

A robust survey methodology mitigates the need for 'top-up' surveys saving DfC up to £60,000

Using GI to produce a quality Stock Condition survey for NIHE

As part of the Social Housing Reform Programme (SHRP) the Department for Communities (DfC) was tasked to undertake a Stock Condition Survey of some 22,500 Northern Ireland Housing Executive (NIHE) properties to assess their condition and establish maintenance costs over the next 30 years. Land & Property Services worked with DfC to provide a GI solution for the Survey.

Challenge

The SHRP required a solution to ensure that a robust Stock Condition Survey was undertaken. They identified that through continuous and accurate mapping of the survey information, the survey results could be quality assured to ensure that a statistically meaningful sample of NIHE properties was being taken. This would facilitate survey analysis and contribute to useful project results suitable for decision and policy making.

The SHRP identified that resources, including Geographic Information (GI) and skilled staff with expertise in Geographic Information Systems (GIS) were required in order to help deliver a robust Stock Condition Survey of NIHE properties.



What is Geographic Information (GI)?

Over 80% of data used by our public sector services can be described as GI because it has a geographic element i.e. an address; and because of this, it can be mapped.

What is a Geographical Information System (GIS)?

(GIS) refers to a range of software packages that helps organisations harness the geographic element of data, not only to map the data, but to analyse it in new and more powerful ways.

LPS GI Consultancy Services

LPS provides a free GI consultancy service to the public sector in NI. The team provides tailored advice and assistance on how GI can improve processes and service provision; how to interrogate and present data and statistics using GIS.



Map showing completed stock condition surveys.

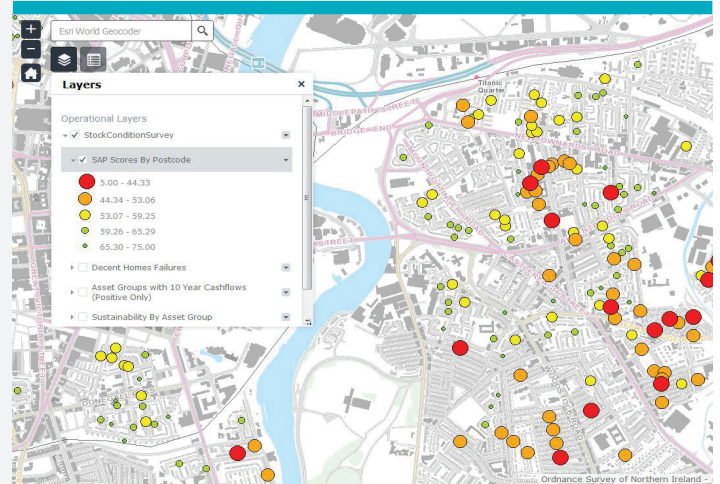
The Solution

DfC leveraged the Northern Ireland Mapping Agreement (NIMA). NIMA provides free access to OSNI mapping and spatial datasets as well as a GI consultant dedicated to supporting DfC.

The GI Consultant provided input throughout the various stages of the project ensuring the tender brief correctly reflected DfC's requirements and outcomes were as accurate as possible. This included a requirement for the provision of accurate address data matched to LPS Pointer data upon submission of survey results.

The survey results were geocoded so the properties could be digitally mapped, visualised and analysed in a GIS environment and developed a web-based application so DSD staff unfamiliar with GIS are able to visualise, query and interact with the survey results.

“GI analysis was invaluable for this project. Mapping the survey results provides NIHE managers with a quality tool for effectively focusing employee and financial resources”
David Polley – NIHE Sponsor Team



Web Mapping Application showing average SAP scores by postcode. The stock condition surveyors also collected SAP (energy efficiency) scores for each property surveyed.

The Benefits

- Digitally mapping the Stock Condition Survey results not only contributed to a robust project methodology, but also provides long term benefits. NIHE now has the data and capability to analyse the Stock Condition Survey data geographically providing managers with precise and accurate information for forward planning.
- Staff can now anticipate property maintenance needs and effectively focus employee and financial resources.
- Inadequate statistical analysis resulting from poor survey methods leads to “top-up” surveys on individual housing units being required, the new methodology has mitigated DfC's exposure to expenses of up to £60,000 over the course of this project.
- Additionally, as part of NIMA, DfC was able to access key LPS datasets required to complete this survey (including Pointer, CPD and Large Scale) worth in excess of £230,000. Therefore, DfC realised total potential cost savings of at least £290,000 as a NIMA customer.