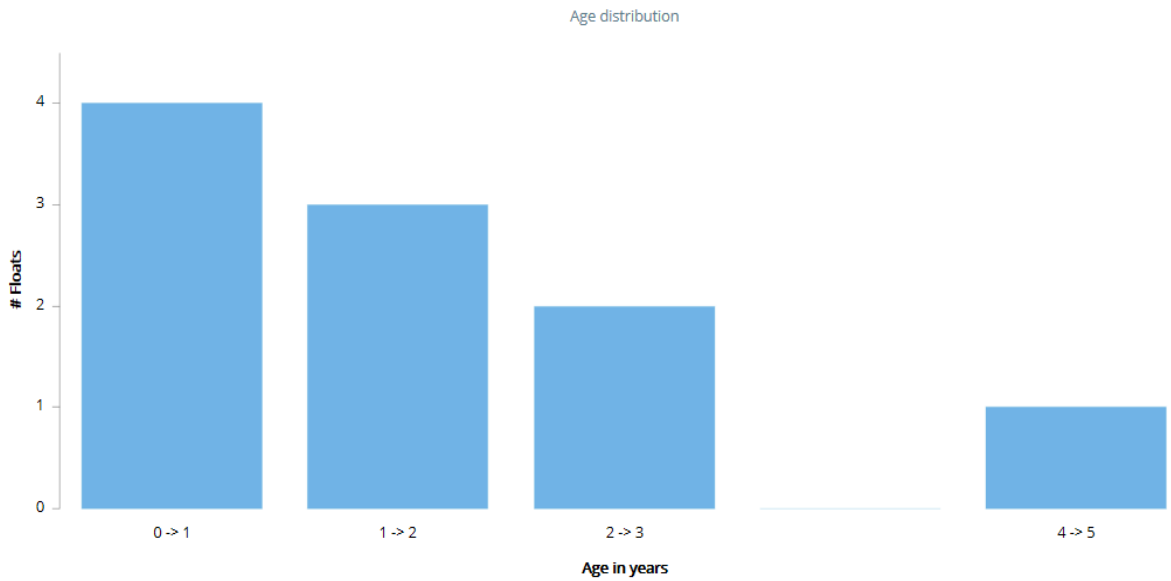
Argo National Report 2017: Ireland

1) The status of implementation (major achievements and any issues in 2017):

a) Irish Argo float Overview

2017 has seen Ireland deploy 3 core T&S Argo profiling floats as well as the procurement of Ireland's first biogeochemical (BGC) profiling float. Throughout 2017 the Marine Institute has seen 3 floats (deployed in 2011 and 2012) return a status of 'inactive' however, considering the lifespan of these floats was 5-6 years they demonstrated considerable longevity while sampling at sea. 2017 also seen the procurement of floats via a Euro-Argo ERIC centralised tender which proved significantly useful, both in terms of time and value for money.



***Above**: Age distribution of all operational and registered Irish Argo profiling floats in 2017 (including registered floats for 2018 deployment)*

2018 should see the Irish fleet increase to a total of 13-14 floats (depending on deployment weather windows, vessel accessibility etc.) which would be an all-time high number of profiling floats within the Irish fleet. The planned deployment of a BGC float in 2018 will also add considerably to the amount of data as well as research capabilities within the Irish Argo fleet.

ARGO: Marine Institute Operational & Stock ARGO Floats (as of: 30/01/2018)					
Deployed / Operational ARGO Floats (as of: 30/01/2018)					
# of Floats	WMO (Global Identifier) #	Float Identifier #	Make/Model	Deployed	Status
1	6900444		NKE/AVOR	08/03/2011	Inactive 2017
2	6900658		NKE/AVOR	07/03/2011	Inactive 2017
3	6901913		NKE/AVOR	06/09/2012	Inactive 2017
4	6901914		NKE/AVOR	26/03/2013	Operational
5	6901919	7244	Teledyne/Apex	22/03/2015	Operational
6	6901920	7245	Teledyne/Apex	22/04/2015	Operational
7	6901921	7243	Teledyne/Apex	23/03/2016	Operational
8	6901922	7242	Teledyne/Apex	14/04/2016	Operational
9	6901923	7241	Teledyne/Apex	09/04/2016	Operational
10	6901924	7240	Teledyne/Apex	10/02/2017	Operational
11	6901925	7841	Teledyne/Apex	11/02/2017	Operational
12	6901926	7842	Teledyne/Apex	20/05/2017	Operational
Argo floats to be deployed in 2018					
# of Floats	WMO (Global Identifier) #	Float Identifier #	Make/Model	Deployed	
1	6901927	7843	Teledyne/Apex	TBC ~February 2018	
2	6901928	7844	Teledyne/Apex	TBC ~February 2018	
3	6901929	300234065961200	NKE/ARVOR	TBC ~February 2018	
4	6901930	300234065968220	NKE/ARVOR	TBC ~February 2018	
ARGO Floats Awaiting Deployment (in stock)					
# of Floats	WMO (Global Identifier) #	Float Identifier (IMEI) #	Make/Model	Deployed	
1	TBC	300234065967210	NKE/ARVOR	TBC throughout 2019	
2	TBC	300234065151700	NKE/ARVOR	TBC throughout 2019	
3*	TBC*		TWR Apex BGC	TBC throughout 2018	

**Designates the procurement of Ireland's first biogeochemical Argo profiling float*

b) Irish floats deployed in 2017 and their performance

WMO (Global Identifier) #	Float Identifier #	Make/Model	Deployed
6901924	7240	Teledyne/Apex	10/02/2017
6901925	7841	Teledyne/Apex	11/02/2017
6901926	7842	Teledyne/Apex	20/05/2017

All floats are reporting their data and performing to specification. No problems to report from floats deployed during 2017.

c) Technical problems encountered and solved

None

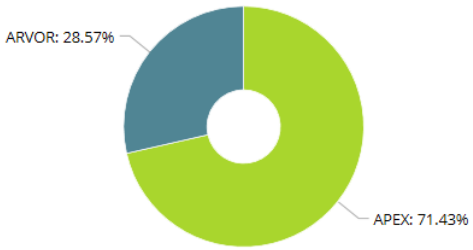
d) Status of contributions to Argo data management (including status of conversion to V3 file formats, pressure corrections, etc.)

Carried out by BODC for the Marine Institute (Ireland).

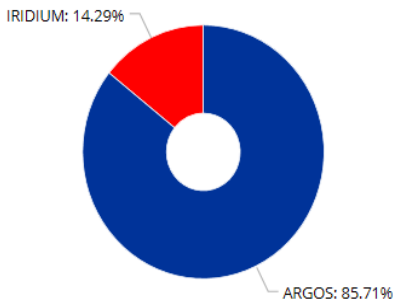
e) Status of delayed mode quality control process
Carried out by BODC for the Marine Institute (Ireland).

2) Present level of and future prospects for national funding for Argo including a summary of the level of human resources devoted to Argo.
Ireland is now an established member of the Euro-Argo ERIC and will comply with the minimum requirement of deploying 3 floats per annum. Ireland via the Marine Institute will deploy additional floats where funding allows and will also assist the ERIC in deploying project specific floats where appropriate e.g. The MI deployed an additional float in 2016 via the EU funded MOCCA project.

3) Summary of deployment plans (level of commitment, areas of float Deployment, low or high resolution profiles, extra sensors, Deep Argo) and other commitments to Argo (data management) for the upcoming year and beyond where possible.
It is our goal to ensure a minimum of three core T&S floats will be deployed during 2018 in alignment with the requirements of the Euro Argo ERIC. Multi-annual funding for the programme remains elusive but efforts continue towards that end on the national level. Float procurement via the Euro-Argo ERIC may allow for an increased number of floats to be procured.



Right (Top): *Illustrating the breakdown of Irish floats via the manufacturer (type) of float deployed (this includes 2018 registered floats (2 x NKE and 2 x Teledyne Webb). With NKE being the Euro-Argo ERIC tender winning bid, Ireland should see the number of NKE deployed floats increase over the coming years.*



Right (Bottom): *Graph showing the number if Irish floats using ARGOS or Iridium communications (including floats registered for deployment in 2018). With floats procured via Euro-Argo ERIC having Iridium communication systems the number of Irish floats with iridium communications will increase over the coming years.*

4) Summary of national research and operational uses of Argo data as well as contributions to Argo Regional Centres. Please also include any links to national program Argo web pages to update links on the AST and AIC websites.
Argo data is primarily used to validate ROMS models in the Oceanographic Services section of the Marine Institute. Argo data will also be utilised by a number of PhD students within the Marine Institute and 3rd level institutes across Ireland. Irish deployed Argo float data may also be used by researchers on an international level as all data is open and freely available.

Irish Argo National Webpage (hosted by the Marine Institute):
https://www.marine.ie/Home/site-area/areas-activity/oceanography/euro-argo

Irish Argo Float Data*:
https://www.digitalocean.ie/
*May not visualise correctly via Internet Explorer web browser

5) **Issues that your country wishes to be considered and resolved by the Argo Steering Team regarding the international operation of Argo. These might include tasks performed by the AIC, the coordination of activities at an international level and the performance of the Argo data system. If you have specific comments, please include them in your national report.**
N/A. Any issues can be dealt with via the Euro-Argo ERIC office.

6) **To continue improving the quality and quantity of CTD cruise data being added to the reference database by Argo PIs, it is requested that you include any CTD station data that was taken at the time of float deployments this year. Additionally, please list CTD data (calibrated with bottle data) taken by your country in the past year that may be added to the reference database. These cruises could be ones designated for Argo calibration purposes only or could be cruises that are open to the public. To help CCHDO track down this data, please list the dates of the cruise and the PI to contact about the data.**
No CTD data are uploaded to the CCHDO website. However, all CTD data are emailed to Else Juul Green (else@ices.dk) who checks the data before it is uploaded to the ICES Oceanographic data portal annually:
http://ocean.ices.dk/HydChem/HydChem.aspx?plot=yes

7) **Keeping the Argo bibliography (http://www.argo.ucsd.edu/Bibliography.html) up to date and accurate is an important part of the Argo website. This document helps demonstrate the value of Argo and can possibly help countries when applying for continued Argo funding. We reached more than 2000 papers published using Argo data! To help me with this effort, please include a list of all papers published by scientists within your country in the past year using Argo data, including non-English publications.**
N/A although anticipated during 2018.