

# Compressed Gas Systems

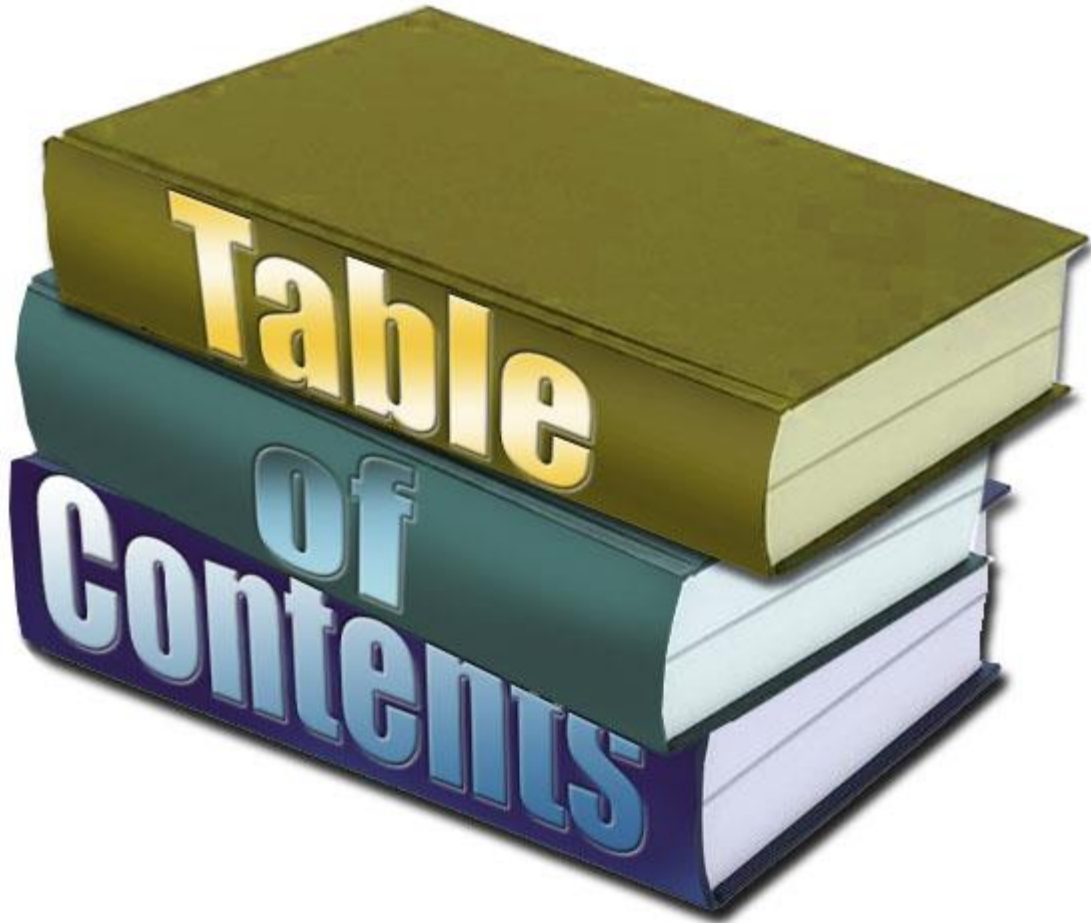
Wim Volmer: WG10, WG11, WG13 Member

September, 2023

## Participants in the Drafting Group \_\_\_\_\_

- Kurt Rasmussen, Force, DK
- Christophe Brun, LNE, FR
- Tobias Nickschick, PTB, DE
- Martin Johansson, CECOD
  
- Wim Volmer, RDI, NL

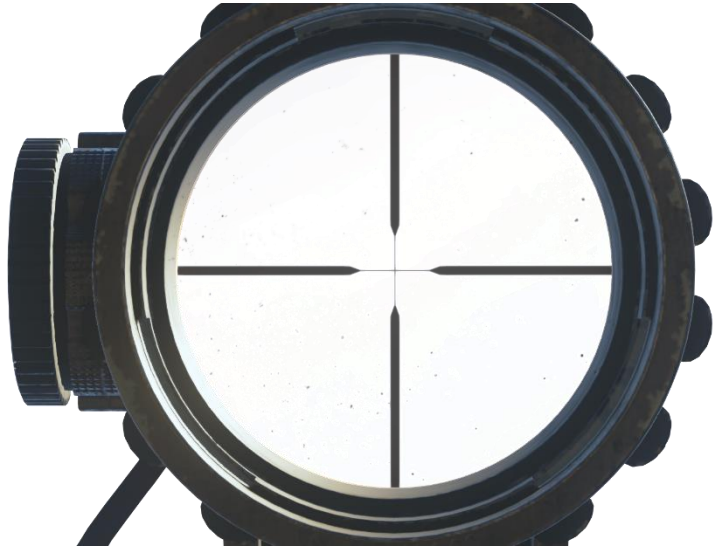




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# Project



## The Team:

- Kurt Rasmussen DK
- Christophe Brun FR
- Tobias Nickschick DE
- Martin Johansson CECOD
- Myself

## EC Request:

- New “Annex” for H2 & CG Dispensers
- Energy gases

How it started

Preventing national differences,  
Lowering barriers to trade

## In the background:

- NoBo's
- Market Surveillance

# Project Timeline



Mid-June:

26 June:

27/06 – 30/07:

31/07:

01/09 – 14/09:

14 September:

19/09 – 27/09:

28 September:

Formation Drafting Group

1<sup>st</sup> Draft

Draft fine-tuned

1<sup>st</sup> Proposal sent to WG10 for comments (31/08 deadline) (\*)

Comments processed

2<sup>nd</sup> Proposal sent to Welmec

Processing Welmec ExBo Tips

...

29/09 – 10/10:

11/10 – 19/10:

25 October:

27 October:

Your chance to contribute

Last tweaks

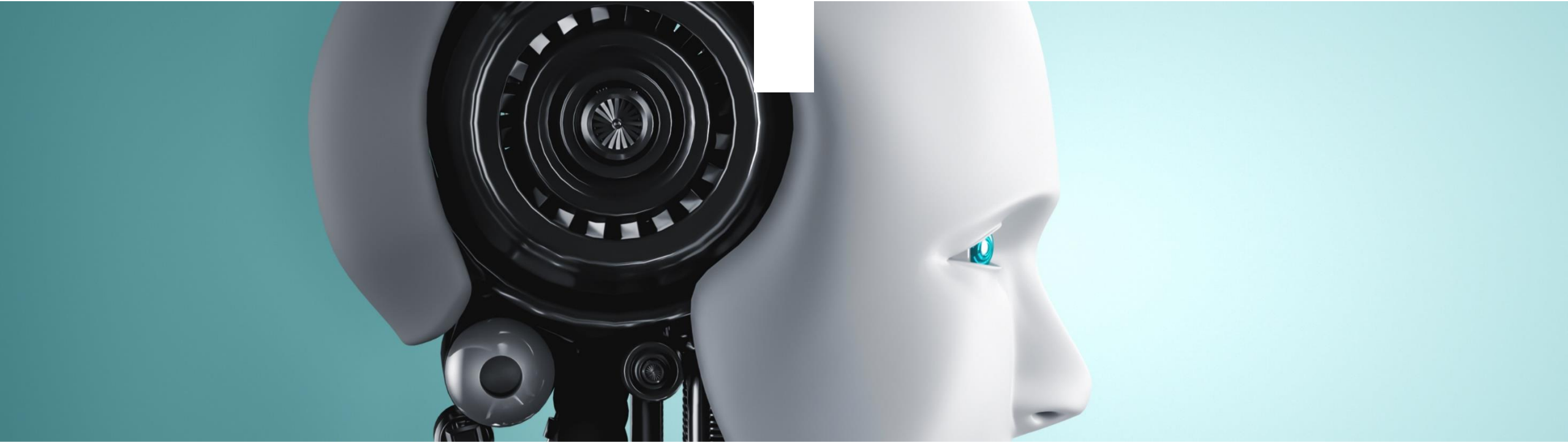
Welmec Committee votes YES

Proposal sent to EC

## (\*) WG10 Comments (31/07 – 31/08)

### Overview:

- 5 countries / organisations confirmed to have no comment
- 9 countries / organisations submitted comments
- In total 48 comments received:
  - Roughly 1/3 editorial
  - Remaining 2/3:
    1. Definitions / Scope
    2. MPE's & MMQ
    3. Mass, energy
    4. Technical, other



**Assumption:**

***Revised Annex I covers Modernisation & Digitalisation***

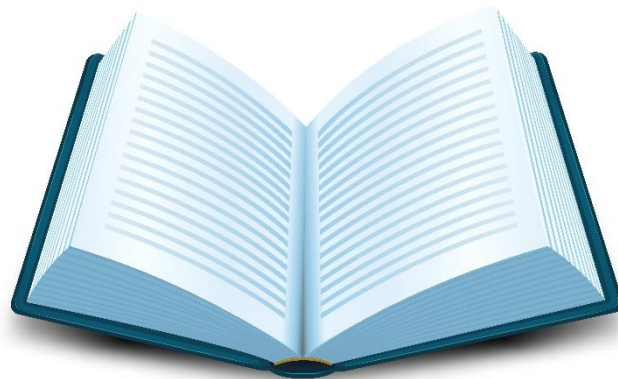
## Sources, background info



- AFIR
- OIML R139 (and NL national Regulation)
- MI-005 & R117
- Recent Module B Certificates (national)
- Energy Taxation Directive (ETD) likely to require taxation based on energy content
- France has H2 Dispensers indicating in Energy

*ISO: “Consensus is the absence of sustained opposition”*

## Requirements



- Not in conflict with R139
- Elements from MI-005 and R117
- Data-processing: ready for digitalisation & modernisation
- Energy: in H2 applications just simple multiplication

# WELMEC in slightly more detail ...

- R139 is not perfect: corrections made; old-fashioned requirements not copied
- Supply chain (road tanker) was not covered: it can be now
- Main struggle: “batch-like” operation vs. MI-002 applications
- MMQ: in the end R117 “inspired”
- Compressed gas also sold in other ways (e.g. filling containers)
- Indication: Mass and Energy, or Mass or Energy
- ...

## Inclusion in existing Annex

*Easier said than done ...*

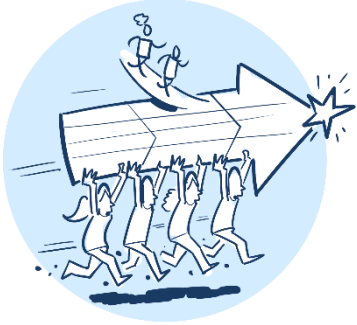
### MI-002:

- Meters, not systems
- Fixed parties vs. Ad Hoc Direct Sales
- Continuous vs. “Batch-like”
- Process conditions very different
- ...

### MI-005:

- Liquids, not gases
- Otherwise
  - Similar technologies
  - Similar transactions
  - ...

## Summary



Coöperation



Big THANKS to my “partners in crime”!!!

- Built-in flexibility
- Relatively high number of inputs
- Consensus is the absence of sustained opposition  
*Can you live with it, as is?*
- So far, so good



**Any questions?**

E: [wim.volmer@rdi.nl](mailto:wim.volmer@rdi.nl)  
M: +31 6 296 33 556



**THANK YOU FOR YOUR  
ATTENTION!**

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