
BREAL : making Big Data real in statistical processes

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Abstract

BREAL (Big data REference Architecture and Layers), as a European reference architecture for Big Data, aims to guide Big Data investments by NSIs. It also helps the development of solutions and services in order to be standardized and shared within the European Statistical System.

As a proposal from the Enterprise Architecture Work Package of the ESSNet BigData 2, BREAL is designed to be used as a reference framework by enterprise architects and many other stakeholders at national and European level to align business and IT. It is also an instrument for NSIs top management to plan investments.

These multiple goals can be reached by using different analysis levels of BREAL : business architecture, information architecture, application architecture. These representations have a generic point of view to avoid being linked to a specific project or source. In this way BREAL application and information layers can help to ensure comparability and shareability of solutions, with enough details for reusing.

The BREAL genesis is the result of facing existing models (GSBPM, CSPA...) to the current use of Big Data in statistical production processes. Because of specific requirements in Big Data pipelines, direct use of existing ModernStat Models appeared to be not satisfactory. The Enterprise Architecture work package of the ESSNet Big Data 2 hence studied two possibilities : having the existing mode evolving...or building a composite framework by aggregating pieces of each, while ensuring coherence with original models. This second path was explored giving birth to a complementary synthesis dedicated to Big Data.

Picking useful components of different models also implied to define all the parts related to the statistical production process : lifecycle, development, production and deployment, actors..., thus giving birth to the BREAL framework.

Keywords

BREAL Big data

Model (please specify name of at least one of models (i.e. GSBPM, GSIM, GAMS0 and CSPA) that your abstract is related to)

BREAL : Big Data REference Architecture and Layers ; GSBPM