
	<b>FP7-ICT 619209 / AMIDST</b> 22/09/2014 Page 1 of 63	
---	--	---

**Project no.:** 619209  
**Project full title:** Analysis of Massive Data STreams  
**Project Acronym:** AMIDST  
**Deliverable no.:** D2.1  
**Title of the deliverable:** The AMIDST modelling framework – Initial draft report

<b>Contractual Date of Delivery to the CEC:</b>	<b>30.09.2014</b>
<b>Actual Date of Delivery to the CEC:</b>	<b>30.09.2014</b>
<b>Organisation name of lead contractor for this deliverable:</b>	<b>AAU</b>
<b>Author(s):</b>	<b>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</b>
<b>Participants(s):</b>	<b>P01, P02, P03, P04, P05, P06, P07</b>
<b>Work package contributing to the deliverable:</b>	<b>WP2</b>
<b>Nature:</b>	<b>R</b>
<b>Version:</b>	<b>1.0</b>
<b>Total number of pages:</b>	<b>62</b>
<b>Start date of project:</b>	<b>1<sup>st</sup> January 2014</b> <b>Duration:</b> 36 month

Project co-funded by the European Commission within the Seventh Framework Programme (2007-2013)		
Dissemination Level		
<b>PU</b>	Public	<b>X</b>
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	

#### **Abstract:**

In this document, we firstly discuss and justify the preliminary probabilistic graphical models for the different application scenarios of the three use-case providers previously identified in Deliverable 1.2. Then, we introduce the AMIDST modelling framework as a general model class that can be applied to solve each of these application scenarios and, potentially, future similar problems in other domains.

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