

WP8

Identification of High Potential Combinations

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Presentation Outline

1. BG Combination Selection
 1. Learning
 2. Rating
 3. Selection
 4. Justification
2. Presentation to EC
 1. A+B selections
 2. C Selections
3. Example of a C report



STEP 1.1 Technology Opportunity Reports TOR

- Purpose of TOR:
 - Educate each other consortium partner on:
 - How does the other sector technology work?
 - Are there existing combinations already ?
 - What are the ‘high level’ technical and non-technical barriers possible combinations
 - Used for dissemination and teaching purposes on website

STEP 1.1 RATING each COMBINATION

- 24 Combinations to be selected out of possible 69
- 4 basins
- 6 combinations to be selected PER BASIN
 - Atlantic
 - Baltic/ North Sea
 - Mediterranean
 - Caribbean
- 69 Skype calls between each sector leader

STEP 1.2 RATING each COMBINATION

Rating points based on:

- Technology - 5
- Environment - 5
- Socio-Economic - 5
- Financial - 5
- Commercially Viability - 4

MAXIMUM RATING - 24





	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Below you will find 4 matrices that reflect the possible combinations														
2	MARIBE will rate for the Atlantic Basin . Each matrix has a specific focus,														
3	technical, socio-economic, financial, environmental rating.														
4	Please rate each combination between 0-5 under the first three														
5	headings.														
6	0 - No potential														
7	1 - Very limited potential														
8	2 - Limited potential														
9	3 - Some potential														
10	4 - Good potential														

Atlantic Basin - Technical Rating														
	Wave	Tidal	Tidal Lagoon	Desalination	Offshore Wi	Offshore Wind	Aquaculture	Biotechnology	Seabed Mining C	Offshore fixed term	Toursim	Oil & Gas	Fisheries	
Wave		3	0	4	4	5	5		2	4	3	4	3	
Tidal			0		3	3	4			3	2	1	2	
Tidal Lagoon				4	5		4				5			
Desalination					4	3	2	4	4	4	5	4	4	
Offshore Wind fixed										3				
Offshore Wind floating										3				
Aquaculture														
Biotechnology														
Seabed Mining Offshore														
Offshore fixed terminal											4	5		
Toursim														
Oil & Gas														
Fisheries														

Atlantic Basin - Socio-economic rating														
	Wave	Tidal	Tidal Lagoon	Desalination	Offshore Wi	Offshore Wind	Aquaculture	Biotechnology	Seabed Mining C	Offshore fixed term	Toursim	Oil & Gas	Fisheries	
Wave		3	0	3	5	5	5		4	3	3	4	3	
Tidal			0		4	3	4			2	2	4	3	
Tidal Lagoon				0	5		5				5			
Desalination					1	1	3	3	3	4	4	5	3	
Offshore Wind fixed														
Offshore Wind floating														
Aquaculture														
Biotechnology														
Seabed Mining Offshore														
Offshore fixed terminal											2	4		
Toursim														

and

92	1 - Commercially viable in 10-20 years														
93	2 - Commercially viable in 5-10 years														
94	3 - Commercially viable in 1-5 years														
95	4 - Already commercially viable														
96															
97															
98															

Atlantic Basin - Short or Long Term Commercial Viability													
	Wave	Tidal	Tidal Lagoon	Desalination	Offshore Wi	Offshore Wind	Aquaculture	Biotechnology	Seabed Mining C	Offshore fixed tern	Toursim	Oil & Gas	Fisheries
101	Wave		1	0	3	2	1	1		1	1	2	2
102	Tidal		0		2	1	2			1	2	1	2
103	Tidal Lagoon			3	3		3				3		
104	Desalination				3	2	3	3	3	3	3	3	3
105	Offshore Wind fixed												
106	Offshore Wind floating												
107	Aquaculture												
108	Biotechnology												
109	Seabed Mining Offshore												
110	Offshore fixed terminal										3	4	
111	Toursim												
112	Oil & Gas												
113	Fisheries												

Atlantic Basin - Final Score													
	Wave	Tidal	Tidal Lagoon	Desalination	Offshore Wi	Offshore Wind	Aquaculture	Biotechnology	Seabed Mining C	Offshore fixed tern	Toursim	Oil & Gas	Fisheries
120	Wave	14	0	17	19	19	21	0	14	16	13	19	17
121	Tidal		0	0	15	13	19	0	0	0	15	11	16
122	Tidal Lagoon			12	19	0	20	0	0	0	21	0	0
123	Desalination				12	9	11	0	0	16	17	20	13
124	Offshore Wind fixed					0	19	0	0	18	17	20	0
125	Offshore Wind floating						17	0	13	19	14	20	0
126	Aquaculture							13	9	24	18	19	23
127	Biotechnology								0	0	0	0	0
128	Seabed Mining Offshore									0	6	0	0
129	Offshore fixed terminal										16	21	0
130	Tourism											0	0
131	Oil & Gas												0
132	Fisheries												



STEP 1.2**RATING each COMBINATION**
Extra considerations in top 24

1. Oceans of Tomorrow projects needed to be incorporated
2. One Biotechnology in list
3. One Sea Bed mining in list
4. Consider Solar PV
5. Late additions:
 1. Tidal lagoon
 2. Desalination
 3. Fisheries: re-added.

- ◆ 24 combinations selected – 6 per basin
- ◆ 24 Justification reports were created, to ‘justify’ the selection to the DG
 - ◆ Technical
 - ◆ Financial
 - ◆ Environmental
 - ◆ Socio-economic
 - ◆ Real case examples or possibilities
- ◆ Examples -
 - ◆ J27, Combination: Aquaculture & Oil and Gas, Basin selected: Mediterranean
 - ◆ J12 Combination: Aquaculture and Wind fixed - Baltic

Presentation to DG on November 24 combinations 12 highest potential and companies

- ◆ Presented plan of 3 levels of project assessment
 - ◆ C combinations: (C reports WP8) 12 combinations with medium potential or long term potential
 - ◆ B combinations (B reports): Maribe selection – originally there were 9
 - ◆ A combinations (A reports) - Originally intended by DG to be Oceans of Tomorrow projects

Step 1.3 BG Combination Selection

	A	B	C	D	E	F	G	H	I	J
1	BLUE GROWTH (BG)	with BG or Blue Economy	Sector Leader Column A: Company or concept A	Sector Leader Column B: Company or concept B	Status A	Status B	TYPE of Concept A	TYPE of Concept B	SCALE A (if incorporates energy)	SCALE B (if incorporates energy)
2	ATLANTIC									
3	Tidal Lagoon	Tourism	Swanswea Bay Tidal Lagoon + Wales Tourism	Swanswea Bay Tidal Lagoon Ltd + ?	single	engage d	Multi-use of space	Multi-use of space		
4	Aquaculture	Wave + Wind	H2Ocean	H2Ocean	single	single	Multi-purpose platform	Multi-purpose platform	Large for export	Large for export
5	Aquaculture	Tidal Lagoon		Swanswea Bay Tidal Lagoon +	engage d	engage d	Multi-use of space	Multi-use of space	Large for export	Large for export
6	Offshore Wind fixed &/or Floating +	Oil & Gas	Talisman Energy + Glostren Associates /	Scottish Southern Energy + Talisman	marrie d	marrie d	Multi-use of space	Multi-use of space	Small autonomous	Small autonomous
7	Wave	Floating Offshore Wind	MARINA, Wave Energy Ireland Ltd, Mainstream, Dong	MARINA	single	single	Multi-purpose platform	Multi-purpose platform	Large for export	Large for export
8	Aquaculture	Biotechnology/Blue Life Sciences	SalMar, Cermaq, Marine Harvest							
9	Wave	Floating Offshore Wind	(Company??)	(Company??)	single	single	purpose	purpose	Large for export	Large for export
10	BALTIC/ North Sea									
11	Aquaculture	Fixed terminal/Shipping								
12	Aquaculture	Wave	Alabatarn+Marine Harvest?	Alabatarn+Marine Harvest?	engage d	engage d	Multi-use of space	Multi-use of space	Small autonomous	Small autonomous
13	Aquaculture	Offshore Wind fixed	High interests in Holland & Gemany for mussel culture		engage d	engage d		Both		Small autonomous
14	Aquaculture	Tourism				single		Multi-use of space		Small autonomous
				A large Dutch Fishing			Multi-use	Multi-use	Large for	Large for

Basin	Sector 1	Sector 2
Caribbean	Aquaculture	Tourism
Caribbean	Wave	Desalination & Tourism
Atlantic	Tidal Lagoon	Tourism & Aquaculture
Atlantic	Offshore Wind fixed &/or Floating + desalination	Oil & Gas
Baltic / North Sea	Aquaculture	Wave
Baltic / North Sea	Aquaculture	Oil & Gas
Caribbean	Aquaculture	Wave
Mediterranean and Black sea	Aquaculture	Tourism
Baltic / North Sea	Aquaculture	Tourism
Baltic / North Sea	Seabed Mining	Fisheries
Atlantic	Aquaculture	Biotechnology/Blue Life Sciences
Mediterranean and Black sea	Offshore Wind fixed	Fisheries
North Sea	Oil & Gas	Floating Offshore Wind

- ◆ **Tourism and Aquaculture**

- ◆ This combination was ranked favourably in all basins,.

- ◆ **Seabed Mining and Fisheries**

- ◆ Trigger highly innovative seabed mining sector with struggling fishing sector.

- ◆ **Tidal Lagoon Tourism/Leisure and Aquaculture**

- ◆ Low cost investment required to start pilot.

- ◆ **Biotechnology and Aquaculture**

- ◆ This combination can increase Europe's local food security

- ◆ **Oil and Gas and Floating Offshore wind**

- ◆ High potential BG combination, difficult company cooperation

C Report Example

Tidal Lagoon, Aquaculture and Tourism

● C3



Thank you

