5th International Congress and Exhibition

ERTS² 2010

EMBEDDED REAL-TIME SOFTWARE AND SYSTEMS

19 - 21 MAY 2010 / TOULOUSE - FRANCE

CENTRE DE CONGRES PIERRE BAUDIS

PROGRAMME

It's making more than just headlines.

The Airbus A380 has made its name as the world's largest, greenest passenger aircraft. But the big news is that the A380 is also making big profits for operators. Whether it's being used to reduce the number of flights and create real cost savings while keeping similar capacity. Or to offer more capacity with fewer take-off slots at a lower cost per seat than any other large aircraft. Either way, passengers simply love it, and operators love the commercial advantages it brings. The A380's benefits are in hard cash, not just headlines. **Airbus A380. See the bigger picture.**

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New Standards. Together

AIRBUS

WELCOME & OVERVIEW

Toulouse, 17-21 May : the place to be !

Now on behalf of Aerospace Valley, I'll be very pleased to welcome speakers and visitors to this very special congress, in the heart of our competitiveness cluster, dedicated –as indicated by its complete name- not only to Aeronautics and Space but also to Embedded Systems.

Embedded systems are paramount for lots of the companies, research labs and schools which are grouped together in Aerospace Valley : embedded systems, in a form or another, are present in most of the projects elaborated in our cluster.

That's not a surprise : Aircraft and Space vehicles developed on Aerospace Valley territory have very soon needed sophisticated, cutting edge, dependable embedded systems. Thanks to these initial, very demanding markets, and to several cooperative structures that broke the walls, between all these industries, between industry and academics, between industry and university and schools, a real system of competences in embedded systems have progressively been developed here.

That were just the first steps and these skills and competences acquired through avionics and then automotive are now meeting other worlds, others needs (e-health, energy, etc.) enabling new services that were just unthinkable some years ago, and this is reflected in the ERTSS itself, open to the Systems dimension, open to new application domains.

That will make a big change compared to ERTS 2008, but that will not be the only changes : the exhibition will be much larger and will be even more beneficial to SME and Intermediate Size Companies thanks for example to the Business Convention we'll organize for the first time.

And ERTS^2 is also cooperating with three other events, in the same place, during the same week : dedicated to open Source and Embedded Systems in the OSSIF – Open Source Software Industry Forum, to modeling with the NEPTUNE congress, or to outstanding works from some of the best labs in computer science from the INRIA.

Gérard Ladier, Congress Co-Chairperson
Innovation manager for Software and Embedded Systems
Aerospace Valley

My dear colleagues and friends,

In 2008 during ERTS congress we celebrate the 40th anniversary of software engineering.
This anniversary was a clear occasion to demonstrate how long it has been to create a robust foundation for software as a product.

All participants coming from various fields of industries got the benefit of understanding accurately state of the art in software development process method and tools. They got a real feeling on what could be achieved in the field of embedded real time software from high performance high complexity Aerospace to high-tech low-cost hight volume automotive.

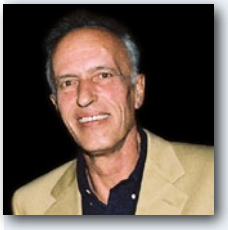
TOULOUSE as unique Industrial eco-system in the world has invented during the last 30 years the «aeromotive» acronym to demonstrate how cross fertilization within this large community of software engineers can be innovative in the field of embedded systems.
ERTS^2 will this year extend his hospitality and open fruitfull exchanges to the system designers and to the hardware platform suppliers.

Why ? Because we need to break the European paradox of Europe great science and technology but still poor transfer to products that change the day to day life in the world .

ITEA2 Eureka cluster chairman Mr Haggenmüller will demonstrate how innovation can be ignited thanks to embedded software. Our industry panels will explore the future of healthcare and medical systems that are demanding tremendous embedded software and connected systems to speed up treatment and diagnosis and also how we can start to manage efficiently electrical energy in Europe differently thanks to the smart grid architecture concept approach.

Antoine de Saint Exupery Toulouse pioneer of aeronautics said: «What units men is love of the Metier».
In 2010 those that recognize the truth of that sentence will joint ERTS^2 congress and exhibition in Toulouse.

Jean Luc MATE, ERTS Co- Chairperson
AEROMOTIVE pioneer & SIA administrator
Continental Engineering Services France General Manager



Welcome to ERTS^2, welcome to Toulouse for enjoying a very rich programme in Embedded Software and Systems.

The Call for Papers was the most fruitful of all editions of the Congress, with 154 submissions coming from 15 countries. The Congress has truly become international, with the third largest number of submissions coming from the USA, after France and Germany. The application domains have been significantly extended. Automotive, aeronautics and space, which used to be the core of the Congress are still strongly present, with forty percent of the submissions, and they are supplemented by a large spectrum of other domains.

The programme you have in hands features 108 paper presentations, together with three outstanding keynote addresses and two panels. The exhibition provides you with the opportunity of prototypes and tools being demonstrated. ERTS2 thus confirms its prominent position as a premier forum where industrialists, academics and agency reps meet and interact in fruitful discussions.

The contents of the programme perfectly illustrates its cutting edge character. The addition of 'systems' in the title of the Congress has brought submissions exemplifying the transition towards cyber-physical systems, with intense links and feedbacks between the computational and physical elements. The panels, devoted to e-energy and e-health, are accounts of this transition.

Jean-Claude Laprie, Programme Committee Chairperson
LAAS-CNRS

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17-21 May: THE WEEK OF EMBEDDED SYSTEM

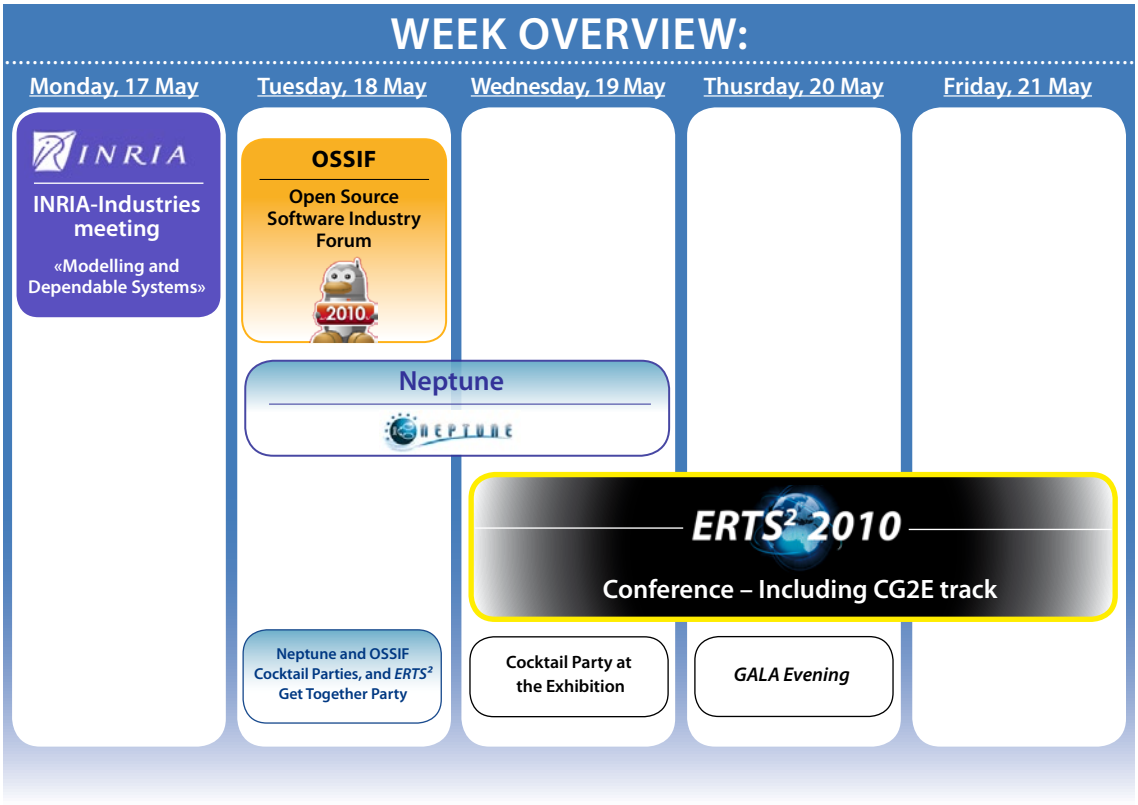
The growth of both the visibility of, and the influence exerted by, the ERTS congressses has led several events to join ERTS² 2010, giving rise to a week totally dedicated to embedded systems.

The programme of the ERTS² Congress will host a CG2E track, dedicated to Standards for Embedded Systems. CG2E is a club gathering major enterprises active in embedded systems.
http://www.irisa.fr/videos/irisatech/logiciel%20embarque/dominique-potier.pdf

On Tuesday and Wednesday, the Neptune consortium (Nice Environment with a Process and Tools Using Norms and Examples) will hold their 7th annual edition, with as a focus Model-Driven Engineering and Embedded Systems.
http://neptune.irit.fr/index.php?option=com_content&view=category&layout=blog&id=22&Itemid=25

On Tuesday the second edition of OSSIF, the Open Source Industry Forum, will be held.
http://ossif.org/

The above events will be preceded on Monday by the INRIA-Industries meeting devoted to Modelling and Dependable Systems.
http://www.inria.fr/



ORGANISERS

www.aaaf.asso.fr

The Association Aéronautique et Astronautique de France is the only French society of the aerospace field. 3AF is member of the International Council of Aeronautics Sciences (ICAS), of the international Astronautics Federation (IAF), of the French Mechanics Society (AFM). The first goal of 3AF is to inform all the members about developments in our sector of activity and to show up and to promote the work of our members. The mission of 3AF can be declined as follow: to bring together members and industrial firms, to create contacts between the members themselves, to serve as a major source of information, to provide members with a possibility to represent the members in several national or international societies, to award medals, scrolls and so on.

3AF TMP – Supaéro résidence 2, 10 avenue Edouard Belin – 31400 TOULOUSE – France Email: aaaftlse@aol.com

www.see.asso.fr

The SEE (the French Electrical, Electronics, and Information & Communication Technologies Society) is a non-profit-making scientific association, directed to the public benefit. The SEE groups its members into 22 Technical Committees and 12 Regional Groups, creating links between them through its Newsletter and website. SEE mission's is to promote French science and technology, as well as create within these two fields meeting opportunities for industrialists, research scientists, teachers, students and trainee engineers both from France and abroad. The SEE thereby organises and co-organises events in its particular fields of competence. These professional national colloquia deal with particular topics and prospects, as well as major international Conferences. Other events include technical visits, evening lectures and training courses.

SEE – 17, rue Hamelin – 75783 PARIS Cedex 16 – France Email : congres@see.asso.fr

www.sia.fr

The Société des Ingénieurs de l'Automobile (the French Society of Automobile Engineers) is a society officially considered as serving the public interest. Its purpose is to represent technical excellence in the automobile industry through its expert and knowledge sharing networks. The SIA draws its members from the ranks of automobile engineers and technicians and all those active in promoting automotive engineering. SIA has 2 000 members and a network of over 8 000 engineers, technicians and research workers behind it.

SIA – 79 rue Jean-Jacques Rousseau – 92158 Suresnes Cedex – France

Email: info@sia.fr

ERTS² PROGRAMME AT-A-GLANCE

WEDNESDAY, 19 MAY

09:15 –10:15	***Opening Session*** **Gérard Ladier** – Congress Co-Chairperson **Jean-Luc Maté** – Congress Co-Chairperson **Jean-Claude Laprie** – Programme Committee Chairperson ***Welcome Addresses*** **Pierre Cohen** – Mayor of Toulouse **Martin Malvy** – Midi-Pyrénées Region President
10:15 –11:15	***Keynote address*** *Aeromotive Convergence : Dream or Reality for Embedded Systems ?* **Jean Botti** – CTO of EADS
11:15 –11:45	Exhibition Visit / Refreshment Break
11:45 –13:00	***Session 1A*** Physical Architectures | ***Session 1B*** Real-Time Assessment and Monitoring | ***Session 1C*** CG2E Track: Standards for Embedded Systems
13:00 –14:30	Exhibition visit / Lunch
14:30 –15:45	***Session 2A*** Engineering Frameworks 1 | ***Session 2B*** SoCs and FPGAs | ***Session 2C*** Performance and Real-Time Modeling | ***Session 2D*** Automotive Standards
15:45 –16:15	Exhibition visit / Refreshment break
16:15 –17:30	***Session 3A*** Automatic Code Generation from Models | ***Session 3B*** Validation of Real-Time | ***Session 3C*** Virtual Platforms | ***Session 3D*** Software Quality
17:30 –17:40	Mini-break
17:40 –18:30	***Session 4A*** Critical System Modeling | ***Session 4B*** Data Management | ***Session 4C*** Formal Methods | ***Session 4D*** Multi-Standard Approaches

THURSDAY, 20 MAY

08:45 – 09:45	***Keynote address*** *Component-Based Design of Embedded Systems* **Hermann Kopetz** – Vienna University of Technology, Austria
09:45 – 10:00	Mini-break
10:00 – 10:50	***Session 5A*** Model-Based Engineering 1 | ***Session 5B*** Multi-Core Scheduling | ***Session 5C*** Model-Based Safety | ***Session 5D*** Certification
10:50 – 11:20	Exhibition visit / Refreshment break
11:20 – 13:00	***Session 6A*** Model-Based Engineering 2 | ***Session 6B*** OSs and Virtualisation for Critical Systems | ***Session 6C*** Design Verification and Validation | ***Session 6D*** Process and Business Models
13:00 – 14:00	Exhibition visit / Lunch
14:00 – 14:30	***Invited Talk*** *Embedded Systems: Outlook and Strategy* **Luc Rousseau** – General Manager for Competitiveness, Industry and Services, Ministry for Economy, Industry and Employment **Chairperson: Louis-Claude Vrignaud** – Continental, France
14:30 – 16:00	***Panel on Healthcare*** **Moderator: Gérard Ladier–** Aerospace Valley, France
16:00 – 16:30	Exhibition visit / Refreshment break
16:30 – 18:10	***Session 7A*** Formal Verification of Models | ***Session 7B*** Implementation Solutions | ***Session 7C*** System Architectures | ***Session 7D*** Distributed Schedulability

FRIDAY, 21 MAY

08:45 – 09:45	***Keynote address*** *ICT-Based Innovations for Competitiveness and Well Being* **Rudolf Haggenmüller** – ITEA2 President
09:45 – 11:15	***Panel on Efficient Energy*** **Moderator: Jean-Luc Maté –** Continental Engineering Services, France
11:15 – 11:45	Exhibition visit / Refreshment break
11:45 – 13:00	***Session 8A*** Requirements Management | ***Session 8B*** Migration to Multi-Core | ***Session 8C*** Java for Safety-Critical Systems
13:00 – 14:00	Exhibition visit / Lunch
14:00 – 15:40	***Session 9A*** Programme Formal Verification | ***Session 9B*** Testing | ***Session 9C*** Software Architectures | ***Session 9D*** Engineering Frameworks 2
15:40 – 16:00	***Closing Session*** **Gérard Ladier** – Congress Co-Chairperson **Jean-Luc Maté** – Congress Co- Chairperson **Jean-Claude Laprie** – Programme Committee Chairperson
16:00 – 16:30	Good-bye coffee

PROGRAMME - Wednesday, 19 May

08:00 – 09:15 — Participants check-in / Welcome Coffee

09:15 – 10:15

Opening Session
Gérard Ladier – Congress Co-Chairperson
Jean-Luc Maté – Congress Co-Chairperson
Jean-Claude Laprie – Programme Committee Chairperson

Welcome Addresses
Pierre Cohen – Mayor of Toulouse
Martin Malvy – Midi-Pyrénées Region President

10:15 – 11:15

Keynote address
Aeromotive Convergence : Dream or Reality for Embedded Systems ?
Jean Botti – CTO of EADS
Chairperson: Gérard Ladier – Aerospace Valley, France

11:15 – 11:45 — Exhibition visit / Refreshment break

	Session 1A: Physical Architectures **Chairperson: Michael Haneberg –** BMW Group, Germany	Session 1B: Real-Time Assessment and Monitoring **Chairperson: Léo Motus –** University of Estonia, Estonia	Session 1C: CG2E Track: Standards for Embedded Systems **Chairperson: Gérard Ladier –** Aerospace valley cluster, France
11:45 – 12:10	*Advantages and Pitfalls of Moving from an 8 bit System to 32 bit Architectures* **David Kerr-Munslow** – Cortus SA, France	*Applying Deadlock Risk Assessment in Architectural Models of Real-Time Systems* **Antonio Monzon** – Airbus Military, Spain **José Luis Fernández-Sánchez, Jorge Ruiz-De-Castañeda** – Technical University of Madrid, Spain	*What is the CG2E?* **Jean-Claude Derrien** – SAFRAN, France *Multi-domain comparison of safety standards* **Philippe Baufreton** – Sagem Défense Sécurité, France / **Jean-Paul Blanquart** – Astrium Satellites, France / **Jean-Louis Boulanger** – CERTIFER, France / **Hervé Delseny** – Airbus, France / **Jean-Claude Derrien** – Sagem Défense Sécurité, France / **Jean Gassino** – IRSN, France / **Gérard Ladier** – Airbus, France / **Emmanuel Ledinot** – Dassault Aviation, France / **Michel Leeman** – Valeo, France / **Philippe Quéré** – Renault, France / **Bertrand Ricque** – Sagem Défense Sécurité, France *Towards a standard for C language, shared by the embedded software industry* **Gilles Dulon** – SAFRAN, France / **Xavier Fornari** – Esterel Techonologies, France / **Didier Geffrotin** – GEENSYS, France / **Jean-Patrice Giacometti** – Airbus, France / **Rodolphe Jouvin** – Dassault Aviation, France / **Xavier Méchin** – Astrium, France / **Frédéric Mondot** – Renault, France *Metrics for the development of embedded software using the COSMIC function points approach* **Alain Abran** – ETS, University of Quebec, Canada
12:10 – 12:35	*New approach for sensor simulation for Hardware In the Loop test systems* **Stephan Ahrends** – National Instruments, Germany **Rick Kuhlman, Vineet Aggarwal, Mike Lyons** – National Instruments, United States	*Integration of Code-Level and System - Level Timing Analysis for Early Architecture Exploration and Reliable Timing Verification* **Christian Ferdinand, Reinhold Heckmann, Daniel Kästner** – AbsInt Angewandte Informatik, Germany **N. Feiertag, Marek Jersak, Kai Richter** – Symtavision, Germany	
12:35 – 13:00	*System architecture, tools and modelling for safety critical automotive applications – the R&D project SASHA* **J. Langheim, B. Guegan, L. Maillet-Contoz** – STMicroelectronics, France / **K. Maaziz, G. Zeppa** – Delphi, France / **S. Boutin, H. Aboutaleb** – Knowledge Inside, France / **F. Philippot** – ESG, France / **P. David** – Université de Technologie de Compiègne, France	*A Design Framework for End-to-End Timing Constrained Automotive Applications* **Friedhelm Stappert** – Continental Automotive, Germany **Jan Jonsson** – Chalmers University of Technology, Sweden **Jürgen Mottok** – University of Applied Sciences, Germany **Rolf Johansson** – Mentor Graphics, Sweden	

13:00 – 14:30 — Exhibition visit / Lunch

	Session 2A: Engineering Frameworks 1 **Chairperson: Tom Clausen –** European Comission, Belgium	Session 2B: SoCs and FPGAs **Chairperson: Jean-Max Gaubert –** AREVA, France	Session 2C: Performance and Real-Time Modeling **Chairperson: Jürgen Mottok –** Regensburg University of Applied Sciences, Germany	Session 2D: Automotive Standards **Chairperson: Olivier Guetta –** Renault, France
14:30 – 14:55	*Eclipse Based Architecture of the EDONA Platform for Automotive System Development* **François Ougier** – Renault, France **François Terrier** – CEA LIST, France	*UML/MARTE Process for SoC/SoPC* **Ali Koudri, Joel Champeau, Jean Christophe Le Lann** – ENSIETA, France **Denis Aulagnier** – Thales, France	*AADL Design-Patterns and Tools for Modelling and Performance Analysis of Real Time Systems* **Pierre Dissaux, Jérôme Legrand** – Ellidiss Technologies, France **Alain Plantec, Mickael Kerboeuf, Frank Singhoff** – UEB / UBO / LISyC, France	*Toward the Application of ISO26262 for Real-Life Embedded Mechatronic Systems* **Jean-Marc Astruc** – Continental Automotive, France **Nicolas Becker** – PSA Peugeot-Citroën, France
14:55 – 15:20	*An Advanced Engineering Framework experimented on a R&AE Electric Vehicle case* **Francois Colet** – Renault Technocentre, France **S. Chabroux, J. Matta** – Knowledge Inside, France	*An Interactive System Level Simulation Environment for Systems on Chip* **Daniel Knorreck, Ludovic Apvrille, Renaud Pacalet** – Telecom ParisTech, France	*Completing EAST-ADL2 with MARTE for enabling scheduling analysis for automotive applications* **Saoussen Anssi, Arnaud Albinet Sara Tucci-Pergiovanni, Chokri** – Continental Automotive, France **Mraidha, François Terrier, Sébastien Gérard** – CEA LIST, France	*Conformance Testing for the AUTOSAR Standard* **Alain Gilberg** – PSA-Peugeot Citroën, France **Bernd Kunkel** – VOLKSWAGEN AG, Germany **Alain Ribault** – KEREVAL, France **Philippe Robin** – TECHNOVEO, France **Noë Spinner** – DAIMLER AG, Germany
15:20 – 15:45	*The TASTE Toolset: Turning Human Designed Heterogeneous Systems into Computer Built Homogeneous Software* **Eric Conquet, Maxime Perrotin** – ESA, Netherlands **Pierre Dissaux** – Ellidiss, France **Thanassis Tsiodras** – Semantix, Greece **Jérôme Hugues** – ISAE, France	*The GENCOD project : Automated generation of Hardware code for safety critical applications on FPGA targets* **Pascal Pampagnin** – Airbus, France **Ludovic Letellier** – Alyotech Innovations, France	*Xoncrete: a scheduling tool for partitioned real-time systems* **Vicente Brocal, Miguel Masmano, Ismael Ripoll, Alfons Crespo, Patricia Balbastre** – UPV, Spain **Jean-Jacques Metge** – CNES, France	

15:45 – 16:15 — Exhibition visit / Refreshment break

	Session 3A: Automatic Code Generation from Models **Chairperson: Kamel Maaziz –** Delphi, France	Session 3B: Validation of Real-Time **Chairperson: Duncan Brown –** Rolls-Royce, UK	Session 3C: Virtual Platforms **Chairperson: Thierry Seynaeve –** ESG Automotive, France	Session 3D: Software Quality **Chairperson: Karama Kanoun –** LAAS-CNRS, France
16:15 – 16:40	*Model Based Code Generation for Distributed Embedded Systems* **Gopal Raghav, Swaminathan Gopalswamy, Karthikeyan Radhakrishnan** – Emmeskay Inc, USA **Jérôme Hugues** – Toulouse University /ISAE, France / **Julien Delange** – TELECOM ParisTech, France	*Real Time on Moblin Linux* **Yannick Meyer, Abdelillah Ymlahi** – ESG Automotive, France	*System Architecture Virtual Integration: a Case Study* **Jorgen Hansson, Peter Feiler, Lutz Wrage** – Software Engineering Institute, United States	*The "SQALE" Models for Assessing the Quality of Software Source Code* **Jean-Louis Letouzey, Thierry Coq** – DNV IT Global Services, France
16:40 – 17:05	*Towards Reliable Code Generation with an Open Tool: Evolutions of the Gene-Auto Toolset* **Andres Toom** – Institute of Cybernetics at Tallinn University of Technology, Estonia **Nassima Izerrouken, Marc Pantel** – IRIT-ENSEEIHT, France **Olivier Ssi Yan Kai** – Continental Automotive France, France **Tonu Naks** – IB Krates OÜ, France	*Deterministic Scheduling Reconcile Cache with WCET Estimation* **Michel Destelle, Jean-Louis Dufour** – Sagem, France	*EDONA/HMI – Modelling of Advanced Automotive Interfaces* **Sébastien Boisgérault, Eric Vecchié** – Mines ParisTech, France **Jean-Marc Temmos** – Visteon Software Technologies, France **Olivier Meunier** – Intempora, France	*Software Quality Objectives for Source Code* **Frederic Retailleau** – Delphi Diesel System, France / **Thierry Cambois, Daniel Mainberte , Philippe SPOZIO** – PSA Peugeot Citroën, France **Olivier Guetta, Frederic Mondot** – Renault, France / **Martin Brochet, Patrick Munier, Loic Noury** – The MathWorks, France / **Patrick Briand, Emmanuel Coutenceau** – Valeo, France
17:05 – 17:30	*Experiences with the Gene- Auto Code Generator in the Aerospace Industry* **Ana-Elena Rugina** – Astrium Satellites, France **Jean-Charles Dalbin** – Airbus Operations, France	*An Automatic Parametric Approach for WCET Analysis of C Programs* **Djemai Kebbal** – IRIT, France	*From Observing Human Testers To An Automatic Generation Of System Specifications* **Asem Eltaher, Markus Maurer** – Technische Universität Braunschweig, Germany **Thomas Form** – Volkswagen, Germany **Mohamed Ayeb** – Universität Kassel, Germany	*TASTER: Frama-C Plug-In to Enforce Coding Standards* **David Delmas** – Airbus Operations, France **Stéphane Duprat, Victoria Moya Lamiel** – Atos Origin, France
17:30 – 17:40	MINI-BREAK			
	Session 4A: Critical System Modeling **Chairperson: Gilles Le Calvez –** Valeo, France	Session 4B: Data Management **Chairperson: Pierre Vielcanet –** Consultant, France	Session 4C: Formal Methods **Chairperson: Christel Seguin –** ONERA, France	Session 4D: Multi-Standard Approaches **Chairperson: Emmanuel Ledinot –** Dassault Aviation, France
17:40 – 18:05	*SysML for Embedded Automotive Systems : a Practical Approach* **Eric Andrianarison, Jean-Denis Piques** – Valeo, France	*ICD Management (ICDM) Tool for Embedded Systems on Aircrafts* **Miguel Angel Mozas Pajares, Carlos Murciano Diaz, Ismael Lafoz Pastor, Carlos Fernandez de la Hoz** – Airbus Military, Spain	*Guidance for Using Formal Methods in a Certification Context* **Duncan Brown** – Aero Engine Controls, United Kingdom **Hervé Delseny** – Airbus Operation, France **Kelly Hayhurst** – NASA Langley Research Center, United States **Virginie Wiels** – ONERA, France	*Developing An Argument for Def Stan 00-56 from Existing Qualification* **Zoë Stephenson, Tim Kelly** – The University of York, United Kingdom **Jean-Louis Camus** – Esterel Technologies, France
18:05 – 18:30	*SysML + MARTE Applied to the Specification of Embedded Critical Software* **Neidert Martin** – Sopra Group, France **Marliere Laurent** – Airbus Operation S.A.S.	*Formal Data Validation - Formal Techniques Applied to Verification of Data Properties* **Mathieu Clabaut, Christophe Metayer** – SYSTEREL, France **Eric Morand** – CNES, France	*Embedded System Requirements Verification Using HiLeS Designer* **Jean-Claude Pascal, Philippe Esteban** – LAAS-CNRS, France **Carlos E. Gomez** – Universidad de los Andes, Colombia **Yannick Déléris** – Airbus, France **Jean-Rémi Devatine** – Aéreoconseil, France	*Convergence of the Latest Standards Addressing Safety and Security for Information Technology* **Adrien Derock, Patrick Hebrard** – DCNS, France **Frédérique Vallee** – MATHIX, France
	COCKTAIL PARTY AT THE EXHIBITION			

Cocktail Party at the exhibition

PROGRAMME - Thursday, 20 May

08:45 – 09:45 — ***Keynote address***
Component-Based Design of Embedded Systems
Hermann Kopetz – Vienna University of Technology, Austria
Chairperson: Jean-Claude Laprie – LAAS-CNRS, France

09:45 – 10:00 — MINI-BREAK

	Session 5A: ***Model-Based Engineering 1*** **Chairperson: Paul Arberet** – CNES, France	***Session 5B:*** ***Multi-Core Scheduling*** **Chairperson: Louis-Claude Vrignaud** – Continental, France	***Session 5C:*** ***Model-Based Safety*** **Chairperson: Jean-Paul Blanquart** – Astrium Satellites, France	***Session 5D:*** ***Certification*** **Chairperson: Bruce Lewis** – US Army, USA
10 :00 – 10:25	*Avionic Software Development with TOPCASED SAM* **Pierre Gaufillet** – AIRBUS Operations, France **Sébastien Gabel** – CS, France	*Multicore Systems - Challenges for the Real-Time Software Developer* **Fridtjof Siebert** – Aicas, Germany	*Toward a Validation Process for Model Based Safety Analyses* **Romain Adeline, Pierre Darfeuil, Sophie Humbert** – TURBOMECA, France **Christel Seguin** – ONERA, France **Janette Cardoso** – ISAE, France	*"Certification Together": Unique and Innovative Approach to Federate the Certification-Related Efforts* **Gérard Ladier** – Airbus, France **Lionel Burgaud** – Aeroconseil, France
10 :25 – 10:50	*Synoptic : a Domain Specific Modeling Language for Embedded Real-Time Flight Software Design* **Alexandre Cortier, Jean-Paul Bodeveix, Marc Pantel, Martin Strecker, M. Filali** – IRIT-ACADIE, France **Gerald Garcia** – Thales Alenia Space, France / **Eric Morand** – CNES, France **Ana-Elena Rugina** – EADS Astrium, France / **Jean-Pierre Talpin** – IRISA - ESPRESSO, France	*Accelerated Simply Periodic Task Sets for RM Scheduling* **Dirk Müller** – Chemnitz University of Technology, Germany	*Dependability Modelling of Safety Applications in Communicating Automotive Systems* **Ossama Hamouda, Mohamed Kaâniche, Karama Kanoun** – LAAS-CNRS, France	*"DO-254 User Group, an Industry Initiative" : Industry Feedback* **Anne Senechal** – Barco Avionics, Belgium **Françoise Crestey** – Rockwell Collins, France

10:50 – 11:20 — MINI-BREAK

	Session 6A: ***Model-Based Engineering 2*** **Chairperson: Marie-Line Valentin** – Airbus, France	***Session 6B:*** ***OSs and Virtualisation for Critical Systems*** **Chairperson: Christophe Moreno** – Thales Alenia Space, France	***Session 6C:*** ***Design Verification and Validation*** **Chairperson: Yves Ledru** – LIG, France	***Session 6D:*** ***Process and Business Models*** **Chairperson: Werner Froehling** – Volvo Technology, Sweden
11:20 – 11:45	*A Model-Based Reference Workflow for the Development of Safety-Related Software* **Michael Beine** – dSPACE, Germany	*R3TOS: A Reliable Reconfigurable Real-Time Operating System* **X. Iturbe, M. Azkarate, I. Martinez, A. Perez** – IKERLAN-IK4 Research Alliance, Spain **K. Benkrid, A.T. Erdogan, T. Arslan** – The University of Edinburgh, UK	*Avionics Systems, EVT: Early validation Tools* **Fréderic Charbonnier** – Thales Avionics, France	*Artop – an Ecosystem Approach for Collaborative AUTOSAR Tool Development* **Michael Rudorfer, Christian Knüchel** – BMW Car IT, Germany **Stephan Eberle, Romain Sezestre** – Geensys, France **Stefan Voget, Robert Kiss** – Continental Engineering, Germany **Aldric Loyer** – Peugeot-Citroën Automobiles, France
11:45 – 12:10	*A Model-Based Methodology to Support the Space System Engineering (MBSSE)* **Silvia Mazzini** – Intecs Spa, Italy **Xavier Olive** – Thales Alenia Space, France **Carlo Paccagnini** – Thales Alenia Space, Italy **Enrico Tronci** – Università La Sapinza, Italy	*PharOS, a Multicore OS Ready for Safety-Related Automotive Systems: Results and Future Prospects* **Christophe Aussagues, Damien Chabrol, Vincent David** – CEA LIST, France **Didier Roux, Natalia Willey, Arnaud Tournadre** – Delphi, France **Marc Graniou** – PSA Peugeot Citroën, France	*Verification Based Development Process for Embedded Systems* **Filali Mamoun, Jean-Paul Bodeveix** – IRIT, France **Vernadat François** – LAAS, France **Tiago Correa, Leandro Buss Becker, Farines Jean-Marie** – UFSC, Brazil	*Manage the Automotive Embedded Software Development Cost by Using a Functional Size Measurement Method (COSMIC)* **Sophie Stern, Olivier Guetta** – Renault, France
12:10 – 12:35	*TURTLE: Four Weddings and a Tutorial* **Ludovic Apvrille** – Telecom ParisTech, France **Pierre de Saqui-Sannes** – Université de Toulouse ; UPS, INSA, INP, ISAE ; LAAS, France	*XtratuM for LEON3: an Open Source Hypervisor for High-Integrity Systems* **Miguel Masmano, Ismael Ripoll, Alfons Crespo, Salvador Peiro** – Universidad Politécnica de Valencia, Spain	*Quirks and Challenges in the Design and Verification of Efficient, High-Load Real-Time Software Systems* **Ulrich Margull** – 1 mal 1 Software, Germany **Michael Niemetz, Gerhard Wirrer** – Continental Automotive, Germany	*Bringing the Embedded Systems Industry Towards Open Source: the SHARE Project Experience* **Gabriella Carrozza, Massimo Loffreda** – SESM scarl, Italy **Luca Benini, Andrea Marongiu** – DEIS - University of Bologna, Italy
12:35 – 13:00	*SPaCIFY : a Formal Model-Driven Engineering for Spacecraft On-Board Software* **Paul Arberet, Eric Morand** – CNES, France / **Frédéric Boniol, David Chemouil** – ONERA, France / **Jean-Paul Bodeveix, Alexandre Cortier, Mamoun Filali, Martin Strecker** – IRIT-ACADIE, France / **Ana-Elena Rugina** – EADS Astrium, France / **Julien Ouy, J.P. Talpin** – IRISA-ESPRESSO, France / **Jérémy Buisson, Fabien Dagnat** – Télécom Bretagne, France / **Gerald Garcia** – Thales Alenia Space, France / **Gilles Cannenterre** – Anyware Technologie, France / **François Dupont** – Geensys, France / **Emmanuel Fleury, J. Forget , Frédéric Herbreteau, Grégoire Sutre** – LaBRI, France	*Safe and Secure Virtualization: a Valid Approach for Space Applications* **Jose Almeida** – SYSGO, France	*Design and Validation of Embedded Real Time Applications* **Sebastian Siegl, Christoph Lauer** – University of Erlangen-Nuremberg, Germany	*Bi-Directional Mapping Between CMMI and INCOSE SE Handbook* **Antonio Monzon** – Airbus Military, Spain

13:00 – 14:00	Exhibition visit / Lunch			
14:00 – 14:30	***Invited Talk*** *Embedded Systems: Outlook and Strategy* **Luc Rousseau** – General Manager for Competitiveness, Industry and Services, Ministry for Economy, Industry and Employment **Chairperson: Louis-Claude Vrignaud** – Continental, France			
14:30 – 16:00	***Panel on Healthcare*** **Moderator: Gérard Ladier** – Aerospace Valley, France Future of healthcare and medical systems are demanding tremendous embedded software and connected systems to speed up treatment and diagnosis and create a new area of social application like: E Health. This panel will deliver the position from head of Hospital, private research of large industry player and innovative SME.			
16:00 – 16:30	Exhibition visit / Refreshment break			
	Session 7A: ***Formal Verification of Models*** **Chairperson: Stefan Voget –** Continental Engineering Services, Germany	***Session 7B:*** ***Implementation Solutions*** **Chairperson: François Vernieres –** Aerospace Valley, France	***Session 7C:*** ***System Architectures*** **Chairperson: Chidung Lac –** France Telecom R&D, France	***Session 7D:*** ***Distributed Schedulability*** **Chairperson: Lionel Burgaud –** Aeroconseil, France
16:30 – 16:55	*Formal assessment of hybrid functions* **Marcelin Fortes da Cruz, Sanjiv Sharma** – Airbus Operations, United Kingdom **Marek Kwiatkowski** – University of Edinburgh, United Kingdom	*Safeguarded Processing of Sensor Data* **Michael Steindl, Juergen Mottok, Hans Meier** – University of Applied Sciences, Germany **Schiller Frank, Fruechtl Markus** – Technical University Munich, Germany	*From ARTEMIS Requirements to a Cross-Domain Embedded System Architecture* **Roman Obermaisser, Hermann Kopetz** – Vienna University of Technology, Austria	*A Framework to Experiment Optimizations for Real-Time and Embedded Software* **Hugues Cassé, Christine Rochange** – IRIT - Univ. de Toulouse, France **Karine Heydemann, Haluk Ozaktas** – LIP6 - Univ. Pierre et Marie Curie, France **Jonathan Ponroy, Olivier Zendra** – INRIA Grand Est - LORIA, France
16:55 – 17:20	*Formal Verification and Validation of AADL Models* **Joost-Pieter Katoen, Viet Yen Nguyen, Thomas Noll** – RWTH Aachen University, Germany **Marco Bozzano, Roberto Cavada, Alessandro Cimatti** – Fondazione Bruno Kessler, Italy **Xavier Olive** – Thales Alenia Space, France	*An Embedded Distributed Tool for Transportation Systems Health Assessment* **Mickael Dievart, Philippe Charbonnaud, Xavier Desforges** – ENIT/LGP, France	*Embedded System Engineering as a Solution to Face Future Automotive Industry Challenges* **Damien Verdier** – Continental Automotive, France	*Applying Holistic Distributed Scheduling to AUTOSAR Methodology* **Khaled Chaaban, Sébastien Saudrais, Patrick Leserf, Ahmed Daghsen** – ESTACA, France
17:20 – 17:45	*Formal Verification of AADL Models with Fiacre and Tina* **Bernard Berthomieu, Silvano Dal Zilio, François Vernadat** – LAAS-CNRS, France **Jean-Paul Bodeveix, Mamoun Filali** – IRIT, France **Pierre Dissaux** – Ellidiss, France **Pierre Gaufillet** – Airbus France, France **Sébastien Heim** – CS, France	*An Architecture for QoS-Capable Integrated Security Gateway to Protect Avionic Data Networks* **Mahmoud Mostafa, Anas Abou El Kalam, Christian Fraboul** – Université de Toulouse, France	*Addressing the Data Distribution Challenge in SCADA and Utilities Systems* **Angelo Corsaro** – PrismTech, France	*One Implementation of a Hybrid On-line Process Monitoring in PC Based Real-Time Systems* **Bojan Jovanovic, Milun Jevtic** – Faculty of Electronic Engineering, Serbia
17:45 – 18:10	*Towards Verifying Model Compilers* **Matteo Bordin, Franco Gasperoni** – AdaCore, France	*Impact of Message Authentication on Braking Distance in Vehicular Networks* **Jonathan Petit, Zoubir Mammeri** – IRIT, France	*Enhanced Dispatchability of Aircrafts Using Multi-Static Configurations* **Tobias Schoofs** – Skysoft, Portugal **Peter Schmitt, Christian Engel** – Karlsruhe Institute of Technology, Germany **Eric Jenn** – Thales, France **Rodrigo Coutinho** – Embraer Research & Development, Brazil	*Distributed Development of Automotive Real-Time Systems Based on Function -Triggere Timing Constraints* **Oliver Scheickl, Christoph Ainhauser, Michael Rudorfer**– BMW Car IT, Germany
	Gala Evening			

Gala evening at the Domaine de Preissac

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PROGRAMME - Friday, 21 May

08:45 – 09:45

Keynote address

ICT-Based Innovations for Competitiveness and Well Being

Rudolf Haggenmüller – ITEA2 President

Chairperson: Jean-Luc Maté – Continental, France

09:45 – 11:15

Panel on Efficient Energy

Moderator: Jean-Luc Maté – Continental Engineering Services, France

How we can start to manage efficiently electrical energy in Europe thanks to the smart grid architecture concept approach. How this complex network of connected energy source will include intelligent electrical meters and virtual power plant as your own electric car in the city. Embedded system and software will control those ubiquitous networks. This panel will deliver the position from head of energy providers, private research of large industry player including electric car OEM and innovative european SME preparing intelligent meters and charging station.

11:15 – 11:45 — EXHIBITION VISIT / REFRESHMENT BREAK

	Session 8A: ***Requirements Management*** **Chairperson: Patrick Cormery –** Astrium Space Transportation, France	***Session 8B:*** ***Migration to Multi-Core*** **Chairperson: Denis Claraz –** Continental, France	***Session 8C:*** ***Java for Safety-Critical Systems*** **Chairperson: Agusti Canals –** Communication et Systems, France
11:45 -12:10	*A RIF/SysML Profile Example - Requirements Exchange and Roundtrip* **Olivier Casse, Manuel Reis Monteiro** – Atego, UnitdKingdom	*Predictability Considerations in the Design of Multi-Core Embedded Systems* **Claire Burguiere, Daniel Grund, Jan Reineke, Reinhard Wilhelm** – Saarland University, Germany **Christoph Cullmann, Christian Ferdinand, Gernot Gebhard** – AbsInt, Germany **Benoit Triquet** – EADS Airbus, France	*Towards Certification of Java Applications for Safety Critical Projects* **Andy Walter** – Aicas, Germany
12:10 -12:35	*Requirement management from System modeling to AUTOSAR SW Components* **A. Albinet, B. Sanchez** – Continental Automotive, France **L. Quéran** – Geensoft, France **Y. Tanguy** – CEA - LIST, France	*Multicore Scheduling in Automotive ECUs* **Aurélien Monot, Bernard Bavoux** – PSA Peugeot Citroën, France **Françoise Simonot** – INRIA-Nancy Université, France **Nicolas Navet** – RealTime-At-Work, France	*Use of PERC Pico for Safety Critical Java* **Marc Richard-Foy, Ludovic Gauthier** – Aonix, France **Tobias Schoofs** – SkySoft Portugal, Portugal **Eric Jenn** – Thales, France **Kelvin Nilsen** – Aonix, United States
12:35 – 13:00	*Topcased Requirement: a Model Driven, Open-Source and Generic Solution to Manage Requirement Traceability* **Raphaël Faudou, Tristan Faure** – ATOS ORIGIN INTEGRATION, France **Sébastien Gabel, Christophe Mertz** – CS Systèmes d'Information, France	*Partly Proportionate Fair Multiprocessor Scheduling of Heterogeneous Task Systems* **Michael Deubzer, Jürgen Mottok** – University of Applied Sciences Regensburg, Germany **Ulrich Margull** – 1 mal 1 Software, Germany **Michael Niemetz, Gerhard Wirrer** – Continental Automotive, Germany	*Dynamic Memory Management in High-Integrity Java Systems* **Kelvin Nilsen** – Aonix, United States

13:00 – 14:00 — EXHIBITION VISIT / LUNCH

	Session 9A: ***Programme Formal Verification*** **Chairperson: Philippe Baufreton –** Sagem Défense Sécurité, France	***Session 9B:*** ***Testing*** **Chairperson: Zoubir Mammeri –** IRIT - UPS, France	***Session 9C:*** ***Software Architectures*** **Chairperson: Steve Miller –** Rockwell-Collins, USA	***Session 9D:*** ***Engineering Frameworks 2*** **Chairperson: François Terrier –** CEA LIST, France
14:00 – 14:25	*Formal Verification of SAM State Machine Implementation* **Stephane Duprat, Victoria Moya Lamiel, Frédéric Passarello** – Atos Origin, France **Pierre Gaufillet** – Airbus Operations, France	*Matlab/Simulink Functional Tests with STB/AGATHA Tool* **Jean-Yves Pierron, Jean-Pierre Gallois, Arnault Lapitre** – CEA LIST, France **Thierry Gueguen, Samuel Devulder** – Geensys, France **Pascal Le Corre** – Johnson-Controls, France	*Augmenting Software Architectures with Physical Components* **Ajinkya Bhave, David Garlan, Bruce Krogh, Akshay Rajhans, Bradley Schmerl** – Carnegie Mellon University, United States	*How the Concepts of the Automotive Standard «AUTOSAR» Are Realized in New Seamless Tool-Chains* **Stefan Voget** – Continental Engineering Services, Germany **Philippe Favrais** – Continental Automotive France, France
14:25 – 14:50	*Partial Order Application for Software Formal Verification* **Xavier Dumas, Eric Bonnafous** – CS-SI, France **Frédéric Boniol** – IRIT-ONERA, France **Philippe Dhaussy** – ENSIETA, France	*UML for Validation: Experimenting Automatic Test Generation for Flight Software Validation* **Philippe Hyounet, Jeremie Pouly** – Astirum, France	*Modeling and Validation of ARINC653 Architectures* **Julien Delange, Laurent Pautet** – TELECOM ParisTech, France **Fabrice Kordon** – LIP6, France	*Integrating the AUTOSAR Tool Chain with Eclipse Based Model Transformations* **Andreas Graf, Markus Voelter** – itemis, Germany
14:50 – 15:15	*Astrée: Proving the Absence of Runtime Errors* **Daniel Kästner, Stefana Nenova, Stephan Wilhelm** – AbsInt GmbH, Germany **Patrick Cousot, Radhia Cousot, Jérôme Feret, Laurent Mauborgne, Antoine Miné, Xavier Rival** – Ecole Normale Supérieure, France	*How to Reduce Qualification Time for New Safety Automated Systems on Rail Infrastructure* **Claire Gueguan** – RATP, France **Franck Corbier** – Geensys, , France **Vincent Bregeon** – CSSI, France	*Binary Replacement Technique for Application Programming Interface Level Simulation* **Junghee Lee, Jongman Kim** – Georgia Institute of Technology, United States **Denis Paterson, Scott O'Neill** – Synopsys, United Kingdom **Hongchul Kim, Sangjun Nam** –Samsung Electronics, Korea	*A Component-Based Framework for Space Domain Software Applications* **Thomas Vergnaud –** Thales Communications, France **Mathieu Le Coroller, Guillaume Véran** – Thales Alenia Space, France
15:15 – 15:40	*Tokeneer: Beyond Formal Program Verification* **Yannick Moy** – AdaCore, France **Angela Wallenburg** – Praxis, United Kingdom	*Object and Source Coverage for Critical Applications with the COUVERTURE Open Analysis Framework* **Matteo Bordin, Cyrille Comar, Tristan Gingold, Jérôme Guitton, Olivier Hainque, Thomas Quinot** – AdaCore, France	*Faster, Later, Softer: COrDeT, a Reference On-Board Software Architecture for Spacecrafts* **Jean-Loup Terraillon, Andreas Jung** – European Space Agency, Netherlands	*Advanced modeling with a Symbolic based approach Application to the modeling, control design and real-time control and HIL simulation of a quadrotor helicopter* **N. Gachadoit, B.Vidalie** – Maplesoft, France / **A. El Hadri, A. Benallegue** – LISV, France / **A. Seba** – ISEP, France

15:40 – 16:00

Closing Session

Gérard Ladier – Congress Co-Chairperson

Jean-Luc Maté – Congress Co-Chairperson

Jean-Claude Laprie – Programme Committee Chairperson

16:00 – 16:30 — GOOD-BYE COFFEE

EXHIBITION

This unique event will bring together more than 800 participants: directors, managers, heads of department, engineers, researchers and technicians. Representatives from universities and research centers, as well as journalists, will also attend. An exceptional line-up of guests and speakers will be present for the occasion.

The exhibition will allow you to show-case your company and present your latest products; for improved direct relationship between exhibitors and Contractors represented by R&D Directors, Technical Directors, Projects Managers... from all the industry sectors.

The exhibition is combined with the conference program ; all the breaks and lunches are taken in the exhibition area, enabling maximum interactions between conference attendees and exhibitors.

ERTS 2008 has been unanimously appreciated also for these interactions and we'll make all we can to keep this same unique spirit : the exhibition is not only a commercial exhibition, it's also a unique place for dialogue between the attendees, for networking, etc. It's really the living place of the congress.

And for the first time this year, the international exhibition is combined with business meetings (see below), a very efficient way to maximise useful contacts.

B TO B MEETINGS / CONCEPT

Manufacturers, OEMs, Tiers 1 and 2 will meet a network of SMEs specialized in embedded software and systems development and integration.

The concept has many advantages :

- Greater visibility of your profile through our online and detailed catalogue
- Identify and request meetings with relevant and high level contacts prior to the event,
- Save time and money by having face to face meetings with the contacts of your choice,
- Turnkey service : 100% business oriented event, 100% professional, 0% logistics.

How does it works ?

Presentation form

- Fill out a short form and provide descriptions of your capabilities, applications and requirements.

Catalogue of participants

- 3 weeks prior to the event, access detailed profiles of all the participants from our online catalogue

Choice of meeting and validation

- Identify and request meetings with relevant contacts through our user friendly programme
- Validate meeting requests made by other companies (for contractors)

Meetings agenda

- Consult your online private schedule of pre-planned meetings with the contacts of your choice, a few days before official opening.

To register to the B to B meetings :

http://www.advbe.com/evt/ertss2010/

To fill in the Exhibition and Business Meetings Form:

http://www.erts2010.moonaweb.com/Site/0ANDGY78/Fichier/ERTS2010EXHIBITIONANDBTOBMEETINGS.pdf

EXHIBITION RATES

6 sq.m booth + conference registration for 1 person: 2500 € (VAT Excl.).
12 sq.m fitted-out booth + conference registration for 2 person: 3800 € (VAT Excl.).

Contact for Exhibition and Business Meetings:

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HOTEL ACCOMMODATION

We have selected a list of the most convenient hotels situated in the City Centre. Delegates are encouraged to make their own hotel reservations early, directly with the hotels of their choice. For complete choice list of hotels, try as well *www.reserv-hotels.fr* or at *www.hotels.com*

Accommodation on the site

HOTEL	ADDRESSES	TELEPHONE	WEBSITE	STARS
Mercure ATRIA	8, Esplanade Compans Caffarelli	33 (0)5-61-11-09-09	*www.mercure.com*	***
Novotel Toulouse Centre	5, Place Alphonse Jourdain	33 (0)5-61-21-74-74	*www.novotel.com*	***
Hôtel de Brienne	20, bd du Maréchal Leclerc	33 (0)5-61-23-60-60	*www.hoteldebrienne.com*	***

Hotels close from the Conference Centre (10 to 20 minutes walking)

HOTEL	ADDRESSES	TELEPHONE	STARS
Hôtel B and B City	77, Boulevard de l'Embouchure	33 (0)5-34-40-19-19	**
Etap Hôtel	27, Bd des Minimes	33 (0)8-92-68-31-10	**
Hôtel Ibis Centre	2, rue Claire Pauilhac	33 (0)5-61-63-61-63	**
Hôtel Ibis Ponts Jumeaux	98, Bd Marquette	33 (0)5-62-27-28-28	**
Hôtel de France	5, rue Austerlitz	33 (0)5-61-21-88-24	**
Mercure Wilson	7, rue Labéda	33 (0)5-34-45-40-60	***
Mercure Matabiau	64, Bd Pierre sémard	33 (0)5-34-41-36-70	***
Holiday Inn	13, Place Président Wilson	33 (0)5-61-10-70-70	***
Mercure St Georges	Rue Saint Jérôme	33 (0)5-62-27-79-79	***
Résidence Parthénon	86, Allées Jean Jaurès	33 (0)5-61-10-24-00	***
Frantour Victoria	76, rue Bayard	33 (0)5-61-62-50-90	***
Hôtel Jean Mermoz	50, rue Matabiau	33 (0)5-61-63-04-04	***
Résidence les Citadines	8, Bd de Strasbourg	33 (0)8-25-01-03-54	***
Hôtel des beaux arts	1, Place Pont Neuf	33 (0)5-34-45-42-42	***
Hôtel Athénées	13 bis, rue Matabiau	33 (0)5-61-63-10-63	***
Sofitel Toulouse Centre	84, Allées Jean Jaurès	33 (0)5-61-10-23-10	****
Crowne Plaza	7, Place du Capitole	33 (0)5-61-61-19-19	****
Grand Hôtel de l'Opéra	1, Place du Capitole	33 (0)5-61-21-82-66	****

VENUE

ERTS² 2010 will be held at the Pierre Baudis Convention Center in Toulouse. The Pierre Baudis Convention Center is located in the centre of Toulouse's cultural and commercial activity on the edge of the Compans-Caffarelli Park (7 hectares).

11, esplanade Compans Caffarelli – 31000 TOULOUSE – France
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LOCATION: *TOULOUSE CITY*

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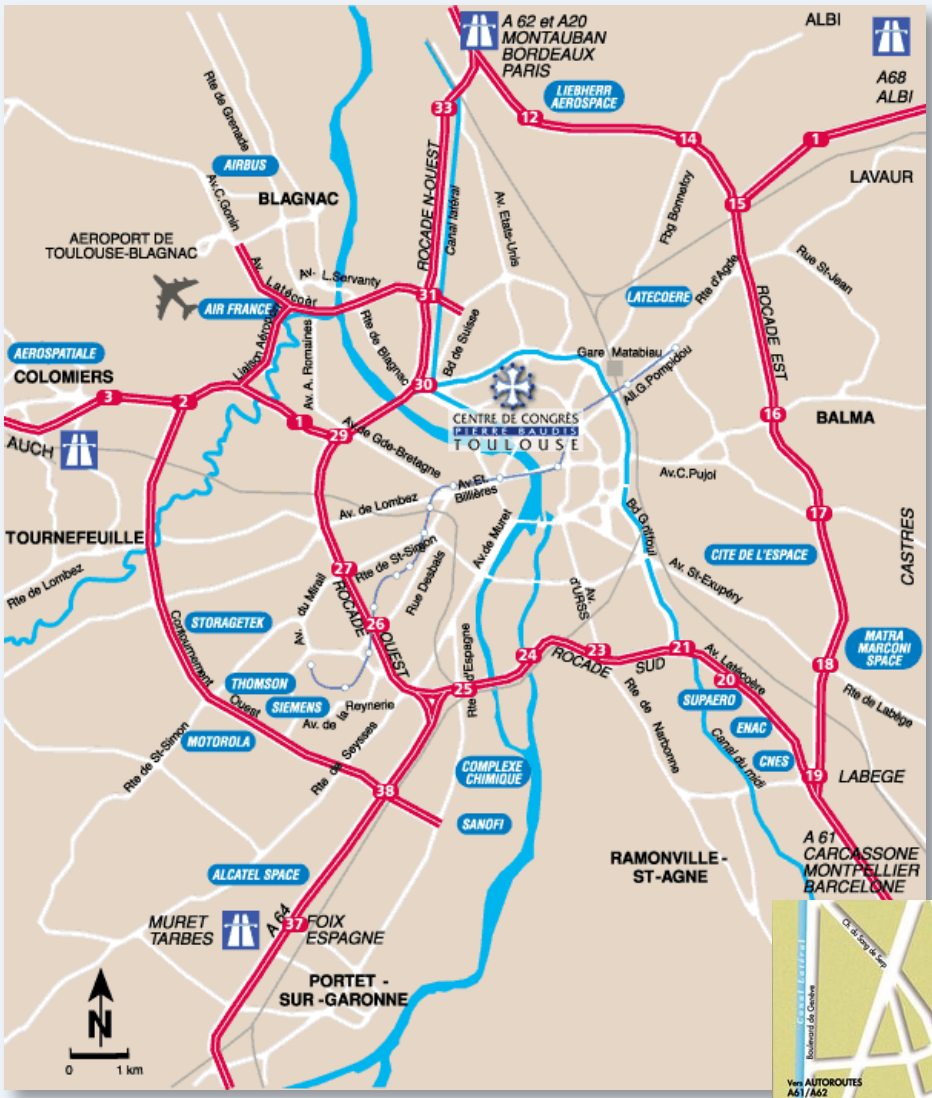
For further information on Toulouse and Midi Pyrenees Region: www.ot-toulouse.com

ACCESS

By plane: There are direct connections by air between the major European cities and Toulouse. Alternatively Air France offers connection in Paris through its hub in Charles de Gaulle airport, or a shuttle service from Orly airport. From Toulouse-Blagnac airport to the city centre, there is a shuttle bus operating every 20 minutes. The shuttle service stops just in front of the Centre de Congrès Pierre Baudis at the stop known as: Compans Caffarelli, or a taxi ride will take about 10 minutes.

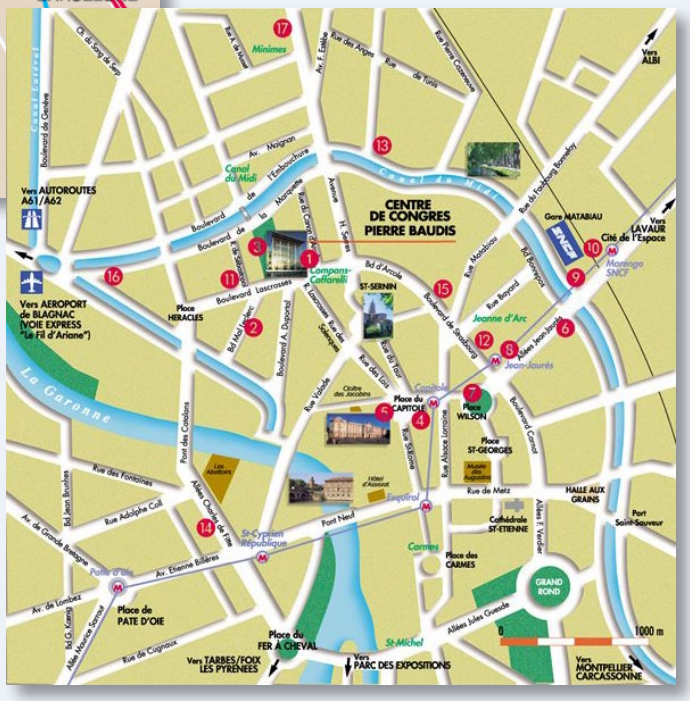
By train: You can try-out the high speed train (TGV) from Paris Montparnasse station, but the journey will take more than 5 hours since the special tracks are available only for part of the trip.

Metro Station: Compans Caffarelli (Ligne B).



Special transport agreement for ERTS² attendees:

A special agreement with AIR FRANCE has been settled by the ERTS² 2010 organizers.



Air France:

Discounts are applied to a wide range of airfares, in all classes of travel (Espace Première [First], Espace Affaires [Business] and Tempo [Coach] on all Air France flights.

To access the preferential fares granted for this event, use this link:
http://w9.traveldoo.com/mice/connect.jsf?eid=09139AF

This present document of the event serves to justify the application of the preferential airfare. Keep it with you as you may be asked for it at any point of your journey.

To locate your nearest Air France sales point, consult:
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5th International Congress

ERTS² 2010

Embedded Real-Time Software and Systems

19–21 May 2010, Toulouse – FRANCE

Please complete and return this form to:

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75783 PARIS CEDEX 16 – France
Tel : +33 (0)1 56 90 37 02 – Fax : +33 (0)1 56 90 37 08
E-mail: erts08@see.asso.fr

On-line Registration is strongly recommended via the Conference Website:

www.erts2010.org

REGISTRATION FORM

Last name: ..... **First name (s):** .....

Title (Prof, Dr, etc.): ..... **Job position:** .....

Company: ..... **Address:** .....

Zip code: ..... **City:** .....

Country: ..... **Email:** .....

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1

	Rates* from April 7th (VAT incl.)
Speaker, Session Chairs & Non-Profit- Making Organizations	☐ **610€**
*Members**	☐ **800€**
Non members	☐ **870€**
Student / retired	☐ **260€**

*Members: Individuals Members of SIA, 3AF, SEE & IEEE

The registration fees include *access to the sessions & exhibition, final programme & book of abstract, proceedings, coffee breaks & lunches on 19-20-21 May and Gala Dinner for 1 person.*

Places for Gala dinner will be attributed on a first-come, first-served basis;
Attendance must be confirmed at the time of the registration.

☐ ***I will attend the gala dinner*** ☐ ***I will not attend the gala dinner***

2

FEE TO ATTEND NEPTUNE If you wish to attend the conference Neptune (May 18th to 19th) during your visit at ERTS 2010, please select the corresponding additional fee below	Rates
Industrial	☐ **450€**
Academics	☐ **250€**

3

EXTRA GALA DINNER FOR ACCOMPANYING PERSON
will be considered from May 1st 2010 according to the availability
Request to send to Valérie at erts2010@see.asso.fr

☐ **80€**

REGISTRATION POLICY

Registration by purchase order:

Registration by purchase order is possible. In order to do it please return the registration form together with the purchase order to SEE: 17, rue Hamelin, 75783 Paris - cedex 16 or by fax at: + 33 (0) 1 56 90 37 08.

Cancellation:

Registrations cancelled by letter or fax will be accepted without penalty if received by May, 1st 2010.

After this date, all registrations will be considered final and the corresponding fees owing in full.

PAYMENT

TOTAL AMOUNT TO BE PAID: _____

☐ **Check in Euros made payable to SEE / ERTS² 2010**

☐ **By bank transfer in Euros made payable to "SEE / ERTS 2008" with no charge for the beneficiary**

Bank Address: BNP Montparnasse Ent. (00274), Bank # 00274, Bank code # 30004, Account # 00010336242, RIB code 58, IBAN code : FR76 3000 4002 7400 01033624258, BIC : BNPAFRPPPXV

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Enjoy your visit in Toulouse !

At the heart of the Midi region, Toulouse has always occupied an important place in the South-West of France. This 2000-year-old history shows itself in an architecture of brick and tiles that is typical of the cities, villages and farms of the Midi-Pyrenees region. Reflections of the golden light on the brick of Toulouse have earned it the name of the 'Ville Rose.' This very special colouring confers an atmosphere on the city that is at once gentle and warm.

Toulouse, France's fourth biggest city, is bubbling over with life.There's nothing like a stroll around the historic centre, walking alongside the Garonne and the Canal du Midi, or stopping in one of the many cafés whose terraces spill out onto the streets. All over the city, the ambience is friendly, tinged with the well-meaning familiarity that is particular to the people of Southern France.

Toulouse is also a major shopping destination. All the major internationally-renowned brands in fashion, design, leather goods and jewellery are represented in Toulouse. The city neighbourhoods also live by the rhythm of the open-air and covered markets. Here you'll find local products from the Midi-Pyrenees, which is one of the South-West's most important gastronomic regions – producing wine, foie gras, cheeses, charcuterie, and of course cassoulet – the Toulousain dish par excellence.

The Essential Midi-Pyrénées *discovery trail*

There are some unmissable towns: Toulouse, the «pink city»; Albi, birthplace of Toulouse-Lautrec; Lourdes, the pilgrim town; Moissac...
There are some unforgettable natural sites: Pic du Midi; Gavarnie; the Lot Valley; the Tarn Gorges...
There are still sites and villages that defy time and history: Rocamadour; Cordes sur Ciel; Marciac; Montségur...
There are those towns of art and history, such as Figeac and Montauban, full of treasures...
All of these places will leave their indelible mark in your imagination...

www.tourisme-midi-pyrenees.com/

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