

# Big Data

The amount of data that humankind has gathered and stored over the past few decades is mindboggling. So too is the amount that is added every day, every minute even – and the speed and volumes are only increasing. And hydrography is certainly not one of the smallest contributors. Big, big chunks of data come from survey ships and airborne and satellite imagery every day for all kinds of purposes. And while many of those datasets are perfectly fit for the job they were acquired for, after they have been processed and analysed, basically put to use for the job, they end up on the shelf, lying there disconnected from neighbouring datasets on the same or another shelf. Imagine what would happen if we could connect and reuse all that data together for the betterment of the world? That idea is at the core of the data revolution that UN secretary general Ban-Ki Moon called for in 2013. He sees that the availability of qualitative and accessible data could support sustainable development, and therefore believes that a data revolution should dictate the UN's post-2015 agenda, replacing the Millennium Development Goals as a tool for reducing poverty and increasing sustainable welfare all over the world. Just a few months ago, a group of experts convened at the UN in New York for the first time to discuss how to put the plan for a data revolution into action.

The data revolution represents a massive opportunity for hydrography – after all, geoinformation is very much at the heart of every dataset – it is said that 80% of all data has a geo-component to it. It's true, we have to take into account that bathymetry is only a part of all data gathered. But if entrepreneurs, academia, hydrographic surveyors and surveying companies were to direct their resources at turning the data revolution into reality, hydrographic data could be linked to all kinds of other marine data, but also terrestrial data. Linking satellite imagery of the hinterland to bathymetric data of the coastal zone to decide where a new port needs to be developed, for instance, makes for a better decision, or linking two old datasets of biological data and bathymetric data to identify the best place to develop a fish farm or offshore wind farm lowers initial costs of a project (and delivers renewed revenue for the old dataset). Combinations of different products will take us from unimaginably huge chunks of stand-alone data to understandable, supporting grids upon which governments can base their policies.

At the highest level within the United Nations, there is consensus that the data revolution will be a major tool in the next decade. That has already trickled down to the United National Global Geospatial Information Management (UN-GGIM) initiative, which is discussing the data revolution. The International Hydrographic Organization is of course part of this discussion and succeeds in making hydrography always part of the deliberations. Ideally, members of the industry should now step up to the challenge and join the UN-GGIM in discussing and consulting; advocate a data revolution in their own countries, in their companies and institutes; and work on creating links between data for the betterment of the marine environment and the coastal zone and the enforcement of hydrography.