

**ATIEL | EELQMS | SAIL**

## **F&L Asia Podcast**

Why the  
European Engine Lubricants Quality Management System (EELQMS)  
is important for the Middle East and Asia lubricant Industry

**3<sup>rd</sup> March 2025**

**Mike Boyer, Director | SAIL**  
**&**  
**David Wright, QMS Committee Chair | ATIEL**

- Importance of Quality standards and the ACEA European Oil Sequences
- Conditions for use of performance claims against ACEA Oil Sequences
- The European Engine Lubricants Quality Management System (EELQMS)
- Role of SAIL - Monitoring quality in the market

## Who are SAIL?

- Subsidiary of ATIEL - The Technical Association of the European Lubricants Industry
- Contracted by ATIEL to provide administrative, financial and management services in support of ATIEL's global product compliance and Letter of Conformance activities on a non-profit making basis.
- Manages the registration system of Letter of Conformance signatories
- Responsible for managing ATIEL's product compliance monitoring programme.
- Licences the EELQMS quality trademark in association with ATC and ACEA.



# Importance of Quality standards and the ACEA European Oil Sequences

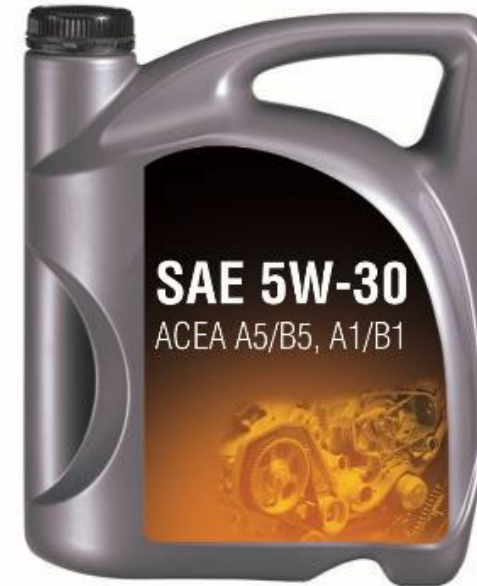
## Importance of quality standards

- OEMs need to know that appropriate quality engine lubricants will be available in all their markets.
- Trade/workshops need assurance that inadequate lubricant performance will not lead to warranty claims.
- Consumers need confidence in quality of the products being used in their vehicles.



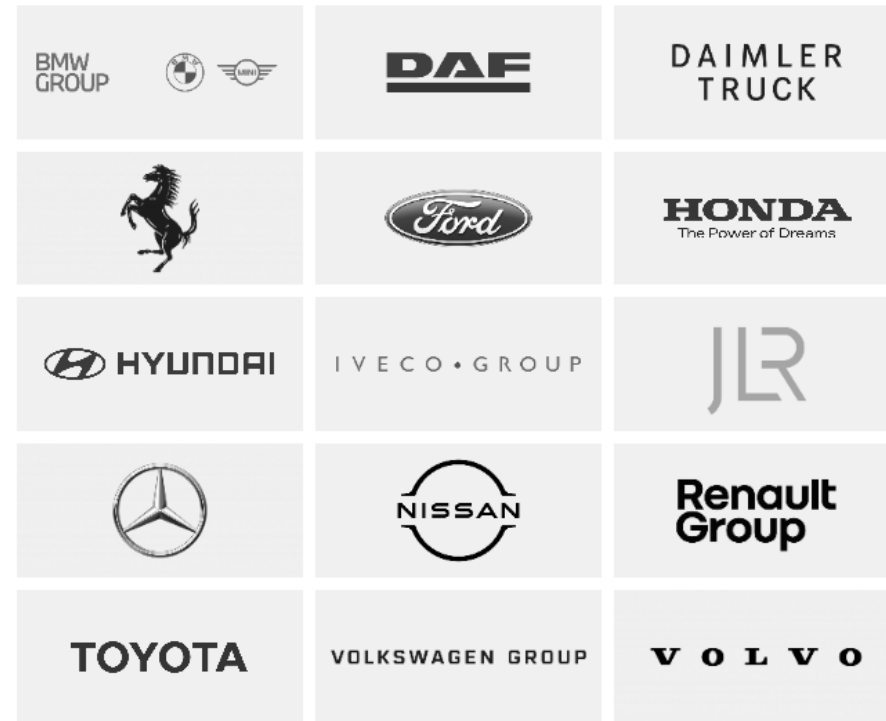
## Quality and performance claims

- Although, typically, an engine lubricant will carry a number of industry and OEM claims, today we will focus on ACEA
- An ACEA claim represents the minimum level of performance required to provide basic protection. It is often quoted in vehicle handbooks as an alternative if an OEM approved lubricant is not available
- How do you know that your products meet the ACEA requirements?
- As a lubricant marketer you are responsible for all aspects of product liability!



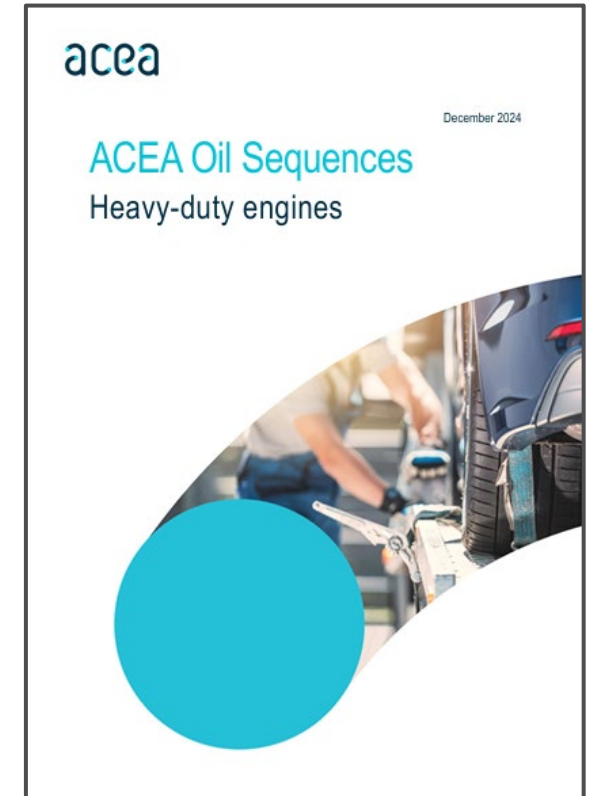
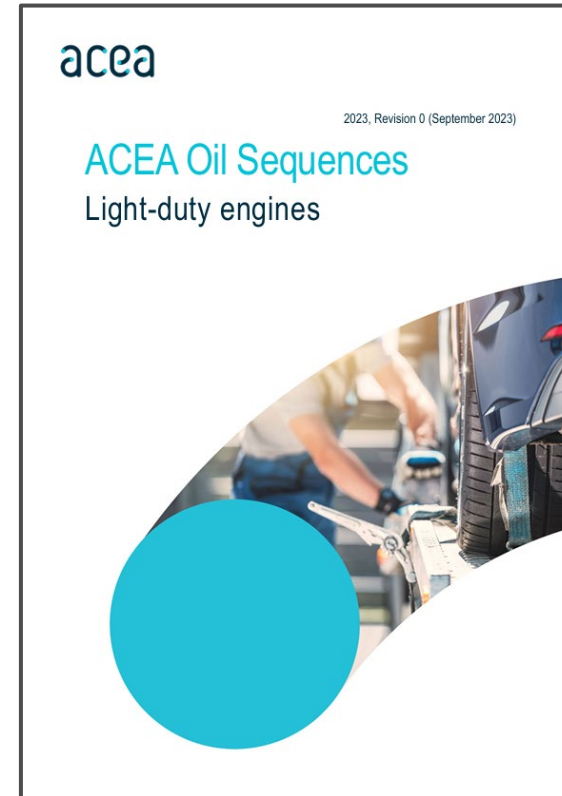
## About ACEA

- ACEA (European Automobile Manufacturers Association) represents the interests of major European car, truck and bus manufacturers.
- Sets performance specifications for engine lubricants through its European Oil Sequences.
- ACEA performance specifications increasingly adopted outside Europe.



# ACEA Oil Sequences

- ACEA European Oil Sequences cover light-duty passenger cars & heavy-duty trucks.
- The ACEA Oil Sequences are updated regularly to address:
  - Changes in European legislation
  - Changes in engine technology
  - Changes in fuel composition
- The current issues of the Oil Sequences are ACEA 2024 for Heavy-duty engines and ACEA 2023 for Light-duty engines.





# Validity of ACEA Oil Sequences ?

## Light-duty

Sequence issue	First allowable use	Mandatory for new claims	Oils with this claim may be marketed until
2004	1 November 2004	1 November 2005	31 December 2009
2007	1 February 2007	1 February 2008	23 December 2010
2008	22 December 2008	22 December 2009	22 December 2012
2010	22 December 2010	22 December 2011	22 December 2014
2012	14 December 2012	14 December 2013	1 December 2018
2016	1 December 2016	1 December 2017	1 May 2023*
2021	1 May 2021*	1 May 2022*	1st August 2025*
2023	12 September 2023*	12 September 2024*	

\* ACEA Oil Sequences for Light-Duty Engines only

# Validity of ACEA Oil Sequences ?

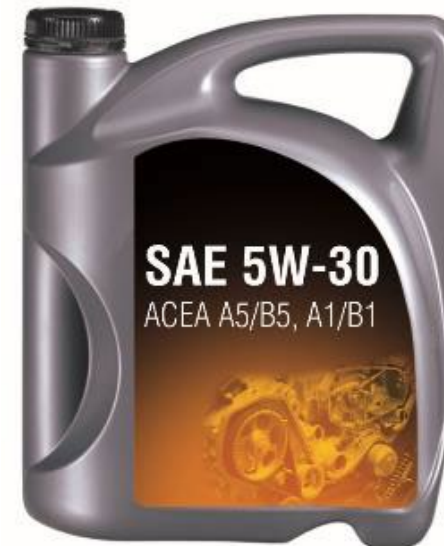
Heavy-duty

Sequences issue	First allowable use	Mandatory for new claims	Oils with this claim may be marketed until
2004	1 November 2004	1 November 2005	31 December 2009
2007	1 February 2007	1 February 2008	23 December 2010
2008	22 December 2008	22 December 2009	22 December 2012
2010	22 December 2010	22 December 2011	22 December 2014
2012	14 December 2012	14 December 2013	1 December 2018
2016	1 December 2016	1 December 2017	1 May 2024*
2022	1 May 2022*	1 May 2023*	1 October 2026*
2024	1 October 2024*	1 October 2025*	

\* ACEA Oil Sequences for Heavy-Duty Engines only

## ACEA performance claims

- Lubricant marketers are responsible for all aspects of product liability!
- Lubricant marketers claiming ACEA performance can include claims for specific engine categories on their product labelling.
- For these claims to be valid ACEA requires these engine lubricants to be developed in accordance with the European Engine Lubricant Quality Management System (EELQMS).



# Conditions for use of performance claims against ACEA Oil Sequences

- ACEA requires that any claims by oil companies or oil distributors for oil performance to meet these ACEA Oil Sequences must be based on credible data and controlled tests in accredited test laboratories.
- ACEA requires that engine performance testing used to support a claim of compliance with these ACEA Oil Sequences should be generated according to EELQMS but reserves the right to define alternatives in exceptional cases.
- EELQMS addresses product development testing and product performance documentation, involves the registration of all candidate and reference oil testing, and defines the compliance process. Compliance with the Code of Practice of the Technical Association of the European Lubricants Industry (ATIEL), which forms part of the EELQMS, is mandatory for any claim to meet the requirements of this issue of the ACEA sequences. Therefore, ACEA requires that [www.acea.auto](http://www.acea.auto) 2 claims against the ACEA Oil Sequences can only be made by oil companies who have signed the EELQMS oil marketers' letter of conformance.

# The European Engine Lubricants Quality Management System (EELQMS)

## About the EELQMS

- Quality management system for automotive engine lubricants.
- Voluntary to participate – only for claims made against the ACEA engine oil sequences. Some OEM approvals may also require participation.
- If you choose to participate then the system rules are mandatory, for example the Codes of Practice. You can't pick and choose.
- Developed by industry stakeholders to promote development of improved, fit-for-purpose engine lubricants that meet increasing technical requirements.
- Designed to assist lubricant marketers in assuring the quality of their lubricants and the performance claims being made for them in the marketplace for the benefit of end users.



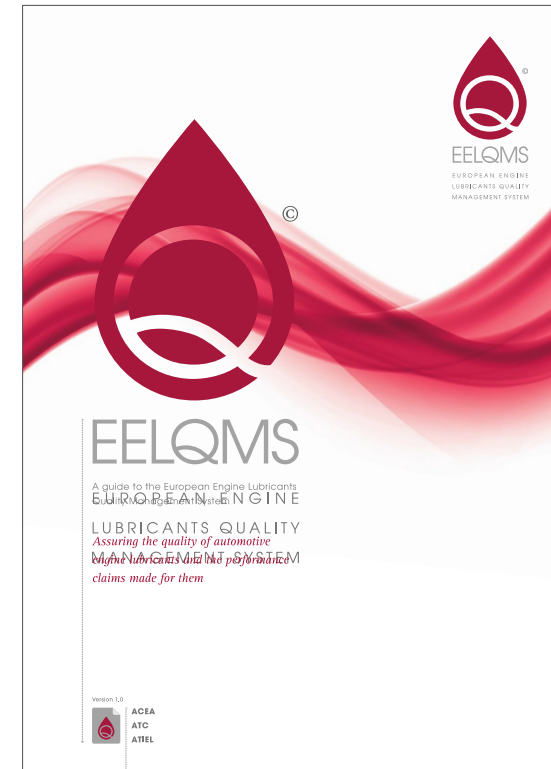
## EELQMS stakeholders and inputs





## EELQMS contribution to quality

- Detailed process and structure for lubricant development, production and performance validation.
- Provides assurance of the quality of engine lubricants on the market that claim to meet the performance requirements of ACEA.
- A quality management ~~voluntary~~ system but the ONLY system that can be used to qualify engine lubricants against ACEA Oil Sequences.
- Administered by ATIEL on behalf of the other key stakeholders.



## Promoting EELQMS

- New identity with logo and branding.
- New separate document clearly setting out the guidelines for compliance with EELQMS.
- New dedicated website:  
[www.eelqms.eu](http://www.eelqms.eu)
- Logo can be used in marketing material under license, but only by signatories of EELQMS.



## Summary of EELQMS guidelines

- Lubricant marketers developing engine lubricants in compliance with ACEA Oil Sequences shall carry out formulation development, blending and marketing in accordance with the guidelines in the ATIEL Code of Practice and ATC Code of Practice:
- incorporating EELQMS guidelines in a quality management system (e.g. ISO 9001)
- ensuring an independent audit of the lubricant development process.
- having Code of Practice checklists signed off by an authorised company representative.
- blending products according to requirements of ATIEL Code of Practice, including accreditation to an auditable QMS.
- signing a Marketers' Letter of Conformance and registering it with ATIEL.



**Template for the EELQMS Lubricant marketers' Letter of Conformance**  
 (to be addressed to ATIEL and sent by registered email to: )

ATIEL  
 Boulevard du Souverain 165  
 Brussels B-1150  
 Belgium

From: [Company name]  
 [Insert correct address]  
 [Insert e-mail address for correspondence]  
 Date: [Insert current date]

**Subject:** Participation in the ATIEL European Engine Lubricants Quality Management System: Letter of Conformance

Name of the participating company, hereinafter referred to as "The Company", duly represented by the undersigned acting for "The Company" and acting under its brand, hereby formally declares to participate in the European Engine Lubricants Quality Management System (EELQMS).

The commitments referred to in this letter apply to all product brands owned or managed by The Company that make ACEA claims.

[Please let the track to issue: "I"]

\* This letter should include, and the company should ensure, that all the Company has authorised its members and all its product names. All the declarations are made under penalty of perjury for brands that are correct and managed by members. Independent marketers should not include these brands in the list.

ATIEL Code of Practice  
 3.0.1 Rev. 2019

Issue 20: 2019

## Marketer's Letter of Conformance

Compliance with the EELQMS includes signing a Lubricant Marketers' Letter of Conformance:

- Required for ACEA performance claims
- Declaration of compliance with EELQMS by the lubricant marketer
- Signed Letters held by SAIL on behalf of ATIEL (EELQMS administrator)
- List of signatories on SAIL website
- Renewed annually
- Membership of ATIEL not required to be a signatory
- Letter of Conformance template available from SAIL website: [www.sail-europe.eu](http://www.sail-europe.eu)



# Role of SAIL – Monitoring quality in the market

## SAIL's Role in EELQMS

- SAIL operates the registration system of the signatories of the Letter of Conformance, and on behalf of ATIEL, in association with ATC and ACEA, licences the use of the EELQMS quality trademark.
- SAIL has been contracted by ATIEL to provide administrative, financial and management services in support of ATIEL's product compliance and Letter of Conformance activities on a non-profit making basis.
- SAIL is responsible for ATIEL's product compliance monitoring programme.
- SAIL ensure all survey reports and summaries are anonymised to avoid potential conflicts of interests between members and participants



## Did you know ...?

*... in 2023, ATIEL/SAIL sponsored over 4000 individual tests as part of the Lubricant Marketers' Letter of Conformance compliance program*

*... ACEA lubricants have a truly global reach with over four hundred participants in sixty - three countries across six continents*

*...ACEA is a full and active participant in the process, having co - signed over 50 letters sent to lubricant marketers in 2022/23*

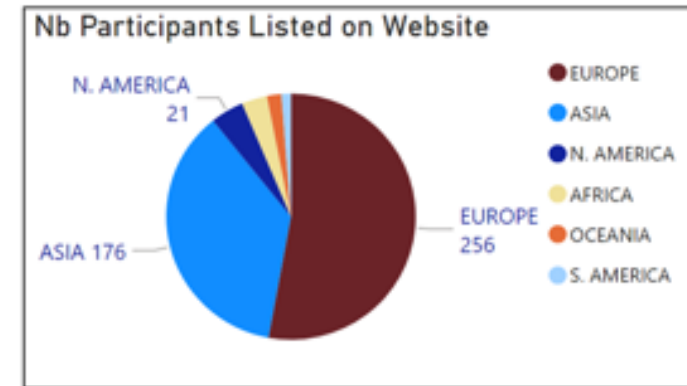
*... Letter of Conformance scheme participants are licensed to use the EELQMS logo on their packaging demonstrating that their lubricant meets the minimum standards of leading European vehicle manufacturers*

Number of registrants 09/09/2024

- Listed on website = 484
- All listed participants signed LoC

Number of signed sub-license agreements

- 231 signed sub-license agreements from participants listed on the website

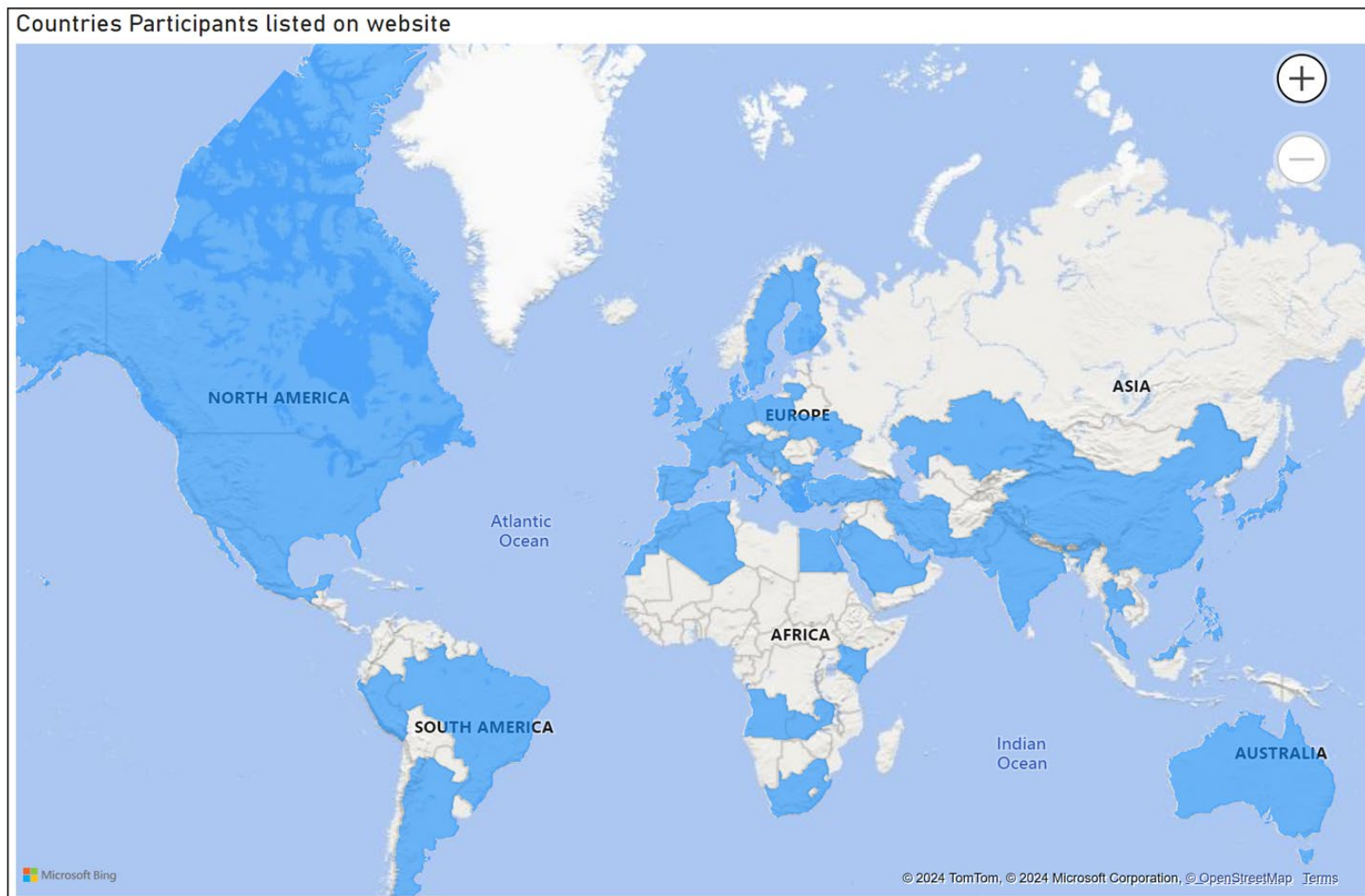


Nb Participants Listed on Website - Continent		
CONTINENT	Nb Participants	Nb Sig %
AFRICA	16	3.3%
ASIA	176	36.4%
EUROPE	256	52.9%
N. AMERICA	21	4.3%
OCEANIA	9	1.9%
S. AMERICA	6	1.2%
<b>Total</b>	<b>484</b>	<b>100.0%</b>

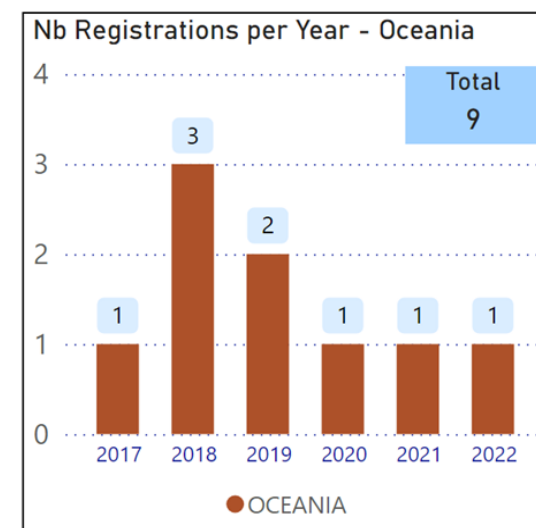
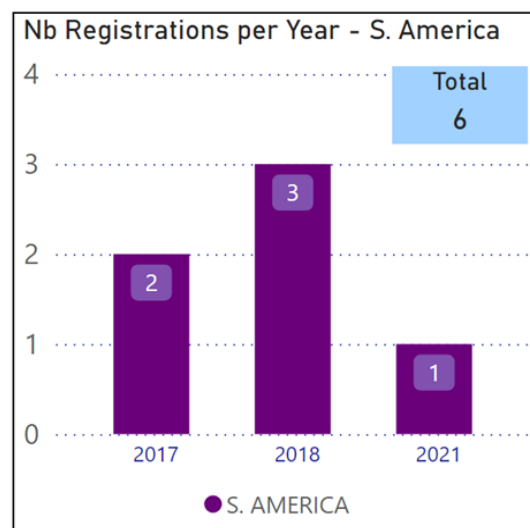
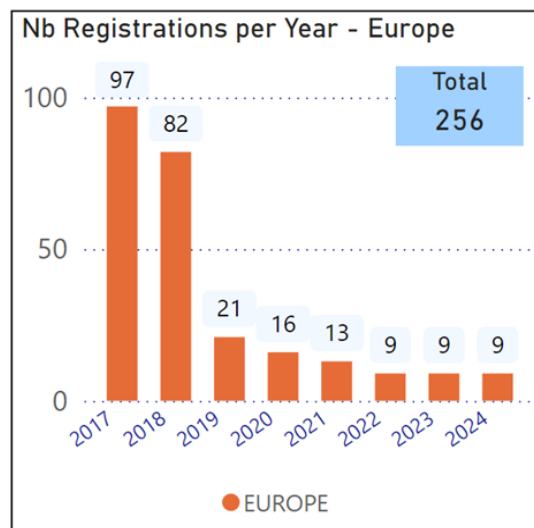
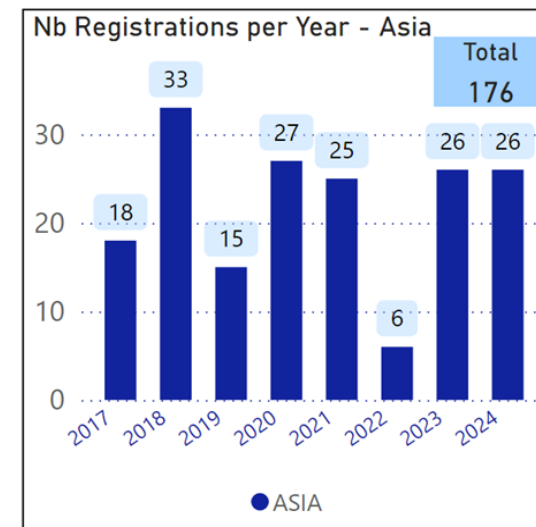
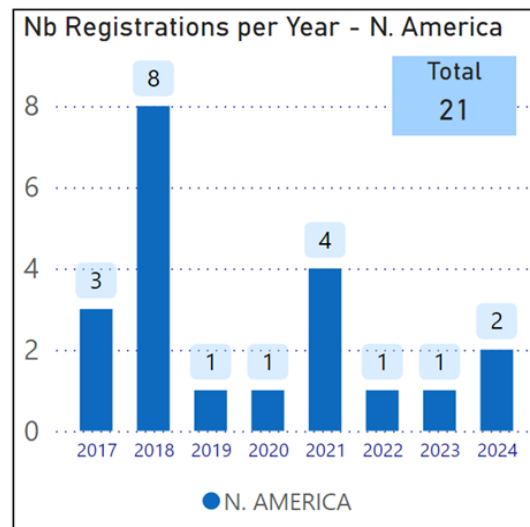
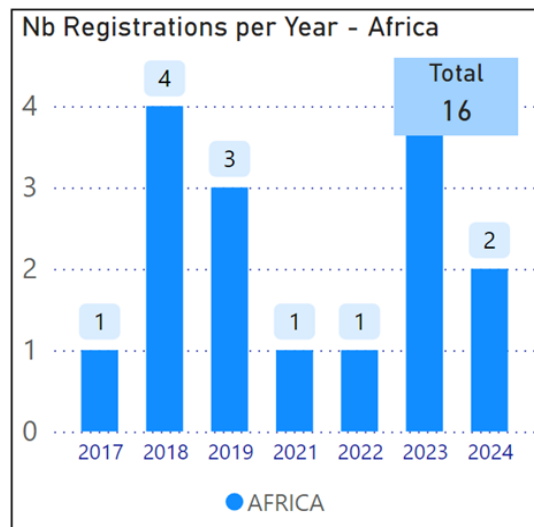
Nb Listed Participants with signed Sub License		
CONTINENT	Nb SubLicences	Nb Lic %
AFRICA	8	2%
ASIA	102	21%
EUROPE	112	23%
N. AMERICA	6	1%
OCEANIA	3	1%
<b>Total</b>	<b>231</b>	<b>48%</b>



# Global Reach



# New Registrations by Region



# Example Report

4800 James Savage Road  
Midland, MI 48642



## Analytical results

Sample Number	630641	
Country		
Supplier		
Brand		
Batch Number		
Production date		<b>Specification Evaluation</b>
Bottle 1		<p>*Incorrect representation of claims. Year identifiers are not to be used for consumer use. See <a href="https://atiel.eu/code-of-practice/acea-oil-sequences-performance-claims/">https://atiel.eu/code-of-practice/acea-oil-sequences-performance-claims/</a></p> <p>*ACEA 2008 is obsolete standard, formulation has to be updated to ACEA 2016. See <a href="https://atiel.eu/code-of-practice/acea-oil-sequences-performance-claims/">https://atiel.eu/code-of-practice/acea-oil-sequences-performance-claims/</a></p> <p>*TBN results outside specification limits and outside 95% statistical confidence limits for A3/B4. Considered a fail for TBN</p> <p>*SA results outside specification limits and outside 95% statistical confidence limits for A3/B4. Considered a fail for SA</p> <p>*HTHS result outside specification limits, but within 95% statistical confidence limit. Considered a pass.</p> <p>*Other tested parameters are considered meeting specification for stated claims</p>
Bottle 2		
SAE	5W30	
ACEA	A3/B3, A3/B4	
ACEA Stated	A3/B3-08, A3/B4-08	
API	SN/CF	
OEM	RENAULT RN 0700, MB-APPROVAL 229.1	

# Example Report Tracking

Comments on Analyses Synlab

Month	SampleNu	Action	Report	Customer Id	Company Name	Marketer	Product Name	SAE Grade
Jan-22	630779	ACTIVE	630779-Report	645967C				5W40

Month	SampleNb	SampleRep	SAE Grade	ACEA Stated	TBN-28	TBN-47	KV	MRV	Yield	P	S	CCS	SA	HTHS	NOACK
Jan-22	630779	630779a	5W40	C2/C3	7.30		13.68	25000	35	774.30	2001.20	5670	0.78	3.72	10.00

Record: 1 of 1
No Filter
Search

Select

All Samples
Open
Closed

SampleNu: 630779
Date Reported: 17/11/2021
Report: 630779-Report

Action: ACTIVE
Resp Due:
Select for Month: Jun

SAIL-Comments
Empty Comments Field
Add Comments

\*Your actions concerning the change of the labels are notified.

\*ATIEL TEC Committee has noted the steps you have taken, ATIEL/SAIL considers this report as closed.

Comments

\*Incorrect representation of claims. Should be C2,C3. See: <https://atiel.eu/code-of-practice/acea-oil-sequences-performance-claims/>\*Other tested parameters are considered meeting specification for stated claims\* Please check with your additive provider or blender if ACEA C2 is a valid performance claim given that this is a 5W-40 formulation

Mailing
Re-Sample-Click

Activity Timeline 1
No Activity
No Activity
No Activity
No Activity
No Activity
No Activity
No Activity

Report Sent
SAIL
TEC
Mark
IOM

\*\*\*17-Jan-22 SAIL: Report sent

\*\*\*10-Mar-22 SAIL: Reminder sent

\*\*\*29-Apr-22 SAIL: Reminder sent

\*\*\*04-May-22 Marketer: Thank you for pointing out the compliance requirements.

Please note that product is yet to be in market and currently we do not have any product to be recalled from the market.

I have attached the updated label artwork to be used for the product as per the ATIEL compliance requirements.

Kindly let us know if this is good to go.

\*\*\*04-May-22 SAIL: Many thanks for your email. Were you able to check with your technology provider that the formulation meets the requirements of ACEA C2 and C3? Would it be possible to ask them to confirm that these claims are correct? For ACEA C2, a fuel economy improvement of  $\geq 2.5\%$  relative to a 15W-40 reference oil is required. It would normally be extremely difficult to achieve that level of fuel economy improvement with a 5W-40 grade lubricant.

\*\*\*05-May-22 Marketer: I shall check with our additive supplier and revert.

Shall take the necessary corrective action accordingly.

Once again thank you for pointing out the requirements.

\*\*\*25-May-22 Marketer: We have checked the requirements internally with our team and technology supplier as well. As you have rightly pointed out, the package meets the requirements of ACEA C3 only. We have taken the necessary corrective action to meet the ATIEL compliance requirements.

I have attached the corrected label artwork for your confirmation. Thank you again for pointing out the same.

Please advise if we need to take any further corrective action as well.

\*\*\*25-May-22 SAIL: Many thanks for your email. The changes made to your label are duly noted and I will advise ATIEL QMS Technical Committee accordingly. They will advise if any further

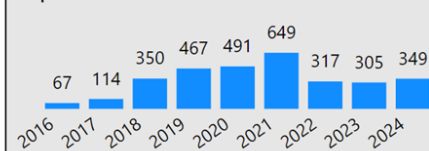
## SAIL SURVEYS - # Remarks /parameter

2024 = 8 months

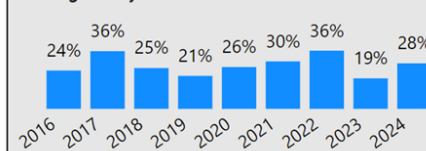
Number of Remarks per parameter in %

	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
ReportsTotal	67	114	350	467	491	649	317	305	349	3109
ACEA %	21%	8%	25%	25%	39%	37%	33%	13%	21%	28%
TBN %	18%	25%	10%	10%	13%	12%	15%	7%	3%	11%
KV100 %	1%	2%	1%	0%	1%	1%	3%	0%	2%	1%
MRV %	3%	4%	2%	3%	5%	5%	8%	4%	11%	5%
YS %	1%	2%	5%	7%	6%	7%	13%	8%	7%	7%
P %	0%	4%	1%	1%	1%	1%	2%	2%	2%	1%
S %	0.0%	0.0%	0.0%	0.4%	0.0%	0.3%	0.6%	0.0%	0.3%	0.2%
CCS %	3%	3%	3%	2%	3%	4%	9%	3%	4%	4%
SA %	4%	4%	8%	4%	6%	10%	14%	6%	7%	8%
HTHS %	3%	4%	8%	4%	7%	6%	8%	6%	7%	6%
Noack %	0%	1%	2%	0%	0%	0%	2%	1%	1%	1%

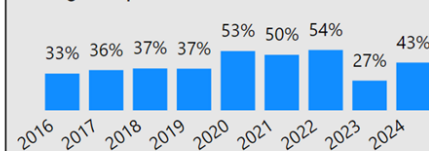
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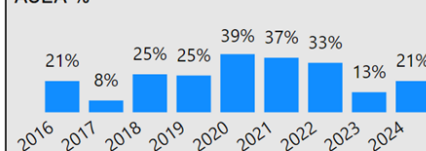
Failing Analyses %



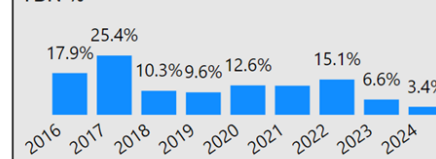
Failing Samples %



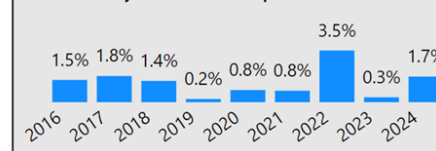
ACEA %



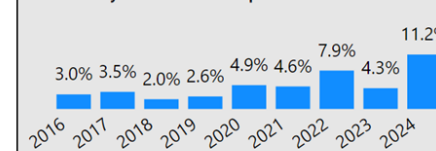
TBN %



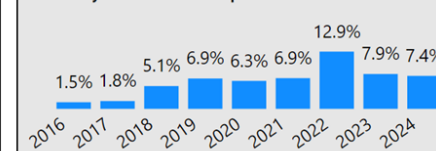
KV100 % by Year-TblOilSpec



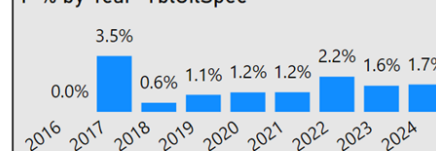
MRV % by Year-TblOilSpec



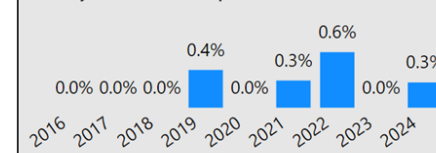
YS % by Year-TblOilSpec



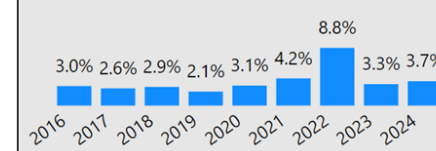
P % by Year-TblOilSpec



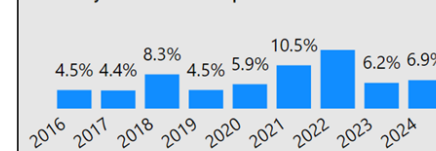
S % by Year-TblOilSpec



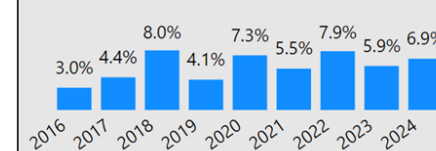
CCS % by Year-TblOilSpec



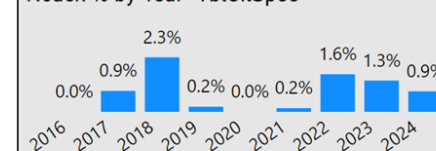
SA % by Year-TblOilSpec



HTHS %



Noack % by Year-TblOilSpec





## A Very Bad Example

Analytical Parameter	Standard	Unit	Result	Repetition	Limit
Kinematic Viscosity at 100°C	D445	mm <sup>2</sup> /s	9,971	9,962	12.5 - <16.3
CCS at -30°C	D5293	mPa•s	40199	39861	6600
MRV at -35°C	D4684	mPa•s	TVTM	TVTM	30,000
Yield Stress	D4684	Pa	< 350	< 350	No yield stress
HTHS at 150°C	D4683	mPa•s	3.15	3.16	≥3.5
Noack Volatility	D5800	%M/M	7.5		≤13
Sulphated Ash	D874	mass %	0.62		≤0.8
TBN D2896	D2896	mg KOH/g	5.3	5.5	≥6.0
Phosphorus content	D5185	% m/m	0.0426	0.0426	≥0.07 - ≤0.09
Sulphur content	D5185	% m/m	0.03539		≤0.03

# EELQMS NEWSLETTER

2025

- Making Claims against the ACEA sequences
- Introducing two new tools - Checklist and Flowchart



## EELQMS - QUALITY MANAGEMENT SYSTEM

Bulletin No. 9 - 18th February 2025

### Making Claims against the ACEA Engine Oil Sequences

The Lubricant Marketer remains accountable for the lubricant supply chain, even when significant aspects are outsourced or contracted to other parties

Claims against the ACEA engine oil sequences are self-certifying. This means that Lubricant Marketers must satisfy themselves that the development and production of the finished lubricant has been carried out in compliance with the ATIEL Code of Practice and the provisions of the European Engine Lubricant Quality Management System, or EELQMS.

Claims against the ACEA engine oils sequences are also non-conditional. Products either meet the sequence claims or they do not. ACEA 'approved', 'certified' or 'recommended' are not valid ways of making an ACEA claim.

Partial claims are also not allowed. The ACEA Sequences state that ALL available tests must be passed in order to make a valid performance claim

A claim such as 'C2 (without fuel economy)' is not valid against the ACEA C2 Category. A claim such as 'C2 (without fuel economy)/C3' is not a valid combined claim. There are also instances where the use of combined claims are technically impossible or highly unlikely, for example combining A3/B4 with C3 which are mutually exclusive due to the differing Sulphated ash limits

Some OEMs require proof of ACEA performance as a prerequisite for claims made against their specifications. However, in these circumstances, it is not mandatory for an oil marketer to make an ACEA claim in addition to the OEM performance claim. Having an approval letter from an OEM that requires "demonstration of ACEA performance" is not sufficient to make performance claims against the ACEA engine oil sequences. If lubricant marketers choose to make an ACEA performance claim, they must follow the ATIEL Code of Practice which sets out the requirements for the development, production and, importantly, documentation of compliant engine lubricants.



Lubricant Marketers wishing to make claims against the ACEA engine oil sequences must ensure that their technology provider can support the claims being made and can provide evidence of performance test data available within a Candidate Data Pack (CDP) to evidence that the necessary bench and physical testing required under the ACEA engine oil sequences, has been carried out on the technology to the required standard. The CDP should be made available to the marketer upon reasonable request.

Marketers remain fully liable for any claims made and so it is not sufficient to rely solely on additive companies who claim that 'these performance profiles provide only an indication of the type of performance level desired and API/ACEA licensing and OEM approvals are not supported by this product', or 'ACEA claims are not supported through use of this additive technology'.

Lubricant Marketers looking to make performance claims against the ACEA engine oil sequences, must submit a signed Letter of Conformance to SAIL confirming that they have followed the requirements of EELQMS in the development and production of finished engine lubricants.

Submission of a Letter of Conformance (LoC) implies a commitment to develop and manufacture engine lubricants in accordance with the guidelines described in the EELQMS.

Registration allows signatories to benefit from competing in a market that has established high quality standards and ensured enhanced compliance:

Only marketers signing the LoC can make product claims against the ACEA European Oil Sequences.

LoC signatories receive a licence to use the EELQMS quality trademark on their product labels, documentation and other marketing materials.

Regular independent quality surveys of products marketed by LoC registrants to strengthen the quality image and the credibility of the performance claims of signatories' products.



The quality survey provides individual signatories with feedback on how their products perform.

Signatories have privileged access to training and educational materials.

For more information, visit [www.atiel.eu](http://www.atiel.eu)

You can contact:

EELQMS Eleonora Piccini

E-mail: [info@eelqms.eu](mailto:info@eelqms.eu)

EELQMS website: [www.eelqms.eu](http://www.eelqms.eu)



# AUDITOR CHECKLIST

## QMS Auditor Checklist



### Improves compliance with Code of Practice

- Meets requirements under section 102 Auditing and Assessment.
- Self-help tool for Lubricant Marketers.
- Supports external ISO accreditation visits.
- Available on demand on SAIL website

1. Check allocated internal code for the Product Brand Name (PBN).
2. Search for formulation linked to internal code stored in database.
3. Request Candidate Data Pack (CDP) and/or ACEA (association of European Automotive Manufacturers) Performance Data Set for listed formulation.
4. The auditor should check that the CDP meets the current valid iteration(s) of the ACEA European Engine Oil Sequences.
5. Check formulation in CDP and/or ACEA Performance Data Set matches the product formulation from blend records.
6. Check the Quality Controls listed for PBN are aligned to characteristics shown in the CDP and/or ACEA Performance Data Set.
  - a. The CDP and/or ACEA Performance Data Set will not necessarily list Production Tolerances but there will be typical values of key characteristics.
  - b. The Quality Control (QC) protocol must be derived from CDP and/or ACEA Performance Data Set, material specifications from additive producers, SAE (Society of Automotive Engineers) J300 and ACEA European Engine Oil Sequences.
7. Check specification claims for PBN in labels and technical data sheets match those listed in CDP and/or ACEA Performance Data Set.
  - a. If a claim for a formal OEM approval is being made, check the blender has corresponding approval letters for PBN from Original Equipment Manufacturers (OEMs) whose specifications are claimed.
  - b. Check the formulation code in the OEM approval letter matches the code in the CDP and/or ACEA Performance Data Set etc.
  - c. It is not unusual that some CDP and/or ACEA Performance Data Set specifications are not used for PBN for marketing reasons.

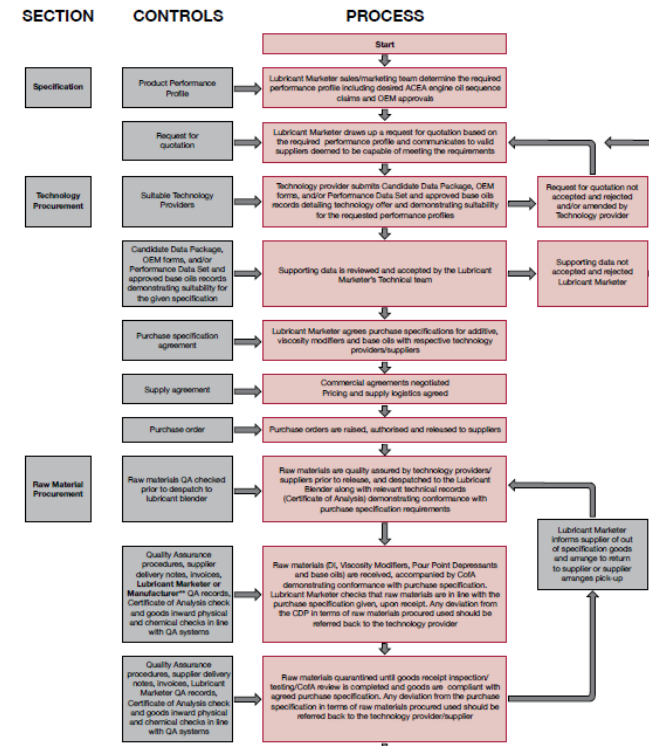


# FLOWCHART

## Improves compliance with Code of Practice

- Supports greater knowledge and understanding of the application of the Code at different steps in the manufacturing process.
- Self-help tool for Lubricant Marketers.
- Available on demand on SAIL website

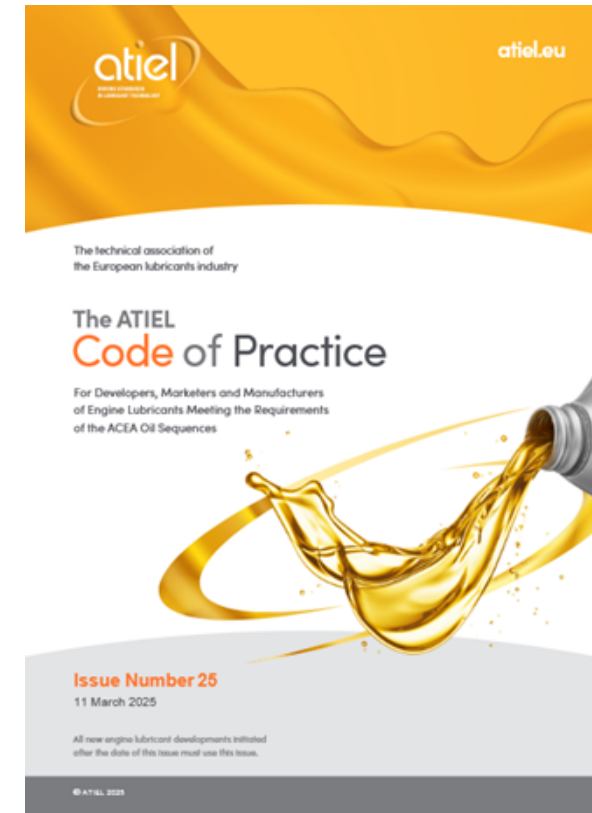
## Lubricant Marketer is the Blender



# NEW CODE OF PRACTICE

## Code of Practice 2025

- Updates ACEA 2024 HD sequences
- Embeds certificated quality management system in Lubricant Developer, Manufacturer and Marketer responsibilities
- Strengthens auditing and assessment requirements Section 10.2



Thank you!

Any questions?



For more information visit:

[www.atiel.eu](http://www.atiel.eu)

[www.sail-europe.eu](http://www.sail-europe.eu)

[www.eelqms.eu](http://www.eelqms.eu)

[www.acea.be](http://www.acea.be)