

SVCs & STATCOMs – Is Clean Energy Transition Possible Without FACTS?

Global & Regional Landscape of FACTS Market

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Global Trends

Landscape of FACTS

Global Historical Landscape of FACTS

21,517 MVar

In 2021, 21,517 MVar of SVCs & STATCOMs were commissioned around the world.

46%

From 2017-2021, 46% (by capacity) of the installed FACTS devices were STATCOMs while 31% were Series Compensation followed by SVCs and Synchronous Condensers (SC) accounting for 16% and 7% of the installations during that period, respectively.

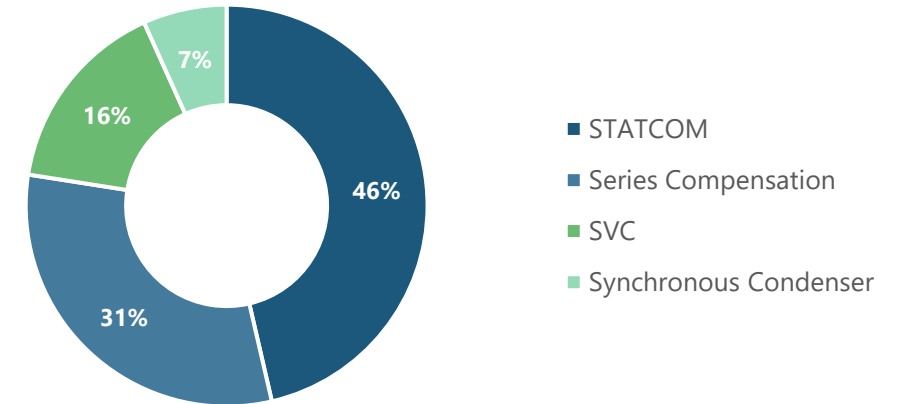
80%

From an end-application perspective, 80% of these FACTS devices commissioned between 2017-2021 were installed by the utilities while 12% were installed with the renewables.

8%

Only, 8% of the FACTS installed were in the industry. This includes energy intensive industries such as steel plants, mining & O&G etc.

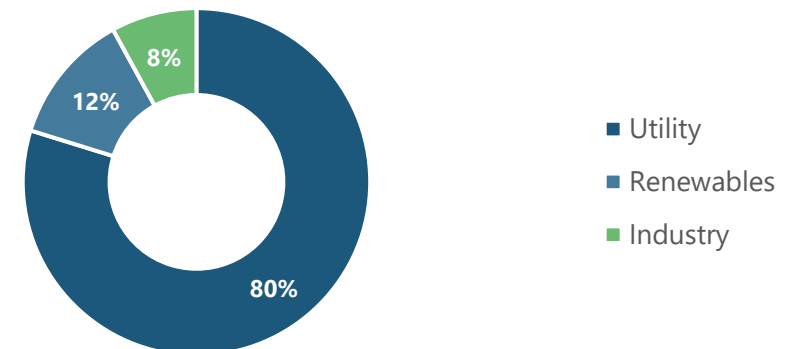
Global Technology Split (2017-2021)



Source: PTR

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Global Application Split (2017-2021)

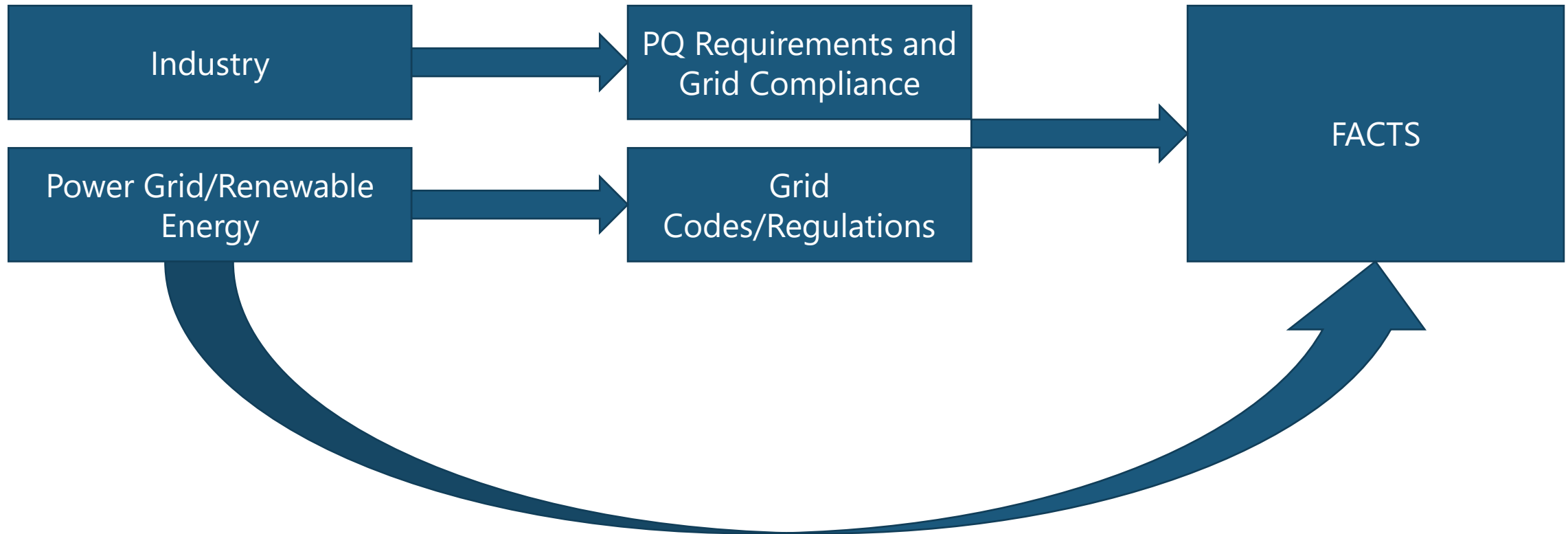


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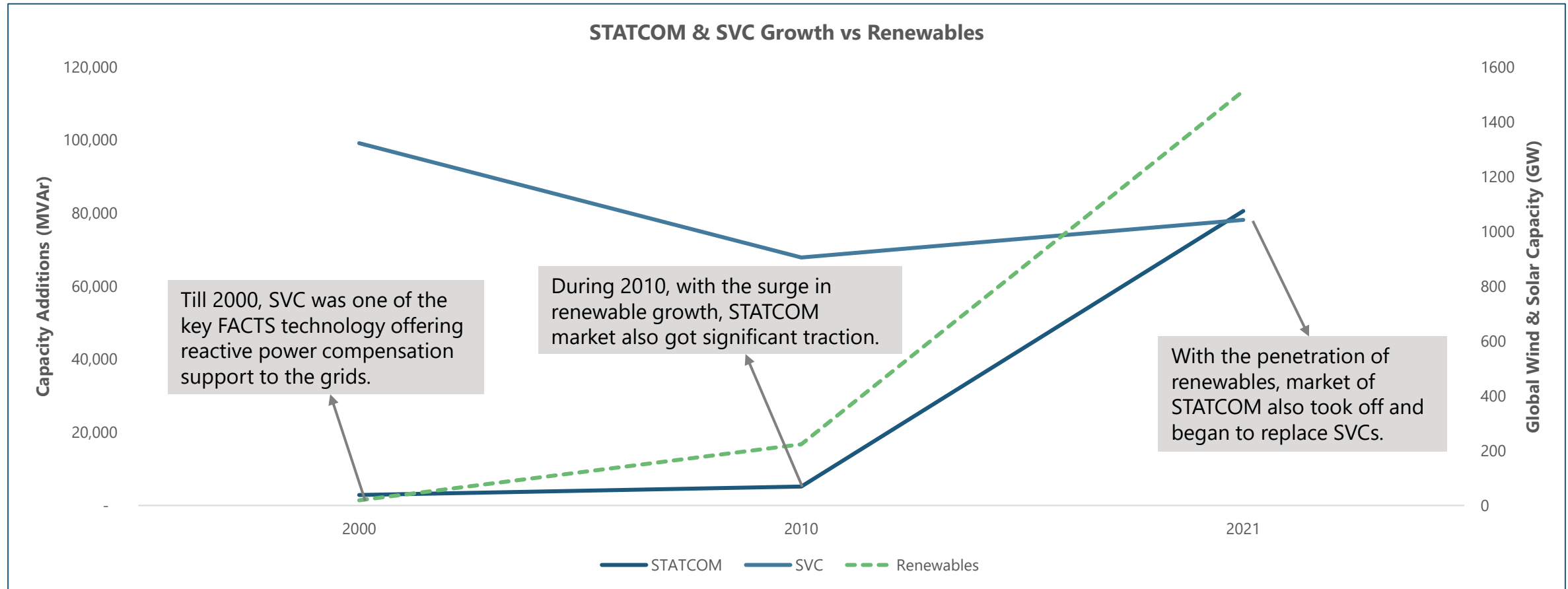
Landscape of FACTS

How FACTS market is directly and indirectly driven by renewables



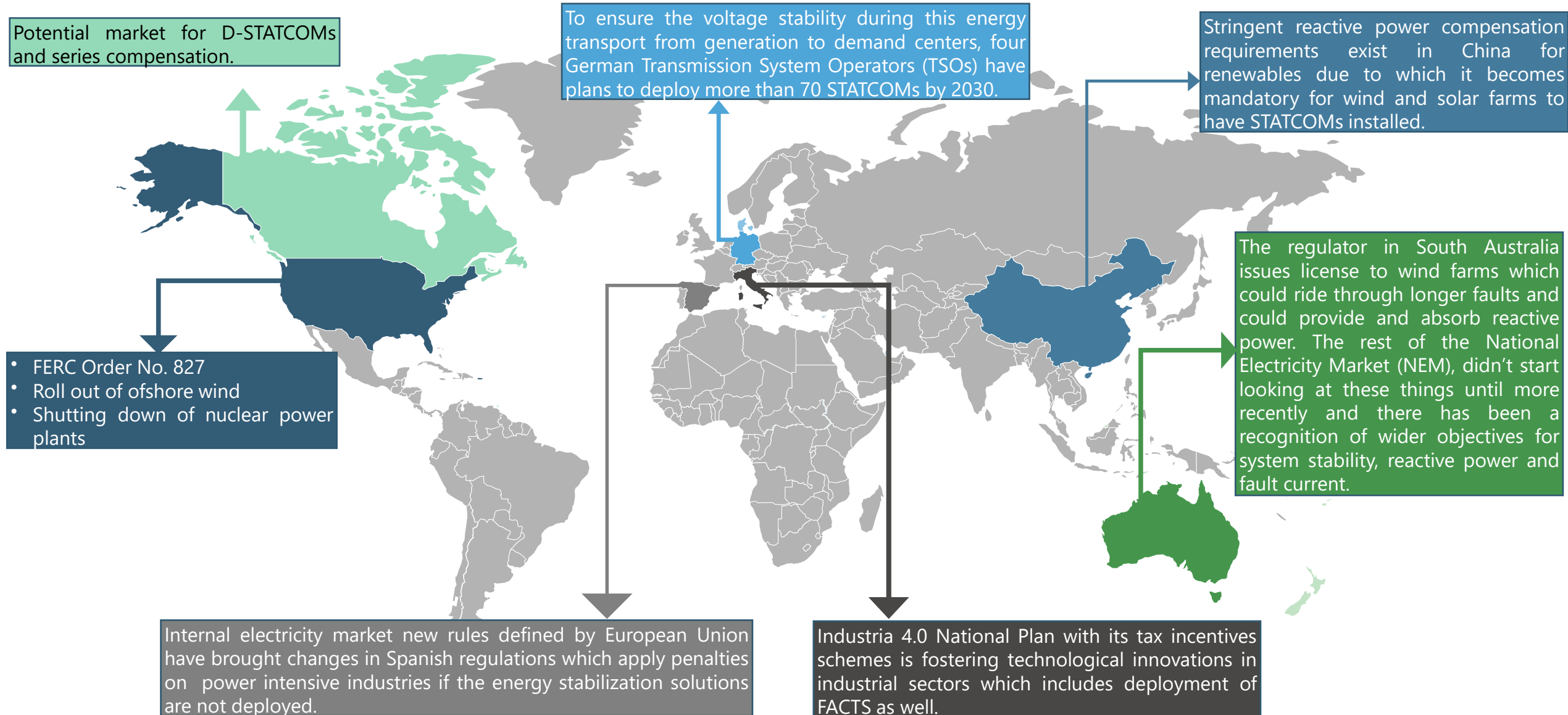
Landscape of FACTS

Global Evolution of FACTS technologies over time



Instruments fostering network reliability through reactive power compensation

Global Trends

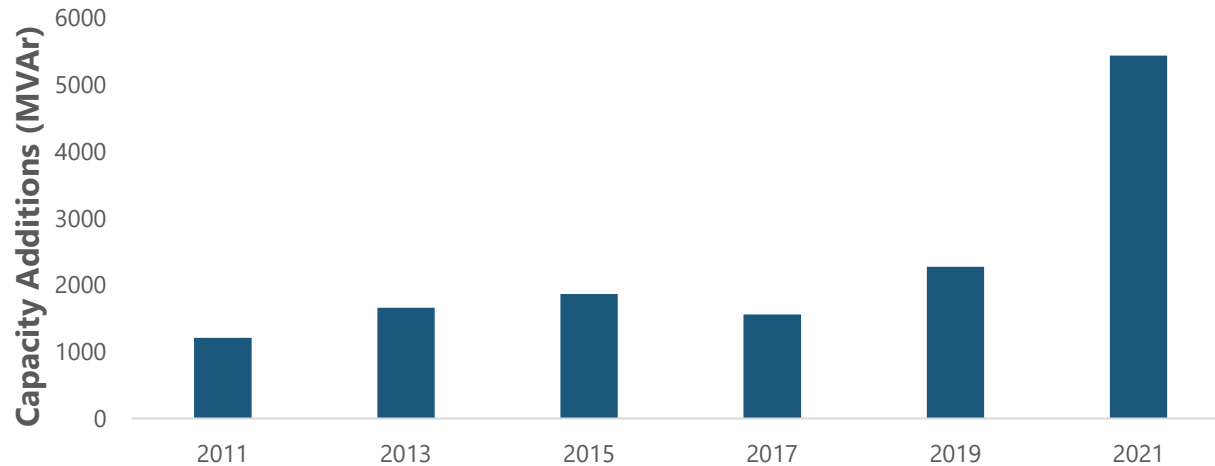


Regional Trends

Overview of FACTS in Europe

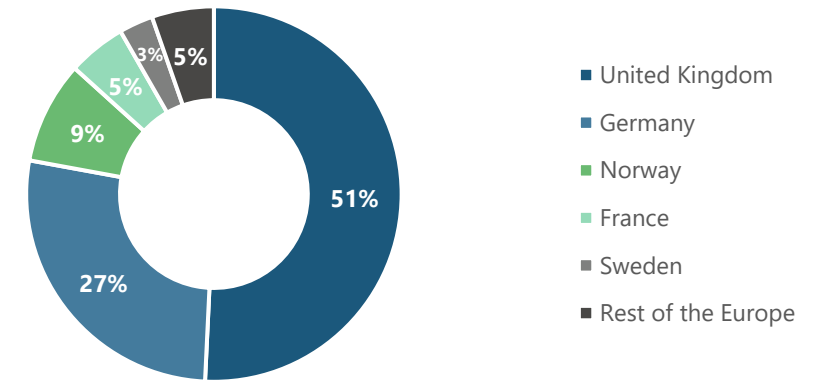
Regional Trends

FACTS Devices Deployed in last decade (2011-2021)



- An unprecedented growth in wind energy especially offshore wind farms and their interconnections requirements with national grid has driven FACTS market in countries like UK.
- Germany is a relatively new market but has emerged as major demand centre of large capacity HV STATCOMs.
- Sweden installed a STATCOM to ensure voltage stability expected to be caused by closure of nuclear power plant.
- Norway installed its one of the largest capacity STATCOM in 2021.

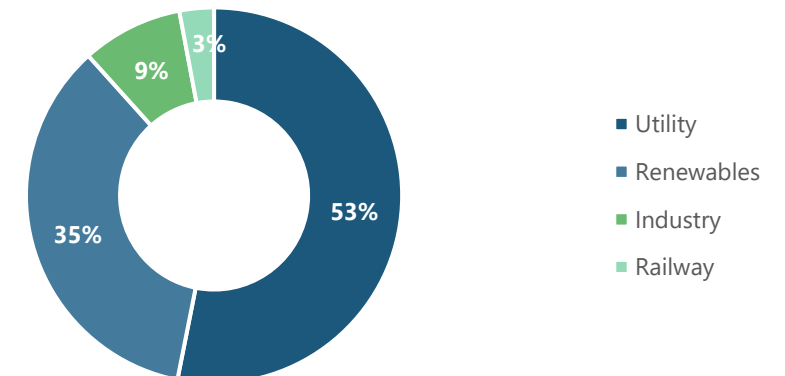
Country Split (2017-2021)



Source: PTR

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Application Split (2017-2021)



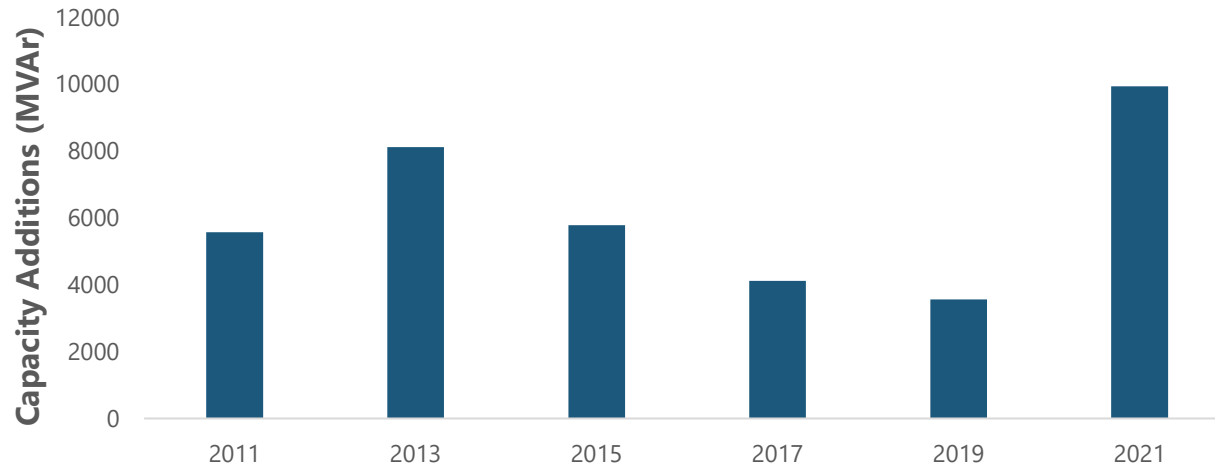
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Overview of FACTS in Americas

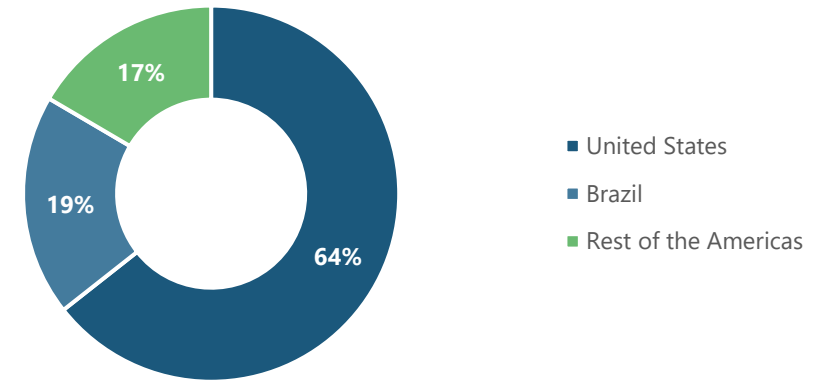
Regional Trends

FACTS Devices Deployed in last decade (2011-2021)



- In Americas, the US and Brazil are major demand centre of FACTS technologies.
- In terms of technology, STATCOMs have become a desirable technology in the USA except for refurbishment whereas a greater affinity of SVCs has been observed in Latin America.
- Demand for STATCOMs will increase further due to a shift towards favourable policy for deploying renewables in the USA.
- Synchronous Condensers market is also expected to grow in USA.

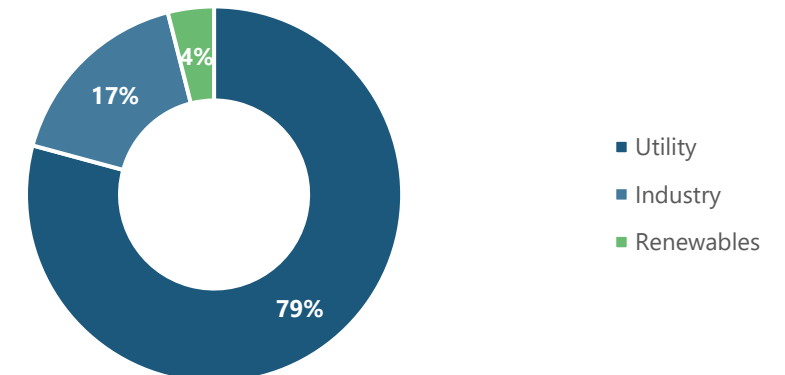
Country Split (2017-2021)



Source: PTR

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Application Split (2017-2021)



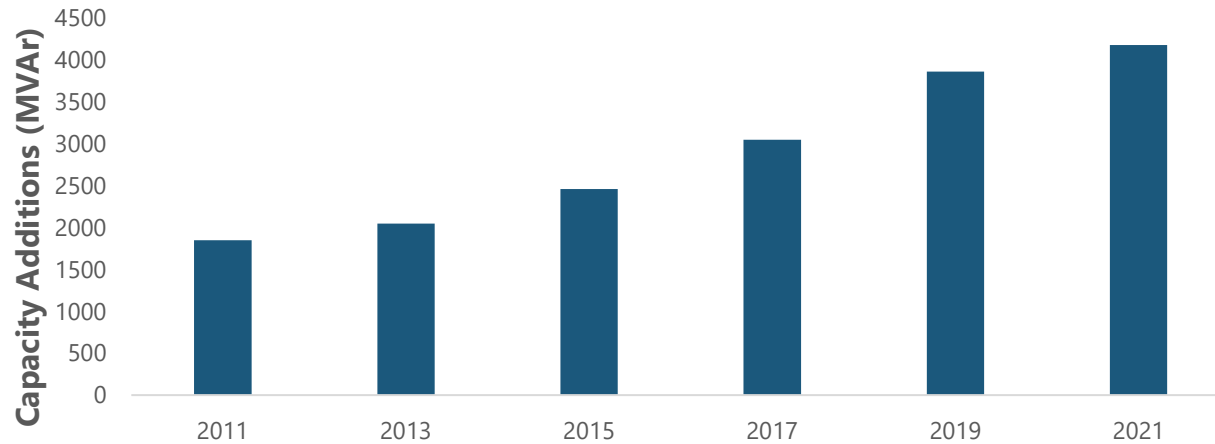
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Overview of FACTS in APAC

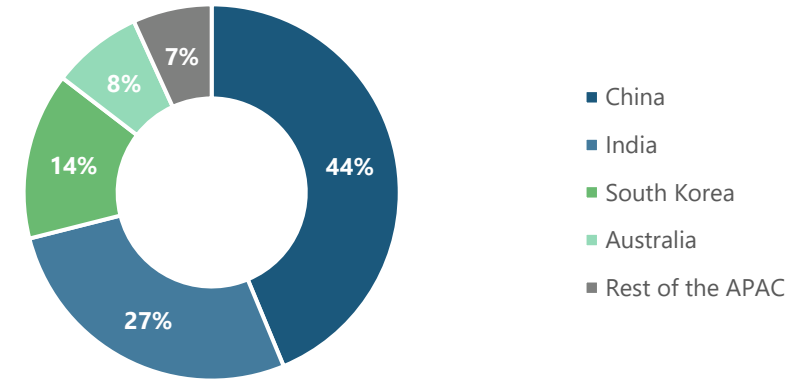
Regional Trends

FACTS Devices Deployed in last decade (2011-2021)



- China FACTS market is very large due to a massive deployment of Static VAR Generators (SVGs) in the renewables and industries.
- India's PGCIL has done massive investments in its grid in the form of STATCOMs and SVCs.
- Industries like mining sector and renewables generate STATCOM market in Australia. Grid operators are also deploying SCs.
- South Korea is not just one of the important FACTS market in Europe but also home to couple of key regional players in APAC.

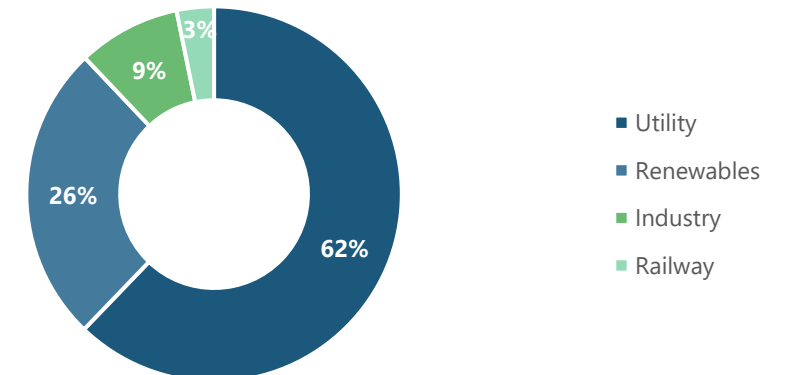
Country Split (2017-2021)



Source: PTR

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Application Split (2017-2021)



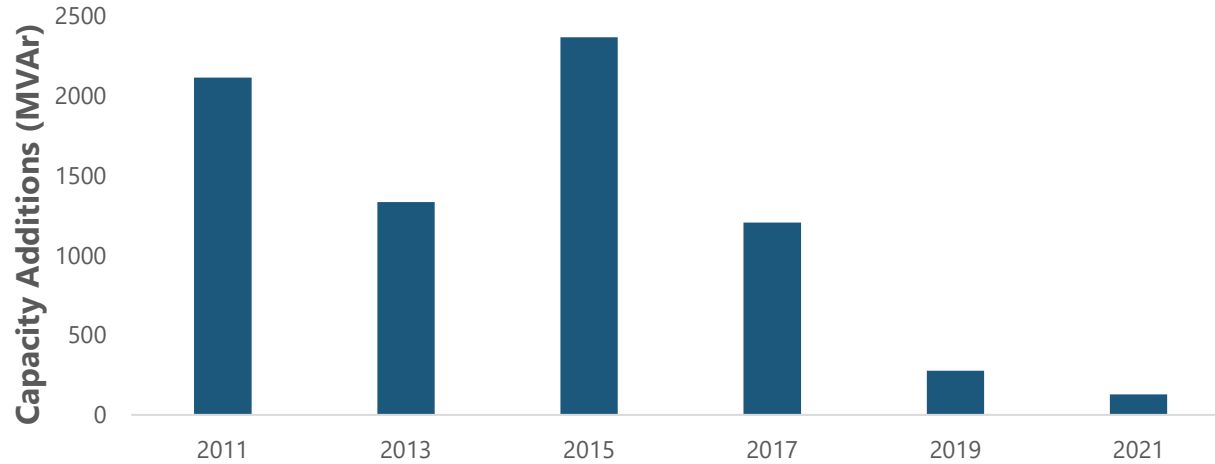
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Overview of FACTS in Middle East & Africa (MEA)

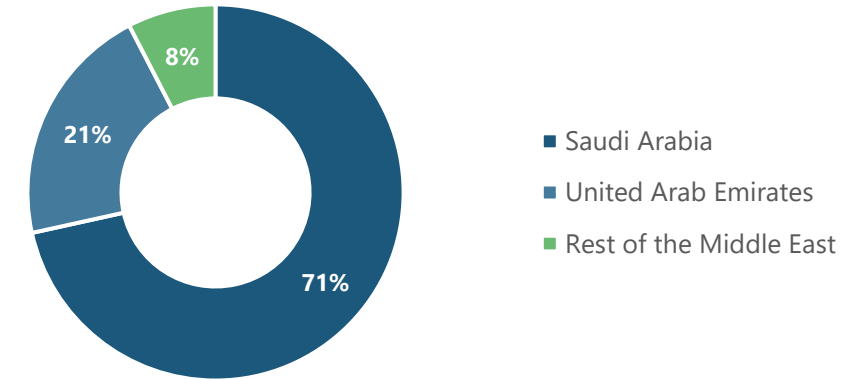
Regional Trends

FACTS Devices Deployed in last decade (2011-2021)



- Only a handful of annual additions every year in Middle East and Africa are reported.
- Till date, the major demand centre of FACTS in Middle East is KSA followed by UAE.
- In terms of technology split, SVC has dominated the market in last decade in MEA.
- In Middle East, especially KSA, this trend has changed in last couple of years and a major uptake of STATCOMs is expected.

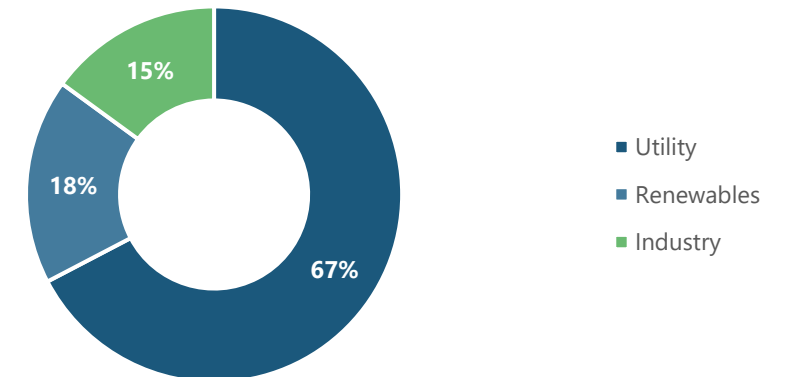
Country Split (2017-2021)



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Application Split (2017-2021)



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Future Landscape

Future Landscape of Global STATCOM & SVC Market

Global Trends

Growth

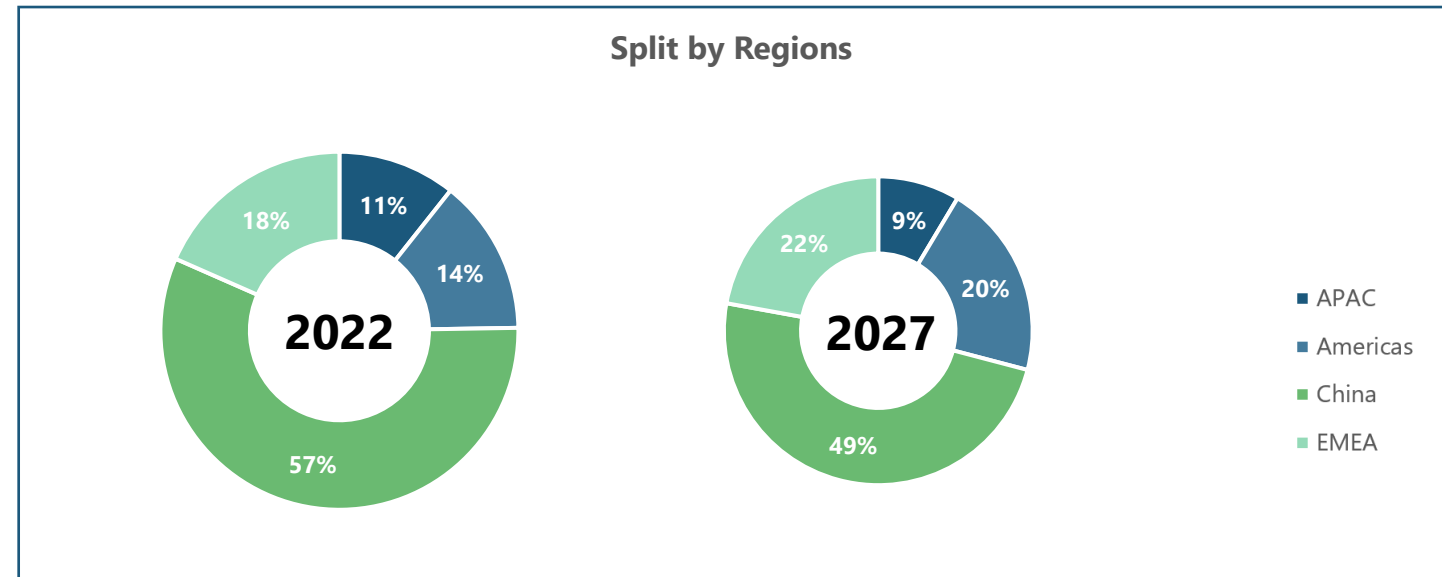
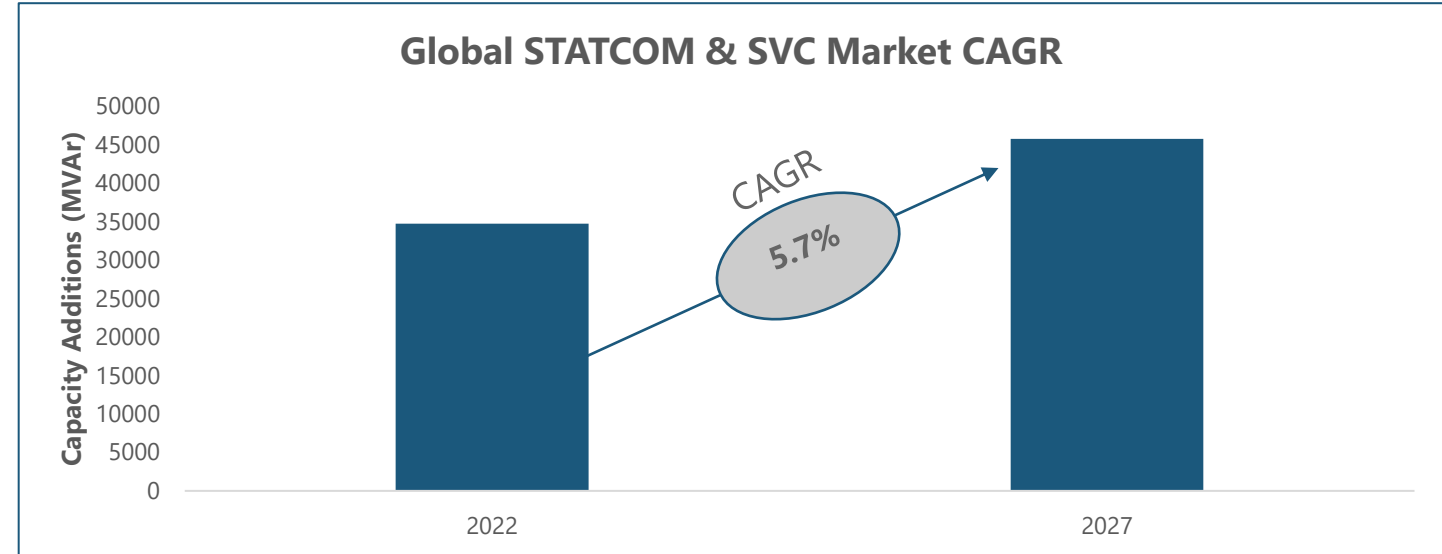
Global FACTS market will continue to grow with a reasonably good CAGR as grid operators move towards achieving their clean electrification goals.

Technology Preference

- In short term, it is expected that STATCOMs will be deployed in the grid to support the renewable energy integration.
- Most of the SVC additions will be seen serving the refurbishment market.
- In long term, synchronous condensers will also be considered as grid will eventually need inertia and short circuit current capacity.

Alternatives

- Battery Energy Storage Systems (BESS)
- Synchronous Condensers



PTR's FACTS Market Research

Analysis of SVC, STATCOM & Series Comp. market around the globe

Global FACTS Projects Database

- 3,500 installed & pipeline projects
- Static VAR Compensator (SVC)
- Static Synchronous Compensator (STATCOM)
- Series Capacitors & Synchronous Condensers

Global FACTS Market Report

- Regional Market Sizing (TAM by MVar & Revenue)
- Competitive Analysis (Company Profiles, Market Shares)
- SVCs & STATCOMs covered

MV FACTS Market Analysis

- Medium Sized FACTS (<60MVar)
- Regional/Country market by MVar & Revenue
- 8 application verticals (TSO, DSO; Wind, Solar, Steel, Mining,...)

PTR Sonar FACTS

- Weekly updates on key market happenings
- Proprietary desktop/mobile app

