



Non-Road Mobile Machinery

Revision of Directive 97/68/EC

GEME Meeting, 15 September 2014

European Commission
DG ENTR B.4 – Sustainable Mobility & Automotive Industry
P. Troppmann, L. Escobar, A. Perujo

Agenda

- 1) Welcome & introduction**
- 2) Adoption of the agenda**
- 3) Adoption of the Minutes of the previous meeting**
- 4) Revision of Directive 97/68/EC on NRMM**
 - a) State of play & time plan
 - b) Information point: Proposal for a new Regulation on NRMM
 - Overall structure
 - Main elements of content
 - c) Preparation of the non-legislative acts (Delegated & Implementing Acts)
 - Draft structure
 - Organisation of work & time planning
- 5) Progress update on Reg. on Environmental & Propulsion Requirements (REPPR) for agricultural & forestry vehicles**
- 6) AOB & Conclusions**

Agenda pt 4:

Revision of Directive 97/68/EC on NRMM

- a) State of play & time plan**
- b) Information point - New NRMM proposal
- c) Preparation of non-legislative acts



- ✓ **Preparation of legislative proposal** (Nov 2013 – May 2014)
 - Regulation
 - Focus on basic (co-decision) act

- ✓ **Inter-service consultation** (3 – 25 June 2014)
 - 14 services consulted – favourable opinions only
 - Discussions – clarifications - modifications

- ✓ **Translations** (Jul & Aug 2014)
 - From EN into 23 languages

- ✓ **Request for Commission adoption** (2 September 2014)

Tentative time plan

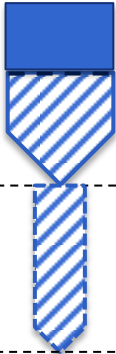


Proposal for Main Legislation

2014



TODAY



Adoption by Commission

Publication of proposal & IA report

EP



Start of Co-Decision procedure

Council



2015



Adoption by Legislators

2016



Entry into force of NRMM Regulation

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- a) State of play & time plan
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New NRMM legislation – Overall structure



NRMM Regulation

Co-Decision Act (CDA)

Essential elements

Recitals
Chapters & Articles
Annexes

Supplementing Regulation on NRMM

Delegated Act (DA)

Non-Essential elements

Recitals
Chapters & Articles
Annexes

Supplementing Regulation on NRMM

Implementing Act (IA)

*Non-Essential elements
(mostly of administrative nature)*

(Recitals)
Chapters & Articles
(Annexes)

for **COMMISSION** adoption
in September 2014

for **COMMISSION** adoption after adoption of CDR by co-decision
(end 2015 or 2016?)



- **Title**
- **Recitals**
 - Motivation
 - Links to existing legislation
 - New procedural steps
- **Articles**
 - Empowerments
 - Definition of scope
 - Definitions
 - Transitional provisions & Exemptions
 - New provisions (e.g. Union-wide data platform,...)
 - Reference to repealed Directive
- **Annexes**
 - Definitions & rules reviewed/re-allocated
 - Clearer co-decision act & fewer annexes



Co-Decision Act

- **Chapter I:** SUBJECT MATTER, SCOPE AND DEFINITIONS
- **Chapter II:** GENERAL OBLIGATIONS
- **Chapter III:** SUBSTANTIVE REQUIREMENTS
- **Chapter IV:** EU TYPE-APPROVAL PROCEDURES
- **Chapter V:** CONDUCT OF EU TYPE-APPROVAL PROCEDURES
- **Chapter VI:** AMENDMENTS AND VALIDITY OF EU TYPE-APPROVALS
- **Chapter VII:** CERTIFICATE OF CONFORMITY AND MARKINGS
- **Chapter VIII:** EXEMPTIONS
- **Chapter IX:** PLACING ON THE MARKET
- **Chapter X:** SAFEGUARD CLAUSES
- **Chapter XI:** INTERNATIONAL REGULATIONS AND PROVISION OF TECHNICAL INFORMATION
- **Chapter XII:** DESIGNATION AND NOTIFICATION OF TECHNICAL SERVICES
- **Chapter XIII:** IMPLEMENTING ACTS AND DELEGATED ACTS
- **Chapter XIV:** FINAL PROVISIONS



- **Confirmed information***

- Scope extension
- Emission limit values
- Approach on gas-fuelled & dual-fuel engines, incl. on THC limits
- ...

- **Updated information on**

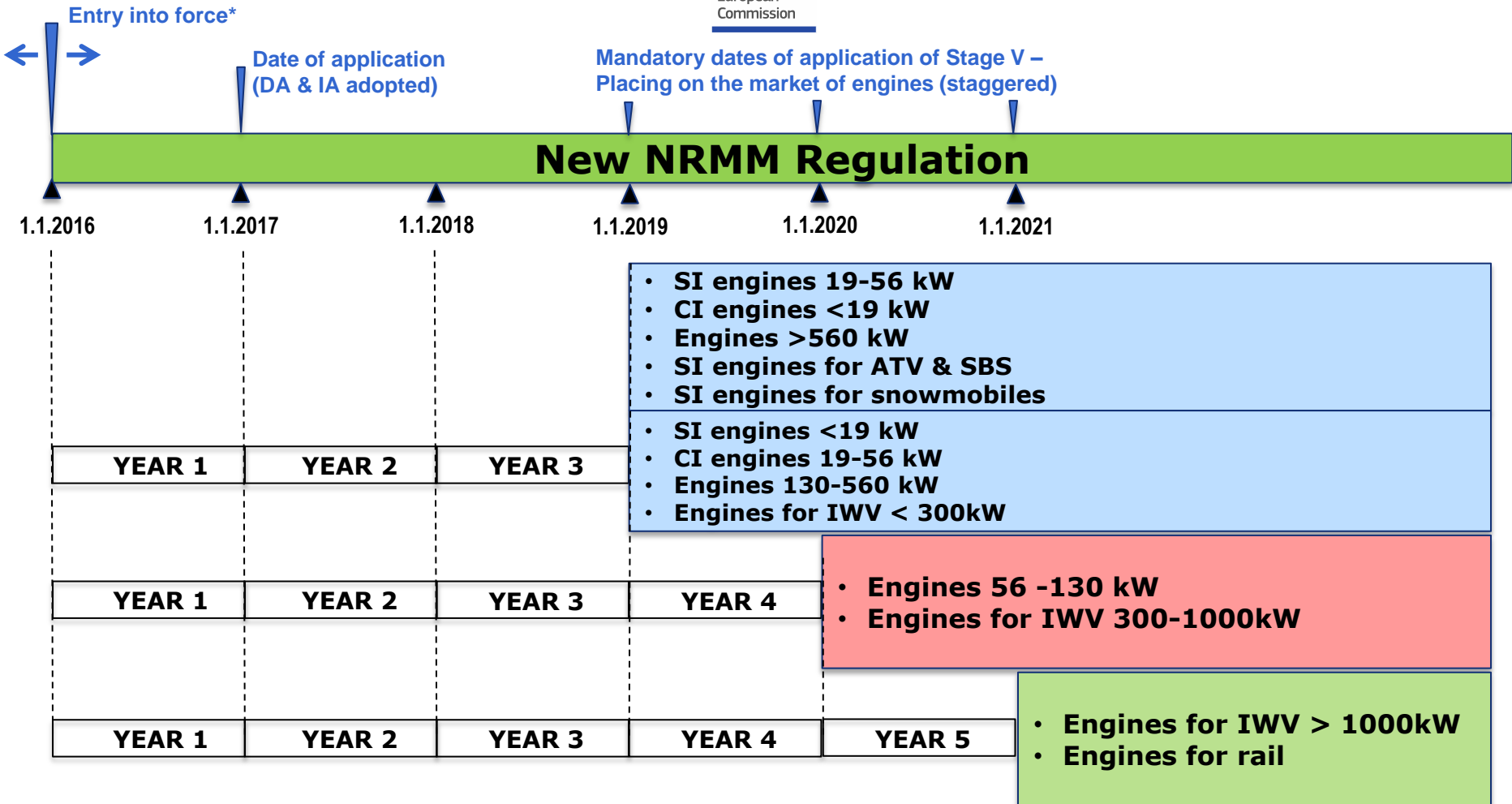
- Introduction dates of new limits
- Transition scheme
- Exemptions
- Other previously pending issues
- Monitoring of emissions of in-service engines

* with reference to the one provided at GEME meeting of 13 Feb 2014

Proposed time schedule: Introduction dates new limits



European
Commission

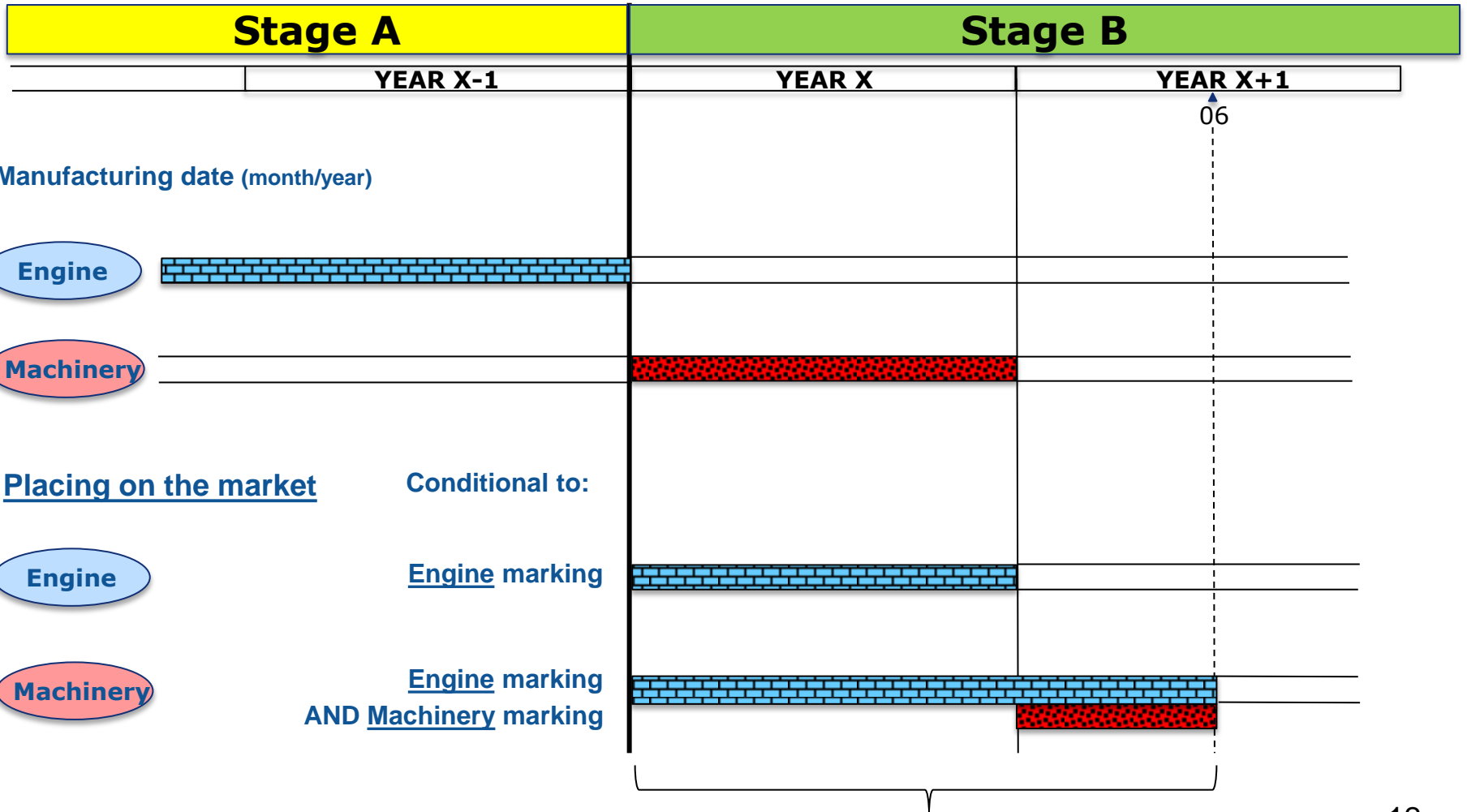


Mandatory dates of application of Stage V – Type Approval:

= 1 year BEFORE indicated dates for placing on the market of engines (staggered)

* **Floating date!**

Proposed Transition Scheme



*: +12 months for "small volume OEMs"



- **Armed forces**
- **Separate delivery**
 - Separate delivery of after-treatment system to OEM
 - No prior request or approval by approval authority
- **Regularisation of field test practice**
 - Temporary placing on the market of engines without EU type approval
 - Subject to prior request & approval by approval authority
 - Commission to monitor & report
- **ATEX engines**
 - Engines for use in machinery certified under certain requirements as per Directive 2014/34/EU
 - Placing on the market if meeting "ATEX emission limits"
 - Subject to prior request & approval by approval authority
 - Commission to monitor & report



✓ **Union central administrative platform & database**

- Platform for data & information exchange on EU type approval
 - Between Approval Authorities
 - Approval Authorities - Commission
- Database on EU type approvals
 - Approval Authorities – Commission
 - Manufacturers – Technical Services - Approval Authorities – Commission
 - Public

✗ **SI engines**

- Evaporative emissions
 - Tank permeation
 - Fuel-line permeation
- Spilling losses during refuelling



Draft legislative proposal:

- ✓ The emissions of engine types or engine families in service shall be monitored by testing engines installed in Non-Road Mobile Machinery operated over their normal operating duty cycles.
- ✓ Such testing shall be conducted on engines that have been correctly maintained and required to comply with the provisions on the selection, procedures and reporting of results for the different engine categories laid down in the delegated act.



NRMM PEMS Pilot Program (2010-2012)

The NRMM PEMS Pilot Programme was launched (in collaboration with stakeholders) to facilitate the introduction into the European NRMM emissions legislation of use of PEMS as a tool for ISC.

Objectives of the programme were (main):

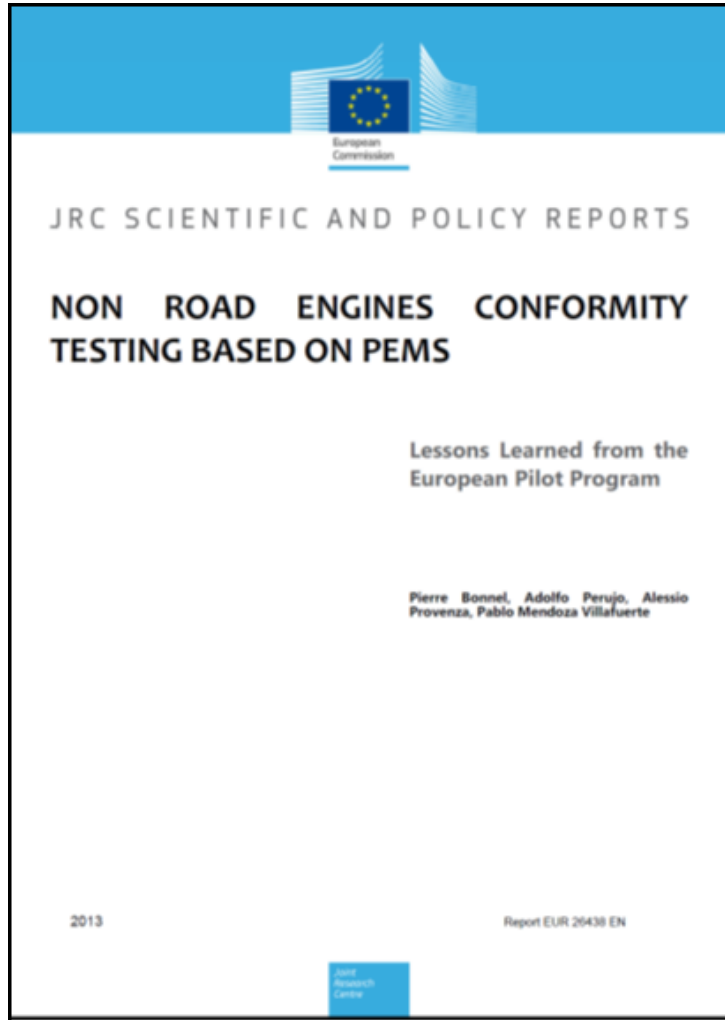
- ✓ To validate the use of gaseous PEMS for checking the ISC of engines installed in NRMM
- ✓ To evaluate the gaseous PEMS test protocol for NRMM
- ✓ To provide data to be subsequently used to set the PEMS test parameters at a level appropriate to the NRMM technologies

The Pilot Programme applied primarily to NRMM or Agricultural & Forestry Tractors equipped with variable speed compression-ignition engines of maximum net power between 56 kW and 560 kW.



Two main technical elements were evaluated:

1. The application of the test protocol, i.e. to judge whether the mandatory data and its quality were appropriate for the final evaluation;
2. The method used to analyse the emissions data i.e. to answer the following question: “Once the data has been collected correctly, what is the most appropriate method to the test data measured with PEMS and to judge whether the engine is in conformity with the applicable emissions limits?”



The objectives were achieved and reported, i.e.:

- ✓ **PEMS test protocol**
- ✓ **Data evaluation methodology**



Also in the legislative proposal:

- ✓ The Commission shall conduct pilot programmes with a view to developing appropriate testing procedures for those engine categories and sub-categories where these are not in place.

Therefore a

IN-SERVICE TESTING OF NON-ROAD ENGINES EUROPEAN PILOT PROGRAMME– PHASE 2

Time line:

EU PILOT PROGRAMME–PHASE 2.

- ✓ Project Plan: **end of 09/2014**
- ✓ Start: **within 2014**



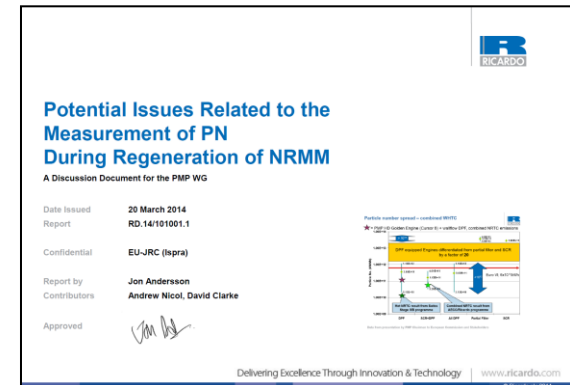
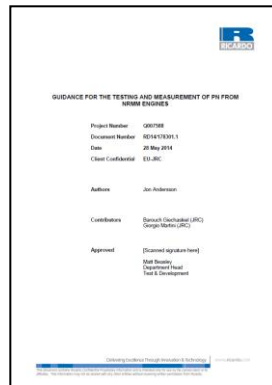
1. PN

- ✓ Particles is a crucial factor behind the observed health effects of diesel engines.
- ✓ Therefore, and in line with the developments in the road sector, the introduction of a new emission stage (Stage V) targets particle number limits in addition to particle mass limits.
- ✓ The PN# approach to emissions of particles should draw on the results of the PMP of the UN/ECE and be consistent with the existing ambitious objectives for the environment.
- ✓ Inclusion of Particle Number limits for most of engine categories.



In order to support the PN measurement in NRMM engines, the JRC has (with the help of an external consultant):

- ✓ Identified potential issues related to the measurement of PN during regeneration of NRMM
- ✓ Provided a Guidance Document for PN testing



These are strictly technical documents with no impact in any legislative provisions with the only aim of providing:

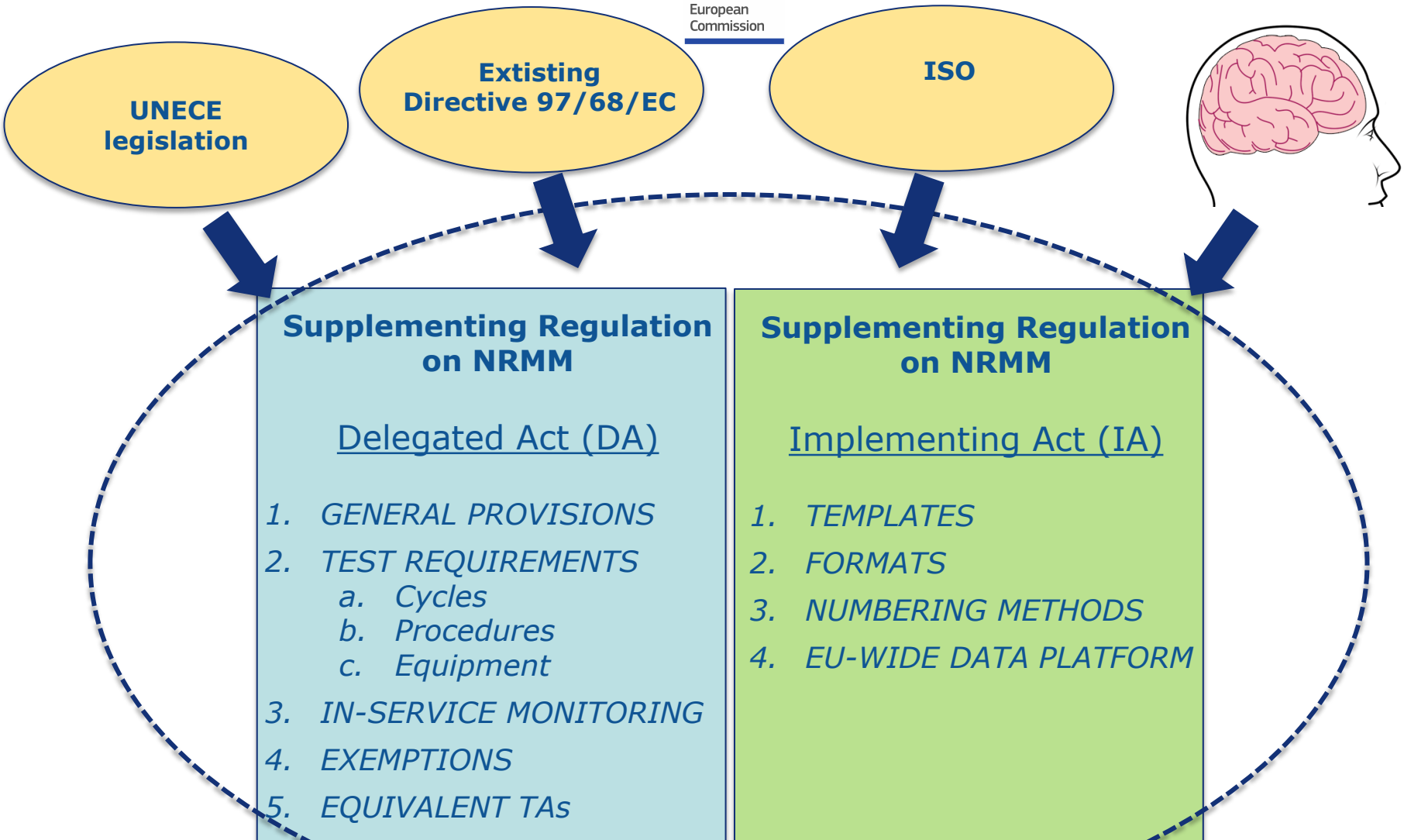
- 1. support to that part of the industry with less experience in PN measurements***
- 2. a technical guidance in order to be able to perform a fair results comparison.***

Agenda pt 4:

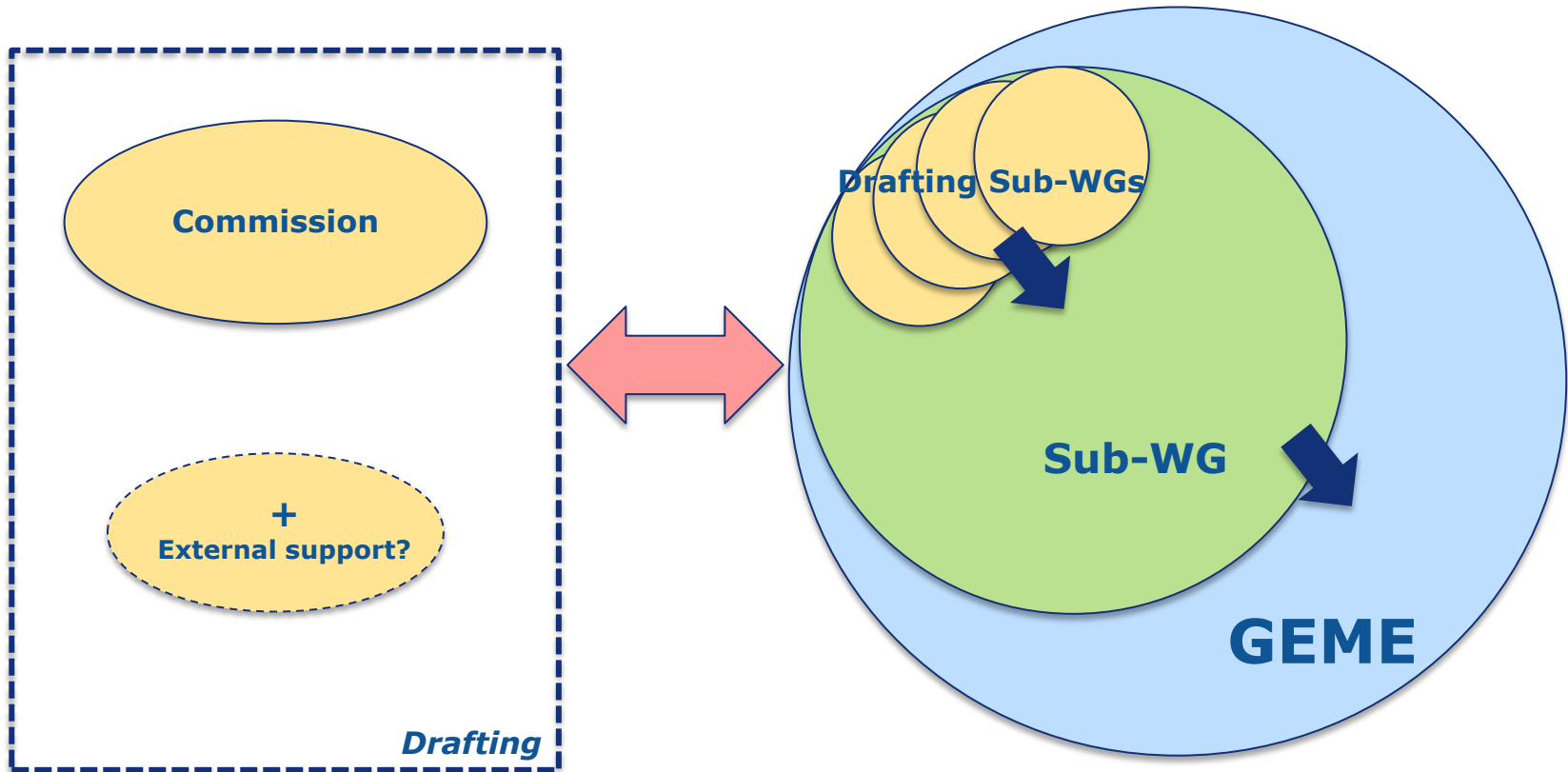
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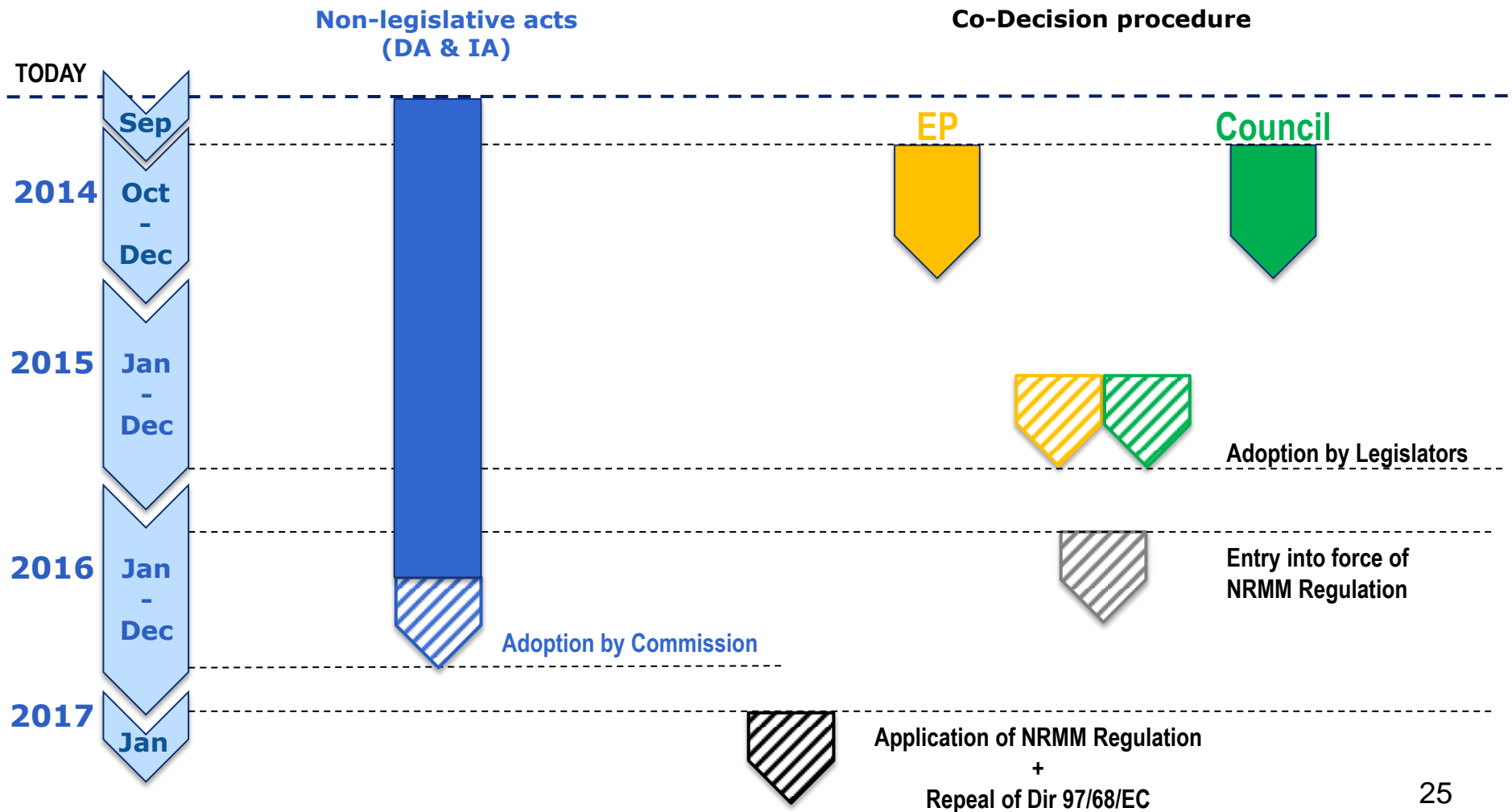
Non-legislative acts: Draft Structure



- **Preferred set-up (suggestion)**



Non-legislative acts: Tentative time planning



Agenda pt 5:

Progress update on Regulation on Environmental & Propulsion Requirements (REPPR) for agricultural & forestry vehicles

Agenda pt 7:

- **Upload of meeting documents to CIRCA**
- **Next GEME meeting**
 - Tue, 10 February 2015
- **AOB**

Thank you

For further information

<http://ec.europa.eu/enterprise/sectors/automotive>