

# C L R C

RUTHERFORD APPLETON LABORATORY  
INFORMATION TECHNOLOGY DEPARTMENT

W3C-LA Final Report

F.R.A. Hopgood

3 August, 1999

---

Attached is the Final Review Report of W3C-LA.

As you can see the Reviewers and European Commission are well pleased with the results of the Esprit Leveraging Action, W3C-LA. In many areas, this is due to the work of RAL staff. I believe INRIA and the other partners would agree that without the major contribution from RAL, this result would not have been achieved.

It is seldom that you get phrases like *excellent results* and *already contribute to strengthen European competitiveness* in a Final Report.

The main staff involved were:

**Stuart Robinson** who managed the Project efficiently with little fuss

**Tony Conway** who was the major contributor to the Dissemination Work Package

**Damian Mac Randal and Stephen Cook** who was responsible for the workflow demonstrator which the Reviewers liked very much.

**David Duce and Roy Platon** who did most of the work in convincing the world that vector graphics on the Web should not consist of bit-map images. And by the world, I mean Microsoft, Netscape, Adobe, Sun, HP, IBM, Xerox and others.

**Michael Wilson** who handled the SMIL multimedia workpackage in conjunction with CWI.

**Brian Matthews** who bailed out INRIA when they needed an implementation of XML in the Amaya browser and also was responsible for the Hyper glossaries demonstrator.

**Brian Ritchie** who helped set up the hardware initially, supported the HTTP activities, and filled in at various times when others were unavailable.

**Neil Calton** who set up the UK W3C Mirror site and the local W3C web site.

**Martin Prime** who travelled around Europe setting up stands and demonstrators for mainly the multimedia demonstrator, which early on was the main crowd puller.

**Toria Marshall, Kevin O'Neill, Ali Akkas and John Kalmus** who provided valuable support for many of the activities.

**Lilian Valentine** who provided most of the secretariat functions for the Project.

**Susan Hilton and her Group** for helping with the organisation of the First Major event at RSA in December 1997.



**EUROPEAN COMMISSION**

Directorate-General XIII

Information Society: Telecommunications, Markets, Technologies - Innovation and Exploitation of Research

Information Society Activities Centre (ISAC)

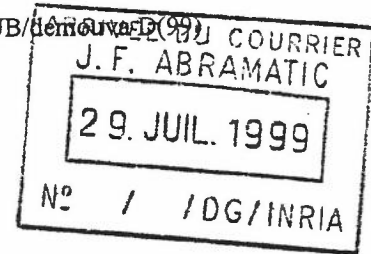
Regional aspects and international dissemination of the Information Society

19.07.99 / XIII /

0438

Brussels,

DGXIII-SI2/UB/demouras(99)



**Subject: ESPRIT Project 26229, W3C-LA  
Leveraging the Web for European Industry  
Final Review**

Dear Mr. Abramatic,

Please find attached the reports of the reviewers of your project W3C-LA. Both reports are very positive and confirm the preliminary, but also positive, opinion given at the end of the review meeting.

You and your partner have delivered excellent results and already contributed to strengthen European competitiveness. I would wish that you and the European officers continue this good work, stimulated by European Commission funding to W3C-LA.

I enjoyed our collaboration in this project and wish you every success for the future.

Best regards

Ulrich Boes

Enclosure:

c.c.: Mr. A. FASTRE, Atys  
Mr. D. WILLIAMS, EITS

Mr. Jean-François ABRAMATIC  
Domaine de Voluceau Rocque  
F-78153 Le Chesnay Cedex

Rue de la Loi 200, B-1049 Bruxelles/Wetstraat 200, B-1049 Brussel - Belgium - Office: B29 06/68.  
Telephone: direct line (+32-2)296.81.45, switchboard 299.11.11. Fax: 296.83.98.  
Telex: COMEU B 21877. Telegraphic address: COMEUR Brussels.

X.400: G=Ulrich; S=BOES; O=13; P=CEC; A=RTT; C=BE Internet: Ulrich.Boes@dg13.cec.be

---

## **W3C-LA. Project 26229. Project Final Review Report. Meeting at INRIA Sophia-Antipolis May 27<sup>th</sup>, 1999.**

### **1. Executive Summary.**

- The general impression after this final project review is excellent. The consortium has demonstrated that it has achieved virtually all the objectives described in the work programme and that in some cases, it went beyond the previously set expectations.
- As with the previous case, the review itself was well prepared, organised and run, allowing for a very efficient presentation of the achieved tasks. The demos were well prepared, well presented by every member of the team, giving strong impression of the quality and quantity of effort dedicated to the project.
- Most of the workpackages are producing the expected results. The workpackage dealing with mirroring has taken into account the remarks made at the first review.
- The major goal of the project i.e. expand the membership of European companies into the WWW Consortium, has been reached. Despite a reduction of the French membership, there has been a substantial increase in European members. This is a consequence of the good work done at "country offices" level, the multiple seminars and the workshops allowing members to influence the evolution of the web technologies.
- Based on the project progress reports, the budget appears to have been well managed, with accurate usage of the available resources.
- The initial presentation indicated clearly the major goals of the W3C and its W3C-LA action:
  - Prevent market fragmentation
  - Develop powerful architecture
  - Guarantee accessibility
  - Develop best practice

In this case, it is clear that the project consortium has achieved these goals.

### **2. Technical Aspects.**

As far as the demonstrators, or proofs of concept, could show, the technical achievements of the project are in-line with the Technical Annex.

- Mirroring. The consortium has continued to work on this workpackage, and has demonstrated that the reliability in the access of the web can be improved through mirroring and satellite connection. The price of the connection, free today for the consortium, can be a serious hurdle to this kind of implementation.
- CSS. Very good. The workpackage has produced very good results, and this technology is now in deployment phase, which constitutes a real success, with currently 560

validations/day and a ramp-up through the web since earlier this year. The goal of separating data from style has been reached. The demonstrator was excellent and should be used further in dissemination events.

- RDF Machine understandable metadata. Good. Progresses have been made since the last review, but this seems to be one of the areas for further dialog between members and technology developers, in order to ensure a development in the right direction.
- Workflow. This topic made an excellent impression through the demonstrator. The demo was very good. The recommendation is to put the workflow server on the web, in order to encourage people to access it, use and deploy the technology.
- Webcollections and Europeanisation. Important topic. Made progress since last review, but work is still required. The hyperglossaries has made progress as well, and has given birth to a start-up company in the pharmaceutical field. This work could lead to a W3C terminology glossary for non-technical user
- Scalable Vector Graphics. Very impressive demonstrators, with very good usability aspects. The benefits of this technology were really well presented, for a series of industry sectors and applications. The potential of this technology is enormous, and should definitely be pushed ahead. The current interested customer base is impressive as well.
- Amaya. The progress made in this field has taken the software into a very good level of maturity. The functionality of this browser is really good, which should lead to hopefully a wide adoption of it by web users, and browser developers.

### 3. Marketing and dissemination.

- Overall, the consortium has done a very good job in disseminating the works of the project, going from a rather UK oriented set of activities, the actions have developed towards a strong European coverage. This is certainly true for the conferences and seminars.
- The development of decentralised offices has helped a lot in this process. The number of offices has increased a lot and produced good results in growing the membership of European companies. This has been especially effective for the small and medium-sized corporations. The funding of the offices seems to be working properly.
- Dissemination material has been further developed, adapted to the evolution of the works.
- Roadshow has been organised in several locations in Europe (Sweden, Italy).
- The presentation of Oratrix, spin-off from the project, showed another benefit of the project and its benefits outside of the technical aspects.

### 4. Strengths.

- Very good team, integrated, with responsibilities clearly defined and accepted
- Critical mass to carry on the work existed and proved efficient
- The members are active, through the series of workshops
- The technologies have been developed, adapted to the market changes
- Start-up companies have been created as a result of the work done within the project.
- The European membership has increased globally, in number and quality.

### 5. Weaknesses.

The project has not shown major weaknesses. If a question could be raised it would be what is the impact of the increased membership on the business usage of the WWW by European companies.

## 6. Future plans

- The future will be looking at evolving the technology, not so much at recruiting new members, as the critical mass has been reached and the involvement of the current members is quite satisfactory.
- Liaison with other related organisations will be further developed
- Integration of new devices, to take advantage of the new ways to access the web. This includes: profile negotiation, mobile phones, transfer, display, etc,...
- Semantic Web i.e. television and the web, mobility and the web

## 7. Conclusions & Recommendations

- The project has fulfilled its objectives
- The demonstrators are impressive and should influence the take-up of WWW technologies by European enterprises
- The events, seminars, conferences were further developed and covered a good number of locations in Europe
- The membership of European companies has increased.

It is recommended that the consortium does not stop the good work here, but continues to develop technologies and activities in line with what has been done so far.

- Congratulations for a job well done!

European IT Solutions Ltd  
Exchange Building  
16 St. Cuthbert's St.,  
Bedford MK40 3JG  
Tel: (01234) 345049



European  
IT Solutions

## W3C-LA Reviewers Notes

Issue	Date	Status	Authorised
1.0	16 <sup>th</sup> June 1999	Draft	David Williams

## W3C-LA Review - Reviewers Notes

**Project:** W3C-LA  
**Review Date:** 27<sup>th</sup> May 1999  
**Review Venue:** INRIA, Sophia Antipolis  
**Reviewer:** David Williams

### Method

This report was compiled from notes I took during the review presentations and from examination of the circulated material. The findings, for the most part, were also given verbally at the review meeting.

In this report I have followed the Esprit Reviewers Checklist insofar as it was relevant, and I have added items where they may be of some value.

### *1 - Overall Impression*

As I commented last year, this project is unlike any I have previously encountered since it not only has a large US component, but it also has global recognition and relevance. It is difficult, and perhaps even unfair, to review the project in terms of a set of events and deliverables. I prefer to take ask the question "Has W3C-LA advanced the Community use of the Internet in general, and the World Wide Web in particular?"

During the year since the previous review the worldwide use of the Internet has continued to grow at a phenomenal rate. Sadly, European business has not matched worldwide growth, and is lagging behind in the uptake of Internet-enabled technologies such as electronic trading ("e-commerce"). Recently senior members of the Commission have commented publicly on this position in an attempt to improve it.

The year has also seen further episodes of power play from the global IT vendors. I commented last year that an independent research body such as W3C, whose thrust is standardisation and harmony, is not always the strongest voice in the marketplace.

However, if we focus on W3C-LA specifically, then I conclude that it has done a commendable job as a WWW missionary within Europe. Inevitably this

conclusion has to be, at least partially, an extrapolation. The activities of W3C-LA have started to familiarise a large number of enterprises with the true potential of the WWW – especially with features and facilities of the WWW that are not commonplace today. The feedback from this work is not really with us yet. As ever, there is a considerable phase lag between an enterprise deciding on the uptake of a particular technology and the results of that adoption having a positive impact on the ensuing business.

If I view the project at a much less philosophical level and apply the same three criteria that I used last year,

1. Does (did) the project have the necessary expertise to make a real contribution through research and information dissemination
2. Did organisation to deliver that contribution effectively
3. Were the set of project objectives able to satisfy a real industry need in the immediate future

Using these evaluators W3C-LA has been a success. The group was able, during the review, to clearly demonstrate that they undertook the work packages that they had proposed, each package was brought to a satisfactory conclusion, and as far as we can tell, each was successful.

## ***2 - Objectives, Innovation and Results***

At this review, the W3C group presented results from a selection of work packages. I note that great care was taken to make these presentations clear concise and interesting. The speakers were able to communicate a real feeling of both involvement and excitement. They are dealing with leading edge technology and they are handling it very competently.

In response to last year's review, the presentations were tailored to major on items that were either weak or missing last year, and more time was available for viewing the demonstrations.

The review itself was the best organised EU project review I have ever attended, bettering even last year's excellent presentation. ||

### ***2.1 Project Overview (WP1) Jean François Abramatic***

Jean Francois Abramatic, the Chairman of W3C, briefly introduced the review. The main point to note is that the work of W3C continues into the future, with or without any extension to W3C-LA. The WWW is evolving continuously and a number of new technologies are being investigated.



## 2.2 Offices and Events (WP2) *Josef Dietl*

This work is at the heart of the W3C-LA project. Linguistic and telecommunication issues mandate that some local presence in a region is necessary to reach satisfactorily into the business community.

The programme of Awareness Presentations, Demonstrator Workshops, and Symposia seems to have been well attended. Some (like Stockholm) achieved a spectacular response. The available collateral and demonstrations are good.

The signing up of new members and the setting up of regional offices also seems to be succeeding. However, the events in France (falling membership) serves to illustrate the fragility of the W3C infrastructure. The number of members needs to be large enough, and recruitment needs to continue to be active enough, to overcome the many mergers and acquisitions that occur within high technology industries.

## 2.3 Mirroring (WP2) *Stéphane Boyera*

This project is part of the Dissemination Work package (WP2). This project mirrored the W3C Intranet site into the regional offices, keeping all documentation completely current at all sites. It uses satellite technology to overcome poor country-to-country Internet connections.

Last year, the reviewers were dubious about the real necessity for such tight inter-site synchronisation. However, the project continued nonetheless.

I respect the interesting technical nature of this work, but I still have doubts as to the immediate benefit to the European WWW user population.

## 2.4 Project Impact Analysis (WP2) *Bob Hopgood*

Prof Hopgood presented to project's view of its own impact.

The global impact of the WWW, with or without W3C-LA, is enormous – but the USA is far and away the leading adopter. Europe has 30% of world trade but only 10% of world e-commerce.

W3C-LA has demonstrably increased W3C membership in Europe, despite the glitch in the French situation. They say, and I agree with them, that it is difficult to translate this into an impact assessment on European enterprise. It is too early and statistics are still too small.

Any proposal for an extension project should really address this question. A valid marketing activity should always attempt to gauge impact as well as attempt to create one.

### 2.5 Workflow (WP5) Damian MacRandal

This demonstrator showed WWW-enabled workflow. It combined all the characteristics of a commercial workflow package with the technology of a set of W3C protocols, and produced a stunning demonstration of what might be achieved with the latest WWW technology.

This is a true "any person – any role – any place" work system. This is almost a Holy Grail for workflow vendors. Most attempts to do this are effectively closed<sup>1</sup> systems, whereas this one is potentially open<sup>2</sup>.

The demonstration was well implemented, effective, and makes a very valuable point. I would encourage the authors to continue to polish and improve it.

### 2.6 CSS Validator (WP4) Phillipe le Hegaret

This was demonstration of a web-based tool to validate the format and use of cascading style sheets. European use of W3C's online validation service is running at 10-15%, which is encouraging. One would hope to see this rise now internationalisation is supported (since one month). The demonstration was very impressive, and is another useful way of illustrating the power of the WWW.

### 2.7 RDF Collections, Europeanisation (WP6) Web Collections (WP7) Bert Bos

This area, I believe, is also one of the core activities of a Euro-centric WWW project. Europe is a multilingual area where no one language dominates. It is therefore a prime objective that WWW activity targeted into this region should not assume a lowest common denominator (*viz* common-use American English).

W3C's RDF technology is being used as a basis for this work. Although the work is not particularly far advanced it appears to be promising and well worth pursuing.

### 2.7 Hyper-glossaries (WP6) Brian Matthews

---

<sup>1</sup> In that access and operation are essentially proprietary.

<sup>2</sup> In that access and operation could potentially be standardised and operate across enterprise (and regional) boundaries.

This work is in a very similar position to that of the previous section. The concept of the hyper-glossary is established. A very useful demonstration has been produced. Again, RDF can be used to achieve a multilingual result.

### 2.8 SVG & WebCGM (WP8) *Chris Lilley*

This work has involved the implementation and demonstration of a vector graphic capability for the WWW. This project is now heading down the standards route in order to ensure the exploitation and the propagation of the technology. Clearly commercial standard tools and browsers will be required to open up the use of this technology.

The demonstration produced was, in my view, one of the highlights of the review.

The ability to ship such graphic material over the WWW opens up an immense range of applications. The demonstration should appeal to many enterprises and SME's, especially those concerned with engineering and technology markets.

### 2.9 W3C Open Source (WP3) *Irène Vatton*

The tools and techniques of W3C are openly available. This is to be encouraged as one means of attracting commercial IT companies to innovate in this field.

## **3 - Progress and Work Performance**

I would like to make the same point as I made last year, that it was difficult to view W3C-LA as a 'normal' project in the sense that it has planned milestones and deliverables.

In terms of my original question in Section 1, this project has succeeded. It has disseminated, sometimes in a highly attractive way, the power of the WWW.

Neither the project, nor I, can really prove that assertion. Time is short yet, and all those enterprises that have had contact with W3C-LA during its existence are probably still incubating their plans to make use of the WWW.

The single fault with the project, in my view, was not to apply more concern to this issue. It is a dissemination project, as well as having a high research and development content – and more attempts to gather feedback should have been made.

In terms of project management and effort, this is in the forefront of EU funded projects. The work packages were well adhered to, each yielding a

result. Some of the results were excellent. The project staffing was world class, and significant benefit should have accrued to the European members of W3C from working closely with their US counterparts.

#### ***4 - Project Management***

I have commented on these topics in the main body of the text above.

#### ***5 - Exploitation and Information Dissemination (WP2)***

I have commented on these topics in the main body of the text above.

#### ***6 - Risk Handling***

This was not discussed at the review, and is only peripherally relevant for this project.

#### ***7 - Project Deliverables***

I have reviewed the final report. This is an adequate description of a successful project, although an odd mixture of sparse and verbose and is perhaps not as polished as the rest of the project, but not a major issue.

I had no access to the budget or business model of W3C-LA, so I have not reviewed this aspect of the project.

I have not been able to check each single deliverable listed in the report, but those I have reviewed were all well prepared. Some of the demonstrations were excellent.

#### ***8 - Preparation and conduct of the review***

The review was extremely well organised. The presentations were well prepared, concise and informative and communicated the sense of enthusiasm that the project workers share.

#### ***9 - The Consortium and the Partners***

I have no relevant comments on this.

#### ***10 - Responsiveness to reviews recommendations***

My particular recommendations last year were,

1. Improve the numeracy of the project management
2. Consider what could be achieved under WP6 (Europeanisation)
3. Evolve the demonstrations towards being more appealing to non-technical SME managers
4. Re-justify the mirroring project
5. Evaluate and, if necessary, modify the funding model for the regional offices
6. Include SME's in the marketing efforts

I'm not sure the first was addressed, but the fact that the project succeeded in the majority of its deliverables is probably its own justification.

Items 2, 3, 4 and 6 were all addressed.

Item 5 is probably my only real concern. Is the office infrastructure self-sustaining? Should it be? What is its planned lifetime?

### **11 - Conclusions**

A successful and worthwhile project, but not necessarily one whose work is yet complete.

In the end, Europe is still lagging the US by two or more years in commercial the uptake of WWW technology. Whilst that makes no intrinsic difference within a closed region, in a real global market it represents a huge loss of competitive edge. A poor position can start to deteriorate even faster if left alone.

It is interesting to make a similar (but dangerous!) comparison with, say for example, work on Year 2000 (Y2K) issues. Here, if I apply enough wishful thinking, the transatlantic time lag might possibly even be reversed. The UK has been bombarded with Y2K awareness campaigning, and many IT workers have been drafted into Y2K projects. The more *laissez faire* attitude of the US authorities may be unwise, and leave them less prepared. Maybe awareness campaigns actually work.....