# TRAINING DESCRIPTION FORM

TITLE OF THE TRAINING ACTIVITY (in the language of tuition - English):

EU-HOU: Hands-On Universe, Europe. Bringing frontline interactive astronomy in the classroom.

#### TYPE OF TRAINING ACTIVITY

#### TRAINING AIMED AT PARTICIPANTS RECEIVING:

• A COMENIUS GRANT (SCHOOL EDUCATION)

#### **ORIGIN OF THE TRAINING:**

• COURSE RESULTING FROM AN LLP OR PREVIOUS SOCRATES PROJECT (COMENIUS, LINGUA, GRUNDTVIG, MINERVA)

LLP OR SOCRATES PROJECT NO.: 141928-LLP-1-2008-1-FR-COMENIUS-CMP/2008-3371

#### THEMATIC FIELD OF THE TRAINING

#### IN-SERVICE TRAINING IN THE FIELD OF SCIENCES

• Maths, chemistry & physics

## LANGUAGES USED FOR THE TRAINING

**MAIN LANGUAGE:** 

**English** 

OTHER LANGUAGE/S USED DURING THE TRAINING:

English;

LANGUAGE VERSION(S) IN WHICH MATERIALS WILL BE PROVIDED:

English;

# **EDUCATION SECTOR OF THE TRAINING PARTICIPANTS**

#### SCHOOL AND PRE-SCHOOL EDUCATION

• General secondary

### TARGET AUDIENCE

- Teachers (Pre-school, primary, secondary, vocational, adult, special needs)
- Teacher trainers

## INSTITUTION ORGANISING THE TRAINING

NAME OF THE ORGANISATION:

Université Pierre et Marie Curie

**STREET AND NUMBER:** 4, place Jussieu **POSTCODE:** 75252 Cedex 05 -

TOWN / CITY: Paris
COUNTRY: France

WEBSITE: www.upmc.fr

**ORGANISER/S OF THE TRAINING:** 

PERSON 1: Anne-Laure Melchior

**TEL NR:** 33/1/40512061 **FAX NR:** 33/1/40512002 EMAIL: training@euhou.net PERSON 2: Gilles Chagnon **TEL NR:** 33/1/44276011 **FAX NR:** 33/1/53104330

**EMAIL:** Gilles.Chagnon@upmc.fr

#### FULL DESCRIPTION OF TRAINING CONTENTS

#### IN THE LANGUAGE OF THE TRAINING: (EN)

**Preparation** The teachers are encouraged to visit the Web site of the project (http://www.euhou.net) where news and pedagogical ressources are available. Teachers should be able to communicate in English on scientific topics.

**Objectives** 

The main goal of this training is to re-awake the interest for science in the young generation with inquiry-based methods. Renewing of the teaching of science is fulfilled through astronomy as a well-established source of motivation, and through the use of new ICT. Involving teachers in a variety of research-based astronomical projects, we will excite, enthuse and motivate them to teach science/technology/maths. The training is intended to enhance basic competencies of teachers and develop higher level skills and expertise, primarily in ICT, maths and physics area. The EU-HOU project will provide the opportunity for trained teachers to get involved in stimulating international collaborations and to enthuse their pupils to study sciences/technology/maths at a higher level. The training is designed to provide tools to help teachers to challenge and inspire pupils in order to keep science in the heart of society to avoid a regress to barbarism. The idea is to enable pupils to analyse and measure by themselves astronomical data designed to make them understand basic and scientific concepts, learn the scientific method and acquire key skills for thinking by themselves and actively participate in a sustainable economy.

**Methodology** Lectures will be proposed to provide an overview of selected topics in astronomy.

Access to state-of-the-art technology such as robotic telescopes and « virtual observatory » databases and software will be emphasized, ensuring strong ICT links for the training. Practical sessions will thus be organised (e.g. on-line observations in the optical and in radio, building a spectroscope, mounting a galileoscope...). These activities will be easily repeated in classroom after the training. Cross-curricular ICT exercises based on astronomical data and (multilingual) data-analysis software (SalsaJ) will be presented in a computer room. These exercises have been tested in secondary schools of the various partner countries of the project and are designed to be introduced in classrooms.

Educational materials and supporting information available on the Web site (in English and adapted in different languages) will be presented, as well as connected details to the forum to join the EU-HOU teachers network. These ressources have been developed by the EU-HOU project (http://www.euhou.net; funded by the European Commission

141928-LLP-1-2008-1-FR-COMENIUS-CMP / 2008-3371; 113969-CP-1-2004-1-FR-MINERVA-M). "Social events" (dinner, night observations...) will be organised to favour possible future collaborative work.

Follow-up

Contacts with the trainers will be encouraged. The teachers will be shown how to register on the EU-HOU Web2 facilities to join the EU-HOU network of teachers. Interested teachers will then be offered an access to remotely controlled telescopes (depending on current availabilities), or to contribute to the development of new ressources in interaction with researchers. Collaborative works between different European schools will be encouraged, including proposals of Comenius school partnerships.

# PROGRAMME OF THE TRAINING ACTIVITIES (DAY BY DAY)

## IN THE LANGUAGE OF THE TRAINING:

9h00 - 10h30 Lecture. Current challenge in Astronomy: General Introduction

10h30-11h00 Coffee break

11h00-12h30 Practical sessions: Mounting galileoscopes

12h30-14h00 Lunch Break

14h00-16h00 ITC exercise with SalsaJ: Introduction, powers of 10

16h00-17h00 Presentation of remote on-line observations

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9h00 - 10h30 Lecture. Current challenge in Astronomy: Spectroscopy

10h30 - 11h00 Coffee break

11h00 -12h30 Practical sessions: Building a spectroscope/On-line observations

12h30 -14h00 Lunch Break

14h00 -17h ITC exercise with SalsaJ: Measuring distances in the Universe: Supernovae Ia, Cepheids

Wednesday

9h00 - 10h30 Lecture. Current challenge in Astronomy: Cosmology and black holes

10h30-11h00 Coffee break

11h00-12h30 Practical sessions: Sun4all/On-line observations

12h30-14h00 Lunch Break

14h00-17h ITC exercise with SalsaJ: Dark matter and rotation curves of galaxies

Thursday

9h00 - 10h30 Lecture. Current challenge in Astronomy: Extra-solar planets, impacts in the Solar System and Near-Earth

Objects

10h30 - 11h00 Coffee break

11h00-12h30 Practical sessions: Study of the Hydrogen of the Milky Way/On-line observations

12h30-14h00 Lunch Break

14h-17h ITC exercise with SalsaJ: craters and impacts in the Solar System

Friday

9h00 - 10h30 Lecture. Presentation of the EU-HOU project

10h30 - 11h00 Coffee break

11h00-12h30 Practical sessions: Registration on EU-HOU forum, introduction to EU-HOU Web site/On-line observations

12h30-14h00 Lunch Break

14h-17h ITC exercise with SalsaJ: detection of extrasolar planets (radial velocities, transit method)

#### TYPE OF CERTIFICATION OF ATTENDANCE AWARDED

## IN THE LANGUAGE OF THE TRAINING:

**Europass Mobility certificate; Certificate of attendance** 

**ENGLISH:** 

**Europass Mobility certificate; Certificate of attendance** 

## INFORMATION ON COURSE SESSION/S

**SESSION 1** 

**SESSION ID: 39629** 

**DATE OF START**: 17/10/2011 **TIME OF START**: 9:00 **DATE OF END**: 21/10/2011 **TIME OF END**: 17:00

**Deadline for registration**: 16/09/2011

HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION:

STREET AND NUMBER: Estrada Marginal; São Pedro do Estoril

NAME OF HOST INSTITUTION:

Centro de Interpretação Ambiental da Pedra do

Sal

POSTCODE: 2765-539
TOWN / CITY: Cascais
COUNTRY: Portugal

Nearest big city: Lisbon

Distance: 25km

CONTACT PERSON FOR THIS COURSE SESSION, NAME AND

TITLE:

Rosa Doran, Dr

TEL NR: +35/1/214537440

FAX NR: +35/1/966781264

EMAIL: geral@nuclio.pt

# IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING:

Sonia Anton (Dr), researcher, University of Lisbon, Portugal, lecture

Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises

Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Maria Luísa Almeida (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises

Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises André Moitinho (Dr), president of the Portuguese Astronomical Society, Portugal, lecture

Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises

MAXIMUM NUMBER OF PARTICIPANTS ENVISAGED: 30 FEE IN  $\epsilon$  FOR ACCOMMODATION AND MEALS: 000.00 COURSE FEE IN  $\epsilon$  (TUITION AND MATERIALS): 750.00

**CANCELLATION FEE IN € (WHERE APPLICABLE)**: 0

PROVISION FOR SPECIAL NEEDS:
No

#### **SPECIAL REMARKS:**

The training is scheduled for 2 groups. The repartition in 2 groups will be done in order to mix the various nationalities. Participants are encouraged to bring their own labtops. Otherwise, they should let us know and local computers will be provided.

**SESSION 2** 

**SESSION ID: 39745** 

**DATE OF START**: 14/11/2011 **TIME OF START**: 9:00 **DATE OF END**: 18/11/2011 **TIME OF END**: 17:00

Deadline for registration: 14/10/2011

HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION:

NAME OF HOST INSTITUTION: Université Pierre et Marie Curie

**POSTCODE**: 75252 Cedex 05

TOWN / CITY: Paris
COUNTRY: France

Nearest big city: Paris

Distance: 0km

CONTACT PERSON FOR THIS COURSE SESSION, NAME AND TITLE: Anne-Laure Melchior (Dr)

 TEL NR:
 33/1/40512061

 FAX NR:
 33/1/40512002

 EMAIL:
 training@euhou.net

# IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING:

Roger Ferlet (Dr), IAP-Paris France CNRS Researcher (DR), lecture, ICT exercises Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises

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Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises

MAXIMUM NUMBER OF PARTICIPANTS ENVISAGED: 30 FEE IN € FOR ACCOMMODATION AND MEALS: 000.00

**COURSE FEE IN €** 

750.00

(TUITION AND MATERIALS):

**CANCELLATION FEE IN € (WHERE APPLICABLE)**:

0

PROVISION FOR SPECIAL NEEDS:

No

#### **SPECIAL REMARKS:**

The training is scheduled for 2 groups, the agenda will be modified If there are less than 15 participants, a single group will be trained. The repartition in 2 groups will be done in order to mix the various nationalities.

**SESSION 3** 

**SESSION ID: 39747** 

**DATE OF START: 12/03/2012** TIME OF START: 9:00 **DATE OF END: 16/03/2012 TIME OF END: 17:00** 

**Deadline for registration**: 10/02/2012

HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION:

STREET AND NUMBER: Santa Clara

NAME OF HOST INSTITUTION: Observatório Astronómico de Coimbra

3040 - 004 **POSTCODE**: TOWN / CITY: Coimbra COUNTRY: Portugal

Nearest big city: Lisbon Distance: 200km

CONTACT PERSON FOR THIS COURSE SESSION, NAME AND TITLE: Rosa Doran, Dr TEL NR: +35/1/214537440 FAX NR: +35/1/966781264 EMAIL: geral@nuclio.pt

## IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING:

Maria Luísa Almeida (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises

Roger Ferlet (Dr), IAP-Paris France CNRS Researcher (DR), lecture, ICT exercises

Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises

Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises

Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises

MAXIMUM NUMBER OF PARTICIPANTS ENVISAGED: 30 FEE IN € FOR ACCOMMODATION AND MEALS: 000.00 **COURSE FEE IN €** 750.00 (TUITION AND MATERIALS):

CANCELLATION FEE IN € (WHERE APPLICABLE):

PROVISION FOR SPECIAL NEEDS: No

#### SPECIAL REMARKS:

The training is scheduled for 2 groups, the agenda will be modified If there are less than 15 participants, a single group will be trained. The repartition in 2 groups will be done in order to mix the various nationalities.

ID: 29854 5 / 10 **SESSION 4** 

**SESSION ID: 39758** 

**DATE OF START**: 02/04/2012 TIME OF START: 9:00 **DATE OF END:** 06/04/2012 **TIME OF END**: 17:00 **Deadline for registration**: 06/03/2012 HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION: NAME OF HOST INSTITUTION: Université Pierre et Marie Curie POSTCODE: 75252 Cedex 05 TOWN / CITY: Paris **COUNTRY**: France Nearest big city: Paris Distance: 0km **CONTACT PERSON FOR THIS COURSE SESSION, NAME AND TITLE:** Anne-Laure Melchior (Dr) TEL NR: 33/1/40512061 33/1/40512002 FAX NR: EMAIL: training@euhou.net IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING: Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises Roger Ferlet (Dr), IAP-Paris France CNRS Researcher (DR), lecture, ICT exercises Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises MAXIMUM NUMBER OF PARTICIPANTS ENVISAGED: 30 FEE IN € FOR ACCOMMODATION AND MEALS: 00.00 **COURSE FEE IN €** 750.00 (TUITION AND MATERIALS): CANCELLATION FEE IN € (WHERE APPLICABLE): 0 PROVISION FOR SPECIAL NEEDS: No **SPECIAL REMARKS:** The training is scheduled for 2 groups, the agenda will be modified If there are less than 15 participants, a single group will be trained. The repartition in 2 groups will be done in order to mix the various nationalities. **SESSION 5** SESSION ID: 39757

**DATE OF START**: 21/05/2012 **TIME OF START**: 9:00 **DATE OF END**: 25/05/2012 **TIME OF END**: 17:00

 $\textbf{Deadline for registration} \colon 25/04/2012$ 

HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION:

STREET AND NUMBER: Santa Clara

NAME OF HOST INSTITUTION: Observatório Astronómico de Coimbra

POSTCODE: 3040 - 004
TOWN / CITY: Coimbra
COUNTRY: Portugal

Nearest big city: Lisbon Distance: 200km

**CONTACT PERSON FOR THIS COURSE SESSION, NAME AND TITLE:** Rosa Doran, Dr TEL NR: +35/1/214537440 FAX NR: +35/1/966781264

**EMAIL**: geral@nuclio.pt

## IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING:

Sonia Anton (Dr), researcher, University of Lisbon, Portugal, lecture

Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises

Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Maria Luísa Almeida (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises

Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises

Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises André Moitinho (Dr), president of the Portuguese Astronomical Society, Portugal, lecture Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises

MAXIMUM NUMBER OF PARTICIPANTS ENVISAGED: 30 FEE IN € FOR ACCOMMODATION AND MEALS: 00.00

**COURSE FEE IN €** 

750.00

(TUITION AND MATERIALS):

CANCELLATION FEE IN € (WHERE APPLICABLE):

0

# PROVISION FOR SPECIAL NEEDS:

No

#### **SPECIAL REMARKS:**

The training is scheduled for 2 groups, the agenda will be modified If there are less than 15 participants, a single group will be trained. The repartition in 2 groups will be done in order to mix the various nationalities.

**SESSION 6** 

SESSION ID: 39759

**DATE OF START: 04/06/2012** TIME OF START: 9:00 **DATE OF END**: 08/06/2012 **TIME OF END: 17:00** 

**Deadline for registration**: 04/05/2012

HOST INSTITUTION EQUAL TO ORGANIZER INSTITUTION:

**NAME OF HOST INSTITUTION:** Université Pierre et Marie Curie

POSTCODE: 75252 Cedex 05

TOWN / CITY: Paris **COUNTRY**: France

Nearest big city: Paris

Distance: 0km

**CONTACT PERSON FOR THIS COURSE SESSION, NAME AND TITLE:** Anne-Laure Melchior (Dr)

TEL NR: 33/1/40512061 FAX NR: 33/1/40512002 EMAIL: training@euhou.net

# IDENTIFICATION OF THE TRAINER/S: NAME, PROFESSIONAL QUALIFICATION, ROLE DURING THE TRAINING:

Stefano Bertone, UPMC-Paris France (Italian), PhD student, ICT exercises

Gilles Chagnon (Dr), UPMC-Paris Lecturer (PRAG), practical sessions and ITC exercise classes

Roger Ferlet (Dr), IAP-Paris France CNRS Researcher (DR), lecture, ICT exercises

Lech Mankiewicz (Dr), Professor, CFT-Academy of Sciences, Warsaw, Poland, practical sessions, ICT exercises

Anne-Laure Melchior (Dr), UPMC-Paris France Lecturer (MdC), lecture, ICT exercises

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FEE IN € FOR ACCOMMODATION AND MEALS:

COURSE FEE IN €

(TUITION AND MATERIALS):

CANCELLATION FEE IN € (WHERE APPLICABLE):

0

PROVISION FOR SPECIAL NEEDS:

No

Rosa Doran (Dr), NUCLIO, Lisbon, Portugal, practical sessions, ICT exercises Sarah Roberts (Dr), University of Glamorgan, UK, practical sessions, ICT exercises

## **SPECIAL REMARKS:**

The training is scheduled for 2 groups, the agenda will be modified If there are less than 15 participants, a single group will be trained. The repartition in 2 groups will be done in order to mix the various nationalities.

## **DECLARATION BY THE TRAINING ORGANISER**

" I, the undersigned, hereby declare that the information contained in this training description form is correct to the best of my knowledge. I agree that the results of a separate on-line evaluation exercise by participants will be publicly available in the training database. I acknowledge that repeated negative results of the evaluation may lead to removal of the training activity from the database."

Place:	Date:
Signature:	
Name and title (position), in block capitals, of the signatory:	
Surname:	First name:
Title (position):	
Official stamp of the applicant body:	

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## DECLARATION OF COMPLIANCE

# MINIMUM OBLIGATIONS FOR PROVIDERS OF COMENIUS AND GRUNDTVIG TRAINING EVENTS

The declaration has to be provided for <u>each training event</u> to be included in the Comenius-Grundtvig Training Database

Reference Number	(to be filled by the National Agency)
Title	EU-HOU: Hands-On Universe, Europe. Bringing frontline interactive astronomy in the classroom.
Organising Institution	Université Pierre et Marie Curie

I, as the representative of the training provider institution, wish to publicise in the European Comenius and Grundtvig Training Database the above mentioned training event which will be organised according to the minimal requirements defined herein.

#### 1. TRAINING CONTENT

#### We offer:

- a training event for adult or school education staff which is in line with the relevant annual Lifelong Learning Programme Call for Proposals;
- a training event with a strong European dimension in terms of subject matter and profile of trainers which will provide the participants with practical professional skills and knowledge to gain a broader understanding of school or adult education in Europe;
- a highly qualified team to ensure high quality of the training activity;

## We provide our participants with

- a suitable pre-departure programme (e.g. suggested reading material, support documents, questionnaires, etc.);
- a range of follow-up activities which will allow participants to get maximum benefit from the training (e.g. distance learning activities, self-assessment of lessons taught after training, peer networking);
- a certificate of attendance of the training activity. The certificate will clearly specify the name of the participant, dates of the activity and the training content followed by the participant, and it will be distributed at the end of the training activity (before participants' departure). If possible, we will use the Europass Mobility certificate.

#### We confirm that

• where a structured course or a seminar/conference is targeted at Comenius grant holders, it is the result of a previous Socrates project or an LLP Multilateral Project or a Network.

#### 2. COMPOSITION OF THE GROUP

## We confirm that

- the specific target group/s (Comenius or Grundtvig) for the event is clearly specified;
- the participants should come from at least three countries participating in the LLP;
- one nationality should normally constitute maximum 30% of all participants of the course, and we will make every effort to reach this target.

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#### 3. ORGANISATIONAL ASPECTS

#### We confirm that

- the training activity is held in a *country participating in the LLP* (see the list in the annual Call for Proposals);
- the IST activity can last maximum 6 weeks;
- a structured course must last at least 5 working days (excluding travel time);
- a detailed *day by day programme* with clear start and end time of training activities has been provided in the Comenius and Grundtvig Training Database and it corresponds to the training that will be realised;
- we will not charge the participants any pre-registration fees;
- in case we need to cancel the training event, we will not charge the participants with any costs and we will reimburse promptly any course fees paid by the participants;
- we provide detailed rules concerning cancellation. We guarantee free cancellation until 4 weeks before the training;
- in case we have more than one group per session we provide information on how we build the groups;
- we organise an evaluation session at the end of the training activity;
- we guarantee that the information given in the Comenius and Grundtvig Training Database is up to date and binding for the training offered.

#### 4. TRAINING PROVIDER INSTITUTION

#### We declare that our organisation

- comes from one of the countries participating in the LLP (see the list in the annual Call for Proposals);
- has a legal status and experience in the field of in-service training provision specifically for the school or adult education sectors;
- is experienced in working with multinational groups;
- has the financial and technical capacity to successfully offer the proposed training activities.

information included in <i>Instructions for course providers</i> . I redemands are being fulfilled. Should the training event no long National Agency accordingly. In case of breach of the declara and Grundtvig Training Database.	ecognize that the relevant National Agency may verify if these ger comply with the rules stated herein, I will inform the
Place:	Date:
Signature:	
Name and title (position), in block capitals, of the signatory:	
Surname:	First name:
Title (position):	
Official stamp of the applicant body:	