



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

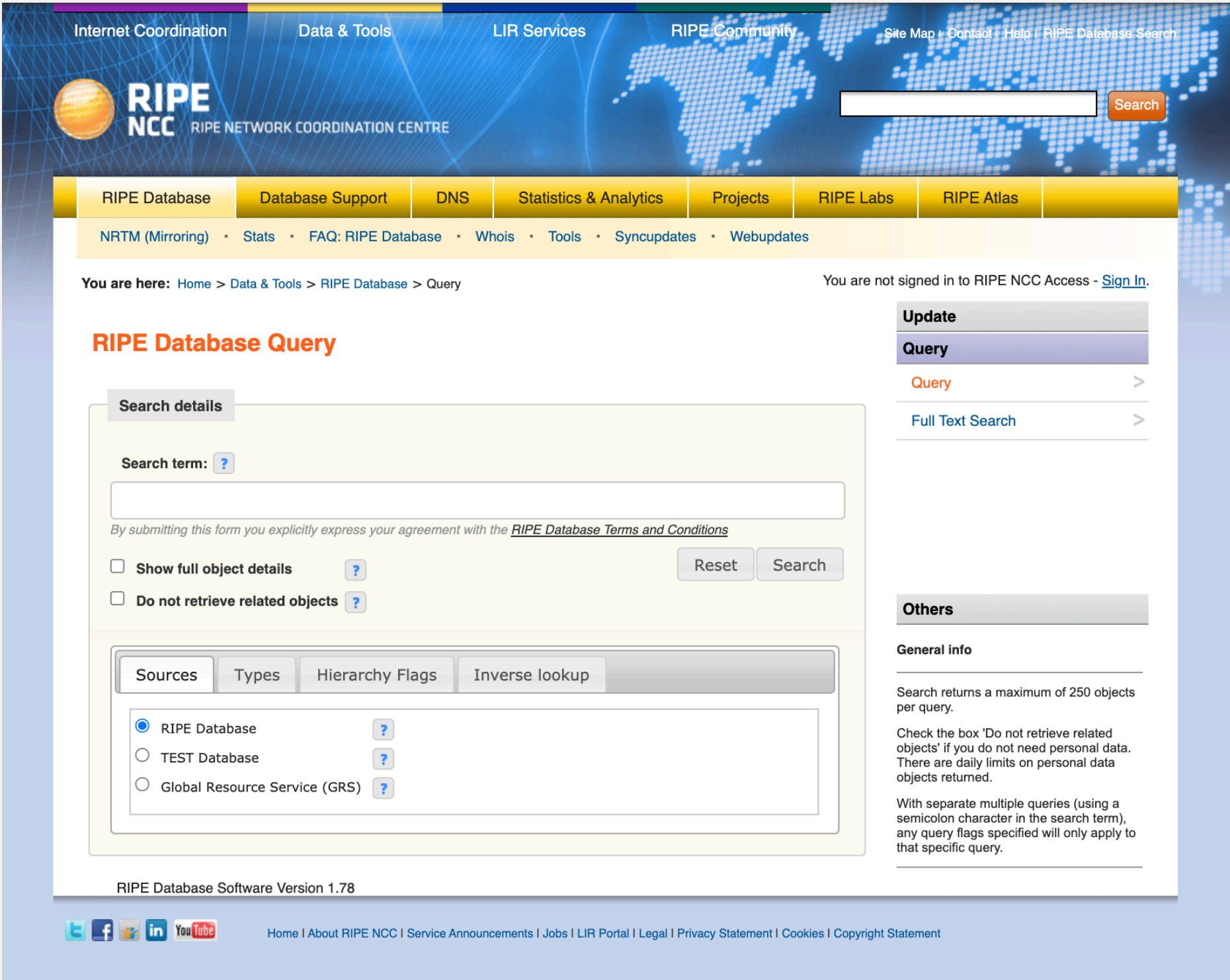
# Web Interface Improvements in the RIPE Database

Rehan Syed | RIPE 83 | 24 November 2021

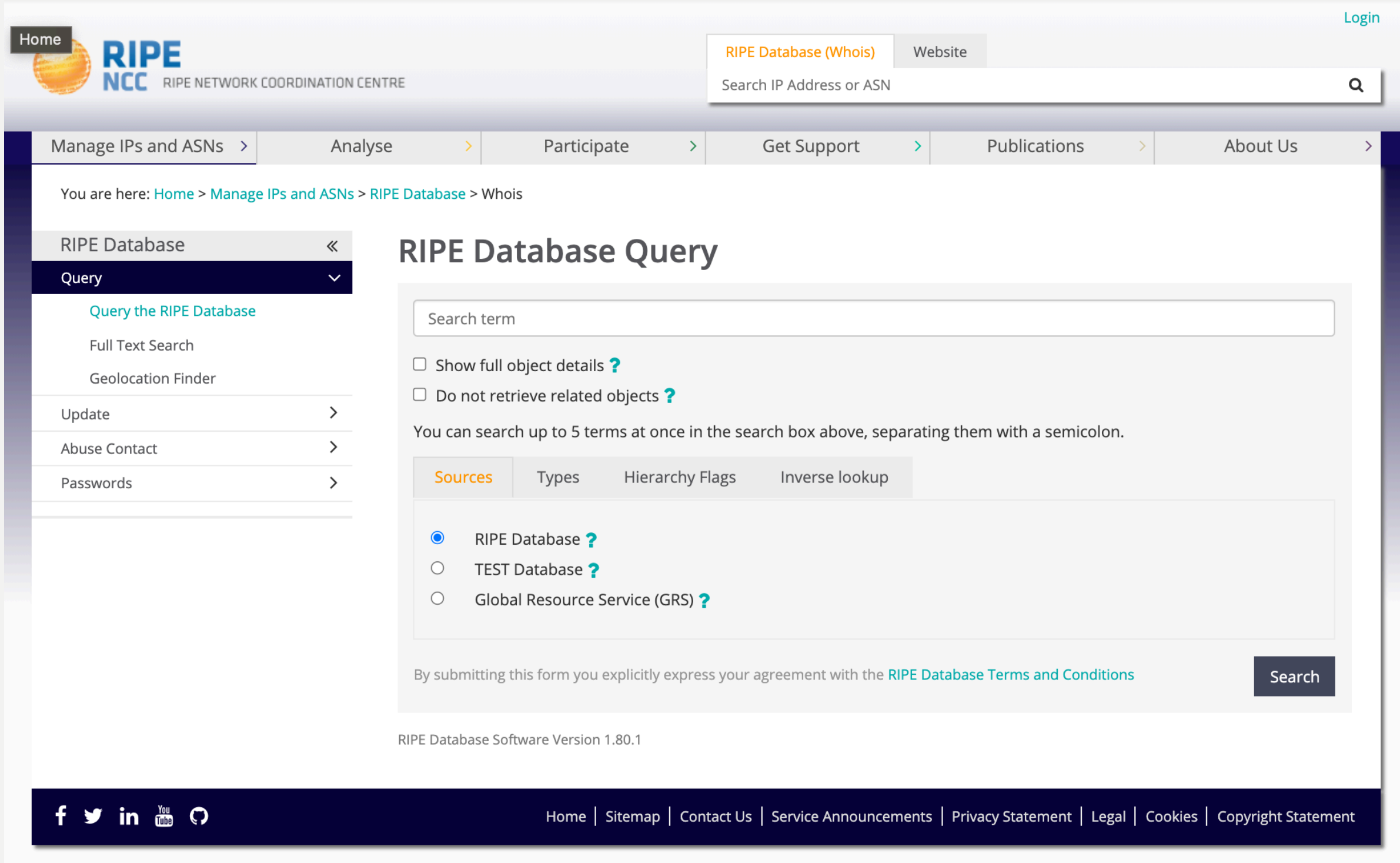


# Looking Back at the RIPE Database UI

# Over the Years

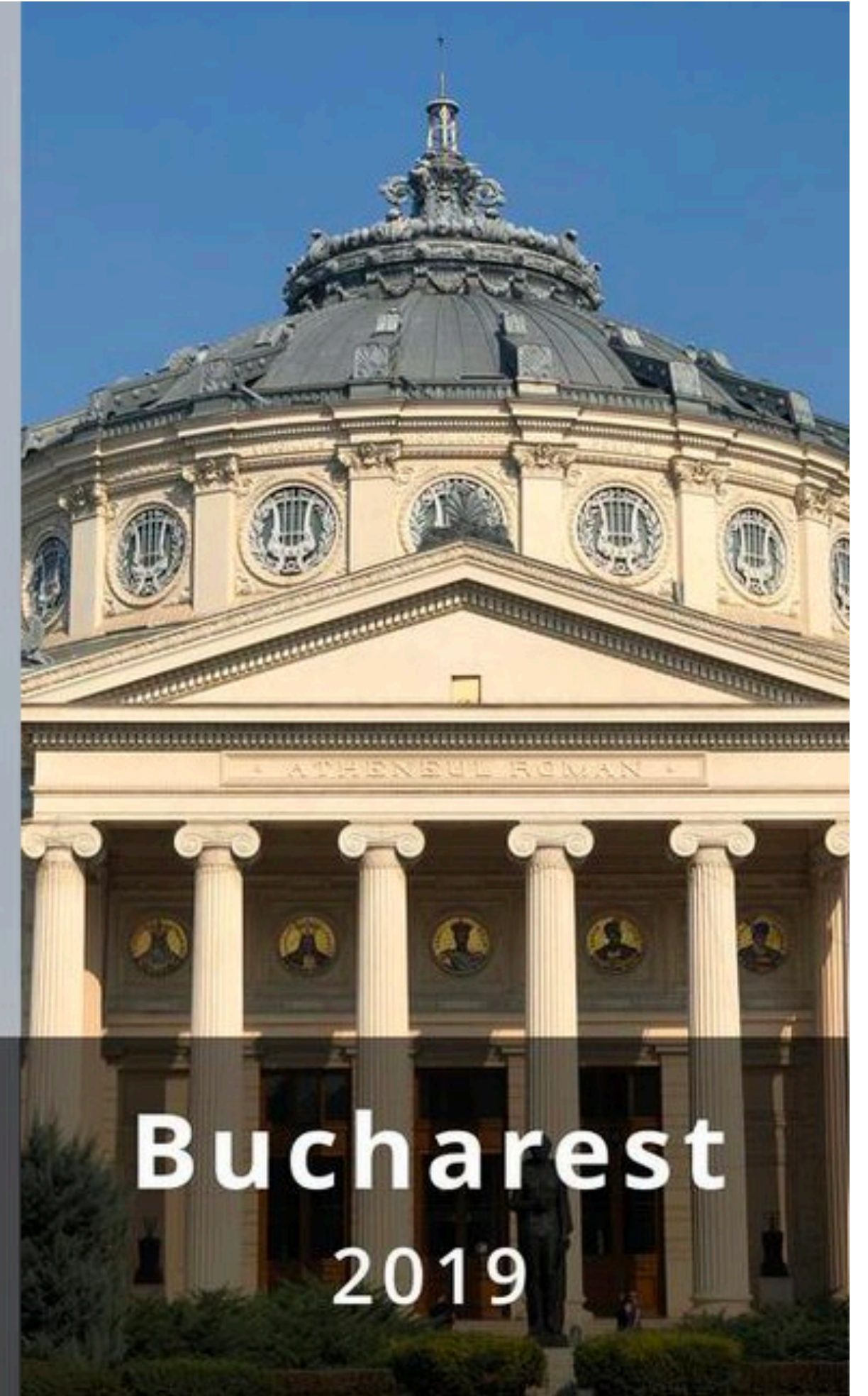
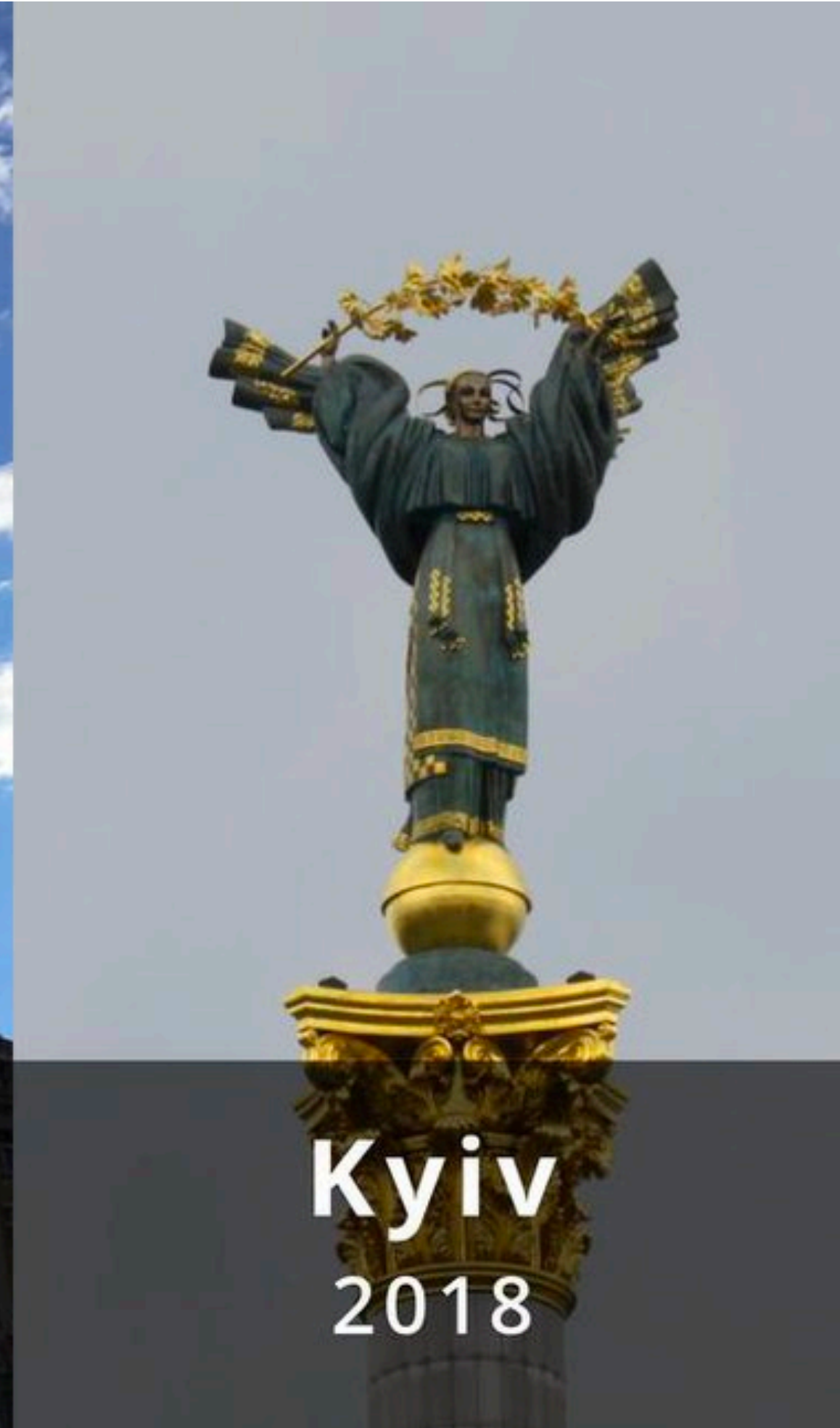
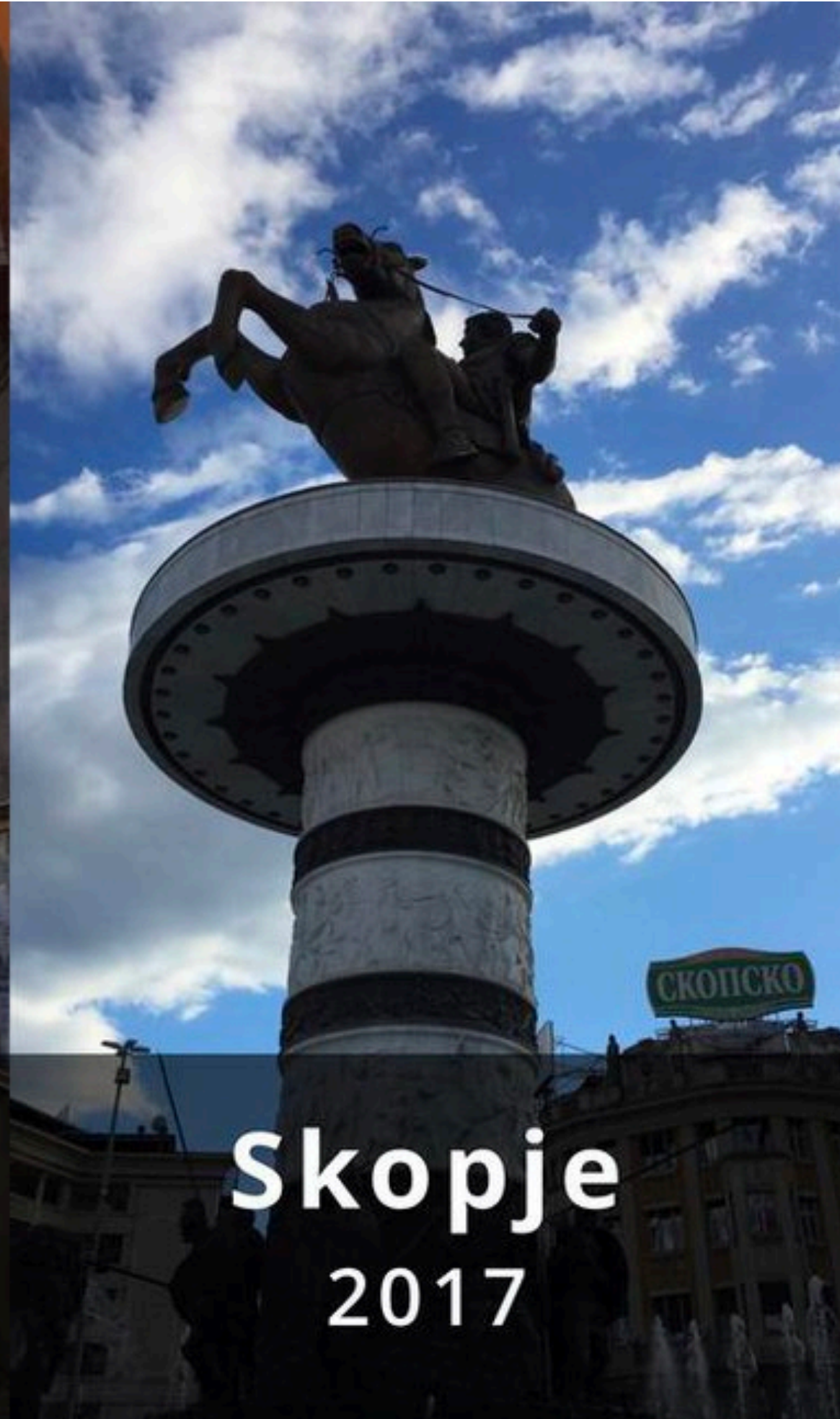
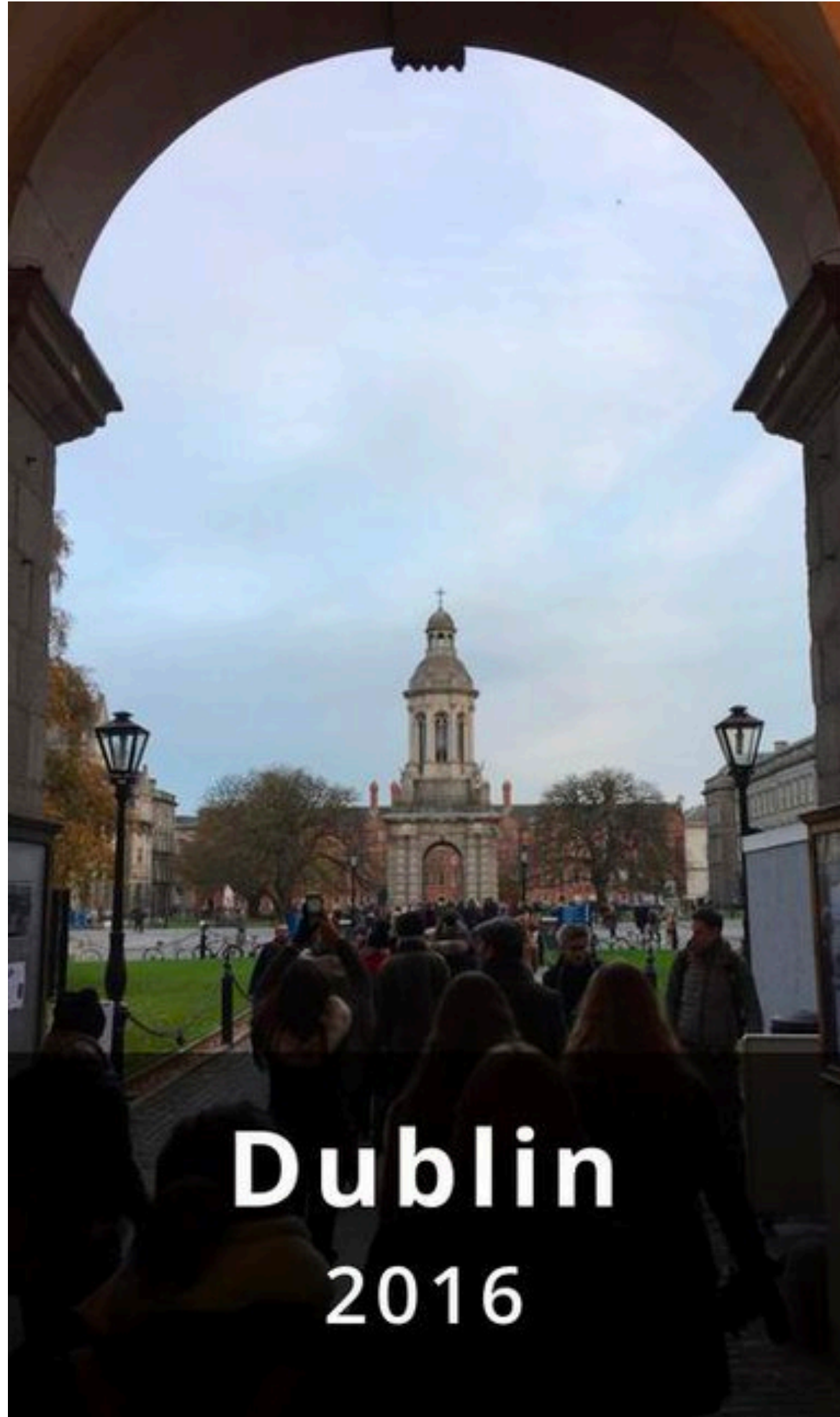


2014



2015

# Research and Validation



# Research and Validation



- Online research since 2020
- Over 50 interviews conducted
- Quantitative research with analytics

Participate to improve RIPE NCC services

Name\*

Email\*

Location where you will be doing testing from\*

Would you be willing to give us 30 mins of your time to participate in this study?\*

Yes  
 No

How frequently do you use RIPE services such as RIPE Database, RIPEstat, LIR Portal or RIPE Atlas?\*

Frequently  
 Once a month  
 Several times of a year  
 Never

<https://www.ripe.net/s/usability>

# Research and Validation



2,412,305 visits

June 2019 to May 2020

2,582,490 visits

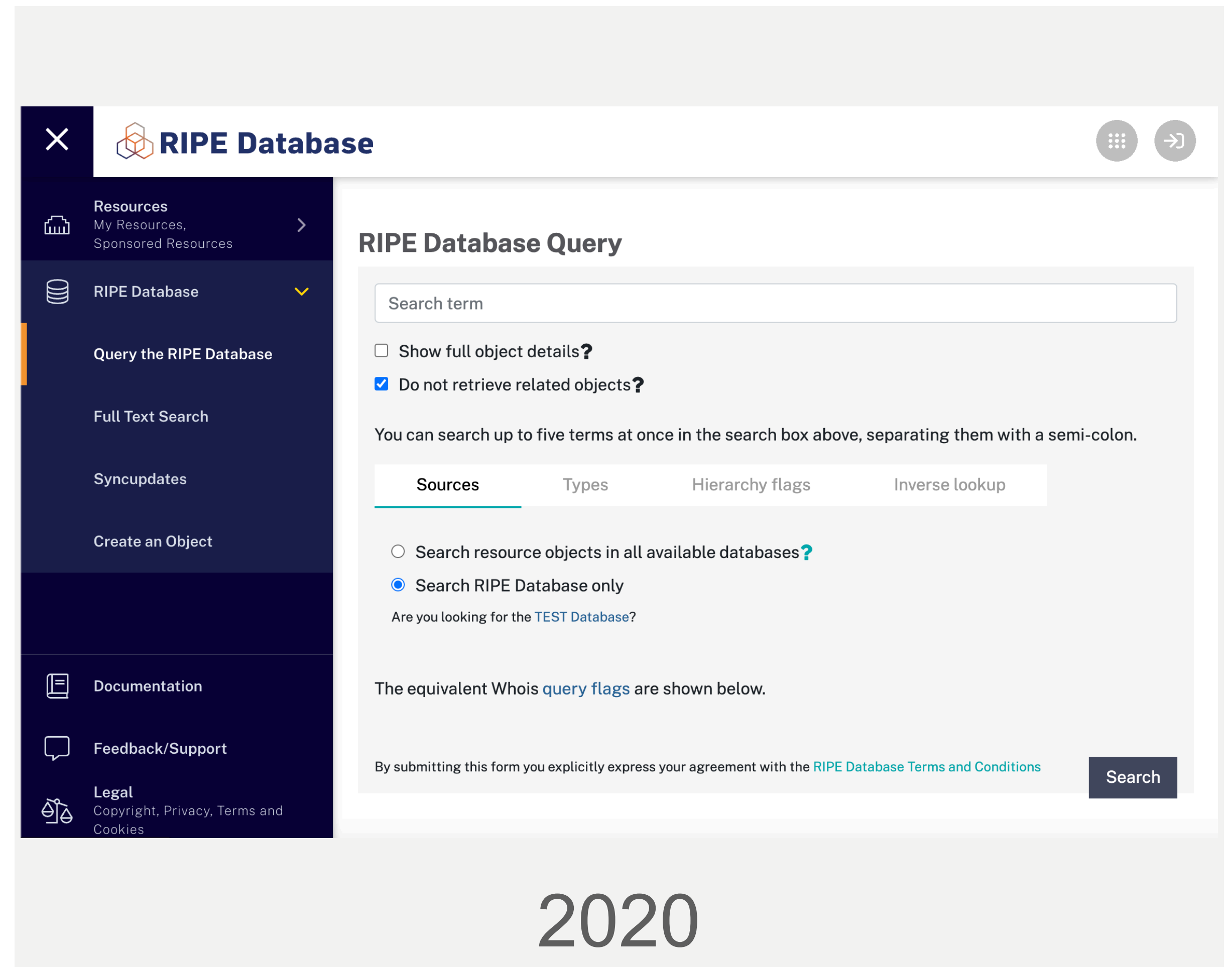
June 2020 to May 2021

● 88% Desktop visits ● 12% Mobile/Tablet visits

# A Unified Experience Across Apps



- Unified layout for all RIPE NCC services
- Better tablet/mobile experience
- More space for application
- Easier navigation





**RIPE Database**

**Resources**  
My Resources,  
Sponsored Resources >

**RIPE Database** v

Query the RIPE Database

Full Text Search

Syncupdates

Create an Object

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**Documentation**

**Feedback/Support**

**Legal**  
Copyright, Privacy, Terms and  
Cookies

### RIPE Database Query

Search term

Show full object details?

Do not retrieve related objects?

You can search up to five terms at once in the search box above, separating them with a semi-colon.

**Sources**   Types   Hierarchy flags   Inverse lookup

Search resource objects in all available databases?

Search RIPE Database only

Are you looking for the [TEST Database?](#)

The equivalent Whois [query flags](#) are shown below.

By submitting this form you explicitly express your agreement with the [RIPE Database Terms and Conditions](#)

**Search**





# **Four Areas of Improvement**

# Areas to Improve: Organisation Search



- 67% of look-ups are of organisation objects
- Quick results
- Relevant objects

A screenshot of the RIPE DATABASE Query interface. At the top, the title "RIPE DATABASE Query" is displayed. Below it is a search input field containing "185.1.1.1" and a "Search" button. The results are shown in a table with the following data:

Organisation	<a href="#">Palestine Internet Exchange Point</a>
Abuse contact	<a href="mailto:smansour@palestineix.com">smansour@palestineix.com</a>
Technical contact	<a href="mailto:smansour@palestineix.com">smansour@palestineix.com</a>
Administrative contact	<a href="mailto:smansour@ngn.ps">smansour@ngn.ps</a>

Below the table, there are three buttons: "Using RIPE Database", "API RIPE Database", and "TEST Database".

# Areas to Improve: Relevant Filtering

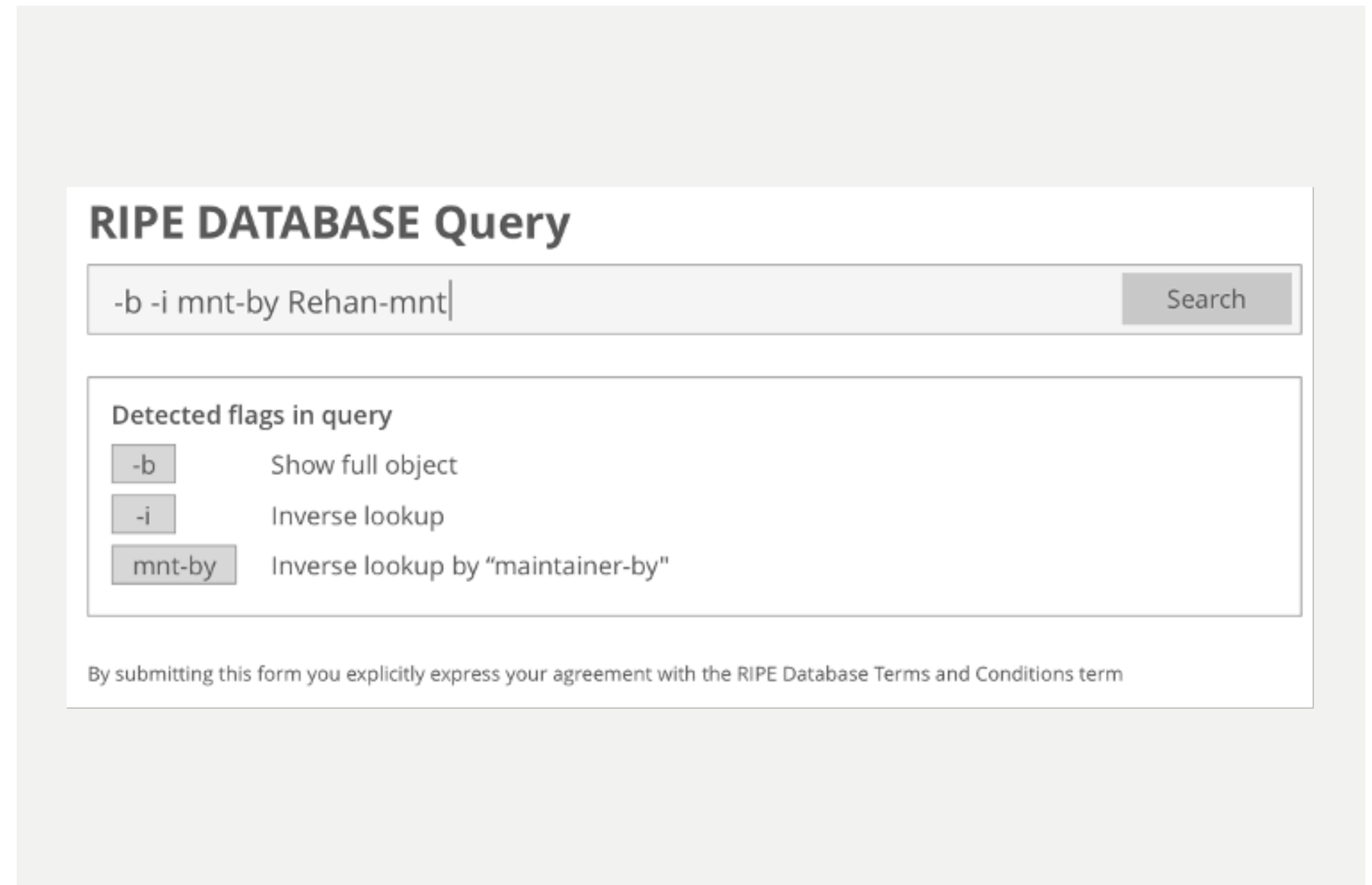


- Moving the filter after a search is performed
- Contextual filters

A screenshot of the RIPE DATABASE Query interface. At the top, there is a search bar containing '185.1.1.1' and a 'Search' button. Below the search bar are several filter options: 'Types', 'Hierarchy flags', 'Inverse lookup', and 'More filters'. The 'Hierarchy flags' filter is currently active, and a dialog box is open over it. The dialog box contains the text: 'Returns first level less specific inetnum, inet6num or route(6) objects, excluding exact matches.' Below this text is a horizontal slider with a white knob. The slider has labels 'No', 'l', 'L', 'm', 'M', and 'x' along its length. Below the slider is a checkbox labeled 'd - Return address, route and domain objects'. At the bottom of the dialog box are 'Cancel' and 'Apply' buttons. The background of the interface shows a search result for 'inetnum' and a 'PERMA - XML - JSON' link.

# Areas to Improve: Searching by Flag

- Searching with flags is a powerful way to get optimal results
- Providing upfront information for searching using flags



**RIPE DATABASE Query**

**Detected flags in query**

<input type="checkbox"/> -b	Show full object
<input type="checkbox"/> -i	Inverse lookup
<input type="checkbox"/> mnt-by	Inverse lookup by "maintainer-by"

By submitting this form you explicitly express your agreement with the RIPE Database Terms and Conditions term

# Areas to Improve: Full Text Search



- 16% of users go to full text search after a regular search
- Full text search by choice
- The user does not need to leave the search page

A screenshot of the RIPE DATABASE Query interface. The main search bar contains the text "rehan" and a "Search" button. Below the search bar are several filter options: "Types", "Hierarchy flags", "Inverse lookup", and "Advance filters". The "Advance filters" option is selected, and a dialog box is open. The dialog box is titled "Advance search" and contains the following elements:

- A checked checkbox labeled "Enable string search".
- Two dropdown menus: "Search within the object" (set to "mntner") and "Search within the field" (set to "mnt-by").
- Two radio buttons under the heading "Source": "RIPE Database" (selected) and "Global Resource Service".
- "Cancel" and "Apply" buttons at the bottom.

The background of the interface is dimmed, showing the "PERMA - XML - JSON" output area.

# Design Milestones for the Future



**RIPE Database**

Enter a search term  
45.87.76.0/22

Types | Hierarchy flags | Inverse lookup

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**Search results**

Responsible organisation: [Devrandom.be](#)  
Abuse contact info: [eric@devrandom.be](mailto:eric@devrandom.be)

Highlight RIPE NCC managed values

inetnum:	45.87.76.0 - 45.87.79.255
netname:	BE-DEVRANDOMBE-20190614
country:	BE
org:	ORG-DCV2-RIPE
admin-c:	DN4215-RIPE
tech-c:	DN4215-RIPE
status:	ALLOCATED PA
mnt-by:	RIPE-NCC-HM-MNT
mnt-by:	mnt-be-devrandombe-1
mnt-lower:	mnt-be-devrandombe-1
mnt-routes:	mnt-be-devrandombe-1
geoloc:	50.8753078 4.4991415
created:	2019-06-14T07:36:01Z
last-modified:	2020-09-13T15:56:33Z
source:	RIPE

**RIPE Database Query**

You are editing  
Reseaux IP Europeens Net...

Your IP: 2001:67c:2e8:9::c100:14e6 [Search this resource](#)

Your Prefix: 2001:67c:2e8::/48 [Search this resource](#)

**Using RIPE Database**  
People who want to query for this information have several options available to them, varying from a web interface to a command line tool, as well as a RESTful API. There are several ways in which you can influence the scope of your search.  
[Read documentation](#)

**RESTful API**  
The RESTful API only processes one object at a time. This is fundamental to the REST paradigm. If you want to process many objects using this API, you need to write a script on the client side to handle the list of objects and feed them.  
[Read more about RESTful API](#)

**Test Database**  
You can use this environment to learn and experiment with RIPE Database. It uses a TEST source and all changes are reverted in the night.  
[Take me to Test Database](#)

# Moving Ahead

- Incremental changes
- Involving the community early on
- Data-driven approach
- Testing and feedback



## RIPE Database Query

Types ▼

Hierarchy flags ▼

Inverse lookup ▼

Advance filter ▼

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Search

# Give Us Your Feedback



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Email\*

Location where you will be doing testing from\*

Would you be willing to give us 30 mins of your time to participate in this study?\*

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<https://www.ripe.net/s/usability>





# Questions



[rmuhammad@ripe.net](mailto:rmuhammad@ripe.net)