

# INVESTMENT CASE STUDY

## SUBMISSION

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# Project Abstract

## **Purpose:**

- Sparks funds is an asset management company
- To understand the global trends of Investment to take the investment decisions effectively.
- To get maximum Return on Investment.

## **Business Objectives:**

- To identify best sectors, countries and a suitable investment type for making investments.
- Invest where others are investing.

## **Demarcations:**

- Investment must be between 5 to 15 million USD per round.
- Investment must be made only in English-speaking countries.

## **Tools Used:**

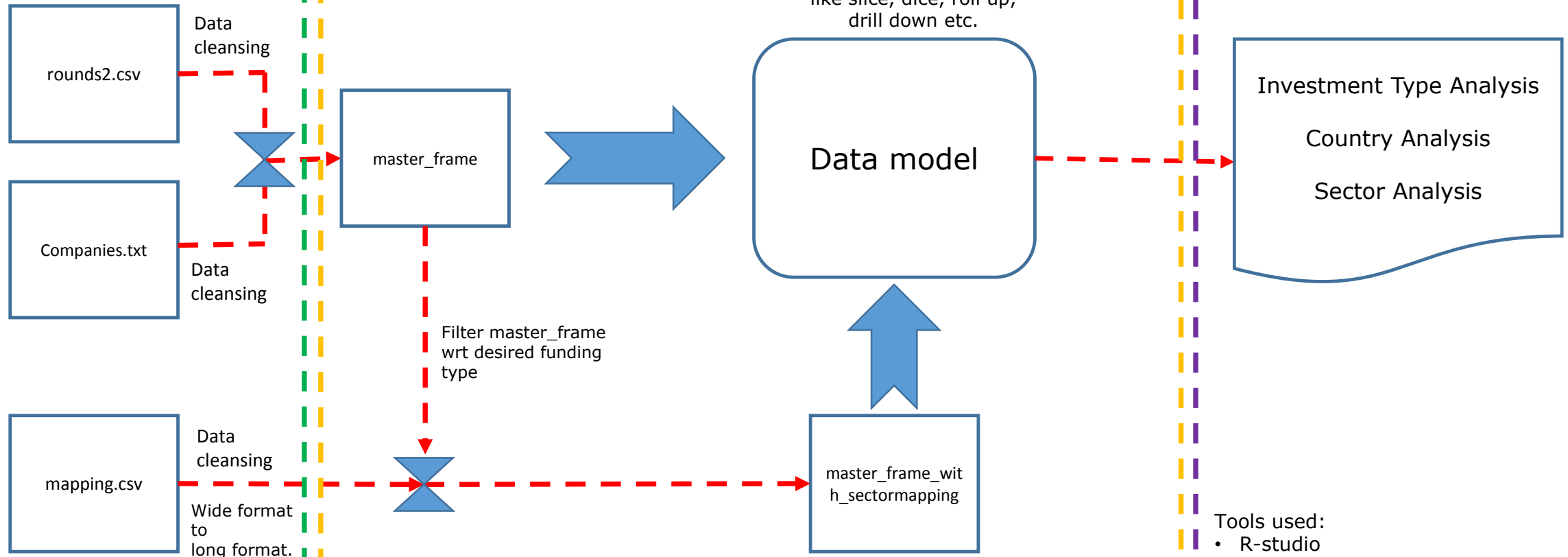
- R-studio
- Tableau
- Excel

# Project Methodology

## Data Cleansing and Preparation

## Data Modelling and Evaluation

## Business Goals & Results



Tools used:

- R-studio
- Tableau
- Excel

# Data Analysis

**Data Source:** Real investment data from crunchbase.com to understand the global investments data

**Data Understanding:** Three data files are available for analysis

1. companies – Dataset containing basic data about companies e.g. companies link, name, country, category list etc.
2. rounds2 – Dataset containing information on funding e.g. company link, funding type, funding amount.
3. mapping – Dataset containing information of distribution of investments across the eight main sectors.

**Data Preparation:** This includes the following steps

Data Cleaning	All the duplicate data and the data having investment amount as 0 and country as NA are being treated. Mapping file converted to long from wide format and all synchronous entries are eliminated.
Data merging	The <i>company_permalink</i> column is used as the unique key to merge rounds2 and companies datasets, creating a new master data set named as <b>master_frame</b> .
Data mapping	To understanding the distribution of investments across the eight main sectors, master_frame dataset is filtered with desired funding type and is mapped with mapping file.

# Data Modelling

Data obtained from data cleaning and preparation is ready for modelling. Data is churned to get the basic insights which leads to the conclusive findings

**Data Filtering:** Filtering the data with respect to various dimensions and measures gives the answers for

**Investment type analysis:** The best Investment type

- The funding types such as seed, venture, angel, and private equity that are most common and safe for start up.
- Slice or Filter the data on basis of funding types and find the average investment into each funding type.

**Country analysis:** The countries with the highest amount of funding for the chosen investment type.

- Slice the data w.r.t. the funding type then group it by countries and aggregate the data on basis of investment amount.
- This gives the top nine countries which have received the highest total funding across ALL sectors for the chosen investment type.

**Sector Analysis:** The most heavily invested main sectors in each of the top three English speaking countries

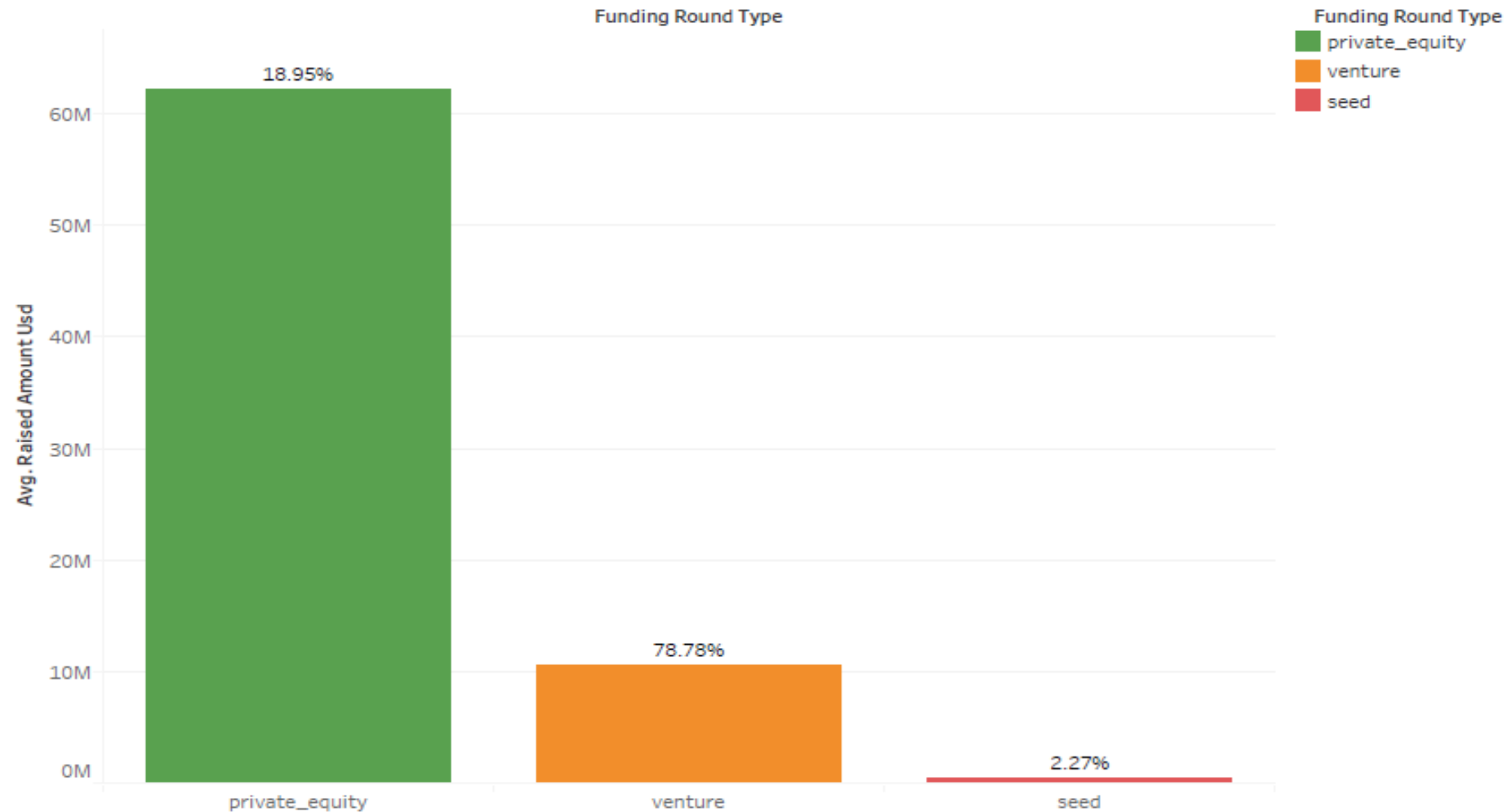
- Slice the data w.r.t. each of top 3 English speaking countries then summarize the data.
- The total number (or count) and total amount invested in each main sector is calculated.

# Data Model Evaluation

Various operations like slice, dice, roll up and drill down etc. are applied on datasets to churn the data.

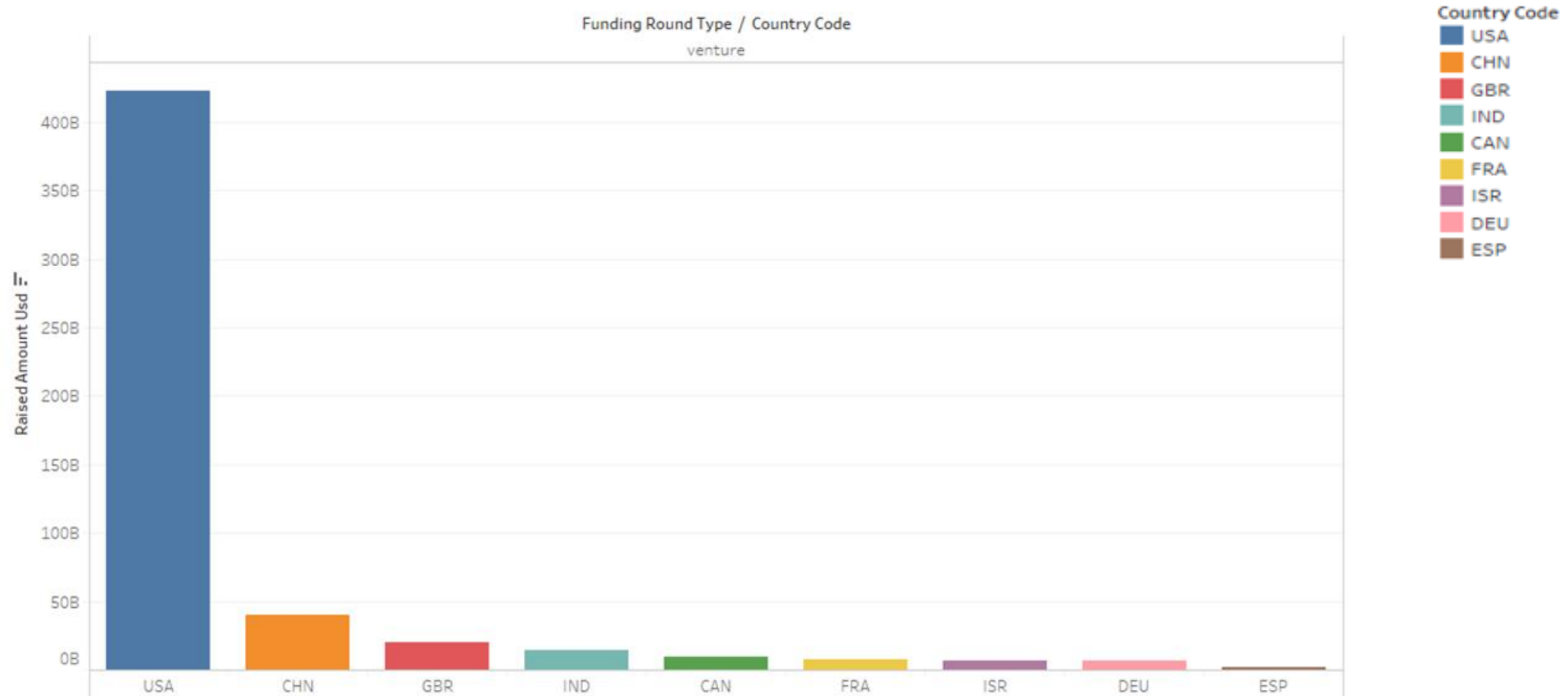
Analysis Type	Findings	Result
Investment type analysis	<ul style="list-style-type: none"> <li>Private Equity is the most common but the investment needed is around 60 million.</li> <li>The next best option is <b>VENTURE</b> with average investment around 10 million.</li> </ul>	<b>Venture</b> funding type is best option.
Country analysis:	<ul style="list-style-type: none"> <li>To the top 9 countries that have had maximum investments flow in.</li> <li>US and China lead the list , followed by UK and India.</li> <li>Since we are looking for English as official language accepted in the country, we have to take China off the list.</li> </ul>	The top three countries for investments - <b>USA, UK(GBR) and IND</b>
Sector Analysis	<ul style="list-style-type: none"> <li>To find the most heavily invested sectors in the top 3 countries,</li> <li>Count of investments in each sector</li> <li>Total investments in each sector</li> <li>Companies that had maximum investment in top sector</li> </ul>	Different countries have different sectors. Common sectors are: Others, Social/Finance/Analytics /Advertising, CleanTech

## Result Analysis : Investments in each funding types



Average of Raised Amount Usd for each Funding Round Type. Color shows details about Funding Round Type. The marks are labeled by % of Total Raised Amount Usd. The view is filtered on Funding Round Type, which keeps private\_equity, seed and venture.

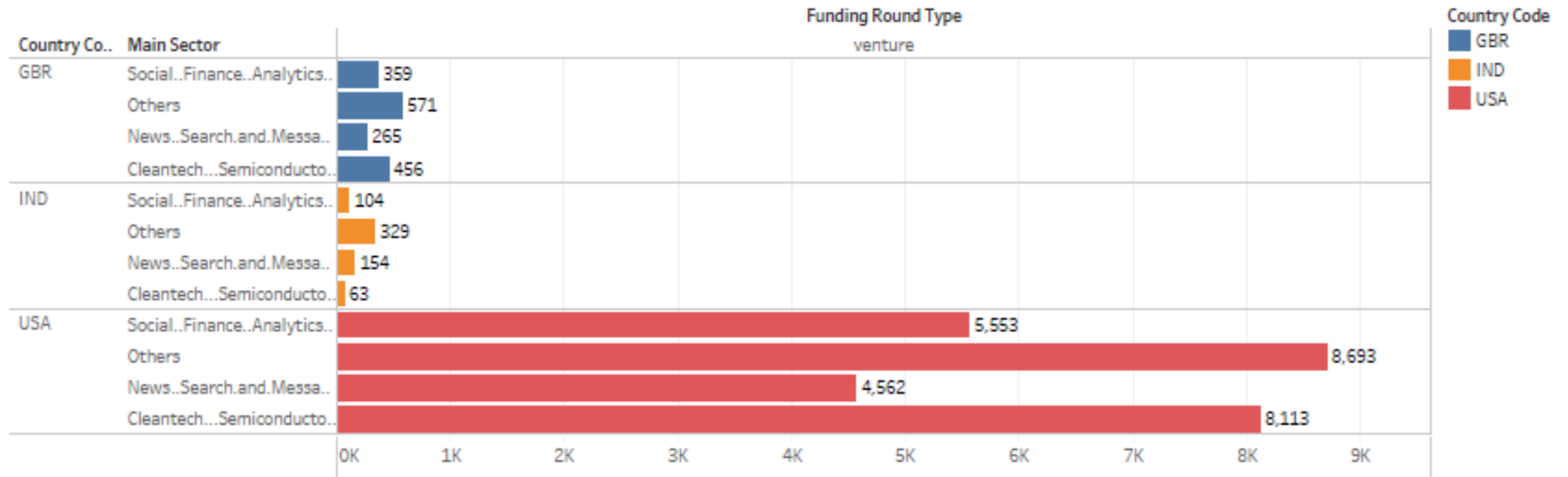
# Result Analysis : Investments in Top 9 countries



Sum of Raised Amount Usd for each Country Code broken down by Funding Round Type. Color shows details about Country Code. The view is filtered on Funding Round Type and Country Code. The Funding Round Type filter keeps venture. The Country Code filter keeps 9 of 138 members.



## Result Analysis : Investments in top 3 sectors in top 3 countries



Count of Raised Amount Usd for each Main Sector broken down by Funding Round Type vs. Country Code. Color shows details about Country Code. The marks are labeled by count of Raised Amount Usd. The view is filtered on Funding Round Type, Country Code and Main Sector. The Funding Round Type filter keeps venture. The Country Code filter keeps GBR, IND and USA. The Main Sector filter has multiple members selected.

## Conclusion

Based on the analysis, Spark funds should invest according to the following details:

- Funding Type: Venture
- Funding Amount: Between \$5,000,000 to \$15,000,000
- Funding Countries and corresponding sectors:

Countries	Sectors
USA	<ul style="list-style-type: none"><li>• Others</li><li>• Cleantech / Semiconductors</li><li>• Social / Finance / Analytics / Advertising</li></ul>
GBR	<ul style="list-style-type: none"><li>• Others</li><li>• Cleantech / Semiconductors</li><li>• Social / Finance / Analytics / Advertising</li></ul>
IND	<ul style="list-style-type: none"><li>• Others</li><li>• News, Search and Messaging</li><li>• Social / Finance / Analytics / Advertising</li></ul>