

Date Monday 28 November 2014

Meeting: Meeting of Bergen Hub Advisory Group (BHAG) of AEkhRB

Meeting place: Bryggen Museum

Date: Monday 28 November 2014 1700-1800



Present: Dag Rune Olsen (MAE/UiB), Ole Hope (BRB); Svend Erik Larsen (MAE/UiAa), Einar Hope (MAE / NHH), Laszlo Csernai (MAE/ UIB); Ole Arve Misund (MAE/ UIB) Anne Gro Salvanes (MAE/ UIB); Jan S: Vaagen (MAE/ UIB); Vidar Totland (BRB)

Referent: Vidar Totland (BRB)

Apologies: Petter E. Bjørstad (MAE/UiB) Sigmund Gronmo (MAE/ UIB); Leiv K. Sydnes (MAE/ UiB)

Meeting of Bergen Hub Advisory Group (BHAG) of AEkhRB

Meeting in Bergen Hub Advisory Group (BHAG) – following open seminar «Cold water – Hot Issues», topic: «The Nordic Seas – gold mines for the future?», for MAE associates and invited guests from three co-organizing Norwegian Science Academies.

<http://acadeuro.b.uib.no/activities/meetings/>

MINUTES

PROGRAM

1. Brief summary of last meeting 6 October, notes to minutes by HC – activities since meeting 6 October (Report on HAD activities). (*enclosed*)
 2. Recruiting new AE members from Region Bergen – reports from Sections ABC
 3. Report on EASAC- Energy Steering Panel participation in Brussels 22-23 October. Special Topic: "Fracking in Europe ?" (Laszlo Csernai)
 4. Report by HC (UiB Rector Dag Rune Olsen) on UiB participation in top level meeting of Northern Future Forum in Helsinki 6-7 November
 5. Suggestion from HAD: Annual Hub event CONSENSUS 2015 (May/June) in Bergen, analogue to Barcelona's DIPUTATIO 2014 (November). Adequate location? (See Barcelona for inspiration.) CONSENSUS goes together with Nordic/Dutch Model
 6. The Hub goes more Northern Seas, beyond Bergen, in the Spring. BHAG needs to discuss the Hub's media contacts.
 7. HAD suggests a HAD Spring Meeting addressing "Ocean Power" - a possible Hub project - with Topical talks by profs. Csernai& Jarle Berntsen(UiB)
 8. HAD/HBC suggest that the option of adding Thematic talks (open for AE members and Hub Associates) is continued in the spring.
 9. Northern Seas Achievement Symposium (NorSAC) - Spring 2015: 25 YEARS of RNBT: Russian-Nordic-British Theory collaboration. A world leading theory collaboration formed by smaller national groups in Northern Seas countries. Guiding International Research into new Nuclear Territories A tool for European science investments. Hub responsible: Prof. Laszlo Csernai. (RNBT coordinator HAD) (*enclosed*)
 10. Darmstadt 2015 Annual Conf.AE –Ideas (HAD)
 11. Other matters
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- 1 **Brief summary of last meeting 6 October**, notes to minutes by HC – activities since meeting 6 October
 HC guided BHAG through the MINUTES of BHAG 6 October
 Report on HAD activities, (forwarded on request). HAD also presented a list of Hub projects; ongoing or in planning phase, (enclosed).

BHAG Approved

- 2 **Recruiting of new members to AE from RB** – reports from section members.

Recruiting to AE from RB is coming along, but slowly. Thus (HAD) the Hub leans on support from from Hub Associates. Nordic recruiting initiatives have been taken by the Hub. The Hub now also has a YAE associate, prof. M. Postema (UiB), who has offered to help with recruiting. This activity is now in progress, and will be accelerated in early 2015.

BHAG Approved

- 3 Report on EASAC- Energy Stearing Panel participation in Brussels 22-23 October. Special Topic: “Fracking in Europe ?” (Laszlo Csernai). EASAC statement now available on Hub and EASAC homepages.

BHAG Approved

- 4 Report by HC (UiB Rector Dag Rune Olsen) on UiB participation in top level meeting of Northern Future Forum in Helsinki 6-7 November

BHAG Approved

- 5 Suggestion from HAD: Annual Hub event CONSENSUS 2015 (May/June) in Bergen, analogue to Barcelona's DIPUTATIO 2014 (November). (See Barcelona for inspiration.) CONSENSUS goes together with Nordic/Dutch Model. Adequate location were suggested, for example “Litteraturhuset” in Bergen. <http://www.litthusbergen.no/>

BHAG Approved

- 6 The Hub goes more Northern Seas, beyond Bergen, in the Spring. BHAG needs to discuss the Hub's media contacts. Advice from London on media relations was called for. A hub needs regional contacts, but also international. HAD were asked to follow up this issue.

BHAG Approved

- 7 HAD suggests a HAD Spring Meeting addressing "Ocean Power" - a possible Hub project - with Topical talks by profs. Csernai& Jarle Berntsen(UiB)

BHAG Approved

- 8 HAD/HBC suggested that the option of adding Thematic Talks(TT),open for AE members and Hub Associates, is continued in the spring.

BHAG Approved

- 9 Northern Seas Achievement Symposium (NorSAC) - Spring 2015: 25 YEARS of RNBT: Russian-Nordic-British Theory collaboration. A world leading theory collaboration formed by smaller national groups in Northern Seas countries. Guiding International Research into new Nuclear Territories, a tool for European science investments. Hub responsible: Prof. Laszlo Csernai. (RNBT profile enclosed)

BHAG Approved

- 10 Darmstadt 2015 Annual Conf.AE –Ideas (HAD). HAD suggested to seek joint ventures with AE Sections approved.

BHAG Approved

- 11 Other matters

Plan for BHAG meetings spring 2014

- Wednesday 14.January 15.00
- Wednesday 25. February 15.00.
- Wednesday 20 May 15.00

Topical Talks open for all MAE and Hub Associates to be continued.

BHAG Approved

PROJECTS AE-Bergen Hub 'Northern Seas'

ENERGY CULTURE

The Northern Seas Dimension, the focus of the Bergen Hub, is an *Energy Culture*, aware of the tracks of mankind in the landscape and threats associated with fragile Northern margins.

The Hub concentrates upon Northern Seas related European resources and opportunities, such as energy, seafood and maritime logistics, and interplay between knowledge and business.

- I. ENERGY AND SOCIETY – HISTORY
 - P1 Energy in the development of Northern Seas (Bent Sørensen?) over time
 - P2 Exploration and Harvesting in Northern Seas; Reconstructing a Viking Age
 - Energy Culture (Bergsveinn Birgisson, Lisbonne 2015)
- II. ENERGY IN SCIENCE
 - P3 BEAM – Bergen Energy and Accelerator Museum (European historical laboratory)
- III. ENERGY AND HEALTH
 - P4 BEAMED Linked to BEAM and Bergen plans for Particle Therapy and present and future Northern Seas facilities. Promoting a joint venture culture between physical sciences/technology and medicine (Röhrich, Csernai)
- IV. ENERGY AND POWER PRODUCTION
 - P5 HOP- Hydro and Ocean Power (BKK, Jarle Berntsen, Csernai), EASAC project ?
- V. ENERGY AND FOOD PRODUCTION
 - P6 CSHQ- Cold Seas – Hot Questions (Ole A. Misund)
- VI. ENERGY, ENVIRONMENT AND CULTURAL HERITAGE
 - P7 EECH – Joint venture with upcoming UNESCO Chair at UiB (Nils G. Brekke)

PROFILE OF NORTHERN SEAS SOCIETIES – PERSPECTIVES

Interplay and collaboration implies mutual trust. The Nordic Model has been a tool to this end, and its success is documented in recent work such as that of Piketty. What are future perspectives for the Northern Seas Region? Is transfer to developing countries successful?

- VII. THE NORDIC MODEL IN A CHANGING WORLD
P8 NORMOD – Future for the Nordic Model in Northern Seas
(Kuhnle/Fimreite)

VII – TAS III <http://www.folk.uib.no/hlils/tasweb>
<http://acadeuro.b.uib.no/activities/meetings/>

EVENTS organized by the AE-Bergen Hub / Participation from AE Bergen Hub

CONSENSUS (annual) – analogue to Barcelona’s DISPUTATIO, inspired by The Nordic Model – Bergen late spring 2015.

NORSAC (annual) – Northern Seas Achievement Symposium: Symposium to highlight mission statement related achievement/s or achievement related to interplay between Northern Seas countries (Bergen spring 15 RNBT-enclosed)

ENLIGHT, Bergen Fall 2015

AE Annual Meeting Darmstadt Fall 2015 <http://ae2015.eu/>

“Paths on the Seas; The Routes to Discoveries” Lisbon Fall 2015

25 YEARS of RNBT: Russian-Nordic-British Theory collaboration



25 Years of Guiding International Research into New Nuclear Territories.

A tool for European science investments.

A world leading theory collaboration formed by smaller national groups in Northern Seas countries.

Field Character: International Big Science, Experiment and Theory.

Topic: Fundamental nuclear matter under extreme conditions: Exploring matter at nuclear driplines with Radioactive Nuclear Beams (**RNB**).

Initiating experimental discoveries (1985-87, US, Europe, Japan): New, exotic nuclear structure at the borders of nuclear binding; Halo nuclei.

RNBT (1990), Mission: Formation of RNBT (Russian-Nordic-British Theory) collaboration, a concerted European theory effort in RNB physics.

Theoretical Break-Through (1992): Coining the concept of **Borromean** halo nuclei – with emergent genuine few-body cluster constituent structure.

Fundamental Paper (1993): **Physics Reports** 231(1993)151-199, with close to 1000 citations, a top cited paper in the field. It has served as gateway to a field where the World has made billion Euro investments.

Training Impact: From its start-up the RNBT attracted students and young scientists and instituted for training purposes the Halo Study Weekend (HSW) symposium which rotated among the Partners' home institutions. Later also other European countries sometimes joined in as hosts (Belgium and Portugal in particular), and the HSW also set a standard beyond Europe.

Copenhagen Cradle. Initial Partners: The cradle of the RNBT was at The Niels Bohr Institute (NBI)/NORDITA in Copenhagen, Mecca of quantum physics, where among others scientists/stipendiates from the Nordic countries (NORDITA), Russia (Soviet Union) and the UK often met, supported by collaboration agreements. Copenhagen's experience in offering a top working environment is well documented in the history of modern science. With experience from previous collaborations, scientists from Bergen&Copenhagen, Dubna&Kurchatov and Surrey took the initiative to form RNBT.

Coordination of RNBT: All Partners were supposed to add their share to the running and coordination, with **Bergen** providing a light overall coordination, linking RNBT in particular to Nordic sources, NORDITA, Norfa and Nordplus.

Bohr's Open World Concept: Last year the World celebrated 100 for Niels Bohr's atomic model and the first quantum architecture. RNBT was inspired by Bohr's historic statements on open flow of ideas and knowledge. In fact, two of the RNBT pioneers (Bang & Vaagen), had in 1987 written a letter to Gorbachov, reminding him about the values of free exchange, used with great success between Denmark and the Soviet Union in the years after the revolution. Last December the World was again reminded about this in a conference in Copenhagen.

CORE TEAM

Russia

M.V. Zhukov (Kurchatov, Chalmers)

B.V.Danilin (Kurchatov) *

S..Ershov (JINR,Dubna)

F.A.Garlev (JINR, Dubna)

Nordic

J.M.Bang (NBI)*

J.S.Vaagen (UiB) – coordinator (MAE)£

M.V. Zhukov (Chalmers TU)

Britain

I.J.Thompson (USurrey, Livermore)

OUTSTANDING YOUNG SCIENTISTS TRAINED BY RNBT(Master/Doc; now at)

Russia

Dimitriy Fedorov (Kurchatov; UAarhus DK)

Leonid Grigorenko (Kurchatov; JINR,Dubna)

Dimitriy Gridnev (USt.Petersburg/UiB; FIAS DE)

Alexej Korshininikov (Kurchatov)

Nordic
Danas Ridikas (UiB/Caen; Saclay FR)
Gaute Hagen (UiB; Oak Ridge US)
Christian Forssen (Chalmers TU)



British
James Alkhalili (USurrey; USurrey/BBC) Science communicator

£ MAE: Member of Academia Europaea. RNBT's network contains many members of AE.