



Participant Profile

for the
Turkish-German Strategy Workshop 2006
TÜBİTAK Marmara Research Center,
Istanbul- Gebze Turkey
13 – 15 December 2006



International Bureau (IB)
of the Federal Ministry of
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1. Contact details and personal information

Name:	Asuman Doğaç	Phone:	+90 (312) 210 5598 +90 (312) 210 2076
Role/function¹:	Director	Fax:	+90 (312) 210 5572
Institution:	METU Software Research and Development Center	E-Mail:	asuman@srcd.metu.edu.tr
Department:	METU Computer Engineering	Website:	http://www.srcd.metu.edu.tr/
Address:	Yazılım Araştırma Geliştirme Merkezi, İnönü Bulvarı, ODTÜ	Organisation type²:	University
Postcode and City:	06531, Ankara		

¹ **Role/function** e.g. working group leader, managing director, postdoc, PhD etc.

² **Organisation type** e.g. university, research institution, small and medium enterprise (SME), industry etc.

Working Group:	<input type="checkbox"/> 1 Material Technologies <input type="checkbox"/> 2 Biotechnology, Genomics and Food <input type="checkbox"/> 3 Energy <input checked="" type="checkbox"/> 4 Information and Communication Technologies <input type="checkbox"/> 5 Environmental Protection, Climate Change and Sustainable Development
Areas of activity:	<input checked="" type="checkbox"/> research <input checked="" type="checkbox"/> technology development <input type="checkbox"/> demonstration <input type="checkbox"/> training <input type="checkbox"/> dissemination <input type="checkbox"/> other:
Keywords characterising your area of research:	Please choose the appropriate key words (max. 5) from the following list: http://www.cordis.lu/fp6/keywords 06.03.14.00.00.00.00 Information technology 04.03.11.01.00.00.00 Software engineering 04.03.09.01.02.00.00 Medical informatics 06.03.14.01.00.00.00 E-business 06.03.14.02.00.00.00 E-commerce



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**Expertise,
technologies and
infrastructures
available in your
institution:**

Research activities / expertise: The Software Research and Development Center (SRDC) is established by the Scientific and Technical Research Council of Turkey (TUBITAK) in October 1991 and is operating under the Faculty of Engineering in METU.

The aim of this centre is twofold: to lead large scale software research and development projects and to foster international co-operation. SRDC is involved in a number of research and development projects supported by the government, industrial companies, international organisations and the European Commission.

Methods:

Key technologies: Semantic Web Technologies, Web Services, Ontologies, P2P networks, Agent Technologies, Semantic Interoperability, e-Health, Sensor Networks, GRID Systems.

Infrastructures: Flat Infrastructure. Middle East Technical University Software Research and Development Center is coordinated by Prof. Dr. Asuman Doğan. SRDC Team is composed of PhD and Masters Degree Students of METU Computer Engineering Department.

Key publications:

Namli T., Dogac A.

Using SAML and XACML for Web Service Security&Privacy

A Chapter Proposal to a book edited by Dr. Periorellis Panos and published by Idea Group Inc.

Dogac A., Kabak Y., Gulderen O., Namli T., Okcan A., Kilic O., Gurcan Y., Orhan U., Laleci G.,

ebBP Profile for Integrating Healthcare Enterprise (IHE)

Submitted to OASIS ebXML Business Process Technical Committee

Dogac A., Kabak Y., Laleci G., Najmi F., Mattocks C., Pollock J., Wallace E.

ebXML Registry Profile for Web Ontology Language (OWL)

Submitted to OASIS ebXML registry Semantic Content Management Subcommittee

Dogac A., Laleci G., Aden T., Eichelberg M.

Enhancing IHE XDS for Federated Clinical Affinity Domain Support

Accepted for publication to IEEE Transactions on Information Technology in Biomedicine.

Eichelberg M., Aden T., Riesmeier J., Dogac A., Laleci G.,

ELECTRONIC HEALTH RECORD STANDARDS – A BRIEF OVERVIEW

4th International Conference on Information and Communications Technology (ICICT 2006), Cairo, Egypt, December 2006.

Hein A., Nee O., Willemsen D., Scheffold T., Dogac A., Laleci G.,

SAPHIRE - Intelligent Healthcare Monitoring based on Semantic Interoperability Platform - The Homecare Scenario

European Conference on eHealth (ECEH06), Fribourg, Switzerland, October 2006.

Laleci G., Dogac A., Akcay B., Olduz M., Yuksel M., Orhan U., Tasyurt I., Sen T., Kabak Y., Namli T., Gulderen O., Okcan A.

SAPHIRE: A semantic Web service based Clinical guideline deployment infrastructure exploiting IHE XDS

eChallenges Conference, Barcelona, Spain, October 2006.

Dogac A., Laleci G., Kirbas S., Kabak Y., Sinir S., Yildiz A., Gurcan Y.

Artemis: Deploying Semantically Enriched Web Services in the Healthcare



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Domain

Information Systems Journal (Elsevier), Volume 31, Issues 4-5, June-July 2006, pp.321-339 (Science Citation Index Core, Impact Factor: 03.327).

Dogac A., Namli T., Okcan A., Laleci G., Kabak Y., Eichelberg M.
Key Issues of Technical Interoperability Solutions in eHealth
eHealth 2006 High Level Conference and Exhibition, Malaga, Spain, May 2006

Dogac A., Bicer V., Okcan A.
Collaborative Business Process Support in IHE XDS through ebXML Business Processes
In proc. of International Conference on Data Engineering (ICDE2006), Atlanta, USA, April 2006.

Dogac A., Laleci G., Kabak Y., Unal S., Beale T., Heard S., Elkin P., Najmi F., Mattocks C., Webber D., Kernberg M.
Exploiting ebXML Registry Semantic Constructs for Handling Archetype Metadata in Healthcare Informatics
International Journal of Metadata, Semantics and Ontologies, Volume 1, No. 1, 2006.

Tumer, A., Dogac. A., Toroslu. H.,
A Semantic based Privacy Framework for Web Services
in Intelligent Techniques for Web Personalization, B. Mobasher, S. Anand (Editors), Lecture Notes in Computer Science, Vol. 3169, Springer-Verlag GmbH, 2005, pp. 289 - 305 (ISBN: 3-540-29846-0)

Della Valle E., Cerizza D., Bicer V., Kabak Y., Laleci G., Lausen H.
The Need for Semantic Web Service in the eHealth
W3C workshop on Frameworks for Semantics in Web Services, 2005.
2005-8 Kilic O., Bicer V., Dogac A.
Mapping Archetypes to OWL
Technical Report TR-2005-3.

Eichelberg M., Aden T., Riesmeier J., Dogac A., Laleci G.
A Survey and Analysis of Electronic Healthcare Record Standards
ACM Computing Surveys, Vol. 37, No:4, December 2005 (Science Citation Index Core, Impact Factor: 07.500).

Artemis Consortium
Making Healthcare Information Systems Talk to Each Other: IST-1-2103
ARTEMIS Project
The Parliament Magazine, Issue 210 (October 3, 2005) and Issue 211 (October 17, 2005).

Bicer V., Kilic O., Dogac A., Laleci G.
Archetype-based Semantic Interoperability of Web Service Messages in the Healthcare Domain
Int'l Journal on Semantic Web & Information Systems, Vol. 1, No.4, October 2005, pp. 1-22.

Bicer V., Laleci G., Dogac A., Kabak Y.
Providing Semantic Interoperability in the Healthcare Domain through Ontology Mapping
eChallenges 2005, October 2005, Ljubljana, Slovenia.

Cicekli N., Cosar A., Dogac A., Polat F., Senkul P., Toroslu H., Yazici A.
Data Management Research at the Middle East Technical University
ACM Sigmod Record, Vol. 34, No. 3, September 2005 (Science Citation Index Expanded, Impact Factor: 00.675).



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Bicer V., Laleci G., Dogac A., Kabak Y.
Artemis Message Exchange Framework: Semantic Interoperability of Exchanged Messages in the Healthcare Domain
ACM Sigmod Record, Vol. 34, No. 3, September 2005 (Science Citation Index Expanded, Impact Factor: 00.675).

Dogac A., Kabak Y., Laleci G. C. Mattocks, F. Najmi, J. Pollock
Enhancing ebXML Registries to Make them OWL Aware
Distributed and Parallel Databases Journal, Springer-Verlag, Vol. 18, No. 1, July 2005, pp. 9-36. (Science Citation Index Expanded, Impact Factor: 00.897).

Ozen B., Kilic O., Altinel M., Dogac A.
Highly Personalized Information Delivery to Mobile Clients
Wireless Network: The Journal of Mobile Communication, Computation and Information, Volume 10, No. 6, November 2004, pp. 665-683.

Dogac A., Kabak Y., Laleci G., Sinir S., Yildiz A., Tumer A.
SATINE Project: Exploiting Web Services in the Travel Industry
eChallenges 2004 (e-2004), 27 - 29 October 2004, Vienna, Austria.

Dogac A., Kabak Y., Laleci G., Sinir S., Yildiz A., Kirbas S., Gurcan Y.
Semantically Enriched Web Services for Travel Industry
ACM Sigmod Record, Vol. 33, No. 3, September 2004. (Science Citation Index Expanded, Impact Factor: 00.675).

Dogac A., Bussler C.
A Tutorial on Providing Interoperability of Medical Information Systems through Semantically Enriched Web Services
The Fourth International Conference on Web Engineering (ICWE 04), Munich, Germany, July 28-30, 2004.

Laleci G., Kabak Y., Dogac A., Cingil I., Kirbas S., Yildiz A., Sinir S., Ozdakis O., Ozturk O.
A Platform for Agent Behavior Design and Multi Agent Orchestration
Agent-Oriented Software Engineering (AOSE-2004) Workshop, the Third International Joint Conference on Autonomous Agents & Multi-Agent Systems (AAMAS 2004), New York City, New York - July 19, 2004 (Science Citation Index Expanded, Impact Factor: 01.515).

Dogac A.
Keynote Talk: Exploiting Web Service Semantics in eBusiness Applications
14th International Workshop on Research Issues on Data Engineering: Web Services for E-Commerce and E-Government RIDE-WS-ECEG'2004, Boston, USA, March 28, 2004.

Dogac A., Kabak Y., Laleci G.
Enriching ebXML Registries with OWL Ontologies for Efficient Service Discovery
14th International Workshop on Research Issues on Data Engineering, Boston, USA, March 28-29, 2004.



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2. Past and present research collaborations

Are you familiar
with the European
Framework
Programme?

Yes

No

- with Framework Programme 5
- with Framework Programme 6
- with Framework Programme 7

EU-projects you are
involved in:

Past projects

**Programme title / contract number / title / acronym / your function
(coordinator / partner / contractor)**

1. FP6 - 2.3.1.9 Networked Businesses and Governments / IST-1-002104-STP / Semantic-based Interoperability Infrastructure for Integrating Web Service Platforms to Peer-to-Peer Networks / SATINE / Coordinator
2. FP6 - 2.3.1.11 eHealth / A Semantic Web Service-based P2P Infrastructure for the Interoperability of Medical Information Systems / ARTEMIS / Coordinator
3. EUMEDIS / EUMEDIS-311 / Delivery of Mediterranean Destination Links in Unified Environments / DAEDALUS / Partner
4. EUMEDIS / EUMEDIS-528 / Euro-Mediterranean network for sharing IST learning resources / MEDFORIST / Partner
5. FP5 / IST-2000-31050 / A Data Mining Framework for Training Intelligent Agents / Agent Academy / Partner
6. FP5 / IST-2000-26429 / An Accompanying measure for European Commission's IT Nodes Actions in TBP, E-Commerce, WWW and Multimedia Technologies / HERMES / Coordinator
7. FP5 / IST-2000-31046 / Design for Humanization of Technologies / HUMANTEC / Partner
8. FP5 / INCO-DC 97 2496 / A Workflow Management System for the Maritime Industry / MARIFlow / Coordinator
9. FP5 / IST-1999-20216 / LEVERaging Knowledge Management in the Software Industry / LEVER / Subcontractor

Present projects

1. FP6 - 2.4.13 Strengthening the Integration of the ICT research effort in an Enlarged Europe Focus: eHealth / IST - 027074 / Intelligent Healthcare Monitoring based on Semantic Interoperability Platform / SAPHIRE / Coordinator
2. FP6 - 2.4.11 Integrated biomedical information for better health: eHealth / IST - 027065 / A Roadmap for Interoperability of eHealth Systems in Support of COM 356 with Special Emphasis on Semantic Interoperability / RIDE / Coordinator
3. FP6 / IST-027306 / Application Bus for Interoperability in Enlarged Europe SMEs / ABILITIES / Partner
4. FP6 - 2.3.6.1 To stimulate, encourage and facilitate the participation of organisations from the NMS and ACC in the activities of IST / IST-015871/ Identify and Support Research and Business Excellence to Enhance NMS - ACC Participation in the Development and Pilot Implementation – Demonstration of ICT Business Applications and Services / IST-BONUS / Partner



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**Other international
collaborations:**

**Name(s) and
contact details of
potential partners:**

SRDC has realised a part of the prototype for AWACS Man-Machine Interface Prototype for NATO Mid-Term Modernisation Programme in co-operation with Gallium Software Inc. (Canada)

If you would like to suggest the participation of particular partners from the partner country based on existing contacts or collaboration experience, you are welcome to indicate their names and contact details below:

German Partners from the RIDE Project

Organization: OFFIS

Contact Person: Dr. Marco Eichelberg **Email address:** eichelberg@offis.de

Organization: IFOMIS

Contact Person: Prof. Barry Smith **Email address:** phismith@buffalo.edu

Organization: IHE-D

Contact Person: Prof. Berthold B. Wein **Email address:** wein@radiologie-aachen.de

German Partners from the SAPHIRE Project

Organization: OFFIS

Contact Person: Dr. Marco Eichelberg **Email address:** eichelberg@offis.de

Organization: SSK

Contact Person: Michael Böckelmann

Email address: mboeckelmann@schuechtermann-klinik.de

3. Presentation at the Workshop

I will give a presentation at the workshop (approx. 10 min.) to present my institution, my expertise, and my collaboration interests. The contents of my presentations is summarised below (max. 1 page).



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First, I will be presenting METU Software Research and Development Center with our expertises gained from especially the European Commission supported projects and our interest areas as explained briefly in the " Expertise, technologies and infrastructures available in your institution" section of this document. I will mainly focus on the research areas of SAPHIRE and RIDE projects.

The SAPHIRE project aims to develop an intelligent healthcare monitoring and decision support system on a platform integrating the wireless medical sensor data with hospital information systems. In the SAPHIRE project, the patient monitoring is achieved by using agent technology where the "agent behaviour" is supported by intelligent clinical decision support systems which are based on computerized clinical practice guidelines, and accesses the patient medical history stored in medical information systems through semantically enriched Web services and IHE XDS Registry/Repository to tackle the interoperability problem. RIDE is a roadmap project for interoperability of eHealth systems leading to recommendations for actions and to preparatory actions at the European level. This roadmap is preparing the ground for future actions as envisioned in the action plan of the eHealth Communication COM 356 by coordinating various efforts on eHealth interoperability in member states and the associated states. Since it is not realistic to expect to have a single universally accepted clinical data model that will be adhered to all over the Europe and that the clinical practice, terminology systems and EHR systems are all a long way from such a complete harmonization; the RIDE project addresses the interoperability of eHealth systems with special emphasis on semantic interoperability.

METU-SRDC collaboration interests include not only interoperability problem in eHealth but also each industry that has relationships with other industries in electronical means. Currently, as SRDC, we are working on the "non-official" draft FP7 and getting prepared for FP7 project proposals. By the time this Turkish-German Strategy Workshop is happening, we will have several project proposals and I will have much to present about our collaboration interests.

I agree with the publication of my data on the Workshop website!
(Note: Except for the partner information I have provided.)

PLEASE FILL IN THIS FORM UNTIL 22 SEPT. 2006 AND RETURN IT TO:

Internationales Buero des BMBF
s.krummacher@fz-juelich.de;
Christian.schache@dlr.de

TÜBİTAK-Marmara Research Center
Sunullah.Ozbek@mam.gov.tr;
Artac.Turker@mam.gov.tr