Patent Analytics in India (2018–2022)

# Introduction

Objective: Analyze Indian patent filing trends between 2018–2022.  
Tools Used: Power BI (for cleaning, modeling, dashboard creation).  
Dataset: Indian Patents dataset (~20,000 records across 5 CSVs).

# Data Preparation

- Merged multiple yearly CSV files (2018–2022).  
- Cleaned duplicates, standardized column names.  
- Handled missing values in Assignee, Technology Field, and Family Size.  
- Created measures in DAX:  
 \* Total Patents = COUNTROWS(Patents)  
 \* Patents by Status  
 \* Top Assignee Analysis  
 \* Yearly Growth KPI

# Exploratory Insights

- Status-wise distribution → Granted patents dominated (11,029).  
- Yearly trends → Growth in 2019–2020, dip during 2021 (pandemic impact), recovery in 2022.  
- Technology Field Analysis:  
 \* Mechanical → highest claims count.  
 \* Electronics → highest citations.  
- Assignee Insights:  
 \* Tata Consultancy Services filed most patents (1424).  
 \* Siemens, Infosys, and Wipro followed.

# KPI Tracking

- KPI: Annual patent growth with a target benchmark (10% increase YoY).  
- 2020 met/exceeded target, 2021 fell short, 2022 recovery observed.

# Dashboard Summary

Visuals Included:  
- Status-wise donut chart.  
- Yearly trend line (2018–2022).  
- Assignee bar chart (Top 10).  
- Technology field vs claims/citations.  
- KPI card with target indicator.  
- Narrative insights (auto-generated).

# Conclusion

- Patent filings in India show growth overall with some pandemic impact.  
- IT & Mechanical domains dominate patent filings.  
- Top companies like TCS and Siemens India lead IP generation.  
- Useful for policymakers, IP analysts, and corporate R&D teams.