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D1 AND D2 EDIT INTEGRATION PROCESS AND ROADMAP 2008-2011

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EDIT INTEGRATION PROCESS AND ROADMAP 2008-2011

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ANNEXES

- Annex 1 - EDIT Future Scoping Group report to the BoD (C1.2.3);
- Annex 2 - Report on possible legal status ;
- Annex 3 - NSC Vision ;
- Annex 4 - BoD working group vision (EDIT beyond 2011 - An institutional vision);
- Annex 5 - Report(s) users/stakeholders incl. Carvoeiro Knowledge Gap - Users of Systematics report
- Annex 6 - Report and recommendations from the Future Trends in Taxonomy Symposium, Carvoeiro (C.4.3.1)
- Annex 7 - Stakeholder engagement in biodiversity and environmental projects (C4.2.1bis);
- Annex 8 - Report from the Leiden Barcode meeting (C3.4.2)
- Annex 9 - PR and Communication plan (D5)
- Annex 10 - D14 1st report on implementation of PR and Communication
- Annex 11 - Avenues for Integration

Acronyms

- ATBI + M All Taxa Biodiversity Inventory + Monitoring
- BoD Board of Directors
- ISTC Information Science and Technology Committee
- NSC Network Steering Committee
- SPG Science Policy Group
- AISBL Association Internationale Sans But Lucratif (Belgium)
- ASBL Association Sans But Lucratif (France)
- BOLD Barcode of Life Database
- CBoL Consortium Barcode of Life
- EoL Encyclopaedia of Life
- FCS Fondation de Cooperation Scientifique (France)
- GBIF Global Biodiversity Information Facility

Please note all modifications appear in italic.

INTRODUCTION

By the beginning of 2008, the process toward durable integration of EDIT member taxonomic institutions is informed:

- in scientific terms, by the report of the EDIT Future Scoping Group (FSG) as presented and endorsed by the Board of Directors at their 4th meeting in January 2008;
- in institutional terms, by the reflection led in parallel by the Network Steering Committee and the Board of Directors, both agreeing that the scientific vision can not be implemented without improved coordination and, whenever possible, integration formalized through multilateral agreements between taxonomic institutions and possibly through a new overarching legal structure whose missions would be delimited through the principle of subsidiarity.

The Future Scoping Group report emphasized that, regarding taxonomy and its products as needed by science and by society, business as usual is not any more an option. The increasing need for taxonomy-based information in an answer to the demand induced by the biodiversity crisis and implies a change in direction of taxonomic research to meet the demand for an ever more profound understanding of the diversity of life on this planet, how it developed and the impact of increasingly destructive human activity including climate change. The load of this change weighs to a large extent on the shoulders of large taxonomic institutions, which have maintained the knowledge, capacities and infrastructures in taxonomy for several centuries, and whose mission it is to maintain them in the future. However, the major institutions control only a small portion of the production itself, which is provided in majority by amateurs and professional scientists outside of these institutions. Integrating this non-institutional production is a most challenging perspective for EDIT.

Progress toward implementation of the scientific vision implies

- integration of access to knowledge on taxa and their properties, at world level;
- integration of access to data (collections, names, various data such as molecular sequences and occurrences), at world level;
- integration of the production of knowledge on taxa, at various levels;
- integration of the production of data, at various levels;
- integration of the expertise force, at various levels;
- integration of training, at various levels;
- **and above all, the development of web based IT tools and facilities at all levels.**

Regarding EDIT (and taxonomic institutions in general), the institutional answer cannot be “one size fits all”, because the level of integration requested and/or possible depends on the matter addressed, and on current achievements. Presently the question of access to knowledge and data is already being addressed globally (GBIF, EoL, etc), and the challenge is organizing local and regional contributions by institutions. The production of data and knowledge, expertise, and training are generally organized locally. We lack integrating mechanisms at local and regional levels to improve the answer to the global demand.

1. TOWARD A COMMON SCIENTIFIC POLICY

Starting from the EDIT Future Scoping Group, whose report is accepted as a common scientific vision (annex 1), the next challenge for EDIT is to elaborate a scientific policy defining the directions for progress towards this vision in the current social and political context. Elaboration of such a strategic plan will in turn lead to defining mechanisms for implementation of this policy and finally to implement it, as far as deemed useful by EDIT member institutions.

PROCESS:

The main change in comparison with the 2008 roadmap is due to delay in constitution and progress of the Science Policy Group, which does not modify essentially the plan. In addition to the SPG, a working group of directors has been constituted to elaborate a few strategic elements upon which EDIT members can agree, and which may serve as a basis for interaction with the SPG.

- 2008 : constitution of the Science Policy Group (BoD, NSC) (key milestone)
- 2009: examination of EDIT members research plans for commonalities (development)
- 2009: director's group on scientific strategy
- 2009: elaboration of a strategy and report to the BoD (development)
- 2010: strategic choices: revisions /inventories, national/EU/international, developing countries, etc (key decisions);
- 2010: further work of the Science Policy Group and production of a strategic plan according to directions defined by the BoD
- 2010: report to BoD (product)
- 2010: strategic plan decision (key decision)
- 2010: decision to maintain or stop the SPG (key decision).
- 2010 – 2011: Science policy group renewed input if decided by the BoD (development)

2. IMPLEMENTING A COMMON POLICY AND INSTITUTIONAL INTEGRATION

Member institutions of EDIT are at the crossroads of two antagonistic actual or preferable directions of integration: one top-down (access to information) and the other bottom-up (creation of information). The present conditions regarding each of the integration domains defined above are so diverse that an overarching decisional structure, prolonging the present Board of Directors, is clearly needed in the long term. Because of the large number of institutions involved, an Executive Committee issued from this Board will probably be necessary (annexes 2, 3 and 4 on institutional vision). Several legal options are open, from the weaker to the stronger:

- proceed through MoUs addressing the different domains of common activities, taking into account the constraints specific to each partner which result in some partners being unable to adhere to such MoUs for some topics;
- using the present CETAF legal structure (AISBL). Pro = existing, little effort needed; con = weak structure, possible financial contribution for common actions limited by law for some partners;
- establish a new AISBL, or an ASBL, with more constraining rules than in the CETAF status. Pro= better designed than CETAF for specific actions; con = same as above;

- establish a foundation, under a legal status allowing injection of public funds as needed for a significant contribution either from some partners, or even directly from some member states if the legal framework is appropriate (eg FCS).

The BoD has decided to pursue the process through ad hoc working group(s) and has established a few principles:

- in the lasting structure all partners will not be committed to participate in all actions (see also Deliverable 3);
- the organisation will not be necessarily the same for all actions : it may be either integrated, or distributed, or delegated to one partner
- some central body will be needed (executive committee)
- an advisory committee, designed to link the institutions and the decision makers, may be adjacent to the Board of Directors, in replacement to the present SAC and Science Policy Group.

PROCESS:

No substantial inflexion in 2008; the directors agreed on nine possible avenues for integration, which will be developed in 2009 either by Directors working groups, or within the workpackages to which they are relevant

- end 2007 : report of the Institutional working group (milestone)
- January 2008: workshop of the BoD on institutional evolution and infrastructures integration (development);
- *January 2009: selection of avenues for integration (product)*
- 2008: MoUs signed (product)
- 2009: MoUs signed (product)
- 2010: decision on the future legal structure (key decision)
- 2011: new legal structure implemented, or overarching MoU, or modification of the CETAF status, as decided by the BoD (product)

3. COORDINATING RESEARCH

The central question in EDIT, which will have to be addressed by the Science Policy Group, is to analyze and select the drivers for research in taxonomy and propose answers which may be adopted in common. To enable increased creation of knowledge, whether driven by curiosity or demand, EDIT is developing the offer for tools and improved infrastructures, which is central in EDIT activities to integrate research, and is developed specifically further. Exchange of researchers, for which a mechanism will be proposed in 2009, and training and recruitment (see 4.3 and 4.4) are part of the process.

3.1 CURIOSITY DRIVEN RESEARCH

The EDIT Future Scoping Group report emphasized the necessity to change from curiosity driven research (aiming at improving classification in relation with the biological and historical causes of diversity), to demand driven research in taxonomy. This is a real cultural and management challenge and appears as a priority.

Adopting this direction as a priority does not imply at all renouncing to curiosity driven, fundamental research in taxonomy. This simply means that EDIT considers that mechanisms to

fund this type of research are established through competitive calls to tender at various levels, both national and European, even though funding for these has clearly fallen below the level of sustainability. This is why so far we consider that the support of EDIT to fundamental research projects should mainly be indirect, through encouraging and supporting formation of groups involving researchers from as many EDIT institutions as possible and able to answer successfully to such calls. However, this position also implies interaction with funding bodies, whether national agencies or international bodies such as the ERA-NET Biodiversa.

PROCESS

In comparison with the 2008 roadmap, the main change in 2009 is the introduction of integrative research grant to counteract the relative lack of grassroots involvement noticed by the SAC

- 2008: Future Trends in Taxonomy Symposium, Carvoeiro (annex 6, see also 5.1) (milestone)
- 2008-2009: elaboration of the research strategic plan (development)
- 2009: report on Research strategy to the NSC and BoD (milestone)
- 2009: call to tender and support to integrative research grants (milestone)
- 2010: analysis of integrative projects and decision on further development (development)
- 2010: decision on strategic plan (key decision)
- 2011: implementation of the strategic plan for research (development)

3.2 DEMAND DRIVEN RESEARCH

Identification of stakeholders and users of taxonomic research is one the most challenging questions raised in EDIT, simply because everyone who uses a species or any taxonomic concept is a user of taxonomy, which implies that potentially everyone is (see also annex.5). In EDIT and in accordance to the call, taxonomic research should be driven by the needs of conservation and of ecosystem and biodiversity research, which is still a very wide scope. This is why EDIT is developing specific activities to identify and map users, and ultimately design mechanisms of interaction.

One difficulty encountered to answer current needs in taxonomic expertise is the time needed to train and hire experts, which cannot be a quick process. For the development of high quality taxonomy, specialisation by taxon is inevitable. However, with very few exceptions, coordinating and shaping research by taxa is possible only in the medium and long term, through coordination of training and recruitment strategies (see 4.2 and 4.3 below); or on a voluntary basis, by offering collaborative tools.

Answering, at least partially, to demand from the conservation community for biodiversity inventories is feasible and is actually developed in EDIT. It is addressed through identification of taxonomic task forces for inventories and through the implementation of pilot ATBI + Ms in preserved areas, the aim being also to create a demand for ATBIs through these exemplar sites.

PROCESS

- Users

- 2008 : Knowledge Gap - Users of Systematics workshop, Carvoeiro (annex 5, see also 5.1) (milestone)

- 2008: 2 workshops with users of names and with users of collections, structured around their demand for taxonomic services (in contrast to by country or profession) : (milestones)
- 2008: Report on social network analysis and bibliometrics to map actors of taxonomy (product)
- 2009: *Summary analysis of user groups and their needs (D8, product)*
- 2010: proposal for mechanisms for lasting cooperation with users and decision of the BoD (milestones)
- 2010-2011: implementation, if BoD decision positive (key decision and development)

- ATBI + Ms

- 2007: start of the ATBI + M Mercantour / Alpi Maritime (development)
- 2008: selection of two more EU sites (key decision)
- 2008: selection of one extra –european pilot site (key decision)
- 2008 and beyond: ATBI + Ms in selected sites (development)
- 2009: task force established (product)
- 2010: decision on maintenance of a task force / ATBI + M activity

3.3 COORDINATION OF CURRENT FIELD RESEARCH PROJECTS

Even prior to detailed examination of research projects of EDIT members, it is clear at least some regions of interest are shared, such as Madagascar, SE Asia, etc. It is easy to organize joint workshops and, without or at very low additional cost, improve the coordination of field taxonomic research by simply integrating as much field work as possible. Madagascar is such a shared region of interest.

PROCESS

For several reasons, cooperation in Madagascar did not progress in 2008 in spite of elaboration of large scale exploratory expeditions: firstly, WP4 operations have been delayed themselves; then, political events in the beginning of 2009 led to cancelling terrestrial operations planned in the spring 2009.

- 2009: *defining ways to improve coordination of research in Madagascar and further process (decision)*
- 2009: *search for commonalities in research plans and activities of EDIT member institutions (development)*
- 2010-2011: *report to BoD (milestone) and decision for further cooperation in regions of common interest (key decision).*

3.4 IT RESEARCH AND DEVELOPMENT

Collections, observations, taxonomic biodiversity monitoring and revisionary taxonomy are based on an extremely complicated information domain that has been extensively investigated by some of the EDIT member Institutions. The results have been instrumental in setting up international networks such as GBIF (the Global Biodiversity Information Facility). They form the base for the EDIT endeavour to create an Internet Platform for Cybertaxonomy that will significantly increase the efficiency of the taxonomic research process. The Common Data Model (CDM) that forms the heart of the Platform is a direct result of more than 15 years of information structure research spearheaded by EDIT Institutions.

PROCESS

- 2008: First version of the CDM-based software suite deployed for EDIT exemplar groups (product)
- 2008: Extensive practical tests (development)
- 2009 (june): Platform presented to international audience at e-Biosphere conference (milestone)
- 2009: Second version of CDM-based is developed (development)
- 2009: PESI [Pan European Species-directories Infrastructure] checklists, i.e. Fauna Europaea, Euro+Med, and European Register of Marine Species, transferred to the EDIT Platform (milestone)
- 2010: Development of exemplar groups using full functionality of EDIT Platform version 2 (development)
- 2010: Coherence of the EDIT Platform for Cybertaxonomy with the LifeWatch Reference Model (development)
- 2010: Preparation for EDIT Platform version 3. Further taxonomic communities joining the EDIT platform (development)
- 2011: EDIT Platform version 3 operational (product)

4. DEVELOPING TOOLS AND MECHANISMS FOR INTEGRATED PRODUCTION OF TAXONOMIC KNOWLEDGE

In agreement with the EDIT Future Scoping Group report, IT developments are central to the renewal of taxonomic science encompassed in EDIT, and actually represent 46% of the total indicative budget over five years. In terms of strategy, this large investment is based on the observation that, in the implementation of the integrated flows and management of taxonomic knowledge as described above and foreseen in the Future Scoping Group report, the creation of taxonomic knowledge, i.e. research based products, is not supported by any other existing funded project or programme. Indeed projects funded by the EC (such as presently PESI), by intergovernmental mechanisms (such as GBIF) or by private funds (such as CBoL or EoL) support management and dissemination of existing taxonomic knowledge and data, but most generally do not support the creation of the knowledge and data which they aim at disseminating. Creating taxonomic knowledge through research is a mission of taxonomic institutions. EDIT as a consortium of taxonomic institutions considers that enhancing taxonomic production through research based on IT tools is its first, and specific, priority¹.

Popularising collaborative IT tools on the web on a large scale, which is the objective and the principal integrating tool for taxonomic research in EDIT, has deep cultural and social implications: first in the way the expert and expertise force is constituted and functions, and beyond this in the way new generations of taxonomists are trained.

4.1 IT DEPARTMENTS

IT being central in the EDIT vision of taxonomy, it is fundamental that IT departments of those institutions which have one use common standards, share responsibilities and generally

¹ The success of EU PALMS (“Palm harvest impact in tropical forests”), funded under FP7 and based in part on exploitation and development of IT tools created by EDIT, is a first indication of the appropriateness of this strategy.

speaking implement all possible mechanisms and infrastructures to allow seamless information flows in all relevant domains. The ISTC (Information Science and Technology Committee), which has been endorsed by the BoD, is the instrument of this policy, in close relation with elaboration of the internet platform for cybertaxonomy.

PROCESS

- 2006 and on : ISTC, meeting once a year (milestones)
- 2008: ISTC Rules of Procedure endorsed by the BoD (product)
- 2009: closer involvement of IT departments in development of second version of Platform – Interfacing of existing applications (development).
- 2010: platform components used for internal data management; third version (development)
- 2011: continued

4.2 MAKING NEW INTEGRATIVE IT TOOLS AVAILABLE

Access and use of existing taxonomic information represents an impediment to taxonomic research before being an impediment for other users. To improve the quality, quantity and speed of taxonomic research, EDIT is building the Internet Platform for Cybertaxonomy, which ultimately will allow communication, treatment and exchange of data relevant to taxonomic research. This information is presently fragmented in independent repositories and places: specimen data, sequences, bibliographic data, names, etc. The platform must enable retrieval and processing of this varied data from various sources, from geographic coordinates to mapping taxa and from DNA sequences and other characters to phylogenies, and integrate them into a single taxonomic processing. The various components of the platform will be able to interoperate through a Common Data Model, released in 2008.

To integrate the taxonomic treatment of one taxon by several taxonomists and produce a collective revision, EDIT is producing the Scratchpads, which are websites dedicated to revision of one taxon or region and customized according to the requirements of the members of the user group. The Scratchpads allow authorised users to enter data and observations which is then either public or privately accessible. This data will be made interoperable with the other components of the Internet Platform for Cybertaxonomy. It is anticipated that these Scratchpads will evolve in functionality using Platform tools and be long-lasting taxon portals.

PROCESS

- 2008: Operational first version of the Internet Platform for Cybertaxonomy; increased functionality of Scratchpads (Panels); training courses for Scratchpad users (product)
- 2009: Second version of the Internet Platform for Cybertaxonomy; integrated platform components into the Scratchpads (product)
- 2010: Third version of the Internet Platform for Cybertaxonomy; rationalised structured data across scratchpads; Scratchpads developer community (development)
- 2011 Sustainability model for Platform (product and development)

4.3 INTEGRATING EXPERT CAPACITIES

In addition to its insufficient rate which EDIT aims at enhancing through changing the way taxonomists work, taxonomic production is impeded by redundancy, e.g. there are many

ornithologists for 10000 species, but almost no nematologists for 1000000 species in spite of the ecological and economic importance of the latter. To improve the balance between capacities and needs, EDIT seeks to progress towards an integrated recruitment strategy, initially by providing an information system which at least will allow gap and complementarity analysis. In parallel, similar information is established for amateur networks and societies, and exchange and collaboration will be established with these networks which can and should also benefit from EDIT innovative tools to progress toward integration of production capacities.

PROCESS

In spite of delay in implementation of the expert database, work finally progressed rapidly in 2008.

- 2008: workshop with professional and non-professional taxonomists to investigate preconditions for collaboration (milestone)
- 2009: release of the first expert and expertise information service (product)
- 2009: release of the first network and societies information service (product)
- 2009: gap analysis (milestone)
- 2010: integrated recruitment strategy (development)
- 2010 decision on sustainability mechanism
- 2011: continued

4.4 INTEGRATING TRAINING

In consideration of the existing needs, a new generation of taxonomists must be trained who will be able not only to use and develop the new tools and new ways of working for taxonomy, but also to participate in non-taxonomic research projects dedicated to ecosystem and biodiversity research. Training is encompassed in EDIT in several forms: expert-in training programme; summer school; and an integrated course prospectus, building upon existing training courses, forming the Distributed School of Taxonomy.

PROCESS:

- 2008 and on: Operational summer school and expert-in-training programmes(products)
- 2009: agreement on School's curriculum (milestone)
- 2010: implementation of the Distributed European School of Taxonomy (development)
- 2011: funding resources for training are secured (development)

5. TOWARD INTEGRATED TAXONOMIC SERVICES

5.1 INVOLVEMENT OF EDIT

One of the first outcomes of the reflection led in EDIT (Knowledge Gap - Users of Systematics workshop, 2008; "Future trends of taxonomy" symposium, 2008) is the distinction between taxonomic knowledge (i.e. classifications, data and explanations which are the products of taxonomic research), and taxonomic services which consist in the delivery of taxonomic knowledge in the required form in answer to demand from users. A fundamental question for EDIT future policy is to determine how far, and to what extent, taxonomic institutions should fill the gaps between the products of research and the demand of users of taxonomic information; or whether EDIT should seek to focus its impact on the taxonomic community itself, letting consultants and other structures elaborate the products for non-taxonomist end-users.

PROCESS

Production by the Science Policy Group has been late in 2008.

- 2008: Knowledge Gap - Users of Systematics workshop, Carvoeiro (see also 3.2) (milestone)
- 2008: Future Trends in Taxonomy symposium report and recommendations, Carvoeiro (see also 3.1) (milestone)
- 2008-2009: elaboration of the research strategic plan (development)
- 2010: *report to the NSC and BoD* (milestone)
- 2010: decision on the strategic plan (decision)
- 2011: implementation (development)

5.2 MAKING KNOWLEDGE AVAILABLE

As mentioned above, availability of knowledge (and data) is piloted globally top down, through large international projects. Here the challenge for EDIT is putting the knowledge produced by its researchers in a format which allows their integration in global systems, with regards to literature as well as descriptions of species and related information.

EoL (Encyclopaedia of Life) is still in its infancy, but BHL (Biodiversity Heritage Library) is more advanced. EDIT, through its ViTaL component (Virtual Library of Taxonomic Literature) is elaborating tools which will allow access to members' literature resources and link the latter to the cybertaxonomy platform components, in addition to helping decision on priority for digitisation in BHL.

PROCESS

- 2008: development of pilot web site for metalib, agreement of EDIT libraries to participate (development and decisions)
- 2008: follow-up development of EoL, decision when necessary (development)
- 2008: launch ViTaL (milestone)
- 2008: MoU for EDIT libraries (decision)
- 2009: technical review of ViTaL including roadmap of future developments (development)
- 2009: follow-up development of EoL, decision when necessary (development)
- 2010 and 2011: ViTaL running (development)
- 2010 and 2011: follow-up development of EoL, decision when necessary (development)

5.3 MAKING DATA AVAILABLE: INTEGRATION OF INFRASTRUCTURES

For reasons of policy, security (in particular regarding collections) and practicality, the general objective is not to create a single, centralized infrastructure, but rather to create the mechanisms and complements which will allow the distributed homologous components in each infrastructure category to function, as far as possible, as a single one.

PROCESS

- 2008 (jan): decision on EDIT's limits and limitations (decision)
- 2008 (feb): *report on existing agreements among EDIT member institutions* (product)
- 2008 (jul): *first infrastructure design report* (product)
- 2008 (dec): *one working group established for a specific sector of the EDIT infrastructure* (development)

- 2009 (may) identification of barriers and benefits in the operations of EDIT (development)
- 2009 (jul): report on requirements for physical infrastructure stemming from research and stakeholder needs, and needs from other WPs (product)
- 2009 (sep) progress report on the integration of natural history collections as a case study of integrating physical infrastructure components (product)
- 2009 (nov) agreements or MoUs for cooperation with Australia and South Africa (product)
- 2009 (dec) proposal for a communication mechanism with other networks of excellence and international networks within Europe and South/North America or East Asia (development)
- 2010 (jul) full analysis of possible designs for sustainable infrastructure (product)
- 2010 (sep): agreement on the blueprint of the EDIT infrastructure (decision)
- 2010 (oct): choice of the best model and indication of resources allocated (decision)
- 2010 (nov): implementation path decided (decision) and sustainability modalities decided upon (decision)
- 2011 (feb): front office established if decided (product)

5.3.1 Collections

Collections constitute the principal and longer lasting research infrastructure in EDIT. Integration of collections and single access to the information which they contain requires implementation of common standards, possibly decision on transfer and maybe also agreement on priorities. The ultimate result of common policy decisions could be that some institutions would become the central reference for one taxon, and would both maintain expertise on this taxon and constitute the privileged repository for new collections of this taxon at EDIT level.

PROCESS

- 2008 (jun): meeting of the directors of collections (milestone)
- 2008: decision on standards and protocols (decision)
- 2008: report to the BoD (milestone)
- 2009 onwards: standards gradually being agreed upon and implemented (product and development)
- 2009 (jul) collections management conference & second workshop of Directors of Collections (milestone)
- 2010 (feb) at least one MoU on collection policies proposed to the directors; several taskforces established (DNA & tissue banks; library journals) (product and development)
- 2010 (jun) collections rescue task force proposed to the directors (development)

5.3.2 Names

The Pan-European name infrastructure is being established through the PESI EC supported project, a spin-off from EDIT. The next step is linking further with structures outside Europe, as done already with Scratchpads which already import u-Bio taxonomies (<http://www.ubio.org/>).

PROCESS

- 2008 (apr): PESI established and developing (development)
- 2008 (apr): outline backbone for primary biodiversity information (product)
- 2008 (jul): meeting FaunaEur focal points (milestone)
- 2008 (dec): proposal for Pan-EU species directories infrastructures extending geographical scope (product)
- 2009 (jul): linking with structures outside EU (milestone)
- 2009 (jul): Stability and continuity in the performance of the European Taxonomic Information Services (milestone)

- 2009 (oct): CDM import tools for the pan-European species registers (product)
- 2010 (jan): proposal(s) for funding of Pan-European species directories infrastructures, extending geographical scope

5.3.3 Molecular data and DNA Barcode

Management of molecular data is ensured through global infrastructures: GenBank in general, and BOLD which constitutes the new workbench and databank for DNA barcode sequences and associated voucher specimens data. In EDIT the challenge is to coordinate European integration into the global barcoding programme, including decision on and implementation of shared infrastructure if needed, for extraction and DNA processing in particular.

PROCESS

- 2008 (jul): proposal to Eurobiofund (development)
- 2008 (oct): submission to the Eurobiofund forum, Strasbourg (product)
- 2008 (dec): proposal for funding the Fungi Barcoding initiative (product)
- 2009 (jun): establish liaisons with industry (development)
- 2009 (jul) formal proposal(s) to establish EU barcoding factories and European contribution as central node in iBOL, incl. lobbying & funding strategies (product)
- 2009 (nov): proposal for ATBI+M with DNA-barcoding submitted for funding (product)
- 2010 (mar): seeking funding for a European Network of Leading Labs (development)
- 2010 (aug): business plan for ECBOL to continue after EDIT (product).

5.3.4 Observation data

Only very few EDIT members manage significant amounts of observation data. They already work on interfacing with GBIF, and no additional specific integrating action seems necessary so far in addition to informing them and when possible implement standard tools and models for data management, allow exchange with other taxonomy-based information (TDWG and GBIF).

5.4 INTEGRATION INTO LARGE SCALE INITIATIVES

As mentioned above, the issue of availability and dissemination of taxonomy-based information is addressed in various ways, at various levels, in various global initiatives. Crossed participation in Steering Committees, Advisory Committees or Institutional Committees of initiatives such as GBIF, EoL, CBoL or Life Watch and EDIT itself allows reduced redundancy, even though the landscape is obviously not easily readable from outside the involved community.

However, and in order to increase effectiveness of the whole system, more formal agreements may become useful at a point when EDIT is beginning to produce tools and structures which can contribute directly to the other large initiatives.

PROCESS

- 2008 (apr): meetings and proposal for mechanism of cooperation (development)
- 2009 (jan): report to the BoD and decision (decision)

- 2009: mechanism established, MoUs with other networks / infrastructures (products and development)

6. COMMUNICATION IN AND ABOUT TAXONOMY

Considering the fragmentation of the taxonomic community, internal communication is just as important as external communication in terms of integrating and developing taxonomic research for ecosystem and biodiversity research. Internal communication is covered by the website, newsletter, and printed communication. External communication addresses two targets: the public (Public Awareness, PA), and decision makers in the EU Biodiversity / Conservation communities (Public Relations, PR).

PROCESS

Creation of political briefs for policy makers, formerly planned in 2008, has been delayed and will possibly be abandoned upon advice of specialized PR staff.

- 2006 and onwards : bimonthly newsletter (product), website (product)
- 2006 and onwards: identification, and participation in, Biodiversity related events (development, PR)
- 2008 and onwards: PR plan accepted (decision) and implementation started (development)
- 2008: liaison with communication staff of other relevant projects established (development, PR)
- 2008: library of slides and ppt templates for “EDIT ambassadors” (PR)
- 2008 and on: creation of communication documents (flyers, posters)(product, PR, PA)
- 2008: workshop of PA staff (milestone, PA)
- 2008: website version 2 (product, PR)
- 2009 and on: interaction with the EC focused on FP8 (PR)
- 2009: MoU on PA activities (product, PA)
- 2009: 3d EDIT General meeting (milestone, PR)
- 2009: preparation of BYSE (development, PA)
- 2010: Public Awareness on taxonomy in BYSE events (development, PA)
- 2010: BYSE final event (milestone, PA)
- 2011: 4th EDIT general meeting (milestone, PR)

ANNEX 11 - Avenues for Integration

	Who	Topics
Competency framework for curators	Directors of collections committee & WP3	Curation of databases and specimens ; career development and expected competencies; recognition and evaluation of work, performance indicators
Joint collection policy	Directors of collections committee & WP3	Material acquisition, management, access and accession policy
Scientific evaluation metric	Directors working group	Evaluation of specific taxonomic research activities in complement of ISI standards
Integrated research	WP1, WP2, BoD	Joint research projects, ATBI task force, exchange of researchers
Tools for taxonomic research	WP5, WP6, WP1	Sustainability of the Internet Platform, Common support to taxonomic journal (s)
Training	WP8	DEST, plus training for curation and for users
Instruments for common institutional policy	Directors working group, & WP3 Science Policy Group, NSC	Information service on staff and expertise Science Strategy Science Policy
Promoting taxonomy & collections to stakeholders (science & society)	All WPs	TBD for each WP
Instruments of long term integration	NSC	Sustainable legal and management instruments: status, board(s), coordination, office