



# Business and Knowledge Networks between Universities, Public Agencies, and Firms: Case Studies in South Wales

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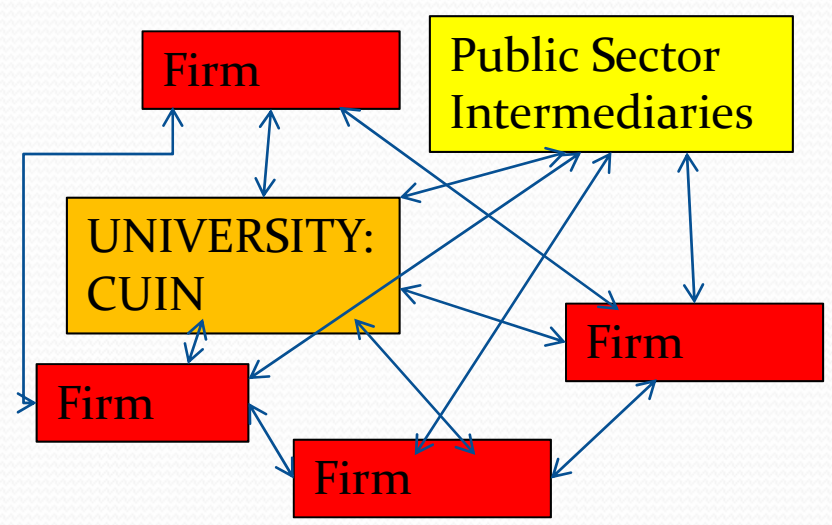
## Networks and Contexts

Networks of firms; University; Public Sector agencies  
Roles; Engagement; Collaboration

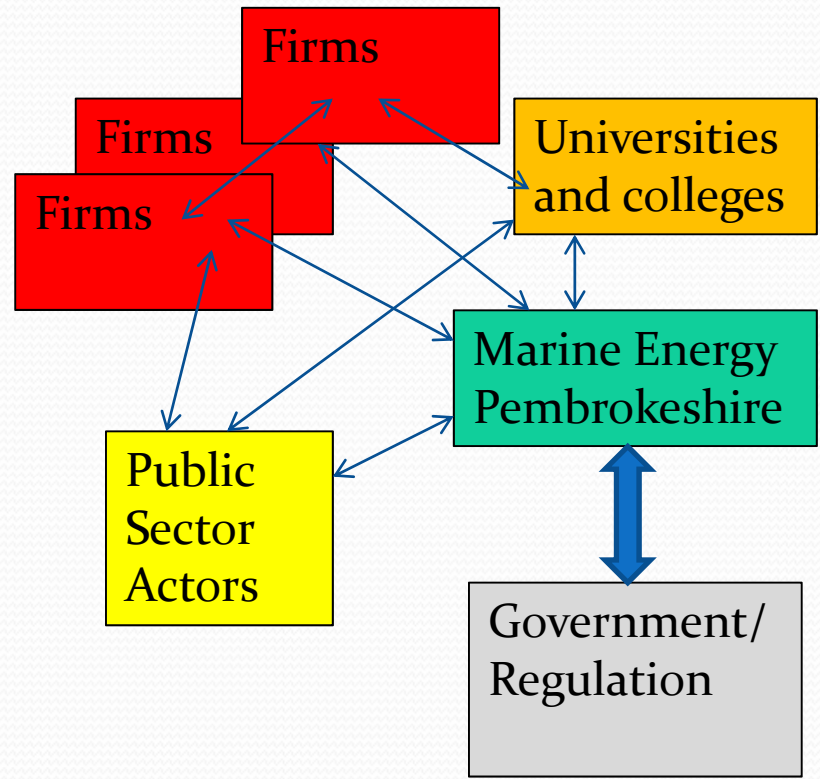
Two networks examined in terms of:

- operation/activity of the network
- types of network members and interactions
- diversity of actors
- stage of network development
- types of knowledge exchanged
- role of network in stimulating knowledge exchange
- added value to firms/actors
- extent of stimulus to wider efforts of collaboration or innovation
- modes of knowledge exchange

# Case Study Networks



Cardiff University  
Innovation Network  
CUIN



Marine Energy  
Pembroke  
MEP



## Territorial context for the MEP



Map Source: walesdirectory.co.uk

### **Pembrokeshire**

Population: 120,000 (2009)

West Wales and the Valleys European  
Convergence area : low GVA

Agriculture and Tourism

Energy Industries:

Port and Refinery for Oil & Natural  
Gas;

Wind; Marine

Maritime/Port activities

UK Coastal National Park

Special Area of Conservation (EU  
Habitat Directive)

## MEP: Marine Energy Pembrokeshire

- **objectives:** develop marine energy; maximise the area's maritime assets; diversify the economic base
- established in 2010: Welsh Government, Pembrokeshire Coastal Forum leading to the MEP
- chaired by a member of Marine Energy Research Group Swansea University
- no membership fees
- funding from WG; Pembrokeshire Coast National Park Authority; County Council; CCW; Crown Estates
- initial budget of £10k raised to £20k for 2011-14



## MEP Membership and Structure

- mix of private sector companies; public sector organisations; College of Further Education; voluntary body
- no Universities are formal members (research interests)
- Countryside Commission for Wales; Pembrokeshire Coast National Park Authority attend as observers – avoiding potential conflicts with statutory functions
- relatively loose concept of membership: a collaborative network organisation rather than a membership organisation
- “Members of the Group are self-nominated according to their knowledge, influence, skills and enthusiasm to progress this agenda in Pembrokeshire and *their willingness to work together collectively for the benefit of all*” (MEP Progress Report *Emphasis added*).

# MEP Membership 2011

<i>Organisation</i>	<i>Sector</i>	<i>Role</i>	<i>Geographical</i>
Countryside Commission for Wales*	Public	Advisory (Observer)	Wales
Welsh Assembly Government	Public	National authority	Wales
Pembrokeshire Coast National Park Authority*	Public	Public authority (Observer)	Local
Pembrokeshire County Council	Public	Public authority	Local
Pembrokeshire Coastal Forum	Network	Advisory	Local
Marine Energy Task Group	Network	Advisory	Wales
Milford Haven Port Authority	Private	Port operator	Local
Tidal Energy Ltd	Private	Developer	UK
Marine Energy Ltd	Private	Developer	UK
Far Offshore Renewables	Private	Developer	UK
Wave Dragon	Private	Developer	UK
E-ON	Private	Energy Utility Company	UK
Pembrokeshire College	Education	Skills provision	Local

## MEP Activity: traditional networking

- series of regular **meetings** to:
  - share information on current activities
  - discuss common problems
  - barriers to development and possible solutions
  - external speakers on technical and regulatory aspects
- web-site; monthly e-news bulletin; contacts database
- annual **conference**
- information dissemination and awareness raising to:
  - public; developers; supply chain; strategic bodies
-



## MEP Value: members' evaluation

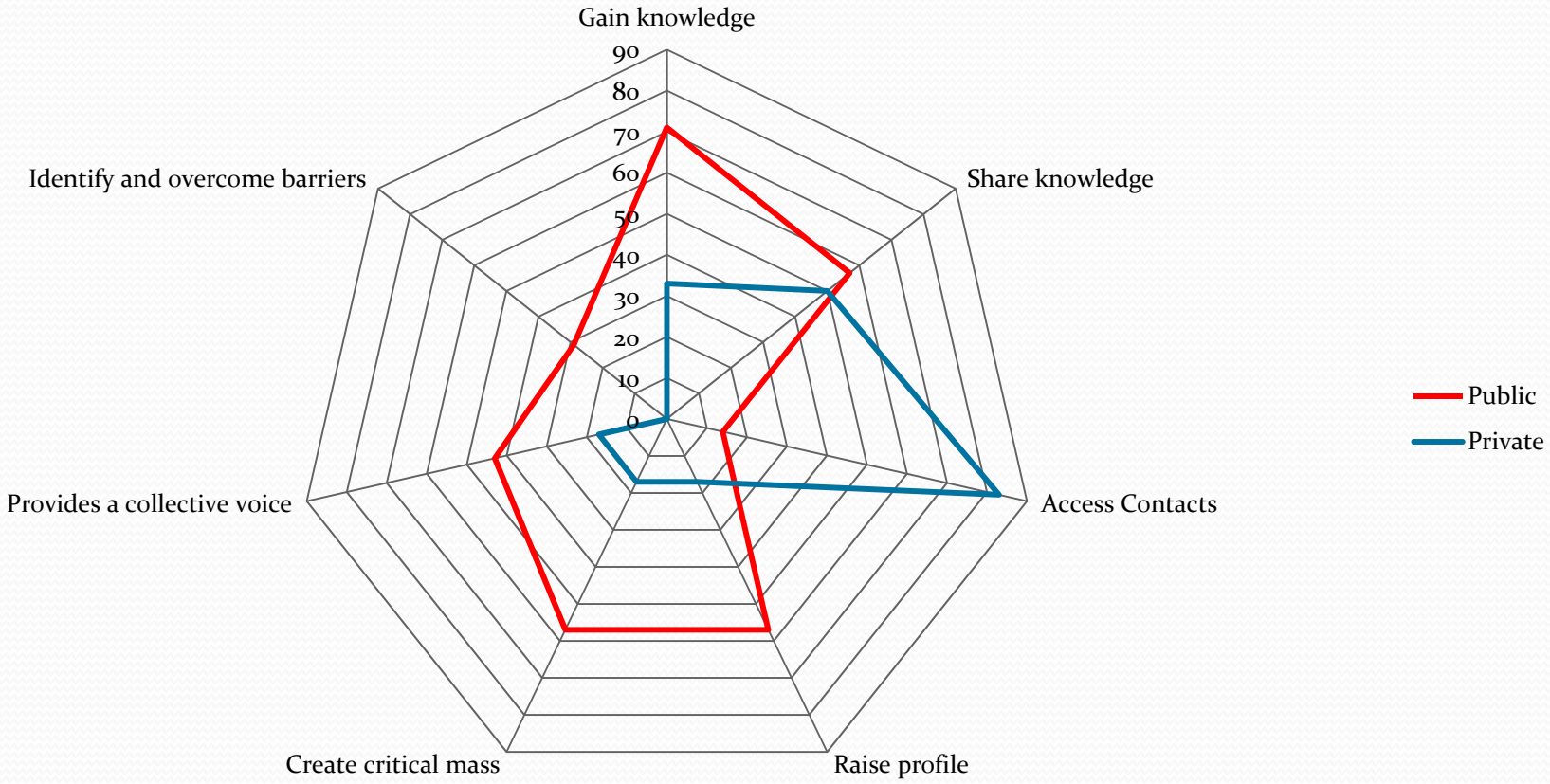
- make informal **connections**; **ease** formal engagements
- raise **profiles**; act as a **collective** voice
- **mechanism** to identify and overcome barriers to nascent industry
- **circulate** knowledge from other networks
  
- fills a gap: no other **ways** of gaining knowledge available
- reduces **costs** of knowledge acquisition

## MEP Value: members' comments

- industry at the stage where “...everyone benefits from talking with each other”
- public sector: strong belief that the sharing of information provided long-term benefits to all parties
- acts as a major focus: “...pretty much everyone uses it and everyone we need to deal with is in there”
- very useful focus for companies outside the geographic area/ have strong technical knowledge but limited institutional contacts/or are very small
- a useful filtering mechanism (for public sector): serious actors/ credibility



# MEP: Network Benefits: Public and Private sector perspectives (%)





## Value of MEP

- **public sector** – identify greater range of network benefits than do private sector members (not related to scale of benefits) and opportunity to gain and share knowledge particularly significant
- **private sector**: access to key contacts
- significant **differences** in the value of the network between public and private sector members that reflect:
  - the primary focus of different types of network members
  - different knowledge resources of members
  - different contributions of members

## MEP as an Actor

- interaction with other networks: wider web of network connections of each of the individual members
- contact with Marine Energy Task Group for Wales (2008)
  - over 50 member organisations from industry, government, and environmental groups
- interaction with university-based Low Carbon Research Institute formed (2010)
  - marine energy as one of five focal areas
  - leading academic resources in a common research body.
- member of government Energy Sector Workforce Development Group
- working with International Business Wales to promote FDI



## MEP: limits to the network

- private sector least likely to attend meetings: public sector are core members
- no evidence of extensive network-based activity or collaboration occurring outside of the meetings, conference and website
- no use of social or professional media to maintain network relations e.g. no LinkedIn Group; no Facebook page - new social media not a significant means of maintaining network ties and linkages



# CUIN: Cardiff University Innovation Network



Map Source: walesdirectory.co.uk

## Cardiff

Population: ~ 341,000 (2010)

~ 1.3m within 50km radius

Average/ above average UK GVA

Diversified Economy:

Administration

Education

Services

Finance

Manufacturing

3 Universities

## CUIN: Cardiff University Innovation Network

- established in 1996 by Cardiff University to:
  - “.....develop a stronger network of links between industry and academia in order to enhance innovation – the successful commercial implementation of ideas.”
- similar networks in other parts of UK: endorsed by government policies (e.g. Lambert Review of Business-University Collaboration, 2003)
- general government aims include:
  - “...boosting the demand for research from business, rather (than) in increasing the supply of ideas and services from universities“
- other University–industry links e.g.:
  - ASTUTE; Manufacturing Engineering Centre; Knowledge Transfer Partnerships; Knowledge Economy Skills Partnerships; Spin Out support



## CUIN: Rationale

- to **facilitate** knowledge exchange
- provide opportunities for Business -Business and Business - University **links** across technical and business disciplines
- provide means by which University skills and Know-How can be **applied** to problems in industry
- to raise **awareness** of support mechanisms for industry



## CUIN Structure

- secretariat provided by University Division
- membership and events incur no cost
- open membership : from business, industry, finance and academia
- membership totals:
  - 889 institutions
  - 1,624 individuals
  - ~ 20% employed by Cardiff University

## CUIN Membership

Type of Member	<i>Individuals</i>		<i>Institutions</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Private sector	981	60	753	85
Public sector/ intermediary	262	16	108	12
Cardiff University	329	20	1	-
Academic (non CU)	52	3	27	3
<b>Total</b>	<b>1624</b>		<b>889</b>	



## CUIN Activity: events based

- regular free events -broad range of innovation themes
- an annual 'marketplace' event which features one-to-one meetings alongside speakers and workshops
- dedicated email address and problem solving service

2009 and 2010:

- 185 individual businesses at events i.e.~ 4-500 individual members (~ 200 new to the network )
- ~ 30% of individual members attend meetings in any one year
- ~ 30% attendees not members of CUIN
- ~ 100 individuals, from 70 institutions attended three or more of 14 events

## CUIN: modes of knowledge exchange

- **events** as:
  - a gateway to knowledge about specific themes
  - networking opportunities
- developing **social media** to explore opportunities for engagement:
  - Facebook and LinkedIn
  - LinkedIn used by about 25% members; 25 new members
  - reaching new and more diverse audiences
  - apparent **change** in pattern and nature of network/communication activities of collaboration
  - more links - but more superficial interaction and depth?



## CUIN Value: members' comments

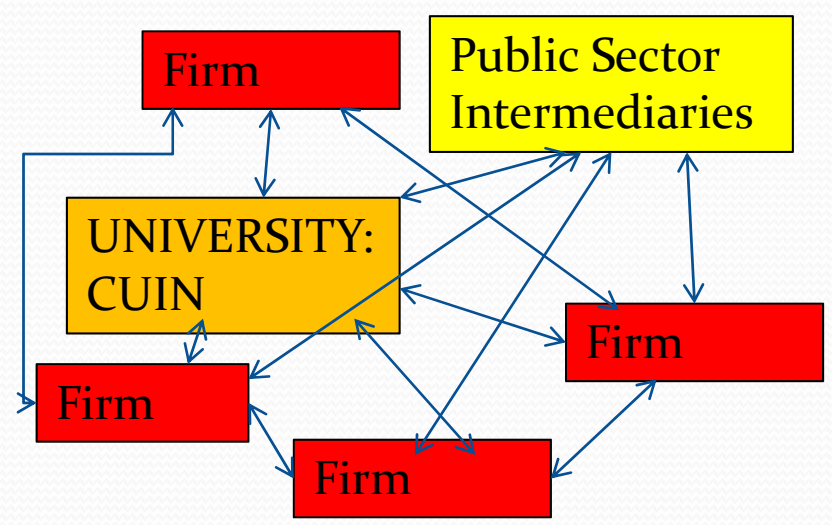
- knowledge **dissemination**:
  - cutting edge information in open meetings
  - information not normally accessible by attendee job roles
  - good presentation of good quality information
  - compares well with other seminar series/ conferences/ network
- strong **business** networking opportunities:
  - promotion of firm/ profile building
  - sales/ procurement opportunities
  - no network or social media overkill/ saturation
- **personal** networking
  - similar goals; outlook or experience
  - monitoring activity in other firms/ research
- medium - long term networking **perspectives**: often 2 years before payoff

## CUIN: network limitations

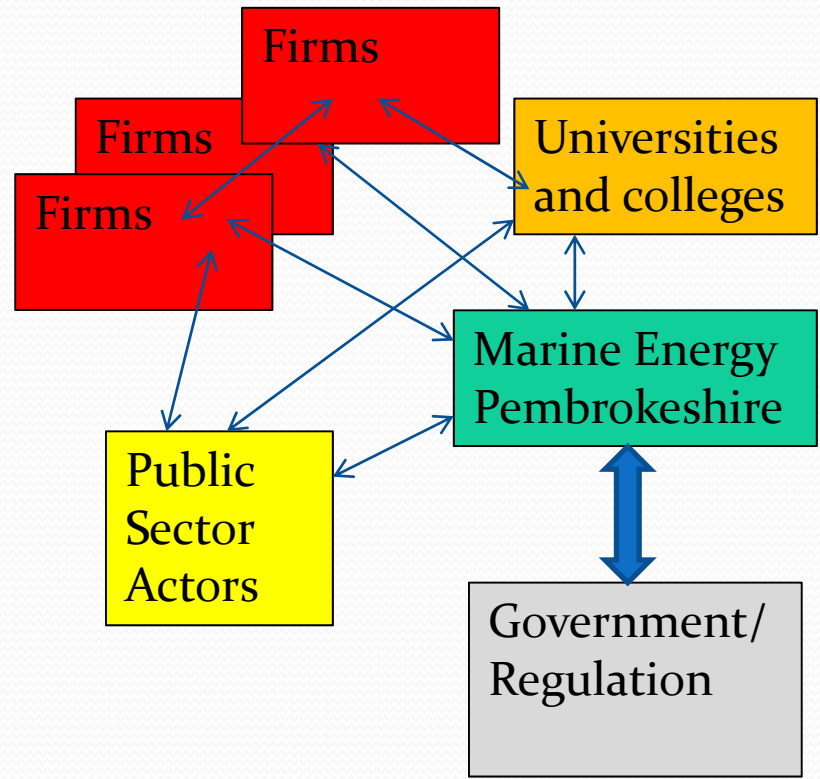
- business vs. knowledge exchange
  - information sharing on business level not technical knowledge exchange
  - business networking activity edging out knowledge exchange/ collaboration
  - most of the valuable information derived from CUIN facilitator/ university not fellow members
- collaboration
  - low levels of collaborative activity between members
  - collaborative links with the University and other CUIN business members not developed via CUIN
  - secondary value of CUIN in fostering links between the University and private enterprises
- social media channels under-promoted



# Case Study Networks



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Pembroke  
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## Concluding remarks: contrasting networks

MEP	CUIN
public sector actors are central and active- good institutional engagement	private sector focus – university as major institutional player
collaborative network organisation	informal and loose networking space
a well defined collective goal – main focus of substantive sector development	a broad diffuse agenda – operating within diverse context of linkages and interactions
knowledge network stimulating exchange of knowledge	knowledge centred network but business networking as important as technical knowledge exchange
currently traditional modes of interaction	exploring / developing new ways of encouraging interaction



## Concluding remarks

- the two case studies demonstrate networks **differentiated** in terms of:
  - the network's and member's roles and objectives
  - membership type, modes and levels of interaction
  - structure and objectives materially affect network operation
- further more **fine** grained study to examine e.g.
  - **mode** of interaction represented by new social media
  - role of public sector activity and overarching policy landscape
  - further development and encouragement of **collaborative** engagements
- each network is **dynamic** – changes in experience and level of commitment/ type of actor

Thank You