

## Efficiency improvement options for current surveys.

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| Over Precision | Fishery surveys need to deliver data of a statistical precision that is fit for purpose for the assessment they are supplying. In some cases assessments are overly precise for the advice they support (i.e. the data is overly precise), hence time can be saved by doing fewer trawls.  |
| Duplication    | Fishery surveys and environmental surveys of neighbouring Member States can overlap in space and time, or in parameters measured, leading to unnecessary duplication and wasted resources.   |
| Redundancy     | On some surveys individual types of data and station positions are no longer used in assessments and could be eliminated in order to gain survey time. Redundant monitoring can be relicts from studies that have terminated. Data from some trawl locations, and in some cases from whole surveys, do not get used in the eventual stock assessments and are hence redundant. |

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| Down Time                                  | Fishery surveys are often carried out in daylight hours only in order to standardise the catchability of species, especially on the continental shelf. Hence there may be unused vessel time at night.  |
| Multi Annual                               | Some fishery surveys, and environmental surveys, may be able to move to multi-annual assessment frequencies rather than annual. This would release significant vessel time.   |
| Automation of data processing and analysis | Resources to process data are generally limited compared to resources for data collection. Standardizing and automation of procedures to analyse data e.g. acoustic analyses, flow-cam automated image recognition procedures, software for producing indicators etc. may save resources. |