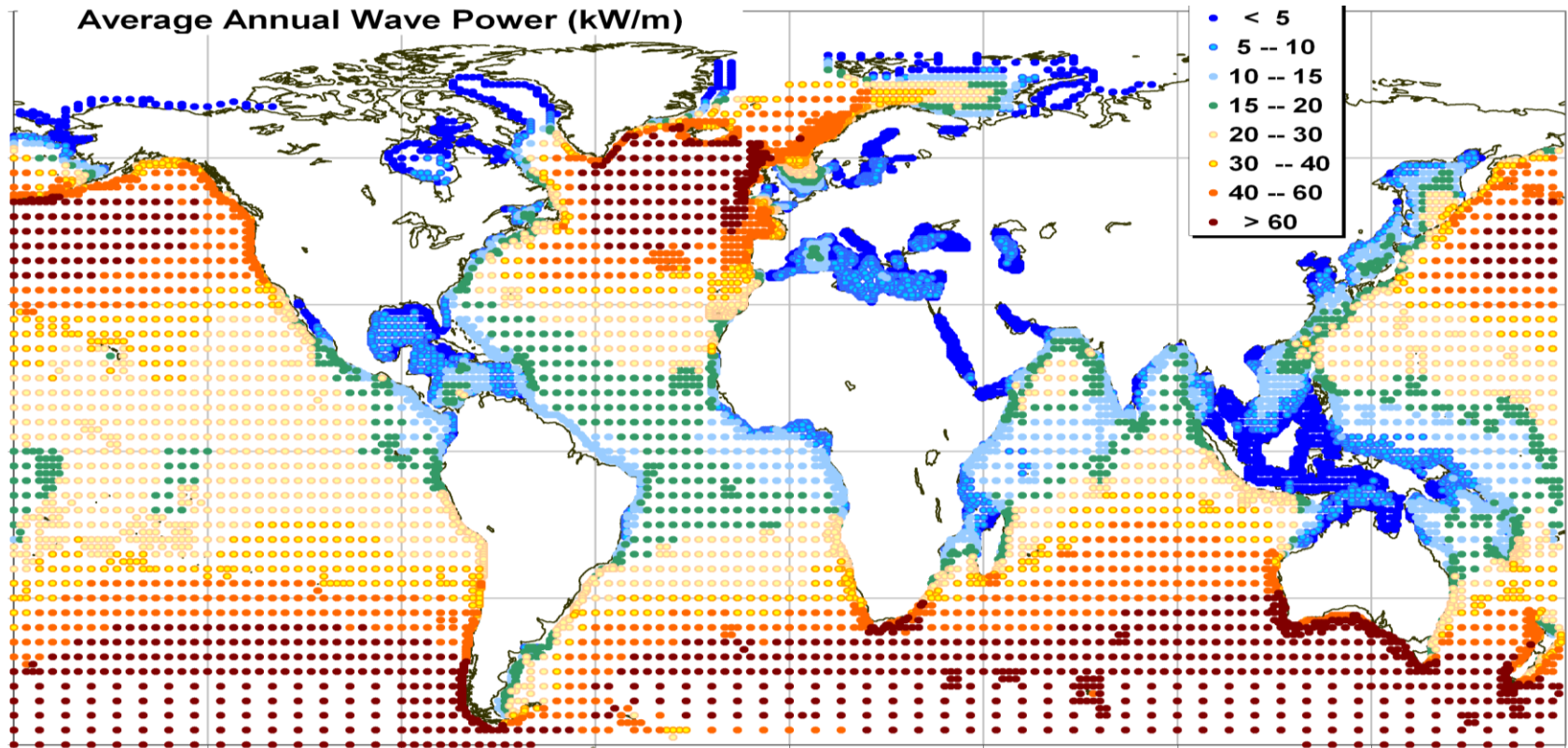




RICHARD YEMM
Chief Technology Officer
Pelamis Wave Power Ltd.

Stanford School of Engineering
May 4 2009

Wave Energy – why?



- Resource is enormous
- Most 'dense' renewable resource
- 'Out of sight & out of mind'
- Renewables needs 'options'...
- Dependable & forecastable
- Aggregation with wind => good

PELAMIS – Business Overview

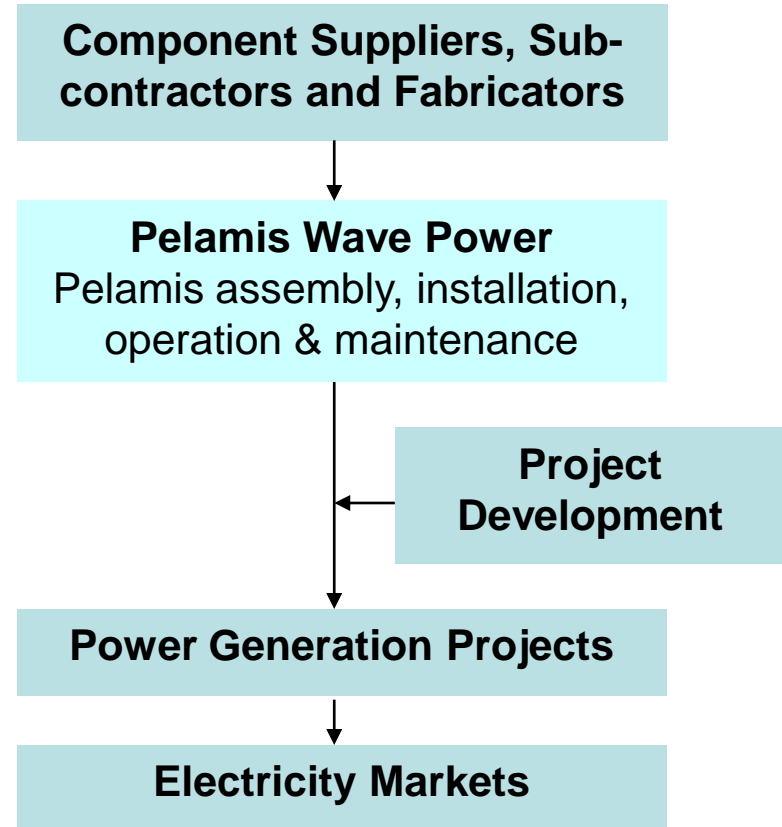
Industry standard model



- Technology provider
- Model adopted across power sector
- Proven through wind industry success

Business & finance

- Incorporated January 1998
- Private - UK Limited Company
- Currently 78 staff
- ~\$0.75m seed from 'friends & family', Angel
- ~\$12.5m first stage VC 2002
- ~\$60m since in 3 rounds
- 2 commercial contracts to date, ~\$15m



Proven, accepted, financeable business model...

Pelamis WEC technology - USPs

- Offshore deployment
- Non-site specific
- Inherent survivability - CRITICAL
- 3 x power/tonne of competitors
- Available technology
- Designed to DNV standards
- Patented core technology, all key know-how in-house
- Acknowledged market leader
- Forecastable output
- Negligible visual intrusion
- Minimal environmental impact
- Minimum on-site construction work
- Off-site maintenance



Breakthrough technology with unique competitive advantages

Wave Energy – where have we got to?

- We have come a long way in 11 years...!!!
- Significant Venture Capital now engaged in sector
- We are at the stage of proving-out the technology:
 - Prototype and now pre-commercial machines
 - Manufacturing and supply chain development
 - Project infrastructure
 - Operational procedures
- We are putting in place industry design, performance & operational standards and best practices
- We have gained credibility, and the interest of energy sector

But... we have not proven full commercial operation yet

FROM THIS....



TO THIS....































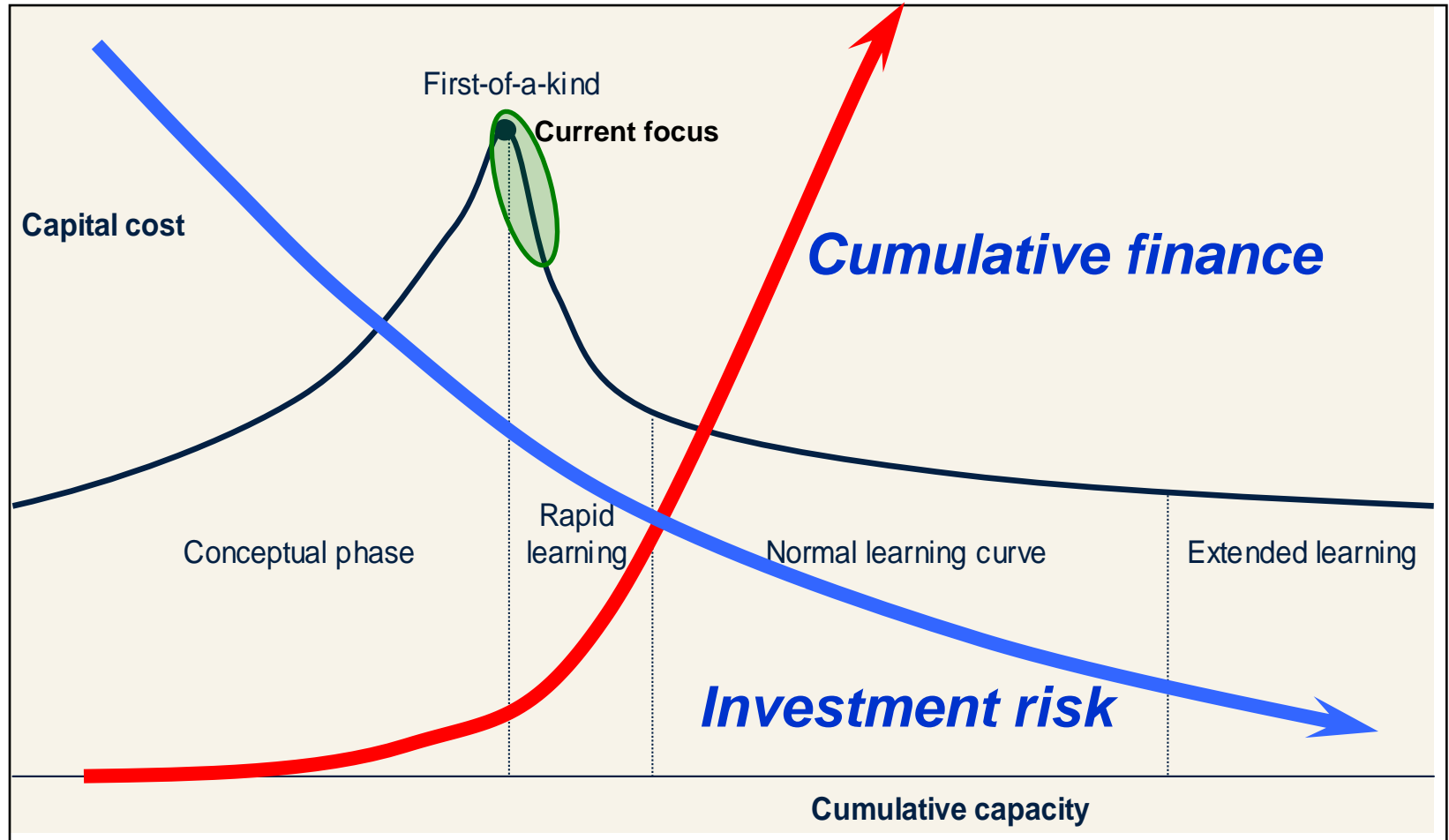


PELAMIS - Status

- 'P1', first generation technology demonstrated:
 - 4 x 750kW machines built/installed
 - All related wave farm infrastructure, operational procedures, SCADA systems etc proven
 - P1 machines have some limitations in terms of performance & reliability
 - 'First-of-kind' project costs fully defined
 - Lessons learnt captured & fed into onward programme
- 'P2', second-generation machine currently in build:
 - Range of advances & improvements from R&D plus experience
 - Approaching double annual yield for similar cost
 - First machine currently being built under contract to E.on, launch schedule for Q2 2010

CONCLUSION: First technology-cycle complete, P2 will be platform for commercial roll-out

Wave Energy – costs



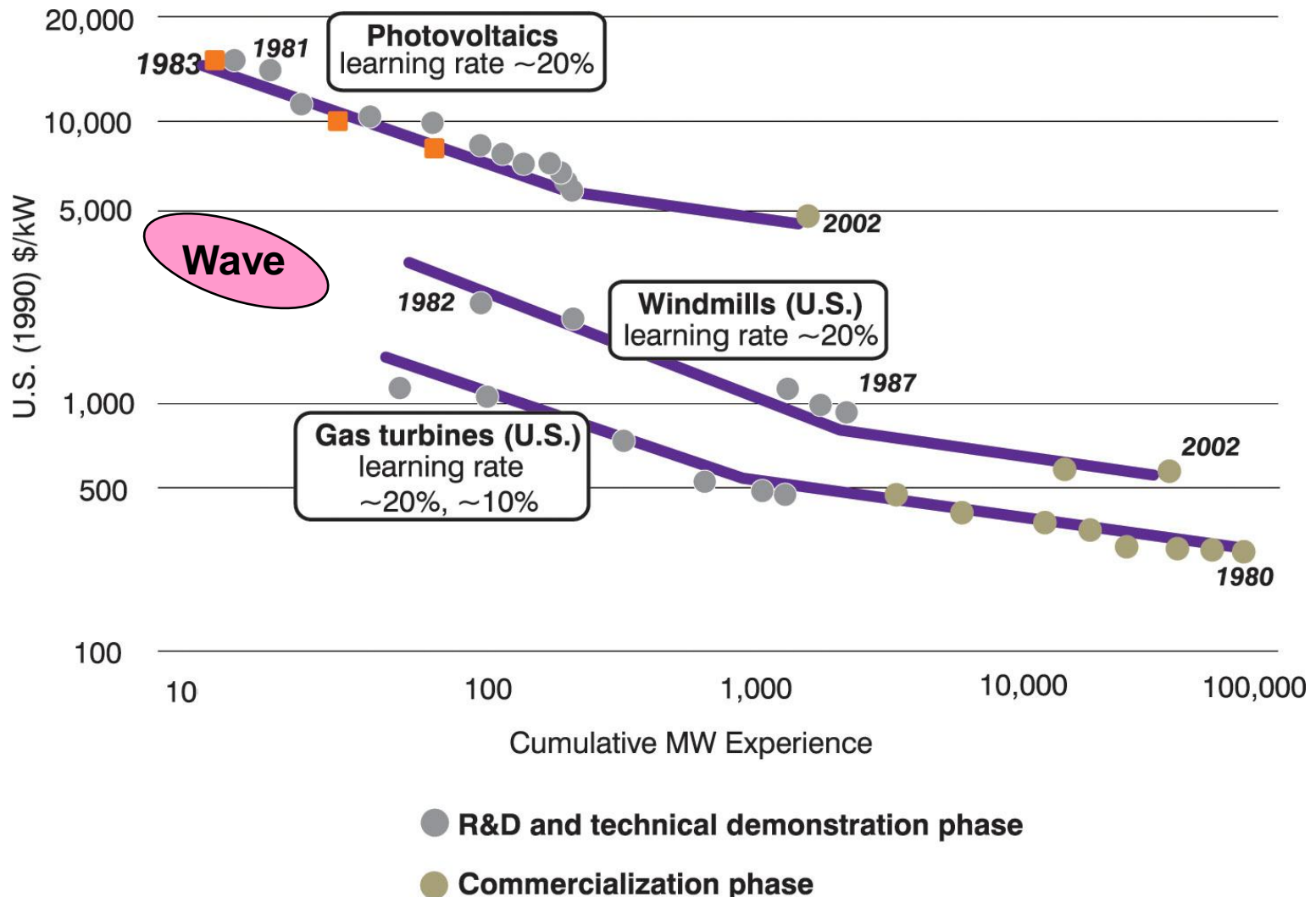
Wave Energy – parallels with wind

The wind industry..... 1980s



- *Fully converged & consolidated...*
- *Into mainstream global roll-out*
- *Delivered by solid policy actions in EU*

Wave Energy – costs & cost reduction



Status of Markets – EUROPE

- Many initiatives have come through specific lobbying at National level
- Scotland has led this with:
 - Saltire prize – (c.f. 'X Prize'), ~\$15m for first commercial demonstration project
 - EMEC test centre – 4 berth all inclusive test site for prototypes
 - WATES grant scheme – 40% grant plus 5 years of revenue support at 15\$/kWh for prototype & pilot demos
 - Feeder market support – 35-40\$/kWh for pre-commercial/commercial projects
 - Planning & regulatory framework - First Marine SEA, spatial planning etc
 - Licencing – first managed sea bed licencing programme in process
- Attractive schemes also in Portugal, Ireland etc
- R&D support from European Union
- Many other countries assessing options

CONCLUSION: EUROPE IS LEADING WITH POLICY & ACTIVITY

Status of Markets – UNITED STATES

- Lots of interest, enthusiasm & activity in various States
- West Coast leading as resource & renewables focus higher
- Wave energy eligible for tax credit, levels & timescale insufficient
- Initial permitting requests/exercises in process – complex
- Various RFPs & grants schemes at Federal (+1 State) level
- Various companies active in US
- At a state level (CA, OR, WA) there are significant individual programmes & initiatives, but little sign of a holistic coordinated plan so far
- Little concerted or coordinated action at a Federal level, there is a need to move to push this up the policy priority list

**CONCLUSION: COORDINATED ACTION WITHIN US ESSENTIAL
TO MOVE FORWARD STRONGLY**

What are Key Industry Issues?

- Stepping to the next level of funding for technologies & projects...
 - Private Investment
 - Grants
 - Feeder markets
- Key issues – scale of finance required, perceived risks & time to return
- Achieving industry convergence/consolidation
- Absence of clear National & Regional objectives & targets
- Poor industry coordination in some areas

CONCLUSION: UNLOCKING FINANCE KEY TO SECTOR SUCCESS

What should Industry & Government do?

- Significantly raise the profile of the sector in forward thinking to enhance investor & customer confidence
- Move strongly to drive technology demonstration, refinement and early roll-out in key first-mover markets:
 - Address sector risk profile efficiently
 - Learning from / mirroring experience of wind, oil & gas industries and other heavy industrial technologies
 - Build solid domestic technology and industry base(s) in first mover markets before taking technology global
- Move strongly to lobby for holistic policy initiatives at US Federal level to provide solid and consistent investment, development and deployment platform

Above all else: *CREATE A SOLID PLATFORM FOR PRIVATE SECTOR TO DELIVER!*



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May 2009

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