Executive summary:

The LIFEWATCH e-science and observatory infrastructure for biodiversity and ecosystem research will contribute to understanding the complex biodiversity system. The research infrastructure provides advanced capabilities for scientists to tackle the big questions in biodiversity research, as well to address the urgent societal and fundamental scientific challenges concerning our living planet. LIFEWATCH will aggregate essential (a-)biotic information and integrate this with an analytical platform providing the tools to promote the understanding and knowledge of the processes that drive, maintain and threaten biodiversity and ecosystems. Through virtual laboratories, LIFEWATCH will offer new ways of working together on analysing and modelling data, simulation and scenario development. This contributes to improving the coverage, quality and availability of essential information from in situ and remote observatories and collections. As well as serving scientists in Europe, LIFEWATCH aims to serve the Group on Earth Observations Biodiversity Observation Network (GEO-BON) and the intergovernmental science-policy Platform on Biodiversity and Ecosystem Services (IPBES).

The LIFEWATCH preparatory project (1 February 2008 - 1 February 2011) has put all required elements in place for the construction of the research infrastructure as scheduled to start in 2011. The preparatory work addressed the legal, financial, technical and user service implications of the planned construction and subsequent operations of the infrastructure. It is planned to open the first release for users by the end of 2012. The capabilities for users will incrementally expand in further annual releases and full operations are scheduled for 2016.

LIFEWATCH will be established according to the European Union (EU) Council Regulation for a European Research Infrastructure Consortium (ERIC). Business issues are addressed in a financial plan dealing with the cost structure and the model for calculating the national (in-cash and in-kind) contributions.

Through a memorandum of intent (for financial commitments), participating countries have established a stakeholders board acting
as the provisional governing body of the new research infrastructure. Five of these countries decided to pledge advance funding for a
start-up organisation to facilitate entering full construction. Three countries take the lead in supporting the LIFEWATCH central and
common facilities. Spain hosts the statutory seat of the LIFEWATCH ERIC and secures core technical development. The Netherlands
takes care of the scientific capabilities and hosts the development of the generic virtual labs and workflow builder and the innovation
laboratory. Italy takes care of the Service Centre and data flows. These three central activities will become part of the single LIFEWATCH
legal entity. Other countries contribute to distributed construction with - amongst others - thematic and/or regional virtual labs for
collaborating researchers. The process of distributed construction will be guided by a handbook and facilitated by a portfolio of
construction contracts and service-level-agreements.

Project context and objectives:

Planet Earth is a complex system driven by multiple interactions between human society and the natural environment. We have come
to realise that biodiversity - the variety of biological species that inhabit the earth, the genes they contain and the ecosystems in which
they live - is essential for maintaining the goods and services that our planet provides. The current rapid loss of biodiversity, added to
climate change and human population growth, is a new global phenomenon that requires entirely new approaches and mitigation
strategies together with a societal response that must deal with the full spectrum of human socio-economic activities as well as with
the ecological complexity of the world.

The decisions that society has to make and the actions that are necessary require high quality scientific information, knowledge and
expertise of a kind that is presently at least scattered and inadequate and mostly unavailable. Building a system that supports a better
understanding of Europe's biodiversity and ecosystems - from the pristine deep ocean to the human dominated agricultural land, roads
and cities - and from that knowledge contributing to adequate management, sustainable development and informed, rational decision
making, is the core of the LIFEWATCH project. LIFEWATCH will serve to support the scientific research and required for the
understanding of the complex biodiversity system and for the rational management of our ecosystems on land (forestry, agriculture,
water resources) and in the seas (aquaculture, fisheries).

The LIFEWATCH e-science and observatory Infrastructure for biodiversity and ecosystem research will be a large-scale European
research infrastructure bringing together:

1. a system of marine, terrestrial and freshwater observatories;
2. common access to a huge amount of interlinked, distributed data from databases and monitoring sites;
3. computational facilities in virtual laboratories with analytical and modelling tools;
4. targeted user and training support and a programme for public services.

The preparatory project aimed at bringing together the interested EU member and associated states with the objective to prepare a
cooperation agreement on the construction and maintenance of the LIFEWATCH research infrastructure. In addition, the leading
networks in biodiversity science and stakeholder institutes prepared the organisation and logistics for the following construction phase.
The technical, legal and financial preparations required for entering and managing the construction phase were addressed in the
context of a range of policy issues related to manage a distributed research infrastructure. In addition the project had to consider risk
management and quality control.

A policy and science board, populated by the representatives of finally twenty interested partner countries and eight cooperating
scientific networks, did oversee the progress of the preparations and served as the liaison between the project development and their
political domains and the research communities, respectively.

The preparatory project did bring together the interested EU member and associated states with the objective to prepare a cooperation
agreement on the construction and maintenance of the LIFEWATCH research infrastructure. Key expert and stakeholder participant
institutes contributed to the objective to prepare the construction details of the research infrastructure, also necessary to assist
interested countries on their commitments to actual construct the new facility.

The specific objectives of the preparatory project were the following:

1. Strategy for the infrastructure establishment. The major objective is to identify the countries and other stakeholders investing in the
actual infrastructure, their roles and their contributions. Since LIFEWATCH integrates biodiversity data from existing and new local
observatories and natural history collections, the preparatory project aims at an agreement between governments from diverse ecological and climatic zones. Another objective is to secure relations with data providers and to secure future data collection in a harmonised and integrated way.

2. Organisation and legal structures. The objective is to develop and get agreement on a legal framework for the continued cooperation of countries involved in LIFEWATCH, the legal basis of the infrastructure itself, its organisation and governance structure and agreements with crucial stakeholders such as the data networks.

3. Investments, cost recovery and business development. Cost and cash flow analysis must enable a timely construction and operational service. This implies an assessment of the overall financial business plan.

4. Construction logistics and technical plans. Inventory and assessment of the full array of blueprints and specifications with respect to data capture, data flows, analytical and modelling tool repositories, web portals, grid infrastructure and system management. Planning of the infrastructure development in the construction phase.

5. Service and support. The objective is to identify the priorities of potential user groups. A service plan had to detail the requirements for the service programme, including training and fellowship opportunities.

6. Quality and risk analysis. The preparatory work in the above-mentioned domains was reviewed in terms of quality control, risk assessment and mitigation strategies.

7. Dissemination and promotion activities. Promotion activities are aimed at getting the support of all stakeholders such that the infrastructure can indeed be realised after this preparatory phase.

Project results:

Introduction

The LIFEWATCH e-science and observatory infrastructure for biodiversity and ecosystem research addresses the huge gaps we face in our understanding of life on Earth. Its innovative design and analytical platform supports scientists to enter new research areas with large-scale data resources, advanced analytical and modelling capabilities with high computational power. The LIFEWATCH infrastructure aims to contribute to an integrated perspective on biodiversity and ecosystem functioning at various spatial scales from the gene to the (European) landscape level and various temporal scales from past to future global change on biodiversity and ecosystem functioning. LIFEWATCH will not only serve the scientific community, but will also be an essential tool for local and global policy makers in the understanding and the rational management of our ecosystems.

Successfully implementing LIFEWATCH is only possible through international cooperation. The sheer size of the infrastructure with respect to costs, functionalities and user communities requires large-scale collaboration. The European Strategy Forum on Research Infrastructures (ESFRI) identified LIFEWATCH as an essential facility to be supported by European countries.

The LIFEWATCH preparatory phase started on 1 February 2008 and paved the way towards the LIFEWATCH research infrastructure construction starting 2011. The project consortium consisted of expert institutes to prepare all construction details. But also the official representatives of interested EU member states and associated states in order to prepare a cooperation agreement on the construction and long term maintenance of the LIFEWATCH infrastructure. A policy and science board - composed of the representatives of these (20) interested partner countries and eight scientific networks, was overseeing the progress of the preparatory process.

LIFEWATCH masterplan

The LIFEWATCH masterplan describes the development of the ERIC LIFEWATCH. It builds on the vision that the preparatory project followed for the construction of the LIFEWATCH research infrastructure towards its operational state. The project management was strongly aware of the need for professional quality assurance and risk management (QARM) in order to secure the development of a robust and useful research infrastructure.

The LIFEWATCH masterplan consists of four parts:

1. Executive summary, a high-level description of the operational LIFEWATCH e-science and technology infrastructure for biodiversity data and Ecosystem Research and its construction process.
2. The plan for the Operational LIFEWATCH research infrastructure
3. The project description for the LIFEWATCH research infrastructure construction phase
4. The QARM plan for the development of the LIFEWATCH research infrastructure.
Structure of the LIFEWATCH construction and operations

Three years of preparations of the construction and operations of the LIFEWATCH ERIC resulted in a lot of documents, wiki's, databases and drawings describing the endeavour of building and operating a European-wide infrastructure for biodiversity data and ecosystem research.

The main documents directly related to the development of the LIFEWATCH ERIC, to the process design of the LIFEWATCH construction and to the definition and specification of the building-blocks composing the LIFEWATCH ERIC are:

1. The LIFEWATCH masterplan
2. The LIFEWATCH reference model
3. Breeding environments for temporary collaborative networks development plan
4. Several deliverables of the preparatory phase
5. European strategies for local implementation
6. LIFEWATCH construction database
7. LIFEWATCH strategic networks plan
8. LIFEWATCH technical construction plan
9. LIFEWATCH service centre plan
10. LIFEWATCH financial plan
11. LIFEWATCH corporate communications plan.

Together, these documents constitute the building blocks for the construction phase of the LIFEWATCH ERIC.

Review

A review by a group of experts in different scientific fields provided feedback independently and freely, considering the overview of LIFEWATCH.

Members of this review team originated from:

1. Institut des grilles at CNRS-IN2P3, France
2. IBM, United Kingdom
3. University of Colorado, United States of America
4. EGEE Project, Centre European de la Recherche Nucleaire (CERN), Switzerland
5. SURFnet, the Netherlands.

The valuable advices this team have been implemented in the LIFEWATCH construction plan.

Governance

One of key actions when entering the construction phase is the establishment of a legal position for the LIFEWATCH research infrastructure, necessary to arrange the committed financial contributions and to recruit the executive management. The countries represented in the LIFEWATCH policy and science board agreed to legally establish LIFEWATCH as an ERIC under Regulation (CE) number 723/2009, of 25 June 2009, on the Community legal framework for a ERIC, text published in the Official Journal of the EU L 206/1 EN 8.8.2009. The draft statutes have been elaborated and the preparations are close to submit the formal application for ERIC establishment to the European Commission (EC).

Governance of the LIFEWATCH operations will be executed at two levels:

1. Governmental level. The governing board will execute governance at strategic level. The Board will have the ability to assign external resources to independently investigate the consequences of strategic policy proposed by the executive management. The executive management will be responsible for governing and directing day-to-day operations of the LIFEWATCH organisation.
2. Community level. The community itself will govern the direction of the evolution in a bottom-up approach. The design and
development of the ERIC will to a large extent be based on user needs. Users will establish communities, either professional, biodiversity sector or on a regional basis. User communities will compete for the capacity of the LIFEWATCH research and development (R&D) team. The development agenda will be established by a product management board that takes into account the weight of development requests, on the basis of the originating research community.

As with respect to national commitments, the picture at the end of the preparatory project shows that twenty countries signed an expression of interest. Eight countries signed a memorandum of intent (for their expected commitment) and five countries signed a memorandum of understanding (MoU) to submit the ERIC application and to pledge advance funding for a start-up organisation towards the construction. Additional countries have indicated that their signature of the latter MoU is in process.

A Stakeholders Board, acting as provisional governing body, is established with the countries that signed a memorandum of intent (for financial commitments). Five of these countries already decided to pledge advance funding for a start-up organisation to facilitate entering full construction. It was agreed that three countries take lead for supporting the LIFEWATCH central and common facilities. Spain hosts the statutory seat of the LIFEWATCH ERIC and secures core technical development. The Netherlands hosts the development of the generic virtual labs and workflow builder and the Innovation Laboratory. Italy takes care of the Service Centre. These three central activities are part of the single LIFEWATCH legal entity. Other countries will contribute to distributed construction with amongst others specific thematic and/or regional virtual labs for collaborating researchers.

Management

LIFEWATCH is in many respects a distributed research infrastructure. The research data originate from all over Europe and beyond and since LIFEWATCH has the characteristics of an e-infrastructure it is possible to interlink construction components from the collaborating countries through the Internet. As such, the collaborating countries are encouraged to establish LIFEWATCH centres, acting as independent entities serving components of the LIFEWATCH research infrastructure in accordance with the overall LIFEWATCH architectural scheme. Apart from these centres, the research infrastructure needs common facilities: the operations that have to be coordinated and manage at a central European level, including the executive management and its staff.

In order to secure the proper construction and operation of these distributed LIFEWATCH centres as part of the full infrastructure, the Board of Executive Officers may establish appropriate working relations. These get shape in bilateral agreements framing the operational relations. As for the transition from the preparatory project to full construction, a start-up organisation was established with an interim management from a few host organisations.

Construction plan

The technical architecture of the research infrastructure considers that various (data and computational) sources are served by contributing facilities. These must allow for fast transfer to and integration in LIFEWATCH technical environment. This integrating e-infrastructure capability also serves documented and shared workflows. A Composition layer offers capabilities for new workflow development on the basis of a toolset of application software in a semantic metatadata framework. User groups can create their own e-laboratories or e-services within the common architecture of the infrastructure. They may share their data and analytical and modelling tools with others while controlling access. The architecture allows for dynamic linkages to other resources and associated infrastructures.

The construction plan - including specific projects for the service planning and organisational development - is detailed in an on-line database with 12 infrastructure projects - types of work (legal, technical, financial, et cetera), divided into 52 infrastructure components - clusters of activities per category, which contain 189 issues (construction units) - a series of tasks resulting in a deliverable.

The database serves as:

1. the single source of specifications of the projects, components and issues concerned with the development of the LIFEWATCH European Research Infrastructure
2. the means of communication, both internally and externally, for the LIFEWATCH management, concerning the dynamic development cycles of the ERI. An up-to-date external version will be kept publicly available on the LIFEWATCH website.
The distributed and decentralised nature of the infrastructure and the country-by-country approach of the construction require a controlled and well-managed process, both from the viewpoints of organisation, planning and governance and from the technical point of view. The construction project will apply a well-prepared realisation management based on formal project management methods.

Particularly, the transition between the preparatory phase and the construction phase needs careful planning and preparation. This transition is defined as a project of its own in the LIFEWATCH construction database. This project, 'Construction start-up and management', covers all activities aimed at the start-up of the construction of the LIFEWATCH ERI, such as hiring (interim) staff, provision of tools and housing, financial arrangements and a provisional quality system. The timeline of this project covers the first year of the construction phase. In this transition period, the LIFEWATCH Stakeholders Board will govern the construction activities, which will start as soon as possible after the final Go/No-Go decision has been made. After the transition phase, the interim management will hand over its capabilities to the construction phase management team that will be responsible for the realisation of the LIFEWATCH ERI conforming to the specifications in the reference model and the resulting infrastructure blueprints.

Product management strategy

In the construction phase, services, access, tools and facilities will be distributed among the participating countries, to become fully operational after 5 years. For this, a phased approach will be adopted, aiming for constant small increments in functionality with annual mandatory upgrades. For the first three years a roadmap will be drawn. Comprehensive reviews, assessment and re-planning as necessary will take place at the two year and four year points.

The phased approach will be based on 'agile' incremental releases on a quarterly cycle to grow the functionality constantly in small steps. A 'change request' process will be used for managing the content of each release, prioritised based on input from users and data providers through the community governance mechanisms. The definition, development, testing and all necessary support will be managed by a 'Product management board' (PMB), which has already been established. The PMB is responsible for strict enforcement of quality and cut-offs, in order to guarantee that release dates don't slip (if functionality doesn't make the grade it isn't in the release!).

Although being projected as a European Research Infrastructure, the development and operations of LIFEWATCH will be driven by individual users and organisations at local levels. While the infrastructure scale is European, its architecture integrates local components that can be easily accessed through a single portal by researchers anywhere in Europe and beyond.

European strategies - Thinking 'globally'

LIFEWATCH, planned as a pan-European interoperable infrastructure, crosses national and institutional boundaries and seeks to encourage an integrative perspective - the alignment of multiple separate and autonomous initiatives. Individuals, research-groups or institutes are supported to join an emerging European (and global) framework of biodiversity informatics rules designed to bring about interoperability in a heterogeneous community. LIFEWATCH adds functionality for large scale and fast analysis and modelling to serve the user community in exploring scientific questions that cannot easily be tackled today.

The strategy for construction revolves around the concept of distributed service centres, each offering users specific services, framed in an overall technical and organisational infrastructure.

LIFEWATCH basic services constitute the technical framework necessary to benefit a suite of applications. On top of these services, targeted capabilities support particular sub-domains of biodiversity work. In addition, the LIFEWATCH ERIC will provide support to optimise services:

1. Organisation
2. Technical direction and governance
3. Management of the 'product'
4. Community support.

The LIFEWATCH centralised common facilities provides the essential 'central' elements necessary to function and to serve users across Europe. Typically, these elements are devolved, distributed and operated by specific institutions or organisations on behalf of the LIFEWATCH ERIC. Services of the common facilities comprise:
1. Key partner facilities such as data warehouses
2. Technical framework and architecture, based on the LIFEWATCH Reference Model and LIFEWATCH Service Networks
3. Data Resource linkage process, Application integration process, Workflow development process
4. Core information and communication technologies (ICT) infrastructure (hardware/software): Registries for Data resources, Applications and Workflow, Provenance and citation tracking, Annotations, Computational resources, Security (Authentication, Authorisation, Accounting), Semantic mediation framework, Virtual collaborative environments and Portal capabilities
5. Data resources (existing and new) and data processing capabilities (incl. analytical and modelling tools, Workflow generation and management)
6. Virtual lab 'builder'
7. Intellectual property management
8. Innovation lab - Research and Development (R&D)

Thinking globally but acting locally

'Acting locally' in LIFEWATCH is a key feature. LIFEWATCH engages with audiences at the level of individuals, groups and organisations to bring about the emergence, added value and usage of the LIFEWATCH infrastructure.

LIFEWATCH encourages and supports the distributed construction and operation of specific capabilities in distributed LIFEWATCH Centres. These mostly will be established at national levels with the input of research groups, institutions, thematic networks, industries and regions. Such initiatives will fit in the generic architecture and have the meet the LIFEWATCH Reference Model. A portfolio of construction contracts and service-level-agreements assists in managing this process. Subjects covered include:

1. Agreements on tasks, standards, protocols and quality (service levels)
2. Alignment of responsibilities
3. Financial support (following country commitment in Statutes)
4. Identification and valuation mechanisms of in-kind contributions
5. Procedures for contracts on individual construction work (Description of delivery; agreements on production, delivery, adjustments; responsibilities and credits, guidance by a LIFEWATCH expert group; involvement of the user community; review mechanisms; ownership and IPR; valuation of costs, cost changes)
6. Settlement of disputes (delays, deficient delivery, risks)
7. Periodic evaluation of services
8. Provisions for finishing the agreement.

Construction costs

Each of the construction issues in the construction database has been allocated an estimated construction cost. These costs constitute the LIFEWATCH cost book, i.e. the total construction budget. From a financing perspective the total cost for the LIFEWATCH infrastructure is divided into two different categories:

1. costs included in the LIFEWATCH cost book and
2. other costs.

The first category includes new costs for the Common Facilities such as the Headquarters and agreed distributed service centres. The Common Facilities must have secured long-term funding. The second category consists of for example existing national support units, data resources and other third parties.

The Cost Book is calculated on the assumption of a construction period of five years and with incrementally releases of operational services, ending up in full operation from year six. The costs per year and per construction issue are realistic with respect to the logistics of the anticipated planning through time. Regular updated cash flow projections will shows how cash is expected to flow in and out of a business. This projection will also show the need of possible bridging loans. Bridging loans can be negotiated with the European Investment Bank (EIB).
Financing

The financing of LIFEWATCH is predominantly based on national (in-cash and in-kind) contributions. In addition to contributions from participating countries, other possible financial instruments are the EU structural funds, the European Investment Bank (EIB) and support from FP7 and FP8. Also contract income, user fees, sponsorship and donations are expected to be important.

The following principles for national financial commitments apply for LIFEWATCH:

1. Long-term (initially five years) financial commitment from participating countries
2. Fixed national contributions to the construction and operation based on an accepted model, proportionate to gross domestic product (GDP). These fixed contributions have the following two components: 15% of the national contribution for the Common Facilities, provided that these costs are not covered by the host country. A site premium is an extra commitment from the host country, motivated by the additional benefits generated for the host. In-kind investments (85% of national contribution) for establishing distributed LIFEWATCH Centres and/or for specific components of the Common Facilities.

Principles for the valuation of in-kind contributions will be decided upon by the LIFEWATCH Governance. Different options have been analysed.

LIFEWATCH assets are mostly software and intellectual knowledge whose lifetime often exceeds that of the infrastructure. Construction contracts with collaborating countries and subsequent service level agreements will include an exit strategy with plans and commitments from the partners regarding the extent to which these will be kept accessible even if LIFEWATCH no longer exists as an infrastructure.

Marketing and communication

Individual researchers are the prime users of LIFEWATCH, although the research infrastructure is also relevant in the policy sector (as for example by visualising predictions of change). Strategies to engage users in taking up the LIFEWATCH infrastructure services include:

1. Data discovery from various data domains, data integration and visualisation
2. Social networking for individuals
3. Mechanisms for communities in bottom-up virtual networking
4. Easy to use LIFEWATCH applications and support for integrating these in preferred workflows
5. Personalisation of portal content to the specific needs of individuals and groups
6. Support to produce semantically enhanced publications
7. Creation of environments to support Open Notebook Science.

A specific targeted communication programme will contain a/o:

1. LIFEWATCH User conferences
2. LIFEWATCH Award for Young Scientists
3. LIFEWATCH sponsored Chair at European + worldwide universities
4. LIFEWATCH scholarships
5. LIFEWATCH Publication Centre: articles, magazines, books, papers
6. LIFEWATCH School with educational initiatives targeted at children of more than 6, 12 and 16 years of age
7. LIFEWATCH Broadcast: television, radio, Internet through cooperation with existing players in the field
8. LIFEWATCH World: link on a worldwide level with North-American counterpart, Asia, etc.

Potential impact:

Users will benefit from integrated data resources and can create and manage virtual laboratories to model data, perform computer simulations, manage research or publish their work. Advanced technologies open new possibilities to study the complexity of the biodiversity system at unprecedented scales - from the microscopic level of genes, to the macroscopic level of communities and ecosystems. LIFEWATCH is going to support the analysis of different theories to know which ecological processes are operating at
which scales. LIFEWATCH speeds up research into the functioning and maintenance of ecosystem services by providing better decision-support systems. Vital policy questions may be addressed on the relation between humans and ecosystems, such as on urban biodiversity, sustainable food and human health. Industry also benefits from the LIFEWATCH capabilities to explore business opportunities for sustainable products and services, or new technologies such as automated ecological sensors. Also citizens can be supported in their choices with an impact on our biodiversity systems. The LIFEWATCH Service Centre will stimulate the exchange of ideas and opinions among these diverse communities to foster innovation, discovery and learning. The preparatory project fostered the interaction with these communities. The involvement of representative institutes from the relevant networks of excellence contributed strongly to the involvement of the scientific communities. Scientific scoping exercises with invited experts were helpful in identifying how LIFEWATCH may impact solving the big scientific questions in this area. Various small and large industries were in contact with the project team and there interest clearly demonstrates the impact they expect on their operations.

Various countries signed a Memorandum of Intent indicating their expected national commitments. Representatives of these countries sit in a Stakeholders Board acting as provisional Governing body of the LIFEWATCH research infrastructure. It allowed for the final political negotiations such as on the respective financial contributions and the location of the statutory seat. These have been established. Spain hosts the statutory seat of the LIFEWATCH ERIC and secures core technical development. The Netherlands takes care of the scientific capabilities and hosts the development of the generic virtual labs and workflow builder and the Innovation Laboratory. Italy takes care of the Service Centre and data flows. These three central activities will become part of the single LIFEWATCH legal entity. Other countries will contribute to distributed construction with amongst others specific thematic and/or regional virtual labs for collaborating researchers.

Apart from (scientific and political) policy coordination at the national level, the coordination with European and international scientific communities and related research infrastructures was necessary to secure their support and input for the planned construction process. As such, LIFEWATCH was presented at numerous events. Bilateral explorations and initial agreements assisted in identifying each one’s role in the construction. National LIFEWATCH Networks meetings assisted in putting the distributed construction process in place. The first consortia of the National LIFEWATCH Networks have been established or are currently establishing formal legal frameworks for their national LIFEWATCH Centres. These legal LIFEWATCH Centre entities will have formal ties with the LIFEWATCH European Common Facilities. The distributed LIFEWATCH Centres will steer and guide the distributed construction of LIFEWATCH.

The LIFEWATCH infrastructure for biodiversity and ecosystem research is starting construction in 2011. The planning is to open the first release for users by the end of 2012. The capabilities for users will incrementally expand in further annual releases and full operations are scheduled for 2016.

Dissemination activities and exploitation results

LIFEWATCH has defined target groups with tailored communication to these different groups through the use of audience-specific key messages and communication channels.

Differing priorities were placed on different audience groups:

1. National authorities (ministries, research councils, academies of science)
2. Funders and supporters from different sectors
3. Research users
4. Education sector users (teachers and students)
5. Policy users
6. Commercial sector users
7. Providers of LIFEWATCH ‘products’.

High-level communication objectives were identified for each target group. Topics include:

1. Raising awareness of LIFEWATCH services and resources
2. Encouraging potential users to become actual users
3. Ensuring the growth of the LIFEWATCH support base
4. Enabling distributed LIFEWATCH managers and providers to learn from users and improve the provision of services and resources
5. Convincing national authorities of the feasibility of constructing LIFEWATCH with a considerable use base.
Much attention was given to ensure that all those responsible for delivering this strategy were aware of their roles in the LIFEWATCH marketing strategy. Feed-back mechanisms were in place to support project partners and other stakeholders. This also assisted in the preparation and delivery of a publicity and marketing plan for the construction phase.

The LIFEWATCH communication efforts have been centered on 'Entering the construction'. Through past efforts, the LIFEWATCH name or brand had been established to a certain degree and much effort was on showing how LIFEWATCH did evolve towards the end of the preparatory and into the construction phase. A couple of progress papers gave real-world examples of LIFEWATCH potential applications with the message that big scale and multidisciplinary biodiversity questions can be tackled by scientists working together on a common project with support of the LIFEWATCH research infrastructure.

LIFEWATCH also showed itself to the scientific world through participation in various conferences. Not only pure scientific conferences, but also at more generic evenets. Lately at the Green Week in Brussels, ESOF 2010 in Turin, the European Biodiversity Policy Conference in Ghent organised by the Belgian presidency of Europe and the GEO VII / Ministerial Summit in Bejing. A final brochure called 'LIFEWATCH, Rising to the Challenge' was produced for the closing conference in Amsterdam, explaining LIFEWATCH to the layman and the potential investor.

The name LIFEWATCH has now been firmly established in the European scientific community and is gradually being introduced in all European countries, though not everybody knows exactly what it all is about. The press as well has been contacted and informed about LIFEWATCH. As such, high expectations have been created for the construction phase. As far as communication is concerned, a solid foundation is available: a contemporary logo design, a website and a number of printed outputs. The detailed marketing and communication plan can be used as a guideline for future actions.

List of websites:

http://www.lifewatch.eu

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