



## Intelligently Managed Survey Data

RWE NUKEM undertakes environmental field monitoring and surveys on behalf of the United Kingdom Atomic Energy Authority (UKAEA) at their Dounreay site, in the north of Scotland.



### the original system

RWE NUKEM's previous procedures involved surveyors recording field measurements using hardcopy templates. The templates were checked visually by a supervisor and the data entered into spreadsheets.

It was recognised that data-entry errors could potentially compromise the quality of the survey data and mistakes were time-consuming to resolve. The data was not fully auditable and there were only limited tools for reporting and analysing the data.

### the new system

RWE NUKEM wished to implement a software solution, which would allow surveyors to capture field data electronically, with straightforward data-upload to a relational database and reporting tools for output and analysis of the data.

enviro-surv:A from ESiT provides a unique management solution to RWE NUKEM, allowing them to make effective use of the large amount of data captured by their field surveyors. The data includes the results of soil and seaweed sampling and beta and gamma surveys. enviro-surv:A integrates an off-the-shelf product for field GIS with ESiT's powerful data management solutions based on the ADMiT System. There are two components to enviro-surv:A.

**enviro-surv:A mobile** controls the flow of information to and from the Pocket PC. A 'Q&A' dialogue allows the

### FAST FACTS

case study: **RWE NUKEM**  
location: **Dounreay, Scotland**  
users: **4**  
integration: **PocketGIS, Microsoft Excel and Access**



**RWE NUKEM**

surveyor to initialise the Pocket PC with the appropriate base data prior to each survey.

In the field, the GIS software consists of a simple-to-use 'maps and forms' package integrated with a GPS receiver. The application provides a simple interface for uploading completed survey data to a central relational database.

**enviro-surv:A client**, the desktop application used by the supervisors, provides an access rights controlled view of the survey data. The forms-based user interface provides tools for reporting the data. enviro-surv:A client also provides revision and quality control features for data validation and approval. Once a survey has been approved, aggregated reports can be produced in Microsoft Excel and Access for managerial decision support. Data can also be output to a GIS package for visual assessment.

### new directions

enviro-surv:A is a modular application with the flexibility to evolve to meet the changing needs of our clients. Planned extensions include:

- Full control and distribution of survey data and GIS shape files
- Automated supervisor notifications of newly uploaded surveys
- Ability to highlight records and filters on a desktop GIS interface (including spatial search functionality)

### the benefits

enviro-surv:A from ESiT has provided RWE NUKEM with an intelligent software solution to a real-world problem. The system provides data integrity by minimising re-entry of data. Elimination of data-transcription has also increased efficiency. The system provides an audit trail using revision and approval features, GPS fixes for all survey points and reporting tools.

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