

ANNEX A

APPLICATION FORM

Nhan → analyses 9-15: OK. Verifier 16 (co CO): OK,
page 20 (Planning), p. 20: Rester à faire (§2.2),

Michel → situation globale p. 9-10- Verifier 16 (co CO), p. 20 (§2.1), e,f,
partners/applicant

22/01/2003



European Commission

Asia Pro Eco Programme

Grant Application Form

(Annex A to the Guidelines for Applicants 2003 ?)

Budget Line B7-301

Name of the applicant:	Université de Nice et Sophia Antipolis (UNSA) (FRANCE)
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The project is mainly concerned with the following component: (tick as appropriate)

	Diagnostic Activities
X	Technology Partnership
	Demonstration Activities

The project is primarily concerned with the following activity within the component: (specify)

	Diagnostic Studying on development of tools and methods accessing & wise exploring available data for Environment Management
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Dossier No	PE
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(for internal use only)

I. THE PROJECT (ACRONYM → <ENVIRON>) VERSION 15 APRIL 04

1. Description

1.1 Title:

A Multilanguage Ontology for an Information Exchange System on waste treatment, protection of land and water resources.

A technology partnership study, in Quang Ninh Province (Vietnam), Nice (France), Brussels (Belgium) and Barcelona (Spain)

(if we need an acronym of our project → let say **ENVIRON (Environment Ontology)**)

1.2 Location:

Country or countries, region, city

Study is carried out in the target (test) city - province of Quang Ninh (Vietnam) & in the comparative city of Nice and Agglomeration Community of Nice Côte d'Azur (France)

1.3 Amount requested from the Contracting Authority

650,000	EUR	60	% of total project cost
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1.4 Summary

Maximum 10 lines (include information on (a) the aim of the project, (b) the target groups and (c) the main activities).

The master objective of the project:

- Improve the capacity of environment management for wide stakeholders, especially for experts and decision-makers at provincial level, particularly in the protection sectors involved in protection of land and water in soil and under-ground, attention is highly paid to waste treatment
- Introduce an eco-management vision in the development
- Introduce a novel information technologies for environment management (facilitate the communication for a better information exchange among the actors)
- Promote interdisciplinary and interregional exchange in terms of research, training and partnership expertise of knowledge, know-how for transferring and interpreting the environment database into information and action.

The beneficiaries of project are wide stakeholders:

- Interdisciplinary experts involved in sustainable development and natural resource protection (planning, economy, agriculture, urbanisation, environment, society, education etc...)
- Decision-makers, managers of eco-politics at regional levels
- Other wide stakeholders (researchers, investors, citizens) and population at different levels

Main activities to fulfill the objectives

Comparative study on the terminology for environment data collection
Comparative study on the methods and tools for managing environment data
Comparative study on the methods and tools for transferring, converting and integrating environmental data into GIS (Geographic Information System) and for transforming environmental data into eco-information.
Study on warning system and decision monitoring, based on EGIS (Environment Geographic Information System)
Study on the model of interdisciplinary analysis based on the EGIS
Study on integration of all of above result into a new Wise Eco-Environment Management System (WISECOMS)
Comparative study on the methods and tools for environment data collection
Comparative study on the methods and tools for managing environment data
Comparative study on the methods and tools for transferring, converting and integrating environmental data into GIS (Geographic Information System) and for transforming environmental data into eco-information.
Study on warning system and decision monitoring, based on EGIS (Environment Geographic Information System)
Study on the model of interdisciplinary analysis based on the EGIS
Study on integration of all of above result into a new Wise Eco-Environment Management System (WISECOMS)

1.5 Objectives

Maximum 1 page. Describe the objectives of the project.

The humid and semi-humid tropics of East and South East Asia are characterised by multi-crops agro-ecosystems, dynamic economic growth and social development but face issues related to the ecological sustainability that is required to maintain economic development.

These issues concern how to protect better the natural resources while encouraging the development of industry, trade, tourism and agriculture which are sharing together different sources of land, water and labour forces. All decision makers from simple citizens to farmers, and investors to politicians of all levels (beneficiary stakeholders) should have a clear vision of this paradigm.

For tackling these complex and interrelated concerns, Interdisciplinary analysis and eco-environment management (methods &) tools will be developed, especially for waste treatment, protection of land and water resource in sub-region of Vietnam within the project. It is considered as an exemplar diagnostic and technology partnership study in the framework of the Asia Pro Eco Programme, which is called by EU.

Works will concentrate on two cases (Quang Ninh – Vietnam & Nice – France) capitalizing on previous investments in research capacity building and methodology development in the region and bring these efforts to bear in form of integrated approaches to support local communities in implementing and advancing individual component of existing methodologies.

The master objectives of the project:

- Improve the capacity of environment management for a wide range of stakeholders, especially for experts and decision-makers at provincial level, particularly in the protection sectors of land and water in soil and under-ground, attention is highly paid to waste treatment
- Introduce an eco-environment management vision in the development
- Introduce a novel technologies for environment management (facilitate the communication for a better information exchange among the actors)
- Promote interdisciplinary and interregional exchange in terms of research, training, development and partnership expertise of knowledge, know-how for transferring and interpreting the environment database into information and action.
- Promote the environmental and technology partnership information network exchange at intercity and interregional levels
- Promote the environmental information network exchanges in research- education and the end users

Specific objectives:

The project is elaborated to set-up holistic and comprehensive EMS (Eco-environment Management System), which enables to extract interdisciplinary data (related with land, water and (green) wastes) in forms of EGIS, a result of modelling on database within a target province, Quang Ninh, and a parallel comparative study at Nice city. This system increases the possibility of transferring environmental data bases into managing information and its access to the experts of management sectors at provincial levels to enable them to share strategies, advanced technologies and know-how in addressing (confronting) country and region environmental issues.

1.6. Justification

Maximum 3 pages. Provide the following information:

(The Application should include a description of the socio-economic, administrative and political context in which the proposed activities will be developed.

It should describe the field of competence and responsibilities of the Organisations - Institutions implementing activities in Asia.)

The South East Asian humid tropic is a region characterised by dynamic economic growth and social development, both of which are anticipated to continue into the coming years of 21st millennium. Countries in this region face common issues related to the ecological sustainability that is required to maintain economic development REF. (*Teng, 1999. The eco-regional initiative and a rationale for eco-regional approaches to natural resource management: In: Towards an Eco-regional approach for Natural Resource Management in the Red River Basin of Vietnam, p 3-28. The Agricultural Publishing House, Hanoi, 1999*)

Vietnam is country in The South East Asian and sharing border with China in the North and Lao and Cambodia in West. The rest of boundaries are a coastline. The country has about 329,241 km² of area. The country has 61 provinces and cities, occupied by 54 ethnic groups. Third four of area is ranged as mountainous region.

The current population is 81 million (birth rate almost of 1.8%) and expected to continue grow well to a possible 110 million by the year 2020. Population density nation-wide has increased from 181 persons per square kilometre in 1985, to 246 in 2002. Population distribution is recognised not even. The Red River Delta, the cities as Hanoi, Ho Chi Minh, Haiphong, Quang Ninh are on the list of the most density populated regions of Asia. This imbalance in population distribution and income disparity between economic sectors lead to more and more difference of living condition between urban, rural and mountainous areas.

From 1986, Vietnam is recognised as a landmark in policy reform, the policy of renovation through which the Country would be transformed from a centrally planned to a market economy with a socialist orientation. Since than, Vietnam has experienced more than a decade of dramatic change in a favourable global economic climate. Vietnam's economic structure has been transformed from one that was-driven and dependent in external assistance to a system which is more self-reliant and responsive to market signals. GDP growth rates reach high and stable levels (4.5 - 9.5%) for the past ten years (1992-2002) and in 2003 & 2004 GDP growth is projected to be one of the highest in South East Asia Countries (6.5 -7.5). But the early shift in development was based mainly on uncontrolled natural resource exploitation and has resulted increasing gap between the rich and poor, a dramatic loss in resources stocks and diminishing environmental quality.

Even so, the country's economic achievement has led to real overall benefits. Per capita GPD has significant increase, from 198 US\$ in 1985 (before the reforms) to US\$ 367 in 1998 and to 447US\$ in 2002. The past decade has seen remarkable improvements in the living standards of most Vietnamese. This has, in part, been due to successful mobilisation of domestic savings and investment but also Vietnam has been able to attract external capital. However serious challenges relating to mounting population densities, internal migration, expanding urban and industry areas (less land for agriculture) trends are dominant forces shaping levels of natural resource use and environmental degradation throughout the country.

Vietnamese governments and locals authorities understand that, there is evidence to the progress has been made at a heavy cost to the natural resource stocks of the country and to the environmental quality.

Trends in environmental conditions are intimately related to trends in socio-economic conditions.

Vietnam is richly endowed with natural resources, and the country's economy is heavily dependent on this base. Agriculture, forestry and fisheries account for 25% total of GDP and 70% of total employment. These sub-sectors underpin almost all rural economic activity. Vietnam's agriculture sub-sector, particularly rice has seen production increase wonderfully. From a food imported country, Vietnam exports in recent years 3.5 million tons of rice per year. The production of other food crops, industrial crops, fish have also grown. But environmental degradation is increasing and placing pressures on the natural systems' capacity to support existing, let alone increased, production (MPI & UNDP Hanoi, 1999). This figure is recognised off-course by Vietnam's policy-makers in general and who of the Ministry of Agriculture and Rural Development (MARD)'s in particular.

In conclusion, even Vietnam has moved forward, the country is confronted with trade-offs between short-term economic and social goals and longer-term concerns of sustainable resource use.

Ref. Ministry Planning and Investment (Vietnam), United Nation Development Programme, Vietnam (1999). A study on aid to the environment sector in Vietnam): cited as MPI & UNDP, HaNoi 1999

Forest degradation

In 1943 Vietnam possessed about 14.3 million ha of forests that comprised 43% of the country's natural land area. By the beginning of 1999, however, the total area of forestland dropped to only 9.1 million ha (28% of the country's natural land area). Most of the virgin forest and forest with rich standing volume had been cleared or degraded to a secondary or poor crop. (Ref. UNEP, *Vietnam: State of the environment 2001*)

Forestry Sector is witnessing a deteriorating situation on the ground with serious environmental consequences. As natural forests continue to disappear and plantations fail to meet the growing demand for wood products, timber needs are being met through increasingly expensive import.

Land degradation

Land and cultivated land per capita are low (0,4 and 0,1 ha/per respectively) and tend to reduce due to the high population growth rate (1.7%).

Vietnam soil environment has been badly affected by series of problems such as leaching, erosion, degradation, poor fertility, salinization, acidification, pollution, drought, desertification, inundation, organic reduction, landslide, erosion of river banks and coastline and losing soil productivity. Soil degradation has been increasing both in its face and seriousness. Degraded land accounts for nearly 50% of the total land area of the country. Much of land degradation results from natural and social-economic condition and deforestation. (Ref. UNEP, *Vietnam: State of the environment 2001*)

Water pollution

Rapid urbanisation and industrialisation has resulted in the growing demand for water. However the water supply is insufficient, creating intense competition among consumers and increasing its exploitation. Moreover, pollution of water also contributes to the decline in water supply.

In the industrial zones, water is discharged directly into rivers and lakes without treatment, Wastewater from municipal area is also discharged in to the rivers, which lead to serious water pollution in places like Hanoi, Ho Chi Minh, Hai Phong, Viet Tri, Bien Hoa.

The growing grown water in some cities and towns has lead to a sharp fall in groundwater levels. This is not only decreased water availability and polluted the water source but that also resulted in collapse of the ground in some places.

Most of the mentioned rivers are found to be polluted with substance like N and P, form nearly 200 times compared with water resource of category A (acceptable for domestic use) and 2-20 time in comparison with category B (acceptable for agriculture and fishing)

Regarding marine water, the monitoring data shows that while offshore water has good quality and the water in coastal area is polluted by several parameters exceeded the standard: solid suspension, heavy metals, organic substances, nutrients, oil concentration, coliform... (Ref. UNEP, *Vietnam: State of the environment 2001*)

Vietnam water resources have been actively developed since 1954. Around 7.500 km of river and sea dykes have been constructed or improved to protect delta and coastal areas from flooding and waterlogging. More than 40% of cultivable land is irrigated and many large waterworks have built to exploit water and regulate river flows.

Despite these developments, Vietnam's water resources are diminishing in both quantity and quality. Poor water resource management, as well as poor management in the other resources sub-sectors is a major factor contributing to water resource degradation.

Land/ Soil Resource

The main driving forces of the rapid and profound land use changes in Vietnam since the late 1980s are privatisation of the economy, land redistribution and political reforms. Technical, economic and social transformation affect land use dynamics, agricultural production and natural resource management. Fragile upland ecosystems are endangered by the regression of forested areas and the development of non sustainable agricultural practices. On the other hand, sloping land redistribution increases farmers' differentiation and creates social tensions between people relying on the same natural resource base. These land use transformations are often happening without any prediction about their medium and long term ecological, agronomic and social impact. Many authors have emphasized the difficulties of breaking the vicious circle of increasing population pressure, environmental stress, impoverishment and marginality (Castella et al. 1997)

Ref. *Towards an Eco-regional Approach for Natural Resource Management in the Red Rive Basin. MARD, Hanoi, 1997.*

The Urban-Natural System Link

Urbanization

The process of urbanization in Vietnam has grown very rapidly. In 1990, there were only 500 large and small urban centers that have grown to 623 at present (2001). The urban population has increased from 19% of total population in 1986, to 20% in 1990 and 23,5% in 1999. As forecasted, it will be 30-33% in 2010 and increasing to almost 40-45% by 2020.

According to data from General of Statistics, there were 592,948 industrial enterprises in Vietnam in 1998. While in June 1996 there were only 16 industrial zones, the number increased to 66 in 1999.

Around 90% of the old enterprises installed before 1975 that are equipped with backward technologies and scattered throughout the country, do not have wastewater treatment plant. (Ref. UNEP, *Vietnam: State of the environment 2001*)

Human activities' impact on the environment and the feedback loop is both complex and continuously evolving. Urbanisation and Industrialisation processes are changing environmental and natural resources condition in both urban and rural areas. Land use is being altered in major cities (*Quang Ninh is not exceptional*) and their peripheries as rural land is converted to residential, business and industrial use. Concern about led the Vietnamese Government to pass a resolution prohibiting further conversion of farmland. The Vietnamese new version of LAND LAW is under revised by all citizens concerned before approved at the National Assembly section in Dec. 2003.

The Changing Nature of Waste, Water Pollution, Air Pollution, Solid and Hazardous Wastes are the main problems of Vietnam's environment today and the Government recognises the need to act but the problems remain still if the capacity to change the way natural resources are used and protected are weak or absent due to the lack of eco-data management capacity.

Ref. The World Bank, Asian Development Bank, United Nations Development Programme), 2001. VIETNAM 2010, Entering the 21 Century, Vietnam Development Report 2001. Pillars of Development. Cited as World Bank (2001) in this report.

A recent intersectoral review of the National Plan for Environment and Sustainable Development (1991-200) facilitated by the National Environment Agency (NEA web site: <http://www.nea.gov.vn>, today became some structures under MONRE) showed that unsatisfactory progress has been made in the following areas (World Bank, 2001):

- Integrated environmental planning for resource development;
- Sustainable development strategies at the sectorial level;
- Environmental monitoring and analysis;
- Education, training and environmental awareness;
- Urban development planning and population control;
- Integrated watershed management;
- Integrated coastal zone management and planning
- Preservation of bio-diversity.

Among of Vietnam creating incentives for changing behaviour concerning of natural resources protections and sustainable development is decentralising decision making and making environmental impact assessment a more effective tool.

The Strategy expresses a clear commitment to upgrade and strengthen the institutional arrangements and human capacity for environmental management at the provincial level.

At the district level, effort should be made to strengthen the local government capacity, changing from a sole provider to an enabler and facilitator of environmental services. Some service provision should be contracted out and local governments should take on the responsibility of performance and service quality monitoring.

About the environmental impact assessment (EIA), recent analyses reveal shortcoming. The scope and application of EIA process should be expanded to integrate environmental and social dimensions of policies, program, and projects. It should be used as a tool for analysing investment alternatives and can be came a mechanism for encouraging wider public participation in investment planning and decision making.

The data resource on environment of the country is recognised lack of reliable information. Little reliable data is available on the environmental impacts of industrial activities and on general urban environmental quality. Most of data are perhaps existing but not available because it is in hands of so many actors. The Vietnam Ministry of Natural Resources and Environment (MONRE) has just established pursuant to the resolution n.2/2002/QH11 dated August 5,2002 of the XI Vietnam National Assembly, regulating the list of ministries and ministerial level bodies. (<http://www.monre.gov.vn>). At provincial level, the Department of Science, Technology and the Environment is still the main responsible who manage the environmental question.

Data is lacking on the most basic of pollution issues and on the emissions and toxicity of pollutants from major industries throughout the country. Assessments are required of solid waste generation and collection, hazardous waste generation and treatment, and pollution from transport, farming and household activities.

In Summary, the scope of our project fits exactly the demand of the country and of the different target groups.

The rationales of selection of QUANG NINH (Vietnam) as a site for case study

Quang Ninh is in Northeast region of the country. It has diverse types of topography: mountain, delta, coastal zone, sea, islands... The total land area of the province is 5899.6 km², accounting for 1.8% Vietnam natural land. In 2001, the province is home of 1029.9 thousand persons with population density 174,6 pers/km², making up 73% of average population density of whole country. However, the distribution is not even. The province population is relatively contributed by Halong city and 3 towns (solieu).

The province is considered as a typical pilot site of study/project. The main reasons are as follows:

1. a large number of projects/study related to environment has been elaborated in the province, This results in a huge sources of data and databases. According to the Department of Science, technology and the environment of Quang Ninh, there are more than 50 projects carried out there.
2. The province is appreciated as a province that has high rate of growth due to prosperity of various sectors such as industry and tourism. Quang Ninh tourism is known as one of the most attractive place to visitor . It is contributed by a lot of beautiful places and historical vestiges . The most famous is Ha Long bay which is recognized as natural heritage of the world by UNESCO and geologic heritage of the world in 2000 . Besides, Quang Ninh is well _ known for mountainous place of Yen Tu coastal zone of Bai Chay beach , islands of Tuan Chan – Cat Ba... The province's tourism is expected to increasingly develop and play key role in economic development . Regarding industry sector, a key source of energy, coal , is mainly provided by Quang Ninh . In 2000 amount of 3,8 billion + 700 million tons is mined/exploited in Ha long city and Dong Trieu district . According to statistic , over 4000 production establishments are located in 8 districts and towns. At the present, Quang Ninh has built several new industrial parks which is a potential of industrial development in the future. In addition, Quang Ninh has ecological areas required a good conservation such as Cat Ba National park, Halong natural culture complex. This situation of province lead to the complicity of Environment management. A successful management of environment is impossible to achieve without the interdisciplinary tools for Environment Management.
3. Zone where data environment reported to be in very critical situation of pollution. Coal exploitation in Quang Ninh is ranged in the two biggest mineral industries in Vietnam together with petroleum and gas exploitation in the offshore areas of the East Sea
4. The province of 1,150 thousand people having today 1 city and 3 towns with over 500 thousand of urban population is facing an alarming rate of urbanisation. The situation consequently will make environment quality diminishing if a good environment management is not established.
5. Quang Ninh is expected an attractive area to investor. Recently, several site of tourism are improved and establishes. The most clear event is the establishment of tourism square of Tuan Chau, and multiple rural areas are reserved to industry zones. Moreover, the province is expected to a potential area of investment in rural industrialisation. Thus a good planning should be outline and develop not only for industry but also for agriculture and fishing.

And Waste ??

The rationale of selection of NICE city (France) as comparative site for case study (Michel, please put here information)

- (a) Identification of perceived needs and constraints in the target countries.
- (b) List of target groups with an estimate of the anticipated number of direct and indirect beneficiaries
Interdisciplinary experts, researchers, investors: Thousands,
Decision makers in Eco-politics at regional levels: hundreds
Citizens of the city and province: **millions**
- (c) **reasons for the selection of the target groups and activities:**
XXXXXXXXXX
- (d) relevance of the project to the target groups

Nature of environmental issue is considered as a problem contributed by several factors. An integrated approach is strongly required as a large number of environmental data already exist, either through the local administration or as the result of several international programs investigations. An effective environment management is not achieved without integration of multi-sectors and final integration in decision making. A vital supporting tool for making decision must be made available.

As above mentioned, the data resource on environment of the country is recognised lack of reliable information. Moreover, little reliable exchangeable XXX?? data are available on (i) environmental impacts of industrial

activities, (ii) all types of waste, including green waste, (iii), general urban environmental quality. Most of data are probably existing but not made available because they are dispersed with too many separate actors. It is critical to identify how to establish an EDBMS and how to access and integrate these data into useful unity form. Benefits of achievement of these goals will be most appreciated throughout the country.

Please add what to fit more request in Justification for point (e, f)

(e) relevance of the project to the objectives of the programme (see *Guidelines for Applicants*, section 1.2)

(f) relevance of the project to the priorities of the programme (see *Guidelines for Applicants*, section 1.2. and section 2.1.3 Components and type of activities)

The project is relevant to the objectives of the programme “Improved environmental quality” by providing useful tools to effective management of environment and to support process of decision-making.

The priorities of the programme are satisfied within project:

- Technology promotion and pavilions
- Technology co-operation and contacts, networking and observatory activities
- Identify new methods and technology

For the partners: **It should describe the field of competence and responsibilities of the Organisations - Institutions implementing activities in Asia.)**

The research consortium consists of four institutions in Europe, 2 institutions in Vietnam:

Partner 1: UNSA, France, **Applicant partner**, Project Co-ordinator.

Partner 2: *National Institute for Soils and Fertilisers (NISF), Ministry of Agricultural and Rural Development (MARD), Vietnam.*

Partner 3: *Hanoi University of Education, HNUE, Ministry of Education and Training (MOET), Vietnam*

Partner 4: *UCL, Belgium*

Partner 5: *IPIAPE, France*

Partner 6: *UV, Spain.*

WHY UNSA ?

WHY NISF?

Participant 2: National Institute for Soils and Fertilizers (NISF), VIETNAM

General information

The National Institute for Soils and Fertilizers (NISF) is a national research institution in the fields of soil, fertilizers, plant nutrition and the environment. The Institute has been established since 1969 immediately under the direction of the Minister of Agriculture and Rural Development (MARD) and the Minister of Science, Technology and Environment (MOSTE) of the Socialist Republic of Vietnam. The Institute has 170 permanent staffs of which there are 20 PhD and 85 engineer degrees. 6 research departments including Soil Genesis and Classification, Soil Fertility, Soil Environment, Plant Nutrition, Land Use and Central Analysis Laboratory compose the Institute. As satellites belonging the Institute, there are 4 research centres located at different ecological zone of the country and two Environment Station for Soil and monitoring & analysis in Hanoi and in Ho Chi Minh City. These two last station are working under joint supervision of the MARD and the Ministry of Natural Resources and Environment. Main today concerning of the Institute is carrying out the fundamental and apply research to the progress of Vietnam Soil Science and to respond better the request of MARD how to manager better the Vietnam soil resource as well as to help farmer in using sustainably their land in relation with food production and environmental protection.

NISF has long and extensive expertise in humid tropical soil researches, in soil plant relationships for almost main crop of Vietnam such as Rice, Cassava, Maize, Tea, Coffee, Sugar Cane, in land use and planning, in systems analysis of the provincial and district levels, in soil and water pollution and degradation, in integrated natural resources management, in peri-urban areas.

In the last ten years, NISF lead an important number of research projects at national level with multi-disciplinary approaches: Mekong Delta Rice Intensification Project; Crop Limiting Factor and Fertilizers Managements Strategy Project; Sloping Land Use Project; **Vietnam Environment Soil Monitoring project.**

Together with International Organization and bilateral collaboration, NISF is carrying and being familiar with different themes in land use management, soil fertility, farming systems (Vietnam TS3-CT 920054) farm field school (Rockefeller Foundation), balance fertilization (FADINAP/IPI/IPPC) social forestry (SDC), land use planning & systems analysis (IRRI), Asian sloping land, management soil erosion consortium (IBSRAM/ADB), acid sloping land (ACIAR), impact of heavy metal in peri-urban agriculture (ACIAR, LWR/119/118); EU funded project on peri-urban interface sustainable farming systems (ICA4-CT2002-1001).

WHY NPUH? Hanoi University of Education (HNUE)

HNUE employs over 1,000 staff members, of which 793 teaching staff, 33 professors, 98 associate professors, 275 doctors. Belonging to the HNUE, the Faculty of Geography consists of 45 staff, of which 2 professors, 15 associate professors and 28 doctors.

The Faculty of Geography consists of 4 departments: Dept of Physical Geography, Dept of Socio-Economic Geography, Dept of Cartography and GIS, and Dept of Teaching Methodology. The Faculty has laboratories for training, education and research.

The Faculty of Geography has actively participated in different projects in development of agriculture, fishery, forestry, industry and tourism, in rural development and urbanization, in fundamental surveys on natural resources and environment of Vietnam. Most of researches focus on development models, community-based resource management, co-management and regional management (transboundary resource management, environmental impact assessment, socio-economic impact assessment, EGIS, institutional framework for environmental management).

HNUE, especially the Faculty of Geography in cooperation with the University of Nice and the National Institute for Soils and Fertilizers (NISF, Vietnam), has contributed an important role in the very initial phase of the proposed project: identifying the project idea, project location, relevant research needs and beneficiaries of the projects. In the project design phase, the Faculty of Geography has participated in preparing the project proposal: defining goals and objectives of the project, describing project activities and expected outcomes, planning project implementation, setting up resource allocation and project personnel as well as own contribution to the project.

WHY UCL

WHY IPIAPE

WHY UV

The consortium includes a combination of expertise in the areas of soil and water monitoring, land and water management, waste treatment, agronomy, geography, ecology, geo-sociology, bio-physic, mathematic, informatics, economic, environmental engineering, modelling, farming system, urban system, interdisciplinary research methods and networking. Most of the research partners have experience from EU- funded or collaborative international projects and the project builds on and extends existing collaborative relationships. Most of the research partners have gain experience from working in partnerships with different stakeholders.

The main responsibility and coordination of the **thirteen** Work Packages (WP) is divided between the partners as given in Table ??? (logical frame work annex C?). The role of each partner within each separate work package (or part of a work package) is described in detail in..... The research activities in France (Nice) and Vietnam (Quang Ninh) will be carried out by UNSA, NISF and HNUE in collaboration with IPAPE, UCL, UV (in WPs??????), WHO (in WPs ????) and WHO (in WP ???). The experiences gained by UCL, UV, UNSA, IPIAPE will be transferred to the target groups in the study areas of France and Vietnam, through study visits, workshops and Working Training of Trainers (ToT), co-subvison Joint guardian ? of Masters and Doctors' thesis.

Two study areas in Nice (France) and Quang Ninh (Vietnam), comparatively, will form the basis for the project activities, including research, interactions with local stakeholders (farmers/producers, investors, consumers, experts, policy makers etc) and local dissemination of the results. In addition, novel environment management systems in Barcelona (Spain), including waste collection and treatment, land and water protection, industry responsibility, rural and urban relation in the environmental protection will be used for development of methodology and experiences in producer- policy-maker and citizens interactions (including campaigns for improved farm products, clean technology in industry), which will be proposed to apply in Vietnam *during perspective phase of demonstration.*

---N. Le Thanh début ---

1.7 Detailed description of activities

This section is crucial and should form the heart of your Application

Maximum 9 pages. Include the title and a detailed description of each activity. In this respect, the detailed description of activities must not be confused with the plan of action (see 1.9).

Though specifying ECO-environment Management System (ECOMS); methods to assess and exploring the available database, the result of project is expected to firstly support interdisciplinary experts (manager, decision-maker, researcher...) in effectively using available data and management systems in provincial city level and for amelioration of the present monitoring and management systems, that will help decisions – makers of all levels from citizens to policy-makers of the cities in their responsibility to react for a sustainable development, where economic growth together with land and water protection.

To fulfil the objectives, a number of activities are performed. This will include consideration of a inventory available data, of a long term dynamics and their effects in exploratory resources use analysis, of comparative study, combining with development of tools and methods of data collection, management, integration of the know-how as well as comparative analysing; risk analysing, scenarios modelling with expertises and participatory approaches in warning and monitoring systems or models.

1.7.1- Description of activity groups

Le projet WISECOMS est organisé en cinq groupes d'activité dont la description est donnée dans les tableaux suivants:

Name	Data Level
Objective	Normaliser les processus de collection de stockage et de gestion de données environnementales dans un système de gestion des bases de données
List of activities	Two Work Packages : WP1 : Data Collection WP2 : Data Management
Work methods	Benchmarking Best Practices Technical Analysis

Name	Network Level
Objective	Etudier l'architecture de connexion entre les composants du WISECOMS adaptée à l'infrastructure de réseaux informatiques vietnamiens
List of activities	Two Work Packages : WP3 : Network Connection WP8: GIS Exchanger
Work methods	Benchmarking Technical Analysis

Name	Application Level
Objective	Study models and application tools for WISECOMS
List of activities	Four Work Packages : WP4 : Modelling WP5: ECOMS Application tools WP6: EDMS Application tools WP7: EGIS Application tools
Work methods	Benchmarking Best Practices Expert Analysis Technical Analysis Scientific Research

Name	User-Interface Level
Objective	Study adapted User-Interfaces for WISECOMS
List of activities	Three Work Packages : - WP9: EDBMS Interface - WP10: EGIS Interface - WP11 : ECOMS Interface
Work methods	Benchmarking Users opinion analysis Scientific Analysis

Name	Organization Level
Objective	Etudier l'organisation adaptée pour le développement et la mise en oeuvre du WISECOMS
List of activities	One Work Package : WP12 : Synthesis and perspectives WP13 : Conferences and Communication
Work methods	Benchmarking Users opinion analysis Scientific Analysis

Le diagramme fonctionnel des activités du projet WISECOMS est donné dans le tableau 1.7.1.

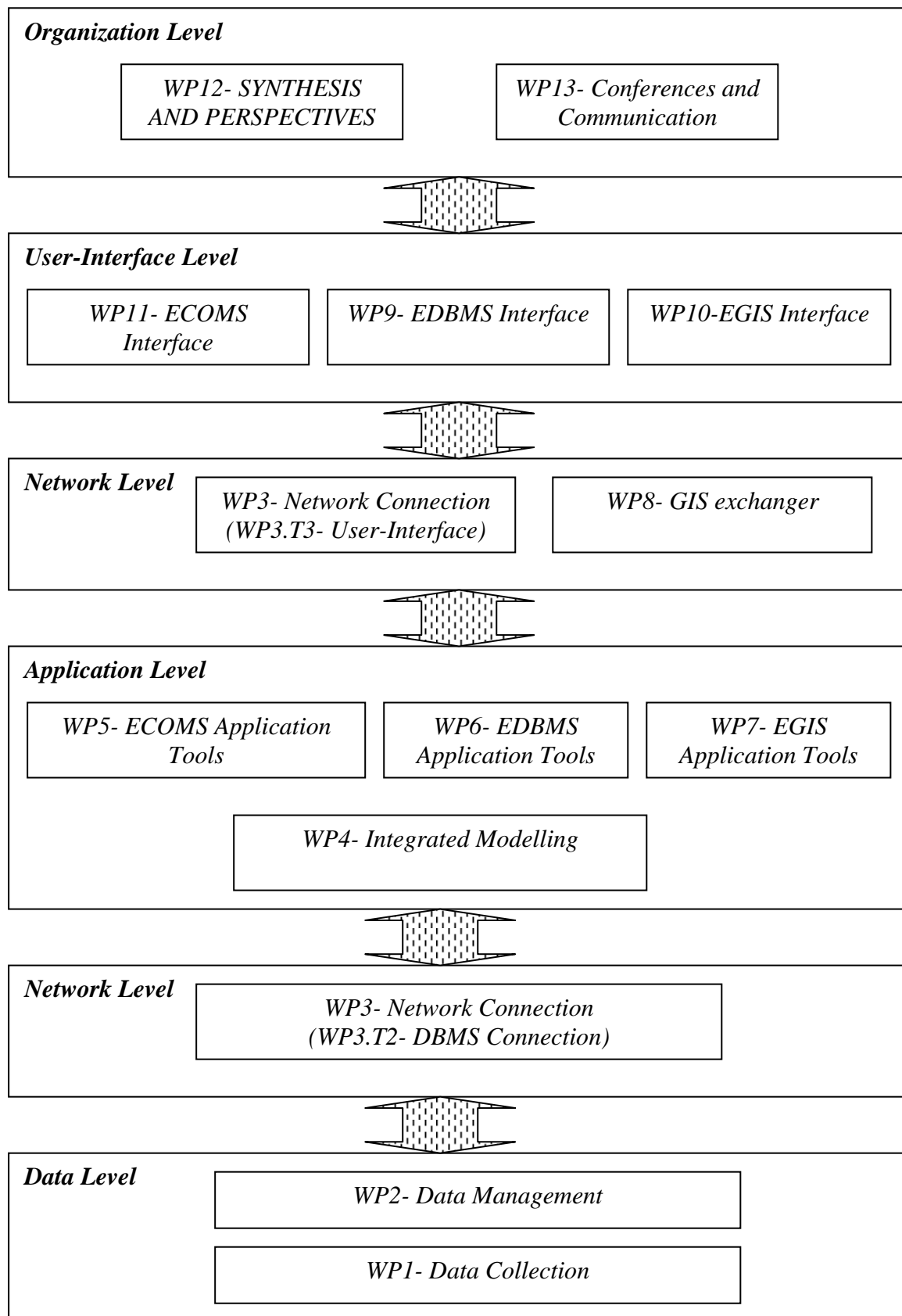


Table 1.7.2. Work Package Schema of WISECOMS Project

1.7.2- Activities in Data Level group:

Work Package Name	WP1: Data Collection
Objective	Comparative study on the methods and tools of eco-environmental data collection
Coordinator	NISF
Description	<p>Ce Work Package consiste en une étude comparative des techniques et des procédures de collection de données environnementales des deux villes : Quang Ninh, Nice (et éventuellement Barcelona). Cette étude permettra :</p> <ul style="list-style-type: none"> - la quantification et la qualification des données existantes ainsi que le recensement des besoins essentiels d'une sous région vietnamienne en matière de management de l'économie et de l'environnement, - la détermination d'un ensemble des indicateurs vitaux pour la construction d'une vision éco-environnementale dans la gestion des ressources naturelles et économiques - la normalisation des procédures de collection et les formats des données éco-environnementales qui facilite la mise à jour, les échanges et la disponibilité de ces données
List of tasks	<p>Five tasks :</p> <ul style="list-style-type: none"> - WP1.T1: Comparative study of actual stage and specific needs - WP1.T2: Study on selected indicators and parameters (necessary for eco-environment management). Define types of useful data - WP1.T3: Procedures and techniques of measures and collections of data - WP1.T4: Definition of the exchange format (Vietnam, France, International) - WP1.T5: Quality control : Coordination, reports and evaluation
Work methods	<p>Benchmarking (Quang Ninh and Nice) Best Practices (Nice, Barcelona and others)</p>
Labour cost prevision (M/M = Man/Month)	<p>8 M/M WP1.T1: 1 M/M = 2 persons x ½ month WP1.T2: 2 M/M = 4 persons x ½ month WP1.T3: 2 M/M = 4 persons x ½ month WP1.T4: 2 M/M = 4 persons x ½ month WP1.T5: 1 M/M - Coordination: ½ M/M = 1 person ¼ month - Report: ½ M/M = 2 persons x ¼ month - Evaluation: ¼ M/M = 2 persons x 1/8month</p>

Work Package Name	WP2: Data Management
Objective	Comparative study on the methods and tools of eco-environmental database management. Modelling and specification of the adapted relational database schemas for EDBMS (Environment Databases Management System)
Coordinator	UNSA
Description	<p>Ce work package consiste en une étude comparative des techniques et des procédures de management de données environnementales deux villes : Quang Ninh, Nice (et éventuellement Barcelona). Cette étude permettra :</p> <ul style="list-style-type: none"> - la détermination de l'état de situation de la capacité de la gestion des données éco-environnementales dans une province vietnamienne - la détermination d'une architecture adaptée de matériels et logiciels à l'échelle d'une province vietnamienne pour la gestion de données éco-environnements - l'utilisation de l'UML (Uniform Modelling Language) pour analyser l'ensemble de données afin de définir un schéma conceptuel adapté à la gestion de données éco-environnementales considérées - la conception de la structure logique de bases de données basée en basant sur le modèle relationnel - la spécification du diagramme fonctionnel pour le management de ces bases de données
List of tasks	Five tasks :

	<ul style="list-style-type: none"> - WP2.T1: Comparative study of the situation of the techniques and tools for data management - WP2.T2: Study adapted architecture and equipment for data management - WP2.T3: Modelling and specification of the relational database schema - WP2.T4: Modelling and specification of the database management schema - WP2.T5: Quality control : Coordination, reports and evaluation
Work methods	Benchmarking (Quang Ninh and Nice) Best Practices (Nice, Barcelona and others) Technological analysis
Labour cost prevision (M/M = Man/Month)	8 M/M WP2.T1: 1 M/M = 2 persons x ½ month WP2.T2: 2 M/M = 2 persons x 1month WP2.T3: 2 M/M = 2 persons x 1 month WP2.T4: 2 M/M = 2 persons x 1 month WP1.T5: 1 M/M <ul style="list-style-type: none"> - Coordination: ¼ M/M = 1 person ¼ M/M - Report: ½ M/M = 2 persons x ¼ month - Evaluation: ¼ M/M = 2 persons x 1/8month

1.7.3- Activities in Network Level group:

Work Package Name	WP3: Network Connection
Objective	Study on the architecture and tools of the network connection for WISECOMS components
Coordinator	UNSA
Description	Cet activité consiste en une étude comparative des technologies et la capacité de réseaux de communication locaux et nationaux de deux villes : Quang Ninh, Nice (et éventuellement Barcelona). Cette étude permettra : <ul style="list-style-type: none"> - la détermination de l'état de situation de la capacité de transmission et de la facilité de l'utilisation des réseaux de communication au Vietnam - la spécification des méthodes et outils technologiques adéquats permettant la connexion et l'échange de données entre les composants de WISECOMS et le EDBMS - la définition de l'architecture n-tiers et orientée web de communication entre les composants du WISECOMS.
List of tasks	four tasks : <ul style="list-style-type: none"> - WP3.T1: Comparative study of the situation of the techniques and tools for Network connection - WP3.T2: Study on the architecture and tools for DBMS Connection - WP3.T3: Study on the architecture and tools for User-Interface Connection - WP3.T4: Quality control : Coordination, reports and evaluation
Work methods	Benchmarking (Quang Ninh and Nice) Technological analysis
Labour cost prevision (M/M = Man/Month)	5 M/M WP3.T1: ½ M/M = 2 persons x ¼ month WP3.T2: 2 M/M = 2 persons x ½ month WP3.T3: 2 M/M = 2 persons x ½ month WP3.T4: ½ M/M <ul style="list-style-type: none"> - Coordination: 1/8 M/M = 1 person 1/8 M/M - Report: ¼ M/M = 1 person x ¼ month - Evaluation: 1/8 M/M = 1 person x 1/8month

Work Package Name	WP8: GIS Exchanger
Objective	Study on Integration of environment data in GIS (Geographic Information System)
Coordinator	HNUE

Description	<p>Cette activité consiste en une étude des outils technologiques disponibles permettant d'établir la communication et l'échange de données entre WISECOMS et GIS (Geographic Information System). Cette étude permettra :</p> <ul style="list-style-type: none"> - la détermination de l'état de situation des technologies de communication disponibles pour le GIS - la spécification des protocoles de communication entre les composants de WISECOMS et GIS - la spécification de l'architecture et des outils adéquats de communication entre WISECOMS et GIS
List of tasks	<p>five tasks :</p> <ul style="list-style-type: none"> - WP8.T1: Situation of the techniques and tools in GIS to import external data - WP8.T2: Study on the architecture and methods of integration of environment data in GIS - WP8.T3: Study on the data exchange protocol between GIS and WISECOMS - WP8.T4: Study on the technology specifications of GIS exchanger tools - WP8.T5: Quality control : Coordination, reports and evaluation
Work methods	<p>Benchmarking (Quang Ninh and Nice) Technological analysis</p>
Labour cost prevision (M/M = Man/Month)	<p>9 M/M WP8.T1: 2 M/M = 2 persons x ½ month WP8.T2: 2 M/M = 2 persons x ½ month WP8.T3: 2 M/M = 2 persons x ½ month WP8.T4: 2 M/M = 2 persons x ½ month WP8.T5: 1 M/M - Coordination: ¼ M/M = 1 person 1/4 M/M - Report: ½ M/M = 2 persons x ¼ month - Evaluation: ¼ M/M = 2 persons x 1/8month</p>

1.7.4- Activities in Application Level group:

Work Package Name	WP4: Integrated Modelling
Objective	Study and research on the formal or expert models suitable for different problems in the application tools of WISECOMS (R&D intermediate term)
Coordinator	UNSA
Description	<p>Cette activité est une des activités centrales du projet WISECOMS. Elle comprend des actions de nature diversifiée (expertises, études, recherches) afin de déterminer des modèles formels pour les différents problèmes d'analyse interdisciplinaires envisagés. Plusieurs actions de recherche entretenues visent une contribution dans un moyen terme au-delà du cadre de ce projet. Ce Work Package consiste en les actions suivantes :</p> <ul style="list-style-type: none"> - l'étude comparative (Quang Ninh, Nice et Barcelona) afin de déterminer des besoins des end-users dans les « target groups » en matière de management intégral éco-environnemental. Cette étude doit aboutir à l'identification d'un ensemble des problèmes essentiels et représentatifs pour WISECOMS - l'étude comparative de l'état de situation des approches existantes de modélisation des problèmes considérés - l'étude de la situation des outils formels adéquats aux problèmes considérés. La priorité est donnée dans les directions suivantes : - Data Mining et Analyse Multidimensionnelle pour la catégorie des problèmes de recherche de tendance, détection des indicateurs et de calculer des risques, ... - Théorie de Graphe, Théorie de jeux et mathématiques discrètes pour la catégorie des problèmes de l'optimisation, contrôle de l'enjeu, régulation des systèmes dynamiques, ... - Logiques de Description (Description Logics), Réseaux sémantiques (semantic net), Réseaux Neuronaux (neural nets) et Ontologies pour la catégorie des problèmes de représentation, d'échange des connaissances, de résolution par connaissances expertises et de simulation, ...

	<ul style="list-style-type: none"> - la recherche d'élaboration des modèles spécifiques pour les problèmes identifiés, en particulier, des problèmes connus: analyse de risque, monitoring, warning, ...
List of tasks	<p>Eight tasks :</p> <ul style="list-style-type: none"> - WP4.T1: Comparative study (Quang Ninh, Nice, Barcelona) of actual stage and needs. Enumerate the essential problems for eco-environment management and interdisciplinary analysis. - WP4.T2: Study, research on formalization and classification of selected problems. Define input and output information for each problem. Define types of useful indicators and data - WP4.T3: Comparative study of situation of available models (pre-existing) for selected problems - WP4.T4: Elaboration of a risk analysis model based on the socio-economical & environmental data & targets (Balance & optimization research of sustainable and development targets) WP4.T5: Elaboration of an expertise analysis model including individual factors as socio-economics, eco-hydrologics, agriculture and urbanization, land use conflicts... - WP4.T6: Elaboration of a simulation analysis model including interdisciplinary parameters - WP4.T7: Study and research of news formal models and tools suited to selected problems - WP4.T8: Quality control : Coordination, reports and evaluation
Work methods	<p>Benchmarking (Quang Ninh and Nice) Best Practices (Nice, Barcelona and others) Scientific study and research</p>
Labour cost prevision (M/M = Man/Month)	<p>57 M/M</p> <p>WP4.T1: 4 M/M = 2 persons x 2 months WP4.T2: 9 M/M = 2 persons x 3 months + 6 persons x 1/2 month WP4.T3: 4 M/M = 2 persons x 2 months WP4.T4: 8 M/M = 2 persons x 3 months + 4 persons x 1/2 month WP4.T5: 10 M/M = 2 persons x 3 months + 8 persons x 1/2 month WP4.T6: 8 M/M = 2 persons x 3 months + 4 persons x 1/2 month WP4.T7: 6 M/M = 2 persons x 3 months WP4.T8: 8 M/M</p> <ul style="list-style-type: none"> - Coordination: 2 M/M = 2 persons x 1 month - Report: 4 M/M = 8 persons x 1/2 month - Evaluation: 2 M/M = 4 persons x 1/4 month

Work Package Name	WP5: ECOM Application Tools
Objective	Study and specify interdisciplinary application tools for eco-environment management
Coordinator	UNSA
Description	<p>Cette activité vise la spécification de l'architecture informatique et l'étude des algorithmes de mise en œuvre des problèmes interdisciplinaires étudiés dans le work package 4.. Ce Work Package consiste en les actions suivantes :</p> <ul style="list-style-type: none"> - L'étude et la recherche des algorithmes pour chaque problème dans le modèle formel considéré. Etudier la complexité de ces algorithmes et les techniques d'optimisation. - l'étude de l'architecture informatique de « ECOM application tools » et la spécification du diagramme de fonctionnement
List of tasks	<p>Five tasks :</p> <ul style="list-style-type: none"> - WP5.T1: Study suitable algorithms for risk analysis model - WP5.T2: Study suitable algorithms expertise analysis model - WP5.T3: Study suitable algorithms simulation analysis model - WP5.T4: Study and specification of the architecture and functional schema of ECOM application tools

	- WP5.T5: Quality control : Coordination, reports and evaluation
Work methods	Scientific study and research Technological analysis
Labour cost prevision (M/M = Man/Month)	15 M/M WP5.T1: 4 M/M (Man/Month) = 2 persons x 2 month WP5.T2: 4 M/M (Man/Month) = 2 persons x 2 month WP4.T3: 4 M/M (Man/Month) = 2 persons x 2 month WP5.T4: 2 M/M = 2 persons x 1 month WP5.T5: 1 M/M - Coordination: ¼ M/M = 1 person ¼ M/M - Report: ½ M/M = 2 persons x ¼ month - Evaluation: ¼ M/M = 2 persons x 1/8month

Work Package Name	WP6: EDBMS Application Tools
Objective	Study and specify functionalities management for eco-environment Database
Coordinator	UNSA
Description	Cette activité vise la spécification de l'architecture informatique et l'étude des algorithmes de mise en œuvre des fonctions de management des données environnementales dans le EDBMS. Ce Work Package consiste en les actions suivantes : - l'étude de l'architecture informatique de « EDBMS application tools » et la spécification du diagramme de fonctionnement - L'étude et la recherche des algorithmes pour chaque fonction de management de données.
List of tasks	Six tasks : - WP6.T1: Study and specification of the architecture and functional schema of EDBMS application tools - WP6.T2: Specification of the suitable algorithm Data Management functionality - WP6.T3: Specification of the suitable algorithm for Integrity Constraints Management functionality - WP6.T4: Specification of the suitable algorithm for Data Exchange Management functionality - WP6.T5: Specification of the suitable algorithm for Data Statistics functionality - WP6.T6: Quality control : Coordination, reports and evaluation
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	11 M/M WP5.T1: 2 M/M = 2 persons x 1 month WP5.T2: 2 M/M = 2 persons x 1 month WP4.T3: 2 M/M = 2 persons x 1 month WP5.T4: 2 M/M = 2 persons x 1 month WP5.T5: 2 M/M = 2 persons x 1 month WP5.T6: 1 M/M - Coordination: ¼ M/M = 1 person ¼ M/M - Report: ½ M/M = 2 persons x ¼ month - Evaluation: ¼ M/M = 2 persons x 1/8month

Work Package Name	WP7: EGIS Application Tools
Objective	Study and specify eco-environment functionalities on the GIS
Coordinator	HNUE
Description	Cette activité de recherche&développement vise des études et recherche de modélisation d'une classe d'applications de management éco-environnemental fonctionnant en couplage avec le GIS : monitoring & warning. Elle comprend également l'étude de spécification de l'architecture informatique et l'étude des algorithmes de mise en œuvre

	<p>de ces applications.. Ce Work Package consiste en les actions suivantes :</p> <ul style="list-style-type: none"> - l'étude de l'état de situation et des besoins spécifiques vietnamiens - l'étude et l'élaboration des modèles adaptés pour les applications « Monitoring & Warning» - l'étude de l'architecture informatique de « EGIS application tools » et la spécification du diagramme de fonctionnement - L'étude et la recherche des algorithmes pour chaque application considérée.
List of tasks	<p>Seven tasks :</p> <ul style="list-style-type: none"> - WP7.T1: Study state of application at the area and specific need in the Vietnamese context - WP7.T2: Study of Expertise models on monitoring and warning of environmental issues (pollution of water, soil, air) - WP7.T3: Study of real-time technique: Data period acquisition, treatment data mode according to the events. - WP7.T4: Study and specification of the architecture and functional schema of EGIS application tools - WP7.T5: Specification of the suitable algorithm for GIS Data Formatting functionality WP7.T6: Specification of the suitable algorithm for monitoring & warning functionalities - WP7.T7: Quality control : Coordination, reports and evaluation
Work methods	<p>Benchmarking Scientific study and research Technological analysis</p>
Labour cost prevision (M/M = Man/Month)	<p>26 M/M</p> <p>WP7.T1: 2 M/M = 2 persons x 1 month WP7.T2: 8 M/M = 2 persons x 4 months WP7.T3: 4 M/M = 2 persons x 2 months WP7.T4: 2 M/M = 2 persons x 1 month WP7.T5: 2 M/M = 2 persons x 1 month WP7.T6: 6 M/M = 2 persons x 3 months WP7.T7: 2 M/M</p> <ul style="list-style-type: none"> - Coordination: ½ M/M = 1 person ½ M/M - Report: 1 M/M = 4 persons x ¼ month - Evaluation: ½ M/M = 2 persons x ¼ month

1.7.5- Activities in Interface Level group:

Work Package Name	WP9: ECOM Interface
Objective	Specify eco-environment interface in ECOMS
Coordinator	UNSA
Description	<p>Cette activité vise la conception de des interfaces pour les utilisateurs finaux du « ECOM Application Tools ». Ce Work Package consiste en les actions suivantes :</p> <ul style="list-style-type: none"> - l'étude de classification des utilisateurs de ECOMS et la conception des interfaces pour chaque classe d'utilisateurs considérée - l'étude de l'architecture informatique de ces interfaces et la spécification du diagramme de fonctionnement - L'étude des mesures de sécurité associées à chaque classe d'utilisateurs.
List of tasks	<p>four tasks :</p> <ul style="list-style-type: none"> - WP9.T1: Study end-user classification for ECOMS and conception of the interfaces for each selected class - WP9.T2: Study implementation architecture and software approach - WP9.T3: Study of security measures associated with each class - WP9.T4: Quality control : Coordination, reports and evaluation
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	<p>4 M/M</p> <p>WP9.T1: 1 M/M = 2 persons x ½ month WP9.T2: 1 M/M = 2 persons x ½ month</p>

	WP9.T3: 1 M/M = 1 person x 1 month WP9.T4: 1 M/M - Coordination: ¼ M/M = 1 person ¼ M/M - Report: ½ M/M = 1 person x ½ month - Evaluation: ¼ M/M = 2 persons x 1/8 month
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Work Package Name	WP10: EDBMS Interface
Objective	Specify end-used interface for EDBMS
Coordinator	UNSA
Description	Cette activité vise la conception de des interfaces pour les utilisateurs finaux du « EDBMS Application Tools ». Ce Work Package consiste en les actions suivantes : <ul style="list-style-type: none"> - l'étude de classification des utilisateurs de EDBMS et la conception des interfaces pour chaque classe d'utilisateurs considérée - l'étude de l'architecture informatique de ces interfaces et la spécification du diagramme de fonctionnement - L'étude des mesures de sécurité associées à chaque classe d'utilisateurs.
List of tasks	four tasks : <ul style="list-style-type: none"> - WP10.T1: Study end-user classification for EDBMS and conception of the interfaces for each selected class - WP10.T2: Study implementation architecture and software approach - WP10.T3: Study of security measures associated with each class - WP10.T4: Quality control : Coordination, reports and evaluation
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	3 + ¾ M/M WP10.T1: 1 M/M = 2 persons x ½ month WP10.T2: 1 M/M = 2 persons x ½ month WP10.T3: 1 M/M = 1 person x 1 month WP10.T4: 1 M/M - Coordination: ¼ M/M = 1 person ¼ M/M - Report: ½ M/M = 1 person x ½ month - Evaluation: ¼ M/M = 2 persons x 1/8 month

Work Package Name	WP11: EGIS Interface
Objective	Specify end-used interface of EGIS application tools on GIS
Coordinator	HNUE
Description	Cette activité vise la conception de des interfaces et la technique d'intégration dans le GIS pour les utilisateurs finaux du « EGIS Application Tools ». Ce Work Package consiste en les actions suivantes : <ul style="list-style-type: none"> - l'étude de classification des utilisateurs de EDBMS et la conception des interfaces pour chaque classe d'utilisateurs considérée - l'étude de l'architecture informatique de ces interfaces et la spécification du diagramme de fonctionnement - L'étude des mesures de sécurité associées à chaque classe d'utilisateurs - L'étude des techniques d'intégration de ces interface dans le GIS
List of tasks	four tasks : <ul style="list-style-type: none"> - WP11.T1: Study end-user classification for <i>monitoring & warning</i> application and conception of the interfaces for each selected class - WP11.T2: Study of security measures associated with each class - WP11.T3: Study implementation architecture and software approach in GIS - WP11.T4: Quality control : Coordination, reports and evaluation
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	8 M/M WP11.T1: 2 M/M = 2 persons x 1 month WP11.T2: 1 M/M = 2 persons x ½ month WP11.T3: 4 M/M = 2 persons x 1 month

	<p>WP11.T4: 2 M/M</p> <ul style="list-style-type: none"> - Coordination: $\frac{1}{4}$ M/M = 1 person x $\frac{1}{4}$ M/M - Report: $\frac{1}{2}$ M/M = 2 persons x $\frac{1}{4}$ month - Evaluation: $\frac{1}{4}$ M/M = 2 persons x $\frac{1}{8}$ month
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1.7.6- Activities in Organization Level group:

Work Package Name	WP12: Synthesis and perspective
Objective	Project integration and organization of the project issues
Coordinator	UNSA
Description	Cette activité vise une étude qualitative du processus de la mise en place du projet WISECOMS: ressources, coût, partenariat, financement, etc.
List of tasks	<p>Six tasks :</p> <ul style="list-style-type: none"> - WP12.T1: Study of logistical & human resource need for functioning of WISECOMS: equipment, personnel, formation, etc. - WP12.T2: Study of provisional planning for implementation schedule for WISECOMS at Quang Ninh Province levels - WP12.T3: Study of the integration possibility of the WISECOMS in the National and Regional Information Systems (Vietnam, Laos, Cambodia..) especially in the meteorology, in the prevention of natural risk such as storms, floods, forestry fires,...) - WP12.T4: Study of the Vietnamese, Asian, European and international possibility of technology transfers and co-financial form different sources for WISECOMS development - WP12.T5: Final report redaction - WP12.T6: Quality control : Coordination, reports and evaluation
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	<p>8 M/M</p> <p>WP12.T1: 1 M/M = 2 persons x $\frac{1}{2}$ month</p> <p>WP12.T2: 1 M/M = 2 persons x $\frac{1}{2}$ month</p> <p>WP12.T3: 1 M/M = 1 person x 1 month</p> <p>WP12.T4: 2 M/M = 2 person x 1 month</p> <p>WP12.T5: 1 M/M = 1 person x 1 month</p> <p>WP12.T6: 2 M/M</p> <ul style="list-style-type: none"> - Coordination: $\frac{1}{2}$ M/M = 1 person x $\frac{1}{2}$ month - Report: $\frac{1}{2}$ M/M = 2 person x $\frac{1}{4}$ month - Evaluation: 1 M/M = 2 persons x $\frac{1}{4}$ month

Work Package Name	WP13: Conference and Communication
Objective	Technologies and scientific partnership
Coordinator	UNSA
Description	Cette activité consiste en une organisation des cours formations technologiques, des séminaires d'échange d'expériences, des conférences de présentation des résultats du projet et en une réalisation et maintenance d'un Web site du projet.
List of tasks	<p>Six tasks :</p> <ul style="list-style-type: none"> - WP13.T1: Kit-off meeting : "WISECOMS project : presentation and organization" - WP13.T2: seminar on "Internal evaluation methods and future planning" - WP13.T3: Workshop conference on "GIS technologies and their applications in the environment management" - WP13.T4: Seminar on "Internal evaluation and future planning" - WP13.T5: Annual meeting : "WISECOMS project : annual evaluation and future planning" - WP13.T6: Workshop conference on "Waste collection and treatment technologies" - WP13.T7: Workshop conference on "Interdisciplinary modelling and methods for economy-environment management approach" - WP13.T8: Seminar on "Internal evaluation, future planning and strategy to

	<p>expand of the project results”</p> <ul style="list-style-type: none"> - WP13.T9: Coordinators meeting : “Final internal evaluation and project clature meeting preparation” - WP13.T10: Project clature meeting : “Presentation of project results and project issues” - WP13.T11: Project Web site conception and maintenance
Work methods	Technological analysis
Labour cost prevision (M/M = Man/Month)	<p>22 M/M</p> <p>WP13.T1: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T2: 0,5 M/M = 2 persons x 1/4 month</p> <p>WP13.T3: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T4: 0,5 M/M = 2 person x 1/4 month</p> <p>WP13.T5: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T6: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T7: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T8: 0,5 M/M = 2 persons x 1/4 month</p> <p>WP13.T9: 0,5 M/M = 2 persons x 1/4 month</p> <p>WP13.T10: 2 M/M = 8 persons x 1/4 month</p> <p>WP13.T11: 8 M/M = 2 persons x 4 months</p>

----N. Le Thanh fin ----

1.8 Methodology

Maximum 4 pages. Detailed description of:

- (a) methods of implementation
- (b) reasons for the proposed methodology
- (c) how the project intends to build on a previous project or previous activities (where applicable)
- (d) procedures for internal evaluation (xxxx experts specialises + controle/validation des resultants de groupes de travail)
- (e) level of involvement and activity of other organisations (partners or others) in the project
- (f) reasons for the role of each partner
- (g) team proposed for implementation of the project (*by function: there is no need to include the names of individuals here*)

a/ methods of implementation

à compléter par Franck BLANC

M1. Comparative analysis (Benchmarking) & Sharing expertise (Best practices)

- Comparative analysis of current situation (eco-management and relatives objects) & the need of the Province of Quang Ninh (Vietnam) and Nice city (and Barcelona).
- Sharing know-how, expertise and experiences between two cities
- Establish advanced proposition of eco-management content & tools for cities in Vietnam
-

M2. Interdisciplinary expertise study and Research Development Study (R&D)

Contribution of experts in individual, specific components for integration

Contribution of R&D activities in short and intermediate terms.

Interdisciplinary expertise approach where experts with different disciplines involved in specific areas of en-management discuss, exchange ideas and find out :

- Parameters and indicators of eco-environment management in terms of specific area such as pollution, water, soil, land waste, socio-economic condition...
- Reasonable content and tools for sharing eco-environment management system, sharing management system of environmental databases and sharing EGIS.
- Choice of existing models or model construction for each of the investigated domains, and elaboration of interdisciplinary/ multidimensional models integrating different domains
- Elaboration of different subjects for research & sustainable development in eco-environment management.

M3. Thematic research/ University' doctoral thesis (human resource building)

The project is carried out by both universities and research laboratories. It is natural to link the thesis at doctoral and master levels with the activities of the project. This shows the continuing and sustainable of the activities proposed even when the project was being completed

The subjects of thesis should be included water, land, natural resources, socio-economics, modelling, GIS, mathematic, computer science ...

M4. Participatory brainstorming in seminar, workshops or by web-net (specific and wide public audience)

Discussion and brainstorming in participatory way may not only occur by seminar and workshops but also by forum from web-site of the project and email-list exchange

b/ reasons for the proposed methodology

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c/ the project intends to build on a previous project or previous activities (where applicable)

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d/ procedures for internal evaluation (xxxx experts specialises + controle/validation des resultants de groupes de travail)

à compléter par Franck BLANC

Complement of role definition Table

Role	Description
Main Contribution (MC)	Leader role in the project (Work Package Coordinator – CO & others roles)
Specific Contribution ()	Action Leader (L) and Supporting (S) Roles only
Cross Checking (CC)	Cross Control between partners in same Work Package
Internal Evaluation (IE)	Work Package Internal Evaluation

Partner category Table

Category	Role	Partners in category
Operational partner (OP)	Main Contribution (MC) Cross Checking (CC)	UNSA, NISF and HNUE
Expert partner (EP)	Specific Contribution (SC) Cross Checking (CC) Internal Evaluation (IE)	UCL, UV, IPEATE

Internal evaluation Table

Report/Seminar	Responsible	Internal evaluation	Timing
Internal Progress WP report	OP	CO & CC	every 3 months
Annual WP report	OP	expert partners - CO	every 12 month
Final Work Package report	OP	IE	End of the WP
Scientific Seminar report	OP	all participants	every 12 month
Expert report	EP	CC & CO	every mission
Annual finance balance	all partners	IE - CO	every 12 month
Annual report	Project coordinator	IE	every 12 month
Annual finance balance	Project coordinator	IE - CO	every 12 month
Audition	operational partners	all participants - CO	every 12 month
Final reports	Project coordinator	IE - CO	at month 24

e/ level of involvement and activity of other organisations (partners or others) in the project

à compléter par Franck BLANC

The research consortium consists of four institutions in Europe, 2 institutions in Vietnam:

Partner 1: UNSA, France, Applicant partner, Project Co-ordinator.

Partner 2: National Institute for Soils and Fertilisers (NISF), Ministry of Agricultural and Rural Development (MARD), Vietnam.

Partner 3: Hanoi University of Education, HNUE, Ministry of Education and Training (MET), Vietnam

Partner 4: UCL, Belgium

Partner 5: IPIAPE, France

Partner 6: UV, Spain

The consortium includes a combination of expertise in the areas of soil and water monitoring, land and water management, waste treatment, agronomy, geography, ecology, geo-sociology, bio-physic, mathematic, informatics, economic, environmental engineering, modelling, farming system, urban system, interdisciplinary research methods and networking. Most of the research partners have experience from EU-funded or collaborative international projects and the project builds on and extends existing collaborative relationships. Most of the research partners have gain experience from working in partnerships with different stake-holders.

The main responsibility and coordination of the six work packages is divided between the partners as given in Table ??? (logical frame work annex C?). The role of each partner within each separate work package (or part of a work package) is described in detail in XXXX (Nhan). The research activities in France (Nice) and Vietnam (Quang Ninh) will be carried out by UNSA, NISF and HNUE in collaboration with IPAPE, UCL, UV (in WP?????), WHO (in WP ????) and WHO (in WP ???). The experiences gained by UCL, UV, UNSA, IPIAPE will be transferred to the target groups in the study areas of France and Vietnam, through study visits, workshops and Working Training of Trainers (ToT), co-supervisions of Masters and Doctors' thesis.

Two study areas in Nice (France) and Quang Ninh (Vietnam), comparatively, will form the basis for the project activities, including research, interactions with local stakeholders (farmers/producers, investors, consumers, experts, policy makers etc) and local dissemination of the results. In addition, novel environment management systems in Barcelona (Spain), including waste collection and treatment, land and water protection, industry responsibility, rural and urban relation in the environmental protection will be used for development of methodology and experiences in producer- policy-maker and citizens interactions (including campaigns for improved farm products, clean technology in industry), which will be proposed to apply in Vietnam *during perspective phase of demonstration.*

Project coordinators. UNSA, who has competence covering most of the work packages (WP), will coordinate the project. Prof. **Michell POPOFF** (DESS, Gestion de la planète), with support from RI, UNSA and Prof. Nhan Le Thanh, will be responsible for the overall scientific coordination. Prof. Vanclooster (UCL), MMe Nathalie LENOIR (IPIAPE), Prof. SALDOVAL-PEREZ (UV) will support the UNSA team in the coordination work and will be the contact person for her/his Institution; while Prof. NGUYEN VIET THINH (NPUH), with the support of Mr. NGUYEN TUONG HUY, will be the contact person of NPUH and Dr. Pham Quang HA (NISF) will be contact person for NISF & Vietnam.

The project co-ordinator monitors the timely achievement of project milestones and deliverables, facilitates and organises smooth communication between the project partners, and takes appropriate action in case of conflicts between partners or delays in project progress. The project co-ordinator is also responsible for all the communication to the European Commission and manages the process of submission of progress and financial reports to the European Commission. The role of the research partners in the consortium is described in Table T..... below:

----N. Le Thanh début ----

Table Role of Partners

L: Leading role for activity; S: Supporting role for activity ; CO: Work package coordinator; Co: Member of Coordination when needed; CC : Cross Checking member; IE : Internal Evaluation member

WP No.	WP (Work Packages) title	UNSA (1)	NISF (2)	HNUE (3)	UCL (4)	IPIATE (5)	UV (6)
WP1	Data Collection		CO	Co			
WP1.T1	Comparative study of actual stage and specific needs	L	L				
WP1.T2	Study on selected indicators and parameters (necessary for eco-environment management). Define types of useful data	L	L	L	S	S	
WP1.T3	Procedures and techniques of measures and collections of data	L	L	L	S	S	
WP1.T4	Definition of the exchange format (Vietnam, France, International)		L	L	S	S	
WP1.T5	Quality control : Coordination, reports and evaluation		L	CC	IE	IE	
WP2	Data Management	CO		Co			
WP2.T1	Comparative study of the situation of the techniques and tools for environmental data management	L	L	L			
WP2.T2	Study adapted architecture and equipment for data management	L	L	L			
WP2.T3	Modelling and specification of the relational database schema	L	L	L			S
WP2.T4	Modelling and specification of the database management schema	L		L			S
WP2.T5	Quality control : Coordination, reports and evaluation	L		CC		IE	IE
WP3	Network Connection	CO	Co				
WP3.T1	Comparative study of the situation of the techniques and tools for Network connection	L	L				
WP3.T2	Study on the architecture and tools for DBMS Connection	L	L				
WP3.T3	Study on the architecture and tools for User-Interface Connection	L	L				
WP3.T4	Quality control : Coordination, reports and evaluation	L	CC		IE		IE
WP4	Integrated Modelling (R&D intermediate term)	CO			Co		
WP4.T1	Comparative study (Quang Ninh, Nice, Barcelona) of actual stage and needs. Enumerate the essential problems for eco-environment management and interdisciplinary analysis	L	L	L	L	S	S
WP4.T2	Study, research on formalization and classification of selected problems. Define input and output information for each problem. Define types of useful indicators and data	L	L	L	L		
WP4.T3	Comparative study of situation of available models (pre-existing) for selected problems	L	L	L	L	S	S

WP4.T4	Elaboration of a risk analysis model based on the socio-economical & environmental data & targets (Balance & optimization research of sustainable and development targets)	L	L	L	L		L
WP4.T5	Elaboration of an expertise analysis model including individual factors as socio-economics, eco-hydrologics, agriculture and urbanization, land use conflicts...	L	L	L	L	L	L
WP4.T6	Elaboration of a simulation analysis model including interdisciplinary parameters	L	L	L	L		
WP4.T7	Study and research of news formal models and tools suited to selected problems	L			L		
WP4.T8	Quality control : Coordination, reports and evaluation	L	CC	S	S	IE	IE
WP5	ECOM Application Tools		CO	Co			
WP5.T1	Study suitable algorithms for risk analysis model	L	L	L	L		
WP5.T2	Study suitable algorithms expertise analysis model	L	L	L	L		
WP5.T3	Study suitable algorithms simulation analysis model	L	L	L	L		
WP5.T4	Study and specification of the architecture and functional schema of ECOM application tools	L	L	L			
WP5.T5	Quality control : Coordination, reports and evaluation		L	CC	IE	IE	
WP6	EDBMS Application Tools		CO	Co			
WP6.T1	Study and specification of the architecture and functional schema of EDBMS application tools	L	L				
WP6.T2	Specification of the suitable algorithm Data Management functionality	L	L				
WP6.T3	Specification of the suitable algorithm for Integrity Constraints Management functionality	L	L				
WP6.T4	Specification of the suitable algorithm for Data Exchange Management functionality	L	L				
WP6.T5	Specification of the suitable algorithm for Data Statistics functionality	L	L				
WP6.T6	Quality control : Coordination, reports and evaluation	L	CC			IE	IE
WP7	EGIS Application Tools			CO	Co		
WP7.T1	Study state of application at the area and specific need in the Vietnamese context	L	L	L			
WP7.T2	Study of Expertise models on monitoring and warning of environmental issues (pollution of water, soil, air)	L	L	L	L	L	
WP7.T3	Study of real-time technique: Data period acquisition, treatment data mode according to the events	L	L	L	L		
WP7.T4	Study and specification of the architecture and functional schema of EGIS application tools	S	L	L	S		
WP7.T5	Specification of the suitable algorithm for GIS Data Formatting functionality	S	L	L	L		
WP7.T6	Specification of the suitable algorithm for monitoring & warning functionalities	L	L	L	L		
WP7.T7	Quality control : Coordination, reports and evaluation	S	CC	L	IE	IE	
WP8	EGIS Exchanger		Co	CO			
WP8.T1	Situation of the techniques and tools in GIS to import external data	S	L	L			
WP8.T2	Study on the architecture and methods of integration of environment data in GIS	S	L	L			
WP8.T3	Study on the data exchange protocol between GIS and WISECOMS	S	L	L			

WP8.T4	Study on the technology specifications of GIS exchanger tools	S	L	L			
WP8.T5	Quality control : Coordination, reports and evaluation		CC	L	IE	IE	
WP9	ECOMS Interface	CO	Co				
WP9.T1	Study end-user classification for ECOMS and conception of the interfaces for each selected class	L	L				
WP9.T2	Study implementation architecture and software approach	L	L				
WP9.T3	Study of security measures associated with each class	L	L				
WP9.T4	Quality control : Coordination, reports and evaluation	L	CC		IE	IE	
WP10	EDBMS Interface	CO					Co
WP10.T1	Study end-user classification for EDBMS and conception of the interfaces for each selected class	L					L
WP10.T2	Study implementation architecture and software approach	L					L
WP10.T3	Study of security measures associated with each class	L					L
WP10.T4	Quality control : Coordination, reports and evaluation	L			IE	IE	CC
WP11	EGIS Interface			CO	Co		
WP11.T1	Study end-user classification for <i>monitoring & warning</i> application and conception of the interfaces for each selected class			L	L		
WP11.T2	Study of security measures associated with each class			L	L		
WP11.T3	Study implementation architecture and software approach in GIS			L	L		
WP11.T4	Quality control : Coordination, reports and evaluation			L	CC	IE	IE
WP12	WP12: Synthesis and perspective	CO	Co				
WP12.T1	Study of logistical & human resource need for functioning of WISECOMS: equipment, personnel, formation, etc.	L	L				
WP12.T2	Study of provisional planning for implementation schedule for WISECOMS at Quang Ninh Province levels	L	L				
WP12.T3	Study of the integration possibility of the WISECOMS in the National and Regional Information Systems (Vietnam, Laos, Cambodia..) especially in the meteorology, in the prevention of natural risk such as storms, floods, forestry fires,...)	L	L				
WP12.T4	Study of the Vietnamese, Asian, European and international possibility of technology transfers and co-financial form different sources for WISECOMS development	L	L				
WP12.T5	Final report redaction	L					
WP6.T6	Quality control : Coordination, reports and evaluation	L	CC				
WP13	WP13: Conferences and Communication	CO	Co				
WP13.T1	Kit-off meeting : “WISECOMS project : presentation and organization”	L	S	S	S	S	S
WP13.T2	seminar on “Internal evaluation methods and future planning”	L					
WP13.T3	Workshop conference on “GIS technologies and their applications in the environment management”	S	S	L			

WP13.T4	Seminar on “Internal evaluation and future planning”	S		L	S		
WP13.T5	Annual meeting : “WISECOMS project : annual evaluation and future planning”	L	S	S	S	S	S
WP13.T6	Workshop conference on “Waste collection and treatment technologies”	L	S	S	S	S	
WP13.T7	Workshop conference on “Interdisciplinary modelling and methods for economy-environment management approach”	S	S	L	S	S	S
WP13.T8	Seminar on “Internal evaluation, future planning and strategy to expand of the project results”	S	L	S	L		
WP13.T9	Coordinators meeting : “Final internal evaluation and project clature meeting preparation”	L					
WP13.T10	Project clature meeting : “Presentation of project results and project issues”	L	S	S	S	S	S
WP13.T11	Project Web site conception and maintenance	L					

----N. Le Thanh fin----

Coordinators of the Work Packages will primarily be responsible for ensuring the success of the respective work package. They produce the deliverables according to the time plan and monitor the quality of the work. In addition, the WP co-ordinators supervise the consistency and comparability of the activities between the study areas within and between countries. To execute this task of the WP co-ordinators is to maintain regular contacts both with the overall project co-ordinator and the consortium partners directly involved in the work package concerned.

Partner coordinator within each participating organisation will be responsible for the organisation’s contribution to the project and for the spreading of project information to the staff within the organisation. She/He will be also the focal point for information exchange between that organisation and (1) the other partners in the consortium as well as (2) the project coordinator for the continuing of coordination in the whole project.

The project coordinator (The Applicant Coordinator) will therefore be responsible for reviewing scientific and financial reports submitted by partners and raising any apparent inconsistencies with respect to the budget agreed upon with the Commission.

5. Publication (see 2. Expected results (2.2))

1.9. Duration and plan of action

The duration of the project will be 24 months.

Note: The indicative plan of action should not mention actual dates, but should start with “month 1”, month 2”, etc. Applicants are advised to foresee a security margin in the proposed plan of action. The plan of action should not contain detailed descriptions of activities, but only their titles (please ensure that these match the titles listed in section 1.7).

The plan of action for the first year of implementation must be sufficiently detailed to provide insight into the preparation and implementation of each activity. The plan of action for each of the following years (depending on project duration) may be more general and should only list the main activities foreseen for those years.¹ The plan of action must be provided in accordance with the following model:

Year	Activity	Location (city)	Implementing body
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¹ A more detailed plan of action for each of the following years will be required for the release of interim payments in accordance with Article 2(2) of the General and Administrative Provisions of the Grant Contract (see Annex E).

	<i>(example)</i>		<i>(example)</i>
Year 1			
Month 1	Kick-off meeting , preparation of all, focus on A1, A2, A5	Nice?	UNSA and all partners
Month 2-6	Implementation of data collection (A1, A5)	Quang Ninh, Nice	NISF, UNSA, HNUE
Month 4	Implementation of A2	all partners	all partners
Month 6	Workshop-training: report A1, Preparation of A 3, A5	Quang Ninh, Nice	at Nice: European partner at Quang Ninh: Vn partners & crossing experts
Month 7-10	Methods and tools for management of EDB (A2); A3		NISF, UNSA, HNUE and experts partners
Month 10	partners' internal review		NISF, UNSA, HNUE
Month 12	Annual meeting, report A1-2,3,5 preparation A4, A6	Quang Ninh	All partners
Year2	Activity	Location (city)	Implementing body
Month 13-17	Continuing A5, implementing A4	Nice, Quang Ninh	UNSA and all partners
Month 1 8	Workshop-training A4, A5, A6 Strategy to expand of the project results in real life	Nice, Quang Ninh	at Nice: European partner at Quang Ninh: Vn partners & expert partners
Month 19-22	Continuing A4, A5, A6		NISF, UNSA, HNUE and experts partners
Month 21	Reunion of coordinators: Revise, internal evaluation; preparation for the final workshop	?	all coordinators
Month 22-23	Testing and appel d'offre		all partners
Month 24	Final workshop	Hanoi	All partners

2. Expected results

2.1 Estimated impact on target groups

Maximum 2 pages. Include information on:

- (a) how the project will improve the situation of the target groups
- (b) how the project will improve the managerial and technical capacities of the target groups or the partners (where applicable)

2.2 Publications and other outputs

Maximum 1 page. Be specific and quantify outputs as much as possible.

List of possible publication

- o State of art on eco-data base in Quang Ninh province
- o State of art on eco-data base in Nice city
- o Specific need for Eco-data base building and management in Vietnam. A Quang Ning case study.

- Situation on technique and tools for stock and back-up data related on land , water and waste treatment
- Situation on methods and tools in thematic modelling related with land , water and waste treatment
- Links of thematic models, an interdisciplinary approach serves to eco-management
- Art of the integration of eco-data on GIS
- A prototype on warning systems on environmental protection as an output of GIS & expertise modelling
- Methods and tools in Interdisciplinary approaches to eco-management
- EGIS, an comprehensible tool for decision makers at regional levels. State and Perspective
- EGIS Systems Application for sub-region of Asia and Europe. An example of Quang Ninh and Nice.

List of reports

2004

WP1

WP2

WP3

WP4

WP5

WP6

Final report

2005

WP1

WP2

WP3

WP4

WP5

WP6

Final report

This is simulated by means of:

- Identify and specify the data schemas and application tools for Environment Database Management System (EDBMS) fit to local and inter-regional conditions.
- Develop and establish methods for data collection, data management and its integration in EDBMS
- Identify and specify the components and application tools for EGIS which enable to exchange between EDBMS and GIS.
- Study existing models of interdisciplinary analysis based on the EGIS and individual expertise components of different scenarios.
- Identify of the environmental parameters and formulation of indicators for Environmental Impact Assessment
- Specify the decision support tools for experts and policy decision makers to market-based approaches for environment managing
- Specify web based information channels in inter and intra region
- Research new models for individual and interdisciplinary components, warning, monitoring systems in and out EGIS based *on advanced technologies partnership* with help of computer science, statistics, mathematics and participatory expertises **especially in land, water and green waste management.**

Others outputs: Project web site; thesis of Masters and Doctors; report documents; tools kits.... (???)

2.3

Multiplier effects

Maximum 1 page. Describe the possibilities for replication and extension of project outcomes.

Please add

2.4

Sustainability

Maximum 3 pages. Distinguish between the following aspects of sustainability: **Please add**

(a) financial sustainability (*How will the activities be financed after the EC funding ends?*)

suite du projet : mise au point d'une méthode + industrialisation (suite projet : faisabilité et démonstration avec participation industrielle/institutionnelle)

(b) institutional sustainability (*Will structures allowing the activities to continue be in place at the end of the present project? Will there be local "ownership" of project outcomes?*)

Structures : OK. Political decisions / data.

(c) sustainability at the policy level (where applicable) (*What will be the structural impact of the project – e.g. will it lead to improved legislation, codes of conduct, methods, etc ?*)

cf Vietnam policy : will it be influenced referring to the expected results of this project ?

3. Budget for the project

Provide a budget for the total duration of the project and for the first 12 months of the project. See Guidelines for Applicants, section 2.5 (payments) for further information.

Note: The budget must be provided in accordance with Annex B (Excel file). The budget format is contained in Worksheet 1 (3. Budget).

4. Expected sources of funding

Provide information on the expected sources of funding for the project.

Note: this information must be provided in accordance with Annex B (Excel file). The format is contained in Worksheet 2 (4. Sources of Funding).

To switch between Excel Worksheets, click the tab at the bottom of the screen.

II. THE APPLICANT

1. Identity

Full legal name (business name):	Voir Franck BLANC
Acronym (where applicable):	
Legal status:	
VAT registration number (where applicable):	
Official address:	
Postal address:	
Contact person:	
Telephone n° :	
Fax n°:	
E-mail address:	
Website:	

2. Bank details

The bank must be in the country in which the applicant is registered.

Account name:	Voir Franck BLANC
Bank account no:	
Bank code:	
SWIFT code:	
Bank name:	
Bank address:	
Name(s) of signatory(ies):	
Position(s) of signatory(ies):	

Corresponding bank (where applicable)

Account name:	Voir Franck BLANC
Bank account no:	
Bank code:	
SWIFT code:	
Bank name:	
Bank address:	
Routing information:	

3. Description of the applicant (maximum 3 pages)

3.1 When was your organisation founded and when did it start its activities?

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3.2. What are the main activities of your organisation at present?

Voir Franck BLANC

3.3. List of the management board / committee of your organisation.

Name	Profession	Gender	Function	Years on the board
		F / M		
		F / M		

Voir Franck BLANC

4. Capacity to manage and implement projects

Voir Franck BLANC

4.1. Experience with similar projects

Maximum 1 page per project. Detailed description of projects managed by your organisation over the past five years in the fields covered by this programme, identifying for each project:

- (a) the object and location of each project
- (b) the results of the project
- (c) your organisation's role (leader, partner) and level of involvement in the project
- (d) the project cost
- (e) the donors of the project (name, address and e-mail, telephone number, amount contributed)

4.2

Resources

Maximum 3 pages. Detailed description of the various resources at the disposal of your organisation including:

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- (a) the most recent annual report and accounts mentioning where applicable for each year the names of the main financial contributors and the proportions of annual income contributed by them
- (b) the number of full-time and part-time staff by category (*e.g. number of project managers, accountants, etc.*).
- (c) equipment and offices
- (d) other relevant resources

5. Other applications submitted to European Institutions, the European Development Fund (EDF) or EU Member States

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5.1 Grants, contracts or loans obtained during the last three years from European Institutions, the EDF or EU Member States

Title of operation	EC budget line, EDF or other source	Amount (EUR)	Date of award

Voir Franck BLANC

5.2 Grant applications submitted (or due to be submitted) to European Institutions, the EDF or EU Member States in the current year:

Title of project	EC budget line, EDF or other source	Amount (EUR)

III. PARTNERS OF THE APPLICANT PARTICIPATING IN THE PROJECT

1. Description of the partners

This section must be completed for each partner organisation. You may duplicate this table as necessary to create entries for more partners.

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	Partner 1	Partner 2
Full legal name (business name)		
Nationality		
Legal status		
Official address		
Contact person		
Telephone n°		
Fax n°		
E-mail address		
Number of staff (permanent and non-permanent)		
History of co-operation with the applicant		
Role and involvement in preparing the proposed project		
Role and involvement in implementing the proposed project		

Important: This application form must be accompanied by a signed and dated partnership statement from the main applicant and every partner in accordance with the model provided on the next page.

2. Partnership statement²

Partnership

A partnership is a relationship of substance between two or more organisations involving shared responsibilities in undertaking the project funded by the Contracting Authority. In order to assist the smooth operation of the project, the Contracting Authority requires all partners (including the main applicant which signs the contract) to acknowledge this by agreeing to the principles of good partnership practice set out below.

Principles of Good Partnership Practice

1. All partners should have read the application form and understood what their role in the project will be.
2. The applicant should consult regularly with its partners and should keep them fully informed of the progress of the project.
3. All partners should receive copies of the reports - narrative and financial - made to the Contracting Authority.
4. Substantial changes proposed to the project (eg activities, partners, etc) should be agreed by the partners before submitting the proposals to the Contracting Authority. Where no such agreement can be reached, the applicant must indicate this when changes are submitted for approval to the Contracting Authority.
5. Before the end of the project, the partners should agree on an equitable distribution of project equipment, vehicles and supplies purchased with the EU grant among local partners located in the target countries. Copies of the title transfers must be attached to the final report.

Statement of partnership

We have read and approved the contents of the project submitted to the Contracting Authority. We undertake to comply with the principles of good partnership practice.

Name	BUI HUY HIEN
Organisation	National Institute for Soils and Fertilizers (NISF)
Position	Director of the Institute
Signature	
Date and Place	September 5th, 2003, Hanoi

² to be provided by the applicant and each partner in all cases where there is a partner in addition to the applicant

IV. DECLARATION BY THE APPLICANT

Voir Franck BLANC

I, the undersigned, being the person responsible in the applicant organisation for the project, certify that:

(a) the information given in this application is correct; and

(b) the applicant organisation and the partner organisation(s) (where applicable) are eligible in accordance with sections 2.1.1 and 2.1.2 of the Guidelines for Applicants.

Name	
Position	
Signature	
Date and Place	

Checklist

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Before sending your proposal, please check that your application is complete:

The application form

- the proposal is complete and filled out in accordance with the application form
- one original hard copy that contains a full set of documents as defined in Section 2.2.1 of the Guidelines : the originally signed Grant Application Form, (Annex A), annexes (Annex B,C,F and H),
- In addition to the paper copy, **the project proposal must include two electronic versions in the form of **diskette or CD-ROM****: Grant Application Form (preferably MS-Word), Plan of Action (preferably MS-Word or MS-Excel), Budget (preferably MS-Excel), Logical Framework (MS-Excel) and Project Summary Sheet (MS-Word).
- the proposal is typed and is in English
- the Partnership statement is signed by the applicant and all partners
- the budget and the expected sources of funding are presented in the format of the application form (Annex B)
- in the budget the Contracting Authority's contribution as according to the table in Section 1.3 of the Guidelines
- in the budget the indirect costs are 7% or less of direct eligible project costs
- in the budget the contingencies are no more than 5% of total eligible project costs
- the declaration by the applicant (Section IV) is signed
- the logical framework for the project is complete (Annex C)

Annexes

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- the Statutes and/or Articles of the Association for the applicant organisation and for each of the partners are included
- most recent annual report and accounts for the applicant only (either two separate documents or a consolidated version , in accordance with local custom)
- A CV and a Declaration of Availability (preferably presented in accordance with the model recommended in Annex F) from each of the Project Managers, key staff and key Experts involved in the project. Each key expert must also declare availability by signing the Declaration of Availability .
- Justification of budget items presented in the Standard Budget Form. Details must be given at least for each person (or profile) involved in the project and for each travel (who, where, when, for what action).
- A summary of the project, in the form of a Summary Sheet (preferably in conformity with the model recommended in Annex H).

The remaining annexes to the Guidelines for Applicants are as follows:

Annex B

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Budget

Note: This document is in Microsoft Excel format and is contained in a separate file.

http://europa.eu.int/comm/europeaid/tender/gestion/pg/e03_b_en.xls

Annex C

Voir Franck BLANC

Logical framework

Note: This document is in Microsoft Excel format and is contained in a separate file.

http://europa.eu.int/comm/europeaid/tender/gestion/pg/e03_c_en.xls

Annex D

Daily allowance rates (per diems)

Notes: Per diems include all costs: hotels, food and transport within the city.
The latest per diem can be found on:

http://europa.eu.int/comm/europeaid/perdiem/liste1_en.htm

Annex E

Standard contract

Note: The standard contract is section 4 on:

http://europa.eu.int/comm/europeaid/tender/usedoc/cont_typ/c_index_en.htm

Annex F

Standard format for CV and Declaration of Availability

Annex G

Example of envelope

Annex H

Voir Franck BLANC

Project Summary Sheet

ANNEX B

BUDGET

A template (Excel Format) for the presentation of the Budget can be found at the following website address:

http://europa.eu.int/comm/europeaid/tender/gestion/pg/e03_b_en.xls

Note: It is essential that the budget include justification of all budget items. Details must be given at least for each person (or profile) involved in the project and for each travel (who, where, when, for what action).

ANNEX C

LOGICAL FRAMEWORK

A template (Excel Format) for the presentation of the Logical Framework can be found at the following website address:

http://europa.eu.int/comm/europeaid/tender/gestion/pg/e03_c_en.xls

ANNEX D

DAILY ALLOWANCE RATES (PER DIEMS)

The latest per diem can be found on:

http://europa.eu.int/comm/europeaid/perdiem/liste1_en.htm

Per diems include all costs of hotels, food and local transport within a city.

You are advised to regularly check the above site for the current rates as these may change during each year.

The rates indicated are the maximum allowed, and applicants are advised to indicate in the proposal the date upon which they based their per diem rate.

The maximum period for per diem for an expatriate expert is five months. Experts working more than five months in Asia are expected to rent a house or an apartment for the whole duration of their stay after one month has lapsed. Costs for housing are eligible.

ANNEX E

STANDARD GRANT CONTRACT

IN JANUARY 2003 THE COMMISSION BEGAN THE PROCESS OF ADAPTING ITS CONTRACTS AND GENERAL TERMS AND CONDITIONS TO BE CONFORM TO THE NEW FINANCIAL REGULATIONS THAT TOOK EFFECT AS OF 1 JANUARY 2003. THE CONTACT INDICATED IN THE LINK BELOW IS, AT THE TIME OF PUBLICATION OF THE CALL FOR PROPOSALS FOR INFORMATION PURPOSES ONLY.

IT IS IMPORTANT TO NOTE THAT ANY GRANT CONTRACT SIGNED AFTER 31 MAY 2003 WILL FOLLOW THE UPDATED VERSION (NOT YET AVAILABLE) OF THE STANDARD CONTRACT OF THE CONTRACTING AUTHORITY, IN LINE WITH THE NEW FINANCIAL REGULATION APPLICABLE TO THE GENERAL BUDGET OF THE EUROPEAN COMMUNITIES. THE PROVISIONS ON PAYMENT AND AUDIT WILL IN PARTICULAR BE REVIEWED.

http://europa.eu.int/comm/europeaid/tender/usedoc/cont_typ/c_index_en.htm

(Annexes to Annex E, Standard Contract)

ANNEX I
Description of the Operation

< As submitted by the Applicant as part of the Grant application >
(Annexes to Annex E, Standard Contract)

(Annexes to Annex E, Standard Contract)

ANNEX II
**General Conditions applicable to European Community-financed
grant contracts concluded under decentralised external aid
programmes**

See file "GrantContract-Anx2.pdf" downloadable from

http://europa.eu.int/comm/europeaid/tender/usedoc/cont_typ/cg_en.pdf

(Annexes to Annex E, Standard Contract)

ANNEX III
Budget for the Operation

< As submitted by the Applicant as part of the Grant application >

http://europa.eu.int/comm/europeaid/tender/gestion/pg/e03_b_en.xls

(Annexes to Annex E, Standard Contract)

ANNEX IV

Contract award procedures

(Annexes to Annex E, Standard Contract)

Annex IV

Contract-Award Procedures

SERVICES	SUPPLIES	WORKS
<p style="text-align: center;">$x \geq 200.000 \text{ €}$</p> <p>Restricted international tender.</p> <p>4 to 8 service providers invited.</p>	<p style="text-align: center;">$x \geq 150.000 \text{ €}$</p> <p>Open international tender.</p>	<p style="text-align: center;">$x \geq 5.000.000 \text{ €}$</p> <ol style="list-style-type: none"> 1. Open international tender. 2. Restricted International tender (special case)
	<p style="text-align: center;">$30.000 \text{ €} \leq x < 150.000 \text{ €}$</p> <p>Open local tender.</p>	<p style="text-align: center;">$300.000 \text{ €} \leq x < 5.000.000 \text{ €}$</p> <p>Open local tender.</p>
<p style="text-align: center;">$x < 200.000 \text{ €}$</p> <ol style="list-style-type: none"> 1. Simplified procedure after consultation with at least 3 service providers. 2. $x \leq 5.000 \text{ €}$: one single offer. 	<p style="text-align: center;">$x < 30.000 \text{ €}$</p> <ol style="list-style-type: none"> 1. Simplified procedure after consultation with at least 3 suppliers. 2. $x \leq 5.000 \text{ €}$: one single offer. 	<p style="text-align: center;">$x < 300.000 \text{ €}$</p> <ol style="list-style-type: none"> 1. Simplified procedure after consultation with at least 3 contractors. 2. $x \leq 5.000 \text{ €}$: one single offer.

(Annexes to Annex E, Standard Contract)

ANNEX V
Standard request for payment and financial identification form

See “Standard request for payment” and “Financial identification” forms downloadable from

http://europa.eu.int/comm/europeaid/tender/usedoc/cont_typ/c_index_en.htm

ANNEX F

**CV MODEL AND DECLARATION
OF AVAILABILITY**

Curriculum Vitae

Proposed Position in the Project:

1 Family Name:

2 First Name:

3 Date of Birth:

4 Nationality:

5 Civil Status:

6 Education / Professional studies:

Institution:

Date From/To:

Degree/Diploma:

7 Language Skills: (Mark from 1 (notions) to 5 (excellent) for competence)
(*=mother tongue)

Language SpeakingReading Writing

English

French

etc...

8 Membership of Professional Bodies:

9 Other Skills:

10 Present Position within the organisation:

11 Years with the organisation:

12 Key Qualifications: (relevant to the project):

13 Experience in Specific Asian countries/territories :

Country :

Date :

Details

14 Professional Experience Record (relevant to the project):

Date:

Location:

Organisation:

Position:

Responsibilities:

15 Publications:

Declaration of Availability

Asia Pro Eco Call for Proposals Publications Reference:

Title of project proposal:	
Current position of the person and employer's name:	
Position of the person in the proposed project:	

Statement of Availability

In the event of award of contract to the Applicant <insert name of Applicant organisation> which has presented me as a candidate for the project proposal whose title is mentioned above, I, <insert person's name>, confirm my availability to provide services for the above-mentioned project according to the planned programme of activities and to be able and willing to work for all the period of implementation of the project as indicated in the attached project proposal.

.....
Signature

.....
Date and place

ANNEX G

EXAMPLE OF ENVELOPE

When submitting an Application by registered post, use this label on the envelope:

TO:

European Commission
EuropeAid Co-operation Office
Directorate D, Asia
Unit D6, Financial and Contract Management
B-1049 Brussels
Belgium

FROM:

[Insert full name and address of the Applicant...]

Call for Proposals publication reference:

'DO NOT OPEN BEFORE THE PROPOSAL OPENING SESSION'

When submitting an Application by hand, or private courier service, use this label

(for private courier services, put your proposal - original and copies - in a sealed envelope labelled as below and insert this into the bag or the container of the carrier):

TO:

European Commission
EuropeAid Co-operation Office
Directorate D, Asia
Unit D6, Financial and Contract Management
Office: L41 3/89
Rue de Genève, 1
B-1140 Brussels
Belgium

FROM:

[Insert full name and address of the Applicant...]

Call for Proposals publication reference:

'DO NOT OPEN BEFORE THE PROPOSAL OPENING SESSION'

ANNEX H

PROJECT SUMMARY SHEET

EU ASIA-PRO ECO PROJECT SUMMARY SHEET

Voir Franck BLANC

- 1) **Title of Proposal:**
- 2) **Programme Component:**
- 3) **Types of Activity:**
- 4) **Duration of the Project (in months):**
- 5) **Project Abstract:**
 - a) The Project objectives
 - b) Brief Keyword Description of the main Activities (50-100 words)
 - c) Milestones/Key Indicators
- 6) **Applicant details:**

Institution name:

Address:

Country:

Contact person:

Tel:

Fax:

E-mail:
- 7) **Partners' details** (add more rows if necessary):

N°	Partner Institution	Country	Contact person/email
1			Name: Tel.: Fax: E-mail:
2			Name: Tel.: Fax: E-mail: