

ATIEL

European Engine Lubricant Quality Management System (EELQMS)

Jan Trocki



What is ATIEL ?

- **Is a European economic interest group.**
- **Is registered in Belgium.**
- **Represents the common technical interests of European lubricant manufacturing and marketing companies.**
- **Membership open to companies actively engaged in the marketing and/or manufacture of lubricants in the EU.**
- **Promotes dialogue between our members and associated industries on regulations, specifications and Code of Practices.**
- **Currently 20 Member companies.**

• Membership



PETRONAS



NESTE OIL



ExxonMobil



TOTAL

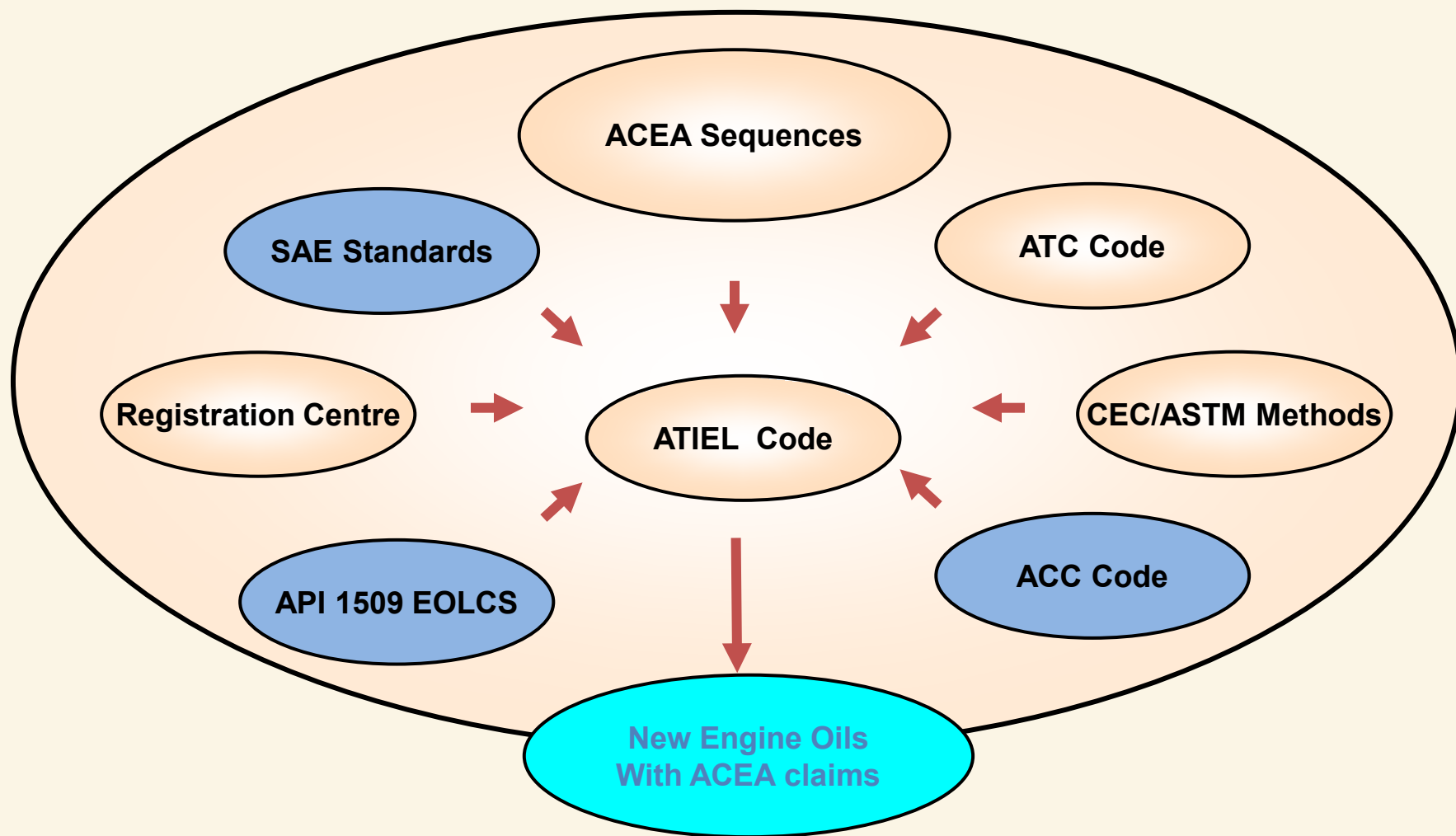
Before 1994

- Oil development unregulated
- Testing standards were variable – test precision ill-defined
- Documentation unstructured
- Judgements about use of alternative base stocks or re-blending at different viscosity grade levels were not standardized
- Oil quality demonstration relied on company rather than industry approach – not uniform
- Test development process not focussed on stakeholder needs

and then...

- In 1994 Engine Oil Lubricant Classification System [EOLCS] introduced by API to address this lack of consistency
- Agreement of Stakeholders to develop European process to assure quality of market products
- In 1996 ACEA, ATIEL & ATC (AAA) developed and introduced EELQMS
- European Engine Lubricants Quality Management System
- Same principles as API – detailed differences
- Both schemes promoted a large increase in product quality

EELQMS Building Blocks



ACEA Members



VOLVO



PSA PEUGEOT CITROËN



Mercedes-Benz

DAF



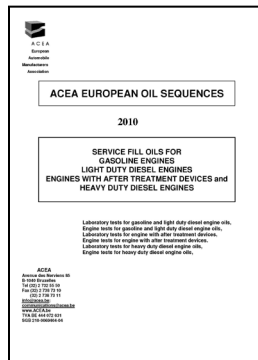
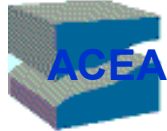
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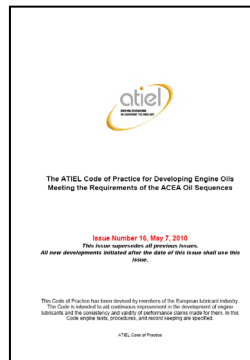
TOYOTA

EELQMS Stakeholders

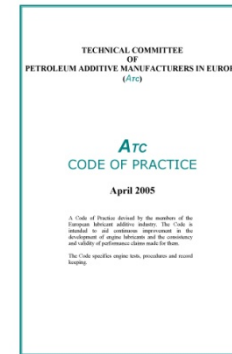
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Lubricant Marketers



Additive Suppliers

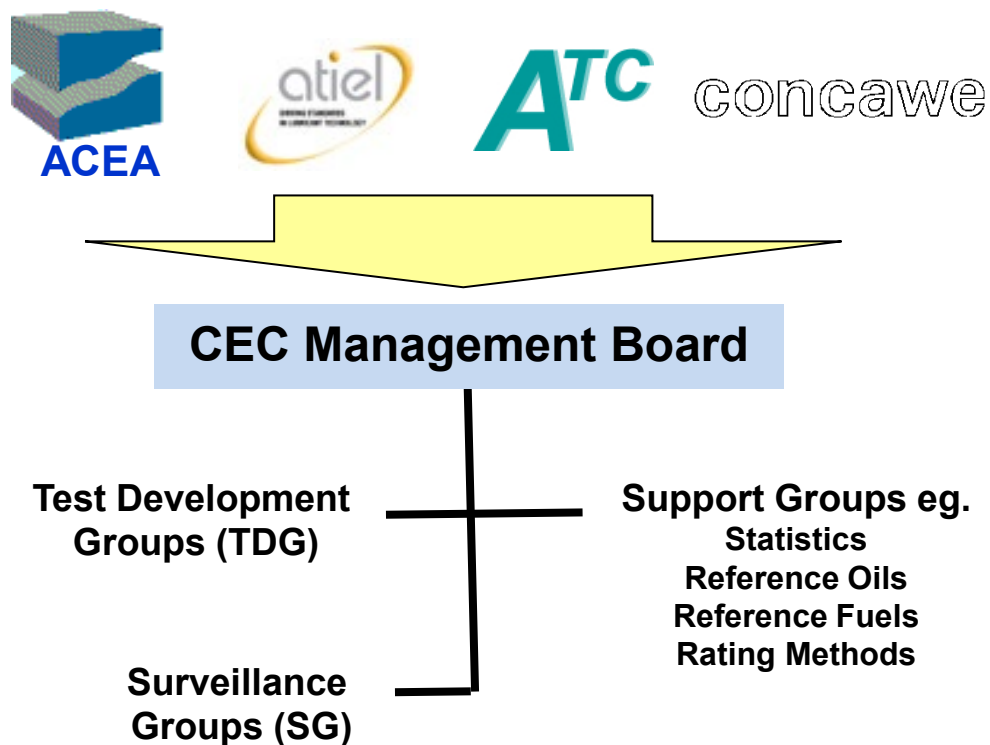


Test development



Quality Testing Methods
& Process

Development of Tests



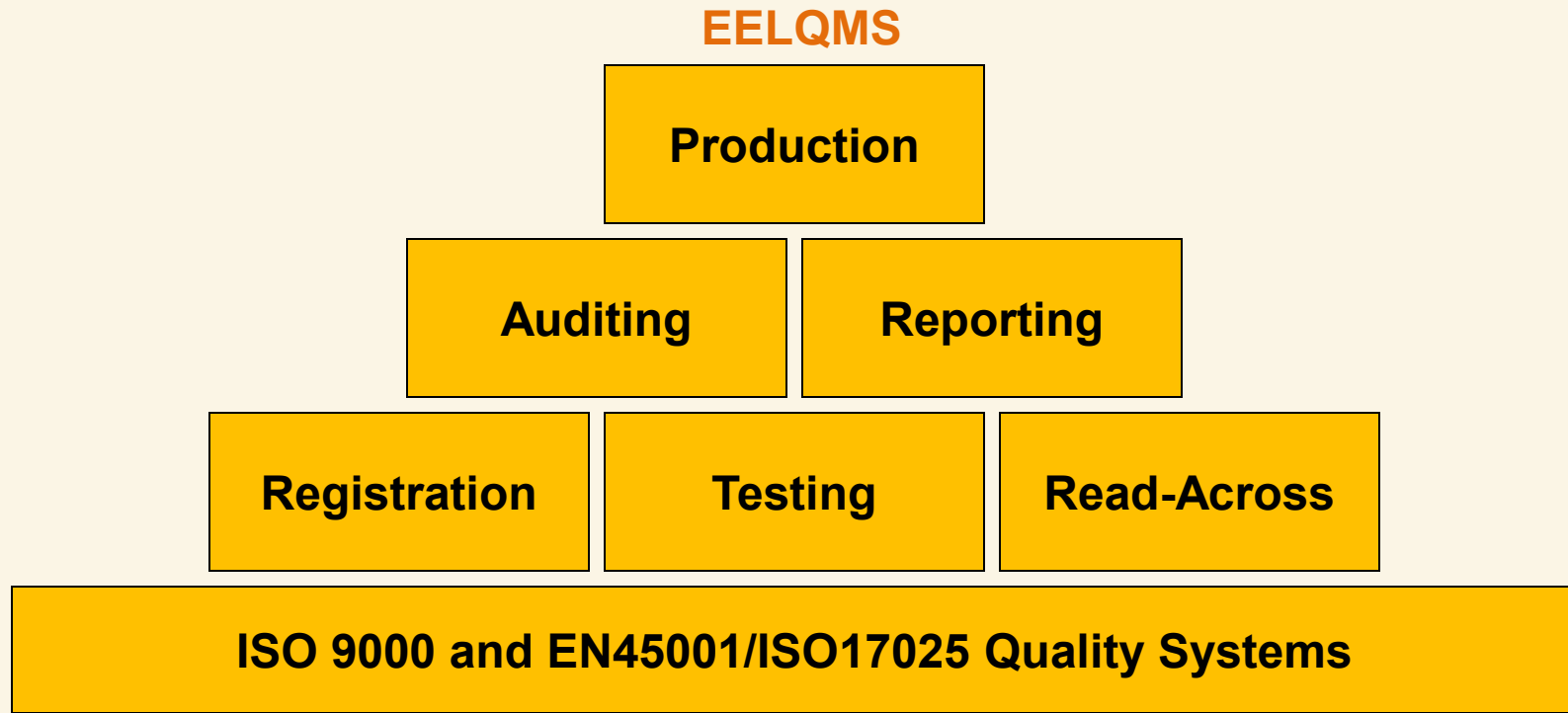
Extract from ACEA Sequences

“ACEA requires that engine performance testing used to support a claim of compliance with these ACEA sequences should be generated according to the European Engine Lubricants Quality Management System (EELQMS), but ACEA reserves the right to define alternatives in exceptional cases.

EELQMS which is described in the ATIEL Code of Practice, addresses product development testing and product performance documentation, and involves the registration of all candidate and reference oil testing and defines the compliance process. Compliance with the ATIEL Code of Practice is mandatory for any claim to meet the requirements of the 2008 issue of the ACEA sequences. Therefore ACEA requires that claims against the ACEA oil sequences can only be made by oil companies or oil distributors who have signed the EELQMS oil marketers' Letter of Conformance”.

EELQMS is mandatory to make legitimate claims of ACEA Sequences

Key Themes

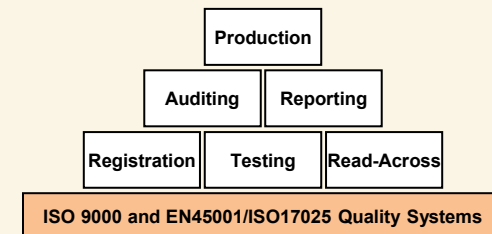


Controlling all aspects of testing and reporting for ACEA claims

Quality Systems

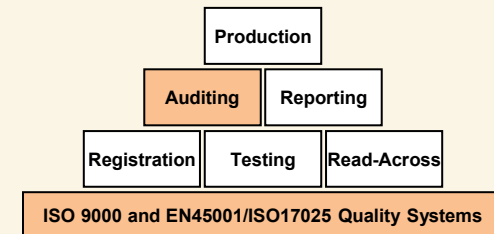
- ISO 9000 International Quality System
 - EELQMS made an integral part of the Oil Marketers' ISO9000 procedures
 - Covers general documentation and record keeping
- EN45001/ISO17025
 - Accreditation of laboratory facilities
 - Demonstrates that the laboratories actually follow procedural detail

EELQMS should be incorporated into Quality Systems Procedures
(Internationally recognised standards ISO9001, QS9000 or ISO TS16949)



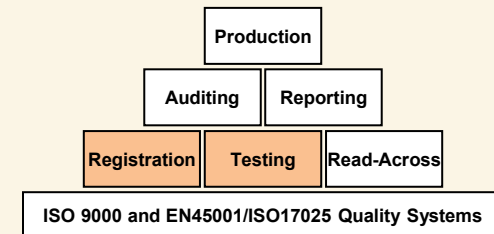
Conformance

- **ATIEL Marketers Letter of Conformance**
 - Signed by ~70 oil marketers
- **ATC Letter of Intent**
 - Dependent and independent laboratories
 - Oil and additive companies sponsoring tests
- **Conformance**
 - Internal and external audits demonstrate that ‘the guidelines’ have been followed
 - No Licensing process is operated – it is a voluntary system
 - Marketer obligation to ensure quality of finished product



Testing & Monitoring

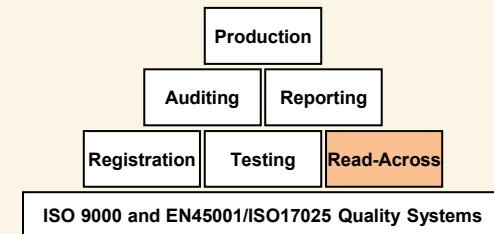
- Internationally recognised methods (CEC and ASTM)
- Test registration through ERC (European Registration Centre)
- Precision assessed and compared against target values via established test monitoring systems
- Monitoring
 - Engine tests – through registration system
 - Bench tests – through on-line CEC scheme
- Allows identification and intervention
 - Outliers, time trends, changes in severity
- ACEA can see all reference oil data using their own password



Read-Across

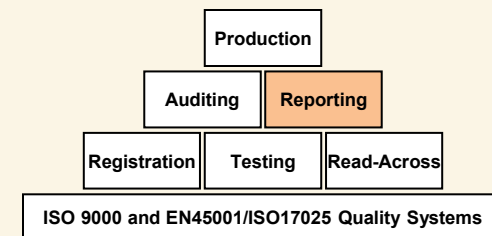
- Three types of read-across:
 - Viscosity grade
 - Base oil
 - Viscosity modifier
- Complete testing of all combinations cannot be justified technically
- EELQMS read-across rules follow the same principles as API
- Product quality assured for all grade and blending combinations

Base Stock in original Formulation	Interchange Base Stock (1, 3, 4, 5, 6, 7, 8, 9)											
	GROUP I		GROUP II		GROUP III		GROUP IV		GROUP V	GROUP VI		
GROUP I	≤10%	NONE	≤10%	NONE	≤30%	NONE	≤30%	NONE	ALL	≤30%	NONE	
	>10%	TU572 VG or M111 M111 FE	>10%	TU572 TU3MS M111 FE	>30%	ALL	>30%	ALL		>30%	ALL	
GROUP II	≤10%	NONE	≤10%	NONE	≤30%	NONE	≤30%	NONE	ALL	≤30%	NONE	
	>10%	TU572 VG or M111 TU3MS M111 FE	>10%	TU572 VG or M111 TU3MS M111 FE	>30%	ALL	>30%	ALL		>30%	ALL	
GROUP III	≤10%	NONE	≤10%	NONE	≤10%	NONE	≤10%	NONE	ALL	≤10%	NONE	
	>10%	ALL	>10%	ALL	>10%	TU572 VG or M111 TU3MS M111 FE	>10%	VG or M111		>10%	VG or M111	
							≤30%	ALL		≤30%	ALL	
GROUP IV	≤10%	NONE	≤10%	NONE	≤10%	NONE	NONE (2)		ALL	NONE		
	>10%	ALL	>10%	ALL	>10%	VG or M111						
					>30%	ALL						
GROUP V	ALL		ALL		ALL		ALL		ALL	ALL		
GROUP VI	≤10%	NONE	≤10%	NONE	≤10%	NONE	NONE		ALL	NONE (9)		
	>10%	ALL	>10%	ALL	>10%	VG or M111						
					>30%	ALL						



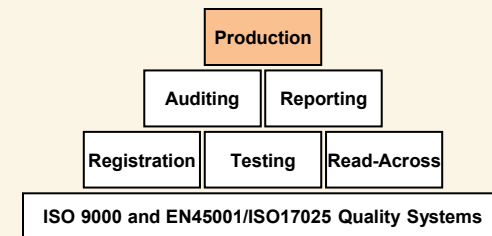
Reporting

- The format for reporting data from a testing programme is defined in Appendix D of the ATIEL CoP
- Terms are tightly and consistently defined
- Programme sponsors are obliged to disclose information to auditors or external bodies
- A testing programme is described in the Candidate Data Package (CDP)
- The CDP substantiates a product's performance claims



Blending and Production

- All blending plants must be accredited ISO9001, QS9000 or ISO TS16949
 - Actual blending
 - Filling
 - Packaging
 - Labelling
- Accreditation achieved within 18 months of commissioning of a new plant
- Marketer is responsible for the quality of products provided by third parties



Since EELQMS was established.....

- Regular discussions between ACEA, ATIEL and ATC (AAA) on future quality and specification requirements
- Effective test development through CEC
- New engine oil specifications introduced quicker to meet changing market demands
- Ongoing review of the existing guidelines to ensure clarity and understanding
- Continuous development of new guidelines to include new tests and base oils
- Gathering test data to support new guideline developments

Summary: “get the right quality engine oil quicker!”

ATIEL Code of Practice

- Essential process to claim ACEA Sequences
- Available to download from
http://www.atiel.org/downloads/code_practice/CoP16-finalb.pdf
- Marketers Letter of Conformance available from
<http://www.atiel.org/conformance.htm>

www.ATIEL.org

EELQMS at a glance

- EELQMS should be incorporated into Quality Systems Procedures (ISO 9001, QS 9000 or ISO TS 16949).
- Compliance with ACC and/or ATC CoPs.
 - Engine testing
 - Performance additive package modifications
- BOI in accordance with ATIEL CoP
- VMI in accordance with ATIEL CoP/ATC CoP
- VGRA in accordance with ATIEL CoP
- ATIEL Candidate Data Package requirements must be fulfilled
- Programme Extension Data must be met and signed by authorised company representative (e.g. Product Development Manager).
- Full ACEA Performance ACEA Dataset signed by authorised company representative.
- Blending only in plants with accredited and auditable Quality Systems
- EELQMS [Marketing](#) Letter of Conformance must be submitted.
- ATIEL publish list of Oil Marketers who submit this letter.

The logo for atiel features the word "atiel" in a lowercase, grey, sans-serif font. A yellow swoosh starts from the top right, loops around the letters, and ends at the bottom left. A small yellow circle is positioned above the letter 'i'.

atiel

DRIVING STANDARDS
IN LUBRICANT TECHNOLOGY

17th Annual Fuels & Lubes Asia Conference
March 9-11, 2011

F+L Week 2011

