



A machine that converts the energy of ocean waves into electrical energy

BigJelly <sup>TM</sup>	4 MW Utility scale
MicroJelly <sup>TM</sup>	4 kW- Microgrid scale

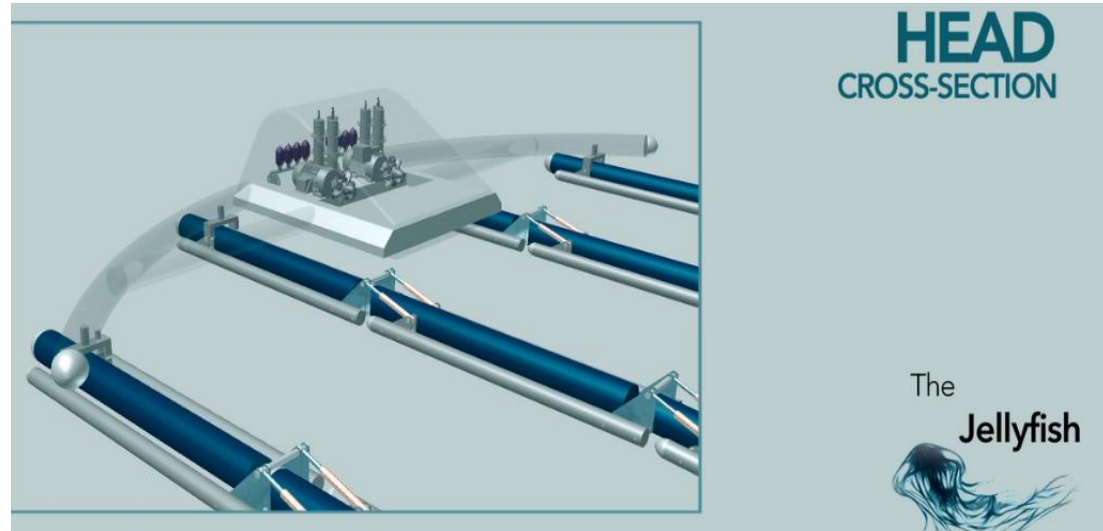
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**Presenter:**

Ramuel Maramara, CEO, Inventor  
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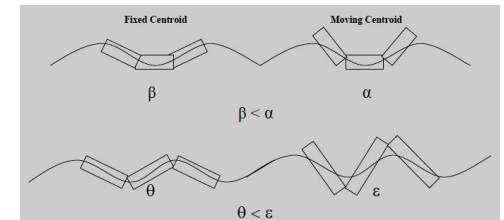
# Our Technology:



The Jellyfish<sup>TM</sup>



- Unique Format
- “Ride the Wave” technology
- “SuperStorm” protection technology
- MicroJelly<sup>TM</sup> and BigJelly<sup>TM</sup>

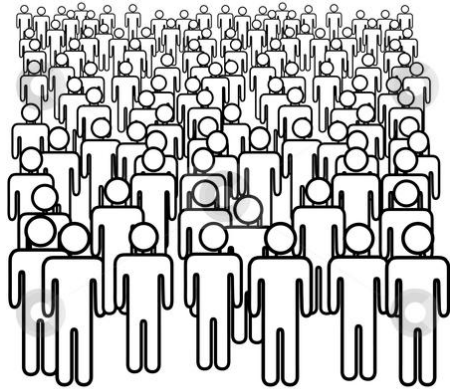


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# The Problem

Civilization needs energy



Nuclear has  
Radioactive  
stigma



OIL will  
eventually run  
out



Environmental  
Awareness  
will stay

Solution: BIG 3



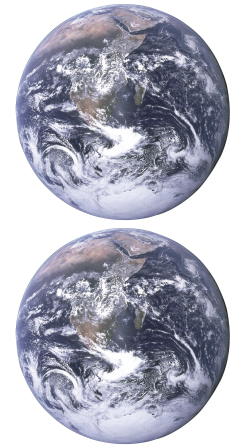
Solar



Wind



and yes, Waves



2000000000 KW  
untapped

3

The Jellyfish



# Why not Waves?



Waves



Wind  
Solar



Energy Density Flux

5 😊

2 🤢

1 🤢

24H Availability

5\* 😊

2 🤢

1 🤢

Aesthetics

4 😊

2

2

Ease of Harvest

1 🤢

5

5

Capital Investment

1 🤢

2

3

Availability

4

4

4

TOTAL

20 😊

17

16

4





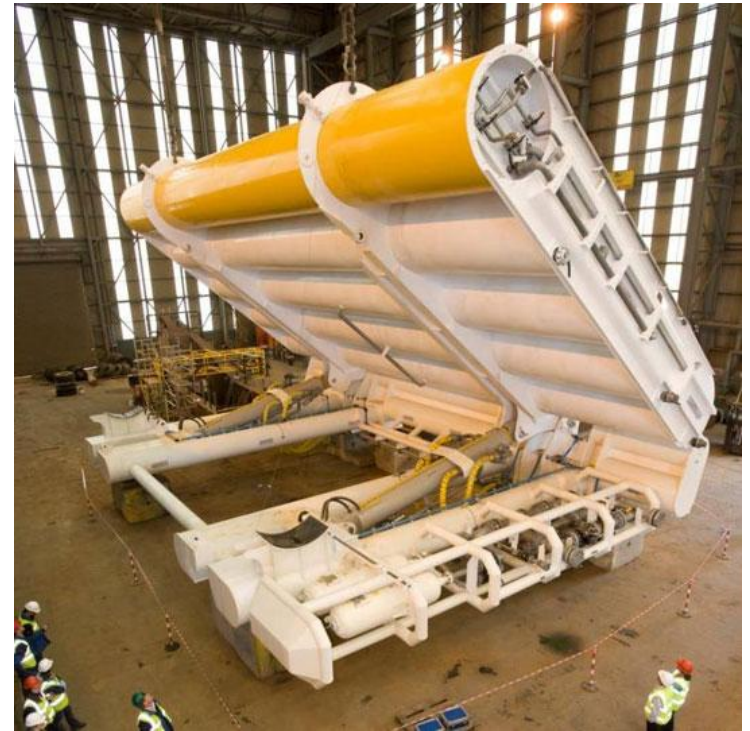
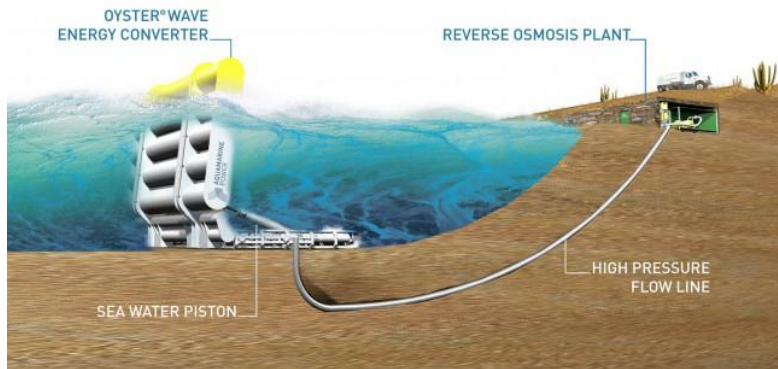
# What's happening in the wave energy world?



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# OYSTER

by Aquamarine Technologies, UK  
and Queens University





# Pelamis

by Pelamis Wave ,UK  
and Edinburg University



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# Clapper / Powerwing

by Ecowave

w/ Ocean Univ of China



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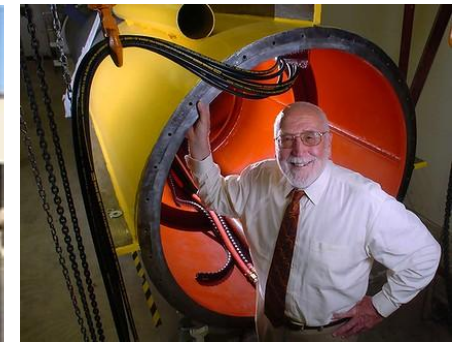
The Jellyfish





# PB 150

by Ocean Power Tech- Oregon, USA  
and Oregon State University

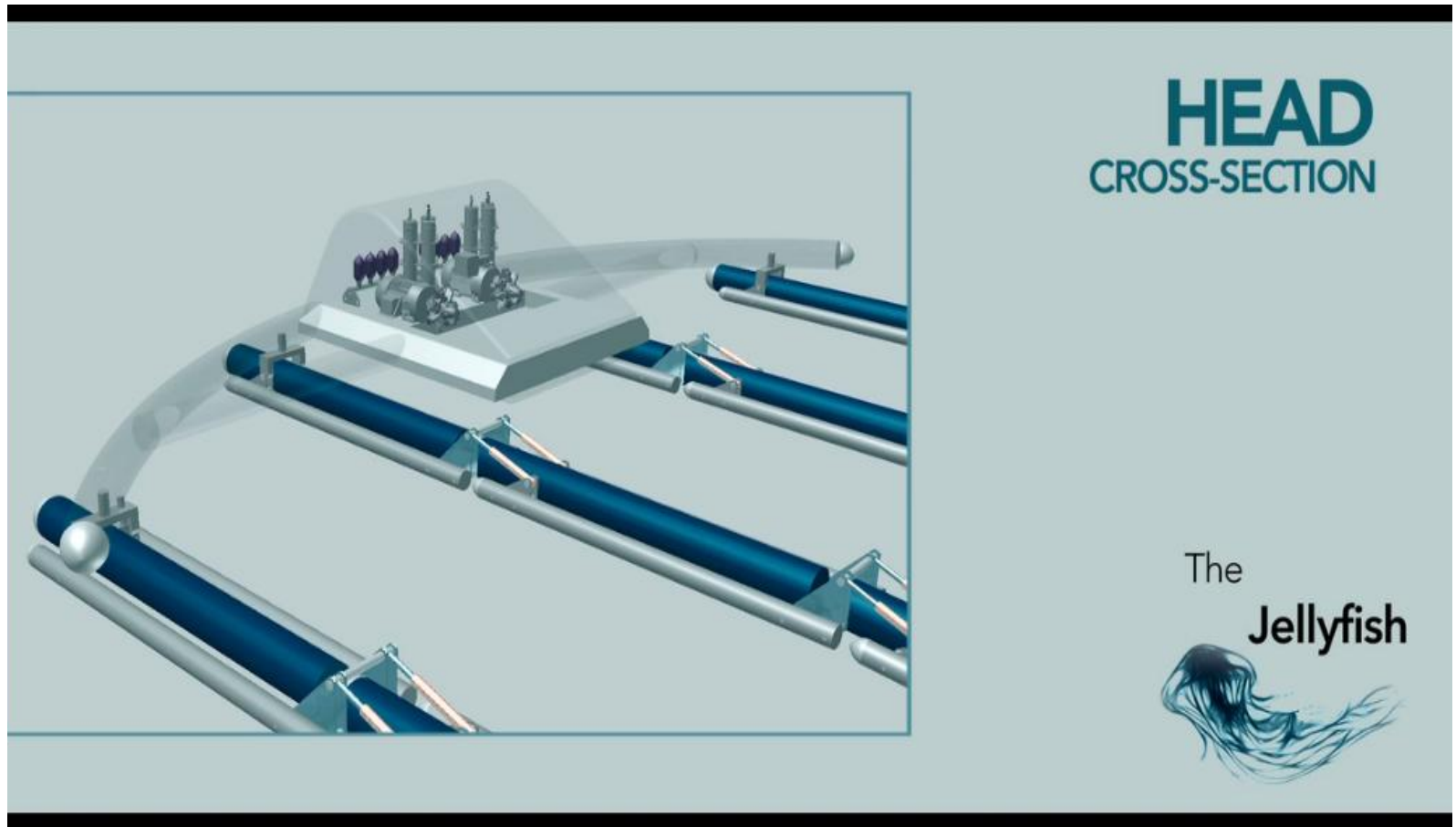


# WaveStar

by Wavestar Energy -Denmark  
and Aalborg University



# Jellyfish- by Brimes Energy, NY



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Patent application courtesy of Ray Farrell  
Carter, DeLuca, Farrell & Schmidt  
LLP

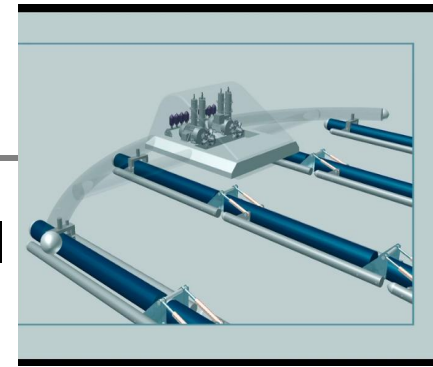
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# THE Solution

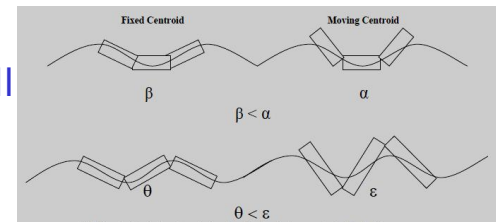
## The Jellyfish

TM



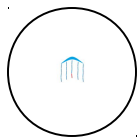
Unique Format – Multiple harvesting tail cover the most area and harvest the most energy from the sea.

“Ride the Wave” technology – we call the shifting centroid design



“SuperStorm” protection technology – ballasting and de-ballasting allows us to build wide and still easily survive extreme weather events

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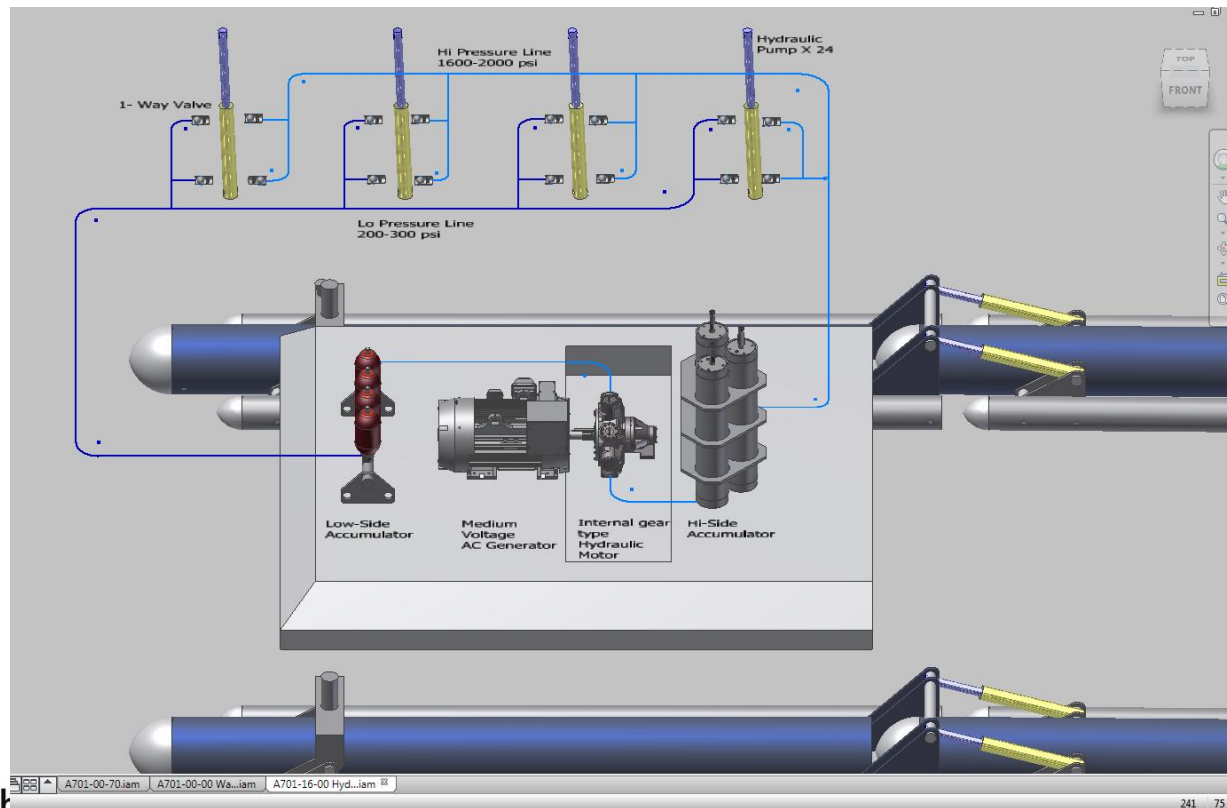
MicroJelly – smaller format for microgrids and fishing communities

The Jellyfish

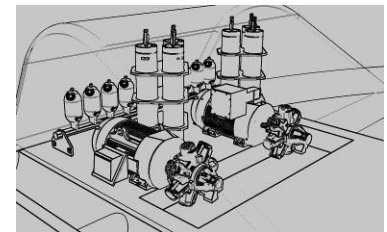
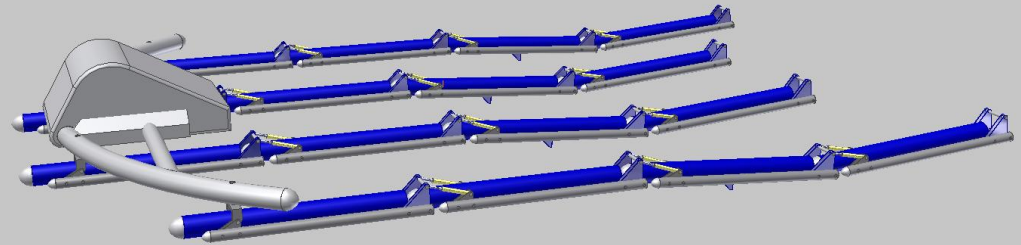


# The Jellyfish

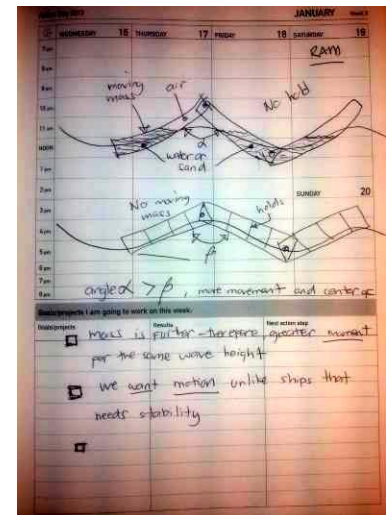
## Hydraulic Schematic



## Unique Format



## "Ride the Wave"



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The Jellyfish.



# Let's Compare Wave Technologies

	Jellyfish	Pelamis	China-EcoWave	Oyster	OPT
Capacity-MW	5 😊	3	3	3	1 🐙
Storm Protection	5 😊	5	4	5	5
Capital cost/MW	5 😊	3	5	2	1
Power cost/kWH	5 😊	3	5	3	1
Ease Repair	4 😊	4	4	1	3
"New" in Market	1 🐙	4	1 🐙	3	4
Funding	1 🐙	3	5 😊	3	3
	26	25	27	20	18
OVERALL	😊	😐	😊	🐙	🐙

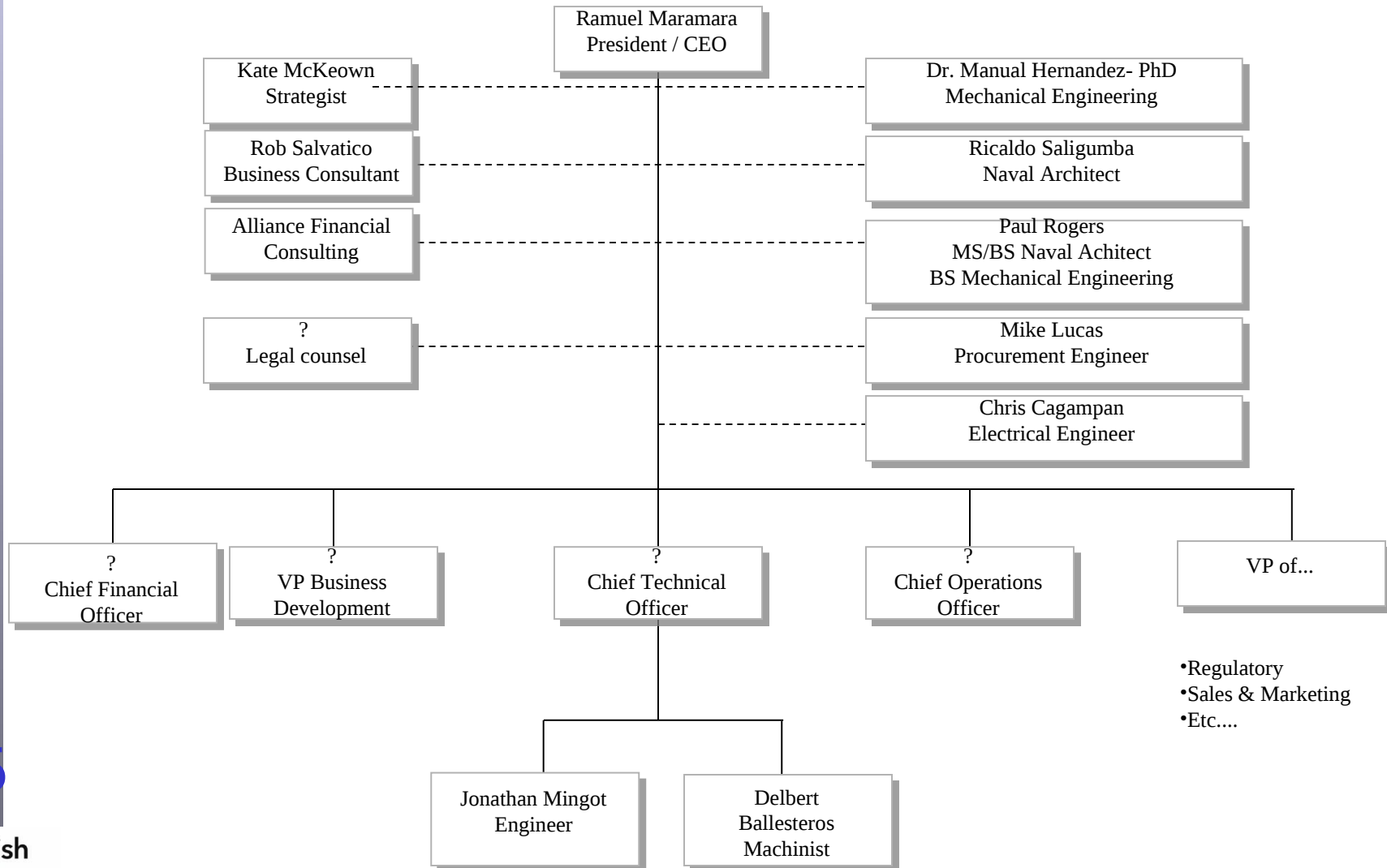
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The Jellyfish





# Organizational Structure



# Jellyfish Team

- Ramuel Maramara- Mechanical Engineer
  - #3 out of 2000+ Mechanical Engineering Board Exam - #1 Machine Design Board Exam
  - 99+ Percentile National Secondary Achievement Test
  - Started building machines at 8.
  - Awarded youngest Executive Distributor at 17- selling Fish Oil capsules
  - Started engineering business –Failed
  - Started again –Success- Major customers are Honda, Yutaka, Nissan, Toyota, Wendy's
  - Immigrated with family to US
  - Employed at 2 Different companies – Designed 30+ Machines, Unilever Del Monte, M&Ms
  - Former employer offered consulting at 200% base rate after I resigned
  - Started Brimes Energy and Brimes Industrial – Made 10+ Twinco, Medpro, American Chimney
- Paul Rodgers– MS/ BS Naval Architecture, BSME, PhD Materials Science- Ongoing
  - Lecturer on Maxsurf Ship Design Software, Lecturer Propeller Design, Selection and Manufacturing; Loves Surfing, Wind surfing.
- Dr. Manuel Hernandez– PhD./ MS/ BS Mechanical Engineering from University of Florida
  - Thesis and Graduate Adviser for graduate students College of Engineering, University of the Philippines
- Ricardo Saligumba– BS Naval Architect and Marine Engineer
  - Saybolt North America Operations Supervisor
- Mike Lucas, Mechanical Engineer from Stony Brook University SUNY
  - Mechanical Engineer- Brookhaven Laboratory
- Kate McKeown –Strategy- MBA Professor Fordham University



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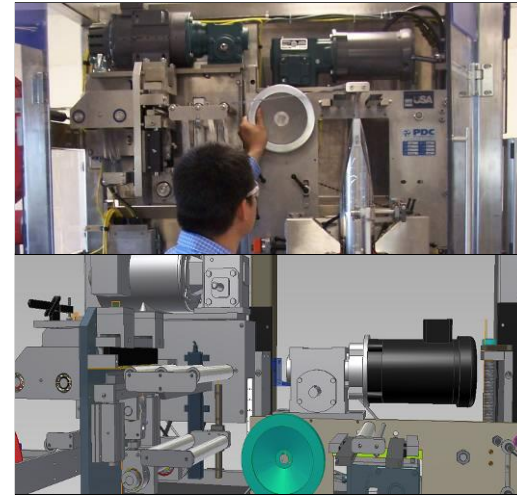
The Jellyfish



# Are we capable?



We designed  
machines  
that went to:



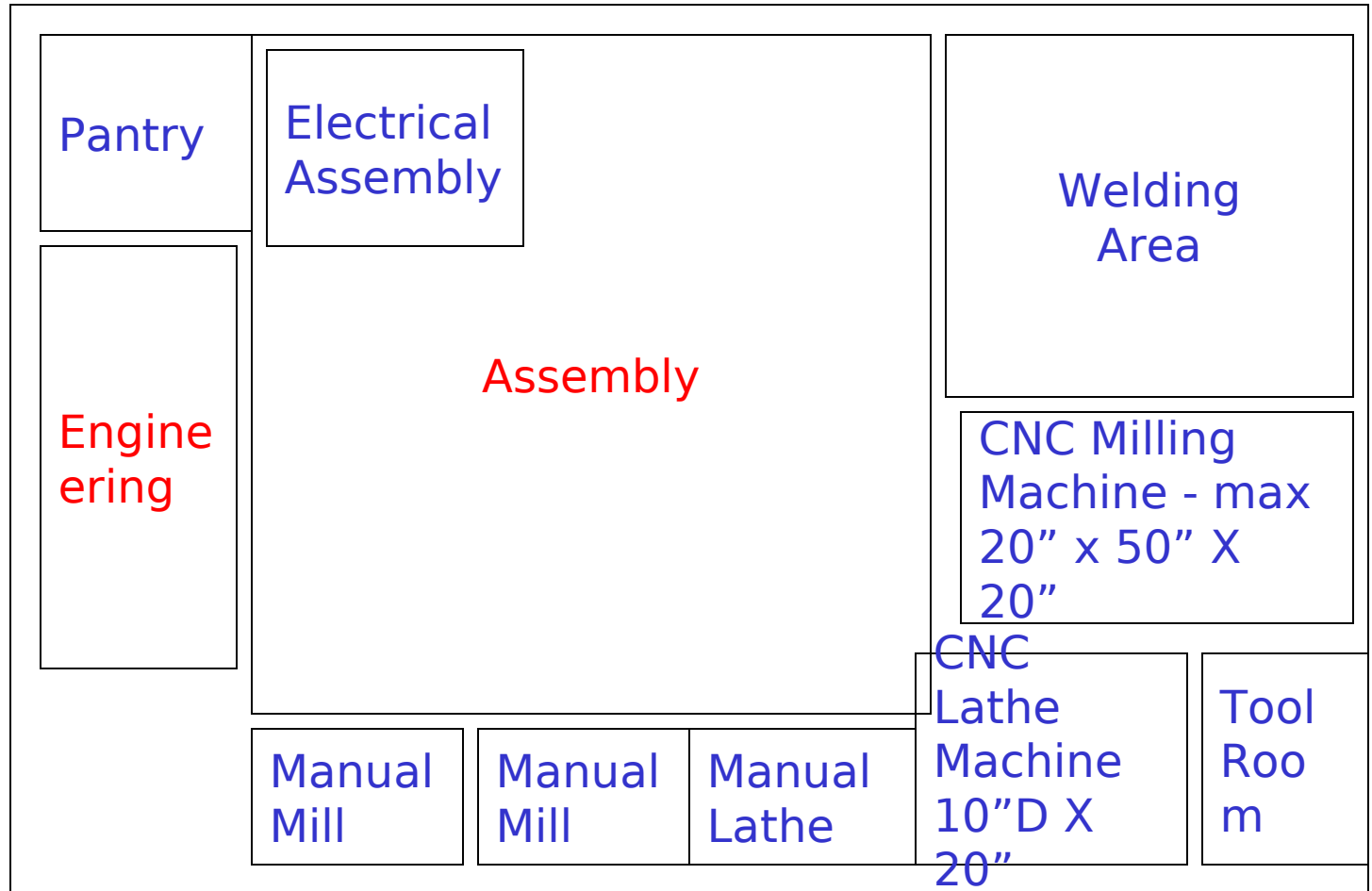
(631) 672-7385  
info@brimesindustrial.com

**BRIMES INDUSTRIAL INC.**  
1987 Lincoln Ave Unit 5, Holbrook, NY 11743

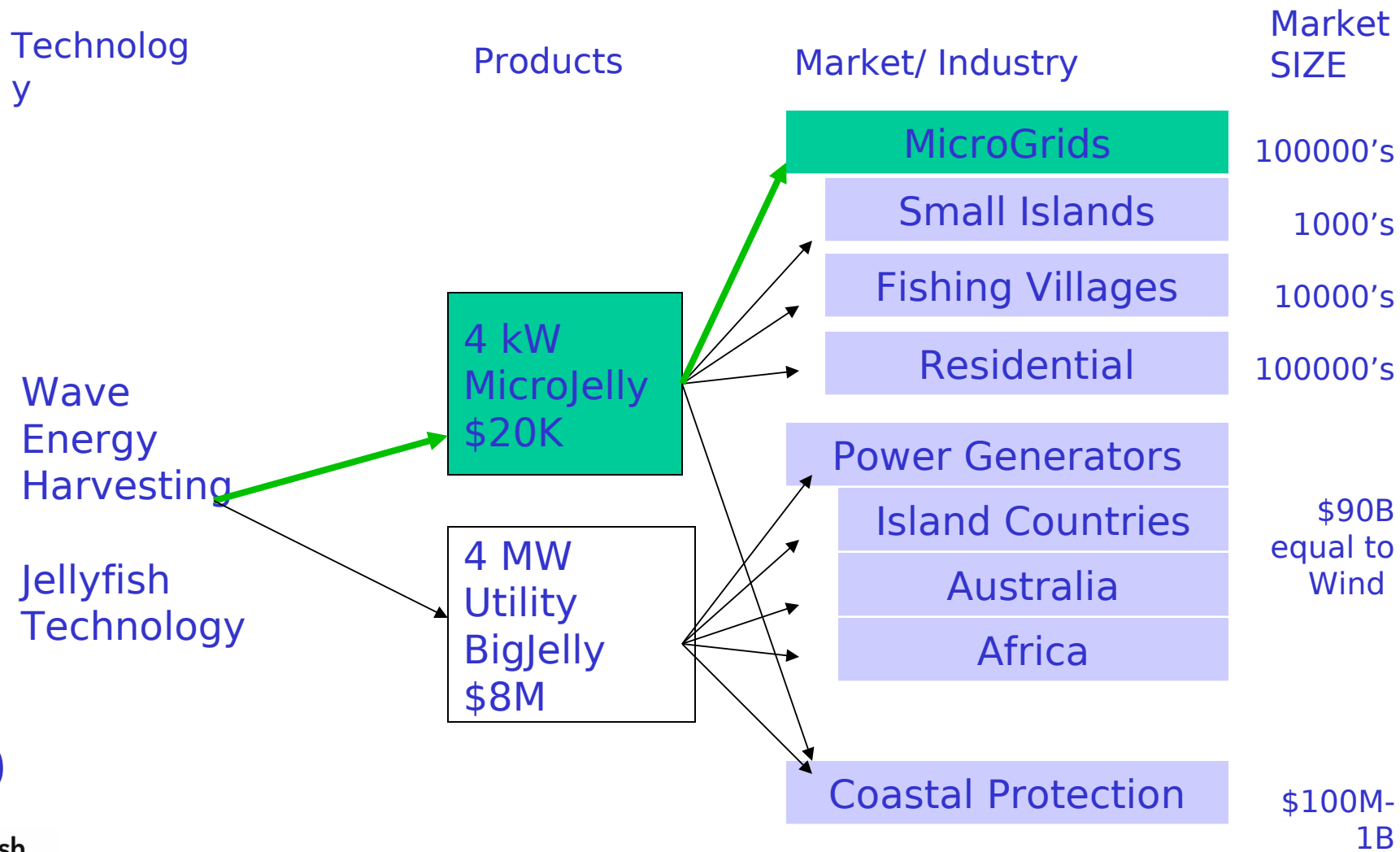




# Existing Facility



# Technology Market Map

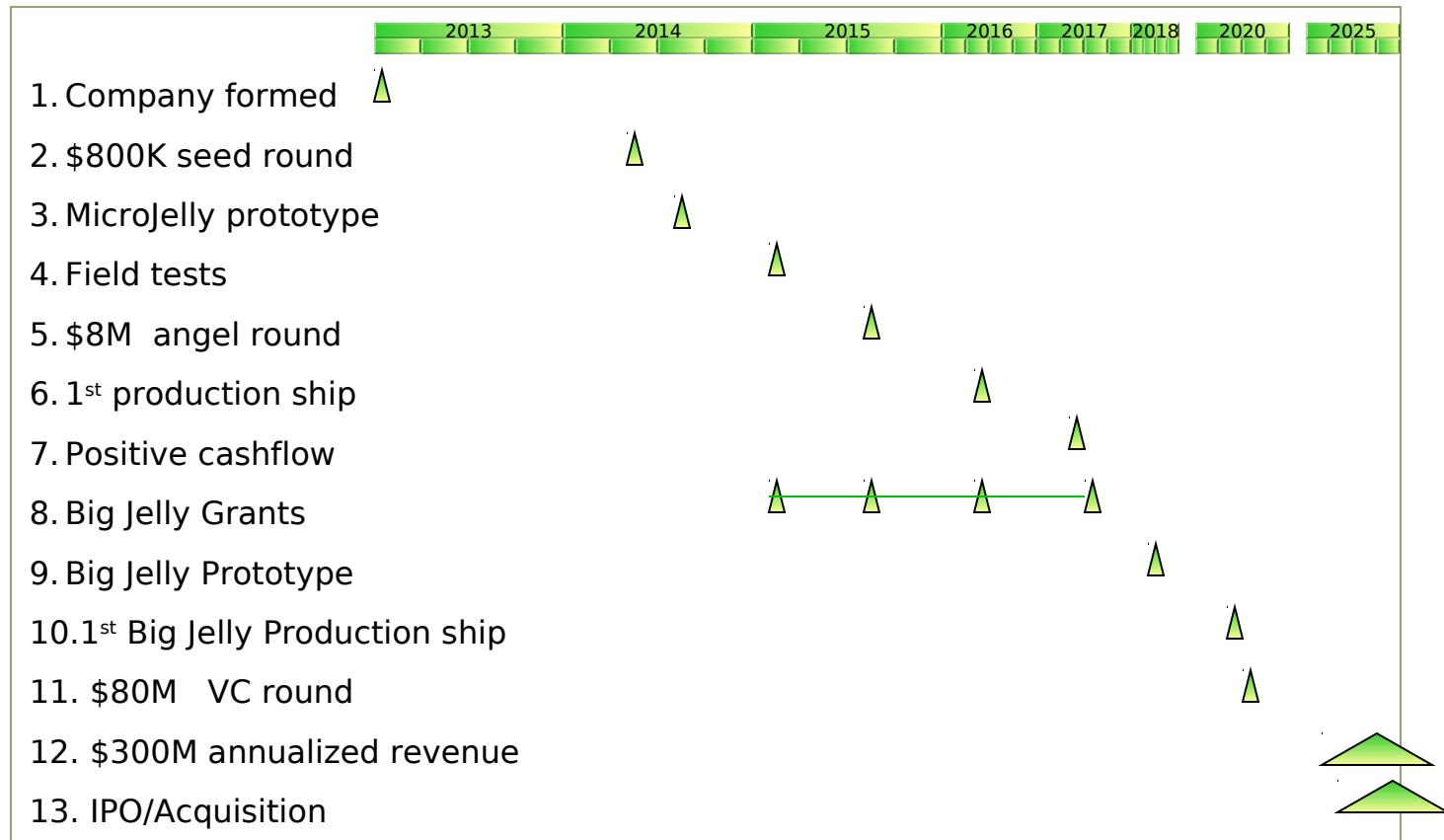


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# Milestones - Past and Future, Business And Financial

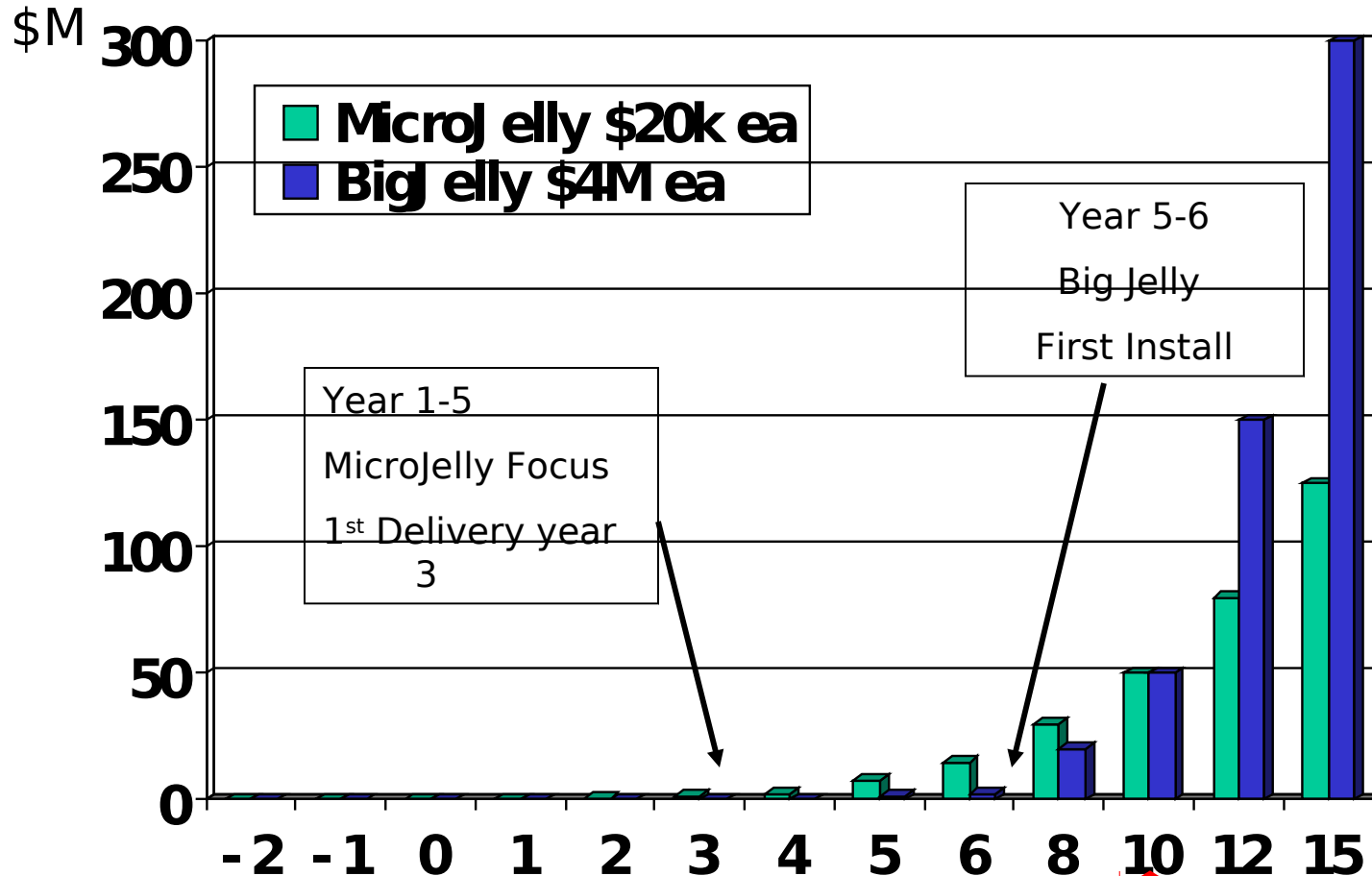


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# Revenue /Sales



BigJelly will overtake  
MicroJelly in sales

# Funding Sought

## Pre-commercial Stage

**Angel fund \$800K – Participating equity offered**

MicroJelly prototype verification

Matching money offered by Stonybrook SPIR Dr Purwar  
-NYSERDA

Add Grant funding thru DOE

-3 Engineers including Dr Hernandez, PhD ME

-Our manufacturing facility existing- Our CNC machines  
ready for use

## Commercial Stage

**Stage 1 Funding – MicroJelly Commercial Production**  
**Start manufacturing –Become OEM**

**Stage 2 Funding – BigJelly Commercial Production**

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The Jellyfish



# Exit Strategy

- Acquisition possible by big traditional OEMS

- ABB
- SEIMENS
- GE

All are big players in renewable installations. Offshore and onshore wind, Turbine, hardware, switching and substation equipment.

- IPO

- Only possible in 10-12 years. MicroJelly and BigJelly must be in production to maximize IPO

- The Value Proposition for the Investors

- Equity in exchange for Seed fund.
- Good return once the first MicroJelly is shipped.
- Excellent return after the first Big Jelly is commissioned.

# The Risks

- **Harsh Operating environment** – “No sweat” Storm prevention system must be fully tested in actual conditions. Redundant systems required.
- **Actual harvest risks** – With a single harvesting tail, the Pelamis is at \$.40 / kWh. The Jellyfish multiple tentacles will recover more but will have increased structural risks. The “Ride the wave” technology (moving centroid) should be tested and prototyped before the Big Jelly production. MicroJelly not too sensitive.
- The Low cost \$20,000 **MicroJelly has a low net margin**. Production scale is needed.
- **High Capital requirement** and 3-5 years before positive cash flow. The first MicroJelly should be shipped in 1-2 years.
- **Other designs exist**, some entering the commercialization stage (OPT, Pelamis, Eco Wave), although all are still too expensive to be economically viable.
- **China** now has entered the race-Eco Wave Power Signed MOU with **Ocean University of China**, China is #1 in installed capacity. **\$pending power**.

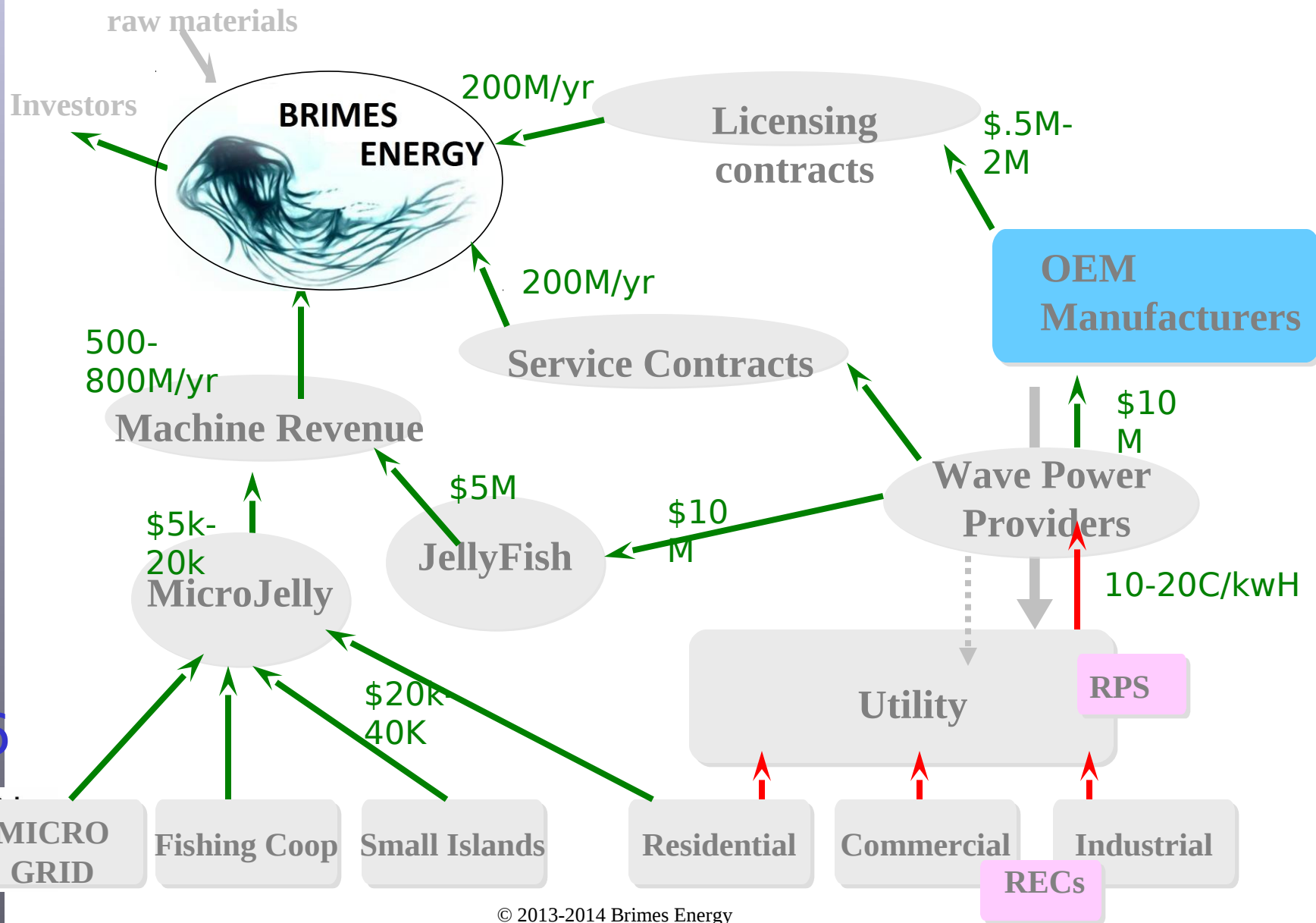




Thank you.

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# Profit Map – Year 12



# Marketing Strategy

- Pre Commercial "Radical Change" theme
  - Loud and Visible
  - Helicopter Shots
  - Sponsorships
  - Guerilla Marketing
  - Endorsements- try Elon Musk, Richard Branson, Bono and yes Oprah
- Commercial – BigJelly
  - Traditional & Web
  - Installers- "Residential Solar style" –MicroJelly
  - Target Power providers - BigJelly