather qualitative info
- Describe industry trends
- Assume Impact Assessment Key Performance Indicators

**Tuning**
- WP.29 consultation executed
- Task 1 previewed

**Assess**
- WP.29 presentation prepared
- WP.29 consultation executed
- Task 1 refined
- Task 2 and task 3 previewed

**Tuning**
- WP.29 presentation prepared
- WP.29 consultation executed
- Task 1 refined
- Task 2 and task 3 previewed

**Refinements directly proposed at Kick-Off Meeting (i.e. without preliminary analysis) to gather relevant inputs.**

Follow ups to be proactively managed during accelerated project execution.

---

19 May 2015

PwC
Project Methodology
Effort focused on quantitative analysis and extensive Stakeholder Consultations

- We leverage extensive industry-focused knowledge and expertise
- We take advantage from hands-on views on automotive CEOs on annual basis (PwC CEO Survey)
- We research Supplier Consolidation trends, as well as automotive R&D operations
- We reviewed UNECE 1958 Agreement background
- We analysed international trade flows in automotive vehicles and components
- We research, analyse and forecast automotive registrations and assembly
- c. 40 dedicated interviews to this project, involving:
  - (not just) European and Global Industry Associations, but also
  - Individual Industry Players (automakers, suppliers)
  - CPs' Authorities
  - Non-CPs' Authorities
  - UN present (and retired) Officials
Agenda

1. Project Background and Methodology

2. Key Findings :: Thought Pillars

3. Driving Harmonisation into the Future
**Key Findings (short term analysis: 2005-13)**
About EU's and other-CPs' performance in the automotive competitive arena

**Key evidences**
- **Global passenger car registrations**
  - Grew by a 4.2% CAGR:
    - Cumulated registrations in CPs posted a negative 2005-13 CAGR of 0.5%, opposite to non-CPs' ones up by 9%.
    - While registrations contracted by 3% in EU28+EFTA, in other CPs they were up 3%.
  - CPs' relevance on the volume of global passenger cars registrations declined from 56.3% in 2005 to 39% in 2013.

- **Global CV registrations**
  - Grew by a 1.1% CAGR:
    - Cumulated registrations in CPs posted a negative 2005-13 CAGR of 1.6%, opposite to non-CPs' ones up by 2.1%.
    - While registrations contracted by 4.5% in EU28+EFTA, in other CPs they were up 0.3%.
  - CPs' relevance on the volume of global commercial vehicles registrations declined from 28% in 2005 to 22.4% in 2013.

- **Global assembly volumes**
  - Grew by a 3.5% CAGR:
    - Cumulated assembly volumes were almost flat (contracting by 0.1%), while non-CPs ones were up by 7.1%.
    - While assembly volumes contracted by 1.5% in EU28+EFTA, in other CPs they were up by 1.2%.
  - CPs' relevance on global passenger cars and commercial vehicles assembly volumes declined from c.56.9% in 2005 to 43.1% in 2013.

---

Driving Harmonisation into the Future

PwC
**Key Findings (longer-term analysis: 1990-14)**

# of CPs grew over time, global assembly posted significant growth elsewhere

### Key evidences

- Global light vehicle assembly volumes grew by 2.6% CAGR, reaching some 85.2 million units in 2014 from 45.5 million in 1990:
  - CPs to UNECE 1958 Agreement ("CPs 2014" defines the Countries which are Parties to the Agreement in 2014) posted an assembly volume growth by just 0.6% CAGR to 36.2 million units in 2014 from 31.3 million in 1990.
  - Non-CPs in the same period posted a 5.3% CAGR, more than tripling their cumulated assembly volumes from 14.2 million units in 1990 to 48.9 million in 2014.
- CPs 2014 assembly volume represents 42.5% of global assembly in 2014, compared to 68.8% in 1990.

---

**Source:** PwC & Autofacts

CAGR stands for Compounded Annual Growth Rate
Key Findings (longer-term analysis: 1990-14)
Among non-CPs, best performers have been China, India, Brazil and Indonesia.

Key evidences
- Breaking down the Non-CPs 1990-2014 light vehicle assembly growth (5.3% CAGR, or 49 million units in 2014 from 14.2 million in 1990):
  - Light vehicle assembly volumes in NAFTA countries grew by 1.4% CAGR, cumulating c.17 million units in 2014 from 12.2 million in 1990.
  - Assembly volumes in other Non-CPs posted a 12.3% CAGR, achieving some 32 million units from 1.97 million in 1990. In particular:
    - China assembly volumes achieved in 2014 some 21.3 million units, posting a 1990-2014 CAGR of 24.9%.
    - India assembly volumes achieved in 2014 c. 3.3 million units, posting in its turn a 1990-2014 CAGR of 12%.
    - Brazil assembly volumes achieved in 2014 c. 3.1 million units, posting a 1990-2014 CAGR of 5.7%.
    - Indonesia assembly volumes achieved in 2014 c. 1.2 million units, posting a 1990-2014 CAGR of 8.5%.
**Key Findings (longer-term analysis: 1990-14)**

EU output lost relevance, European OEMs grew in EU and notably abroad

---

**EU+European OEMs’ LV assembly evolution**

1990 – 2014 (millions)

- **EU OEMs - in Europe**
- **Non-EU OEMs - in Europe**
- **EU OEMs - abroad**

**Key evidences**

- Global light vehicle assembly volumes posted a 2.6% gain over 1990-2014, driven by non-European OEMs’ growth at 2.8% CAGR (outside EU, they posted a 3.1% CAGR in the same period).

- European OEMs in the same period gained a 2.4% CAGR, reaching 30.8 million units total output in 2014.
  - EU light vehicle assembly volumes grew by a 0.5% CAGR over the 1990-2014 period, hence reducing its share on global assembly to 19.8% in 2014 from 32.6% in 1990.
  - EU assembly dynamic was supported by European OEMs posting a positive 0.7% CAGR, while non-EU ones grew only by 0.1% CAGR (contracting their share on local volumes from 28.2% in 1990 to 25.7%, in 2014).
  - European OEMs in the same period tripled assembly volumes abroad, growing their non-EU output at a 4.2% CAGR (from 6.8 million to 18.4 million units).

- As a consequence, European OEMs’ market share on global assembly contracted from 38.4% in 1990 to 36.2% in 2014.
There is "case for change"

Thought Pillar #1

Global growth moved away from Contracting Parties to UNECE 1958 Agreement over time, despite new CPs joined it: it appears crucial to enhance its appeal toward growth markets.
Automotive is mainly a global game, with many global players which have to viably comply to local rules: European OEMs followed the growth wave abroad often with 'premium' offerings.

One size doesn't fit all: there is "geographic mismatch"
Thought Pillar #3

Road safety and quality of air are sensible objectives to the benefit of EU citizens: stable, visible and harmonised technical rules appears to be a wealthy input to industry players across the globe.
Agenda

1. Project Background and Methodology

2. Key Findings :: Thought Pillars

3. Driving Harmonisation into the Future
Building a Roadmap to the Future
Relevant lessons learned around technical convergence

Technical harmonisation: time-conscious and complexity aware pursuit

- Global technical convergence is a long-shot task, and inclusive options available to non-CPs (being just an Observer), as well as to CPs joining without adopting any technical regulation, appear to enable it.

- UNECE 1958 Agreement has a special role in technical harmonisation, with no alternate options readily available.

- Still unnecessary burden at national level affects market access efforts, increasing R&D spend and cost of compliance, limiting free trade flows.

- Long-predicated industry consolidation is one among the options to address the needed R&D efforts to develop new offerings.
**Current Third Review of UNECE 1958 Agreement**
Actual review of major impacts expected by proposed contents

<table>
<thead>
<tr>
<th>Voting majority</th>
<th>Differentiated stringency</th>
<th>Admin procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Envisaged changes positively perceived by non-CPs</td>
<td>• Envisaged changes positively perceived by non-CPs as well as by CPs</td>
<td>• Mutual recognition positively perceived, provided that local technical skills enable proper homologation tests</td>
</tr>
<tr>
<td>• Lack of changes potentially creates roadblocks to joining appetite</td>
<td>• OEMs apparently positively perceive envisaged changes</td>
<td>• IWVTA positively perceived by Stakeholders</td>
</tr>
</tbody>
</table>
Current Third Review of UNECE 1958 Agreement
Actual review of major impacts expected on competitive behaviours

- Product variances
  - Motorists are in the driver seat, but they are not alone (finance guys sit along); regulatory-led variances are marginal compared to the above.
  - Market access and cost of compliance further add to R&D efforts, without becoming a hard competitive constraint; harmonisation (and stability and visibility) expected to make positive impacts.
Current Third Review of UNECE 1958 Agreement
Actual review of major impacts expected on competitive behaviours (cont'd)

- Global sourcing
  - Automotive supply chain severely impacted by cost saving pressures, and globalisation of manufacturers required and still demands a quality and increasingly integrated supply chain.
  - Harmonised context expected to right-size R&D efforts and may protect SME competitiveness while facilitating homogeneous integration and supply chain consolidation.
Current Third Review of UNECE 1958 Agreement
Actual review of major impacts expected on competitive behaviours (cont'd)

- Market access
  - In general, decision-making will continue to rely on business case analysis, combining multiple elements (country risks, macro-economic and demand forecast, cost/benefit analysis to match local customers' preferences and localisation issues, tax related issues, etc.), with harmonisation affecting the cost side of profitability formula.
  - OEMs exposed to the most stringent regulations in their domestic markets appear induced to offer more premium content.
Current Third Review of UNECE 1958 Agreement
Actual review of major impacts expected on competitive behaviours (cont'd)

• Assembly localisation
  - In general, decision-making appear related to macro-economic and other local context features (workforce availability/quality, financial resources and aid/incentive availability, infrastructures), despite conveniently located assembly hubs could be leveraged for volumes to be distributed into markets with homogeneous stringency of technical regulations).
  - It should be noted that OEMs originating from non-CPs are enabled to assemble in their domestic markets and sell in CPs, provided that vehicles are properly homologated.
**Final Remarks on Third Review**

**Building blocks of a Roadmap to the Future: current state**

- Voting majority changes are not expected to impair EC's ability to pursue EU objectives related to technical harmonisation, and therefore they are expected to enhance UNECE 1958 Agreement's attractiveness towards non-CPs.

- Same is with flexible adoption of technical regulations.

- Mutual recognition is expected to facilitate international trade flows, under the principle "tested once, accepted everywhere".

- Long-lasting technical harmonisation efforts are to be continued in order to provide industry sector with an inclusive platform.
Drive Harmonisation into the Future

Thanks for your attention!