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Project coordinator organisation name: Muséum National d'Histoire Naturelle (MNHN)

Revision [Revision 3]

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Section 1: Introduction – General description

The second EDIT JPA plans progress along the lines of the first period, as described in the Periodic Activity Report. Deviations from the initial JPA result partly from the late start and resulting adjustments, and also from adjustments between WPs and partners, which do not deserve special comments (see the PAR). Other deviations are more significant, resulting in part from experience, and mostly from the Scientific Advisory Council report and instructions from the Board of Directors. Only the latter are briefly commented here (see WPs description below for details).

Integration of work packages activities

In answer to the SAC criticism of what they saw as a “stovepipe” approach, many planned activities are shared by several Work Packages, interaction is reinforced by the way of direct contacts, and even establishment of common plans constitute a specific activity in several WPs:

- establishment of a plan for the information service in direct interaction between WPs (WP2 activity 2.0);
- definition and development of informatics components of the internet platform (WP5, WP6, WP7, WP3);
- liaison with users, stakeholders and stakeholder mapping shared (WP1 and WP4);
- Connection of research aims and innovative research methods with the physical infrastructure (WP3 and WP4);
- PR and PA activities directly interlinked (WP1 and WP8);
- Etc.

In addition to these and other shared activities detailed further in WPs JPAs, more and longer meetings of the Network Steering Committee, associated with meetings of the EDIT dedicated scientific coordination staff, are planned.

Liaison with stakeholders and PR

- In addition to the development of a plan for identifying and interacting with stakeholders, an action plan for PR will be established under direction of Susan Runyard (RBGK-partner 11), in interaction with WP1 and WP8.

Elaborating a vision for the future of taxonomy and taxonomic research

In addition to the total restructuring of WP4, a twofold process is proposed consisting in:

- constitution of a future scoping group, chaired by Richard Lane (partner 10-NHML), for reporting to the SAC and BoD by the end of 2007;
- organisation of a scientific meeting on challenges for the future of taxonomic research, taking place in 2008 and making profit from the scoping group report (open outside EDIT membership).

Internal communication and outreach to the taxonomic research community

It is too soon to observe whether recent developments of the newsletter, web sites, and workshops have an influence on acknowledgement and appropriation of EDIT activities by member institutions researchers. These activities will be complemented by two large meetings are planned in addition to the meeting on research challenges mentioned above:

- a large meeting aiming at organizing barcoding activities in Europe will take place in October 2007 (open outside EDIT membership);
- a general meeting of EDIT will take place probably in the beginning of 2008.

Section 2: Workpackage descriptions

2.1 Workpackage 1: EDIT Coordination and Management

Leader: MNHN, Simon Tillier

Work package number		1		Start date or starting event:				0		
Activity Type				Other specific activities						
Participant id				CDC	MNHN	UKBH	CSIC-MINCEN	UvA	NHN	NNM
Person-months per participant:				18	56	1,8	1,8	1,8	0,8	0,8
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN	
0,8	1,8	2,8	2,3	1,8	3,3	1,3	0,8	0,8	0,8	
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM	
0,8	1,3	0,8	1,1	1,1	0,5	0,5	0,5	0,8	0,9	

Objectives

- Build up and operate a light but dynamic structure, involving the top executive level of the partners, ensuring long-term operational and structural links between partners
- Coordinate the activities regarding research, infrastructures and expertise toward common goals integrated at director's level for implementation of further common decisions, aiming at combining all work packages objectives into a single integrated sustainable structure
- Ensure interaction of EDIT activities with scientific activity in the field of biodiversity and with societal needs
- Coordinate interactions with stakeholders, including communication with institutional stakeholders
- Establish and actualize the roadmap of EDIT, including plans to enlarge the consortium
- Ensure internal and external communication of EDIT, and its visibility through the web

Description of work

- 1.1 Establishment and operation of the administrating structure, incl coordination of the WPs
- 1.2 Orientation, Sustainability and development of exploitation strategies for EDIT
- 1.3 Communication (internal / external)
- 1.4 Liaison programme coordinating the ad hoc liaison groups established by WPs
- 1.5 Gender action plan

Components¹

C1.1.1 Budget for months 12-29 submitted by the NSC to the BoD (Month 13)

¹ Components are not part of the EC Contract n°018340.

C1.1.3 Budget for months 24-41 (3rd JPA) submitted by the NSC to the BoD (Month 24)
 C1.1.4 Financial report (Months 17, 23 and 29)
 C1.2.1 Report on alternative legal structures (Month 16)
 C1.2.2 Roadmap (Month 23)
 C1.2.3 Future scoping group report to the BoD (Month 23)
 C1.3.1. Newsletter, bimonthly issues (Months 12, 14, 16, 18, 20, 22, 24, 26, 28)
 C1.4.1 Report presented to the SAC and NSC before month 17 and propose modalities for liaison after month 17 (Month 16)
 C1.5.1 Work/Life Balance travel scheme (Month 19)
 C1.5.3 Fellowships for outstanding women scientists (Month 21)
 C1.5.4 Report on best practice on family friendly conditions of employment (Month 28)

Milestones

M1.1.4 bis Meeting of the NSC (Month 12)
 M1.1.5 Meeting of the NSC (Month 15)
 M1.1.6 Meeting of the NSC (Month 19)
 M1.1.7 Meeting of the NSC (Month 21)
 M1.1.8 Meeting of the NSC (Month 23)
 M1.1.9 Meeting of the NSC (Month 25)
 M1.2.8 SAC meeting (Month 14): examination of the EDIT roadmap
 M1.2.9 BoD meeting (Month 15)
 M1.2.10 SAC meeting (Month 21)
 M1.2.11 BoD meeting (Month 22)
 M1.2.12 SAC meeting (Month 26)
 M1.2.13 BoD meeting (Month 28)
 M1.3.6 General meeting (Month 22)
 M1.4.4 Report to the Scientific Advisory Council (Month 14)
 M1.4.3 Report to the BoD: further directions for liaison with taxonomists and stakeholders external to the consortium expected (Month 15)
 M1.5.1 Gender aspects integrated into EDIT's recruitment strategy (Month 28)
 M1.5.3 Gender in science thematic session during annual meeting (Month 22)

1.1 Establishment and operation of the administrating structure, incl. coordination of the WPs

Work package number	1	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Establish and maintain interaction between the overall objectives of EDIT, the activities of the workpackages, and stakeholders as represented in the Scientific Advisory Council (SAC), in accordance with decisions from the Board of Directors (BoD).

Description of work

1.1.1 Running of the Network Office

The network office will organize the meetings at WP1 level (NSC, SAC, BoD) and monitor the EDIT programme. The Communication Officer will work in close relation with the Network Office

1.1.2 Operation of the Network Steering Committee

The NSC will meet about every three months, for internal reporting of the WP leaders and examination of the budget and activities of the next three months. It will prepare the next JPA draft and the budget in October for submission to the BoD before the end of each reporting period.

Components

- C1.1.1 Budget for months 12-29 submitted by the NSC to the BoD (Month 13)
 C1.1.3 Budget for months 24-41 (3rd JPA) submitted by the NSC to the BoD (Month 24)
 C1.1.4 Financial report (Months 17, 23 and 29)

Milestones

- M1.1.4 bis Meeting of the NSC (Month 12)
 M1.1.5 Meeting of the NSC (Month 15)
 M1.1.6 Meeting of the NSC (Month 19)
 M1.1.7 Meeting of the NSC (Month 21)
 M1.1.8 Meeting of the NSC (Month 23)
 M1.1.9 Meeting of the NSC (Month 25)

1.2 Orientation, Sustainability and Development of exploitation strategies for EDIT

Work package number	1	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Orienting EDIT activities according to the users needs and the possibilities of the partners.
- Establishing the mechanisms allowing sustainability of integration, and sustainable development of activities, beyond the term of the contract.

Description of work**1.2.1 Orientation of EDIT activities**

Interaction of the NSC, which represents EDIT activities and SAC, which represents stakeholders external the consortium, should lead to proposals on orientations and further actions, which have to be submitted to the BoD who will evaluate their feasibility and make decision on implementation.

1.2.2 Legal structure

The alternative legal structures for pursuing EDIT after the term of the contract will be explored.

1.2.3 Interactions with institutional stakeholders outside EDIT and exploitation strategies

The challenge here is to make both taxonomists inside EDIT, and institutional partners (funding agencies, ministries, etc) aware of the potential of the EDIT taxonomic force, and make exploitation of this force possible through appropriate funding.

1.2.4 Roadmap for EDIT

A Roadmap or business plan fixing delays, tactics and strategy of EDIT has been recommended by the SAC, will be established by the NSC for submission to the BoD.

1.2.5 Future scoping group

A relatively small group of high level scientists, mainly non-taxonomists but from neighbouring domains, will be constituted (request of the BoD). Their mission is to provide a vision report at 10-15 years from now requested. This group will interact with WP4 activity 4.3.

Components

- C1.2.1 Report on alternative legal structures (Month 16)
 C1.2.2 Roadmap (Month 23)
 C1.2.3 Future scoping group report to the BoD (Month 23)

Milestones

M1.2.8 SAC meeting (Month 14)
M1.2.9 BoD meeting (Month 15)
M1.2.10 SAC meeting (Month 22)
M1.2.11 BoD meeting (Month 22)
M1.2.12 SAC meeting (Month 26)
M1.2.13 BoD meeting (Month 28)

1.3 Communication

Work package number	1	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Make all EDIT partners aware in real time of progress in the activities
- Provide to all participants an internal forum where activities and directions can be discussed internally
- Make the taxonomic community external to EDIT aware of EDIT activities and encourage its support and participation
- Promote EDIT and taxonomy in forums dedicated to biodiversity and beyond

Description of work

1.3.1 Establishment and running of the Website

1.3.2 Publication of the EDIT newsletter

In addition to distribution through the web, which will be increased, a printed version will be produced for distribution at various conferences etc. and for deposit in Libraries.

1.3.3 Participation to meetings and forums to promote taxonomy and EDIT activities for biodiversity and ecosystem research. A general meeting with participation of all EDIT partners will be organized in order to inform about the state and the future of EDIT.

1.3.4 PR Coordination

The objective is to raise the EDIT profile. The first step will consist in interviews (fact finding, research and communication activities) leading to communication plan which will identify publicity projects. The first step will be realized by the liaison officer (partner 2-MNHN) under mentoring of RBGK (partner 11).

1.3.5 Scientific management group

Will allow people hired full time for EDIT (mainly in WP leader institution) to exchange their experience, and create a coherent intermediate level of communication between the NSC and the team leaders and researchers. Scientific managers group meetings will be combined with NSC meetings.

Components

C1.3.1. Newsletter, bimonthly issues (Months 12, 14, 16, 18, 20, 22, 24, 26, 28)

Milestones

M1.3.6 General meeting (Month 22)

1.4 Liaison programme coordinating the ad hoc liaison groups established by WPs

Work package number	1	Start date or starting event:	3
Activity Type	Other specific activities		

Objectives

- Maintain coherence and impulse common direction among the liaison groups established for various goals in the different workpackages. Propose modalities after month 17.

Description of work

The workpackages activities include various meetings, e-conferences, committees dedicated to their own objectives: 2.3 = taxonomic societies and networks (meetings months 3 & 15); 3.5 = liaison with international infrastructures (month 3); 4.1 = integrating research projects incl e-conferences (month 2), and 4.2 = liaison research end-users (e-conf, liaison group planned month 18); 6.3 = taxon management committees; 7.1 = workshop for conservation area managers and stakeholders (month 5); 8.2.2 = committee of training providers willing to participate in the EST and discuss the process of integration (Month 10). The objectives here are to avoid duplication and to allow synergy among various groups of which goals, and possibly participants, are partly redundant. This will be conducted by the Liaison Officer hired Month 10.

Components

The Network Office will follow meetings, conferences etc, will maintain a coordinated directory of participants and will report to the NSC.

C1.4.1 Report presented to the SAC and NSC before month 17 and propose modalities for liaison after month 17 (Month 16)

Milestones

M1.4.4 Report to the Scientific Advisory Council (Month 14)

M1.4.3 Report to the BoD (Month 15): further directions for liaison with taxonomists and stakeholders external to the consortium expected.

1.5 Gender Action Plan

Work package number	1	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

To promote gender equality in all activities, based upon everyone's involvement, not only women's:

- Gender balance
- Gender awareness for men and women in EDIT
- Promotion of women in science
- Family-friendly policies

Description of work**1.5.1 Work towards achieving gender balance in all activities**

Encourage women to participate in the management and scientific committees established within EDIT; gender balance while developing EDIT's integrated recruitment strategy, exchange scheme and training programme.

1.5.2 Raise gender awareness among EDIT participants

Gender awareness liaison group to encourage networking and mentoring amongst women researchers. Gender in science will be the subject of a special thematic session during the first network-side workshop. In addition, it will be investigated whether "Gender Aspects in Taxonomy" can be made a topic of research. The issue of a gendered approach to biodiversity informatics (e.g. in the development

or use of software) will be covered. EDIT will invite experts on these questions and will provide a report on the results.

1.5.3 Promote women in science

Women will be encouraged to give keynote talks at conferences and workshops in the project. As part of a mentoring scheme, senior women scientists of EDIT will provide role models for young researchers. Senior male colleagues involved in higher management functions (e.g. directors of institutes) will also be asked to share their experience. A few short fellowships will be provided each year for outstanding women scientists. The main aim is to foster permanent structural change through knowledge. Links will be established with networks of women scientists and contacts will be sustained with persons in charge of gender action plans of other FP6 projects, in order to exchange experiences.

1.5.4 Consider family-friendly policies

EDIT will make provisions for Work/Life Balance travel grants for scientists with babies or toddlers up to 3 years age. When possible, EDIT will support service for crèche care at the meeting or training places of the project. EDIT will consider adapting timetables to make research conferences, training sessions and workshops more family friendly, such as enabling participants to return from such meeting on a Friday or Saturday morning rather than a Sunday.

EDIT will carry out a comparative review of employment regulations and practices relating to family friendly issues amongst the partners with the intention of then promoting best practice across the network.

Components

C1.5.1 Work/Life Balance travel scheme (Month 19)

C1.5.3 Fellowships for outstanding women scientists (Month 21)

C1.5.4 Report on best practice on family friendly conditions of employment (Month 28)

Milestones and expected result

M1.5.1 Gender aspects integrated into EDIT's recruitment strategy (Month 28)

M1.5.3 Gender in science thematic session during annual meeting (Month 22)

2.2 Workpackage 2: Integrating and Reshaping the Expert and Expertise Basis

Leader: NHMD - UKBH, Henrik Enghoff

Work package number		2		Start date or starting event:				0		
Activity Type				Other specific activities						
Participant id				CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:				0	3	20	5	0,5	0,3	2
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN	
0,5	1	0,6	1,5	2	1	2,5	0	0,5	0	
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM	
3	18	1	3	1	1	3	0	0	0,25	

Objectives

- Coordinate activities in WP2 with other work packages to maximise benefit and minimise duplication of effort.
- Define areas of responsibility within an overall EDIT strategy.
- Providing an efficient online information service on European Taxonomic experts, their expertise and ongoing and planned taxonomic research projects, building on existing services and content from previous efforts.
- Involve taxonomic societies in an integrated European Taxonomic workforce
- Promote integration of research teams within EDIT

Description of work

2.0 Integration with other work packages

2.1 Information service on taxonomic experts, their expertise and ongoing and planned taxonomic research projects

2.3 Taxonomic societies and networks

2.4 Initiating new joint research among EDIT partners

Components²

C2.0.1 Areas of responsibility outlined and made available on EDIT web site (Month 22).

C2.1.1 Report on existing relevant directories (Month 18)

C2.1.2 First version of specification of the online information service structure (Month 20)

C2.1.3 First version of the online information service (Month 24)

C2.1.4 Data on EDIT partner taxonomic experts entered in information service (Month 27)

C2.1.5 Test data from test country/ies entered in information service (Month 29)

² Components are not part of the EC Contract n°018340.

C2.1.6 Data on experts associated with first batch of ATBI+M's entered in information service (Month 29)
C2.1.7 Data on experts associated with first batch of demonstrator group activities (Month 29)
C2.3.2 Second version of the online information service (Month 29)
C2.4.2 Description of criteria for and mechanism of support (Month 23)

Milestones

M2.0.1 To establish a common work plan with WP3 (Month tba)
M2.0.2 To establish a common work plan with WP4 (Month tba)
M2.0.3 To establish a common work plan with WP5 (Month tba)
M2.0.4 To establish a common work plan with WP6 (Month tba)
M2.0.5 To establish a common work plan with WP7 (Month tba)
M2.0.6 To establish a common work plan with WP8 (Month tba)
M2.1.2 Second meeting of partners (Month tba)
M2.1.3 Responses received from selected users with suggestions for the information service specification (Month 20)
M2.1.4 Adoption by BoD of information service as the official system for EDIT institutions to catalogue their human taxonomic resources. (Month 28, at BoD meeting).
M2.3.2 First Symposium for existing taxonomic societies and networks (Month 12)
M2.3.3 Second Symposium for existing taxonomic societies and networks, with emphasis on how to engage focused taxonomic communities, in conjunction with WP1 (SAC chair), WP4 and WP6 (Month tba)
M2.3.4 Second meeting of partners (Month tba)
M2.4.2 Second meeting of partners (Month tba)

2.0 Integration with other work packages

[See note ³]

Work package number	2	Start date or starting event:	12
Activity Type	Other specific activities		
Objectives			
<ul style="list-style-type: none"> Coordinate activities in WP2 with other work packages to maximise benefit and minimise duplication of effort. Define areas of responsibility within an overall EDIT strategy. 			

Description of work

2.0.1 To engage with WP3 over possible models for sustainability of Pan-European taxonomic databases, and other areas of mutual interest
2.0.2 To engage with WP4 over inclusion of approaches to taxonomic research in information service, and other areas of mutual interest
2.0.3 To engage with WP5 over relation between WP2 information services and WP5 platform for cybertaxonomy, and other areas of mutual interest

³ This new DoW item has been added to accommodate increased collaboration and stronger efforts to fulfil the NoE goal of integration – as agreed on the NSC meeting of November 2006. We have taken up the idea of formalizing liaison with other WPs in considerable detail (cf. the draft for WP6 discussed in Paris 19 Feb) but we suggest extending this to include all combinations of WPs (except for liaison with WP1 which is implicit everywhere). Even in cases where the scope for coordination may be very limited it will be valuable to make sure that all combinations have been given some attention.

Suggestion for common decision to include all WP-WP combinations in an “activity 0” in all WPs (except 1)

- 2.0.4** To engage with WP6 over the formation of taxonomic communities, inclusion of data on WP6 model group taskforces in WP2 information service, and other areas of mutual interest
- 2.0.5** To engage with WP7 over the formation of taskforces for ATBI+M, inclusion of data on these taskforces in WP2 information service, and other areas of mutual interest
- 2.0.6** To engage with WP8 over relation between WP8 database on taxonomic training resources and WP2 information service
- 2.0.7** General work package and EDIT partner coordination

Components

C2.0.1 Areas of responsibility outlined and made available on EDIT web site (Month 22).

Milestones

- M2.0.1 To establish a common work plan with WP3 (Month tba)
- M2.0.2 To establish a common work plan with WP4 (Month tba)
- M2.0.3 To establish a common work plan with WP5 (Month tba)
- M2.0.4 To establish a common work plan with WP6 (Month tba)
- M2.0.5 To establish a common work plan with WP7 (Month tba)
- M2.0.6 To establish a common work plan with WP8 (Month tba)

2.1 Information service on taxonomic experts, their expertise and ongoing and planned taxonomic research projects

Work package number	2	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Providing an efficient online information service on European Taxonomic experts, their expertise and ongoing and planned taxonomic research projects, building on existing services and content from previous efforts. The information service is for internal as well as external use, but it will be designed (and content collected) with high priority on meeting the needs for information by EDIT partners regarding:
 - Provision of a better knowledge base for an integrated recruitment strategy in EDIT
 - Taxonomic information backbone and Pan-European checklist activities of WP3
 - Coordination of research organised by WP4 (especially regarding methodology)
 - Formation of networks, committees and task-forces for WP6 and WP7 activities
 - WP8s assessment of training resources for taxonomy in Europe

Priorities for content:

1. EDIT partners' expertise and projects
2. Exemplar data to test structural, sociological and legal constraints
3. Expertise and projects in demonstrator groups identified by WP6 and in ATBI+M areas identified by WP7.
4. Coverage of all major taxa (inside and beyond EDIT)

Description of work

2.1.1 A study of existing directories of taxonomic experts and expertise, with an emphasis on, but not limited to Europe, identifying possible previous efforts and tools on which to build the information service. [See note ⁴]

⁴ This DoW item has been modified based on the following consideration: Detailed drafting of the document that outlines the functionality of the WP2 information service allowed for "fast scan" of the internet for existing

- 2.1.2** Development of an online, searchable information service on taxonomic experts, their expertise, and ongoing and planned taxonomic projects, according to taxonomic group, type of taxonomic activity, methodological approach, geographical area and/or main ecosystem type. **[See note ⁵]**
- 2.1.3** Population of the online information service database with data on EDIT partners
- 2.1.4** Population of the online information service database. Test of structural, sociological and legal constraints. Test country/ies to be identified. **[See note ⁶]**
- 2.1.5** Population of the online information service database with data on taxonomists engaged in EDIT ATBI+M activities. **[See note ⁷]**
- 2.1.6** Population of the online information service database with data on taxonomists engaged in EDIT demonstrator group activities. **[See note ⁸]**
- 2.1.7** Interaction with WP8 database of taxonomic teachers and courses. **[See note ⁹]**

Components

- C2.1.1 Report on existing relevant directories (Month 18)
- C2.1.2 First version of specification of the online information service structure (Month 20)
- C2.1.3 First version of the online information service (Month 24).
- C2.1.4 Data on EDIT partner taxonomic experts entered in information service (Month 27)
- C2.1.5 Test data from test country/ies entered in information service (Month 29)
- C2.1.6 Data on experts associated with first batch of ATBI+M's entered in information service (Month 29)
- C2.1.7 Data on experts associated with first batch of demonstrator group activities (Month 29)

directories and their properties. Not many existing directories meet the needs of the WP2 information service. It hence appears a suboptimal use of effort to report in detail on all these directories, and we prefer to report in more detail on the few that do meet our needs, and on how we came to the draft conclusions for the design of the WP2 information service.

⁵ This is at present the largest and most challenging task of WP2. In the first DoW, information services on experts and expertise on the one hand, and ongoing and planned research on the other hand were considered as separate activities. Experiences from the first months of work, and the detailed drafting of a document that outlines the functionality of the information service show that it will make no sense to make two different information services. Information on methodological approaches (collaboration with WP4) will be added.

Links to a database of teachers and courses in taxonomy (WP8) will also be established.

Coordination of work with SYNTHESYS NA-B has been established in order to avoid duplication of effort. NA-B's inventory of expertise is at a much more general level than that of WP2.

⁶ Conversation with other EDIT partners and with other related external information services has clarified that the task of populating the information service envisioned in DoW item 2.1.1 requires targeted local efforts.

To this end we propose to test the information service in selected countries based on 1) current knowledge of existing data on experts from other initiatives, which could be migrated to the WP2 information service 2) Expression of interest by certain partners to contribute with data on experts to the service.

⁷This new DoW item has been added based on communications with SMNS in WP7 revealing apparent opportunities for integrated work and collaboration between the two WPs/institutions on feeding of information on ATBI+M involved experts TO the WP2 info-service and on retrieving possible future ATBI+M experts FROM the WP2 info-services.

⁸ This new DoW item has been added based on communications with NHML in WP6 revealing apparent opportunities for integrated work and collaboration between the two WPs/institutions on feeding of information on experts involved in demonstrator group activities TO the WP2 info-service and on forming future targeted taxonomic communities bases on data FROM the WP2 info-services.

⁹ Details to be specified together with WP8 partners. This new DoW item has been added based on communications with RMCA in WP8 revealing apparent opportunities for integrated work and collaboration between the two WPs/institutions regarding re-use of base data and/or integration of data on training resources in the WP2 info-service.

Milestones and expected result

M2.1.2 Second meeting of partners (Month tba) [See note ¹⁰]

M2.1.3 Responses received from selected users with suggestions for the information service specification (Month 20)

M2.1.4 Adoption by BoD of information service as the official system for EDIT institutions to catalogue their human taxonomic resources. (Month 28, at BoD meeting).

2.2 Information service on ongoing and planned taxonomic projects

[See note ¹¹]

2.3 Taxonomic societies and networks

Work package number	2	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Involve taxonomic societies in an integrated European Taxonomic workforce

Description of work

2.3.1 Construction of a searchable online information system for societies, building on existing surveys of taxonomic societies, and linked to the database of individual experts. The information service is for internal as well as external use. [See note ¹²]

2.3.2 Arranging First Symposium for representatives of existing taxonomic societies and networks (CUB)

2.3.3 Arranging Second Symposium for representatives of existing taxonomic societies and networks (in consultation with Sp2000 and SMEBD)

Components

C2.3.2 Second version of the online information service (Month 29)

Milestones and expected result

M2.3.2 First Symposium for existing taxonomic societies and networks (Month 12)

M2.3.3 Second Symposium for existing taxonomic societies and networks, with emphasis on how to engage focused taxonomic communities, in conjunction with WP1 (SAC chair), WP4 and WP6 (Month tba) [See note ¹³]

¹⁰ The second meeting of WP2 partners will be held back to back with the Second conference for taxonomic societies and networks (ultimo 2007), hence specific month to be announced, depending on availability of meeting venue.

¹¹ DoW Activity 2.2 has now been included in 2.1.

¹² The information service on taxonomic societies and networks will have quite a different structure from the DoW activity 2.1.2 one and is therefore kept as a separate activity. The two information services should, however, be closely linked.

¹³ A second conference has been added to the JPA, planned for ultimo 2007(month to be announced, depending on availability of symposium venue): The first conference will have main focus on national taxonomic societies and will also allocate time for getting detailed user feedback on the plans for the design of the WP2 information services: i.e. the one on experts and projects (DoW item 2.1), and the one on societies (DoW item 2.3). Furthermore, it is planned to have the audience come up with use-case questions to which the information services should be able to provide answers.

The new second conference will be specifically targeted at (but not limited to) participants from the big societies, including the Pan-European/international ones and the ones dealing with taxonomy in general.

M2.3.4 Second meeting of partners (Month tba) [See note 8]

2.4 Initiating new joint research among EDIT partners [See note ¹⁴]

Work package number	2	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Promote integration of research teams within EDIT, i.a., by developing a mechanism for support of research visits between partner institutions, and by analyzing the modalities / possible problems of collaborative taxonomic research [See note ¹⁵]

This activity is done in close collaboration with WP4 (activity 4.1)

Description of work

2.4.1 Studying possibilities in the Marie Curie programme, the SYNTHESYS access activities etc. – cancelled [See note ¹⁶]

2.4.2 Setting up and implementing a mechanism to support visits of staff and students between partner institutions. Criteria for support to be agreed.

2.4.3 Initiating analysis of the collaborative work process, in close collaboration with WP4 (Activity 4.1.)

Components

C2.4.2 Description of criteria for and mechanism of support (Month 24)

Milestones and expected result

M2.4.2 Second meeting of partners (Month tba) [See note8]

After agreement with WP4 and WP6, this symposium (which previously was included in the WP6 work plan and scheduled for month 25) now has a special focus on how to engage focused taxonomic communities and will be co-arranged with WP1 (SAC chair), WP4 and WP6.

¹⁴ This activity was formerly called “Mobility of researchers”.

¹⁵ The main purpose of an NoE is integration. It is therefore important to support collaboration between researchers in different EDIT institutions.

This activity is a very direct way of supporting collaborative taxonomic projects.

We suggest a mechanism for trans-institutional teams of EDIT taxonomists to apply for support for at least one person travelling to another EDIT institution and collaborating with local staff for a period. (This will not duplicate the access component of SYNTHESYS where focus is on collections and where visits between partners are discriminated against.)

The first step will be to set up the mechanism: criteria for support, application and evaluation procedure, maximum size of individual grants, full or partial covering of costs, reporting etc.

The supported projects can be used to support the analysis of the collaborative work process because feedback on this can be included among the requirements for receiving support.

The mechanism will be sustainable if EDIT, as a “distributed institute” can decide to place some of the partners’ own money in a common pool (when possible to be supplemented by external funds) from which such collaborative travels can be financed.

Budget: In present period, only a small amount for a meeting where the mechanism and criteria will be discussed (This could be part of the 2nd meeting of partners). In next period, if possible, some money for travel and accommodation of researchers.

¹⁶ We have cancelled this activity and the associated deliverable. The Marie Curie program of FP7 has only very recently become known. SYNTHESYS will finish in 2008. For WP2 purposes, it appears a suboptimal use of effort to study these programs. We will concentrate the WP2 efforts on creating EDIT’s own mechanism for support of collaborative taxonomic research.

2.3 Workpackage 3: Integrating and Reshaping the Infrastructure Basis

Leader: UvA, Wouter Los

Work package number		3		Start date or starting event:				3	
Activity Type			Other specific activities						
Participant id			CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:				1	4	2	42	10	24
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN
54	16	2	30	1		1		4	
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM
	8		1	2	1	3	1		

Objectives

- Reduce the number of links in the chains of network decision making and in the operations of the (physical, equipment, digital, and administrative) infrastructure components.
- Add innovative analysing and modelling components, also from cooperating universities, to construct a new generation infrastructure.
- Promote that the integrated infrastructure will facilitate the mobilisation and organisation of innovative research excellence in Europe in strong and lasting networks.
- Establish agreements (commitments) at the level of institutional directors to achieve an integrated and dynamic approach.

Description of work

3.1 Network of the physical taxonomic infrastructures

- Integration
- Analysing the implications of (OECD) Biological Resource Centres (BRCs)

3.2 The taxonomic information infrastructure network

- The taxonomic information backbone
- European taxonomic information services
- Bioinformatics toolbox

3.3 Sustaining infrastructures

- The cybertaxonomy process
- Integration of European Taxon databases within the global Catalogue of Life

3.4 Large-scale networked instrumental facilities

- Organisation of European DNA barcoding efforts
- Advanced remote microscopy in Europe (depending on actual investments by enough EDIT participants)

3.5 Liaisons with international infrastructures

Components¹⁷

- C3.1 Design report infrastructure (Month 24)
- C3.1.1 First design report of integrated physical infrastructures (Month 22)
- C3.2.1 Report on the preliminary outline (backbone) of the European primary biodiversity information infrastructure (Month 24)
- C3.2.2 Proposal(s) for funding of Pan-European species directories infrastructures (Month 18)
- C3.4.1 Workplan information services (Month 13)
- C3.4.2 Report of the European DNA-barcoding conference (Month 22)
- C3.5.1 List of international relevant networks/infrastructures (Month 19)
- C3.5.2 Proposal for cooperation with other networks/infrastructures (Month 25)

Milestones and expected result

- M3.1.2 Agreement on the basic principles for the joint physical infrastructure (Month 30)
- M3.2.1 Workshop on the common management approach for the Pan-European species checklist (Month 13)
- M3.2.2 Workshop on the use of taxon names for cross-referencing (Month 21)
- M3.2.3 Meeting with focal points on validation of Pan-European checklists (depending on available budget) (Month 28)
- M3.4.2 European targets for DNA-barcoding specified at the Leiden conference (Month 19)
- M3.4.3 Setting up of working groups on priority issues for DNA-barcoding in Europe (Month 20)
- M3.5.1 Contracts and meetings established with other relevant networks/infrastructures (Month 21)
- M3.5.2 Meetings and workshops with other networks/infrastructures finished (Month 35)

3.1 Network of the physical taxonomic infrastructures

Work package number	3	Start date or starting event:	7
Activity Type	Other specific activities		

Objectives

- Design of the potential implications of an integrated infrastructure, building upon the distributed collection facilities of the partner institutes
- Analysis of the OECD model of Biological Resource Centres (as developed for culture collections) for natural history collections in terms of standards of quality and expertise and commitment of funding agencies to secure high-quality services (Taxonomic Resource Centres)

Description of work

- 3.1.1** In-depth interviews at high executive level (e.g., directors, heads of collections) on the accepted components and level of integration to be achieved by EDIT.
- 3.1.2** Expert advice on the components (e.g., communication & interaction level, decision making process, voting system) and structure and modus operandi of a virtual infrastructure. Partly with WP1.
- 3.1.3** Monitoring workshops in other WP's, which may be considered as testing grounds to study mechanisms of collaboration, impediments and catalysers for decision-making, etc.
- 3.1.4** Liaising with WP4 to connect research aims and innovative research methods with the physical infrastructure required (e.g., collections to be acquired or deselected; lab infrastructure needed).
- 3.1.5** Discussing the applicability of the BRC model for natural history collections in the OECD Global Science Forum workshop on scientific collections (June 2007).

Components

- C3.1 Design report infrastructure (Month 24)

¹⁷ Components are not part of the EC Contract n°018340.

C3.1.1 First design report on the building stones for the integrated physical infrastructure, including the components, the performance indicators, and the management organisation. (Month 22)

Milestones

M3.1.2 Agreement on the basic principles for the joint infrastructure (Month 30)

3.2. The taxonomic information infrastructure network

Work package number	3	Start date or starting event:	3
Activity Type	Other specific activities		

Objectives

- Define the preliminary concept of a taxonomic backbone (components & structure), providing an efficient access and interlinking of taxonomic information, collection data and molecular markers in an integrated virtual (bench) architecture.
- Develop the infrastructure of regional/national basis for European taxon databases
- Develop a user-friendly bioinformatics toolbox (finished in Month 11).

Description of work

3.2.1 Collaborate with other EDIT WPs and relevant other partners and programs (Synthesys, LifeWatch, SpeciesBase, GBIF, etc.) on the design of the scope of a common web-based European biodiversity information infrastructure, especially investigating the efficient use of taxon names as keywords to cross-link biology information.

3.2.2 Start of implementation of (national) institutional bases for a common and durable organisation and management approach for the maintenance and updating of European species lists (including the marine ERMS species list within MARBEF).

3.2.3 Describe the model for the set up of an advanced Pan-European species-directories infrastructure supporting the reach of a next (higher) level of completeness, quality, consistency, integration, incorporation, and (e-science) application. Travels to relevant East European institutes in Georgia, Turkey, Ukraine, Russia.

Components

C3.2.1 Report on the preliminary outline (components & structure) of a backbone for the European primary biodiversity information infrastructure; focussed on the use of taxon name objects for cross-referencing (Month 24)

C3.2.2 Proposal(s) for the funding of a Pan-European species-directories infrastructure (Month 18)

Milestones and expected result

M3.2.1 Meeting (jointly with WP2) on the set up of a common management approach for the Pan-European checklists (Month 13)

M3.2.2 Workshop to discuss the use of taxon names as critical meta data for cross-referencing (Month 21)

M3.2.3 Meeting with focal point partners on the validation of the pan-European checklists, depending on available budget (Month 28)

3.3 Sustaining the cybertaxonomy process

Not yet applicable in months 12-30. Waits for progress in WP5.

3.4 Large-scale networked instrumental facilities

Work package number	3	Start date or starting event:	6
Activity Type	Other specific activities		

Objectives

- Expand the European contribution to the global DNA-barcode of Life initiative.
- Promote a cooperative and standardized DNA-barcoding approach in Europe.
- Promote a cooperative and standardized effort towards remote microscopy in Europe.

Description of work

- 3.4.1 Link up with the activities of the Consortium barcoding of Life by involving scientific committee members of CBOL and other (global) initiatives in ECBOL activities.
- 3.4.2 Inventory and identification opportunities for collaborative DNA-barcoding efforts for testing, standardizing, and formulating priorities.
- 3.4.3 Development of Mycobank as a model approach for local data repository.
- 3.4.4 Start liaisons with industry for specific applications of barcoding technology.
- 3.4.5. Further develop the ECBOL website and stimulate the participation of partners and third parties involved in barcoding by using the website as a platform for exchange and cooperation.
- 3.4.6. Organise DNA Barcoding in Europe Meeting (Leiden, 3-5 Oct 2007).

Components

- C3.4.1 Workplan information services (Month 13)
- C3.4.2 Report of the European DNA-barcoding conference (Month 22)

Milestones and expected result

- M3.4.2 European targets for DNA-barcoding specified at the Leiden conference (Month 19)
- M3.4.3 Setting up of working groups on priority issues for DNA-barcoding in Europe (Month 20)

3.5 Liaisons with international infrastructures

Work package number	3	Start date or starting event:	8
Activity Type	Other specific activities		

Objectives

- Establish a communication mechanism for cooperation and information exchange with other European networks of excellence, international networks of users of biodiversity services/information, comparable regional coordinated networks of biodiversity centres, and global taxonomic networks
- Secure a joint approach in the design and construction of taxonomic infrastructures around the world

Description of work

- Inventory of relevant networks, their aims, scope and partners, and contact persons
- Site visits, fact finding of organisation structure, and contacts for further cooperation
- Travels:
 - Month 21/22: Travels to USA (NSF, national networks of collection institutes: ANNH-

Washington, MO-Missouri), Mexico (Conabio), Australia (national biodiversity inventory programme, flora and fauna projects: CSIRO, ERIN, Australian Museum Centre for Biodiversity and Conservation Research (CBCR), National Herbarium Japan.
-Month 19/20 + 23/24: travels within Europe (visits to coordinators of adjacent EU networks of excellence).

Components

C3.5.1 List of relevant international networks – planning of “fact finding” trips (Month 19)

C3.5.2 Proposal for an EDIT communication mechanism for cooperation and information exchange with other international networks and infrastructures (Month 25)

Milestones and expected result

M3.5.1 Contacts and meeting agendas established with other networks of excellence and international networks (Months 21)

M3.5.2 Meetings and workshops with international networks/infrastructures (Month 35)

2.4 Workpackage 4: Coordinating Research

Leader: CSIC – MNCN, Marian Ramos

Work package number		4		Start date or starting event:				12	
Activity Type			Other specific activities						
Participant id			CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:			0	11	2	52	0,3	2,5	0,5
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN
0,5	0,5	1,25	1	4	0	3	0	4,5	0
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM
3	0	5	2,5	0,2	0,5	0	0	0	1,65

Objectives

General

Outline a strategy for future research in taxonomy by promoting synergies among research teams within EDIT and beyond, by prospecting emergent areas and by identifying users of taxonomic information and their needs from the field of taxonomy.

Second 18 months

Survey current research activities in order to promote future collaboration and complementarity among research teams within EDIT membership and beyond.

Identify and categorize groups of users of taxonomic information, assess their needs for taxonomy research and develop mechanisms to integrate them into the strategic development of EDIT

Prospect emergent areas, conceptual developments, and new tools and technologies towards an integrated strategy to modernize future research in Taxonomy

Description of work

4.1 Integrating research projects within and beyond EDIT

Prospecting for collaboration among research teams within EDIT, (coordinated with WP2 databases of current projects and experts) in order to propose mechanisms for integration of research in taxonomy and pilot activities.

4.2 Liaison research / users of taxonomic information

Surveying potential groups of stakeholders - in particular users - of taxonomic information and their needs for taxonomy and propose mechanisms to engage them into the policy framework of EDIT

4.3 Prospecting new strategies and tools for research in Taxonomy.

Organizing a symposium on “perspectives and future trends in taxonomy” and identifying a potential follow up taskforce of advisers and organizers of further workshops on themes suggested by symposium conclusions.

Components¹⁸

- C4.1.1 Data base on approaches to taxonomy used by EDIT researchers (collaboration with WP2) (Month 24+)
- C4.1.2 Proposal of pilot activities to test integration (Month 21+)
- C4.1.3 Report on pilot project on field recording techniques and protocols for ATBI+M completed (Month 20)
- C4.1.4 Draft guidelines for selecting future pilot projects (Month 24)
- C4.1.5 Preliminary database of potential evaluators of projects (Month 26)
- C4.2.1 Prototype of web platform for e-conferences (Month 20)
- C4.2.1 Bis First report on the available information of user groups and their needs based on previous experience of other international taxonomic projects, networks or initiatives and identification of gaps (Month 20).
- C4.2.2 Report with results of questionnaire of thematic services of EDIT Taxonomic institutions based on their social function (Month 28).
- C4.2.3. Report on methodologies to investigate users (Month 23).
- C4.2.4 Second report on users/potential users and other stakeholders of taxonomy on who they are, and what their taxonomic needs and interests are (based on 4.2.1, 4.2.2 and the on the experiences with activities under 4.2.3) (Month 28).
- C4.2.5 Report on structure and terms of reference for liaison group (Month 22).
- C4.3.1 Summary conclusions of symposium with what the participants envision as the "roadmap" for the immediate future of taxonomic research (Month 23).

Milestones

- M4.1.1 Questionnaires within EDIT stakeholder institutions to identify potential synergistic research activities (Month 16+)
- M4.1.2 E-conferences to discuss methods and mechanisms to integrate research activities' agendas (Forum in EDIT webpage) (Month 15+)
- M4.1.3 Task group for proposing pilot activities/projects to test integration within EDIT established (Month 16) (e.g. Workshop on ATBI+M field recording techniques and protocols (Month 15) [hosted by WP4 at El Ventorillo (Madrid) and organized by WP7+WP4]
- M4.2.1 Analysis ready of the available information on users from previous projects and networks and gap identification resulting in a first stakeholder map (Month 18).
- M4.2.2. Questionnaire of thematic services of taxonomic institutions based on their social function ready for distribution (Month 16).
- M4.2.3.a Brainstorming on methodologies to investigate users (Month 19).
- M4.2.3.b Decision on actions and mechanisms to complement the assessment of the needs of the different groups of users of taxonomic information (Month 21).
- M4.3.1 Setting up of the Scientific Steering Committee for the organization of the symposium after approval by the NSC (Month 15-16)
- M4.3.2 Announcement and call for inscription to the symposium (Month 18)
- M4.3.3 Symposium on Conceptual challenges and technical opportunities for taxonomy (Month 22)
- M4.3.4 Workshop on new tool, or new perspective (Month 20)

4.1 Integrating research projects within and beyond EDIT

Work package number	4	Start date or starting event:	0
Activity Type	Other specific activities		

¹⁸ Components are not part of the EC Contract n°018340.

Objectives

- Promote collaboration and complementarity among research teams within EDIT and establish mechanisms for integration of non-EDIT experts
- Test EDIT research project integration by pilot activities, including contingency plans

Description of work

4.1.1 Examining the existing research activities of the partners in order to identify potential synergistic activities within each EDIT stakeholder institution and their requirements for integration of research (partially based upon WP2 research projects data).

4.1.2 Discussing methods and mechanisms to integrate research activities' agendas and testing integration by pilot activities

4.2.3 Setting up database of qualified potential evaluators for the research areas of EDIT in order to establish the *ad hoc* international Panels for Evaluation of proposals for pilot projects (collaboration with WP2-Experts).

Components

C4.1.1 Data base on approaches to taxonomy used by EDIT researchers (collaboration with WP2) (Month 21+)

C4.1.2 Proposal of pilot activities to test integration (Month 20)

C4.1.3 Report on pilot project on field recording techniques and protocols for ATBI+M completed (Month 20)

C4.1.4 Draft guidelines for selecting future pilot projects (Month 24)

C4.1.5 Preliminary database of potential evaluators of projects (Month 26)

Milestones and expected result

M4.1.1 Questionnaires within EDIT stakeholder institutions to identify potential synergistic research activities (Month 16+)

M4.1.2 E-conferences to discuss methods and mechanisms to integrate research activities' agendas (Forum in EDIT webpage) (Month 15+)

M4.1.3 Task group for proposing pilot activities/projects to test integration within EDIT established (Month 16) (e.g. Workshop on ATBI+M field recording techniques and protocols (Month 15) [hosted by WP4 at El Ventorillo (Madrid) and organized by WP7+WP4]

4.2 Liaison research/users of taxonomic information

Work package number	4	Start date or starting event:	10
Activity Type	Other specific activities		

Objectives

- Identification and categorization of groups of stakeholders - in particular users - of taxonomic information.
- Assess their needs for taxonomy by sectors
- Develop mechanisms to integrate them into the EDIT strategic developments

Description of work

4.2.1 Compiling information, experiences and advice on users of taxonomy, obtained by previous projects and networks.

4.2.2 Compiling information from EDIT members on their institutional views of who their users of

taxonomic information are and what are their needs (eg: their perception of the social function of taxonomic Institutions in Europe)

4.2.3 Working on methodologies and possible options to assess the needs of the different groups of users of taxonomic information (on how to fill the gaps of users needs). In particular investigate the added value of an e-conference.

4.2.4 Start developing a stakeholder map, which will be supportive to the overall objectives of the EDIT project. Based on outcomes of 4.2.1 and 4.2.3.

4.2.5 Working on mechanisms to interface with the different groups of users of taxonomic information (discussion within the NSC and with the SAC). Give the necessary background to WP1 to allow interactions with institutional stakeholders outside EDIT and exploitation strategies (DoW 1.2.3)

Components

C4.2.1 Prototype of web platform for e-conferences (Month 20)

C4.2.1 Bis First report on the available information of user groups and their needs based on previous experience of other international taxonomic projects, networks or initiatives and identification of gaps (Month 20)

C4.2.2 Report with results of questionnaire of thematic services of EDIT Taxonomic institutions based on their social function (Month 28)

C4.2.3 Report on methodologies to investigate users (Month 23)

C4.2.4 Second report on users/potential users and other stakeholders of taxonomy on who they are, and what their taxonomic needs and interests are (based on 4.2.1, 4.2.2 and the on the experiences with activities under 4.2.3) (Month 28)

C4.2.5 Report on structure and terms of reference for liaison group (Month 22)

Milestones

M4.2.1 Analysis ready of the available information on users from previous projects and networks and gap identification resulting in a first stakeholder map (Month 18)

M4.2.2. Questionnaire of thematic services of taxonomic institutions based on their social function ready for distribution (Month 16)

M4.2.3.a Brainstorming on methodologies to investigate users (Month 19)

M4.2.3.b Decision on actions and mechanisms to complement the assessment of the needs of the different groups of users of taxonomic information (Month 21)

4.3 Prospecting new strategies and tools for research in Taxonomy.

Work package number	4	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Prospect new areas for integrated research in EDIT, e.g., as identified from SAC, liaison groups, NSC and BD
- Prospect conceptual developments and technical opportunities in the Taxonomy of XXI Century.

Description of work

4.3.1 Preparing and organizing a symposium on perspectives and future trends in taxonomy, involving scientists from all (but not only) EDIT institutions, with special attention to young researchers. The symposium is aimed to gather together taxonomists, phylogeneticists and experts in technologies that are not directly used for systematic purposes now, but most likely will be in the short to medium term.

4.3.2 Identifying a potential follow up taskforce of advisers and organizers of further workshops on themes suggested by symposium conclusions, NSC, SAC or liaison groups, or emerging from the WP2 information on ongoing research.

4.3.3 Organizing other thematic workshops on already identified topics

Components

C4.3.1 Summary conclusions of symposium with what the participants envision as the "roadmap" for the immediate future of taxonomic research (Month 23)

Milestones

M4.3.1 Setting up of the Scientific Steering Committee for the organization of the symposium after approval by the NSC (Month 15-16)

M4.3.2 Announcement and call for inscription to the symposium (Month 22)

M4.3.3 Symposium on Conceptual challenges and technical opportunities for taxonomy (Month 27)

M4.3.4 Workshop on new tool, or new perspective (Month 20)

2.5 Workpackage 5: Internet Platform for Cybertaxonomy: Tools, Sharing, Networking and Integration

Lead: FUB-BGBM, Walter Berendsohn

Work package number		5		Start date or starting event:				0	
Activity Type			Other specific activities						
Participant id			CDC	MNHN	UKBH	CSIC-MINCEN	UvA	NHN	NNM
Person-months per participant			0	43	1	37	7	1	1
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN
1	122	42	21	23	1	20	1	13	1
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM
23	22	22	1	1	1	0	0	0	0

Objectives

- General: (i) Creation of the Internet Platform for Cybertaxonomy, oriented towards its practical use for revisionary taxonomy, taxonomic biodiversity inventories and monitoring of taxa. (ii) Integration of the participating institutions' biodiversity informatics and IT resources.
- Second 18 month period: Continue the development of co-operative processes among the institutions, finalise the modelling of the information domain and the work processes; use the process models to implement a user access interface for existing taxonomic tools. Describe the functionality and – where possible – provide interfacing routines between different existing tools. Incorporate bibliographic and geographic resource access custom-tailored for taxonomists into the platform.

Description of work

5.1 Integration of Information Science and Technology (IST) departments; over-all WP5 coordination

5.1.1 Liaison with Board of Directors and Scientific Advisory Committee (SAC).

5.1.2 Finishing and updating the documentation of collaborating Information Science & Technology (IST) departments.

5.1.3 Information Science & Technology Committee (ISTC).

5.1.4 Management, coordination and liaison with other Work Packages (WPs).

5.1.5 Promote scientific standards and standard tools.

5.2 Creating the Internet Platform for Cybertaxonomy

5.2.1 Modelling for Revisionary Taxonomy.

5.2.2 Modelling for taxonomic inventories and modelling.

5.2.3 Define technical interfaces.

5.2.4 (Deferred to 5.7). Identify suitable communication tools as platform components.

5.2.5 (Deferred to 5.6). Identify suitable descriptive tools as platform components.

- 5.2.6 Implementation activities: Revisionary Taxonomy.
- 5.2.7 Implementation activities: ATBPs and Monitoring.
- 5.2.8 Designing the Platform Architecture.
- 5.3 Virtual Library of Taxonomic Literature and Documentation as a platform component**
- 5.3.1 Survey of current practice and requirements, and agreement on standards.
- 5.3.2 Software review and recommendations.
- 5.3.3 Development of registry (resource catalogue).
- 5.3.4 (Deprecated & included in 5.3.2 & 5.3.6) Planning and implementation of repository.
- 5.3.5 Intellectual Property Rights (IPR).
- 5.3.6. Interface development and implementation.
- 5.4 Geographical platform components**
- 5.4.1 Access to resources.
- 5.4.2 Provision of output-oriented tools for Revisionary Taxonomy.
- 5.4.3 Predictive distribution modelling.
- 5.4.4 Gap Analysis.
- 5.4.5 Trials and user documentation.
- 5.5 Taxonomic-core platform components**
- 5.5.1 Identify suitable taxonomic tools as platform components.
- 5.5.2 Define the taxonomic exchange standard specification.
- 5.5.3 Testing of taxonomic database components.
- 5.6 Descriptive and identification platform components**
- 5.6.1 Identify descriptive tools and define criteria.
- 5.6.2 Testing of descriptive and identification components.
- 5.6.3 Interact with providers of descriptive and identification components.
- 5.7 Communication tools as platform components**
- 5.7.1 Identify suitable communication tools.
- 5.7.2 Create the communication platform.
- 5.7.3 Setup open review environment.
- 5.8 Publication support as platform component**
- 5.8.1 Review example documents (tagged monographs) delivered by WP6.
- 5.8.2 Develop web monograph pilot system.
- 5.8.3 Specification of data flow within rapid publication platform.
- 5.8.4 Implement publication data store (preferably based on existing platform components).
- 5.8.5 Rapid publication platform.
- 5.9. Specimen access platform component**
- 5.9.1 Define specimen access interface for taxonomists.
- 5.9.2 Implement access interface for taxonomists.

Components¹⁹

- C5.1 (Formerly D5.1.2.1). Confidential report of internal IST decision making of 50% of EDIT partner institutions (Month 18)
- C5.2 (Formerly D5.1.2.2 & D5.1.2.3). Documentation of internal rules for hardware and software and IST resources of 50% of EDIT partner institutions (Month 18)
- C5.3 Confidential report of internal IST decision making of remaining EDIT partner institutions (Month 18)
- C5.4 (Formerly D5.1.3.1) Documentation of internal rules for hardware and software and IST resources of remaining EDIT partner institutions (Month 18)
- C5.5 Second ISTC meeting (Month 18)
- C5.6 At least one MoU announced between EDIT partners (Month 23)

¹⁹ Components are not part of the EC Contract n°018340.

- C5.7 A comprehensive EDIT standards list available online (Month 23)
- C5.8 (Formerly D5.2.1.2) Operational function model for revisionary taxonomy (Month 16)
- C5.9 (Formerly D5.2.2.1) Draft function model and bottleneck report for ATBI+M (Month 14)
- C5.10 (Formerly D5.2.2.2) Operational function model for ATBI+M (Month 17)
- C5.11 (Formerly D5.2.3.1) Draft manual of interface definitions (Month 19)
- C5.12 Interface definition manual (Month 23)
- C5.13 (Formerly D5.2.7.1) First draft framework for ATBI+M platform established on the web (Deferred and included in D5.15 – Month 18)
- C5.14 (Formerly D5.2.6.1) First draft framework for rev. taxonomy platform established on the web (Deferred and included in D5.15 – Month 18)
- C5.15 Draft system design document (Month 18)
- C5.18 (Formerly D5.3.1.2) Statement of requirements (Month 16)
- C5.19 (Formerly D5.3.1.3) Linkage to BHL - Report for collection development policy (Month 18)
- C5.20 (Formerly D5.20) Standards agreement document (Month 19)
- C5.21 Software recommendation based on identifying best matches with the statement of requirements and guarantee future sustainability (Month 18)
- C5.23 Use agreements for ViTL available on-line (Month 22)
- C5.24 Draft user guideline available (Month 22)
- C5.25 Use agreement with publishers of taxonomic revisions for WP6 (Month 24)
- C5.26 Requirement analysis report (Month 18)
- C5.27 Pilot website available (Month 22)
- C5.29 Portal prototype functional for human access (Month 27).
- C5.30 Launch of ViTL as a functioning component of the EDIT Platform for Cybertaxonomy including system and user documentation to enable effective access (Month 29).
- C5.31 (formerly D5.4.2) Application for distribution maps (Month 19)
- C5.32 eConference on biogeographic representation of biological data with Open GIS (Month 19)
- C5.33 (formerly D5.4.3 & D5.4.4) eConference on possibilities and drawbacks of modelling techniques (Month 19)
- C5.35 Predictive distribution modelling report (Month 16)
- C5.36 GIS database of vectorial and raster maps freely available at the European extent (Month 19)
- C5.38 Gap analysis in local inventories report (Month 16)
- C5.39 Application to map inventory completeness (Month 25)
- C5.40 Application to select vectorial units by environmental and spatial criteria (ED application) (Month 27)
- C5.41 Package instructions, internet download structure and text on statistical considerations with examples (Month 29)
- C5.42 (formerly D5.4.1) Relevant European databases on environmental and biological data HTML compilation and link collection (Month 19)
- C5.43 Test data report (Month 25)
- C5.44 Taxonomic Database Component evaluation website (Month 14)
- C5.45 Report identified and described suitable taxonomic tools (Month 16)
- C5.46 Taxonomic exchange standard specification report (Month 19)
- C5.47 List (website) of identified and to-be-tested descriptive tools (Month 14)
- C5.48 (formerly D5.2.5.1) Workshop report on strategy for descriptive data tools as cross-cutting instrument for revisionary taxonomy (Month 19)
- C5.49 First test results in the EDIT review environment (Month 19)
- C5.50 Report on integration of descriptive tools into the Platform (Month 26)
- C5.51 (Formerly D5.2.4.1) Draft list of suitable communication/ workgroup tools for platform environment (Month 14)
- C5.52 Open review environment for software tools and resources available (Month 14)
- C5.53 Deliver pilot system software (Month 15)

Milestones and expected result

- M5.1 EDIT certification process introduced at TDWG meeting (Month 18)
- M5.2 Report from the 2nd ISTC meeting with first draft work plan for 3rd project period (Month 20)
- M5.3 (Formerly M5.1.3.3). Platform environment circumscribed based on existing standards and EDIT certification (Month 25)
- M5.4 Interface definition for all data-stores implemented and usable with the platform (Month 29)
- M5.5 Function model for revisionary taxonomy with full coverage and operational (Month 14)
- M5.6 Function model for ATBI+M with full coverage and operational (Month 17)
- M5.7 Interface prototype ratified by the Informatics Commission (Month 18)
- M5.8 Pilot and testing (Month 20)
- M5.9 Launch VITL (Month 26)
- M5.10 Generic mapping tool (Month 20)
- M5.11 Specification for inventory completeness application (Month 24)
- M5.12 Specification for mapping tool of completeness (Month 24)
- M5.13 Specification for ED application (Month 29)
- M5.14 Meeting of experts and public presentation (Month 29)
- M5.15 Taxonomic core components available for platform (Month 29)
- M5.16 Criteria for descriptive tools agreed and published (Month 15)
- M5.17 Review environment populated with revisions of descriptive tools (Month 23)
- M5.18 Description and identification components integrated part of platform (Month 29)
- M5.19 Communication components available for platform (Month 29)

5.1 Integration of Information Science and Technology (IST) departments; over-all WP5 coordination

Work package number	5	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Build on the documentation efforts of all WP5 activities in order to set EDIT standards, as well as discussing these standards with the ISTC and international standardisation bodies.
- Start the EDIT certification process in close collaboration with all partners through the ISTC.
- Initiate MoUs between institutions with IST departments that are part of collaborative activities within EDIT (e.g. development of geographical components in WP5.4).

Description of work

5.1.1 Liaison with board of directors and Scientific Advisory Committee (SAC). This is a coordinative function which will be used to provide a focussed connection to the institutional decision makers represented in the board of directors, thus enabling the WP to bypass complex hierarchies where rapid decision making is required. Responsibility for this task needs is assumed by one of the directors involved in the project; presently the WP5 Leader is a member of the BoD and can thus assume this function.

5.1.2 Finishing and updating the documentation of collaborating Information Science and Technology (IST) departments. The documentation of the internal decision making structures of the participating Information Science and Technology (IST) departments, the documentation of internal provisions, rules and traditions for the acquisition and use of equipment and software; and the documentation of relevant hardware and software resources will be finished with a slight delay from the first year and will be continued as an ongoing task.

5.1.3 Information Science & Technology Committee (ISTC). The Committee is to facilitate the

dialogue and collaboration between IST departments and deal with issues such as definition of platform environment, certification of components, and future work-plans. The ISTC is to proceed to become the key body in WP5 proposing procedural changes and adaptations, to ensure interoperability through an infrastructure built on services, and to ensure (as far as possible) compatibility of components to ease replicated installations. During the second year, the development of mechanisms for the certification of EDIT platform components will be central, as well as first formal agreements between institutions defining future collaboration of IST departments.

5.1.4 Management, coordination, and liaison with other Work Packages (WPs). Maintaining the necessary management and coordination structure to manage the WP as to its scientific coordination, liaison with other WPs, the financial processing requirements, a meeting organisation, etc. The organisation of cross-WP workshops of the staff participating in different activities of WP5 is a prerequisite for the success of these.

5.1.5 Promote scientific standards and standard tools. Continue to foment participation in standardising bodies, particularly in Biodiversity Information Standards (TDWG), and to organise the information flow for the provision of input from members to initiatives working on data standards for taxonomy. Pursue a strategy of synergetic development with other initiatives, particularly GBIF and supporting national initiatives.

Components

C5.1 (Formerly D5.1.2.1). Confidential report of internal IST decision making of 50% of EDIT partner institutions (Month 18)

C5.2 (Formerly D5.1.2.2 & D5.1.2.3). Documentation of internal rules for hardware and software and IST resources of 50% of EDIT partner institutions (Month 18)

C5.3 Confidential report of internal IST decision making of remaining EDIT partner institutions (Month 18)

C5.4 (Formerly D5.1.3.1) Documentation of internal rules for hardware and software and IST resources of remaining EDIT partner institutions (Month 18)

C5.5 Second ISTC meeting (Month 18)

C5.6 At least one MoU announced between EDIT partners (Month 23)

C5.7 A comprehensive EDIT standards list available online (Month 23)

Milestones

M5.1 EDIT certification process introduced at TDWG meeting (Month 18)

M5.2 Report from the 2nd ISTC meeting with first draft work plan for 3rd project period (Month 20)

M5.3 (Formerly M5.1.3.3). Platform environment circumscribed based on existing standards and EDIT certification (Month 25)

5.2 Creating the Internet Platform for Cybertaxonomy

Work package number	5	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Modelling, designing and starting the implementation of the Platform, drawing on institutional resources and the ISTC members installed by Activity 5.1 as well as operation-specific resources specified for Activities 5.3 to 5.7.
- Provide informal and formal descriptions of the needed and implemented platform components in the Platform. Foresee and/or handle in all components issues such as interoperability (interfacing with other components), internationalisation, accessibility, licensing of commercial software as well as licensing of (open source) software developed in the project.

- Identify existing and required new software for taxonomists jointly plan their implementation as components of the shared system.
- Commence shared software development for taxonomic research activities as a driver for harmonisation and integration of IST Departments.
- Model the platform architecture in light of the results of comparisons of existing and planned components.

Description of work

5.2.1 Modelling for Revisionary Taxonomy. Finalise the in-depth modelling effort of the revisionary work process commenced in year 1. The resulting model (laid out as an UML [Unified Modelling Language] model with different diagram types and accompanying descriptive text) will provide the base for several developments: (i) the ongoing documentation of the changing work process; (ii) the definition of bottlenecks and the documentation of subsequent efforts to remove them; (iii) the interfacing between human work processes and software components and thus (iv) in conjunction with operation 5.2.2 the background for the Internet Platform for Cybertaxonomy itself.

5.2.2 Modelling for taxonomic inventories and monitoring. Continue and finalise the in-depth modelling effort of the work processes in inventories and monitoring activities as delimited by WP7.

5.2.3 Define technical interfaces. Most existing taxonomic applications cover a number of the planned platform components (e.g. core-taxonomic, descriptive, bibliographic, and geographic components). To achieve their integration into the Platform environment as well as interoperability with more specialised software, interfaces have to be defined to make the exchange of data between different components possible and to allow the taxonomist to use functionalities from different programs and components. Successful implementation of a preliminary platform will be reliant on 5.2.3.

5.2.4 (Deferred to 5.7) Identify suitable communication tools as platform components.

5.2.5 (Deferred to 5.6) Identify suitable descriptive tools as platform components.

5.2.6 Implementation activities: Revisionary Taxonomy. Implementation of a prototype of the platform by means of a WWW environment for the collection of tools and resources, following the input given by the modelling process and the needs of WP6. Rapid prototyping approach with direct observation of user feedback. Incorporation of the results of activities 5.3 to 5.8 into the platform environment.

5.2.7 Implementation activities: ATBI's and Monitoring. Review results of ATBI modelling in order to establish software platform specification. Implementation of required hard- and software components such as: field data capture tools, field recording software, authority file support (check-lists, references, ...), associated data-stores (field, base-camp, site/reserve, central), and data interfaces (GBIF, ABCD).

5.2.8 Designing the Platform Architecture. Define and document work and data flow between platform components (see 5.5, 5.6 & 5.7). The system design will be the basis for 5.2.3, 5.2.6 and 5.2.7.

Components

C5.8 (Formerly D5.2.1.2) Operational function model for revisionary taxonomy (Month 16)

C5.9 (Formerly D5.2.2.1) Draft function model and bottleneck report for ATBI+M (Month 14)

C5.10 (Formerly D5.2.2.2) Operational function model for ATBI+M (Month 17)

C5.11 (Formerly D5.2.3.1) Draft manual of interface definitions (Month 19)

C5.12 Interface definition manual (Month 23)

C5.13 (Formerly D5.2.7.1) First draft framework for ATBI+M platform established on the web (Deferred and included in D5.15 – (Month 18)

C5.14 (Formerly D5.2.6.1) First draft framework for rev. taxonomy platform established on the web (Deferred and included in D5.15 – Month 18)

Milestones

M5.4 Interface definition for all data-stores implemented and usable with the platform (Month 29)

M5.5 Function model for revisionary taxonomy with full coverage and operational (Month 14)
M5.6 Function model for ATBI+M with full coverage and operational (Month 17)

5.3 Virtual Library of Taxonomic Literature and Documentation as a platform component

Work package number	5	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

- Plan, create and implement a web-accessible discovery and access resource to be called European Virtual Library of Taxonomic Literature (EDIT ViTL) as a component of the EDIT Platform for Cybertaxonomy.
- Assess and define the technical and content-related base for revisionary taxonomy and taxonomic inventories, initiate repository development and IPR negotiations in close linkage with activities 5.2.1 and 5.2.2. & WPs 6 and 7.

Description of work

5.3.1 Survey of current practice and requirements, and agreements on standards. Finalising the survey of existing digital library activity, principles and standards, current practice and requirements for agreements and standards. Collection development policy (what will be included and excluded based on identified user requirements, also in collaboration with the modelling under 5.2.1). Agreement on technical and metadata standards to be followed.

5.3.2 Software review and recommendations on choices that provide the most effective match with user requirements and a plan for sustainability.

5.3.3 Development of registry (resource catalogue). Content development for the shared metadata system that indicates which works have already been digitized and for which there is an intention to digitize.

5.3.4 (Deprecated & included in 5.3.2 & 5.3.6) Planning and implementation of repository.

5.3.5 Intellectual Property Rights (IPR). Develop a set of use agreements and/or licences with suppliers (preferably based on the Conservation Commons Licence). Formulate user guidelines for working out copyright. Support for WP6 and WP7 rights management

5.3.6 Interface development and implementation. Requirements analysis for ViTL interfaces in collaboration with operation 5.2.3. Plan and implement a pilot ViTL website for preliminary results and feedback. Implementation of federated searching for digitised taxonomic literature across distributed content providers, including tools for both bibliographical and taxonomic citations.

Components

C5.15 Draft system design document (Month 18)

C5.17 (Formerly D5.3.1.1) Best practice review, including a survey of existing digital library activity, principles and standards (Month 11)

C5.18 (Formerly D5.3.1.2) Statement of requirements (Month 16)

C5.19 (Formerly D5.3.1.3) Linkage to BHL - Report for collection development policy (Month 18)

C5.20 (Formerly D5.20) Standards agreement document (Month 19)

C5.21 Software recommendation based on identifying best matches with the statement of requirements and guarantee future sustainability (Month 18)

C5.23 Use agreements for ViTL available on-line (Month 22)

C5.24 Draft user guideline available (Month 22)

C5.25 Use agreement with publishers of taxonomic revisions for WP6 (Month 24)

C5.26 Requirement analysis report (Month 18)

C5.27 Pilot website available (Month 22)
 C5.29 Portal prototype functional for human access (Month 27)
 C5.30 Launch of ViTL as a functioning component of the EDIT Platform for Cybertaxonomy including system and user documentation to enable effective access (Month 29).

Milestones

M5.7 Interface prototype ratified by the Informatics Commission (Month 18)
 M5.8 Pilot and testing (Month 20)
 M5.9 Launch ViTL (Month 30)

5.4 Geographical platform components

Work package number	5	Start date or starting event:	0
Activity Type	Other specific activities		

Objectives

To provide a generic and open source software solution (based on the *Biogeo Plugin* developed with *Q-GIS*) for the Internet Platform for Cybertaxonomy and to use this as the base for specific tools to

- provide output for printed and on-line taxonomic publications
- visualize distributional information
- statistically analyse distributional information with regard to completeness of surveys
- identify gaps to prioritise surveys in order to obtain an unbiased set of data for environmental analysis.

Description of work

5.4.1 Access to resources. Further integrate the results from SYNTHESYS Networking activity D into the preliminary internet platform. Integrate additional resources in the catalogue in order to overlay biological data with different types of vector maps (countries, regions, grid squares, etc), based on the needs identified in operations 5.2.1 and 5.2.2 (modelling of the work processes) and on the needs expressed by WP6 and WP7. Identify resources (technical and data) of other partners in the consortium and beyond through liaison with the ISTC. Initial compilation of material for taxonomist, experts and curator training course (interaction with WP8) and dissemination of results.

5.4.2 Provision of output-oriented tools for Revisionary Taxonomy. Further develop the generic, open source software tool for species distribution mapping based on user-specified maps, point or grid coordinate system, formatting options, and geographic data in collaboration with WP7. Further develop the Biogeo Plugin (see <http://radim.freehostia.com/>) under the EDIT umbrella in order to incorporate complex requests of database sources and mapping several species maps at the same time.

5.4.3 Predictive distribution modelling. Publication on the EDIT website and continuous enhancements to the bibliography on predictive modelling techniques and the preliminary report on techniques to predict species distributions. Develop a preliminary report on the needs and characteristics of complete software able to accomplish predictive models. Organise an eConference on predictive modelling techniques.

5.4.4 Gap Analysis. Identification of geographic gaps in - and completeness of - local inventories. Publish and continue to enhance the bibliography on the sampling effort problem and on useful software applications. Studying the source code of existing utilities to include them in the Biogeo application in order to examine the completeness of inventories for specific areas. Integrate additional mapping applications in order to visualize the geographical location of units (countries, regions, grid squares, etc) according to their completeness, and to recognize those insufficiently surveyed. Incorporate an application to select units (countries, regions, grid squares, etc) according to their spatial

location and environmental characteristics, in order to obtain minimum numbers of units able to adequately represent the environmental and spatial heterogeneity of an area (ED applications).

5.4.5 Trials and user documentation. Compile test data. Software installation and testing. Bug reports to software developers and user documentation on website.

Components

C5.31 (formerly D5.4.2) Application for distribution maps (Month 19)

C5.32 eConference on biogeographic representation of biological data with Open GIS (Month 19)

C5.33 (formerly D5.4.3 & D5.4.4) eConference on possibilities and drawbacks of modelling techniques (Month 19)

C5.35 Predictive distribution modelling report (Month 16)

C5.36 GIS database of vectorial and raster maps freely available at the European extent (Month 19)

C5.38 Gap analysis in local inventories report (Month 16)

C5.39 Application to map inventory completeness (Month 25)

C5.40 Application to select vectorial units by environmental and spatial criteria (ED application) (Month 27)

C5.41 Package instructions, internet download structure and text on statistical considerations with examples (Month 30)

C5.42 (formerly D5.4.1) Relevant European databases on environmental and biological data HTML compilation and link collection (Month 19)

C5.43 Test data report (Month 25)

Milestones

M5.10 Generic mapping tool (Month 20)

M5.11 Specification for inventory completeness application (Month 24)

M5.12 Specification for mapping tool of completeness (Month 24)

M5.13 Specification for ED application (Month 29)

M5.14 Meeting of experts and public presentation (Month 29)

5.5 Taxonomic-core platform components

Work package number	5	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Assess taxonomic database systems in current use based on the taxonomic modelling effort in 5.2 and the requirements formulated by WPs 3, 6 & 7.
- Collaborate with WP6 in order to establish interfaces for import, export, warehousing and publishing.
- Develop solutions for the persistence and longevity of data availability.

Description of work

The specification of technical interfaces is covered by operation 5.2.3, the implementation of these interfaces by 5.2.6 and 5.2.7.

5.5.1 Identify suitable taxonomic tools as platform components.

5.5.2 Define the taxonomic exchange standard specification. Elaboration of an extended specification based on TCS (the TDWG Taxon Concept Schema) in agreement with 5.2.3 (interfaces) and 5.1.5 (standards)

5.5.3 Testing of taxonomic database components. Using the model taxon group's data, the

functionality of the potential components (e.g. TCS, Berlin Model, Pandora, BibMaster, OSF, CATE, Prometheus, etc.) will be tested and the results documented.
(WP6 NHML included in operation & BGBM 3 pm).

Components

C5.44 Taxonomic Database Component evaluation website (Month 14)
C5.45 Report identified and described suitable taxonomic tools (Month 16)
C5.46 Taxonomic exchange standard specification report (Month 18)

Milestones

M5.15 Taxonomic core components available for platform (Month 29)

5.6 Descriptive and identification platform components

Work package number	5	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Assess the available and supported descriptive tools for taxonomists.
- Establish an integrated descriptive component platform that uses standards compliant to phyloinformatic (WP3) and morphometric tools (WP4).
- Improve selected tools by implementing standard interfaces.

Description of work

The specification of technical interfaces is covered by the MNHN-UPMC under operation 5.2.3, the implementation of these interfaces under 5.2.6 and 5.2.7.

5.6.1 Identify descriptive tools and define criteria for their description and assessment as platform components, including a workshop.

5.6.2 Testing of descriptive and identification components. Test the tools with different groups of organisms, preferably in the realm of model taxa. Formulate test results, contact tool providers for their feedback, publish test results in an ongoing manner within the EDIT review environment (5.7) website and react to community feedback. Actively disseminate the results in the EDIT community.

5.6.3 Interact with providers of descriptive and identification components to achieve the implementation of changes necessary for proper interfacing and incorporation into the platform.

Components

C5.47 List (website) of identified and to-be-tested descriptive tools (Month 14)
C5.48 (formerly D5.2.5.1) Workshop report on strategy for descriptive data tools as cross-cutting instrument for revisionary taxonomy (Month 19)
C5.49 First test results in the EDIT review environment (Month 19)
C5.50 Report on integration of descriptive tools into the Platform (Month 26)

Milestones

M5.16 Criteria for descriptive tools agreed and published (Month 15)
M5.17 Review environment populated with revisions of descriptive tools (Month 23)
M5.18 Description and identification components integrated part of platform (Month 29)

5.7 Communication tools as platform components

Work package number	5	Start date or starting event:	9
Activity Type	Other specific activities		

Objectives

- Fully integrate communication components adapted to taxonomists' needs into the Internet Platform for Cybertaxonomy. Provide the other component activities with a review environment.

Description of work

5.7.1 Identify suitable communication tools as platform components. This task has essentially been finished by Month 11, but will be continued as new technological solutions become available.

5.7.2 Create the communication platform based on user-defined and selected components.

5.7.3 Setup open review environment for software tools and resources.

Components

C5.51 (Formerly D5.2.4.1) Draft list of suitable communication/ workgroup tools for platform environment (Month 14)

C5.52 Open review environment for software tools and resources available (Month 14)

Milestones and expected result

M5.19 Communication components available for platform (Month 29)

5.8 Publication support as a platform component

Work package number	5	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Erect a structure to support online and print publications for taxonomic data.
- Work closely with WP6 and other related projects or efforts.

Description of work

5.8.1 Review example documents (tagged monographs) delivered by WP6.

5.8.2 Develop web monograph pilot system.

5.8.3 Specification of data flow within rapid publication platform.

5.8.4 Implement publication data store (preferably based on existing platform components).

5.8.5 Rapid publication platform.

Components

C5.53 Deliver pilot system software (Month 15)

Milestones

None

5.9 Specimen access as a platform component

Work package number	5	Start date or starting event:	12
Activity Type	Other specific activities		

Objectives

- Integrate specimen access according to taxonomist's needs into the Platform

Description of work

5.9.1 Define specimen access interface for taxonomists.

5.9.2 Implement access interface for taxonomists.

Components

None

Milestones

None

2.6 Workpackage 6: Unifying Revisionary Taxonomy

Leader: NHML, Dave Roberts

Work package number		6		Start date or starting event:				4		
Activity Type				Other specific activities						
Participant id				CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:				0	5	0	0	0	0	0
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN	
0	58.5	80	27.8	0	0	2	1	0	0	
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM	
0	0	0	0	0	0	0	0	0	0	

Objectives

- Define and develop the means to provide access to the currently highly fragmented taxonomic information source.
- Formalise distributed, taxon-specific committees to lead expert networks for demonstrator taxa.
- Define what is needed from the cyber-environment for taxonomic Web content to be delivered.
- Assess barriers to implementation.

Description of work

6.0 Integration with other workpackages

- Coordinate activities in WP6 with other work packages to maximise benefit and minimise duplication of effort.
- Define areas of responsibility within an overall EDIT strategy.

6.1 Content, structure and presentation

- Design structure and plan content for exemplar web-revisions. Select target taxa (informed by Activity 3), including those where new knowledge needs to be created.

6.2 Define what is needed from the cyber-environment

- Working closely with WP Berlin, describe specific needs of the IT environment to deliver taxonomic content for a web revision.
- Assess and determine requirements of the Web interface to maximise access to content.
- Investigate and recommend means by which Web-content can be updated regularly to provide current taxonomic content for users.
- Assess the best model for managing taxonomic revisions in the Web-environment (centralised or distributed).

6.3 Community structuring and expert taxonomic networks

- Investigate mechanisms to develop taxonomic or regional communities 1) to promote an agenda for unifying European effort in revisionary Web-based taxonomy; 2) to provide the committed team to update and revise the web-located taxon information node under their

charge.

- Derive general methods of implementation for all taxa. Promulgate, through NoE leadership, the management system beyond the Network so as to engage the taxonomic community across and beyond Europe (European leadership to encourage global partnership).
- Encourage community ownership and responsibility for sustaining products.

6.4 Publication within the Web-environment

- Examine ways of crediting content-contributing taxonomists and their institutions for publishing their work in cyber-space and as part of networks.
- Investigate means of developing an effective system of peer review for Web revisions.
- Explore and promote resolution of protecting intellectual property while encouraging open access.
- Identify content of International Codes of Nomenclature that conflict with Web-publication and promote means of resolution.
- Compare strengths and weaknesses of paper- and Web-based system (fixed versus fluid systems), notably data storage and the addition of new data. Explore possibility of the dual medium for taxonomy.
- Explore different models for Web-revision information access: centralised or distributed.

Components²⁰

- C6.0. Areas of responsibility outlined and made available on WP6 web site (Month 18).
 C6.1 Content structure provided for each demonstrator taxa and commonalities assessed (Month 13).
 C6.2 Preliminary websites set up for demonstrators and guidelines for data creators to interface (Month 18).
 C6.3. Exemplar networks and committees created and their roles defined (Month 18).
 C6.4 Set agenda for report on Web-publication and accreditation and IPR issues (Month 24).
 C6.5 To mark up 3 test manuscripts with XML for data mining (Month 15)
 C6.6 To investigate a web interface to the Data Warehouse (Month 24)
 C6.7 To migrate the contents of the scratchpads to the Communication Tool (Month 29)
 C6.8 Establish scratchpad sites to evaluate potential applications. (Month 13)

Milestones

- M6.0 to develop a common work plan with WP5 (Month 18)
 M6.4 Workshop to discuss content structure and Web-interface (Month 13)
 M6.5 Interim statements from networks for agreed demonstrator taxa (Month 12)
 M6.6 Workshop on web publication issues and IPR (Month 16).
 M6.7 to establish a common work plan with WP2 (Month 17)
 M6.8 to establish a common work plan with WP3 (Month 17)
 M6.9 to establish a common work plan with WP7 (Month 21)
 M6.10 Offer community web services with the objective of developing identifiable taxonomic communities (Month 14)
 M6.11 Assess XML mark-up mechanisms to capture electronic content (Month 15)
 M6.12 Present preliminary content structure and interface of Palmweb at EUNOPS (European Network of Palm Scientists) meeting in Paris and receive feedback (Month 16)
 M6.13 Offer Cichorieae community first prototype of a user interface (Month 18)
 M6.14 Refine content structure and interface of Palmweb, and make public (Month 18)
 M6.15 First version of the content structure of the *Milichiella* (Diptera: Milichiidae) web revision (Month 18)
 M6.16 First version of the content structure of the Cichorieae web revision (Month 25)

²⁰ Components are not part of the EC Contract n°018340.

- | |
|---------------------------------------------------------------------------|
| M6.17 Scratchpad developers workshop (Month 19) |
| M6.18 To include two taxa into EDIT beyond the exemplar groups (Month 18) |
| M6.19 Workshop of the Cichorieae expert taxonomic network (Month 22) |
| M6.20 Define mechanism for community contribution to Palmweb (Month 22) |
| M6.21 Workshop of the Palm expert taxonomic network (Month 28) |
| M6.22 Workshop of the Lepidoptera expert taxonomic network (Month 18) |

6.0 Integration with other workpackages

Work package number	6	Start date or starting event:	4
Activity Type	Other specific activities		

Objectives

- Coordinate activities in WP6 with other work packages to maximise benefit and minimise duplication of effort.
- Define areas of responsibility within an overall EDIT strategy.

Description of work

- 6.0.1** To agree a general project architecture with WP5 and identify responsibilities for elements with it.
- 6.0.2** To engage with WP2 over the formation of taxonomic communities.
- 6.0.3** To engage with WP3 to identify the elements of the taxonomic backbone in the core data structures.
- 6.0.4** To engage with WP7 to identify the information needs of the biodiversity assessment community.

Components

C6.0. Areas of responsibility outlined and made available on WP6 web site (Month 18).

Milestones and expected result

- M6.0 to develop a common work plan with WP5 (Month 18)
- M6.7 to establish a common work plan with WP2 (Month 17)
- M6.8 to establish a common work plan with WP3 (Month 17)
- M6.9 to establish a common work plan with WP7 (Month 21)

6.1 Content development and expert taxonomic networks

Work package number	6	Start date or starting event:	4
Activity Type	Other specific activities		

Objectives

- To define content expected in Web revisions.
- To design a content structure for displaying the results of revisionary taxonomy in a Web-environment.
- To encourage creation of further expert networks of taxonomists to add to target taxa.
- To populate the Data Warehouse.

Description of work

6.1.1 Design content structure for Taxonomic Data Warehouse in a unified Web environment for demonstrator taxa (e.g., Lepidoptera (butterflies and moths), Monocotyledonae, Compositae) and

include results in model of taxonomic work process developed in WP5.

6.1.2 Develop a system to capture revisionary content elements from various distributed sources and integrate them in the Data Warehouse. This will be carried out in close association with WP5.

6.1.3 Link with WP2 to highlight further key groups from analysis of expert base.

6.1.4 Develop content to engage taxonomists outside the exemplar networks.

Components

C6.1. Content structure provided for each demonstrator taxon and commonalities assessed (Month 13).

C6.5 To mark up 3 test manuscripts with XML for data mining (Month 15)

C6.6 To investigate a web interface to the Data Warehouse (Month 24)

C6.7 To migrate the contents of the scratchpads to the Communication Tool (Month 29)

Milestones and expected result

M6.4 Workshop to discuss content structure and Web-interface (Month 13). [was commonalities, M6.2 & M6.3]

M6.10 Offer community web services with the objective of developing identifiable taxonomic communities (Month 14).

M6.11 Assess XML mark-up mechanisms to capture electronic content (Month 15)

M6.12 Present preliminary content structure and interface of Palmweb at EUNOPS (European Network of Palm Scientists) meeting in Paris and receive feedback (Month 16)

M6.13 Offer Cichorieae community first prototype of a user interface (Month 18)

M6.14 Refine content structure and interface of Palmweb, and make public (Month 18)

M6.15 First version of the content structure of the Milichiella (Diptera: Milichiidae) web revision (Month 18)

M6.16 First version of the content structure of the Cichorieae web revision (Month 25)

6.2 Define what is needed from the cyber-environment

Work package number	6	Start date or starting event:	4
Activity Type	Other specific activities		

Objectives

- Ensure content is integrated with cyber production platform from WP5 to enable taxonomic content to be delivered in format for a web revision

Description of work

6.2.1 Work closely with WP5 to define taxonomic content requirements for the tools to be made available in the cyber-platform.

6.2.2 Assess and determine requirements of Web interface to maximise access to content.

6.2.3 Investigate and recommend means by which Web-content can be updated regularly to provide current taxonomic content for users.

6.2.4 Assess possibility of creating web revisions from distributed sources dynamically.

6.2.5 Data mining for terms to be used in production of identification keys.

6.2.6 Develop the dynamic synthesis of web revisions from the Data Warehouse for delivery to web users.

6.2.7 Work with WP5.3 to harmonise community bibliographies.

Components

C6.2 Preliminary websites set up for demonstrator taxa and guidelines for data creators to interface (Month 18)

C6.8 Establish scratchpad sites to evaluate potential applications. (Month 13)

Milestones

None

6.3 Community structuring by management committees and expert taxonomic networks

Work package number	6	Start date or starting event:	4
Activity Type	Other specific activities		

Objectives

- | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> To set up, for unifying revisionary taxonomy: <ul style="list-style-type: none"> -Expert taxonomic networks on demonstrator data -Nucleate taxonomic communities |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Description of work

<p>6.3.1 Provide model for taxon management committees (expert networks) and their functioning (e.g., from taxonomic society membership and cross-connect with taxonomic institutions to promote an agenda for unifying European effort in revisionary Web-based taxonomy).</p>

<p>6.3.2 Derive general methods of implementation for all taxa. Promote, through NoE leadership, the management system beyond the Network so as to engage the taxonomic community across and beyond Europe: European leadership to encourage global partnership.</p>

<p>6.3.3 Encourage community ownership and responsibility for sustaining products.</p>

<p>6.3.4 To offer a web platform (a scratchpad) to any community requesting one. This will be built from available technology and will be migrated to the Communication Tool to be developed in WP5.</p>

Components

C6.3 Exemplar networks and committees created and their roles defined (Month 18)

Milestones

M6.5 Interim statements from networks for agreed demonstrator taxa (Month 12)

M6.17 Scratchpad developers workshop (Month 19)

M6.18 To include two taxa into EDIT beyond the exemplar groups (Month 18)

M6.19 Workshop of the Cichorieae expert taxonomic network (Month 22)

M6.20 Define mechanism for community contribution to Palmweb (Month 22)

M6.21 Workshop of the Palm expert taxonomic network (Month 28)

M6.22 Workshop of the Lepidoptera expert taxonomic network (Month 18)

6.4 Publication within the web-environment

Work package number	6	Start date or starting event:	4
Activity Type	Other specific activities		

Objectives

- | |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> Explore and suggest means of resolving barriers to publication within the web-environment |
|---------------------------------------------------------------------------------------------------------------------------------------------|

Description of work

6.4.1 Explore mechanisms to credit taxonomists and institutions for publishing taxonomy in cyberspace

and as members of networks.

6.4.2 Explore means of protecting intellectual property while encouraging open access.

6.4.3 Identify content of International Codes of Nomenclature that may conflict with web-publication and promote means of resolution

Components

C6.4 Set agenda for report on Web-publication and accreditation and IPR issues (Month 24)

Milestones and expected result

M6.6 Workshop on web publication issues and IPR (Month 16)

2.7 Workpackage 7: Applying Taxonomy to Conservation

Leader: SMNS, Christoph Häuser

Work package number		7		Start date or starting event:				0		
Activity Type				Other specific activities						
Participant id				CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:				15	2	10	2	1	6	
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN	
0	5	6	4	42	4	6	8	4	4	
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM	
10	10	4	1	2	1	1	3	2	3	

Objectives

- Raise public awareness and strengthen utilisation of European capacities for end users of taxonomic information in biodiversity conservation, particularly for biodiversity inventories, assessments, and monitoring
- Mobilise and integrate European taxonomic expertise for undertaking and contributing to biodiversity inventories, assessments, and monitoring, especially in areas of conservation concern
- Develop and refine standards, techniques and tools for both rapid and repeated all taxa biodiversity inventories and monitoring (ATBI+M) programs, also for world wide application
- Establish a European ATBI+M task force for conducting biodiversity inventories, assessments and monitoring both within and outside Europe
- Provide and update comprehensive biodiversity inventories as a sound baseline for monitoring of selected areas of conservation concern, especially towards the 2010 target

Description of work

7.1 Assessing biodiversity inventory and monitoring needs, evaluating relevant taxonomic capacities, and raising stakeholder awareness

7.2 Mobilising taxonomic resources and establishing the ATBI+M task force network

7.3 Developing standards, protocols, and tools for conducting an ATBI+M program

7.4 Operating the ATBI+M task force and evaluating relevant methods and techniques

7.5 Sustaining the European ATBI+M task force and long term study sites

Components²¹

C7.3 Agreements for participation in ATBI+M task force and for operation of ATBI+M pilot sites (Month 14)

C7.1.2 Inventory and monitoring needs & capacity assessment (Month 20)

²¹ Components are not part of the EC Contract n°018340.

C7.1.3 Data on taxonomic experts from first ATBI+M activities entered in WP2 information service (Month 29, but still has to be discussed with WP2/WP5)

C7.2.1 Establishment of at least two ATBI+M pilot sites in Europe (Month 22)

C7.2.2 Web-based communication forum for integration of individual participants for each ATBI+M site (Month 20)

C7.2.3 Establishment of up to two further European ATBI+M sites (Month 28)

C7.2.4 Establishment of a first extra-European ATBI+M site (Month 26)

C7.3.1 Documentation of selected target taxa and recommended inventory techniques for ATBI+M pilot sites (Month 25)

C7.3.2 Workshop on ATBI+M field recording techniques and protocols (Month 15)

C7.3.3 Online presentation of results from field work at first ATBI+M pilot sites (Month 24)

C7.3.4 Report on usability of GIS ATBI map visualization tools for ATBI scientists and stakeholders (Month 25)

C7.4.1 Report of first field sessions of ATBI+M teams at established pilot sites (Month 23)

C7.4.2 Baseline species inventory lists for established ATBI+M European pilot sites (Month 23)

C7.4.3 Report on first monitoring activities at established European ATBI+M pilot sites (Month 29)

C7.4.4 Report of first field sessions of ATBI+M teams at established extra-European pilot sites (Month 23)

C7.5.1 Criteria for the review of ATBI+M procedures (Month 24)

C7.5.2 Status report of additional funding opportunities for operation of established/planned ATBI+M sites (Month 25)

M7.5.4 First "summer school" training courses conducted at European ATBI+M sites (Month 29 - August 2008)

Milestones

M7.5 Preliminary data repositories for ATBI+M work established (Month 12)

M7.1.1 Liaison group with European GTI National Focal Points established (Month 20)

M7.1.2 Workshop for presenting first ATBI+M results to conservation managers and stakeholders (Month 24/26, indeed)

M7.2.1 Workshop for taxonomic assessment teams for ATBI+M sites (Month 10 – Month 12)

M7.2.2 Code of best practice for conducting taxonomic field work (ATBI+M work) (Month 20)

M7.2.3 Prototype for web-based communication forum for individual participants of ATBI+M sites launched (Month 14)

M7.3.1 Template lists for recording species at ATBI+M pilot sites provided from stakeholder databases (Fauna Europaea, Euro + MedPlant, ERMS, Species2000) (Month 14)

M7.3.2 Connection of ATBI+M data repository to GBIF established (Month 18)

M7.3.3 Upload/integrate data subsets from first European ATBI+M pilot sites into data repository (Month 22)

M7.3.4 Demonstrator of map tools for ATBI+M sites available (Month 24)

M7.4.1 Field sessions at established ATBI+M pilot sites conducted (Months 14 - 20)

M7.4.2 First monitoring activities at established European ATBI+M pilot sites conducted (Month 24-30)

M7.4.3 Field sessions at first extra-European ATBI+M pilot sites conducted (Month 22 – 29)

M7.4.4 Adoption of ATBI+M datasets for biodiversity conservation management tools (> Month 29)

M7.5.1 Distribution of preliminary ATBI+M results for feed back from user communities (Month 24)

M7.5.2 Assistance with outline, curriculum and logistics for first "summer school" training course(s) at European ATBI+M pilot sites (Month 20)

M7.5.3 Logistics prepared for first "summer school" training course(s) at European ATBI+M pilot sites (Month 24)

M7.5.4 Application of ATBI+M review criteria for operational European ATBI+M sites (Month 30)

7.1 Assessing biodiversity inventory and monitoring needs, evaluating relevant taxonomic capacities, and raising stakeholder awareness

Work package number	7	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Raise public awareness and strengthen utilisation of European capacities for end users of taxonomic information in biodiversity conservation, particularly for biodiversity inventories, assessments, and monitoring
- Strengthen and support conservation planning and management in Europe, particularly towards successfully implementing Natura2000
- Mobilise and integrate European taxonomic expertise for undertaking and contributing to biodiversity inventories, assessments, and monitoring, especially in areas of conservation concern

Description of work

7.1.1 Raise awareness, assess needs, and promote the establishment of an ATBI+M task force

7.1.2 Assess current levels of biodiversity inventories and monitoring for selected areas of special conservation concern (including possible ATBI+M pilot sites)

7.1.3 Assess taxonomic capacities and resources available in Europe for operation of an ATBI+M task force

7.1.4 Support implementation of the Global Taxonomy Initiative (GTI) in Europe

7.1.5 Extending the ATBI+M network and EDIT partnership

Components

C7.1.2 Inventory and monitoring needs & capacity assessment (Month 20)

C7.1.3 Data on taxonomic experts from first ATBI+M activities entered in WP2 information service (Month 29)

Milestones

M7.1.1 Liaison group with European GTI National Focal Points established (Month 20)

M7.1.2 Workshop for presenting first ATBI+M results to conservation managers and stakeholders (Month 24/26)

7.2 Mobilising taxonomic resources and establishing the ATBI+M task force network

Work package number	7	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Mobilise and integrate European taxonomic expertise for undertaking and contributing to biodiversity inventories, assessments, and monitoring, especially in areas of conservation concern

Description of work

7.2.1 Develop criteria, guidelines and agreements for operation of ATBI+M task force and pilot sites

7.2.2 Establish and integrate taxonomic assessment teams for ATBI+M task force

7.2.3 Establishment of ATBI+M pilot sites in Europe

7.2.4 Establishment of ATBI+M pilot sites in biodiversity-rich Developing Countries

Components

C7.3 Agreements for participation in ATBI+M task force and for operation of ATBI+M pilot sites (Month 14)

C7.2.1 Establishment of at least two ATBI+M pilot sites in Europe (Month 22)

C7.2.2 Web-based communication forum for integration of individual participants for each ATBI+M site (Month 20)

C7.2.3 Establishment of up to two further European ATBI+M sites (Month 28)

C7.2.4 Establishment of a first extra-European ATBI+M site (Month 26)

Milestones

M7.2.1 Workshop for taxonomic assessment teams for ATBI+M sites (Month 10 – Month 12)

M7.2.2 Code of best practice for conducting taxonomic field work (ATBI+M work) (Month 20)

M7.2.3 Prototype for web-based communication forum for individual participants of ATBI+M sites launched (Month 14)

7.3 Developing standards, protocols, and tools for conducting an ATBI+M programme

Work package number	7	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Mobilise and integrate European taxonomic expertise for undertaking and contributing to biodiversity inventories, assessments, and monitoring, especially in areas of conservation concern.
- Develop and refine standards, techniques and tools for both rapid and repeated all taxa biodiversity inventories and monitoring (ATBI+M) programs, also for world wide application.

Description of work

7.3.1 Selection of target taxa for ATBI+M and recording techniques and protocols

7.3.2 Establish data repositories for ATBI+M teams and sites

7.3.3 Innovative tools for data access and data exchange (Month 18)

7.3.4 Specification, data provision and testing of GIS-tools for ATBI+M needs

Components

C7.3.1 Documentation of selected target taxa and recommended inventory techniques for ATBI+M pilot sites (Month 25).

C7.3.2 Workshop on ATBI+M field recording techniques and protocols (Month 15)

C7.3.3 Online presentation of results from field work at first ATBI+M pilot sites (Month 24)

C7.3.4 Report on usability of GIS ATBI map visualization tools for ATBI scientists and stakeholders (Month 25)

Milestones

M7.5 Preliminary data repositories for ATBI+M work established (Month 12)

M7.3.1 Template lists for recording species at ATBI+M pilot sites provided from stakeholder databases (Fauna Europaea, Euro + MedPlant, ERMS, Species2000) (Month 14)

M7.3.2 Connection of ATBI+M data repository to GBIF established (Month 18)

M7.3.3 Upload/integrate data subsets from first European ATBI+M pilot sites into data repository

(Month 22)

M7.3.4 Demonstrator of map tools for ATBI+M sites available (Month 24)

7.4 Operating the ATBI+M task force and evaluating relevant methods and techniques

Work package number	7	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Develop and refine standards, techniques and tools for both rapid and repeated all taxa biodiversity inventories and monitoring (ATBI+M) programs, also for world wide application.
- Establish a European ATBI+M task force for conducting biodiversity inventories, assessments and monitoring both within and outside Europe.

Description of work

7.4.1 Conduct ATBI+M approach at selected terrestrial and/or marine pilot sites in Europe

7.4.2 Conduct ATBI+M approach at selected terrestrial and/or marine pilot sites in biodiversity-rich developing countries

7.4.3 Testing and application of innovative information management tools for biodiversity conservation (>M 24)

Components

C7.4.1 Report of first field sessions of ATBI+M teams at established pilot sites (Month 23)

C7.4.2 Baseline species inventory lists for established ATBI+M European pilot sites (Month 23)

C7.4.3 Report on first monitoring activities at established European ATBI+M pilot sites (Month 29)

C7.4.4 Report of first field sessions of ATBI+M teams at established extra-European pilot sites (Month 29)

Milestones

M7.4.1 Field sessions at established ATBI+M pilot sites conducted (Months 14 - 20)

M7.4.2 First monitoring activities at established European ATBI+M pilot sites conducted (Month 24-30)

M7.4.3 Field sessions at first extra-European ATBI+M pilot sites conducted (Month 22 – 29)

M7.4.4 Adoption of ATBI+M datasets for biodiversity conservation management tools (> Month 29)

7.5 Sustaining the European ATBI+M task force and long term study sites

Work package number	7	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Provide and update comprehensive biodiversity inventories as a sound baseline for monitoring of selected areas of conservation concern, especially towards the 2010 target.
- Strengthen and support conservation planning and management in Europe, particularly towards successfully implementing Natura2000.

Description of work

- 7.5.1 Outreach and capacity building for ATBI+M approach
- 7.5.2 Review efficiency and performance of ATBI+M task force and sites (>M18)
- 7.5.3 Develop long-term organisational structure(s) for sustaining ATBI+M task force and site management (>M24)
- 7.5.4 Explore additional funding opportunities for ATBI+M activities (>M12)

Components

- C7.5.1 Criteria for the review of ATBI+M procedures (Month 24).
- C7.5.2 Status report of additional funding opportunities for operation of established/planned ATBI+M sites (Month 25)
- C7.5.3 First "summer school" training courses conducted at European ATBI+M sites (Month 29 - August 2008)

Milestones

- M7.5.1 Distribution of preliminary ATBI+M results for feed back from user communities (Month 24)
- M7.5.2 Assistance with outline, curriculum and logistics for first "summer school" training course(s) at European ATBI+M pilot sites (Month 20)
- M7.5.3 Logistics prepared for first "summer school" training course(s) at European ATBI+M pilot sites (Month 24). (December 2007)
- M7.5.4 First "summer school" training courses conducted at European ATBI+M sites (Month 29 - August 2008)
- M7.5.5 Application of ATBI+M review criteria for operational European ATBI+M sites (Month 30)

2.8 Workpackage 8: Training and Public Awareness

Leader: RBINS, Jackie van Goethem

Work package number		8		Start date or starting event:				0	
Activity Type			Other specific activities						
Participant id			CDC	MNHN	UKBH	CSIC-MINCN	UvA	NHN	NNM
Person-months per participant:			3	1	1	2	1	1	
CBS	FUB-BGBM	NHML	RBGK	SMNS	RBINS	RMCA	NBGB	MIZPAN	IBPAN
1	1	2	6	4	36	9	9	1	1
HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM
1	1	3	1	1	1	1	1	1	1

Objectives

General

Transfer knowledge between current and future generations of taxonomists
 Spread this knowledge by streamlining the training offer in Europe and establishing an integrated training programme (DEST : Distributed European School of Taxonomy)
 Month 11 till Month 29

A. Training

Assess European strengths and weaknesses in the current offer of training in taxonomy;
 Improve dissemination of information on training opportunities;
 Promote collaboration between training providers and encourage them to participate into DEST;
 Establish mechanisms for integration of training resources into DEST;
 Develop student and professional access to the DEST and provide opportunities for training;

B. Public Awareness

Raise public awareness on key issues in taxonomy
 Sustain PR activities of EDIT
 Integrate EDIT partners staff devoted to the disseminating of scientific knowledge

Description of work

- 8.1 Assessment of the training resources for taxonomy in Europe
- 8.2 Mobilisation of European training providers into the Distributed European School of Taxonomy
- 8.3 Establishment of pilot schemes for integration
- 8.4 Implementation of the Distributed European School of Taxonomy
- 8.5 Public awareness for the promotion of taxonomy

Components²²

- C8.1.1 Report on existing training resources for taxonomy in Europe (Month 20)
- C8.1.2 Report on gap analysis on training resources and needs in Europe and globally, with recommendations on priorities (Month 20).
- C8.1.3 On-line catalogue of training resources for taxonomy (Month 20)
- C8.2.1 Strategy for mobilising training providers (Month 13)
- C8.2.2 Report on the elaboration of a draft course prospectus for the DEST (Month 22)
- C8.3.1.1 Outline and curriculum for first "summer school" training course(s) at European ATBI+M pilot sites (Month 23)
- C8.3.1.2 Report on the first Summer School (Month 29+)
- C8.3.2 Interim report on the pilot expert in training programme (Month 29)
- C8.4.1 Progress report on the draft course prospectus to the BoD (Month 26)
- C8.4.2 Final text of the draft course prospectus, ready for its consideration by the BoD (Month 29)
- C8.5.1 Overview of existing taxonomy-based education programmes in NHM and BG and recommendations for all EDIT partners (Month 22)
- C8.5.2 Report on "How to communicate taxonomy?" with best practices and success stories useful for the PR strategy (WP1) (Month 26)
- C8.5.3 Work programme for designing common public awareness activities at the 2010 horizon concerning all EDIT partners (Month 29)

Milestones

- M8.1 Inventory of training resources and gap analysis are finalised (Month 15)
- M8.2 First Meeting of committee of training providers willing to participate in the DEST (Month 24)
- M8.3 Expert-in-training programme is operational (Month 24)
- M8.4 First Summer School is conducted at European ATBI+M sites in liaison with WP7 (Month 29)
- M8.5 Selection of participants for a workshop on "How to communicate taxonomy?" (Month 22)
- M8.6 Workshop on "How to communicate taxonomy?" (Month 24)

8.1 Assessment of training resources for taxonomy in Europe

Work package number	8	Start date or starting event:	Month 0
Activity Type	Other specific activities		

Objectives

- Evaluate European strengths and weaknesses in the current offer of training in taxonomy

Description of work**8.1.1 Listing of training resources provided by EDIT and non-EDIT training providers****8.1.2 Evaluation of the gaps and needs for training, including short-term priorities****8.1.3 On-line catalogue of training resources for taxonomy**

The inventory will not only include basic courses on taxonomy and systematics, but also courses that view taxonomy within the wider context of biodiversity and conservation ecology.

The evaluation will target the type of training (from Masters' degree to summer schools and one-day workshops), type of institutions, content of courses, targeted audience, granting availability, etc. All categories of people, including technicians and parataxonomists, having needs to be trained in taxonomy will be taken into account.

Activities will include a survey of existing websites and reports, as well as contacting EDIT and non-EDIT institutions, via questionnaires and interviews. They will be carried out in close cooperation with

²² Components are not part of the EC Contract n°018340.

operation 2.1. 'Information service on taxonomic experts and expertise' and operation 4.2. 'Scientific alertness: prospecting new and emerging opportunities' (i.e. the 'alertness group').
An online catalogue of existing training resources will be made available on the EDIT website. The catalogue will be regularly updated.

Components

C8.1.1 Report on existing training resources for taxonomy in Europe (Month 20).

C8.1.2 Report on gap analysis on training resources and needs in Europe and globally, with recommendations on priorities (Month 20). [Links with WP2 and expertise to be formalised]

C8.1.3 On-line catalogue of training resources for taxonomy (Month 20). [This catalogue will be regularly updated with new information — Link with WP1 and website aspects.]

Milestones and expected result

M8.1 Inventory of training resources and gap analysis are finalised (Month 15)

8.2 Mobilisation of training providers into the Distributed European School of Taxonomy

Work package number	8	Start date or starting event:	Month 6
Activity Type	Other specific activities		

Objectives

- Promote collaboration between training providers and encourage them to participate in the DEST, with the view to establish mechanisms for integration of training resources.

Description of work

8.2.1

- Establishment of a strategy for mobilising training providers (EDIT and non-EDIT partners) into the Distributed European School of Taxonomy (DEST) [Link with BoD and WP1]
- Identification of training providers interested in participating in the DEST

8.2.2

- Launch of a call for the mobilization of training providers; [Link with BoD and WP1]
- Establishment of committee of training providers (members, mandate, identify terms of reference, etc.)
- Identification of ways and means for integration, including the application of the Bologna agreement and the way doctoral schools are organised in different countries.

8.2.3

- Organisation of the First Meeting of the committee of training providers to adopt general principles of integration and discussions on a draft course prospectus (curriculum, process for student participation, recognition and accreditation of the courses, etc.); [Back-to-back with other meetings of EDIT and SBSTTA in Paris, July 2007?]
- Organisation of the Second Meeting of the committee of training providers, to review and finalise the decisions taken during the First Meeting. [Back-to-back with the workshop on how to communicate taxonomy? See 8.5].

Activities will involve consultations with course managers within EDIT and beyond, the investigation of training initiatives in other countries (e.g. US PEET programme), the investigation of means of integrating training and of current structures (Bologna agreement, Open University, Ecole des Métiers), the negotiation of conditions for integration. Operation 8.2.1. will be carried out in parallel with operations 8.1.1 and 8.1.2. (Assessment of training resources). Operation 8.2.3. will work in close links with the Board of Directors.

Components

C8.2.1 Strategy for mobilising training providers (Month 13)

C8.2.2 Report on the elaboration of a draft course prospectus for the DEST (Month 22)

Milestones

M8.2 First Meeting of committee of training providers willing to participate in the DEST (Month 24)

8.3 Pilot schemes for integration

Work package number	8	Start date or starting event:	Month 3
Activity Type	Other specific activities		

Objectives

- Develop student and professional access to the EST and provide opportunities for training.

Description of work**8.3.1 Summer school programme**

The development of a summer school programme will add a special value to the DEST. It will also serve as a flagship initiative to increase the student's interest in taxonomy and raise the awareness of the general public.

Summer school programme will combine theoretical topics and fieldwork. In view of this, the focus of the taxon-oriented pilot course would be general topics on taxonomy and field related items. [The summer school activities will be linked with WP7 ATBI+M.]

8.3.2 Pilot 'expert-in-training' programme

The pilot 'expert-in-training' programme will build on existing experiences (e.g. PEET, doctoral schools). Based on the concept of 'traineeship', the programme will combine both on and off the job training. Therefore, the acquisition of skills will allow students to become aware of the diversity of research through practical experiences and hands-on training. The sharing of experiences will be made possible through EDIT's web portal.

Components

C8.3.1.1 Outline and curriculum for first "summer school" training course(s) at European ATBI+M pilot sites (Month 23)

C8.3.1.2 Report on the first Summer School (Month 29+)

C8.3.2 Interim report on the pilot expert in training programme (Month 29)

Milestones and expected result

M8.3 Expert-in-training programme is operational (Month 24)

M8.4 First Summer School is conducted at European ATBI+M sites in liaison with WP7 (Month 29)

8.4 Implementation of EDIT's Distributed European School of Taxonomy

Work package number	8	Start date or starting event:	Month 21
Activity Type	Other specific activities		

Objectives

- Model curriculum of Distributed European School of Taxonomy (DEST) is established

Description of work**8.4.1. Integration of the European training resources into DEST**

Activity 8.4 takes the relay of Activity 8.2. After the mobilization of training providers and the discussions on a draft course prospectus in 8.2., the 8.4 activity aims to finalise the proposal and submit it to the Board of Directors. This ‘final draft’ course prospectus will include the list of courses, conditions for participation, certification and accreditation of the courses, granting possibilities, online study resources, etc.. Taking into account the time needed for the participatory processes, this task will strive to achieve a draft agreement and to define the conditions allowing the signature of a formal agreement. Activity 8.4. will also plan the practical implementation of the DEST. Most of the implementation work will be carried out in EDIT’s phase III.

[Activity 8.4 will involve the same partners as in 8.2 + all EDIT members will be able to take part to the implementation phase]

Components

C8.4.1 Progress report on the draft course prospectus to the BoD (Month 26)

C8.4.2 Final text of the draft course prospectus, ready for its consideration by the BoD (Month 29)

8.5 Public Awareness for the promotion of Taxonomy

Work package number	8	Start date or starting event:	Month 12
Activity Type	Other specific activities		

Objectives

- Raise public awareness on key issues in taxonomy
- Sustain PR activities of EDIT
- Integrate EDIT partners staff devoted to the disseminating of scientific knowledge

Description of work**8.5.1. Inventory of existing taxonomy-based museum programmes and resources in natural history museums (NHM) and botanic gardens (BG)**

This inventory and qualitative mapping will include galleries content management, temporary exhibition development, description of education programmes, nature workshops (indoor/outdoor), guided tours, conferences and debates etc.

8.5.2 Workshop on communicating taxonomy

Organisation of a workshop on “How to communicate taxonomy?”, including EDIT and non-EDIT experts. Official representatives from Alter-NET and Marbef will be required to transfer experiences already engaged in PA of biodiversity. The workshop targets personnel working in educational and museum departments, or taxonomists in charge of developing education and public awareness activities for their institutions. It will serve to exchange experiences and best practices. It will lead to a report compiling analysis of best practices including a catalogue of examples and a selection of “success stories”.

8.5.3 Planning for the 2010 Biodiversity Year Special Events

The year 2010 has been designated as the international year for biological diversity by the United Nations. It will also be the time when the 2010 targets will have to be evaluated (i.e. ‘halt the loss of biodiversity by 2010). EDIT offers the opportunity to develop synergies and common activities (sharing of content; simultaneous events, co-production, touring, exchanges of products) between the partners and towards non EDIT NHM and Science Centers. As far as possible, the 2010 BYSE will seek to promote a non-already seen use of the specimens from the collections.

Components

C8.5.1 Overview of existing taxonomy-based education programmes in NHM and BG and recommendations for all EDIT partners (Month 22)

C8.5.2 Report on “How to communicate taxonomy?” with best practices and success stories useful for the PR strategy (WP1) (Month 26)

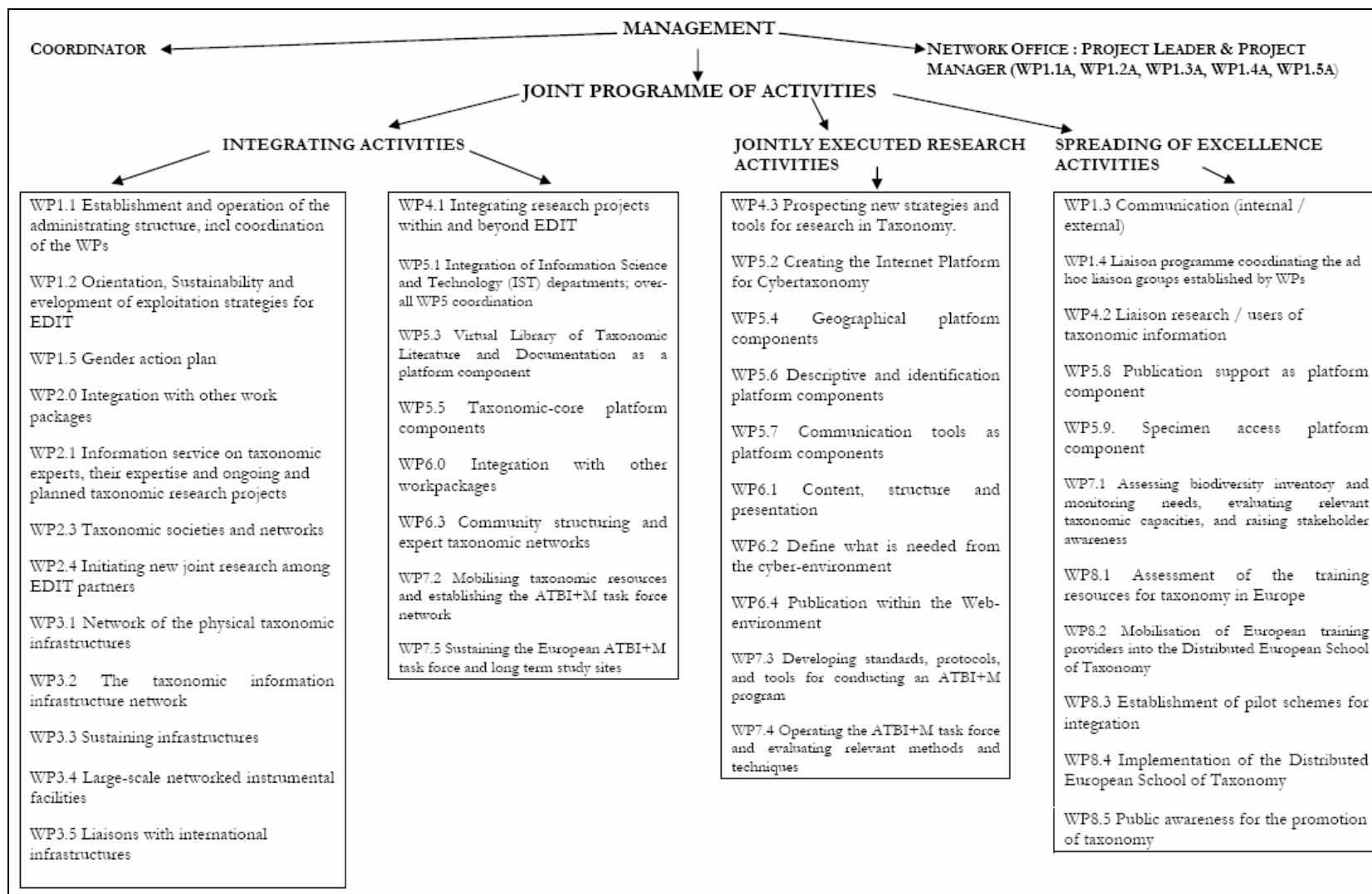
C8.5.3 Work programme for designing common public awareness activities at the 2010 horizon concerning all EDIT partners (Month 29)

Milestones and expected result

M8.5 Selection of participants for a workshop on “How to communicate taxonomy?” (Month 22)

M8.6 Workshop on “How to communicate taxonomy?” (Month 24)

Section 3: Graphical presentation of workpackages



Section 4: Deliverables list

Deliverables list
Joint programme of activities (18 months period, month 11 - 29)

Del. no.	Deliverable name	Lead particip-ant	Nature	Dissemi- nation level	Delivery date (proj. month)
D1	EDIT future operations process	Bertrand-Pierre Galey - MNHN	R	PU	Month 23
D2	Project roadmap	Simon Tillier (MNHN)	R	PU	Month 23
D3	Institutional integration and MoUs	Walter Berendsohn (FUB – BGBM)	R	PU	Month 23
D4	EDIT entity designs	Wouter Los (UVA) / Leo Kriegsman (NNM)	R	PU	Month 25
D5	PR & Communication plan	Simon Mayo (RBGK)	R	PU	Month 23
D6	Changes in collaborative taxonomic work	Henrik Enghoff (UKBH)	R	PU	Month 26
D7	Internet platform draft	Walter Berendsohn (FUB – BGBM)	Web- document	PU	Month 18
D8	User groups analysis	Marian Ramos (CSIC – MNCN)	R	PU	Month 28
D9	Existing taxonomic training resources	Jackie Van Goethem (RBINS)	R	PU	Month 20

Section 5: Indicative budget for the next 18 months²³

Month 12-29 (2nd JPA)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	CDC	MNHN	UKBH	CSIC - MINCN	UvA	NHN	NNM	CBS	FUB -BGBM	NHML	RBGK	SMNS	RBINS	RMCA
Equipment	0	0	0	2 000	3 228	1 076	2 152	0	0	11 639	2 308	3 000	4 800	5 800
Consumables	0	4 440	600	7 500	600	600	600	600	21 000	66 500	600	2 600	7 800	6 600
Workshops and Meetings	0	66 486	20 828	72 791	31 593	20 841	20 784	6 328	54 476	34 232	15 257	63 019	32 838	20 019
Additional Personnel	0	539 220	124 800	224 673	136 029	32 282	103 196	64 565	643 670	566 131	234 291	298 000	144 000	95 500
Subcontracting	0	0	0	0	0	0	8 967	0	0	0	0	0	0	0
Other	122 501	3 600	0	2 000	1 076	0	0	0	0	0	0	0	0	0
To be granted to rel. Activ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total EC endowment	122 501	613 745	146 228	308 964	172 526	54 800	135 699	71 493	719 146	678 502	252 456	366 619	189 438	127 919
In which management	18	19												
PMs	18	137	32	109	55	16	35	58	205	135	93	79	45	45

Month 12-29 (2nd JPA)	15	16	17	18	19	20	21	22	23	24	25	26	27	To be granted to Relevant Partners	Total
	NBGB	MIZPAN	IBPAN	HNHM	CUB	IBSAS	INRA	SMEBD	SP2000	BINRAS	ZINRAS	MO	USNM		
Equipment	0	0	0	0	2 000	0	0	0	0	0	0	0	0	14 000	52 003
Consumables	6 600	1 800	600	1 800	600	600	600	600	600	0	0	0	0	5 000	138 840
Workshops and Meetings	11 438	5 400	2 100	19 357	31 871	8 200	2 853	2 900	5 357	2 600	2 600	0	0	275 119	829 287
Additional Personnel	36 000	13 500	0	40 320	38 052	46 128	3 000	0	0	0	0	0	0	46 800	3 430 157
Subcontracting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8 967
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	60 000	189 177
To be granted to rel. Activ.	0	0	0	0	0	0	0	0	0	0	0	0	0	66 717	66 717
Total EC endowment	54 038	20 700	2 700	61 477	72 523	54 928	6 453	3 500	5 957	2 600	2 600	0	0	467 636	4 715 149
In which management															37
PMs	20	28	6	41	60	36	10	8	6	8	5	4	7	0	1 297

²³ This budget takes into account the funds already transferred and not accepted as eligible cost (=grant available for the second JPA).