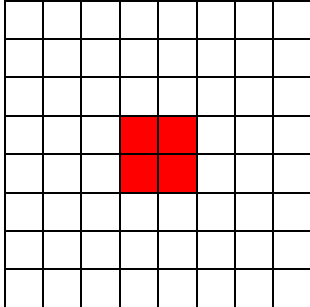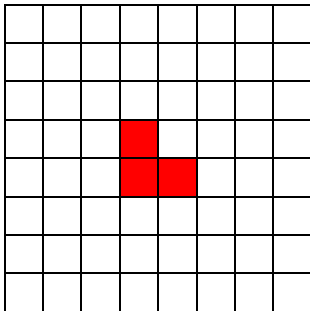**Scoring in the Global Built-up Surface Validation Campaign**

Here is how the scoring in the campaign works.

Below is an example of an expert answer (where red = built-up and empty cells are non-built-up):


Here is a hypothetical user answer:

The first thing that we do is start with the cell in row 1, column 1. They are both non-built-up so the agreement between expert and user is 1. We move to row 1, column 2 and there is agreement once again, so the total agreement is then 2. We repeat this for all 64 cells. In this case the agreement is 63 since the user said non-built-up in 1 cell while the expert said built-up. For this the user would get a perfect score of 20 because we allow for a mistake of 1 cell.

Here is another hypothetical user answer:
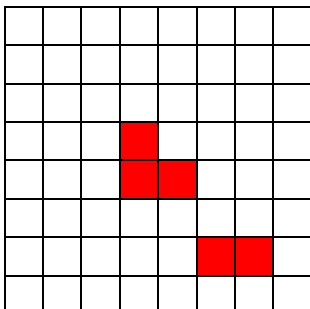
In this case the agreement would be 61 because two further built-up cells labelled by the user do not appear in the expert answer. For this you would get 10 points because we allow for between 2 to 3 mistakes to achieve this score.

Below is a table with the explanation and the scores:

Score	Feedback	Number of allowable mistakes
20	Congratulations! You got a perfect score for identifying the built-up/non-built up areas!	0 to 1 cells are wrong
10	You were close to agreeing with the experts but got a few cells wrong.	2 to 3 cells are wrong
0	Your agreement with the experts was between 56 and 60 cells so there is room for improvement.	4 to 8 cells are wrong
-10	Your agreement with the experts was between 40 and 55 cells so there is room for improvement.	9 to 24 cells are wrong
-20	Your agreement with the experts was less than 40 cells so there is room for improvement.	25 or more cells are wrong

We also have a -30 score, but this is only applied in extreme cases where the user has done one of two things:
1. Shaded all cells as built-up in a complex landscape where some cells are non-urban.
2. Shaded no cells as built-up in a landscape where only a few cells are urban.

Then on top of that, if the change question has been applied (and it's not always), you can receive 5 bonus points for getting the change information correct or lose 5 if you get it wrong.

Finally, if the expert answered 'I don't know', this is treated as agreement, regardless of the answer provided by the user. This is because we do not wish to penalize users for cells that contain some element of uncertainty, e.g., a tiny section of a building where it is not clear if it really falls in the cell or an object that might be a building but it is difficult to see due to the quality of the image.