



Bundesministerium  
für Wirtschaft  
und Energie



MITTELSTAND  
**GLOBAL**  
EXPORTINITIATIVE ENERGIE

# Challenges and Potentials: Energy Business in Puerto Rico

German Energy Solutions Initiative

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Facilitator



# TOPICS OUTLINE

- Puerto Rico Business Facts
- PRMA & Medical Device Cluster Facts
- Current Challenges with Energy
- Current Trends and Potentials
- Helpful Tips

## ABOUT US

**Direct flights to major cities**  
(Dallas, 5 hrs., Miami 2.5 hrs., New York 3.5 hrs., Spain 8 hrs.)



**Puerto Rico residents and businesses are subject to the legal protection of both the U.S. and the Puerto Rico Constitutions.**

**Privileged geographical location: Easy access to U.S., Latin America and Europe.**

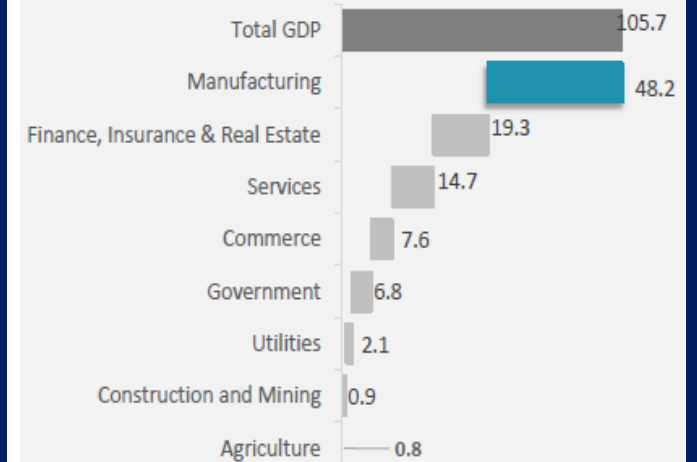


**Languages: Spanish & English**

BUSINESS IN  
PUERTO  
RICO.COM

GNP \$70.1 billion  
GDP \$105.7 billion  
GDP PER CAPITA \$30,516  
EXPORTS VALUE \$71.9 billion  
IMPORTS VALUE \$43.3 billion

### GROSS DOMESTIC PRODUCT SHARE BY MAIN ECONOMIC SECTOR FISCAL YEAR 2017



# PUERTO RICO INDUSTRY BACKGROUND



1900's to 1970's

## AGRARIAN ECONOMY

- ☒ Sugar Mills
- ☒ Coffee Plantation & Processing
- ☒ Tobacco and Tobacco Products
- ☒ Fruits and Processors
- ☒ Commercial Apparel



1970's to 1990's

## INDUSTRIAL ECONOMY

- ☒ Beginnings of Med Device
- ☒ PC Board Manufacturing
- ☒ Computer Manufacturing
- ☒ Oil Refining
- ☒ Petrochemical
- ☒ API Manufacturing



1990's to 2010's

## MANUFACTURING, SERVICES AND KNOWLEDGE ECONOMICS

- ☒ Medical Devices (Finished Goods)
- ☒ Start of Aerospace
- ☒ Pharmaceuticals (Finished goods)
- ☒ Biotech
- ☒ Pharmaceuticals



2010's to Present

## ADVANCED MANUFACTURING AND AEROSPACE

- ☒ Medical Devices
- ☒ Aerospace
- ☒ Highly Complex Manufacturing
- ☒ Biotech – Biosimilar
- ☒ Aseptic Packaging

BUSINESS IN  
PUERTO  
RICO.COM

# WHO'S DOING BUSINESS IN PUERTO RICO?



- 1 Puerto Rico is ranked #32 out of 144 in the World Economic Forum's Global Competitiveness Report for 2015
- 2 12 out of the top 20 pharmaceutical and biotech companies have manufacturing sites in PR
- 3 12 out of the top 20 medical devices companies have manufacturing sites in PR
- 4 A large number of the crops of the future (corn, soybean, cotton, rice, etc.) are being developed in Puerto Rico by companies such as Monsanto, Syngenta and Pioneer.
- 5 Most of Microsoft software updates downloaded in the Americas is validated and distributed from Puerto Rico

6  
7  
8

Honeywell operates business support operations such as engineering design, supply chain, finance, and IT among other, for the Company's defense programs

Amgen has its largest manufacturing facility located in Juncos, PR. More than 90% of its products are either formulated, finished or packaged at this site.

TOP  
COUNTRIES WITH  
COMPANIES IN  
PUERTO RICO



BUSINESS IN  
PUERTO  
RICO.COM

# STRATEGIC SECTORS ECONOMIC DEVELOPMENT PLAN

## ADVANCED MANUFACTURING

1

- o Life Sciences/Healthcare
  - o Med Devices
  - o Pharma/Biotech
- o Aerospace
- o Foods
- o Material Science

## INFORMATION TECHNOLOGY

2

- o IOT - Incubator
- o Blockchain
- o FinTech
- o Sharing Economy
- o Health IT

## SERVICES FOR EXPORT

3

- o Aerospace
- o Business Process Outsourcing
- o Shared Services

## AGRO INDUSTRIES

4

- o Specialty Crops
- o Industrial Hemp
- o Medical Cannabis
- o Basic Basket

WORKFORCE  
DEVELOPMENT  
EDUCATION

INNOVATION

IMPROVE  
COMPETITIVENESS

## OCEAN ECONOMY

5

- o PROTech
- o Blue Tide

## BIO ECONOMY

6

- o Bio Raw Materials
- o Bio Fuels
- o Recycling

## LOGISTICS

7

- o Air Cabotage Laws

## VISITORS ECONOMY

8

- o Medical Tourism
- o Cruise Industry
- o Nautical Tourism
- o Eco-Tourism
- o Hotels Development
- o Tourist Interest District
- o Hostels
- o Agro Industries, Food & Beverages

# MAIN BUSINESS ORGANIZATIONS IN PUERTO RICO

- Puerto Rico Manufacturers Association
- Pharmaceutical Industrial Association
- Medical Device Cluster
- Chamber of Commerce
- Coalition of the Private Sector

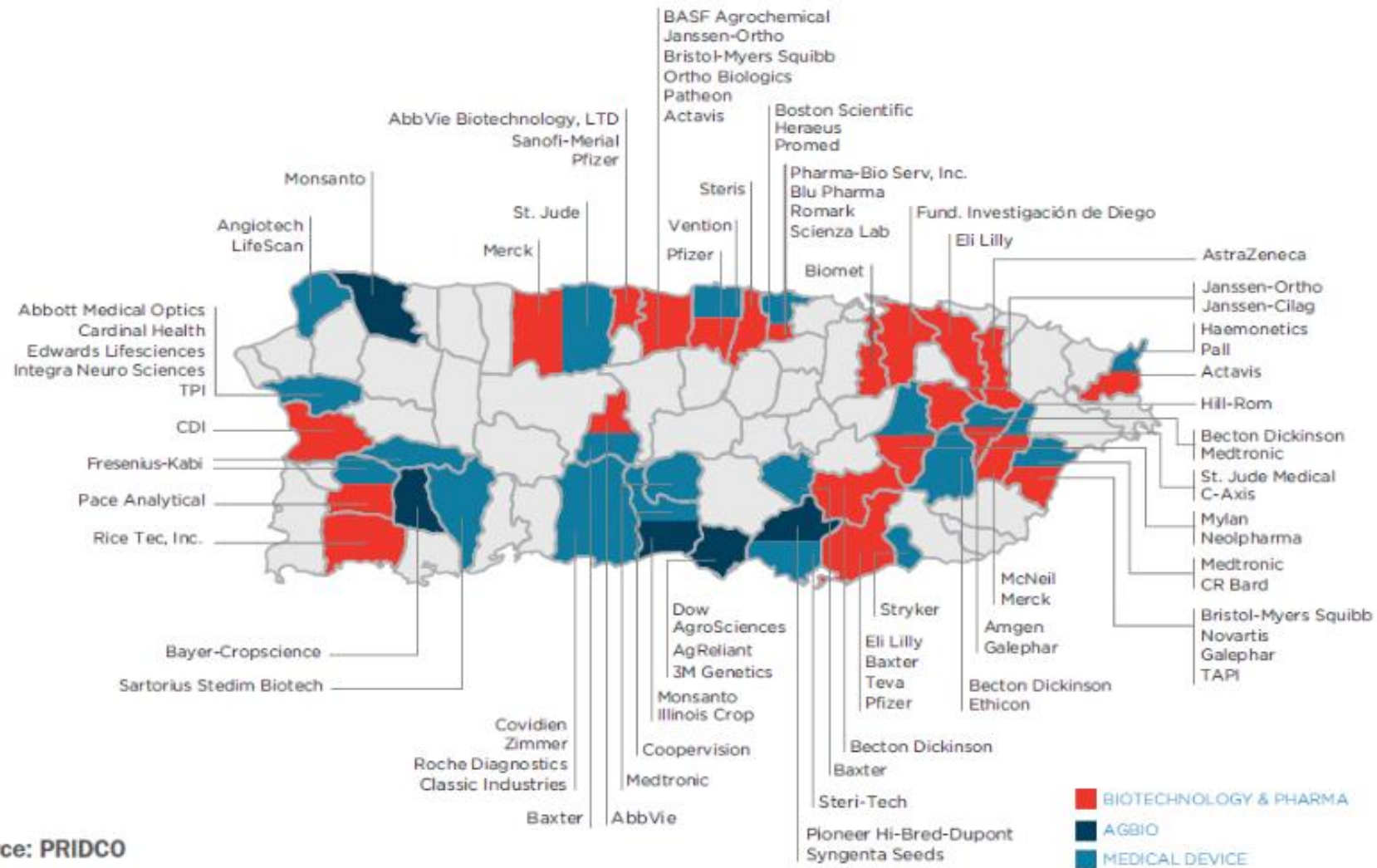


# PRMA & MEDICAL DEVICE CLUSTER FACTS

- PUERTO RICO MANUFACTURERS ASSOCIATION
  - Since 1928
  - 1000 Companies
  - 70% economy
  - \$70B+ GDP
  - 250,000 impacted jobs
  - Between PIA and MDC
    - 38,000 direct jobs
    - 45%+ GDP
    - Main tax contributors to the Country



# LIFESCIENCES MAP (mainly PIA-MDC)



Source: PRIDCO

# PRMA & MEDICAL DEVICE CLUSTER FACTS

- **Medical Devices Cluster**
  - Since 2000
  - 50+ members
  - 30 manufacturing companies with 78 sites
  - Complex and highly regulated
  - 7 of top 10 in the World
  - 40 years of experience on MD Manufacturing
  - 20,000+ direct jobs
  - ~\$10B exports
  - 4% annual growth
  - \$200M public expansions in 3 companies 2018-19
    - Medtronic, Stryker, Sartorius
  - ~\$75M IN Utility Costs



# CURRENT CHALLENGES

- Energy costs are relatively too high
  - Monopoly
  - Uncertainty : debt, privatization, syndicate, system health, maintenance
  - 47% up announced in couple years to serve debt, not considering market increases for oil prices
- Reliability and uptime a new concern
  - Post-hurricane challenges worsen by budget challenges
- R & D Credits no longer can be used to pay electricity
- Essential for a solid Business Continuity Plan for any business
- If not you will be vulnerable, generators as a minimum



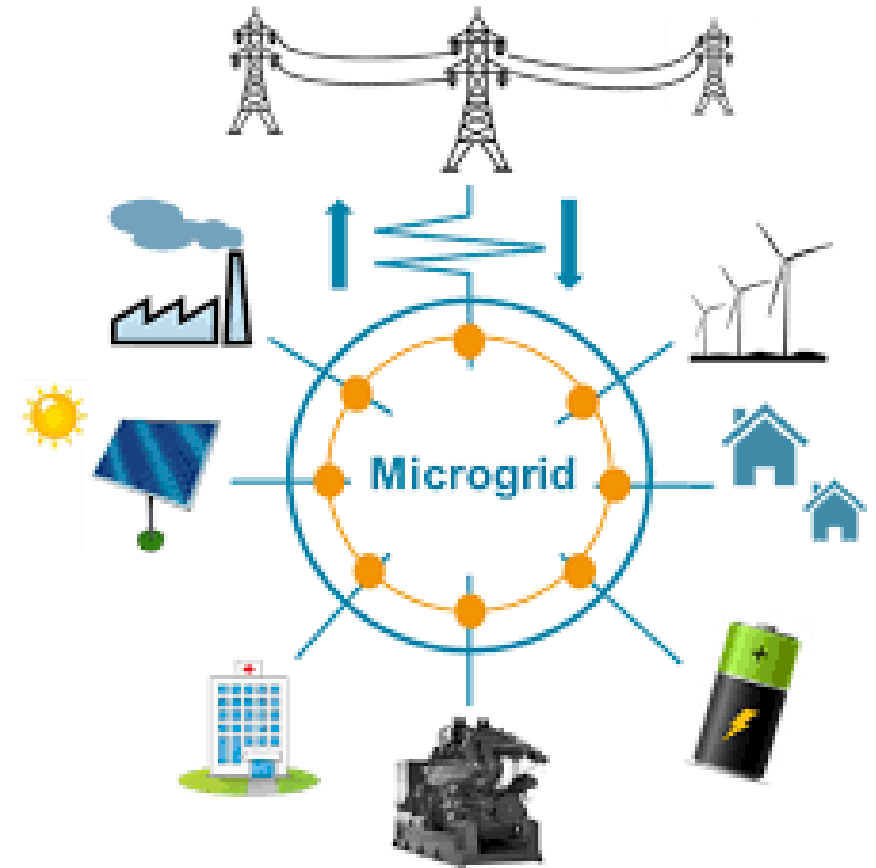
# CURRENT TRENDS AND POTENTIALS

- Privatization of PREPA
- Individuals and commerce awakening to renewable and efficiency solutions, industry have been there for 10+ years and ramping up
- United Funds Charity Organization (\$M)
  - Pushing Solar and LED publicly and sponsoring projects in the countryside
- Local and foreign manufacturing multinationals investing \$4-50M each in own electrical Co-Generation



# CURRENT TRENDS AND POTENTIALS

- USDOE Collaborating with PR Government on identifying effective permanent solutions to costs and reliability
  - Microgrids Industrial Park Pilots
- Commerce and other sector are big pieces of the economy and are all into it as well – they will gain speed
  - PR Commerce activity is the most dynamic in the Caribbean



# HELPFUL TIPS

- German technology very appreciated in PR, i.e. cars
  - Key marketing element
- BCP justifications a key marketing element
- Network with the big organizations, including USDOE – relations key
- Participate in local tradeshow besides main international
- Channel your entry through PRIDCO
- Leverage on incentives – **manufacture locally and pivot to the region**
- Reach out to parent companies and stretch to PR
- Eolic opportunity very limited, all others a real possibility - be present...

# Questions?

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