User Guide

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DASHBOARD

The landing page is an Operational Dashboard which provide an overview of the business groups. This page aims to share the characteristics of Companies Owned, Company Contacts and Median Revenue Per Person.

1. User is able to click on the pink circle icon to expand the graph *(applicable for all graphs)*.
2. User is able to search/look at the data table or to begin their exploration.
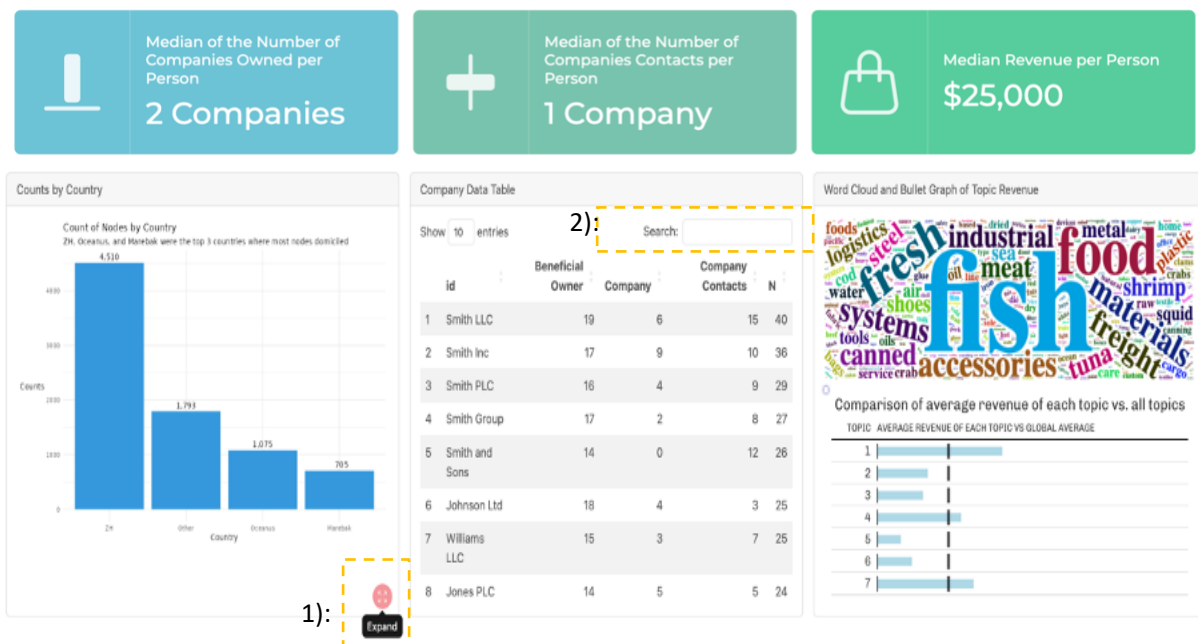
NETWORK ANALYSIS

This page aims to identify anomalies in the business groups by providing exploratory data analysis.
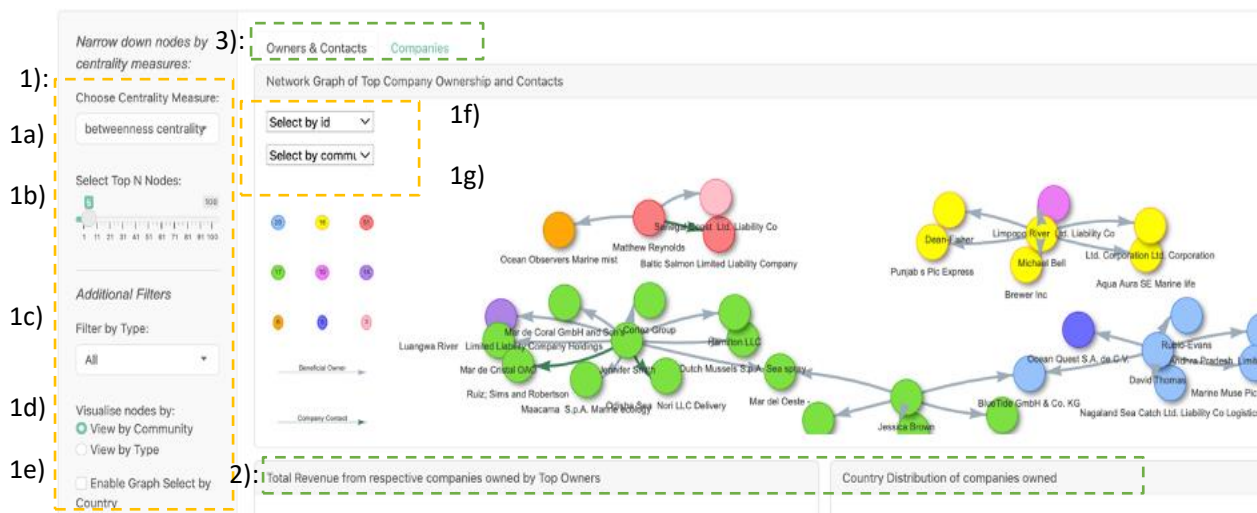
1) User is able to **select the measures** that they are interested in.
   a. Centrality. Choose between betweenness and degree centrality
      (*default = betweenness*)
   b. Nodes. Choose the Top number of Nodes *(default = 5)*
   c. Type. Option to select additional filters by filtering the type
      i. ALL
      ii. Beneficial Owners + Company Contacts *(only for Owners and Contacts)*
      iii. Beneficial Owners
      iv. Company Contacts
      v. Company *(only for Companies)*
   d. Nodes Visualization. Option to view nodes by community, and type.
      (default = Community)
   e. Country. Option to explore the nodes by selecting the country. User is required to select '*Enable Graph Select by Country'* for the switch to occur.
   f. ID. Option to view specific company by selecting the ID.
   g. Community. Option to view based on specific community.

2) Corresponding graphs that are related to the measures
   will appear after the network graph to highlight:
   a. Total Revenue from respective companies owned by Top Owners
   b. Country Distribution of companies owned
   c. Revenue comparison between Top Owners and All Owners
   d. Total number of companies in the related Communities involved
      (applicable to Owners and Contacts only)

3) User can select the tab to explore by Owners & Contacts or by Companies

Pls refer to the page 4 for measurements and its corresponding default level.

These are the measurements available. **Default values** are highlighted as follows:

1a)
Choose Centrality Measure:

betweenness centrality
betweenness centrality
degree centrality

1b)
Select Top N Nodes:

5   100

1   11   21   31   41   51   61   71   81   91 100

1c)
Additional Filters

Filter by Type:

All
All
Beneficial Owner +
Company Contact
Beneficial Owner
Company Contact
Company

1d)
Visualise nodes by:
◉ View by Community
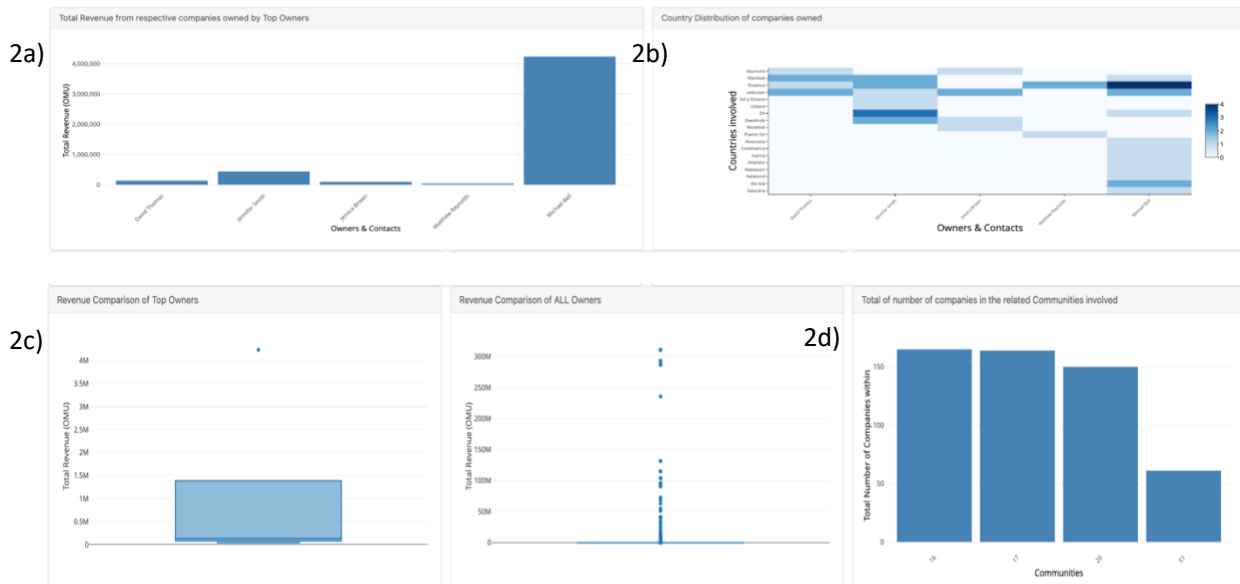◯ View by Type

1e)
☐ Enable Graph Select by Country

1f)
✓ Select by id
Andhra Pradesh Limited Liability Company Ray
Aqua Aura SE Marine life
Baltic Salmon Limited Liability Company
Bauer-Taylor
BlueTide GmbH & Co. KG
Brewer Inc
Cortez Group
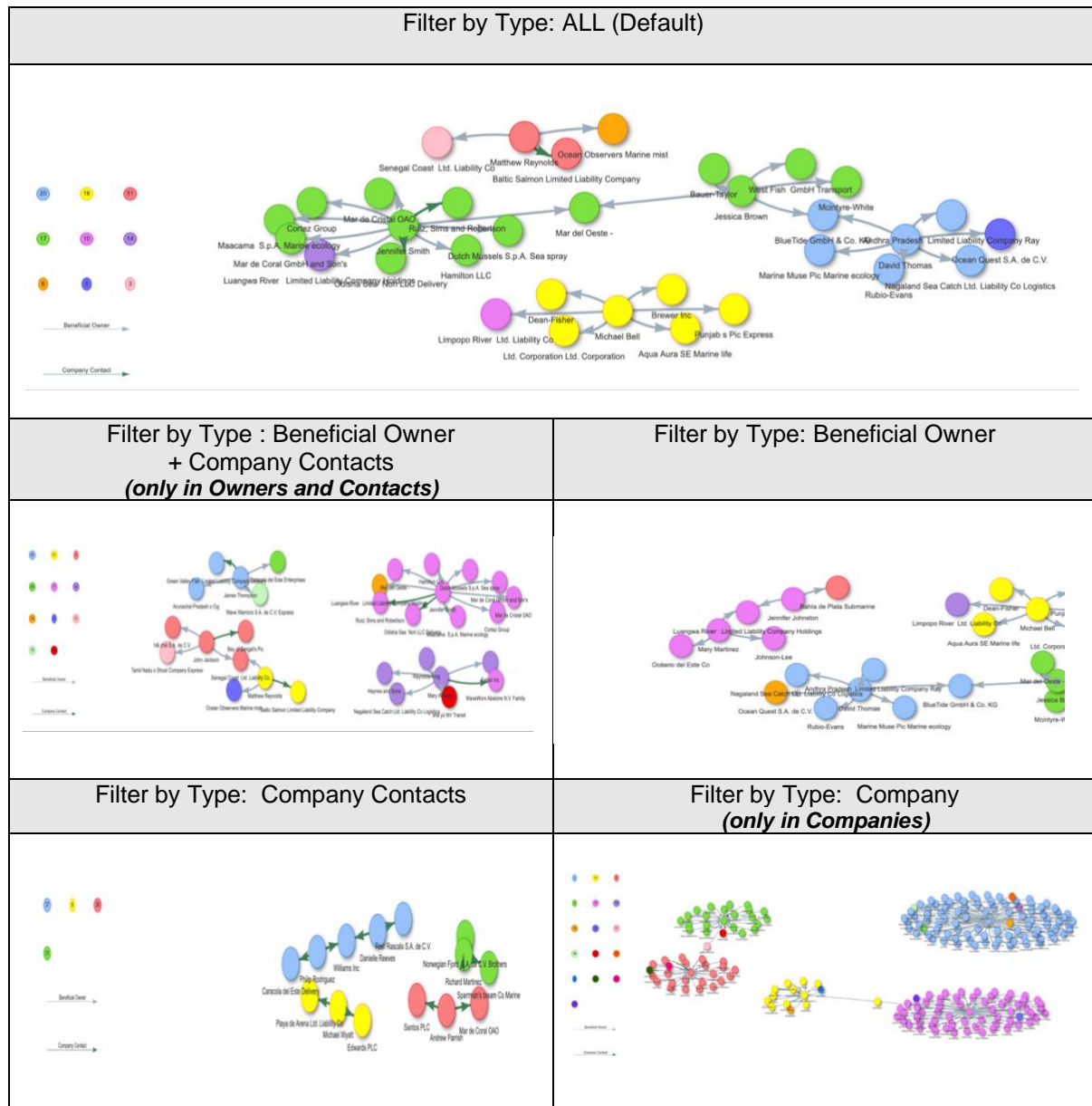
1g)
Select by id
✓ Select by community
10
14
16
17
20
3
5
51
6

2) Corresponding graphs that are related to the measures will appear: *(note : nodes = 5)*

2a)

Total Revenue from respective companies owned by Top Owners

2b)

Country Distribution of companies owned

2c)

Revenue Comparison of Top Owners

Revenue Comparison of ALL Owners

2d)

Total of number of companies in the related Communities involved

Note: For better visualization, click on the expand logo at the bottom right (refer to Page 2).

TYPE FILTERING

The default values are used in the following examples. To illustrate, we will analyse from Owners & Contact tab:

Filter by Type: ALL (Default)

Filter by Type : Beneficial Owner + Company Contacts *(only in Owners and Contacts)*

Filter by Type: Beneficial Owner

Filter by Type: Company Contacts

Filter by Type: Company *(only in Companies)*

Note: there are unique filter available in each Navigation Panel tab.

- *Company* – only in the "Owners and Contacts" tab
- *Beneficial Owners + Company Contacts* – only in the "Companies" tab

NODES FILTERING

To achieve the following output, Filter by Type should be reset back to ALL, with changes to the nodes:

1. Community (Default)
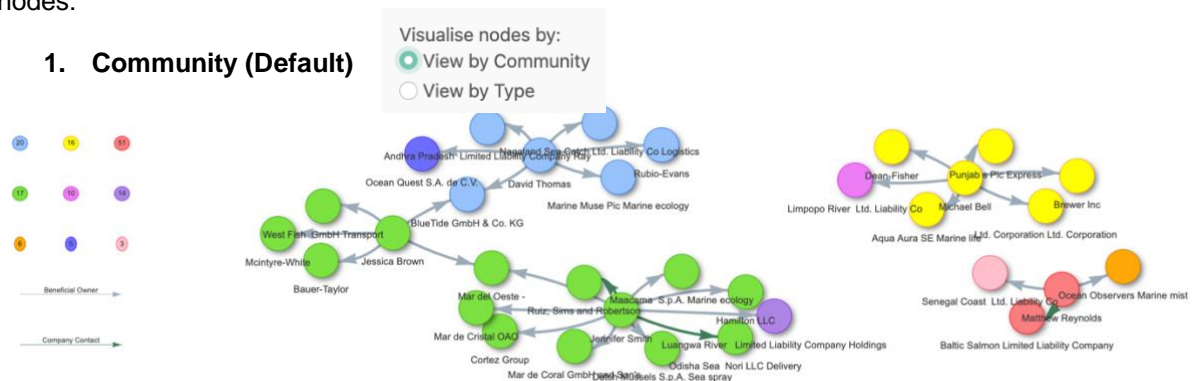

2. Type
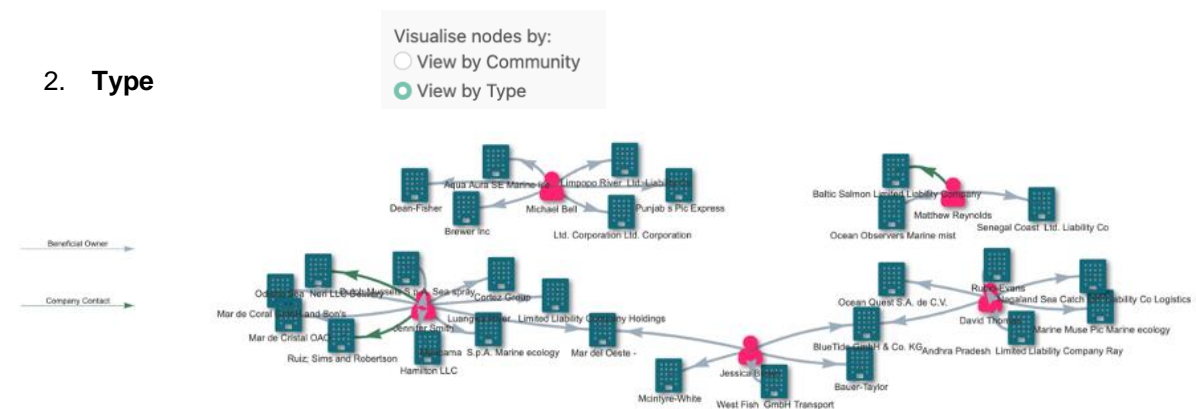
EXPLORE NODES BY COUNTRY

With reference to section 1e on Page 3, User is required to select '*Enable Graph Select by Country*' for the switch to occur.

| Default (Without = Select by Community)	After (With = Select by Country)

TOPIC MODELLING

In this page, user is able to further explore the similar businesses based on the word cloud projected in the dashboard. By default, the optimal number of topic groups = 7, based on a LDA tuning analysis.

1) User to select the number of topic groups that they would like to explore
   (min = 2, max = 20)
2) Click on the button to generate the output.
3) Corresponding test results *(Anova Test and Confidence Interval)* will be updated.
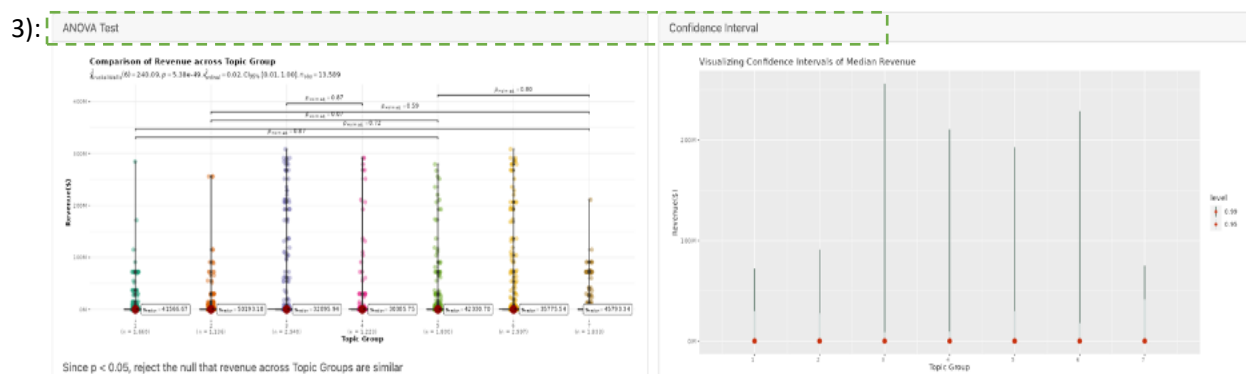
DEEP-DIVE INVESTIGATION

In this page, user is able to do further investigation on the identified anomalies, and further examine the relationships that they have via the Nth Degree and various form of visualization analysis.
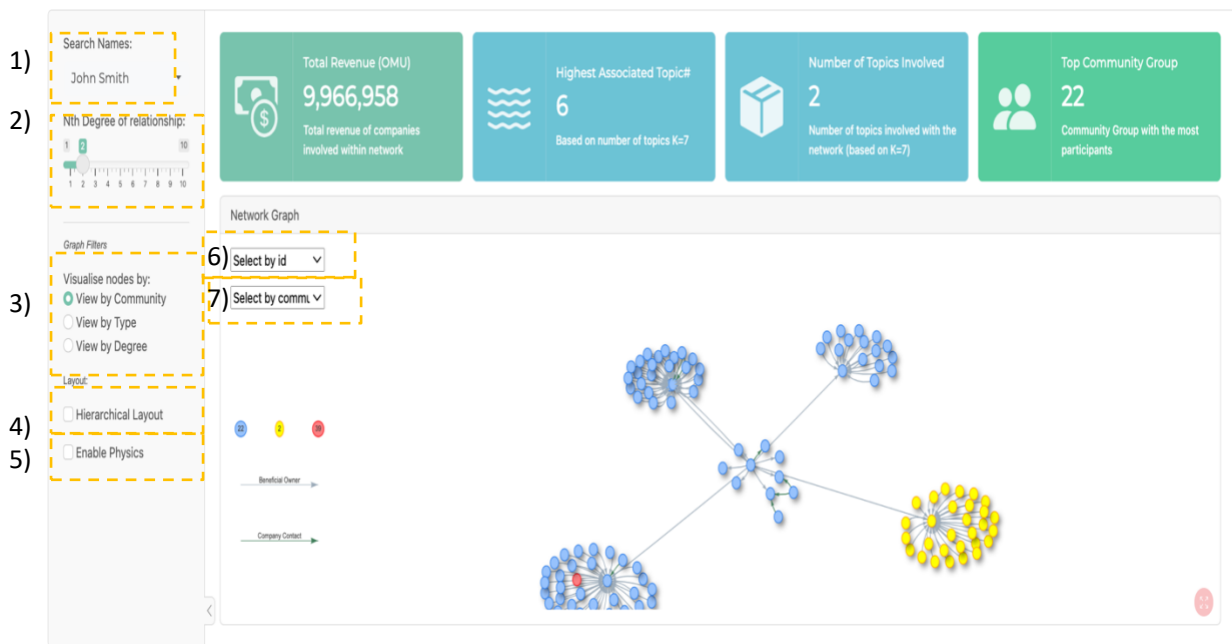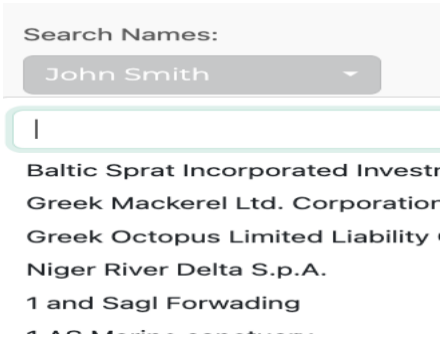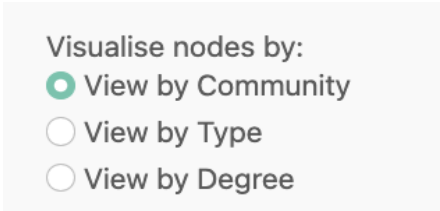

For begin with:

1. Search for the Names that they have identified *(default = John Smith)*
2. Choose the level of degree that they are interested to analyse
3. Option to view at different nodes in terms of community/type/degree
4. Option to view the layout in different perspective
5. Option for visualization by Enable Physics
6. Option to view specific company by selecting the ID.
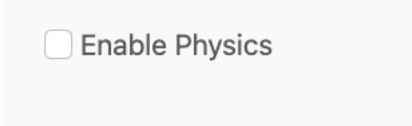7. Option to view specific community.

Please refer to the page 9 for measurements and its corresponding default level.
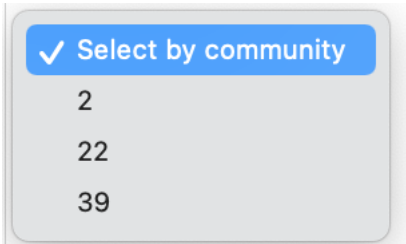
The following few pages will showcase the optional tools *(point 3-7)*.

These are the measurements available. **Default values** are highlighted as follows:
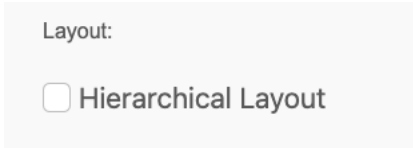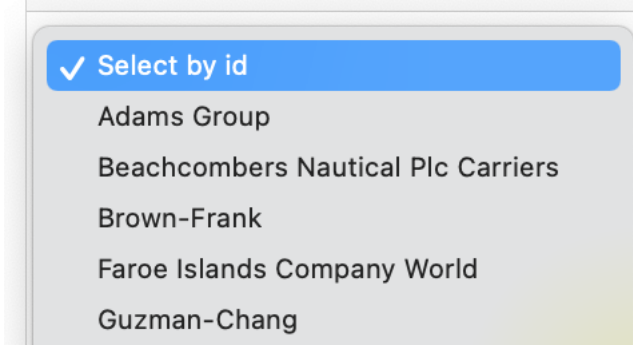
1)

Search Names:

John Smith

|

Baltic Sprat Incorporated Investr
Greek Mackerel Ltd. Corporatior
Greek Octopus Limited Liability (
Niger River Delta S.p.A.
1 and Sagl Forwading
1 AS Marine sanctuary

2)

Nth Degree of relationship:

1   2   10

1   2   3   4   5   6   7   8   9   10

3)

Visualise nodes by:
● View by Community
○ View by Type
○ View by Degree

4)

Layout:

☐ Hierarchical Layout

5)

☐ Enable Physics

6)

✓ Select by id
Adams Group
Beachcombers Nautical Plc Carriers
Brown-Frank
Faroe Islands Company World
Guzman-Chang
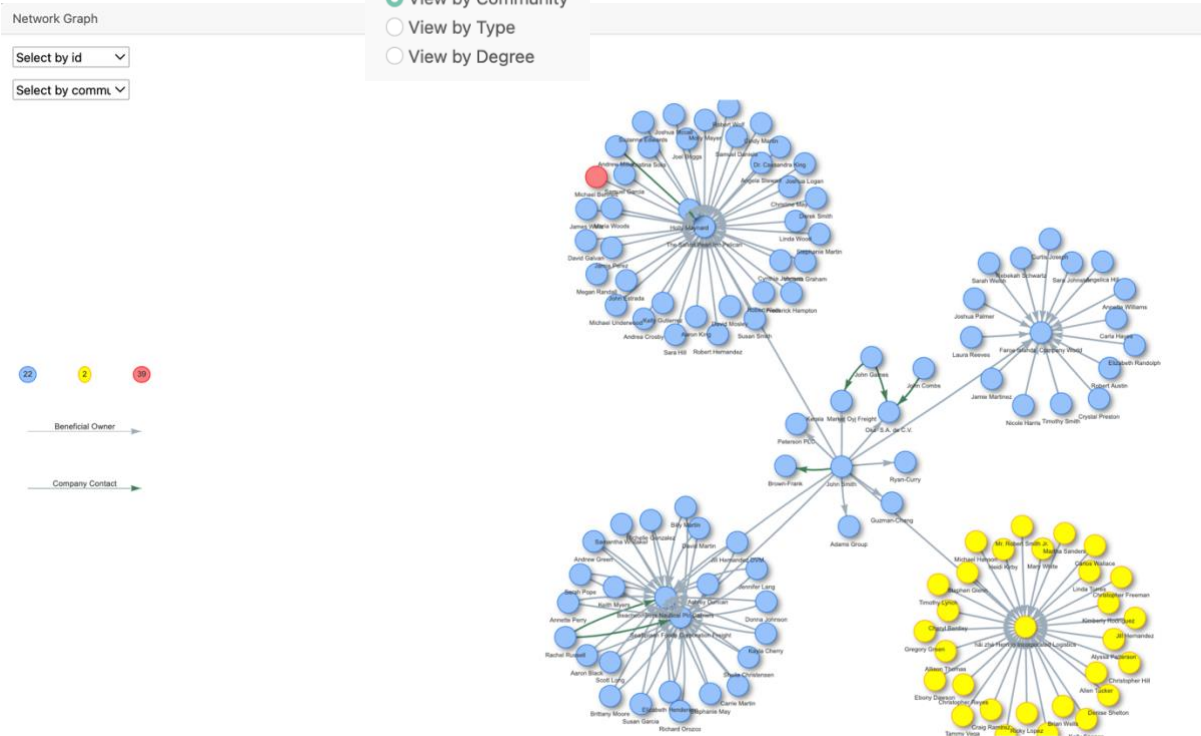
7)

✓ Select by community
2
22
39

We will be using `**John Smith**` and **2** as our Nth Degree of relationship in the following examples.

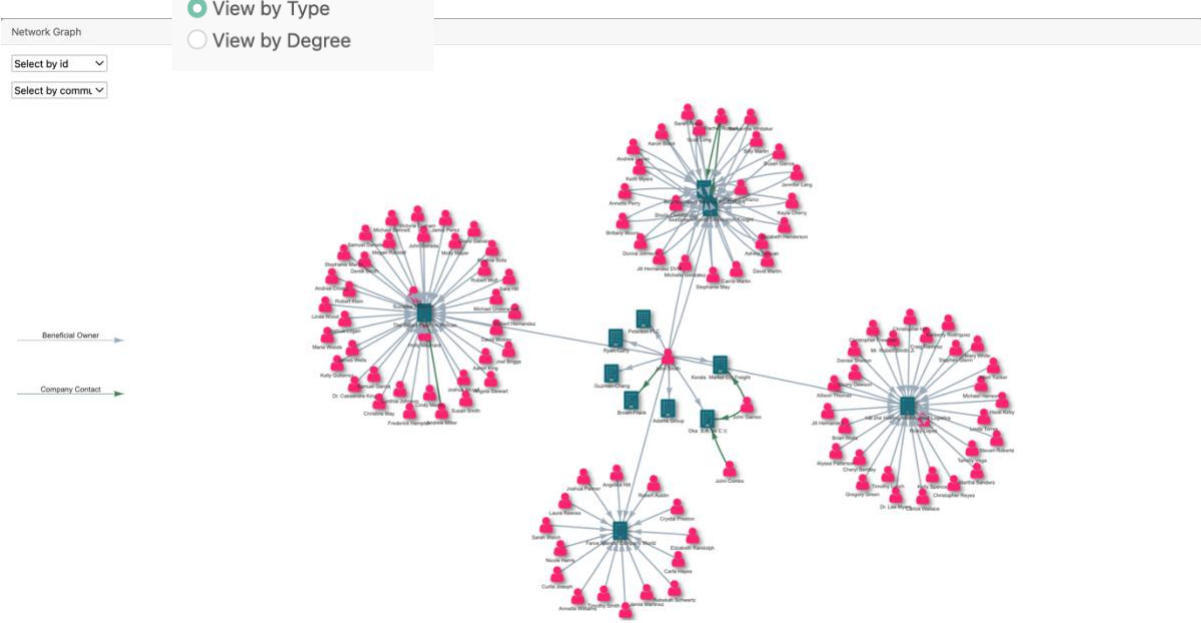# NODES FILTERING

To achieve the following output, *'Enable Physics'* have been selected , with changes to the nodes:

3. Community (Default)

4. Type

5. Degree

Visualise nodes by:
○ View by Community
○ View by Type
● View by Degree

Network Graph

Select by id ⌄

Select by commu ⌄
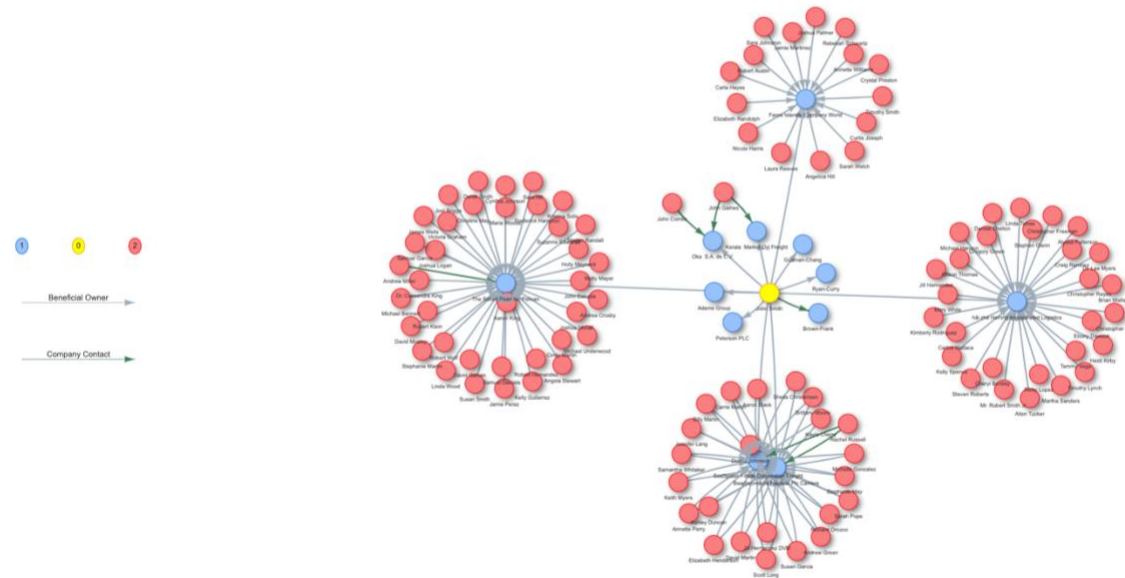
ENHANCED VISUALIZATION

1. Enable Physics

Default (Without)	After (With)
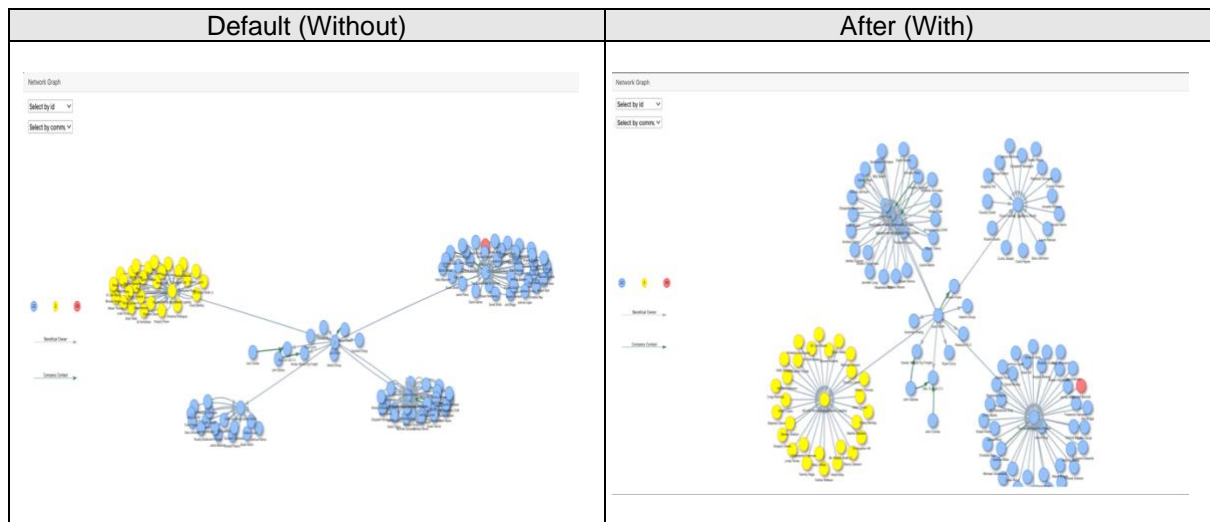
'Enable Physics' has been included in the steps below.

2. Layout in different perspective

Default (Without)	After (With)
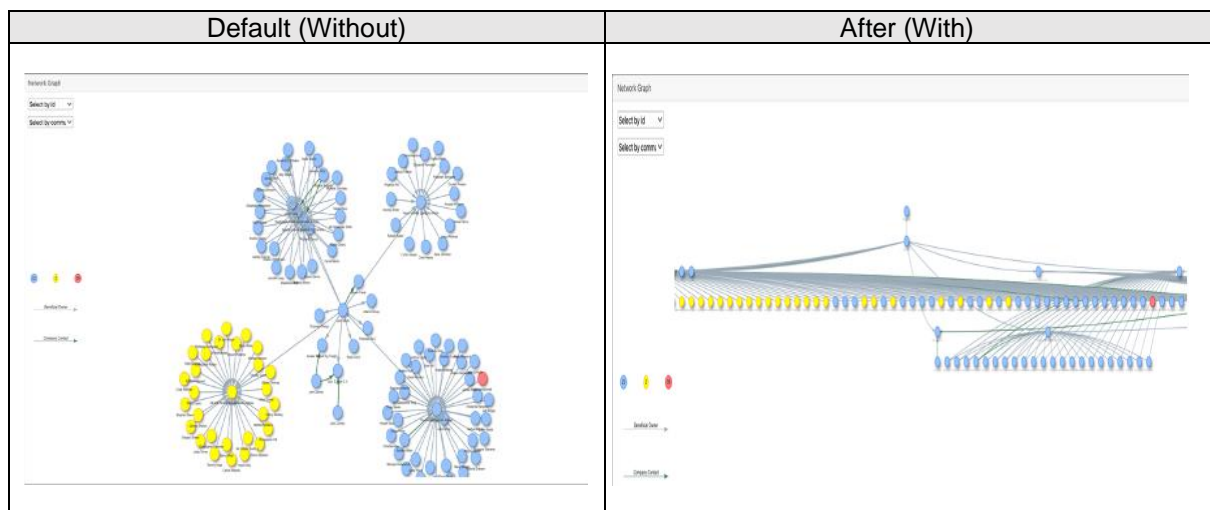
3. Identify ID in Network (after Search Names)

Default (Without Selecting ID)	After (Selecting "John Smith")

4. Identify Specific Community   (after Search Names)

Default (Without Selecting Community)	After (Selecting "22")