Nuclear Decommissioning Authority

LLW Repository Ltd

# Progress towards an integrated inventory

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*Alan Wareing*

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# Current Status

- National Inventory data-gathering exercise and publication on a three-yearly basis
- Separate site inventory databases and ad-hoc data collection
- NDA Waste tracking and accountancy through WATs
- IWS, LTP, Hazard Baseline and LLWR baseline produced on different timescales
- Separate supporting tools – WIDRAM, BRIMS, WCS database, DIQuest

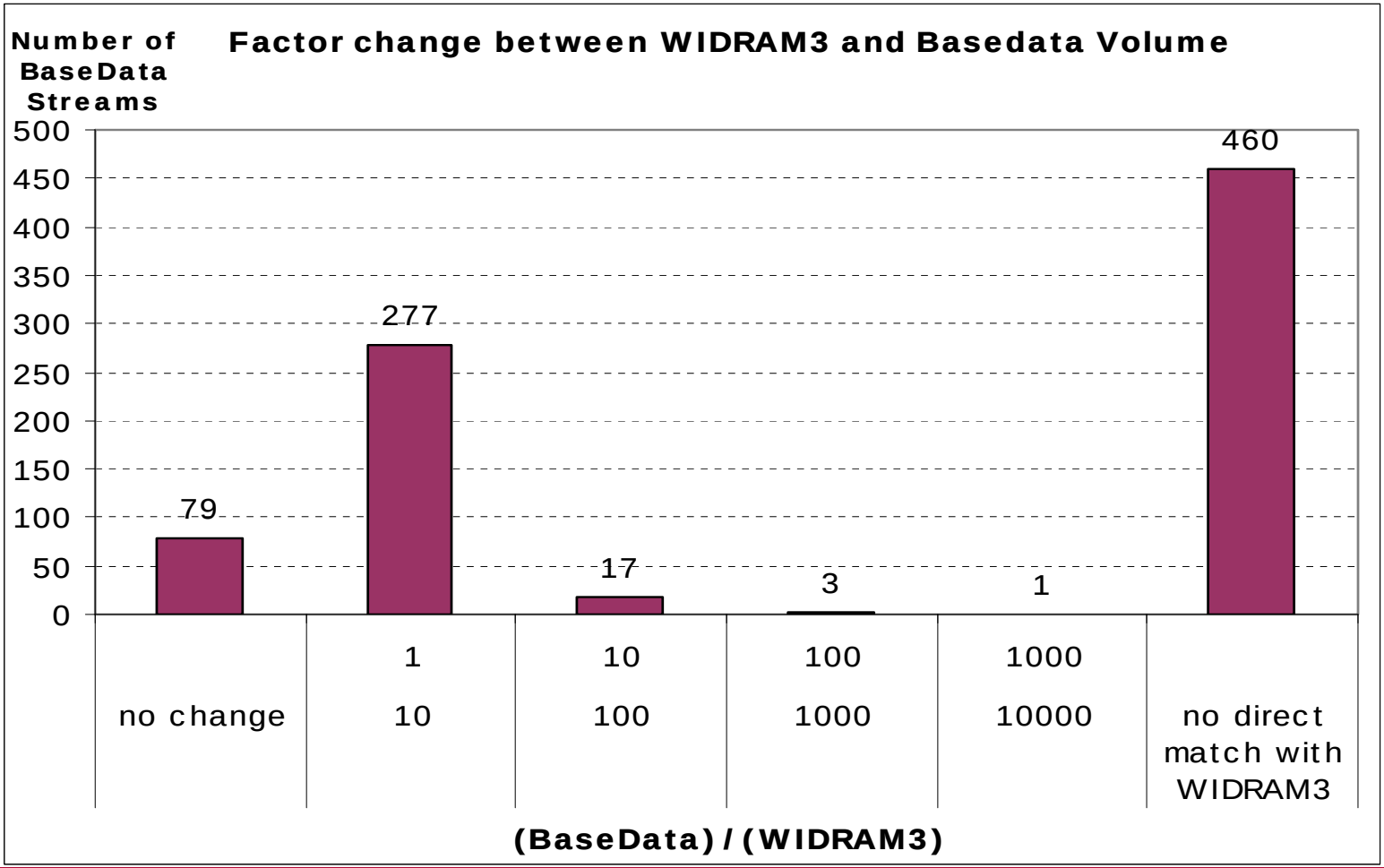
# LLW Strategy Needs

- Detailed information to inform strategy, focused on timescales, volumes, materials and radionuclides
- Identification of potential treatment/disposal routes and opportunities
- Support to environmental safety cases
- Need to understand the potential for utilisation of the various waste treatment strands
- Accurate short-term forecasts (5 – 10 years) to demonstrate progress in meeting objectives

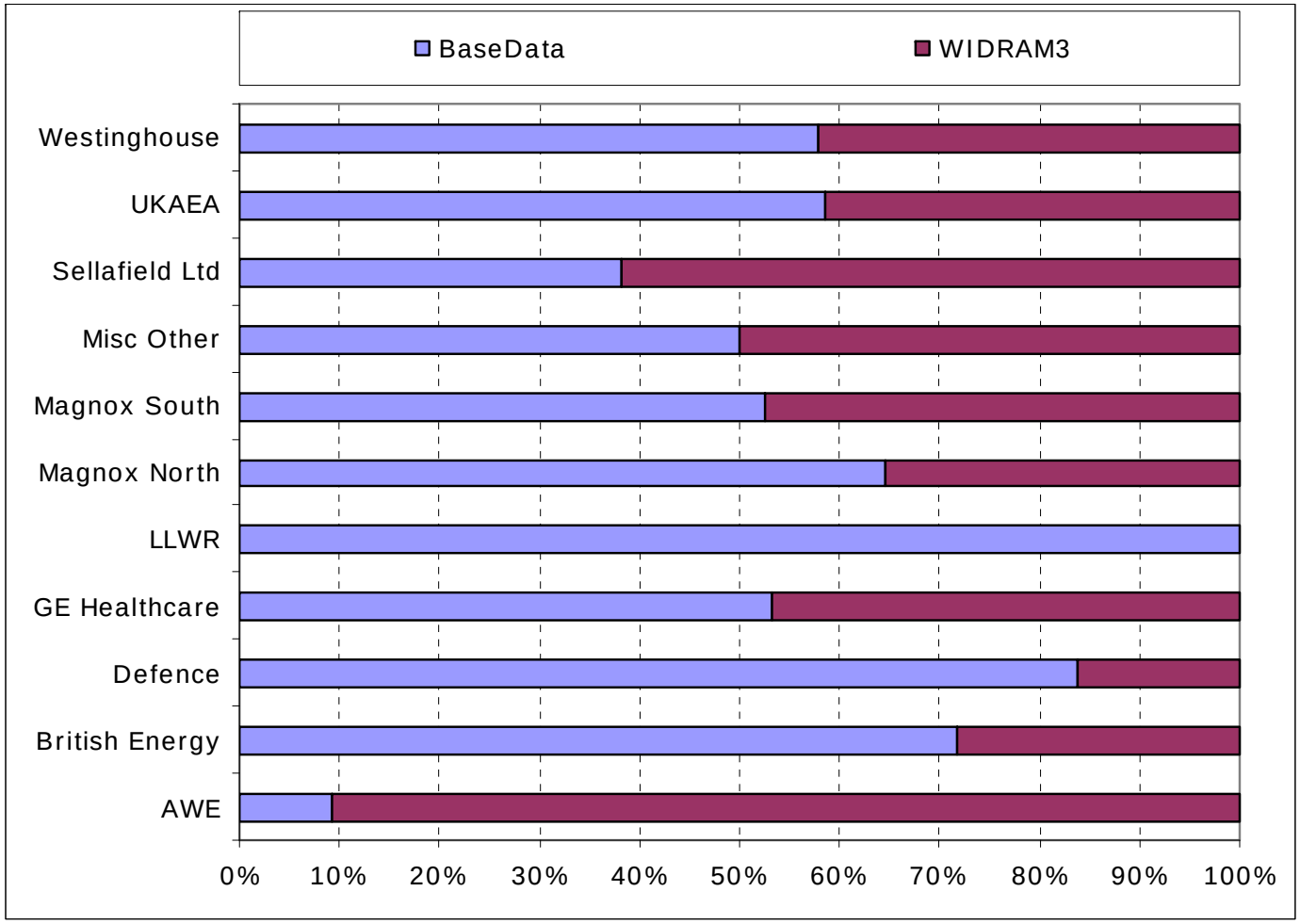
# Difficulties Encountered

- Data gaps and inconsistencies - assumptions/presumption unavoidable
- Timing of datasets - 2007 NI already shown to be out of date compared to the 2008 LTP WATs
- Radionuclide fingerprints not always available
- Near-term volumetric forecasts often higher than actuals
- Majority-contributor waste streams for volume, materials and key radionuclides vary with each new dataset

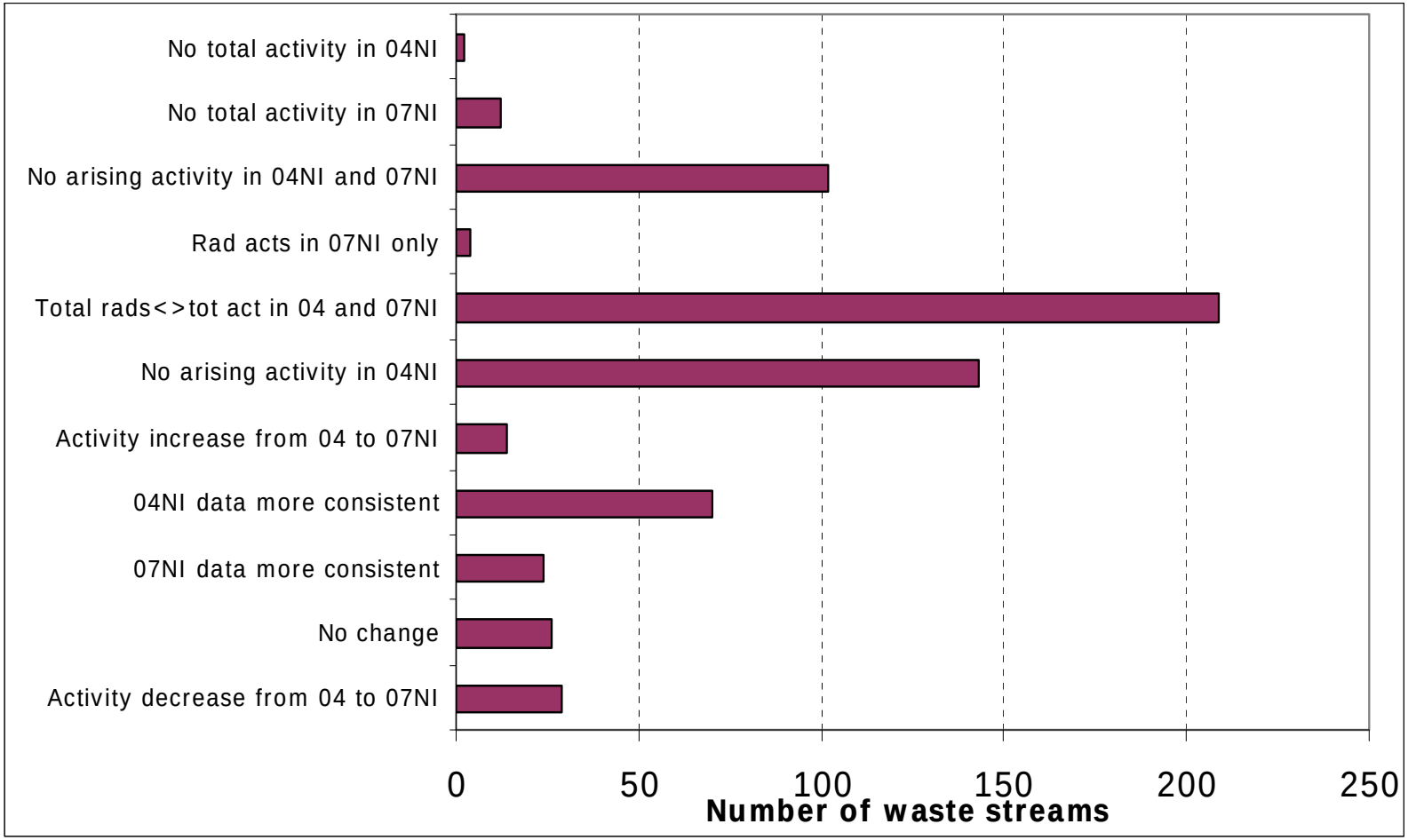
# Data differences – waste stream volumetric changes



# Data differences – waste producer volumetric changes



# Data differences – waste stream activity changes



# Impact of Poor Data

- Changeable high-impacting waste streams make long-term management difficult
- Very changeable inventory being produced through each iteration of the LLWR safety cases – difficult to reduce uncertainty and build confidence
- Difficulty in predicting timescales for future vaults phasing
- Inflexibility in dealing with customer quotas - historically have obtained best possible broker prices for LLWR disposal by understating/overstating requirement
- Potentially difficult to demonstrate improvement in treatment/disposal practices

# Potential Ways Forward

- Assistance to the sites in deriving data – focus on key waste streams and uncertainties
- Development of a near-live National Inventory data system, enabling production of datasets in phase with IWS/LTP
- Reporting mechanism to highlight key changes to future forecast inventories
- More accurate short-term forecasts – potential add-on to waste stream characterisation documents of a five-year rolling estimate?
- Standard data specification to enable direct linkage of databases and tools
- Single point of contact for all inventory matters at each site