ENV-503

Project title	Project number	Last update
Certification of biofuels	ENV-503	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Biocardel Québec Inc	Delarue	René	Industry Project Manager	Biocardel
Research unit				**2 Participants**
NRC-Institute for Aerospace Research	Leslie	Tim	Interested	NRC-IAR
NRC-Institute for Aerospace Research	Yimer	Ibrahim	Interested	NRC-IAR

-Certification (process) of biofuels
-Alternative fuels
-Aviation gasoline

Project title	Project number	Last update
Investigation of aeroelastic noise	ENV-504	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Bell Helicopter Textron Canada Limited	Dion	Michel	Industry Project Manager	BHTC
Research unit				**7 Participants**
Centre technologique en aérospatiale	Chamberland	Yves	Interested	CTA
Centre technologique en aérospatiale	Désilets	Pascal	Interested	CTA
École Polytechnique de Montréal	Nowlan	Isabelle	Interested	Poly
École Polytechnique de Montréal	Ross	Annie	Interested	Poly
NRC-Institute for Aerospace Research	Ball	Norman	Interested	NRC-IAR
McGill University	Mongeau	Luc	Interested academic leader	McGill
McGill University	Najafi-Yazdi	Alireza	Interested	McGill

-Noise reduction
-Aeroelastic noise

Project title	Project number	Last update
Alternative fuels to 100LL	ENV-505	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
(empty)				**1 Participant**
NRC-Institute for Aerospace Research	Leslie	Tim	Interested	
Industrial				**1 Participant**
Biocardel Québec Inc	Delarue	René	Industry Project Manager	Biocardel
International-Reseach unit				**1 Participant**
University of Sheffield	Wilson	Chris	Interested academic leader	Sheffield
Research unit				**5 Participants**
Concordia University	Dolatabadi	Ali	Interested academic leader	Concordia
École de Technologie Supérieure	Seers	Patrice	Interested	ETS
École Polytechnique de Montréal	Chaouki	Jamal	Interested	Poly
NRC-Institute for Aerospace Research	Yimer	Ibrahim	Interested	NRC-IAR
Université Laval	De Champlain	Alain	Interested academic leader	Laval

ENV-506

Project title	Project number	Last update
Biopolymers	ENV-506	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Biocardel Québec Inc	Delarue	René	Interested	Biocardel
Research unit				**1 Participant**
Université Laval	De Champlain	Alain	Interested academic leader	Laval

Project title	Project number	Last update
Reduction of core/combustion noise	ENV-507	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Rolls-Royce Canada Ltd.	Johnson	Michael	Interested	RR
Research unit				**6 Participants**
Centre technologique en aérospatiale	Chamberland	Yves	Interested	CTA
Centre technologique en aérospatiale	Désilets	Pascal	Interested	CTA
École de Technologie Supérieure	Seers	Patrice	Interested	ETS
École Polytechnique de Montréal	Nowlan	Isabelle	Interested	Poly
Optech	Bouchard	Roland	Interested	Optech
McGill University	Najafi-Yazdi	Alireza	Interested academic leader	McGill

Project title	Project number	Last update
Measurement of non-conventional emissions	ENV-508	AUG-24-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Pratt & Whitney Canada	McCaldon	Kian	Interested	PWC
Rolls-Royce Canada Ltd.	Johnson	Michael	Industry Project Manager	RR
Research unit				**6 Participants**
Concordia University	Dolatabadi	Ali	Interested	Concordia
École de Technologie Supérieure	Seers	Patrice	Interested	ETS
École Polytechnique de Montréal	Chaouki	Jamal	Interested	Poly
École Polytechnique de Montréal	Laviolette	Jean-Philippe	Interested academic leader	Poly
Université Laval	De Champlain	Alain	Interested academic leader	Laval
University of Sheffield	Wilson	Chris	Interested	Sheffield

Project title	Project number	Last update
Syngas	ENV-509	AUG-25-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Biocardel Québec Inc	Delarue	René	Interested	Biocardel
Rolls-Royce Canada Ltd.	Johnson	Michael	Industry Project Manager	RR
Research unit				**6 Participants**
École de Technologie Supérieure	Seers	Patrice	Interested	ETS
École Polytechnique de Montréal	Chaouki	Jamal	Interested	Poly
École Polytechnique de Montréal	Laviolette	Jean-Philippe	Interested	Poly
NRC-Institute for Aerospace Research	Yimer	Ibrahim	Interested academic leader	NRC-IAR
Université Laval	De Champlain	Alain	Interested academic leader	Laval
University of Sheffield	Wilson	Chris	Interested	Sheffield

ENV-510

Project title	Project number	Last update
Biomass efficiency	ENV-510	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Air Canada	Lampitt	Warren	Industry Project Manager	Air Canada
Biocardel Québec Inc	Delarue	René	Interested	Biocardel
Research unit				**1 Participant**
CRIBIQ	Bertrand	Nicolas	Interested academic leader	CRIBIQ

MANU-511

Project title	Project number	Last update
Energy recuperation from engine testing	MANU-511	AUG-24-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Pratt & Whitney Canada	Richard	François	Industry Project Manager	PWC
Research unit				**3 Participants**
École Polytechnique de Montréal	Savaria	Yvon	Interested	Poly
École Polytechnique de Montréal	Sirois	Frédéric	Interested	Poly
NRC-Institute for Aerospace Research	Yimer	Ibrahim	Interested	NRC-IAR

Energy recuperation from test cells to be reused in our facilities

Replacing electric dyno, cost is to high
Criteria: 6

MANU-512

Project title	Project number	Last update
Optimization of engine testing	MANU-512	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Pratt & Whitney Canada	Richard	François	Interested	PWC
Research unit				**4 Participants**
Centre technologique en aérospatiale	Chamberland	Yves	Interested	CTA
École Polytechnique de Montréal	Savaria	Yvon	Interested	Poly
International institute of logistics of Montreal	G. Garceau	Louis	Interested	IILM
NRC-Institute for Aerospace Research	Yimer	Ibrahim	Interested	NRC-IAR

Description et objectifs / Project Description & Objectives
-Optimize the test sequences for development testing in test cells required for engine certification
-Production Engines testing procedures already have been optimized,
-Analyzing test protocol and optimize
...
Criteria: 5

MANU-513

Project title	Project number	Last update
MIM process robustness	MANU-513	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Maetta Sciences inc.	Julien	Benoît	Interested	Maetta
Pratt & Whitney Canada	Scalzo	Orlando	Industry Project Manager	PWC
Research unit				**9 Participants**
Concordia University	Medraj	Mamoun	Interested	Concordia
CRIQ - Centre de recherche industrielle Québec	Côté	Marie-Claude	Interested	CRIQ
Centre technologique en aérospatiale	Dubé	Robin	Interested	CTA
École de Technologie Supérieure	Bocher	Philippe	Interested	ETS
École Polytechnique de Montréal	Brochu	Myriam	Interested	Poly
École Polytechnique de Montréal	L'Espérance	Gilles	Interested	Poly
École Polytechnique de Montréal	Turenne	Sylvain	Industry Project Manager	Poly
NRC-Industrial Materials Institute	Monchalin	Jean-Pierre	Interested	NRC-IMI
Université Laval	Guillot	Michel	Interested	Laval

-Metal injection moulding,
-Process control
-Process stabilisation (density control, dimensional variation
-Follow characteristic through project

MANU-514

Project title	Project number	Last update
Structural casting Thin wall	MANU-514	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**3 Participants**
Alcoa	Tombari	Robert	Interested	Alcoa
Alphacasting	Kennerknecht	Steve	Interested	Alphacasting
Creaform	Galibois	Stéphane	Interested	Creaform
Research unit				**6 Participants**
École de Technologie Supérieure	Bocher	Philippe	Interested	ETS
École Polytechnique de Montréal	Brochu	Myriam	Interested	Poly
NRC-Institute for Aerospace Research	Cao	Xinjin	Interested	NRC-IAR
NRC-Institute for Aerospace Research	Jahazi	Mohammad	Interested	NRC-IAR
NRC-Industrial Materials Institute	Monchalin	Jean-Pierre	Interested	NRC-IMI
Université du Québec à Chicoutimi	Chen	Xiao-Guang (Grant)	Interested	UQAC

Manufacturing of thin wall cast part (titanium or aluminium)

Ex: wing tip
Criteria:1

MANU-515

Project title	Project number	Last update
Composite surface preparation for repair	MANU-515	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Bell Helicopter Textron Canada Limited	Dion	Michel	Interested	BHTC
Bombardier Aerospace	Trudeau	Paul	Interested	BA
International-Industrial				**1 Participant**
Jedo Technologies	Seigne	Arnaud	Industry Project Manager	JEDO
Research unit				**8 Participants**
Canadian Light Source Inc.	Cutler	Jeffrey	Interested	CLS
Concordia University	Ganesan	Rajamohan	Interested	Concordia
CRIQ - Centre de recherche industrielle Québec	Grenier	Daniel	Interested	CRIQ
Centre technologique en aérospatiale	Désilets	Pascal	Interested	CTA
École de Technologie Supérieure	Dubé	Martine	Interested academic leader	ETS
École Polytechnique de Montréal	Ruiz	Eduardo	Interested	Poly
École Polytechnique de Montréal	Vadean	Aurelian	Interested	Poly
NRC-Institute for Aerospace Research	Attia	Helmi	Interested	NRC-IAR

Improvement for composite surface preparation for repair using waterjet
Surface analysis
Bond a patch on a surface prepare by waterjet
Criteria: 5

MANU-516

Project title	Project number	Last update
Engine VSM	MANU-516	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**3 Participants**
Bell Helicopter Textron Canada Limited	Corrigan	James	Interested	BHTC
Bombardier Aerospace	Dezombre	Julien	Interested	BA
Pratt & Whitney Canada	Richard	François	Industry Project Manager	PWC
Research unit				**4 Participants**
CIRAIG	Arpin	Marie-Luc	Interested	CIRAIG
Concordia University	Bhuiyan	Nadia	Interested	Concordia
CRIQ - Centre de recherche industrielle Québec	Deschênes	Nicolas	Interested	CRIQ
École de Technologie Supérieure	Hausler	Robert	Interested academic leader	ETS

-GREEN VSM
-Evaluating all the waste from cradle to grave for the manufacturing process
-Improvement plan

MANU-517

Project title	Project number	Last update
Automated inspection of composite	MANU-517	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**4 Participants**
Bombardier Aerospace	Corriveau	Orphée	Interested	BA
Creaform	Galibois	Stéphane	Interested	Creaform
Robotiq	Bouchard	Samuel	Interested	Robotiq
Tecnar	Choquet	Marc	Participant	Tecnar
Research unit				**11 Participants**
Concordia University	Hoa	Suong V.	Interested	Concordia
Concordia University	Packirisamy	Muthukumaran	Interested	Concordia
CRIQ - Centre de recherche industrielle Québec	Caron	Martin	Interested	CRIQ
Centre technologique en aérospatiale	Aubé	Mario	Interested	CTA
École de Technologie Supérieure	Bonev	Ilian	Interested academic leader	ETS
École de Technologie Supérieure	Tahan	Antoine	Interested academic leader	ETS
École Polytechnique de Montréal	Birglen	Lionel	Interested	Poly
Groupe CTT Textiles	Vermeersch	Olivier	Interested	CTT
NRC-Institute for Aerospace Research	Mantegh	Iraj	Interested	NRC-IAR
NRC-Industrial Materials Institute	Monchalin	Jean-Pierre	Interested	NRC-IMI
Optech	Lafrance	Denis	Interested	Optech

-Sensor technology
-Robotics
-Automation of inspection during manufacturing(technology to be select)

MANU-518

Project title	Project number	Last update
Smart in service composite inspection	MANU-518	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Bell Helicopter Textron Canada Limited	Roberge	Judith	Industry Project Manager	BHTC
Bombardier Aerospace	Pinsonnault	Jérôme	Interested	BA
Research unit				**9 Participants**
Concordia University	Fews	Robert	Interested academic leader	Concordia
Centre technologique en aérospatiale	Désilets	Pascal	Interested	CTA
École de Technologie Supérieure	Nerguizian	Vahé	Interested	ETS
École Polytechnique de Montréal	Birglen	Lionel	Interested	Poly
NRC-Institute for Aerospace Research	C. Bellinger	Nicholas	Interested	NRC-IAR
NRC-Industrial Materials Institute	Monchalin	Jean-Pierre	Interested	NRC-IMI
Optech	Bouchard	Roland	Interested	Optech
Université du Québec à Montréal	Izquierdo	Ricardo	Interested	UQAM
Université du Québec à Montréal	Nabki	Frédéric	Interested	UQAM

-Imbeded Sensor
-Nano modified resin

MANU-519

Project title	Project number	Last update
Self Healing composite	MANU-519	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**3 Participants**
Bell Helicopter Textron Canada Limited	Roberge	Judith	Industry Project Manager	BHTC
Bombardier Aerospace	Trudeau	Paul	Interested	BA
Héroux-Devtek Inc.	Ben-Salah	Nihad	Interested	Héroux
International-Reseach unit				**2 Participants**
Imperial College London	Émile	Greenhalgh	Interested	Imperial College
University of Ulster	McIlhagger	Alistair	Participant	Ulster
Research unit				**9 Participants**
Canadian Light Source Inc.	Cutler	Jeffrey	Interested	CLS
Concordia University	Hoa	Suong V.	Interested	Concordia
Centre technologique en aérospatiale	Dubé	Robin	Interested	CTA
École de Technologie Supérieure	Dubé	Martine	Interested	ETS
École Polytechnique de Montréal	Lévesque	Martin	Interested	Poly
École Polytechnique de Montréal	Therriault	Daniel	Interested academic leader	Poly
Groupe CTT Textiles	Vermeersch	Olivier	Interested	CTT
NRC-Institute for Aerospace Research	C. Bellinger	Nicholas	Interested	NRC-IAR
Université du Québec à Montréal	Claverie	Jerome	Interested	UQAM

-Failure tolerance
-Self healing
-Crack stop

MDO-507

Project title	Project number	Last update
Optimization of aircraft flight plan	MDO-507	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Research unit				**3 Participants**
École de Technologie Supérieure	Botez	Ruxandra	Interested	ETS
École Polytechnique de Montréal	Soumis	François	Interested	Poly
École Polytechnique de Montréal	Zhu	Guchuan	Interested	Poly

-Optimization with respect to weather conditions, level of traffic,...
-Identification of ground model or airborne, choice of the best flight plan...
Criteria: 4-6

OPR-502

Project title	Project number	Last update
Aircraft spare parts management	OPR-502	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Research unit				**3 Participants**
École Polytechnique de Montréal	Baptiste	Pierre	Interested	Poly
École Polytechnique de Montréal	Mascle	Christian	Interested	Poly
Université Laval	Ait-Kadi	Daoud	Interested	Laval

-Optimization spare parts management through the level of stock, the posiioning of parts around the world
-Tracking of movement of parts on and off aircraft including repairs
-Preventive maintenance assessment…
Criteria: 4-5-6

OPR-503

Project title	Project number	Last update
Life cycle management training	OPR-503	AUG-22-2011

Organization	Last name	Name	Interest	Acronym / short name
Research unit				**5 Participants**
CIRAIG	Bulle	Cécile	Interested	CIRAIG
École Polytechnique de Montréal	Laurendeau	Eric	Interested	Poly
École Polytechnique de Montréal	Mascle	Christian	Interested	Poly
University of Toronto Institute for Aerospace Studies	Lavoie	Philippe	Interested	UTIAS
University of Toronto Institute for Aerospace Studies	Zingg	David W.	Interested	UTIAS

-Initiatives dedicated to training to this new industry topic and within the research community, post-graduate education
-Aim is to turn around the industry approach to the design of aircraft with respect to lifecycle management, GHG reduction…

OPR-504

Project title	Project number	Last update
Shape optimization for delay of laminar – turbulent transition	OPR-504	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Research unit				**5 Participants**
École de Technologie Supérieure	Terriault	Patrick	Interested	ETS
Université de Sherbrooke	Fellouah	Hachimi	Interested	Sherbrooke
McGill University	Nadarajah	Siva	Interested	McGill
University of Toronto Institute for Aerospace Studies	Nair	Prasanth	Interested	UTIAS
University of Toronto Institute for Aerospace Studies	Zingg	David W.	Interested	UTIAS

-Develop the enabling technologies to design environtally responsible aircraft
-Design a methodology to perform both a shape and planform optimization of the aircraft…
Criteria: 1-2

OPR-505

Project title	Project number	Last update
Optimization of aircraft movement on ground	OPR-505	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**1 Participant**
Aéroports de Montréal	Michaud	Lyne	Interested	ADM
Research unit				**2 Participants**
Carleton University	Nsakanda	Aaron	Interested	Carleton
Université Laval	Ait-Kadi	Daoud	Interested	Laval

-How to optimize aircraft time on the ground, focusing on de-icing, the sequencing of aircraft, gate availability, taxi route
-Optimize share of data between stakeholders for ground operations
Criteria: 6-8

OPR-506

Project title	Project number	Last update
Overall aircraft active flow control	OPR-506	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Research unit				**3 Participants**
École Polytechnique de Montréal	Saydy	Lahcen	Interested	Poly
École Polytechnique de Montréal	Zhu	Guchuan	Interested	Poly
University of Toronto Institute for Aerospace Studies	Lavoie	Philippe	Interested	UTIAS

-Application of sensors and control mechanisms to achieve active flow control for the noise and drag reduction
-Including increase of engine efficiency in an overall active control approach
Criteria: 2-3-4-6

OPR-507

Project title	Project number	Last update
High speed turboprop aircraft	OPR-507	AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Bombardier Aerospace	Lapointe	Robby	Interested	BA
Pratt & Whitney Canada	Girard	Gaétan	Interested	PWC
Research unit				**4 Participants**
Concordia University	Paraschivoiu	Marius	Interested	Concordia
École Polytechnique de Montréal	Trépanier	Jean-Yves	Interested	Poly
Université de Sherbrooke	Fellouah	Hachimi	Interested	Sherbrooke
McGill University	Nadarajah	Siva	Interested	McGill

-High speed efficiency of the blades
-Limited by a noise constraint regulation

Criteria: 1-3

PLE-502

Project title	Project number	Last update
Ecodesign metrics/index for aircraft design activities	PLE-502	AUG-18-2011

Organization	Last name	Name	Interest	Acronym/short name
Industrial				**4 Participants**
Bell Helicopter Textron Canada Limited	Corrigan	James	Interested	BHTC
Bombardier Aerospace	Banks	Jim	Interested	BA
Bombardier Aerospace	Oudjehani	Kahina	Interested	BA
Héroux-Devtek Inc.	Després	Mélissa	Interested	Héroux
Research unit				**6 Participants**
CIRAIG	Surveyer	Alyson	Interested	CIRAIG
Concordia University	Awasthi	Anjali	Interested	Concordia
Concordia University	Li	Simon	Interested	Concordia
CRIQ - Centre de recherche industrielle Québec	Garcia	Miguel	Interested	CRIQ
École Polytechnique de Montréal	Mascle	Christian	Interested	Poly
NRC-Institute for Aerospace Research	Patnaik	Prakash	Interested	NRC-IAR

Definition of metrics/indices to evaluate progress made in terms of environmental impacts of products
-Metrics can be both qualitative or quantitative
-Metrics need to be adapted to the phase/stage of the design process
-Reverse supply chain metrics integration (end of life)?

What do we mean by Ecodesign?
-Need to scope/focus the project s under the Ecodesign theme on design activities (manufacturing, operations, etc. are other issues)
Tools?
-Just metrics might not be sufficient, it has to be integrated to design tools. Conceptual MDO and LCA integration for example.

PLE-503

Project title
Joint scenario planning platform for sustainable Canadian aircraft industry

Project number
PLE-503

Last update
AUG-18-2011

Organization	Last name	Name	Interest	Acronym / short name
Industrial				**2 Participants**
Bell Helicopter Textron Canada Limited	Corrigan	James	Interested	BHTC
Bombardier Aerospace	Banks	Jim	Interested	BA
International-Reseach unit				**1 Participant**
University of Cambridge	Schafer	Andreas	Interested	Cambridge
Research unit				**7 Participants**
Concordia University	Awasthi	Anjali	Interested	Concordia
Concordia University	Li	Simon	Interested	Concordia
Concordia University	Zeng	Yong	Interested	Concordia
École Polytechnique de Montréal	Huet	Grégory	Interested	Poly
École Polytechnique de Montréal	Samson	Réjean	Interested	Poly
École Polytechnique de Montréal	Soumis	François	Interested	Poly
Université du Québec à Montréal	Jean-Pierre	Everest	Interested	UQAM

-Broaden the scope to sustainable design including economical and social concerns
-Scenario Planning is a forecasting methodology which enables participants to analyse future scenarios for a given problem.
-The scenarios can be used as a contextual framework on which designers can derive user and societal requirements.
-A digital platform where various stakeholders in the aerospace industry can explore the bigger picture for a sustainable future.