

# IRIS - IDIADA's Regulatory Information System

- Managing Regulatory Complexity of Global Automotive Legislation -

**María José Asensi<sup>1)</sup> Enric Porta<sup>1)</sup> Nagore Avilés<sup>1)</sup> Pietro Lumare<sup>1)</sup>**

*<sup>1)</sup>Applus+ IDIADA, IRIS Regulatory Service.  
PO Box 20, Santa Oliva 43710, L'Albornar, Tarragona, Spain*

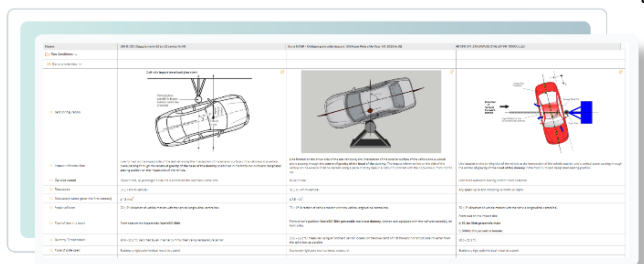
**KEY WORDS:** knowledge/skill framework, standard/regulation, regulation/certification, issue tracking system, requirements management, engineering education/training, organization management, traceability management (F2)

The automotive industry operates in one of the most complex regulatory environments globally, covering vehicle homologation processes across different jurisdictions (EU, US FMVSS, China GB standards). Vehicle homologation has evolved into an intricate system of technical, environmental, and safety regulations. Current challenges include jurisdictional fragmentation, rapid technological shifts (electrification, ADAS, cybersecurity), and increased regulatory volatility. Failure to anticipate these shifts can lead to costly redesigns and delayed market entry, so the regulatory management has become a strategic capability requiring digital intelligence systems and proactive compliance approaches.

**IRIS**, a digital platform developed by Applus+ IDIADA's Homologation department to manage the increasing complexity of global automotive legislation. The platform integrates four main services: Knowledge Base, Working Groups Observatory, Regulatory Monitoring Service, Technical reporting.

The Knowledge Base covers the regulatory structure including vehicle homologation and market access legislation, with detailed subsections on: consolidated versions - providing cleaned-up, updated documents integrating all amendments; historic versions - access to earlier versions for UNECE frameworks and transitional provisions;

regular amendments - monitoring new amendments, corrections, and proposals; application dates - tracking publication dates, entry into force, and application dates with timeline visualization; categories - vehicle classification determining regulatory applicability; interpretations - expert regulatory interpretations and Type Approval criteria; related documents - guidance documents and interpretation manuals; equivalences - technical harmonization through UN Regulations adoption mechanisms; and technical attributes - advanced comparison tools for analyzing technical requirements across markets.



*Example of technical attributes comparison*

Working Groups Observatory, monitoring proposals from automotive regulatory working groups with two critical dimensions: proposal lifecycle - tracking contextual origin, technical scope, institutional mapping, and implementation timeline; and meeting-centric view - timeline navigation, status verification, and documentary audit capabilities.

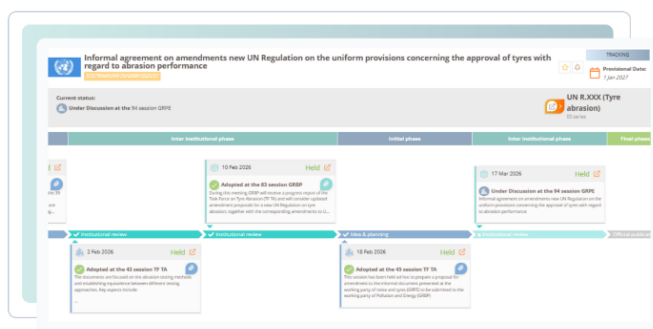
Monitoring Report (Regulatory updates) Specialized service providing early detection of legislative shifts with deep technical interpretation and impact assessments.

Technical Reports Detailed investigation addressing five critical dimensions: Homologation scheme and approval process options; required documentation and knowledge; approval schedule and timeline; analysis of current technical requirements; expert guidance and customized support.

Other features identified as relevant for the regulatory management are: alert system Automated notifications for new requirements, updates, and amendments; and SMART regulatory systems, Integrating AI and Machine Learning for automated gap analyses, predictive impact assessments, contextualized summaries, and cross-references between standards.

As a conclusion is needed to emphasize in the fundamental pillars for monitoring international vehicle homologation legislation: the framework legislation (complex, ambiguous, rapidly changing), the Authorities' response (technical guidelines and interpretation forums); the international approach (technical equivalencies for simplified market access); the management tools (structured knowledge with early warnings integrated in intelligence systems);

IRIS enables a regulatory ecosystem providing full control through a single, reliable information source, offering significant time savings, strategic visibility, greater efficiency, and reduced regulatory uncertainty.



*Example of proposals monitoring*