

1. Basic information

- 1.1 CRIS Number: 2007/019-247
- 1.2 Title: **Combating Drugs Trafficking and Abuse**
- 1.3 Code: 24 - Justice, Freedom and Security
- 1.4 Location: Republic of Croatia, Ministry of the Interior

Implementing arrangements:

1.5 Implementing Agency:
Central Finance and Contracting Unit, Ministry of Finance
The Programme Authorising Officer (PAO) for the project is:
Mrs Vladimira Ivandić, Assistant Minister
Ministry of Finance
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1.6 Beneficiary (including details of SPO):

Ministry of the Interior
Senior Programme Officer
Mr Filip Dragović
Assistant Minister
Ministry of the Interior
Ilica 335
10000 Croatia

1.7 Overall cost: 2.200.000 €

1.8 EU contribution: 1.900.000 €

1.9 Final date for contracting: 2 years following the date of conclusion of the Financing Agreement

1.10 Final date for execution of contracts: 2 years following the end date for contracting

1.11 Final date for disbursements: 3 years following the end date for contracting

2. Overall Objective and Project Purpose

2.1 Overall Objective:

To strengthen the ability of MoI in fight against organized crime in the field of suppression of organized production and resale of drugs.

2.2 Project purpose:

Component I – Forensic Science Centre

Strengthening institutional capacities of the Forensic Science Centre (FSC) in the area of drugs analysis and establishment of National Contact Point (NCP) for transmission of synthetic drugs samples and data exchange with other Forensic Science Centres on profiling synthetic drugs.

Component II – Criminal Police Directorate

To enhance the ability of police officers in the area of combating drugs trafficking and abuse.

2.3 Link with AP/NPIEU

The project is in line with the Accession Partnership (AP) priorities concerning fight against drug trafficking. Sectors 3.1 and 3.2 of the AP specifically refers to the need to reinforce the fight against drug trafficking and provide necessary specialised training to law enforcement agencies.

Corresponding priorities are set in the chapters 3.24.7.2., 3.24.8. and 4.24.4. of the “National Programme for the Integration of Croatia into the European Union 2006” (NPIEU) on border management.

2.4 Link with MIPD

The project is in line with MIPD under component I. Transition Assistance and Institutional Building, Ability to assume the obligations of membership, where is stipulated: “...the focus of assistance in this area will be on institutional capacity building for acquis transposition and implementation according to the priorities identified in the Accession Partnership...”

2.5 Link with National Development Plan

Not applicable.

2.6 Link with national/ sectoral investment plans

Strategy for the Development of IT and Telecommunications system of the Ministry of the Interior of the Republic of Croatia for the period between 2006–2010.

3. Description of project

3.1 Background and justification:

The Republic of Croatia is, regarding its geo-strategic position, a transit country, situated on the crossroad of the main central European traffic corridors and it is situated on the direction of smuggling of narcotic drugs, persons, vehicles, high-tariff goods, weapons and explosives. A phenomenon, so called “Balkan route” is well known as the shortest way from the east to west Europe, mentioning that lately its two way traffic appears.

When the Republic of Croatia became independent it took over, according to notification of succession and rule of law, international conventions which regulate the area related to abuse and smuggling of narcotic drugs, psychotropic substances and precursors.

In 2005 the Croatian Parliament adopted new National strategy of suppression of abuse of narcotic drugs in the Republic of Croatia for the period 2006-2012. The key framework for its making was represented by EU strategy for drugs (2005-2012),

which points out a need for drafting a whole, multidisciplinary, global and balanced strategy in the field of drugs in Europe. According to the recommendation of the European Council, an expert knowledge of EMCDDA, as well as other European experts was used. The National strategy is especially dealing with the following areas: coordination, decreasing of drugs sale by: prevention, decreasing the damage caused by drug use, treatment and social treatment, activity of social society: decreasing of drugs offer by: prevention of illegal drugs production, cooperation of competent state authorities, especially police, custom and justice in the field of organised crime related to drugs and criminal politics; surveillance, information system, investigative work and evaluation; international cooperation and education.

Action Plan for suppression of abuse of narcotic drugs for the period 2006-2009, was elaborated in details in the guidelines of the National Strategy. It is congruent with the EU Action Plan for drugs in the period from 2005-2008.

According to the valid National Strategy and Action Plan of suppression of abuse of narcotic drugs in the Republic of Croatia, the Ministry of the Interior drafted its strategic goals (guidelines). It refers to suppression of crime related to abuse and smuggling of narcotic drugs, and which refer to activities primarily directed to suppression of offer (availability), and interdisciplinary approach, and in cooperation with other bodies (resources) and activities in the field of decreasing the needs for narcotic drugs. Concretely, in police handling a stress was put on:

1. continued implementation and taking of all measures and activities for the purpose of more efficient surveillance of the state border in order to prevent all phenomena of smuggling of narcotic drugs to and across the Republic of Croatia,
2. suppression of organised kinds of production and reselling of narcotic drugs, and suppression of abuse, i.e. street reduction,
3. suppression of illegal export, import, and transport of precursors, obstruction of illegal production, prevention and revealing of the possible abuse during trade with precursors, i.e. their redirection.

FORENSIC SCIENCE CENTRE:

Forensic Science Centre “Ivan Vučetić” (FSC) is part of General Directorate of MoI. It provides forensic expertise in the following areas: documents, DNA, drugs, fibres, finger prints, firearms, fire and explosion, handwriting, marks, paint, road accident analysis and when needed crime scene investigations. It is the only institution in the Republic of Croatia that deals with this matter and it offers its services also to Ministry of Justice, Ministry of Defence, and Customs. FSC is obligated to report Croatian National Focal Point considering request of EMCDDA and it is going to be the part of Early Warning System.

Laboratory for Toxicology is divided in two groups; one is responsible for analysis of alcohol, drugs and psychoactive substances in blood and urine, and one for analysis of seized drugs and psychoactive substances. During one year in Laboratory for toxicology about 4000 cases is resolved of which 3200 belongs to seized drugs and the rest is analysis of drugs and psychoactive substances in biological specimens. In routine cases qualitative analysis is performed, but in some complex cases quantitative analysis for major drugs such as heroin, cocaine, MDMA and amphetamine is also performed. For purposes of illegal market analysis quantitative analysis of major drugs is done.

In past ten years, the number of seized synthetic drugs (especially MDMA and amphetamine) has significantly grown. So far in Croatia no illegal laboratory for

synthetic drugs has been detected, but in several cases large amounts of synthetic drugs precursors were seized. In neighbour countries a few illegal laboratories for synthetic drugs have been uncovered. There is a doubt that in the region there is more undetected laboratories.

According to that facts there are demands for profiling synthetic drugs in order to confirm the link between seized samples or determination of production methods. Toxicology laboratory of FSC lacks education for that requirement, and existing analytical equipment (GC-MS, HPLC-DAD/RID, FTIR) is not even sufficient for routine work because of growing number of cases and their complexity. That is the reason for purchase of new equipment within this project. Without new equipment, toxicology laboratory is not equipped properly to fulfil other activities which will be conducted through twinning component.

Note: see attached in Annex V costs assessment for FSC. It is connected with Request for Derogation.

Because several European forensic laboratories have participated in projects (CHEDDAR and CHAMP), financed by EU, and the projects resulted with establishment of harmonized methods for profiling amphetamine and amphetamine-type stimulants and common database, it would be of great interest to introduce these methods in FSC. These methods provide data of compositional analysis, including qualitative and quantitative determination of active substances, diluents and adulterants. Introducing mentioned methods to FSC and creating database of profiled drugs seized in the region would also contribute European database in that field.

Besides previously mentioned demands, the Republic of Croatia has certain obligations according to the NPIEU, which originate from the EU decisions with regard to exchange of information on chemical profiling of drugs for enhancing cooperation on the field of suppression illegal drug trafficking amongst member countries and on transferring samples on controlled substances. In order to fulfil the obligations, it is necessary to establish the National Contact Point.

DRUGS DEPARTMENT:

The Drugs Department was established within the Ministry of the Interior, General Police Directorate and coordinates functioning of all specialised organisational units within the framework of the Police Districts (20 police districts in total) in the line of working on suppression of abuse and smuggling of narcotic drugs. Depending on the size of the police districts and problems of related crime on concrete territory, these units are established in size of groups, divisions or departments. About 200 specialised police officers, primarily deal on suppression of the subject kind of crime

Having in mind trends which refer to smuggling of narcotic drugs to and through the Republic of Croatia, except the inevitable so called "Balkan route" (heroin trafficking), the fact is that the Republic of Croatia is the naval country, with several significant sea ports on the Adriatic coast. Due to the mentioned, the attempting of smuggling of narcotic drugs by using commercial boats will be intensified as time goes on, especially for smuggling of narcotic drug cocaine for illegal drug market of the West European countries.

Great amounts of marijuana and hashish mostly come from Africa and are smuggled by sea. Smaller amounts of narcotic drug marijuana are individually imported by foreign tourists during summer tourist season, mainly for their personal needs. Due to extremely convenient macro climate conditions, a certain amount of marijuana is the

product of domestic illegal cultivation. Also, there is a modality of smuggling by road traffic (especially of marijuana in greater amounts) from the territory of neighbouring countries. Indicators related to abuse of marijuana show that this is the most present kind of drug at the illegal drug market, and are also the most consumed.

Synthetic drugs like amphetamines and amphetamine derivatives, mainly tablets of ecstasy, are smuggled in various ways from the territory of certain West European countries, but also more and more present at drug markets of certain East European and Balkan countries.

Statistical indicators of reported persons and criminal offences of drug abuse during the period 2003-2006:

- 2003 - 5 685 persons were reported for 7 992 criminal offences.
- 2004 - 5 339 persons were reported for 7 529 criminal offences.
- 2005 – 5 700 persons were reported for 8 186 criminal offences.
- 2006 – 6 017 persons were reported for 8 346 criminal offences.

Chart: Seizures of narcotic drugs in the Republic of Croatia during the period 2003 -2006.

NARCOTIC DRUGS	2003	2004	2005	2006
HEROINE	85 kg 727 g	114 kg 431 g	27 kg 68 g	81 kg 797 g
CANNABIS RESIN	2 kg 281 g	5 kg 893 g	53 kg 35 g	12 kg 086 g
MARIJUANA	435 kg 037 g	428 kg 235 g	983 kg 222 g	202 kg 445 g
COCAINE	350 kg 769 g	17 kg 595 g	8 kg 963 g	5 kg 640 g
AMPHETAMIN	3 kg 814 g	7 kg 176 g	14 kg 312 g	11 kg 340 g
METHADONE	3 842 tbl.	4 635 tbl.	9 413 tbl.	12 551 tbl.
ECSTASY	29 840 tbl.	27 048 tbl.	33 601 tbl.	16 340 tbl.
LSD(doses)	14	60	21	21

According to the mentioned statistical data and on the basis of the insight and available indicators of other subjects included in the problem of abuse of narcotic drugs and related crime, especially money laundering and terrorism financing, further attempts of increasing the offer of narcotic drugs at the illegal drug market in the Republic of Croatia can be performed as a significant problem.

The main goal of proposed project is to insure further professional education and better professional equipment for all police officers who work on suppression of abuse and smuggling of narcotic drugs by education about the new kinds and ways of implementation of criminal investigations (implementation of investigations-intelligence led and proactive operations, risk assessment, profiling), application of special measures in practise (undercover investigation), trends related to abuse and production of drugs in the world (synthetic narcotic drugs and precursors), ways of management, i.e., to educate them to transfer the knowledge to other police officers (train the trainers), and all this for the purpose of more efficient fight against crime related to smuggling and abuse of narcotic drugs.

Apart from the mentioned education, equipping the police units (Drug Department and Police Districts) with the appropriate basic computer equipment-personal computers is necessary for more efficient dealing with drug related crime. Current level of IT equipment in police stations is unsatisfactory. Also, supply of IT equipment would be in the framework of IT Strategy of the MoI.

Related to supply of equipment in the framework of project, it would be useful to obtain also the advanced tests for preliminary expertise of narcotic drugs, the so called "street labs", i.e. the movable laboratories (in the form of suitcases) for preliminary expertise of narcotic drugs, and appliances for testing the saliva (establishing the presence of narcotic drugs in organism) for all organised units which are dealing with suppression of drugs crime in the framework of police districts and for greater stations in cities.

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact (where applicable)

Catalytic effect: The realisation of the project will have a positive effect by speeding up Croatia's harmonisation with the EU standards.

Sustainability:

During the implementation of the Project, the main beneficiary units within the Ministry of the Interior will be provided with many recommendations for administrative and logistical changes. The Ministry shall then provide for its effective implementation, which will guarantee the sustainability of efforts. The Ministry of the Interior is also committed to provide funds for the maintenance of the procured equipment. The equipment procured through this project and its utilisation shall not have adverse effects on the environment.

Additionality is ensured. EU funding will not replace other funding from the government or other donors and the EU funded intervention/project will result in benefits which would not occur otherwise.

3.3 Results and measurable indicators:

Component I - Forensic Science Centre

1. Gaps and needs analysis of currently legal basis, practice and procedures in the Forensic Science Centre regarding profiling of drugs done.

Indicator: 10 employees of FSC trained

2. National Contact Point (NCP) for transmission of synthetic drugs samples and data exchange on profiling synthetic drugs established.

Indicator: Increased number of cases treated according to new procedures on profiling synthetic drugs

3. Procured and installed technical equipment and staff educated for using it.

Indicator: Technical equipment in use in FSC.

Component II – Criminal Police Directorate

1. Police Units specialized in drug crime adequately trained and educated for combating drug trafficking, supply and precursor's control.

Indicator: 200 experts (specialized police officer) of the MOI trained.

2. Police Units specialized in drug crime in Police Districts adequately equipped with IT equipment.

Indicator: All IT purchased equipment in use.

3.4 Activities:

Component I – Forensic Science Centre

1.1. Carry out gaps and needs analysis of currently legal basis, practice and procedures in the Forensic Science Centre regarding profiling of drugs.

2.1. Developing and implementing training programme for profiling synthetic drugs according to recommended procedures of ENFSI (European Network of Forensic Science Institute).

2.2. Establishing of data base on profiled synthetic drug samples.

3.1. Procurement and installation of technical equipment (analytical instruments) and education of staff for using it.

Component II – Criminal Police Directorate

1.1. Carrying out training for police officers in supply reduction (suppression of drug trafficking and abuse of drugs), precursors and proactive investigations.

1.2. Exchange of experience and best practice in the field of supply drug reduction and trafficking with EU police experts.

2.1. Procurement and installation of IT equipment, equipment for preliminary testing of drugs and precursors (streets labs etc.).

3.5 Conditionality and sequencing

Project implemented through twinning require full commitment and involvement on behalf of senior level officials of the beneficiary institution. Therefore, the leadership

of the Ministry commits itself to provide adequate staff and support to the twinning partner as well as to introduce the institutional changes identified as needed for the successful implementation of the project.

During the work on the project, access of the twinning partners to all necessary management levels will be ensured.

Sequencing:

The Twinning can be tendered immediately; it is not dependent on any other project components.

3.6 Linked activities

Project funded under CARDS 2004 “Strengthening Capacity to Combat Drug Trafficking and Drug Abuse” related to the strengthening capacity of Office for Combating Narcotic Drugs Abuse (OCNDA) and related institutions is not directed to enhancing the capacity of the Ministry of the Interior in the field of suppression of crime although the Ministry is involved in some activities of the project.

IPA 2007 project has link with CARDS 2004 “Combating Trafficking in Firearms, Ammunition and Explosives” project, in part of the project related to accreditation of FSC laboratory. Namely, toxicology laboratory will be also included in accreditation process, partially envisaged through CARDS 2004 project.

3.7 Lessons learned

Ministry of the Interior participates with some activities in the CARDS 2004 project and they raised the awareness of the beneficiaries. These activities provided also important inputs for defining this project.

4. Indicative Budget (amounts in €)

	TOTAL PUBLIC COST	SOURCES OF FUNDING									
		EU CONTRIBUTION				NATIONAL PUBLIC CONTRIBUTION					PRIVATE
		Total	% *	IB	INV	Total	Type of cofinancing (J/P) **	% *	Central	Regional	IFIs
Activities											
Activity 1											
TWINNING	1 000 000	1 000 000	100	x							
Activity 2											
SUPPLY lot 1.	1 000 000	750 000	75	x	250 000	J	25	250 000			
SUPPLY lot 2	200 000	150 000	75	x	50 000	J	25	50 000			
TOTAL	2 200 000	1 900 000	86		300 000		14				

** compulsory for INV (minimum of 25 % of total EU + national public contribution) : Joint cofinancing (J) as the rule, parallel co financing (P) per exception

* expressed in % of the Total Public Cost

5. Indicative Implementation Schedule (periods broken down per quarter)

Contracts	Start of Tendering	Signature of contract	Project Completion
Twinning Contract	2Q/2008	4Q/2008	2Q/2010
Supply Contract – Component I	2Q/2008	4Q/2008	1Q/2010
Supply Contract – Component II	2Q/2008	4Q/2008	3Q/2009

6. Cross cutting issues

6.1 Equal Opportunity

Based on the fundamental principles of promoting equality and combating discrimination, participation in the project will be guaranteed on the basis of equal access regardless of sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation.

Specifically in relation to the issue of equality between men and women, Croatia's population (2001 census) constitutes 51.87% women and 48.13% men, with those in active employment (based on Labour Force Survey statistics, conducted in accordance with ILO methodology, for the second half of 2002) divided 45.31% women and 54.69% men.

All contractors shall be requested to provide monitoring data recording the participation of men and women in terms of expert inputs (in days) and of trainees benefiting under the project (in days) as an integral component of all project progress reports.

6.2 Environment

Not applicable.

6.3 Minorities

Not applicable.

ANNEXES

- 1- Log frame in Standard Format
- 2- Amounts contracted and Disbursed per Quarter over the full duration of Programme
- 3 - Reference to laws, regulations and strategic documents:
Reference list of relevant laws and regulations
- 4- Justification for derogation for Component I and Draft technical specifications for Components I (except freezer) and II:
 - Rate of return
Not applicable.
 - Co financing
The Twinning contract will not be co-financed, but the Government of the Republic of Croatia will secure 25 % of the means for the investment parts of the project.
 - compliance with state aids provisions
Not applicable.
 - Ownership of assets (current and after project completion)
Assets will be in ownership of the Ministry of the Interior.

ANNEX I

STRENGTHENING CAPACITIES OF MINISTRY OF THE INTERIOR TO COMBAT DRUGS TRAFFICKING AND DRUG ABUSE		Programme name and number IPA 2007	HR2007/019-247
Ministry of the Interior			:
		Total budget: 2.2 M €	IPA budget: 1.9 M €
Overall objective	Objectively Verifiable Indicators	Sources of Verification	
To strengthen the ability of MoI in fight against organized crime in the field of suppression of organized production and resale of drugs.	<ul style="list-style-type: none"> Number of requirements for EU accession met 	<ul style="list-style-type: none"> Regular EC and Croatian reports 	
Project purpose	Objectively Verifiable Indicators	Sources of Verification	Assumptions
<p><u>Component I – Forensic Science Centre</u></p> <p>1. Strengthening institutional capacities of the Forensic Science Centre (FSC) in the area of drugs analysis and establishment of National Contact Point (NCP) for transmission of synthetic drugs samples and data exchange on profiling synthetic drugs.</p> <p><u>Component II – Criminal Police Directorate</u></p> <p>To enhance the ability of police officers in the area of combating drugs trafficking and abuse.</p>	<ul style="list-style-type: none"> National Contact Point in operation Number and quality of information exchanged Increased number of more complex criminal investigations on trafficking, production and resale of drugs (quality of seizures, number of criminal acts, number of reported persons for criminal acts) Decreased number of rejected 	<ul style="list-style-type: none"> MoI reports and statistics Project implementation reports EC reports 	<ul style="list-style-type: none"> Full commitment from the Government in fighting organized crime Political will to continue the police reform process and to allocate the necessary resources to it Close and comprehensive co-ordination of the principal actors involved

	criminal charges.		
Results	Objectively Verifiable Indicators	Sources of Verification	Assumptions
<u>Component I - Forensic Science Centre</u> 1 Gaps and needs analysis of currently legal basis, practice and procedures in the Forensic Science Centre regarding profiling of drugs done. 2. National Contact Point (NCP) for transmission of synthetic drugs samples and data exchange on profiling synthetic drugs established. 3. Procured and installed technical equipment and staff educated for using it. <u>Component II – Criminal Police Directorate</u> 1. Police Units specialized in drug crime adequately trained and educated for combating drug trafficking, supply and precursors control. 2. Police Units specialized in drug crime in Police Districts adequately equipped with IT equipment.	<ul style="list-style-type: none"> • 10 employees of FSC trained • Increased number of cases treated according to new procedures on profiling synthetic drugs • Technical equipment in use in FSC • 200 experts (specialized police officer) of the MOI trained • All IT purchased equipment in use 	<ul style="list-style-type: none"> • MoI reports and Statistics • Training materials • Project implementation reports 	<ul style="list-style-type: none"> • Full commitment of the parties involved in project. • Preparedness for implementing recommended measures at all levels of MoI
Activities	Means	Specification of costs	Assumptions
<u>Component I – Forensic Science Centre</u> 1.1. Carry out gaps and needs analysis of currently legal basis, practice and procedures in the Forensic Science Centre regarding profiling of drugs.	Twinning	Twinning: 1.000.000 €	<ul style="list-style-type: none"> • Effective monitoring of the project

<p>2.1. Developing and implementing training programme for profiling synthetic drugs according to recommended procedures of ENFSI (European Network of Forensic Science Institute).</p> <p>2.2. Establishing of data base on profiled synthetic drug samples.</p> <p>3.1. Procurement and installation of technical equipment (analytical instruments) and education of staff for using it.</p> <p><u>Component II – Criminal Police Directorate</u></p> <p>1.1. Carrying out training for police officers in supply reduction (suppression of drug trafficking and abuse of drugs), precursors and proactive investigations.</p> <p>1.2. Exchange of experience and best practice in the field of supply drug reduction and trafficking with EU police experts.</p> <p>2.1. Procurement and installation of IT equipment, equipment for preliminary testing of drugs and precursors (streets labs etc.).</p>	<p>Twinning</p> <p>Supply</p> <p>Twinning</p> <p>Twining</p> <p>Supply</p> <p>Twinning</p>	<p>Supply: 1.200.000 € (1.000.000 € - component I, 200.000 € - component II; estimated)</p>	<ul style="list-style-type: none"> • Timely and adequate resources available
			<p>Preconditions</p>

ANNEX II: amounts in €

Contracted	4Q/2008	1Q/2009	2Q/2009	3Q/2009	4Q/2009	1Q/2010	2Q/2010
Twinning Contract	1.000.000						
Supply Contract	1.200.000						
Cumulated	2.200.000						
Disbursed							
Twinning Contract	800.000						200.000
Supply Contract		900.000					300.000
Cumulated	800.000	1.700.000	1.700.000	1.700.000	1.700.000	1.700.000	2.200.000

ANNEX III

EU decisions:

96/699/JHA mutual action dated 29th of November 1996 with regard to exchange of information on chemical profiling of drugs for enhancing cooperation on the field of suppression illegal drug trafficking amongst member countries; Official Journal L 322, 12/12/1996;

2001/419/JHA Council decision dated 28th of May 2001 on transferring samples on controlled substances; Official Journal L 150, 06/06/2001, p.000.

UN Single Convention on Narcotic Drugs (1961) and its protocol (1972)

UN Convention on Psychotropes Substances (1971)

UN Convention on Illicit Trafficking in narcotic Drugs and Psychotropic Substances (1988)

Law on combating Narcotic Drugs Abuse, 2001, (Official Gazette no. 107/01)

Criminal Code, (Official Gazette no. 110/97)

Criminal Procedures Code, (Official Gazette no. 110/97)

Act on Prevention of Money Laundering (Official Gazette no. 106/97)

Act on the Office for the Suppression of Corruption and Organized Crime (Official Gazette no. 88/01, 12/02, 20/04)

Act on Chemical substances, (Official Gazette no. 173/03, 187/04)

National drug control strategy in the Republic of Croatia 2006 - 2012
(Official Gazette no. 147/05)

Action plan on drug abuse control for the period 2006 - 2009

ANNEX IV: Details per EU funded contract

For *twinning covenants*: components 1 and 2.

Activities (including means)

Component I – Forensic Science Centre

Contract: 1 - Twinning

- Carry out gaps and needs analysis of currently legal basis, practice and procedures in the Forensic Science Centre regarding profiling of drugs.
- Developing and implementing training programme for profiling synthetic drugs according to recommended procedures of ENFSI (European Network of Forensic Science Institute).
- Establishing of data base on profiled synthetic drug samples.

Contract: 2 – Technical Assistance (TA)

- Procurement and installation of technical equipment (analytical instruments) and education of staff for using it.

Component II – Criminal Police Directorate

Contract: 1 - Twinning

- Carrying out training for police officers in supply reduction (suppression of drug trafficking and abuse of drugs), precursors and proactive investigations.
- Exchange of experience and best practice in the field of supply drug reduction and trafficking with EU police experts.

Contract: 2 – Technical Assistance (TA)

- Procurement and installation of IT equipment, equipment for preliminary testing of drugs and precursors (streets labs etc.).

Resident Twinning Adviser

- University degree in natural science (preferably chemistry)
- Preferably 10 years significant experience in the forensic science – drug analysis
- Previous experience with EU twinning projects on drugs forensic would be an advantage
- Excellent communication skills, with fluency in written and spoken English language, including excellent report-writing English language.
- Knowledge of Croatian language would be an advantage
- Computer literate.

Team leader:

- University degree in management, criminalistics, law or similar relevant discipline
- Preferably 5 years significant experience in the project management
- Previous experience with EU twinning projects on IPR would be an advantage
- Excellent communication skills, with fluency in written and spoken English language, including excellent report-writing English language
- Knowledge of Croatian language would be an advantage
- Computer literate.

ANNEX V

Costs assessment for supply of equipment in FSC

JUSTIFICATION FOR DEROGATION (FORENSIC SCIENCE CENTRE COMPONENT – SUPPLY OF EQUIPMENT)

On world market there are **GC-MS, GC and HPLC** instruments manufactured by Shimadzu (Japan), Perkin Elmer (USA), Agilent technologies (USA) etc. The main „Agilent technologies“ manufacture is located in the USA, but there is also an „Agilent technologies“ manufacture aimed for European market located in Waldbronn, Germany.

On world market there are **ICP-OES** instruments manufactured by Horiba Jobin-Yvon (USA, also has a manufacture in France), Teledyne instruments Leeman labs, (USA, also has a facilities in Germany), Spectro Analytical Instruments GmbH, (USA also has a manufacture in Germany), etc. FSC toxicology laboratory uses GC and GC-MS for qualitative and quantitative drug analysis and for drug profiling. HPLC is used as additional confirmative qualitative drug analysis. ICP-OES is used in toxicology laboratories for elemental analysis of trace metals in drugs, in order to make a linkage among seized drugs.

GC-MS: Most of the European toxicology laboratories (members of ENFSI drug WG) use „Agilent technologies“ GC-MS. Moreover, the EU Project for profiling MDMA and methamphetamine, performed by the six EU toxicology laboratories („Champ“) and ENFSI Project for amphetamine profiling by use of a harmonized method and a common database („Cheddar“) both use „Agilent technologies“ GC-MS for profiling drugs, and the databases of profiled drugs are made by „Agilent“ software. In order to introduce the „Cheddar“ and „Champ“ methods for drug profiling to our laboratory, and also to establish the international exchange of profiled drugs data, we ought to have the compatible software. Because of these facts it is necessary to purchase „Agilent technologies“ GC-MS.

HPLC and GC: If the purchased GC-MS would be manufactured by „Agilent technologies“, it would be convenient that the other instruments were also manufactured by the same manufacturer, because the training of FCI employees and maintenance of several instruments performed by the same supplier lowers the costs of service and saves time.

LA-ICP-OES is used for elemental analysis, to trace links between samples, and to determine production method of MDMA, amphetamine and methamphetamine. Depending of method of production (Leuckart reaction, Reductive amination, Oxime route) various inorganic compounds are used, and finally elements such as Na, Pd, Ba, B, Li, Hg, I and Br can be identified in illicit drugs. This instrument is very sensitive and robust which make it suitable for trace element analysis in complex samples such are illicit drugs.

Please, find technical specifications (except freezer).

GC-FID (Gas chromatograph with FID) 2 pieces-----total price 112.000 €
Oven operating temperature range: 4 Deg C above ambient to 450 Deg C
With Cryogenic option: - 80 Deg C to 450 Deg C
Temperature set point resolution: 1 Deg C
Maximum temperature ramp rate: 2 Deg C/s up to 150 Deg C
Independent heated zones: at least 20
Maximum temperature programming ramps: at least 20
Electronic pressure/flow control
Real time ambient temperature and pressure compensation
Auto shut down for hydrogen gas leakage
Maximum split ratio: 7500:1
Pressure setting range:0-150 psi
Pressure set point resolution: 0,01 psi
Total flow setting range:0-1000 ml/min
Flow set point resolution: 0,1 ml/min
Maximum operating temperature of split/split less inlet: 400 Deg C
Adapter for columns from 50 um ID to 530 um ID
IEEE-488 and RS-232, two analogue output channels INET and LAN interface option available
Capable for column bleed compensation standard
Built-in diagnostics and comprehensive self-test
Power fail memory protection
S/SP inlet with EPC
Automated Liquid sampler
Sample capacity: 8 to 100 samples
Injection volume: 0,1 uL to 50 uL
Variable sampling depth: 30 mm range of depth
Programmable parameters: pre and post injection rinsing up to 15 times, pre-injection sample wash and sample pumps up to 15 times;
Injection speed from 2,5 uL/s to 1000 uL/s
Integrated control with the system
Capable to perform dual simultaneous injection
PC
Processor:>= Intel R Pentium R 4 processor with 3.0 GHz
Memory: 512MB DDR-SDRAM
Minimum operating system: Windows XP
(0 GB Hard disc/ DVD – CD RW Combo
Recovery CD ROM
Monitor: at least 19" Flat Panel Monitor
Printer: LaserJet
Pre-configured system with all operating and application software loaded
Instrument interface
Flame Ionisation detector with Electronic pressure/flow control
Real time compensation for pressure and ambient temperature
Auto shut down for the detector gases
Max. operating temperature: 450 deg C

Linear dynamic range: 10 E 7
Minimal detectable level:<2 pg C/s
Automatic ignition and re-ignition with flame out-detection
Data rates up to 500 Hz two analogue outputs, RS-232, and IEEE integrated LAN and ALS control
Controller software
Should support two GCMSD signal as well as GC
Support 4 Instruments including 2 GCMSD with 4 detectors supported simultaneously
RTL software included
Operating system: Microsoft Windows XP; 32 bi data analysis
Application Control: create, edit, save and execute complete system methods and sequences of samples:
File import/export: software can import sample lists from LIMS and other data systems to create a sequence of injections; the software provides an extensive list of fields that may be exported to other data systems.
GC instrument parameters: complete electronic pneumatic control of all gas pressures and flow rates, time-programming, heated zones, oven temperatures (including ramp rates), cryogenic cooling, valves and signals
Customisation: command set may be grouped in a Macro, report writer
Security Password and audit trail
Mass spectral data base searching: automated, user created or a range of commercial mass spectral libraries (general purpose and application specific) Using Probability Based matching algorithm as the default algorithm; compatible with other search algorithm that are used with the commercial libraries
Warranty 12 month
Complete installation and validation of instruments and PC; preconfigured system with all software loaded. (certificate for support service)
The supplier shall provide a sufficient training of 10 days of end user (2 persons in Europe). Training should include typical applications covering all instrument and software functions.

GC-FID-HSS (Gas chromatograph with FID and head space sampler) 1 piece-----total price 84.000 €
Oven operating temperature range: 4 Deg C above ambient to 450 Deg C
With Cryogenic option: - 80 Deg C to 450 Deg C
Temperature set point resolution: 1 Deg C
Maximum temperature ramp rate: 2 Deg C/s up to 150 Deg C
Independent heated zones: at least 20
Maximum temperature programming ramps: at least 20
Electronic pressure/flow control
Real time ambient temperature and pressure compensation
Auto shut down for hydrogen gas leakage
Maximum split ratio: 7500:1
Pressure setting range:0-150 psi
Pressure set point resolution: 0,01 psi
Total flow setting range:0-1000 ml/min
Flow set point resolution: 0,1 ml/min
Maximum operating temperature of split/split less inlet: 400 Deg C
Adapter for columns from 50 um ID to 530 um ID

IEEE-488 and RS-232, two analogue output channels INET and LAN interface option available
Capable for column bleed compensation standard
Built-in diagnostics and comprehensive self-test
Power fail memory protection
S/SP inlet with EPC
Automated Liquid sampler
Sample capacity: till 8 samples
Injection volume: 0,1 uL to 50 uL
Variable sampling depth: 30 mm range of depth
Programmable parameters: pre and post injection rinsing up to 15 times, pre-injection sample wash and sample pumps up to 15 times;
Injection speed from 2,5 uL/s to 1000 uL/s
Integrated control with the system
Capable to perform dual simultaneous injection
PC
Processor: >= Intel R Pentium R 4 processor with 3.0 GHz
Memory: 512MB DDR-SDRAM
Minimum operating system: Windows XP
(0 GB Hard disc/ DVD – CD RW Combo
Recovery CD ROM
Monitor: at least 19" Flat Panel Monitor
Printer: LaserJet
Pre-configured system with all operating and application software loaded
Instrument interface
Flame Ionisation detector with Electronic pressure/flow control
Real time compensation for pressure and ambient temperature
Auto shut down for the detector gases
Max. operating temperature: 450 deg C
Linear dynamic range: 10 E 7
Minimal detectable level: <2 pg C/s
Automatic ignition and re-ignition with flame out-detection
Data rates up to 500 Hz two analogue outputs, RS-232, and IEEE integrated LAN and ALS control
Controller software
Should support two GCMSD signal as well as GC
Support 4 Instruments including 2 GCMSD with 4 detectors supported simultaneously
RTL software included
Operating system: Microsoft Windows XP; 32 bi data analysis
Application Control: create, edit, save and execute complete system methods and sequences of samples:
File import/export: software can import sample lists from LIMS and other data systems to create a sequence of injections; the software provides an extensive list of fields that may be exported to other data systems.
GC instrument parameters: complete electronic pneumatic control of all gas pressures and flow rates, time-programming, heated zones, oven temperatures (including ramp rates), cryogenic cooling, valves and signals
Customisation: command set may be grouped in a Macro, report writer
Security Password and audit trail
Mass spectral data base searching: automated, user created or a range of commercial mass

spectral libraries (general purpose and application specific) Using Probability Based matching algorithm as the default algorithm; compatible with other search algorithm that are used with the commercial libraries
Headspace sampler
Integrated control/Data system. Headspace parameters are part of a GC method. Using a GC software sequence table to track sample from sampling to analysis. Event log function records every step of headspace events.
Inert deactivated path from sample needle from GC to transfer line.
Sample Capacity holds at least 60 vials in tray
Interfacing with Volatile inlet or other standard GC inlet
At least 10 heating positions for maximum sensitivity with overlapping
Max. Temperature for thermostated area 230 deg C
Max. Temperature for term. loop 250 deg C
Max. Temperature for transfer line: 250 deg C
Built-in manual pneumatics (pressure regulator and flow controller) and GC built-in electronic pneumatic control (EPC)
Multiple headspace extraction concentration (MHC) mode
Built-in leak test routine
Monitor set and actual values, as well as, operation status
Detailed power-on self test
Control and monitoring by full function control keypad and built-in multiline display
Standard vials with crimp top or screw cap and septa, 20 mL, 10 mL. No adaptor required for 10-mL sample vials.
Warranty 12 month
Complete installation and validation of instruments and PC; preconfigured system with all software loaded. (certificate for support service)
The supplier shall provide a sufficient training of 10 days of end user (2 persons in Europe). Training should include typical applications covering all instrument and software functions.

GC-MS 2 pieces-----total price 260.000 €
Turbomolecular pump based mass spectrometric detector with EI
Vacuum pump: turbomolecular pump, accepts up to 70 l/s
Mass analyzer: true hyperbolic, monolithic quadropole, metalized gold
mass range: at least 1,6-1050 amu
Ion detector: high-energy dynode (HED) electron multiplier, off-axis
Mass resolution: unit mass resolution through entire mass range
Fill scan sensitivity EI mode: at least 1 pg of OFN with s/n 165:1 for 272 and mass range 50-300 or better

SIM groups: 100 groups of 24 ions each or better
Spectra: Classical EI,
Ionization energy: user selectable, 5-241,5 eV and 0-315 uAmps
Linear dynamic range: over 4 orders of magnitude
Total ADC dynamic range: 6 orders of magnitude
Number of independently controlled thermal zones and ranges: 3; interface temperature, ambient to maximum dictated by capillary column selection; source temperature: up to 300 Deg C; quadropole temperature, up to 200 Deg C
Mass Axis stability: at least 0,1 amu for 48h
Scanning parameters: number of scan rates, 8; maximum scan speed 10 000 amu/s, write to disc at least 8000 amu/s;
Pump down time from atmospheric pressure: < 5 min for turbomolecular pump
Tune values record automatically to file
Gas chromatograph
Oven operating temperature range: 4 Deg C above ambient to 450 Deg C
With Cryogenic option: - 80 Deg C to 450 Deg C
Temperature setpoint resolution: 1 Deg C
Maximum temperature ramp rate: 2 Deg C/s up to 150 Deg C
Independed heated zones: at least 20
Maximum temperature programming ramps: at least 20
Electronic pressure/flow control
Real time ambient temperature and pressure compensation
Auto shut down for hydrogen gas leakage
Maximum split ratio: 7500:1
Pressure setting range:0-150 psi
Pressure setpoint resolution: 0,01 psi
Total flow setting range:0-1000 ml/min
Flow set point resolution: 0,1 ml/min
Maximum operating temperature of split/split less inlet: 400 Deg C
Adapter for columns from 50 um ID to 530 um ID
IEEE-488 and RS-232, two analogue output channels INET and LAN interface option available
Capable for column bleed compensation standard
Built-in diagnostics and comprehensive self-test
Power fail memory protection
Ion Gauge Controller
Automated Liquid sampler
Sample capacity: 8 samples to 100 samples
Injection volume: 0,1 uL to 50 uL
Variable sampling depth: 30 mm range of depth
Programmable parameters: pre and post injection rinsing up to 15 times, pre-injection sample wash and sample pumps up to 15 times;
Injection speed from 2,5 uL/s to 1000 uL/s
Integrated control with the system
Capable to perform dual simultaneous injection
PC
Processor:>= Intel R Pentium R 4 processor with 3.0 GHz
Memory: 512MB DDR-SDRAM
Minimum operating system: Windows XP

(0 GB Hard disc/ DVD – CD RW Combo
Recovery CD ROM
Monitor: at least 19" Flat Panel Monitor L1702
Printer: LaserJet
Pre-configured system with all operating and application software loaded
Instrument interface
Controller software
Should support two GCMSD signal as well as GC
Support 4 Instruments including 2 GCMSD with 4 detectors supported simultaneously
RTL software included
Operating system: Microsoft Windows XP; 32 bi data analysis
Application Control: create, edit, save and execute complete system methods and sequences of samples:
Tuning :8 tuning algorithms, 7 automatic and 1 manual automatic archival for GLP
Simultaneous MS and GC; data can be collected at the same time from the MS and conventional GC detectors.
Application autotunes; the instrument is supplied with autotunes for common environmental methods which require BFB and DFTPP compliance
Application reports: Reports suitable for these applications have been developed and incorporated
File import/export: software can import sample lists from LIMS and other data systems to create a sequence of injections; the software provides an extensive list of fields that may be exported to other data systems.
Data display: real time display of MS and GC signals and MS spectra; off line display of multiple signals (TIC, SIM, spectra); capabilities for overlay, subtraction zoom, user-definable attributes (axes, tickmarks, baselines, compound names, fonts, scaling)
GC instrument parameters: complete electronic pneumatic control of all gas pressures and flow rates, Cryo-Blast, time-programming, heated zones, oven temperatures (including ramp rates), cryogenic cooling, valves and signals
Quantitation: percent normalized%, external standard %, internal standard%, peak area, peak height, multilevel calibrations (up to 20 levels)
Customisation: command set may be grouped in a Macro, report writer
Security Password and audit trail
Mass spectral data base searching: automated, user created or a range of commercial mass spectral libraries (general purpose and application specific) Using Probability Based matching algorithm as the default algorithm; compatible with other search algorithm that are used with the commercial libraries
Deconvolution software
eMethod-possibility to download applications from website and import entire method into MSD software
Included silica-gel column
Change column without venting the MS detector
Warranty 12 month
Complete installation and validation of instruments and PC; preconfigured system with all software loaded. (certificate for support service)
The supplier shall provide a sufficient training of 10 days of end user (2 persons in Europe). Training should include typical applications covering all instrument and software functions.
Spare parts for one year

Specification for ICP-OES 1 piece-----total price 210.000 €

Sample Introduction	
Standard Nebulizer	<ul style="list-style-type: none"> – A high-sensitivity, low-noise, glass concentric nebulizer for conventional aqueous applications.
Optional Nebulizers	<ul style="list-style-type: none"> – A SeaSpray concentric nebulizer for high dissolved solids applications. – A high performance V-groove nebulizer for organic applications (e.g., oils).
Standard Spray Chamber	<ul style="list-style-type: none"> – A high performance cyclonic spray chamber for conventional aqueous applications.
Optional Spray Chambers	<ul style="list-style-type: none"> – A dual-pass cyclonic spray chamber for organic applications. – A polypropylene cyclonic spray chamber for applications that require HF resistance. – A dual-pass Scott spray chamber. – A low temperature cyclonic spray chamber for volatile organic sample applications.
Peristaltic Pump	<p>A 12-roller computer-controlled, peristaltic pump. Channels available for: sample input, spray chamber drain, internal standard addition and/or automated dilutions. Sample delivery speed: adjustable from 0.2 to 5.0 ml/min Pump tubing: for aqueous solutions, polar organic solvents and non-polar organic solvents. Quick rinse feature: high speed pumping during the rinse phase of the sample cycle. Standby mode: periodic pump cycles during inactivity.</p>
ICP Torches	Axial, Radial and Dual-view torches for aqueous, organic, or HF applications.

Gas Flow Controls	
Coolant	The coolant flow user adjustable from 5-20 L/min in 1.0 L/min increments with mass flow control.
Auxiliary	The auxiliary flow user adjustable from 0-2 L/min in 0.1 L/min increments with mass flow control.
Nebulizer	The nebulizer pressure user adjustable from 5-60 psi in 1.0 psi.

Shear Gas	Computer controlled flow of shear gas.
RF Generator	
Frequency	40.68 MHz \pm 0.03%
Automation	Fully automated ignition, operation, impedance-matching, and shut-down.
Output Power	600 to 2000W.
Safety Interlocks	<ul style="list-style-type: none"> - Water flow - Shear gas pressure - Argon pressure - ICP torchbox doors
Cooling Water	Coolant water flow of 4 L/min, 20°C \pm 10°C.
Input Power	208 VAC + 15%, 50/60 Hz 5 KVA maximum.
Plasma Viewing	
Image Stabilization	High optical stability and fast instrument warm-up time. Optimizing the ICP viewing region in all viewing modes (axial, radial or dual view).
Radial View	Radial viewing for high dissolved solid applications and/or higher concentration measurements.
Axial View	Axial viewing for lower concentration measurements.
Dual View	Dual view mode, plasma may be viewed axially for high sensitivity measurements or radially for higher concentration measurements. The viewing mode should be selected under computer control using ICP source mirror.
Adaptability	Easy conversion from dedicated radial to axial or dual view.

Optics	
Echelle Polychromator	Long focal length Echelle Optical System with a megapixel, Large Format Programmable Array Detector <i>L-PAD</i> (1024 x 1024 pixels), 28mm x 28mm. Large solid-state detector used for ICP-OES allows significantly higher resolution, and virtually eliminating the order overlap problems.
Optical Enclosure	Optical enclosure: aluminum casting, for extreme dimensional stability.
Temperature Control	Long-term stability: thermostatically controlling of optical system to 100°F + 0.2°F.

Focal length:	Long focal length (800 mm) provides high image quality and resolution across the focal plane as well as lower scattered light levels.
Image Quality:	Resolution within a factor of 1.2 across the entire detector surface.
Resolution Optical:	<0.008 nm at 200nm (using the standard 40 μ m x 100 μ m entrance slit) OR < 0.005 nm using special entrance slit
Resolution pixel-to-pixel:	<0.005nm at 200 nm (using the standard 40 μ m x 100 μ m entrance slit) OR < than 0.003 nm using special entrance slit
Optical Speed:	f/9
UV path:	Argon purged
Entrance optics:	Fully reflective (not refractive) to eliminate chromatic aberration and optimize light transmission.
Entrance slit:	
Standard	40 μ m x 100 μ m
Optional	Selectable Entrance Slit: slit widths from 15 to 150 μ m to be selected.
Grating:	Echelle grating 52.13 gr/mm with a surface dimension of 110 mm x 110 mm.
Dual Pass Prism:	UV grade fused silica prism

Detector	
Solid-State Detector	<ul style="list-style-type: none"> – Large Format Programmable Array Detector <i>L-PAD</i> – high performance solid-state detection with high-speed, low-noise electronics – wide dynamic range, imaging, and quantification of all wavelengths in the analytical range region (165-1100 nm) without blooming or blind spots
Photoactive Area :	1.09" x 1.09" (28 x 28 mm).

Performance Characteristics	Dynamic Range (Linear) - of over 8 orders of magnitude. This is a function of the large full-well capacity of the <i>L-PAD</i> 's pixel structure ($>1 \times 10^6$ electrons), non-destructive readout capability of the data acquisition system.
Automated S/N Optimization	<p><u>Collective Read</u> - condense the charge stored in adjacent pixels into a single pixel (pixel "binning").</p> <p><u>Non-destructive Readout</u> - automatically monitoring the charge accumulating in each pixel, maximizing the signal-to-noise ratio.</p> <p><u>Simultaneous Background Correction</u> - acquiring data for all analyte and background points simultaneously during the entire integration time.</p> <p><u>Simultaneous Internal Standardization</u> - acquires data for all analyte and internal standard elements simultaneously during the entire integration time. This yields substantial improvements in coincident noise rejection by giving superior correlation between the noise of the internal standard element and the analyte referenced to that internal standard.</p>
Data Acquisition Modes	<p><u>Full Spectrum Acquisition</u> - an image of the entire spectrum is acquired for qualitative analysis, methods development, and/or post calculation of elemental concentrations.</p> <p><u>Programmable Access Integration (PAI)</u> - user selected analytical wavelengths are measured simultaneously in an analytical program. In this mode, both intense and weak emissions are measured simultaneously without blooming or saturation of the detector.</p>

System Software	
Operating System	– designed for Windows™ XP
Interface Design	– continuously displaying a navigation panel – choosing between method development, automatic sample sequencing, or analysis with a mouse click
Results and Operating Parameters	– automatically storing of all analytical results, digital images, and operating parameters in database

Spectral Displays	Detailed information for the spectral region around each analytical wavelength should be acquired and recorded automatically for each sample or standard reading.
Background Correction	Off-peak background intensities and peak measurements are acquired simultaneously.
Calibration	– including linear, weighted linear, and quadratic algorithms. At each wavelength a minimum calibration correlation should be pre-defined for acceptance in automated sequences.
Quality Control	Quality control features, including check standards, recoveries, spikes and duplicates should be stored with the analytical method.
Regulatory Compliance Tools	<ul style="list-style-type: none"> – Authority to use the system controlled by a system administrator. – Access to the system software permitted only after entering an authorized name and password. – All actions, errors, and instrument conditions automatically recorded in the system audit trail. – Calculation verification displays each pixel intensity in a spectral region, identifying peak and background assignments, and displays all background correction calculations. – Results for every analytical measurement automatically saved and cannot be deleted.

Safety

To ensure operator safety and instrument protection, the following interlocks should be provided:

- Argon Low
- Argon Off
- RF Power Regulator
- RF Power Temperature
- RF Power Current
- Oscillator Cover
- Air Knife
- 3 Individual Doors
- Camera Purge
- Water Flow

Specification for LA (Laser Ablation)

Laser	266nm flat-top beam; gated Q-switch; built-in recirculating water cooling
Laser energy output	>50mJ
Energy density @ image plane	> 15J/cm ²
Stability	3% RSD
Pulse width	4ns nominal
Rep rate	1-10Hz
Energy control	Optical attenuator and built-in energy meter for maximum dynamic range and stability
Spatial resolution (min. spot)	20µm
Spot size selections	13 pre-calibrated, aperture imaged spot sizes; software selectable
Spot size range	30-750 µm
Extended range	20 to >1200µm spots
Optical resolution	<10µm
Lighting	Reflected & ring
Video magnification	Fixed magnification of 2.6mm field-of view
Laser Safety	Open architecture; Class 1 shield plus interlocks for laser status, samplechamber, access covers and kill switch
Software Control	software operates on Windows XP
Stages	1µm resolution; 52mm travel on X & Y & Z
Sample Chamber	Cassette style, sample chamber measures 60 mm ID X 52 mm tall for thin sections, thick sections and standards. User can view sample directly.
Time Resolved Analysis (TRA)	GLITTER option

HPLC (High Pressure Liquid Chromatograph) 2 pieces-----total price 186.000 €

TECHNICAL SPECIFICATIONS for Supply of Equipment – Component II

DESKTOP COMPUTER – 50 pieces			
No.	Brief Description	Required Technical Specification and Standards (minimum requirements)	Statement of Compliance (to be completed by the Bidder)
	MANUFACTURER		
	MODEL		
1.	MOTHERBOARD	Front Side Bus speed minimum 800MHz, support for 1 processor, Dual Channel Memory support	

2.	CPU	Processor at minimum 3,2 GHz or greater	
3.	CACHE	Minimum 1MB L2 or greater	
4.	MEMORY	Minimum RAM 1 GB minimum expandable up to 2 GB, Dual Channel Memory support	
5.	RAM SPEED	400 MHz or greater	
6.	VIDEO	Video controller integrated in chipset, minimum 128 MB RAM, DVI interface	
7.	AUDIO	Integrated audio controller and one internal speaker	
8.	NETWORK	Ethernet controller 10/100/1000Mbit	
9.	FDD	1,44MB 3,5" internal or external	
10.	HDD	Minimum 100 GB	
11.	OPTICAL	DVD+/-RW	
12.	CASE	PC that can either positioned vertical or horizontal	
13.	EXPANSION SLOTS	Minimum 2 x PCI slots	
14.	DRIVE BAYS	Minimum 1 x 5.25", 1 x 3.5" drive bays	
15.	POWER SUPPLY	Minimum 220 W	
16.	I/O PORTS	Minimum 6 x USB 2.0, 2 x serial, 1 x parallel, 2 x PS/2	
17.	KEYBOARD	High quality keyboard with Croatian key layout, professional version, PS/2 or USB	
18.	MOUSE	Optical mouse with wheel, PS/2 or USB	
19.	OS	Windows XP Pro English + latest Service Pack, preinstalled and licensed, CD and documentation included	
20.	SOFTWARE	Office productivity suite (Microsoft Office-last version, or equivalent), preinstalled and licensed, CD and documentation included PDF files reader	
21.	SECURITY	TCG Security Chip (hardware key storage, multi-factor	

		authentication, local file encryption, enhances VPN security, TCG-compliant) with client security software including password manager	
22.	MONITOR	Color, 17" LCD – minimum resolution 1280*1024, 75 Hz ver. scan range, contrast: 450:1, brightness: 250 cd/m2, integrated power supply; tilt, swivel and height adjustable stand included; built-in speakers; DVI and VGA video input	
23.	WARRANTY	Minimum three (3) years onsite warranty after installation, testing and verification of functionality	
24.	ADDITIONAL 1	Patch UTP Cat6 cable, 2m	
25.	ADDITIONAL 2	In their proposal a bidder must reveal, all additional equipment, including cabling, cables, connectors, devices, equipment, hardware and software, peripherals, and any other items which are required for installation and to permit the proposed desktop computer to become fully operational.	

NOTEBOOK – 50 pieces			
No.	Brief Description	Required Technical Specification and Standards (minimum requirements)	Statement of Compliance (to be completed by the Bidder)
	MANUFACTURER		
	MODEL		
1.	CPU	Processor at minimum 1,8 GHz or greater	
2.	MEMORY	Minimum RAM 1 GB minimum expandable up to 2 GB	
3.	DISPLAY	Minimum 15“ XGA TFT or SXGA+ TFT Display, resolution minimum 1024x768	
4.	COMMUNICATION	Internal 56K V.90 Fax/Modem and Integrated 10/100/1000 Mbps Ethernet	
5.	FDD	1,44MB 3,5” internal or external	
6.	HDD	Minimum 80 GB. Priority will be given to the bidder who can offer shock-resistant hard drive.	
7.	OPTICAL	DVD+/-RW	
8.	BATTERY LIFE	Minimum 4 hours	
9.	I/O PORTS	Minimum 2 x USB 2.0, 1 x parallel, 1 x PS/2, 1 x Type II PCMCIA slot, 1 x RJ-11 jack for internal 56Kbps V.90 modem, 1 x RJ-45 jack for internal 10/100/1000Mbps Ethernet	
10.	KEYBOARD AND POINTING DEVICE	High quality keyboard with Croatian key layout.	
11.	OS	Windows XP Pro English + latest Service Pack, preinstalled and licensed, CD and documentation included	
12.	SECURITY	Boot password. Priority will be given to the bidder who can offer solution for full hard drive encryption.	
13.	SOFTWARE	Office productivity suite (Microsoft Office-last version, or equivalent), preinstalled and licensed, CD and documentation included	

		PDF files reader	
14.	WEIGHT	Maximum 3 kg with battery	
15.	WARRANTY	Minimum three (3) years onsite warranty after installation, testing and verification of functionality	
16.	ADDITIONAL 1	Patch UTP Cat6 cable, 2m	
17.	ADDITIONAL 2	Optical mouse with wheel, PS/2 or USB	
18.	ADDITIONAL 3	Notebook carrying case	
19.	ADDITIONAL 4	12 V auto power adapter	
20.	ADDITIONAL 5	In their proposal a bidder must reveal, all additional equipment, including cabling, cables, connectors, devices, equipment, hardware and software, peripherals, and any other items which are required for installation and to permit the proposed notebook to become fully operational.	

MONOCHROME LASER PRINTER – 25 pieces			
No.	Brief Description	Required Technical Specification and Standards (minimum requirements)	Statement of Compliance (to be completed by the Bidder)
	MANUFACTURER		
	MODEL		
1.	GENERAL	A4, Monochrome Laser	
2.	PRINTING SPEED	Minimum 20 ppm	
3.	RESOLUTION	minimum 600 x 600 dpi	
4.	TRAY	Minimum 1 tray with minimum 250 sheets	
5.	TIME TO FIRST PAGE	Maximum 10.0 seconds	
6.	PC CONNECTION	Parallel and USB port	
7.	MEMORY	Minimum 32MB	

9.	CAPACITY	Minimum 10,000 pages per month	
10.	NETWORK	10/100 Ethernet	
11.	TONER	Minimum 1.000 pages per cartridge	
12.	OS	Windows, Linux	
13.	WARRANTY	Minimum three (3) years onsite warranty after installation, testing and verification of functionality	
14.	ADDITIONAL	In their proposal a bidder must reveal, all additional equipment, including cabling, cables, connectors, devices, equipment, hardware and software, peripherals, and any other items which are required for installation and to permit the proposed printer to become fully operational.	

MULTIMEDIA PROJECTOR – 25 pieces			
No.	Brief Description	Required Technical Specification and Standards (minimum requirements)	Statement of Compliance (to be completed by the Bidder)
	MANUFACTURER		
	MODEL		
1.	Image Brightness	Minimum 1400 ANSI lumens	
2.	Contrast Ratio	Minimum 1200:1	
3.	Platform	PC	
4.	Form Factor	Portable	
5.	Native Resolution	Minimum 1024x768	
6.	Max Resolution (Interpolated)	Minimum 1280x1024	
7.	Colour Support	Minimum 24-bit (16.7M colors)	
8.	Light Source Life	Minimum 2000 hours	
9.	Interface	Minimum: – 1 x RGB	

		<ul style="list-style-type: none"> - 1 x Component Video - 1 x Composite Video - 1 x S-Video - 1 x Serial RS-232 - Audio Line-in 	
10.	Weight	Maximum 2,5 kg	
11.	WARRANTY	<ul style="list-style-type: none"> - Minimum three (3) years for projector - Minimum 500 hours for lamp 	
12.	ADDITIONAL 1	<ul style="list-style-type: none"> - Remote control - Carrying case - RGB computer cable minimum 2m - Audio cable minimum 2m - Video cable minimum 2m - Power cable minimum 2m 	
13.	ADDITIONAL 2	In their proposal a bidder must reveal, all additional equipment, including cabling, cables, connectors, devices, equipment, hardware and software, peripherals, and any other items which are required for installation and to permit the proposed multimedia projector to become fully operational.	