SPARK FUNDS INVESTMENT ANALYSIS

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Objective/Goals

Objective
➢ Identify the best sectors, countries, and a suitable investment type for making investments.

Strategy
➢ To invest where others are investing, implying that the best sectors and countries are the ones where most investments are happening.

Goals of data analysis
❖ Investment type analysis:
  ➢ Understanding investments in the venture, seed/angel, private equity categories, etc. so Spark Funds can decide which type is best suited for its strategy.
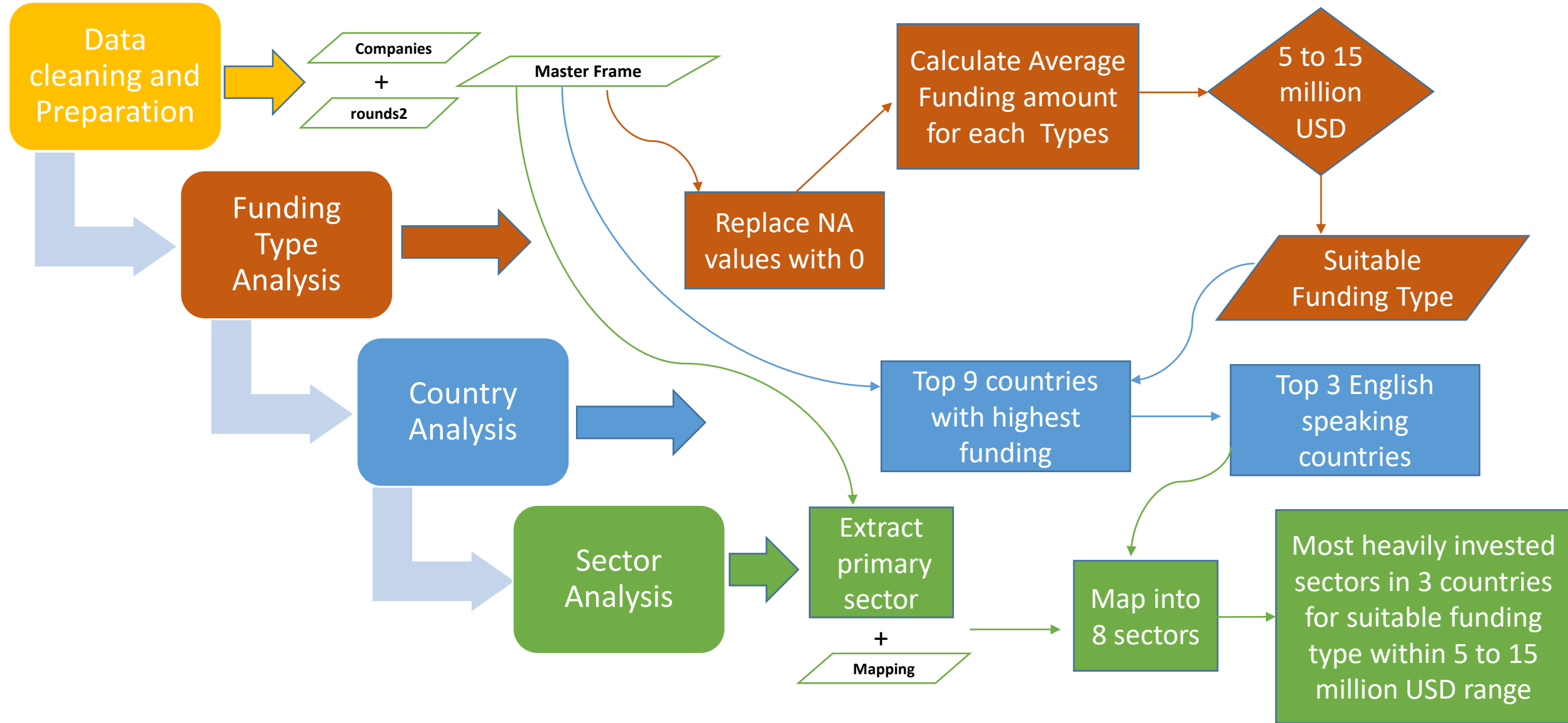
❖ Country analysis:
  ➢ Understanding which countries have had the most investments in the past. These will be Spark Funds' favourites as well.

❖ Sector analysis:
  ➢ Understanding the distribution of investments across the eight main sectors.

Problem solving methodology

Investment type analysis

■ **Assumption** :

- There are missing/NA values for funding amount (raised_amount_usd) in rounds2 dataset. However, Date of funding (funded_at) is present for those.
- Count of such entries with NA are 19,990.
- We are assuming those NA values to be 0.

■ Calculated the **average investment amount for each funding type**.

■ Considering that Spark Funds wants to invest between 5 to 15 million USD per investment round, **"Venture" investment type is most suitable type for investment.**

Country analysis

- **<u>Goal</u>** : For the "Venture" investment type, identify the countries where most investments are occurring.

- Identified the top nine countries (**based on the total investment amount each country has received**)
    - USA, CHN, GBR, IND, CAN, FRA, ISR, DEU, RUS
    - **Assumption :**
        - The third top country is listed as NULL.
        - We have discarded this entry, as this might be the result of missing Country codes for the funding companies.

- Identified the top three English-speaking countries (out of the above 9 countries)

- **Three most investment-friendly English speaking countries for SparkFund are :**
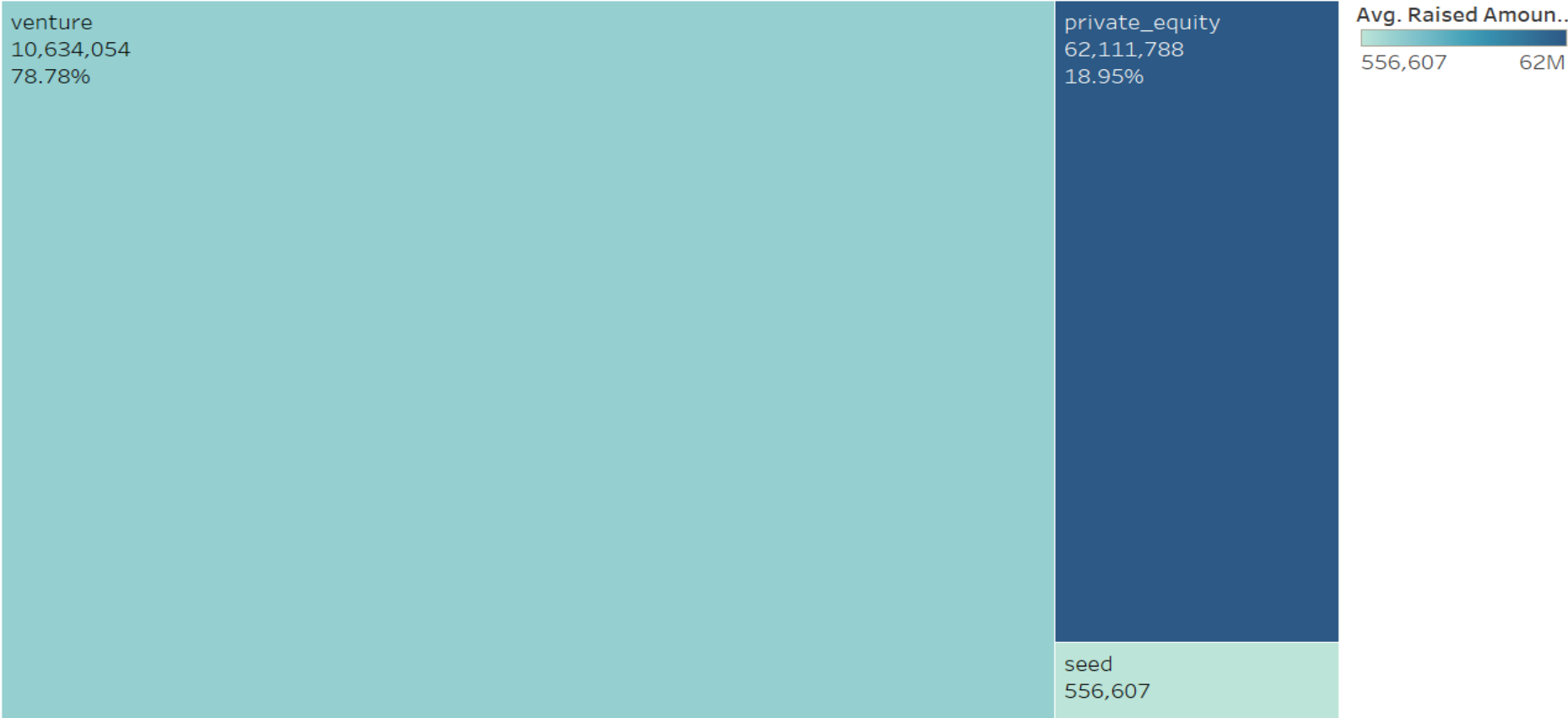   - **USA, GBR, INDIA**

Sector analysis

- Extracted the primary sector of each category from the category_list (column of master_frame). Used the mapping file 'mapping.csv' to map each primary sector to one of the eight main sectors, considering *< **business rule** that the first string before the vertical bar will be considered the **primary sector**>*

- **Assumption** :
  - category_list column of mapping has discrepancy, as in many values "na" is replaced with "0". For e.g. "Analytics" is written as "A0lytics".
  - Replaced "0" with "na".

- Identified the **most heavily invested main sectors in each of the three countries** – USA, GBR, IND (for funding type "Venture" and investments range of 5-15 M USD).

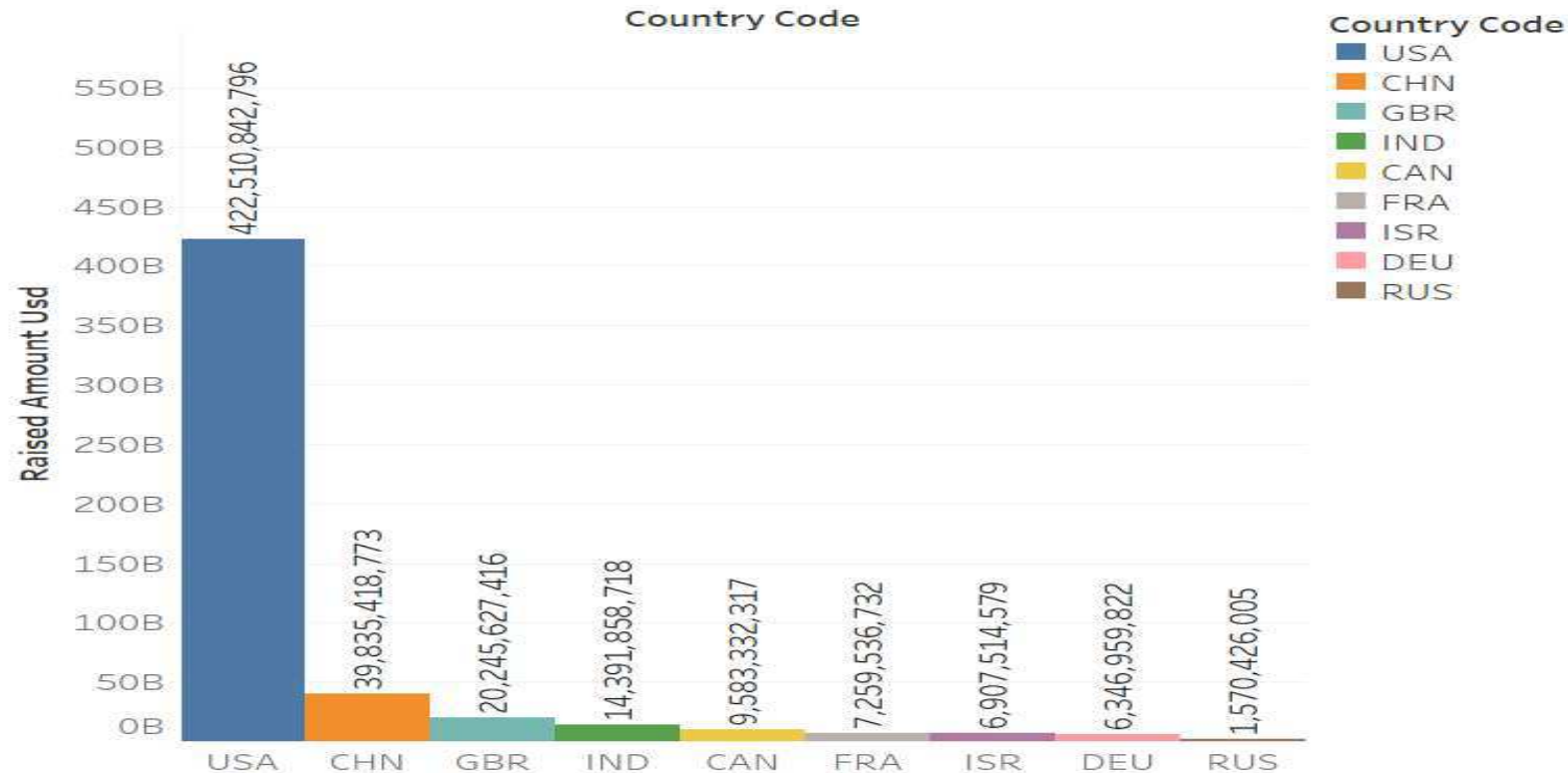| Country	Sector 1	Sector 2	Sector 3
USA	Others	Cleantech...Semiconductors	Social..Finance..Analytics..Advertising
GBR	Others	Social..Finance..Analytics..Advertising	Cleantech...Semiconductors
IND	Others	Social..Finance..Analytics..Advertising	News..Search.and.Messaging

Funding Type suited for Investment - Venture

FundingType Suited for Investment

venture
10,634,054
78.78%

private_equity
62,111,788
18.95%

Avg. Raised Amoun..

556,607   62M

seed
556,607

Funding Round Type, average of Raised Amount Usd and % of Total Raised Amount Usd. Color shows average of Raised Amount Usd. Size shows % of Total Raised Amount Usd. The marks are labeled by Funding Round Type, average of Raised Amount Usd and % of Total Raised Amount Usd. The view is filtered on Funding Round Type, which keeps private_equity, seed and venture.

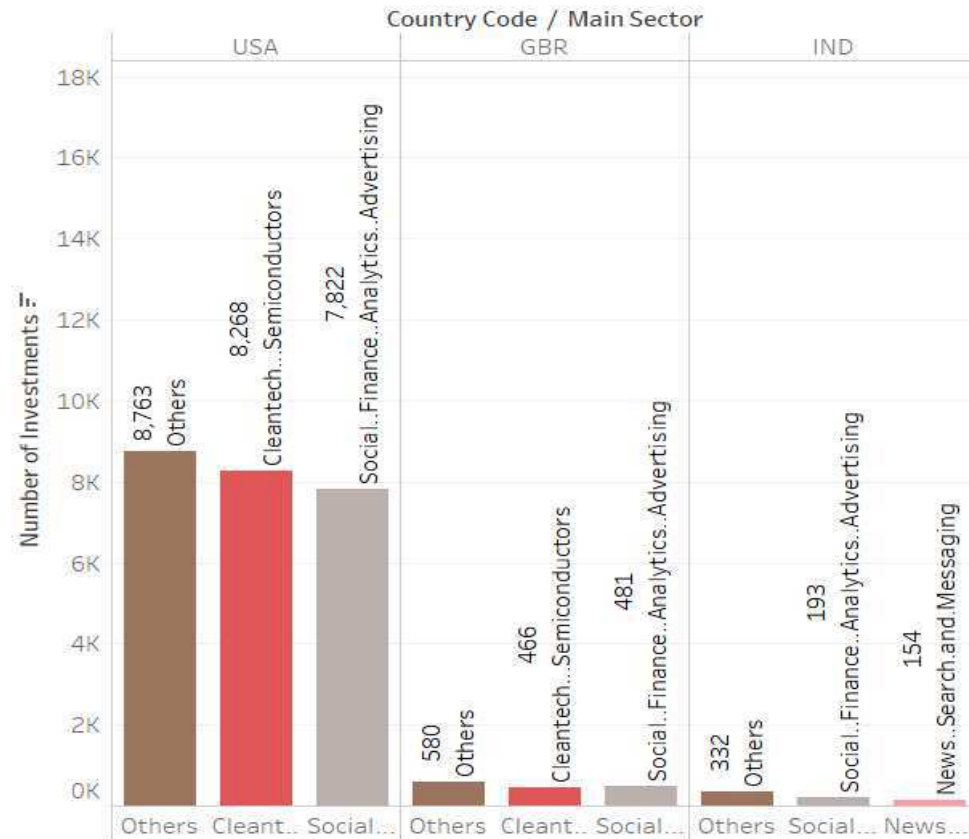# Top 9 countries against Total investment for Funding type - Venture

Top 9 countries

Country Code

	Country Code
■	USA
■	CHN
■	GBR
■	IND
■	CAN
■	FRA
■	ISR
■	DEU
■	RUS

USA 422,510,842,796
CHN 39,835,418,773
GBR 20,245,627,416
IND 14,391,858,718
CAN 9,583,332,317
FRA 7,259,536,732
ISR 6,907,514,579
DEU 6,346,959,822
RUS 1,570,426,005

Sum of Raised Amount Usd for each Country Code. Color shows details about Country Code. The marks are labeled by sum of Raised Amount Usd. The data is filtered on Funding Round Type, which keeps venture. The view is filtered on Country Code, which keeps 9 of 138 members.

Number of investments in the top 3 sectors of the top 3 countries for Funding type - Venture

Number of Investments in the top 3 sectors of the top 3 countries

Country Code / Main Sector

Caption

Count of Raised Amount Usd for each Main Sector broken down by Country Code. Color shows details about Main Sector. The marks are labeled by count of Raised Amount Usd and Main Sector. The data is filtered on Funding Round Type and Top3. The Funding Round Type filter keeps venture. The Top3 filter ranges from 1 to 3. The view is filtered on Country Code, which keeps GBR, IND and USA.

Conclusions

As the analysis report,

- Identified the best sectors, countries, and a suitable investment type for making investments.

- These are subject to the assumptions made in the provided data set and the business rules decisions.

- To summarize,
  - **Venture – most suitable investment type**
  - **USA, GBR, IND – most suitable countries for investment**
  - **Others – most suitable sector for investment in USA, GBR and IND**