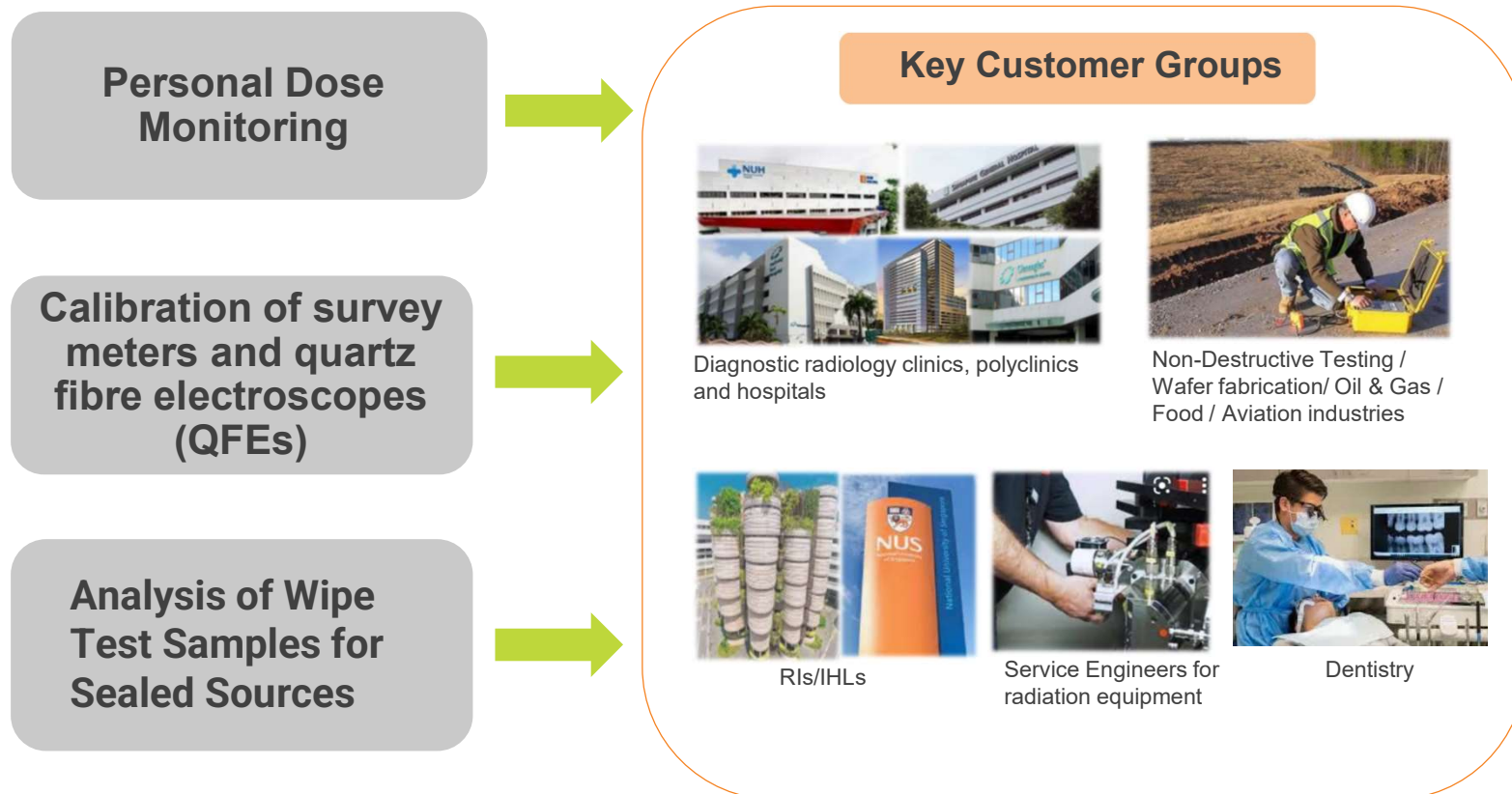


Status of National Arrangements on Dose Registry

“Regulatory provisions on NDR & its’ implementation”

Melody Cai, Radiation Services Branch
Singapore

Overview of Radiation Protection Services



Personal Dose Monitoring

- Under Radiation Protection (Ionising Radiation) Regulations, any individual licensed to do radiation work must be **monitored for the individual radiation dose received while performing radiation work**
- Thermo-Luminescent Dosimeter (TLD) technology
- Passive dosimeter
- Provides skin, body, extremity (finger) and neutron dose monitoring
- **TLD analysers** calibrated by Secondary Standard Dosimetry Laboratory (SSDL)



Personal Dose Monitoring



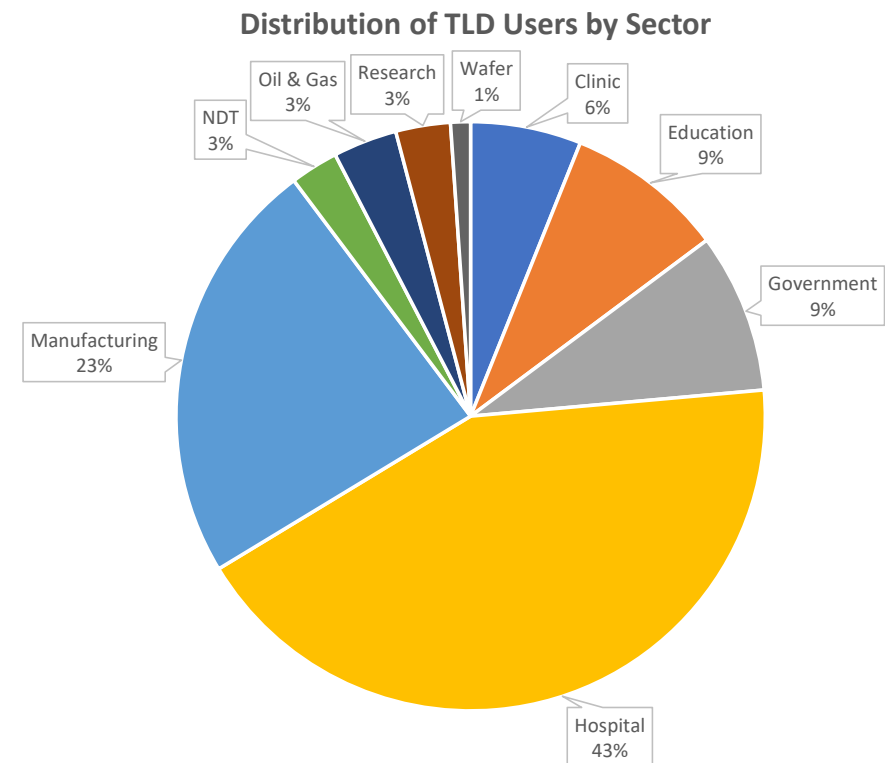
**Monitor
~14,000
radiation
workers in
Singapore**



**Adopt risk-
based
approach in
monitoring
frequencies**



**Issue ~61,200
TLD cards a
year**



Dosimetry service characteristics

- **Monitoring periods used for external dosimetry:**

Dosimeters issued on a risk-based approach with different monitoring periods (e.g. monthly, bi-monthly, quarterly and four-monthly) where the higher risk will be monitored frequently (monthly) as compared to the lower risk (quarterly)

- **Calibration procedures for external dosimetry:**

Calibration cards are irradiated in SSDL according to ISO 4037. These cards are then used to calibrate TLD reader for Hp (10) and Hp (0.07).

- **Dose assessment methodologies for internal dosimetry**

RSB does not perform any internal dosimetry analysis

- **Retention period of the NDR data**

77 years

Dosimetry service characteristics

- **Information required by the NDR:**
Information required includes company / organisation address, contact information, nature of work and details of the radiation workers (e.g. name and personal identification number)
- **Types of doses recorded in the NDR:**
External skin, body dose, neutron, extremity records are kept in our in-house laboratory information management system for storage
- **Number of currently registered occupationally exposed workers: (in your service in the country or from all services)**
~14, 000 radiation workers

Our Environment

Safeguard • Nurture • Cherish