

ELIXIR HUB FINANCIAL PLAN (2014-2018)
Version October 30

Purpose of the paper

To present to the ELIXIR Interim Board a draft proposal for a five-year Financial Plan for the ELIXIR Hub in its established phase. The Financial Plan will be presented to the ELIXIR Board for approval at its first Board meeting in April 2014. The first year of this Financial Plan is also submitted as a separate paper for approval as the 2014 ELIXIR Hub budget.

This is an updated version of the ELIXIR Hub Financial Plan that includes all countries that have signed the ELIXIR MoU as of October 30, 2013, i.e. including Membership contributions from France. Consequently a new table (Table III) has been added detailing the changes. No other changes have been made to the paper.

Action required

The draft is presented to the ELIXIR Interim Board for information and discussion.

1. Introduction

This Financial Plan accompanies the *ELIXIR Programme* where the key objectives and expected deliverables for ELIXIR are outlined in detail, including the operational requirements, roles and expectations for the ELIXIR Hub. While the ELIXIR Programme contains the full details and context, a brief summary is presented in this document for clarity, together with the associated resource and financial requirements for the period 2014-2018.

ELIXIR is a distributed research infrastructure with ELIXIR Nodes located at centres of excellence in ELIXIR Member States and the ELIXIR Hub located on the Wellcome Trust Genome Campus at Hinxton in the UK. The construction of the building which will house the ELIXIR Hub has been funded through part of a grant from the UK Large Facilities Capital Fund (75M£) and will be ready for occupancy in 2013. The distributed ELIXIR topology coupled with modern e-Science technologies will give ELIXIR a flexible and agile structure, which is necessary to meet the significant biological information challenges of today's life-science research. The Hub and Nodes structure also necessitates a phased construction as additional ELIXIR Nodes can be, and indeed are expected to be, incorporated over many years.

As ELIXIR moves beyond its Preparatory and Interim Phases into permanent existence there is an increased requirement for the ELIXIR Hub to coordinate Node actions, ensure effective outreach and engagement with other BMS research infrastructures and support technical/scientific interoperability. There is also a key requirement for the Hub to support the development of Node Collaboration Agreements, engage with future Member States and coordinate and drive applications for sustainable ELIXIR funding.

Thus it is proposed the construction of the ELIXIR Hub will proceed through three phases: *Co-ordination*, *Service deployment*, and *Sustained operations* with a gradual growth of Hub activities and resources matching the construction of ELIXIR Nodes. The Financial Plan also foresees a relatively modest resource increase in the first years, with an acceleration taking place post-2015, with the clear rationale of only expanding ELIXIR activities once the Hub / Node network is operational.

To match the outlined activities the operating budget of the ELIXIR Hub would need to grow from 1.3M€ in 2013 to 5.4M€ in 2018, with most of that growth beyond 2016. The Financial Plan also includes capital requirements to support acquisition of additional compute and storage resources in 2015 and 2018.

Key resource requirements and expectations on the ELIXIR Hub in the three phases are:

Co-ordination (2014)

- Following recruitment of ELIXIR Director, build an effective secretariat for outreach, engagement with future Member States and coordinate application for H2020 infrastructure grants.
- Promote ELIXIR in Europe and beyond to support the application and integration of new Member states and Nodes.

- Interface with other ESFRI research infrastructures to ensure effective coordination and alignment.
- Drive the establishment of strong links with industry.
- Deliver the agreed ELIXIR technical pilots and support the technical build-up of the Node services through accelerated execution of first and second wave pilot actions.
- Initialise internationalisation efforts and reach out beyond Europe to forge collaborations with key global players

Service Deployment (2015-2016)

- As routine delivery of ELIXIR services begin, drive delivery of interoperable data, services and software through execution of ELIXIR interoperability infrastructure including technical support to Node services.
- Establish services and data for ESFRI BMS infrastructure interoperability through technical advice and operational support with data-handling.

Sustained operations (2017-2018)

- Consolidation of first and second wave Node applications into a coordinated and interoperable research infrastructure based on open and established standards across a EU-network of life-science computing capabilities
- Begin production phase of the first wave of “new ELIXIR services” on EU and global scale.
- Continued support to BMS infrastructures in terms of technical advice, operational data provision and standards development

The ELIXIR Hub

The ELIXIR Hub hosts the ELIXIR executive management and secretariat, which contains the external relations, communication and grant-application functions necessary for a large, distributed research infrastructure and the effective interfacing and coordination with other biomedical, health and e-Science infrastructures. Whilst the ELIXIR Nodes will fund the core service delivery and interoperability, the ELIXIR Hub will handle the organizational, technical and infrastructure interactions with the Nodes and the other ESFRI BMS infrastructures, thus ensuring seamless access to biomedical research data, services and tools to life scientists in fundamental as well as applied industrial research. Thus, provision is required for the technical roles needed to take responsibility for technical and standards coordination activities as well as technical support to emerging services in new Nodes. The Hub will also take a leading role in developing and coordinating the formal Collaboration Agreements governing the ELIXIR services. The ELIXIR Hub also provides for infrastructure and coordination to support the ELIXIR training activities.

The construction of the distributed ELIXIR infrastructure including the Hub is expected to proceed through the duration of the 5-year budget period of 2014-2018, and will encompass the addition of new ELIXIR member states and Nodes. Thus the financial plan incorporates a gradual construction of the Hub, in line with supporting Node developments, with an acceleration of the activities towards the end of the construction phase. The operational costs at the Hub include the running and staff costs, overheads and consumables. Based on the information received from countries through the submitted Node Applications at the time of preparation, the combined operating costs of ELIXIR Nodes is 74M€ million for 2013, 82 M€ for 2014 and 88 M€ for 2015.

In line with the recommendation from the ELIXIR Interim Board to plan for a phased construction of the ELIXIR Hub to match the construction of Nodes, this Financial Plan sets out an accelerated trajectory towards the end of the 2014-2018 period, with an operational annual ELIXIR Hub budget in 2018 of 5.4M€, an estimated spend of <5% of the total ELIXIR investment. Thus, as the Member States sign the ELIXIR Consortium Agreement, Node Collaboration Agreements are established with key technical roles are filled, the Financial Plan sets out a rapid transition into the Sustained Operations Phase of ELIXIR.

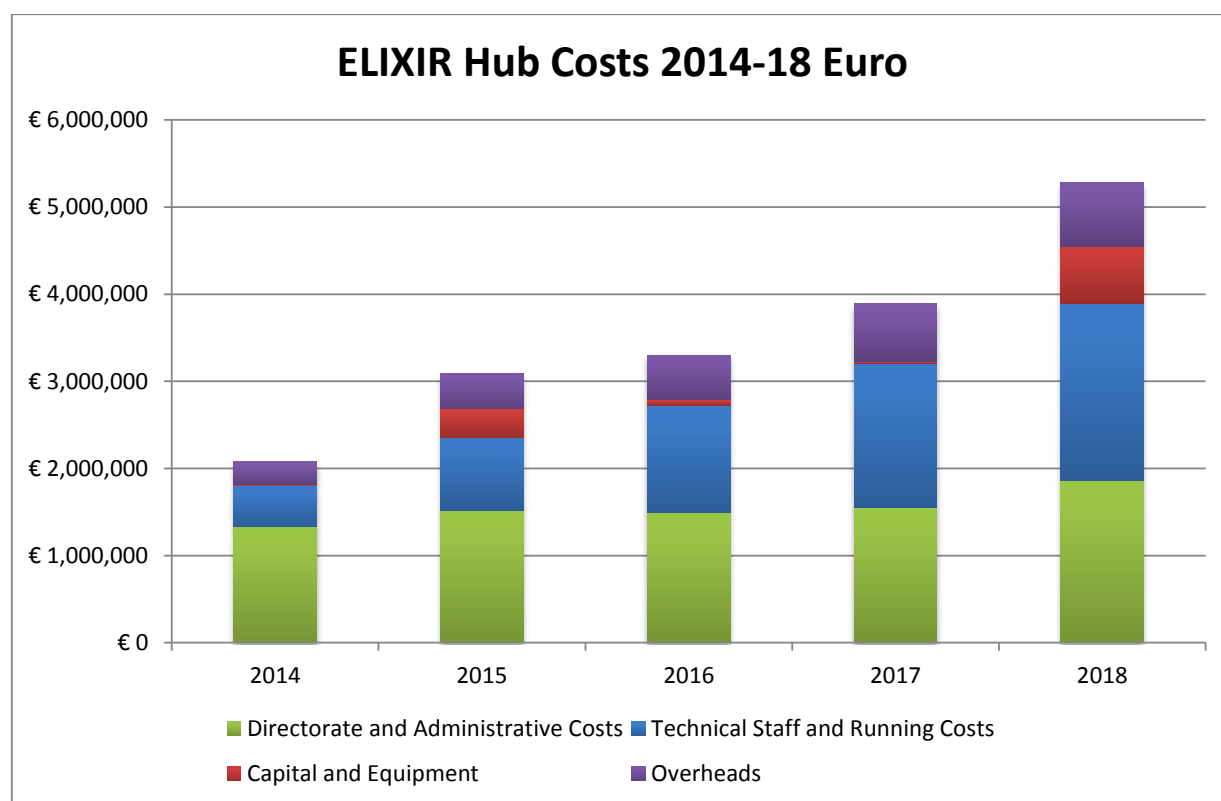


Figure 1: Overview of ELIXIR Hub 2014-18 Budget

As ELIXIR enters its permanent construction and operations phase, it will be formally incorporated as an “EMBL Special Project” as defined in the ELIXIR Consortium Agreement; this construct has a significant advantage in that ELIXIR will benefit from EMBL’s legal persona (including VAT exemption and light procurement regulations), staff-rules and financial regulations, as well as the operational benefits and associated lower costs of using an established administrative infrastructure for the operational aspects of the ELIXIR Hub. Nevertheless ELIXIR and the ELIXIR Hub will have operational independence from EMBL, through governance by the ELIXIR Board and a separate funding mechanism. Thus, EMBL will charge ELIXIR for services, personnel and overheads as appropriate. The rapid construction of ELIXIR will benefit from the opportunity to use resources within the operational administrative and technical teams; this budget covers the costs of these services.

2. ELIXIR objectives for 2014-2018 and associated resource requirements at the ELIXIR Hub

This section intends to outline the key activities and deliverables for ELIXIR over 2014-2018 and demonstrate the associated requirements at the ELIXIR Hub. The services, resources and activities of the ELIXIR Nodes are not covered in this document; these are covered in the separate Node proposals. The scientific and technical deliveries from ELIXIR (Hub and Nodes) over the period 2014-2018 are detailed in the accompanying *ELIXIR Programme*. The ELIXIR Programme also contains details on the organisation of the ELIXIR Hub (section 7) with details of the Hub roles.

Furthermore the ELIXIR Programme details a series of work streams required to develop and refine governance, policy and organisational details of the emerging ELIXIR infrastructures. Together these form a comprehensive action plan and this financial plan contains the associated resources and costs.

In the financial plan a minimal surplus has been created from 2015 to generate the cash flow necessary to purchase capital equipment. The financials show that the general reserve covering this cash flow is very low in two of the five plan years. Given the dynamic natures of this phase of ELIXIR and the associated financial challenges and given that ELIXIR carries a significant exchange-rate exposure with a requirement to maintain a positive cash-balance it is critical to build up a balance of 20-25% of operating expenses. This will be detailed in the annual budgets for each coming year.

Equipment

The Financial Plan provides for initial capital investment in IT equipment to support activities performed by Directorate staff. The Financial Plan also includes capital requirements to support acquisition of compute and storage resources in 2015 with renewal and provision of additional resources 2018 to support the ELIXIR technical delivery activities and storage requirements from European life-science communities.

Overhead

The ELIXIR Hub is located alongside EMBL-EBI on the Genome Campus in Hinxton, Cambridge, and will use as its legal basis an EMBL Special Project. Costs incurred by ELIXIR for accommodation and associated services, as well as administrative support from EMBL will be charged to ELIXIR based on existing EMBL financial rules. These rules provide for costs to be allocated based on a best estimate of actual usage.

EMBL taxation

The question of EMBL taxation was raised by Member States in the April 2012 Interim Board meeting. EMBL has confirmed that internal tax will not form part of the ELIXIR budget.

3. Conclusion

This paper sets forth the trajectory for establishing and building the ELIXIR Hub into a fully operational research infrastructure by 2018. In line with the objective articulated by the Interim ELIXIR Board to phase the Hub construction in-line with the development of Nodes, the Financial Plan sets out an accelerated effort towards the end of the period with a final annual contribution and budget from Member States of 5.4M€.

The annual budget for the ELIXIR Hub will be submitted to the ELIXIR Board each year in October/November Board meeting for approval together with the updated Member State contributions; hence the Financial Plan is an indicative scheme for planning purposes where details are expected to change.

This paper is presented to the ELIXIR Interim Board for information and discussion in preparation for submission of a final Financial Plan to the ELIXIR Board in April 2014.

Table I: Projected ELIXIR Financial Plan 2014-2018

Income	2014	2015	2016	2017	2018
Member State Contributions					
Ordinary Contributions (1)	€ 2,074,469	€ 3,170,537	€ 3,362,735	€ 3,957,590	€ 5,397,553
Total Income	€ 2,074,469	€ 3,170,537	€ 3,362,735	€ 3,957,590	€ 5,397,553
Expenditure					
Technological Activities					
<i>FTE</i>	1.50	6.50	10.00	16.00	19.00
Salaries	€ 201,080	€ 552,371	€ 777,650	€ 1,168,053	€ 1,477,559
Running Costs	€ 268,525	€ 283,822	€ 451,520	€ 495,623	€ 558,773
Technical Staff and Running Costs	€ 469,605	€ 836,193	€ 1,229,171	€ 1,663,676	€ 2,036,332
Capital and Equipment	€ 7,386	€ 365,452	€ 106,079	€ 54,004	€ 731,780
Total Technological Costs	€ 476,991	€ 1,201,645	€ 1,335,250	€ 1,717,680	€ 2,768,112
Directorate and Administrative Costs					
<i>FTE</i>	9.00	10.50	10.80	11.80	11.80
Salaries	€ 786,566	€ 917,173	€ 928,172	€ 1,018,639	€ 1,093,849
Running Costs	€ 540,982	€ 616,643	€ 577,770	€ 540,443	€ 772,104
Equipment	€ 7,761	€ 0	€ 0	€ 0	€ 14,396
Directorate and Administrative Costs	€ 1,335,309	€ 1,533,816	€ 1,505,941	€ 1,559,082	€ 1,880,349
Total Expenditure before Overhead	€ 1,812,299	€ 2,735,461	€ 2,841,191	€ 3,276,762	€ 4,648,462
Overheads	€ 262,170	€ 410,076	€ 496,544	€ 655,827	€ 724,092
Total Expenditure	€ 2,074,469	€ 3,145,537	€ 3,337,735	€ 3,932,590	€ 5,372,553
Surplus/(Deficit)	€ 0	€ 25,000	€ 25,000	€ 25,000	€ 25,000
General Reserve					
Opening Balance	€ 112,747	€ 112,747	€ 56,380	€ 146,474	€ 184,493
Movement in Year	€ 0	€ 25,000	€ 25,000	€ 25,000	€ 25,000
Transfer to Depreciation Reserve	€ 0	-€ 81,367	€ 65,094	€ 13,019	-€ 159,479
Closing Balance	€ 112,747	€ 56,380	€ 146,474	€ 184,493	€ 50,013
<i>General reserve as % of total costs (4)</i>	6%	2%	5%	6%	1%
Depreciation Reserve					
Opening Balance	€ 0	€ 0	€ 81,367	€ 16,273	€ 3,255
Transfer from General Reserve	€ 0	€ 81,367	-€ 65,094	-€ 13,019	€ 159,479
Closing Balance	€ 0	€ 81,367	€ 16,273	€ 3,255	€ 162,734

Table II: Indicative Member States contributions for ELIXIR Members Oct 10

Calculations	Avg NNI 2009-11	% Contribution to ELIXIR	2014	2015	2016	2017	2018
Czech Republic	€ 133,040	1.77%	€ 36,792	€ 56,231	€ 59,640	€ 70,190	€ 95,728
Denmark	€ 224,687	3.00%	€ 62,136	€ 94,967	€ 100,724	€ 118,541	€ 161,672
Estonia	€ 14,963	0.20%	€ 4,138	€ 6,324	€ 6,708	€ 7,894	€ 10,767
Greece	€ 233,328	3.11%	€ 64,526	€ 98,619	€ 104,597	€ 123,100	€ 167,890
Finland	€ 181,580	2.42%	€ 50,215	€ 76,747	€ 81,399	€ 95,799	€ 130,655
Israel	€ 139,882	1.86%	€ 38,684	€ 59,123	€ 62,707	€ 73,799	€ 100,651
Italy	€ 1,593,532	21.24%	€ 440,685	€ 673,525	€ 714,355	€ 840,721	€ 1,146,616
Netherlands	€ 597,956	7.97%	€ 165,362	€ 252,733	€ 268,054	€ 315,472	€ 430,255
Norway	€ 309,577	4.13%	€ 85,612	€ 130,846	€ 138,778	€ 163,327	€ 222,754
Portugal	€ 158,587	2.11%	€ 43,857	€ 67,029	€ 71,092	€ 83,668	€ 114,110
Slovenia	€ 35,339	0.47%	€ 9,773	€ 14,936	€ 15,842	€ 18,644	€ 25,428
Spain	€ 1,111,086	14.81%	€ 307,266	€ 469,614	€ 498,082	€ 586,191	€ 799,475
Sweden	€ 347,909	4.64%	€ 96,213	€ 147,048	€ 155,962	€ 183,551	€ 250,336
Switzerland	€ 371,821	4.96%	€ 102,825	€ 157,154	€ 166,681	€ 196,166	€ 267,541
United Kingdom	€ 2,048,068	27.30%	€ 566,385	€ 865,640	€ 918,116	€ 1,080,527	€ 1,473,675
Total	€ 7,501,354	100.00%	€ 2,074,469	€ 3,170,537	€ 3,362,735	€ 3,957,590	€ 5,397,553

Table III: Indicative Member States contributions including France as a new MoU signatory.

Calculations	Avg NNI 2009-11	% Contribution to ELIXIR	2014	2015	2016	2017	2018
Czech Republic	€ 133,040	1.39%	€ 28,762	€ 43,958	€ 46,623	€ 54,870	€ 74,835
Denmark	€ 224,687	2.34%	€ 48,574	€ 74,239	€ 78,740	€ 92,668	€ 126,386
Estonia	€ 14,963	0.16%	€ 3,235	€ 4,944	€ 5,244	€ 6,171	€ 8,417
Greece	€ 233,328	2.43%	€ 50,442	€ 77,094	€ 81,768	€ 96,232	€ 131,246
Finland	€ 181,580	1.89%	€ 39,255	€ 59,996	€ 63,633	€ 74,890	€ 102,138
France	€ 2,094,350	21.83%	€ 452,772	€ 691,999	€ 733,948	€ 863,780	€ 1,178,066
Israel	€ 139,882	1.46%	€ 30,241	€ 46,219	€ 49,020	€ 57,692	€ 78,683
Italy	€ 1,593,532	16.61%	€ 344,501	€ 526,522	€ 558,440	€ 657,226	€ 896,357
Netherlands	€ 597,956	6.23%	€ 129,270	€ 197,572	€ 209,549	€ 246,617	€ 336,348
Norway	€ 309,577	3.23%	€ 66,927	€ 102,288	€ 108,489	€ 127,680	€ 174,136
Portugal	€ 158,587	1.65%	€ 34,284	€ 52,399	€ 55,575	€ 65,407	€ 89,205
Slovenia	€ 35,339	0.37%	€ 7,640	€ 11,676	€ 12,384	€ 14,575	€ 19,878
Spain	€ 1,111,086	11.58%	€ 240,203	€ 367,116	€ 389,371	€ 458,249	€ 624,982
Sweden	€ 347,909	3.63%	€ 75,214	€ 114,954	€ 121,922	€ 143,490	€ 195,698
Switzerland	€ 371,821	3.87%	€ 80,383	€ 122,854	€ 130,301	€ 153,351	€ 209,148
United Kingdom	€ 2,048,068	21.34%	€ 442,766	€ 676,706	€ 717,728	€ 844,692	€ 1,152,032
Total	€ 9,595,704	100.00%	€ 2,074,469	€ 3,170,537	€ 3,362,735	€ 3,957,590	€ 5,397,553