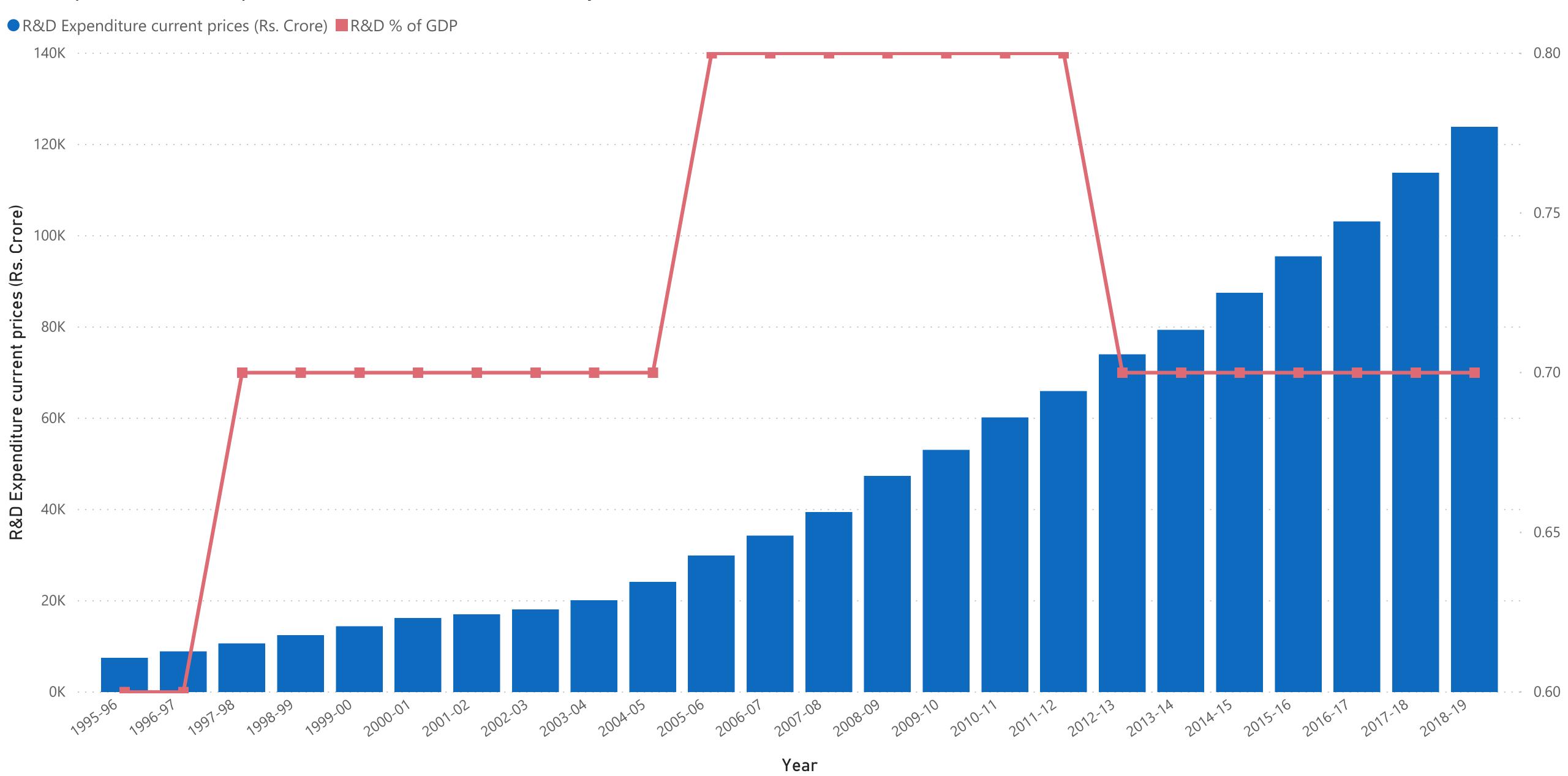
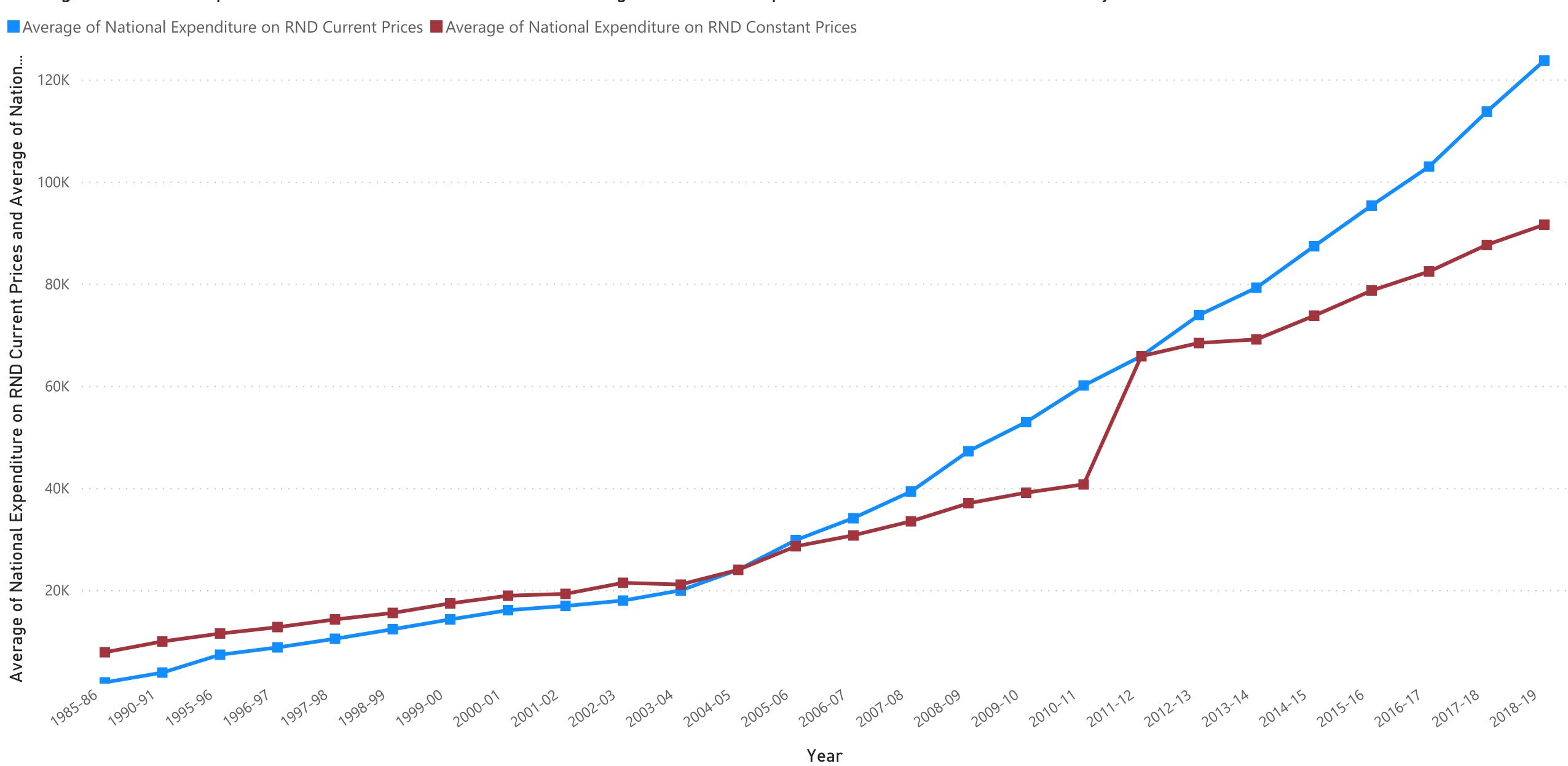
NATIONAL R&D EXPENDITURE AND ITS PERCENTAGE WITH GDP

R&D Expenditure current prices (Rs. Crore) and R&D % of GDP by Year

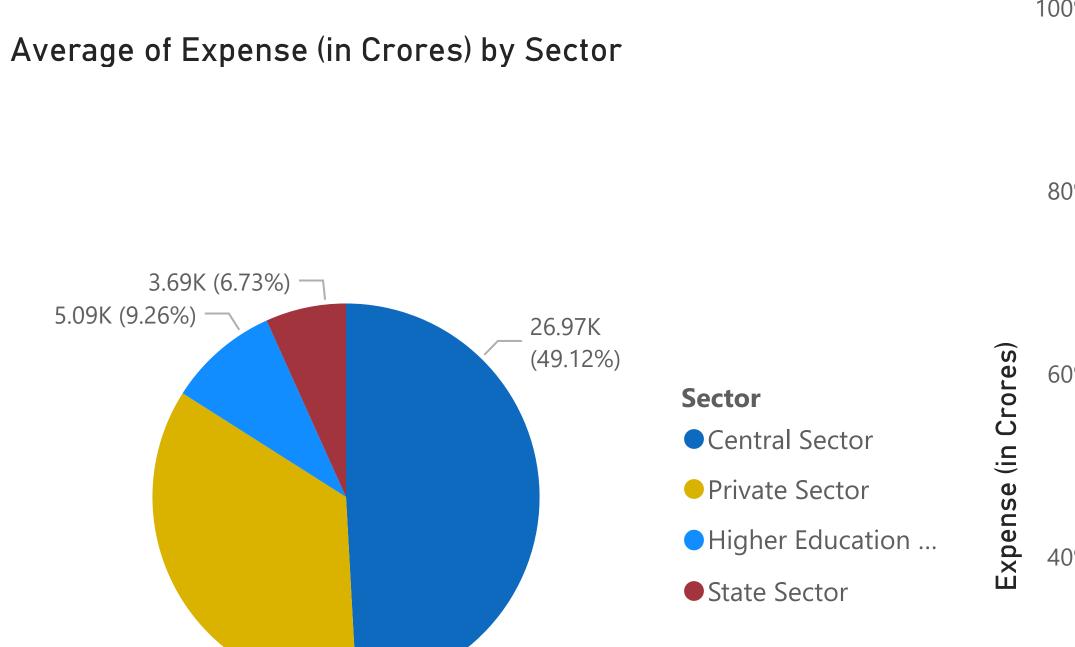


R&D EXPENDITURE AT CURRENT PRICES AND CONSTANT PRICES

Average of National Expenditure on RND Current Prices and Average of National Expenditure on RND Constant Prices by Year

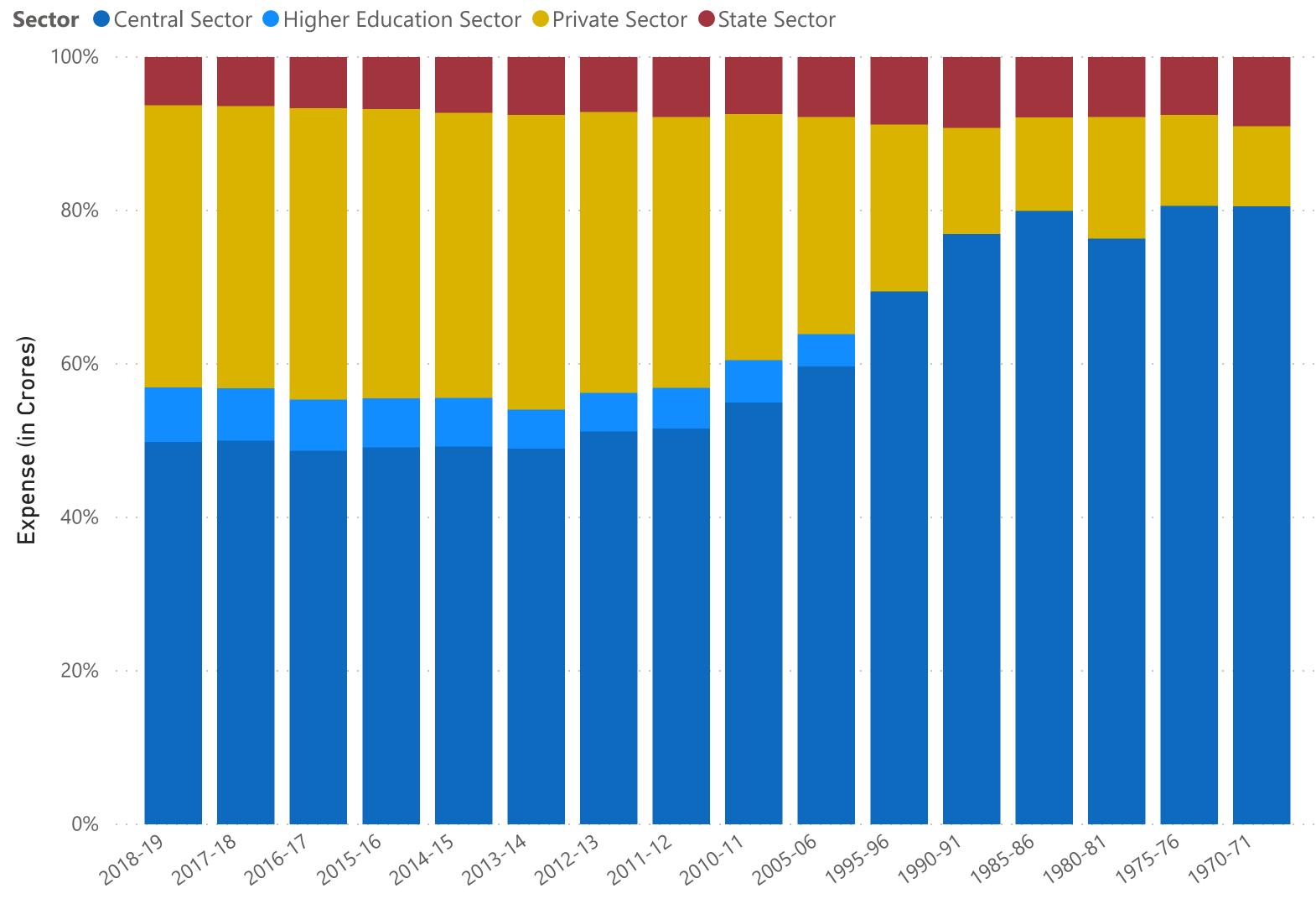


NATIONAL R&D EXPENDITURE BY SECTOR, 2017-18



19.15K (34.88%)

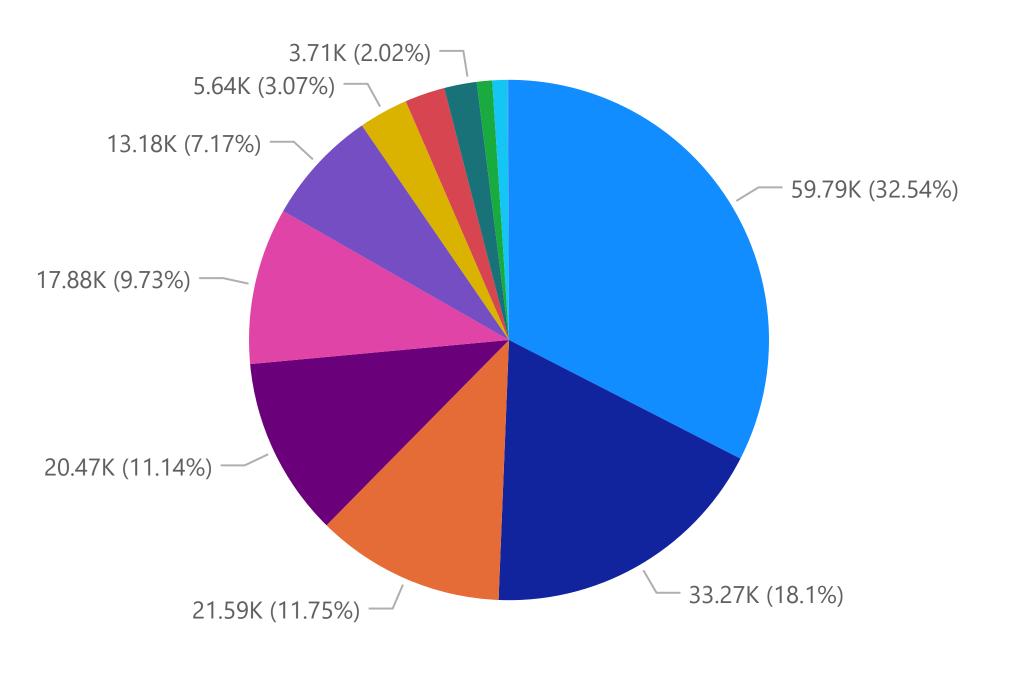
Expense (in Crores) by Year and Sector



Year

R&D EXPENDITURE BY SELECT SCIENTIFIC AGENCIES

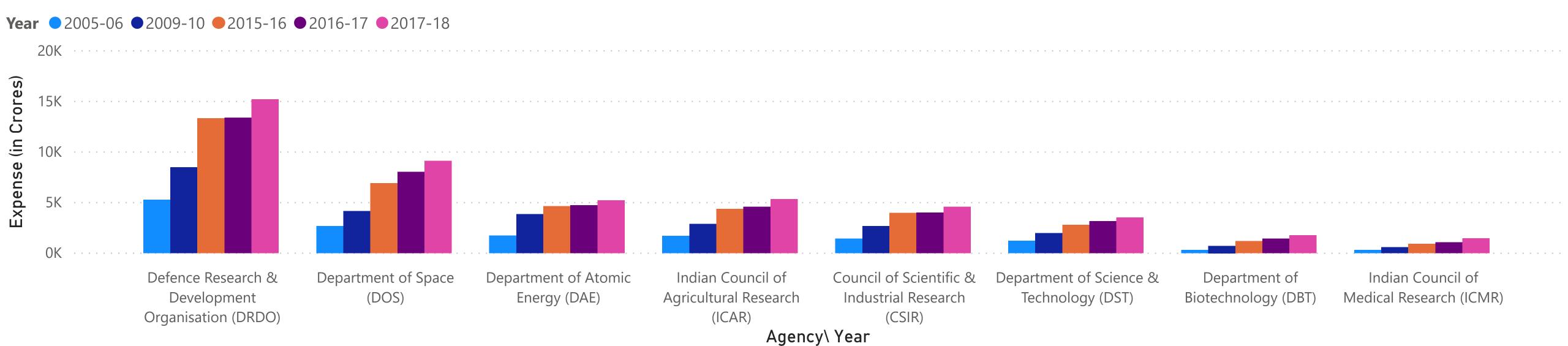
Expense (in Crores) by Agency\ Year



Agency\ Year

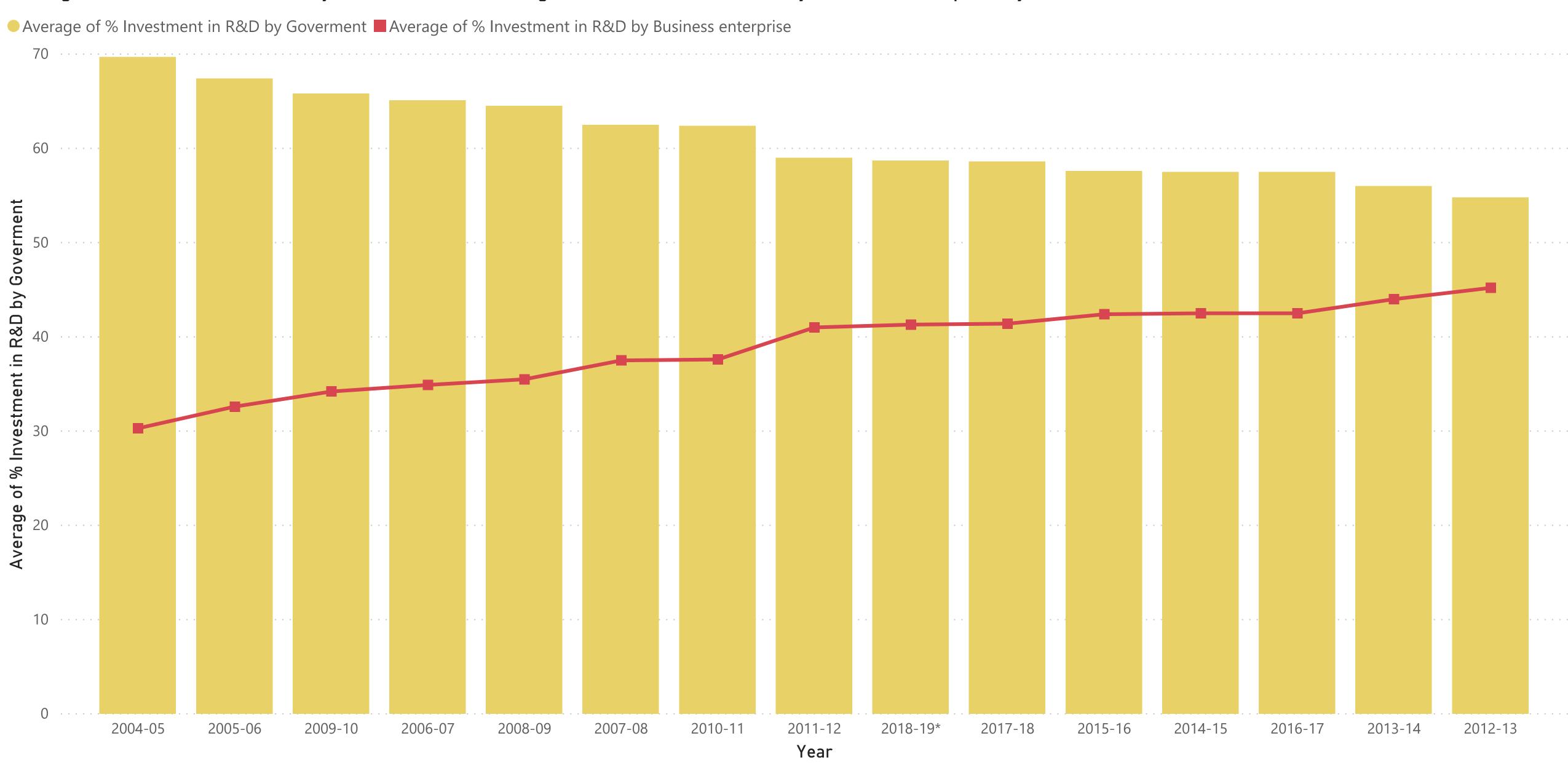
- Defence Research & Development Organisation (DRDO)
- Department of Space (DOS)
- Department of Atomic Energy (DAE)
- Indian Council of Agricultural Research (ICAR)
- Council of Scientific & Industrial Research (CSIR)
- Department of Science & Technology (DST)
- Department of Biotechnology (DBT)
- Indian Council of Medical Research (ICMR)
- Ministry of Earth Sciences (MES) ++
- Ministry of Environment, Forest and Climate Change (MoEF...
- Ministry of Electronics and Information Technology (MEITY)...
- Ministry of New and Renewable Energy (MNRE)

Expense (in Crores) by Agency\ Year and Year



PERCENTAGE SHARE OF GOVERNMENT AND BUSINESS ENTERPRISE SECTOR IN GERD

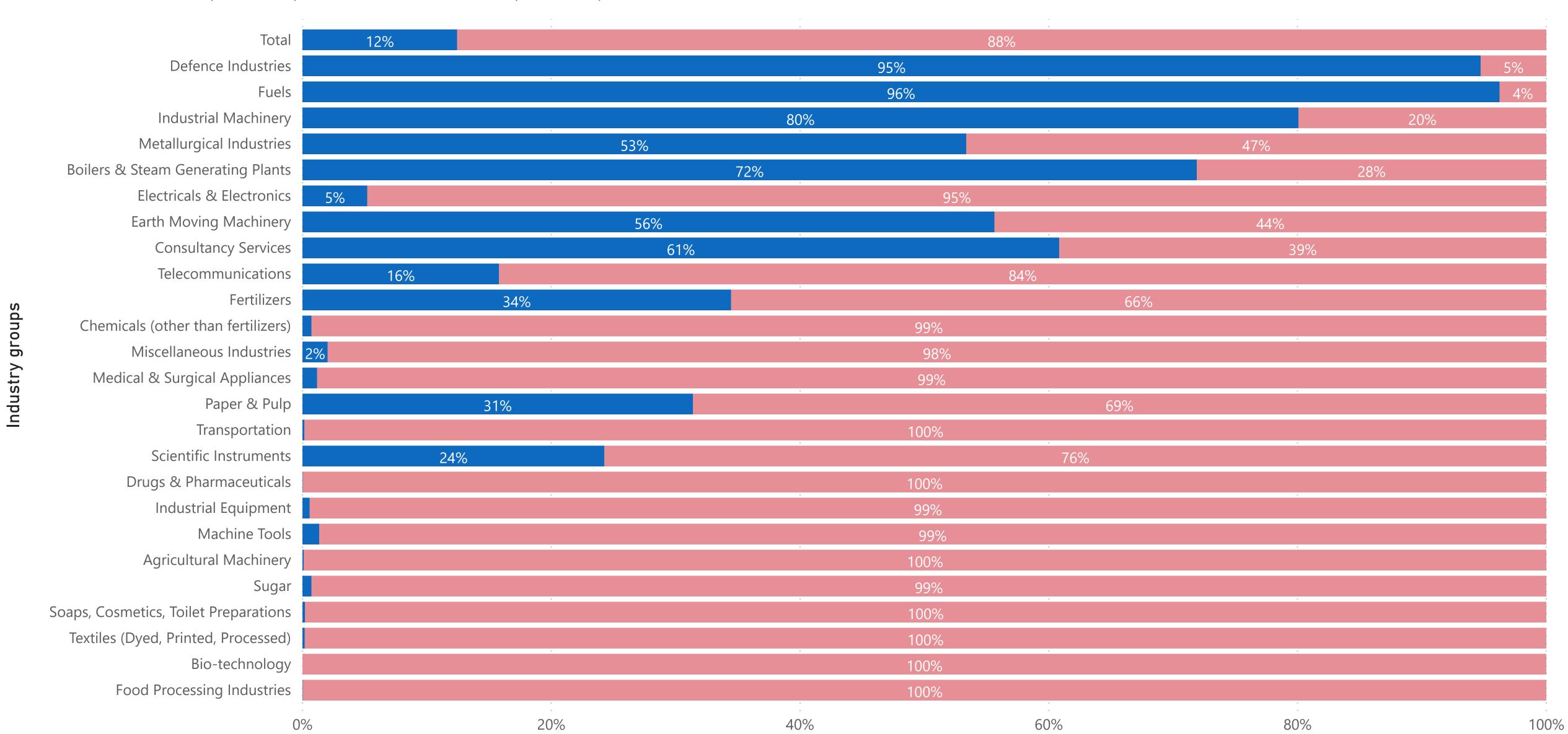
Average of % Investment in R&D by Goverment and Average of % Investment in R&D by Business enterprise by Year



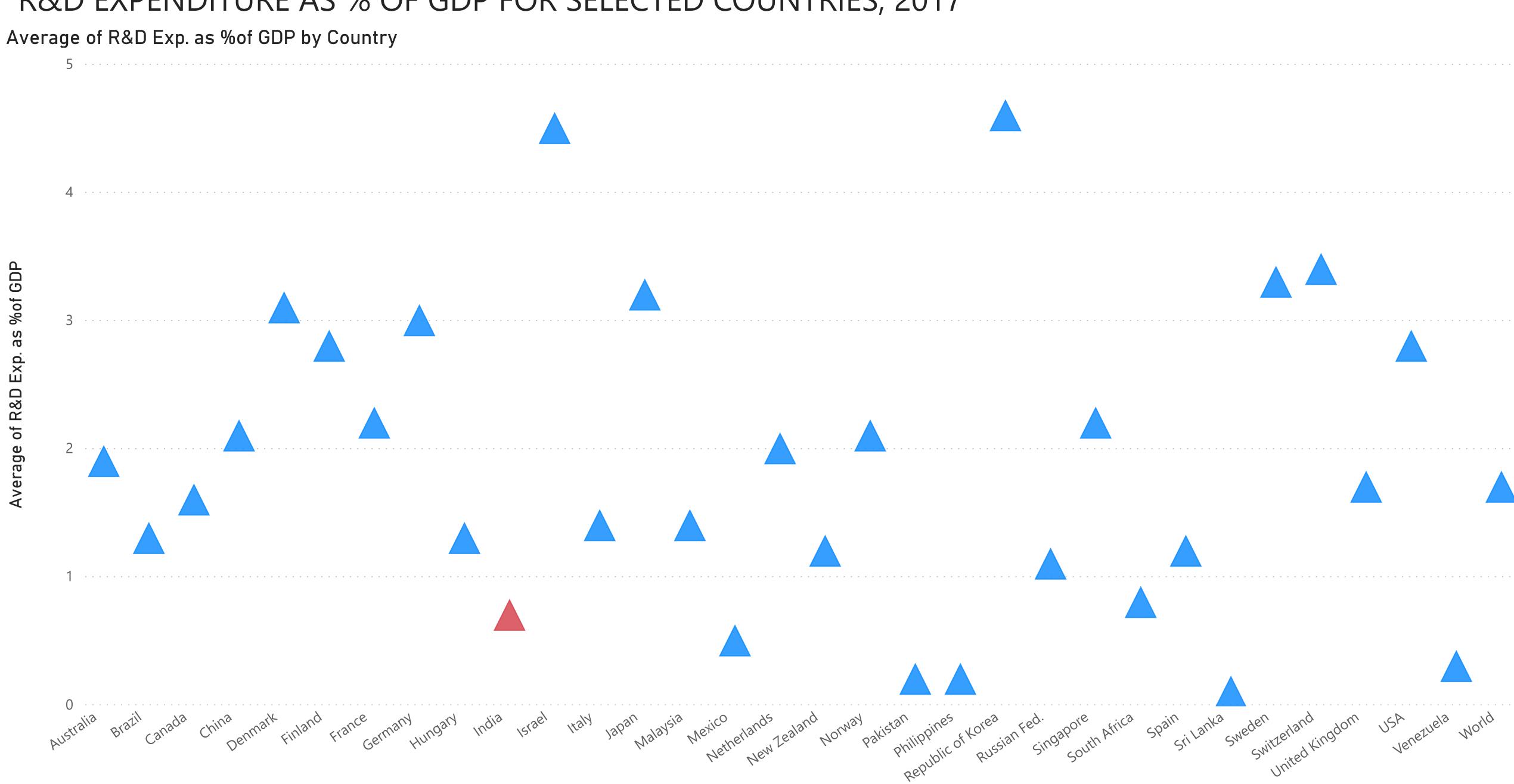
R&D EXPENDITURE BY LEADING INDUSTRIES GROUPS, 2017-18

PUBLIC SECTOR EXPENSE (IN CRORES) and PRIVATE SECTOR EXPENSE(IN CRORES) by Industry groups

● PUBLIC SECTOR EXPENSE (IN CRORES) ● PRIVATE SECTOR EXPENSE(IN CRORES)



R&D EXPENDITURE AS % OF GDP FOR SELECTED COUNTRIES, 2017



R&D EXPENDITURE BY LEADING INDUSTRIES GROUPS, 2017-18

0K

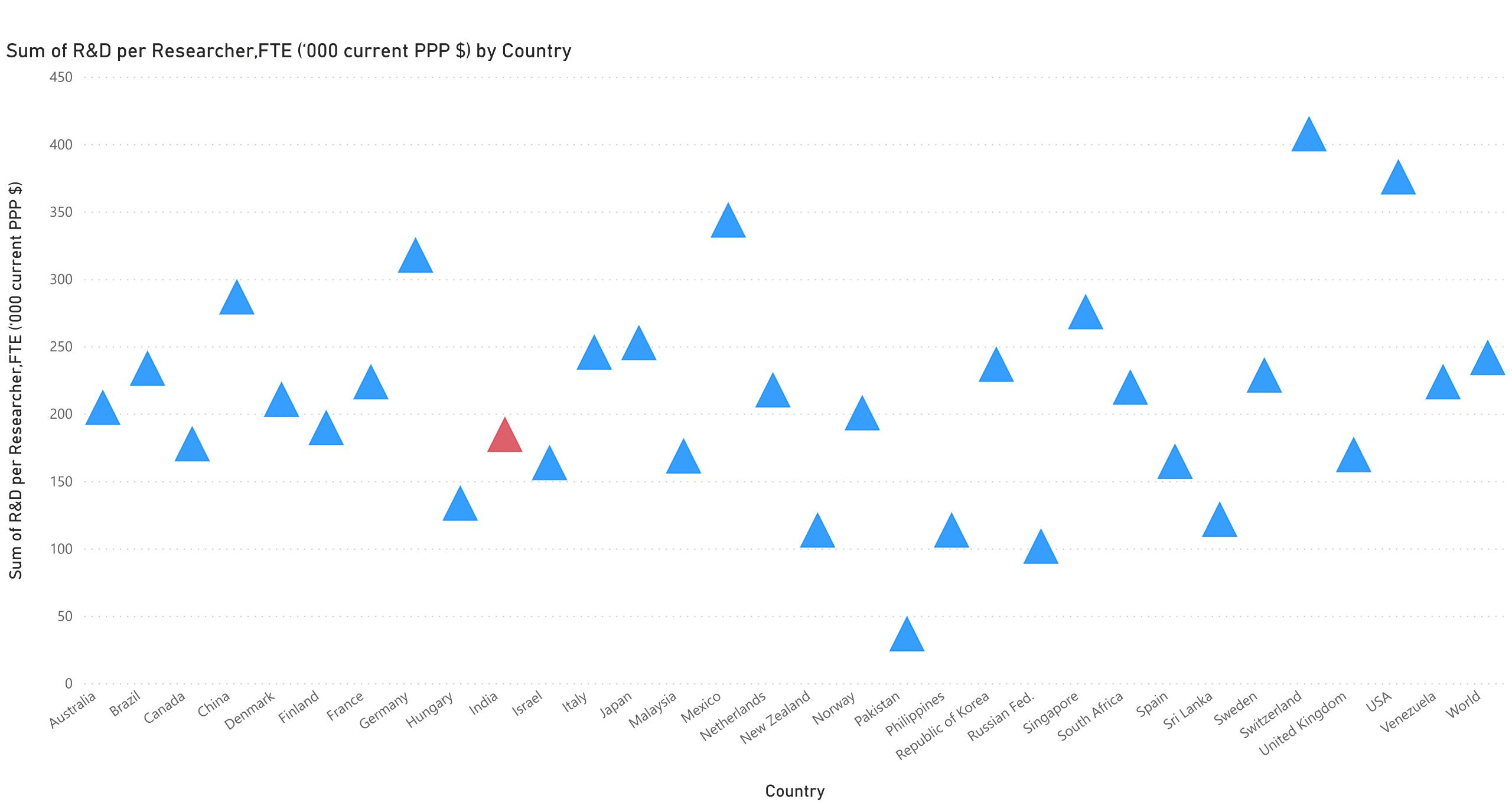
1K

Average of PRIVATE SECTOR EXPENSE(IN CRORES) and Average of PUBLIC SECTOR EXPENSE (IN CRORES) by Industry groups Average of PRIVATE SECTOR EXPENSE(IN CRORES)
Average of PUBLIC SECTOR EXPENSE (IN CRORES) Drugs & Pharmaceuticals Transportation Chemicals (other than fertilizers) Electricals & Electronics Bio-technology Medical & Surgical Appliances Agricultural Machinery Miscellaneous Industries Industrial Equipment Soaps, Cosmetics, Toilet Preparations Food Processing Industries Industry groups Textiles (Dyed, Printed, Processed) Industrial Machinery Telecommunications Metallurgical Industries Machine Tools Defence Industries Sugar Earth Moving Machinery Boilers & Steam Generating Plants Fertilizers **Consultancy Services** Paper & Pulp Scientific Instruments

8K

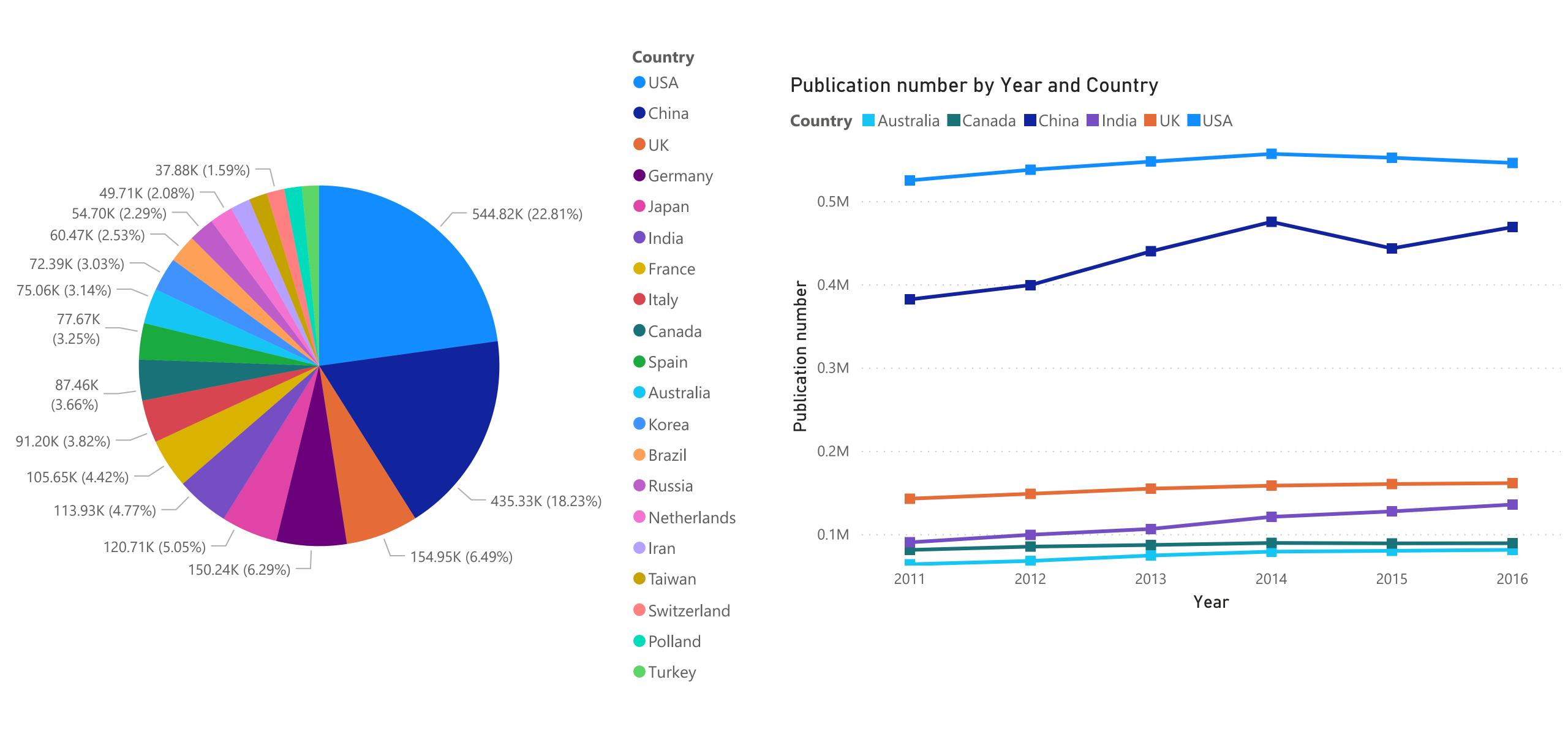
9K

GERD PER RESEARCHER FOR SELECTED COUNTRIES, 2017



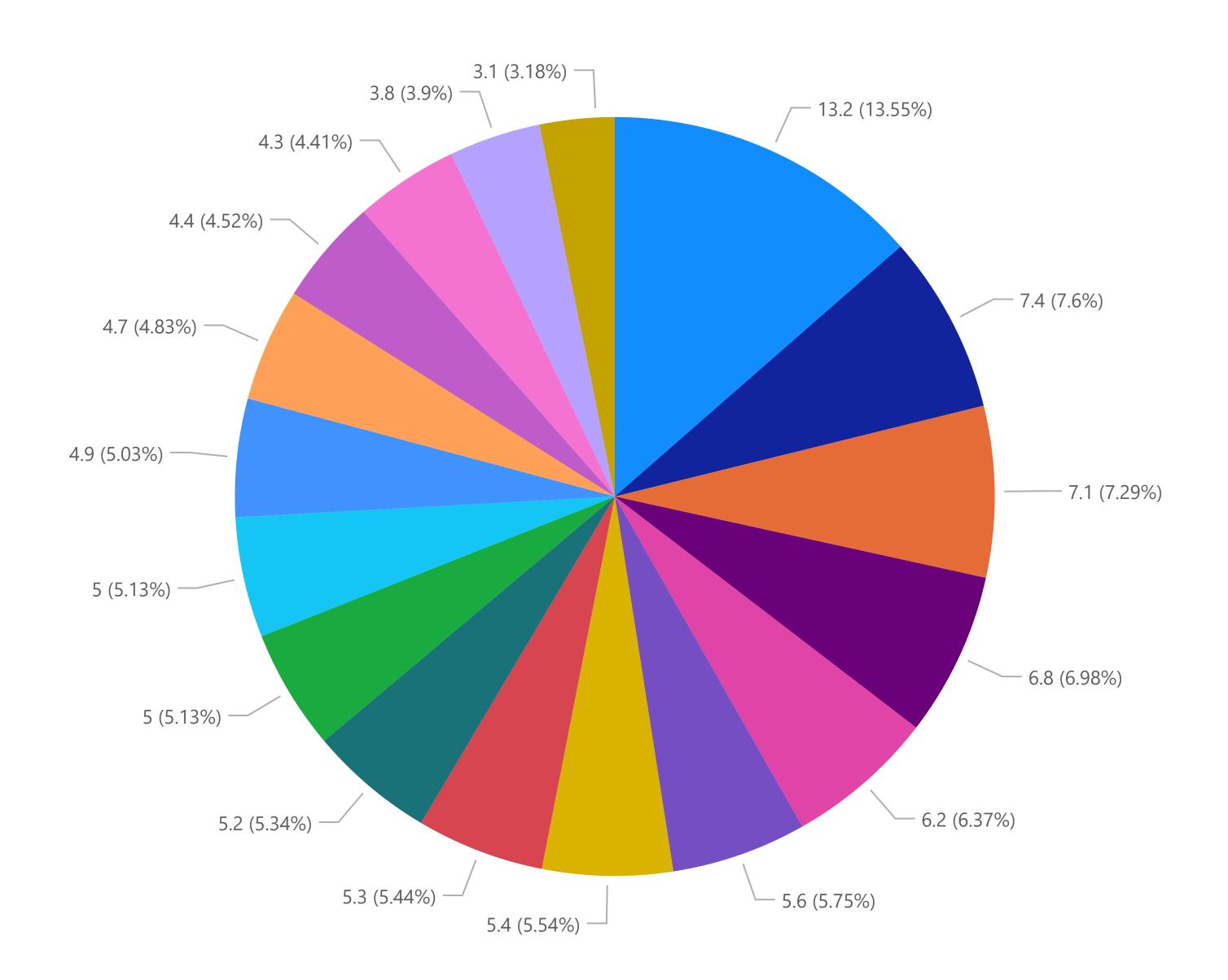
INDIA'S RESEARCH PUBLICATION TREND, 2000-2016

Average of Publication number by Country



INDIA'S OUTPUT, IMPACT AND KNOWLEDGE TRANSFER, 2011-16

Average of % Share in World Output by Field of Science

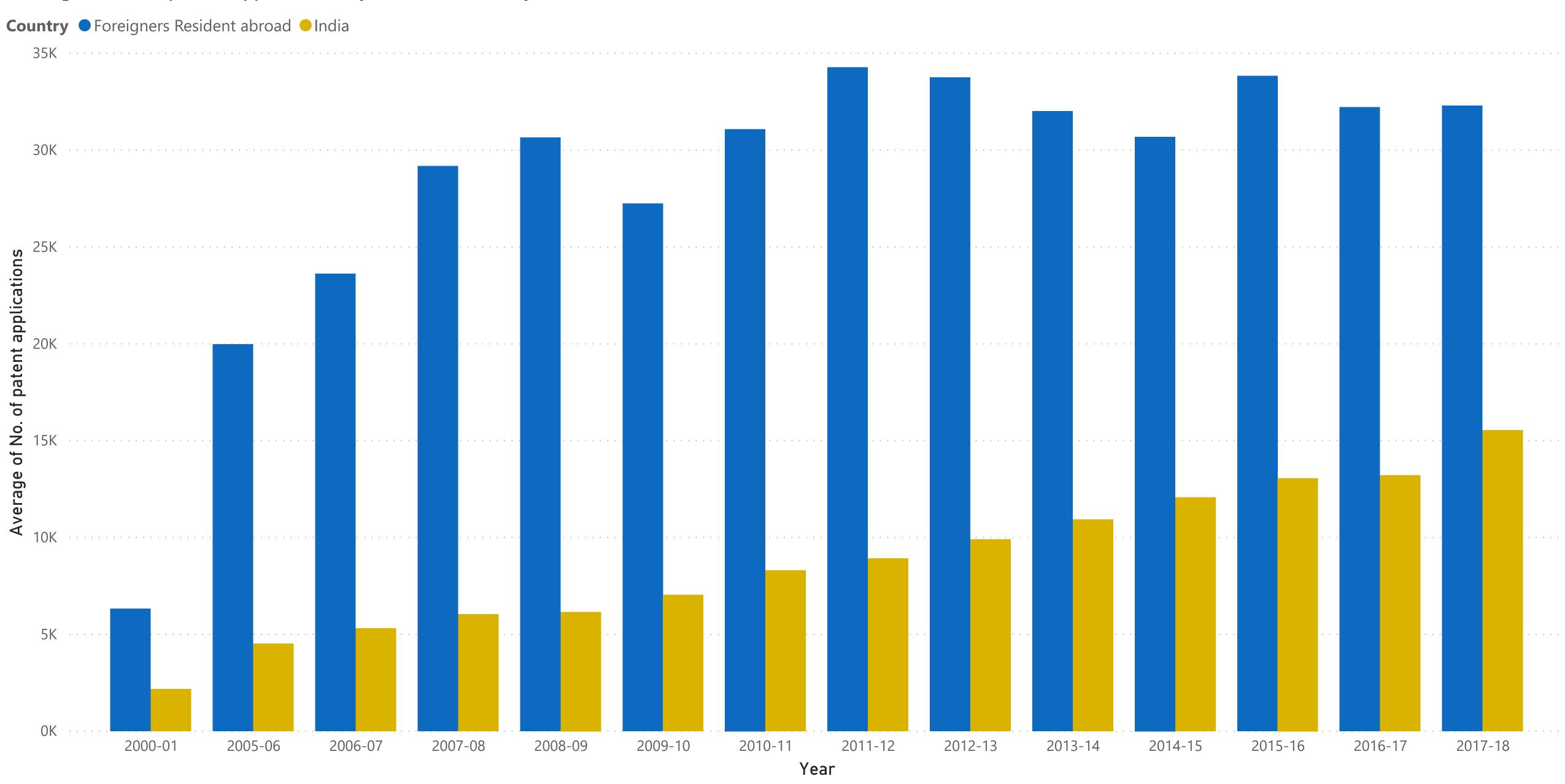


Field of Science

- Pharmacology, Toxicology & Pharmaceutics
- Veterinary
- Chemistry
- Chemical Engineering
- Computer Science
- Materials Science
- Energy
- Environmental Science
- Physics & Astronomy
- Agricultural & Biological Sciences
- Engineering
- Biochemistry, Genetics & Molecular Biology
- All fields
- Mathematics
- Immunology & Microbiology
- Earth & Planetary Sciences
- Medicine

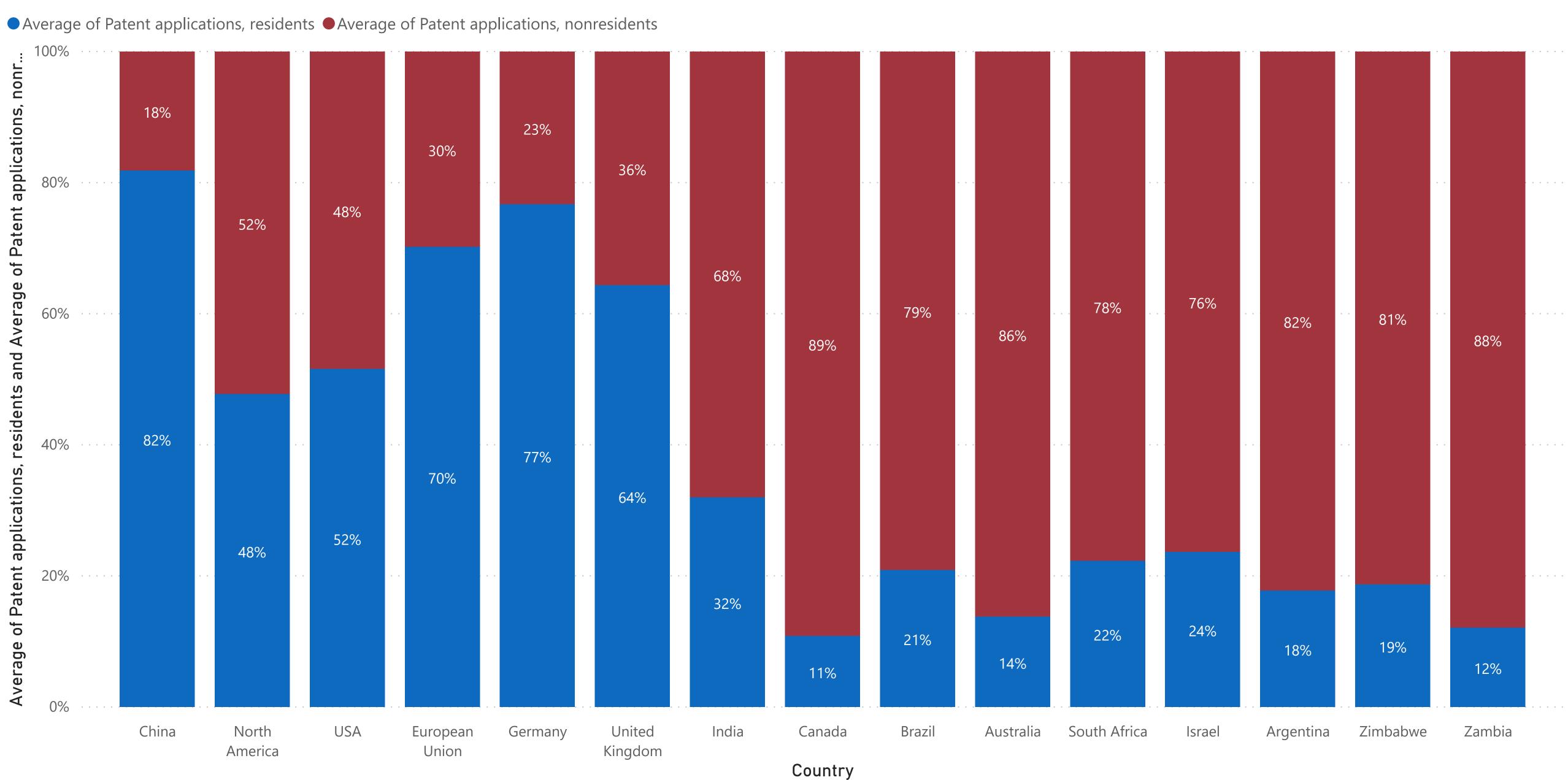
NUMBER OF PATENTS SEALED IN INDIA

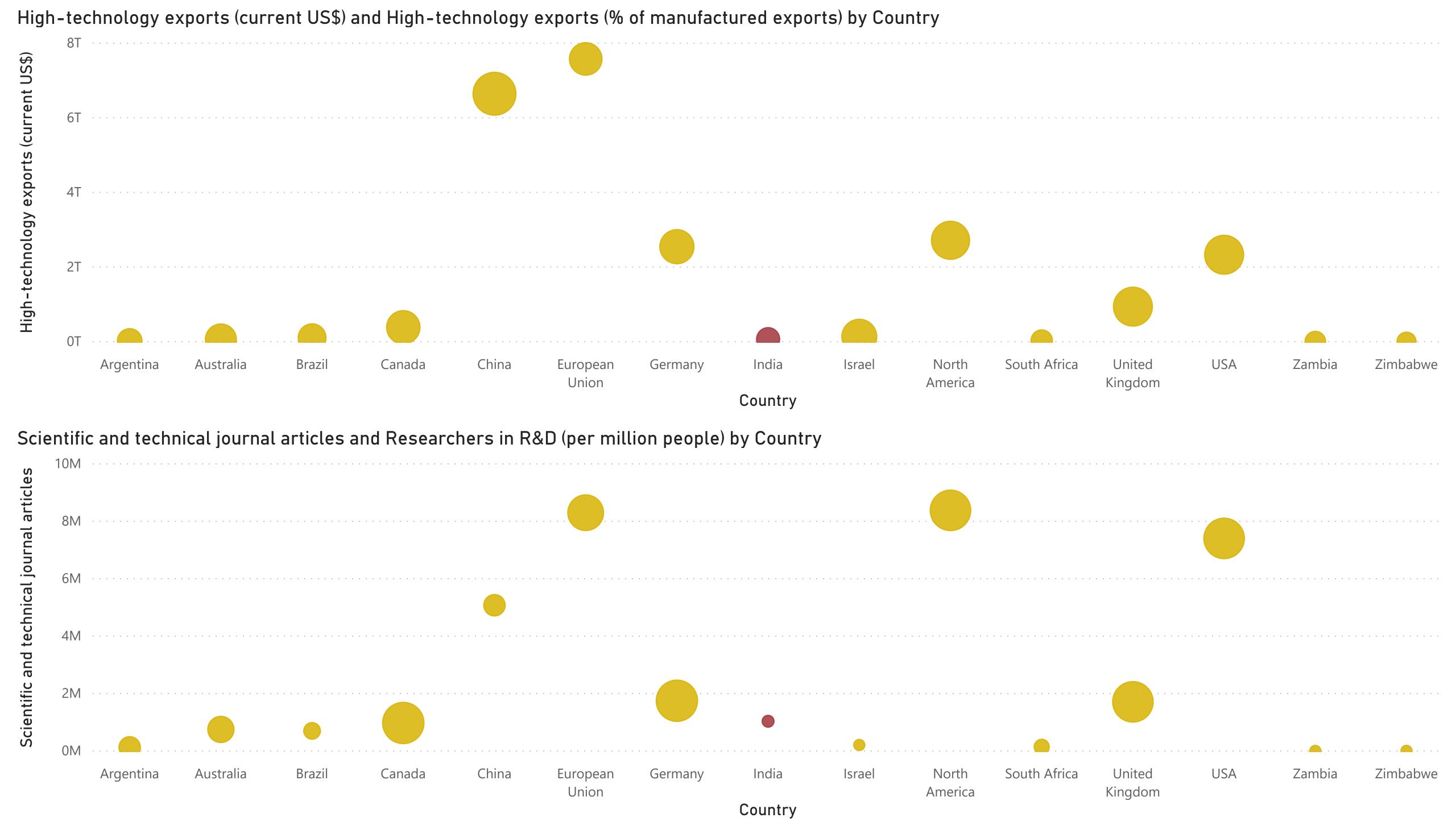
Average of No. of patent applications by Year and Country

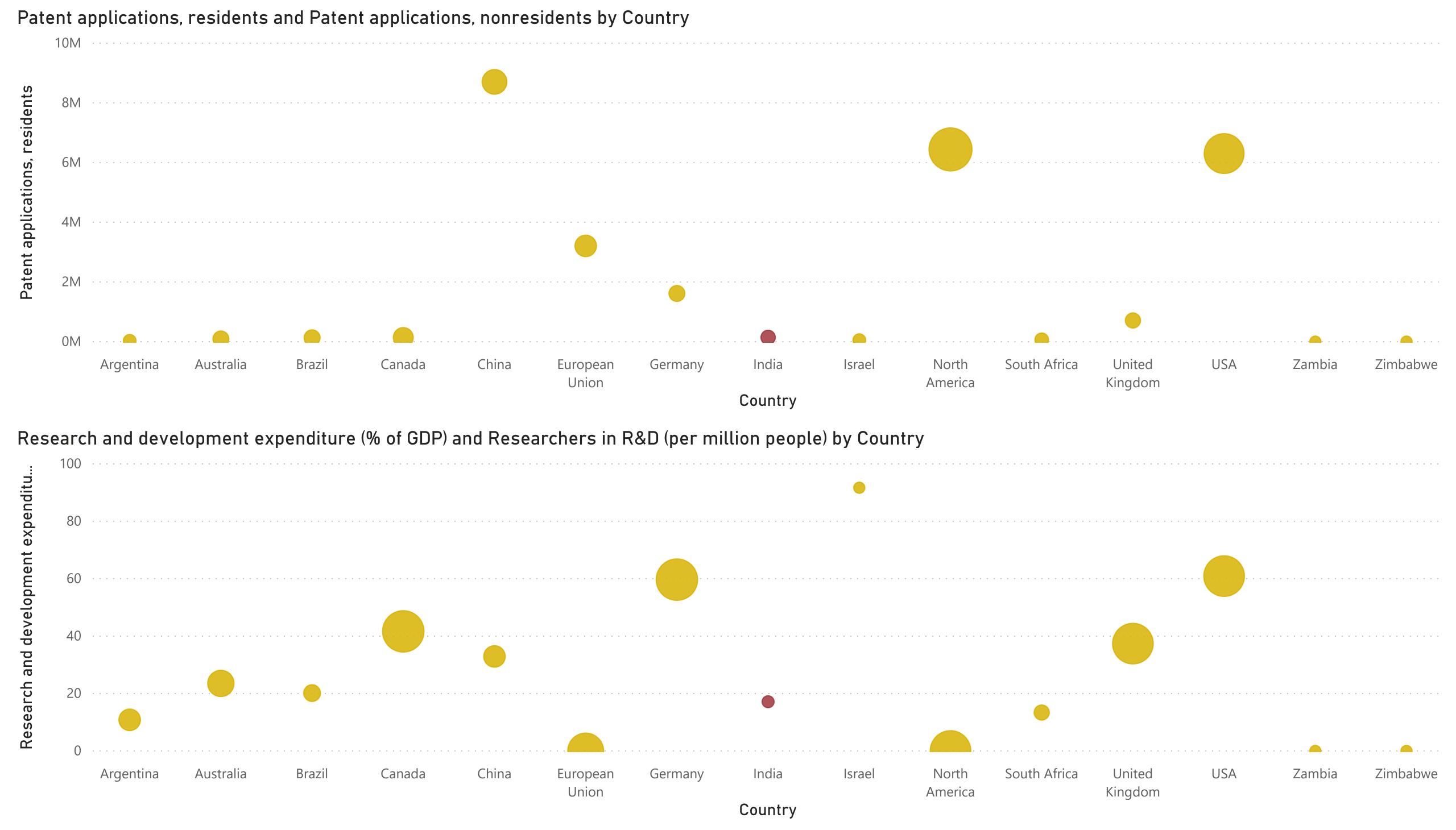


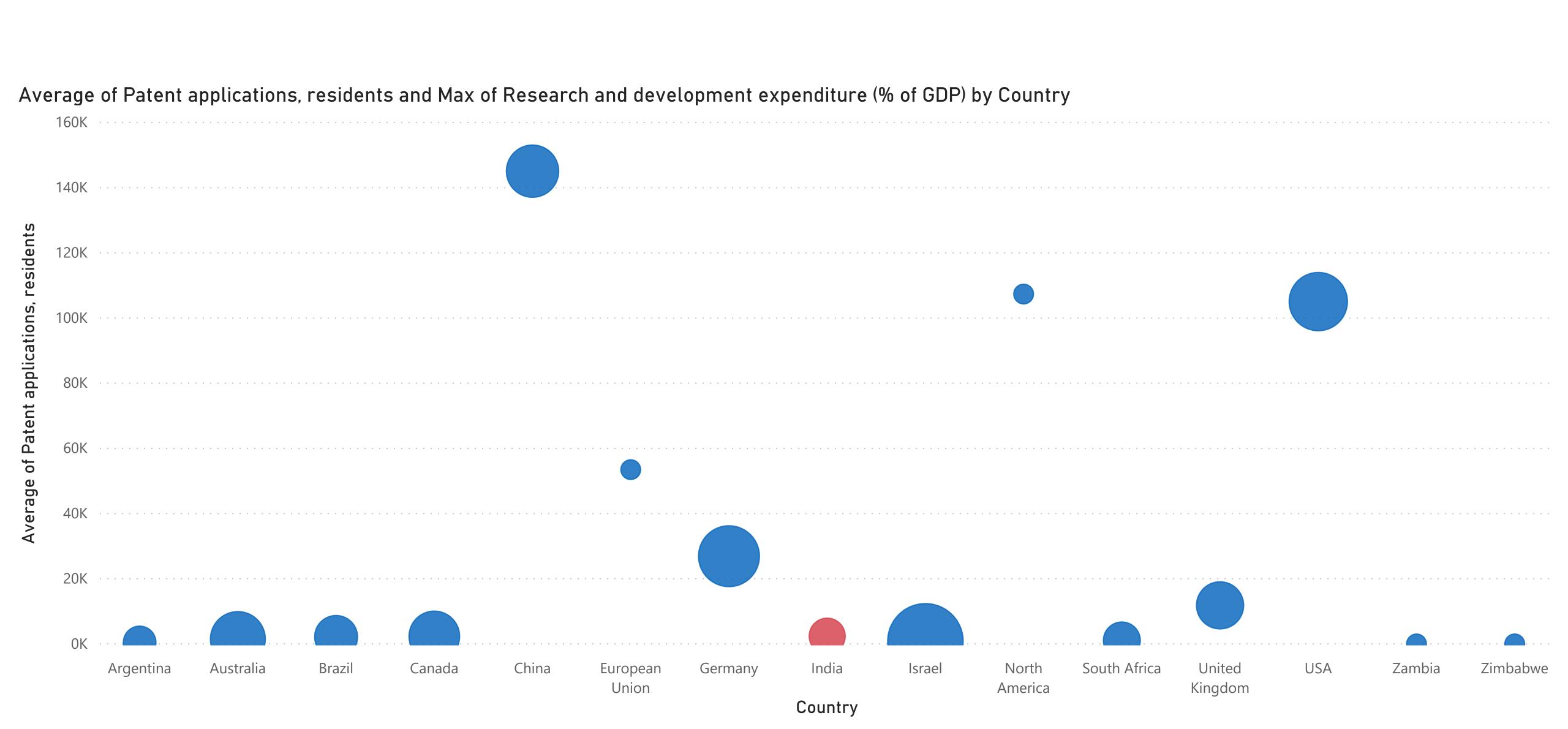
PATENT APPLICATIONS FILED BY RESIDENT AND NON-RESIDENT

Average of Patent applications, residents and Average of Patent applications, nonresidents by Country









Patent applications, residents by Country and Year

