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PU	Public	X
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:

This document is deliverable D9.4 *Dissemination and Exploitation report II*. It reports on the initiatives that the AMIDST consortium has taken in the second year of the project related to dissemination of knowledge and information on the project both internally and externally. A range of dissemination activities have been performed in the second year and new activities are planned for the third and last year of the project to support the dissemination of AMIDST results. Dissemination activities are important to ensure a high impact of the AMIDST outputs. Exploitation activities are planned for the last year of the project and beyond the completion of the project. However, some exploitation activities have already been started.

Keyword list: dissemination, exploitation, output.

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Document History

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0.3	04.12.2014	Anne Bock	Started document, template prepared
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1.0	21.12.2015	Anne Bock	Check of layout, spelling and finalisation. Submission

1 Executive Summary

This document is deliverable D9.4 *Dissemination and Exploitation report II*. It reports on the planned and ongoing dissemination and exploitation initiatives taken by the AMIDST consortium in the second year of the project. These activities relate to dissemination of knowledge and information on the project both internally and externally. A range of activities are planned to support the dissemination of AMIDST results and outputs. These are important to ensure a high impact of the AMIDST outputs.

The dissemination activities are proceeding according to plan. The planning needs to be adjusted and extended during and beyond the duration of the AMIDST project in order to be aligned with the outputs of the project. Major dissemination activities are planned for the third year of the project.

Exploitation activities are planned for the last year of the project and beyond the completion of the project. However, some exploitation activities have already been started.

2 Introduction

This is the second dissemination and exploitation report of the AMIDST project. A total of three dissemination and exploitation reports are planned for the duration of the project. This deliverable reports on the planned and ongoing dissemination and exploitation initiatives taken by the AMIDST consortium in the second year of the project. These activities relate to dissemination of knowledge and information on the project both internally and externally. The AMIDST dissemination activities aim to communicate the results of the project to a wider audience. This includes researchers in academia as well as industry and the general public. AMIDST is expected to generate methods, algorithms and tools that can be applied both in research as well as in industry.

The AMIDST consortium plans to disseminate results through a number of different channels. This includes scientific publications in both journals and at conferences, presentations, posters, special sessions, seminars, workshops, software demonstrations and tutorials as well as traditional channels such as the project website, press releases, a project fact sheet (AMIDST Consortium D10.1, 2014), newsletters, a project page under the social network LinkedIn and a demonstration at the end of the project of the Daimler use-case (assuming that a prototype vehicle is available and that the developed solution is effective).

The dissemination activities are proceeding according to plan. The planning needs to be adjusted and extended during and beyond the duration of the AMIDST project in order to be aligned with the outputs of the project. Major dissemination activities are planned for the second and third year of the project.

Exploitation activities are planned mainly to be carried out towards the end of the project and beyond the project period. However, some initial exploitation activities have already been started.

Deliverable D9.2 gives a description of the dissemination and exploitation activities performed during the first year of the project (AMIDST Consortium D9.2, 2015).

3 Dissemination

This section reports on the dissemination activities in the AMIDST project related to publications; presentations; LinkedIn project page; arrangement of a special session at a conference with a follow-up special issue in a journal; a proposal for a tutorial at a conference and the project website.

3.1 Publications

In the second period of the AMIDST project, nine scientific publications have been published. This amounts to seven conference articles, one abstract, and one demonstration paper. The nine publications are:

1. Weidl, G., Madsen, A. L., Tereshchenko, V., Kasper, D. and Breuel, G. (2015). *Early Recognition of Maneuvers in Highway Traffic*. In proceedings of [ECSQARU](#) on 15-17 July 2015 in Compiègne, France, pages 529-540.
2. Salmerón, A, Rumi, R., Langseth, H., Madsen, A. L., Nielsen, T. D. (2015). *MPE Inference in Conditional Linear Gaussian Networks*. In proceedings of [ECSQARU](#) on 15-17 July 2015 in Compiègne, France, pages 407-416.
3. Perez-Bernabe, I. Salmerón, A, R., Langseth, H. (2015). *Learning Conditional Distributions Using Mixtures of Truncated Basis Functions*. In proceedings of [ECSQARU](#) on 15-17 July 2015 in Compiègne, France, pages 397-406.
4. Madsen, A. L. and Salmerón, A (2015). *Analysis of massive data streams using R and AMIDST*. In book of abstracts of [useR!2015](#) on 30 June -3 July 2015 in Aalborg, Denmark, page 171.
5. Borchani, H., Fernandez, A. M. M., Masegosa, A, Langseth, H., Nielsen, T. D., Salmerón, A., Fernández, A., Madsen, A. L., Sáez, R. (2015). *Modeling concept drift: A probabilistic graphical model based approach*. In proceedings of The Fourteenth International Symposium on Intelligent Data Analysis, 22-24 October 2015 in Saint-Etienne, France, pages 72-83.
6. Salmerón, A., Ramos-López, D., Borchani, H., Fernandez, A. M. M., Masegosa, A., Fernández, A., Langseth, H., Madsen, A. L., Nielsen, T. D. (2015). *Parallel importance sampling in conditional linear Gaussian networks*. The XVI Conference of the Spanish Association for Artificial Intelligence (CAEPIA'15), pages 36-46.
7. Madsen, A. L., Jensen, F., Salmerón, A., Langseth, H., Nielsen, T. D. (2015). *Parallelization of the PC Algorithm* (2015). The XVI Conference of the Spanish Association for Artificial Intelligence (CAEPIA'15), pages 14-24.
8. Borchani, H., Martinez, A. M., Masegosa, A, Langseth, H., Nielsen, T. D., Salmerón, A., Fernández, A., Madsen, A. L., Sáez, R (2015). *Dynamic Bayesian modeling for risk prediction in credit operations* (2015). The 13th Scandinavian Conference on Artificial Intelligence, Halmstad, Sweden, November 5-6, 2015, pages 72-83.
9. Masegosa, A, Martinez, A. M., Borchani, H., Ramos-Lopez, D., Nielsen, T. D., Langseth, H., Salmerón, Madsen, A. L. (2015). *AMIDST: Analysis of Massive Data Streams* (2015). In proceedings of The 27th Benelux Conference on Artificial Intelligence, Hasselt, Belgium, November 5-6, 2015.

All publications have a section with acknowledgment of the contribution from the European Union.

The consortium has received a formal invitation to submit an extended version of the CAEPIA paper “*Parallelization of the PC Algorithm*” (publication number 7) to a special issue of the journal Knowledge Based Systems.

An electronic copy of the final manuscript accepted for publication or the published version of the manuscript can be obtained from the institutional repository VBN at Aalborg University. There is a separate entry for the AMIDST project under VBN. It can be found by search using this address: <http://vbn.aau.dk/da/projects/search.html?search=amidst>

Information on the articles has been uploaded to the bibliographic social network at <http://www.citeulike.org>. Here all articles are tagged with “AMIDST-619209”. The bibliographic social network at <http://www.citeulike.org> makes it possible to retrieve all AMIDST publications using the tag “AMIDST-619209”.

The project website exposes the CiteULike “AMIDST-619209” tag here: <http://amidst.eu/papersandpresentations/papers>.

The project website lists all the publications produced here: <http://www.amidst.eu>
<http://amidst.eu/papersandpresentations/papers>

From this website it is possible to access electronic copies of all articles.

The table shown below shows the achieved and planned submissions of manuscripts to conferences and workshops.

Conference /workshop	2014	2015	2016	Comments
SCAI		T2.2* , T4.3*		* Combined into one publication using WP8 data
PGM	T4.1		T3.2,T4.2,WP5	
UAI	<i>T4.2</i>		T3.3, T4.2	
CAEPIA		T3.1, T4.1		
IDA		T3.3*	T4.4	*JAIR submission
INFORMS			T4.3	
IJCAI		T4.4*	T3.2	*IDA paper
ECSQARU		T3.2, WP4		
IV	WP6*	WP6**	WP6**	*Publication in IEEE Multi-conference on Systems and Control ** Two IV'16 submissions.
CSCC			WP8	
NIK	<i>WPI</i>			

The publications in boldface have been achieved. The publications in italic were not planned in the DoW. These are additional publications acknowledging the AMIDST project.

3.2 *Presentations*

In the second period of the AMIDST project eight (scientific) presentations and one conference tutorial on the AMIDST project have been made. The nine presentations are:

1. Analysis of massive data streams using R and AMIDST by Anders L Madsen at the useR!2015 on June 30 - July 3 in Aalborg, Denmark.
2. Early Recognition of Maneuvers in Highway Traffic by Anders L Madsen at the 13th European Conference Symbolic and Qualitative Approaches to Reasoning With Uncertainties, ECSQARU, 15-17 July 2015, At Compiegne, France.
3. Learning Conditional Distributions Using Mixtures of Truncated Basis Functions by Inmaculada Perez-Bernabe at the 13th European Conference Symbolic and Qualitative Approaches to Reasoning With Uncertainties, ECSQARU, 15-17 July 2015, At Compiegne, France.
4. MPE Inference in Conditional Linear Gaussian Networks by Antonio Salmeron at the 13th European Conference Symbolic and Qualitative Approaches to Reasoning With Uncertainties, ECSQARU, 15-17 July 2015, At Compiegne, France.

5. Analysis of Massive Data Streams Using R (tutorial) by Antonio Salmeron at the XVIth Conference of the Spanish Association for Artificial Intelligence, CAEPIA, 9-12 November 2015, Albacete, Spain.
6. Parallel Importance Sampling in Conditional Linear Gaussian Networks by Dario Ramos-Lopez at the XVIth Conference of the Spanish Association for Artificial Intelligence, CAEPIA, 9-12 November 2015, Albacete, Spain.
7. Parallelization of the PC Algorithm by Antonio Salmeron at the XVIth Conference of the Spanish Association for Artificial Intelligence, CAEPIA, 9-12 November 2015, Albacete, Spain.
8. Modeling concept drift: A probabilistic graphical model based approach by Hanen Borchani at the Fourteenth International Symposium on Intelligent Data Analysis, 22-24 October 2015 in Saint-Etienne, France.
9. Dynamic Bayesian modeling for risk prediction in credit operations by Hanen Borchani at the 13th Scandinavian Conference on Artificial Intelligence, Halmstad, Sweden, November 5-6.

All presentation material for which this is relevant will be published under a Creative Commons license (www.creativecommons.org). The five presentations listed above are published under a Creative Commons license at the project website.

3.3 *Demonstrations*

In the second period of the AMIDST project one software demonstration of the AMIDST toolbox has been made:

1. AMIDST toolbox - A Java Library for Analysis of Massive Data Streams using Probabilistic Graphical Models by Andres Masagosa at The 27th Benelux Conference on Artificial Intelligence, Hasselt, Belgium, November 5-6, 2015.

3.4 *Conference Special Session*

Four researchers from the AMIDST consortium organized a special session on probabilistic graphical models (PGMs) for scalable data analytics at the ECSQARU 2015 conference taking place in France on July 15th to 17th 2015.

The call for papers is included in Deliverable D9.2 “Dissemination and Exploitation report I”. Three papers were accepted for the special session:

1. Towards Gaussian Bayesian Network Fusion. Irene Córdoba-Sánchez, Concha Bielza and Pedro Larrañaga
2. Early Recognition of Maneuvers in Highway Traffic. Galia Weidl, Anders L. Madsen, Viacheslav Tereshchenko, Dietmar Kasper and Gabi Breuel
3. Variable Elimination for Interval-Valued Influence Diagrams. Rafael Cabañas, Alessandro Antonucci, Andrés Cano and Manuel Gómez-Olmedo

3.5 ***Tutorial***

In the second period of the AMIDST project one tutorial on the AMIDST toolbox has been made:

1. Analysis of Massive Data Streams Using R (tutorial) by Antonio Salmeron at the XVIth Conference of the Spanish Association for Artificial Intelligence, CAEPIA, 9-12 November 2015, Albacete, Spain.

3.6 ***Press Releases***

In the second period, the consortium has not released any new press releases on the AMIDST project. Instead of issuing press releases, the consortium has used the LinkedIn project page and the project web site to continuously publish news on the progress of the project.


3.7 ***LinkedIn Project Page***

The AMIDST LinkedIn page is continuously being updated with new information on the progress of the project. The purpose of the LinkedIn page is to support both internal and external dissemination initiatives. Many researchers and professionals are connected through LinkedIn. This makes it easy for project partners to share information on the progress of the AMIDST project with a large group of people and for other people to register as followers of the project. This also aims to support initiatives on creating a community around the open source implementation of the algorithms in the AMIDST project.

The start page of the AMIDST project page under LinkedIn is <https://www.Linkedin.com/company/amidst-project>

The screen dump included below shows the main page of the LinkedIn website:

Linked in



AMIDST Project

Research
1-10 employees

Home

The AMIDST research project will provide a generic framework for analysis of extremely large volumes of streaming data, thereby adding, creating and increasing the value of existing and new data resources as well as providing a means for more timely and efficient decision making.

The models apply probability theory to navigate the many interdependent variables, whether it is debt and income with a credit rating, predicting problems with drilling operations for oil or speed and distance in an analysis of the risk of a two-car collision.

The above mentioned scenarios constitute three use cases. The use cases describe the interaction between the AMIDST framework and the need for analysing large volumes of data. The AMIDST use cases are deeply rooted in three of the partners in the project and will be tested on existing demands/problems.

The AMIDST project is funded by EU's FP7 programme, and has a total budget of EUR 3,922,756 of which the EU contribution is EUR 2,762,000. The project period lasts from January 2014 until January 2016.

The project partners are Aalborg University (Denmark), Universidad de Almeria (Spain), Hugin Expert A/S (Denmark), Norwegian University of Science and Technology (Norway), Daimler AG (Germany), Verdande Technology (Norway), and Banco de Crédito social Cooperativo (Spain).

Specialties
Developing and scaling up existing algorithms, Probabilistic modeling methods, Use-case solution, AMIDST toolbox

Website	Industry	Type
http://www.amidst.eu	Research	Partnership
Company Size	Founded	
1-10 employees	2014	

The objective is to publish short news articles on the progress of the AMIDST project on a regular basis. We aim for publishing one short news article every other week.

Here are the two most recent news articles published under the LinkedIn project page:

Recent Updates

AMIDST Project The AMIDST consortium meet for the 2015 Annual Meeting. The meeting was held at University of Almeria, Spain. Delete



Annual Meeting 2015

amidst.eu · It was a successful meeting for the consortium with fruitful and engaged discussions on ongoing and future work in the project. Partners were highly active in discussions during presentations of the status of the WPs. The outcome of the discussions will be used to drive the project forward in last year of the project. The pictures show that we can be serious and also enjoy each other's company.

Organic ?

Targeted to: All Followers

464 impressions	16 clicks	11 interactions	5.82% engagement
---------------------------	---------------------	---------------------------	----------------------------

Sponsor update

Like (11) · Comment · Pin to top · 8 days ago

Ilkka Ojala, Andres Masegosa +9

Add a comment...

At the time of writing the AMIDST LinkedIn page has 70 followers.

3.8 *www.amidst.eu*

The project website <http://www.amidst.eu> was described in Deliverable D10.1 (AMIDST Consortium D10.1, 2014). The website is an important tool in the dissemination initiatives. For instance, it contains updated information on all project publications and presentations.

We continue to develop the public part of the project website with new and relevant information. The private part of the website is used as a repository to store information on meetings, deliverables and other pieces of information to be shared between project partners.

The web site has been updated based on the recommendations provided by the reviewers during the first project review.

The front page includes a part on the latest news articles and a link to all news articles

Latest news:



17 Nov 2015 [Annual Meeting 2015](#)



5 Oct 2015 [Summer presentations](#)



1 Sept 2015 [Paper accepted for IDA'2015](#)

...

Find all news articles [here](#).

[Read about our two use cases based on the AMIDST research.](#)

Short-cuts to valuable information resources have been added to the front page.

A horizontal row of seven icons with corresponding text links below them:

- [CiteULike](#)
- [Linkedin](#)
- [Deliverables](#)
- [VBN](#)
- [Publications](#)
- [Presentations & Posters](#)
- [AMIDST Toolbox](#)

[See full list of partners](#)



DAIMLER



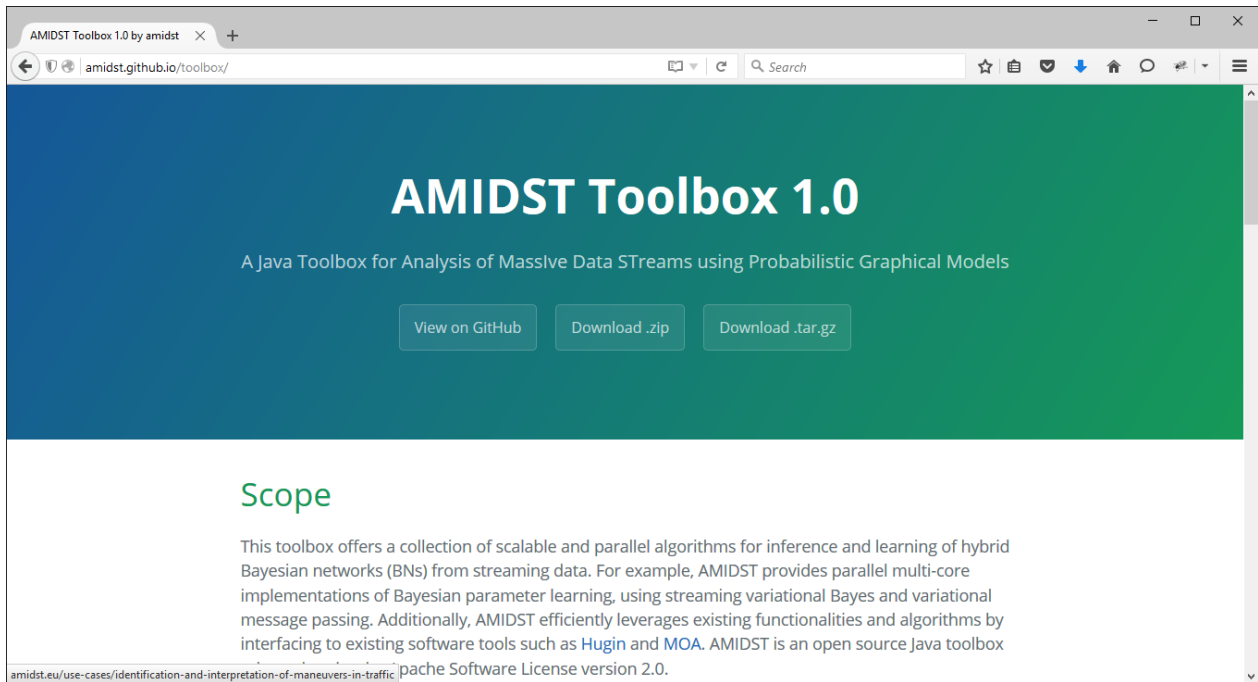
NTNU - Trondheim
Norwegian University of
Science and Technology



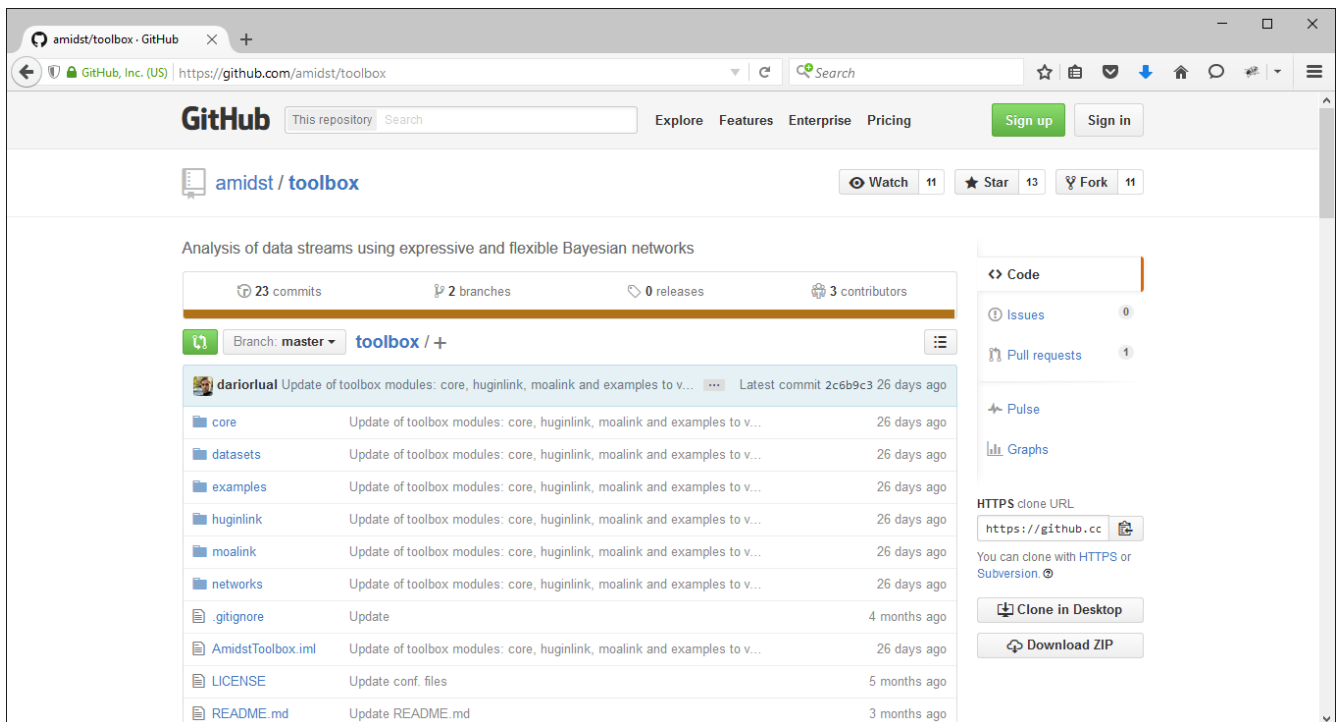
3.9 *Open Source AMIDST Toolbox*

The open source strategy of the AMIDST Consortium on the AMIDST toolbox is described in Deliverable 9.3 (AMIDST Consortium D9.3, 2015). The open source strategy is an important tool for the consortium in the management of the open source AMIDST toolbox. It describes initiative taken and to be taken in the process of creating a community around the AMIDST toolbox.

The open source AMIDST toolbox is available on GitHub from <http://amidst.github.io/toolbox/>. The main page is:



This link to the repository <https://github.com/amidst/toolbox> produces:



The next release of the software is scheduled for January 2016.

4 Exploitation

Task 9.2 Results Exploitation is according to the Gantt diagram in the Description of Work scheduled to start in month 25 of the project. The task consists of three main initiatives (taken from the Description of Work):

1. *The solutions developed in AMIDST will be validated by the industrial partners and they will also be the direct beneficiaries of the results they will provide.*
2. *Some of the software developments will serve to extend the HUGIN tool, and therefore be exploited commercially.*
3. *An open source strategy will be defined around the AMIDST toolbox*

Initiatives related to items 2) and 3) have already started. Work package 5 on *Developments in HUGIN software Tools* have produced prototype implementations that will be and have been finalised and further developed to reach commercial quality standard. Some parts of the functionality have been finalized and released while other parts are expected to be finalized and released as part of the official HUGIN software during the last year of the AMIDST project.

Preliminary exploitation plans for the individual industrial partners of the consortium are included in the Description of Work. These plans are to be adjusted and elaborated in Deliverable 9.5 as Task 9.2 starts.

4.1 General Approach of Consortium

The exploitation of results is an important activity in the AMIDST project. An important element in this work is the identification of potentially exploitable results. Therefore, an exploitation workshop is planned as part of the 2016 Annual meeting scheduled for 29-30 June 2016 in Trondheim, Norway.

The initial exploitation plan from the Description of Work is included below. The exploitation plans will be revised and updated as Task 9.2 is scheduled to start in M25 of the project. An important event in relation to this work is the planned exploitation workshop. In addition to identifying the exploitable results, the workshop and follow-up activities will include an assessment of the technological readiness level.

Also, results will be considered from a commercial and academic perspective as well as internal and external exploitation. Task 9.2 will include an assessment of the alignment between the planned exploitation and the actual exploitation of results. These activities will be reported on in Deliverable 9.5 *Dissemination and exploitation report III*.

4.2 *Approach of the Individual Commercial Partners*

This section considers the approach to exploitation taken by the individual commercial partners.

4.2.1 **HUGIN EXPERT A/S**

The details of the initial exploitation plan for HUGIN EXPERT A/S and the current status are outlined below.

4.2.1.1 **Initial Exploitation Plans from the Description of Work**

HUGIN EXPERT A/S expects valuable enhancements of its products (e.g., HUGIN Developer) using results coming from AMIDST, especially support for dynamic models for probabilistic representation and inference in domains with extremely large volumes of streaming data to be processed in real time under very demanding restrictions on memory and time as well as implementations of parallelized structure learning algorithms.

AMIDST is of strategic importance to HUGIN as it aims to further extend and develop the company's solutions for dynamic models. Based on AMIDST results, HUGIN will be able to offer its customers and partners a product portfolio including support for efficient analysis of extremely large data sets in dynamic domains.

The developments and enhancements of its COTS software product achieved as part of AMIDST are directly exploitable to the company. The exploitation will be initiated once the developments are released as part of the software. Multiple software releases during the duration of AMIDST are expected to the benefit of the project partners as well as new and existing customers.

The company will be able to exploit the skills and experience its developers obtain from working closely with leading experts in the field of probabilistic modelling as well as working with data partners. Each of the use-case may lead to signing a royalty contract with HUGIN EXPERT A/S after the completion of the project.

Developing tools and solutions for the financial service industry is a key focus area of the company. The company has clients in the financial service industry in a number of European countries and enhanced capabilities in the tool to analyse extremely large data volumes can be exploited to improve the offerings to its customers in this domain.

4.2.1.2 **Assessment of Alignment with Initial Plan**

HUGIN EXPERT is in complete alignment with the initial exploitation plan included in the Description of Work. The company intends to further develop, test and finalise prototype software developments developed in AMIDST for inclusion in the COTS software product.

HUGIN software version 8.1 was released on October 24th, 2014 (the date of the 25th years anniversary of the company). It includes extensions of the support for Dynamic Bayesian Networks and Data Frame functionality to evaluate data streams partly developed in AMIDST.

HUGIN software version 8.2 was released on May 29th, 2015 including parallel structure learning functionality as well as other minor extensions partly developed in AMIDST.

The next release of HUGIN software is planned for February 2016.

4.2.2 DAIMLER AG

Daimler AG provides the use-case data considered in Work package 6. The details of the initial exploitation plan and the current status are outlined below.

4.2.2.1 Initial Exploitation Plans from the Description of Work

In Work package 6 a solution for the automotive use-case will be developed based on an AMIDST framework instantiation. If the automotive requirements on memory, inference, available computation power, system response time and performance are satisfied, the exploitation plan will focus on integrating the developed solution into the system of the car to support maneuver recognition in highway traffic scenarios.

A solution that can address the challenges of analysis of extremely large volumes of data in real time on restricted hardware where existing methods are inadequate is of high importance to the research and development at Daimler AG.

Daimler AG's department of driving automation has a clear strategy to implement effective solutions in advanced driver assistance and safety systems, promoting the vision on accident-free driving.

If the AMIDST models developed in Work package 6 are successful and obtain the expected quality improvement outlined in Section B 1.2.3, Daimler AG will extend their situation analysis for driver assistance and safety systems to include the AMIDST developments on maneuver recognition. The consequence is that new vehicles will become more safe, contributing to less loss of lives and less injuries, promoting better traffic flow with less congestions, cleaner environment and positive macro-economic effects.

4.2.2.2 Assessment of Alignment with Initial Plan

Daimler AG intends to use the newly developed features of the AMIDST and HUGIN tools for rapid prototyping and evaluation of models for situation analysis.

If the developed modelling approach is effective, it will be used:

- For situation assessment where existing methods are inadequate for knowledge representation
- To analyse a maneuver as a dynamic process, considering the trend of its features → earlier recognition
- For analysis of extremely large volumes of data in real time on restricted hardware generation of test scenarios
- If-Then situation analysis for preventive safety → requires causal models
- Improvement of driver assistance systems
- Early recognition of maneuvers

Moreover, since the methodology, developed in Work package 6 is general for safety applications, it will contribute also to:

- Better prediction of vehicles behavior on intersections
 - Context-Dependent Scene Interpretation & Collision Risk Prediction
-

In addition, to ensure exploitation of the developed solution, it will be necessary to develop further methods for self-diagnostics of the application and for abnormality detection concerning the used observations for situation analysis and maneuver recognition. If the last two issues can be efficiently addressed (by, e.g., development of the necessary methodology, which is not planned within Work package 6 and therefore needs to be achieved after the completion of AMIDST), this can enable the use of the developed solution for autonomous driving.

4.2.3 BANCO DE CREDITO SOCIAL COOPERATIVO SA

BCC provides the use-case data considered in Work package 8. The details of the initial exploitation plan and the current status are outlined below.

4.2.3.1 Initial Exploitation Plans from the Description of Work

In Work package 8 a software demonstrator solution for the risk prediction in credit operations use-case is being developed. If the improvements described in Section B 1.2.5 of the Description of Work are attained, BCC will implement the AMIDST solution as its main tool for monitoring retail customer's default risk. Furthermore, it will be used to help in the design of campaigns based on risk profiling.

BCC is a leading financial institution in Spain, being the top rural bank in the country, and is still growing, and expected to grow further. It implies that BCC procedures for risk monitoring will be also applied in the institutions that join its group.

Furthermore, if the procedure is certified by the Bank of Spain for capital requirement calculations, it would open new possibilities for exploiting it in other internal activities and could claim the interest of other institutions.

4.2.3.2 Assessment of Alignment with Initial Plan

The exploitation plan has not suffered important changes from what is detailed in the Description of Work. The idea is still to use the AMIDST solution to obtain the probability of default of all retail clients in BCC portfolio on a daily basis. This will allow to identify when the credit risk of a client is increasing and take remedy actions. It will also be used to classify clients according to their risk with a better method than the one used today. Finally, the identification of the profile of low risk clients will be used to define better marketing campaigns. AMIDST solution will be totally integrated in the risk monitoring system of BCC.

4.3 Approach of the Individual Academic Partners

This section considers the approach to exploitation taken by the individual academic partners.

4.3.1 Aalborg University

The AMIDST project covers scientific and technological issues, which are closely aligned with AAU's strategic focus on streaming data. Not only will the scientific insights gained from AMIDST form the foundation for future scientific projects in this area, but the AMIDST toolbox will also be used as an important technological component in these projects.

The AMIDST toolbox will also be introduced in the education of master students. For example, the toolbox is expected to be used for classifying and fusing multiple disparate sensor readings with the aim of doing sensor-based evaluation of user experiences.

4.3.2 Universidad de Almeria

The University of Almería is planning to exploit the results of the AMIDST project through the Centre for the Development and Transfer of Mathematical Innovation to Industry (CDTIME). This centre provides solutions to industry in any field related to Mathematics, especially those involving data analysis. The exploitation is expected to be implemented by using the AMIDST toolbox in problems posted by the industry involving the analysis of data streams. To this end, the Department of Mathematics will offer training on using the AMIDST toolbox for the members of the CDTIME.

4.3.3 Norge Teknisk-Naturvitenskapelige Universitet

The AMIDST project covers scientific issues of strategic importance for NTNU, and is part of the methodological toolbox used by the university's Big Data Lighthouse project, where it is a candidate for deployment for the variety of projects undertaken by the Lighthouse.

The AMIDST Toolbox and underlying technology is also used in the education of master-level students. For instance, it is currently considered as a general tool for classification of activities from streams of patients using wearable sensors.

5 References

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