



Photogrammetric Change Detection

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Change Detection using Ortho imagery

- **Why**
- **How**
- **Current status**



Ordnance
Survey
Ireland

Why?



Change Detection using Ortho imagery

- Over the last 10 years or so, change detection, within OSi, has been driven by only:
 - New addressable buildings
 - New National Roads infrastructure
 - Realignments to existing National Roads
- This has led to a situation where:
 - changes to other existing objects not been captured
 - new buildings, that do not have an address, not captured
 - minor road alterations not captured
 - objects that no longer exist in the real world, still exist in the database



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How



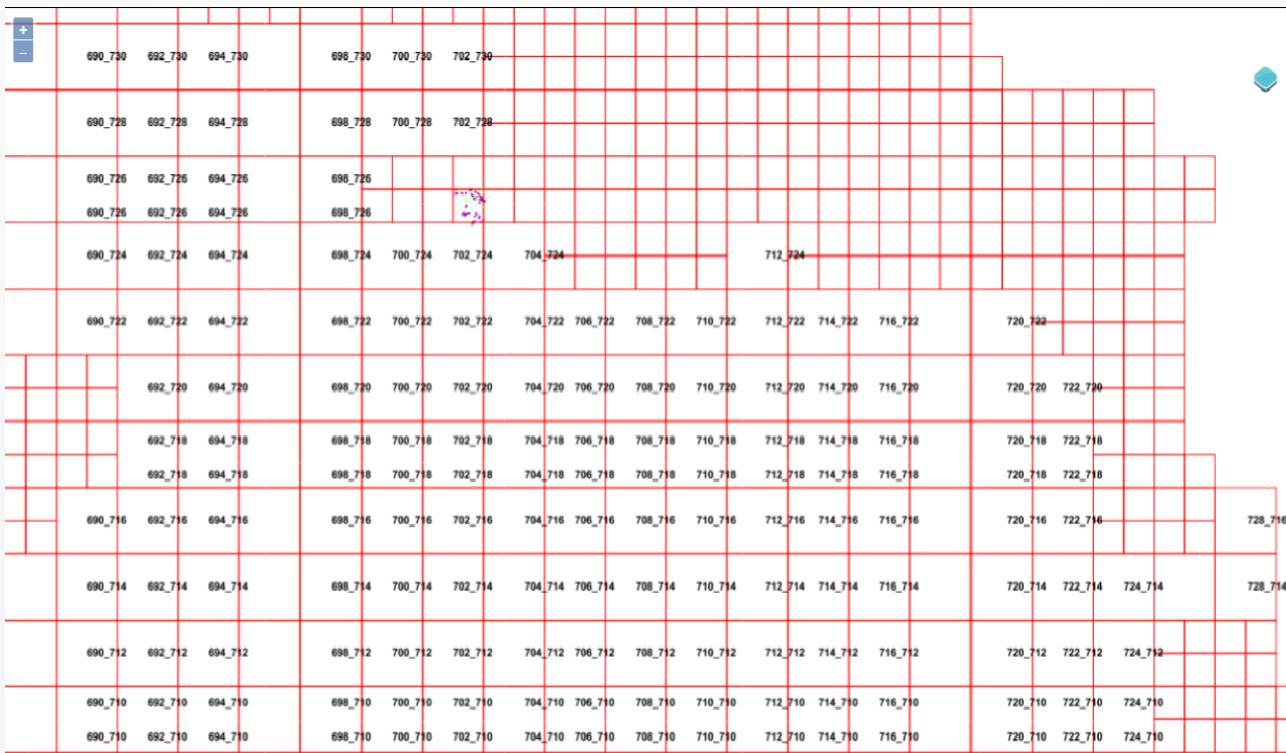
Change Detection using Ortho imagery

- Use latest ortho imagery available overlaid with current vector data



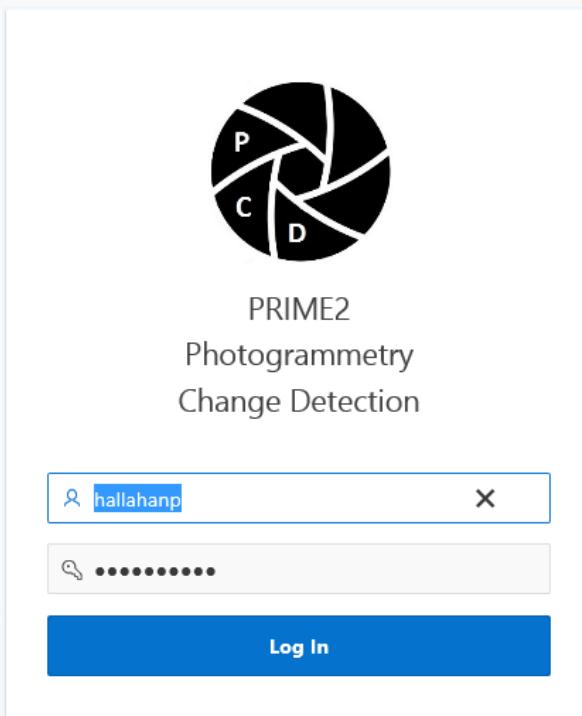
Change Detection using Ortho imagery

- Create a 2k*2k grid to cover the country (sub-divide into 1k*1k grid in urban areas)

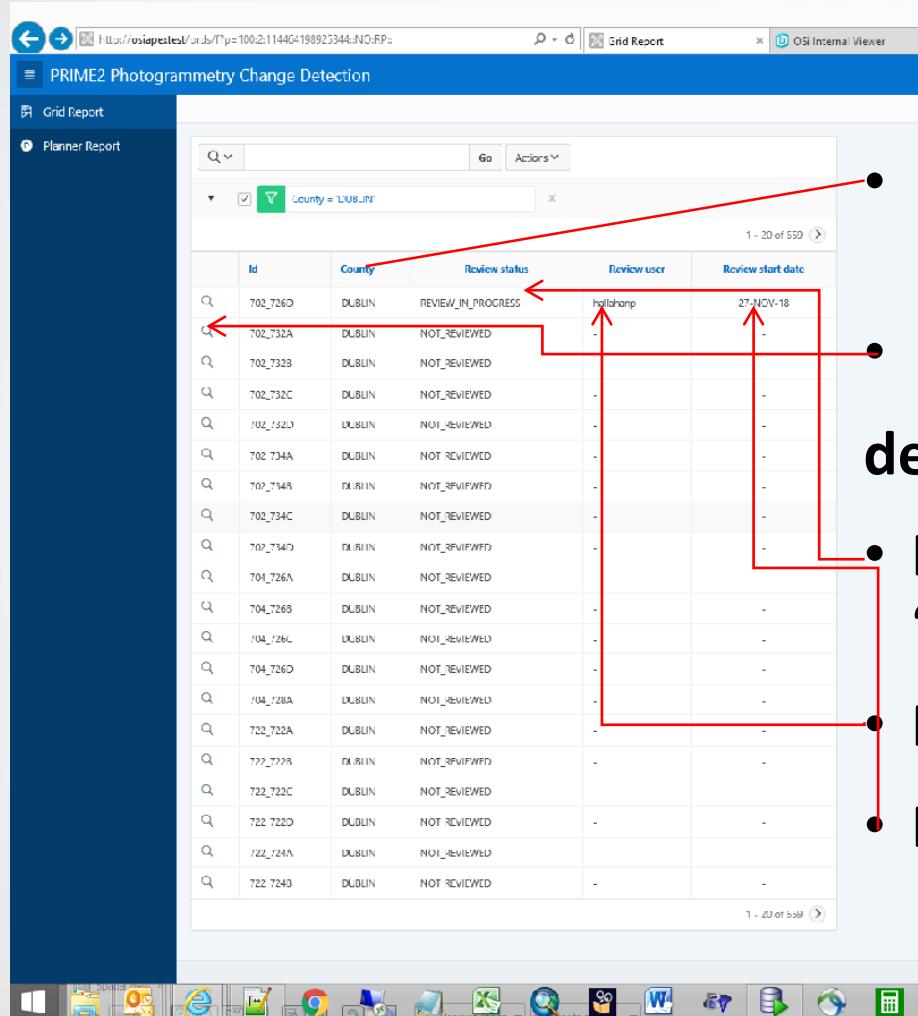


Change Detection using Ortho imagery

- Build a web based application that can record observed differences between the vector data and the Ortho image.



Change Detection using Ortho imagery



- Filter the list of grid squares on 'County' or any combination
- Click  to select the desired grid square
- Review Status will change to 'Review_in_Progress' if new.
- Reviewer
- Review start date

Id	County	Review status	Reviewer	Review start date
702_726D	DUBLIN	REVIEW_IN_PROGRESS	hollshamp	27-NOV-18
702_732A	DUBLIN	NOT_REVIEWED	-	-
702_732B	DUBLIN	NOT_REVIEWED	-	-
702_732C	DUBLIN	NOT_REVIEWED	-	-
702_732D	DUBLIN	NOT_REVIEWED	-	-
702_734A	DUBLIN	NOT_REVIEWED	-	-
702_734B	DUBLIN	NOT_REVIEWED	-	-
702_734C	DUBLIN	NOT_REVIEWED	-	-
702_734D	DUBLIN	NOT_REVIEWED	-	-
704_726A	DUBLIN	NOT_REVIEWED	-	-
704_726B	DUBLIN	NOT_REVIEWED	-	-
704_726C	DUBLIN	NOT_REVIEWED	-	-
704_726D	DUBLIN	NOT_REVIEWED	-	-
704_728A	DUBLIN	NOT_REVIEWED	-	-
702_722A	DUBLIN	NOT_REVIEWED	-	-
722_722B	DUBLIN	NOT_REVIEWED	-	-
722_722C	DUBLIN	NOT_REVIEWED	-	-
722_722D	DUBLIN	NOT_REVIEWED	-	-
722_724A	DUBLIN	NOT_REVIEWED	-	-
722_724D	DUBLIN	NOT_REVIEWED	-	-

Change Detection using Ortho imagery

Review Grid Cell

Grid Id: 702_726D
County: DUBLIN
Status: REVIEW_IN_PROGRESS
Start Date: 27-NOV-2018 15:44
CI Count: 40

<< Report Extent

Change Detection Polygon

Description: -- Select -- Priority: -- Select --

Description: -- Select -- Priority: -- Select --

Clear Create Geometry Save

Enter X comma Y Zoom

Complete Grid Review

Open OSi Internal Viewer

Change Detection Polygon

Description: -- Select -- Priority: -- Select --

Description: -- Select -- Priority: -- Select --

Clear Create Geometry Save

Enter X comma Y Zoom

Complete Grid Review

Open OSi Internal Viewer

Change Detection using Ortho imagery

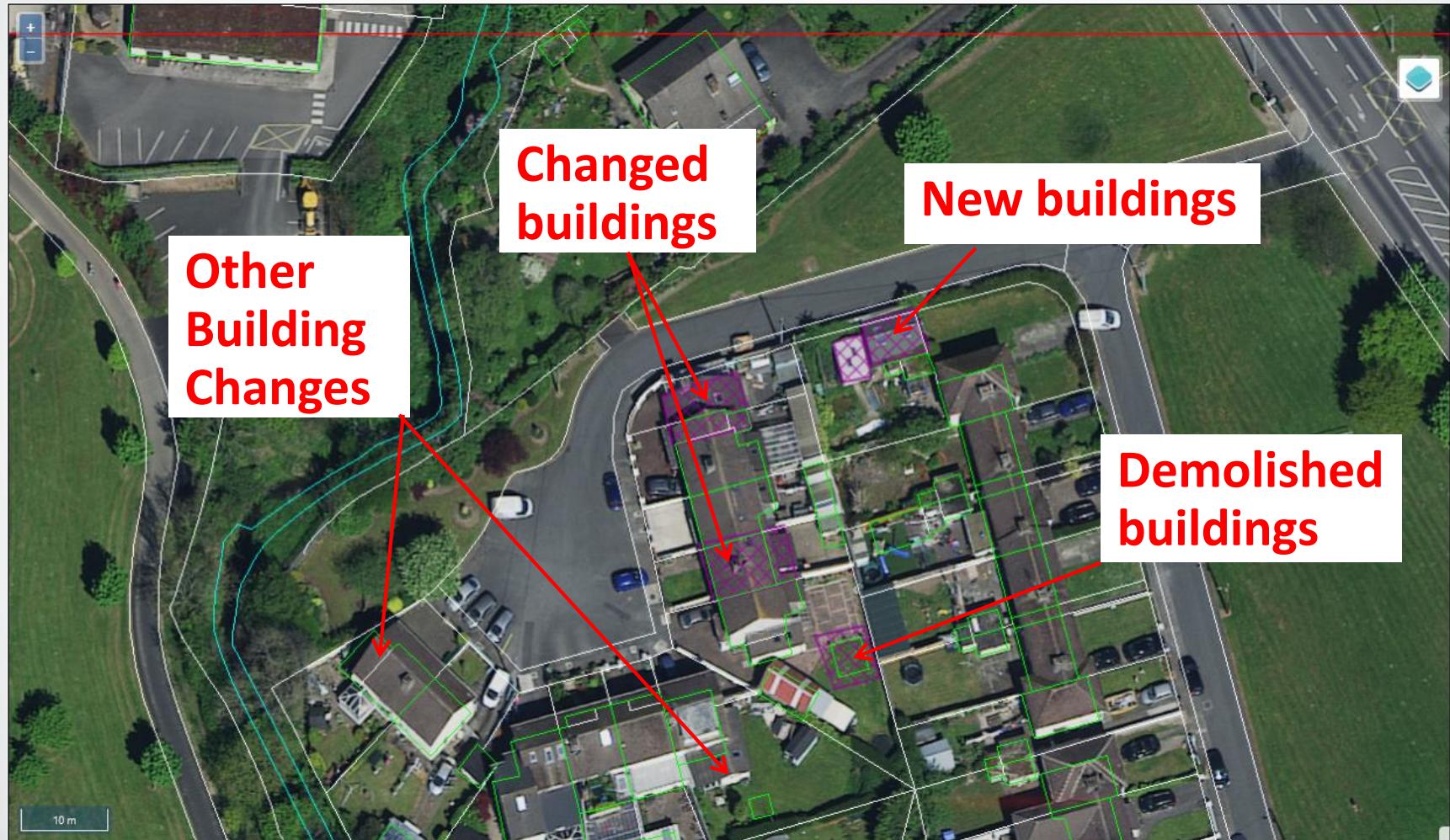


Change Detection using Ortho imagery

- **Initial view before commencing review of tile**

Change Detection using Ortho imagery

Zoom view (showing some Changes Detection polygons):



Change Detection using Ortho imagery



- When the review of the tile is complete click [Complete Grid Review](#)
- This will close the review session and remove the tile from the list of available tiles for review
- Next stage is to plan jobs to address the issues identified
- Jobs can be completed by photogrammetry or field survey

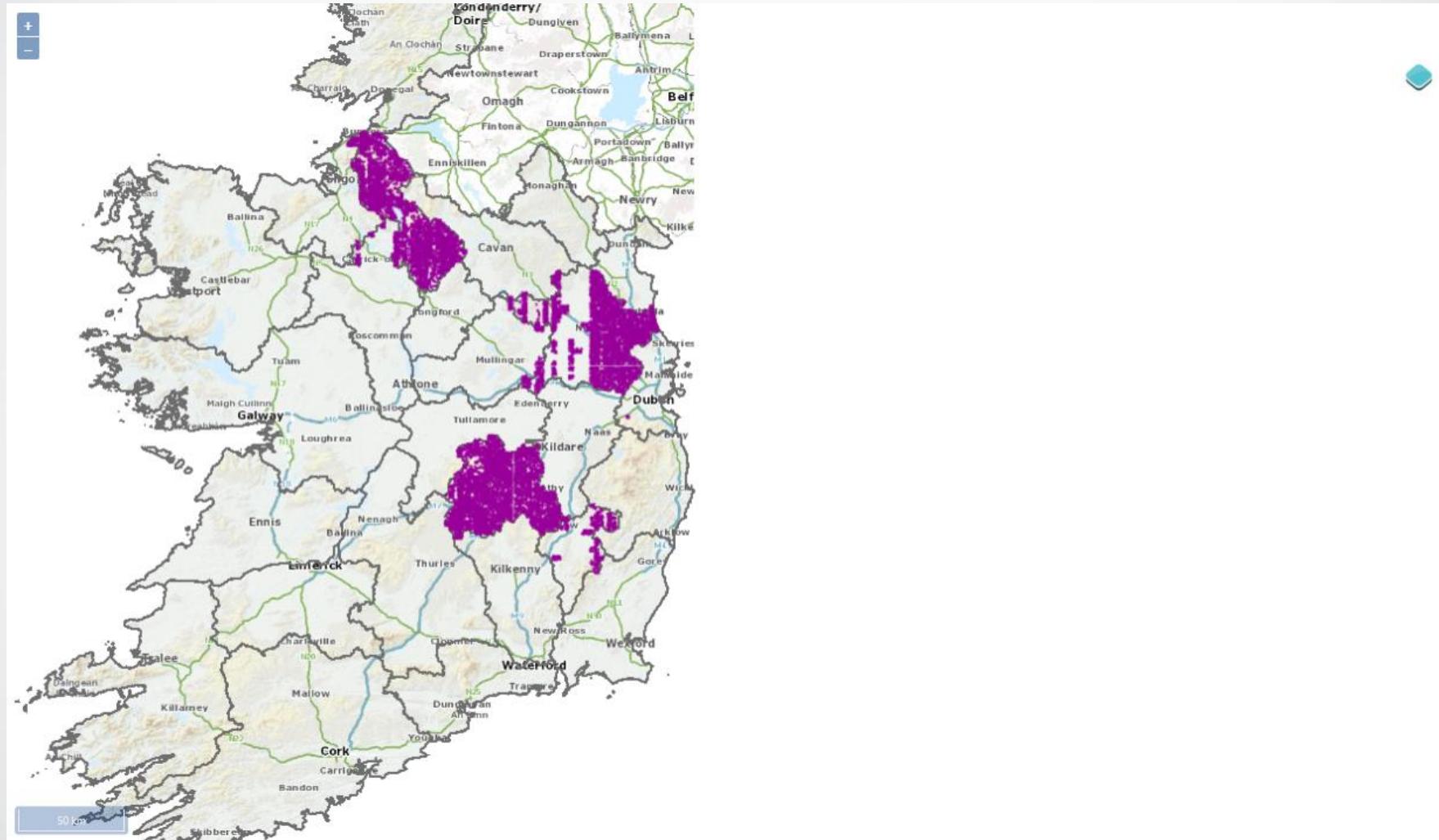


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Current Status



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Thank You

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