

# *“2<sup>nd</sup> International Conference on Biofuels Standards- Standards and Measurements for Biofuels: Facilitating Global Trading”*

**NMI Activities: Reference Materials,  
Reference Methods and Support for PT  
programs**

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# ***A multiple dimensional problem and the consequences on metrology***

***Harmonization of myriad of players***

***Legal Metrology***

***Quality and Conformity Assessment***

***Accreditation***

***Internacional Articulation***

***Support to Innovation***

# ***Basic needs for Metrology:***

***1- Production***

***2- Storage, transportation and distribution***

***3- End-use- effects on engines environment an health***

***4- Regulation and Standardization***

***5- Commerce***

***6- Innovation, R&D***

***7- Biofuels as starting raw material for green chemistry***

# ***Basic needs for Metrology:***

***1- Net energy content; e.g. Water content in ethanol...***

***2- Harmful impurities; e.g. Cu, S, Na, Glycerol...***

***3- Other physico-chemical characteristics; e.g. different esthers content and jellification temperature for biodiesel.***

***4- Information about the origin, both geographical and related to raw materials; fundamental do comply with certain regulations.***

***5- Proficiency tests and intercomparisons***

# ***Anticipated practical needs:***

***1- International fora for articulation uniformity and world wide acceptance:  
K.C. , CIPM-MRA, ILAC, IAF, ISO...***

***2- CRM development and validation. Stability is a big issue, especially for biodiesel.***

***3- Normative standards.***

***4- New instrumentation development aiming at reliability, simplicity, portability. P.T. and training.***

***5- Deeper scientific and technological understanding to support: better instruments, standards, regulations and CA.***

***6- Measurements related to side effect of biofuels use: corrosion of engine parts, environmental and health effects.***

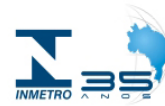
***7- Conformity Assessment, especially certification, including social, environmental and GHG saving calculations.***

## ***Main Focus of Cooperation :***

***To provide internationally recognized and accepted standards for biofuels, at this moment nonexistent, to underpin their world-wide trade, as a commodity.***

- ***Joint development of measurement standards (CRM), as well as new measurement techniques and test methods***
  - ***Awareness and articulation of the international metrology and standards community***
  - ***World wide harmonization of biofuels specifications and standards***

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