

Talking to Government...

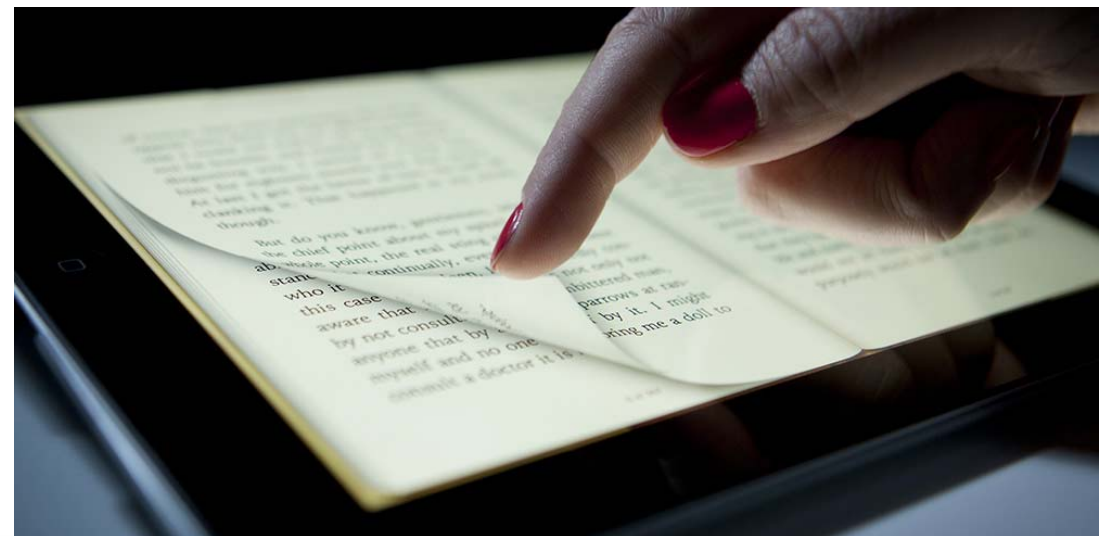
Thomas Grenon

NMI Director meeting – October 2017

Elaboration of a « strategic and performance contract »

External view for recommendations on metrology activities to be proposed

- ▶ Evaluation by the Science & Technological Academia
- ▶ Discussion with the Strategic Council of LNE
 - Representatives of industries, universities, professional federations
- ▶ Input from different ministries on metrology needs (industry, health, environment & sustainable development, defence, etc)
- ▶ Inputs from customers
- ▶ Metrology Council
- ▶ International and European challenges
 - R&D programmes (EURAMET)
 - Standardisation and regulation issues



Elaboration of a « strategic and performance contract »

Commitment of both parties (Government and LNE)

- ▶ Four years duration
- ▶ Key issues commonly defined and proposed (with 20 key indicators)

Continuous reporting of results, impacts and communications actions

- ▶ Administration board of LNE, Strategic council, Metrology council



- ▶ Specific and regular RdV with Gvt
- ▶ Regular press review and events
 - Creation of platforms, technical institutes
- ▶ Webinars with customers

LNE key objectives

- ▶ Development of tools to support the competitiveness of industry and to get a more « secure world » (health, security, energy...)
- ▶ Specific actions to support public policies

Research

New test protocols

Evaluation

Answer to regulation bodies and standardisation

Assist public bodies and State as third party



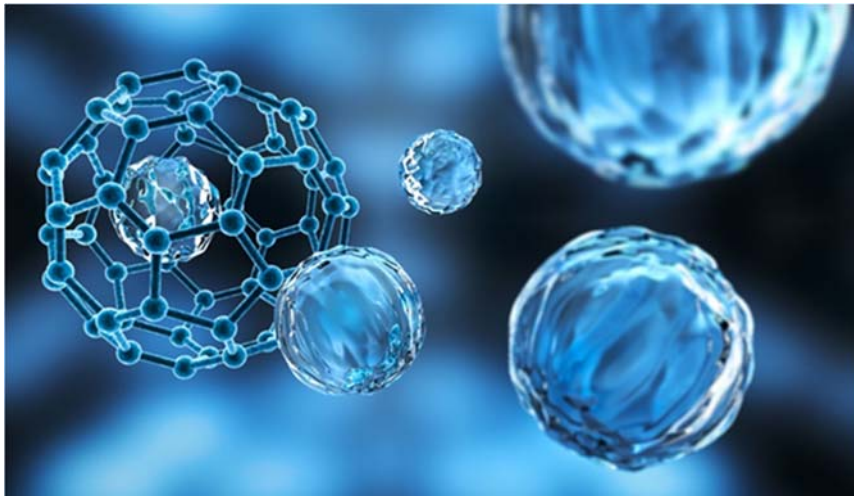
Manufacturing of the future

- Additive manufacturing, hybrid measurements, modelling, robotic, artificial intelligence, connected objects, measurements in extreme conditions...



Materials and nanomaterials

- Functional surfaces, complex materials, substance transfer, chemical and physical characterisation
- **Platforms**
 - ⇒ LNE NANOTECH INSTITUTE
 - ⇒ MATIS
 - ⇒ SOLEIL (synchrotron – metrology line)



Specific metrology key objectives

Great challenges : health, environment and energy

► Health

- Metrology for laboratories in medicine
- Imaging and new technologies, medical devices
- Biology and radiotherapy \Rightarrow DOSEO platform

► Environment

- Quality of air and water
- New pollutants, cocktail effect, new sensors
- Radioprotection

► Energy

- Lightning, LED
- Renewable and alternative energy
- Energy efficiency
- Smart Grid



Quantum technologies and SI

- ▶ Quantum technologies
 - Quantum standards
 - Graphene
 - Signal dissemination and security
 - Atomic interferometry

- ▶ SI
 - Spatial projects & Optical clocks
 - Clock comparison by fibre link
 - Follow-up projects on watt balance
 - Acoustic gaz thermometer

