



Overview about an IT-Based Online Application and Monitoring System

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funded by



implemented by



Development of the concept (1)



- ABS Capacity Development Initiative started working in the Caribbean region in 2012
- Research on legal and scientific aspects of marine bioprospecting
 - Information on extract from soft coral *Antillogorgia elisabethae* in Estée Lauder cosmetics
- First presentation in Jan 2013 raised interest in The Bahamas
- BEST Commission workshop in Jan 2014 established contact with Marsh Harbour Exporters & Importers
 - Information on ABS contract and management system
 - Information on research permit system

Development of the concept (2)



- Paul Oldham (UK) developed a innovative text mining system for the ABS Initiative to find out whether genetic resources from a specific country were used in patents or publications
- The research permit system of The Bahamas with up to 100 permits per year offers a wealth of data on researchers and institutions having accessed genetic resources and undertaken R(&D)

The idea: Using the permit data to screen public data (publications and patents) to follow critical point in the value chain

The concept: Using text mining software and open source software in an automated system combining application and monitoring process

The effect: Increased clarity and transparency for access, increased confidence in effectiveness of benefit sharing system

Development of the concept (3)



- The Bahamas Environment, Science and Technology Commission applied for a national GEF MSP Project
- First elements of the IT-based system were developed and tested during the Project Preparation Grant phase in 2015
- The methodological concept and software elements was finalised in June 2016
- The full system will be developed starting in August 2016
- The concept and the work in The Bahamas will be presented at COP MOP 2 in Dezember 2016

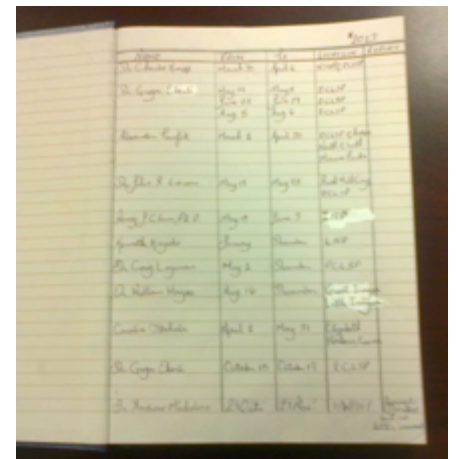
Development of the concept (4)



- In August 2016, the ABS Initiative and Kenyan institutions decided to implement the IT-based system in Kenya
- The system will create a one-stop cloud-based portal
- The starting point is the application for a research permit at NACOSTI; an „ABS-trigger“ question will lead the applicant to the ABS portal if the research falls under the Kenyan ABS Regulation
- Based on the information given by applicants, all necessary documents for all permits necessary need to be submitted online
- All involved institutions will be informed and work on the application
- All communications and documents will be kept in the system

The Situation

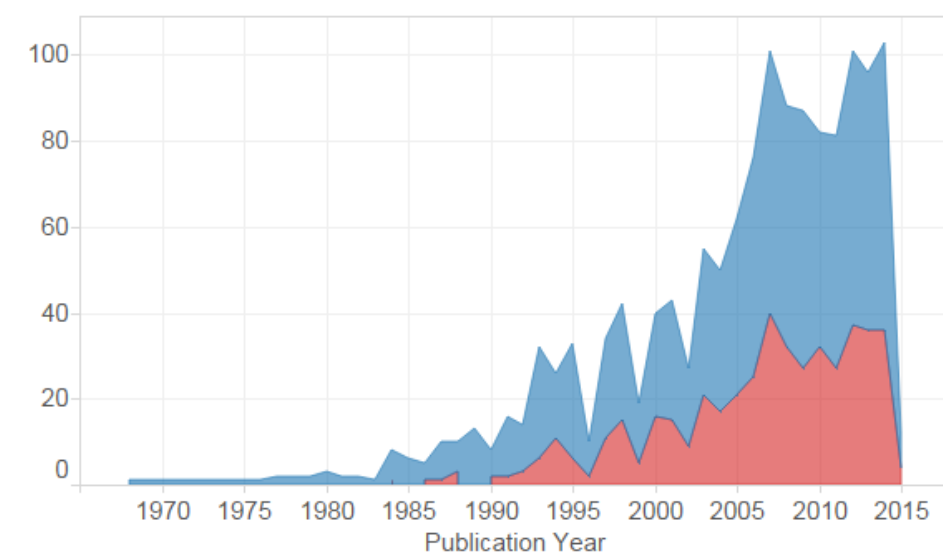
- Multiple permit granting authorities
- Printed records (ordered/disordered)
- PDF records
- Electronic records (Access/Excel files)
- On the spot monitoring (Customs checks) but not clearly linked up to wider system
- Partial other monitoring (requesting reports) but not clear what use is made of them and nothing on patents (but an important potential resource)



The Data

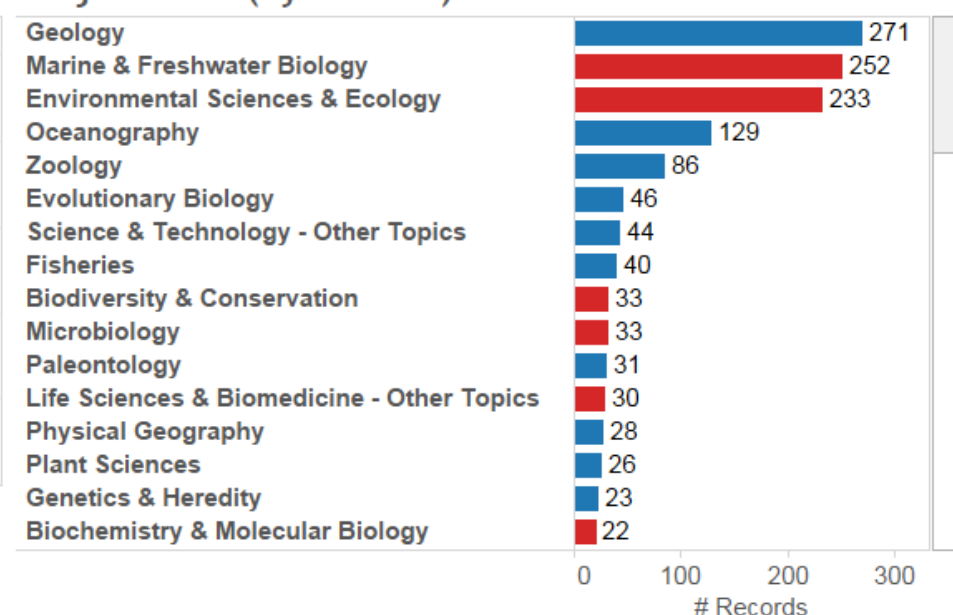
- BEST Commission: 173 permit holder names, 56 files
- DMR: 421 permit holder names, 605 permit IDs
- 251 institution names
- Data is not complete, so the view is partial.
- In the PPG we were not searching for all publications or patents. We were just piloting with publications and patents that mention The Bahamas.

Permit Holders - Trends in Scientific Publications

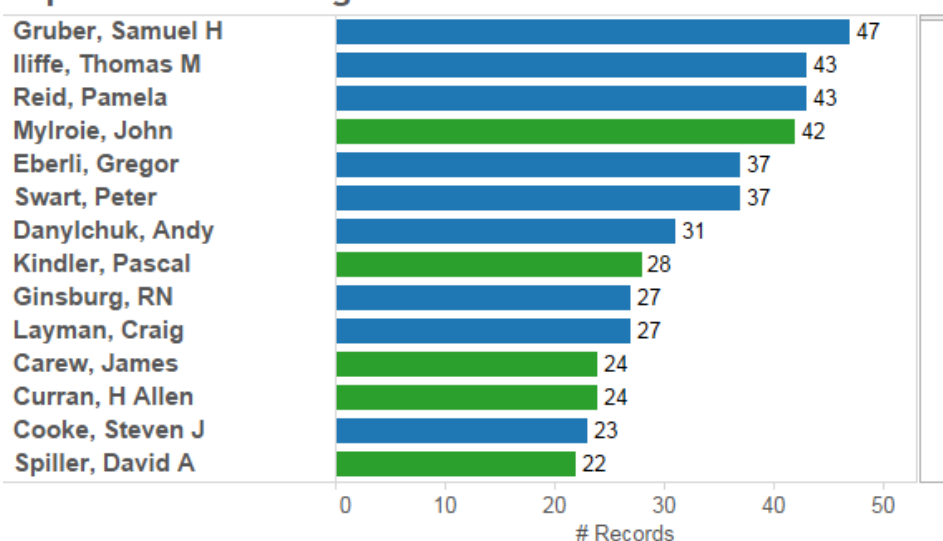


Subject .. All Subjects ABS Relevant

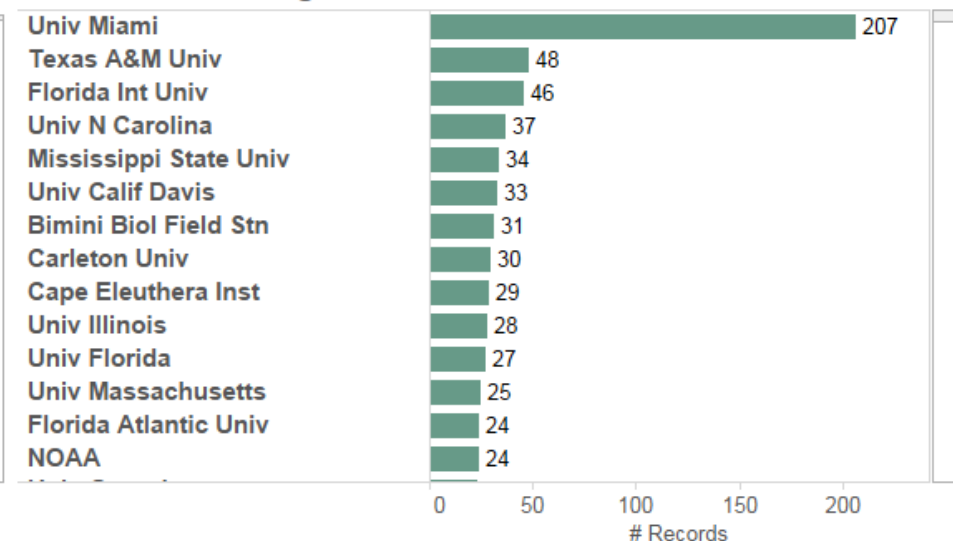
Subject Area (by Journal)



Top Authors Holding Permits

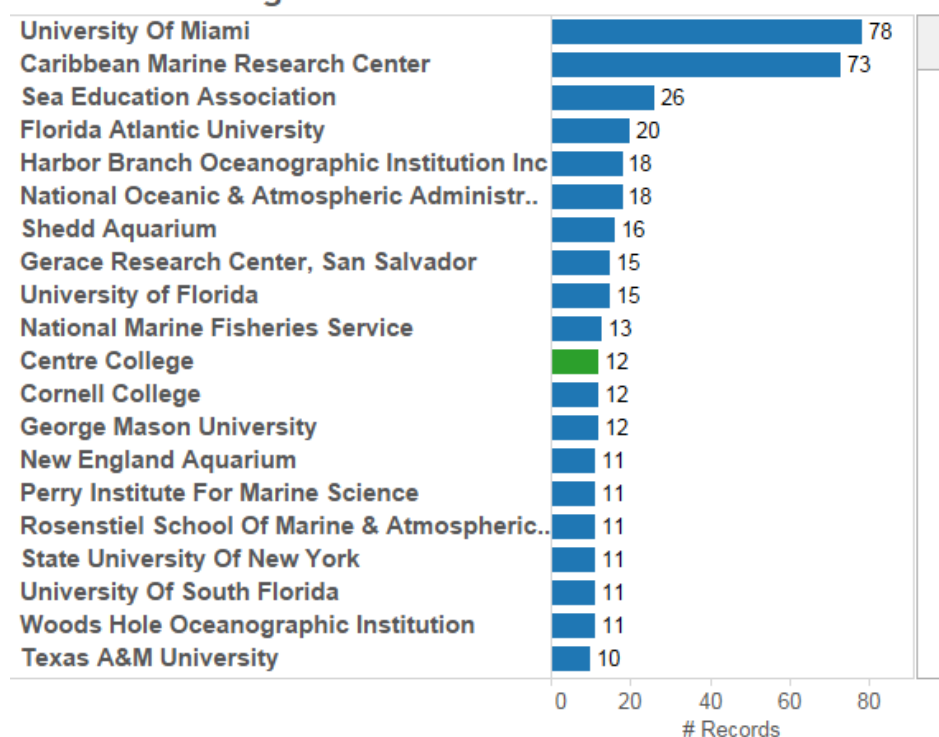


Permit Holders Organisations

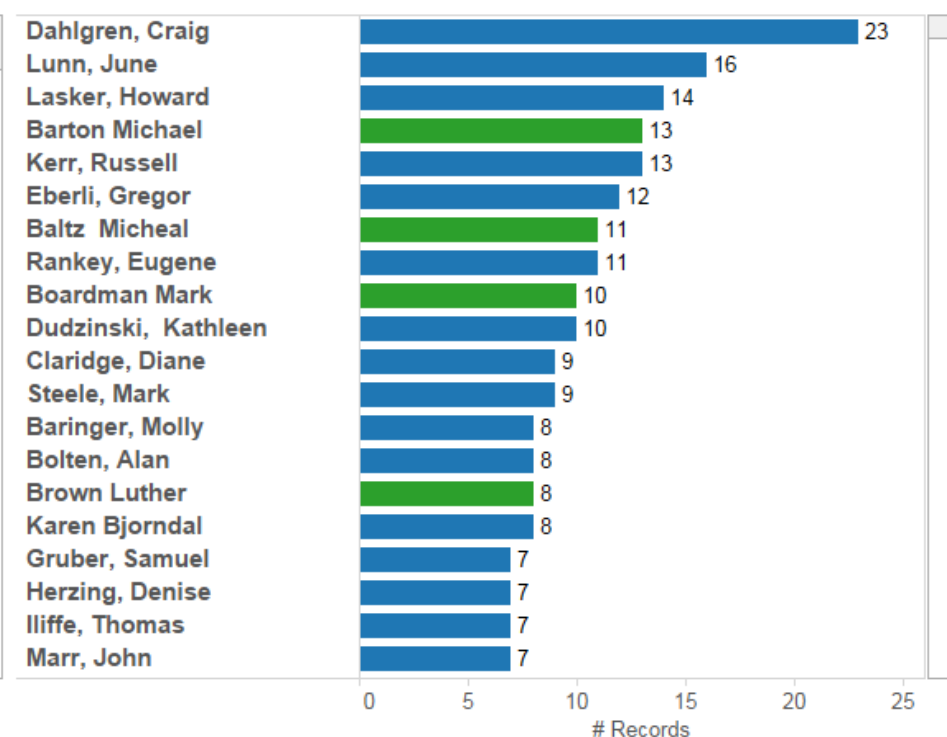


Trends in Scientific Publications by Researchers holding Research Permits who reference the Bahamas in their publications (all years). Data Source: Web of Science. For Author Permits (only) Marine Department is Blue, BEST is Green.

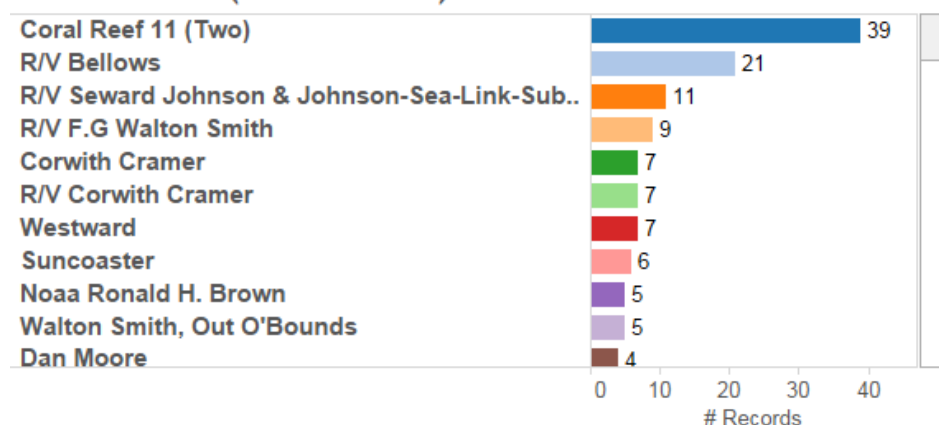
Permit Data Organisations



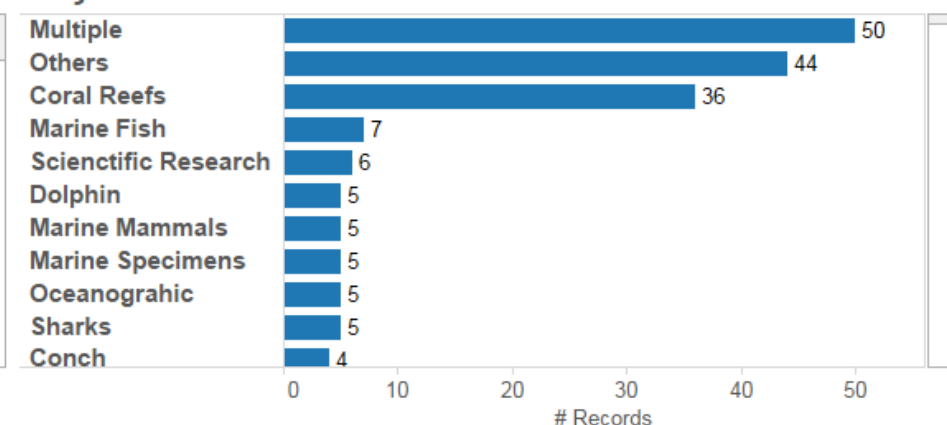
Permit Holders - Researchers



Vessel Names (Part Cleaned)



Subject of Permit



Displays Number of Permits. Marine data is shown in dark blue, BEST in green. Based on available Permit data.

Concept for an IT-based electronic application and monitoring system



- A single electronic permit system that makes it easy for users to apply for ABS permits and for multiple government authorities to review and approve applications, monitor compliance and report on the implementation of the Nagoya Protocol.
- A modular system that can be implemented in the context of existing research permit systems or as a self-standing system.
- A cost effective monitoring system for scientific publications, patents and products arising from research and development involving genetic resources and/or associated traditional knowledge.

About

This is the project site for a model Online Research Permit and Monitoring System to support national implementation of the [Nagoya Protocol](#).

The idea behind the model is to assist Parties to the [Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization](#) of the [United Nations Convention on Biological Diversity](#) with implementing the Nagoya Protocol.

The model focuses on the creation of an online permit and monitoring system to make it easier for governments to administer research permit applications involving genetic resources and traditional knowledge and to monitor compliance under the Nagoya Protocol as well as making it easier to prepare national reports.

Download in Word and PDF

You can download Word versions of the sections in a .zip file [here](#). For pdf versions go [here](#).

You will also need to view the schematics which demonstrate the basic functions of the system. You can view them online from the Schematics menu or download them in [powerpoint](#), [keynote](#) or [pdf](#). The schematics are meant to be viewed as a slide show in presentation mode.

The draft workplan can be downloaded as headings to assist with project planning [here](#).

Who Developed This?

The original model was written by Dr. Paul Oldham as part of work with Hartmut Meyer and Olivier Rukundo on implementation of the Nagoya Protocol in the Bahamas. The updated version is a joint work in progress and much better for it.

Financial Support

The model was developed with the support of [The Bahamas Environment, Science & Technology Commission \(BEST\)](#) of the Government of the Bahamas under the UNEP/GEF project "Strengthening Access and Benefit Sharing (ABS) in the Bahamas" as set out in Oldham, P (2015) *Concepts for an Electronic Monitoring Tool. UNEP/GEF project "Strengthening Access and Benefit Sharing (ABS) in the Bahamas"*. We were able to do further work with the additional support of [The ABS Capacity Development Initiative](#) through the [Deutsche Gesellschaft für Internationale Zusammenarbeit \(GIZ\)](#). We express our sincere thanks to the BEST Commission, UNEP/GEF and the ABS Capacity Development Initiative and GIZ for their support. We would point out that the views expressed are solely those of the authors and should not be interpreted as reflecting the views of the Government of the Bahamas, the ABS Initiative or GIZ. Spelling mistakes, misnumberings and disasters with diagrams are definitely somebody else's fault.

Suggested Citation

Oldham, P; Rukundo, O; Meyer, H (2016) An Online Research Permit and Monitoring System to Support Implementation of the Nagoya Protocol. Concept Paper. [DOI to follow]

About this Site

The site was written in [rmarkdown](#) in [RStudio](#) and rendered using [knitr](#) in the latest [Preview version](#) of RStudio supporting website builds. The site and its files are accessible in the [Github repository](#).

**2016 Revised
and updated
concept paper**

The system is supporting:



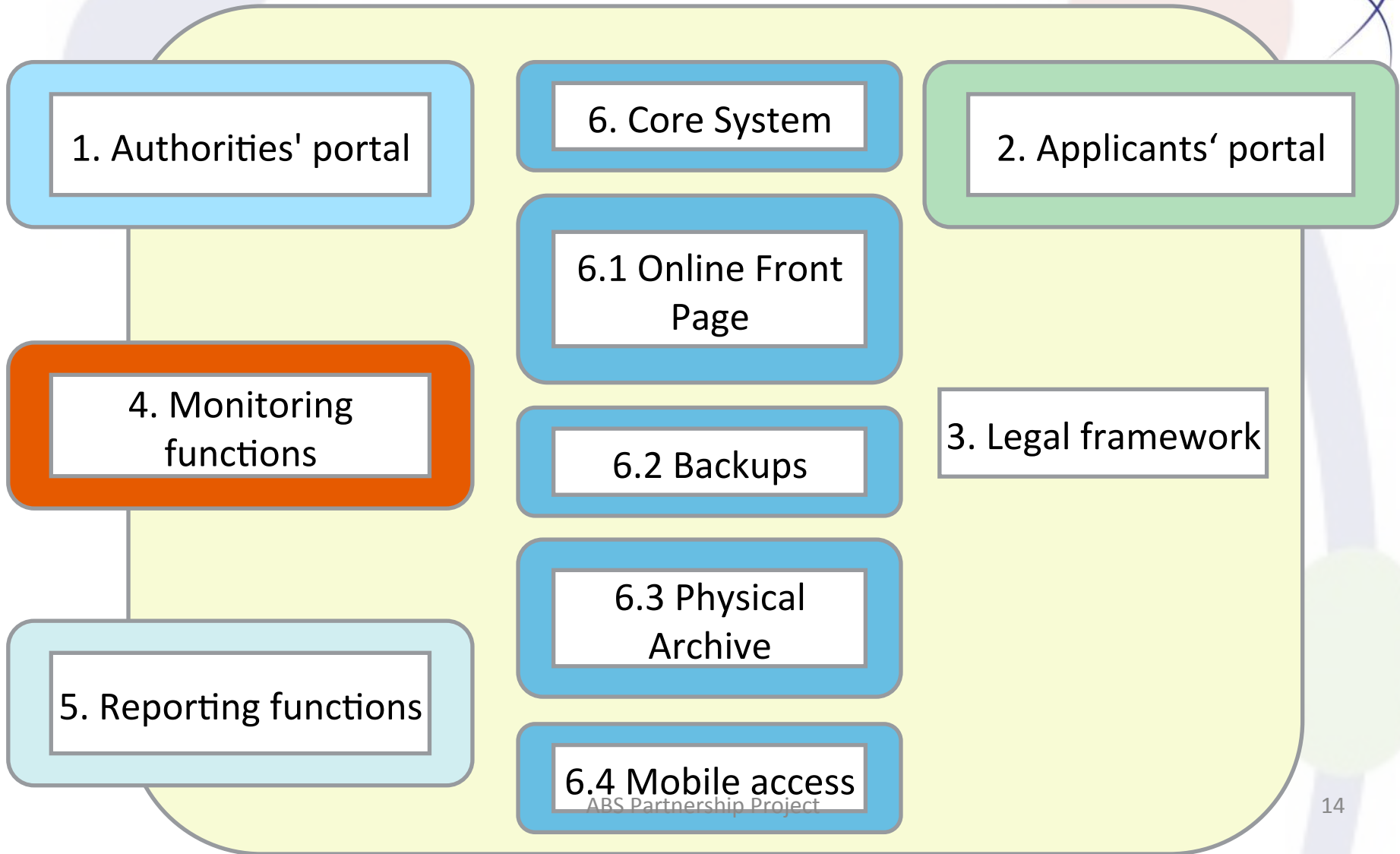
- Decision making whether access to GR and aTK falls under the domestic ABS framework
implementing NP Art. 2 Use of Terms, specifically “utilisation” and NP Art. 3 Scope
- Decision making about the nature of intended utilisation and the related elements of mutually agreed terms in ABS contracts
implementing NP Art. 8 Special Considerations, specifically Art. 8 (a)
- Clear and transparent measures and procedures of the domestic access system
implementing NP Art. 6 Access to Genetic Resources, specifically Art. 6 3.

The system is supporting:

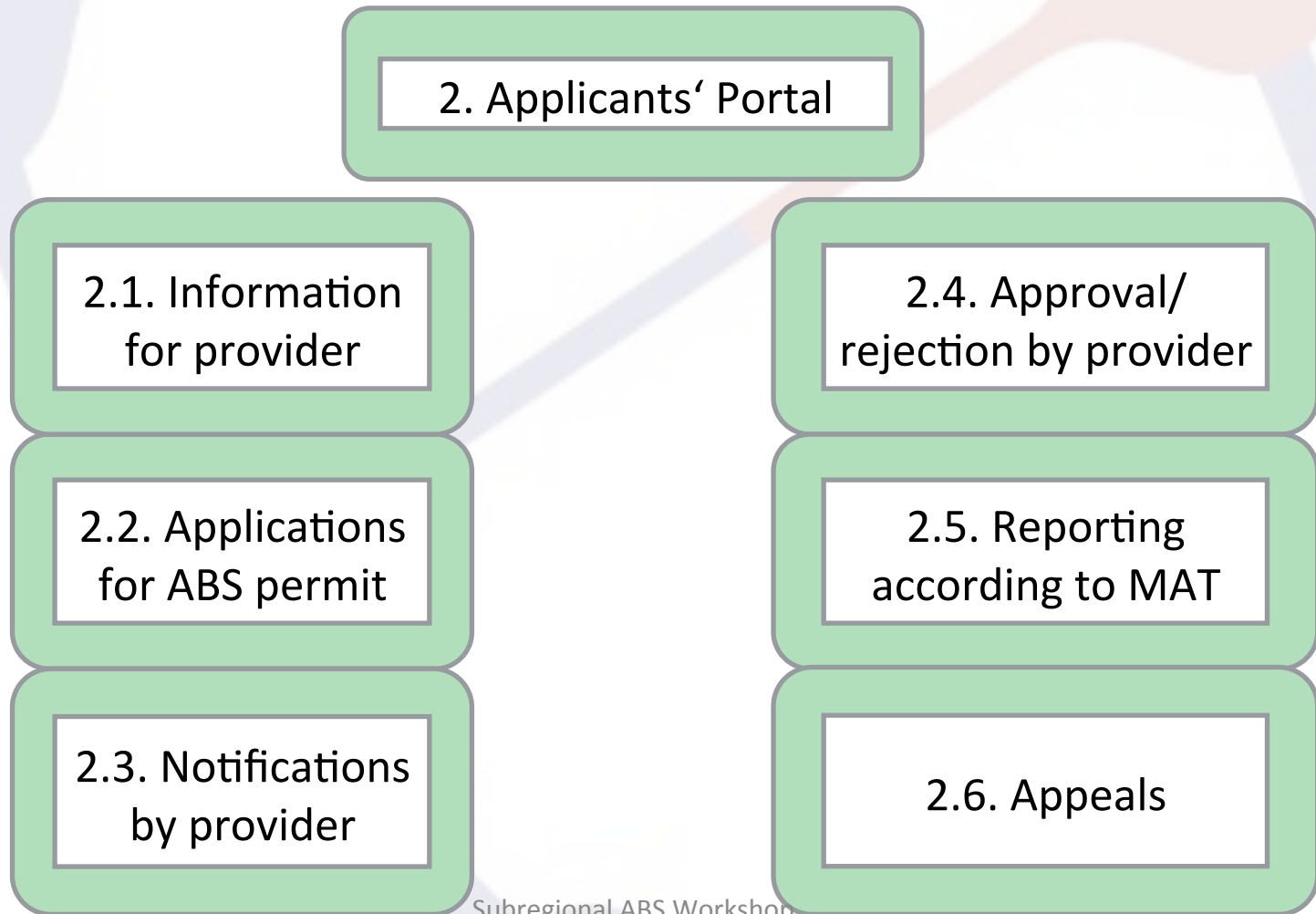


- Submitting information to the ABS Clearing-House implementing Nagoya Protocol Art. 14 The Access and Benefit-sharing Clearing-House and Information-sharing, specifically Art. 14 2. (c)
- Monitoring of utilisation of GR and aTK and commercialisation of derived products implementing Nagoya Protocol Art. 15 Monitoring the Utilization of Genetic Resources
- Reporting to the COP MOP on the status of implementation of the Nagoya Protocol implementing Nagoya Protocol Art. 29 Monitoring and Reporting

Structure of the system



Elements of the applicants' portal



Applicant Portal

```
graph LR; AP[Applicant Portal]; I[1. Information]; A[2. Applications]; N[3. Notifications]; APv[4. Approvals]; R[5. Reporting]; APe[6. Appeals]; I --- IG[1.1 Applicant guide]; I --- IC[1.2 Applicant checklist];
```

1. Information

2. Applications

3. Notifications

4. Approvals

5. Reporting

6. Appeals

1.1 Applicant
guide

1.2 Applicant
checklist

Applicant Portal

1. Information

2. Applications

3. Notifications

4. Approvals

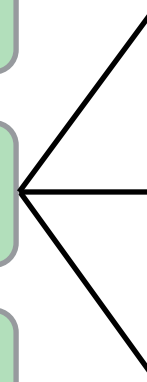
5. Reporting

6. Appeals

2.1 Non-commercial

2.2 Commercial

2.3 Both



Applicant Portal

1. Information

2. Applications

3. Notifications

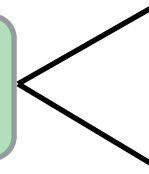
4. Approvals

5. Reporting

6. Appeals

3.1 Receive
Notifications

3.2 Respond
Notifications



Applicant Portal

1. Information

2. Applications

3. Notifications

4. Approvals

5. Reporting

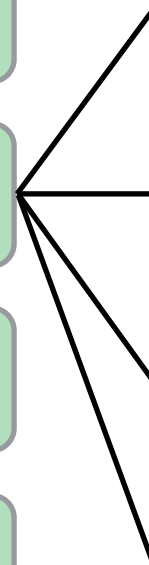
6. Appeals

4.1 pdf permit

4.2 Mobile pass

4.3 Sample labels

4.4 HTML embed
code



Applicant Portal

1. Information

2. Applications

3. Notifications

4. Approvals

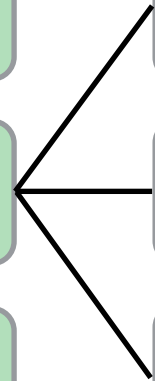
5. Reporting

6. Appeals

5.1 Publications

5.2 Patents

5.3 Products



Applicant Portal

```
graph TD; AP[Applicant Portal] --> I[1. Information]; AP --> A[2. Applications]; AP --> N[3. Notifications]; AP --> APp[4. Approvals]; AP --> R[5. Reporting]; AP --> Ap[6. Appeals]; R --> R1[5.1 Guidance]; R --> R2[5.2 Timeline]; R --> R3[5.3 Notifications]; R --> R4[5.4 Final Decision];
```

1. Information

2. Applications

3. Notifications

4. Approvals

5. Reporting

6. Appeals

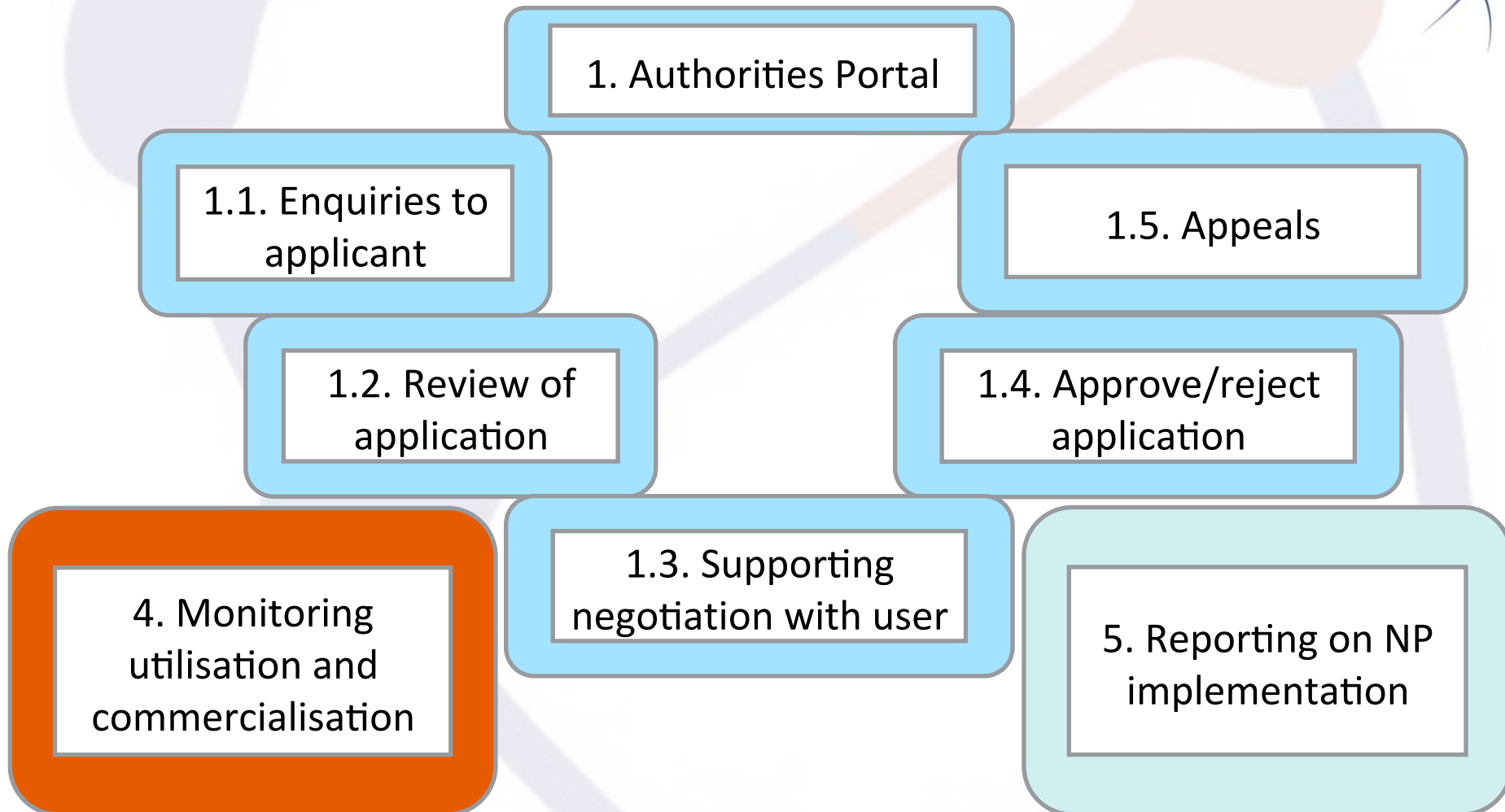
5.1 Guidance

5.2 Timeline

5.3 Notifications

5.4 Final Decision

Elements of the authorities' portal



Authorities
Portal

1. Enquiries

2. Review

3. Negotiate

4. Approve/Reject

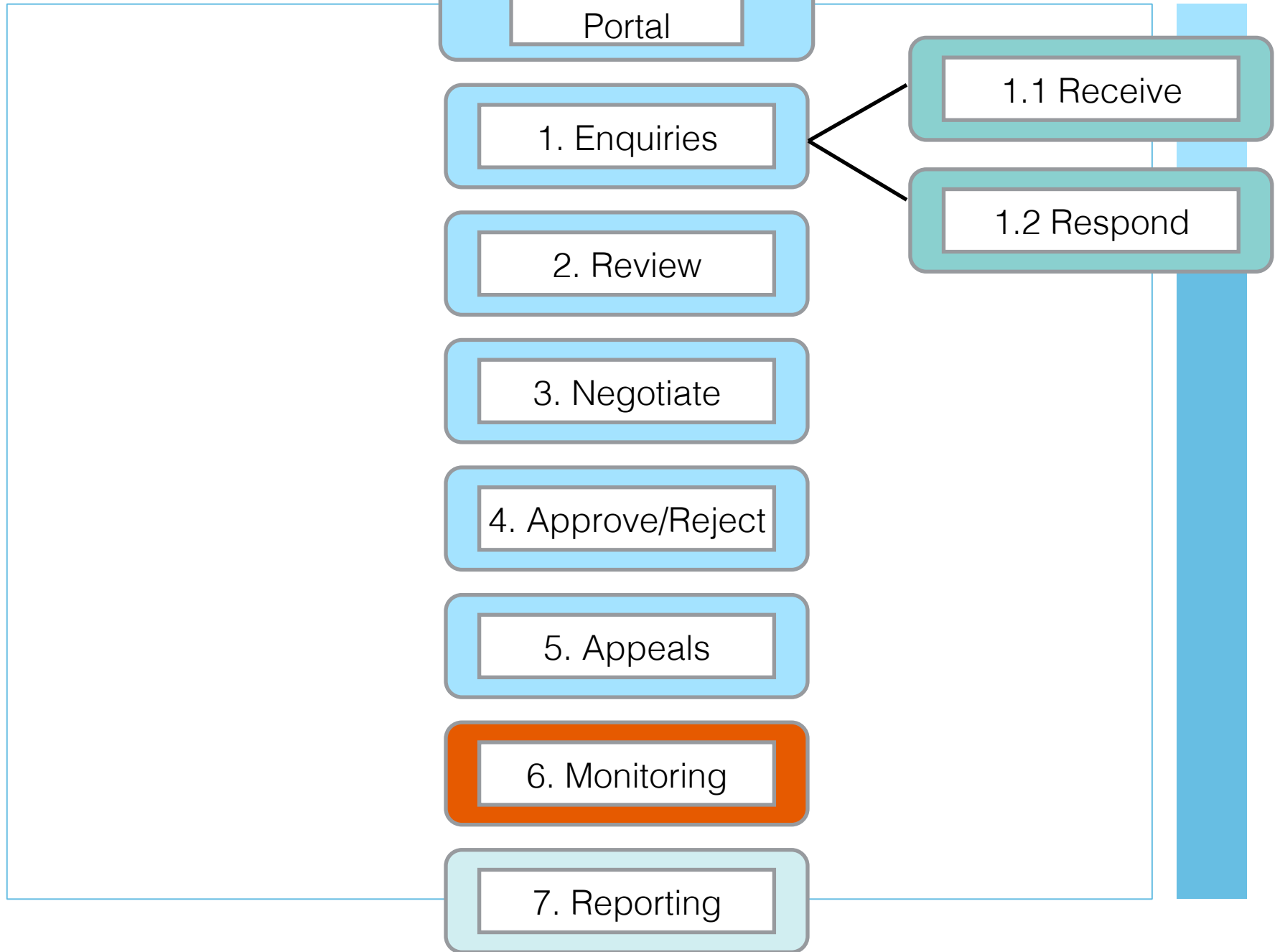
5. Appeals

6. Monitoring

7. Reporting

1.1 Receive

1.2 Respond



Authorities
Portal

1. Enquiries

2. Review

3. Negotiate

4. Approve/Reject

5. Appeals

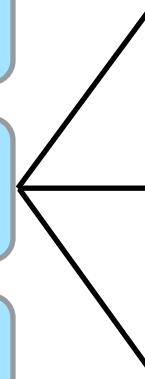
6. Monitoring

7. Reporting

2.1 Review
(checklist)

2.2 Notify

2.3 Application
Type



Authorities
Portal

1. Enquiries

2. Review

3. Negotiate

4. Approve/Reject

5. Appeals

6. Monitoring

7. Reporting

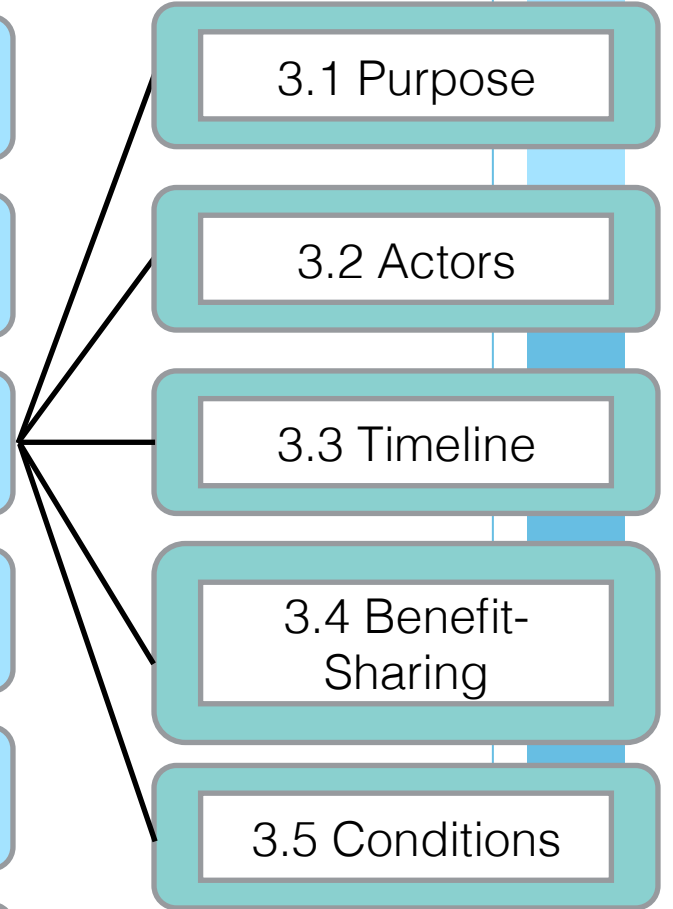
3.1 Purpose

3.2 Actors

3.3 Timeline

3.4 Benefit-
Sharing

3.5 Conditions



Authorities
Portal

1. Enquiries

2. Review

3. Negotiate

4. Approve/Reject

5. Appeals

6. Monitoring

7. Reporting

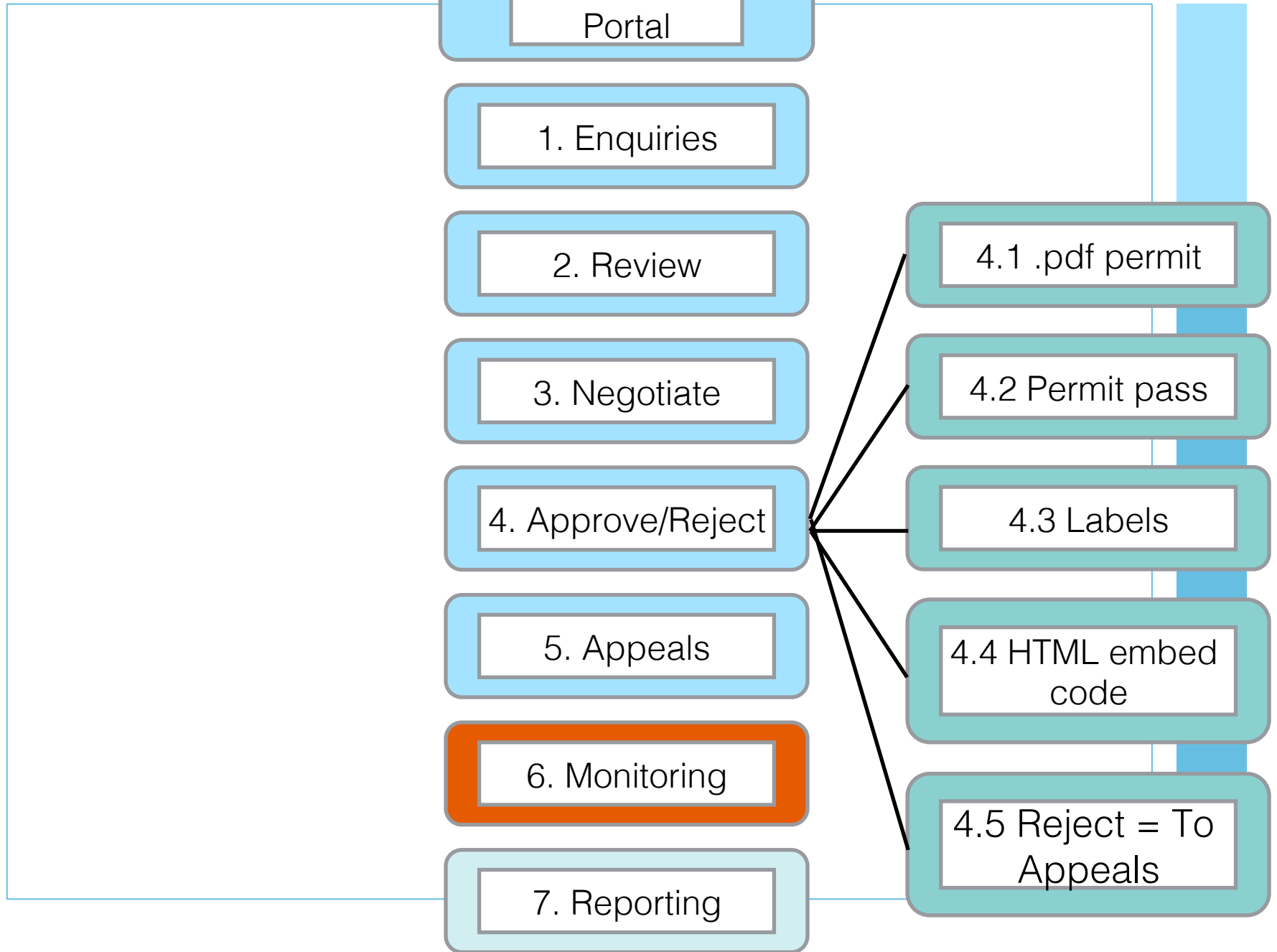
4.1 .pdf permit

4.2 Permit pass

4.3 Labels

4.4 HTML embed
code

4.5 Reject = To
Appeals

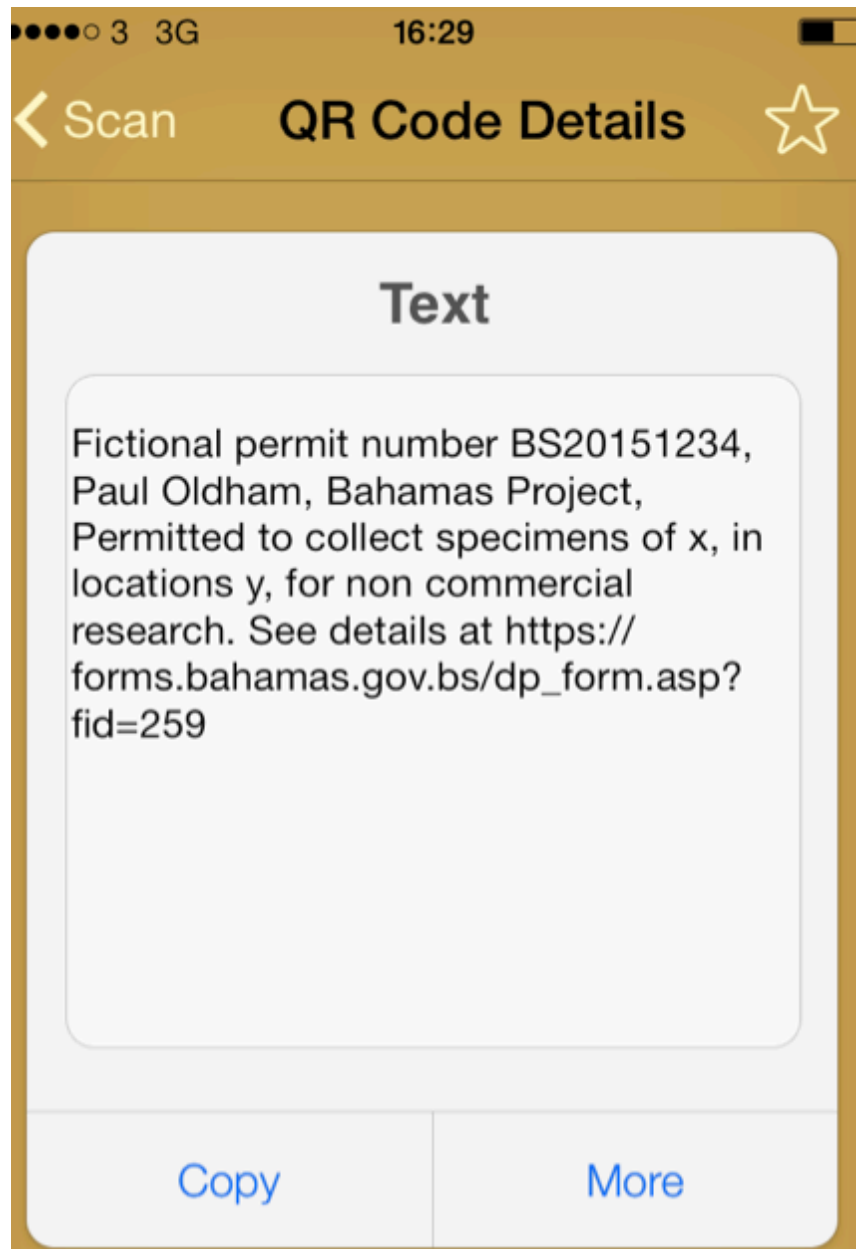




BS20151234



Quick Response Code



●●●● BaTelCell 11:41


virgin atlantic

GATE CLOSES
10:05

MANCHESTER - MAN...

HARTSFIELD JACKS...

MAN



ATL


FLIGHT NUMBER
VS109



SEAT
62A

DEPARTURE
14Jun 10:35

PASSENGER NAME
OLDHAM/PAULDR

CABIN
Economy





●●●● BTC 09:36


virgin atlantic

GATE CLOSES
10:05

MANCHESTER - MAN...

HARTSFIELD JACKS...

MAN



ATL


FLIGHT NUMBER
VS109



SEAT
62A

DEPARTURE
14Jun 10:35

PASSENGER NAME
OLDHAM/PAULDR

CABIN
Economy


this pass has expired



Authorities
Portal

1. Enquiries

2. Review

3. Negotiate

4. Approve/Reject

5. Appeals

6. Monitoring

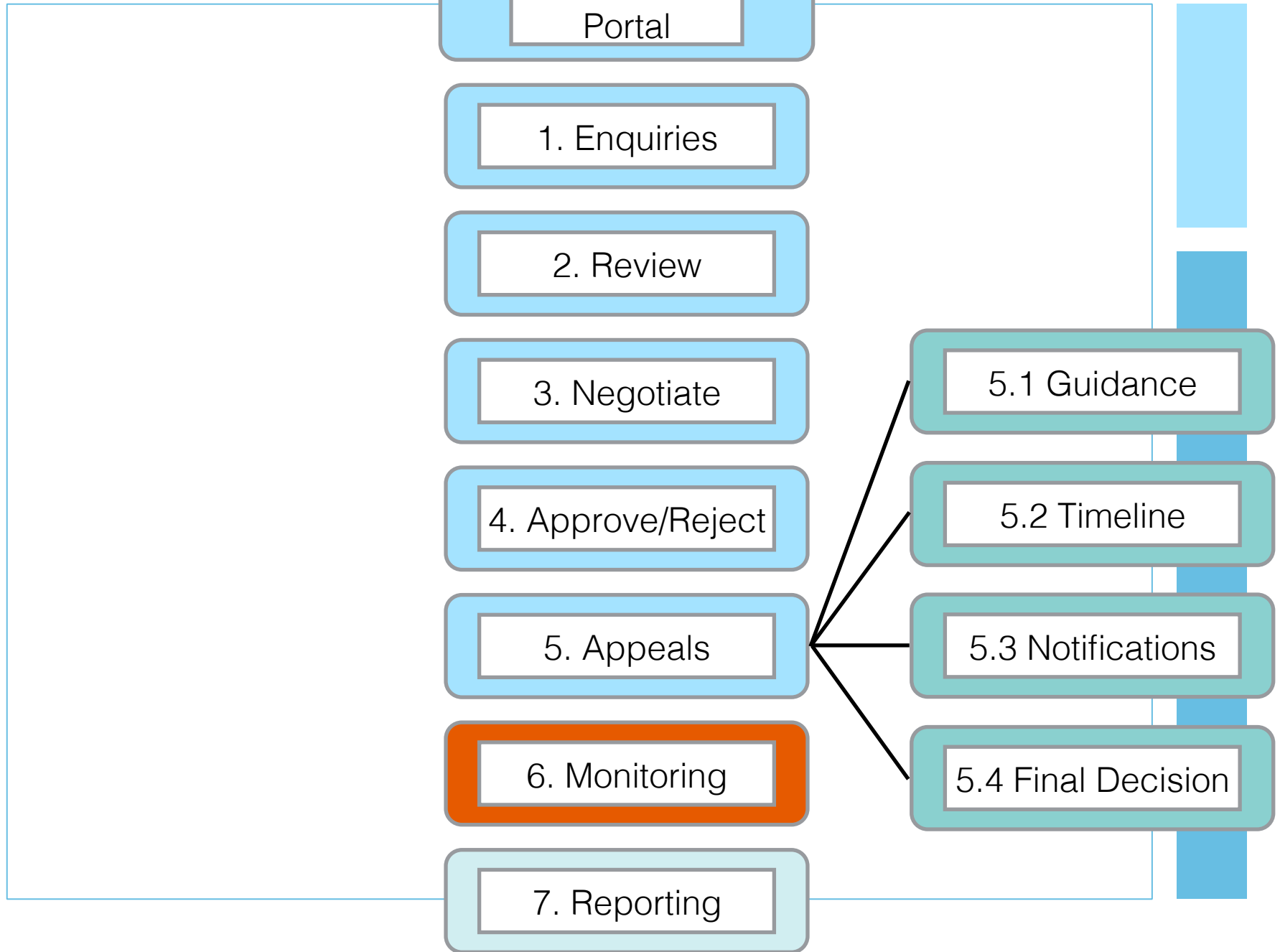
7. Reporting

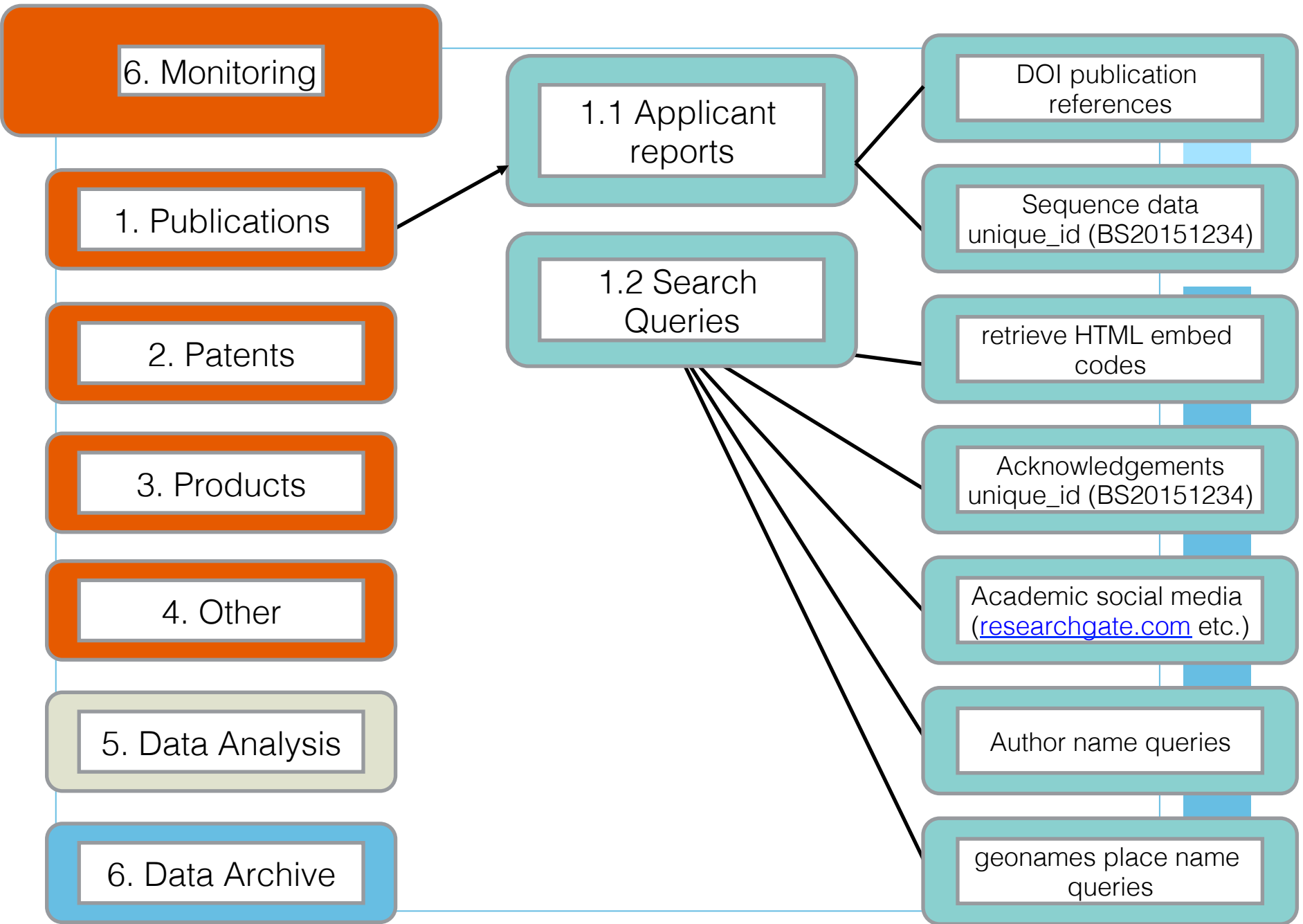
5.1 Guidance

5.2 Timeline

5.3 Notifications

5.4 Final Decision





6. Monitoring

1. Publications

2. Patents

3. Products

4. Other

5. Data Analysis

6. Data Archive

2.1 Applicant reports

2.2 Applicant discloses

2.3 Search Queries

Patent Publication Number

Disclosure statement identifier (BS20151234)

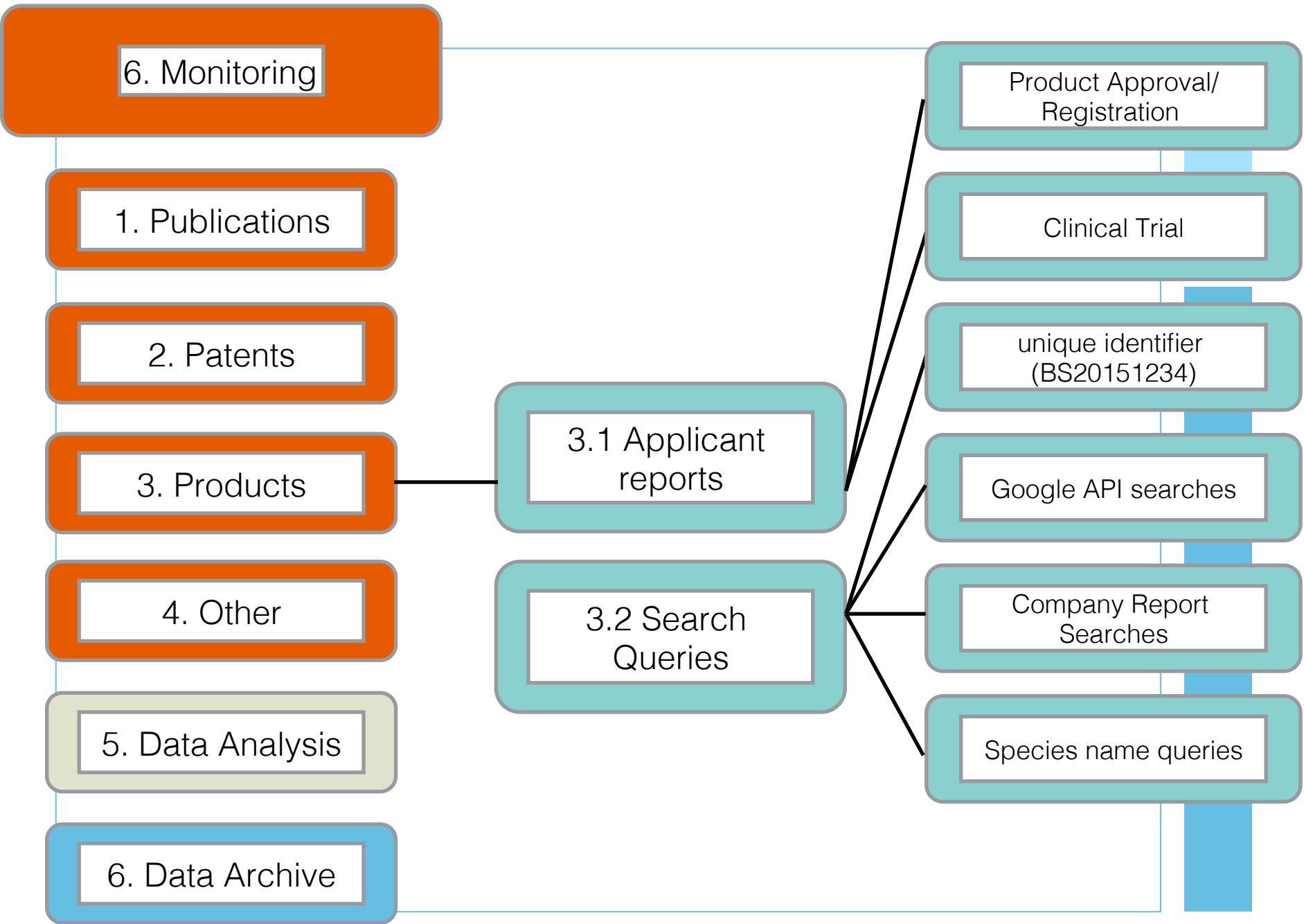
unique identifier (BS20151234)

Author/Inventor name queries

Applicant Organisation Queries

Species name queries

geonames place name queries



6. Monitoring

1. Publications

2. Patents

3. Products

4. Other

5. Data Analysis

6. Data Archive

2.2 Applicant
reports

2.3 Search
Queries

Other Activity

Google API
Searches

