Current Ocean Climate Intervention Proposals as at 31st May 2024

Online at link at bottom of **http://www.gesamp.org/work/groups/41**

Data from OceanNETs paper and annex[5] from David Keller (GEOMAR), LC/LP Scientific Groups paper LC/SG 45/3 and other sources of information

CCUL	Marine capture of CO2 but used other than in the marine environment
mCDR	Marine capture and sequestration of CO2 in the marine environment
	New information added since previous version dated 13th September2023
	Claiming calcification sequesters carbon

1. Substantive* Ocean CDR Extraction Techniques with the Carbon Sequestered in the Marine Environment * i.e. with website/reasonably detailed description

Company	Type	Category	Website	Comments
Atmocean	Artifical Upwelling	mCDR	https://atmocean.com/	
Ocean-Based Climate Solutions	Artifical Upwelling	mCDR	https://ocean-based.com/	Appears to now be called Sea-Up (https://www.sea-up.life/).
BioSink	Biomass sinking	mCDR	https://www.biosink.org/	Sinking wood into the deep ocean
Carboniferous	Biomass sinking	mCDR crop wastes etc	https://team-map.xprize.org/ https://www.carboniferous.co/ https://oceanvisions.org/launchpad/carboniferous-inc/	Biomass preservation in anoxic basins. Sinking sugarcane waste in an oxygen-starved region of the Gulf of Mexico known as Orca Basin.
Carbonwave	Biomass sinking	mCDR Sargassum	https://carbonwave.com/	Also products
F	Biomass Sinking	mCDR crop wastes	https://news.uci.edu/2022/08/03/addressing-climate-change-plants-instead-of-plants/	
C-SINK	Biomass sinking	mCDR	https://github.com/stripe/carbon-removal-source-materials/blob/master/Project%20Applications/Spring2021/C%20Sink%20-%20Stripe%20Spring21%20CDR%20Purchase%20Application.pdf	Now Rewind
Rewind	Biomass sinking	Crop wastes	https://www.rewind.earth/ https://www.canarymedia.com/articles/carbon-capture/can-we-fight-climate-change-by-sinking-carbon-into-the-sea https://abcnews.go.com/US/researchers-find-new-store-carbon-dioxide-absorbed-plants/story?id=103276606	Relocating biomass to the deep bottom of the Black Sea to remove billions of tons of CO2 from the atmosphere where the carbon will be sequestered for thousands of years.
SOS Carbon	Biomass sinking	mCDR Sargassum	https://soscarbon.com/	
Solid Carbon	CO2 Disposal	mCDR	https://solidcarbon.ca/	
Univ Texas, Austin	CO2 Disposal hydrates	mCDR	https://pubs.acs.org/doi/10.1021/acssuschemeng.1c03041	
Fearless Carbon	Macroalgae Farming	mCDR Sargassum	https://www.fearlessfund.org/	
First Gigaton	Macroalgae Farming	mCDR	https://firstgigaton.com/	Sinking macroalgae
King Tide Carbon	Macroalgae Farming	mCDR	https://www.kingtidecarbon.com/#product	+CCUL
Pull to Refresh	Macroalgae Farming	mCDR Sargassum	https://pulltorefresh.earth/	
RunningTide	Macroalgae Farming	mCDR	https://www.runningtide.com/	
Seafields	Macroalgae Farming	mCDR Sargassum	https://www.seafields.eco/	
Seaweed Carbon Solutions	Macroalgae Farming	mCDR	https://www.sintef.no/en/projects/2021/seaweed-carbon-solutions-jip/	
Seaweed Generation	Macroalgae Farming	mCDR Sargassum	https://www.seaweedgeneration.com/ https://www.triplepundit.com/story/2024/seaweed-sinking-robots/793706 https://www.triplepundit.com/story/2024/seaweed-sinking-robots/793706	
Sinkco Labs	Macroalgae Farming	mCDR	https://www.sinkcolabs.com/ https://eqtfoundation.com/christmas-calendar/20-dec-sinkco-labs/ https://github.com/frontierclimate/carbon-removal-source-materials/blob/main/Project%20Applications/2022%20Fall/%5BSinkco%5D%20Frontier%20Carbon%20Removal%20Purchase%20Application.pdf	Sinking seaweed residues into sub-seabed sediment layers of the deep seabed
Springtide Seaweed	Macroalgae Farming	mCDR	https://www.springtideseaweed.com/	Associated with King Tide Carbon
Phycos	Macroalgae farming	mCDR	https://www.phykos.co/	
Ebb Carbon	OAE-Electrochemical capture	mCDR	https://www.ebbcarbon.com/	
Equatic	OAE-Electrochemical capture	mCDR	https://www.equatic.tech/	Formerly called Seachange
Brilliant Planet	Ocean Alkalinity Enhance via Microalgae Farming on land	OAE	https://www.brilliantplanet.com/ https://newatlas.com/environment/brilliant-planet-algae-carbon-sequestration/ https://moneyinc.com/brilliant-planet/ https://www.youtube.com/watch?v=zr6CYS9ie5E https://oceanvisions.org/launchpad/brilliant-planet-ltd/	With algae buried in desert and de-acidified seawater returned to sea.
Capture6	Ocean Alkalinity Enhance	mCDR	https://capture6.org/ocean-alkalinity-enhancement/ https://oceanvisions.org/launchpad/capture6/	Air capture of CO2 and didcharge of alkaline solution.
Cequest	Ocean Alkalinity Enhance	mCDR	https://www.cequest.com.au/	
Cquestr8 LTD	Ocean Alkalinity Enhance	mCDR	https://cquestr8.com/ https://www.linkedin.com/company/cquestr8-ltd https://counteract.vc/portfolio/cquestr8	
LIMENET-DAC	Ocean Alkalinity Enhance	mCDR	https://limenet.tech/en/ https://forum.klimadao.finance/d/246-kip-41-aither-limenet-mineral-ocean-alkalinity-enhancement https://github.com/frontierclimate/carbon-removal-source-materials/blob/main/Project%20Applications/2022%20Fall/%5BHYROGAS%20SIA%5D%20Frontier%20Carbon%20Removal%20Purchase%20Application.pdf https://www.desarc-maresanus.net/en_gb/ https://carbonherald.com/italian-startup-limenet-is-fighting-ocean-acidification-while-sequestering-co2/	DAC and CO2 stored in the marine environment as $Ca(HCO3)_2$

LOC-NESS Project	Ocean Alkalinity Enhancement	mCDR	https://locness.whoi.edu/science/ https://www.whoi.edu/press-room/news-release/ocean-alkalinity-enhancement-project-looks-at-pulling-carbon-dioxide-from-the-atmosphere/?_gl=1*8445no*_ga*MjEwMDY4ODUuMTcwMTgwMjE1NQ..*_ga_HLKFZX9JZK*MTcwMTgwMjE1NS4xLjEuMTcwMTgwMjc5NC4wLjAuMA..	Assing alkaline material (liquid?) directly to sea water.	
PRDD - SeaQuester	Ocean Alkalinity Enhance	mCDR	http://www.prdd.net/ http://www.prdd.net/co2-capture-repurpose.html		
Project Vesta	Ocean Alkalinity Enhance	mCDR	https://www.projectvesta.org/ https://heatmap.news/technology/ocean-carbon-removal-vesta	Uses olivine	
SeaCURE	Ocean Alkalinity Enhance	mCDR	https://sites.exeter.ac.uk/seacure/. https://paulhalloran.github.io/SeaCURE.html	No info on what is used to treat the SW after stripping.	
Centre for Climate Repair at Cambridge	Ocean fertilization	mCDR	https://www.newscientist.com/article/2282188-controversial-geoengineering-scheme-will-dump-iron-in-the-sea/ https://www.geoengineeringmonitor.org/2021/09/quarterly-review-2-marine-geoengineering/ https://www.dw.com/en/artificial-whale-poop-could-save-the-planet-heres-how/a-61247529		
Climate Restoration Technologies	Ocean Fertilization	mCDR	Diatom fertilisation	See 'OACC-MES rev42B 8-11-22.pdf' doc	
Iron Salt Aerosol	Ocean fertilization	mCDR	https://www.ironsaltaerosol.com/		
Ecopia	Ocean fertilization	mCDR	https://www.myocean.co.uk/ https://www.myocean.co.uk/downloads/ECOPIA.pdf	Using light at depth to induce fertilization and sequestration.	
Ocean Nourishment Corporation	Ocean fertilization	mCDR	https://www.oceannourishment.com/ https://www.blue-economy.co.uk/special-report-blue-carbon		
Whale X - Ocean nourshment deep sea carbon export	Ocean fertilization	mCDR	https://www.oceannourishment.com/whalex		
39					
2. Ocean CDR Extraction Techniques with the Carbon Sequestered in the Marine Environment - But many with very limited information and some unclear if marine					
Company	**Type**	**Category**	**Website**	**Comments**	
Arktide	Artficial Upwelling /OTEC	mCDR?	https://arktide.org/projects/ https://www.xprize.org/prizes/carbonremoval/competing-teams	net -ve???	
Desert Ocean	Artifical Downwelling	mCDR	https://www.desertocean.se/#CC https://www.xprize.org/prizes/carbonremoval/competing-teams		
EMID	Artifical Upwelling	mCDR	https://team-map.xprize.org/		
Arbon Earth	Biomass Sinking	mCDR	https://arbon.earth/		
Black Pellets	Biomass Sinking	mCDR crop waste?	https://doi.org/10.1007/s10584-021-03170-5		
BlueGreen's Net blue	Biomass Sinking	mCDR	https://bluegreenwatertech.com/net-blue		
Climate Cleanup - Sargassum Cleanup	Biomass sinking	mCDR Sargassum	https://climatecleanup.org/sargassum-cleanup/ https://climatecleanup.org/climate-cleanup-sargassum-team-on-saint-martin/ https://www.youtube.com/watch?v=yOiBAqp2ewk		
Foods2GTons (Aquatic Foods to giga tons)	Biomass sinking	mCDR crop wastes	https://www.researchgate.net/publication/356001993_Foods2Gtons_To_Feed_the_World_while_Reversing_Climate_Change_XPrize_Entry_Summary_Slides https://team-map.xprize.org/		
Forest waste in fjords	Biomass Sinking	mCDR crop waste?	https://doi.org/10.1021/acs.est.8b04854		
DecarbonIce	CO2 Disposal	mCDR Dry Ice	(https://www.marlog.dk/decarbonice		
Adrift Carbon Solutions	Direct Ocean Capture	mCDR?	https://www.adriftcarbonsolutions.com/ https://www.xprize.org/prizes/carbonremoval/competing-teams		
C14	Dumping HDPE blocks made from seaweed	mCDR?	https://solariscybernetics.com/, https://team-map.xprize.org/	Dumping plastic!!!	
Dog of Elon 5697	Electrochemical capture	mCDR?	https://team-map.xprize.org/		
Atom	Macroalgae Farming	mCDR	https://www.xprize.org/prizes/carbonremoval/competing-teams/		
blueCarbon	Macroalgae Farming	mCDR	https://bluecarbon.co.nz/		
Carbon Kapture	Macroalgae farming	CCUL	https://www.carbonkapture.org/		
South Pacific Marine Park	Macroalgae farming	mCDR	https://southpacificmarinepark.com/		
Sunken Seaweed	Macroalgae Farming	mCDR?	https://www.sunkenseaweed.com/		
The Seaquester Project	Macroalgae Farming	mCDR?	https://www.theseaquesterproject.com/		
Trofx	Macroalgae Farming	mCDR	https://www.trofx.tech/, https://team-map.xprize.org/	Moved from Table 3	
Atmospherica	Microalgae farming	CDR???	https://atmospherica.space/, https://team-map.xprize.org/ https://www.xprize.org/prizes/carbonremoval/competing-teams	Uses a naturally occurring, photosynthetic, shell-forming algae to sequester CO2 and store it in CaCO3	
Carboxy	Microalgae farming	mCDR?	https://team-map.xprize.org/		
CO2SAAS	Microalgae Farming	mCDR	https://www.co2saas.com/ https://www.xprize.org/prizes/carbonremoval/competing-teams	Algae grown in closed ponds on the sea and then sunk	
Dut ocean bio-sequestration	Microalgae farming	mCDR???	https://team-map.xprize.org/	Microalgae fed to shellfish for C sequestration!!!	
Brineworks	Ocean Alkalinity Enhance	mCDR	https://brineworks.tech/		
Carbodiner	Ocean Alkalinity Enhance	mCDR	https://www.carbodiner.com/zero-emission-quicklime	Zero-emission quicklime Unclear how lime would be distributed.	
Ephemeral Carbon	Ocean Alkalinity Enhance	mCDR	https://ephemeralcarbon.com/		
Hourglass Climate	Ocean Alkalinity Enhance	mCDR	https://www.linkedin.com/company/hourglass-climate/about/		
Pronoe	Ocean Alkalinity Enhance	mCDR	https://pronoej.cluster028.hosting.ovh.net/	No info about how it works	
The Charles Darwin Rescue Plan	Ocean Alkalinity Enhance	mCDR	https://www.xprize.org/prizes/carbonremoval/competing-teams	electrolysis of limestone in seawater producing H2 & Ca(HCO3)2	
Tyka et al. (2021)	Ocean Alkalinity Enhance	mCDR	https://pubs.rsc.org/en/content/articlepdf/2022/ee/d1ee01532j	Only a paper currently	

Skyology	Ocean Alkalinity Enhance	mCDR	https://www.skyology.io/, https://team-map.xprize.org/	Little information	
Vycarb	Ocean Alkalinity Enhancement v	mCDR	https://www.vy-carb.com/ https://oceanvisions.org/launchpad/vycarb/	Make enabling technologies for high quality, high impact carbon removal.	
ACOTM	Ocean fertilization	mCDR	https://www.hootgallery.com/acotm https://www.xprize.org/prizes/carbonremoval/competing-teams		
Climos Inc	Ocean fertilization	mCDR	http://www.climos.com/		
Gigablue	Ocean fertilization	mCDR	https://www.gigablue.co/		
Light Induced Ocean Sequestration	Ocean fertilization	mCDR	https://lightinducedoceansequestration.godaddysites.com/	Using light at depth to induce fertilization and sequestration.	
Ocean lung	Ocean fertilization	mCDR	https://team-map.xprize.org/		
Oceanica	Ocean fertilization	mCDR	https://team-map.xprize.org/		
OPR Alaska Inc.	Ocean fertilization	mCDR	https://www.conservamerica.org/latest-news/upcoming-webinar-geoengineering-ocean-based-approach https://opralaska.com/	Russ George	
OPR New England	Ocean fertilization	mCDR	https://oprnewengland.com/	Russ George	
Pasture Partners	Ocean fertilization	mCDR	https://www.pasturepartners.com/	Russ George	
The Blue Carbon Factory	Ocean fertilization	mCDR	https://www.xprize.org/prizes/carbonremoval/competing-teams		
Planeteers	???	mCDR?	https://www.linkedin.com/company/planeteersgmbh/about/ https://planeteers.de/	No details!	
44					
3. Ocean CDR Extraction Techniques with the Carbon Stored/Utilised other than in the Marine Environment					
Company	**Type**	**Category**	**Website**	**Comments**	
Bluski	Algae Farming - Marine?	CCUL Biochar etc	https://www.youtube.com/watch?v=OR0dArecNzM		
Minerali	Direct Air Capture	CCUL	https://github.com/frontierclimate/carbon-removal-source-materials/blob/main/Project%20Applications/2022%20Fall/%5BMinerali%5D%20Frontier%20Carbon%20Removal%20Purchase%20Application.pdf	SW electrolysis production of brucite & DAC via mineralization	
Banyu Carbon	Direct Ocean Capture	CCUL	https://www.banyucarbon.com/ https://oceanvisions.org/launchpad/banyu-carbon/	Chemical extraction of CO2 using sunlight	
Carbon Blue	Direct Ocean Capture	CCUL	https://carbonblue.cc/ https://github.com/frontierclimate/carbon-removal-source-materials/blob/main/Project%20Applications/2022%20Fall/%5BCarbon%20Blue%5D%20Frontier%20Carbon%20Removal%20Purchase%20Application.pdf https://oceanvisions.org/launchpad/carbonblue/	Marine calcium looping to mineralize, separate, and remove dissolved CO2 from seawater. After the CO2 is removed, the calcium is returned to the ocean to maintain its natural chemical composition.	
CO22Clean	Direct Ocean Capture	CCUL	https://team-map.xprize.org/		
Out of the Blue	Direct Ocean Capture	mCDR?	https://co2outoftheblue.com/	CO_2 stored underground	
Rcarbon	Direct Ocean Capture	CCUL	https://www.reddit.com/r/xco2/ https://team-map.xprize.org/		
SeaO2	Direct Ocean Capture - Electrochemical	CCUL	https://www.seao2.nl/ https://github.com/frontierclimate/carbon-removal-source-materials/blob/main/Project%20Applications/2022%20Fall/%5BSeaO2%5D%20Frontier%20Carbon%20Removal%20Purchase%20Application.pdf https://oceanvisions.org/launchpad/seao2/	DOC & CO2 sequestration.	
Captura	Electrochemical capture	mCDR	https://capturacorp.com/ https://capturacorp.com/wp-content/uploads/2023/10/Captura-Carbon-Dioxide-Removal-Pathway-1.pdf	Electrodialysis	
Heimdal	Electrochemical capture	mCDR	https://www.heimdalccu.com/	Makes carbon -ve concrete	
1.point8	Macroalgae Farming	CCUL	https://1point8.de/ https://www.xprize.org/prizes/carbonremoval/competing-teams	CO2 sequestration underground.	
Azolla proxima	Macroalgae Farming	CCUL Biofuel Macrocosms	https://team-map.xprize.org/		
Blue Symbiosis	Macroalgae Farming	CCUL	https://bluesymbiosis.com/, https://team-map.xprize.org/		
Butterfly	Macroalgae Farming	CCUL	https://team-map.xprize.org/		
Cascadia Seaweed	Macroalgae Farming	CCUL	https://www.cascadiaseaweed.com/		
Caspianstar	Macroalgae Farming	CCUL	https://team-map.xprize.org/		
Cequest ocean carbon	Macroalgae Farming	CCUL Biochar	https://team-map.xprize.org/		
Innonep ocean	Macroalgae Farming	CCUL Biofuel	https://www.innonep.com/, https://team-map.xprize.org/		
Kelp Blue	Macroalgae Farming	CCUL	https://kelp.blue/, https://team-map.xprize.org/		
KFC (KelpFarmCareer)	Macroalgae Farming	CCUL	https://twitter.com/kelpfarmcareer https://team-map.xprize.org/		
Marine Bioenergy Inc	Macroalgae Farming	CCUL biofuel	https://www.marinebiomass.com/		
Marine Permaculture Seaforestation -	Macroalgae Farming	CCUL Upwelling	https://www.climatefoundation.org/ https://team-map.xprize.org/		
Ocean ERA	Macroalgae Farming	CCUL Upwelling	http://ocean-era.com/		
Seagrown	Macroalgae Farming	CCUL	https://www.seagrown.co.uk/		
Seaplanta	Macroalgae Farming	CCUL	https://team-map.xprize.org/		
Sinkit	Macroalgae Farming	CCUL	https://www.sinkit.org/projects/sargassum		
Southern Ocean Carbon	Macroalgae Farming	CCUL Biochar	https://southernoceancarbon.com/		
The Seaweed Company	Macroalgae Farming	CCUL	https://onsets.org/product/the-seaweed-company-crc/		
Umaro Foods	Macroalgae Farming	CCUL	https://arpa-e.energy.gov/mariner-annual-review-2021/umaro-foods		
Viridos	Macroalgae Farming	CCUL Biofuel	https://www.viridos.com/		
Kepler carbon recapture team	Macroalgae Farming + CO2 extraction	CCUL OTEC	https://keplershipyards.space/index.html https://keplerrecapture.com/ https://team-map.xprize.org/		
Thalasso Ocean	Macroalgae Harvesting	CCUL Sargassum	https://www.thalassoocean.com/		
Amazinggreatlight	Microalgae Farming	CCUL Marine?	https://team-map.xprize.org/		
Atrium	Microalgae Farming	CCUL Marine?	https://atriumcdr.tech/index.php/home/ https://team-map.xprize.org/		

CyanoCapture	Microalgae Farming	CCUL Marine?	https://www.cyanocapture.com/our-technology https://team-map.xprize.org/	New Energy Challenge winner - https://www.linkedin.com/feed/update/urn:li:ugcPost:6995333668948877312/	
Monash carbon capture and conversion (Biotech)	Microalgae Farming	CCUL	https://team-map.xprize.org/ https://www.monash.edu/news/articles/monash-student-team-takes-out-climate-change-award-funded-by-elon-musk	Using floating bioreactors to grow microalgae for use as a feedstock for biochar.	
Angel Sharks	Shellfish Aquaculture	Aquaculture	http://angelsharks.net/ https://www.xprize.org/prizes/carbonremoval/competing-teams	Use CaCO3 from shellfish to make sustainable concrete. BUT net -ve???	
37					
4. Other Projects Related to or Enabling Ocean CDR					
Company	**Type**	**Category**	**Website**	**Comments**	
AI Control Technologies	Aquaculture	Aquaculture	https://www.ai-ctec.com/	Buoyancy control	
Hortimare	Aquaculture	Aquaculture	https://www.hortimare.com/		
North Sea Farmers	Aquaculture	Aquaculture	https://www.northseafarmers.org/offshore-test-site	Offshore Test Site	
Ocean Foresters	Aquaculture	Aquaculture	https://oceanforesters.org/		
Quilibrium	Aquaculture	Aquaculture	https://waypointsolutions.com.au/quilibrium https://team-map.xprize.org/		
Seaforester	Aquaculture	Aquaculture	https://www.seaforester.org/	Portugal	
Oceans 2050 seaweed carbon farming	Macroalgae Farming	Not a mCDR project	https://www.oceans2050.com/ https://team-map.xprize.org/		
Coastal Carbon	Macroalgae Farming	Supporting seaweed aquaculture	https://www.coastalcarbon.ai/ https://www.coastalcarbon.ai/blog/blog-2	Measuring blue carbon credits for kelp farmers using vast sets of satellite data	
[C]Worthy	mCDR general	MRV	cworthy.org		
Marble	mCDR general	Supporting mCDR climate tech startups	https://marble.studio/what-we-look-for	Supporting climate tech startups generally	
atdepth MRV	mCDR general	MRV	https://www.atdepthmrv.com/		
Oceanid MRV	mCDR general	MRV	https://www.oceanidmrv.com/		
SEAO2-CDR	mCDR general	mCDR	https://seao2-cdr.eu/		
Submarine.earth	mCDR general	MRV	https://www.submarine.earth/		
Subtidal	mCDR general	MRV	https://www.subtidal.com/ https://oceanvisions.org/launchpad/subtidal/		
Life savers	NA	?	https://vadlamudingo.org/ ?, https://team-map.xprize.org/	Ocean CDR proj?	
Carbon to Sea	Ocean Alkalinity Enhance	Funding	https://www.carbontosea.org/		
EDAC Labs	Ocean Alkalinity Enhance	Not a mCDR project	https://edaclabs.com/ https://www.prnewswire.com/news-releases/edac-labs-secures-3m-seed-funding-for-carbon-removal-via-acid-base-electrochemistry-301898995.html	Provides electrosynthesizer device	
The acidd project	Ocean Alkalinity Enhance	MRV	https://carlson.eemb.ucsb.edu/research/project-acidd https://www.eurekalert.org/news-releases/934529 https://team-map.xprize.org/		
CarbonRun	Ocean Alkalinity Enhancement via rivers	mCDR?	https://carbonrun.io/	Releases site-specific amounts of natural, instantly dissolving alkalinity into rivers damaged by acid rain and pollution where it attracts: terrestrial carbon released from the land, and atmospheric carbon present in the air. The river delivers measurable amounts of trapped terrestrial and atmospheric carbon to the ocean for long-term storage.	
Green Sea Upwelling	Ocean Fertilization Artificial Upwelling		http://www.greenseaupwelling.com/index.html	Fisheries enhancement	
Aquatic Labs	Sensing Tools	MRV etc	https://www.aquatic-labs.com/		
22					
5. Ocean-based Cooling Techniques:					
Company	**Type**	**Category**	**Website**	**Comments**	
Arctic Ice Project	Albedo	Albedo	https://www.arcticiceproject.org/		
Arctic Reflections	Albedo	Albedo	https://arcticreflections.earth/	Pumping water onto ice to thicken it	
Climate Restoration Technologies	Albedo	Albedo via Ehux fertilisation	Ocean Amplified Solar Reflection	See 'OASR rev 16M 7-30-22 final rev ed.pdf' doc	
Australian Govt Reef Restoration & Adaptation Program -	Albedo	Albedo	https://gbrrestoration.org/	Various 'Cooling and Shading' projects	
Real Ice	Albedo	Albedo	https://www.realice.eco/ https://www.bangor.ac.uk/news/2021-05-06-bangor-teams-real-ice-machine-featured-as-part-of-global-for-tomorrow-initiative	Enhancing the natural sea ice generation process relying on zero-emission renewable energy and simple water pumping devices.	
Thermodynamic Geoengineering	Surface ocean cooling	Cooling	http://gwmitigation.com/1GWEnergyIsland.htm	Cools the surface ocean by moving heat to deep in the ocean via a heat pipe.	
Woxon	Cooling	Cooling	www.woxon.com	Little info on process	
7					
$ - OceanNETs (2020) D1.8 database and report on currently already existing or announced ocean NETs projects, including a world map of projects.					
https://oceanrep.geomar.de/id/eprint/57043/1/Deliverable_D1_8_final.pdf					