Having supplied the National Square Grid for approximately 10 years, the National Survey and Cadastre and Statistics Denmark now releases a revised version called ‘the National Square Grid v.2’. This specification describes the frame for the structure of the National Square Grid.

Definitions
The term 'square grid' is used to describe the set of square cells whereas the term 'cell' is used to describe the individual, named area in the square grid.

General issues
The purpose of the National Square Grid is to define a standardised geographical grid for Denmark to serve as a common geographical division for comparing and presenting different types of data. This specification describes the grids most useful for presenting statistical information from, for instance, Statistics Denmark. Other subdivisions of the square grid may be used, and it may be used for any types of data.

The structure of the Square Grid supports easy distribution and use of aggregated data. Data that are otherwise incompatible (e.g. because of different data sources) or may not be presented at individual level (e.g. information which can identify an individual) can be presented as aggregated data via the grids.

Application of the Square Grid
The Square Grid makes it possible to combine and carry out calculations on data across cells, for instance for market analysis of self-defined market areas, for local planning or for research purposes. The cells can be used to store person as well as business statistics.

An advantage of the Square Grid is that it remains stable whereas other administrative divisions such as municipalities, postal areas or parishes may change over time.

The National Survey and Cadastre use the same square grid methodology as basis for the national map sheet divisions such as topographical maps, orthophotos and terrain models.

There are no restrictions on the formatting of the data represented by the cell.
Structure
The National Square Grid is based on a well-defined countrywide 100 km grid consisting of 5 x 5 cells, and subdivisions of this net into smaller cell sizes. Table 1 below presents examples of commonly used cell sizes ranging from the coarse grid consisting of 100 x 100 km cells to a much finer grid of 100 x 100 m cells.

Coordinate System
The National Square Grid is defined in an orthogonal coordinate system based on the UTM-projection zone 32 and datum ETRS89 (EPSG code 25832). Often other datums are used in a Danish context. WGS84 (EPSG code 32632) and the term Euref89 can both be considered identical to ETRS89 in relation to the use of the Square Grid.

Cells in the square grid are defined and named on the basis of the lower left corner coordinates.

For the largest cell size grid of the National Square Grid – the 100 km grid - the corner coordinates are:
Lower left corner: North=6.000.000, East=400.000
Upper right corner: North=6.400.000, East=900.000

Naming of Grid Cells
Every cell is given a unique name according to the following form: ‘Cell size_North_East’. The ‘Cell size’ part describes the cell size including the measurement unit (km-/m). ‘North’ and ‘East’ describe the two coordinates truncated to the significant part of the digits, cf. table 1.

EUROGRID
As basis for exchange of statistical data in a European context, it is recommended to use the European grid which is part of INSPIRE (theme of Annex 1) called Grid_ETRS89-LAEA. This is also known by other names such as Eurogrid, Geographical Grid, EEA-Grid, Geostat Grid, etc.

It is important to note that the Danish National Square Grid is not a subset of the European grid.

Table 1
Overview of the grids of the National Square Grid.

<table>
<thead>
<tr>
<th>Grid name</th>
<th>Popular name</th>
<th>Cell size</th>
<th>Cell name example</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKN_100km_ETRS89</td>
<td>the 100km-net</td>
<td>100 km</td>
<td>100km_61_7</td>
</tr>
<tr>
<td>DKN_50km_ETRS89</td>
<td>the 50km-net</td>
<td>50 km</td>
<td>50km_610_50</td>
</tr>
<tr>
<td>DKN_10km_ETRS89</td>
<td>the 10km-net</td>
<td>10 km</td>
<td>10km_618_71</td>
</tr>
<tr>
<td>DKN_1km_ETRS89</td>
<td>the 1km-net</td>
<td>1 km</td>
<td>1km_6188_709</td>
</tr>
<tr>
<td>DKN_250m_ETRS89</td>
<td>the 250m-net</td>
<td>250 m</td>
<td>250m_618875_70925</td>
</tr>
<tr>
<td>DKN_100m_ETRS89</td>
<td>the 100m-net</td>
<td>100 m</td>
<td>100m_61886_7091</td>
</tr>
</tbody>
</table>