INVESTMENT ASSIGNMENT

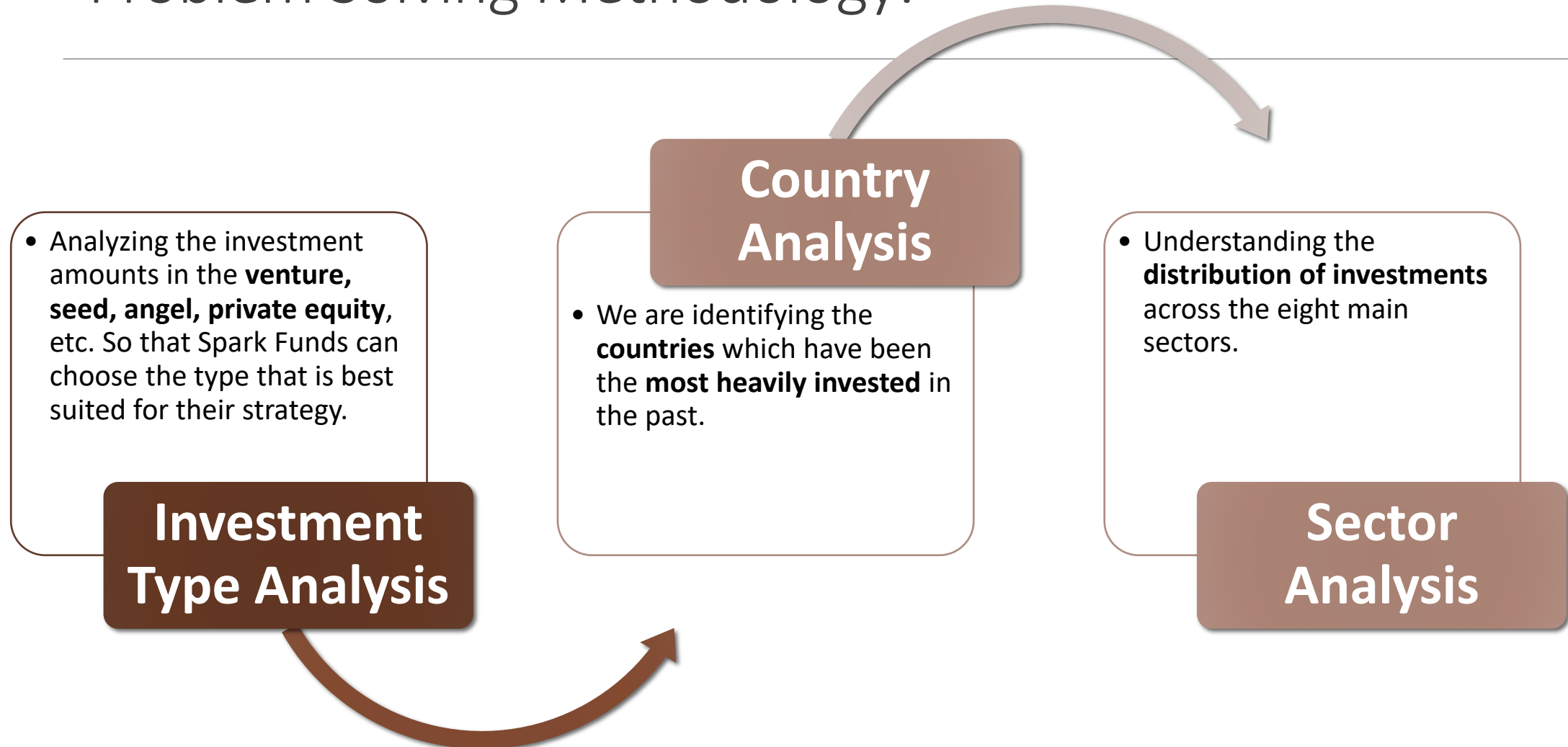# SUBMISSION

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Abstract:

This Presentation is about investment as our CEO wants to understand the global trend in investments to take the investment decisions effectively.

The constraints for this investment are per round; we can invest around 5-15 million USD, invest only in English-speaking countries, and it should be the official language. So we have taken the data from crunchbase.com.

In this, I will be identifying the best sectors, countries, and a suitable investment type for making investments. So that I can determine where others are investing, find the best industry and country to invest in.

Problem Solving Methodology:

Investment Type Analysis

- Analyzing the investment amounts in the **venture, seed, angel, private equity**, etc. So that Spark Funds can choose the type that is best suited for their strategy.

Country Analysis

- We are identifying the **countries** which have been the **most heavily invested** in the past.

Sector Analysis

- Understanding the **distribution of investments** across the eight main sectors.

Downloaded CSV files

1. COMPANY DETAILS:

Attribute	Description
Permalink	Unique ID of company
name	Company name
homepage_url	Website URL
category_list	Category/categories to which a company belongs
status	Operational status
country_code	Country Code
state_code	State

2. Round Details:

Attributes	Description
company_permalink	Unique ID of company
funding_round_permalink	Unique ID of funding round
funding_round_type	Type of funding – venture, angel, private equity etc.
funding_round_code	Round of venture funding (round A, B etc.)
funded_at	Date of funding
raised_amount_usd	Money raised in funding (USD)

3. Sector Classification:

Numerous category names in the companies table to an
eight broad sector names.

Data Cleaning

1. In the companies file, we have **66368** unique companies.

2. In the rounds file, we have **53915** unique companies.

3. All the companies in the **rounds** file are present in the **companies** file.

4. After merging these two files, we have a total of **94958 rows.**

Funding Type Analysis

Here I will analyze only seed, venture, angel, and private equity funding types.

Representative Value Of The Investment Amount

Venture Type	Angel Type	Seed Type	Private Equity Type
• 5 Million	• 0.4 Million	• 0.275 Million	• 20 Million

The **Venture Type** is most suitable for **5 to 15 million** USD per investment round.

Country Analysis

Invest in countries with the highest amount of funding for the Venture type.

TOP NINE COUNTRIES:

Country Code	Raised Amount USD
USA	4.225108e+11
CHN	3.983542e+10
GBR	2.024563e+10
IND	1.439186e+10
CAN	9.583332e+09
FRA	7.259537e+09
ISR	6.907515e+09
DEU	6.346960e+09
JPN	3.363677e+09

TOP 3 ENGLISH-SPEAKING COUNTRIES

Country Code	Raised Amount USD
USA	4.225108e+11
GBR	2.024563e+10
CAN	9.583332e+09

Sector Analysis

Load and clean the **mapping.csv**

Create an extra column **primary sector** which contains the first string before the vertical bar.

- For example, one of the companies' category_list is "Application Platforms|Real Time|Social Network Media."
- And 'Application Platforms' will be considered the primary sector.

Merging top3Eng and mapping as main_sector.

Sector-wise Investment Analysis

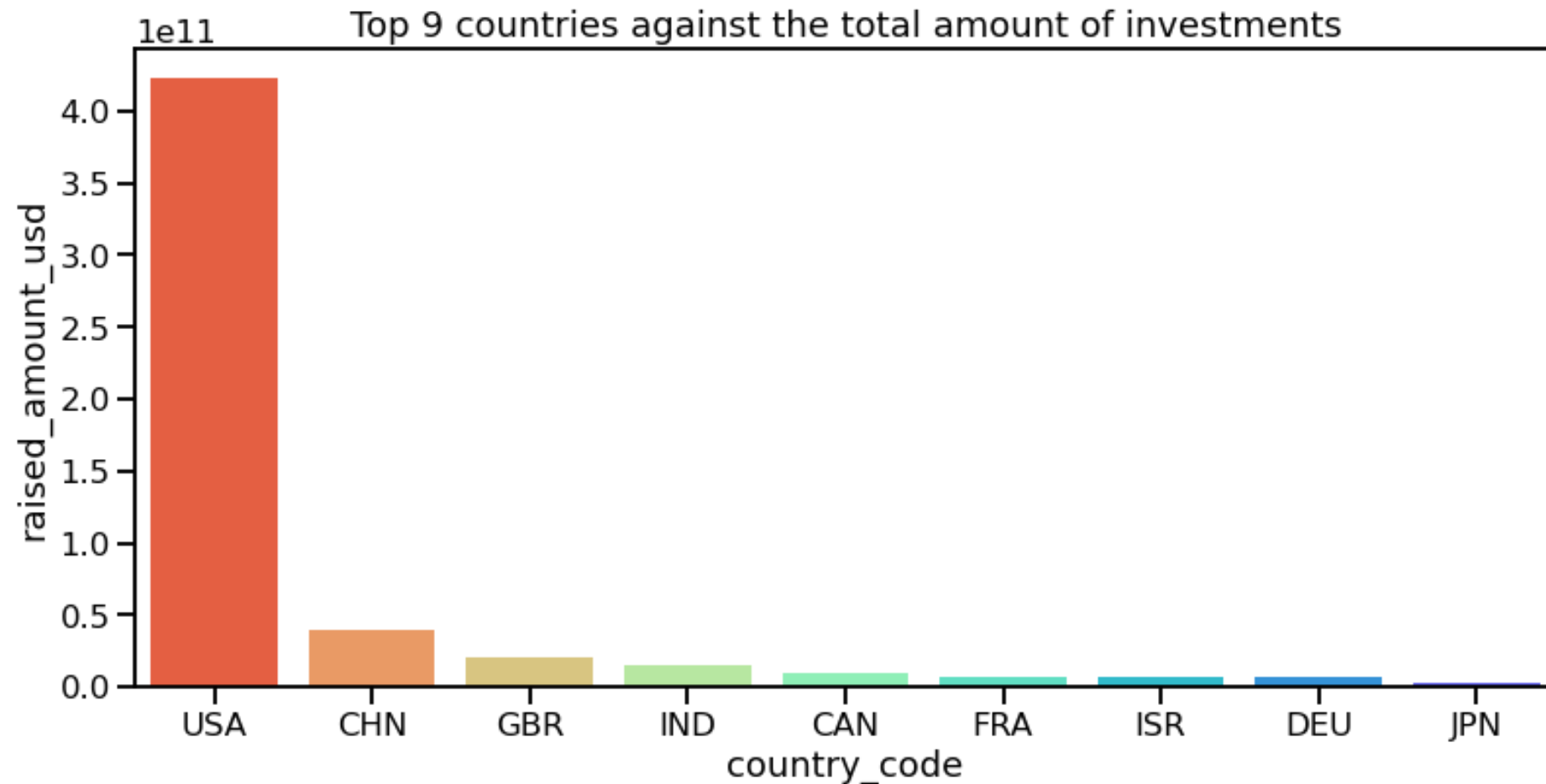|	USA	GRB(United Kingdom)	CAN(Canada)
1. Total number of Investments (count)	33722	1930	1186
2. Total amount of investment (USD)	3.9468E+11	19097204731	8816735173
3. Top Sector name (no. of investment-wise)	Others	Others	Cleantech / Semiconductors
4. Second Sector name (no. of investment-wise)	Cleantech / Semiconductors	Cleantech / Semiconductors	Others
5. Third Sector name (no. of investment-wise)	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising

Sector-wise Investment Analysis

|	USA	GRB(United Kingdom)	CAN(Canada)
6. Number of investments in top sector	82084578045	4400423043	2778422125
7. Number of investments in second sector	1.18764e+11	5028729267	2318566955
8. Number of investments in third sector	62062992808	2851116278	1351746195
9. For point 3 (top sector count-wise), which company received the highest investment?	Sofi	Oneweb	Enobia Pharma
10. For point 4 (second best sector count-wise), which company received the highest investment?	Freescale Semiconductor	Immunocore	D2l

Plot1: Funding Type Which is Best Suited for Spark Funds

Funding Types

Venture - 5.0M

Angel - 0.4M
Seed - 0.275M

Private Equity - 20.0M
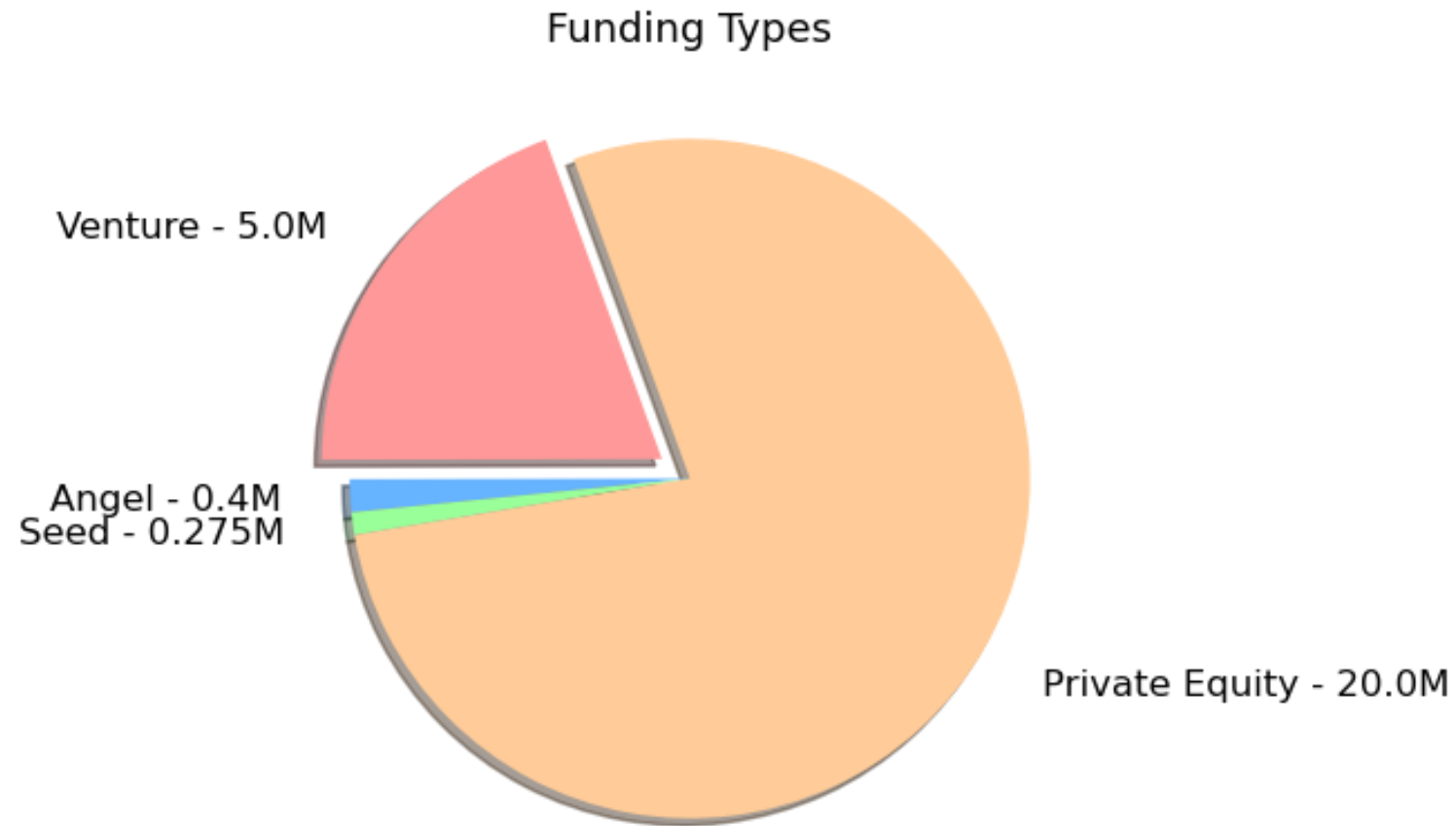
Top 9 countries against the total amount of investments

Plot3: Number of Investments in the Top 3 Sectors of the Top 3 Countries

Number of Investments in the Top 3 Sectors of the Top 3 Countries
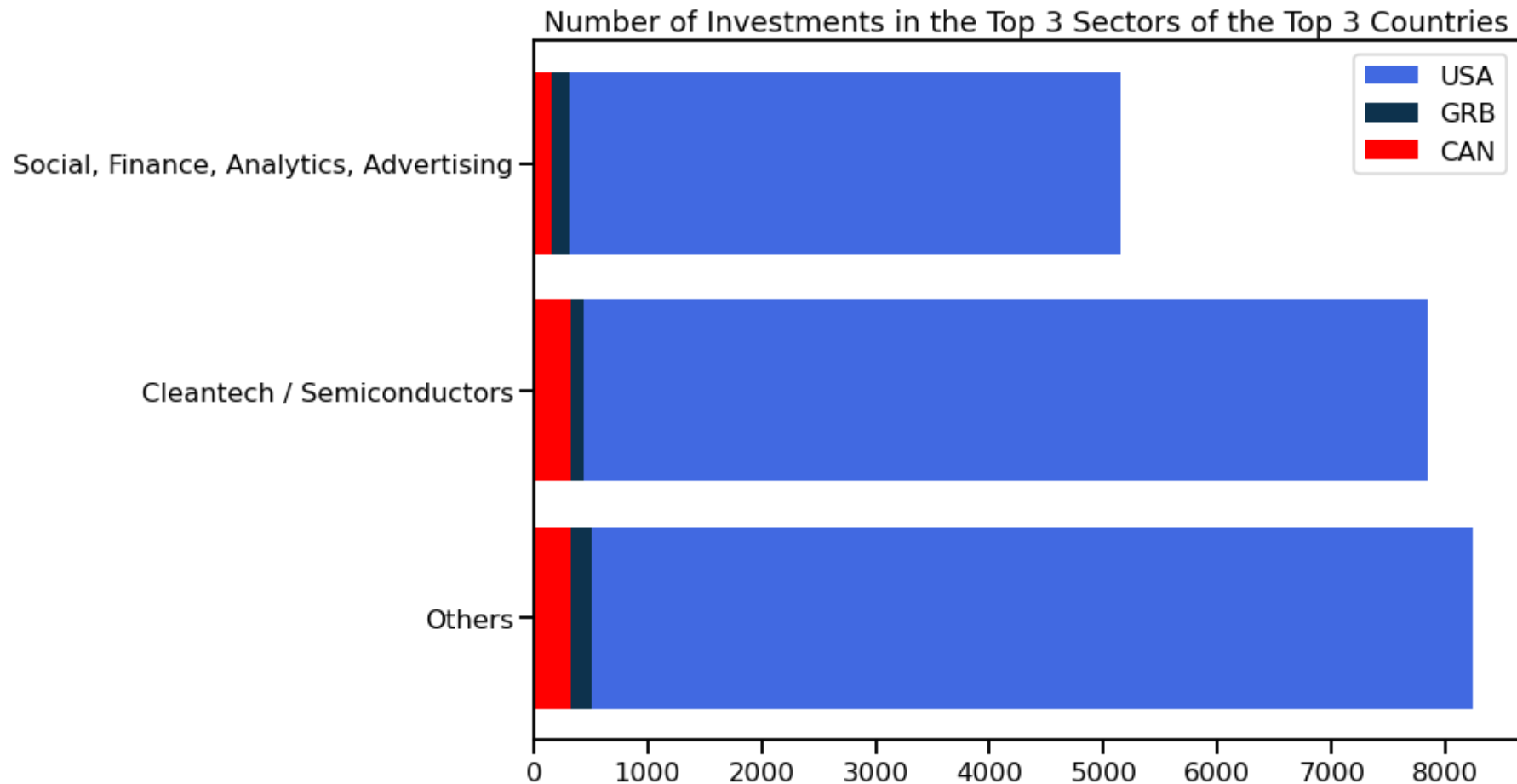
Conclusions:

1. **Spark Funds** should invest in **venture-type companies** because average venture-type companies had raised the funding around **5 million USD**. And our constraints for the investment is **5 to 15 million USD.**

2. We should invest in the **USA venture-type companies** because the USA carries **75%** of the total raised amount in venture-type companies. And **80% in the top ten countries.**

3. Most companies invested in **Others(8243) and Cleantech/Semiconductors(7849)** sectors in the USA.

4. However, if we check the amount raised in USD in both the sectors, we can see **Cleantech/Semiconductors has increased 59%** more than the Others sector.

5. In the Cleantech/Semiconductors sector, we can see **"Freescale Semiconductor"** company has **the highest** USD amount raised, which is around **13% of the total investment** in the Cleantech/Semiconductors sector, and **77% in top10 Cleantech/Semiconductors** sector in the USA.