

ATLANTIC

A Thematic Long-term Approach to Networking for the
Telematics and ITS Community

A Partnership of ITS Communities in Europe and
North America

CANADIAN PARTICIPATION

A Partnership of ITS Stakeholders in Canada

PROJECT REPORT #1

Phase 2

Prepared by

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January 13, 2003

ACKNOWLEDGEMENTS

The authors of this progress report wish to thank the many participants in the Canadian ATLANTIC Project. The names of these participants appear in Appendix B of this report.

ATLANTIC (A Thematic Long-term Approach to Networking for the Telematics and ITS Community) originated as a project sponsored by the European Union under the 5th Research Framework with self-sustaining partners in the United States and Canada. The authors wish to acknowledge the cooperation extended by the other ATLANTIC partners to the activities in Canada.

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(as of March 2002)

INTRODUCTION

This is Project Report #1 – Phase 2 of the Canadian ATLANTIC Project. The ATLANTIC Thematic Network has been active internationally since July 2001 with participating partners in Europe, the United States and Canada. The Canadian participation over the period July 2001 to December 2002 (i.e. Phase 2, see Appendix A for quick summary of milestones) focussed on:

- Building the thematic network in Canada,
- Participating in selected international work groups and conferences, and
- Establishing the funding basis for Phase 3.

The Canadian ATLANTIC Project – Phase 2 has resulted in:

- A network of interested academic, public sector and industry participants in Canada (see Appendix B),
- Contributions to the ATLANTIC international research activities (see this report), and
- Approval-in-principle by three major sponsors to fund Phase 3 (see revised Proposal dated December 2002 attached).

The project proponents are Professor Baher Abdulhai of University of Toronto, Professor Teodor Crainic of Université de Montréal and Dr. William Johnson, consultant, Ottawa.

The Canadian ATLANTIC Project Phase 3 will begin in January 2003 with funding contributions from three major sponsors.

STATUS OF PHASE 3 SPONSORSHIP

The proponents have received written commitments-in-principle from three major sponsors to contribute funding to the Canadian ATLANTIC Project – Phase 3.

These are:

- Ministry of Transportation Ontario (letter June 27, 2002 to B. Abdulhai)
- Ministère des Transports du Québec (e-mail Oct 30, 2002 to W. Johnson)
- Transport Canada (letter December 30, 2002 to B. Abdulhai)

The commitments are for \$60,000 from MTO in 2002-03, \$60,000 from MTQ divided between 2002-03 and 2003-04 and \$120,000 from Transport Canada for the period January 25, 2003 to December 31, 2003. Each sponsor has made its contribution conditional on the other two sponsors also contributing. This condition is now met and sufficient funds are now committed to officially launch Phase 3 in January 2003. All three sponsors will be treated as active participants throughout the full period of the project's operations without reference to their individual funding constraints.

REPORT OF PHASE 2 ACTIVITIES

ACCOMPLISHMENTS IN CANADA

A brief timeline summary of the activities in Phase 2 over the period July 2001 and December 2002 is shown in Appendix A. The key Canadian milestones are indicated with a 4-part bullet starting with the launch of Phase 2 in July 2001 with the support and encouragement of Transport Canada.

- ❖ Canadian ATLANTIC Project Phase 2 begins July 2001

This resulted in the second key milestone in late August 2001 when the proposal for Canadian participation in ATLANTIC was completed (see revised Proposal updated to December 2002 accompanying to this report).

- ❖ Canadian ATLANTIC draft proposal prepared by August 31, 2001

Using the proposal, the proponents proceeded to introduce the project concept to a number of organizations (including the ITS Canada board of directors) in order to raise awareness among potential participants and to solicit funding support for Phase 3. The third key milestone in March 2002 was a planning workshop convened in Montreal with participation by the potential sponsor agencies (MTO, MTQ and TC) and academics and private sector individuals with a strong interest in the success of the project.

- ❖ Canadian ATLANTIC planning workshop, Montreal, March 6, 2002

The results of the planning workshop including all presentations and a summary report of the workshop discussions are posted on the website at <http://www.civ.utoronto.ca/sect/traeng/its/atlantic.htm> . A unique accomplishment of the planning workshop was to include international partner participation from the United Kingdom, Atlanta, Georgia and California via a simple but effective internet-telephone linkup that saved cost and travel time but still attained the sense of personal contact in the conduct of the meeting (see website for details).

These efforts have accomplished the following:

- Network of ITS experts in Canada interested to participate in the Canadian ATLANTIC Project and in particular to contribute to the enhancement of the ITS knowledge base in Canada(see Appendix B for list of names),
- Knowledge of the Canadian ATLANTIC Project and its aims among academics in Canada (confirmed by names in Appendix B),
- Appreciation by key members of the private sector of the potential of the Canadian ATLANTIC Project to support their long term goals by enhancing the knowledge base of pre-competitive information useful for their decision making activities (confirmed by names in Appendix B),
- Commitment of three major sponsors to contribute funding to support Phase 3 of the Canadian ATLANTIC Project.

ACCOMPLISHMENTS INTERNATIONALLY

The timeline summary in Appendix A also highlights the international cooperative activities undertaken in Phase 2 of the Canadian ATLANTIC Project. These activities have resulted in Canadian contributions to and participation in a number of events organized by ATLANTIC including:

- TRB Annual Meeting Session on International Cooperative Research organized by ITS Committee, Washington D.C., January 2002 (presentation on Canadian ATLANTIC Project by W. Johnson)
- ATLANTIC Workshop on ATIS in conjunction with TRB Annual Meeting, Washington D.C., January 2002 (presentation on ATIS in Canada by W. Johnson, P. Frigon; participation in workshop breakout groups On ATIS, Intelligent Vehicles and Intermodal Freight by W. Johnson, D. Kamnitzer, J. White, J. Harbluck),
- STELLA Workshop on Transport Research Cooperation in conjunction with TRB Annual Meeting, Washington D.C., January 2002 (observer W. Johnson),
- 9th ITS World Congress Panel Session on Benchmarking ATIS in Europe and North America organized by ATLANTIC, Chicago, October 2002 (presentation on ATIS in Canada by W. Johnson)

The presentations contributed by the Canadian participants indicated above are available on request. The outcome of these activities is a reputation for Canadians as effective and reliable partners in ATLANTIC.

The Core Team members have coordinated the Canadian node activities throughout Phase 2 with the ATLANTIC partners in Europe and the United States. Several formal meetings were held in conjunction with international ITS events to discuss plans for the benchmarking exercises, the operation of the electronic forum and other matters to foster closer working relationships. The following is a list of these meetings:

- ATLANTIC kick-off meeting, Brussels, September 2002 (T. Crainic)
- ATLANTIC coordination meeting, 8th ITS World Congress, Sydney, Sept 2001 (W. Johnson, B. Abdulhai)
- ATLANTIC coordination meeting, TRB Annual Meeting, Washington, Jan 2002 (W. Johnson)
- ATLANTIC coordination meeting, ITS America Annual Meeting, Long Beach, April 2002 (W. Johnson)
- ATLANTIC planning & coordination meeting, 9th ITS World Congress, Chicago, October 2002 (W. Johnson, B. Abdulhai)
- ITS UK – Canada coordination meeting, Dublin, November 2002 (discussed role of ATLANTIC to foster international ITS R&D cooperation)

The outcome of these coordination activities is that Canadian participation in ATLANTIC is clearly established and significant contributions have been made to the

overall direction of the network (e.g. reserved space on the website, invitations to speak at sessions as noted above, role identified to support the continuation of ATLANTIC or a similar international network in the future).

ACCOMPLISHMENTS – WORK GROUP 1.1 ATIS

The Canadian ATLANTIC Project in its Phase 2 was not able to participate in all 8 work groups and topic areas. The decision was made to focus the limited resources available on the Work Group 1.1 Traffic and Traveller Information (or Advanced Traveler Information Systems as it is known in North America). The reasons were:

- The project leader in North America was Professor Kan Chen of the U.S. and there existed a base of studies in the U.S. public domain,
- There was also strong interest in the topic in Europe,
- There was a reasonable chance of success in conducting an international benchmarking exercise,
- There was Canadian industry interest in the subject (e.g. PSR Group, others),
- There appeared to be unresolved issues concerning the business model for ATIS in practise,
- The topic area has attracted much interest among university researchers and students in Canada.

The ‘mirror’ work group in Canada was lead by W. Johnson and P. Frigon and was assisted by other interested individuals from time to time including Professor Andrew MacIver at University of Calgary and Professor Ata Khan at Carleton University. The activities they participated in included:

- Inventory of ATIS services in North America
- Review and comment on Review of ATIS Business Models by USDOT
- Presentation at workshop in Washington, D.C. January 2002
- Participation in ITS America ATIS Committee meeting, Long Beach, Apr 2002
- Participation in electronic forum debate on ATIS models using website
- Review and comment on draft report papers by U.S. project leader

The outcome of this activity is that the Canadian ATLANTIC Project has contributed effectively to this international benchmarking exercise and gained early access to the formal outputs (reports, web files) and the informal results (user experience, unrecorded observations by experts). This activity was the first work group to undertake a benchmarking exercise and the experience gained will be invaluable to guide the implementation in other work areas and topics. The formal outputs include:

- Canadian comments on Review of ATIS Business Models by USDOT
- European comments on Review of ATIS Business Models by USDOT
- Presentations to ATIS Benchmarking Workshop, Washington, Jan 2002
- Presentations to ATIS Panel Session at 9th ITS World Congress, Chicago
- Report on ATIS Business Model Benchmark Study by K. Chen, U.S.
- Report of European Workshop Report on TTI Services

Copies of these reports and presentations are available on request.

ACCOMPLISHMENTS – OTHER WORK GROUPS

The Canadian ATLANTIC Project in Phase 2 was unable to participate fully in the other 7 work groups as this was to be done in Phase 3. These work groups are listed here for reference:

- WG 1.2 Network Monitoring & Traffic Management & Control
- WG 1.3 Intermodal Collective Transport Information
- WG 2.1 Intermodal Freight Information, Pre-clearance & Logistics
- WG 2.2 Intelligent Vehicles & Vehicle Highway Systems
- WG 2.3 Electronic Road User Charging & Payment Integration
- WG 3.1 ITS User Acceptance & Impact Assessment
- WG 3.2 Human Machine Interface & User Friendly ITS

The Canadian ATLANTIC planning workshop in March reviewed the topics listed by the European partners as potential candidates for the benchmarking exercises and added a number of topics that are of interest to Canada. These topics are given in Annex B of the revised proposal that is submitted with this report. This outcome provides a starting point to select topics that could be investigated in Phase 3.

It should be noted that not all the Canadian work groups were as active as WG 1.1 on ATIS business models. However, the experience gained with the operation of the electronic forum and research process is generic and applicable to the future activities of the Canadian ATLANTIC Project Phase 3.

PLANS FOR 2003 AND BEYOND

The revised proposal for the Canadian ATLANTIC Project – Phase 3 presents the plans for activities and deliverables in the period January 2003 to December 2003 in considerable detail (see Annex C). These are not summarized here except to say that a very full agenda is planned for discussion papers and benchmark exercises for all 8 work groups. The topics proposed include the following (subject to refinement):

- Pricing policies for bundled ATIS data
- Traffic Monitoring, Control and Management: state of the art and state of the practice in Canada
- Using ITS to influence travellers to move to public transit
- Advanced demand-responsive transit systems
- ITS, management of ports and border facilities, security issues
- Urban freight logistics planning methodologies and tools
- Road weather detection and information dissemination systems
- Accident avoidance strategies using improved human-machine interfaces

One of the stated long-term goals of the authors of the ATLANTIC network is to ensure its continued operation in some form of institutional structure in the future. The Europeans have seen this in terms of continued support for specific projects, such as the benefit-evaluation-cost workshops organized at international events such as the World Congresses; the U.S. participants have seen this as incorporating the work into a special interest group under ITS America (called SIG for International

Research and Learning or SIGIRL) and the Canadians have focussed on getting large ITS R&D projects underway with Granting Council and/or funding agency assistance for academic projects in universities that could support participation in international research activities as a spin-off. Both the Europeans and the U.S. partners have been partially successful in establishing such long-term institutional support systems. It remains to be seen if the Canadians can be successful with their chosen strategy as they implement it in their work plans for 2003 (see revised Proposal Annex C).

SUMMARY AND CONCLUSIONS

The Phase 2 of the Canadian ATLANTIC Project has shown that much can be accomplished by focussing effort on areas with a definite pay-off and by maintaining continuous dialogue and contact with partners. The lessons gained from participating actively in ATLANTIC will help very much to enable the Canadian ATLANTIC Project to proceed smoothly and successfully.

Appendix A

Key Project Milestones – Phase 2

July 2001 – December 2002

ACTION TIMELINE with MILESTONES - From Project Inception to December 2002

- ❖ *Note – These milestone markers indicate a Key Canadian Milestone*

- ❖ Canadian ATLANTIC Project Phase 2 begins July 2001;
- ❖ Canadian ATLANTIC draft proposal prepared by August 31, 2001 and search for funding sponsors initiated;
- ATLANTIC kick-off and international coordination meeting, Brussels, Sept, 2001;
- ATLANTIC coordination meeting at 8th ITS World Congress, Sydney, Sept, 2001;
- TRB Annual Meeting Session on International Cooperative Research – ATLANTIC & STELLA, organized by ITS Committee, Washington D.C., January 2002
- ATLANTIC roundtable meeting re: ATIS in conjunction with TRB Annual Meeting in Washington, DC, January 17, 2002;
- ❖ Canadian ATLANTIC planning workshop, Montreal, March 6, 2002;
- ATLANTIC Network dialogue initiated internationally for ATIS and other discussion topics beginning spring 2002;
- ATLANTIC sponsored sessions and workshops to present results including:
 - session on ATIS at 9th ITS World Congress, Chicago, October 2002;
 - sessions on Benefits, Evaluation & Costs at 9th ITS World Congress, October 2002;
 - European TTI Workshop, November 2002;
- ATLANTIC reports published on completed topics including ATIS, TTI, BEC, autumn 2002;
- Canadian ATLANTIC Phase 3 funding approvals-in-principle - June/Nov/Dec 2002

< Work Completed

Work Beginning > See Annex C, Revised Proposal

Appendix B

Key Participants in Working Groups

List of Participating Experts (as of March 2002)

Core Team Members

Baher Abdulhai, U of Toronto
Teodor Crainic, U of Montreal
Bill Johnson, Consultant

Participants (at all levels of participation: leaders, rapporteurs, experts, observers)

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Sponsor and Potential Sponsor Representatives

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Brian Marshall, Transport Canada/TDC
Luc Lefebvre, MTQ