

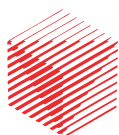
ERCIM

European Research Consortium
for Informatics and Mathematics

Cooperating for Excellence in Research

Activity Report 2015

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ERCIM – the European Research Consortium for Informatics and Mathematics – aims to foster collaborative work within the European research community and to increase cooperation with European industry. In 2015, the members of ERCIM included leading research establishments from 22 European countries. Encompassing over 12 000 researchers and engineers, ERCIM is able to undertake consultancy, development and educational projects on any subject related to its field of activity. ERCIM was founded in 1989.

What is ERCIM?

ERCIM aims to foster collaboration within the European ICST research community and to increase cooperation with industry. Its members are centres of excellence across Europe. ERCIM is internationally recognized as a major representative organization in its field. ERCIM provides access to all major ICST research groups in Europe and has established an extensive program of working groups, publications, fellowships and prizes. It also hosts the European branch of the World Wide Web Consortium (W3C).

ERCIM, a consortium of leading research institutions, was restructured in 2011 and 2012 and has opened its doors to new members. ERCIM focuses on information and communication science and technology (ICST) and related areas of mathematics and has a successful track record of promoting ICST research and cooperation in Europe and beyond. Membership was previously restricted to one member per country, but that limit is now being lifted to allow applications from more top level research institutions (including universities) in ICST from each country.

Objectives

ERCIM's aim is to play a leading role in Information and Communication Technology in Europe by:

- building a Europe-wide, open network of centres of excellence in ICST and Applied Mathematics.
- excelling in research and acting as a bridge for applications
- being internationally recognised both as a major representative organisation in its field and as a portal giving access to all relevant ICST research groups in Europe
- liaising with other international organisations in its field
- promoting cooperation in research, technology transfer, innovation and training.

Members

Member institutes must be leading research establishments with excellent links to both the national and international, academic and commercial research communities. All current ERCIM members are national centres of excellence, independent of specific commercial ties. They have a strong involvement in the research programs of the European Union and their country, and joint projects with both small and medium-sized enterprises and large industrial companies.

Benefit of Membership

ERCIM is a European-wide network internationally recognized as a representative organisation in its field so members can benefit from easy access to all major ICST research groups in Europe. Members can take part in all ERCIM activities including research projects, Working Groups or in the PhD fellowship programme supported by the European Union. They also benefit from ERCIM's privileged partnership with standardisation bodies such as W3C.

International Cooperation

ERCIM considers it a high priority to develop cooperation with scientists all over the world. ERCIM hosts the European branch of the World Wide Web Consortium (W3C), the unique international standardization body which sets the Web standards and protocols (HTML, HTTP, XML, etc.) since 1994. ERCIM participates in EU activities and projects. ERCIM has also established cooperation with Informatics Europe, ETSI, the European Telecommunications Standards Institute and with the European Mathematical Society. ERCIM is also participating in the European Forum for ICST (EFICST). Its objective is to have a stronger, unified voice for ICST professionals in Europe.

Consultancy

ERCIM experts have been involved in many advisory bodies convened by the European Commission. Additionally, ERCIM senior researchers are participating in several EC-funded roadmapping projects as partners, invited participants or members of advisory boards.

Research Projects

In addition to many projects involving ERCIM member institutes, ERCIM is itself participating in several European Commission related activities and projects as coordinator or partner. In these projects, several member institutes carry out the research while the ERCIM Office takes care of administrative and financial tasks.

Working Groups

Working Groups are specialist networks set up by researchers, within which the ERCIM partners arrange regular workshops with invited external participation to study a specific topic and prepare international research projects.

Innovation

In addition to research in computer science and mathematics, innovation and transfer of research results is one of the ERCIM institutes' current main assignments. ERCIM members play a pioneering role in creating small and medium-sized high-tech companies, an effective way of achieving such a transfer. In addition, ERCIM members have a long track record of cooperation with European industry in R&D projects, generally within the framework of European programmes. As a network, ERCIM can help industrial partners to locate the best scientific teams in Europe for a given domain.

Cor Baayen Award

Each year, ERCIM presents a promising young researcher in computer science and applied mathematics with the prestigious Cor Baayen Award.

Publications

ERCIM publishes the quarterly magazine "ERCIM News", white papers, and policy documents.

The ERCIM community is supported by a Consortium of two bodies:

- ERCIM AISBL an international non for profit association under Belgian law, carrying on the activities of ERCIM concerning collaborative research, networking, and support.
- ERCIM EEIG, the European Economic Interest Grouping, responsible for managing the ERCIM Office and hosting the European branch of W3C.

ERCIM Association

The ERCIM association is managed by the Board of the Association. In 2015, the board was composed of:

- Domenico Laforenza, IIT-CNR, Italy: President:
- Chrisos Koulamas, ISI,Greece: Treasurer
- Jerzy Tiuryn, University of Warsaw, Poland: Secretary

and in addition:

- Dimitris Plexousakis, Institute of Computer Science, Foundation for Research and Technology (FORTH) – Hellas, Greece, responsible for scientific aspects (working groups, etc.)
- Claude Kirchner, Inria, France, responsible for human capital
- Andreas Rauber, SBA Research, Austria, responsible for outreach activities.

The majority of these board members lead a task group consisting of ERCIM member representatives or substitutes.

ERCIM EEIG

The ERCIM EEIG is governed by the EEIG Board of Directors. In 2015 the board was composed of:

- Jos Baeten (Vice-President of the EEIG), CWI
- Antoine Petit, Inria (President of the EEIG)
- Matthias Jarke, Fraunhofer-Gesellschaft
- Domenico Laforenza, CNR
- Juan Bicaregui, STFC
- Constantine Stephanidis, ICS-FORTH

and its activities were carried out by an Executive Committee composed of:

- Thomas Bendig, Fraunhofer Gesellschaft
- Dick Broekhuis, CWI (chair)
- Claude Kirchner, Inria
- Brian Matthews, STFC
- Dimitris Plexousakis, FORTH
- Fausto Rabitti, CNR



Domenico Laforenza, ERCIM President

Throughout 2015 ERCIM traded as a consortium consisting of ERCIM EEIG and ERCIM AISBL. ERCIM operated with a gross turnover of 10.3 M€. 66% of these funds came from EU funding of projects which was either disbursed to partners in consortia or held over for disbursement in the next year.

Receipts	
ERCIM Consortium	247,321 €
ERCIM Office	
Receipt	998,452 € (including 675,408k€ EU contracts)
Total receipt by the EU	5.541,333 €
<i>Total Office receipt</i>	<i>5.864,377 €</i>
W3C Europe	
Receipt	4.036,137 € (including 1.076,043k€ EU contracts)
Total receipt by the EU	1.221,987 €
<i>Total W3C Receipt</i>	<i>4.182,081 €</i>
Total turnover	10.293,779 €
Total funds from the EU	6.763,320 € (66)

*Dick Broekhuis, CWI,
ERCIM EEIG Execom chair*



Science Coordination

A major activity within the scope of the Association's mission is related to the promotion of excellence in research and the maintenance of a strong portfolio of scientific activity, materialized in the form of ERCIM-led and coordinated joint research projects and ERCIM-hosted Working Groups. The Science Task Group aims to enable, encourage, sustain and coordinate scientific activities in the form of collaborative research projects and working groups in areas of ICST and Mathematics within which significant research activity is taking place at Institutions within and beyond ERCIM.

The Science Task Group is therefore divided into subtasks:

- Working Groups for building and maintaining a strong network of ERCIM researchers in the different scientific fields of competence of ERCIM.
- Expert Groups which are established on the initiative of ERCIM board to investigate current topics for a limited period with the aim to produce strategic papers or to coordinate relevant activities of common interest.
- Projects for stimulating the submission of ERCIM-led strategically relevant projects and for helping to define the topics for the yearly ERCIM Conference

The members of the Science Task Group in 2015:

Chair:

- Dimitris Plexousakis, FORTH, subtask "Working Groups"

Members:

- Manuel Carro, SPARCIM
- João Falcão e Cunha, INESC
- Pierre Guisset, ERCIM office
- Thierry Priol, Inria
- Jean-Jacques Quisquater, FNRS
- Björn Levin, SICS
- Fausto Rabitti, CNR
- Philippe Rohou, ERCIM office
- Julius Stuller, CRCIM

The Science TG can be contacted at tg-science@ercim.eu



*Dimitris Plexousakis, ICS-FORTH
chair of the ERCIM Science Task Group*

Computational and Methodological Statistics

The Working Group Computing and Statistics focuses on all computational and methodological aspects of statistics. Of particular interest is research in important statistical applications areas where both computational and/or methodological aspects have a major impact. The aim is threefold: first, to consolidate the research in computational and methodological statistics that is scattered throughout Europe; second to provide researchers with a network from which they can obtain an unrivalled sources of information about the most recent developments in computational and methodological statistics as well as its applications; third to edit quality publications of high impact and significance in the broad interface of computing, methodological statistics and its applications.

Coordinator:

Erricos Kontoghiorghes, School of Computer Science and Information Systems, Birkbeck, University of London

Co-organised event:

8th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2015), Senate House and Birkbeck, University of London, UK, 12-14 December 2015.

<http://www.cmstatistics.org/CMStatistics2015/>

Joint publications:

The CMStatistics currently edits special issues and publishes papers in regular issues of the journal Computational Statistics and Data Analysis and has recently started to edit the journal Econometrics and Statistics, published by Elsevier.

Dependable Software-Intensive Embedded Systems

Dependable embedded software-intensive systems technology challenges are addressed with topics on current research, solutions, examples, professional and academic education, and training. Dependable systems are systems that can justifiably be relied on throughout the complete life cycle and under all possible conditions of use. System attributes comprise safety, reliability, maintainability, survivability, availability and security, their relative impact and implementation depending on the application. The ERCIM Working Group 'Dependable Software-Intensive Embedded Systems' organised several exhibitions and events where ERCIM was promoted.

Coordinators:

Erwin Schoitsch, Austrian Research Centers/AARIT and Amund Skavhaug, NTNU

Co-organised events:

The ERCIM Working Group "Dependable Embedded Software-Intensive Systems" co-organized two events in 2015: a workshop at the 2015 SAFECOMP conference in Delft on 22 September and a special session on "Teaching, Education and Training for Dependable Embedded Cyber-Physical Systems" at the EuroMicro SEAA/DSD Conference on 26-28 August 2015 in Funchal, Madeira, Portugal.

Joint publication:

- Erwin Schoitsch and Amund Skavhaug: "European Research and Innovation Initiatives in the Area of Cyber-Physical Systems and Systems-of-Systems" (selective overview), SPRINGER LNCS 9338, DOI 10.1007/978-3-319-24249-1, 2015.

<http://www.ercim.at/>

Working Groups

The activities of a Working Group can be divided into several areas: workshops to build the community and maintain its vibrancy, projects designed to advance research and innovation in the particular area of the group, and human mobility to assure the appropriate trained human capital. ERCIM provides some financial support to the Working Groups.

A major activity of an ERCIM Working Group is to search actively for project funding that crosses national borders.

ERCIM Working Groups contribute many of the articles in ERCIM News and commonly provide scientific coordination for the special theme sections. They also participate in the production of ERCIM strategic reports.

The purpose of an ERCIM Working Group is to build and maintain a network of ERCIM researchers in a particular scientific field. The Working Groups are open to any researcher in the specific scientific field.

Working Groups with activities in 2015

- Computational and Methodological Statistics
- Dependable Software-Intensive Embedded Systems
- Formal Methods for Industrial Critical Systems
- Many-Valued Logics
- Multimedia Understanding through Semantics Computation and Learning - MUSCLE
- Security and Trust Management
- Software Engineering for Resilient Systems

Formal Methods for Industrial Critical Systems

Formal methods have been advocated as a means of increasing the reliability of systems, especially those which are safety or business critical, but the industrial uptake of such methods has been slow. This is due to the perceived difficulty of mathematical nature of these methods, the lack of tool support, and the lack of precedents where formal methods have been proven to be effective. It is even more difficult to develop automatic specification and verification tools due to limitations like state explosion, undecidability, etc. The FMICS Working Group brings together researchers of the ERCIM consortium and beyond in order to promote the use of formal methods within industry.

Coordinator:

Tiziana Margaria, University of Limerick

Organised event:

FMICS 2015 - 20th International Workshop on Formal Methods for Industrial Critical Systems, co-located with with FM 2015: 20th International Symposium on Formal Methods, Oslo, 22-23 June 2015

<http://fmics.inria.fr/>

Multimedia Understanding through Semantics Computation and Learning - MUSCLE

MUSCLE (formerly Image and Vision Understanding) is the ERCIM Working Group on multimedia understanding through semantics, computation and learning. It gathers teams from both ERCIM and non-ERCIM institutions whose expertise ranges from machine learning and artificial intelligence to image, video and audio processing, and multimedia database management. The group is closely collaborating with ibai-publishing (www.ibai-publishing.org) which provides open-access journals in the fields of Data Mining, Case-Based Reasoning, and Mass Data Analysis of Signals and Images.

Coordinator:

Davide Moroni, ISTI-CNR

Joint project:

ITACA - Innovative Tools for cultural heritage ArChiving and restoration

ITACA aims at testing innovative technologies to be applied to non-invasive diagnostics and restoration of virtual heritage.

Funded under the PIA - Pacchetti Integrati di Agevolazione Industria, Artigianato e Servizi, ITACA combines the traditional restoration activities and intervention on the artifacts by means of multispectral acquisition, methods of image processing and computer systems through the medium of digital archiving and intelligent search.

<http://www.teacz.com/itaca>

Co-organised event:

International workshop on computational intelligence for multimedia understanding (IWCIM), Prqgue, 29-30 October 2015.

Joint publication:

- A.E.Cetin, B.Merci, O.Günay, B.U.Töreyn, S.Verstockt: "Methods and Techniques for Fire Detection, Signal, Image and Video Processing Perspectives, Academic Press ISBN: 9780128023990
- E. Console, A. Tonazzini, E. Salerno, P. Savino, F. Bruno: "Integrating optical imaging and digital processing for nondestructive diagnosis of artifacts", in Proc. of Technart 2015, Nondestructive and microanalytical techniques in art and cultural heritage, Catania, Italy, 27-30 April 2015, Book of Abstracts, p. 1168
- Debole F., Savino P., Tonazzini A.: "Building a digital library containing digital elaborations of ancient documents", in Proc. of ICDIM 2015 Tenth International Conference on Digital Information Management, Jeju Island, South Korea, 21-23 October 2015, pp. 124 131. IEEE
- Bedini L., Savino P., Tonazzini A.: "Removing achromatic reflections from color images with application to artwork imaging", in Proc. of ISPA 2015 9th International Symposium on Image and Signal Processing and Analysis, Zagreb, Croatia, 79 September 2015, pp. 126 130. IEEE
- Savino P., Tonazzini A.: "Digital restoration of ancient color manuscripts from geometrically-misaligned recto-verso pairs", Journal of Cultural Heritage, article n. CULHER3010, 2015.
- Tonazzini A., Savino P., Salerno E.: "A nonstationary density model to separate overlapped texts in degraded documents", Signal Image and Video Processing, vol. 9 (Suppl. 1) pp. 155 164. Springer, 2015.
- Maria Trocan, François-Xavier Coudoux: "Saliency-guided video deinterlacing", Computational Collective Intelligence, 24-33, Springer, 2015.

Many-Valued Logics

Coordinator:

Carles Noguera i Clofent, Institute of Information Theory and Automation, Academy of Sciences of the Czech Republic

Joint project:

Syntax Meets Semantics: Methods, Interactions, and Connections in Substructural logics, SYSMICS, H2020-MSCA-RISE-2015-68917

Co-organised event:

ManyVal 2015 - International workshop on the logical and algebraic aspects of many-valued reasoning
Les Diablerets, Switzerland, 11-12 December 2015.

Joint publications:

- Pilar Dellunde, Àngel García-Cerdaña, Carles Noguera: “Löwenheim-Skolem theorems for non-classical first-order algebraizable logics”, *Logic Journal of the IGPL*, 2015.
- Petr Cintula, Carles Noguera: “Implicational (Semilinear) Logics II: additional connectives and characterizations of semilinearity”, *Archive for Mathematical Logic*, 2015.
- Petr Cintula, Carles Noguera: “A note on natural extensions in abstract algebraic logic”, *Studia Logica* 103 (2015) 815-823, 2015.
- Petr Cintula, Carles Noguera: “A Henkin-style proof of completeness for first-order algebraizable logics”, *The Journal of Symbolic Logic* 80 (2015) 341-358, 2015.
- Rodolfo Ertola, Francesc Esteva, Tommaso Flaminio, Lluís Godo, Carles Noguera: “Paraconsistency properties in degree-preserving fuzzy logics”, *Soft Computing - A Fusion of Foundations, Methodologies and Applications* 19 (2015) 531-546.
- Petr Cintula, Denisa Diaconescu, George Metcalfe: “Skolemization for substructural logics”, in *Proc. of LPAR-20*, volume 9450 of *Lecture Notes in Computer Science*, pp. 1–15. Springer, 2015.
- Libor Behounek, Petr Cintula, Christian Fermüller, and Tomás Kroupa: “Representing Strategic Games and Their Equilibria in Many-Valued Logics”, in *Logic Journal of the IGPL*, 2015.
- Petr Cintula, Christian Fermüller and Carles Noguera (editors): “Handbook of Mathematical Fuzzy Logic - volume 3”, Volume 58 of *Studies in Logic, Mathematical Logic and Foundations*. College Publications, London, 2015.
- Francesc Esteva, Lluís Godo, Thomas Vetterlein: “Logics for approximate entailment in ordered universes of discourse”, *International Journal of Approximate Reasoning*, 2015.
- Leonardo Cabrer, George Metcalfe: “Admissibility via Natural Dualities”, *Journal of Pure and Applied Algebra* 219(9) (2015), 4229-4253, 2015.
- Leonardo Cabrer, George Metcalfe: “Exact unification and admissibility”: *Logical Methods in Computer Science* 11 (2015) 1-15, 2015.

- Mattia Bongini Agata Ciabattoni and Franco Montagna: “Proof Search and Co-NP Completeness for Many-Valued Logics”, *Fuzzy Sets and Systems*, 2015.

Security and Trust Management

The ERCIM Working Group Security and Trust Management aims at focussing the research of the ERCIM institutions on a series of activities, for example projects and workshops, to foster the European research and development on security, trust and privacy in ICST.

Coordinator:

Pierangela Samarati, University of Milan

Co-organised event:

STM 2015: 11th International Workshop on Security and Trust Management, Vienna, Austria - September 21-22, 2015

<http://www.iit.cnr.it/STM-WG>

Software Engineering for Resilient Systems

SERENE considers resilient systems as open and distributed systems that can dynamically adapt in a predictable way to unexpected events. Engineering such systems is a challenging issue still not solved. Achieving this objective is a very complex task since it implies reasoning explicitly and in a combined way, on system’s functional and non-functional characteristics.

Coordinator:

Didier Buchs, University of Geneva

Co-organised event:

7th International Workshop on Software Engineering for Resilient Systems, Paris, 7-8 September 2015.

Expert Groups

Expert Groups are established on the initiative of ERCIM board to investigate current topics for a limited period with the aim to produce strategic papers or to coordinate relevant activities of common interest. Expert Groups have been established in the fields of "Big Data", "Security and Privacy" and "Open Access" (BoM - Boost OpenAccess Mastering).

Boost OpenAccess Mastering (BOM)

At its October 2014 meeting, the EEIG ERCIM board installed a task group Boost OpenAccess Mastering (BOM), chaired by us, with the goal of facilitating the sharing of information and the strategies of ERCIM participants in regard to open access. The ensuing report, a plea for author control, which was adopted by the board in October 2015, recommends an Open Access strategy and identified tools shared or to be shared by several ERCIM members.

We need change

The current digital revolution is impacting the way science develops and the way we conduct research. The seminal vision of Jim Gray about big data as the fourth paradigm of science (see <http://kwz.me/VI>) is an excellent entry point to understanding these phenomena, where the initial paradigms of theory building and experimentation are now completed or even replaced by digital simulation and data exploration.

In this profoundly renewed context, the role of scientific data is fundamental. Scientists of all disciplines are completely dependent on the data that allow them to understand, model, experiment, reproduce and communicate.

In the digital world, everything can be seen as source data: a text describing the results of a study, a computer program, a video, a picture, a sound, a MOOC, a lab book, a protocol, a data set captured by an instrument or generated by a computer, and so on. Secondary data or data generated from other data, like discussions, social network information or peer reviews are also crucial sources that may be relevant for further research.

Being in control of data is a matter of scientific sovereignty, and any restriction or hindrance in this respect will be to the detriment of science. Note that control is more than ownership, because ownership is transferable, and if something is sold you can no longer control it. 'Control' is used here in terms of ability to read, re-use, quote, analyse a common good. From this point of view, maintaining the sovereignty of scientific academic research is a crucial issue, which we need to preserve in the short as well as the long run.

The services that allow scientific data to be used are crucial. They include data mining, analysis and synthesis for scientific purposes as well as for societal, economic or industrial purposes. In particular they require access to the full texts of scientists' contributions. Ideally, researchers would be able to make the most of the available data; this is an important goal that either scientists themselves, or public or private entities, could aim towards.

As a consequence, the BOM task group consisting of J. Baeten, L. Candela, I. Fava, C. Kirchner, W. Mettrop, L. Romary, L. Schultze make the following recommendations:

Recommendations

The following recommendations could be adapted to the best practices of each scientific discipline as well as to local legislation, with the goal of making scientific sovereignty an unalterable reality by or before 2020.

Main principles

1. Scientists should maintain control over all their scholarly products (i.e., all the outcomes of their research activities, ranging from their publications – actually the full text – to the datasets they curated/contributed to);
2. The services that value scientific data should be open to competition.

Organisation principles

1. Advise all research institutions to formulate and implement a strategic policy about the proper management of their scholarly outputs. Such policies should mandate scientists to deposit every scholarly product in a suitable open access repository as soon as the product is produced. The policy should also mention the repositories trusted by the institution;
2. Advise all research institutions to support the development of suitable publishing platforms for their research products (including open access repositories and overlay journals). Such publishing platforms should be maintained as public infrastructure;
3. Scientists deserve proper credit for their scholarly products. Research institutions should promote and support the development of a comprehensive, scientific community-recognised and innovative set of scholarly products evaluation/assessment criteria that can accurately quantify and communicate the impact and contribution of each researcher's work.

ERCIM specifics

1. A network of repository and scientific information managers should be set up in order to share experience as well as develop better services related to the various institutions' open access strategies;
2. ERCIM should be able to access reliable output figures from all institutions, which could then be shared between institutions;
3. Setup a joint dashboard for sharing article processing charges (APC) across all ERCIM entities: the model suggested by University of Bielefeld could be used;
4. Address in the name of ERCIM and of each national research institution the recommendations of the BOM Report to the highest political level of the EU and of each country;
5. ERCIM should favour the re-use of publication facilities available among its members, such as repositories or overlay journals.
6. Encourage the involvement of ERCIM members into the emergence of open access publication including overlay journals dedicated to data and software.

ERCIM has adopted these recommendations and is working further towards our goals.

The report is available for download at
<http://oai.cwi.nl/oai/asset/23589/23589B.pdf>

Projects

In 2015, ERCIM participated in 16 research projects funded by the European Commission either as coordinator or as a partner.

A European project can be a richly rewarding tool for pushing your research or innovation activities to the state-of-the-art and beyond. Through ERCIM, our member institutes have participated in more than 80 projects funded by the European Commission in the ICT domain, by carrying out joint research activities while the ERCIM Office successfully manages the complexity of the project administration, finances and outreach.

Horizon 2020: How can you get involved?

The ERCIM Office has recognized expertise in a full range of services, including:

- Identification of funding opportunities
- Recruitment of project partners (within ERCIM and through a strategic partnership with Ideal-IST)
- Proposal writing and project negotiation
- Contractual and consortium management
- Communications and systems support
- Organization of attractive events, from team meetings to large-scale workshops and conferences
- Support for the dissemination of results

How does it work in practice?

Contact the ERCIM Office to present your project idea and a panel of experts within the ERCIM Science Task Group will review your idea and provide recommendations. Based on this feedback, the ERCIM Office will decide whether to commit to help producing your proposal. Note that having at least one ERCIM member involved is mandatory for the ERCIM Office to engage in a project.

If the ERCIM Office expresses its interest to participate, it will assist the project consortium as described above, either as project coordinator or project partner.

For more information, please contact:
Philippe Rohou, Project Group Manager
Tel: +33 492 385 010
E-mail: philippe.rohou@ercim.eu

Project acronym	ERCIM's role	ERCIM members/partners involved
ABCDE	coordinator	all ERCIM members
AXES	coordinator	Katholieke Universiteit Leuven (FNRS/FWO), Inria, Fraunhofer IAIS
BigDataEurope	partner	Fraunhofer IAIS, ERCIM EEIG/W3C
BlueBridge	administrative support	ISTI-CNR, FORTH
COMPOSE	partner	Fraunhofer-Gesellschaft, ERCIM EEIG/W3C
D-CENT	partner	ERCIM EEIG/W3C
Global ITV	partner	ERCIM EEIG/W3C, Fraunhofer FOKUS
HTML5Apps	coordinator	ERCIM EEIG/W3C
LIDER	partner	ERCIM EEIG/W3C, UPM
MediaScape	partner	ERCIM EEIG/W3C
PaaSage	coordinator	STFC, Inria, FORTH
Share PSI 2.0	coordinator	SZTAKI, LIST (FNR), Fraunhofer
Smart Data Open	partner	ERCIM EEIG/W3C, UPM (SpaRCIM)
STREWS	coordinator	ERCIM EEIG/W3C, Katholieke Universiteit Leuven (FNRS/FWO)
VRE4EIC	coordinator	CWI, CNR, FORTH
WAI-DEV	coordinator	ERCIM EEIG/W3C

Overview of projects with ERCIM participation in 2015

ABCDE

Since September 2010, the “ERCIM Alain Bensoussan Fellowship Programme” is co-funded by the FP7 Marie Curie Actions - People, Co-funding of Regional, National and International Programmes (COFUND) of the European Union. 161 postdoctoral research fellowships were granted between September 2010 and August 2015.

With the support from the FP7 Marie Curie Actions - People, Co-funding of Regional, National and International Programmes (COFUND) of the European Union, the impact of this cofunding was an increase of almost 40% in the number of ERCIM fellows per annum compared to the previous Fellowship programme ERCIM has operated since 1992. Also, the duration of the fellowships has been extended so that applicants could benefit from one or two periods of twelve months spent in one or two ERCIM member institutes. Additionally, employment conditions were improved, with the option of signing working contracts instead of stipend agreements.

Another important novelty were the four “ABCDE seminars” tailored for this project. During these events, fellows had the opportunity to benefit from specific training on a range of non-scientific skills such as personal development courses, IPR issues and communications techniques.

The results of the research conducted by the fellows and their supervisors – covering all subjects related to informatics, computer science and applied mathematics – were published in 420 publications. Another outcome to the benefit of the European Research Area (ERA) was the increased mobility through the Programme's transnational focus and placements of the fellows in a wide range of research institutes throughout Europe.

The objectives were met! In competition with the US and other global areas, ABCDE attracted a high number of excellent scientists to Europe. They gained new insights, fostered cooperation within the European ICT community and our partners and hosting institutes supported them in their own research agenda. However, the biggest compliment is the high degree of satisfaction of the fellows. They all told us that they would recommend the programme to a colleague.



ABCDE - Alain Bensoussan Career Development Enhancer is supported by the Marie Curie Co-funding of Regional, National and International Programmes (COFUND) of the European Commission"

EC funding: €3.500,000

ERCIM's role:
ERCIM EEIG project coordinator

ERCIM members involved:
all ERCIM members

Coordinator:
Philippe Rohou, ERCIM Office

Duration:
September 2010 to August 2015

<http://fellowship.ercim.eu>



AXES

AXES - Access to Audiovisual Archives is an “Integrated Project” supported by the European Commission under the 7th Framework Programme

EC funding: €5.900,000

ERCIM's role:
ERCIM EEIG project coordinator

ERCIM members involved:
Katholieke Universiteit Leuven (FNRS/FWO), Inria, Fraunhofer IAIS

Scientific coordination:
Tinne Tuytelaars, Katholieke Universiteit Leuven

Administrative Coordinator:
Philippe Rohou, ERCIM office

Duration:
January 2011 to March 2015

<http://www.axes-project.eu>

The AXES project has developed tools that provide various types of users with new engaging ways to interact with audiovisual libraries, helping them discover, browse, navigate, search and enrich archives. In particular, apart from a search-oriented scheme, we will explore how suggestions for audiovisual content exploration can be generated via a myriad of information trails crossing the archive. This will be approached from three perspectives (or axes): users, content, and technology.

Within AXES, innovative indexing techniques were developed in close cooperation with a number of user communities through tailored use cases and validation stages. Rather than just starting new investments in technical solutions, the co-development is proposed of innovative paradigms of use and novel navigation and search facilities. We will target media professionals, educators, students, amateur researchers, and home users.

Based on an existing Open Source service platform for digital libraries, novel navigation and search functionalities will be offered via interfaces tuned to user profiles and workflow. To this end, AXES has developed tools for content analysis deploying classification methods. Information in scripts, audio tracks, wikis or blogs will be used for the cross-modal detection of people, places, events, etc., and for link generation between audiovisual content. Users will be engaged in the annotation process: with the support of selection and feedback tools, they will enable the gradual improvement of tagging performance.

AXES technology will open up audiovisual digital libraries, increasing their cultural value and their exposure to the European public and academia at large.



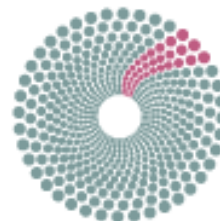
Screen shot of ‘Open AXES’, an output of the AXES project. It gathers innovative audiovisual content analyses technologies including an ergonomic interface to navigate video archives. Open AXES is available on OW2 (the open source community for

BigDataEurope

The “BigDataEurope” project aims at developing a Big Data platform based on requirements identified with stakeholders from the seven H2020 societal challenges: Climate, Energy, Health, Transport, Social sciences, Food and Security. The consortium, led by Fraunhofer IAIS will engage with these communities to identify their big data technology needs, to design and realise the required ICT infrastructure and support the use and deployment of the platform.

With this platform, the project will provide companies and institutions with an integrated and ready-to-use palette of Big Data tools that is adapted to their particular needs. Small and medium-sized companies who do often not have the resources for hiring specialized data scientists will especially benefit from the lowered entrance bar into the Big Data world as they are offered the opportunity to easily understand and use state-of-the-art data science techniques for their business.

The project tackles two key aspects. First, BigDataEurope will build up a network between stakeholders of the key European societal sectors. Interest groups modelled after the W3C scheme will then be launched to discuss the particular needs of each sector in a series of workshops that will cover the whole process of data usage; from data collection, processing, storage, and visualization to the development of data services. The second aspect of the project will see that the requirements collected in the workshops are used to guide the technical development and implementation of the open BigDataEurope Platform.



BIG DATA EUROPE
Empowering Communities
with Data Technologies



BigDataEurope - Empowering
Communities with Data Technologies

EC funding: € 4,938,238

ERCIM's role:
ERCIM EEIG project partner

ERCIM/W3C contact:
Rigo Wenning, W3C

ERCIM members involved:
Fraunhofer Gesellschaft

Coordinator: Fraunhofer Gesellschaft

Duration:
January 2015 to December 2017

<http://www.big-data-europe.eu/>



BlueBRIDGE

BlueBRIDGE is the new European initiative funded under the H2020 framework to further develop and exploit the iMarine e-Infrastructure data services for an ecosystems approach to fisheries.

BlueBRIDGE's overall objective is to support capacity building in interdisciplinary research communities actively involved in increasing scientific knowledge about resource overexploitation, degraded environment and ecosystem with the aim of providing a more solid ground for informed advice to competent authorities and to enlarge the spectrum of growth opportunities as addressed by the Blue Growth Societal Challenge.

BlueBRIDGE capitalizes on past investments and uses the proven D4Science infrastructure that counts over 1500 users, integrates more than 50 repositories, executes around 13,000 models and algorithms per month and provides access to over a billion records in repositories worldwide, with 99,7% service availability.

BlueBRIDGE aims to develop innovative services in the following areas:

- Blue Assessment - services for stock assessment and for the generation of unique identifiers for global stocks;
- Blue Economy - services supporting the analysis of socio-economic performance in aquaculture;
- Blue Environment - spatial planning services to identify aquaculture and fisheries infrastructures from satellite imagery;
- Blue Skills - on-line training services and capacity building on existing training modules for fisheries scientists and other practitioners.

BlueBRIDGE will develop two new services addressing two relevant problems related to this challenge that build one upon the other:

- Performance evaluation, benchmarking and decision making in aquaculture service: providing capacities for companies to evaluate, benchmark and optimize their performance against best practices and the competition, and to extend the capacity of scientific research communities and policy makers to quantify and comprehend aquaculture industry operation, ensuring sustainability and development of the sector.
- Strategic Investment Analysis and Scientific Planning and Alerting service: supporting investors and scientists in the efficient identification of strategic locations of interest that meet multifactor selection criteria.
- The two new services will be put in practice initially in two domains:
 - a group of aquaculture SMEs, that have been preselected and will be contributing to the benchmarking and evaluation of their production
 - a group of individual stakeholders, not funded by the project, for evaluating potential investment scenarios.

BlueBridge - Building Research environments for fostering Innovation, Decision making, Governance and Education to support Blue growth

EC funding: €5.300,000

ERCIM's role:

ERCIM EEIG provides administrative and financial support

ERCIM members involved:

CNR, FORTH

Scientific coordination:

Donatella Castelli, ISTI-CNR

Duration:

September 2015 - March 2018

<http://www.bluebridge-vres.eu/>



COMPOSE

The COMPOSE project is developing a open source cloud-based platform for IoT services.



The vision of the COMPOSE project is to advance the state of the art by integrating the Internet of Things and the Internet of Content with the Internet of Services through an open marketplace, in which data from Internet-connected objects can be easily published, shared, and integrated into services and applications. The marketplace will provide all the necessary technological enablers, organized into a coherent and robust framework covering both delivery and management aspects of objects, services, and their integration.

- Object virtualization: enabling the creation of standardized service objects;
- Interaction virtualization: abstract heterogeneity while offering several interaction paradigms;
- Knowledge aggregation: creating information from data;
- Discovery and advertisement: of semantically-enriched objects and services;
- Data Management: handle massive amounts and diversity of data/metadata;
- Ad hoc creation, composition, and maintenance: of service objects and services;
- Security, heterogeneity, scalability, and resiliency: incorporated throughout the layers.

COMPOSE strives for a strong impact on a developing market by lowering barriers to develop, select, combine, and use IoT-based standardized value added services. This will be achieved by providing a complete ecosystem, and having it adopted by enterprises, SMEs, government-related bodies, and individual developers and end-users.

The COMPOSE design, development, and validation will be based on innovative use cases highlighting different aspects of the platform. Among the use cases are:

- Smart Shopping Spaces
- Smart City (Barcelona)
- Smart Territory (Trentino).

COMPOSE - Collaborative Open Market to Place Objects at your Service

EC funding: €5.356,000

ERCIM's role:

ERCIM EEIG project partner

ERCIM/W3C contact:

Philipp Hoschka, W3C

ERCIM members involved:

W3C (ERCIM EEIG), Fraunhofer FOKUS

Scientific coordination:

Benny Mandler, IBM Research, Israel

Duration:

November 2012 - October 2015

<http://www.compose-project.eu/>



D-CENT

D-CENT creates digital tools for direct democracy and economic empowerment. It helps communities to share data, collaborate and organize their operations. We are creating a social networking platform for large-scale collaboration. We call for citizens, developers, hackers and open source activists around Europe to work with us.

The abbreviation D-CENT refers to Decentralised Citizens ENgagement Technologies. Besides the platform, the project explores how communities might manage common goods and facilitate online exchange with Bitcoin-style digital social currencies. The project started in October 2013 and will run until May 2016. We have a multidisciplinary partnership from seven countries.

The D-CENT platform is built together with citizens. Pilots running in Finland, Iceland and Spain gather use cases and knowledge from people who have already used online tools for direct democracy on an ad hoc basis. Direct Democracy/Political Empowerment – enabling more direct engagement in democratic decision making. D-CENT builds on Europe’s largest experiments in direct democracy, showing how millions of citizens can become engaged in deliberation, and decision-making:

- Spain: 15M citizen movement, one of Europe’s most dynamic social movements
- Iceland: Citizen Foundation, Better Reykjavik, and Better Iceland Participation democracy websites
- Finland: Open ministry Crowdsourced lawmaking site linked to Parliament

The second cluster of pilots will connect these new approaches to empowerment to economic platforms, to extend, scale and link up community digital social currencies, and creating the building blocks for an economy that links exchange to trust, deliberation and collective awareness.

Open, scalable, modular technology

D-CENT will be an open, modular and decentralized platform to build privacy-aware applications. The code-base will be described by open specifications and released under an open source license. Developers will be able to easily write API-based apps plus add new modules. The modular platform enables to share in real-time open data, democratic decision making tools, and digital social currency for the social good. The D-CENT platforms will go beyond data aggregation to enable deliberation and collective judgment, informed by feedback.

D-CENT - Decentralised Citizens ENgagement Technologies

EC funding: € 1.905,000

ERCIM's role:
ERCIM EEIG project partner

ERCIM/W3C contact:
Jessica Michel Assoumou, ERCIM Office

ERCIM members involved:
W3C (ERCIM EEIG)

Coordinator: Nesta, UK

Duration:
October 2013 to Mai 2016

<http://dcentproject.eu/>



Global ITV

Global ITV is an EU-Brazil Research and Development Cooperation with the goal to develop an interoperability scheme that allows several iDTV and Smart TV systems to work together, exchanging and using the information. The ultimate aim is to lay the foundation for a global interoperable platform.

GLOBAL ITV seeks to harmonise different existing solutions in the domains of interactive, hybrid, connected and web TV on a worldwide level. Key stakeholders from Brazil and Europe have joint forces to define a migration path and a coexistence scenario towards a next-generation hybrid TV platform based on established and open standards in alignment with the developments in the “Web World”. The extensive experience gathered in the past years will be exchanged mutually between the involved partners and their advisors in order to define a viable solution with direct traction on the market and a clear perspective for the future.

The scope of the GLOBAL ITV project is to develop a schema for next generation Hybrid Broadcast-Broadband Systems to define interoperable scenarios and develop reference architectures. Attractive new advanced services and applications will be showcased. The ultimate aim is to create the foundation for a global interoperable platform.

The European partners are: IRT – Institut für Rundfunktechnik GmbH (Germany), Aqua Consult Ingenieros SL (Spain), VESTEL (Turkey), Fraunhofer-FOKUS (Germany), TDF (France), Retevisión SA (Spain), Symelar Innovación (Spain), European Broadcasting Union (Switzerland), and ERCIM/W3C

The Brazilian partners include: Universidade de São Paulo, Universidade Católica de Brasília, Universidade Federal do Pará, Universidade Estadual Paulista “Júlio de Mesquita Filho”, Associação do Laboratório de Sistemas Integráveis Tecnológico, Universidade Estadual de Campinas, Universidade Federal do ABC, BAND TV, HXD Interactive Television.

Global ITV - Interoperability of Interactive and Hybrid TV systems – A new advanced scheme for future services and applications in a global environment

EC funding: € 1.399,998

ERCIM's role:

ERCIM EEIG project partner

ERCIM/W3C contact:

Philipp Hoschka, W3C

ERCIM members involved:

W3C (ERCIM EEIG), Fraunhofer-FOKUS

Duration:

December 2013 to January 2016

<http://www.globalitv.eu/>



HTML5Apps

In contrast to native applications or “apps”, HTML5-based “apps” are platform and device agnostic, meaning that it becomes easy to move apps between devices. However, today, HTML5 lacks important functionalities such as rich APIs to interact with devices and payment support.

The goal of the HTML5Apps project is to close the gap between native and HTML5 apps through the standardisation of missing HTML5 functionalities:

- Standardize OS level APIs for HTML5 apps
- Launch new standardization efforts to close gaps between native apps and HTML5 apps
- Increase European Software Standardization efforts in Software engineering, services and cloud computing

By enabling non-proprietary, standards-based development of apps using HTML5, the HTML5Apps project will liberate developers from the constraints of native app stores and make it easier for consumers to run an app on any device they would like. The HTML5Apps project will develop HTML5 into full-fledged app development environment, creating an alternative to today’s app stores. This will liberate researchers and developers from the limiting rules of proprietary app stores. With HTML5, app developers are not tied to a particular app store, they can choose any app store that supports HTML5 apps, or even distribute the app without going through an app store by just making it available on the Web. HTML5 apps will also be able to avoid revenue sharing with today’s native app stores.

By helping to leverage all these advantages of HTML5 apps for a wider set of apps than today, the HTML5Apps will increase the ability to design and deliver innovative services for SMEs and individual researchers/developers.

HTML5Apps - HTML5 for Apps: Closing the Gaps

EC funding: € 740,000

ERCIM's role:
ERCIM EEIG project coordinator

ERCIM members involved:
W3C (ERCIM EEIG)

Scientific Coordinator:
Philipp Hoschka, W3C

Administrative Coordinator:
Linh Nguyen, ERCIM Office

Duration:
October 2013 to September 2015

<http://html5apps-project.eu/>

LIDER

The project's mission is to provide the basis for the creation of a Linguistic Linked Data cloud that can support content analytics tasks of unstructured multilingual cross-media content. By achieving this goal, LIDER will impact on the ease and efficiency with which Linguistic Linked Data will be exploited in content analytics processes.

The project aims at providing an ecosystem for the establishment of a new Linked Open Data (LOD) based ecosystem of free, interlinked, and semantically interoperable language resources (corpora, dictionaries, lexical and syntactic metadata, etc.) and media resources (image, video, etc. metadata) that will allow for free and open exploitation of such resources in multilingual, cross-media content analytics across the EU and beyond, with specific use cases in industries related to social media, financial services, localization, and other multimedia content providers and consumers. In some cases, we will explore new business model and hybrid licensing schemes for using of Linguistic Linked Data in commercial settings for Free but not Open resources.

LIDER will build upon such existing standards, reference architectures, technologies, and data in order to build the grounds for the use of Linguistic Linked Data for content analytics tasks. Current language resource infrastructures (ELRA, META-SHARE, Monnet, BabelNet) will have a special role and relevance in the project, thus ensuring the adoption of the project outcomes by these infrastructures.

The Expected result is the creation of:

- A strong community around the topic of LOD-based multimedia and multilingual content analytics
- A set of guidelines and best practices for building and exploiting LOD-based resources in multimedia and multilingual content analytics and for developing NLP services on top of Linguistic Linked Data
- A reference architecture for Linguistic Linked Data built on top of existing and future platforms and freely available resources
- A long-term roadmap for the use of Linked Data for multilingual and multimedia content analytics in enterprises.



LIDER - Linked Data as an enabler of cross-media and multilingual content analytics for enterprises across Europe

EC Funding: € 1.482,000

ERCIM's role:
ERCIM EEIG project partner

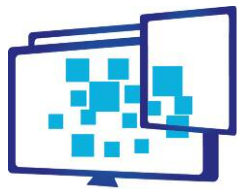
ERCIM/W3C contact:
Felix Sasaki, W3C

ERCIM members involved:
UPM (SpaRCIM), W3C (ERCIM EEIG)

Scientific coordination:
Asunción Gómez-Pérez, UPM, Spain

Duration:
October 2012 - December 2015

<http://www.lider-project.eu/>



MediaScape
Dynamic Media Service
Creation, Adaptation and Publishing on
Every Device



MediaScape

In times where TVs, smartphones and tablets are all being connected to the Internet, it is increasingly common for people to watch TV at the same time as interacting with their smartphone or tablet. MediaScape is working on helping broadcasters to provide a socially engaging experience across multiple screens for broadcast and streamed content, and associated applications in order to provide the users more consistent multi-device and multi-user media services. This will build upon the success of HTML5 and the marriage of the TV, PC and Mobile worlds.

MediaScape takes connected service development to a new level and lays the foundations for advanced connected multi-user services via a standardised approach integrated into the HTML5 paradigm. In this approach, the three main involved actors take advantage of Mediascape: a) the users, b) the broadcasters and c) developers and service providers.

Benefits of MediaScape for the users

The users will be able move parts of the functionality smoothly from one device to another in an intuitive manner and the application would adapt itself to the device. A user will also be able to handle with different devices being used simultaneously, interacting with a services seamlessly split to the context. The users will be able to manage personal devices together with shared devices (such as TV or an in-car dashboard device) for synchronised experience sharing in multi-user scenarios.

Benefits of MediaScape for the broadcasters

For the broadcasters, MediaScape facilitates the marriage of the TV, PC and Mobile worlds through a standard solution that includes real-time delivery and synchronisation of media contents and applications across a variety of devices, eliminating them the need for the creation and maintenance of totally different developments to provide this kind of services. With MediaScape, broadcasters will be in charge of creating and providing a single application that reaches all target environments.

Benefits of MediaScape for developers and service providers

From a developer and service provider point of view, aspects of resource discovery and association, synchronisation and adaptation can be partially implemented with different tools (JavaScript libraries, APIs, etc.). However these implementations are non-standard, non-interoperable, and non-transparent for the user and do not work within TV type devices which currently rely on proprietary and vendor specific technologies. MediaScape opens up these features to a new developer community - the large and creative group of developers working on the Web, and particularly the growing group working with HTML5 for video, audio and real-time web applications. MediaScape makes it as easy to create these kinds of services as it is to create an HTML web page, treating the TV set as just one part of the ecosystem and including the broadcast simply as a new type of resource - thereby enabling much broader participation in their creation, and increasing the range and diversity of potential applications.

MediaScape - Dynamic Media Service Creation, Adaptation and Publishing on Every Device

EC funding: €3.110,993

ERCIM's role:
ERCIM EEIG project partner

ERCIM/W3C contact:
Philipp Hoschka, W3C

ERCIM members involved:
W3C (ERCIM EEIG)

Scientific coordination:
Igor G. Olaizola, Vicomtech

Duration:
September 2013 - March 2016

<http://www.i-marine.eu>

PaaSage

PaaSage is a major research initiative with the goal of developing an open and integrated platform to support model based lifecycle management of Cloud applications.

Cloud solutions are currently still insufficient and require a high level of expertise on the part of the developer and the provider to properly exploit the capabilities offered by Cloud technologies. Cloud infrastructures are not standardized and porting an existing application to a Cloud platform is still a very challenging task, leading to a strong interdependence between the client application and the Cloud platform. Developing once and deploying on many Clouds is not a viable proposition as things stand. This is the challenge that the PaaSage consortium will address. PaaSage will deliver an open and integrated platform to support both design and deployment of Cloud applications, together with an accompanying methodology that allows model-based development, configuration, optimisation, and deployment of existing and new applications independently of the existing underlying Cloud infrastructures.

“PaaSage will provide the relevant means to significantly improve programmability, usability and performance of Clouds beyond current state of the art approaches”, says Keith G. Jeffery, scientific coordinator of the project. “We have to admit that European industry is lagging behind in business creation and development on the basis of Cloud computing technologies”, adds Pierre Guisset, dissemination leader, “Our objective with PaaSage is to develop the tools that will enable European small and large businesses to take a leading position in exploiting Clouds. Typically a business will be developing its in-house server cluster to an in-house Cloud to obtain benefits of elasticity and eco-friendliness. However, when elasticity needs to extend beyond the in-house environment to a public cloud there are interoperability problems and provider proprietary solution constraints. These will be overcome by PaaSage”.

PaaSage is a collaborative research project co-funded under the ICT theme of the 7th framework programme of the European Union. In particular, PaaSage addresses the findings highlighted by the Commission’s Cloud Computing Expert Working Group.



PaaSage - Model-based Cloud Platform
Upperware

EC Funding: € 7.100,000

ERCIM's role:
ERCIM EEIG project coordinator

ERCIM members involved:
STFC, Inria, FORTH, University of Cyprus

Scientific coordination:
Keith Jeffery, ERCIM Office

Administrative coordination:
Philippe Rohou, ERCIM Office

Duration:
October 2012 - September 2016

<http://www.paasage.eu/>



Share-PSI 2.0



Share PSI 2.0

Share-PSI 2.0 is the European network for the exchange of experience and ideas around implementing open data policies in the public sector. It brings together government departments, standards bodies, academic institutions, commercial organisations, trade associations and interest groups to identify what does and doesn't work, what is and isn't practical, what can and can't be expected of different stakeholders.

The impetus for the Share PSI 2.0 Thematic Network is the revised European Directive on the Public Sector Information. This revises and increases the obligations on European Union member states to make their publicly funded data available at zero or, at most, marginal cost. Noting the work of the LAPSI project, which is concerned with legal aspects of Public Sector Information, this project focuses on the practical and technical challenges. What data is covered by the Directive? How should it be published? What can be done to maximise the return on investment, whether in terms of internal efficiencies or external commercial development. What are the existing best standards to use, what new standards need to be developed? These and many more questions are being addressed by Share-PSI 2.0.

The main activity of the network is to organise a series of workshops examining different aspects of PSI. In each workshop, the network partners with direct experience will present their case studies. These will be complemented by external speakers who will be invited via the typical route of a call for participation, peer review of submitted papers and selection by a programme committee.

The output of the workshops will be offered as input to the W3C Data on the Web Best Practices Working Group. As the name suggests, that group is compiling a W3C standard that will help guide people and organisations around the world as they build the Web of data.

Towards the end of the Share-PSI 2.0 network's life (the first half of 2016), the partners will incorporate the W3C Best Practice in their own guidelines as relevant to them in their country or sector of interest.

Share-PSI 2.0 - Shared Standards for Open Data and Public Sector Information

EC funding: €917,000

ERCIM's role:

ERCIM EEIG project coordinator

ERCIM members involved:

Fraunhofer FOKUS, Public Research Centre Henri Tudor (FNR), SZTAKI, W3C (ERCIM EEIG)

Scientific coordination:

Phil Archer, W3C

Administrative coordination:

Philippe Rohou, ERCIM Office

Duration:

February 2014 to July 2016

<http://www.w3.org/2013/share-psi/>

Smart Open Data

SmartOpenData will create a Linked Open Data infrastructure (including software tools and data) fed by public and freely available data resources, existing sources for biodiversity and environment protection and research in rural and European protected areas and its National Parks.

This will provide opportunities for SMEs to generate new innovative products and services that can lead to new businesses in the environmental, regional decision-making and policy areas among others. The value of the data will be greatly enhanced by making it available through a common query language that gives access to related datasets available in the linked open data cloud.

The commonality of data structure and query language will overcome the monolingual nature of typical datasets, making them available in multiple languages.

Vision and goal

The vision of the SmartOpenData project is that environmental and geospatial data concerning rural and protected areas can be more readily available and re-usable, better linked with data without direct geospatial reference so different distributed data sources could be easily combined together. SmartOpenData will use the power of Linked Open Data to foster innovation within the rural economy and increase efficiency in the management of the countryside. The project will prove this in a variety of pilot programmes in different parts of Europe.

SmartOpenData goal is making INSPIRE/GMES/GEOSS infrastructure better available for citizens, but also mainly for SME developers. On one hand, Europe and EU invest hundreds of millions of Euros in building the INSPIRE infrastructure. On the other hand, most of European SMEs and citizens use for their applications Google maps. National and regional SDIs offer information which is not available on Google, but this potential is not used. One of the main goals of SmartOpenData is making European Spatial Data easily re-usable not only by GIS experts but also by SMEs.

In order to support Open Data Strategy for Europe and increase re-use of open public data from the European Commission, SmartOpenData will use where possible data and services from EC Open Data Portal2. In addition, any application built on this data source will be registered on this portal3. Same initiative is ongoing on national level, where SmartOpenData participants will try to disseminate the project outcomes in the same way..



Smart Open Data - Linked Open Data for environment protection in Smart Regions

EC Funding: € 2.355,400

ERCIM's role:
ERCIM EEIG project partner

ERCIM/W3C contact:
Phil Archer, W3C

ERCIM members involved:
W3C (ERCIM EEIG), UPM (SparCIM),

Project coordinator:
Jesús María Estrada Villegas, Empresa de Transformación Agraria S.A, Spain

Duration:
November 2013 - 31 October 2015

<http://www.smartopendata.eu/>



STREWS

The Web platform is a hotbed of innovation that will affect deployment of technologies and applications for the next decade, and will influence the security and privacy that European users and service providers can achieve. The STREWS project linked European security and trust related research and development with ongoing standards and development work for the Web in IETF and W3C.

The technical scope of the STREWS project is represented by the case studies which identify the key challenges in the future web ecosystem. This was done by assessing the security of the current state-of-practice in a broad setting, and by analysing and improving the security aspects of two highly-promising technological evolutions in the course of the project as part of the case studies. The broad security assessment bundled the recently emerging and upcoming Web features into a single model, and identified the security weaknesses in current technologies, and led to the short-to-midterm web security roadmap. Two case studies were analysed sequentially. The first case study, assessing and improving the security aspects in real-time web (WebRTC), started at the beginning of the project, the second case study run in the second half of the project.

The project also aimed at building a community consensus around the STREWS goals with dissemination both via traditional publication mechanisms but also using dedicated workshops for interaction with W3C and IETF participants, and through sessions in relevant conferences. A workshop was held with a theme around the case studies but also to address and report upon the more generic security platform work done.

The final result of the project, the “European Web Security Roadmap” was published in November 2015. It is the result of three years of work, including workshops and case studies. It contains an extensive overview of current practice, research and standardisation, as well as the gaps between them.

The document thoroughly assesses the current state of web application security in respect to state-of-the-practice, state-of-the-art, research, and standardisation, with special attention to the European aspect. Using the collected data, it then defines a near to mid-term research roadmap for Web security.

It collects areas of Web security which are still underdeveloped, identifies missing pieces in the research landscape, and points out promising directions for future research. In addition, it explores connections between research and standardisation, as well as existing mismatches in that area.

This way, the document provides the big picture on the field of Web security research and it will aid the decision-making process, when it comes to creating new research/standardisation activities and future research projects and work programs.

The roadmap is available for download at <http://www.strews.eu/images/STREWS-D3.2-roadmap.pdf>

STREWS - Strategic Research Roadmap for European Web Security

EC funding: € 790,000

ERCIM's role:
project coordinator

ERCIM members involved:
ERCIM EEIG/W3C, Katholieke Universiteit Leuven

Scientific coordination:
Rigo Wenning, ERCIM/W3C

Administrative coordination:
Linh Nguyen, ERCIM Office

Duration:
October 2012 - September 2015

<http://www.strews.eu/>

VRE4EIC

The VRE4EIC project will enhance Virtual Research Environments (VRE) aimed at empowering multi-disciplinary research communities and accelerate innovation and collaboration.

Together with ERCIM, seven European organisations are joining forces: European research teams (CWI, TU Delft, CNR, FORTH), international organisations (EuroCRIS and W3C) and active e-Research infrastructures (ENVRIplus, represented by University of Amsterdam and EPOS, represented by INGV). Their objective is to build a VRE reference architecture and building blocks of an enhanced VRE (so-called e-VRE, the software outcome of the project).

According to Keith Jeffery (ERCIM), the scientific coordinator of VRE4EIC, “The project envisages eventually VREs interoperating among themselves using e-VRE while accessing e-Research Infrastructures (such as EPOS and 20 other environmental research infrastructures in ENVRIplus) which are themselves dependent on regional and national e-Infrastructures and European e-Infrastructures such as GEANT, EUDAT, EGI”.

VRE4EIC intends to change the life of 70.000 European researchers, by providing them supporting tools for collaborative, multi-disciplinary data-driven science, as needed to tackle critical societal challenges such as climate change and energy sustainability.

The specific objectives of the project are:

- Increase the VRE usability for multi-disciplinary research;
- Increase the quality of VRE user experiences;
- Increase the deployment of VRE on different research infrastructures by abstracting and reusing building blocks and workflows;
- Improve the contextual awareness and interoperability of metadata;
- Promote exploitation and standardisation of e-VRE.
- VRE4EIC project software outcome will be available under an open source software license for maximum uptake and community building.



VRE4EIC - A Europe-wide Interoperable Virtual Research Environment to Empower Multidisciplinary Research Communities and Accelerate Innovation and Collaboration

EC Funding: € 4.400,000

ERCIM's role:
Project coordinator

ERCIM members involved:
CWI, CNR, FORTH

Scientific coordination:
Keith Jeffery, ERCIM Office

Administrative coordination:
Philippe Rohou, ERCIM Office

Duration:
September 2015 - September 2018

<http://www.vre4eic.eu/>



WAI-DEV

WAI-DEV, Web Accessibility Initiative (WAI) Ecosystem for Inclusive Design and Development, will develop strategies to support mainstream production of inclusive components and services; demonstrate the potential value and showcase good practice in inclusive design; and support enhanced policy strategies for consistent adoption and implementation of accessibility by public and private sector organisations.

WAI-DEV will primarily target the Web as the essential technical platform and universal interface for information and communication technology (ICT) through which to address the accessibility of advanced technologies and delivery channels including those for mobile devices, portable computers, digital television, telephony, and more. It will build upon recent technical and policy advancements in accessibility and on the cross-cutting benefits of accessibility for everyone regardless of age, gender, software, hardware, connectivity, language, literacy, digital skills, social and economic situations, and physical and mental abilities. It will thereby facilitate more mainstream market adoption of accessible and inclusive design-for-all practices throughout the production chain, and support implementation of accessibility policies and targets set by the European Commission and EU Member States.

WAI-DEV will result in:

- Support for industrial strategies for the production of inclusive components and services;
- Demonstration of the social and economic value and of good practice in inclusive design;
- Enhanced policy strategies that support the adoption and implementation of accessibility.

WAI-DEV is a coordination and support action project, co-funded by the European Commission as a Specific Support Action under the IST 7th Framework Programme. The project is led by the W3C Web Accessibility Initiative.

WAI-DEV - WAI-DEV : Web Accessibility Initiative (WAI) Ecosystem for Inclusive Design and Development

EC funding: € 499,000

ERCIM's role:
project coordinator

ERCIM members involved:
ERCIM EEIG/W3C,

Scientific coordination:
Shadi Abou-Zahra, W3C

Administrative coordination:
Jessica Michel Assoumou, ERCIM Office

Duration:
February 2014 to March 2016

<http://www.w3.org/WAI/DEV/>

Human Capital

Human Capital (HC) is a central concern within all organizations. In ERCIM its main focus is the European cooperation of different entities with their own HC policies. To this end we are currently building on two key activities. The first is the ERCIM post-doc fellowship programme that has been in existence for a long time and has been reinforced and further stimulated by the support of the European project “ABCDE”. This programme facilitated the participation of young scientists in research teams within ERCIM member institutes by organizing postdoctoral fellowships. In addition to mobility in high quality teams, it helps participants further their understanding of the European research environment and carrier capabilities.

In 2015, ERCIM launched a new Programme for PhD Education (EPPE) a mobility programme for cooperation in PhD education among ERCIM members.

The third activity is the Cor Baayen Award that acknowledges the achievements of young research scientists from European teams in informatics or mathematics.

There is scope for further development of both of these tools, but we would also like to create new schemes for mobility between ERCIM members. In particular, in addition to post-docs, we would like to foster mobility of all scientists, including phd students, engineers and management and administration professionals.

ERCIM’s Human Capital Task Group is in charge of supervising these actions and proposing new directions. In 2015 the group was composed of:

- Tore R. Jørgensen, NTNU
- Claude Kirchner, Inria (chair)
- Adriana Lazzaroni, CNR
- Emma Lière, ERCIM Office
- Laszlo Monostori, SZTAKI
- Julius Stuller, CRCIM
- Pierre Wolper, FNRS/FWO
- Edgar Weippl, AARIT

*Claude Kirchner, Inria, chair of the
ERCIM Human Capital Task Group*





“Alain Bensoussan” Fellowship Programme

The PhD Fellowship Programme has been established as one of the premier activities of ERCIM. Since its inception in 1991, over 400 fellows have passed through the programme. In 2015, 20 young scientists commenced an ERCIM PhD Fellowship and 70 fellows have been hosted during the year. This represents 417 person-months.

The ERCIM Fellowship Programme is open to young researchers from all over the world. It focuses on a broad range of fields in Computer Science and Applied Mathematics.

The fellowship scheme also helps young scientists to improve their knowledge of European research structures and networks and to gain more insight into the working conditions of leading European research institutions. In 2015, many of the hosted fellows were native of countries outside the European Union. This reflects ERCIM's contribution to make Europe not only the world's biggest 'brain factory' but also a large 'brain magnet' in the field of informatics and applied mathematics.

The fellowships are of 12 months duration, spent in one of the ERCIM member institute. Fellows can apply for second year in a different institute.

**Fellowship
Programme
co-funded by the
European
Commission**



The “ERCIM Alain Bensoussan Fellowship Programme” was supported by the FP7 Marie Curie Actions - People, Co-funding of Regional, National and International Programmes (COFUND) of the European Commission. 161 fellowships were granted under the Programme.

The fellows had the opportunity to participate in a yearly “ABCDE seminar” offering specific training on a range of non-scientific skills. Seminars were held in Berlin in November 2011, in Sophia Antipolis, France, in October 2012 and in Athens in October 2013. A fourth and last seminar was organised in 2014.

The project ended in August 2015.

Conditions

Candidates must:

- have obtained a PhD degree during the last eight years (prior to the application deadline) or be in the last year of the thesis work with an outstanding academic record
- be fluent in English
- have no obligations with respect to military service which could impact on the fellowship
- have completed their PhD before starting the grant.

The fellows are appointed either by a stipend (an agreement for a research training programme) or a working contract. The type of contract and the monthly allowance/salary depends on the hosting institute.

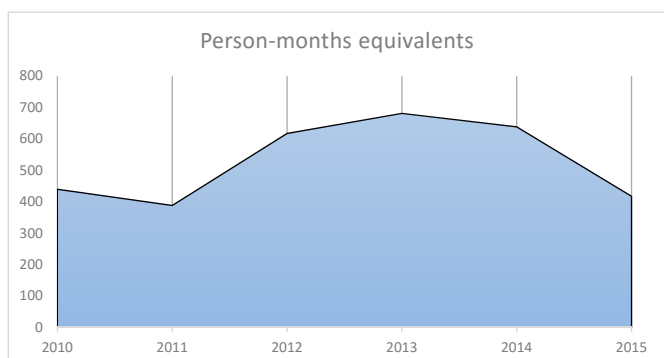
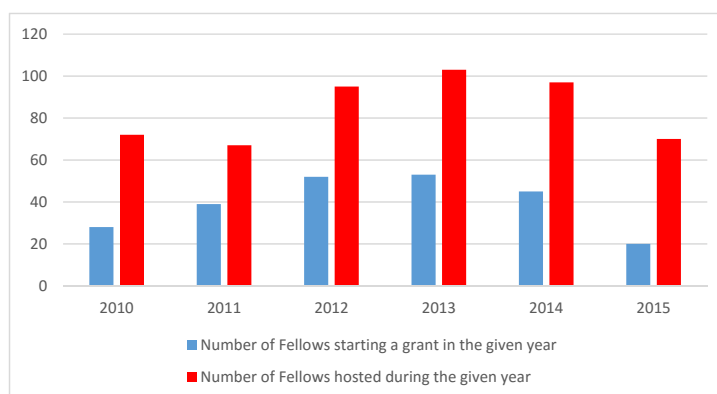
Deadlines for applications are currently 30 April and 30 September each year.

Since 2005 the Fellowship Programme has been named in honour of Alain Bensoussan, former president of Inria, one of the three ERCIM founding institutes.

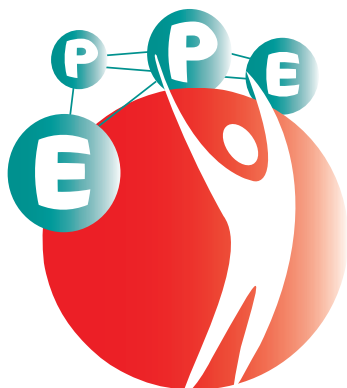
<http://fellowship.ercim.eu>

ERCIM Fellows hosted in 2015

- Dhaminda Abeywickrama at VTT
- Konstantin Amelin at NTNU
- Doreid Ammar at VTT and NTNU
- Esdras Anzuola at Fraunhofer-Gesellschaft
- Andres Aristizabal at University of Wroclaw
- Muhammad Asfand-e-yar at CRCIM
- Miloud Bagaa at NTNU
- Gautier Berthou at SICS
- Pinaki Bhaskar at CNR
- Kaveri Bhuyan at NTNU and CWI
- Goundo Camara Fatoumata at Fraunhofer-Gesellschaft
- Rohit Chandra at NTNU
- Ali Chelli at NTNU
- Andrea Cristofaro at NTNU and Inria
- Nima Dokoohaki at SICS
- Soma Dutta at University of Warsaw
- Sarah Eagle at NTNU
- Desmond Elliott at CWI
- Michal Garlik at University of Warsaw
- Christian Glacet at CNR
- György Gulyás Gábor at Inria
- Senka Hadzic at Fraunhofer-Gesellschaft
- Antti Haimi at NTNU
- Andrea Hess at SICS
- Chengchen Hu at NTNU
- Emil Robert Kaburuan at SICS
- Aurélien Larcher at NTNU
- Rajib Ranjan Maiti at CNR
- Michaël Marcozzi at Inria
- Jonas Martinez at Inria
- MiguelÁngel Martínez-del-amor at Fraunhofer-Gesellschaft
- Marek Materzok at Inria
- Anna Mavroudi at NTNU
- Liam Mcnamara at SICS
- David Mera at CRCIM
- Antonis Michalas at SICS
- Manoranjan Mohanty at SICS
- Mario Montagut at CWI
- Yassine Mrabet at FNR
- Fabrizio Orlandi at Fraunhofer-Gesellschaft
- Victor Chukwudi Osamor at University of Warsaw
- Nikolai Osipov at NTNU
- Jonathan Ouoba at VTT
- Ozlem Ozgobek at NTNU
- Partha Pakray at CRCIM
- Susovan Pal at Inria
- James Potter at VTT
- Arne Reimers at CWI
- Markku-Juhani Saarinen at NTNU
- Indrajit Saha at University of Wroclaw and CNR
- Markus Santoso at Fraunhofer-Gesellschaft
- Simon Scerri at Fraunhofer-Gesellschaft
- Jodi Schneider at Inria
- Byung-Kuk Seo at Fraunhofer-Gesellschaft
- Syed Muhammad Ali Shah at SICS
- Ariona Shashaj at SICS
- Dimitrios Simos at SBA Research
- Jija Syamala James at Inria
- Marco Tiloca at SICS
- Christoph Trattner at NTNU
- Kameswa Rao Vaddina at NTNU
- Marco Volpe at Inria
- Brenton Walker at SICS
- Ting Wang at Inria
- Davide Zambrano at CWI
- Max Zimmermann at SICS



Person/months equivalents for the fellows hosted from 2010 to 2015



ERCIM Programme for PhD Education

The ERCIM Programme for PhD Education (EPPE) is a new mobility programme for cooperation in PhD education among ERCIM members. The goal is to add a European international dimension to PhD education by crossing national, scientific and institutional borders. With experience from the successful ERCIM postdoctoral Fellowship Programme, the EPPE reduces administrative and formal obstacles for PhD students, supervisors and institutions when establishing cooperation.

Objectives

- Improve the quality of PhD education.
- Exploit complementary qualities of institutes and universities.
- Facilitate research cooperation among institutions and candidates.
- Disseminate research results from EU funded research.
- Make ERCIM institutions more attractive in recruiting good candidates.

Principles

- The EPPE provides added value to programmes already run by ERCIM members. Participation is on voluntary basis. .
- The cooperation can result in a single or a double degree.
- Candidates have a Home Institution and a Host Institution.
- ERCIM provides templates for cooperation agreements dealing with scientific supervision, costs, IPR, evaluation, and other matters.
- The programme is efficiently operated and simple to use. It provides a safe and legal platform. The rules, documents and information system permits supervisors and students to easily establish a cooperation.
- Through the ERCIM, members can raise awareness of their PhD programs and call for candidates, and the students will benefit from enhanced visibility of their theses work.

How it works in practice

A set of contract templates and guidelines is available for members on request.

Contact:

Emma Lière, emma.liere@ercim.eu

Zuzana Kukelova Receives the 2015 Cor Baayen Award

Zuzana Kukelova from Microsoft Research Cambridge, UK, is the winner of the 2015 Cor Baayen Award. Zuzana is a young scientist who delivered original scientific results on the border of applied mathematics and engineering, excelling in the discipline of applied and computational algebraic geometry and in geometry of computer vision.

Zuzana's work is building a bridge between highly abstract mathematical results, such as algebraic geometry, and engineering applications. This is highly relevant for all of society. Zuzana's work benefits engineering by offering many excellent mathematical solutions needed to develop computational techniques for applications such as Google's and Microsoft's 3D maps and image search.

In her thesis, defended in 2013 at the Czech Technical University in Prague, Faculty of Electrical Engineering, Zuzana worked on using algebraic techniques in computer vision. The main contribution of her work is the understanding and systematic use of algebraic tools for solving systems of polynomial equations in computer vision. She constructed a number of new minimal solvers in geometry of computer vision and also demonstrated how the algebraic techniques are interconnected and how they can be efficiently used to solve practical problems. An important result of her work was the development of an automatic generator of specialized polynomial solvers. With the generator at hand, it becomes possible to test alternative formulations of a problem and to search for such formulations that provide useful specialized solvers. This was not possible before, since existing computer algebra systems were always primarily focused on providing completely general solvers and did not address the issues arising when special efficient solvers are needed. Her work was instrumental in solving a number of important practical problems in camera calibration and 3D reconstruction from images. With her PhD thesis, Zuzana won the Antonin Svoboda award for best thesis of 2014 bestowed by The Czech Society for Cybernetics and Informatics.

In her short career, Zuzana has already presented and published an impressive number of papers at first quality scientific conferences and journals. She is also reviewer of a number of major computer vision journals and conferences.

Zuzana graduated in Computer Science at the Comenius University, Faculty of Mathematics, Physics and Informatics, Bratislava, Slovakia. She received her doctoral degree in Mathematical Engineering (Computer Vision) at the Czech Technical University in Prague, Faculty of Electrical Engineering, Prague. She is currently postdoctoral researcher at Microsoft Research Cambridge, UK.

<http://www.ercim.eu/activity/cor-baayen-award>



2015 Award

Winner:

- Zuzana Kukelova, Microsoft Research Cambridge

Honorary mentions:

- Michele Coscia, CNR
- Marco Lorenzi, University College London

Finalists:

- Pierre-Evariste Dagand, CNRS
- Natalia Diaz Rodriguez, Philips Research
- Julio Cesar Dos Reis, University of Campinas
- Bart de Keijzer, Sapienza University of Rome
- Henry Joutsijoki, University of Tampere
- Marco Lorenzi, University College London
- Dimitrios Schinianakis, Nokia
- Rebecca Steinert, SICS

Award Rules

The Cor Baayen Award, given to a promising young researcher in computer science and applied mathematics, was created in 1995 to honour the first ERCIM President and is open to young researchers having completed their PhD thesis in one of the "ERCIM countries". The award consists of a cheque for €5000 together with an award certificate. The successful fellow invited to the ERCIM autumn meetings.

Outreach

The ERCIM Outreach Task Group is responsible for the communication between ERCIM and its wide range of stakeholders. They include national and international funding bodies, the research community in informatics and applied mathematics, with a focus on both senior scientists and young researchers, as well as industrial R&D. ERCIM considers its outreach activities as an important tool for community building. These include publications such as the ERCIM News magazine, the ERCIM web site and the support and organisation of scientific events.

The well established ERCIM News magazine (see next page), under the responsibility of the editorial board, has already successfully contributed to ERCIM's reputation in the scientific community. It is also a good example of the close cooperation between all ERCIM institutes. In addition to ERCIM News, a number of strategic reports have also been published. All this information can also be accessed via twitter and LinkedIn.

People contributing to the Outreach Task Group policy are:

Silvia Abrahao, SpARCIM
Andras Benczur, SZTAKI
Marios Dikaiakos, UCY
Marie-Claire Forgue, W3C
oul Heegard, NTNU
Kersti Hedmann, SICS
Annette Kik, CWI
Peter Kunz, ERCIM office

Benoit Michel, FNRS/FWO
Eleni Orphanoudakis, FORTH
Carol Peters, CNR
Andreas Rauber, SBA Research
(chair)
Harry Rudin, SIRA
Erwin Schoitsch, SBA Research



*Andreas Rauber,
SBA Research, chair of the
ERCIM Outreach Task Group*

ERCIM News Editorial Board

(as of December 2015)

Central editor:

- Peter Kunz, ERCIM Office

Local editors:

- Andras Benczur, SZTAKI
- Marie-Claire Forgue, W3C
- Poul Heegard, NTNU, Norway
- Joaquim Jorge, INESC ID / PEG, Portugal
- Michal Haindl, CRCIM, Czech Republic
- Kersti Hedman, SICS, Sweden
- Annette Kik, CWI, The Netherlands
- Michael Krapp, Fraunhofer SCAI, Germany
- Sílvia Abrahão, Universidad Politécnica de Valencia / SpaRCIM, Spain
- Benoit Michel, Université catholique de Louvain, Belgium
- Eleni Orphanoudakis, ICS-FORTH, Greece
- Carol Peters, ISTI-CNR, Italy
- Thierry Priol, Inria, France
- Harry Rudin, SIRA, Switzerland
- Erwin Schoitsch, AIT Austrian Institute of Technology GmbH/AARIT, Austria
- Nguyen Hung Son, University of Warsaw, Poland
- Thomas Tamisier, Centre de recherche publique Gabriel Lippmann, Luxembourg.

ERCIM News

With the January 2015 edition, ERCIM was celebrating the 100th issue of its magazine, ERCIM News. Since ERCIM's creation in 1989, the quarterly ERCIM News has been reporting on leading edge European research and developments in Information and Communication Science and Technology (ICST) and Applied Mathematics.

When Inria, CWI and former GMD founded ERCIM in 1989, the establishment of an 'in-house magazine' with the aim of reporting on joint activities was one of the first 'joint actions'. ERCIM rapidly evolved from a black-and-white in-house magazine to a full colour publication covering reports and news about scientific projects from all over Europe and even beyond.

By October 1994, the newsletter was published both in printed and electronic format. At that time, ERCIM News was among the first 5,000 Web sites in the world. Surprisingly, the electronic edition did not detract from the success of the printed edition – instead, many new readers who found us on the Web also subscribe to the printed edition, thus increasing its circulation. The peak was reached in 2009 with a circulation of over 10,000 printed copies. Since then, presumably with the spread of smart phones and tablets, the circulation of the printed edition has reduced whilst the online readership has increased. In 2012, for the first time, more people subscribed to the electronic than to the printed edition. ERCIM News currently maintains a circulation of 4,500 printed copies and more than 7,500 people subscribed to the online edition.

From the early issues on, each issue has focused on a special theme identified by the editorial board. The ERCIM News series has thus become a unique collection providing an overview on a wide range of research topics in ICST and Applied Mathematics. All articles in ERCIM News are written by the scientists themselves and professionally edited. The structure of the articles and the limited length also make them comprehensible for non-experts. Thanks to these unique characteristics, ERCIM News has become well-known in the world of scientific publications, and regular positive feedback from our readers has encouraged us to continue in this way. Indeed, our readership comprises not only scientists, but also students, decision makers, professionals within the industry, representatives from the European Commission, and politicians.

One hundred issues of ERCIM News means more than 2,000 published articles. The popularity of ERCIM News can be credited primarily to our authors to whom the ERCIM editorial board wants to express their warmest thanks on this occasion.

In 2015 ERCIM News covered the following special themes:

- Scientific Data sharing and re-use
- The Internet of Things and the Web of Things
- Trustworthy Systems of Systems
- Augmented Reality.

<http://ercim-news.ercim.eu>



Issues published in 2015

ERCIM Office



The ERCIM office is located in the Inria Sophia Antipolis - Méditerranée Research Centre premises.

People at ERCIM Office in 2015

- Caroline Baron,
finance and administration
manager
- Pierre Guisset,
senior consultant
- Peter Kunz,
communications and ERCIM
News central editor
- Vivien Lacourba,
IT manager
- Alexandra Lacourba,
administrative assistant
- Emma Lière,
project assistant and Fellowship
Programme coordinator
- Jessica Michel Assoumou,
project coordinator
- Claire Moreau
administrative assistant
- Linh Nguyen,
project coordinator and assistant
- Pascale Peyrol,
project assistant
- Catherine Riou,
administrative assistant
- Samuel Réthoré,
systems engineer
- Philippe Rohou,
project group manager
- Jean-Guilhem Rouel,
systems engineer

ERCIM has an office in Southern France, hosted by Inria and located in the Inria Sophia Antipolis - Méditerranée Research Centre premises, nestled amongst researchers (and surrounded by cicadas). The ERCIM Office manages the day-to-day business of ERCIM as well as the European branch of the World Wide Web Consortium (W3C).

With its team of experts, the ERCIM Office provides assistance to ERCIM members in managing European projects by performing the financial and administrative tasks, either as coordinator or partner. Member institutes can thus fully concentrate on scientific work, unburdened by time-consuming administrative tasks. The office has been involved with more than 80 successful projects. The projects in which the ERCIM Office was involved in 2015 are presented in the section “Projects” in this report (pp. 12-28). They also include projects with participation of the W3C. Some include both W3C and ERCIM members. They provide a nice example of how ERCIM can facilitate cooperation between research institutes and the W3C with its interest in Web standardization.

Hosting and managing the European branch of W3C is another major task of the ERCIM Office. The activities related to W3C represent about the half of ERCIM’s budget. Details are given on the following pages.

The ERCIM Office is under the responsibility of the ERCIM EEIG Board of Directors but also handles ERCIM AISBL financial matters and supports the whole ERCIM community in administrative matters such as the management of the ERCIM Fellowship Programme, as well as in communications, for example by hosting and maintaining web sites and by producing ERCIM News.



*Jérôme Chailloux, ERCIM Manager
and head of the ERCIM Office.*



ERCIM and W3C

ERCIM hosts the European headquarters of the World Wide Web Consortium (W3C). ERCIM and W3C aim to strengthen research relationships throughout Europe to better support the development of Web technology and to jointly share the results of their collaboration.

Five of the European W3C Offices are based at ERCIM institutes, namely at CWI (Benelux); FORTH (Greece); SZTAKI (Hungary); CNR (Italy) and SICS (Sweden). W3C Offices in Europe work with their regional Web communities to promote W3C technology in local languages, broaden W3C's geographical base, and encourage international participation in W3C activities. Specifically, the W3C Offices help organize meetings and workshops.

As a consortium of members from many European countries, ERCIM creates a balance between European diversity and necessary homogeneity by building bridges between different cultures and facilitating the movement of technical ideas within academia and across borders. W3C is very heavily swayed by its members, several of them having interests in the Web (such as HTML5, Mobile Web, Social Web, Web Privacy and Security, Big Data, etc.) whereas ERCIM jointly has widespread interest in many research fields where Web standards are rarely used. ERCIM then helps to gather those Web communities and make them work together.

Moreover, ERCIM members have strong ties with industrial partners and start-up companies. This is an excellent opportunity for W3C to enlarge its cooperation with European industry, which can broaden its participation in the making of standards.

Finally, hosting the W3C allows ERCIM members to benefit from the know-how and expertise of the W3C team, and to increase its visibility based on W3C's worldwide reputation. The joint efforts of ERCIM and the W3C have started to increase Web research cooperation in Europe.

W3C is the international forum for the development of technology standards and for stewardship of the Web. The organization creates open standards for technology and best practices so that the Web connects people and serves as a platform for innovation. W3C is building an Open Web Platform to connect humanity in a way that makes access to knowledge more efficient and equitable.

The boundaries of this platform are drawn by the Members and the larger Web community. The platform includes the HTML5 specification, CSS, SVG, WebFonts (WOFF), a growing number of APIs, and many other technologies, all designed to work together on any platform, for any person, anywhere.

ERCIM Membership

How to become an ERCIM Member

- Prospective members must be outstanding research institutions (including universities) within their country;
- Applicants shall address a request accompanied by short description to the ERCIM Office. The description must contain:
 - Name and address of the institute;
 - Short description of the institute's activities;
 - Staff (full time equivalent) relevant to ERCIM's fields of activity;
 - Number of European projects currently involved in;
 - Name of the representative and the alternate.
- Membership applications will be reviewed by an internal board and may include an on-site visit;
- The decision on admission of new members is made by the General Assembly of the Association, in accordance with the procedure defined in the Bylaws (<http://kwz.me/U7>), and notified in writing by the Secretary to the applicant;
- Admission becomes effective upon payment of the appropriate membership fee in each year of membership;
- Membership is renewable as long as the criteria for excellence in research and an active participation in the ERCIM community, cooperating for excellence, are met.

After having successfully grown to become one of the most recognized ICT Societies in Europe, ERCIM has opened membership to multiple member institutes per country. By joining ERCIM, your research institution or university can directly participate in ERCIM's activities and contribute to the ERCIM members' common objectives to play a leading role in Information and Communication Technology in Europe:

- Building a Europe-wide, open network of centres of excellence in ICT and Applied Mathematics;
- Excelling in research and acting as a bridge for ICT applications;
- Being internationally recognised both as a major representative organisation in its field and as a portal giving access to all relevant ICT research groups in Europe;
- Liaising with other international organisations in its field;
- Promoting cooperation in research, technology transfer, innovation and training.

Benefit of ERCIM membership

Institutions, as members of ERCIM AISBL, benefit from:

- International recognition as a leading centre for ICT R&D. ERCIM, a European-wide network of centres of excellence in ICT, is internationally recognised as a major representative organisation in its field;
- More influence on European and national government R&D strategy in ICT. ERCIM members team up to speak with a common voice and produce strategic reports to shape the European research agenda;
- Privileged access to standardisation bodies, such as the W3C which is hosted by ERCIM as to other bodies with which ERCIM has also established strategic cooperation. These include ETSI, the European Mathematical Society and Informatics Europe;
- Invitations to join projects of strategic importance;
- Establishing personal contacts among executives of leading European research institutes during the bi-annual ERCIM meetings;
- Invitations to join committees and boards developing ICT strategy nationally and internationally;
- Excellent networking possibilities with more than 10.000 high-quality research colleagues across Europe. ERCIM's mobility activities, such as the fellowship programme, leverages scientific cooperation and excellence;
- Professional development of staff including international recognition;
- Publicity through the ERCIM website and ERCIM News, the widely read quarterly magazine.

For further information about how to join ERCIM AISBL, please contact the ERCIM Office (contact@ercim.eu)

Institutions member of ERCIM end of 2015:



Consiglio Nazionale delle Ricerche
Area della Ricerca CNR di Pisa
Via G. Moruzzi 1, 56124 Pisa, Italy
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Norwegian University of Science and Technology
Faculty of Information Technology, Mathematics and
Electrical Engineering, N 7491 Trondheim, Norway
<http://www.ntnu.no/>



Czech Research Consortium
for Informatics and Mathematics
FI MU, Botanicka 68a, CZ-602 00 Brno, Czech Republic
<http://www.utia.cas.cz/CRCIM/home.html>



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