

Date Monday 6 October 2014



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

Meeting place: Boardroom, BRB Strandgt. 6 (The AEkhrB premises at BRB)

Date: Monday 6 October 2014 Kl. 16.00-17.30

Present: Dag Rune Olsen (MAE/UiB), Ole Hope (BRB); Svend Erik Larsen (MAE/UiAa), Einar Hope (MAE / NHH), Petter E. Bjørstad (MAE/UiB); Laszlo Csernai (MAE/ UiB); Jan S: Vaagen (MAE/ UiB); Vidar Totland (BRB)

Also present Lars Sætre (UiB institute for literature)

Referent: Vidar Totland (BRB)

Apologies: Ole Arve Misund (MAE/ UiB) Anne Gro Salvanes (MAE/ UiB); Sigmund Gronmo (MAE/ UiB); Leiv K. Sydnes (MAE/ UiB)

Meeting of Bergen Hub Advisory Group (BHAG) of AEkhrB

Meeting of Bergen Hub Advisory Group (BHAG) – followed by Topical Talk open for MAE and Hub Associates starting 17.30. Topic «The Nordic Model» by Prorector at UiB, Professor Anne Lise Fimreite and Professor Stein Kuhnle .

MINUTES

PROGRAM

1. Brief summary of last BHAG meeting 27 August ,remarks to minutes (HC)– status for activities (HAD) since last meeting 27 August (enlosed)
2. Recruiting of new members to AE from RB – reports from section members
3. Status for project BEAMED (particle therapy). Including lessons from visit (HAD) to the new Uppsala centre “Skandionkliniken”
4. Update on status for other running projects (HAD)
5. Adjusted meeting plan for Fall 2014 (enlosed)
6. Suggested BHAG meetingplan for Spring 2015 (enlosed)
7. Topic «The Nordic Model» – introduction by HBC with reference to the following Topical Talks
8. Other business

1 Brief summary of BHAG meeting 27 August by Chair (HC).

HC guided BHAG through the MINUTES of BHAG 27 August

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.

BHAG Approved

3 Status for project BEAMED (particle therapy). Incl. 2 day workshop Uppsala August. (HAD)

HAD was invited to join the Bergen Particle Therapy Group in a 2 day workshop, linked to Norwegian particle therapy plans, at the brand new Skandionkliniken for proton therapy in Uppsala. The Hub functions in the role of Mentor providing an extensive network. The workshop included (day 2) international speakers; US (MIT/Harvard) proton and Italy (Pavia) Carbon therapy.

HAD learned 3 lessons: (1) That academia (AE) may help bridge a gap between two cultures, that of more traditional medicine and that of physics/technology, between man and the machine. (2) The Bergen Hub, with its European networks, competence and energy culture profile has a role to play, not only in the Nordic context. (3) Europe has to unite its efforts if it is going to keep up with US and Japan.

The Hub partner HFK has relevant historical contacts with Trentino (Italy) and Basse Normandie (France), with institutions where Hub members also have played a visible role, also in collaboration with HFK.

Regionally, the Hub is invited to support The Bergen initiative which includes both proton and Carbon beams. Being a Nordic Hub it will provide advice to all initiatives in the larger "Northern Seas" region, and in particular help to stimulate interplay. The Hub will add support for oncology as a field and dual training of students to obtain a modern combined competence.

The Hub is coorganizer of the international conference ENLIGHT 2015 in Bergen next fall, and will also contribute to the annual meeting AE-2015 in Darmstadt. <http://ae2015.eu/>

BHAG Approved

4 Update on the Hub Activities

London has asked for an update on the Hub activities.

HAD encouraged UiB and NHH as Hub owners, to actively involve the Hub more in their business, given the Hub's mission statement. A win-win situation for AE and Hub partners requires interplay and investment of time, not only money. Csernai gave examples of how AE has contributed to workshops etc. Einar Hope called for a project where the Hub is project owner, not only participant.

Larsen suggested to develop a "manual" for project organization and budget, including advice to project proposers. Ole Hope (VHC) referred to BRB's simple 'methodological tool' for project management, and suggested it used for the Hub's project portfolio.

HAD reminded about ongoing activities, emphasizing the range of the Energy Culture concept, links to UiB's UNESCO chair initiative, to participation in EASAC, and the afore mentioned BEAMED for energetic particle therapy. He also gave an update on collaboration with AE sections and the other Hubs, in particular next fall's inter Sectional workshop on "Paths on the Seas; The Routes to Discoveries", where a Hub project is being outlined with the

tentative title “Exploration and Harvesting in Northern Seas; Reconstructing a Viking Age Energy Culture”.

The upcoming Arctic meeting in Bergen “ Cold water – hot questions” 28 November was highlighted.



BHAG Approved

5 Adjusted plan for BHAG autumn meetings

Friday 28. November kl. 17.00 -18.00 after the seminar and exhibition

„Cold water- hot questions“ Bergen 28. Nov. 2014

<https://www.stortinget.no/nr/Grunnlovsjubileet/Jubileumskalender1/Aktuelle-hendelser/Hendelser/Aktuelle/Kultur/Kaldt-hav--hete-sporsmal/>

BHAG Approved

6 Plan for BHAG meetings spring 2014

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

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

BHAG Approved

7 Other business.

None put forward

Topical Talk 6 October: ‘The Nordic Model’ Speakers Profs. Anne Lise Fimreite (Prorektor UiB) and Professor Stein Kuhnle (UiB)

ACADIR (AD) Jan S Vaagen ACTIVITY LIST FALL 2014

5-6 August: ENERGY CULTURE AcaDir Chair at EnergiRikekonferansen 2014 Haugesund. Talks by Prof. Eirik Amundsen UiB/CopU and Prof. Elisabeth Rachlew KTH/KVA.

8 August: PARTMED Renzo Leonardi (prof., UTrento) on tel./email: Respons on move by AcaDir on perspectives for Bergen- Trento collaboration. Role of AE: Mentor, network facilitator. AcaDir to call meetings with members of the Bergen PARTMED team, Röhrich (AE) already informed. Basis for new contact with Leonardi.

13 August: (1) REGCOOP Meeting with Atle Kvamme Bergen NæringsRåd (BNR) on future contact and collaboration, in particular related to **ENERENV**, Energy and Environment.

(2) Meeting in BRB with Bergen **PARTMED** players Odd Harald Odland and Anfinn Medhus Helse-Bergen, based on previous tel. contact with Odland on AcaDir's contact with Leonardi and **Terje Inderhaug HFK**. Mandate to continue the Trento line and invitation to AcaDir to join the Bergen PARTMED team at an upcoming Uppsala conference, Uppsala also having Trento contact. (VT partly present). VT = Vidar Totland, Hub Secr.

18/19 August: Meetings in Bergen with Einar Waage (EnergiRike) on **Energy Culture** work including the Student Forum.

19 August: (1) AcaDir attends BNR's morning seminar - "Statsråder om **miljøteknologi**", adds the Hub into the discussion and gives Monica Mæland the AE minifolder.

(2) Meeting with IFT(UiB) Chair Frette on the UiB **ENERGY** programme. Csernai present.

(3) Meeting at BRB with Svend Erik Larsen (BHAG) and prof. Lars Sætre on hub strategi and future AE structuring. (VT present). **Csernai** present. To be continued in BHAG meeting 27 August.

21 August: (1) Meeting in BRB (VT present) with **Terje Inderhaug HFK** on joint projects and a **win-win profile**, with concrete examples rooted in PARTMED and international HFK partners (heritage, food- stockfish, Unesco) with Trentino as a common partner. Plans to have a joint Trentino (Trento/Rovereto) visit in the week including 4 October.

(2) Telephone updates on recruitment with E.Hope & Lærum.

Meeting at BRB with prof. **Olav Dahl** UiB/Helse-Bergen on AE issues and **PARTMED** plans, Dahl being a central senior person in the Bergen team.

22 August: Update on suggested initiation of Bergen-Trento plans sent to Leonardi by email.

[Running discussions with **Csernai**. Like what was the case in the spring, former UiB Hum-dean prof. **Gunnstein Akselberg** has given advice during numerous informal meetings, and also participated at some of the meetings listed above.]

{**BHAG chair Rector Olsen:** Brief UiB visit by AD - Barcelona update, telephone contact.}

27 August: HBC and HAD meet Jone Engelsvold HFK at BRB for mutual information linked to HFK's ongoing work with a new regional research strategy. Presentation of the Hub and Hub topics/projects.

(See also 23 September).

27 August: BHAG

2-3 September: (1) PARTMED – HAD participation in 2-days Workshop/Info Meeting in Uppsala Sweden at the brand new **Skandionkliniken** using proton beams. Opportunity to profile the Hub, and contacts made with speakers from Pavia (Italy) and Harvard/MIT (USA). **(2) ENERENV** – discussion with UU sen.prof. Kjell Aleklett (author of "Peeking at Peak Oil"), on role as Hub advisor and associate. Aleklett has lectured previously in Bergen at Energy Foresight conferences.

9 September: ENERENV- coffee with Atle Kvamme (BNR) on Aleklett as future speaker.

22 September: BHAG prep rector.

22 September: AcaDir at **Nansen Guest Lecture** at the Nansen Centre, Bergen.

Lars Kullerud (President Uarctic): "Arctic University Cooperation. History of Arctic Council and its impacts – Who owns the North Pole – Arctic and the Laws of the Sea."

Brief Hub presentation and perspectives for future contact discussed.

23 September: (1) Hub participation (HAD,HBC) in HFK meeting in Terminus on HFK Research Strategy Plans. The Hub is included! **(2) Meeting** in NTVA Bergen; Narve Mjøs (Director Battery Projects, DNV) "Batteriteknologi (Maritim)". Possibilities for joint ventures with the Hub.

24 September: (1) Morning meeting (HAD,HBC) with Prorector Anne Lise Fimreite and tel.contact with Stein Kuhnle(MAE) on THE NORDIC MODEL, preparing for the 6 October BHAG meeting.

(2) HAD participation in seminar at Avaldsnes based on talk given by Dr.Phil (Uib 2008) Bergsveinn Birgisson (Iceland) presenting his book "Den svarte vikingen" (The black viking). Contact established, relevant for Hub participation next fall in Lisbon (Sea discoveries). Birgisson will visit the hub.

26 September: PARTMED – HAD receives update and advice from Leonardi (Trento).

1 October: Meeting with prof. Eirik Schrøder Amundsen (EnergyEcon.UiB) and Csernai on strengthening the hub's local work team in energy-economy and **ENERENV**. Amundsen will help as hub Associate. The hub works at making him AE member.

[Running discussions with Csernai, including Crete meeting report, and with Akselberg.

Communication with Sven Erik Larsen on 2015 Darmstadt and Lisbon meetings and on the Nordic Model. Communication with AE B3-Section chair Harakeh on BEAMED and ENERENV collaboration.]

3 October: Meeting in HGSD with Einar Waage (EnergiRike) and Sigurd Aase (Business man & Owner of the dragon “Harald Haarfagre”).

6 October: BHAG

13 October: Meeting with G. Alendal and B. Arntzen, UiB representatives in the EnergiRike Board (new). Separate EneriRike discussion with Frette IFT chair UiB.

14 October: Meeting in BRB with prof. Michiel Postema (IFT,UiB), member of YAE.

Postema will take on Hub-YAE relations and recruiting.

15 October: Discussions with NG Brekke and OH Odland (tel).

17 October: Discussion in HGSD with Einar Waage, following up that of 13 October with Alendal/Arntzen.

21 October: Program 2015: Project discussion in BRB with Bergsteinn Birgisson and Gunnstein Akselberg concerning potential participation in the 2015 AE Lisbon conference ‘Paths on the Seas: The Routes to Discoveries’. Tentative title: Exploration and Harvesting in Northern Seas; Reconstructing a Viking Age Energy Culture. (VAEC).

21 October: Public Discussion Meeting on future UiB strategy in Litteraturhuset. HC,HVC,HAD & HBC present.

23 October: EASAC (Fracking) meeting in Brussels. Csernai replaced HAD.

28 October: NTVA-Bergen: Hjernen og intellektuell funksjon (-) Hugdahl

October/November: Work for Wraclaw related to Anne Buttimer (presentation), HBC/HAD.

5 November: (1)Participation in Meeting of Forsker Forbundet on New Public Management and Academia, Same place: Private discussion with Prof. Ernst Nordtveit (law, speaker) on law and Arctic issues – and Hub association. **2)** Participation in public meeting (HC speaker) in SVF (Society for advancement of Science) – contact with preces prof. Andreas Steigen on possible joint ventures.

11 November Program 2015:The RNBT (Russian-Nordic-British Theory) collaboration, coordinated (J.S.Vaagen) from UiB, celebrates 25 next year. *Csernai* will assist the Hub in organizing an afternoon with a *Hub Thematic Celebration (HTC)* “RNBT25: Imprint on our understanding of fundamental matter under extreme conditions”. Selected (educational)talks by old and young masters.

12 November: Meeting with prof. Jarle Berntsen (UiB,Mat) on new developments in ocean energy. New meeting (incl. Csernai) in BRB office 18 November.

13 November: (1)BHAG prep – Rector,(2)Meeting (HSD/HBC) with Dir. Atle Neteland BKK in BRB office. Hub Assoc.

18 November: (1) Lessons from Ocean Energy/Power, Mutual INFO meeting in BRB; Profs. Jarle Berntsen (UiB), Larisa Bravina (UiO), Csernai and Vaagen. Planning Spring 2015 Topical Talk. Article for Aftenposten/BA, EASAC project proposal. See IEA/IES and NORE for student organization. (Recall EnergiRike). Hub Assoc.

(2) Meeting at Haukeland, HAD and dir. Stener Kvinnsland: Hub's Mentor role via BEAMED . Hub Assoc.

24 November: Project meeting VAEC (Viking Age Energy Culture) Bergsveinn Birgisson, Akselberg, HAD, HBC. Perspectives; Lisbonne, Darmstadt.

25 November: NTVA-Bergen: Partikkelterapi (Stener Kvinnsland, Helse-Bergen).

Program 2015: HAD has running contact with the Bergen Particle Therapy Project Group. The Hub project BEAMED will act as MENTOR for the initiative, and the Hub will be *co-organizer of the ENLIGHT 2015* conference in Bergen in the fall 2015. ENLIGHT (The European Network for LIGHT ion Hadron Therapy).

28 November: BHAG meeting

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)

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

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

NORSAS (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 about 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)

Nordic

J.M.Bang (NBI)*

J.S.Vaagen (UiB) – coordinator (MAE)£

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 Forsen (Chalmers; Chalmers)

British

James Alkhalili (USurrey; USurrey/BBC) Science communicator

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