

## Research and Development Grant Allocation

Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--

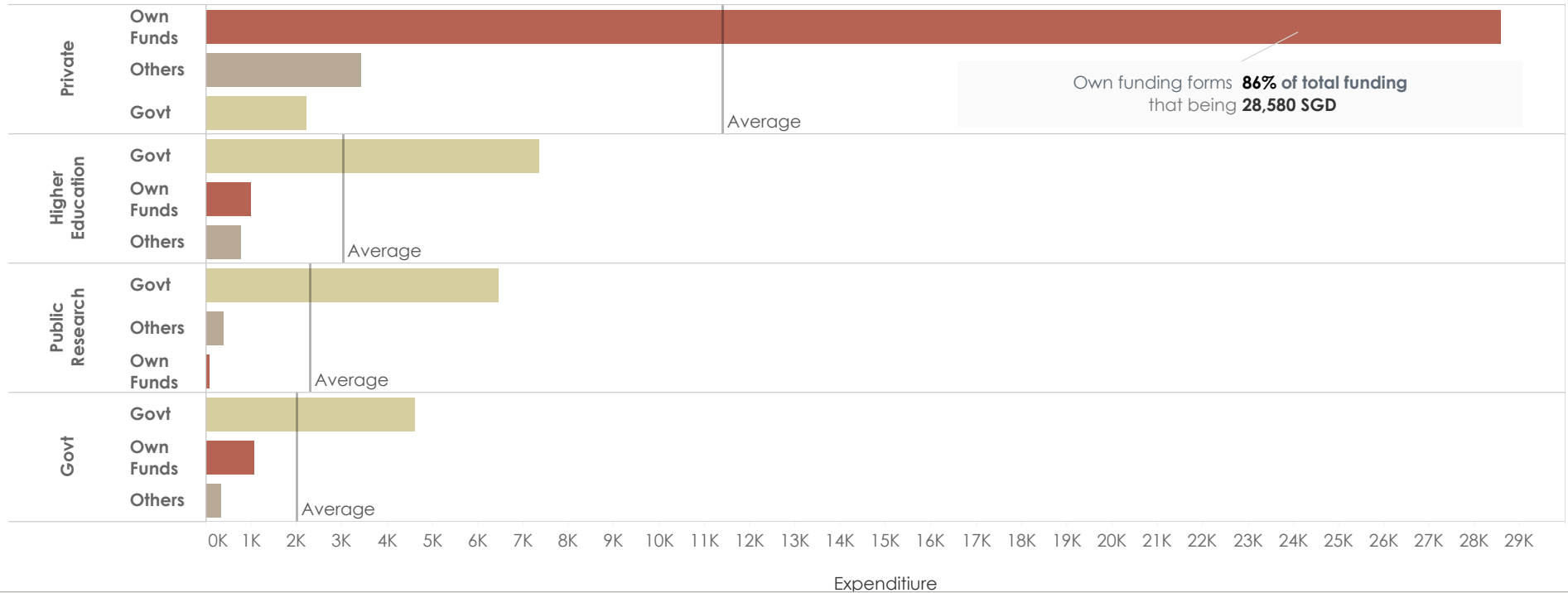
	Patents Applied	Patents Awarded	Revenue
Private	8,364	4,745	149,528
Higher Education	2,717	586	11
Public Research	1,684	692	195
Govt	833	124	78

The Private sector is doing well in all key aspects

What makes the private sector so successful?

## Research and Development Grant Allocation

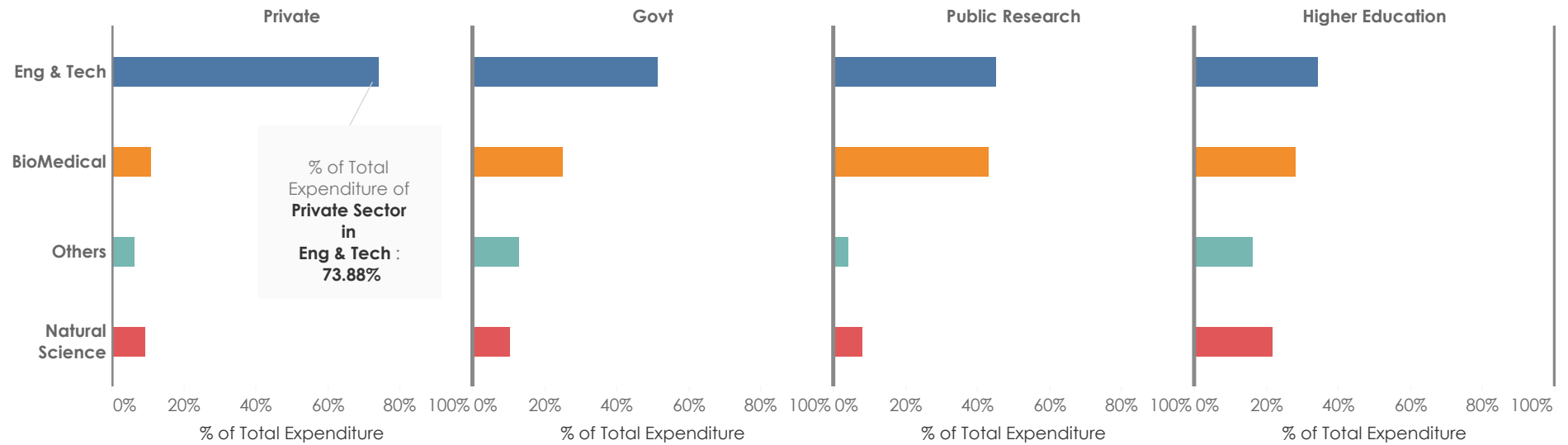
Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--



Research agencies depends on multiple source of income to fund research projects. The private research is the only self-sufficient sector with 86% of own funding. Other players depend heavily on government funding.

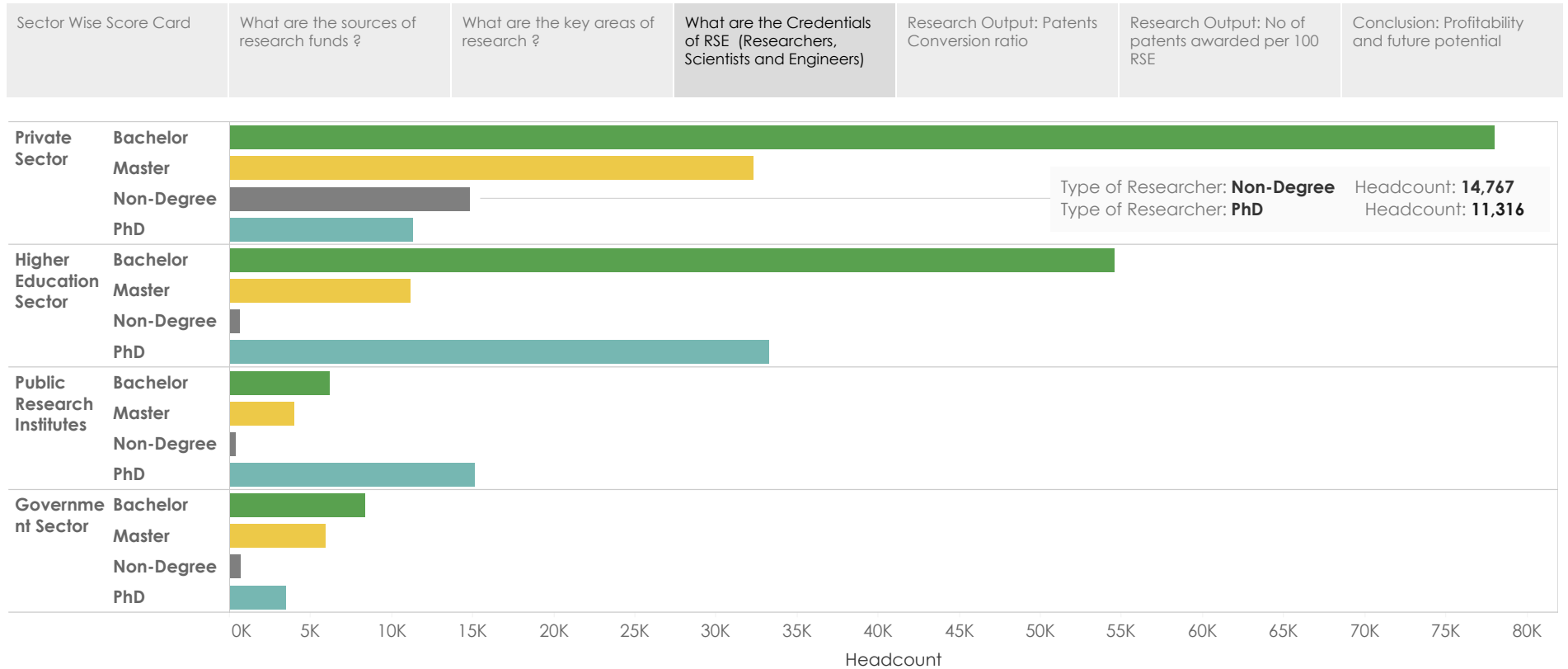
# Research and Development Grant Allocation

Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--



Every sector invests heavily on Eng & Tech research, but a major callout is that, 73% expenditure of private sector's spend is in this area whereas other sectors proportionally invest in other research areas too.  
One possible reason could be that private sector is driven towards profit whereas others are not.

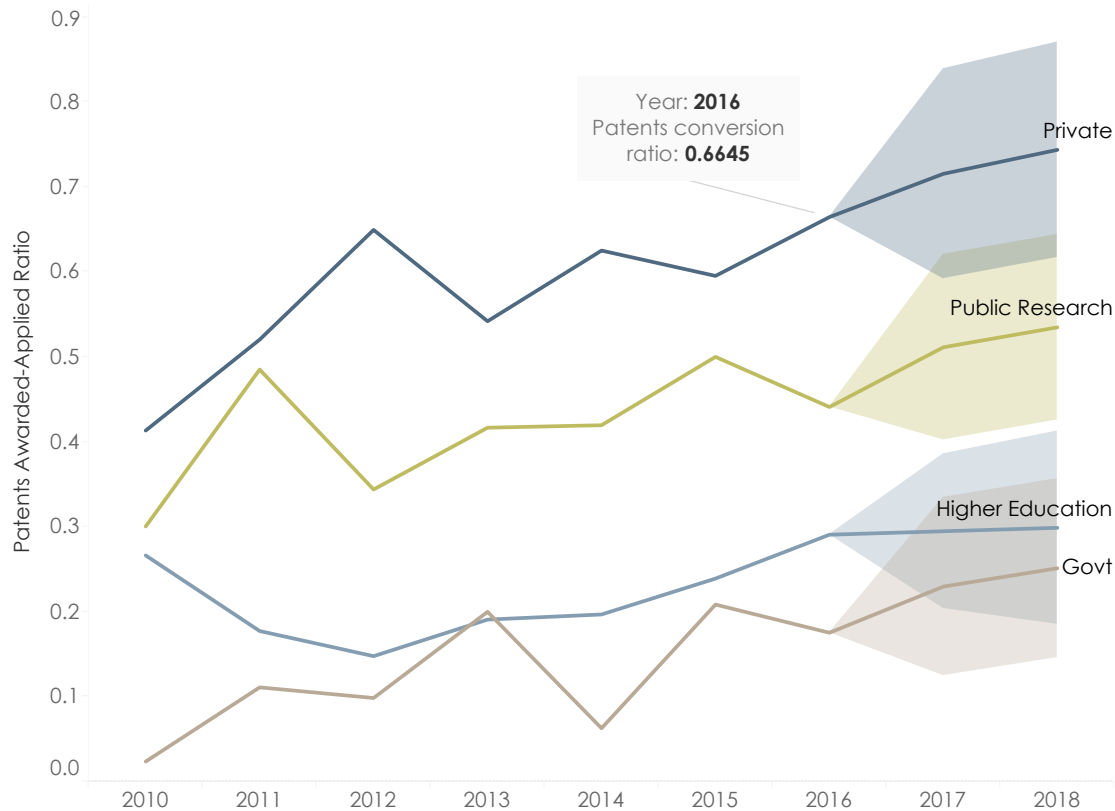
## Research and Development Grant Allocation



Here the myth that PhD is necessary for research is partially debunked  
 A significant part of the research work is carried out by Under Graduates  
 Also, interestingly the Private sector employs more Non-Degree (Interns) than PhDs

## Research and Development Grant Allocation

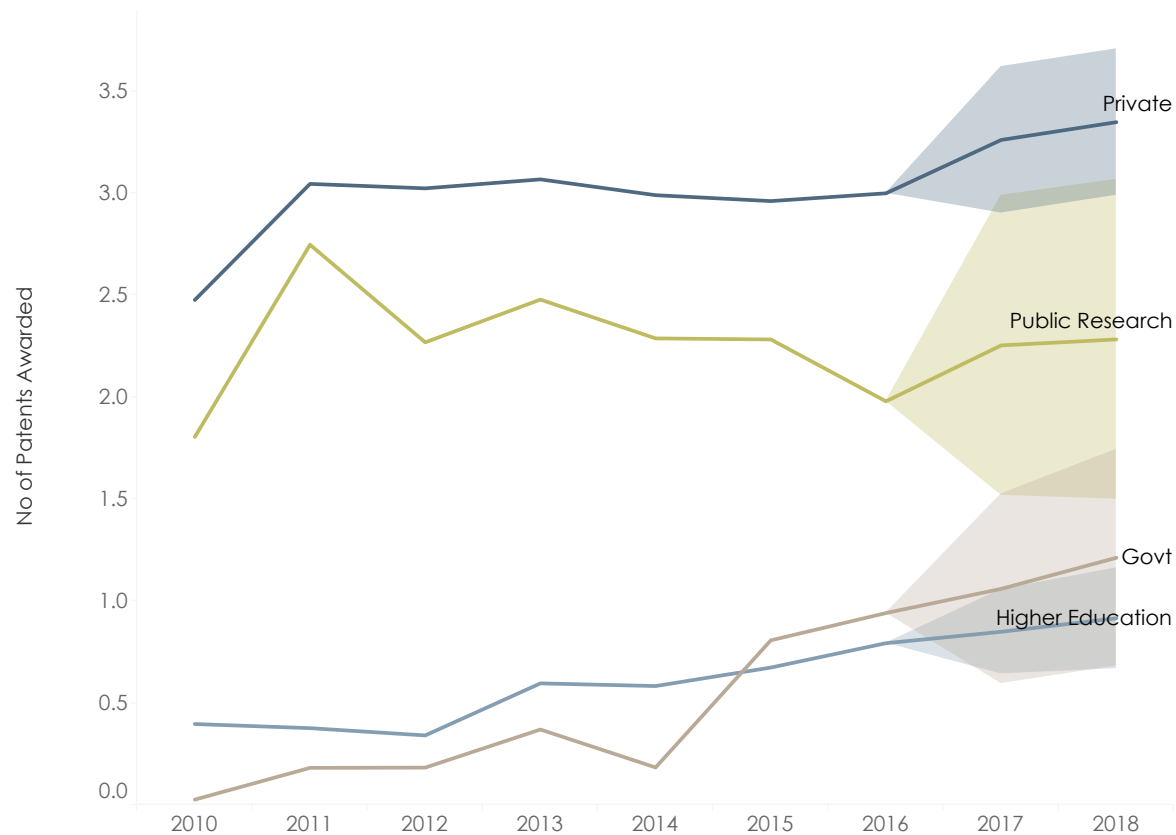
Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--



It is seen that all sectors have shown gradual improvement in conversion ratio over years and private sector has the best ratio of **0.74** and the government sector performs poorly with a ratio of **0.24** but is catching up with rest of the sector

## Research and Development Grant Allocation

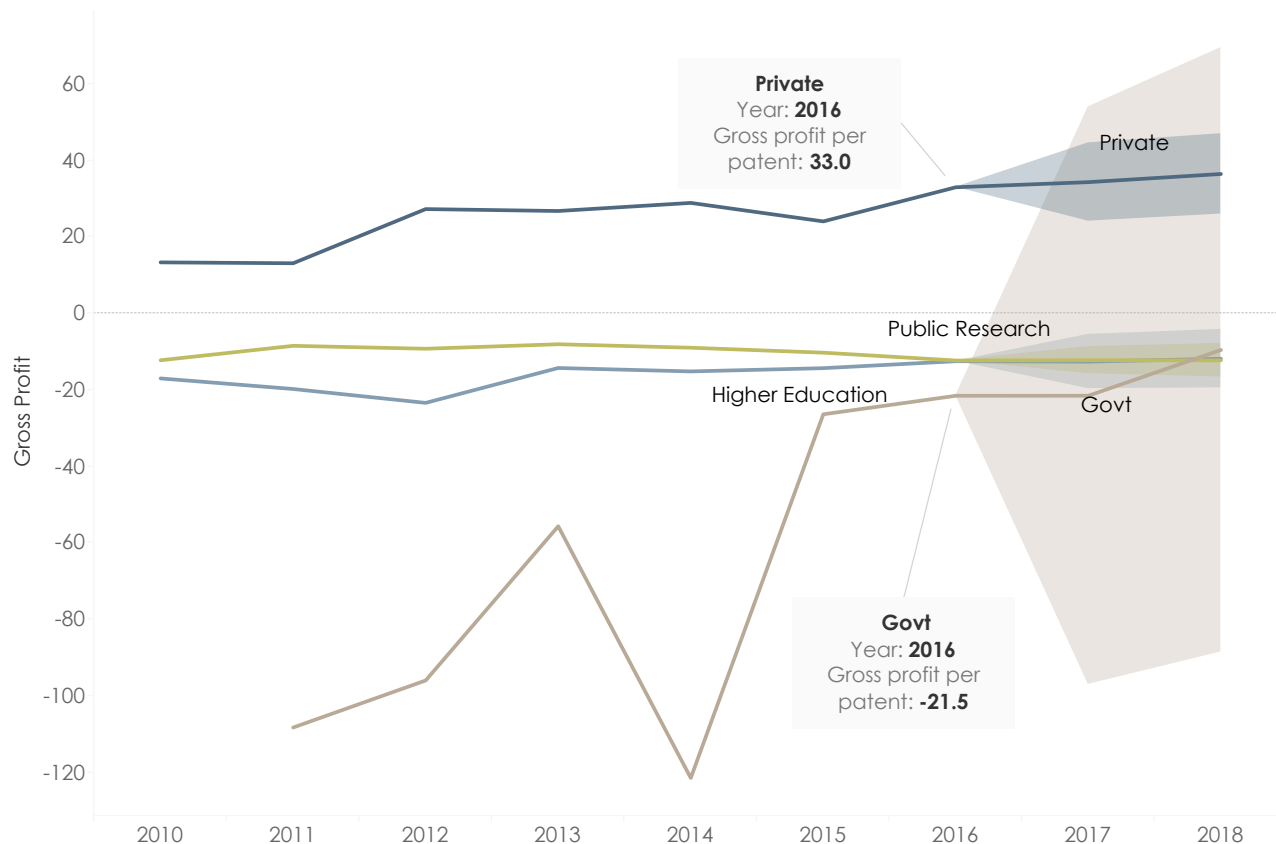
Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--



This gives a measure of human resource required to produce a patent. The private, government and higher education sectors have shown considerable improvement in this, especially the government sector having overtaken the higher education sector

# Research and Development Grant Allocation

Sector Wise Score Card	What are the sources of research funds ?	What are the key areas of research ?	What are the Credentials of RSE (Researchers, Scientists and Engineers)	Research Output: Patents Conversion ratio	Research Output: No of patents awarded per 100 RSE	Conclusion: Profitability and future potential
------------------------	--	--------------------------------------	---	---	--	--



Only private sector shows positive profitability which can be attributed to its application-oriented research in the field of engineering and technology.

Finally, some of the key decisions that NRF needs to take are:

- 1.Private sector is self-dependent, so NRF can choose to invest in the other sectors
- 2.Create motive for other sectors also to focus on research areas where high monetary yield is obtained by providing more funds in those research areas
- 3.Urge the research organisations to reduce the unnecessary operating expenses which can help use the NRF grant allocation efficiently