



REMCAAP Project

Regions of Knowledge

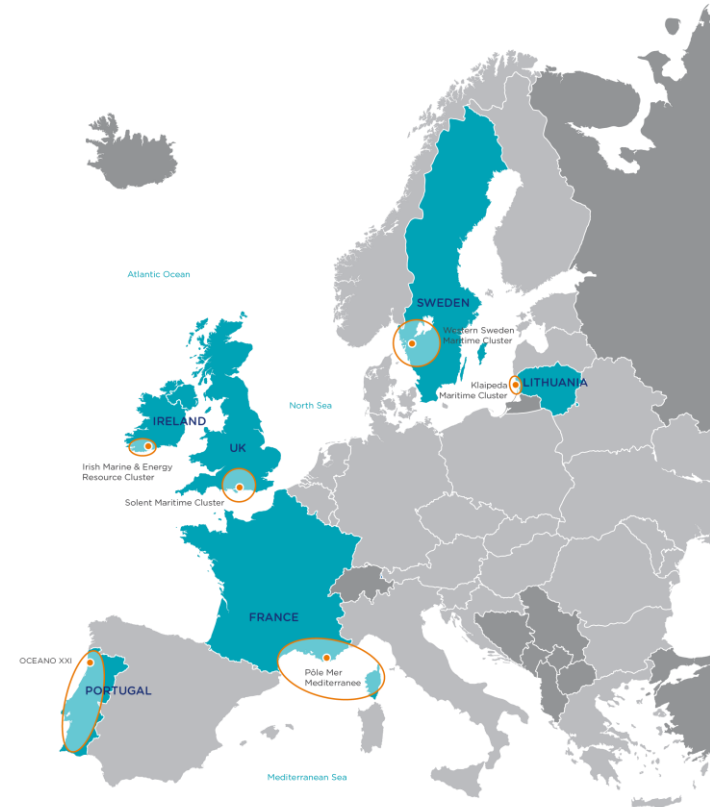
Oceanology International
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Overall REMCAP Project Goals

- Increase pace of innovation in Resource Efficient Maritime CAPacity
- Exploit growing global demand for maritime resources and their efficient extraction
 - Exploit the resulting business & employment opportunities



REMCAP is a Coordination Project funded by the Research DG of the European Commission within the Regions of Knowledge programme of FP7.



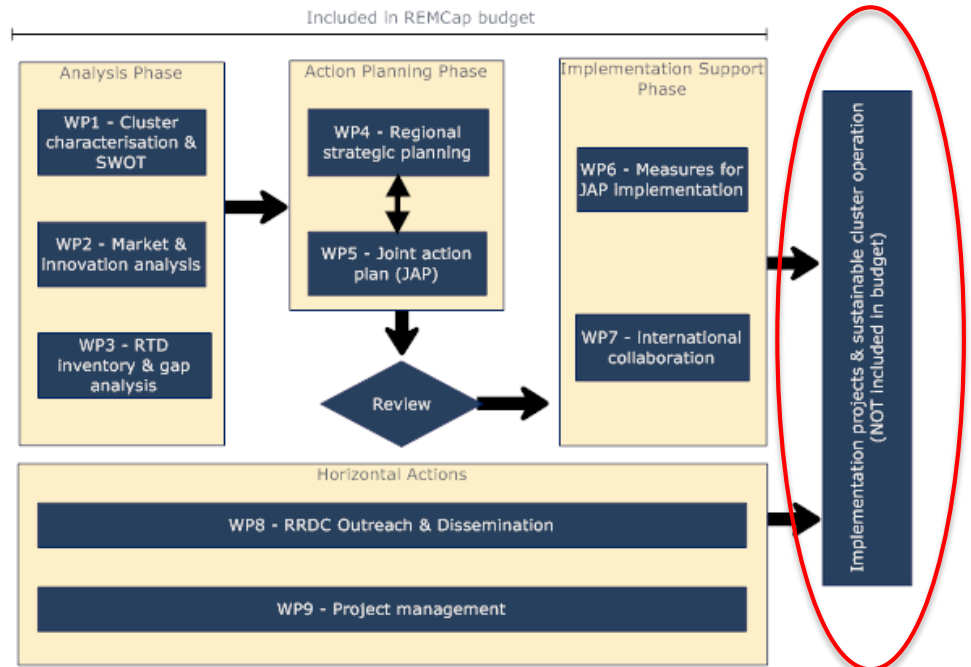
Secondary Objectives

- Substantially increase EU innovation capacity for efficient extraction of marine resources by:
 - Generating information on the market potential and innovation priorities
 - Mapping of the current capabilities relevant to such innovation,
 - Defining action plans to facilitate innovation, and to strengthen regional clusters
 - Enacting measures to implement these action plans



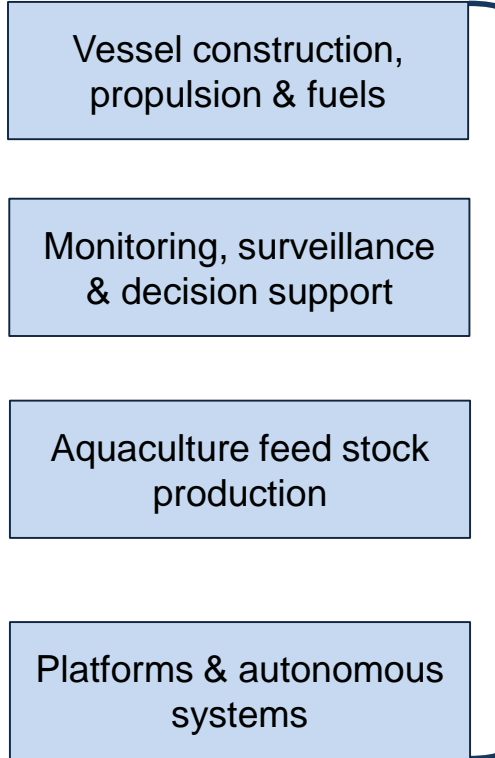
Overall Work Plan & Impacts

- The REMCAP implementation logic will be achieved by 7 work packages in three phases:
 1. Analysis
 2. Definition of action plans
 3. Measures to enable action plan implementationsupported by 2 horizontal work packages.
- At the end of REMCAP, a suite of project and investment propositions should be ready to take forward.

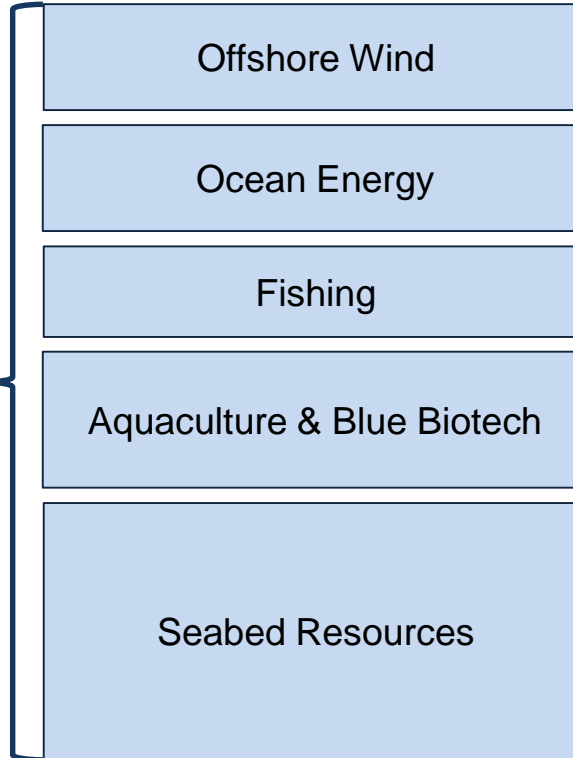


REMCAP focus markets

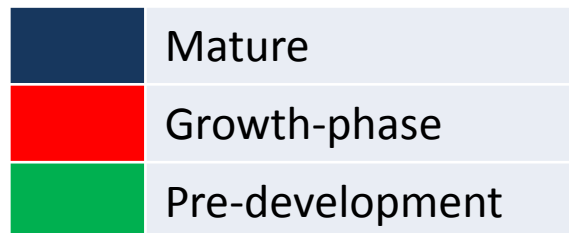
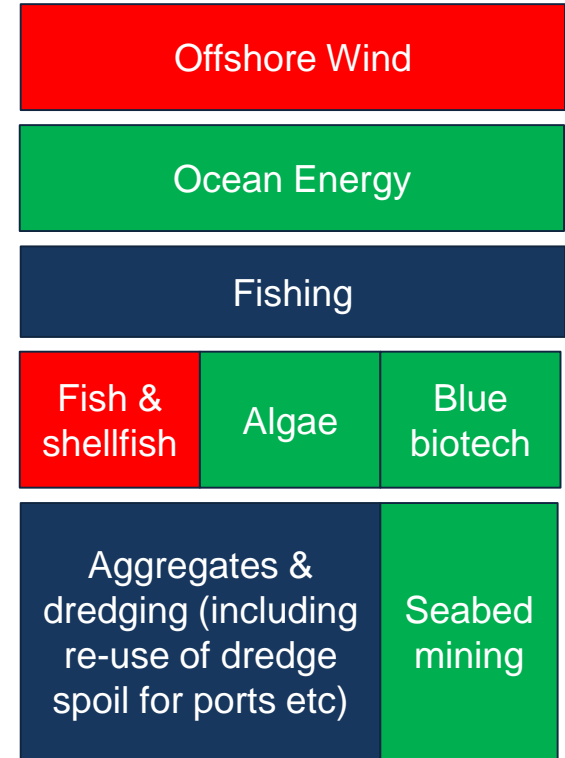
Value-chain markets



Extractive markets (DoW)



Focus markets & status



Part 2

Horizon 2020 Topics



Horizon 2020 Opportunities (1)

Blue Growth	
BG-1	Atlantic marine ecosystems
BG-2	Effects of climate change on fisheries and aquaculture
BG-3	Novel marine biomolecules
BG-4	Potential of derived marine enzymes
BG-5	Preparing for the future innovative offshore economy
BG-6	Delivering the sub-sea technologies for new services at sea
BG-7	Response capacities to oil spills and marine pollutions
BG-8	Developing in-situ Atlantic Ocean Observations

BG9	Acoustic and imaging technologies
BG-10	Consolidating the economic sustainability and competitiveness of European fisheries and aquaculture
BG-11	Dissemination and uptake of marine and maritime research
BG-12	Supporting SME's efforts for the development and deployment and market replication of innovative solutions for blue growth
BG-13	Ocean literacy- engaging with society – social innovation
BG-14	Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance
BG-15	European Polar research cooperation
BG-16	Coordination action in support of the implementation of the Joint Programming Initiative on 'healthy and Productive Seas and Oceans'



Horizon 2020 Opportunities (2)

Low Carbon Energy

LCE 1	New knowledge and technologies
LCE 2	Developing the next generation technologies of renewable electricity and heating/cooling
LCE 3	Demonstration of renewable electricity and heating / cooling technologies
LCE 5	Innovation and technologies for the deployment of meshed off-shore grids
LCE 6	Transmission grid and wholesale market
LCE 7	Distribution grid and retail market
LCE 8	Local / small scale storage
LCE 9	Large scale storage
LCE 10	Next generation technologies for energy storage
LCE 11	Developing next generation technologies for biofuels and sustainable alternative fuels
LCE12	Demonstrating advanced biofuel technologies
LCE 21	Modelling and analyzing the energy system, its transformation and impacts

Mobility for Growth

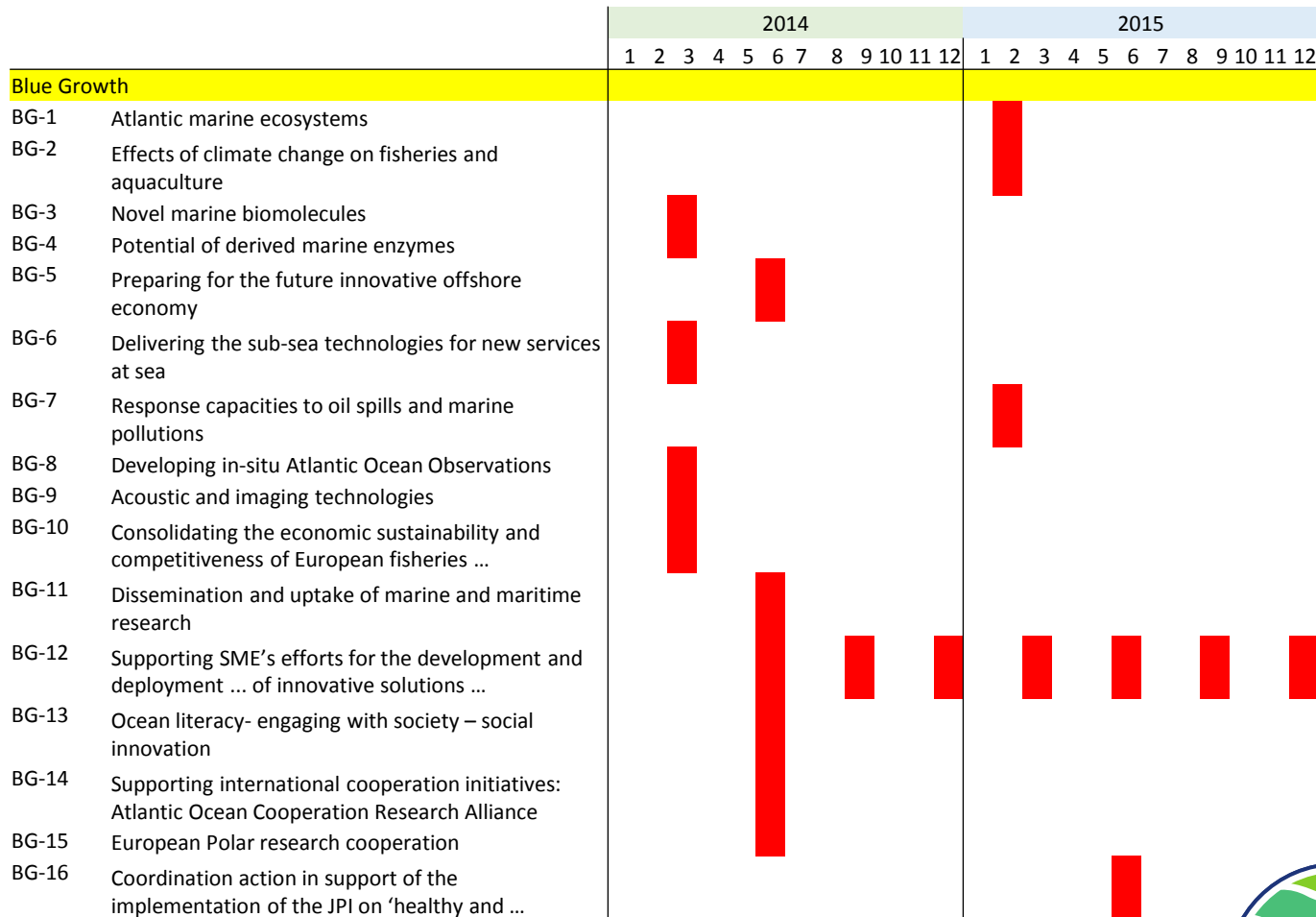
MG4.1	Towards the energy efficient and very-low emission vessel
MG4.2	Safer and more efficient waterborne operations through new technologies and smarter traffic management

Bio-economy

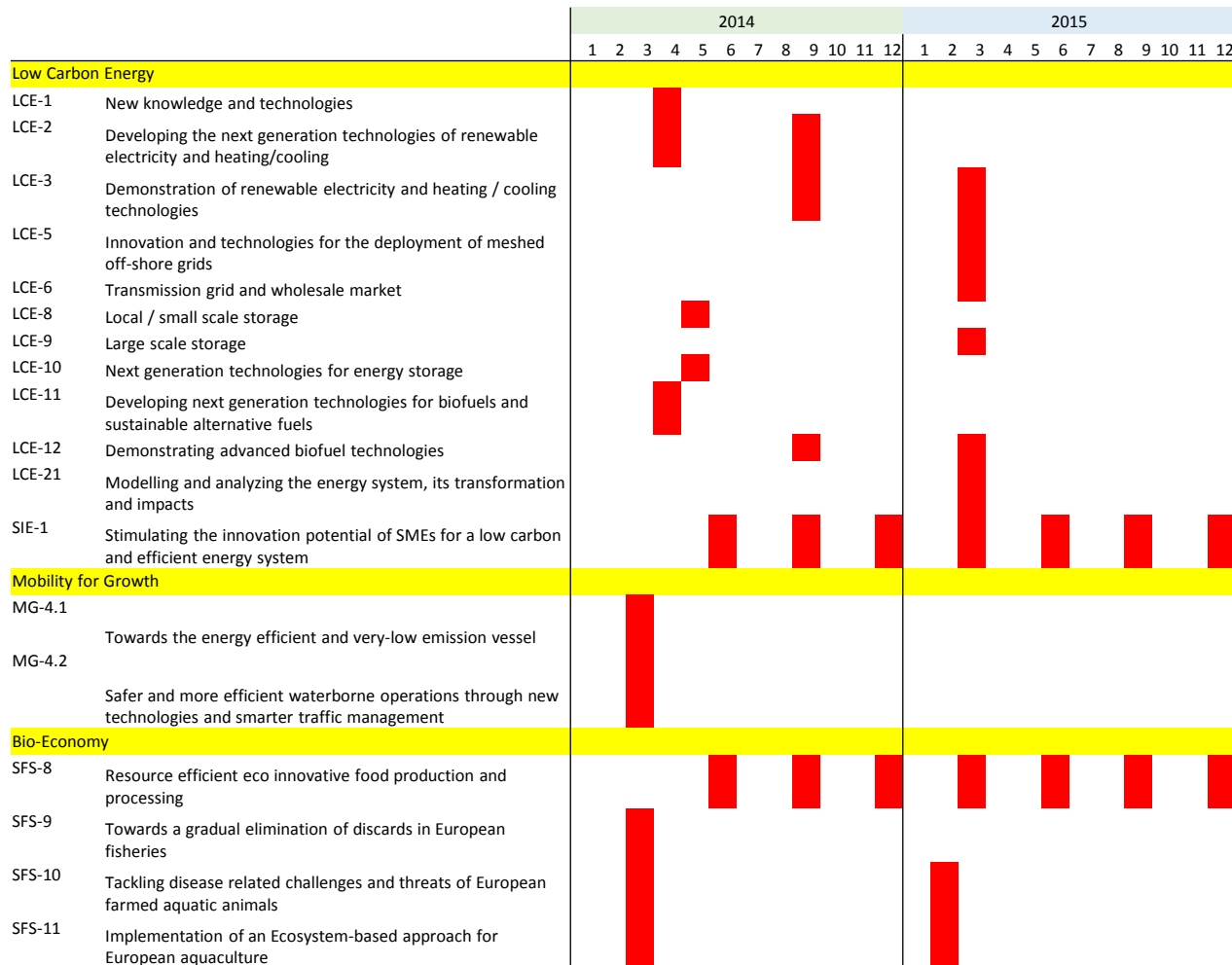
SFS9	Towards a gradual elimination of discards in European fisheries
SFS10	Tackling disease related challenges and threats of European farmed aquatic animals
SFS11	Implementation of an Ecosystem-based approach for European aquaculture



Timeline (1)



Timeline (2)



BG-5

- Preparing for the future innovative offshore economy
- Scope:
 - Proposals should analyse and identify the social and economic developments in the offshore economy and the most promising, environmentally sustainable and economically feasible business models. This should include a review of marine renewable energy farms (both wind and ocean energy), offshore aquaculture facilities, multi-use offshore platforms projects and their business models.
 - Proposals should set-up a mechanism associating key stakeholders interested in the development of the Blue Economy, to:
 - identify the technological, challenges to be overcome to make these business models operational and define a shared research and technology agenda
 - investigate solutions to overcome the non-technological challenges such as the infrastructure and grid development within the relevant EU legislative framework (in particular the maritime spatial planning and existing coastal and planning systems)
 - propose large scale pilot initiative(s) to be launched in European seas which should demonstrate the feasibility of the most promising business models.
- Funding:
 - CSA up to €2M (only 1 project to be funded)
 - Deadline 26 Jun 14



BG-11

- Monitoring, dissemination and uptake of marine and maritime research
- Scope:
 - Proposals should develop a strategy to monitor and identify and select successful marine and maritime research projects in terms of outputs and impacts for the 'Blue Growth' agenda as well as support to the EU Marine Strategy Framework Directive. Projects should cover a wide scope of areas/sectors (environment, biotechnologies, food, transport, energy, ICT, materials, space, security, infrastructures...) including those that are relevant for maritime applications and the Blue Growth.
 - Proposals should cover strategies for exploitation of research results including a targeted dissemination strategy towards key groups of marine/maritime stakeholders, as well as policy makers.
- Proposals & funding:
 - CSA up to €4M (only 1 project to be funded)
 - Deadline 26 Jun 14



BG-14

- Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance
- Scope:
 - Proposals should contribute to implementing the Transatlantic Research Alliance, launched by the Galway Statement on Atlantic Ocean Cooperation in May 2013, and should benefit from the inclusion of partners from the US and Canada.
 - Proposals should underpin the establishment and implementation of the Atlantic Ocean Cooperation between the EU, its Member States and partner countries joining transatlantic research alliance as well as building on existing initiatives and programmes to increase coherence and coordination of ocean research cooperation programmes.
- Funding:
 - Participation is controlled by EC



LCE-2

- Developing the next generation technologies of renewable electricity and heating/cooling
- Scope:
 - Proposals should address one or more of the technology-specific challenges below. They should bring technology solutions to a higher TRL, from TRL 3-4 to 4-5
 - Wind energy: Develop control strategies and innovative substructure concepts (2014) and substantially reduce the costs of wind energy (2015)
 - Ocean energy: Develop emerging designs and components (2014) and ensure efficiency and effective long term cost reduction and high levels of reliability and survivability (2015)
 - An important element for the entire area of renewables will be the need for an increased understanding of risks in each area, risk ownership, and possible risk mitigation.
 - Proposals shall explicitly address performance and cost targets together with relevant key performance indicators, expected impacts, as well as provide for development of explicit exploitation plans.
- Proposals & funding:
 - RIA with €3-6M EU contribution
 - Deadline 3 Sept 14



LCE-12

- **Demonstrating advanced biofuel technologies**
- **Scope:**
 - Proposals should address the medium-term challenges for market penetration of advanced biofuels as presented above. They should bring technology solutions to a higher TRL level in line with the Implementation Plan of the European Industrial Bioenergy Initiative (EIBI). Proposals shall aim at moving technologies that reached already TRL 5-6 to TRL 6-7 through industrial demonstration projects.
 - The following sub-challenges should be addressed:
 - Proving that advanced biofuels and bioenergy carriers technologies are technically viable, environmentally and socially sustainable, and potentially cost-competitive at commercial scale.
 - Developing logistic systems for a sound, safe and sustainable feedstock supply.
 - Testing advanced biofuel technologies at large industrial scale reduces the technological risks, paving the way for subsequent first-of-a-kind, commercial-scale industrial demonstration projects.
- **Proposals & funding:**
 - IA with €5-20M EU contribution
 - Deadlines 10 Sept 14 and 3 Mar 15



SIE-1

- **SME instrument for projects aimed at:**
 - Reducing energy consumption and carbon footprint by smart and sustainable use (including energy-efficient products and services as well as ‘Smart Cities and Communities’),
 - Low-cost, low-carbon electricity supply (including renewable energy as well as CCS and re-use),
 - Alternative fuels and mobile energy sources,
 - A single, smart European electricity grid,
 - New knowledge and technologies, and
 - Robust decision making and public engagement
- **3 phases of support:**
 - Feasibility study, 6 months, €50k lump sum
 - Innovation project + detailed business plan, 1-2 years, €0.5-2.5M
 - Access to finance for implementation of business plan
- **Eligibility & deadlines:**
 - For-profit SMEs singly or in consortium
 - 18 Jun 14, 24 Sept 14, 17 Dec 14 & quarterly in 2015

