Enabling ownership information to be visualised more easily in Northern Ireland

"I am delighted to announce the commencement of the Land and Property Services (LPS) 3D project which will see the development of a detailed 3D buildings model dataset and 3D visualiser for Northern Ireland. This important dataset will greatly improve Land and Property Service's internal processes, including property valuation, rating and land registration. This dataset will link a range of internal datasets using geospatial identifiers and allow master data to be visualized in 3D for the first time, making visualization of ownership information in complex buildings much easier."

Jim Lennon
Chief Survey Officer, Ordnance
Survey of Northern Ireland (OSNI)

High quality data from Ordnance Survey of Northern Ireland (OSNI) is being used to develop a 3D buildings model dataset that will enable ownership information to be visualised more easily.

OSNI high-quality data sources, such as Digital Surface Model (DSM), LiDAR, and OSNI Fusion will be used to create an automated workflow for the production 3D buildings based on the OSNI Fusion Building footprint.

The 3D Building models will be based on the City GML 3 standard and conform to LoD2, meaning that building features such as overhanging rooms, mezzanine floors and subterranean areas will be modelled.

Individual property level detail within buildings will also be modelled facilitating better representation of complex building occupation and multi-use spaces. Through use of linked data, users will be able to visualise all data pertaining to each individual property such as the address, value and ownership extent in a 3D visualiser application.
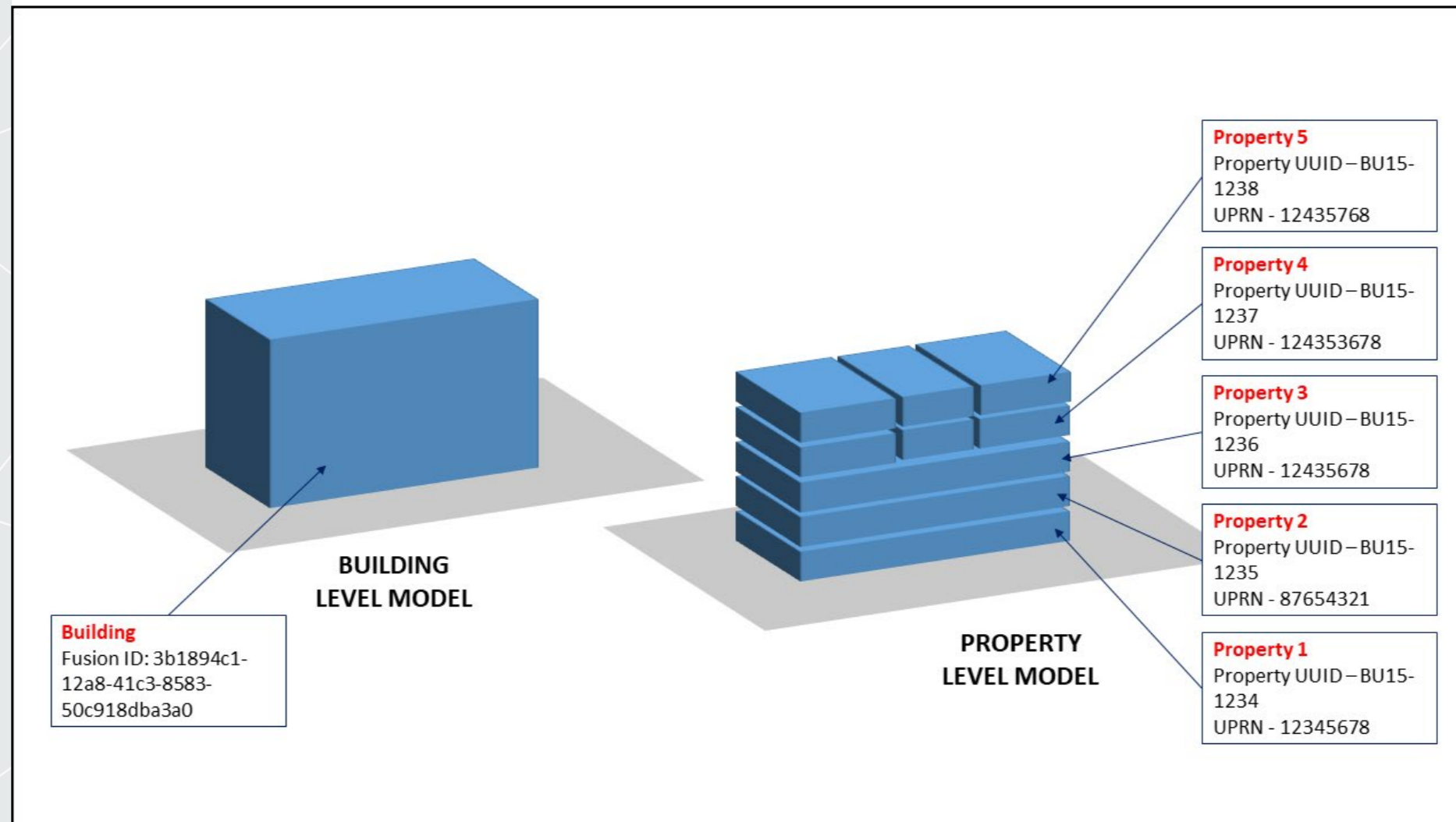
Benefits

- Saves time and costs by reducing need for site visit by valuation staff through improved use of desktop survey techniques.

- Enables a more accurate valuation as more intelligence can be retrieved about each property in a building, for example area and volumetric calculations or the properties view or orientation.

- Increases efficiency of property registration process as more effective visualisation enables caseworkers to gain an improved understanding of the parts of a building to be registered.

- Brings data together for use in a 3D environment for the first time by using linked data to collate disparate data sitting across multiple Line of Business systems.

- Allows enhanced spatial analysis, such as solar potential or property flood risk, using the 3D building models.

- Improves visualisation allowing Land and Property Service to identify areas that have poor density or buildings that are under-occupied, possibly highlighting where there is a need for public sector intervention due to market failure.

- Greatly enhances user experience as 3D becomes the norm when dealing with property data and assets.

BUILDING LEVEL MODEL

Building
Fusion ID: 3b1894c1-12a8-41c3-8583-50c918dba3a0

PROPERTY LEVEL MODEL

Property 5
Property UUID – BU15-1238
UPRN - 12435768

Property 4
Property UUID – BU15-1237
UPRN - 124353678

Property 3
Property UUID – BU15-1236
UPRN - 12435678

Property 2
Property UUID – BU15-1235
UPRN - 87654321

Property 1
Property UUID – BU15-1234
UPRN - 12345678