



IPRO It takes a team!

INTERPROFESSIONAL PROJECTS PROGRAM

ENPRO 354

**Small-Scale Desalination for Global
Water Solutions**

The Team

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Discussion Topics

Introduction Topics

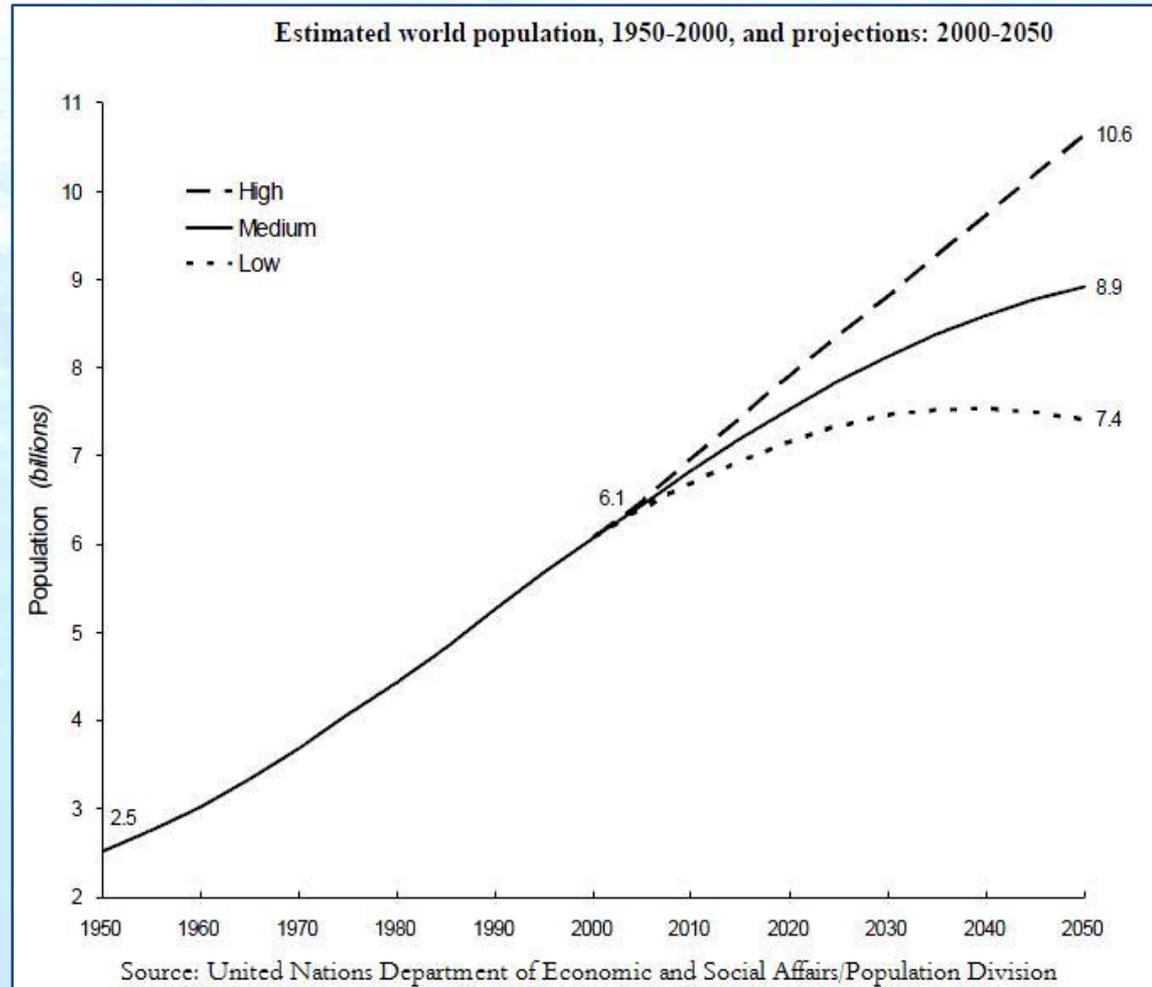
- **Problem**
- **Solution**
- **Why?**

Business Topics

- **Organization Summary**
- **Marketing Plan**
- **Fundraising**
- **Financial Plan**
- **Critical Risk Factors**
- **Desired Social Impacts**

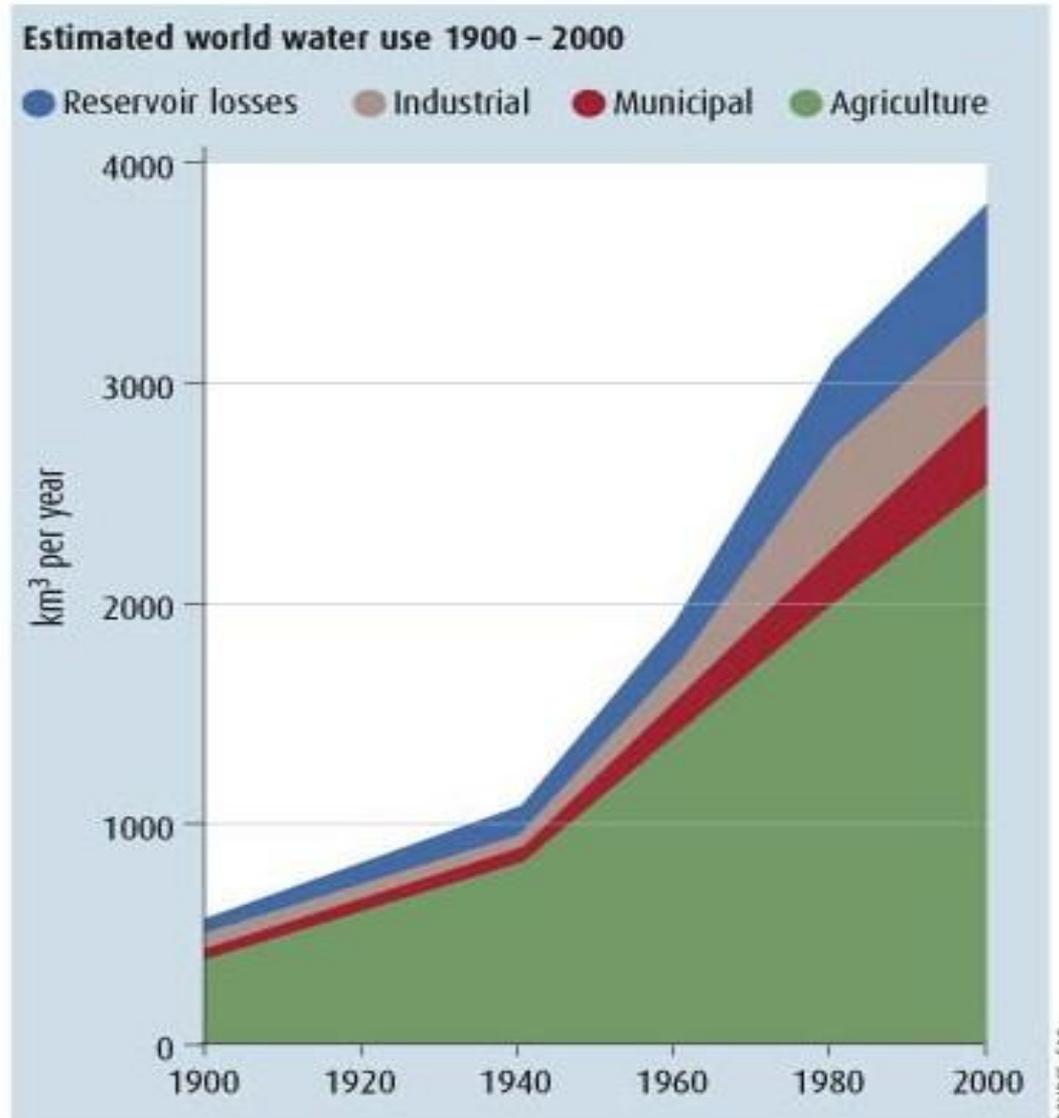
Water Scarcity

- Population
- Urbanization
- New Middle Class
- B.R.I.C.



Water Scarcity

- Melting Glaciers
- Rainfall Patterns
- Agriculture
- Runoff



Those Most Affected

- People in underdeveloped countries
- Lack money or resources to improve conditions



Addressing the Issue

- **Business Solution**
- *FreshSea*
- **Non-Profit**
- **Water by Small-Scale Desalination**



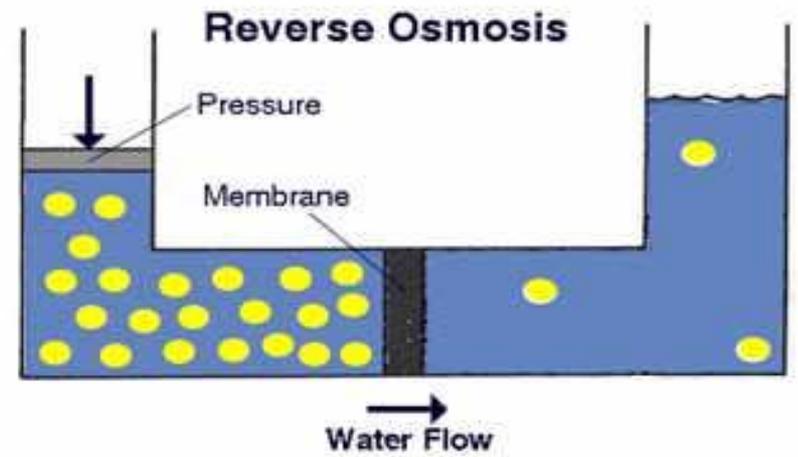
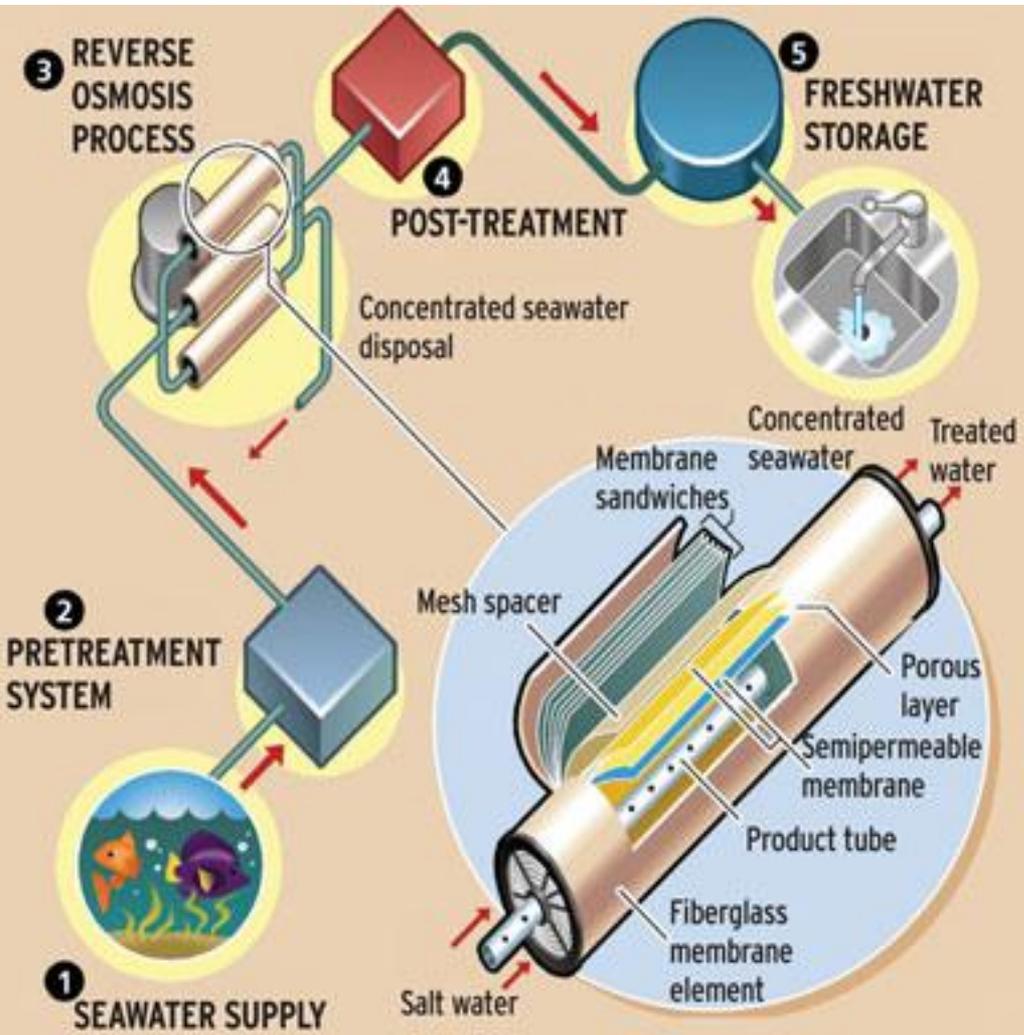
Small-Scale Desalination

- Reverse Osmosis
- Existing technologies
- Market tested
- Reliable



RainDance Water System: RDWS-WH-SWRO-2000

Science of Reverse Osmosis



Power Sources

- Off-grid
- Wind
- Solar
- Battery



EverLite 3kw turbine

So you may be asking yourself...

- **Innovative?**
- **New technology vs. already existing**
- **Infeasible by Initial Research**
- **Financial and Reliability Issues**

Business Topics

FreshSea

- **Non-Profit**
- **“Social Entrepreneurship”**
- **Different kind of Return-on-Investment**
- **Startup**



Proposed logo

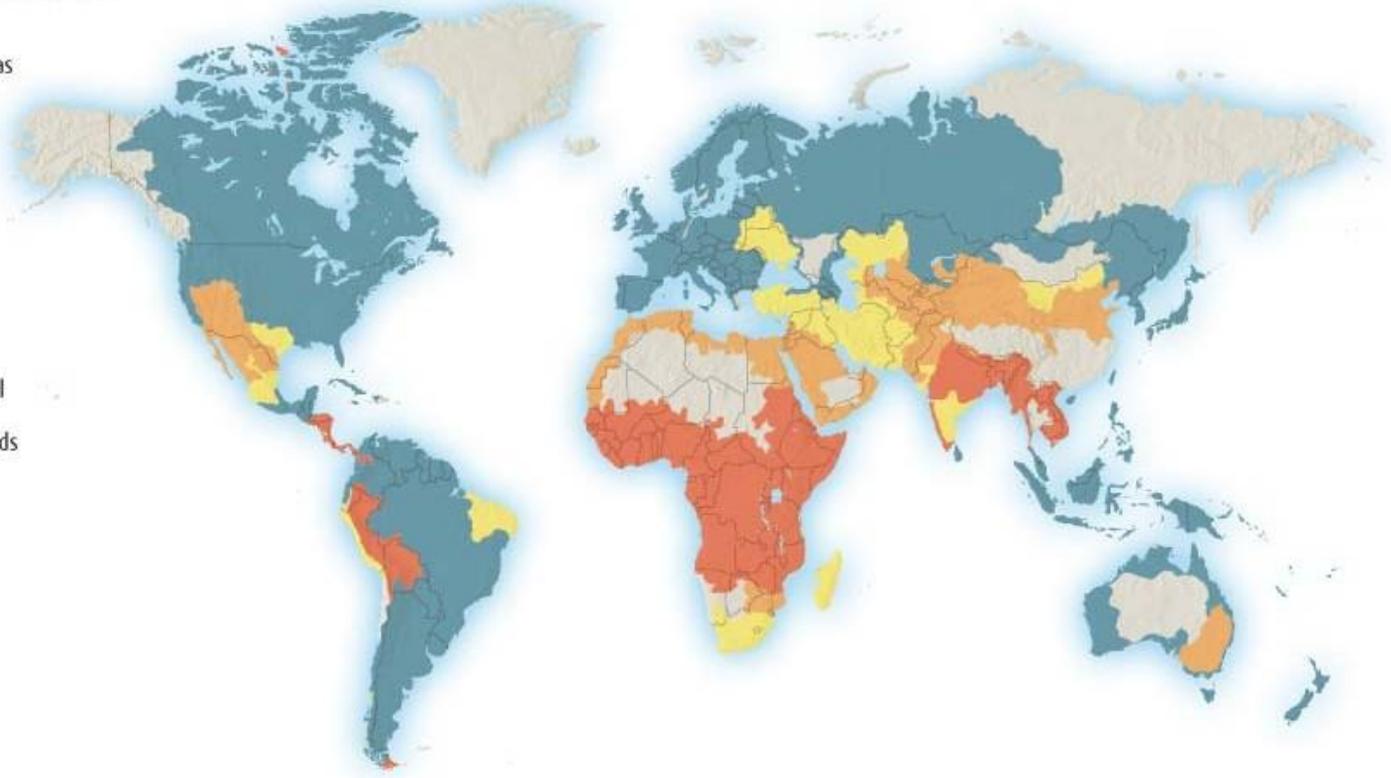
Marketing

- **What sets us apart?**
- **Different Approach**
- **Barriers**
- **Strategic Partnerships**



Areas around the globe suffering from depleted water resources

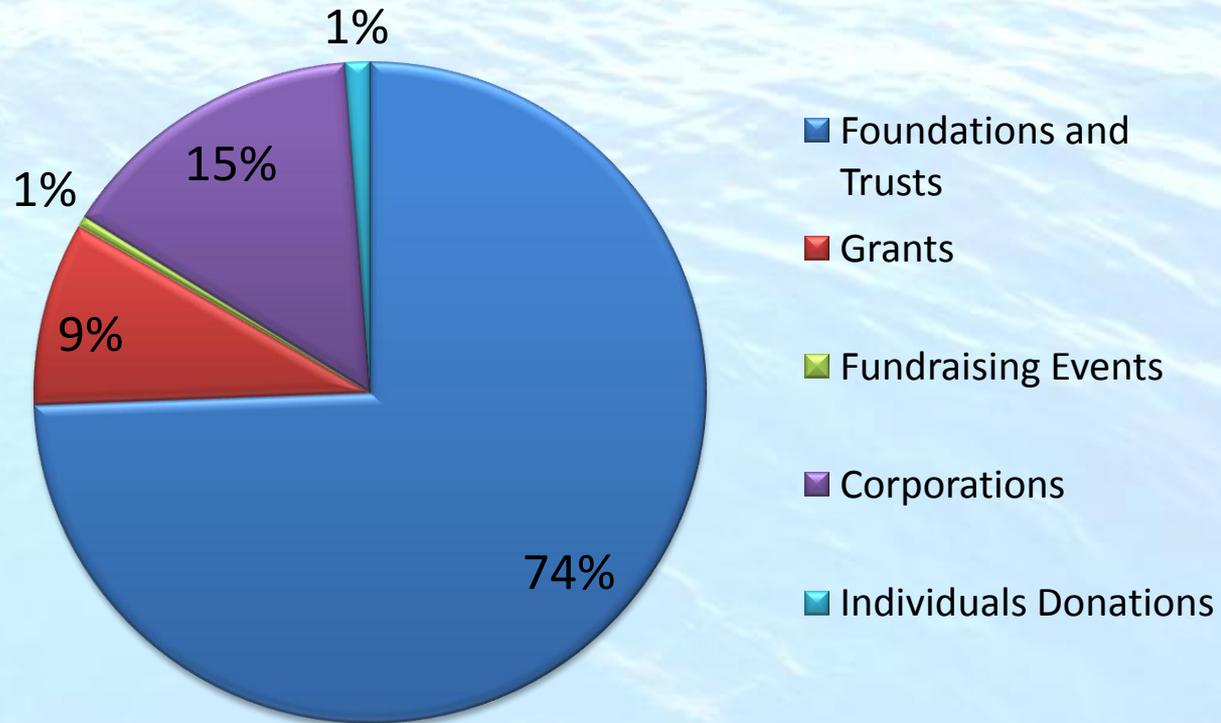
- Physical water scarcity**
Water resource development is approaching or has exceeded sustainable limits. More than 75% of river flow is extracted for agriculture
- Approaching physical water scarcity**
More than 60% of river flow is extracted. These areas will experience physical water scarcity in the near future
- Economic water scarcity**
Limited access to water even though natural local supplies are available to meet human demands. Less than 25% of water extracted for human needs
- Little or no water scarcity**
Abundant water resources relative to use, with less than 25% of water extracted for human purposes
- Not estimated**



Fundraising

Potential Sources of Funding

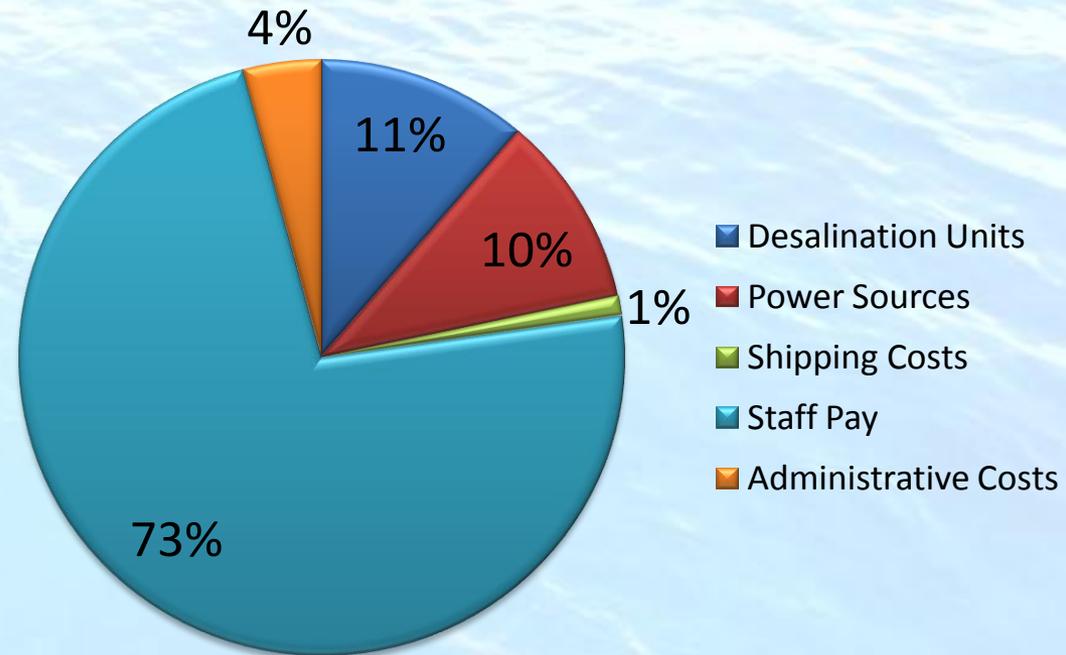
- Outside funding
- Grants
- Foundations
- Corporations
- Individuals



Finances

- Known Costs
- Prototype
- Staff Pay

Expenses



First Year Projections

First Fiscal Year Projections	
REVENUE AND SUPPORT	
Foundations and Trusts	\$185,000
Grants	\$25,000
Fundraising Events	\$2,000
Corporations	\$35,000
Individuals Donations	\$3,000
TOTAL REVENUE AND SUPPORT	<u>\$250,000</u>
OPERATING EXPENSES	
Desalination Units	(\$27,000)
Power Sources	(\$25,000)
Shipping & Installation	(\$5,500)
SUPPORT EXPENSES	
Staff Pay	(\$175,000)
Administrative Costs	(\$10,000)
TOTAL EXPENSES	<u>(\$242,500)</u>
NET ASSETS	<u><u>\$7,500</u></u>

Risk Factors

- **Political and Social Instability**
- **Funding Shortfall**
- **Power Source Reliability**
- **Quality of RO Unit**
- **Theft**

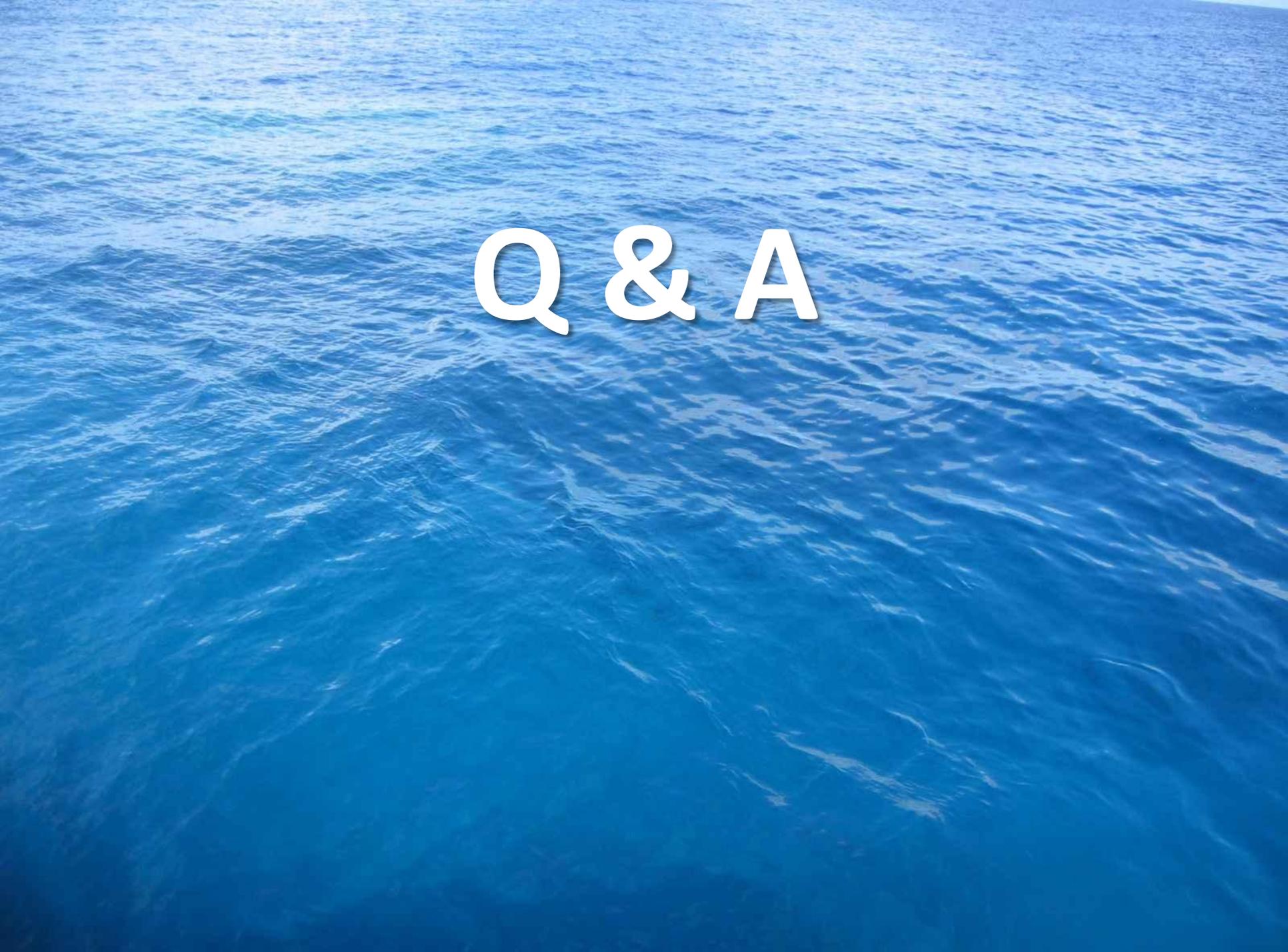
Thoughts for the Future

Desired Impact

- Improved Quality of Life
- Encourage Economic Growth
- Stability

Future Recommendations

- Continue this ENPRO
- Further research
- Improve business model

An aerial photograph of the ocean, showing a vast expanse of blue water with numerous small, rhythmic ripples across the surface. The color of the water transitions from a lighter, turquoise blue in the upper portion to a deeper, more saturated blue towards the bottom. The overall texture is that of a calm but slightly choppy sea.

Q & A