

Meaningful Integration of Data, Analytics and Services

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D7.9 Brochure, Poster and e-Newsletters 2

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Author(s):	Brian Cleland, Jonathan Wallace, Debbie Rankin, Michaela Black, Maurice Mulvenna, Raymond Bond,
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Executive Board Document Sign Off

Role	Partner	Signature	Date
Project Coordinator	Ulster	Michaela Black	14/12/2017
WP1 Lead	Ulster	Michaela Black	14/12/2017
WP2 Lead	SET	Paul Carlin	04/12/2017
WP3 Lead	VICOM	Gorka Epelde	08/12/2017
WP4 Lead	KU Leuven	Gorana Nikolic	13/12/2017
WP5 Lead	VTT	Juha Pajula	13/12/2017
WP6 Lead	DCU	Regina Connolly	04/12/2017
WP7 Lead	Ulster	Jonathan Wallace	14/12/2017
WP8 Lead	Ulster	Michaela Black	14/12/2017



Abstract

This deliverable as per the Grant Agreement is a Version 2 update on the design and production of MIDAS promotional materials including the design of a generic MIDAS poster / pop-up stand and brochure / folder, the first MIDAS Digital Story and the production and circulation of two enewsletters.

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- VICOM Fundación Centro De Tecnologías De Interacción Visual y Comunicaciones Vicomtech (Spain)
- UOULU Oulun Yliopisto (University of Oulu) (Finland)
- ANALYTICS ENG Analytics Engines Limited (UK)
- QUIN Quintelligence D.O.O. (Slovenia)
- BSO Regional Business Services Organisation (UK)
- DH Department of Health (Public Health England) (UK)
- BIOEF Fundación Vasca De Innovación E Investigación Sanitarias (Spain)
- VTT Teknologian Tutkimuskeskus VTT Oy (Technical Research Centre of Finland Ltd.) (Finland)
- THL Terveyden ja hyvinvoinnin laitos (National Institute for Health and Welfare) (Finland)
- SET South Eastern Health & Social Care Trust (UK)
- IBM Ireland Ltd IBM Ireland Limited (Ireland)
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1.0	04/12/2017	Draft for Review	
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This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.



Executive Summary

Work Package:	WP 7
Work Package leader:	Jonathan Wallace
Task:	D7.9 MIDAS Brochure, Poster and e-Newsletters 2
Task leader:	Ulster - University of Ulster

This deliverable as per the Grant Agreement is a Version 2 update on the design and production of MIDAS promotional materials including the updated design of a generic MIDAS poster / pop-up stand and brochure / folder to reflect changes in partners' logos, the first MIDAS Digital Story and the production and circulation of two enewsletters.



Table of Contents

1 Physical Media	7
1.1 MIDAS Brochure	7
1.2 Pop-up Stand	8
1.3 Poster	11
2 Digital Media	14
2.1 e-Newsletters	14
2.2 Website	17
2.3 Social Media	18
2.4 YouTube Channel	19
3 Conclusion	20



1 Physical Media

1.1 MIDAS Brochure

The purpose of any brochure or flyer is to promote and disseminate the project. In order to provide as much flexibility to partners as to what specific content they might want to promote relating to MIDAS, rather than having a brochure to look to try to fit all audiences, which would be expensive to produce and would need to have at least three versions produced during the project as we progress through the three iterations of the MIDAS platform development and testing, we have agreed to produce a MIDAS folder within which partners can place info sheets / inserts on whichever aspects they are looking to promote e.g. the technical platform, data analytics, data visualisation, or ethics and governance of big data, etc.

The Brochure template has been updated to reflect logo changes from some of the partner organisations



Figure 1: Artwork of MIDAS folder template for professional printing and selfassembly.



As there is a limited consumable budget available for the coordinating partner as is the case with the promotional poster / pop-up stand below we are sharing the high resolution artwork with all partners and as agreed they will be able to produce the folders to meet their needs from their own budgets.

A flyer was also produced for the two Belfast workshops in November 2017 on Co-Design and Consent, Ethics and GDPR (see Figure 2 below).

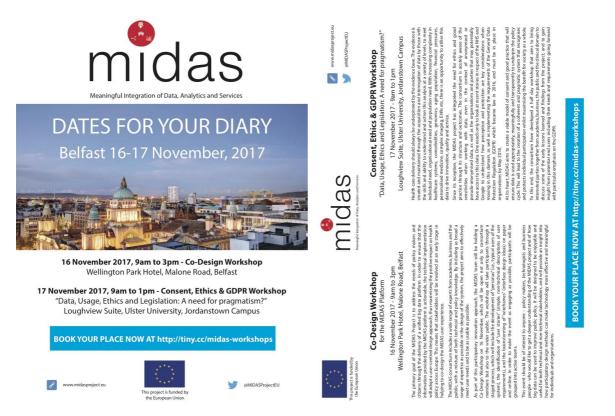


Figure 2: A5 flyer for Belfast Co-Design and Consent, Ethics and GDPR workshops.

1.2 Pop-up Stand

In order to maximise professional visibility of the MIDAS project and events including workshops, conferences, public engagements we created the artwork for and have produced two pop-up stands.



D7.9 MIDAS Brochure, Poster and e-Newsletters 2 D 7.9 Version 1.1

Grant Agreement No: 727721

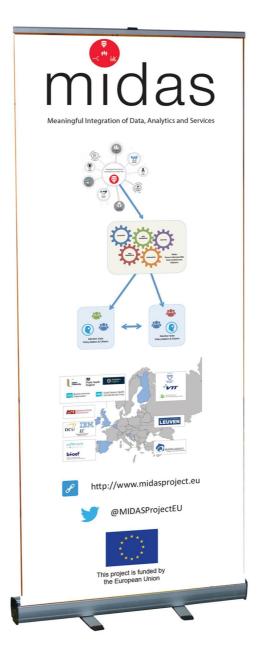


Figure 3: MIDAS Pop-Up Stand

As with the poster / folder above as there is a limited consumable budget available for the coordinating partner we are sharing the high resolution artwork with all partners and as agreed they will be able to produce the pop-up stand to meet their promotional / dissemination needs from their own budgets. Colleagues in Finland have also produced pop-up stands from the provided artwork.





Figure 4: MIDAS Pop-up stand as produced from high-resolution artwork by colleagues in Finland for their dissemination.





Figure 5: MIDAS Pop-up stand in background of project representatives' group photograph at MIDAS General Assembly in Belfast in November 2017, as produced from high-resolution artwork by Ulster for their dissemination.

1.3 Poster

We have created a common poster publication template for the project and now have had two paper poster publications at conferences using this template in the interim period:

- One accepted for EMBEC '27 entitled 'Meaningful Integration of Data Analytics and Services Finnish Pilot' (Fig. 5)
- One accepted for TMED 2017 entitled 'The MIDAS Platform: Facilitating the Utilisation of Healthcare Big Data in Northern Ireland and Beyond. (Fig. 6)





Meaningful Integration of Data, Analytics and Services – Finnish Pilot J. Pajula^{1*}, M. van Gils¹ and M. Black² for the MIDAS Consortium

 Fajula⁺, M. Vali Gils⁺ and M. Black⁻ for the MIDAS Consortium
 Decision Support for Health, VTT Technical Research Centre of Finland Ltd., Tampere, Finland 2 School of Computing & Intelligent Systems, Ulster University, Magee, Northern Ireland

* Contact: juha.pajula@vtt.fi

Introduction

The MIDAS EU project will bring policy makers, data owners and scientists together to develop a decision support system (DSS) for information-based health policy making at regional and national level. Currently, the main limitations for data driven decision making in healthcare are in legislation and heterogeneous data management [1]. It is a governance and consent issue combined with heterogeneous data.

For example, using healthcare records together with biobank registers and hospital management data requires significant amount of paperwork and sometimes the planned study can even turn out to be prohibitively difficult to carry out due to the involved bureaucracy.

MIDAS develops a proof of concept (PoC) of a DSS for policy making to discover the opportunities, which a broader range of data integration in health domain would enable. The concept is visualized in Figure 1.

Because policies should affect always to populations, MIDAS project concentrates on larger cohorts instead of single subjects.

Implementation

Initial MIDAS data sources include:

- Citizen data like MyData [2],
- Social media like Twitter,
- Open data [3, 4] and
- Healthcare data, which is provided in Finland from the University of Oulu (UO), City of Oulu (CO) and the Finnish National Institute of Health and Welfare (THL)

Main components of MIDAS system:

- Analytics Engines XPD; state of the art data virtualization [5],
- Apache Spark framework with state-of-the-art data analytics
- e.g. from Python, R and Scala

- Semantics server software [7] for the model-based forecasts.
- Social media analytics and other free text analytics
- User Interface (UI) with VTT OpenVA framework [8].

Key concepts:

- Data stays on original source systems and integration is done only on request when needed.
- System dynamic forecasting models are built with specialist knowledge from domain experts and data analytics
 - The evaluation of **impact models** is supported by social media and news analytics.

Dedicated smart UI system

- Fully customizable shareable dashboards.
- Three main types of users will be catered for:
- high-level policy makers (predefined dashboards);
- supporting personnel (creators of the dashboards); and
- research oriented users (developers of new analytics).

Results & Discussion

- The first Finnish pilot topics from the initial interviews in Oulu:
- Prevention of mental health problems;
- Wellbeing of young people and;
- Wellbeing of elderly people.

Main topic for Finnish pilot after interviews with extended group of policy makers:

• The mental health and wellbeing of young people.

- The interviews with owners of controlled data have shown that: • Current legislation and data sensitivity requires anonymized secured datasets, and
 - Only preprocessed secured datasets can be connected to MIDAS data virtualization system.

These create challenges for the data integration and analytics.

The project started in November 2016 and lasts 40 months. The MIDAS system will be implemented in parallel for: Finland, Northern Ireland, Republic of Ireland and Basque Country.

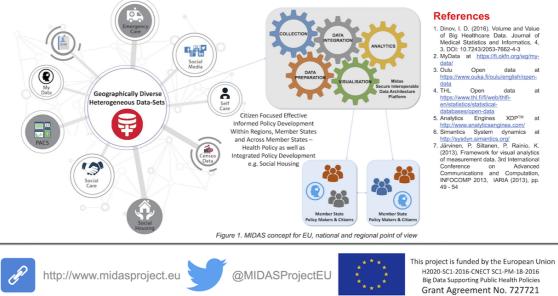


Figure 6: EMBEC 27 Poster





The MIDAS Platform: Facilitating the Utilisation of Healthcare Big Data in Northern Ireland and Beyond

Debbie Rankin^{1*}, Michaela Black¹, Jonathan Wallace², Maurice Mulvenna², Raymond Bond², Brian Cleland² for the MIDAS Consortium

1 School of Computing and Intelligent Systems, Ulster University, Magee, BT48 7JL 2. School of Computing, Ulster University, Jordanstown, BT37 0QB

The Policy Board's involvement ensures that the platform

Respects governance, ethical, consent and privacy aspects.

· Meets real user requirements

Is usable and effective

By bringing together a unique combination of data scientists and key stakeholders via the Policy Board, MIDAS is producing a platform that empowers policy makers by providing actionable knowledge to support decision making at regional and national levels (Figure 2).

Results

the platform **Case Studies**

> Diabetes Youth mental health

Children in care

MIDAS Platform Architecture · Data Virtualisation: Analytics Engines XDP⁴ (Figure 6)

Data Analytics: Apache Spark framework, R, Python, Scala etc.

Forecasting: Simantics System Dynamics⁵

Social Media Analytics

Free Text Analytics

Child obesity

Introduction

We live in a data rich, information driven society with numerous data sources available that have the potential to provide new insights into areas such as:

- disease prevention
- policy decisions . personalised medicine

Data sources are not optimally utilised, existing in heterogeneous silos with no current solution to connect or integrate them with valuable open and social data¹; a solution that could enable evidence-based health policy decision making, leading to significant improvements in health care and quality of life² (Figure 1).



Figure 1. Cu

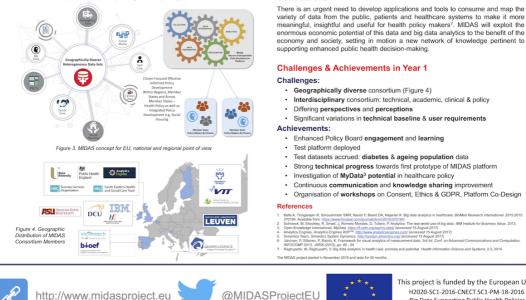
Materials and Methods

The MIDAS project is developing a **big data platform** that facilitates the **utilisation** of healthcare data beyond existing isolated systems making that data amenable to enrichment with open data, social data, and citizen data, e.g. MyData³.

A unique **Policy Board** comprising **health policy makers** and **data guardians** has been formed with members acting as stakeholders of MIDAS. The Policy Board: · participate in user-centred design

- ensure patient and public involvement
 advise on implementation
- · participate in evaluation

The MIDAS platform will enable the integration of heterogeneous data sources, provide privacy-preserving analytics, forecasting tools and bespoke visualisations of actionable information (Figure 3). Policy makers will have the capability to perform data-driven evaluations of the efficiency and effectiveness of proposed policies in terms of expenditure, delivery, wellbeing, and health and socio-economic inequalities, thus improving current policy risk stratification.



This project is funded by the European Union H2020-SC1-2016-CNECT SC1-PM-18-2016 Big Data Supporting Public Health Policies Grant Agreement No. 727721

ance and Systems. 2:3; 2014

Figure 7: TMED 2017 Poster

Challenges & Achievements in Year 1

- Geographically diverse consortium (Figure 4)
- Interdisciplinary consortium: technical, academic, clinical & policy Differing perspectives and perceptions

- Test datasets accrued: diabetes & ageing population data
- Continuous communication and knowledge sharing improvement
- Organisation of workshops on Consent, Ethics & GDPR, Platform Co-Design









6. MIDAS VI



Visualisations: VTT OpenVA framework6

Conclusions

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2 Digital Media

2.1 e-Newsletters

As reported in D7.8 a mailchimp account has been set-up and a Wordpress plugin installed to allow users to subscribe to our newsletter from the MIDAS website.



Figure 8: Screenshot of MIDAS home page with link to newsletter





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eNewsletter			Search			
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Figure 9: Screenshot of the subscription form to the MIDAS newsletter http://www.midasproject.eu/enewsletter/

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MIDAS						
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Figure 10: Screenshot of MailChimp account



The process, roles, responsibilities/actions and timings for the MIDAS Newsletter are described below:

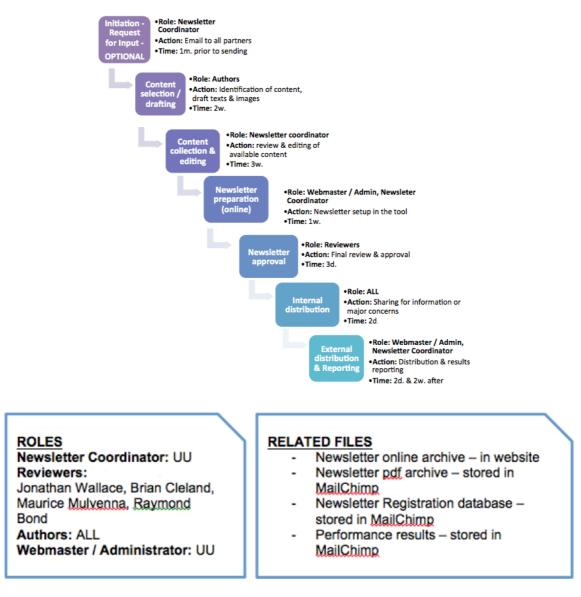


Figure 11: E-Newsletter Process

To date as per the schedule we have released two Newsletters to those subscribed to the MIDAS Newsletter, which currently stands at 86 subscribers. The newsletters contain the aggregated Blog posts from the website as well as any major news events. The 2nd Newsletter also contained the first MIDAS Digital Story shared via the MIDAS YouTube Channel.



2.2 Website

The MIDAS website has been building traffic and is up just under 3.5% over the last 12 months with 2.1k visitors as per the Google Analytics analysis shown below:



Figure 12: MIDAS Website Google Analytics Analysis Months 1 to 12



2.3 Social Media

We have chosen Twitter as the preferred Social Media Platform for MIDAS, using the handle @MIDASProjectEU and hashtags such as #MIDAS, #BigData, #PublicHealth and #GDPR. With the number of dissemination events that partners across MIDAS have undertaken MIDAS has achieved good impressions on Twitter. The four figures below show the Twitter impressions for each quarter of the first 12 months of the project, where we have gained 9.8k Twitter impressions in total.

1 Dec 2016 - 1 Mar 2017

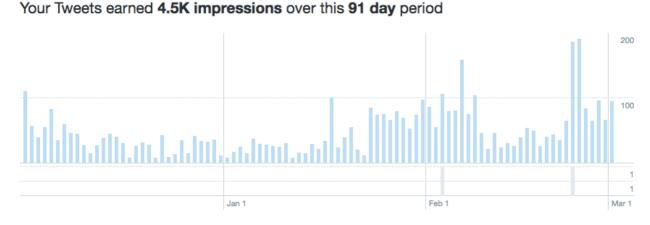


Figure 13: MIDAS Twitter Analytics Months 1 to 3

2 Mar 2017 - 1 Jun 2017

Your Tweets earned 2.2K impressions over this 92 day period

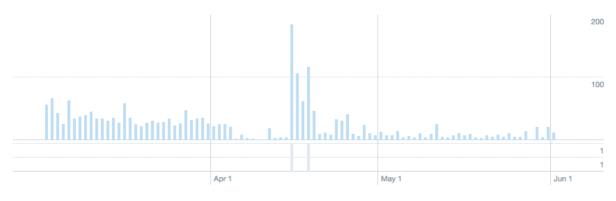


Figure 14: MIDAS Twitter Analytics Months 4 to 6



2 Jun 2017 - 31 Aug 2017



Figure 15: MIDAS Twitter Analytics Months 7 to 9

1 Sep 2017 - 30 Nov 2017

Your Tweets earned 2.2K impressions over this 91 day period



Figure 16: MIDAS Twitter Analytics Months 10 to 12

2.4 YouTube Channel

We have also created a MIDAS YouTube Channel called MIDAS Project for dissemination of any video material that we create. Thus far we have uploaded the video of the full public workshop held in Helsinki in June 2017 as well as the first of the Digital Stories to be released from MIDAS – this one by Susan Campbell from BSO in relation to Anonymising Childrens' Data for MIDAS.

Thus far we have had 70 views on the YouTube Channel.



3 Conclusion

This deliverable describes how various information materials have been developed within the MIDAS brand platform. Specifically, we have outlined physical media that have been created - such as brochures and flyers, pop-up stand and posters - as well as digital materials including the MIDAS website, e-newsletters, Twitter content and YouTube videos. These materials have all been developed consistently with the MIDAS logo and branding, in order to effectively raise awareness of the project and assist in dissemination activities across the consortium partner regions.