

**NE ATLANTIC MARINE BIOLOGICAL AQC SCHEME**  
**Meeting Agenda – 19<sup>th</sup> of April 2021 10.00-12.00**

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**Confirmed Attendees:** Claire Mason\* (CM, CEFAS, PSA Contract Manager), Claire Taylor (CT, MBA, Technical Secretary), David Hall (DH, Benthic, APEM Ltd), Lydia McIntyre-Brown (LMB, APEM, Senior Marine Taxonomist), Joey O’Connor (JOC, Epibiota Contract Manager, JNCC), Claire Young (CY, DAERA, Macroalgae Contract Manager) Ross Griffin (RG, Ocean Ecology, Contractors rep), Jim Ellis (JE, CEFAS, Fish Contract Manager), Tim Mackie (TM, DEARA, Senior Scientific Officer), Stephen Duncombe-Smith (SDS, APEM Ltd, Fish), Matthew Green (MG, NRW, Marine Monitoring Ecologist), Alex Callaway (AC, Senior Scientific Officer, AFBI) and Paul McIlwaine (PM, CEFAS, Marine Benthic Ecologist).

**Apologies:** David Johns (DJ, MBA, Chair)\* **CM to act as Chair**, Graham Phillips (GP, EA, Finance Manager), Myles O’Reilly (MoR, SEPA, Invertebrates Contract Manager) and Henk Van Rein (HvR, JNCC).

<b>1. Last Meetings Actions</b> (summarised below on the agenda)		ALL
<b>2. Minutes of the last meeting</b>		CT
Approval of October meeting minutes		CM
<b>3. Epibiota QA Framework</b>		JOC/HvR
<b>4. Phytoplankton update</b>		RS and JS
<b>5. Priorities to HBDSEG</b>		DJ
<b>6. PSA Update</b>		LMB/CM
<b>7. Benthic Invertebrates update</b>		DH/MoR
<b>8. Macroalgae</b>		CY
<b>9. Fish update</b>		DH
<b>10. Zooplankton update</b>		DJ/CT
<b>11. AOB</b>		ALL
<b>12. Finance update</b>		GP

**1. Meeting Actions from Oct 2020 online meeting:**

**Carried forward from April 2020 meeting:**

**CM and Tec. Sec.** to meet with Cefas web developers to discuss updates and upgrade of website.

**Tec. Sec. CT/CM:** Think about how participants area could be used with Teams/etc. or website? What is needed?  
 Action: CM to send notes from previous meetings with Clare Ostle and RG to CT and arrange for meeting Oct 2020 with website developer – DONE meeting took place with CEFAS data team and draft website viewed by CM/CT.

CM highlighted that the domain location was changed and now belongs to CEFAS – this is going to be moved over on 27<sup>th</sup> April 2021 at 6pm, so the website will be down for a couple of hours at that time.

**Further Action:** CT to send reminder email to component managers to each review content of their section and provide CT with update along with any good, high-resolution images. This needs to all be done by the end of May 2021.

**CM** to make document outputs from PSA workshops available (originally circulated to workshop participants). **CM** to put these together and send to CO for website. Guide for Asbestos will be made available for end of May as part of the updated NMBAQC PSA guidance (see above) **Action: CM – include workshop notes and Guide for Asbestos in NMBAQC PSA guidance as part of update for completion by the end of May. Updated PSA guidance will be circulated to committee for comment before being finalised and being made available on the website.**

**DJ and MoR:** Put together protocol/guidance for group to avoid potential conflicts of interest and increase communication. **Action: CT to follow up with DJ/MoR**

#### **From October 2020 meeting:**

RG advised the committee of the merits of using Microsoft team to track actions, alerts maybe participant's area etc. **Action: CT to investigate merits**

RE Benthic Imagery Action plan presentation -

Action: HvR asked for queries to be raised directly with him and he will bring up at forthcoming steering group. He will keep us posted. UPDATE this has now been finalised and on website – see Epibiota section.

JNCC and NE are currently developing guidelines for the acquisition and storage of DNA samples from the benthic environment. The guidelines are expected to be ready by April 2021. This work has been identified as a high priority action (Action 37) from the Benthic DNA Action Plan developed by the UK Marine DNA Technical Group, one of the UK DNA Working Group's thematic subgroups. Mike Nelson (Mike.Nelson@jncc.gov.uk) is the JNCC project manager behind the work and a good point of contact for further queries –

**Action: TM to send group notes from technical working group's last meeting. Action: HvR to put MoR in contact with Mike Nelson at JNCC. Further Action: JOC to follow this up**

**2. Approve minutes of the last meeting:** reviewed and approved

#### **3. Epibiota and Benthic Imagery Action Plan update:**

**JOC:** JOC, HvR and team at JNCC (through the Big Picture Group) have finalised all of the Epibiota Quality Assurance Framework (QAF) documentation. The aim of this is to improve consistency between data collected from different sources for more common use and sharing in the future. This went live on the NMBAQC website on 12<sup>th</sup> April 2021 and will be promoted through social media and NMBAQC news once JNCC have finished a period of mourning. Going forward, JOC looking into funding for next year (possibly from DEFRA) to build upon momentum. Would need more buy in and further funding to look at moving towards ring tests in the future.

**Action: JOC to let CT know when QAF can be promoted – should be this week. POST MEETING NOTE: this has now been done.**

#### **4. Phytoplankton update:**

**RS:** IPI was cancelled for 2020 and to continue with the proficiency testing scheme from 2021 onwards.

For 2021, the IPI will be hosted at the University of Las Palmas de Gran Canarias in the OCHABs center, the Canary Islands observatory of harmful algae, for the next four years from 2021 to 2025. A partnership agreement is in the process to be signed by the University and the IOC to this effect and I will be announcing the new exercise for 2021 in due course.

The exercise continues as it was before with the full collaboration of the IOC Science and communication center for harmful algae, OTGA (Oceanteacher Global Academy) within the IODE office in Ostend, Belgium and in association with the NMBAQC in the UK. The only change is in relation to the host institution and administration center for the IPI, which now will be based in Las Palmas, Gran Canaria, Spain.

The programme schedule for 2021 is as follows:

Registration: From Monday, 8th March 2021 to Friday, 30th July 2021

Samples sent to analysts + Oceanteacher quiz opens: From 30th July 2021 to Thursday, 30th September 2021

Deadline for submission of samples and online test results to lead laboratory: Tuesday, 30th November 2021

Intercalibration Report (January 2022) and Workshop: From 5th January 2022 to 1st March 2022

## 5. Priorities to HBDSEG:

DJ: HBDSEG are pleased to hear about the work HvR and JOC have been doing and DJ to update the group at his next meeting. **Action: CT to found out dates of next HBDSEG meetings – POST MEETING NOTE this is scheduled for 29-30<sup>th</sup> July 2021.**

## 6. PSA Update:

### 2020-21, Year 27

#### 1. Subscriptions

LabCode	PS76/77	PS78/79	PS-OS19/20/21
PSA_2701	1	1	-
PSA_2702	1	1	-
PSA_2703	1	1	-
PSA_2704	1	1	-
PSA_2705	1	1	-
PSA_2706	1	1	-
PSA_2707	1	1	-
PSA_2708	1	1	-
PSA_2709	1	1	-
PSA_2710	1	1	1
PSA_2711	1	1	1
PSA_2712	1	1	1
PSA_2713	1	1	1
PSA_2714	1	1	1

PSA_2715	1	1	1
PSA_2716	1	1	-
PSA_2717	-1	-	1
PSA_2718	-	-	1
PSA_2719	-	-	1
PSA_2720	-	-	1
PSA_2721	-	-	1
PSA_2722			1
<b>Total (change from last year)</b>	<b>17 (-2)</b>	<b>17(-2)</b>	<b>13(+1)</b>

## 2. 2020-2021, Year 27 Operations

All circulations of PS exercises will be distributed in line with the 2020-2021 timetable (available below). Returns and results are summarised in the table below.

Exercise	Status	Returns / Comments
<b>PS76</b>	<p>Samples distributed: 29/10/2020</p> <p>Sample deadline: 18/12/2020</p> <p>Interim reports issued: 15/01/2021</p> <p>Final reports issued:</p> <p><b>Exercise complete</b></p>	<p>Fines Test</p> <p>16 out of 17 returned results</p> <p>1 communicated non-participation</p>
<b>PS77</b>	<p>Samples distributed: 29/10/2020</p> <p>Sample deadline: 18/12/2020</p> <p>Interim reports issued: 15/01/2021</p> <p>Final reports issued:</p> <p><b>Exercise complete</b></p>	<p>Mixed Test</p> <p>16 out of 17 returned results</p> <p>1 communicated non-participation</p>
<b>PS78</b>	<p>Samples distributed: 10/12/2020</p> <p>Sample deadline: 11/02/2021</p> <p>Interim reports issued:05/03/2021</p> <p>Final reports issued:</p> <p><b>Exercise complete</b></p>	<p>Gravel Test</p> <p>14 out of 17 returned results</p> <p>2 communicated non-participation</p> <p>1 non communicated non-participation</p>
<b>PS79</b>	<p>Samples distributed: 10/12/2020</p> <p>Sample deadline: 11/02/2021</p> <p>Interim reports issued:05/03/2021</p> <p>Final reports issued:</p> <p><b>Exercise complete</b></p>	<p>Mixed Test</p> <p>14 out of 17 returned results</p> <p>2 communicated non-participation</p> <p>1 non communicated non-participation</p>
<b>PS-OS19-21</b>	<p>Samples request sent: 29/10/2020</p>	

	<u>Batch 1</u> Data submission deadline: 13/11/2020 Sample submission deadline: 11/12/2020 Reports Issued: 01-02/03/2021 <b>Exercise complete</b>	12 out of 13 data sets submitted 36 out of 39 samples selected 18 out of 39 samples received 5 out of 13 reports sent
	<u>Batch 2</u> Data submission deadline: 31/03/2021 Sample submission deadline: 16/04/2021 Reports issued: <b>Exercise in progress</b>	1 non-participation communicated

### 3. Issues arising

Some late PS results have delayed the reporting of the Final reports for the website.

One laboratory were asking for final reports and Statements of Performance for an MMO validation application. Certificates are not usually issued until all the modules are completed, and after consulting with CM, the participant that a certificate couldn't be issued at the current time, and an email contact was offered so that the MMO can request directly proof of participation or results if required.

Action: LMB to provide a new data entry workbook and updated protocols to CM for review prior to making available on the website

### 4. Other news

There is an Italian laboratory (BioChemie Lab) currently undertaking a trial of the PS module, potentially looking to sign up to the next scheme year. In addition, a Spanish laboratory have expressed an interest in signing up for next year.

Action: LMB to follow up with Spanish laboratory to see if they would be interested in undertaking a trial of the PS module.

**Particle Size Component 2020-2021 Timetable (Scheme Year 27)**

<b>Module / Exercise</b>	<b>Event</b>	<b>Date</b>
PS76 & PS77	Samples distributed	29/10/20
	Results deadline	18/12/20
	Interim reporting deadline	15/01/21
	Final report deadline	15/02/21
PS78 & PS79	Samples distributed	10/12/20
	Results deadline	<b>11/02/21</b>
	Interim reporting deadline	25/02/21
	Final report deadline	19/03/21
PS-OS19–21	Request for sample data distributed	29/10/20
Batch 1	Data submission deadline for sample selection	13/11/20
	Selected samples submission deadline	<b>11/12/20</b>
	Interim report final deadline (for samples received before 11 Dec 2020)	26/03/21
Batch 2	Data submission deadline for sample selection	31/03/21
	Selected samples submission deadline	<b>16/04/21</b>
	Interim report final	30/07/21
Annual Report	Annual report deadline	27/08/21
Workshop		TBC

In summary, the PSA component is on track (slight delays caused mainly by delay due to restrictions over the year). Some own sample exercises still being completed. Final annual report being prepared for review. Also noted that participants are being encouraged to report completion of remedial action and made aware that their certificates can be revised in line with process for benthic invertebrates component. Most participants that had remedial action have resubmitted results following completion of recommended remedial action.

**7. Benthic Invertebrates update:**

**2020-21, Year 27**

**1. Subscriptions**

LabCode	RT59/60	LR25	OS74/75/76
BI_2701	1	1	1
BI_2702	1	1	1
BI_2703	1	-	1
BI_2704	1	-	1
BI_2705	1	1	-
BI_2706	1	1	-
BI_2707	1	1	-
BI_2708	1	-	1
BI_2709	1	1	-
BI_2710	1	-	1
BI_2711	1	-	1
BI_2712	1	-	1
BI_2713	1	-	-
BI_2714	1	-	-
BI_2715	1	-	-
BI_2716	1	-	-
BI_2717	1	-	-
BI_2718	1	-	-
BI_2719	1	-	-
BI_2720	1	-	-
BI_2721	1	-	-
BI_2722	1	-	-



BI_2727	-	-	1
BI_2728	-	-	1
BI_2729	-	-	1
BI_2730	-	-	1
BI_2731	-	-	1
BI_2732	-	-	1
BI_2733	-	-	1
BI_2734	-	-	1
BI_2735	-	-	1
BI_2736	-	-	1
BI_2737	-	-	1
BI_2738	-	-	1
BI_2739	-	-	1
BI_2740	-	-	1
BI_2741	-	-	1
BI_2742	-	-	1
BI_2743	-	-	1
BI_2744	-	-	1
BI_2745	-	-	1
BI_2746	-	-	1
° (change from 2019/20)	22 (-)	6 (-)	28 (-11)

## 2. 2020-2021, Year 27 Operations

Benthic Invertebrate exercises have been distributed in line with the 2020-2021 timetable (available below). Returns, results and exercise status details are summarised in the table below.

Exercise	Status	Returns / Comments
<b>RT59</b>	<p>Specimens distributed 29/10/20;</p> <p>Submission deadline 18/12/20;</p> <p>Interim reports issued 14/01/21 (08/01/21);</p> <p>Ring Test Bulletin issued 05/02/21 (29/01/21);</p> <p><b>Exercise complete</b></p>	<p>General Ring Test;</p> <p>18 of 22 labs participated; CV19 restrictions were the primary factor for non-participation</p>
<b>RT60</b>	<p>Specimens distributed 10/12/20;</p> <p>Submission deadline 11/02/21;</p> <p>Interim reports issued 05/03/21 (25/02/21);</p> <p>Ring test Bulletin issued 30/03/21 (19/03/21);</p> <p><b>Exercise complete</b></p>	<p>Targeted Ring Test – Biotope defining species;</p> <p>17 of 22 labs participated; CV19 restrictions were the primary factor for non-participation</p>
<b>LR25</b>	<p>Request for specimens distributed 29/10/20;</p> <p>Submission deadline 29/01/21;</p> <p>Interim reports ongoing (19/03/21);</p> <p>LR Module Summary Report ongoing (26/03/21);</p> <p><b>Exercise in progress</b></p>	<p>4 of 6 sets of specimens received; 2 have been reported; 2 were recently received; further extensions will be provided for late receipt</p>
<b>OS74-76</b>	<p>Sample data requested 29/10/20;</p> <p>Data submission deadline Batch 1 13/11/20;</p> <p>Sample submission deadline Batch 1 11/12/20;</p> <p>Interim report final deadline Batch 1 ongoing (26/03/21);</p> <p>Data submission deadline Batch 2 ongoing (31/03/21);</p> <p>Sample submission deadline Batch 2 16/04/21;</p> <p>Interim report final deadline Batch 2 30/07/21;</p> <p>OS Module Summary Report deadline 27/08/21;</p> <p><b>Exercises in progress</b></p>	<p>21 out of 28 datasets received;</p> <p>35 out of 63 requested samples received, including 6 samples for external audit; analysis complete for 12 samples; extensions will continue to be provided for late receipt up to end July for CV19 impacted laboratories</p>

### **3. 2019-2020, Year 26 Operations (outgoing scheme year)**

All modules have been completed and the draft annual report has been prepared. Statement of Performance documents are pending the sign-off of the annual report. Some remedial actions associated to Own Sample audits have been delayed due to COVID19 and other external factors, it may still be possible to complete and evaluate these remedial actions so that they can be reflected in the SoPs.

### **4. Issues arising**

#### **2020/21 Timetable Revision**

The revised 2020/21 timetable for the OS module has worked well for this scheme year (see timetable below). Although originally planned to enable the scheme timeframes to match CMA sample processing, the timetable also provided greater flexibility for the inclusion of laboratories impacted by COVID19.

#### **SEPA Cyber-attack**

Unfortunately, the cyber-attack upon SEPA's servers in late 2020 is continuing to impact SEPA workers, and as such communication with Myles in his capacity as BI Component Contract manager has been compromised. With Myles' approval Tim Mackie has kindly reviewed and signed-off this year's two Ring Test Bulletins.

#### **TDP Development**

TDP development is still in progress. A draft version is with the Contract Manager and will be finalised as soon as possible.

#### **Own Sample – Inclusion of Pooled Samples**

The inclusion of pooled samples/data for OS exercises is being trialled for NRW data this scheme year, i.e. all pooled replicates are provided under a single OS audit sample. This will enable quality assurance to be applied at a more meaningful 'Site' level resolution.

#### **Postal Issues**

Some mainland European participants have experienced difficulties with the postage of NMBAQC scheme samples/material due to post-Brexit changes. APEM has provided assistance to individual participants where required and issued revised address labels for all inbound consignments. These labels now include our VAT and Economic Operators Registration and Identification numbers (**EORI**).

### **5. Taxonomic Workshops**

Due to continued COVID19 restrictions, the next large capacity taxonomic workshop for targeted groups will be tentatively planned for autumn 2021.

### **6. Outstanding issues**

Own Sample remedial actions are continuing to be tracked from 2013/14 (Year 20), but only those related to the active and recent exercises (OS 71, 72, 73, 74, 75 & 76) will be presented in meeting reports; due to COVID19, participants have not been able to review their audit results/specimens. Details will be provided here only when remedial actions stated in interim reports are agreed.

## Invertebrate Component 2020-2021 Timetable (Scheme Year 27)

Module / Exercise	Event	Date
RT59 - General	Samples distributed	29/10/20
	Results deadline	<b>18/12/20</b>
	Interim reporting deadline	08/01/21
	Final report deadline	29/01/21
RT60 - Targeted	Samples distributed	10/12/20
	Results deadline	<b>11/02/21</b>
	Interim reporting deadline	25/02/21
	Final report deadline	19/03/21
LR25	Protocol and request for specimens distributed	29/10/20
	Specimen submission deadline	<b>29/01/21</b>
	Interim reports deadline	19/03/21
	<b>LR summary report deadline</b>	<b>26/03/21</b>
OS74–76	Request for sample data distributed	29/10/20
Batch 1	Data submission deadline for sample selection	<b>13/11/20</b>
	Selected samples submission deadline	<b>11/12/20</b>
	<b>Interim report final deadline (for samples received before 11 Dec 2020)</b>	<b>26/03/21</b>

Batch 2	Data submission deadline for sample selection	31/03/21
	Selected samples submission deadline	16/04/21
	Interim report final deadline	30/07/21
	OS summary report deadline	27/08/21
Annual Report	Annual report deadline	27/08/21
Workshop – experts	Venue TBC	TBC
Workshop – beginners	TBC – subject to demand	TBC

There was some discussion with MG/DH around quarterly taxonomic clinics and prep for next steps. Both to chat regarding sharing online. MG looking at face-to-face meetings to look at images rather than online as good for social connectivity.

Action: DH to look into pooling images together for website

Action: DH looking at potential to host virtual quarterly benthic clinics following suggestion from MG.

## 8. Macroalgae update:

CY: CY advised that the three macroalgal components for 2021 have been completed. Going forward Wells Marine will no longer be the provider (from July 2021) and therefore will be up for tender.

Action: ALL let CY know if you are aware of anyone suitable. Graham is currently producing a tender. CT will also ask DJ if there was a response from any MBA staff. POST MEETING NOTE – CT spoke to DJ and MBA awaiting further info before making a decision.

9. Fish update:

FISH COMPONENT PROGRESS REPORT

2020-21, Year 27

1. Subscriptions

LabCode	F-RT14	F-RRT12
F_2701	1	1
F_2702	1	-
F_2703	1	1
F_2704	1	-
F_2705	1	-
F_2706	1	-
F_2707	1	-
F_2708	1	1
F_2709	-	1
F_2710	-	1
F_2711	-	1
F_2712	-	1
F_2713	-	1
F_2714	-	1
	<b>8</b>	<b>9</b>

2. 2020-2021, Year 27 Operations

The first circulations of Fish exercises were distributed in line with the 2020-2021 timetable, as summarised in the table below.

Exercise	Status	Returns / Comments
<b>F-RT14</b>	Specimens and images to be distributed 27/11/20;  Results deadline 29/01/21;  Interim reports 19/02/21;	8 participants. Results and final report distributed

Final report 12/03/21		
<b>Exercise complete</b>		
<b>F-RRT12</b>	Protocol and request for specimens distributed to 6 participants (including supply of fish postage boxes) 22/09/20, remaining 3 distributed by 16/10/20;  Specimen submission 11/12/20;  Final report 22/01/21	9 participants, 131 specimens submitted. Results and final report distributed
<b>Exercise complete</b>		

Fish ring test and fish reverse ring test protocols are now available on the website.

Environmentally friendly and sustainable packaging was trialled for the previous F-RRT and was used again for F-RRT12 and F-RT14.

### 3. Issues arising

After the distribution of preserved specimens in the previous Fish Ring Test (FRT13) some participants requested fresh specimens. For FRT14 all specimens were distributed frozen. Once thawed some of the smaller specimens were very fragile and easily damaged, potentially by larger still frozen specimens. Any relatively small or fragile specimens distributed in future exercise will be packaged separately to avoid damage in transit.

### 4. Taxonomic Workshop

Currently no taxonomic workshop is planned for fish. A targeted workshop can be developed if sufficient interest is shown.

### 5. Outstanding issues

The Fish Component Annual Report and statements of performance are being reviewed and will be ready for uploaded/distribution soon.

The use of images to replace some specimens being distributed and received remains a potentially option for species of conservation concern, scarce species, and large specimens impractical to circulate. The possibility of verifying field identifications from submitted images is also a potential expansion of the F-RRT exercise. Proposals for image use in future exercises have not been finalised yet.

### Fish Component 2020-2021 Timetable (Scheme Year 27)

Module / Exercise	Event	Date
F-RRT12	Protocol and request for specimens distributed (including supply of fish postage boxes)	16/10/20*
	Specimen submission deadline	<b>11/12/20</b>
	Final report deadline	22/01/21
F-RT14	Samples (specimens & images) distributed	27/11/20
	Results deadline	<b>29/01/21</b>
	Interim reporting deadline	19/02/21
	Final report deadline	12/03/21
Annual Report	Annual report deadline	09/04/21
Workshop – experts	TBC – subject to demand	TBC
Workshop – beginners	TBC – subject to demand	TBC

\* 6 x F-RRT12 protocols and fish postage boxes sent on the 22/09/20

#### **10. Zooplankton update:**

This is a single unit component and is comprised of the Zooplankton Ring-Test. Following a successful trial in 2014/2015, the first official ring-test took place in 2016/17 and then again in 2018/19, with a few minor tweaks.

Sent out to participants in Dec 2020, the 2020/21 ring-test included a specimen identification (ID) element, a written quiz and an enumeration exercise, based upon developmental stages of copepods. We secured 21 participants, from 14 different laboratories, from seven different



countries take part in the exercise. As in previous years, most participants were from European laboratories; in addition, we welcomed back a laboratory from the United Arab Emirates. There was an even mix between consultancies and governmental organisations taking part in the test.

At the time of writing, results submission from participants is still ongoing. A comprehensive overview of results will be incorporated into the next annual report. An online results and discussion workshop (tba) will be held in 2021 to evaluate results, to help taxonomists with any ID issues they may have and to exchange best practice within and between institutions. Of course, how we do this in the present climate depends upon adhering to covid protocols and regulations.

#### **11. AOB:**

RG to provide feedback to one contractor question, although this was covered by DH in his summary. The question concerned timings of back-to-back invertebrate ring tests. This was a one off and will revert back to normal deadlines. **Action: RG to feedback**

CM attended a North Sea Integrated benthic monitoring scoping workshop (virtual) in December 2020 and gave a short presentation about the NMBAQC. Several attendees highlighted NMBAQC and participate in the benthic invertebrate component, and referenced taxonomic discrimination protocols, etc. Epibiota (Big picture initiative) also highlighted here.

CT advised the committee that the annual report is with MoR for editing and will disseminate once finalised.

DH advised is always happy to take ring test specimens and is worth reminding people of this. **Action: RG to let contractors know. POST MEETING NOTE: CT sent this out via mailchimp 19/04/21**

JE advised could start trialling photos of larger things of there is not much fieldwork on.

Next meeting planned for early July 2021 – probably online? **Action: CT to co-ordinate and hoping to showcase new NMBAQC website**