

FutureMED EMN: Advanced Therapeutics & Precision Medicine



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Science
for a safer world

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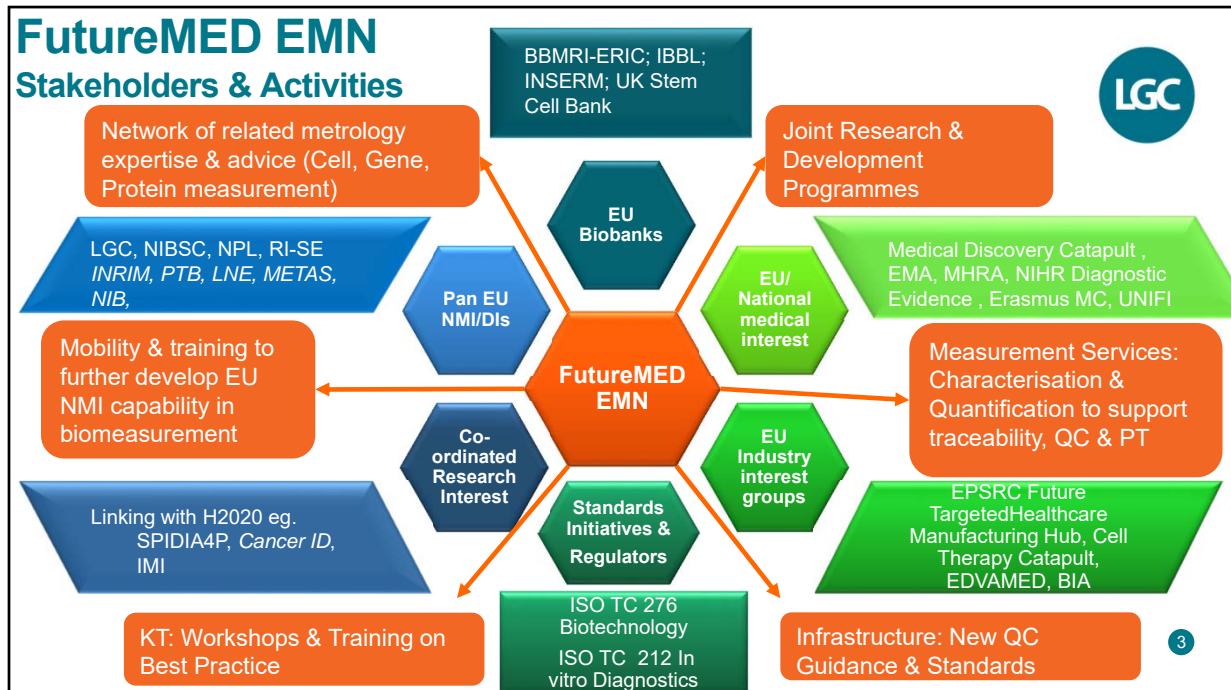
FutureMED EMN



- **Science Based Metrology Network** - including Cell, Nucleic Acid and Advance Protein Product Measurements, 'Omics, Tissue / Cell Imaging, Multi-Parametric, Metadata Based Approaches) to fill unmet need for measurement science and standardisation in support of **Advanced Therapeutics & Precision Medicine** :
 - > Precision (stratified/personalised) healthcare provision,
 - > Advanced Medicinal Therapeutic Products (Gene, Cell, Protein & Tissue)
 - > Companion Diagnostics Industry
 - > Significant growth of biobanks, cohort studies and clinical trials in the EU
- **EU Priority**- Europe has unique relevant strengths, including large collections of omics-derived and imaging-based biomarkers; The EU Precision Medicine Market valued at \$20bn by 2020; EU supporting major research initiatives in these areas under H2020, including IMI, Cancer ID.
- **Development of a European Metrology Infrastructure** required in understanding measurand and potential for SI traceability required for compliance with **accreditation and regulations** and to inform developing standardisation



FutureMED EMN Stakeholders & Activities



FutureMED Outputs:

- **Network of related metrology expertise & advice** (Cell, Gene, Protein measurement combined with Physical measurement infrastructure)
- **Mobility & training** to engender skills development & further develop EU NMI capability
- **Calibration / Measurement Centres** offering complementary services eg. Cell characterisation, NA quantification, protein structure / function, cell tissue imaging, sequencing analysis, informatics & statistical analysis for big data sets.
- **Structured series of NMI/stakeholder workshops** to discuss needs & disseminate best practice in different applications
- **Joint research projects** in advanced medical product characterisation and precision medicine integrating metrology
- **Informed & co-ordinated metrics and technical input into standards**, industry & healthcare application guidance

FutureMED EMN Impact:



- Development & coordination of **core biometrology infrastructure in EU to meet stakeholder requirements** for providing coordinated (traceable) NA, cell & protein measurement services in key advanced healthcare areas will support innovation and accelerate improved healthcare provision
- Measurement research and services, RMs and documentary standards support will **engender quality in manufacturing, confidence and uptake of advanced medicine products, and safe and effective administration of precision medicine strategies** supported by reference measurement systems and best practise for comparability
- Enhanced awareness & understanding of measurand, MU, and potential for **SI traceability will contribute to development of new health economic models & performance metrics**