

## Small or medium-scale focused research project (STREP) proposal

### [Drone lawn mower]

[DLM]

#### Small or medium scale focused research project (STREP)

Date of preparation:

Version number (optional):

#### Work programme topic addressed

H2020-EIC-FTI-2018-2020 FAST TRACK TO INNOVATION (FTI)

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*\*Please use the same participant numbering as that used in Proposal submission forms A2*

#### Proposal abstract

U današnje vreme korišćenje tehnologije je postala svakodnevna aktivnost. Mnogi ljudi koriste 'pametne' telefone i druge uređaje i to uglavnom za zabavu. Međutim savremena tehnologija može da bude i korisna i u raznim aplikacijama olakšati život čoveka, tako što će automatizovati neke procese koje je čovek do sada obavljao ručno.

Drone lawn mower je sistem koji ima za cilj da u potpunosti automatizuje proces košenja travnatih podloga korišćenjem senzora za udaljenost, senzora za merenje vlažnosti zemljišta, senzora za merenje brzine vetra, kamere sa drona i obradom tih informacija u informacionom sistemu.

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## **Section 1: Scientific and/or technical quality, relevant to the topics addressed by the call**

### **1.1 Concept and objectives**

Glavni cilj ovog projekta je modernizacija i automatizacija poslova sređivanja travnatih površina, čime bi današnje ljude koji žive brzim načinom života rasteretili tih obaveza i omogućili im da to vreme provedu u nečemu u čemu bi više uživali.

Sledeći su glavni zadaci projekta:

#### **1.1.1. Upravljanje projektom**

Cilj ovog zadatka je uspešno vođenje projekta, što podrazumeva da sve što je izneto u ovom predlogu bude i uspešno implementirano. Time se podrazumeva da:

- svi predmeti isporuke budu isporučeni na vreme
- svi predmeti isporuke zadovoljavaju najviše standarde

Da bi se ovo ostvarilo uspostaviće se sistem provere i podsetnika na vremenske rokove i kašnjenja, kao i kontrola kvaliteta svake isporuke.

#### **1.1.2. Implementacija hardvera**

Cilj ovog zadatka je uspešna realizacija hardverskog dela sistema, razvijanje svih pojedinačnih komponenti i implementiranje protokola međusobne komunikacije komponenti. Cilj je da kroz izradu prototipova dođemo do krajnjeg sistema koji zadovoljava sve zahteve iz specifikacije i najviše standarde u svojoj oblasti.

#### **1.1.3. Dizajniranje algoritma za procesiranje slika**

Cilj ovog zadatka je implementacija naprednog algoritma za procesiranje slika koje će se dobiti sa kamere uređaja. Iz dobijenih slika bi se nalazile travnate površine i uz pomoć informacija sa senzora bi se pravila mapa terena po kojoj bi uređaj obavljao posao. Uz pomoć informacionog sistema bi korisnik mogao da dodatno ograniči ili proširi mapu terena, ali je cilj da algoritam bude dovoljno dobar da dodatne mere korisnika u većini slučajeva ne budu potrebne.

#### **1.1.4. Dizajniranje algoritma za automatsko upravljanje letom**

Cilj ovog zadatka je implementacija naprednog algoritma za autonomni let drona po terenu mapiranom od strane prethodnog algoritma. Uz pomoć informacija sa senzora za udaljenost, odredila bi se ograničenja kretanja po mapiranoj oblasti i takođe bi se odredila visina po kojoj dron treba da leti da bi visina trave bila tačno ona koju je korisnik izabrao.

#### **1.1.5. Implementacija informacionog sistema za početna podešavanja i nadzor**

Ovaj informacioni sistem bi povezivao sve komponente sistema i omogućio bi interfejs korisniku za željena početna podešavanja, kao i ukoliko želi nadzor rada sistema. Korisnički interfejs bio bio razvijen za pametne telefone i tablet uređaje, ali bi takođe bio razvijen i interfejs na samom uređaju.

#### **1.1.6. Testiranje**

Testiranje bi se radilo kod svih učesnika u projektu, završna testiranja celokupnog sistema bi bila rađena u Srbiji od strane Matematičkog fakulteta.

#### 1.1.7. Marketing

Za reklamiranje bi bili razvijeni reklamni materijali koji bi se koristili pri reklamiranju u raznim vrstama medija kao što su novine, internet, televizija kao i na raznim promocijama i predavanjima.

## **1.2 Progress beyond the state-of-the-art**

Algoritmi za procesiranje slika se već uveliko koriste u raznim oblastima, medicini, automobilske industriji za prepoznavanje saobraćajnih znakova, pešaka i ostalih prepreka kako bi omogućili autonomnu vožnju. Naš projekat bi doneo implementaciju u novoj primeni gde bi korišćenjem slika i informacija sa senzora bili implementirani algoritmi za skeniranje terena i filtriranje slika u potrazi za zelenim površinama, i zatim formiranja mape terena i automatskog upravljanja dronom po dobijenoj mapi, kao i prilagođavanju reljefnim uslovima i vremenskim uslovima korišćenjem informacija sa senzora.

### 1.3 S/T methodology and associated work plan

Da bi projekat bio uspešno realizovan potrebno ga je pre svega dobro organizovati. Tako da ćemo definisati plan radi i za svaku jedinicu posla ćemo odrediti ciljeve, opis posla, isporuke i prekretnice koje će nam pomoći da sagledamo i pratimo realizaciju projekta, i da vidimo u svakom trenutku da li napredujemo zadovoljavajućim tempom.

Projekat je organizovan u sledećih 8 radnih paketa:

1. WP0 Upravljanje projektom
2. WP1 Implementacija hardvera
3. WP2 Dizajniranje algoritma za procesiranje slika
4. WP3 Dizajniranje algoritma za automatsko upravljanje letom
5. WP4 Implementacija informacionog sistema za početna podešavanja i nadzor
6. WP5 Testiranje
7. WP6 Marketing
8. WP7 Plasiranje proizvoda na tržište

Gant dijagram

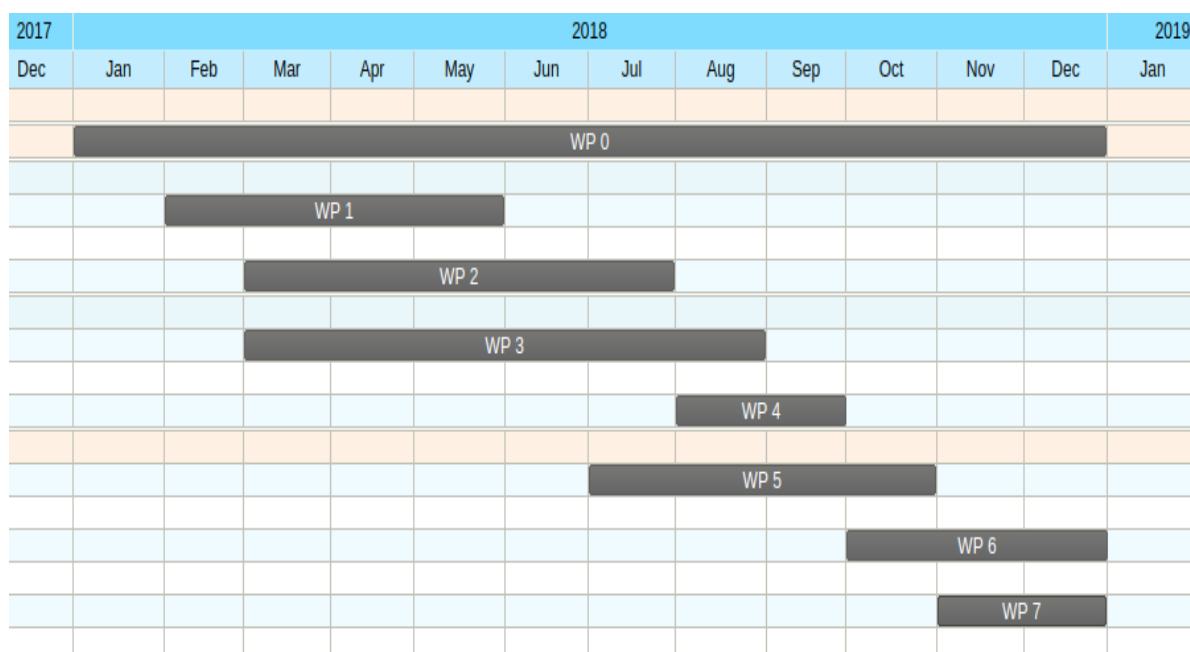


Table 1.3a: Template - Work package list

### Work package list

Work package No <sup>1</sup>	Work package title	Type of activity <sup>2</sup>	Lead partic no. <sup>3</sup>	Lead partic. short name	Person - month s <sup>4</sup>	Start month <sup>5</sup>	End month <sup>14</sup>
WP0	Upravljanje projektom	MGT	1	MATF	50	M1	M12
WP1	Implementacija hardvera	RTD	1	ABB	36	M2	M5
WP2	Dizajniranje algoritma za procesiranje slika	RTD	2	MATF, WAR	10	M3	M7
WP3	Dizajniranje algoritma za automatsko upravljanje letom	RTD	2	MATF, TU	20	M3	M8
WP4	Implementacija informacionog sistema za početna podešavanja i nadzor	RTD	1	MATF	10	M8	M9
WP5	Testiranje	RTD	3	MATF, WAR, TU	24	M7	M10
WP6	Marketing	DEM	1	MATF	24	M10	M12
WP7	Plasiranje proizvoda na tržište	DEM/RTD	1	MATF	36	M11	M12
	TOTAL				210		

<sup>1</sup> Workpackage number: WP 1 – WP n.

<sup>2</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium

<sup>3</sup> Number of the participant leading the work in this work package.

<sup>4</sup> The total number of person-months allocated to each work package.

<sup>5</sup> Measured in months from the project start date (month 1).



Table 1.3b: Template - Deliverables List

### List of Deliverables

Del. no. <sup>6</sup>	Deliverable name	WP no.	Nature <sup>7</sup>	Dissemination level <sup>8</sup>	Delivery date <sup>9</sup> (proj. month)
D0.1	Plan razvijanja sistema	0	R	RE	M1
D0.2	Ugovor potpisan od strane svih učesnika na projektu	0	R	RE	M1
D0.3	Izveštaji nakon svake jedinice posla	0	R	RE	M1-M12
D0.4	Finansijski izveštaji	0	R	RE	M1-M12
D0.5	Krajnji izveštaj	0	R	PU	M12
D1.1	Specifikacija arhitekture hardvera	1	R	RE	M2
D1.2	Specifikacije prototipova	1	R	PU	M2-M5
D2.1	Opis algoritma za procesiranje slika	2	R	CO	M3
D2.2	Prototip softvera sa algoritmom za procesiranje slika	2	P	PU	M4
D2.3	Razvijen softver sa algoritmom za procesiranje slika	2	P	PU	M7
D3.1	Opis algoritma za autonomno upravljanje	3	R	CO	M3
D3.2	Prototip softvera sa algoritmom za autonomno upravljanje	3	P	PU	M4
D3.3	Razvijen softver sa algoritmom za autonomno upravljanje	3	P	PU	M8

<sup>6</sup> Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.

<sup>7</sup> Please indicate the nature of the deliverable using one of the following codes:

**R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

<sup>8</sup> Please indicate the dissemination level using one of the following codes:

**PU** = Public

**PP** = Restricted to other programme participants (including the Commission Services).

**RE** = Restricted to a group specified by the consortium (including the Commission Services).

**CO** = Confidential, only for members of the consortium (including the Commission Services).

<sup>9</sup> Measured in months from the project start date (month 1).

D4.1	Specifikacija arhitekture informacionog sistema	4	R	CO	M8
D4.2	Dijagram slučajeve upotrebe	4	R	PU	M8
D4.3	Detaljan opis slučajeve upotrebe	4	R	PU	M8
D4.4	Detaljan opis potrebnih funkcionalnosti	4	R	PU	M8
D4.5	Prototip softvera	4	P	PU	M8
D4.6	Razvijen softver	4	P	PU	M9
D5.1	Definicije testova	5	R	PP	M7
D5.2	Izveštaji sa testova	5	R	PP	M7-M10
D6.1	Plan marketinga	6	R	PU	M10
D6.2	Razvijeni marketinški alati i materijali	6	P	PU	M10
D7.1	Završen ceo sistem	7	O	PU	M12

Table 1.3c Template - List of milestones

## Milestones

Milestones are control points where decisions are needed with regard to the next stage of the project. For example, a milestone may occur when a major result has been achieved, if its successful attainment is a required for the next phase of work. Another example would be a point when the consortium must decide which of several technologies to adopt for further development.

Milestone number	Milestone name	Work package(s) involved	Expected date <sup>10</sup>	Means of verification <sup>11</sup>
Mo.1	Inicijalno planiranje	WP0	M1	Završen plan razvijanja sistema
Mo.2	Ugovor	WP0	M1	Potpisan ugovor
Mo.3	Prvi prototip hardvera	WP1	M3	Završen funkcionalan prototip
Mo.4	Implementiran hardver	WP1	M5	Završen funkcionalan hardver
Mo.5	Prototip softvera za procesiranje slika	WP2	M4	Završen funkcionalan prototip softvera za procesiranje slika
Mo.6	Softver za procesiranje slika	WP2	M7	Završen funkcionalan softver za procesiranje slika
Mo.7	Prototip softvera za autonomni let	WP3	M4	Završen funkcionalan prototip softvera za autonomni let
Mo.8	Softver za autonomni let	WP3	M8	Završen funkcionalan softver za autonomni let
Mo.9	Arhitektura informacionog sistema	WP4	M8	Arhitektura definisana
Mo.10	Funkcionalnosti informacionog sistema	WP4	M8	Funkcionalnosti definisane
Mo.11	Prototip informacionog sistema	WP4	M8	Razvijen prototip
Mo.12	Informacioni sistem	WP4	M9	Razvijen informacioni sistem
Mo.13	Testovi	WP5	M7	Razvijeni testovi
Mo.14	Testiran softver	WP5	M10	Softver koji je testiran
Mo.15	Marketing	WP6	M12	Uspešno reklamiranje
Mo.16	Krajnji proizvod	WP7	M12	Proizvod plasiran na tržište

<sup>10</sup> Measured in months from the project start date (month 1).

<sup>11</sup> Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype completed and running flawlessly; software released and validated by a user group; field survey complete and data quality validated.

Table 1.3d: Template - Work package description

## Work package description

Work package number	WP0	Start date or starting event:				M1	
Work package title	Upravljanje projektom						
Activity type <sup>12</sup>	MGT						
Participant number	1						
Participant short name	MATF						
Person-months per participant	50						

### Objectives

Formiranje plana razvoja i potpisivanje ugovora. Podnošenje izveštaja, praćenje poslova, reagovanje u slučaju nastanka problema.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Plan razvijanja sistema (M1)
- Ugovor potpisan od strane svih učesnika (M1)
- Izveštaji nakon svake jedinice posla (M1-M12)
- Finansijski izveštaji (M1-M12)
- Krajnji izveštaj (M12)

<sup>12</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP1	Start date or starting event:				M2		
Work package title	Implementacija hardvera							
Activity type <sup>13</sup>	RTD							
Participant number	1							
Participant short name	ABB							
Person-months per participant	36							

### Objectives

Dizajniranje hardvera, implementacija više prototipova, realizacija krajnjeg uređaja.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Specifikacija arhitekture hardvera (M2)
- Specifikacije prototipova (M2-M5)

<sup>13</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP2	Start date or starting event:					
Work package title	Dizajniranje algoritma za procesiranje slika						
Activity type <sup>14</sup>	RTD						
Participant number	1	2					
Participant short name	MATF	WAR					
Person-months per participant	5	5					

### Objectives

Dizajniranje i implementacija algoritma, testiranje na prototipovima i krajnjoj verziji uređaja.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Opis algoritma za procesiranje slika (M3)
- Prototip softvera sa algoritmom za procesiranje slika (M4)
- Razvijen softver sa algoritmom za procesiranje slika (M7)

<sup>14</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP3	Start date or starting event:					
Work package title	Dizajniranje algoritma za automatsko upravljanje letom						
Activity type <sup>15</sup>	RTD						
Participant number	1	2					
Participant short name	MATF	TU					
Person-months per participant	5	15					

### Objectives

Dizajniranje i implementacija algoritma, testiranje na prototipovima i krajnjoj verziji uređaja.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Opis algoritma za autonomno upravljanje (M3)
- Prototip softvera sa algoritmom za autonomno upravljanje (M4)
- Razvijen softver sa algoritmom za autonomno upravljanje (M8)

<sup>15</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP4	Start date or starting event:					
Work package title	Implementacija informacionog sistema za početna podešavanja i nadzor						
Activity type <sup>16</sup>	RTD						
Participant number	1						
Participant short name	MATF						
Person-months per participant	10						

### Objectives

Dizajniranje arhitekture i implementacija informacionog sistema, testiranje na prototipovima i krajnjoj verziji uređaja.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Specifikacija arhitekture informacionog sistema (M8)
- Dijagram slučajeve upotrebe (M8)
- Detaljan opis slučajeve upotrebe (M8)
- Detaljan opis potrebnih funkcionalnosti (M8)
- Prototip softvera (M8)
- Razvijen softver (M9)

<sup>16</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.



## Work package description

Work package number	WP5	Start date or starting event:					
Work package title	Testiranje						
Activity type <sup>17</sup>	RTD						
Participant number	1	2	3				
Participant short name	MATF	WAR	TU				
Person-months per participant	8	8	8				

### Objectives

Definisanje testova, izvršavanje testova i podnošenje izveštaja.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Definicije testova (M7)
- Izveštaji sa testova (M7-M10)

<sup>17</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP6	Start date or starting event:					
Work package title	Marketing						
Activity type <sup>18</sup>	DEM						
Participant number	1						
Participant short name	MATF						
Person-months per participant	24						

### Objectives

Razvijanje plana marketinga i razvijanje marketinških materijala i alata, reklamiranje.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Plan marketinga (M10)
- Razvijeni marketinški alati i materijali (M10)

<sup>18</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

## Work package description

Work package number	WP7	Start date or starting event:					
Work package title	Plasiranje proizvoda na tržište						
Activity type <sup>19</sup>	DEM/RTD						
Participant number	1						
Participant short name	MATF						
Person-months per participant	36						

### Objectives

Plasiranje krajnjeg proizvoda na tržište, početak prodaje preko interneta.

### Description of work (possibly broken down into tasks) and role of partners

### Deliverables (brief description) and month of delivery

- Završen ceo sistem (M12)

<sup>19</sup> Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Table 1.3e Summary of effort

### Summary of effort

A summary of the effort is useful for the evaluators. Please indicate in the table number of person months over the whole duration of the planned work, for each work package by each participant. Identify the work-package leader for each WP by showing the relevant person-month figure in **bold**.

Partic. no.	Partic. short name	WP0	WP1	WP2	WP3	WP4	WP5	WP6	WP7	Total person months
1	MATF	50	0	5	5	10	8	24	36	138
2	WAR	0	0	5	0	0	8	0	0	13
3	TU	0	0	0	15	0	8	0	0	23
4	ABB	0	36	0	0	0	0	0	0	36
Total										210

## **Section 2. Implementation**

### **2.1 Management structure and procedures**

Iz razloga što projekat uključuje partnere iz više država komunikacija je veoma bitna i uglavno će se odvijati preko interneta. U projekat će biti uključeni stručni, obučeni ljudi sa dobrim znanjem engleskog jezika. Na projektu će raditi i studenti pošto su tri univerziteta uključena u projekat. Svaki od univerziteta će obezbediti koordinatora projekta koji će voditi tim svojih studenata i kolega na ovom projektu.

Struktura i organizacija projekta će biti unapred određena što će povećati verovatnoću da projekat uspe. Ovo će obezbediti da projekat ispuni sve ciljeve i zahteve.

Vrlo precizni izveštaji, isporuke kao i prekretnice su definisane u gore opisanim stavkama. Jedinice posla su detaljno obrađene sa striktnom raspodelom poslova između partnera. Kontrola rada svakog učesnika je takođe podržana time što smo uveli koordinatore za svakog partnera. Bilo koji propust, greška ili pogrešan pristup će biti na vreme primećen i otklonjen.

## **2.2 Individual participants**

1. Univerzitet u Beogradu, Matematički Fakultet (MATF)  
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## 2.3 Consortium as a whole

Ovaj projekat spaja naučnike iz više disciplina, doduše većinom familijarnih. Kako bi se projekat ostvario, neohodna su napredna znanja iz matematike, fizike, biologije, mehanike, robotike i programiranje. Pored tima naučnika, tu su i programeri softvera koji će implementirati sva tri softverska dela projekta i naučna rešenja sprovesti u prakticna bez kojih projekat nikada ne bi bio dovršen.

**i) Sub-contracting:** Članice Evropske unije

- University of Warwick (WAR), Coventry, United Kingdom
- Technical University Berlin (TU), Germany
- ABB LTD (ABB), Germany

**ii) Other countries:**

- Univerzitet u Beogradu, Matematički Fakultet (MATF) , Studentski Trg 16, Srbija

## **2.4 Resources to be committed**



## **Section 3. Impact**

### **3.1 Expected impacts listed in the work programme**

Ovaj projekat bi trebalo da bude od interesa svim državama jer se ovaj projekat može primeniti u svim delovima sveta, kako u urbanim tako i u ruralnim sredinama. Uz male modifikacije uz pomoć ovog sistema moglo bi se dolaziti do ljudima teško dostupnih područja, raskrčavati puteve.

**3.2 Dissemination and/or exploitation of project results, and management of intellectual property**

Describe the measures you propose for the dissemination and/or exploitation of project results, and how these will increase the impact of the project. In designing these measures, you should take into account a variety of communication means and target groups as appropriate (e.g. policy-makers, interest groups, media and the public at large).

Describe also your plans for the management of knowledge (intellectual property) acquired in the course of the project.

## Section 4. Ethical Issues

DLM sistem je potpuno bezbedan za upotrebu i nema etičkih problema.

Describe any ethical issues that may arise in their proposal. In particular, you should explain the benefit and burden of their experiments and the effects it may have on the research subject. The following special issues should be taken into account:

**Informed consent:** When describing issues relating to informed consent, it will be necessary to illustrate an appropriate level of ethical sensitivity, and consider issues of insurance, incidental findings and the consequences of leaving the study.

**Data protection issues:** Avoid the unnecessary collection and use of personal data. Identify the source of the data, describing whether it is collected as part of the research or is previously collected data being used. Consider issues of informed consent for any data being used. Describe how personal identify of the data is protected.

**Use of animals:** Where animals are used in research the application of the 3Rs (Replace, Reduce, Refine) must be convincingly addressed. Numbers of animals should be specified. State what happens to the animals after the research experiments.

**Human embryonic stem cells:** Research proposals that will involve human embryonic stem cells (hESC) will have to address all the following specific points:

- ☐ the necessity to use hESC in order to achieve the scientific objectives set forth in the proposal.
- ☐ whether the applicants have taken into account the legislation, regulations, ethical rules and/or codes of conduct in place in the country(ies) where the research using hESC is to take place, including the procedures for obtaining informed consent;
- ☐ the source of the hESC
- ☐ the measures taken to protect personal data, including genetic data, and privacy;
- ☐ the nature of financial inducements, if any.

Identify the countries where research will be undertaken and which ethical committees and regulatory organisations will need to be approached during the life of the project.

Include the Ethical issues table below. If you indicate YES to any issue, please identify the pages in the proposal where this ethical issue is described. If you are sure that none of the issues apply to your proposal, simply tick the YES box in the last row.

### Notes:

1. For further information on ethical issues relevant to ICT, see annex 5 of the Guide for applicants.
2. Only in exceptional cases will additional information be sought for clarification, which means that any ethical review will be performed solely on the basis of the information available in your proposal.

**ETHICAL ISSUES TABLE**

	YES	PAGE
<b>Informed Consent</b>		
<input type="checkbox"/> Does the proposal involve children?		
<input type="checkbox"/> Does the proposal involve patients or persons not able to give consent?		
<input type="checkbox"/> Does the proposal involve adult healthy volunteers?		
<input type="checkbox"/> Does the proposal involve Human Genetic Material?		
<input type="checkbox"/> Does the proposal involve Human biological samples?		
<input type="checkbox"/> Does the proposal involve Human data collection?		
<b>Research on Human embryo/foetus</b>		
<input type="checkbox"/> Does the proposal involve Human Embryos?		
<input type="checkbox"/> Does the proposal involve Human Foetal Tissue / Cells?		
<input type="checkbox"/> Does the proposal involve Human Embryonic Stem Cells?		
<b>Privacy</b>		
<input type="checkbox"/> Does the proposal involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)		
<input type="checkbox"/> Does the proposal involve tracking the location or observation of people?		
<b>Research on Animals</b>		
<input type="checkbox"/> Does the proposal involve research on animals?		
<input type="checkbox"/> Are those animals transgenic small laboratory animals?		
<input type="checkbox"/> Are those animals transgenic farm animals?		
<input type="checkbox"/> Are those animals cloned farm animals?		
<input type="checkbox"/> Are those animals non-human primates?		
<b>Research Involving Developing Countries</b>		
<input type="checkbox"/> Use of local resources (genetic, animal, plant etc)		
<input type="checkbox"/> Impact on local community		
<b>Dual Use</b>		
<input type="checkbox"/> Research having direct military application		
<input type="checkbox"/> Research having the potential for terrorist abuse		
<b>ICT Implants</b>		
<input type="checkbox"/> Does the proposal involve clinical trials of ICT implants?		
<b>I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL</b>	YES	