

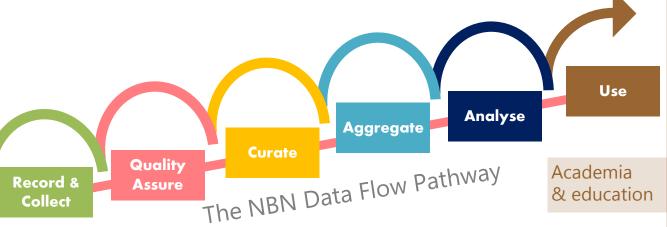
Overview

- 1. Overview of the SBIF Review
- 2. Drivers for change
- Benefits and value for Scotland
- 4. Emerging recommendations
- 5. How you can help
- 6. Discussion
 - What else would increase the value of the Review for SG?
 - What windows of opportunity might there be to connect to key initiatives?
 - What will the SG process be after submission of the Review Recommendations?
 - Ownership of the response to the Review?

The Infrastructure

National & Local Government

The systems, processes and coordination facilitating biological records being **NGOs** collected, shared and used...





Collect

Commercial & corporate

The Public



You and Me

Origin of the Review



(For official use only)
PUBLIC PETITION NO.

PE1229

Should you wish to submit a public petition for consideration by the Public Petitions Committee please refer to the guidance leaflet <u>How to submit a public petition</u> and the Guidance Notes at the back of this form.

1. NAME OF PRINCIPAL PETITIONER

Craig Macadam, on behalf of Biological Recording in Scotland (BRISC)

2. TEXT OF PETITION

Calling on the Scottish Parliament to urge the Scottish Government to establish integrated local and national structures for collecting, analysing and sharing biological data to inform decision making processes to benefit biodiversity

3. ACTION TAKEN TO RESOLVE ISSUES OF CONCERN BEFORE SUBMITTING THE PETITION Calling on the

For a number of support a Scottish Parliament to urge the Scottish Government to the Scottish Governme

We have Boyack, T analysing and sharing biological Arthur Harvie, Chir. data to inform decision making

All nature conservation processes to benefit and on the knowledge of where the knowledge of where the knowledge of where the biodiversity and professionals and volunteers. It is critical the second of the knowledge of where the knowledge of which the k

The purpose of this petition is to urge Scottish Ministers to help put in place a network of formal biological data-sharing partnerships all over Scotland. These partnerships would identify, collate, mobilise, and possibly gather the biological data required to inform land-management decision-making, by public as well as by private bodies, thus enabling them to exercise their duty to further the conservation of biodiversity as stipulated in the Nature Conservation (Scotland) Act 2004. In addition, these data sharing partnerships would make biodiversity information readily available to everyone

Ministear airson na h-Àrainneachd Minister for Environment and Climate Change Roisin Chonaigean BPA Roseanna Cunningham MSP

F/T: 0845 774 1741

: scottish.ministers@scotlang.esi.eov.u

Dr Ian Bainbridge Head of Science Scottish Natural Heritage Silvan House, 3rd Floor East 231 Corstorphine Road Edinburgh EH12 7AT

Ur faidhle/Your ref: Ar faidhle/Our ref: B4458277 I December 2010

Dear D. Baibil

Thank you, and the member

comprehensive report on the

Attached to this letter is the Scottish recommendations within that report. Cappropriate that they are given details be an agenda item at the upcoming C

I look forward to hearing the outcome recommendations where appropriate.

1025

recording.

ROSEANNA CUNNINGHAM

The Scottish Government Rioghaltas na h-Alba

Scottish
Government,
SNH and others
should establish a
Scottish Environmental
Information Forum (SEIF)...

···SEIF should review the role, funding and coverage of LRCs and other local options for biological data management across Scotland as part of the process to ensure that the necessary structures are in place to collect and disseminate biological information across Scotland

Taigh Naomh Anndrais, Rathad Regent, Dùn Èideann. EH1 3DG St Andrew's House, Regent Road, Edinburgh. EH1 3DG Www.scotland.gov.uk



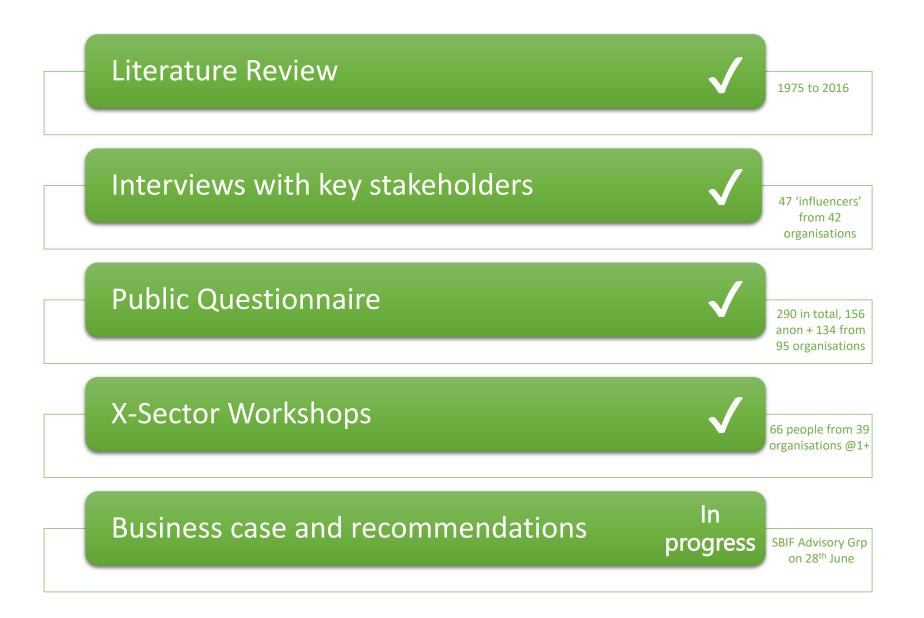




09/01/2009

14/12/2010

Approach



Literature review

1975: The present **financial situation** and attitudes to biology in Scotland is not encouraging. We must plan for a brighter future... This is **a time of change** - the very time to press a case and win it. The needs of the planners and the conservationists should be carefully analysed; the currently diverse and uncoordinated network of data banks should be unified and improved to cope with the increasing amount of biological information. [Source: Conference on biological recording in Scotland, A. Ritchie]

1988: A considerable amount of the **information is not easily available**, and so is not used by those who require it. If the nation is to profit from its reservoir of recording talent and have the ability to make planning and conservation decisions from a firm base, there must be a commitment to invest in the setting-up of an efficient network... A coordinated national recording network could operate at less or the same total costs at present spent on recording by a **multiplicity of bodies**. The proposed network could be self-financing if it could channel the information currently commissioned from a wide variety of people... A continuing supervisory body should be established to **oversee local records centres**. [Source: Biological Survey Need & Network, R.J. Berry]

1995: If a re-organisation for improved coordination and accuracy of biological recording is to be implemented the options necessary to support a business case must be expressed clearly, the necessity for change being spelt out rationally; defined in specific policies, after the potential roles of participants have been clarified and agreed by the recording community, <in a way> which can be readily understood by the public. Clear and far-sighted, authoritative leadership will be essential. [Source: Biological Recording in the United Kingdom, J. Burnett, C.J.T. Copp, P.T. Harding]

2016: LOCAL AUTHORITIES SHOULD PURSUE THE ESTABLISHMENT OF SHARED SERVICES. **Radical solutions need to be realised.** Shared services would be particularly helpful in specialist areas where it is unrealistic to expect all local authorities to maintain a high level of expertise in-house. [Source: An Independent Review of the Scottish Planning System]

Interview 'rich pictures'

- > My biggest concern is how to continue to keep my business running in an open data world? For many, funding is so uncertain year to year We need simplified data flows, and it would be a huge time saver for us if there
- was a process to extract data from consultants reports into our database With more resources and a coordinated approach we could be delivering a
- consistent service across Scotland so no one is left out. Like others, we want increased verification capacity, consistent recording technologies and standard data formats!
 - Perhaps having one central database which we can all contribute to, and access data from, of a known quality, would save a lot of time and resources.....BUT I would potentially be giving up control of our inhouse local database and putting this in the

SERVICES

DATA & SERVICE REQUESTS

- We need a shared vision and shared ownership of the future with clear roles and responsibilities so we are not competing for the same space any more.
- > It's a joy to be a central hub for the community, for training courses and other events and we can support to NSS, amongst others, in data mobilisation, gap analysis, data validation, publishing newsletters, developing websites and hosting
- > If aspects of our roles are to change, supporting recorders and NSS would be something I really think service providers need to retain
- Assuming a sustainable source of income for all, could there be an automated online system through which data users can request and subsequently access data for an appropriate fee - to free up time for innovation and moving service provision businesses into new spaces?
- > Consistent use of biodiversity records needs to be an integral part of screening planning applications - we need Scottish Government legislation to intervene
- Notwithstanding budget cuts, a simple online system for rapid screening of applications would be a good start!
- > We all need specialist IT support increased sharing of skills and tools has been a real success for some - perhaps we could create a more formal 'shared services' model?

I hope that as a funder I am going to be able to help us all realise a new shared vision, with clearer roles for all We need the funding process (those who are funded

and the funding conditions) to be sin

- straightforw There need to b - more time sh reporting on it
- > In return for funding I make their data ope new infrastructure n
- > I need to get maximum and I would like to see ! new technology and w their reliance on incom

SERVICE

COMMUNITY

more sustainable funding models - so I am happy

to support change that delivers these

- > A key part of our role is to collate data and
- > Data quality is very important to us so we need clear data management systems and processes and streamlined. outagraws especially detivered us and verifiers

 We need more people trained in taxa identification!! But also we need more propie trained in task identification! But also verification processes that make use of technology would help flection processes that make use of technology would nell power the small numbers of hard working verifiers that do
 - Fiftherit, clear, and, ideally, live data flows would make our job Spicern, clear, and, lagelly, live adds glows would make our fee easier - it is challenging to know whicher we should share precords an a methods standards. An address the share the share of the standards of the standards of the standards of the standards. easier - It is challenging to know whether we should share records to a national database, or whether they have already
 - been provided by another data provider

QUALITY ASSURED DATA

UNVERIFIED RECORDS; ERIFICATION SERVICES

There is a lot of duplication of effort because pathways are not clear? We spend considerable time reformatting data that we receive into a We spend considerable time reformatting data that we receive in standard format that can be shared — everyone likes to do things that can be shared—everyone likes to a things to the shared that the standard format that can be shared as the standard format that can be shared to the shared that the standard format that can be shared to the shared that the shared tha standard format that can be shared — everyone lases to do things of superior that the condition of the condi offerency out it, would some a lot of other if we other thicke as do using

Whot would really help is to find better woys to mobilize data using

some above the committee of th neep is to gind better ways to movinse bata using to help data flow into a central data warehouse, es and download their data holdings and see

having a standard format to present the data makes life (

lot easier.....BUT if I need to

from a variety of formats to

am happy to collate data

bring them together

as GIS software.

> We need access to tools such

RAW DATA;

DATA PRODUCT

· We all need access to raw data of known quality, this isn't just biological recording data, but also socioeconomic data and othi datasets so we can bring data together For me open data makes my life so much

for me open data makes my life so made easier as I have a huge pool of possible easier as 1 move a mage proof of prossions datasets to rapidly access and explore.

> I should be showcasing and promoting case studies of how I use anoual of showcosing and promoting case studies of now () of data to encourage others to do the same, while providing more data and the same of the sa

data to encourage others to do the same, while providing confidence to data providers that I'm responsible in my use of ours .

My vision is to have reliable, easily accessible, high quality data by Wishon 15 to have resigned, easily accessions, right quanty of with confidence of full coverage of the local area. I legact determinates assisted have to be considerated less a secure.

were confidence of Just coverage of the local area — legocyte
dotobases would have to be amalgamated into a secure,
areans available to be amalgamated into a secure,
but some available to be a secured a familiar and a secure. agrabases would have to be amargamated into a secure, stable national database, but this would eliminate the need to yetner data from various sources

We need an agreed model for data flow that everyone uses and

I don't mind spending my own money as long as

I feel I am playing a part and my contribution is

SERVICES

- Along with other roles, we see the need for clear dataflows, perhaps with flagged unverified and verified We really value all of the effort that goes into the data together in a central place process of making data available for us to access though not everyone garees
- It would help if we received records in Access to training courses and documentation to a consistent format, but we don't accompany new tools as they are developed is want to put recorders off! iRecord is good as all the data are in one vital for me to grasp new systems and processes place, plus you can store photos Clear roles and responsibilities for our infrastructure are needed and we must have
 - We need funds to train recorders a little money could go far, and we often use our own cash currently. We also need long term sustainable

make them available, so we need clear

misuse and ensure protection of

policies and agreements to prevent data

There is a need to be able to digitise and

share historic data, including museu

We need access to IT skills and support for data management then we would have more time for

position - while still collaborating with partners and suppliers of

confidence

BIOLOGICAL RECORDING

DATA COMMUNITY

RECORDS

► I need to ask recorders questions about their records - I

mechanism for this eg. email, through iRecord etc

Lots of us use iRecord so we can see which records are

waiting for our attention - it would be great if all

records were in a central database!

We need more tools that automate the

records based on an initial level of

We need more verifiers! More help is

verification process - especially to filter

needed with the increasing number of

records that need verifying, especially

I do have a lot of records to get through so it would be

very helpful if recorders could include photos with their

am happy to accommodate whatever is their preferred

REFERENCE

MATERIAL

& RECORDS

We need long term sustainable funding!and to increase recording activityand taxonomic skills!

We'll happily receive records via any channel - we don't want to deter recording!! BUT we would prefer recorders to enter data into iRecord, or a centralised system.....lack of standard policies and processes slows down the flow of data and duplicates data handling

Like recorders, we struggle to determine the best route for dissemination of records to the appropriate organisations - dataflows need to be clearer

> Sending our records to the national database can be challenging as we need to reformat them from our local databases which slows the process downBUT, once there it's areat, we can use the data for our website.

We are happy to share our data with LERCs, to add value and create data products, but we would like to move to an open data ethos so data are more widely available

RLIT maybe some sectors who need access could fund those who collect and verify?

> We would like to spend more time educating and less time processing data and chasing missing information

Recorders

- Verifiers
- **Collection Curators**
- **Recording Group Operators**
- **Recording Scheme Operators**
- Service Providers
- Service Users
- Funders
- Data Providers
- 10. Data Users
- 11. Data Developers
- 12. Facilitators



to look after....EXCEPT we have little funding for expansion of collections. It would help if they were recognised as 'big data' then we could secure more fundina

 We are here if verifiers need a specimen for id purpo. personal collections!

If only we could digitise specimens held in collections across the country and link with GBIF and NBN, then anyone could access them online!

We love people to come and view our collections, it's an opportunity to increase awareness of the natural world - and we



COLLECTION CURATORS

EVENTS

valued. I just want to go out and record! Sometimes I need to collect specimens and access taxon experts to verify But please could someone clearly identify which data should be sent where? How about just one secure place for all the data to go, where everyone can drop in and collect the data they

I am happy with my note book and pencil in the field - I have a system and it works!BUT

> Many of us love to use recording Apps and would be lost without technology We are all different so to an extent we

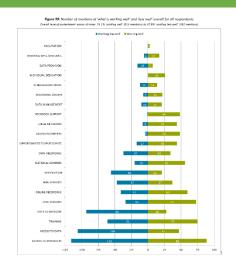
should all be allowed to record how we want to - otherwise we won't do it!

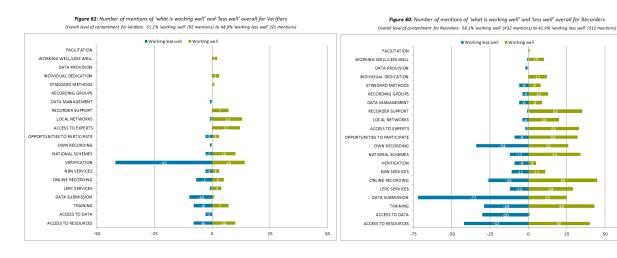
TRAINING & EXPERTISE

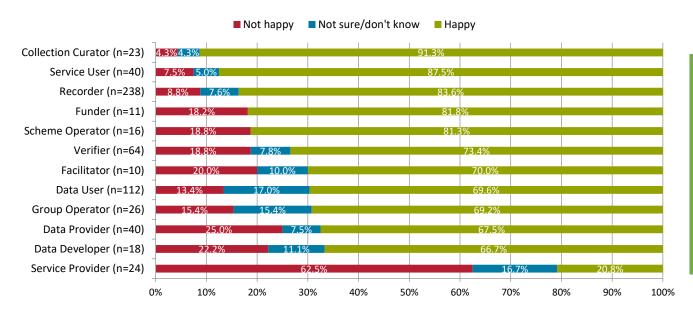


Questionnaire findings

Some things are working well (e.g. online recording and training) and some are working less well (e.g. data submission, verification and access to resources)



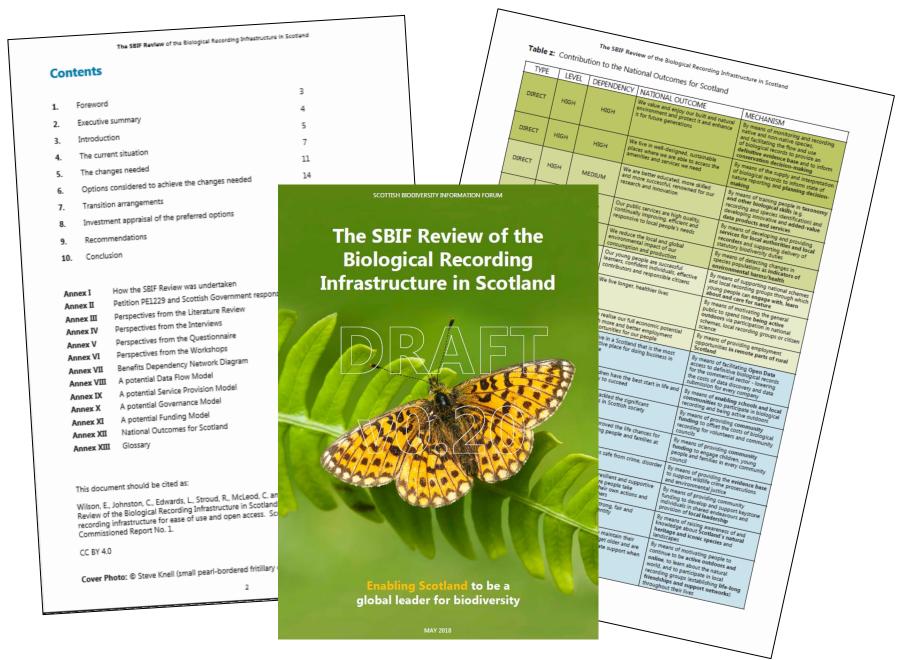




Service
Providers are
least happy
about Open
Data because
of the need to
cover costs...



Business case and recommendations



Key issues

Lack of long term funding

Cost and distance involved in taking part

Multiplicity of systems

Local data silos

Confusion and duplication around data submission

Lack of joined-up governance and collective leadership/synergy

Low

digital

maturity

Being a Public Good

Cost of 'data sleuthing'

Data exploitation with no return to the infrastructure or

Recorders (free-riders)

Competition for resources

Best versions withheld

Fear of loss of IPR

Pressure on SuperVols

Chronic under-investment

Lack of parity of esteem

Open Data resistance





National/Scottish Infrastructure

Local and Regional Infrastructure

LERCs, Recording Groups, Biodiversity Partnerships Super Partner Infrastructure

Na Coll

National Schemes, NNSS, Collections, State of Nature

Drivers for change

- Insufficient sustainable funding and resources to operate the biological recording infrastructure effectively
- 2. Demand for timely access to Open Data of known quality
- Demand for complete coverage for service provision
- Proliferation and complexity of competing data flows causes inefficiency, confusion and frustration
- Insufficient support for, and recognition of, volunteers involved in biological recording
- Demand to achieve the Scottish Biodiversity Strategy and UN Sustainable Development Goals/Aichi Targets

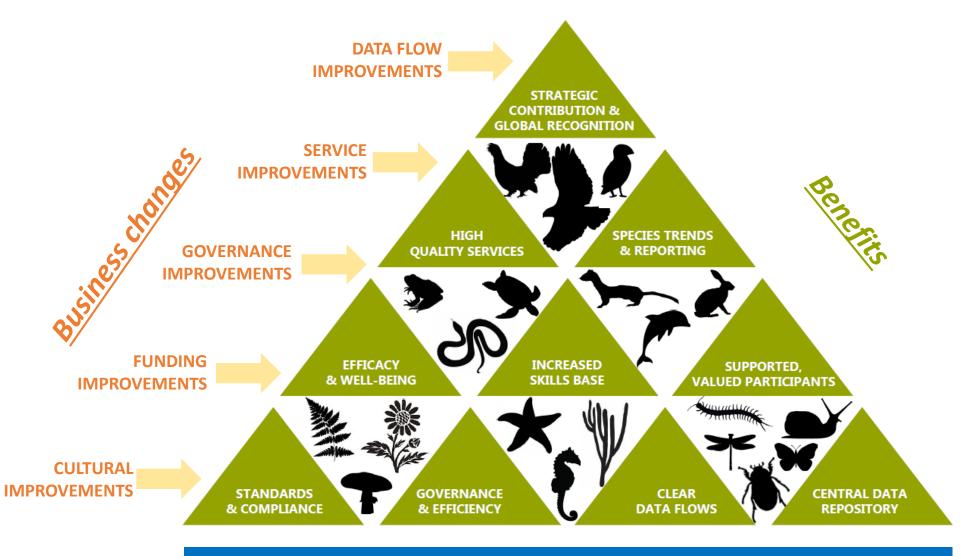
1975

"The present **financial situation** and attitudes to biology in Scotland is not encouraging. We must plan for a brighter future... This is **a time of change** - the very time to press a case and win it..."

Objectives

- 1. Establish and embed preferred models for data flow, service provision, governance and funding
- Provide consistent high quality services equally accessible to all public bodies in support of their statutory biodiversity duty and strategic goals
- 3. Better facilitate and grow the network of volunteer Recorders and Verifiers who are actively supporting, and being supported by, the infrastructure
- 4. Facilitate the open provision of biological records from all sectors for onward dissemination via a single central data repository
- 5. Establish a feedback mechanism for Recorders and Data Providers to showcase the use of their records and value of their contribution
- 6. Be universally recognised and valued for being the definitive provider of biological records in Scotland as a common evidence base for all purposes, all sectors and all generations

Benefits and business changes



DEGRADATION OF BIODIVERSITY, DEGRADATION OF DATA, UNNOTICED INNS ARRIVALS...

Avoided costs

Benefit dependency network

ENABLING PROJECTS

1

SBIF Review Recommendations Implementation Project

(delivering and embedding changes to data flow, service provision, governance, funding and culture)

2

Technical Capabilities Project

(designing and developing capabilities to support the business changes)

ENABLING TECHNOLOGY

User interface, data warehouse and and database/data management tools

- Automation and testing tools plus requirement and software code management tools
- Virtual classroom training tools and virtual collaboration tools
- Content management tools (including video streaming)
- Contact management tools and Microsoft Office software
- Business Intelligence, GIS and other analysis, visualisation and reporting tools

BUSINESS CHANGES

DATA FLOW

Establish and normalise clear routes for record submission via affiliated channels that deliver records directly to the central data repository for immediate aggregation

Establish an online data management and verification portal for viewing and management of relevant records, automated where appropriate

Include use statistics and voucher specimen links in record metadata and offer a suite of data layers to aid analysis/visualisation

2 SERVICE PROVISION

Ensure that services are equally accessible to all sectors and standardised through the use of common tools and processes

Establish a Digital First approach so that all services are easily accessible online (e.g. taxonomic training and planning screening)

Bring together the service functions of NBN, BRC and LERCs to maximise synergies between taxonomic and technical expertise

GOVERNANC

Appoint one lead governance body to be the independent supervisory authority for the biological recording infrastructure

Establish a Country Committee to oversee delivery of in-country services/products via a network of regional and national hubs

Establish a central service strategy with product ownership at the national level

FUNDIN

Provide full funding in perpetuity for the activities of the lead governance body and to support the activities of 'super partners' who also deliver core platforms or services

Establish financial accountability and performance review processes to report on the use and value of the funding provided

CULTU

Engender common goals, values and rapport between regional, national and tentral teams to create a One Team culture

All sectors realise value from making a genuine contribution in support of an Open Data infrastructure

Establish an Agile approach in all aspects of the development and operation of the infrastructure and its services

BENEFITS

- Clear data flows and submission
 points, with feedback on quality and use
 so Recorders know how to submit record
 and where their records are used
- All data are of known quality, quickly and openly available and easily accessed through a single central data repository with links to voucher specimens
- Services are consistently provided in perpetuity and Service Users know what services are available to them and are using them effectively for operational and strategic advantage
- 4 Recorders, Verifiers, Recording Groups and Recording Schemes have consistent access to high quality training and support and feel valued for their skills
- 5 A single organisation with oversight of the whole infrastructure creates cohesion while achieving economies of scale and the most efficient and effective risk management and use of resources.
- 6 Organisations that provide or govern key parts of the infrastructure as a public service have sufficient funding and resources to do so effectively with mproved well-being for staff and volunteers
- Our skills base is increased with more people engaged in biological recording, more records being collected and verified and fewer taxonomic gaps overall
- The infrastructure makes a key contribution towards delivery of the Scottish Government's strategic goals, positioning Scotland as a global leader in the quardianship of biodiversity
- Changes in species' distribution and abundance are more rapidly understood to inform appropriate responses to climate change and invasive species and to assess site condition/resilience and natural capita

requirements such as GDPR and good practice/standards required of affiliated partners and users of the infrastructure

OBJECTIVES

By 2025, establish and embed the preferred models for data flow, service provision, governance and funding to achieve the SBIF Vision

By 2025, provide consistent high quality services equally accessible to all ublic bodies in support of their statutory biodiversity duties and strategic goals

By 2025, better facilitate and grow the network of volunteer Recorders and Verifiers who are actively supporting, or being supported by, the infrastructure

By 2025, facilitate the open provision of biological records from all sectors for onward dissemination through a single central data repository

By 2025, establish a feedback mechanism for Recorders and Data Providers to showcase the use of their records and value of their contribution

By 2025, be universally recognised and valued for being the definitive provider of biological records in Scotland as a common evidence base for all purposes, all sectors and all generations

DRIVERS

Insufficient sustainable funding and resources to operate the biological recording infrastructure effectively

Demand for timely access to Open Data of known quality

Demand for complete coverage for service provision

Proliferation and complexity of competing data flows causes inefficiency, confusion and frustration

Insufficient support for, and recognition of, volunteers involved in biological recording

Demand to achieve the Scottish Biodiversity Strategy Goals and UN Sustainable Development Goals

Contribution to goals



TYPE	LEVEL	DEPENDENCY	NATIONAL OUTCOME	MECHANISM
DIRECT	HIGH	HIGH	We value and enjoy our built and natural environment and protect it and enhance it for future generations	By means of monitoring and recording native and non-native species, and facilitating the flow and use of biological records to provide an definitive evidence base and to inform conservation decision-making
DIRECT	HIGH	HIGH	We live in well-designed, sustainable places where we are able to access the amenities and services we need	By means of the supply and interpretation of biological records to inform state of nature reporting and planning decision-making
DIRECT	HIGH	MEDIUM	We are better educated, more skilled and more successful, renowned for our research and innovation	By means of training people in taxonomy and other biological skills (e.g. recording and species identification) and developing innovative and added-value data products and services
DIRECT	HIGH	MEDIUM	Our public services are high quality, continually improving, efficient and responsive to local people's needs	By means of developing and providing services for local authorities and local recorders and supporting delivery of statutory biodiversity duties
DIRECT	HIGH	MEDIUM	We reduce the local and global environmental impact of our consumption and production	By means of detecting changes in species populations as indicators of environmental harms/health
DIRECT	HIGH*	LOW	Our young people are successful learners, confident individuals, effective contributors and responsible citizens	By means of supporting national schemes and local recording groups through which young people can engage with, learn about and care for nature
DIRECT	MEDIUM	LOW	We live longer, healthier lives	By means of motivating the general public to spend time being active outdoors via participation in national schemes, local recording groups or citizen science
DIRECT	LOW	LOW	We realise our full economic potential with more and better employment opportunities for our people	By means of providing employment opportunities in remote parts of rural Scotland
INDIRECT	LOW		We live in a Scotland that is the most attractive place for doing business in Europe	By means of facilitating Open Data access to definitive biological records for the commercial sector - lowering the costs of data discovery and data submission for every company

Protected environment

Sustainable economy

Health

Skills

Community

Examples of value

Central/UK Infrastructure

£ Billions

- Single, central, open access biodiversity evidence base for all with clarity on data flow
- Lead governance organisation facilitating affiliation, cohesion and risk management



National Infrastructure

£ Billions

- National product ownership for NBN Atlas; bespoke national services/reporting; Aichi Target support
- Innovation and collaboration across all sectors; links to digital collections and enriched data

Regional Infrastructure

£ Millions

- Equal access to high quality biodiversity information services for all Local Authority areas in Scotland
- Encouraging Recorders to submit records and cover gaps; connecting beginners and experts alike

Super Partner Infrastructure

£ Millions

- Increased verifier capacity, support for key volunteers, succession planning, taxon expertise maintained
- Costs covered for 'public service' platforms (e.g. BSBI Plant DDb), so securing key resources and access

Communities

£ Millions

- Improved access to improved digital services, greater empowerment in citizen decision-making
- Greater support for deprived/remote communities access to events, equipment, training and experts

Scottish Government

- World-leading infrastructure to aid decision-making (sustainable economy, protected nature)
- Popular activities getting people outside discovering nature (health/skills/community)



£ Billions

Examples of value



Emerging recommendations

IMPROVED DATA FLOW

- Renewed commitment to NBN and NBN Atlas and a Scottish 'Product Owner'
- Data supply mandated as a condition of funding/consent/affiliation, via regulation or good practice
- NBN 'kitemark' for affiliated routes, iRecord as the route for adhoc records, regional recorder support
- Recorder 6 to evolve into a central data management portal for local use
- Financial support for costs of Platform Partners who provide 'public service platforms'
- Verification capacity building via Expert Partner funding and Community funding for verifiers
- System simplification programme with a rationalised platform road map
- LERC funding replaced with funding for 'Regional Hub Partners' open to a wider range of partnerships via NBN Trust
- Use feedback built into automated services in future

2. IMPROVED SERVICE PROVISION

- Focus on service improvement and consistent provision of a core set of services coordinated via NBN Scotland
- Service design programme using a business analysis approach supported by NBN Scotland

3. IMPROVED GOVERNANCE & CULTURE

- NBN Trust given special status as Lead Governance Organisation coordinating National and Regional Hubs
- Hosting of partners to share back end office services with access to professional HR support
- Training of all partners in use of 'agile' and 'business analysis', One Team profile and parity of esteem
- Bringing together/repackaging of NBN Trust and BRC skills and remit to unify data management elements

4. IMPROVED ENGAGEMENT & CONTRIBUTION

5. IMPROVED FUNDING

- Establishment of funding of \geq £3 million per annum for Scotland (e.g. a biodiversity levy/business rates, or subscriptions)

6. TRANSITION BY 2025



Potential components

NBN Atlas development and operation **Verifier support Affiliated National Hub for Major recording** Partners/Route **Scotland Regional Hubs for** scheme platform **Scotland** development and **Directory Recording group** operation support/outreach **National service iRecord** design & Product **Regional service** development and iRecord support for Owner design School/university operation minor schemes support/outreach National service Recorder Recorder 6 directory recruitment Collection curator **Community group** development and capacity building support/outreach operation Bespoke data Kit & training products/analysis bursaries **Expert verifier Support for UK Species** tools capacity building expeditions in **Inventory** remote areas/for taxonomic gaps **System** simplification **Central/UK National** Regional **Super Partner** Communities Infrastructure Infrastructure Infrastructure Infrastructure

NBN Trust

NBN Scotland National Hub

NBN Regional Hubs

Collections, State of Nature, NNSS, National Schemes

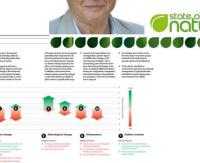
ture, Verifiers, recording groups,

Verifiers, recording groups, schools, community groups

Why now?

Pressures on the environment are causing a biodiversity crisis: from farming, forestry, INNS, climate change, hydrological change







Government funding (Aichi Target 20) is reducing and Open Data is changing business models

Amateur expert resource is dwindling, complexity of data flows, gaps in data collection and service provision; but massive consensus and collective energy from SBIF community...



Technological advances are enabling a huge increase in data collection and so pressures on verification





Sustainable economy

> Significant dependencies between our National Outcomes and a biodiversity evidence base, taxonomic skills and community engagement (connecting people with nature)

Scalable investment choices



Value



£0.5m-£1m

Local Communities

- Verifiers
- Recorders & Recording Groups
- School, University & Community Groups

£0.75m-£1m

Regional Hubs

- Recorder support
- Local Authority support
- Local engagement

£0.25m-£0.5m

National Hub

- National Product Development
- Bespoke tools and reporting
- National list and layer curation

UK Hub

£1m-£2m

- UK Product Development
- Data Partner support
- •Standards and affiliation
- UK Species Inventory
- Data warehouse and aggregation

£0.5m-£1.5m

Super Partners

- Museums and Gardens
- National Schemes
- Non-Native Species Secretariat
- State of Nature Partnership

Annual operating costs of c. £2.5m-£6m for Scotland

With the potential for other UK countries to share central and super partner costs to halve the total cost for Scotland

Some opportunity to develop interim funding through grant applications and partnership working

Phased and agile approach, active benefits management and engaging progress reporting

Huge public engagement potential for all sectors, communities and ages; positive x-party political support



Next steps

FINISH

Review Phase

- Business case and recommendations
- Close down the Review ASAP

ASAP

START

Advocacy Phase

- Priming of Funders
- Decision by Scottish Government et al
- Holyrood reception with Species Champions?

2018 19

Subject to funding

PLAN

Implementation Phase

- Central systems and governance
- National and regional services and support

2019 | 2020



Scottish Environment LINK The voice of Scotland's environment community



































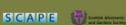








































How you can help

