OPEN DATA TO INFORM THE MANAGEMENT OF LOCAL GOVERNMENT

INTRODUCTION

For local public management, all decisions are based on available information. The number of public available sources are vast, but there may be differences in the data or numbers that, in principle, should be the same. This may be due to time differences, statistical sample sizes, definitions of population or other factors.

To have consistent data should be a primary objective, but is not simple to achieve if data and statistics are not standardised by a centralised unit or trusted competence.

In many situations, we can see that data and statistics are used in a selection and form that suits a purpose, rather than providing an objective view. This can be a problem since the data may vary over time and what can be supporting one point of view at one time may, due to a different focus of almost the same data, be supportive of different views.

This has been a major problem in using data for monitoring development and changes over time. There has also been political as well as administrative frustration since the standardisation of data/statistics have not been set.

In a project now running as part of the Opening Up project, Kristiansand will focus on getting a set of data to be used in indicators and for analysis, maintained and updated over time. This will be an opportunity for gathering open external data, as well as internally produced data (also open) to inform local government in a precise and consistent manner, helping trust between the administration and politicians.

There is also an issue with data in that politicians are frequently questioned by journalists, special interest groups and different lobbyists regarding data they have obtained which is not necessarily open. The more data is available and ready at hand, the better the politicians (and administration) will be at handling matters like these.

To be able to have open data, open sources and open processes in decision-making, planning and ad hoc situations will increase transparency in local government and this will lead to improved trust between the population and local government.

Some examples of how open data can be used to inform the management of local government in partner countries and municipalities are described in the rest of this document.

STATISTICS AND MAPS FOR DECISION MAKING

For both local politicians and public officials, there are lots of statistics to read and understand before you can make a decision on finances and priorities. Sometimes, you need to combine statistics and maps in a visualisation, to see things in a broader prospective within your municipality and decide where priorities should lie.

If we could combine open data (statistics and GIS) with improving our organisation's tools for decision making, we could potentially get two improved services at once. We should look at ways to use our own data, not just open it.

Whilst most local government organisations generate and hold vast quantities of data, it is not typically available as open data as yet. Not only does this mean that the public do not have access to it, it also means other departments or decision makers within the organisation cannot easily access the data or, in some cases, possibly are not even aware it exists. Even if they do have access, the data is not always presented in an easy to use format which would make it a useful tool for decision making.

For some situations, the basic statistics displayed in a table or chart may be sufficient to make a decision. For example, if a municipality needs to decide whether to build more houses, then the statistics showing the number of people in the area, the number of people wanting a house and the number of houses available may be enough information to make a decision.

However, in other instances, plotting the data on a map can provide a key insight and help with the decision. If you want to see whether everyone in your area has easy access to public transport, seeing on a map where people live relative to bus stops, stations, cycle hire points and so on will make the situation much clearer and the decision on any new bus routes, for example, much easier.

If you need to build more houses, having a map which shows the areas in your municipality more likely to flood can help decide where the houses should be built.

The availability of data and tools which present data in a clear way, as statistics and on maps, are key to many areas of decision making within local government.

ADVANTAGES OF DATA BEING CLEARED AS OPEN

Open data is data that can be used by anyone at no cost, albeit under licence. However, an open data licence can only require the user to acknowledge the data owner and to also publish as open data any transformation or re-use of the original dataset. Otherwise, there are no restrictions on how open data can be used.

For data to be released as open data, the owner will already have ensured there are no legal restrictions on use, such as the data containing personal information or information restricted by a licence.

For example, in the UK the Data Protection Act stipulates how organisations can collect and use personal data and some geographical data can only be used under licence from the Ordnance Survey.

There are advantages from local government data being cleared as open to many organisations and individuals. Firstly, for the municipality or any other public sector organisation, publishing data as open can:
- Reduce the volume of 'Freedom of Information' requests
- Make it easier to share data with partners and other organisations
- Make it easier to share data within the organisation
- Encourage other organisations to develop innovative solutions using the data
- Potentially make maintenance of the data easier by involving others

All of the benefits above can significantly reduce the time and effort needed by a municipality and its officers in working with the data. In financial or budgetary terms. this can lead to significant reduction in costs.

SAMPLE OUTPUTS TO INFORM DECISIONS

In Denmark – the maps below have been produced based on the elevation model:

The map on the left shows the normal water level. The map on the right shows what would happen if the water level were to rise two metres above the normal level. This corresponds to the water level at the last big storm in Denmark in December 2013.

See if your house gets flooded.

A web application based on the same elevation data makes it possible for homeowners across the country to see if their house is in a flood risk area. The most vulnerable buildings are likely to be without insurance and, at worst, impossible to sell.

The sequence of maps below – using published open data – show the different ways data can be displayed on a map to help in making a decision about the need and best location for additional public transport routes (or the extension of an existing route) in Kristiansand, Norway.
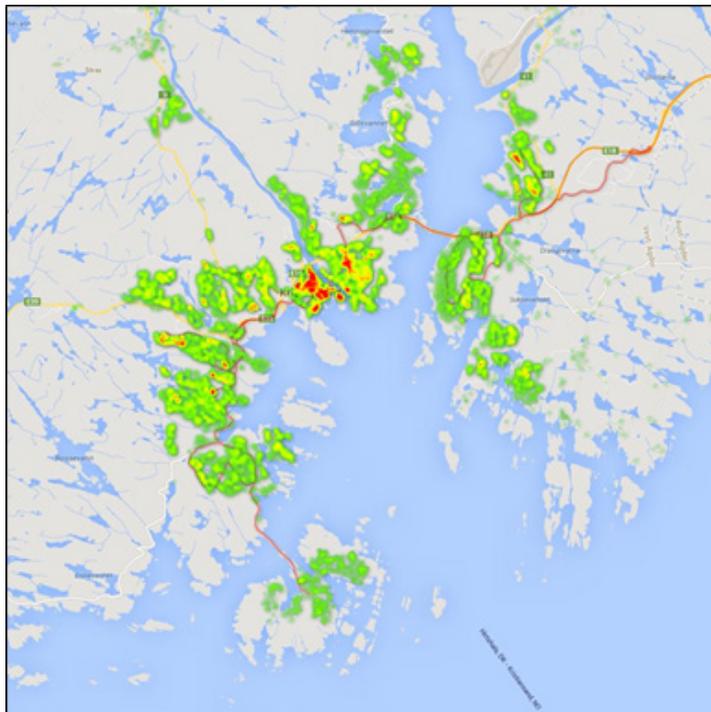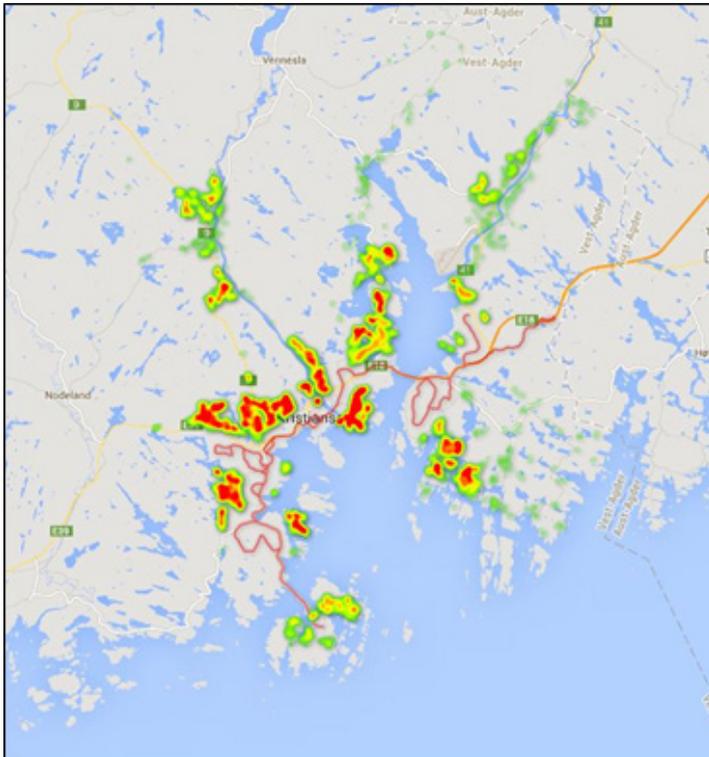
A map of the route of metro line 1
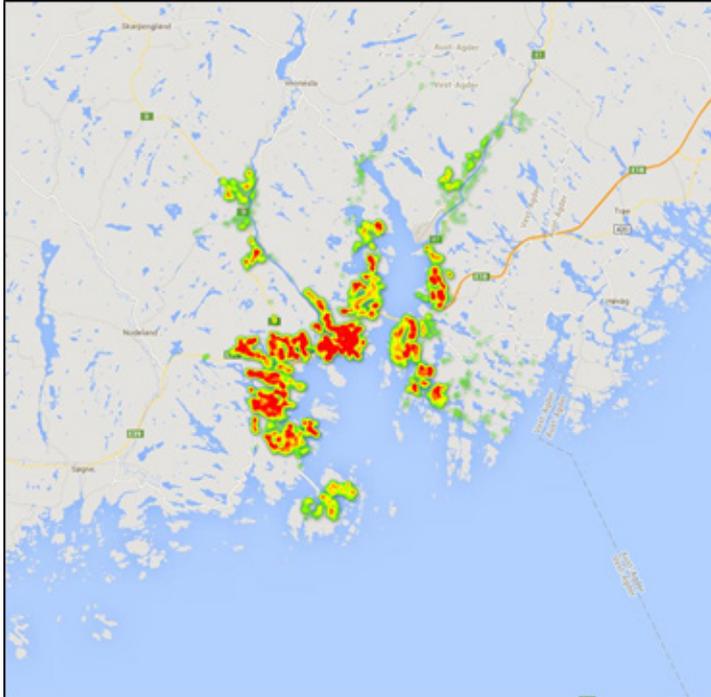
Map of population density in the Kristiansand municipal area

Map combining the two datasets showing metro route 1 and the population heatmap.

More detailed map showing metro route 1 and the density of the population living more than 500m from the nearest stop. Highlights areas where there is the most need for additional transport.
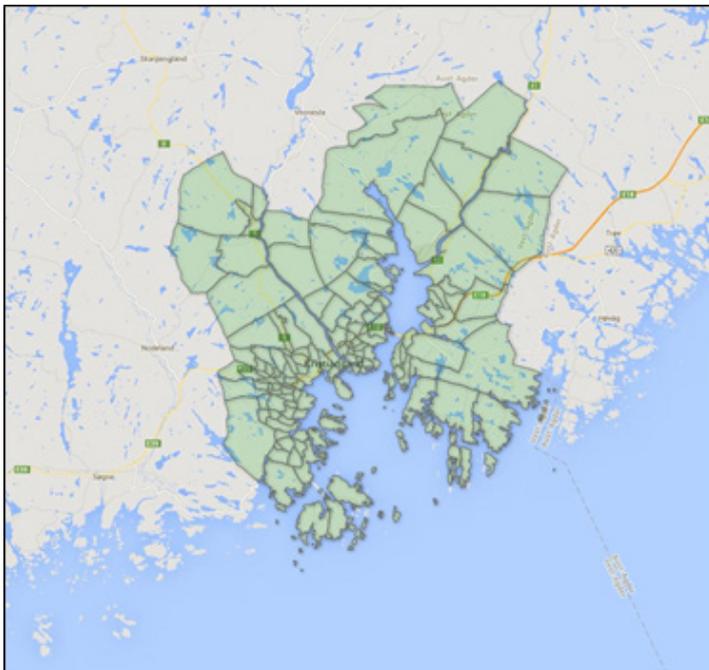
Administrative map of the Kristiansand municipality area.