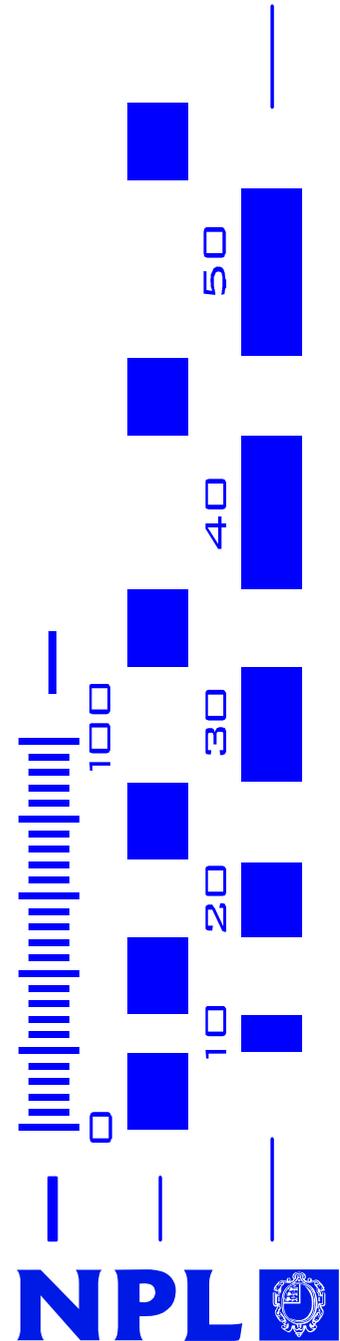


ARMUG

Formulation of NMS Ionising Radiation Metrology Programme

Steven Judge

December 3rd, 2003



National Measurement System

Technical Infrastructure to ensure measurement in UK is:

- Traceable
- Consistent
- Internationally recognised

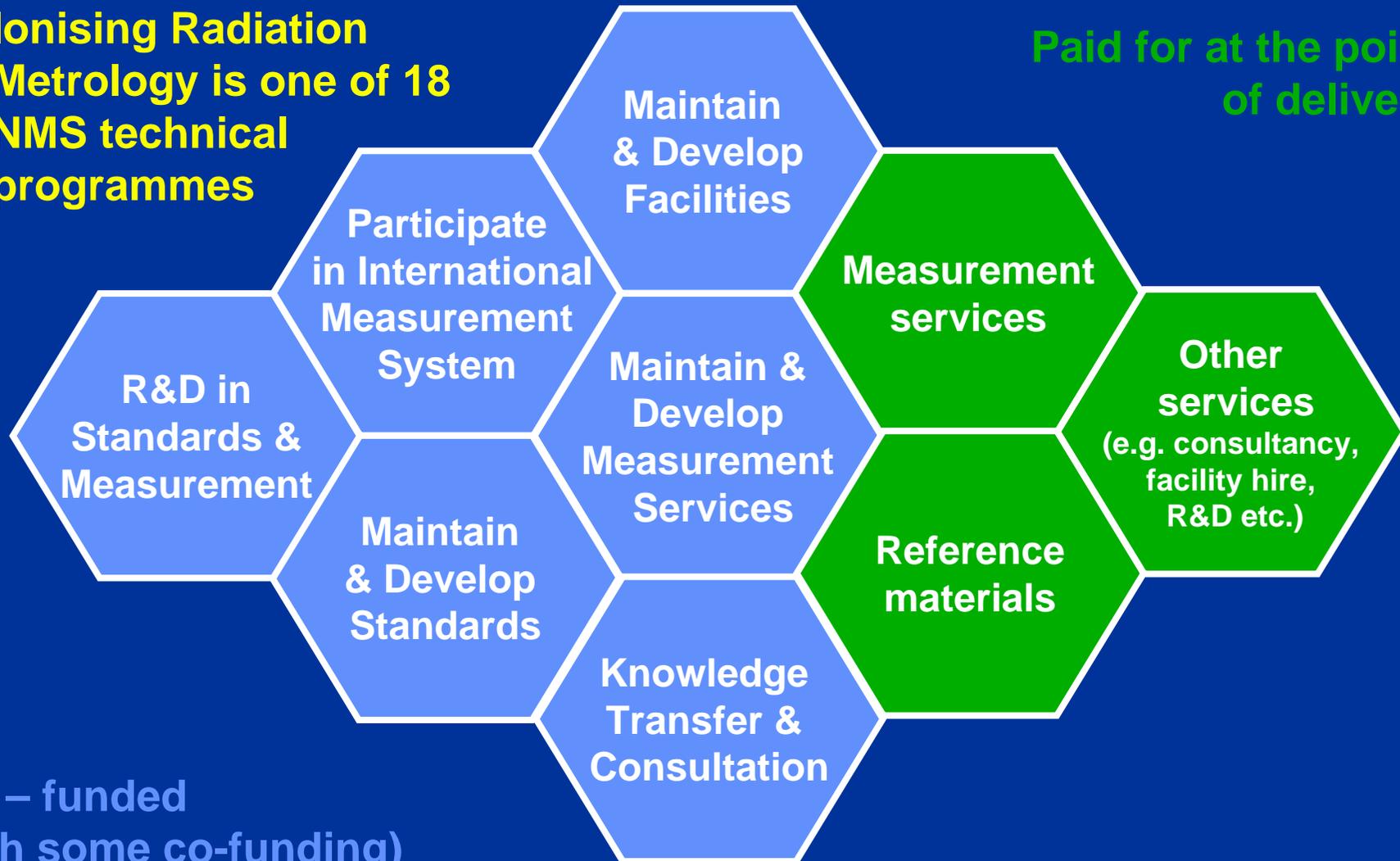
Excellence in measurement science to:

- Enable regulatory compliance
- Improve quality of life
- Provide economic benefit

National Measurement System

**Ionising Radiation
Metrology is one of 18
NMS technical
programmes**

**Paid for at the point
of delivery**



**DTI – funded
(with some co-funding)**

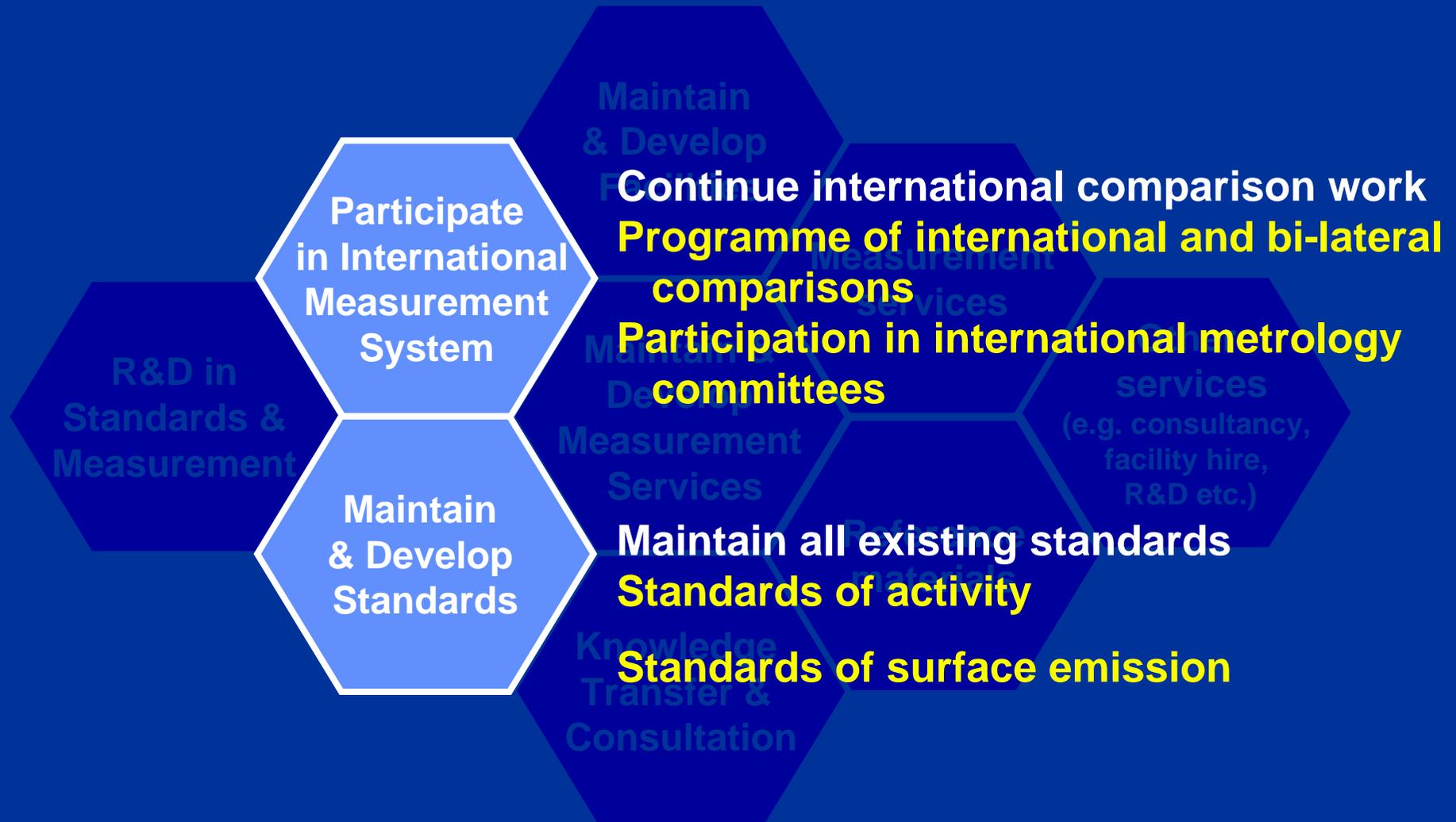
National Measurement System

- Programmes developed and funded on a 3 year cycle
- Present programme for ionising Radiation Metrology runs September 2001 – September 2004
- Programme Formulation started in April 2003

Programme Formulation Timetable

April – June 03	Scoping Study (SG / PA)	← NPL, DTI, MACWG User community, Peers Regulators, Government
June 24 th 2003	Orientation Meeting	← PA Consulting, NPL, DTI DTI invitees
Sep - Dec 03	Consultation	← User Community, Peers, Regulators, Government
November 03	Draft Programme	← MACWG review
March 04	Draft for Public consultation	← Anyone may comment
June 04	Final programme	← MACWG, DTI

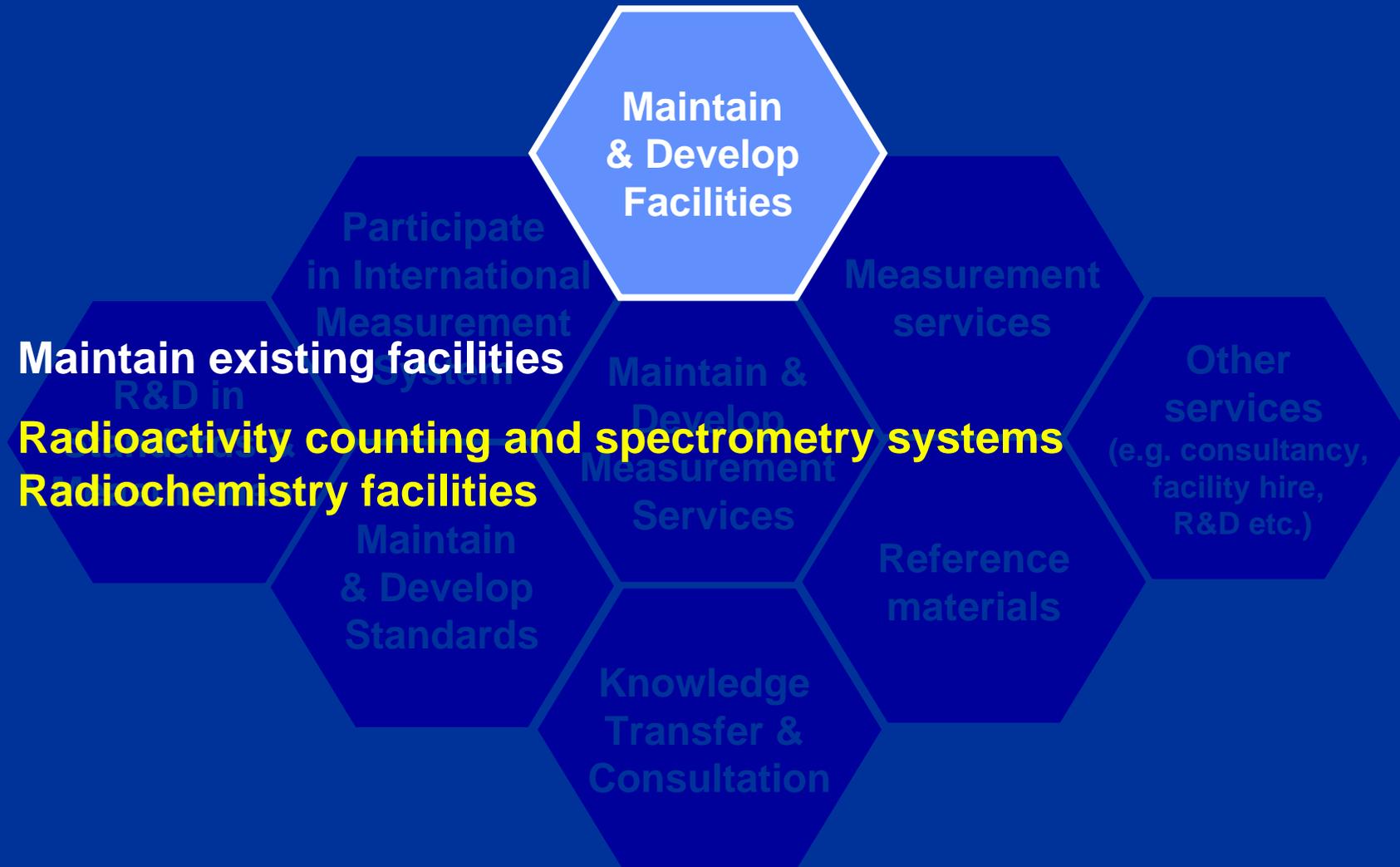
Proposals for draft programme



Proposals for draft programme



Proposals for draft programme



Proposals for draft programme

New developments

- Service to measure very low emission rates from reference sources
- Cost-effective photon emitting standard planar sources
- Non-conducting large area sources
- Alpha emitting large area sources
- Use of imaging plates to measure large area source uniformity
- Investigation of response of surface contamination responses (e.g P-factors)
- Study of emission from embedded particles

Proposals for draft programme

New developments

- Study of radon compensation techniques in commercial air-monitoring systems
- Techniques for producing realistic standards for air-monitoring instruments
- Provision of realistic standards for decommissioning

Proposals for draft programme

Knowledge transfer activities

- **User Groups**
IRMF, Nuclear Spectroscopy User Forum, Liquid Scintillation Users Forum, Air Monitoring Users Group, Neutron Users Club
- **Comparisons**
Gamma, Neutron, Surface Contamination Monitoring
Proficiency test for waste producers (e.g. cement encapsulated)
- **Training**
Surface contamination, airborne radioactivity, radiological contamination, neutron dosimetry workshops
- **GPGs**
Tritium in air, MDA in air monitoring?
Participate in development of codes of practice for decommissioning (including holding metrology workshop)

How can you help?

- **Comment on programme or formulation process today**
- **Contact Martyn Sené or other IR staff with comments on present or proposals for future programme at any time.**
- **Comment on public consultation document (March 2004)**
- **Level of interest and support from user community is vital.**

