

**Proposal Submission Forms**

**Level 1**  
**Collaborative Project**

**A1**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

GENERAL INFORMATION ON THE PROPOSAL			
Proposal Title (max. 200 char.)	<i>A New Approach to Create Hybrid Aircraft Propulsion by Using Solar Power, Hydrogen Fuel and Beamed Energy</i>		
Duration in months	24	Call (part) identifier	FP7-AAT-2008-RTD-1
Activity code(s) most relevant to your topic	AAT-2008-7.1.6.1.2		
Keyword code 3	Risk management		
Keyword code 4	System design		
Keyword code 5	Resources management		
Free keywords	New and enhanced technologies and services		
<i>Abstract (max. 2000 char.)</i>			
<p>This CP is aiming to develop new emerging technology of hybrid propulsion applied in air transport by exploiting alternative energies. Such breakthrough technology is aiming to provide air fuel consumption reductions of 30%, and perform environmentally cleaner flight. In automobile industry a hybrid vehicle technology is used while Internal Combustion Engines (ICE) run generator to charge battery and supply power to electric motors. Other approach is to use hydrogen fuel cells or ICE to drive the vehicle. The advantages of hybrid vehicles are fuel economy improvement and reduction of 30%-80% in NO<sub>x</sub>, CO<sub>2</sub>, CO emissions, providing option for cleaner &amp; economically efficient flight, if technology applied in air transport. This CP provides technology option to develop hybrid propelled aircraft using solar power, H<sub>2</sub> fuel, beamed energy accumulated in high specific energy battery or fuel cell. Major emphasis is given to: 1) develop 3-5 kw hydrogen turbine, fuel cell and microwave beaming source; 2) develop a high specific energy battery to accumulate produced electric energy and absorb solar power; 3) develop hybrid VTOL (Vertical Take Off &amp; Landing) airborne platform to be tested to approve designed specifications (specs). CP objectives are: 1) research and define HybridProp2 operational &amp; performance specs; 2) research and define technical specs for new hybrid-electric aircraft propulsion; 3) research flight tests with QinetiQ's Zephyr solar UAV (Unmanned Air Vehicle) &amp; implement achievements to aircraft solar hybrid-electric propelled; 4) develop hydrogen turbine, fuel cell, and microwave beaming unit to be integrated in VTOL flight-test-bench, that includes SAFT high specific energy battery to propel the VTOL; 5) research fuel cell (FC) propulsion using Boeing FC Demonstrator data &amp; develop Intelligent FC for the VTOL.</p>			

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	1				
<b>Participant organisation</b>					
Organisation legal name	CTI - Creative Technologies Israel Ltd.				
Organisation short name	CTI				
Legal address					
PO Box	-	Postal Code	IL-93856	Cedex	-
Street name and number	49 Dagan Street				
Town	Jerusalem	Country	Israel		
Internet homepage	<a href="http://www.usehaas.org">www.usehaas.org</a> ; <a href="http://www.cti-creative.com">www.cti-creative.com</a>				
Activity Type HE, RES, IND, OTH	OTH	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP			PRC
If Legal Status "PRC", specify	LTD				
Is the organisation a Small or Medium-Sized Enterprise (SME)?	YES/NO			YES	
Are there dependencies between the organisation and (an)other participant(s) ?	YES/NO			NO	
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
<b>Person in charge</b>					
Name	Lavie	First name(s)	Arie		
Title	Prof.	Sex: Female=F, Male=M	M		
Department/Faculty/Institute/ Laboratory name	-				
Address (if different from above)					
PO Box	-	Postal Code	93856	Cedex	-
Street name and number	49 Dagan Street				
Town	Jerusalem	Country	Israel		
Phone 1	972-2-6452086	Phone 2	972-522-674402		
e-mail	<a href="mailto:arlavie@zahav.net.il">arlavie@zahav.net.il</a>		Fax	972-2-6452489	

Previously submitted similar proposals or signed contracts?	YES/NO	YES	S
If yes, programme name(s) and year	1) USE HAAS (acronym), 2004; 2) TELASHIP (acronym), 2003		
If yes, proposal number(s) or contract number	1) Contract 516081; 2) 511590		

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	2				
<b>Participant organisation</b>					
Organisation legal name	QinetiQ Limited				
Organisation short name	QinetiQ				
<b>Legal address</b>					
PO Box	-	Postal Code	SW1E 6PD	Cedex	-
Street name and number	Buckingham Gate 85				
Town	London		Country	United Kingdom	
Internet homepage	<a href="http://www.qinetiq.com">www.qinetiq.com</a>				
Activity Type HE, RES, IND, OTH	RES	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP			GOV
If Legal Status "PRC", specify	-				
Is the organization a Small or Medium-Sized Enterprise (SME)?	YES/NO			NO	
Are there dependencies between the organisation and (an)other participant(s) ?	YES/NO			NO	
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
<b>Person in charge</b>					
Name	Davey		First name(s)	Paul	
Title	Mr.	Sex: Female=F, Male=M			M
Department/Faculty/Institute/ Laboratory name	Air Division				
<b>Address (if different from above)</b>					
PO Box	-	Postal Code	GU14 0LX	Cedex	-
Street name and number	Ively Road 12				
Town	Farnborough		Country	United Kingdom	
Phone 1	+441252392644		Phone 2	+447836602947	
e-mail	<a href="mailto:PDAVEY@qinetiq.com">PDAVEY@qinetiq.com</a>		Fax	+441252394114	

Previously submitted similar proposals or signed contracts?	YES/NO	YE S
If yes, programme name(s) and year	ESPRIT 1998-IST 2000-IST 2001	
If yes, proposal number(s) or contract number	ESPRIT 29870 HOPE, IST-2000-25044 SMART, IST-2001-37532 ISIS, 511590	

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	3				
<b>Participant organisation</b>					
Organisation legal name	Aachen University of Applied Sciences				
Organisation short name	FH Aachen				
<b>Legal address</b>					
PO Box	-	Postal Code	52064	Cedex	-
Street name and number		Hohenstaufenallee 6			
Town	Aachen		Country	Germany	
Internet homepage	<a href="http://www.fh-aachen.de">www.fh-aachen.de</a>				
Activity Type HE, RES, IND, OTH	HE	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP			GOV
If Legal Status "PRC", specify	-				
Is the organisation a Small or Medium-Sized Enterprise (SME)?				YES/NO	NO
Are there dependencies between the organisation and (an)other participant(s) ?				YES/NO	NO
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
<b>Person in charge</b>					
Name	Funke		First name(s)	Harald	
Title	Prof.	Sex: Female=F, Male=M			M
Department/Faculty/Institute/ Laboratory name		Department of Aerospace Technology			
<b>Address (if different from above)</b>					
PO Box	-	Postal Code		Cedex	-
Street name and number					
Town			Country		
Phone 1	+49241600952387		Phone 2	-	
e-mail	<a href="mailto:funke@fh-aachen.de">funke@fh-aachen.de</a>		Fax	+49241600952680	

Previously submitted similar proposals or signed contracts?	YES/NO	NO
If yes, programme name(s) and year		
If yes, proposal number(s) or contract number		

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS									
Participant number	4								
<b>Participant organisation</b>									
Organisation legal name	Universite Libre de Bruxelles								
Organisation short name	ULB								
Legal address									
PO Box	-	Postal Code	1050	Cedex	-				
Street name and number	Avenue F.D.ROOSEVELT 50, cp 165/43								
Town	Brussels			Country	Belgium				
Internet homepage	<a href="http://www.ulb.ac.be">www.ulb.ac.be</a>								
Activity Type HE, RES, IND, OTH	HE	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP	GOV						
If Legal Status "PRC", specify									
Is the organisation a Small or Medium-Sized Enterprise (SME)?	YES/NO							NO	
Are there dependencies between the organisation and (an)other participant(s) ?	YES/NO							NO	
If yes, participant number	-	If yes, participant short name	-						
Character of dependence SG, CLS, CLB	-								
If yes, participant number	-	If yes, participant short name	-						
Character of dependence SG, CLS, CLB	-								
If yes, participant number	-	If yes, participant short name	-						
Character of dependence SG, CLS, CLB	-								
<b>Person in charge</b>									
Name	Patrick			First name(s)	Hendrick				
Title	Prof.	Sex: Female=F, Male=M	M						
Department/Faculty/Institute/Laboratory name	ATM								
Address (if different from above)									
PO Box	-	Postal Code	-	Cedex	-				
Street name and number	-								
Town	-	Country	-						
Phone 1	+3226502658			Phone 2	-				
e-mail	<a href="mailto:Patrick.Hendrick@ulb.ac.be">Patrick.Hendrick@ulb.ac.be</a>			Fax	+3226502710				

Previously submitted similar proposals or signed contracts?	YES/NO	N	O
If yes, programme name(s) and year	-		
If yes, proposal number(s) or contract number	-		

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1**  
**Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	5				
<b>Participant organisation</b>					
Organisation legal name	Bental Industries Ltd.				
Organisation short name	Bental				
Legal address					
PO Box	-	Postal Code	IL-49945	Cedex	-
Street name and number	Neve Yerek				
Town	South Hasharon Regional Council p.b. 357	Country	Israel		
Internet homepage	<a href="http://www.bental.co.il">www.bental.co.il</a>				
Activity Type HE, RES, IND, OTH	IND	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP			PRC
If Legal Status "PRC", specify	LTD				
Is the organisation a Small or Medium-Sized Enterprise (SME)?				YES/NO	YES
Are there dependencies between the organisation and (an)other participant(s) ?				YES/NO	NO
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB		-			
<b>Person in charge</b>					
Name	Cohen	First name(s)	Felix		
Title	Mr.	Sex: Female=F, Male=M	M		
Department/Faculty/Institute/ Laboratory name					
Address (if different from above)					
PO Box	-	Postal Code	-	Cedex	-
Street name and number	-				
Town	-	Country	-		
Phone 1	+972-3-9130748	Phone 2	+972-52-8514125		
e-mail	<a href="mailto:Felix_c@bental.co.il">Felix_c@bental.co.il</a>	Fax	+972-3-9135913		

Previously submitted similar proposals or signed contracts?	YES/NO	N	O
If yes, programme name(s) and year			
If yes, proposal number(s) or contract number			

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	6				
<b>Participant organisation</b>					
Organisation legal name	SAFT SA				
Organisation short name	SAFT				
Legal address					
PO Box		Postal Code	Fr 93170	Cedex	-
Street name and number	12 Rue Sadi Carnot				
Town	Bagnolet	Country	France		
Internet homepage	<a href="http://www.saftbatteries.com">www.saftbatteries.com</a>				
Activity Type HE, RES, IND, OTH	IND	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP	PRC		
If Legal Status "PRC", specify	s.a.				
Is the organisation a Small or Medium-Sized Enterprise (SME)?	YES/NO			NO	
Are there dependencies between the organisation and (an)other participant(s) ?	YES/NO			NO	
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
<b>Person in charge</b>					
Name	Philippe	First name(s)	GENIN		
Title	Mr.	Sex: Female=F, Male=M	M		
Department/Faculty/Institute/ Laboratory name	Industrial Battery Group/Lithium-Ion Division				
Address (if different from above)					
PO Box	-	Postal Code	-	Cedex	Cedex
Street name and number	111-113 Boulevard Alfred daney				
Town	Bordeaux	Country	France		
Phone 1	+33-5-57-106417		Phone 2		
e-mail	<a href="mailto:Philippe.genin@saftbatteries.com">Philippe.genin@saftbatteries.com</a>		Fax	+33-5-57-106412	

Previously submitted similar proposals or signed contracts?	YES/NO	N O
If yes, programme name(s) and year		
If yes, proposal number(s) or contract number		

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1**  
**Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS			
Participant number	7		
<b>Participant organisation</b>			
Organisation legal name	DEUTSCHES ZENTRUM FUER LUFT-UND RAUMFAHRT E.V.		
Organisation short name	DLR		
Legal address			
PO Box	-	Postal Code	51147
		Cedex	-
Street name and number			
LINDER HOEHE			
Town	KOELN	Country	GERMANY
Internet homepage	<a href="http://www.dlr.de">www.dlr.de</a>		
Activity Type HE, RES, IND, OTH	RES	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP	PRC
If Legal Status "PRC", specify	NON COMMERCIAL		
Is the organisation a Small or Medium-Sized Enterprise (SME)?			YES/NO
			NO
Are there dependencies between the organisation and (an)other participant(s) ?			YES/NO
			NO
If yes, participant number	-	If yes, participant short name	-
Character of dependence SG, CLS, CLB		-	
If yes, participant number	-	If yes, participant short name	-
Character of dependence SG, CLS, CLB		-	
If yes, participant number	-	If yes, participant short name	-
Character of dependence SG, CLS, CLB		-	
<b>Person in charge</b>			
Name	SUESS	First name(s)	HELMUT
Title	Prof.	Sex: Female=F, Male=M	M
Department/Faculty/Institute/ Laboratory name		MICROWAVE AND RADAR INSTITUTE	
Address (if different from above)			
PO Box	1116	Postal Code	82230
		Cedex	-
Street name and number			
-			
Town	WESSLING	Country	GERMANY
Phone 1	+49 8153 28 2372	Phone 2	+49 8153 28 2371
e-mail	<a href="mailto:helmut.suess@dlr.de">helmut.suess@dlr.de</a>	Fax	+49 8153 28 1135

Previously submitted similar proposals or signed contracts?	YES/NO	YES	S
If yes, programme name(s) and year	IST 2000 – 25044 (Project SMART), TELASHIP (Acronym) 2003		
If yes, proposal number(s) or contract number	511590		

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

**Proposal Submission Forms**

EUROPEAN COMMISSION  
7<sup>th</sup> Framework Programme for  
Research, Technological  
Development and Demonstration

**Level 1  
Collaborative Project**

**A2**

Proposal Number		Proposal Acronym	HYBRIDPROP2
-----------------	--	------------------	-------------

INFORMATION ON PARTICIPANTS					
Participant number	8				
<b>Participant organisation</b>					
Organisation legal name	Intelligent Energy Ltd.				
Organisation short name	INTELLIGENT				
Legal address					
PO Box	-	Postal Code	W1W 6JE	Cedex	-
Street name and number	8-10 Hallam Street				
Town	London	Country	United Kingdom		
Internet homepage	<a href="http://www.intelligent-energy.com">www.intelligent-energy.com</a>				
Activity Type HE, RES, IND, OTH	IND	Legal Status GOV, INO, JRC, PUC, PRC, EEIG, PNP			PRC
If Legal Status "PRC", specify	LTD				
Is the organisation a Small or Medium-Sized Enterprise (SME)?	YES/NO			NO	
Are there dependencies between the organisation and (an)other participant(s) ?	YES/NO			NO	
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
If yes, participant number	-	If yes, participant short name	-		
Character of dependence SG, CLS, CLB	-				
<b>Person in charge</b>					
Name	Hayter	First name(s)	Dennis		
Title	Mr.	Sex: Female=F, Male=M	M		
Department/Faculty/Institute/ Laboratory name	-				
Address (if different from above)					
PO Box	-	Postal Code	-	Cedex	-
Street name and number	-				
Town	-	Country	-		
Phone 1	+44 - 203 - 1595125	Phone 2	+44-7958-066928		
e-mail	<a href="mailto:dennis.hayter@intelligent-energy.com">dennis.hayter@intelligent-energy.com</a>		Fax	+44-203-1593582	

Previously submitted similar proposals or signed contracts?	YES/NO	N O
If yes, programme name(s) and year	-	
If yes, proposal number(s) or contract number	-	

For a proposal to be considered as complete, all questions must be answered. If a field is not applicable to you, please enter -.

