

## FP7-ICT 619209 / AMIDST

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Author(s): Hanen Borchani, Antonio Fernández, Odd Erik Gundersen, Sigve Hovda, Helge Langseth, Anders L. Madsen, Ana M. Martínez, Ramón Martínez, Andrés Masegosa, Thomas D. Nielsen, Antonio Salmerón, Frode Sørmo, Galia Weidl

Antonio Saimeron, Froue Sormo, Gana Weidi

Participants(s): P01, P02, P03, P04, P05, P06, P07

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PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

## **Abstract:**

In this document, we explore aspects of the different distribution families exhibited by the data for the three use-case providers. Based on these findings and the expert knowledge provided, we present preliminary use-case-tailored model classes that address the application scenarios identified in Deliverable 1.2. Building on the commonalties of these specific model classes, we introduce the AMIDST modelling framework, which defines a probabilistic model class intended to support data-driven learning and integration of potential domain knowledge.

**Keyword list:** AMIDST modelling framework, application scenarios, preliminary models, data analysis, Bayesian networks, dynamic Bayesian networks, conditional linear Gaussian models.