

# Are Current Frameworks in the Official Statistical Production Appropriate for the Usage of Big Data and Trusted Smart Statistics?

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NSI's are using frameworks to organise and set up their official statistical production, *e.g.* since more than one decade the GSBPM (“Generic Statistical Business Process Model”). As a sequential approach of statistical production, GSBPM has become a well-established standard using deductive reasoning as analytics’ paradigm. For example, the first GSBPM steps are entirely focused on deductive reasoning based on primary data collection and are not suited for inductive reasoning applied to (already existing) secondary data (*e.g.* big data resulting, for example, from smart ecosystems).

Taken into account the apparent potential of big data in the official statistical production, the GSBPM process needs to be adapted to incorporate “data innovation” by considering both complementary approaches of analytics (*i.e.* inductive and deductive reasoning) and, for example, through the usage of, for example, data-informed continuous evaluation at any GSBPM step.

The paper will discuss the limitations of GSBPM with respect to the usage of big data (using inductive reasoning as analytics’ paradigm), and also with respect to “trusted smart statistics”. The authors will give insights on how to augment and empower current statistical production processes by “data innovation” and also by “trusted smart statistics”. In addition, it will also address which cultural changes (*e.g.* skills, organisational structure, agility) should be addressed by the senior management of NSI’s to embrace this major paradigm shift.