



The ATIEL Code of Practice

March 7th 2011

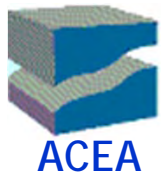
Developing Engine Oils Meeting the
Requirements of the ACEA Oil Sequences



Key Topics

- European Engine Lubricant Quality Management System Overview (EELQMS)
- The ATIEL Code of Practice
 - Development process
 - Role in ACEA Oil Sequences
 - Testing requirements
 - Readacross and Interchange
 - Data Package requirements
 - Conformance
- EELQMS at a glance

EELQMS Stakeholders



OEMs

ACEA Sequences



Lubricant Marketers

ATIEL Code of Practice



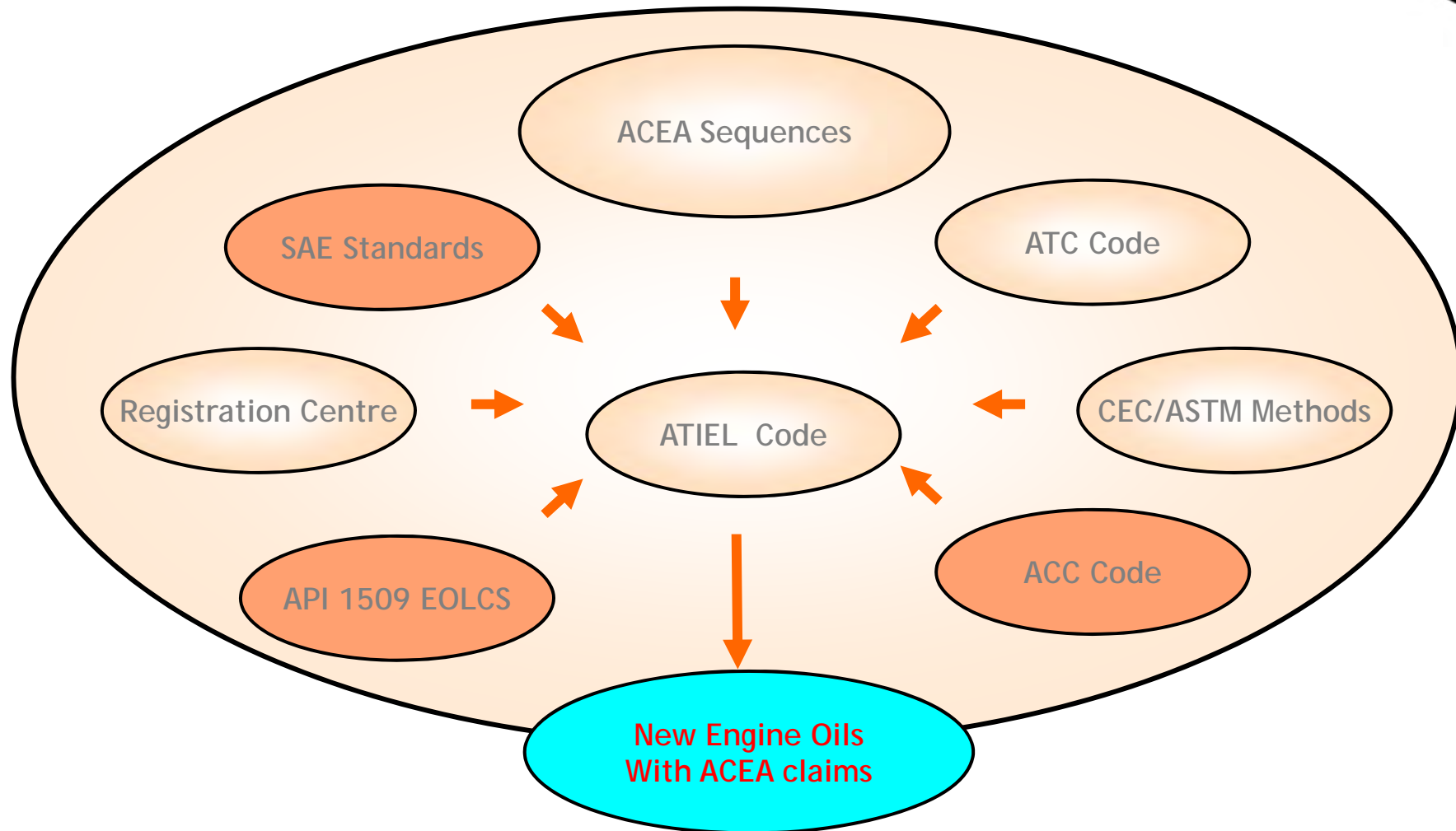
Additive Suppliers

ATC Code of Practice



Test development

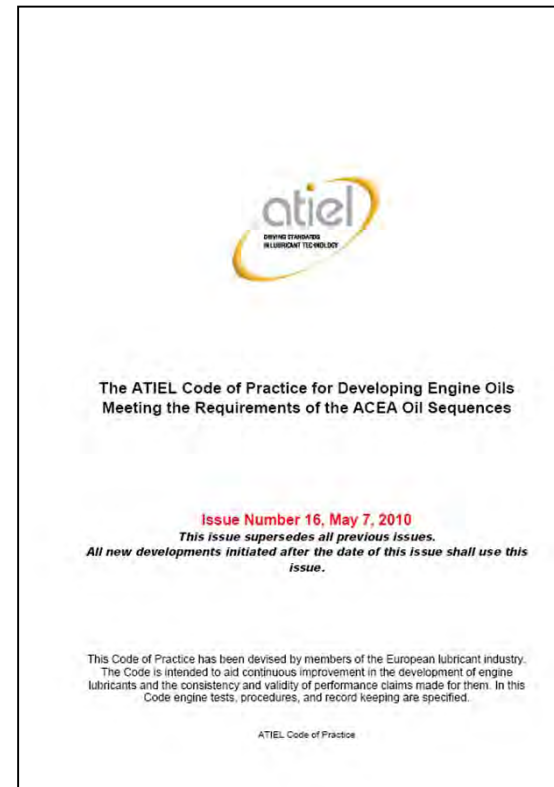
EELQMS Building Blocks



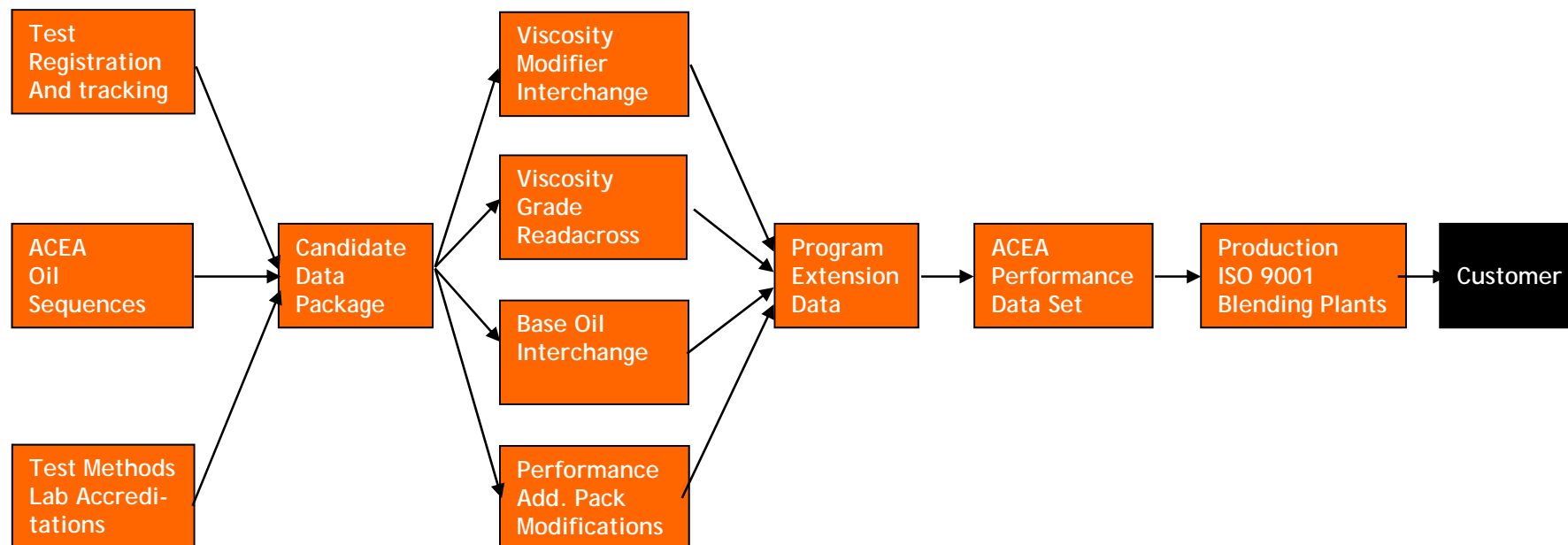


The ATIEL Code of Practice

- ATIEL Code of Practice is designed for Lubricant Marketers when developing engine lubricants meeting ACEA Oil Sequence Requirements.
- The marketer of an oil claiming to meet ACEA performance requirements is responsible for all aspects of product liability.



Development Steps





ACEA Oil Sequences

ACEA States in the Sequences:

- Any claim for oil performance to meet Sequences must be based on **credible data** and **controlled tests** in **accredited** test laboratories.
- All performance testing must be generated according to the European Engine Lubricant Quality management System.
- **Compliance is mandatory for any claims against the ACEA Sequences.**
- The oil marketer claiming to meet ACEA performance is responsible for all aspects of product liability.
- 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.**



Testing Requirements

- Valid testing based on current best industry practice
 - ACC Code of Practice applied to ASTM test procedures
 - ATC Code of Practice applicable to all CEC test methods
- ATIEL CoP applied to those ACEA Sequences where CEC or ASTM test methods conforming to minimum quality and precision standards are specified
- Tests must be pre-registered and tracked
 - Engine tests in European Registration Centre and ACC Monitoring
 - CEC Test Monitoring for bench tests
- Defined procedures for “Out of Control” or “Unavailable” tests

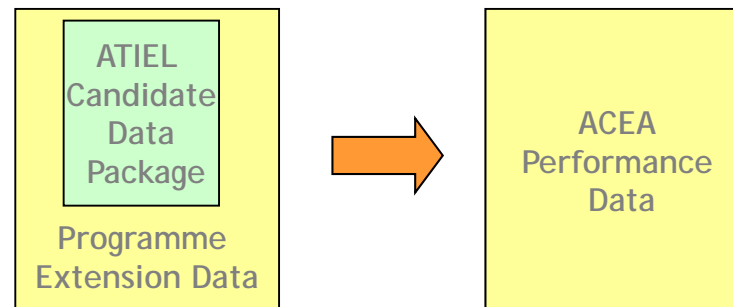


Readacross and interchange guidelines

- For CEC tests, guidelines prepared for:
 - Viscosity Grade Readacross (ATIEL)
 - Base Oil Interchange (ATIEL)
 - Viscosity Modifier Interchange (ATIEL)
 - Performance Additive Package Modifications (ATC)
- For ASTM tests the latest API 1509 guidelines apply
- Principle of readacross and interchange guidelines is that testing should always be done for the most severe case
 - Viscosity Grade Readacross may be made after a Base Oil or Viscosity Modifier Interchange
 - More than one interchange or readacross cannot be applied at the same time
- Additive package modifications made in line with ACC or ATC Codes of Practice

Data Package Requirements

- Data reporting clearly defined in the ATIEL Code
 - ATIEL Candidate Data Package describes original testing programme
 - Any readacross, interchange or formulation modifications described in Programme Extension Data
 - Physical and chemical characteristics of each candidate reported
- ACEA Performance Data Set confirms performance against ACEA Oil Sequences
 - Document required for each oil brand and viscosity grade
 - Can be checked during Quality System Audits
 - May be requested by external organisation





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



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.



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