

# newsletter

## The Future of adria: Towards a European Platform

After more than 18 months of different activities on Advanced Displays in Europe, adria has reached the end of the project phase. As initially planned, this does not mean the activities will be over! Almost all partners committed to go on with their efforts to create a permanent European Platform. In this edition, we report on the results of the project and outline the future activities of adria. Stay with us!

The adria network is now comprising over 1,970 registered users from 46 countries in the adria forum. The adria project thus also had an impact beyond the European borders. The results of the project for the time being have been reviewed in more than 600 pages of reports that are available to the advanced displays' community.



Efforts to set up a common **advanced European displays curriculum** are still ongoing, a fruitful cooperation between the Swedish LCD Centre, the University of Dundee and the German

FPD Forum (DFF) has been established.

377 profiles of research activities or products and services have been published in the **competence mapping** database to date. The number is still increasing and the database can truly be seen as a living document that will be improved continuously (see page 3).

300 individuals have joined our six roadmapping events and contributed to the final document. Now, there are eight **application roadmaps** with similar chapter structure, a section on technologies and a summary of the grand challenges lying ahead of us, forming a very valuable, comprehensive document. As roadmaps are no static documents, adria will continue its efforts and already start with an updating meeting before the end of the year (see page 4).

With the 7th Framework Programme of the European Commission coming into force, adria considerably helped the community to get organised for more efficient R&D and future business opportunities, by compiling the adria vision paper, by fostering and structuring discussion and by accompanying the consultation process until the start of FP7 and by advertising FP7 and the adria tools for partner search also beyond project end.

We will build on the results of the project to create a self-sustained platform as follow-up organisation answering market needs.

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**advanced displays  
research integration action.**

**adria's mission**  
is to strengthen the advanced display industries in Europe by creating a European platform for advanced displays research and technology



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## Education and Training on Advanced Displays in Europe

The displays industry in Europe is at a cross-roads. Although research and development is relatively healthy and active in some EU countries the manufacturing infrastructure is weak. Future growth and development will only come about by a fully-integrated approach exemplified by the adria initiative.

adria has generated a raft of interesting ideas on how to take forward the idea of an advanced European Displays Masters degree and induced both a spirit of co-operation and a fruitful exchange of concepts, philosophies and practical information which has been welcomed by all the partners and their associates. Links between universities, governmental bodies, membership organisations and the larger individual companies need to be strengthened so that the training required can be provided in the most efficient manner.



There is a plethora of workshops, seminars and training programmes available to those working in the industry, but these are often under-subscribed because different

organisations operate broadly similar programmes and supply of courses sometimes outstrips the demand for them.

The findings of the adria project in respect to education and training have fed to a **Report on Education and training on Advanced Displays in Europe**, which represents a snapshot of the state of education and training in display technology within the EU. In addition it presents a model core curriculum together with some recommendations on how it could best be implemented with special regard to the imperative to drive towards a fully integrated European displays Masters degree. The **training element** of this report is looking at the adria display training seminars organised in Pforzheim and Bordeaux, but also gives illustrative examples of other programmes. A summary and table of contents of the report are available at the adria website, the **full document** can be downloaded for free after registration within the adria Forum.

### The future

We hope that the report can act as a template on which to build the dream of a **common advanced European Displays curriculum**, one which satisfies both academic rigour and industrial needs, and which can act as a catalyst to crystallise a more integrated, efficient and demand-driven approach to education and training across the EU. A first result of this fruitful collaboration between the adria partners is the establishment of a new module of the UK DisplayMasters on Industrial Applications at the University Pforzheim.

Conference Announcement:



**14-15 November 2007**  
**Prague**

**"Europe's Place in the Display World"**

**[www.displayforum.com](http://www.displayforum.com)**




## An approach to e-learning: the adria training DVDs

**During the last two years, two three-day seminars were held by the adria project in Pforzheim and Bordeaux. Each of the trainings featured nine lectures on advanced displays. In the course of the Bordeaux workshop, the presentations have been recorded. A selection of six of them are now edited and will be available on DVD.**

The training courses are targeting to everybody involved in displays technology who is interested in the backgrounds, but having already a basic knowledge: equipment and materials supplier, display end-users, display manufacturers.

The first DVD is already available. If you are interested in a free copy, please contact us: [secretariat@adria-network.org](mailto:secretariat@adria-network.org)!

### adria training seminar DVDs

- DVD 1: K. Blankenbach, Seeing displays, merits and shortcomings
- DVD 2: A. Van Calster, Microdisplays
- DVD 3: S. Weitbruch, PDPs versus CRTs
- DVD 4: Vu Thien Binh, Future FED panels based on CNT electron sources
- DVD 5: D. Pribat, Active Matrix technologies
- DVD 6: J. Magarino, Direct View LCDs

A **subscription** to the **adria training DVDs** is available for 399 € \*(complete series).

A **single DVD** is on sale for 199 €\*. Please consult adria website or contact the adria secretariat.

## European Competence Mapping

**“Solving the puzzle of European competence in the field of advanced displays” – that is the short way of describing what the adria network has tried to accomplish with its competence mapping activities.**

Numerous publications on European competence in a lot of especially technology-oriented fields conclude that Europeans are champions. However, usually one comes also to the conclusion that collaborations and collaboration structures – may it be between academia and industry, between large companies and small or medium sized enterprises or between regions – are also very diverse and could be well improved.



Our field of activity is no exception: Europe is a global driver in advanced displays research and innovation and is one of the largest markets for information and communication technologies, where advanced displays play a decisive role for the “look and feel” of products. However, research and industrial capabilities, collaboration structures between academia and industry, as well as networking activities in Europe are today scattered.

There is a strong need for knowledge exchange, technology transfer from research to industry and collaboration among all European players in the field of advanced displays. For companies or research organisations encountering a specific technical problem, it is often

hard to find the best solution available. Even worse, they might not at all be aware that a solution for a technical problem already exists, probably in form of a result of a completed publicly funded research project, or that a private company offers a commercial solution. They might then decide to “reinvent the wheel”.

### The adria database

And that’s where adria’s competence mapping approach comes in: information on European advanced display research activities, expertise and industrial capabilities is reviewed and integrated it into a multi-dimensional competence matrix. The data has been solicited from European players in the field during the run of the project. The result is made available in a searchable form, the competence mapping database. By the end of 2006, 373 competence profiles have been entered, reviewed and approved and they are ready for the utilization by the Community. This “living” data source also serves for other objectives, e.g. for vision creation and communication with the advanced display communities outside Europe.

### The report

In order to document the progress and to summarise the content of the competence mapping database, a report has been issued. A market analysis links the capabilities reported to the needs of customers. Although the competence mapping is a dynamic process, and it is maybe hard to map all activities at once, we believe that this report – compiled from profiles entered in the timeframe of 18 months – gives a very good overview on the current state of research and industrial capabilities in the field. This will foster the collaboration between players and will make Europe stronger in the field. In the end, the exploitation of research and development results secures sustainable growth and wealth for us – that’s what we aim for.

Access to the **Competence Mapping Database** is available to everybody at a price of 100 €\* per year per company / organisation, life-long access is granted at a price of 500 €. A copy of the **Competence Mapping Report** including a market analysis can be ordered combined with a one year access to the database for 200 €\*. If you are interested in purchasing a copy, please contact: [secretariat@adria-network.org](mailto:secretariat@adria-network.org)!

\* all prices excluding VAT

## European Standardisation Awareness

**The adria project was working on creating awareness for display standards, to promote them and to disseminate them. We can finally conclude that the FPD standardization is on its way. There are still some gaps to fill.**

More than a hundred organizations are working in the field of standards even though there are lacks in the worldwide standardization activities. Although 30% of all produced FPD products are consumed in Europe, Europe is not involved in these standard activities. Europe is the leader in FPD research activities and delivers most of the material needed to produce FPD. Deeper insights into the **adria report on standardisation awareness** can be found at the [adria website](http://adria website). The full document can be downloaded from the adria forum.

Training Workshop Announcement



### FPD Basics and Applications

The DFF training for beginners and decision-makers in the FPD industry.

**27./28.09.2007**, Pforzheim, Germany

The workshop will cope different display technologies (LCD, OLED, PDP...), new developments like e-paper, flexible and 3-D-displays as well as display driving, applications and module assembly. The course will conclude with an outlook on future technologies.

[www.displayforum.de/training.html](http://www.displayforum.de/training.html)

## The adria Advanced Displays Roadmap

A document of almost 240 pages – that is the result of the six meetings and huge amount of work performed during the last two years within the roadmapping activities of the adria project. Contributors of the roadmapping meetings had already the change to take a closer look at the report, now it will also be available to outsiders.

“Excellent piece of work!” was the first reaction of one of the participants. Insights into the roadmap have already been given in the last adria newsletter. An executive summary and the table of contents are now provided on the adria website.

### The roadmap

The purpose of the document is to review the progress made in the global

display industry from a European perspective (taking the emerging field of organic electronics into account), and to identify opportunities for further growth over the next fifteen years. Future scenarios for advanced display research and innovation are developed, technology gaps are identified and requirements for sustainable future growth are determined. Finally, market opportunities are identified. Starting with a look at the display industry and future market trends, the roadmap names the grand challenges – technology areas that would need a major breakthrough to meet the product specifications of the future.

For each of the eight application areas (automotive, avionics, mobile communications, industrial, medical, public & advertising and consumer & household

The **advanced displays roadmap** is available to everybody at a price of 2999 €+VAT.

If you are interested in purchasing a copy, please contact:

[secretariat@adria-network.org](mailto:secretariat@adria-network.org)!

displays), products and trends are assessed, vision scenarios for 2015 & 2020 are projected and finally technical specifications are gathered.

### The future

With the first issue of the **Advanced Displays Roadmap**, the adria roadmapping activities won't be over. A second iteration of the process will already start this year. On October 18, 2007, the DFF will host an **adria roadmapping meeting** to update the current status of the document.

## Events Calendar

September 24-26, 2007	<b>Organic Electronics Conference and Exhibition 2007</b> Frankfurt / Main, Germany
September 27-28, 2007	<b>DFF Workshop on FPD Basics</b> Pforzheim, Germany
October 18, 2007	<b>Adria and DFF Roadmapping Meeting</b> Dresden, Germany
November 14-15, 2007	<b>DisplayForum 2007</b> Prague, Czech Republic
February 27-28, 2008	<b>Electronic Displays Conference</b> Nuremberg, Germany
March 13-14, 2008	<b>SID-ME Chapter Spring Meeting 2008</b> Jena, Germany

For updated information see [www.adria-network.org](http://www.adria-network.org)

A consortium of six partners – industry and academia networks themselves – provide the adria platform services:

