AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH

Dokument dato: 3. oktober 2017

Dokumentansvarlig: Mark Gammeljord

Akademisk Råd indkaldes hermed til møde nr. 20175 onsdag den 25. oktober 2017 kl. 12.30-16.00 NOVI, Niels Jernes Vej 10, mødelokale 5

Indkaldte:
Mads Græsbøll Christensen, Henrik Pedersen, Petar Popovski, Knud Erik Skouby, Thomas Bak, Arne Remmen, Henrik Lund, Claus Lassen, Bent Thomsen, Ivan Aaen, Stefania Serafin, Morten Meyer Rasmussen, Lukas Bjørn Leer Bysted, Kristoffer Holger Weithøft Lindstrøm, Jacob Kjærsgaard, Torben Larsen, Kirsten Nielsen,

Gæster: Troels Hedegaard Dissing (pkt. 10)

Afbud:

Referent: Mark Gammeljord

	Dagsordenpunkter
1.	**Godkendelse** A. Godkendelse af dagsorden for AR møde 20175 B. Godkendelse af referat af AR møde 20174 **Orientering** **Til efterretning** C. Referat fra ph.d.-udvalgsmøde 4-2017 den 21. august 2017 **Bilag 20175-1**
2.	**Tildeling af ph.d.-grad til positivt bedømte ph.d.-afhandlinger fra:** A. Albert Gyamfi, Institut for Elektroniske Systemer. Afhandlingens titel: ”Research on web 2.0 usage for knowledge management processes: The case of Ghana Cocoa Board (COCOBOD)”. B. Guillermo Andrés Pocovi Gerardino, Institut for Elektroniske Systemer. Afhandlingens titel: ”Radio Ressource Management for Ultra-Reliable Low-Latency Communications in 5G”. C. Kasper Fløe Trillingsgaard, Institut for Elektroniske Systemer. Afhandlingens titel: ”Information-theoretic aspects of low-latency communications”. D. Sara Bjørn Aaen, Institut for Planlægning. Afhandlingens titel: ”Understanding citizen action in infrastructure development processes”. **Bilag 20175-2**

3.	**Indstillinger vedr. sammensætning af sagkyndige udvalg vedr. lektorstillingerne i:** A. ”Application of Materials in Product Design” ved Institut for Planlægning (stilling 201728/42238) B. “Conceptualisation and Prototyping in Product Design” ved Institut for Planlægning (stilling 201729/42239) **Bilag 20175-3**
4.	**Indstilling vedr. sammensætning af sagkyndigt udvalg vedr. adjunktstillingen i:** A. ”Navigating Design Engineering Processes” ved Institut for Planlægning (stilling 201735) **Bilag 20175-4**
5.	**Indstillinger vedr. sammensætning af sagkyndige udvalg vedr. postdocstillingerne i:** A. ”Data Analysis and Data Mining in Problem-Based Learning” ved Institut for Arkitektur og Medieteknologi (stilling P21743) B. ”Airport City Futures” ved Institut for Arkitektur og Medieteknologi (stilling P21744) **Bilag 20175-5**
6.	**Digitalisering af godkendelse af Ph.d.-afhandlinger og godkendelse af bedømmelsesudvalg** AR bedes drøfte det vedlagte proces for digitalisering/skriftlig godkendelse af ph.d.-afhandlinger og bedømmelsesudvalg AR bedes formelt godkende digitalisering/skriftlig godkendelse af ph.d.-afhandlinger og bedømmelsesudvalg. **Bilag 20175-6**
7.	**Kommunikation fra Akademisk Råd** AR bedes drøfte og træffe beslutning om, hvordan kommunikationen fra AR til omverden skal være fremadrettet **Bilag 20175-7**
8.	**Ny sammensætning af bedømmelsesudvalg for adjunktstillinger** Der indstilles at AR godkender ny sammensætning af bedømmelsesudvalg for adjunktstillinger **Bilag 20175-8**
9.	**Akademisk Råds rolle som aktiv sparringspartner** AR bedes drøfte, hvordan AR ønsker at være en aktiv sparringspartner for dekanen **Bilag 20175-9**
10.	**Budget 2018** Præsentation af budget 2018 ved Dekan Henrik Pedersen og EST økonomicenter Der indstilles at AR tager fakultetets forventede resultatetmål til efterretning og godkender resultatbudgettet for 2018. **Bilag 20175-10**
11.	**Fokuspunkter 2018**

	Præsentation af fokuspunkter 2018 samt forklaring af ny proces for udarbejdelsen af fremtidige fokuspunkter AR bedes komme med bemærkninger til fokuspunkter præsenteret på mødet samt tage den vedlagte procesplan til efterretning. **Bilag 20175-11**
12.	**Meddelelser fra dekanen og/eller formanden**
13.	**Eventuelt**

Til orientering

- Fortegnelse over sager godkendt af dekanen siden sidst

OBS! Vedr. bedømmelsesudvalg: I de tilfælde hvor ansøgningsfristen ligger efter Akademisk Råds møde kontrolleres der efterfølgende for inhabilitet og sammensætning af udvalget (kvindelig bedømmer). Hvis der konstateres uregelmæssigheder, vil dekanen/formanden godkende nyt/nye medlemmer.

AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH

Dokument dato: 29. august 2017

Dokumentansvarlig: Rikke Poulsen

Akademisk Råd indkaldes hermed til møde nr. 20174 onsdag den 6. september 2017 kl. 13.00-16.00 NOVI, Niels Jernes Vej 10, mødelokale 1

Tilstedeværende:
Mads Græsbøll Christensen, Henrik Pedersen, Knud Erik Skouby, Thomas Bak, Arne Remmen, Henrik Lund, Claus Lassen, Bent Thomsen, Ivan Aaen, Lukas Bjørn Leer Bysted, Kristoffer Holger Weithøft Lindstrøm, Torben Larsen, Rikke Poulsen, Mark Gammeljord

Referent: Mark Frahm Gammeljord

Gæster:

	Dagsordenpunkter
1.	**Godkendelse** A. Godkendelse af dagsorden for AR møde 20174 B. Godkendelse af referat af AR møde 20173 og økonomidelen fra 20172 **Orientering** **Til efterretning** C. Referat fra ph.d.-udvalgsmøde 3-2017 den 6. juni 2017 **Bilag 20174-1**
	1A: dagsorden godkendt 1B: Referat fra AR møde 20173 og økonomidelen fra 20172 godkendt 1C: referat fra p.hd.-udvalgsmøde taget til efterretning
2.	**Præsentation Henrik Pedersen**
3.	**Præsentation Akademisk Råds medlemmer – bordet rundt**
4.	**Tildeling af ph.d.-grad til positivt bedømte ph.d.-afhandlinger fra:** A. Ivan Harry Butler, Institut for Planlægning. Afhandlingens titel: ”The Processes of Creating Solutions in the Context of Uncertainty – Case Studies of Companies creating Solutions in relation to Sub-Saharan Africa”. B. Maria Simonsen, Institut for Elektroniske Systemer. Afhandlingens titel: ”Stochastic Switching Dynamics”. **Bilag 20174-4**

	Begge godkendt
5.	**Indstilling vedr. sammensætning af sagkyndigt udvalg vedr. professorstillingen i:** A. ”Human Machine Interaction” ved Institut for Arkitektur og Medieteknologi (stilling 50123) **Bilag 20174-5**
	Punktet godkendt
6.	**Indstillinger vedr. sammensætning af sagkyndige udvalg vedr. postdocstillingen i:** A. ”Ocean/Marine Governance” ved Institut for Planlægning (stilling P21732) **Bilag 20174-6**
	Punktet godkendt
PAUSE	
7.	**Høring ændring af AAU vedtægten** AR bedes drøfte de fremlagte ændringer. **Bilag 20174-7**
	Akademisk Råd (AR) havde nedenstående kommentarer til ændringerne af AAU vedtægten: **Generelt:** Flere medlemmer af rådet udtalte, at når der ses på det fremlagte ændringsforslag som helhed giver det indtryk af, at magten på universitetet centreres hos rektor. Enkelte medlemmer er af den opfattelse, at der på AAU mangler et organ, hvor medarbejderindflydelsen sikres på universitetsniveau, fx et universitetsråd som det ses andre steder. Der efterspurgtes, at der fremover ved ændringer af diverse retningslinjer mm., forud for ændringerne bliver foretaget en evaluering af, hvorledes tingenes tilstand er. **Enkelte bestemmelser:** § 1: Formålsparagraf Et mindretal udtalte, at der mangler en formulering om at ressourcer skal følge aktiviteterne – et aktivitets- og initiativs baseret incitament. §5, stk. 1, nr. 7: Bestyrelsens opgaver – flytning af kompetencen til at oprette og nedlægge institutter til rektor (Og afledt heraf § 33, stk. 1, nr. 11 om rektors opgaver) AR er delt i holdningen hertil. På den ene side mener et mindretal, at kompetencen kan flyttes til rektor, da der er tale om et anliggende mellem dekan og rektor. På den anden side mener et flertal, at kompetencen bør bevares hos bestyrelsen, da en behandling i det ekstra led sikrer, at beslutningen sker på et fuldt oplyst grundlag, ligesom det bemærkes, at der er tale om en strategisk beslutning. §5, stk. 1, nr. 9: Bestyrelsens opgaver – flytning af kompetence til at fastsætte regler om valg til styrende organer til rektor (Og afledt heraf § 33, stk. 1, nr. 15 om rektors opgaver) AR er delt i holdningen hertil. På den ene side mener et mindretal, at forslaget kan godkendes, da der er tale om et trivielt spørgsmål, der ikke vedkommer bestyrelsen. På den anden side mener et flertal, at den nuværende bestemmelse bør fastholdes, da der ikke er ses at være grundlag for at flytte kompetencen til rektor, og da den demokrati-

	ske proces bedst sikres ved, at bestyrelsen er involveret i fastsættelsen af reglerne. §26, stk. 1: Ansættelsesudvalg ved videnskabelige ledere Et flertal i AR ønsker at fastholde den nuværende formulering, hvorved en bred repræsentation sikres. Formuleringen med et "bredt repræsenteret ansættelsesudvalg" er uhensigtsmæssigt, og det bør sikres at både VIP, TAP og studerende repræsenteres. §29: Rektors orientering til bestyrelsen Et flertal i AR anbefaler, at formuleringen ændres til: "Rektor har pligt til at orientere bestyrelsen om sager af usædvanlig art eller af stor betydning for universitetet". Ordlyden i det nuværende forslag er for upræcis. §34, stk. 2: Ansættelse af rektor Et flertal i AR ønsker at fastholde den nuværende formulering om at der indstilles indtil tre ansøgere. På den måde sikres det, at der er tale om en reel beslutning i bestyrelsen, der jf. forslagets § 34, stk. 1, har ansvaret for ansættelsen, modsat det nuværende forslag om kun at indstille en enkelt kandidat, dette medfører at den reelle beslutning træffes af ansættelsesudvalget. §39, stk. 2: Universitetsdirektøren som stedfortræder Et flertal i AR udtalte kritik af, at universitetsdirektøren kan være stedfortræder for rektor og prorektor, når der ikke er krav om, at universitetsdirektøren skal være anerkendt forsker. Det foreslås, at rektor i stedet udpeger en dekan som stedfortræder i denne situation. §40, stk. 2: Universitetsdirektøren repræsenterer universitetet over for andre offentlige myndigheder i administrative spørgsmål Et flertal udtalte, at den nuværende praksis baseret på rektors delegationsinstruks giver større administrativ fleksibilitet og bør derfor bevares i delegationsinstruksen. Enkelte medlemmer udtalte, at en beskrivelse i vedtægten vil give en større sikkerhed for universitetsdirektøren, idet han tillægges en fast kompetence, således kompetencen ikke blot kan flyttes ved uenighed mellem rektor og universitetsdirektøren. §41, nr.2 – 7: Universitetsdirektørens opgaver. Som udgangspunkt samme bemærkninger som til § 40, stk. 2. Generelt bemærkes det, at bestemmelsen ses som udtryk for en bekymrende isolering af forvaltningen fra forskning/undervisning. Særligt i forhold til § 41, nr. 6: Et flertal udtalte bekymring for at denne kompetence ligger fast hos universitetsdirektøren, da det er opfattelsen, at forhold der har stor indflydelse for VIP flyttes for langt væk fra VIP-indflydelse. Ved den foreslåede formulering får universitetsdirektøren direkte indflydelse på forskningsmæssige forhold. Det er ikke rådets opfattelse, at bestemmelsen er af ren administrativ karakter. Som eksempel henvises til AdmForskPro, der blev anset for at være en ren administrativ beslutning, men som har direkte indflydelse på forskernes arbejde. Særligt i forhold til § 41, nr. 7: AR noterer sig, at forslagets formulering medfører, at universitetsdirektørens opgave ikke omfatter regler og procedurer for IT-understøttelsen af VIP. §42, stk. 2 og 3: Ansættelse af universitetsdirektøren Besættelsen af denne post har erfaringsmæssigt stor betydning for hele universitetet. Et flertal i AR foreslår, at det tilføjes at en dekan skal være medlem af ansættelsesudvalget. Et flertal i AR foreslår videre, at rektor indstiller et antal ansøgere for at sikre en reel

	beslutning hos bestyrelsen. §43: Universitetsdirektørens merit Et flertal i AR foreslår, at der, såfremt forslaget i § 39, stk. 2, fastholdes, tilføjes et krav om, at universitetsdirektøren er anerkendt forsker. §73, stk. 2: AR's opgaver Ordlyden er i overensstemmelse med tidligere afgivet høringssvar fra AR. § 74: AR's sammensætning Arbejdet i AR opfattes ikke som en byrde, og alle har meldt sig frivilligt – mindre organer vil uvægerligt føre til en større byrde for de enkelte. Det er vigtigt, at man sikrer en bred repræsentation af organisationen både fagligt og geografisk. Det er vigtigt, at der er forståelse for at akademisk råd (og de øvrige organer) er med til at udbrede forståelse for beslutninger mm til resten af organisationen. Det bemærkes endvidere, at en bred repræsentation fremmer tværfaglighed, hvilket gennemsyrer universitetets strategi. Der var enighed i rådet om, at der i enkelte tilfælde kan være behov for at skære nogle organer til, men at det samtidig bør være op til det enkelte organ og forankringen heraf der træffer beslutning herom, og at det derfor ikke bør være en centralt fastsat beslutning, der indgår i vedtægten. Konkret stilles der forslag om, at der overlades til dekanen at fastsætte antallet af medlemmer, på en sådan måde at det sikres, at alle institutter repræsenteres med VIP medlemmer og studerende, eller at AR som udgangspunkt sammensættes af dekanen, to VIP medlemmer pr. institut samt et passende antal studerende i forhold hertil. De samme bemærkninger gør sig gældende i forhold til: §80: sammensætning af institutråd. §84: sammensætning af ph.d.-udvalg. §94: sammensætning af studienævn.
8.	**AAU praksisudvalg** Valg af ny suppleant. Oprettelse af liste over ad-hoc medlemmer. **Bilag 20174-8**
	Peter Axel Nielsen overtager Dorthe Hammershøi plads som basismedlem Ole B. Jensen vælges som suppleant til AAU praksisudvalg Følgende indstillet som ad hoc medlemmer Henrik Schiøler, ES Michael Lauring, CREATE Luis Emilio Brun, CREATE Lektor Brian Nielsen, Datalogi Lektor Michael Skov, Datalogi Plan eftersender medlemmer Elektroniske systemer eftersender medlemmer
9.	**Meddelelser fra formanden**
	• Forsøget med meningsfulde bogmærker i dokumentet blev positivt modtaget og besluttet som procedure fremadrettet.

	• Orientering om status på studenterrepræsentant til AR. Pt. kontakt til kandidat nr.3, dog endnu intet svar fra kandidaten • Det har ikke været muligt at udpege en ny TAP observatør fra Datalogi, derfor overgår pladsen til PLAN.
10.	**Eventuelt** Ønske om digitalisering af tildeling af ph.d. grader og godkendelse af bedømmelsesudvalg, ligesom sommerproceduren. Der laves et oplæg til godkendelse på næste møde AR's rolle som aktiv sparringspartner tages op som emne til næste møde
11.	

Til orientering

- Fortegnelse over sager godkendt af dekanen siden sidst

OBS! Vedr. bedømmelsesudvalg: I de tilfælde hvor ansøgningsfristen ligger efter Akademisk Råds møde kontrolleres der efterfølgende for inhabilitet og sammensætning af udvalget (kvindelig bedømmer). Hvis der konstateres uregelmæssigheder, vil dekanen/formanden godkende nyt/nye medlemmer.

AALBORG UNIVERSITET

The Technical Doctoral School of It and Design
Niels Jernes Vej 12
9220 Aalborg Ø

Sagsbehandler:
Maria Bredvig
Telefon: 99 40 9638
Email: mab@adm.aau.dk

Dato: 07-09-2017
Sagsnr.: 2017-561-00004

Til stede:
Lars Bo Henriksen
Rafael Wisniewski
Peter Axel Nielsen
Mads Græsbøl Christensen
Anne Juhler Hansen
Charlotte Holmberg
Maria Bredvig (ref.)

Afbud:
Christian S. Jensen
Michael Kvist Svangren

Referat af ph.d.-udvalgsmøde 4-2017 mandag den 21. august 2017

1. Godkendelse af dagsorden
Dagsordenen blev godkendt.

2. Nedsættelse af bedømmelsesudvalg

a) Vedr. M.Sc. Kristen Skeltons ph.d.-afhandling: ”Eco-design”, Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

b) Vedr. cand.polyt. Anne Rønnings unavngivne ph.d.-afhandling, Institut for Planlægning.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

c) Vedr. cand.scient. Nis Bornøs ph.d.-afhandling: “Active involvement of developers as a strategy towards introducing and adapting usability engineering”, Institut for Datalogi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

d) Vedr. cand.arch. Loay Akram Hannoudis ph.d.-afhandling: “The Potentials of Multi-angled Façade Systems as a Renovation Strategy for Office Buildings”, Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

e) Vedr. M.Sc. Ramin Iranis ph.d.-afhandling: “Computer Vision-Based Methods for Detection and Measurement of PsychoPhysiological Indicators”, Institut for Arkitektur og Medieteknologi.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

f) Vedr. cand.polyt. Abdul Rauf Khans ph.d.-afhandling: “Statistical Data Mining and Machine Learning - an Application in Manufacturing Industry”, Institut for Elektroniske Systemer.
Ph.d.-udvalget kunne ikke godkende det ene medlem af bedømmelsesudvalget. Instituttet bedes derfor indstille et nyt medlem,

g) Vedr. cand.polyt. Tobias Leths ph.d.-afhandling:”Polynomials in the Bernstein Basis and their Use in Stability Analysis”, Institut for Elektroniske Systemer.
Ph.d.-udvalget godkendte bedømmelsesudvalget.

3. Meddelelser

CHO oplyste, at der pt. foregår en høring vedrørende ændring af universitetets vedtægter. Denne vil blive udsendt snarest fra sekretariatet. Der er deadline medio september.

4. Monitorering af ph.d.-kurser

Monitoreringen blev gennemgået.

5. Eventuelt

PAN fandt det meget nyttigt med oversigten over godkendte sager af CSJ.

AALBORG UNIVERSITET

Institut for Elektroniske Systemer
Fredrik Bajers Vej 7B
9220 Aalborg Ø
www.es.aau.dk

Dato: 1. september 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Albert Gyamfi

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Albert Gyamfi tildeles ph.d.-graden for sin ph.d.-afhandling "Research on web 2.0 usage for knowledge management processes: The case of Ghana Cocco Board (COCOBOD)". Forsvaret fandt sted d. 30.08.2017.

Professor Anders Henten har været hovedvejleder for Albert Gyamfi.

Med venlig hilsen

Børge Lindberg

Børge Lindberg

Institutleder

Institutleder Børge Lindberg, tlf. +45 9940 8638, E-mail bli@es.aau.dk
Institutsekretær Kirsten Jensen, tlf. +45 9940 8650, E-mail krj@es.aau.dk

AALBORG UNIVERSITY
DENMARK

August 30, 2017

Assessment of the PhD thesis entitled: "Research on web 2.0 usage for knowledge management processes: The case of Ghana Cocoa Board (COCOBOD)"

Submitted by Albert Gyamfi, M. Sc.

The assessment committee consists of the following members as decided

by the Dean of the former Faculty of Engineering and Science on April 24th 2015, and now the Technical Faculty of IT and Design.

Dr. David Souter
Managing Director, ICT Development Associates
145 Lower Camden, Chislehurst, BR7 5JD,United Kingdom
E-mail: david.souter@runbox.com

Professor Lars Fuglsang
Department of Social Sciences and Business
Roskilde University P.O. Box 260 DK-4000 Roskilde
E-mail: fuglsang@ruc.dk

Professor Susse Georg (chairman)
Department of Planning and Development
Aalborg University A.C. Meyers Vænge 15 DK-2450 Copenhagen SV
E-mail: sgeorg@plan.aau.dk

Supervisor for the thesis has been Professor Anders Henten, Department of Electronic Systems, Aalborg University.

Description of the thesis

Albert Gyamfi has submitted a 258-page monograph, excluding the list of references and appendices. The thesis consists of 9 chapters, which provide:

- An introduction to the overarching issue addressed in the thesis – the need for knowledge transfer to Ghana's cocoa farmers and what role web-based technologies can play in this regard (chapter 1). The overarching objective guiding Albert Gyamfi's work is "what influence can web 2.0 applications usage have on the knowledge transfer activities in the cocoa industry in Ghana?" (p. 31). This question is operationalized in four sub-questions; each explicated in a number of hypotheses.

- An overview of cocoa production in Ghana and of Ghana's cocoa industry, including a description of the cocoa industry's structure and of the way the Cocoa Board in Ghana (COCOBOD) and its various subsidiaries/divisions operate (chapter 2).
- A descriptive account (chapter 3) of the use of information and communication technologies (ICT) in agricultural and rural development in Africa and in Ghana. The chapter positions the thesis in ICT for development research (ICT4D) as an approach based of matching technical solutions such as web-based applications to contemporary issues, i.e. knowledge transfer within Ghana's cocoa industry.
- A review of different perspectives on knowledge and organizational learning (chapter 4). This serves as a backdrop for the ensuing presentation of Nonaka and Takeuchi's (1995) model for knowledge transfer, the so-called SECI-model, and it's application in agricultural and rural development. The chapter introduces key tenets in Media Richness Theory (MRT) and provides an overview of the Agricultural Knowledge and Information Systems (AKIS) framework also used in the analysis.
- A brief discussion of what managing and transferring knowledge in the web 2.0 environment entails in corporate, public and agricultural contexts (chapter 5).
- An overview of the research model and fifteen hypotheses regarding the relationships between media richness, task characteristics, knowledge conversion and transfer processes (chapter 6).
- An account of the research methodology, particularly the survey developed for the study (chapter 7).
- An analysis of the research findings as they relate to the relationships between the media richness of the web 2.0 applications, task characteristics and knowledge conversion/transfer, i.e. testing the hypotheses (chapter 8).
- A discussion of the findings which leads Albert Gyamfi to propose "a web 2.0-based knowledge management model for the creation and transfer of knowledge among the primary knowledge actors in the cocoas industry in Ghana" (p. 240; chapter 9). The chapter also discusses the implications of these results.

The thesis thoroughly presents the management literature on organizational learning and knowledge management, but engages less with the literature on African agriculture and ICT4D than one would expect given the topic of the thesis. Albert Gyamfi translates insights from the first-mentioned body of literature into a survey-based, statistical analysis of media richness, web 2.0 usage and knowledge transfer processes amongst knowledge actors in Ghana's cocoa industry.

Assessment of the thesis

The backdrop for the thesis is a perceived need to increase productivity in Ghana's cocoa industry by enhancing the cocoa farmers' knowledge base. Knowledge transfer to cocoa farmers has traditionally been provided through an agricultural extension system. However, with the

widespread use of mobile phones and the emergence of web 2.0 applications such as Skype, Facebook, YouTube and Wikipedia questions arise concerning whether it may be possible to replace some of these traditional methods of knowledge transfer. Given the thesis' strong grounding in Nonaka's work on knowledge management, the overall objective of the thesis is to "gain clarity in the understanding of the relation between media usage and knowledge creation and transfer through socialization, externalization, combination and internalization (SECI)" (p. 30). The research objective is divided into four specific objectives, which are re-worked as four research questions regarding (p. 31-32):

1. The effect of the media richness of web 2.0 applications on their usage for knowledge transfer and creation in the cocoa industry in Ghana
2. How the choice of media for SECI processes could affect knowledge transfer and creation in the cocoa industry in Ghana
3. The moderation effect of task analyzability on the relationhip between web 2.0 usage for SECI processes and knowledge transfer and creation in the cocoa industry in Ghana
4. The effect of web 2.0 usage for knowledge creation and transfer on the nature and level of interaction between knowledge actors in the cocoa industry in Ghana.

Each research question is addressed by the testing of a set of hypotheses, collated into two hypothesized models regarding the media richness of web 2.0 applications and their usage in knowledge transfer processes (H1-12) and the effect of web 2.0 usage for knowledge transfer amongst knowledge actors (extension workers, researchers, educators and farmers; H13-15), respectively. The underlying argument being that the choice of media for a specific type of transfer (according to the SECI-model) is important for the effectiveness of knowledge transfer (p. 166).

It is a case-based study of Ghana's Cocoa Board (COCOBOD), the central governing body of Ghana's cocoa industry. The hypotheses are tested using survey data from a number of the cocoa researchers' and community extension agents' (n= 357) with an impressive response rate. A small survey of farmers (n=120) has also been undertaken, but is much less substantially reported. The survey of researchers, the extension agents and the farmers focused on the respondents' perceptions of the relationships between media richness of web 2.0 applications, task characteristics and knowledge transfer, given that Ghana like many other developing countries is facing questions of how to use ICT to facilitate knowledge transfer and creation in the agricultural sector. The chosen methodology is relevant for the quantitative analysis that Albert Gyamfi conducts. His findings suggest that media richness of web 2.0 applications affects their use in the SECI-processes (H1-8) in the community that he researched, but that task analyzability has no effect (H9-12). The latter indicates that regardless of the task, web 2.0 applications could be used to facilitate knowledge transfer. However, Albert Gyamfi's justification for considering task analyzability is not clear and the concept of task analyzability is ill-defined. His analysis (of the last

hypotheses) also suggests that there are strong linkages amongst the Ghanaian knowledge actors that can be further facilitated by their usage of web 2.0 applications. Although Albert Gyamfi has strictly adhered to his research design and is able to test his hypotheses and thereby meet his research objectives, the way in which the research was conducted precludes Albert Gyamfi from providing a more in depth understanding of the ways in which the web 2.0 applications are or can be used in knowledge transfer processes, thus, limiting the insights that the thesis could bring to bear. Particularly, an in-depth contextual analysis of how farmers use the technologies is lacking.

Albert Gyamfi engages with three strands of literature in the thesis. The first strand of literature is empirically based and focuses on the promises and problems associated with an increased use of ICT as a means for knowledge transfer in Africa and in Ghana in particular. This literature serves as a backdrop for Albert Gyamfi's research, but is limited in range and scope. Given the thesis' focus, it is surprising that Albert Gyamfi does not engage more with the extensive literatures on knowledge transfer in comparable agricultural and other development sectors, and on ICTs within these. Insights from this literature could have been used to qualify/discuss Albert Gyamfi's findings and vice versa. The second strand is the organizational literature on knowledge management, including work on Media Richness Theory, and the third is work on Agricultural Knowledge Systems (AKS). The second strand is the more formative of the three in the sense that the SECI-model is foundational for the thesis. The literature review in this area is competently done, but could have been strengthened considerably, had Albert Gyamfi also engaged in a more thorough critique/reflection of the theories, both in themselves and especially in relation to the chosen context.

The thesis is structured in complete accordance with the proposed research design. Although laudable in terms of delivering what is promised, i.e. conducting and successfully completing a statistical analysis of peoples' perceptions of the usefulness of web 2.0 applications for knowledge transfer, this relatively narrow focus leaves little room for exploring findings that were not related to the hypotheses but that might emerge from the survey results. In particular, the value of the findings would have been greatly enhanced by a thorough analysis of findings from the small survey of farmers which has been undertaken as well as the qualitative material on farmers' situation that was collected. The thesis as it stands is concerned primarily with the supply side of knowledge transfer (the perceptions of researchers and extension agents), and much less concerned with the demand side, i.e. the farmers to whom knowledge is, or is not, being transferred, and for whom researchers and extension agents are not the only source of information and advice. However, in his concluding discussion of the research findings Albert Gyamfi highlights issues which have not been substantively addressed earlier in the thesis, but which clearly warrant further scrutiny and debate.

In sum, the thesis does what it sets out to do, i.e. systematically test a number of hypotheses regarding the use of web 2.0 applications for knowledge transfer within the cocoa industry in

Ghana. It provides original research results on how web 2.0 applications *can* be used in knowledge transfer processes amongst key actors – researchers, extension workers and, notably, the farmers – in Ghana's cocoa industry. It documents a readiness for the technologies and points to these technologies' potentials for improving knowledge transfer, though little attention is paid to the rapidly changing nature of online services and markets. The theoretical positioning of the thesis is strongly grounded within organizational research on knowledge management rather than in literature and research on ICTs in development. Albert Gyamfi's research contribution is the extension of this theory to a new empirical domain, even though the reasons for doing so are not that strongly motivated. The potential reach of Albert Gyamfi's thesis is, however, limited by the narrowness of the thesis' scope, i.e. relying exclusively on statistical analyses of questions which could also be meaningfully addressed through qualitative analyses of the farmers' experiences. Further, the thesis is weakened by insufficient assessment of the quality of data (in terms of respondent attitudes) and no serious analysis of what the statistical findings actually mean in terms of knowledge management practice or policy.

The public defence

Albert Gyamfi's pubic lecture provided a clear and satistfactory account of his research questions, theoretical approach and findings. He provided additional empirical material from his research as a response to some of our concerns regarding the lack attention in the thesis given to the farmers. In the subsequent debate regarding his work, Albert Gyamfi responded satisfactorily to our questions.

Conclusion

The thesis systematically addresses research questions regarding the potential of using web 2.0 applications for knowledge transfer in Ghana's cocoa industry, and contributes with theory-driven perceptions of how these applications might be used to support knowledge transfer processes. The thesis is an independent and comprehensive piece of work of appropriate academic standard for the attainment of a PhD. Based on our reading of the thesis and Albert Gymafi's defence, we unanimously conclude that Albert Gymafi qualifies for the award of the PhD degree.

David Souter Lars Fulgsang Susse Georg

August 30th, 2017

AALBORG UNIVERSITET

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Dato: 7. september 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Guillermo Gerardino

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Guillermo Gerardino tildeles ph.d.-graden for sin ph.d.-afhandling "Radio Resource Management for Ultra-Reliable Low-Latency Communications in 5G". Forsvaret fandt sted d. 06.09.2017.

Professor Preben Mogensen været hovedvejleder for Guillermo Gerardino.

Med venlig hilsen

Børge Lindberg

Børge Lindberg

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AALBORG UNIVERSITY
DENMARK

Assessment of the PhD thesis entitled:

Radio Resource Management for Ultra-Reliable Low-Latency Communications in 5G

Submitted by Guillermo Andrés Pocovi Gerardino (shortened further to Guilermo Pocovi, as used in the research articles), M.Sc. in in Telecommunications Engineering from Universitat Politècnica de Catalunya (UPC), Spain in 2014.

The assessment committee consists of the following members as decided by the Dean of the Technical Faculty of IT and Design:

- Stefan Parkvall: Principal Researcher, Ericsson, stefan.parkvall@ericsson.com.
- Gerhard Wunder: Associate Professor, Freie Universität Berlin, g.wunder@fu-berlin.de
- Petar Popovski (chairman): Professor, Aalborg Universitet, petarp@es.aau.dk.

Supervisor for the thesis has been Prof. Preben Mogensen, Aalborg University.

Co-supervisor for the thesis has been Prof. Klaus I. Pedersen, Aalborg University.

Description of the thesis

The Ph.D. thesis of Guillermo Pocovi deals with analysis and design of transmission techniques and resource allocation algorithms for the fifth generation (5G) of wireless system, also known as 5G New Radio (NR). Specifically, the focus of the thesis is on the techniques for supporting Ultra-Reliable Low-Latency Communications (URLLC), which represents a new mode in 5G compared to the previous generations of mobile wireless communication systems. Besides the focus on the design issues particular to URLLC, one part of the thesis deals with the problem of multiplexing URLLC traffic and enhanced Mobile Broadband (eMBB) traffic in 5G systems by using the same radio resources.

The thesis has 223 pages. It is a collection of eight papers that are grouped into three topics. The papers are listed here:

- **Paper A:** G. Pocovi, M. Lauridsen, B. Soret, K. I. Pedersen and P. Mogensen, "Signal Quality Outage Analysis for Ultra-Reliable Communications in Cellular Networks", *IEEE Globecom Workshops (GC Wkshps),* December 2015, pp 1-6.
- **Paper B:** G. Pocovi, M. Lauridsen, B. Soret, K. I. Pedersen and P. Mo- gensen, "Ultra-Reliable Communications in Failure-Prone Realistic Networks", *International Symposium on Wireless Communication Systems (ISWCS),* September 2016, pp 1-5.
- **Paper C:** G. Pocovi, K. I. Pedersen and B. Soret, "On the Impact of Precoding Errors on Ultra-Reliable Communications", *International Workshop on Multiple Access Communications (MACOM),* November 2016, pp 45-54.
- **Paper D:** G. Pocovi, K. I. Pedersen, B. Soret, M. Lauridsen and P. Mogensen, "On the Impact of Multi-User Traffic Dynamics on Low Latency Communications", *International Symposium on Wireless Communication Systems (ISWCS),* September 2016, pp 1-5.
- **Paper E:** G. Pocovi, B. Soret, K. I. Pedersen and P. Mogensen, "MAC Layer Enhancements for Ultra-Reliable Low-Latency Communications in Cellular Networks", *IEEE International Conference on Communications Workshops (ICC),* May 2017, pp 1-6.
- **Paper F:** G. Pocovi, K. I. Pedersen, P. Mogensen and Beatriz Soret, "Radio Resource Management for 5G Ultra-Reliable Low-Latency Communications", *IEEE Transactions on Vehicular Technology,* 2017. *Submitted for publication.*

- **Paper G:** K. I. Pedersen, G. Pocovi, J. Steiner and Saeed R. Khosravirad, "Punctured Scheduling for Critical Low Latency Data on a Shared Channel with Mobile Broadband", *Accepted for publication in IEEE Vehicular Technology Conference,* September 2017, pp 1-6.
- **Paper H:** K. I. Pedersen, G. Pocovi, J. Steiner and Andreas Maeder, "Agile 5G Scheduler for Improved E2E Performance and Flexibility for Different Network Implementations", *IEEE Communications Magazine,* 2017. *Submitted for publication.*

The two papers that are included in the Appendix are:

- **Paper I:** G. Pocovi, M. Lauridsen, B. Soret, K. I. Pedersen and P. Mogensen, "Automation for On-road Vehicles: Use Cases and Requirements for Radio Design", *IEEE Vehicular Technology Conference,* May 2015, pp 1-5.
- **Paper J:** B. Soret, G. Pocovi, K. I. Pedersen and P. Mogensen, "Increasing Reliability by Means of Root Cause Aware HARQ and Interference Coordination", *IEEE Vehicular Technology Conference,* May 2015, pp 1-5.

The thesis is organized into six chapters. The first chapter is introduction and preview of the thesis results. The three core chapters of the thesis are 2, 3, and 4. Each of them starts with a context/motivation for the papers that are included in the respective chapter, before providing the actual text of the papers. The second chapter "Spatial Diversity as an Enabler of Ultra-Reliability" is based on the content of the papers A, B, and C. The title of the third chapter is "Achieving Low Latency in Multi-user Cellular Systems" and it contains the papers D and E. Chapter four "Dynamic Multiplexing of URLLC and eMBB" contains the papers F, G, and H.

The fifth chapter contains the conclusions. The final chapter is an Appendix and it contains two papers that were co-authored by the candidate during the Ph.D. period, but have not been included within the main part of the thesis.

Assessment of the thesis

The main part of the thesis contains 8 papers and the committee has decided to provide a mini-review for the first 6 papers in which the candidate appears as the first author. In the sequel we provide mini reviews for the papers.

Chapter II: Spatial Diversity as an Enabler of Ultra-Reliability

Paper A:

The paper explores several techniques for improving downlink Signal-to-Interference-and-Noise Ratio (SINR) based on spatial diversity and interference mitigation/cancellation. Two classes of spatial diversity techniques are considered, microscopic and macroscopic, respectively, as well as their combination. A microscopic diversity is achieved by adding multiple antennas at the transmitter and the receiver (2x2, 4x2, 4x4), while macroscopic diversity is achieved by having the terminal receive downlink signals from multiple M>1 base stations. Regarding interference mitigation, an ideal interference cancellation is assumed for the strongest C interfering BSs.

The evaluation is carried out using system-level Monte-Carlo simulations, following the assumptions defined by 3GPP for the LTE system. This means that multi-cell/multi-user scenario is treated, which is necessary to evaluate the proposed techniques. The target is to find out what is the maximal level, denote it by SINR0, of post-detection SINR such that it can be guaranteed that the random SINR value will go below SINR0 with probability less than the target reliability (here >1-10-5). The results show that the micro- and macroscopic diversity techniques can increase the diversity order. Interference mitigation/cancellation cannot increase the

diversity order, but it does help to increase the target value SINR0. Taking specific target of minimal SINR to be 0 dB, it is concluded that the most viable scheme is 4x4 MIMO with order of two in macroscopic diversity.

Although the conclusions are highly contextual and depend on the simulation assumptions (e.g. we cannot say that 4X4 MIMO is a definitive recommendation for achieving reliability >1-10-5), they are valuable as they are made in a comprehensive simulation setting. The conclusions do support the intuition. On the other hand, the assumption of cancelling the strongest interferer ideally is very strong. The reason is, if we rely on the fact that the strongest C interferers are always ideally cancelled, it means that the signals from those interferers are decoded with reliability that is at least as high as the ultra-reliability of the target signals. Hence, this design relies on the fact that the undesired signal is decoded at a reliability that is even higher than the desired signal and this is something that would be interesting to discuss at the defense. Another important point is that the macroscopic combining of the signals, as in the equation A.6 is effectively Maximum Ratio Combining (MRC). It would have been beneficial to have a precise model that shows this combining and discuss the requirements on the correctness of the channel estimates in order to achieve the target reliability.

Paper B:

This paper carries out a study that is similar to the one in paper A in terms of system model for the transmitted/received signals, combining and interference cancellation. However, two important novel components are added. The first one is that the analysis is performed for site-specific network that is derived from a realistic deployment in an European capital. The network model includes real base station positions and parameters (down-tilts, antenna patterns, etc), as well as three-dimensional data of buildings, streets, among other elements of the network, which are used for a realistic estimation of the radio propagation characteristics and locations of the mobile users. The second new contribution is that the authors add network failures and statistically model the malfunction/availability of the network component. The latter is a very important ingredient when ultra-reliability is considered and the candidate should be credited for putting this aspect forward.

The comments on the system model put forward for the paper A are also valid here (e.g. combining of at a level of macro-diversity). The model for correlated network failures is intuitive, but no explicit reference is given, although there is a reason to believe that it is based on reference [7]. As the candidate also states, it would have been interesting to analyze the performance by taking into account the actual up/down times of the equipment in a realistic setting. In that sense it would have been also interesting to see whether network densification with small cells will be helpful.

Paper C:

Transmit diversity is a useful tool to improve the performance of (downlink) transmission. By applying precoding at the transmitter side, the performance of the transmission can be improved, i.e. the error rate at a given average SNR can be lowered. For closed-loop transmit diversity, the transmitter, which is the base station in this case, receives channel-state feedback from the terminal. If the channel-state feedback is subject to errors, which in practice is the case, the performance will be degrades. Paper C studies the impact of CSI feedback errors on the downlink performance from an ultra-reliable communications perspective, which is a relevant problem. It is concluded that feedback errors do impact the reliability, but close loop transmit diversity still provides gain.

The study is straightforward in nature, primarily based on simulations, and appears to be technically sound. The study is to a large extent a follow-up to papers A and B. Some additional comments:

- Flat-fading channels are considered. Given the simulation-driven approach, it would have been interesting to see the results in a multi-path environment as well.
- The receiver uses maximum ratio combining although this is not explicitly stated; similar to the issue raised in papers A and B.

- Results are presented in terms of received SNIR, which is fine, but given that path loss models and transmission power was provided in the simulation assumptions, it would have been nice it the results were put in perspective, in terms of, e.g., cell sizes.

Chapter III: Achieving Low Latency in Multi-user Cellular Systems

Paper D:

Latency-critical traffic is likely to be transmitted in the same cellular system as less latency-critical mobile-broadband traffic. One fundamental tool for achieving low latency is a frame structure with short overall transmission duration. Paper D investigates the latencies achievable for latency-critical traffic when jointly scheduled with MBB traffic. It is shown that a longer transmission duration for URLLC can be beneficial, especially when the overall system load increases.

The study is heavily based on simulations using a straight forward methodology. For URLLC communication, the tail of the latency distribution is important. However, in several of the plots the interesting part of the distribution can be hard to see. Furthermore, the 99-opercentile is used, presumable because higher percentiles would require a large amount of simulation data, although the thesis in general focuses on the 99.999% percentile. The contribution is this paper is somewhat smaller than in some of the other papers, but sufficient for a conference paper (verified by the fact it was accepted for ISWCS).

Paper E:

The paper E is in the general context of the research question Q2 posed in the introduction, i.e. to answer what is the best transmission strategy for URLLC. Specifically, the paper explores the potential of MAC layer enhancements taking into account the sporadic nature of URLLC communications and rapidly changing interference patterns. The main innovations are:

- The introduction and discussion of the 4 TTI HARQ RTT scheme to fulfill the latency requirement. It is clearly analyzed that LTE-like frame alignment and asynchronous HARQ operation is not sufficient for 1ms latency constraint and fast synchronous HARQ reporting is required. This is argued to be achievable by UE processing capability. The proposed scheme is a clear baseline for competing approaches.
- Together with the HARQ RTT scheme, also a new feedback mechanism is introduced to improve on the accuracy of the link adaptation scheme. The main motivation for this is the observation, that for URLLC or mixed traffic the interference pattern rapidly change and accurate link adaptation is hardly possible. It is analyzed that the commonly used LTE-like outer loop adaptation schemes converge not fast enough for the URLLC scenario. Instead a CQI reporting incorporating historical information of the interference pattern using IIR filter which is basically smoothing the reports so that MCS selection is more robust.
- Finally, the analysis shows that at high load the queuing delay is not negligible anymore and the system is optimized for high spectral efficiency rather than low latency so that the BLER target is adapted.

The evaluation of proposed algorithms is excellent and sets a baseline for further investigation. It includes realistic multicell interference pattern with state-of-the-art physical layer procedure. It is clearly shown in the experiments that all proposed schemes are required to achieve the 1ms latency constraint with 99.999% reliability.

Chapter IV: Dynamic Multiplexing of URLLC and eMBB

Paper F:

The paper presents solutions for efficient multiplexing of ultra-reliable low-latency communications (URLLC) and enhanced mobile broadband (eMBB) traffic on a shared channel. By doing so, the paper takes on a global perspective showing high expertise on a problem that will affect many aspects all layers of the communication stack. Specifically, the problem traffic mix URLLC and eMBB in a 5G flexible frame structure is considered. The paper tackles the problem by proposing link adaptation and scheduling techniques. The evaluation form is extensive system simulation to explore the gain of the proposed resource management techniques as well as the sensitivity to different loads and traffic mix in the cells.

The content of the paper is innovative and of high importance for the community since flexible and efficient support of different traffic classes is a key performance indicator in 5G. The evaluation is advanced as system simulations are taken into account of which the conclusions can have some impact on the currently proposed 5G designs in the standard.

Going to more specific comments, the system model and key performance indicators are state of the art for 5G and give an excellent overview how to do the evaluation and what is expected from 5G layer 1-3 procedures to support traffic mix. The paper relies on finding regarding HARQ RTT latency (see paper E) and sets to 4 TTI round-trip time. It would be interesting to discuss further the details of these assumptions and, e.g. in what cases will this scenario fail, what are the crucial assumptions to limit the number of re-transmissions, etc.

Resource scheduling takes into account QoS and channel conditions. The idea here is to divide the resource allocation into three steps. One is to allocate initial resources to achieve very low target BLER for the users. Then a fraction of the remaining resources is divided again proportionally fair to the target users. Finally, the rest is allocated to eMBB. The main innovation is in the CQI reporting scheme. A nice observation is that historical information in the CQI measurements can significantly improve the performance. The reason for this improvement is the sporadic nature of the URLLC traffic as well as the changing interference patters. By introducing a forgetting factor, the MCS selection is much more consistent.

The simulation section is excellent and shows high expertise in system design and evaluation. It would have been good to explain some characteristic in the simulation in more detail, e.g. the plateau in the latency figures due to HARQ. The main conclusion is the stringent impact of MBB users to the URLLC constraints as well as the major gain due to the impact of the forgetting factor.

General assessment

The thesis is chiefly focused on the generic service URLLC in 5G, both as a standalone service as well as through its integration with traffic classes that belong to the eMBB generic service. This is a very timely and relevant problem, the thesis provides a good analysis with extensive simulations of some of the URLLC-relevant techniques and the results are valuable to the research and standardization communities.

Methodologically, the thesis is positioned in the area of performance evaluation through simulation, clearly and consistently applied throughout. This is a reasonable approach given the complex nature of the problem. The link between the posed question and the corresponding conclusions are reproducible and documented. A significant strength can be seen in the use of detailed system model simulation, following relatively closely the currently ongoing work in 3GPP, which brings reality and industrial significance to the results. Although the thesis does not rely on communication-theoretic methodology, it would have been beneficial to provide more rigorous arguments for some simpler models and contrast them to the experimental results. Still, the advanced simulation methods provide very interesting insights. The evaluation of the proposed URLLC schemes sets a clear baseline for clearly reach beyond the standard evaluation in the academic community and are thus very valuable. Besides evaluation, the thesis contains a substantial aspect of innovation, reflected in the proposed

algorithmic solutions and the associated patent applications that the candidate co-authored in the course of the Ph.D.

The introduction (part I) gives a good overview of the various papers constituting the thesis where multiple papers are grouped based on the problem they investigate to form parts II to IV. In the overview/summary part it is clearly argued that current LTE systems cannot support such traffic and that new technologies needs to be introduced to fulfil constraints like the 1ms user plane delay as well the 99.9999% packet reliability. Starting from this assumption a couple of highly relevant research questions have been posed along with the hypotheses indicating that the problem needs to be approached on many fronts which is then described in more detail in the subsequent papers (for details see the mini reviews). The proposed schemes are competitive and clearly achieve the envisioned target performance for URLLC traffic (possibly in conjunction with other traffic classes).

The thesis is well structured, as the author has grouped and contextualized the papers in a meaningful way. From a reader's perspective, even a more coherent joint presentation of some of the papers (e.g. A, B, and C) would have been beneficial, with aligned simulations assumptions, which would have avoided repeating very similar facts in multiple papers. The amount of scientific contribution varies across the contributions with papers E and F providing the largest contribution among the papers. The amount of references is in general good, placing the defendant's work in perspective to the work by other researchers in the area.

All the papers consider a static scenario, i.e. mobility is not explicitly modelled. This simplifies the investigation and provides important insights, but from an end-user perspective the latency and reliability targets need to be met also in a mobile environment. "Corner effects", where the propagation conditions suddenly change drastically, also needs to be encountered for. Several of the papers assume that feedback of e.g. CSI is present. This is a reasonable assumption in connected mode when terminals are expected to transmit URLLC messages regularly, but in many practical scenarios the message transmission can be sporadic and infrequent, implying that constant feedback of e.g. CSI may be less realistic. It is fine limit the scope of the thesis, but it would have been beneficial to include a discussion on the restrictions made.

Some of the assumptions could have been documented in a better way. Furthermore, some schemes are also a bit ad hoc in nature, e.g. the scheduler in Section 3.2. of paper F, and some discussion on the motivation would have been desirable. On the other hand, the references are adequate and provide a good perspective of the state-of-the-art.

It is noted that the work has primarily been presented various conferences and workshops (papers A-E, G) and while paper F is a (not yet accepted) journal contribution and paper H is a not-yet-accepted magazine contribution. Given the sometimes lengthy publication process for journal papers, this is not surprising, but a larger fraction of journal papers would have been desirable, given the typically more rigorous review of journal papers. Nevertheless, some of the papers are presented at very prestigious conferences, such as ICC, which is additional verification of the research value of this thesis.

Finally, the language and writing style used in the papers and the supporting parts of the thesis is clear and easy to understand.

Oral presentation and discussion
Date and place of the oral defense: September 6, 2017, Aalborg University

The candidate has made an excellent presentation, providing a coherent overview of the work conducted during the Ph.D. as well as emphasizing important insights from the thesis. During the defense, the candidate received a set of general questions as well as questions specific to the material (papers) contained in the thesis. The candidate has demonstrated a very good command on the topics treated in the thesis, could defend the methodology used and reflect upon the consequences of the results.

Conclusions

The thesis represents a collection of papers that provide very timely and valuable results on the topic of URLLC in 5G systems. The research work relies on a comprehensive simulation methodology, thereby providing results that are valuable to the academic as well as industrial/standardization community. The thesis also contains multiple innovations, reflected in the proposed algorithmic solutions and the associated patent applications that the candidate co-authored in the course of the Ph.D. The conclusions are clear and they are strongly supported by devised URLLC design rules and corresponding realistic evaluations. The literature and references are adequate and summarize sufficiently the state-of-the-art. As such, the thesis sets a clear baseline for follow-up work by other researchers in the field including design rules and parameter choice for the evaluation. The oral presentation was excellent and the candidate was able to competently answer the diverse questions put forward by the committee.

The committee unanimously recommends that Guillermo Andrés Pocovi Gerardino is awarded the PhD degree.

Aalborg, September 6, 2017

Stefan Parkvall

Gerhard Wunder

Petar Popovski
(Chairman)

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Dato: 4. september 2017

Til Forskerskolen
Att.: Lisbeth Diinhoff
N.J. 10

Vedrørende tildeling af ph.d.-grad til Kasper Fløe Trillingsgaard

Institut for Elektroniske Systemer indstiller at bedømmelsesudvalgets indstilling følges således at Kasper Fløe Trillingsgaard tildeles ph.d.-graden for sin ph.d.-afhandling "Information-theoretic aspects of low latency communications". Forsvaret fandt sted d. 31.08.2017.

Professor Petar Popovski har været hovedvejleder for Kasper Fløe Trillingsgaard.

Med venlig hilsen

Børge Lindberg

Børge Lindberg

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AALBORG UNIVERSITY
DENMARK

Assessment of the PhD thesis entitled:

Information-theoretic aspects of low-latency communications

Submitted by ***Kasper Fløe Trillingsgaard***

The assessment committee consists of the following members as decided by the Dean of the Technical Faculty of IT and Design:

- Professor Gerhard Kramer, Technical University of Munich, Germany, email gerhard.kramer@tum.de
- Associate Professor Stark Draper, University of Toronto, Canada, email stark.draper@utoronto.ca
- Associate Professor Tatiana K. Madsen, Aalborg University, Denmark, email tatiana@es.aau.dk

Supervisor for the thesis has been Professor Petar Popovski, Aalborg University, Denmark.

Description of the thesis

The main topic of the thesis is to design and evaluate communication protocols that take delay into account.

The thesis is based on a collection of papers. The thesis is structured in the following two parts:

- Part I: Introductory chapters. This part is divided in the three chapters that establish the scope and objective of the thesis, the research methodology, state of the art, the contributions, as well as gives pointers for the future work.
- Part II: Included papers. This part consists of 4 included journal papers:
    - Paper A considers a symmetric broadcast channel with K users with different messages;
    - Papers B and C consider a broadcast channel with K users, one message, and feedback;
    - Paper D considers a channel with block fading.

The thesis is based on 4 journal papers (including 2 submitted journal papers for IEEE Transactions on Information Theory, and 2 journal publications in IEEE Transactions) with the PhD student as the first author. The list of publications by the candidate that are not included in the thesis consists of one journal paper and 10 conference papers (7 as the first author). The publication details of the included papers are as follows:

- Paper A: K. F. Trillingsgaard and P. Popovski, "Downlink transmission of short packets: Framing and control information revisited," IEEE Trans. Commun., vol. 65, no. 5, pp. 2048–2061, Feb. 2017.
- Paper B: K. F. Trillingsgaard, W. Yang, G. Durisi, and P. Popovski, "Common message broadcast channels with feedback in the nonasymptotic regime: Stop-feedback," Aug. 2016, submitted to IEEE Trans. Inf. Theory.
- Paper C: K. F. Trillingsgaard, W. Yang, G. Durisi, and P. Popovski, "Common message broadcast channels with feedback in the nonasymptotic regime: Full feedback," Jun. 2017, submitted to IEEE Trans. Inf. Theory.

- Paper D: K. F. Trillingsgaard and P. Popovski, "Generalized HARQ with delayed channel state information and average latency constraints," IEEE Trans. Inf. Theory, 2017, accepted for publication.

Assessment of the thesis

The thesis is interesting, timely, and well written. The thesis investigates low-latency communications from an information theoretic perspective. The topics in the thesis are motived by next-generation wireless systems that will both need to operate at high rates and support bursty and small-packet size transmission from many users.

From the methodological perspective, Trillingsgaard draws on techniques of fixed-error asymptotic information theory to understand the tradeoff between control and data information in short-blocklength transmissions from many users (Paper A), and information theoretic questions of the use and impact of feedback in broadcast settings (Papers B & C). Trillingsgaard's final contribution (Paper D) applies different methodological framework, proposing a novel slotted streaming / retransmission scheme where new information to be transmitted is appended to the data stream in an adaptive manner to maintain a high rate of transmission while minimizing average delay.

The papers and extended summary are well written with the latter providing a solid overview of the literature needed to launch into the four papers. The Introductory chapters provide an extended overview of the main results of the papers. Attention is paid to recent results on dispersion and information densities, which are today often used in place of the older error exponent bounds.

Below mini-reviews for the papers are provided. Since papers B&C are tightly coupled thematically — the same problem setting in the context of "stop-feedback" (Paper B) and "full-feedback" (Paper C) they are addressed together.

Paper A: "Downlink Transmission of Short Packets: Framing and Control Information Revisited"

1. Formulation of research questions or hypotheses

The key question looked at by this paper is how to trade off between receiver power consumption and latency when a message is transmitted to a group of wireless receivers. An interesting aspect of the setup, e.g., possibly relevant to forthcoming internet-of-things systems, is that there is unpredictability both in the existence and the size of the messages to be transmitted. Therefore, the protocol must transmit this information in the header. One insight is that by grouping messages into clusters ("user groups") one can tradeoff between power consumption and latency — the smaller the groups of users (i.e., the larger the number of groups) the more power efficient, but the longer the latency.

2. State of the art

Trillingsgaard provides an analysis of the traditional approach to this problem, before building towards his own. His approach is information-theoretic and compliments the more communication oriented approach taken in Paper D.

3. Methodology

Trillingsgaard builds on the "fixed-error asymptotic" framework of information theory. While originating in Strassen's work in the 1960s, this framework has found renewed interest and appreciation since Hayashi's work in 2009 and Polyanskiy et al in 2010. Trillingsgaard applied this framework herein, with his full command of the techniques becoming apparent in Papers B&C.

4. Experiments and numerical simulations

The numerical results are well presented. For example, Figure 4 gives a good illustration where one parameter is changed at a time (source bustiness, packet size, SNR) to illustrate the space of his results.

5. Research contributions and quality

Trillingsgaard develops a number of analyses: lower bounds, genie-aided bounds (to understand the impact of the quantity of control information), and the actual protocol (under various parameter optimizations). These are high quality results and logically developed.

6. Link between the extended summary and the papers

The extended summary sets up the information-theoretic methodological framework on fixed-error exponents. It is not so much a tutorial as a nice overview of the results Trillingsgaard draws on in this area.

7. Quality of the dissemination of science and engineering results

This paper was published in the IEEE Trans. Communications, a top-quality journal, in Feb. 2017.

8. Quality of the conclusions

Yes, numerically, as well as analytically — through the genie-aided protocol and lower bounds.

9. Link between research problem(s)/hypotheses and results/conclusions

The link is excellent.

10. References

References are adequate.

Papers B&C: "Common-message broadcast channels with feedback in the nonasymptotoic regime: Stop feedback" and "Common-message broadcast channels with feedback in the nonasymptotoic regime: Full feedback"

1. Formulation of research questions or hypotheses

As mentioned in the context of Paper A, Trillingsgaard's methodological foundation for his first three papers is the fixed-error asymptotic analysis of coding rates. In contrast to the standard statistical area of large deviations (which translates into the "error exponent" framework of information theory), the basic idea in fixed-error asymptotic is to mix two types of bounding techniques — to apply a central-limit-theorem analysis to the transmitted codeword, and a large-deviations analysis to the (exponentially large) set of non-transmitted codewords. One can characterize how quickly one can increase rate to approach capacity as one's block length increases under a fixed probability of decoding error.

While Shannon showed in 1956 that the availability of feedback does not increase the capacity of a memoryless channel, it has also long been known that feedback can improve the second-order tradeoff in terms of error exponents. Recently, Polyanskiy and his co-authors looked at the same set of questions in the fixed-error regime for point-to-point systems and showed that again, a huge improvement is possible, in that the channel dispersion can be driven to zero. This means that in fixed-error scenarios feedback can play a key role in improving the performance of latency-constrained systems.

In these two papers Trillingsgaard asks two interesting questions: (a) do Polyanskiy's results continue to hold in a simple multiuser context, and (b) what is the effect of the model of feedback — "stop" versus "full" feedback. The obtained results are intriguing. In both papers he looks at one of the simplest multiuser scenarios, a common message transmitted to a set of users over conditionally independent channels. In the first paper he shows that under stop-feedback (each user simply tells the transmitter when it *thinks* it can decode the message correctly) Polyanskiy's results do not hold, the channel dispersion in this setting is non-zero. In the second paper the common-message broadcasting is again considered (though only for two receivers) and under a full feedback model (the transmitter causally observes all the channel outputs the receivers do). Here full-feedback provides an improvement over stop feedback. Improvements are observed in both the fixed-length and variable-length feedback settings. Interestingly, in the error exponent literature for fixed length scheme feedback does not increase the error exponent (at least for symmetric channels) which contrasts with the improvements observed herein. In the error exponent setting in the context of variable-length coding with feedback one does observe an improvement when full-feedback is available instead of only stop-feedback (e.g., in Burnashev vs Forney). The improvement observed here is similarly large (full feedback yields zero dispersion) and so the results nicely parallel the literature.

2. State of the art

The papers are well-situated in the literature and builds on the state of the art.

3. Methodology

Methodology is appropriate.

4. Experiments and numerical simulations

The results are mainly of theoretical nature. Illustrative computer simulations confirm theoretical predictions.

5. Research contributions and quality

The contributions of these papers are very strong. They are interesting questions that build on the literature. The analysis is deep and the results are surprising.

6. *Link between the extended summary and the papers*

As mentioned in the discussion surrounding Paper A, the extended abstract nicely overviews the foundational work on fixed-error asymptotics. A further section in the extended abstract overviews the work on channel coding with feedback, thus the extended summary provides a good base from which to launch into a reading of the papers.

7. Quality of the dissemination of science and engineering results.

Both papers have been submitted to the IEEE Trans. on Information Theory in the past year. This is the premier venue for this type of work and, if accepted, would get the results in front of the interested audiences.

8. *Quality of the conclusions*

Yes, the results are based on deep information theoretic results.

9. Link between research problem(s)/hypotheses and results/conclusions

Yes

10. References

The references are sufficient.

Paper D: "Generalizing HARQ Protocols with delayed channel state information and average latency constraints"

1. Formulation of research questions or hypotheses

This paper identifies an interesting new approach to combine streaming data transmission with hybrid ARQ. As time progresses in a time-slotted system, one slowly adds in new information to transmit in an adaptive manner, as a function of the quality of the channel in previous blocks.

2. State of the art

An extensive review of the literature is provided. Trillingsgaard points out that in the fixed slot-length setting one can suffer from under-utilization of the final slot in incremental-ARQ even if good codes are used. This motivates the method described herein.

3. Methodology

Trillingsgaard's approach is to define a generalized protocol — the "expandable message space" protocol — which adaptively appends extra information bits in each retransmission. The novelty is to make the rate of addition adaptive based on the channel quality of the previous blocks. At low latency the improvement is significant.

4. Experiments, numerical simulations etc.

The numerical results clearly demonstrate the improvements of the proposed protocols (BRQ and EMS) over hybrid-ARQ. Fig. 1 nicely illustrates the differences, and Figs. 2-3 show the substantial advantages of the new protocols.

5. Research contributions and quality.

The work is interesting and strong.

6. *Link between the extended summary and the papers*

The basics of hybrid-ARQ protocols are discussed in brief in the extended survey, including the early information theoretic analyses of Tuninetti and Caire.

7. Quality of the dissemination of science and engineering results.

This paper appeared in the IEEE Trans. on Information Theory.

8. *Quality of the conclusions*

High quality, both analytically and numerically.

9. Link between research problem(s)/hypotheses and results/conclusions

Trillingsgaard wanted to generalize the BRQ protocol to incorporate streaming codes and finite number of feedback messages. He provides converse and achievability results and demonstrates that his protocol significantly outperforms the standard protocols, thus the project objectives have been met.

10. References

References are appropriate.

Oral presentation and discussion
Date and place of the oral defence: August 31, 2017, Aalborg.
The candidate gave a 45 min. well structured presentation providing a clear overview of selected key aspects of his contributions.
The candidate was questioned for 2 hours during which members of the committee asked questions to the motivation, contributions, modelling assumptions and the results of the conducted work, as well as future possible extensions built on the thesis.
The candidate was confident in answering the questions, and demonstrated thorough understanding of the topic and deep insight into his work.

Conclusions
Overall, the thesis is an exceptional work that provides many novel and deep theoretical results on delay-constrained and feedback communications. The thesis contains a large number of interesting protocols and

theoretical results, and it contributes substantially to the topic of coding for channels with delay constraints. New protocols are developed in two of the papers (Papers A and D). From a theory perspective, new insight into dispersion is obtained in Papers B and C.

Hence the assessment committee unanimously recommends awarding the PhD degree to the candidate.

Aalborg, August 31, 2017

Tatiana Madsen | Gerhard Kramer | Stark Draper

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Dato: 12-09-2017

The Technical Doctoral School of It and Design
Niels Jernes Vej 10
9220 Aalborg Øst

Vedr. "Understanding citizen action in infrastructure development processes", Sara Bjørn Aaen, Institut for Planlægning

Hermed fremsendes bedømmelsesudvalgets Final Assessment vedr. ovennævnte ph.d. afhandling.

Instituttet anbefaler, at bedømmelsesudvalgets indstilling følges, og at Sara Bjørn Aaen tildeles ph.d. graden.

Med venlig hilsen

Marianne Sørensen

AALBORG UNIVERSITY
DENMARK

Assessment of the PhD thesis by Sara B Aaen

Assessment of the PhD thesis entitled:

"Understanding citizen action in infrastructure development processes"

Submitted by Sara Bjørn Aaen (SBA), M.Sc.

The assessment committee consists of the following members as decided by the Dean of the Technical Faculty of IT and Design:

- Member 1: Professor Patrick Devine-Wright (University of Exeter, Geography), p.g.devine-wright@exeter.ac.uk
- Member 2: Associate Professor Tove Enggrob Boon (University of Copenhagen, Dept. of Food & Resource Economics), tb@ifro.ku.dk
- Member 3 (chairman): Professor Finn Arler (Aalborg University), arler@plan.aau.dk

Supervisor for the thesis has been Associate Professor Søren Kerndrup, Aalborg University

Co-supervisor for the thesis has been Associate Professor Ivar Lyhne, Aalborg University

Short description of the thesis

The thesis is comprised by a 'cape' (p.1-152) and five papers, attached as appendices (p.153-270). The structure of the cape is as follows:

The five papers are

- Paper 1: Lyhne, I., Aaen, S.B., Nielsen, H. Kørnøv, l., Vammen Larsen, S. Citizen self-mobilisation, motivational factors and the group of most engaged citizens: The case of a radioactive waste repository in Denmark (resubmitted)
- Paper 2: Aaen, S.B. Exploring the significance of situated orders for citizen action in spaces of public participation.(submitted?)
- Paper 3: Lyhne, I., Nielsen, H., & Aaen, S.B. 2016. What determines the substantive influence of public participation? An investigation of planners´ views on conditions for participatory practices in Denmark. *Planning practice and research* 31(3): 311-326 (printed)
- Paper 4: Larsen, S.V., Hansen, A.M., Lyhne, I., Aaen, S.B., Ritter, E., & Nielsen, H. 2015. Social impact assessment in Europe: A study of social impacts in three Danish cases. *Journal of Environmental Assessment Policy and Management* 17(4), 24 p. (printed).

- Paper 5: Aaen, S.B., Kerndrup, S., & Lyhne, I. 2016. Beyond public acceptance of energy infrastructure: How citizens make sense and form reactions by en-acting networks of entities in infrastructure development. *Energy Policy* 96: 576-586 (printed).

As outlined above, the PhD thesis is organised in a cape and five papers. The PhD thesis cape is structured along one overall research question and three sub questions (see below).

The cape

The cape is a well-structured outline of the research approach, the theoretical and methodological approach to the study of citizen action in participation processes. Through eight chapters, the motivation (and progression) of the study, the research questions, and the theoretical and methodological approach are explained. In the results chapter, the findings from each of the papers are presented as partial contributions to answer the three research questions. In the discussion and conclusion chapters, the implications of the findings to theory and to practice are discussed, for each research question. (Where more papers contribute to answer one RQ, the findings of the papers are discussed up against each other).

Short review of the five papers

Paper 1: Lyhne, I., Aaen, S.B., Nielsen, H. Kørnøv, I., Vammen Larsen, S. Citizen self-mobilisation, motivational factors and the group of most engaged citizens: The case of a radioactive waste repository in Denmark.

Based on a survey and qualitative interviews, this paper aims at identifying which factors motivate the most active in participation processes (in terms of hours spent/month) to engage. The main identified factors are sense of moral obligation (trust and fairness), and collective identity. The methodology is well-outlined, both in terms of how the survey was developed and the statistical analysis hereof, and also in terms of the usefulness of contrasting the survey data with qualitative interview data.

Paper 2: Aaen, S.B. Exploring the significance of situated orders for citizen action in spaces of public participation.

This paper demonstrates how citizens' action in participation processes is situated and context dependent. This is done by developing an analytical framework based on a combination of the situated order theory of Garfinkel and face work theory of Goffmann, and applying it to the low-conflict case of a cable planning project. The data is from three collective meetings and some one-to-one kitchen table meetings between individual landowners and the planner. The efforts of citizens to create a situated order and do face work for themselves and other affects their actual behavior in the situation. This is reflected in the fact that the behavior is different in the collective meeting as compared to the one-to-one meetings. It is advised that planners need to be more observant of the situated and dynamic nature of citizens' participation, and observe that such processes are not fully controllable.

Paper 3: Lyhne, I., Nielsen, H., & Aaen, S.B. 2016. What determines the substantive influ-ence of public participation? An investigation of planners´ views on conditions for participatory practices in Denmark.

In this paper, planners throughout Denmark are asked in a survey what determines the substantial effectiveness of participation (substantial effectiveness being understood as either qualification of planning or as substantive changes in plans or projects). The survey was designed on the basis of a literature review and six interviews with planners, and then sent to 300 planners, 80 of whom responded. Statistical

analysis of responses, combined with a follow-up focus group interview shows that the planners find the concrete participation method to be of less importance than often expected, whereas the context is quite important, not at least the political environment. The recommendation to practice is therefore to put more attention to the context factors, rather than hoping that if only the method is right, the rest will work.

Paper 4: Larsen, S.V., Hansen, A.M., Lyhne, I., Aaen, S.B., Ritter, E., & Nielsen, H. 2015. Social impact assessment in Europe: A study of social impacts in three Danish cases.

This paper provides a content analysis of social impact assessments of three cases of energy infrastructure planning (policy and planning documents as well as the received public comments). The analysis shows two main points (1) whereas the assessments cover social impacts widely, topicwise, several of the topics are only dealt with superficially; (2) an uneven geographical distribution of positive and negative impacts, as the national impacts are mainly positive, whereas the local impacts are mainly negative, but also with positive aspects. The paper also discusses that when citizens recognize that social impacts are only dealt with superficially, the turn towards environmental impacts as ways to forward their interests instead. The recommendations to practice is to improve the existing environmental impact assessment to better include the social impacts.

Paper 5: Aaen, S.B., Kerndrup, S., & Lyhne, I. 2016. Beyond public acceptance of energy infrastructure: How citizens make sense and form reactions by en-acting networks of entities in infrastructure development.

This paper combines Actor-network-theory (Callon, Latour) with Sensemaking theory (Weick) to provide a new framework in which to understand and interpret the dynamics of participation processes in infrastructure planning. The framework is then applied to observation of four one-to-one-meetings between the planner and four landowners involved in a (low-conflict) case of locating underground cables in the country-side. The analysis reveals what human, immaterial and material actors are included in the dialogue between each of the four landowners and the planner, in the landowners' efforts to make sense of what is going on. It is noticed, that the landowners not only refer to the current situation but also include past events and expected futures, and actors inside as well as outside the project. Based on the analysis it is recommended that planners become more observant of (managing) these dynamics and complexities, and remember the individual dialogue with citizens.

Assessment of the thesis

Formulation of the research questions

The main research questions are stated early in the thesis and re-addressed throughout the thesis. The overall research question of the dissertation is, cf. p. 29: "How can citizens' actions in relation to infrastructure development be understood?" The main question is interpreted through three sub-questions (p. 30, and repeated on p. 67): "1) What factors come into play when citizens form action in relation to infrastructure planning processes? 2) How does the association of human, material, and immaterial actors influence the formation of citizen action in relation to infrastructure planning processes? 3) How does the process of human interaction influence the formation of citizen action in relation to infrastructure planning processes?"

The subject is then narrowed further, firstly, by focusing only on four cases of energy infrastructure planning (pp. 31 and 55). The primary case is an underground electricity cable planning (a low-conflict case, the only case used in papers 3-5), which is supplemented by a wind turbine test centre case (conflictual case), a nuclear waste repository case (conflictual case), and a gas storage facility case (conflictual case).

Secondly, the focus is narrowed to actions taking place in spaces of formal public participation processes defined by planning authorities (p. 32). All actions that may take place outside the space designed by planners are not considered (p. 24). Citizens, who do not enter and act in the pre-designed space, are not included. They are even claimed to be irrelevant for the planning process (p. 31). The study can thus be seen as a study that seeks to understand the various factors that influence active citizens' behavior in certain kinds of forums created for public participation purposes, i.e., in processes intended to allow the citizens to influence or change the infrastructure plans within a given scope.

On the other hand, on p. 105 it is noted that "that events that goes before and come after the participation process can be vital actors in the action formation process because they are important to the citizen". It is therefore asserted that there is a need to take a broader spatial and temporal view and to conceptualise the role of citizens as being actively enacting, meaning that non-participation is also a form of action (p. 106).

The choice only to look at the actions of citizens, who choose to participate in infrastructure planning processes needs to be justified thoroughly, since comparatively few citizens participate in these processes and therefore, quite a lot of social science, and policy efforts has been to understand why citizens do not participate (e.g. 'hard to reach groups'). The justification for the selected topic is not truly convincing, however.

It is remarkable that SBA consistently talks about "influencing factors" and "functioning mechanisms" rather than about "sound arguments" and "credible reasons", even though the basic purpose of public participation is to give citizens a chance to state practical and ethical reasons for changes in planned projects. In the cape very little focus is put on arguments and reasons, however; moral obligations are typically reduced to "internal feelings" that may or may not have an influence along with lots of other factors (p. 73). In a couple of articles various ethical reasons do appear, though, and it is obvious that they play a key role in the process.

In the summary it is stated that the study is intended to provide "a basis for improving the way citizens are involved in infrastructure development process and to develop public participation processes that are better adapted to the needs of the citizens" (p. 7). The refusal to deal substantially with reasons and arguments confine the helpfulness of the study, though.

State of the art

Each of the five papers includes literature reviews related to the specific topic in question. In chapter 4 of the cape, a state-of-the-art of research on citizen action in public participation processes is provided, based on research literature within infrastructure processes, social movements, and environmental behaviour.

Sara B Aaen divides the research literature into four main perspectives: (1) An individual approach, i.e. socio-demographic, socio-psychological, and cognitive approaches. (2) A project approach, where the focus on the qualities of the process and project design. (3) A contextual approach, apparently including

the power perspective as well as discursive structures. (4) An interactional approach, where the focus is on how people act in social networks.

Due to the choice of research strategy that only phrases the subject area in terms of factors and influences in situations designed by planners rather than on the kinds of reasons and arguments citizens may contribute to the planning process, and which makes public participation obligatory, literature on deliberative democracy, substantial and procedural justice, values, obligations, conceptions of the good, etc. is left out. Literature on issues of trust, participation and community benefits – i.e. means of tackling procedural and distributional justice concerns – are not considered.

The review of state of the art literature is also deficient in not considering methodological and related epistemological issues more explicitly. These issues are not treated in depth until the following chapter on Method. The outcome is a literary review that insufficiently critically assesses the underlying epistemological similarities and differences across the 4 identified perspectives mentioned above.

In the discussion of her own research results, SBA makes good use of the selected literature to compare and contrast with her own findings, hereby demonstrating insight into relevant research, and a certain ability to take a critical approach to other researchers' results as well as her own.

Methodology, theories and concepts

Each of the five papers includes an outline of the applied methodology. In the cape's chapter 5, an overview of the methodology of all five papers is provided. This overview also considers ontology and epistemology, and how the applied theories and methods are similar or different in this regard. An overview of the five papers' research questions and findings is presented in table 6.1 on p. 69.

The thesis applies four different theories (sensemaking theory (Weick), face work (Goffmann), ethnomethodology (Garfinkel) and actors-network theory (Latour, Callon) all sharing the view that citizen "...action is a process of construction in which the citizen has the primary agency, and that the action formation process is social..." (p.50). The theories, which are briefly reviewed on pp. 52-53, are used eclectically in a patchwork fashion (p. 49), where potential mutual anomalies are not thematized.

The thesis is based on mixed methods. Paper I is based on statistical analysis of survey data combined with interview data. Paper IV is based on document analysis. The three papers II, III and V are based on qualitative analysis of interview data and observation of meetings. This demonstrates width in the methodological skills of the PhD student, even though it is not clear who has made the statistical analysis in paper I. A stringent and solid approach to qualitative analysis is demonstrated in the papers II on situated order and V on sensemaking, respectively. Figure 5.5 on p.65 provides an overview of the link between research question, logic of inference, methods, articles, analyses and meta-inference.

As regards the ontological and epistemological position, the dissertation takes a constructivist perspective on knowledge. SBA makes the radical ontological claim that "multiple realities can exist and are situated relative to the context in which they occur" (p. 47). This is a quite confusing statement. Taken literally, it makes it impossible to criticize other people's assertions about reality; these assertions must simply be considered as parts of alternative conceptions based on alternative facts about alternative realities. This obviously makes it impossible to generalize (p. 47), unless, of course, one's reality is of a kind that allows generalizations anyway.

Another confusing element is the treatment of 'action' and 'actor'. SBA refer, with approval, to the following definition of 'action': "The performance of some activity or deed, typically to achieve an

objective" (p. 29). At the same time she insists that material entities like cables, wind turbines and even soil must be considered as actors on a par with human beings, i.e. as entities performing activities in order to achieve an objective, not just as factors. This is a radical claim, the consequences of which are not truly reflected upon.

The problem is enhanced by the fact that actors are not only human actors or materiality, but also include, e.g., 'citizens' identity' (p. 115), 'place attachment', 'power relations', 'socio-psychological attributes of individuals' (p. 117), 'earlier experiences and future plans' (p. 260), see also conclusions chapter p.125. Acknowledging the aim of ANT to make both human, immaterial and material elements to 'actors' it unfortunately also makes it very difficult to discern what is the analytical framework, and what is the empirical field – what is the unit of the analysis and what are the findings? More generally, it is questionable whether it is appropriate to integrate a network-oriented theory in order to attempt to understand the actions of individuals.

The use of unusual concepts like 'obligatory passage point' is also unfortunate, particularly because the concept is not really explained. Is it a perception held by each individual (human) actor, or is it something that is collectively held, or what is it? The use of such concepts seems superimposed on the description of what is going on in the field. For instance, in paper V (p. 259) it is claimed that "for the citizen the experience of this specific preceding planning process becomes an important and obligatory passage point for how he enacts his network of entities". The citizen has probably never heard about obligatory passage points, and for the reader nothing truly interesting is added by using the concept.

SBA claims that there is a gap of understanding between planners and citizens, and that this gap is based on planners' rationality and citizens' emotionality (pp. 86 and 123), due to the fact that planners act in the system world, whereas citizens act in the life world. SBA refers to Habermas' distinction, but his distinction is quite different – the life world is in a sense more rational than the system world, because it is not as driven by a chase for money or power – and there is no evidence for claiming that one part acts more rationally than the other.

Research contributions and quality.

The thesis has interdisciplinary foundations, spanning Energy Policy, Land Use Planning and Environmental Politics, with material from Environmental Psychology, Human Geography and Environmental Sociology cited in the literature review. It is, therefore, a thesis that is broader in scope than usual, and SBA has put a lot of effort into reading a broad variety of literature on the subject area. Unfortunately, the broadness comes at a price in terms of intellectual inquiry. This problem is strengthened by the fact that so many cases were selected for study in the thesis. It would have been more conventional to study one case in some depth, or to undertake a comparative analysis of several cases.

Chapter 8 concludes on the findings from each of the three sub-research questions. On pp.131-132 it is concluded that practically, planning processes should be (a) more sensitive to individual sensemaking, and (b) account for citizens' everyday lives, (c) keep focus on the contextual nature of citizens' action formation, in time and space, (d) planners should recognize history and context of individuals and local communities and start there, rather than in the project, and (e) citizens enact situated orders which means there is a degree of uncontrollability. There are interesting conclusions here regarding citizens' life-worlds and issues of identity, but this chapter is written too descriptively, with little attempt to relate findings back to the literature review in chapter 4. And even though the concluding points are sound, they are not truly supported by the research presented in the papers. It is, therefore, difficult to judge what knowledge breakthroughs have been achieved.

In general, the PhD thesis is well-articulated and easy-to-read, apart from the sparse and unclear introduction of the abstract thinking about human, immaterial and material actors embedded in actor network theory (ANT). The thesis includes a descriptive summarising of the findings from the publications. This could probably have been made shorter, since the publications themselves make a better job of describing their scientific justification, method and findings. In general, the cape is full of repetitions, and could have been be shortened.

Throughout the thesis, SBA makes the reader aware of the methodological limitations in her research. E.g., some findings (paper 5) are based on just four landowner interviews. The findings may still be relevant in similar situations, as the context is made clear to the reader.

Throughout the cape of the thesis links are sought between the research questions, the applied theory, methodology, findings and conclusions. Solid references have been used properly throughout the thesis, and the language and written presentation is excellent, even though many grammatical and some spelling errors are included.

Conclusions

The committee recommends that the thesis in its present form be accepted for conducting an oral defense.

Defence

On September 8 the public defence of the doctoral thesis took place. After a 45 minutes presentation of the thesis, Sara Bjørn Aaen was confronted with a number of questions and objections related to the thesis. The whole defence lasted for about three hours, and everything went well. Sara Bjørn Aaen's presentation at the public defence was clear, and she gave reasonable and satisfying answers to most of the questions, worries, and objections posed by the opponents and engaged well in the discussion. The defence was useful for discussing the challenges and consequences of combining diverse theoretical approaches, methods and cases, both in relation to the thesis and for future research activities. The assessment committee approves the thesis as qualified, and conclude that Sara Bjørn Aaen has passed the exam. We therefore recommend that Sara Bjørn Aaen be appointed *philosophiae doctor*.

September 8, 2017

Patrick Devine-Wright

Tove Enggrob Boon

Finn Arler

Fortegnelse over bedømmelsesudvalg til
stilling 201728/42238 Assistant/Associate Professor in Application of materials in product design (201728/42238) ved PLAN

Navn: Associate Professor Poul Henrik Kyvsgaard
Arbejdssted: AAU

Navn: Proessor Tim McAloone
Arbejdssted: DTU

Navn: Professor Casper Boks
Arbejdssted: NTNU

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Assistant/Associate Professor in Application of materials in product design (201728/42238)

Position No.
201728/42238

The Department of Planning at Aalborg University's Copenhagen Campus is looking for candidates for two positions as Associate/Assistant Professor in Application of materials in product design.

The position is open for appointment from January 1st 2018 or soon hereafter. The position as Associate Professor is permanent. The assistant professor position is open for appointment for a period of 3 years.

In your application, please clearly specify whether you apply for the Associate Professor OR/AND the Assistant Professor position. The Associate Professor position has the number 42238 and the Assistant Professor position has the number 201728.

The department is in the process of complementing the existing research group working with socio-technical and sustainability approaches to engineering design with two positions that will span between conceptualization, application of materials and product design and relate this to prototyping and manufacturing technology and current developments in sustainable design.

Job description
Applicants must in their research profile show knowledge of and experiences that include:

- choice and use of materials in engineering design of products

- analysis of material's life cycle and the sustainability aspects of their use in design processes

- experiments with the use of materials and contributions to developing such for the use in sustainable design

- material ideation in design projects

The position require applicants that:

- have a general knowledge on engineering and design issues including experience with engineering design and methods applied to design activities

- have an insight into the assessment of sustainability aspects of materials and product

- can demonstrate experience with research and teaching relevant to the competences required

- ability to work in interdisciplinary teams including socio-technical approaches to design

Expertise in rapid prototyping and the facilitations of design for interactions with end-users and stakeholders around prototypes is an asset. Applicants should preferably hold experience in writing research applications and proven ability to attract external funding is desirable. Teaching will primarily be in the area of *sustainable product and systems design, prototyping* and *product development* as well as *mechanics* and *materials selection* primarily in the bachelors and masters programs.

You may obtain further professional information from assoc. professor Erik Hagelskjær Lauridsen, +45 6086 6610, ehl@plan.aau.dk.

Qualification requirements as Assistant Professor:

Appointment as an Assistant Professor presupposes scientific qualifications at PhD–level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as an Assistant Professor cannot exceed a period of four years in total at Aalborg University in a temporary position (appointment at Assistant Professor level cannot exceed a period of eight years in total in Denmark).

Qualification requirements as Associate Professor:

The level of qualification for Associate Professors shall correspond to the level, which can be achieved on the basis of the appointment as Assistant Professor, but may be achievable in other ways. The appointment presupposes that the applicant can demonstrate original scientific production at an international level as well as documented teaching qualifications. Appointment to the position requires that both research and teaching qualifications are at the requested level. The two qualifications will be given equal and principal priority in the overall assessment.

The application must contain the following:

- A statement outlining your reasons for applying, and intentions and visions with the position.
- Your curriculum vitae, including personal data, educational background, scientific qualifications, dissemination skills, participation in committees and boards, and additional qualifications relevant for the position.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.

- A complete list of publications.
- Publications you wish to be considered by the assessment committee. You may attach up to 5 publications.
- A specification of your teaching qualifications relative to the teaching portfolio. If this is not enclosed you must include an explanation for its absence.
- References/recommendations.

An assessment committee will assess all candidates.

The applications are only to be submitted online by using the "Apply online" button below.

For further information concerning the application procedure please contact Nickie Hermansen by mail nkh@adm.aau.dk or phone (+45) 9940 7902 Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen here.

Workplace
Copenhagen

Agreement
Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline
15/10/2017

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

Curriculum Vitae for
Timothy Charles McAloone
Associate Professor, PhD
February 2011

Kastanie Allé 5
3450 Allerød
Denmark

Tel: +45 4817 7797
Mob: +45 2620 7730
EMail: tim@mcaloone.com
URL: www.mcaloone.com

Date of Birth: 30th May 1971
Nationality: British
Marital Status: Married
Children: Two sons

EDUCATION

Cranfield University, UK
PhD research. Thesis title: **(1993 - 1998)**
"Industry Experiences of Environmentally Conscious Design Integration: An Exploratory Study"

Manchester Metropolitan University, UK
BEng (Hons) Mechanical Engineering - Sandwich Degree **(1989 - 1993)**
Sandwich year spent in Beta Oil Refinery, Germany ***2-1 (Hons)***

Newman College, Preston, UK
Advanced Level Certificates in: Electronics, German, Maths, Physics **(1987 - 1989)**

All Hallows RC High School, Preston, UK
Ordinary Level Certificates in eight subjects **(1982 - 1987)**

EMPLOYMENT

- **1998 – ...** Associate Professor, Technical University of Denmark (DTU), Department of Management Engineering
- **1993 – 1998** Research Assistant, Cranfield University, UK
- **1993** Research contract for Department of Development & Procurement, British Telecom, UK
- **1991-1992** Project Engineer (practical placement), Beta Oil Refinery, Wilhelmshaven, Germany

RESEARCH ACTIVITIES

My research activities belong to the field of *design research*. Within this field my research, teaching and dissemination activities cover the areas of sustainability, innovation, life-cycle engineering, product/service-systems (PSS) and product development methodology. In both UK and Denmark I have led national research projects, plus a series of national and international innovation networks including industrialists, academics and other organisations, with a focus on the implementation of innovation strategies and product development competencies/methodologies.

I have been actively researching into the field of product development for the past eighteen years, with a particular focus on innovation and sustainability strategies, in close contact to industry. Over this time I have closely followed the innovation and product development processes of leading companies, which has led to my identification of the need to support the integration of advanced methodologies and new working patterns in organisations, hereunder the emerging theory of Product/Service-Systems (PSS), within which I head a growing research activity at my university.

Current/recent research projects include:

- "PROTEUS: PROduct/service-system Tools for Ensuring User-oriented Service" (principal investigator), funded by the Danish Agency for Science, Technology and Innovation and 12 maritime companies (DKK 16 mio.). 2009-2011.
- "Charting of Danish maritime companies' service-readiness" (principal investigator), funded by Danish Maritime Foundation, Danish Maritime Organisation (DKK 2 mio.). 2006-2011.
- "TINV: Transportens Innovationsnetværk" (workpackage leader), funded by the Danish Agency for Science, Technology and Innovation (DKK 0.5 mio.). 2009-2011.
- "Environmental improvements through product development" (project leader), together with IPU and the Confederation of Danish Industries, funded by the Danish Environmental Protection Agency. Five industry cases: Coloplast, Fritz Hansen, Gabriel, Grundfos, Lego. (DKK 0.75 mio.). 2008-2009.
- "Creation of Danish Management System for User Driven Innovation" (project member), funded by The Danish Ministry of Economic and Business Affairs. 2008-2009.

- "International Manufacturing Research Centre on Product Service Systems Design" (external advisor), funded by the Engineering & Physical Sciences Research Council (EPSRC). 2008-2011.
- "SPACES: Coordination and innovation building in the Danish research sector", formally publically funded, currently con amore at host universities.
- "Actor-network mapping and strategic planning in the state hygiene service-system" (project leader), funded by SCA A/S. 2008-2009.

With industry as my primary research object I am proud of the extensive industry network I maintain, both in Denmark and internationally. I frequently utilise and engage this network in research exchanges, in the form of interviews, case-based collaboration and workshops. As an example of a workshop based industry collaboration, I can name the "cipu innovation workshop series", which amounted to 17 workshops with in total 650 participants (70% industry participation). Likewise, my academic network is broad and highly active, internationally, where I enjoy my membership of the Design Society, keeping me networked with the world's leading academics in the design research field. As such I am a frequently used PhD examiner and discussion partner for research project development.

I am currently preparing for the 18th International Conference on Engineering Design, ICED11, which is to be held at DTU in August 2011. ICED is the most significant conference in the design research community and I am therefore proud to be conference chair this year. Improvements to the conference already implemented include ISI and Scopus rating and ISSN affiliation. We are currently working on attracting a number of ISI journal special issues (target = 10) for members of the research group to be co-editors of, together with other Design Society colleagues.

In the autumn of 2011 it is my plan to spend a period at Stanford University's Center for Design Research, where I have been invited to spend a period as visiting professor. I have also won a scholarship for this stay.

EDUCATION DEVELOPMENT ACTIVITIES

I have a broad teaching experience and have developed and led a number of bachelor and masters level courses.

I am one of the initiators and core staff members on DTU's *Design & Innovation* education programme, which has innovated both the engineering education and the general interest in studying at DTU. This five-year bachelor-master programme is now in its ninth year of operation, which means that the first three years' candidates from the programme are now in the professional engineering job market.

Further afield I have acted as external examiner for a number of education programmes in international universities.

COMMERCIAL/INDUSTRIAL ACTIVITIES

I am an associate at IPU Product Development, a consultancy foundation, with close connections to DTU. Here I carry out product development projects and industrial training activities, particularly within the field of product/service-systems and industrial eco-design implementation (see: www.ipu.dk). Clients include; Coloplast, Danfoss, DNP Denmark, Fritz Hansen, Gabriel, Grundfos, Kiwi, LEGO, SCA, Sara Lee, Steelcase.

INSTITUTIONAL RELATIONS

- Member of Danish Strategic Research Council Programme Committee for the Creative and innovative Society (Den Strategiske Forskningsråd – Kreativ og Innovativ Samfund: DSF-KIS), 2007 – 2010
- Mentor for two individual industrialists, employed in private companies (names confidential), 2009 - present
- Member of the Engineering and Physical Sciences Research Council, College of Peers, 2007 – present
- Chairman of evaluation committee for employment of senior research staff at DTU Management, 2010
- Member of evaluation committee for employment of professor at Blekinge Tekniska Högskola, Sweden, 2010
- Member of evaluation committee for employment of professor at Linköping University, Sweden, 2009
- Member of DTU Management Engineering's research committee, 2008 – present
- Design Society Advisory Board Member, 2007 – present
- Research evaluation committee member for Swedish Research Council, 2008, 2009, 2010
- Research evaluation committee member for Norwegian Research Council, 2010
- Leader of Design Society's *Ecodesign SIG* (Special Interest Group), 2001 – present
- Member of evaluation committee for employment of new staff members at DTU/IPL, 2004
- Invited member of Special Interest Group (ERFA-Gruppe) for Product Development Managers, organised/owned by the Confederation of Danish Industry (DI), 2003 – present
- Member of editorial advisory panel and expert panel for *Ingeniøren* (Denmark's engineering newspaper), 2004 -
- Chronicle author for *Ingeniøren*, 2006 – 2009
- Various activities and posts of responsibility internally at DTU

ACTIVITIES AS EDITOR AND REVIEWER

Conferences

- Conference Chair for ICED11
- IDETC 2007 – International Design Engineering Technical Conferences (ASME)
- DESIGN 2002, 2004, 2006, 2008, 2010 Conferences, Dubrovnik (Design Society)
- ICED 2001, 2003, 2005, 2007, 2009 Conferences, Glasgow, Stockholm, Melbourne & Paris (Design Society)
- NordDesign 2002 & NordDesign 2004 Conferences, Trondheim & Tampere (Design Society)
- TMCE 2002 Conference
- EcoDesign 2005 Conference, Tokyo (Ecodenet)
- Chairman at International Conferences: ICED, DESIGN, NordDesign, CARE, EcoDesign
- Member of Advisory Board for International Conferences: DESIGN, ICED, NordDesign, TMCE and EcoDesign
- Member of Organising Committee (1999-present) and Project Leader (2004, 2006) for DTU/IPU annual conference, "Produktudviklingsdagen"
- Project leader for SPACES & cipu workshops (DTU led workshop series)

Journals

- Journal of Mechanical Design (ASME)
- Journal of Engineering Design
- Design Studies
- Journal of Cleaner Production
- Journal of Sustainable Product Design
- Journal of Environmental Assessment Policy and Management
- Journal of Research in Engineering Design
- International Journal of Technology Management
- International Journal of Services Technology and Management
- Team Performance Management

- Co-editor, International Journal of Internet, Manufacturing and Services, Special Issue: "Product Service Solutions in Life Cycle Activities", Vol. 2, No. 1, 2009.
- Editor, Journal of Engineering Design, Special Issue: "Ecodesign methods and implementation", 2012.
- Editor, Journal og Sustainable Product Development, Special Issue: "Design for Sustainability", 2012.

Books

- Reviewer of Wimmer et. al. "Ecodesign Implementation"
- Reviewer of Birkhofer et. al. "Environmentally-Friendly Product Development: Methods and Tools"

Research Projects & Programmes

- Reviewer for DFG's CRC392 project (10-year German nationally funded research project into Ecodesign)
- Peer group member for EU 5FW project "Methods and Tools for Product Service Systems Design (MEPSS)"
- Reviewer for ZIT (Zentrum für Innovation und Technologie) project applications (Austrian funding body)
- Invited member of the EPSRC Peer Review College (2006-2009)
- Reviewer for Blekinge Institute of Technology's Sustainability research projects Pro-Vision and ProSpekt (2009-present)
- External peer for Blekinge Institute of Technology's DECSUS project (2010 – present)

Education Programmes

- External examiner for Integrated Product Development Masters Programme, University of Malta (2006-present)

ACTIVITIES AS PhD SUPERVISOR

- External supervisor for Frank Schlüter, Industrial PhD student Skania/KTH, Sweden (1999-2002)
- Co-supervisor for Gurbakhash Singh Bhander, DTU/IPL (2002-2004)
- Supervisor for Detlef Matzen, DTU Management Engineering (2005-2009)
- Supervisor for Adrian Tan, DTU Management Engineering (2005-2009)
- Supervisor for Line Marie Neugebauer, DTU Management Engineering (2010-present)
- Supervisor for Krestine Mougaard, DTU Management Engineering (2010-present)
- Supervisor for Teit Anton Nielsen, DTU Management Engineering (2010-present)
- Co-supervisor for Rune Jørgensen, TU-München (2010-present)

ACTIVITIES AS PhD EXAMINER/ DISCUSSANT

- Discussant for Trond Lamvik (Ecodesign), NTNU Norway (2001)
- Discussant for Thomas Magnusson (Ecodesign), University of Linköping Sweden (2001)
- External examiner for Elies Dekonik-Jones (Ecodesign & TRIZ), Brunel University UK (2003)
- Discussant for Anne Marie Åkermark (Ecodesign), KTH Sweden (2003)
- External examiner for Dorothy Maxwell (PSS), Imperial College London UK (2004)
- External examiner (opponent) for Mattias Lindahl (PSS and Ecodesign), KTH Sweden (2005)
- External examiner for Michael Steinbach (PSS), Universität des Saarlandes, Germany (2005)
- External examiner for Torsten Herzberg (Innovation in Product Development), Cranfield University, UK (2006)
- External examiner (opponent) for Åsa Ericson (A need-based approach to product development), Luleå University of Technology, Sweden (2008)
- External examiner (opponent) for Sofie Byggeth (A Foundation for Sustainable Product Development), Blekinge Institute of Technology, Sweden (2008)
- External examiner for Birgit Brunklaus (Understanding organisational influence on environmental performance - Studies on housing management in Sweden), Chalmers University, Sweden (2008)
- External examiner (opponent) for Mattias Bergström (Probing for Innovation – How small design teams collaborate), Luleå University of Technology, Sweden (2009)
- External examiner for Henrik Nergård (Knowledge engineering models as experience carriers), Luleå University of Technology, Sweden (2009)
- External examiner for Henrik Ny (Strategic Life-Cycle Modeling and Simulation for Sustainable Product Innovation), Blekinge Institute of Technology, Sweden (2009)
- External examiner for Srinivas Kota (An interactive support for developing environmentally friendly product lifecycles), Indian Institute of Science (2010)
- External examiner for Jamie O'Hare (Eco-innovation tools for the early stages: an industry-based investigation of tool customisation and introduction), University of Bath, UK (2010)
- Internal examiner for Max Munnecke (Everyday-Oriented Innovation - Towards a methodological framework for exploring and mapping radical innovation opportunities within everyday activities), Technical University if Denmark (2011)

FINAL YEAR MASTERS PROJECT SUPERVISION

- Completed masters projects: 129 students (at DTU, 1998 – present)
- Numerous (50+) bachelor project students supervised

CURRENT DTU TEACHING ACTIVITIES

- Member of initiative group ("Designinitiativet" – 10 members of DTU staff), responsible for the conceptualisation, establishment and now running of DTU's new masters education programme, *Design & Innovation*, 2000 - present
- Responsible for DTU course *Innovation in Product Development* (10 point high-level masters course) – developed in 1998
- Responsible for DTU course *Product Life and Environmental Issues* (5 point mid-level masters course) – developed in 2004
- Responsible for DTU course *Product/Service-Systems* (10 point mid-level masters course) – developed in 2004
- Deliver a module to the DTU course *Sustainable Production* (10 point high-level masters course)
- Deliver a module to the DTU course *Life Cycle Analysis* (10 point high-level masters course)
- Main supervisor/teacher for various special courses at DTU

EXTERNAL TEACHING ACTIVITIES

- Series of short courses on product development, environmental issues and innovation, offered as guest lectures and industrial lectures:
    - IPU: "How are we doing, environmentally speaking?", guest lecture, January 2011.
    - UDTU: "Teaching, learning and creativity: Examples from the lecture theatre – and the design studio...", guest lecture on DTU pedagocial education programme, November 2010.
    - Linköping University: "Product/service-system design strategies", guest lecture, October 2010.
    - Københavns Maskinmesterskole: "Innovation with perspective", guest lecture, August 2010.
    - University of Tartu: "Strategic approaches to product/service-systems", workshop, August 2010.
    - Aalborg Univeristy: "Sustainable Design: How well prepared are we, methodically speaking?", guest lecture on MMT education, April 2010.

- University of Zagreb: "Sustainable Design: Taking the challenge into product development", mini-workshop, March 2010.
- EAFIT, Colombia: "Workshop on sustainable product service system development", August 2009.
- Danfoss Universe: "Implementing Sustainable Design Strategies", guest lecture, June 2009.
- Institution of Mechanical Engineers: "UK Mechatronics Forum Prestige Lecture", April 2009.
- Danish Standards: "Motivation and tools for ecodesign", mini-workshop, October 2008.
- Danish Enterprise and Construction Authority: "User-driven innovation and standardization", guest lecture, September 2008.
- EnergiNet.dk: "Innovation in the energy sector", guest lecture, August 2008.
- NTNU: "Product/service-systems", guest lecture, February 2008.
- Danish Marketing Forum: Strategic marketing network: "Marketings role and involvement in product development: When and how?" one-day workshop, 2008.
- University College Falmouth: "Workshop on sustainable product service system development", April 2006, 2008.
- University of Calabria, Italy: "A short course in sustainable product development: Models, methods and mindsets", April 2005, 2006, 2008.
- Refrigeration Competence Centre: "Innovation with perspective: Navigation through innovation terms, theories and methods", November 2007.
- Dansk Magisterforening Undervisnings- og uddannelsesnetværk: "Innovation med perspektiv Undervisning i kreativ og systematisk innovation", guest lecture 30/11-2005.
- University of Malta: "Short lecture series in sustainable product development: models, methods and mindsets", 21-23/11-2005.
- Danfoss, "Miljørigtig produkt- og procesudvikling", intensive training course for 150 product developers, 2000-2001.
- Fachhochschule Vorarlberg, Austria: "Simultaneous & concurrent engineering", October 2001.
- Electrolux Floorcare: "Ecodesign guidelines and techniques", three-week training package for 50 product developers, 1996.

PUBLICATIONS

JOURNALS

1. McAloone, T. C. & Evans, S. (1996) "The Economic Life-Cycle", Co-Design, Special Issue: Green Design, Issue 05/06, Open University Press, Jan-March 1996, pp76-80, Milton Keynes.
2. Bhamra, T. A., T. C. McAloone, S. Evans, M. Simon & A. Sweatman, (1998) "Modelling the implementation of ecodesign in the electrical & electronics industry", Journal of Electronics Manufacturing.
3. Simon, M., Poole S., Sweatman, A., Evans S., Bhamra T. & McAloone T. C. (2000) "Environmental priorities in strategic product development", Business Strategy & the Environment, vol. 9, no. 6, ISBN 0964-4733, pp. 367-377.
4. Bhander, G. S., McAloone, T. C. & Hauschild, M. (2003) "Implementation of Life Cycle Assessment in Product Development", International Journal of Environmental Progress, Vol. 22, No. 4, pp. 255-267.
5. McAloone, T. C. (2007) "A Competence-Based Approach to Sustainable Innovation Teaching, Experiences within a New Engineering Programme", in Journal of Mechanical Design, Volume 129, Issue 7, ASME, ISSN 1050-0472.
6. Boks C. & McAloone T. C. (2009) "Transitions in Sustainable Product Design Research", in International Journal of Product Development (IJPD), (ISSN: 1477-9056), Vol. 9, No.4, pp. 429-449.
7. Tan A. R., Matzen D., McAloone T. C., Evans S. (2010) "Strategies for designing and developing services for manufacturing firms", CIRP Journal of Manufacturing Science and Technology, Volume 3, Issue 2, 2010, pp. 90-97.
8. Restrepo J. D., McAloone T. C., Nielsen T. A., Pedersen S. M. (2010) "A User Centred Approach to Eliciting and Representing Experience in Surgical Instrument Development", Journal of Manufacturing Science and Technology, CIRP, 12 sider, 2010 – in print.

IN PRINT/SUBMITTED

9. Tan A. R., McAloone T. C. & Lauridsen E. H. (2010) "Reflections on teaching product/service-system (PSS) design", International Journal of Design Engineering (IJDE), ISSN: 1751-5874, 2009, Inderscience Publishers.
10. Bastante Ceca M. J. & McAloone T. C. (submitted - pending review) "Regulating, Encouraging and Implementing: Motivations and ways and of doing EcoDesign", Journal of Sustainable Product Design.
11. McAloone T. C. , Clausen C., Kjær L. L., Høst-Madsen N. K. (submitted - pending review) "Ensuring ambidexterity in the preparation of radical innovation processes through an integrated approach: a case from industry", Journal of Product Innovation Management.

12. McAloone, T. C., Larsson, T., Broman, G. (submitted – pending review) "Boundary conditions for product/service-systems design" Design Studies.
13. Achiche S., Appio F. P., McAloone T. C., Di Minin A., Restrepo-Giraldo J. D. (submitted – pending review) "Fuzzy decision support for tool selection in the core front end activities of new product development", Journal of Product Innovation Management.

BOOKS / EDITED BOOK CHAPTERS

1. McAloone, T. C. (1998) "Industry experiences of environmentally conscious design integration: an exploratory study", PhD Thesis, April 1998, The CIM Institute, Cranfield University, UK.
2. Simon, M., Evans, S., McAloone, T. C., Sweatman, A., Bhamra, T. & Poole, S. (1998) "Ecodesign Navigator", Manchester Metropolitan University, Cranfield University & EPSRC, ISBN 1-871315-74-3, UK.
3. McAloone, T. C. & Robotham, A. J. (1999) "A Framework for Product Development", in Critical Enthusiasm, Contributions to Design Science, NTNU & DTU, Denmark.
4. McAloone, T. C. (2000) "Industrial application of environmentally conscious design", Professional Engineering Publishing Limited, London & Bury St. Edmunds, ISBN 1-86058-239-7, UK.
5. McAloone T. C. (2002) "Ecodesign", Chapter in EOLSS, Encyclopaedia of Life Support Systems, UNESCO, EOLSS.
6. McAloone, T. C., Andreasen, M. M. & Boelskifte, P. (2007) "A Scandinavian Model of Innovative Product Development", in The Future of Product Development (ISBN: 978-3-540-69819-7), Springer-Verlag, Berlin, pp. 269-278.
7. McAloone T. C. & Bey N. (2008) "Miljøforbedringer gennem produktudvikling – en guide", Miljøstyrelsen, ISBN: 978-87-7052-871-9.
8. McAloone T. C. & Bey N. (2009) "Environmental improvement through product development – a guide", Danish Environmental Protection Agency. ISBN: 978-87-7052-950-1.
9. Tan A. R., McAloone T. C. (2009) "Produkt/service-system (PSS) casestudie: SCA Hygiene Products A/S, pp. 32, report.
10. McAloone T. C. (2011) "Boundary Conditions for a New Type of Design Task: Understanding Product/Service-Systems", in The Future of Design Methodology, Birkhofer ed., Springer Verlag, Chapter 10, in print.

CONFERENCE PROCEEDINGS

1. Rose, E. P., McAloone, T. C. & Evans, S. (1995) "The Application Of Computer Simulation To Economically Justify The Design Of A Life-Cycle Approach", International Conference On Clean Electronics Products And Technology (CONCEPT), IEE/IEEE, London.
2. McAloone, T. C. & Evans, S. (1995) "The Challenges of Environmentally Conscious Design", International Conference On Clean Electronics Products And Technology (CONCEPT), IEE/IEEE, London.
3. McAloone, T. C. & Evans, S. (1996) "Integrating Environmental Decisions into the Design Process", 3rd International Seminar On Life Cycle Engineering (Eco-Performance '96), CIRP, pp83-90, Verlag Industrielle Organisation, Zürich.
4. McAloone, T. C., Evans, S. & Weeks, J. J. (1996) "A Pragmatic Approach to Managing Product Life-Cycles", in Proceedings of Conference on Integration in Manufacturing (IiM), ESPRIT, 2-4 October 1996, Galway, Ireland.
5. McAloone, T. C. & Holloway, L. P. (1996) "From Product Designer To Environmentally Conscious Product Designer", Applied Concurrent Engineering Conference 1996 (ACE96) 5-7th November 1996, Seattle.
6. McAloone, T. C. (1996) "Integration Of DFE Tools With Product Development", Material World II, TEN Conference, Textile Environmental Network, 12th November 1996, Birmingham.
7. McAloone, T. C. & Evans, S. (1996) "Integrating Environmental Decisions Into Design: Encouraging A Move Towards Sustainable Product Development", The 1996 Conference of the Greening of Industry Network - Global Restructuring: A Place for Ecology?, 24-27th November 1996, Heidelberg.
8. Bhamra, T., McAloone, T. C. & Evans, S. (1997) "Organisational Requirements For Achieving Environmentally Conscious Design", Life Cycle Networks, Krause F-L. & Seliger, G. (eds.), Chapman & Hall, London, June, ISBN 0-412-827-04, pp 121-131.
9. McAloone, T. C. & Evans, S. (1997) "How Good Is Your Environmental Design Process? A Self Assessment Technique", International Conference On Engineering Design (ICED '97), WDK, 19-21 August 1997, Tampere, Finland, pp 625-630.
10. McAloone, T. C., Bhamra, T. & Evans, S. (1998) "Success in environmentally conscious design: how is it achieved and maintained?", Proceedings of International Symposium On Electronics and the Environment, IEEE, 4-6 May 1998, Oak Brook, USA, pp. 171-175, ISBN 078034295X.
11. Simon, M., Poole, S., Sweatman, A., Evans, S., Bhamra, T. and McAloone, T. C. (1998) "Environmental priorities in strategic product development", Proceedings of Business Strategy and the Environment Conference, Business Strategy and the Environment Conference, Leeds, January 1998, pp. 110-117.

12. McAloone, T. C. (1998) "To what extent are DFX principles really used when developing environmentally sensitive products?", 9. Symposium Fertigungsgerechtes Konstruieren, University Of Erlangen-Nürnberg, 15-16 October, 1998, Schnaittach, Germany.
13. McAloone, T. C. & Evans, S. (1999) "Using empirical data to build an advisory tool for ecodesign", EcoDesign '99: 1st International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Waseda University International Conference Center, 1-3 February 1999, Tokyo, Japan.
14. Bhamra, T., Evans, S., McAloone, T. C., Simon M., Poole S. & Sweatman A. (1999) "Integrating environmental decisions into the product development process: part 1 - the early stages", EcoDesign '99: 1st International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Waseda University International Conference Center, 1-3 February 1999, Tokyo, Japan, pp 329-333.
15. Poole S., Simon M., Sweatman A., Bhamra, T., Evans, S. & McAloone, T. C. (1999) "Integrating environmental decisions into the product development process: part 2 - the later stages", EcoDesign '99: 1st International Symposium On Environmentally Conscious Design And Inverse Manufacturing, Waseda University International Conference Center, 1-3 February 1999, Tokyo, Japan, pp 334-337.
16. Evans, S., McAloone, T. C. & Bhamra T. (1999) "An eco-design model based on industry experience", 6th International Seminar On Life Cycle Engineering (Life Cycle Engineering In The Next Millenium), CIRP, Queen's University, 21-23 June 1999, Kingston, Ontario, Canada, pp. 122-131.
17. Robotham A. J. & McAloone T. C. (2000) "Towards a new framework for product development", Proceedings of NordDesign 2000, IKS/DTU.
18. McAloone T. C. (2000) "Where's eco-design going?", Proceedings of Electronics Goes Green 2000+ Conference, IEEE, Berlin.
19. Andreasen M. M., McAloone T. C. & Hansen C. T. (2000) "On the teaching of product development and innovation", International Workshop Education for Engineering Design, EED, Pilsen, November 23-24.
20. McAloone T. C. & Andreasen M. M. (2001) "Joining three heads – experiences from mechatronic projects", H. Meerkamm (editor): Proceedings from Design for X, Neukirchen 2001, Lehrstuhl für Konstruktionstechnik, Friederich-Alexander-Universität, Erlangen-Nürnberg.
21. McAloone T. C. (2001) "Confronting product life thinking with product life cycle analysis", Proceedings of EcoDesign 2001: 2nd International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tokyo International Exhibition Center, Tokyo, Japan.
22. McAloone, T. C. (2002) "Creating sustainable students through project-based teaching", D. Marjanovic (editor): Proceedings of the Design 2002 7th International Conference on Design, Dubrovnik 14-17 May 2002, Faculty of Mech-Eng. and Naval Architecture, Zagreb, pp. 1345-1350.
23. Andreasen, M. M., Wognum, N. & McAloone, T. C. (2002) "Design typology and design organisation", D. Marjanovic (editor): Proceedings of the Design 2002 7th International Conference on Design, Dubrovnik 14-17 maj 2002, Faculty of Mech. Eng. and Naval Architecture, Zagreb, pp. 1-6.
24. McAloone, T. C. & Andreasen, M. M. (2002) "Defining product service systems", Meerkamm (editor): Design for X, Beiträge zum 13. Symposium, Neukirchen, 10-11. oktober 2002; Lehrstuhl für Konstruktionstechnik, TU Erlangen, pp. 51-60.
25. McAloone, T. C., Bey, N., Boks, C., Ernzer, M. & Wimmer, W. (2002) "Towards the actual implementation of ecodesign in industry - the 'haves' and 'needs' viewed by the European ecodesign community", Proceedings of CARE Innovation 2002, Eco-Efficiency and the Drive Towards Sustainability: Concepts for the Electr(on)ics & Automotive Industry, Fourth International Symposium, Austria Center, Wien.
26. McAloone, T. C. (2002) "Towards a multidisciplinary understanding of product innovation: the Synopsis network project", Proceedings of the Research Seminar on Operations Management and Innovation, Fredericia, Denmark, 25-26 November 2002.
27. Bhander, G. S., Hauschild, M. & McAloone, T. C. (2003) "Sustainable Environment and Health for 21st Century: Implementation of LCA in development of products and systems", In: S. Shen (ed.), Proceedings of The 14th Global Warming International Conference, Boston, USA, 27-30 May 2003, Global Warming International Center (GWIC), SUPCON International, Chicago, USA.
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29. Bhander, G. S., Hauschild, M. & McAloone, T. C. (2003) "Implementation of Life Cycle Assessment (LCA) in the Development of Products", In: R. Schenck (Ed.), Proceedings of InLCA/LCM2003 Conference, Seattle, USA, 22-25 September 2003, ACLCA/UNEP, Seattle, USA.
30. McAloone, T. C. (2003) "Demands for Sustainable Development", Keynote, in: A. Folkeson, K. Gralén, M. Norell, U. Sellgren (Eds.), Proceedings of The 14th International Conference on Engineering Design (ICED '03), Design Society, 19-21 August 2003, Stockholm, Sweden.
31. McAloone, T. C. & Andreasen, M. M. (2004) "Design For Utility, Sustainability And Societal Virtues: Developing Product Service Systems", D. Marjanovic (editor): Proceedings of the Design 2004 8th International

Conference on Design, Dubrovnik 18-21 May 2004, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, pp. 1545-1552.
32. McAloone, T. C., Hansen, P. H. K. & Larsen, J. H. (2004) "Images of Innovation: An Ontological Approach", Keynote speech, D. Marjanovic (editor): Proceedings of the Design 2004 8th International Conference on Design, Dubrovnik 18-21 May 2004, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, pp. 53-60.
33. McAloone, T. C. (2004) "Sustainable Product Development Through a Life-Cycle Approach to Product and Service Creation", Keynote speech, International Symposium on Environmentally-Friendly Product Development, Darmstadt, 27-28 October 2004.
34. McAloone, T. C. & Tan, A. (2005) "Sustainable Product Development through a Life-Cycle Approach to Product and Service Creation: An exploration of the extended responsibilities and possibilities for product developers", in Proceedings of Eco-X Conference: Ecology and Economy in Electronix, 8-10 June 2005, Vienna, Austria.
35. McAloone, T. C. (2005) "Industrial Integration of Environmental Issues Into The Organisation: Past, Present & Future Challenges", in Proceedings of The 15th International Conference on Engineering Design (ICED '05), Design Society, 15-18 August 2005, Melbourne, Australia.
36. Tan, A. & McAloone, T. C. (2006) "Understanding And Developing Innovative Products And Services: The Essential Elements", D. Marjanovic (editor): Proceedings of the DESIGN 2006 9th International Conference on Design, Dubrovnik, 15-18 May 2006, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, pp. 647-654.
37. Tan, A. & McAloone, T. C. (2006) "Characteristics Of Strategies In Product/Service-System Development", D. Marjanovic (editor): Proceedings of the DESIGN 2006 9th International Conference on Design, Dubrovnik, 15-18 May 2006, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, pp. 1435-1442.
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39. Tan, A. R. McAloone, T. C. & Andreasen M. M. (2006) "What Happens To Integrated Product Development Models With Product/Service-System Approaches?" 6th Integrated Product Development Workshop, IPD2006, Schönebeck/Bad Salzelmen B. Magdeburg, October 18-20, 2006, pp.
40. Matzen, D. & McAloone T. C. (2006) "A Tool For Conceptualising In PSS Development", 17. Symposium "Design For X", Neukirchen, 12.-13. October 2006, pp.
41. McAloone, T. C. (2006) "Teaching and Implementation Models for Sustainable PSS Development: Motivations, Activities and Experiences", in Proceedings of Sustainable Consumption and Production: Opportunities and Threats, 23-25 November 2006, Wuppertal, Germany, Book 4, pp. 119-130.
42. Matzen, D. & McAloone, T. C. (2006) "The Ramifications of Product/Service-Systems on Mechatronic Design", in Conrad F. (Ed.) International Workshop Mechatronics Day 2006, Denmark.
43. Tan A. R, McAloone T. C. & Gall C. (2007) "Product/Service-System Development: An Explorative Case Study In A Manufacturing Company", in Proceedings of the 16th International Conference on Engineering Design (ICED '07), Design Society, (ISBN: 1-904670-02-4), 28-31 August 2007, Paris, France.
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45. Restrepo J., McAloone T. C., Schlegel T. & Lykke J. (2008) "A User-Centered Approach To Developing Emergent Technology Products", in D. Marjanovic (editor) Proceedings of the DESIGN 2008 10th International Conference on Design, Dubrovnik, 19-22 May 2008, Faculty of Mechanical Engineering and Naval Architecture, Zagreb.
46. Matzen D. & McAloone T. C. (2008) "From Product to Service Orientation in the Maritime Equipment Industry - A Case Study", in proceedings of 41st CIRP Conference on Manufacturing Systems, Tokyo, Japan, 26-28 May 2008, Springer-Verlag, London, ISBN: 978-1-84800-266-1.
47. Andreasen M. M. & McAloone T. C. (2008) "Applications of the Theory of Technical Systems - Experiences from the 'Copenhagen School'", Proceedings of the 2008 Applied Engineering Design Science Workshop, November 2008, Pilsen, Czech Republic, 18 sider.
48. Tan A. R., Matzen D., McAloone T. C. & Evans, S. (2009) "Strategies for Designing and Developing Services for Manufacturing Firms", CIRP IPS2 Conference, Cranfield, UK.
49. Restrepo J. D., Nielsen T. A., Pedersen S. M., McAloone T. C. (2009) "A User Centred Approach to Eliciting and Representing Experience in Surgical Instrument Development", CIRP IPS2 Conference, Cranfield, UK.
50. Tan A. R., McAloone T. C., Evans S. (2009) "Succeeding in Business by Managing Consumption: A more sustainable approach to selling for manufacturers", Proceedings of Joint Actions on Climate Change (ISBN: 978-87-91830-30-3), Aalborg University.
51. McAloone T. C. & Bey N. (2009) "Making Ecodesign Simpler than Ever Before: Experiences from empirical intervention", Proceedings of Joint Actions on Climate Change (ISBN: 978-87-91830-30-3), Aalborg University, pp. 100-101.

52. Boks C., McAloone T. C. (2009) "Spelling the Domain of Sustainable Product Innovation Research", Proceedings of Joint Actions on Climate Change (ISBN: 978-87-91830-30-3), Aalborg University, pp. 111-112.
53. Boks, C., McAloone, T.C. (2009) "The design of eco board games as an umbrella approach to sustainable product design education", part of: Proceedings of the 11th International Conference on Engineering and Product Design Education, EPDE09, Design Society, Brighton, UK, pp. 390-395.
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55. McAloone, T. C., Mougaard, K., Restrepo-Giraldo, J. D., Knudsen, S. (2010) "Eco-Innovation in the Value Chain", in D. Marjanovic (editor) Proceedings of the 11th International Conference on Design, DESIGN 2010 (ISBN: 978-953-7738-07-5), Dubrovnik, Faculty of Mechanical Engineering and Naval Architecture, Zagreb.
56. Nair V. V., Howard T. J., Culley S. J., Dekoninck E. A., McAloone T. C. (2011) "The Propagation and Evolution of Design Constraints: An Industrial Case Study", in Proceedings of 3rd International Conference on Research into Design, ICoRD '11, Indian Institute of Science, pp. 50-57.

SUBMITTED

57. McAloone T. C., Mougaard K., Neugebauer L. M., Nielsen T. A. (2011) "Orthogonal views on product/service-system design in an entire industry branch", submitted to Proceedings of 18th International Conference on Engineering Design, ICED11, Copenhagen, Denmark, submitted – pending review.
58. Sakao, T., McAloone T. C. (2011) "Product with service, technology with business model: expanding engineering design", submitted to Proceedings of 18th International Conference on Engineering Design, ICED11, Copenhagen, Denmark, submitted – pending review.
59. Appio F. P., Achiche S., Di Minin A., McAloone T. C. (2011) "Understanding managers decision making process for tools selection in the core front end of innovation", submitted to Proceedings of 18th International Conference on Engineering Design, ICED11, Copenhagen, Denmark, submitted – pending review.
60. Randmaa M., Mougaard K., Howard T. J., McAloone T. C. (2011) "Rethinking value: a value-centric model of product, service and business development", submitted to Proceedings of 18th International Conference on Engineering Design, ICED11, Copenhagen, Denmark, submitted – pending review.
61. Erdem N., Achiche S., McAloone T. C. (2011) "Strategy development and technology transfer in sustainable energy context: a short review of academic methodologies", submitted to Proceedings of 18th International Conference on Engineering Design, ICED11, Copenhagen, Denmark, submitted – pending review.

POPULAR PRESS & INTERVIEWS

SELF AUTHORED

1. McAloone T. C. (2009) "Taking up the sustainability challenge", Editorial: APPLIANCE Engineer - The Open Door, in Appliance Magazine, Appliance Engineer (ISSN: 0003-6781), Vol. 2009, Issue: November/December 2009, Canon Communications LLC, pp. 14.
2. McAloone T. C. (2007) "Vi behøver innovation: En ny miljøbølge ruller, og danske virksomheder bør ride med", Chronical, Ingeniøren, 2 February 2007.
3. McAloone T. C. (2007) "Innovativ produktudvikling kræver kursskifte: Danske virksomheder har brug for nye metoder og værktøjer til produktudvikling", Chronical, Ingeniøren, 4 May 2007.
4. McAloone T. C. (2007) "Ingeniørenes rolle ved skabelse af innovative koncepter", Chronical, Ingeniøren, 8 October 2007.

INTERVIEWS

5. Ecodesign: A Challenge for Product Developers. Interview with Eco-designer Tim McAloone: *Future by Semcon* October 2010
6. Virksomheder skeptiske over for vugge til vugge: *Ingeniøren*
   16.10.09 – Designkonceptet cradle to cradle lægger op til, at produkter skal få ting til at gro i stedet for at ende som ubrugeligt affald. Men danske produktionsvirksomheder findet det lovlig idealistisk.
7. Produktservice kan skrue op for virksomhedernes indtjening: *Ingeniøren*
   07.05.09 – Produktionsvirksomheder kan forholdsvis let skabe en meromsætning ved at udvikle servicesystemer til selve produkterne.
8. Sæt serviceudviklingen i system: *Ingeniøren*
   07.05.09 – Med service i produktpaletten kan leverandørvirksomheder udnytte deres egen viden om produkterne samt trække viden ud af kunderne via et tættere forhold. Derfor er det oplagt at tænke services ind i udviklingen af produkter i et såkaldt produkt/service-system.
9. Fra skrald til guldgrube: *Mandag Morgen*
   30.03.09
10. Fremtidens sofa under miljølup: *DYNAMO, DTU*
    16.02.09 – En ny guide gør det nemmere at fokusere på miljøet under udvikling og produktion af alt fra

knappenåle til containere. Guiden er lavet i samarbejde med en række virksomheder. En af dem er Fritz Hansen A/s, der vil tænke miljøet mere systematisk ind i udviklingen af nye møbler

11. Det er gratis at tænke miljø ind i produktet: *Ingeniøren*
    05.12.08 – Nyt simpelt værktøj klæder virksomheder på til at udvikle produkter med mindre miljøbelastning
12. Kunde og leverandør har fælles interesse i partnerskaber – Interview med Tim McAloone: *Viden om, SCA*
    November 2008 – Partnerskaber mellem det offentlige og private virksomheder byder ifølge eksperter på Danmarks Tekniske Universitet på lutter fordele. Men gevinsterne høstes ikke gratis. Det kræver mod, samspil og vilje at udvikle samarbejdet.
13. Små virksomheder er afhængige af internationale netværk: *Ingeniøren*
    06.06.08 – Både store og små virksomheder udvikler på tværs af landegrænser, men de små er mere afhængige af det, selvom det er voldsomt ressourcekrævende
14. Klimaøkonomien kræver nye forretningsmodeller: *Mandag Morgen*
    26.05.08
15. Produkter til den tredje miljøbølge: *Ingeniøren*
    23.05.08 – DTU-projekt giver virksomheder en skræddersyet tjekliste til at tænke miljø og klimaeffekt med i produktudvikling
16. Miljøforbedringer gennem produktudvikling betaler sig: *Erhvervslederen*
    01.12.08 – Miljørigtig produktudvikling i danske og internationale virksomheder er ifølge en guide fra DI, IPU og DTU en rigtig god investering
17. Den tredje miljøbølge: *Ingeniørens produktudvikilngsmagasin*
    23.11.07 – Danske virsomheder gør klogt i at tænke grønt. Ikke kun fordi loven kræver det, men fordi fremtidens kunder vil vælge de mest miljørigtige produkter. Velkommen til den tredje bølge af miljøfokus.
18. Det faste forhold som forretningsmodel: *Mandag Morgen*
    29.01.07
19. Design skal få verden til at bære over med os: *Politiken*
    22.12.06 – Økoby i Østen sætter ny standard for bæredygtighed
20. En bæredygtig kontorstol: *DYNAMO, DTU*
    07.11.06 – Den amerikanske kontormøbelgigant Steelcase Inc. har skabt en ny base for helhedsorienteret produktservice med udgangspunkt i dansk miljøvurdering
21. Miljømærker fortæller kun den halve sandhed: *Politiken*
    23.09.06 – For at vurdere, om en maskine er god eller dårlig for miljøet, skal man se på hele apparatets levetid. Men den slags livscyklusvurderinger er svære at gå til for ikke-fagfolk
22. Globalt treholdsskift øger effektiviteten: *Ingeniøren*
    26.05.06 – En ny metode på tværs af tidszoner kan revolutionere udviklingsprojekter. Eksperter spår "round-the-clock-engineering" en stor fremtid for danske firmaer med aktiviteter i udlandet
23. Verdens 20 Mest Innovative Virksomheder: *Mandag Morgen*
    03.04.06
24. Tovtrækning om den innovative elite: *Mandag Morgen*
    30.01.06
25. DTU i spidsen for miljørigtig konstruktion: *Ingeniøren*
    17.03.06 – "Ecodesign" sætter skub i miljørigtige konstruktioner
26. Sustainability as a driver for innovation: The Sunday Times, Malta
    13.11.05
27. Livskvalitet driver fremtidens milliardindustrier: *Mandag Morgen*
    12.09.05
28. Nye opfindelser på rekordtid: *DTU Avisen*
    06.06.05 – Dyrevelfærd, brændselsceller og varmere tøj. Innovative ideer strømmer ud fra populært kursus i produktudvikling
29. Nyt center skal nytænke produktudvikling: *Mandag Morgen*
    11.04.05
30. Produktudviklingslandkortet placerer kompetencerne: *Erhvervslederen*
    01.12.04 – Den 1. december slår IPU og MEK-instituttet dørene op for Produktudviklingsdagen 2004, og i år drejer det sig om at finde veje til professionelle strategier, metoder og kompetencer
31. DTU har lavet landkort over dansk innovation: *Ingeniøren*
    28.08.04 – Forskere på DTU har kortlagt de danske forskningskompetencer inden for innovation og produktudvikling. Kortlægningen er en del af det treårige projekt Synopsis, som skal skabe et netværk mellem forskere og industri.
32. Det er muligt at gøre en forskel: *Ingeniøren*
    27.08.04 – For Tim McAloone er miljørigtig produktudvikling en livsstil, der rækker langt ud over DTU's mure
33. Jagten på innovationen: *Ingeniøren*
    27.08.04

34. Bilfabrikker som forbillede for produktudvikling*: Ingeniøren*
02.05.04 – Ny trend: Produktionsfilosofien Lean Manufacturing skal trimme industriens udviklingsprocesser
35. Alarmerende behov for nye udviklingsmetoder*: Ingeniøren*
02.03.03 – DI: Svagt dansk forskningsmiljø hæmmer virksomheder i at udvikle innovative produkter.
36. Industri og forskning i fælles front for bedre produktudvikling*: Ingeniøren*
28.02.03
37. Alarmerende behov for nye udviklingsmetoder*: Ingeniøren*
28.02.03
38. Produktudvikling: Produktudvikling der støver*: Ingeniøren*
28.09.01 – Engelsk støvsuger-milliadær vender det blinde øje til markedsundersøgelserne, når han produktudvikler
39. Miljø-design kræver ny strategi*: Ingeniøren*
26.05.00 – Afgørende miljøforbedringer kræver anderledes tænkning og mere plads til kreativitet i udviklingsfasen
40. A stunning hub at the centre of a revolution: *The Times Higher*
14.10.94

CASPER BOKS

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Department of Design
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RELEVANT PROFESSIONAL EXPERIENCE:

01/2007-now **Norwegian University of Science and Technology**

Faculty of Architecture and Design (AD), Department of Design (ID)

Full Professor in Product Design, in particular Sustainable Product Design

Main research interests: Sustainable Product Design and Innovation, Design for Sustainable Behaviour, Environmental Management and Organisation, Strategic Product Innovation.

08/08 – 07/09: *Acting Director* of NTNU's Industrial Ecology Programme

07/09 – 07/13: *Deputy Head of Department*, Department of Product Design

08/13 – 07/17: *Head of Department*, Department of Product Design (from 01/17 Department of Design)

08/17 – now: *Vice-Dean for Research and Innovation*, AD Faculty

12/2000-12/2006 **Delft University of Technology, The Netherlands**

Faculty of Industrial Design Engineering, Department Design Engineering

Assistant Professor in Applied Ecodesign

07/2004-12/2004: *Visiting Professor at* Lund University, Sweden

International Institute of Industrial Environmental Economics

04/1996-11/2000 **Delft University of Technology, The Netherlands**

Faculty of Industrial Design Engineering

Ph.D. researcher, completed dissertation titled: 'The relative importance of uncertainty factors in product end-of-life scenarios'

08/1995-03/1996 **Philips Consumer Electronics, Eindhoven, The Netherlands**

Environmental Competence Centre: *Researcher on Applied Ecodesign*

UNIVERSITY EDUCATION:

Erasmus University Rotterdam, The Netherlands

Econometric Institute: *Master degree in Applied Econometrics (1995)*

Delft University of Technology, The Netherlands

Faculty of Industrial Design Engineering: *PhD degree in Industrial Design Engineering (2002)*

LANGUAGES:

Dutch:	Native speaker
English:	Fluent
Norwegian:	Fluent
German:	Average

SELECTED TASKS AND RESPONSIBILITIES

Participation in PhD examination committees as external evaluator or opponent

- O. Mont – Product Service Systems – Lund University (S) – 09/2004
- A. Plepys – Product Servicising – Lund University (S) – 09/2004
- E. Sundin – Remanufacturing – Linköping University (S) – 11/2004
- M. Lindahl – Design for Environment – KTH, Stockholm (S) – 06/2005
- H. Hellman – Fuel Cell Technology Management – TU Delft (NL) – 12/2007
- R. Wever – Packaging Design – TU Delft (NL)– 10/2009
- E. Verhulst – Change management for Sustainable design – Univ. Antwerpen (B) – 01/2012
- G. Wilson –Design for Sustainable Behaviour – Loughborough University (UK) – 05/2013
- S. van Dam – Home Energy Management Systems - TU Delft (NL) – 07/2013
- L. Kuijer – Social Practice Theory for Sustainable Design – TU Delft(NL) – 02/2014
- C. Park – Sustainable Design in the FMCG sector – Cranfield University (UK) – 09/2014
- K.K. Balakrishnan – PSS design for Indian Railways Catering – ITT Guwahati (India) – 05/2015
- H. Strömberg – Sustainable Transport Behaviour – Chalmers Univ. of Technology (S) 10/2015
- B. Nielsen – Design Thinking for Humanitarian Action – NTNU 10/2015
- C. Kobus – Smart Energy Applications – TU Delft 04/2016
- A. Bonou – LCA in Product Life Cycle Management – TU Denmark 11/2016
- A. Abedini – Designing for User Culture – Universiti Putra Malaysia 11/2016
- A. Shende – Creativity among M.Des students – ITT Guwahati (India) – 04/2017
- W. Baxter – Designing Circular Possessions – Imperial College London – 05/2017
- S. Sihvonen – Ecodesign implementation – Aalto University (Finland) – 10/2017

PhD research supervision (‡ = co-supervision, † = main supervision)

‡ Jaco Huisman (TU Delft): Eco-efficiency of End-of-Life Treatment – *Finished 2003*

‡ Hanna Hellman (TU Delft): *Probing and Learning in High Tech Young Firms – Finished 2007*

‡ Renee Wever (TU Delft): *New Packaging Concepts for Electronics – Finished 2009*

‡ Elli Verhulst (University of Antwerp): *Human factors in sustainable design implementation– Finished 2012*

‡ Silje Helene Aschehoug (NTNU): *Environmental Information supporting product development Data" – Finished 2012*

† Ida Nilstad Pettersen (NTNU): *User-centred ecodesign – Finished 2013*

† Bijan Aryana (NTNU): *Cultural Customisation of mobile products – Finished 2013*

† Kirsi Maria Laitala (NTNU): *Sustainable Clothing Use and Design – Finished 2014*

† Johannes Zachrisson Daae (NTNU*): Design for Sustainable Behaviour – Finished 2014*

† Marie Hebrok (NTNU): *Changing Food Wasting Practices – started 2014*

† Sofie Østergaard (NTNU): *Sustainable Product, Service and System design in the Industrial Bakery sector – started 2014*

† Faheem Ali (DTU/NTNU): Effective implementation of Design for Sustainability (cotutelle agreement with DTU – *started 2015*

† Raphaëlle Stewart (DTU/NTNU): Effective implementation of Design for Sustainability (cotutelle agreement with DTU – *started 2015*

† Lucy Chamberlin (NTNU): Communication of CE based value propositions – *started 2017*

† Juana Otero Camacho (NTNU): User acceptance for circular resource efficiency – *started 2017*

† Saara-Maria Kauppi (NTNU): Design of insect-based food products – *started 2017*

Received financial grants include:

2018-2021	EU TRANS-URBAN-EU-CHINA (Work package leader
2017-2020	ERA-NET LAC / NFR BIONÆR: ENTOWASTE (Project leader)
2016-2019	EU FP7 Marie Curie ITN on Circular Economy (Circ€uit) (Theme leader)
2014-2015	The Future of Europan Design and Applied Arts (EEA/FM) (Work package leader)
2013-2015	THE MEDICAL HOME - Sustainable services and technology for home medication (NFR Researcher project - PraksisVEL) (Responsible administrator)
2013-2016	MINDER: Methodologies for Improvement of Non-residential buildings' Day-to-day Energy-efficiency Reliability (NFR Researcher project - ENERGIX) (Work package leader)
2007-2008	PhD Supervision Collective for Sustainable Product Innovation (2007-2008), funded by Nordforsk (project leader)

Invited presentations and lectures include:

Hong Kong Polytechnic University, Oslo School of Architecture and Design, Xi'an University of Architecture and Technology, University of Antwerp, Kongsberg Summit, Delft University of Technology, Oslo and Akershus University of Applied Sciences, Czech Academy of Applied Art and Design

Conference Organisation Committees:

- Int. Conf. on Engineering and Product Design Education 2010, Trondheim
- CIRP International Conference on Life Cycle Engineering 2014, Trondheim
- Norddesign, 2016, Trondheim

Conference Scientific Committees since 2005 include: Norddesign 2008, 2010, 2012, 2014, 2016, EPDE 2010-2016, Ecodesign 2005, 2007, 2009, 2011, 2013, 2015, ERSCP/EMSU 2010, 2013, ICED 2009, 2011, 2013, 2015, 2017 CIRP/LCE 2007, 2009, 2011, 2014, CIRP/IPS2 2011, ICORD 2011,2013, 2015, ISDRC 2014

External evaluator

- For international scientific research funding bodies, including
  - The Netherlands (NWO)
  - Norway (NORAM)
  - Austria (Christian Doppler Forschungsgesellschaft)
  - Sweden (MISTRA)
  - Hong Kong, China (Research Grants Council Hong Kong)
  - USA (NSF BELMONT)
- External assessor for various international academic positions
  - Loughborough University - Professorship
  - University of Botswana – Professorship
  - University of South Denmark – Associate Professorship
  - Technical University Denmark – Associate Professorship
  - University College of Southeast Norway – Assistant Professorship
  - Oslo and Akershus University College – PhD student
  - Aalto University (Professorship)

Journal editorial boards, editorships, reviewer contributions

- Editorial Board Journal of Design Research
- Guest editor Journal of Cleaner Production
- Regular reviewer for various journals (including Journal of Cleaner Production, Journal of Industrial Ecology, International Journal of Product Development, International Journal of

Sustainable Engineering, Sustainable Development, International Journal of Design, Journal of Design Research. International Journal of Life Cycle Assessment, and several more)

Awards

- Best paper award: 2003 International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tokyo
- Best paper award: 2011 Ecodesign conference, Kyoto
- NTNU Industrial Ecology Publication Prize, 2012

Various

- National scientific committee for publication channels within Architecture and Design research (2016-)
- Leader national scientific committee for publication channels within Interdisciplinary Technology research (2014-2015)
- Chairman Norwegian Professional Council for Design Education (2015-2017)
- Member of the NTNU RSA (2016 -)
- EISA Green Awards – International jury member 2005-2013
- Member of Design Society (Founding member of the Ecodesign Special Interest Group)
- Member of the Norwegian Academy of Technological Sciences (NTVA)

SCIENTIFIC PUBLICATIONS:

Scientific publications, as of 15.09.2017:	Total	(as first author)
International Journal Articles:	37	7
International Conference Papers	137	42
Book Chapters	6	3
Editor conference Proceedings	2	2
Dissertation	1	1

- Citations in Scopus: 955, h-index: 18 (as of 15.09.2017)
- Citations in Google Scholar: 2359, h-index: 26 (as of 15.09.2017)

COMPLETE LIST OF SCIENTIFIC JOURNAL ARTICLES AND BOOK CHAPTERS)

Hebrok, M., Boks, C. Household food waste: drivers and potential intervention points for design – an extensive review. Journal of Cleaner Production. Volume 151, 10 May 2017, Pages 380–392

Boks, C, Daae, J. Design for Sustainable Use using Principles of Behaviour Change. In: Chapman, J. (Ed.): The Routledge Handbook of Sustainable Product Design, Part 21, Routledge, 2017

Daae, J., Boks, C. Tweaking the Interaction – By Understanding the User. In: Clune, S. et al. (Eds): Ashgate 'Design for Social Responsibility' series on Design for Behavioural Change,

Boks, C. An Introduction to Design for Sustainable Behaviour. In: Egenhoefer, R.B. (Ed.): Handbook of Sustainable Design. Routledge

Daae,J., Goile, F., Seljeskog, M., Boks C., Burning for sustainable behaviour, Journal of Design Research 14 (1), 42-65

Stewart, R., Bey, N., Boks, C. Exploration of the barriers to implementing different types of sustainability approaches. Procedia CIRP 2016 vol.48 pp 22-27

Ali, F., Boks, C., Bey, N. Design for sustainability and project management literature – a review. Procedia CIRP 2016 vol.48 pp 28-33

Blok, V., Long, T., Gaziulusoy, I.,, Ciliz, N., Lozano, R., Huisingh, D., Csutora, M., Boks, C.. From best practices to bridges for a more sustainable future: Advances and challenges in the transition to global sustainable production and consumption. Volume 108, Part A, 1 December 2015, Pages 19–30

Laitala,K., Boks, C. & Klepp, I.G. Making Clothing Last: A Sustainable Design Approach. International Journal of Design Vol. 9 No. 2 2015

Aryana B., Clemmensen T., Boks C. Users' Participation in Requirements Gathering for Country Specific Customization of Smart Phones in Emerging Markets. Universal Access in the Information Society, June 2015, Volume 14, Issue 2, pp 265-280

Daae, J., Boks, C. (2015). Opportunities and challenges for addressing variations in the use phase with LCA and Design for Sustainable Behaviour. International Journal of Sustainable Engineering, Volume 8, no. 3, pp 148-162

Daae, J., Boks, C. (2015). A classification of user research methods for design for sustainable behaviour. Journal of Cleaner Production, Volume 106, 1 November 2015, Pages 680–689

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Sorgendal, I., Boks, C. Challenging Interfaces are more fun! Operant Conditioning for the Interaction Designer. International Journal of Learning Technology. Volume 9, No. 2 pp. 94-110.

Kjollesdal, A., Asheim, J., Boks, C. Embracing Social Sustainability in Design Education. Scandinavian Journal of Educational Research, Vol. 58, No. 2, 173–188, 2014

Daae,J., Boks, C. Daae, J., Boks, C. Dimensions of behaviour change. Journal of Design Research, Vol. 12, No. 3 (2014) pp. 145 - 172

Pettersen, I.N., Boks, C., Tukker, A. Framing the role of technology in transformation of consumption practices: beyond user-product interaction. International Journal of Technology Management 63 (1), 70-103, 2013

Aschehoug, S., Boks, C. A Review of Domains for Relevant Sustainability Information Enhancing Sustainable Product Development. International Journal of Sustainable Engineering, Vol 6, Issue 2, 2013, pp 94-108

Aschehoug, S., Boks, C. Building sustainability knowledge for product development and design - Experiences from four manufacturing firms. Progress in Industrial Ecology, an International Journal 8 (1), 45-66

Aryana, B., Boks, C., Country Specific Customization in Emerging Markets: Insights from Case Studies in Iran and Turkey, International Journal of Logistics Economics and Globalisation, Vol. 4, No. 3, 2012, pp. 179-196

Volstad, N., Boks, C., On the use of biomimicry as a useful tool for the industrial designer. Sustainable Development (20) 189-199

Aryana, B., Boks, C., New Product Development and Consumer Culture, a Review. International Journal of Product Development, Vol. 16, Issue 1, pp. 45-62

Verhulst, E., Boks, C. The Role Of Human Factors In The Adoption Of Sustainable Design Criteria In Business: Evidence from Belgian and Dutch case studies, International Journal of Innovation and Sustainable Development, Vol. 6, No. 2, 2012

Verhulst, E., Dewit, I., Boks, C. Implementation of Sustainable Innovations, In: "ENTREPRENEURSHIP, INNOVATION AND SUSTAINABILITY", Ed. Prof. Dr Marcus Wagner. Greenleaf Publishing

Aschehoug, S., Boks, C., Støren, S., Environmental Information from Stakeholders Supporting Product Development, Journal of Cleaner Production 31 (2012) 1-13

Zachrisson , J. and Boks, C. Exploring Behavioural Psychology to support Design for Sustainable Behaviour Research, Journal of Design Research, Vol. 10, Nos. 1/2, 2012

Laitala, K. and Boks, C. Sustainable Clothing Design: Use Matters. Journal of Design Research, Vol. 10, Nos. 1/2, 2012

Laitala, K., Klepp, I., Boks, C. Changing laundry habits in Norway. International Journal of Consumer Studies 36 (2012) pp. 228-237

Laitala, Boks, Klepp, Potential for environmental improvements in laundering . International Journal of Consumer Studies, Volume 35, Number 2/March 2011

Boks, C., Diehl, J.C. D4S Benchmarking, in: Crul, M. (Ed.) Design for Sustainability: A Step-by-Step Approach. United Nations Environment Programme, Paris, France, ISBN 92-807-2711-7

Wever, R., van Onselen, L., Silvester, S., Boks, C. Influence of Packaging Design on Littering and Waste Behavior. Packaging Technology and Science, Volume 23, Issue 5, pages 239–252, August/September 2010

Boks, C., McAloone, T. Transitions in Sustainable Product Design Research,. International Journal of Product Development, vol. 9, no. 4, 2009, pp.429-449

Pettersen, I.N., Boks, C., The Ethics in Balancing Control and Freedom when Engineering Solutions for Sustainable Behaviour. International journal of sustainable engineering. Vol. 1, No. 4, December 2008, pp. 287–297

Boks, C., New academic research topics to further ecodesign implementation: an overview. International Journal of Product Development, Vol. 6, Nos 3/4, 2008

Wever, R., van Kuijk, J., Boks, C. User-centred design for sustainable behaviour. International journal of sustainable engineering. Vol. 1(1), pp. 9-20

Wever, R., Boks, C., Marinelli, T., Stevels, A., Increasing the benefits of product-level benchmarking for strategic eco-efficient decision-making. Benchmarking, an International Journal, Vol. 14, No. 6 Page: 711 - 727

Boks, C., Stevels, A., Essential Perspectives for Design for Environment, Experiences from the Electronics Industry, International Journal of Production Research, Volume 45, Issue 18 & 19 September 2007, pages 4021 - 4039

Boks, C. The Soft Side of Ecodesign. Journal of Cleaner Production 14 (2006) 1346-1356

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Stevels, A., Boks, C. Effectiveness of currently proposed EU Environmental Directives and Policies of Electronic Products. Science Technology, 2005, No.1, pp. 46-49, ISSN 1672-017 (in Chinese)

Chiodo, J.D., Boks, C.B., "Assessment of End-of-Life Strategies with Active Disassembly using Smart Materials". Journal of Sustainable Product Design, Vol. 2, 2002, pp. 69-82 (issued 2004)

Huisman, J., Boks, C.B., Stevels, A.L.N. Quotes for environmentally weighted recyclability (QWERTY): concept of describing product recyclability in terms of environmental value. International Journal of Production Research, Vol. 41, no. 16, 2003, 3649–3665

Boks, C. and Stevels, A. "Theory and Practice of Environmental Benchmarking for Consumer Electronics", Benchmarking - an International Journal, Vol. 10, No. 2, 2003, pp. 120-135

Boks, C. (2002) The Relative Importance of Uncertainty Factors in Product End-of-Life Scenarios, Ph.D. dissertation, Delft University of Technology, ISBN 90-5155-013-8

Stevels, A. and Boks, C. Design for end-of-life strategies and their implementation. Mechanical Life Cycle Handbook: Good Environmental Design and Manufacturing. M.S. Hundal, editor. Marcel Dekker, 2001.

Boks, C.B. and Tempelman, E.,"Future Disassembly and Recycling Technology", Futures, Vol. 30, No.5, pp. 425-442, Elsevier Science Ltd, June 1998.

Fortegnelse over bedømmelsesudvalg til stilling 201729/42239 Associate Professor or Assistant Professor in Conceptualisation and prototyping in product design (201729/42239) ved PLAN

Navn: Associate Professor Poul Henrik Kyvsgaard
Arbejdssted: AAU

Navn: Professor Tim McAloone
Arbejdssted: DTU

Navn: Professor Casper Boks
Arbejdssted: NTNU

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Associate Professor or Assistant Professor in Conceptualisation and prototyping in product design (201729/42239)

Position No.
201729/42239

The Department of Planning at Aalborg University's Copenhagen Campus is looking for candidates for a position as Associate Professor or Assistant Professor in Conceptualisation and prototyping in product design.
The position is open for appointment from January 1st 2018 or soon hereafter. The position as Associate Professor is permanent. The assistant professor position is open for appointment for a period of 3 years.

In your application, please clearly specify whether you apply for the Associate Professor OR/AND the Assistant Professor position. The Associate Professor position has the number 42239 and the Assistant Professor position has the number 201729.

The department is in the process of complementing the existing research group working with socio-technical and sustainability approaches to engineering design with two positions that will span between conceptualization, application of materials and product design and relate this to prototyping and manufacturing technology and current developments in sustainable design.

Job description
Applicants to the position must in their research profile show knowledge of and experiences that include:

- conceptualisation as element of the design process

- identify and apply how design methods can contribute to sustainable change

- product construction methodologies that include elements of mechanical design, product platforms and architectures

- product development and eco-design perspectives that include the integration within technical systems

The position require applicants that:

- have a general knowledge on engineering and design issues including experience with engineering design and methods applied to design activities

- have an insight into the assessment of sustainability aspects of materials and product

- can demonstrate experience with research and teaching relevant to the competences required

- ability to work in interdisciplinary teams including socio-technical approaches to design

Expertise in rapid prototyping and the facilitations of design for interactions with end-users and stakeholders around prototypes is an asset. Applicants should preferably hold experience in writing research applications and proven ability to attract external funding is desirable. Teaching will primarily be in the area of *sustainable product and systems design, prototyping* and *product development* as well as *mechanics* and *materials selection* primarily in the bachelors and masters programs.

You may obtain further professional information from assoc. professor Erik Hagelskjær Lauridsen, +45 6086 6610, ehl@plan.aau.dk.

Qualification requirements as Assistant Professor:

Appointment as an Assistant Professor presupposes scientific qualifications at PhD–level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as an Assistant Professor cannot exceed a period of four years in total at Aalborg University in a temporary position (appointment at Assistant Professor level cannot exceed a period of eight years in total in Denmark).

Qualification requirements as Associate Professor: The level of qualification for Associate Professors shall correspond to the level, which can be achieved on the basis of the appointment as Assistant Professor, but may be achievable in other ways. The appointment presupposes that the applicant can demonstrate original scientific production at an international level as well as documented teaching qualifications. Appointment to the position requires that both research and teaching qualifications are at the requested level. The two qualifications will be given equal and principal priority in the overall assessment.

The application must contain the following:

- A statement outlining your reasons for applying, and intentions and visions with, the position.
- Your curriculum vitae, including personal data, educational background, scientific qualifications, dissemination skills, participation in committees and boards, and additional qualifications relevant for the position.

- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.
- A complete list of publications.
- Publications you wish to be considered by the assessment committee. You may attach up to 5 publications.
- A specification of your teaching qualifications relative to the teaching portfolio. If this is not enclosed you must include an explanation for its absence.
- References/recommendations.For further information concerning the application procedure please contact Nickie Hermansen by mail nkh@adm.aau.dk or phone (+45) 9940 7902 Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen here.

An assessment committee will assess all candidates. The applications are only to be submitted online by using the "Apply online" button below.

Workplace
Copenhagen

Agreement

Deadline
15/10/2017

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

Curriculum Vitae for
Timothy Charles McAloone
Associate Professor, PhD
February 2011

Kastanie Allé 5
3450 Allerød
Denmark

Tel: +45 4817 7797
Mob: +45 2620 7730
EMail: tim@mcaloone.com
URL: www.mcaloone.com

Date of Birth: 30th May 1971
Nationality: British
Marital Status: Married
Children: Two sons

EDUCATION

Cranfield University, UK
PhD research. Thesis title: **(1993 - 1998)**
"Industry Experiences of Environmentally Conscious Design Integration: An Exploratory Study"

Manchester Metropolitan University, UK
BEng (Hons) Mechanical Engineering - Sandwich Degree **(1989 - 1993)**
Sandwich year spent in Beta Oil Refinery, Germany ***2-1 (Hons)***

Newman College, Preston, UK
Advanced Level Certificates in: Electronics, German, Maths, Physics **(1987 - 1989)**

All Hallows RC High School, Preston, UK
Ordinary Level Certificates in eight subjects **(1982 - 1987)**

EMPLOYMENT

- **1998 – ...** Associate Professor, Technical University of Denmark (DTU), Department of Management Engineering
- **1993 – 1998** Research Assistant, Cranfield University, UK
- **1993** Research contract for Department of Development & Procurement, British Telecom, UK
- **1991-1992** Project Engineer (practical placement), Beta Oil Refinery, Wilhelmshaven, Germany

RESEARCH ACTIVITIES

My research activities belong to the field of *design research*. Within this field my research, teaching and dissemination activities cover the areas of sustainability, innovation, life-cycle engineering, product/service-systems (PSS) and product development methodology. In both UK and Denmark I have led national research projects, plus a series of national and international innovation networks including industrialists, academics and other organisations, with a focus on the implementation of innovation strategies and product development competencies/methodologies.

I have been actively researching into the field of product development for the past eighteen years, with a particular focus on innovation and sustainability strategies, in close contact to industry. Over this time I have closely followed the innovation and product development processes of leading companies, which has led to my identification of the need to support the integration of advanced methodologies and new working patterns in organisations, hereunder the emerging theory of Product/Service-Systems (PSS), within which I head a growing research activity at my university.

Current/recent research projects include:

- "PROTEUS: PROduct/service-system Tools for Ensuring User-oriented Service" (principal investigator), funded by the Danish Agency for Science, Technology and Innovation and 12 maritime companies (DKK 16 mio.). 2009-2011.
- "Charting of Danish maritime companies' service-readiness" (principal investigator), funded by Danish Maritime Foundation, Danish Maritime Organisation (DKK 2 mio.). 2006-2011.
- "TINV: Transportens Innovationsnetværk" (workpackage leader), funded by the Danish Agency for Science, Technology and Innovation (DKK 0.5 mio.). 2009-2011.
- "Environmental improvements through product development" (project leader), together with IPU and the Confederation of Danish Industries, funded by the Danish Environmental Protection Agency. Five industry cases: Coloplast, Fritz Hansen, Gabriel, Grundfos, Lego. (DKK 0.75 mio.). 2008-2009.
- "Creation of Danish Management System for User Driven Innovation" (project member), funded by The Danish Ministry of Economic and Business Affairs. 2008-2009.

- "International Manufacturing Research Centre on Product Service Systems Design" (external advisor), funded by the Engineering & Physical Sciences Research Council (EPSRC). 2008-2011.
- "SPACES: Coordination and innovation building in the Danish research sector", formally publically.funded, currently con amore at host universities.
- "Actor-network mapping and strategic planning in the state hygiene service-system" (project leader), funded by SCA A/S. 2008-2009.

With industry as my primary research object I am proud of the extensive industry network I maintain, both in Denmark and internationally. I frequently utilise and engage this network in research exchanges, in the form of interviews, case-based collaboration and workshops. As an example of a workshop based industry collaboration, I can name the "cipu innovation workshop series", which amounted to 17 workshops with in total 650 participants (70% industry participation). Likewise, my academic network is broad and highly active, internationally, where I enjoy my membership of the Design Society, keeping me networked with the world's leading academics in the design research field. As such I am a frequently used PhD examiner and discussion partner for research project development.

I am currently preparing for the 18th International Conference on Engineering Design, ICED11, which is to be held at DTU in August 2011. ICED is the most significant conference in the design research community and I am therefore proud to be conference chair this year. Improvements to the conference already implemented include ISI and Scopus rating and ISSN affiliation. We are currently working on attracting a number of ISI journal special issues (target = 10) for members of the research group to be co-editors of, together with other Design Society colleagues.

In the autumn of 2011 it is my plan to spend a period at Stanford University's Center for Design Research, where I have been invited to spend a period as visiting professor. I have also won a scholarship for this stay.

EDUCATION DEVELOPMENT ACTIVITIES

I have a broad teaching experience and have developed and led a number of bachelor and masters level courses.

I am one of the initiators and core staff members on DTU's *Design & Innovation* education programme, which has innovated both the engineering education and the general interest in studying at DTU. This five-year bachelor-master programme is now in its ninth year of operation, which means that the first three years' candidates from the programme are now in the professional engineering job market.

Further afield I have acted as external examiner for a number of education programmes in international universities.

COMMERCIAL/INDUSTRIAL ACTIVITIES

I am an associate at IPU Product Development, a consultancy foundation, with close connections to DTU. Here I carry out product development projects and industrial training activities, particularly within the field of product/service-systems and industrial eco-design implementation (see: www.ipu.dk). Clients include; Coloplast, Danfoss, DNP Denmark, Fritz Hansen, Gabriel, Grundfos, Kiwi, LEGO, SCA, Sara Lee, Steelcase.

INSTITUTIONAL RELATIONS

- Member of Danish Strategic Research Council Programme Committee for the Creative and innovative Society (Den Strategiske Forskningsråd – Kreativ og Innovativ Samfund: DSF-KIS), 2007 – 2010
- Mentor for two individual industrialists, employed in private companies (names confidential), 2009 - present
- Member of the Engineering and Physical Sciences Research Council, College of Peers, 2007 – present
- Chairman of evaluation committee for employment of senior research staff at DTU Management, 2010
- Member of evaluation committee for employment of professor at Blekinge Tekniska Högskola, Sweden, 2010
- Member of evaluation committee for employment of professor at Linköping University, Sweden, 2009
- Member of DTU Management Engineering's research committee, 2008 – present
- Design Society Advisory Board Member, 2007 – present
- Research evaluation committee member for Swedish Research Council, 2008, 2009, 2010
- Research evaluation committee member for Norwegian Research Council, 2010
- Leader of Design Society's *Ecodesign SIG* (Special Interest Group), 2001 – present
- Member of evaluation committee for employment of new staff members at DTU/IPL, 2004
- Invited member of Special Interest Group (ERFA-Gruppe) for Product Development Managers, organised/owned by the Confederation of Danish Industry (DI), 2003 – present
- Member of editorial advisory panel and expert panel for *Ingeniøren* (Denmark's engineering newspaper), 2004 -
- Chronicle author for *Ingeniøren*, 2006 – 2009
- Various activities and posts of responsibility internally at DTU

ACTIVITIES AS EDITOR AND REVIEWER

Conferences

- Conference Chair for ICED11
- IDETC 2007 – International Design Engineering Technical Conferences (ASME)
- DESIGN 2002, 2004, 2006, 2008, 2010 Conferences, Dubrovnik (Design Society)
- ICED 2001, 2003, 2005, 2007, 2009 Conferences, Glasgow, Stockholm, Melbourne & Paris (Design Society)
- NordDesign 2002 & NordDesign 2004 Conferences, Trondheim & Tampere (Design Society)
- TMCE 2002 Conference
- EcoDesign 2005 Conference, Tokyo (Ecodenet)
- Chairman at International Conferences: ICED, DESIGN, NordDesign, CARE, EcoDesign
- Member of Advisory Board for International Conferences: DESIGN, ICED, NordDesign, TMCE and EcoDesign
- Member of Organising Committee (1999-present) and Project Leader (2004, 2006) for DTU/IPU annual conference, "Produktudviklingsdagen"
- Project leader for SPACES & cipu workshops (DTU led workshop series)

Journals

- Journal of Mechanical Design (ASME)
- Journal of Engineering Design
- Design Studies
- Journal of Cleaner Production
- Journal of Sustainable Product Design
- Journal of Environmental Assessment Policy and Management
- Journal of Research in Engineering Design
- International Journal of Technology Management
- International Journal of Services Technology and Management
- Team Performance Management

- Co-editor, International Journal of Internet, Manufacturing and Services, Special Issue: "Product Service Solutions in Life Cycle Activities", Vol. 2, No. 1, 2009.
- Editor, Journal of Engineering Design, Special Issue: "Ecodesign methods and implementation", 2012.
- Editor, Journal og Sustainable Product Development, Special Issue: "Design for Sustainability", 2012.

Books

- Reviewer of Wimmer et. al. "Ecodesign Implementation"
- Reviewer of Birkhofer et. al. "Environmentally-Friendly Product Development: Methods and Tools"

Research Projects & Programmes

- Reviewer for DFG's CRC392 project (10-year German nationally funded research project into Ecodesign)
- Peer group member for EU 5FW project "Methods and Tools for Product Service Systems Design (MEPSS)"
- Reviewer for ZIT (Zentrum für Innovation und Technologie) project applications (Austrian funding body)
- Invited member of the EPSRC Peer Review College (2006-2009)
- Reviewer for Blekinge Institute of Technology's Sustainability research projects Pro-Vision and ProSpekt (2009-present)
- External peer for Blekinge Institute of Technology's DECSUS project (2010 – present)

Education Programmes

- External examiner for Integrated Product Development Masters Programme, University of Malta (2006-present)

ACTIVITIES AS PhD SUPERVISOR

- External supervisor for Frank Schlüter, Industrial PhD student Skania/KTH, Sweden (1999-2002)
- Co-supervisor for Gurbakhash Singh Bhander, DTU/IPL (2002-2004)
- Supervisor for Detlef Matzen, DTU Management Engineering (2005-2009)
- Supervisor for Adrian Tan, DTU Management Engineering (2005-2009)
- Supervisor for Line Marie Neugebauer, DTU Management Engineering (2010-present)
- Supervisor for Krestine Mougaard, DTU Management Engineering (2010-present)
- Supervisor for Teit Anton Nielsen, DTU Management Engineering (2010-present)
- Co-supervisor for Rune Jørgensen, TU-München (2010-present)

ACTIVITIES AS PhD EXAMINER/ DISCUSSANT

- Discussant for Trond Lamvik (Ecodesign), NTNU Norway (2001)
- Discussant for Thomas Magnusson (Ecodesign), University of Linköping Sweden (2001)
- External examiner for Elies Dekonik-Jones (Ecodesign & TRIZ), Brunel University UK (2003)
- Discussant for Anne Marie Åkermark (Ecodesign), KTH Sweden (2003)
- External examiner for Dorothy Maxwell (PSS), Imperial College London UK (2004)
- External examiner (opponent) for Mattias Lindahl (PSS and Ecodesign), KTH Sweden (2005)
- External examiner for Michael Steinbach (PSS), Universität des Saarlandes, Germany (2005)
- External examiner for Torsten Herzberg (Innovation in Product Development), Cranfield University, UK (2006)
- External examiner (opponent) for Åsa Ericson (A need-based approach to product development), Luleå University of Technology, Sweden (2008)
- External examiner (opponent) for Sofie Byggeth (A Foundation for Sustainable Product Development), Blekinge Institute of Technology, Sweden (2008)
- External examiner for Birgit Brunklaus (Understanding organisational influence on environmental performance - Studies on housing management in Sweden), Chalmers University, Sweden (2008)
- External examiner (opponent) for Mattias Bergström (Probing for Innovation – How small design teams collaborate), Luleå University of Technology, Sweden (2009)
- External examiner for Henrik Nergård (Knowledge engineering models as experience carriers), Luleå University of Technology, Sweden (2009)
- External examiner for Henrik Ny (Strategic Life-Cycle Modeling and Simulation for Sustainable Product Innovation), Blekinge Institute of Technology, Sweden (2009)
- External examiner for Srinivas Kota (An interactive support for developing environmentally friendly product lifecycles), Indian Institute of Science (2010)
- External examiner for Jamie O'Hare (Eco-innovation tools for the early stages: an industry-based investigation of tool customisation and introduction), University of Bath, UK (2010)
- Internal examiner for Max Munnecke (Everyday-Oriented Innovation - Towards a methodological framework for exploring and mapping radical innovation opportunities within everyday activities), Technical University if Denmark (2011)

FINAL YEAR MASTERS PROJECT SUPERVISION

- Completed masters projects: 129 students (at DTU, 1998 – present)
- Numerous (50+) bachelor project students supervised

CURRENT DTU TEACHING ACTIVITIES

- Member of initiative group ("Designinitiativet" – 10 members of DTU staff), responsible for the conceptualisation, establishment and now running of DTU's new masters education programme, *Design & Innovation*, 2000 - present
- Responsible for DTU course *Innovation in Product Development* (10 point high-level masters course) – developed in 1998
- Responsible for DTU course *Product Life and Environmental Issues* (5 point mid-level masters course) – developed in 2004
- Responsible for DTU course *Product/Service-Systems* (10 point mid-level masters course) – developed in 2004
- Deliver a module to the DTU course *Sustainable Production* (10 point high-level masters course)
- Deliver a module to the DTU course *Life Cycle Analysis* (10 point high-level masters course)
- Main supervisor/teacher for various special courses at DTU

EXTERNAL TEACHING ACTIVITIES

- Series of short courses on product development, environmental issues and innovation, offered as guest lectures and industrial lectures:
    - IPU: "How are we doing, environmentally speaking?", guest lecture, January 2011.
    - UDTU: "Teaching, learning and creativity: Examples from the lecture theatre – and the design studio...", guest lecture on DTU pedagocial education programme, November 2010.
    - Linköping University: "Product/service-system design strategies", guest lecture, October 2010.
    - Københavns Maskinmesterskole: "Innovation with perspective", guest lecture, August 2010.
    - University of Tartu: "Strategic approaches to product/service-systems", workshop, August 2010.
    - Aalborg Univeristy: "Sustainable Design: How well prepared are we, methodically speaking?", guest lecture on MMT education, April 2010.

- University of Zagreb: "Sustainable Design: Taking the challenge into product development", mini-workshop, March 2010.
- EAFIT, Colombia: "Workshop on sustainable product service system development", August 2009.
- Danfoss Universe: "Implementing Sustainable Design Strategies", guest lecture, June 2009.
- Institution of Mechanical Engineers: "UK Mechatronics Forum Prestige Lecture", April 2009.
- Danish Standards: "Motivation and tools for ecodesign", mini-workshop, October 2008.
- Danish Enterprise and Construction Authority: "User-driven innovation and standardization", guest lecture, September 2008.
- EnergiNet.dk: "Innovation in the energy sector", guest lecture, August 2008.
- NTNU: "Product/service-systems", guest lecture, February 2008.
- Danish Marketing Forum: Strategic marketing network: "Marketings role and involvement in product development: When and how?" one-day workshop, 2008.
- University College Falmouth: "Workshop on sustainable product service system development", April 2006, 2008.
- University of Calabria, Italy: "A short course in sustainable product development: Models, methods and mindsets", April 2005, 2006, 2008.
- Refrigeration Competence Centre: "Innovation with perspective: Navigation through innovation terms, theories and methods", November 2007.
- Dansk Magisterforening Undervisnings- og uddannelsesnetværk: "Innovation med perspektiv Undervisning i kreativ og systematisk innovation", guest lecture 30/11-2005.
- University of Malta: "Short lecture series in sustainable product development: models, methods and mindsets", 21-23/11-2005.
- Danfoss, "Miljørigtig produkt- og procesudvikling", intensive training course for 150 product developers, 2000-2001.
- Fachhochschule Vorarlberg, Austria: "Simultaneous & concurrent engineering", October 2001.
- Electrolux Floorcare: "Ecodesign guidelines and techniques", three-week training package for 50 product developers, 1996.

PUBLICATIONS

JOURNALS

1. McAloone, T. C. & Evans, S. (1996) "The Economic Life-Cycle", Co-Design, Special Issue: Green Design, Issue 05/06, Open University Press, Jan-March 1996, pp76-80, Milton Keynes.
2. Bhamra, T. A., T. C. McAloone, S. Evans, M. Simon & A. Sweatman, (1998) "Modelling the implementation of ecodesign in the electrical & electronics industry", Journal of Electronics Manufacturing.
3. Simon, M., Poole S., Sweatman, A., Evans S., Bhamra T. & McAloone T. C. (2000) "Environmental priorities in strategic product development", Business Strategy & the Environment, vol. 9, no. 6, ISBN 0964-4733, pp. 367-377.
4. Bhander, G. S., McAloone, T. C. & Hauschild, M. (2003) "Implementation of Life Cycle Assessment in Product Development", International Journal of Environmental Progress, Vol. 22, No. 4, pp. 255-267.
5. McAloone, T. C. (2007) "A Competence-Based Approach to Sustainable Innovation Teaching, Experiences within a New Engineering Programme", in Journal of Mechanical Design, Volume 129, Issue 7, ASME, ISSN 1050-0472.
6. Boks C. & McAloone T. C. (2009) "Transitions in Sustainable Product Design Research", in International Journal of Product Development (IJPD), (ISSN: 1477-9056), Vol. 9, No.4, pp. 429-449.
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5. Ecodesign: A Challenge for Product Developers. Interview with Eco-designer Tim McAloone: *Future by Semcon* October 2010
6. Virksomheder skeptiske over for vugge til vugge*: Ingeniøren*
   16.10.09 – Designkonceptet cradle to cradle lægger op til, at produkter skal få ting til at gro i stedet for at ende som ubrugeligt affald. Men danske produktionsvirksomheder findet det lovlig idealistisk.
7. Produktservice kan skrue op for virksomhedernes indtjening*: Ingeniøren*
   07.05.09 – Produktionsvirksomheder kan forholdsvis let skabe en meromsætning ved at udvikle servicesystemer til selve produkterne.
8. Sæt serviceudviklingen i system*: Ingeniøren*
   07.05.09 – Med service i produktpaletten kan leverandørvirksomheder udnytte deres egen viden om produkterne samt trække viden ud af kunderne via et tættere forhold. Derfor er det oplagt at tænke services ind i udviklingen af produkter i et såkaldt produkt/service-system.
9. Fra skrald til guldgrube: *Mandag Morgen*
   30.03.09
10. Fremtidens sofa under miljølup: *DYNAMO, DTU*
    16.02.09 – En ny guide gør det nemmere at fokusere på miljøet under udvikling og produktion af alt fra

knappenåle til containere. Guiden er lavet i samarbejde med en række virksomheder. En af dem er Fritz Hansen A/s, der vil tænke miljøet mere systematisk ind i udviklingen af nye møbler

11. Det er gratis at tænke miljø ind i produktet*: Ingeniøren*
    05.12.08 – Nyt simpelt værktøj klæder virksomheder på til at udvikle produkter med mindre miljøbelastning
12. Kunde og leverandør har fælles interesse i partnerskaber – Interview med Tim McAloone: *Viden om, SCA*
    November 2008 – Partnerskaber mellem det offentlige og private virksomheder byder ifølge eksperter på Danmarks Tekniske Universitet på lutter fordele. Men gevinsterne høstes ikke gratis. Det kræver mod, samspil og vilje at udvikle samarbejdet.
13. Små virksomheder er afhængige af internationale netværk*: Ingeniøren*
    06.06.08 – Både store og små virksomheder udvikler på tværs af landegrænser, men de små er mere afhængige af det, selvom det er voldsomt ressourcekrævende
14. Klimaøkonomien kræver nye forretningsmodeller: *Mandag Morgen*
    26.05.08
15. Produkter til den tredje miljøbølge*: Ingeniøren*
    23.05.08 – DTU-projekt giver virksomheder en skræddersyet tjekliste til at tænke miljø og klimaeffekt med i produktudvikling
16. Miljøforbedringer gennem produktudvikling betaler sig: *Erhvervslederen*
    01.12.08 – Miljørigtig produktudvikling i danske og internationale virksomheder er ifølge en guide fra DI, IPU og DTU en rigtig god investering
17. Den tredje miljøbølge: *Ingeniørens produktudvikilngsmagasin*
    23.11.07 – Danske virsomheder gør klogt i at tænke grønt. Ikke kun fordi loven kræver det, men fordi fremtidens kunder vil vælge de mest miljørigtige produkter. Velkommen til den tredje bølge af miljøfokus.
18. Det faste forhold som forretningsmodel: *Mandag Morgen*
    29.01.07
19. Design skal få verden til at bære over med os: *Politiken*
    22.12.06 – Økoby i Østen sætter ny standard for bæredygtighed
20. En bæredygtig kontorstol: *DYNAMO, DTU*
    07.11.06 – Den amerikanske kontormøbelgigant Steelcase Inc. har skabt en ny base for helhedsorienteret produktservice med udgangspunkt i dansk miljøvurdering
21. Miljømærker fortæller kun den halve sandhed: *Politiken*
    23.09.06 – For at vurdere, om en maskine er god eller dårlig for miljøet, skal man se på hele apparatets levetid. Men den slags livscyklusvurderinger er svære at gå til for ikke-fagfolk
22. Globalt treholdsskift øger effektiviteten*: Ingeniøren*
    26.05.06 – En ny metode på tværs af tidszoner kan revolutionere udviklingsprojekter. Eksperter spår "round-the-clock-engineering" en stor fremtid for danske firmaer med aktiviteter i udlandet
23. Verdens 20 Mest Innovative Virksomheder: *Mandag Morgen*
    03.04.06
24. Tovtrækning om den innovative elite: *Mandag Morgen*
    30.01.06
25. DTU i spidsen for miljørigtig konstruktion: *Ingeniøren*
    17.03.06 – "Ecodesign" sætter skub i miljørigtige konstruktioner
26. Sustainability as a driver for innovation: The Sunday Times, Malta
    13.11.05
27. Livskvalitet driver fremtidens milliardindustrier: *Mandag Morgen*
    12.09.05
28. Nye opfindelser på rekordtid: *DTU Avisen*
    06.06.05 – Dyrevelfærd, brændselsceller og varmere tøj. Innovative ideer strømmer ud fra populært kursus i produktudvikling
29. Nyt center skal nytænke produktudvikling: *Mandag Morgen*
    11.04.05
30. Produktudviklingslandkortet placerer kompetencerne: *Erhvervslederen*
    01.12.04 – Den 1. december slår IPU og MEK-instituttet dørene op for Produktudviklingsdagen 2004, og i år drejer det sig om at finde veje til professionelle strategier, metoder og kompetencer
31. DTU har lavet landkort over dansk innovation*: Ingeniøren*
    28.08.04 – Forskere på DTU har kortlagt de danske forskningskompetencer inden for innovation og produktudvikling. Kortlægningen er en del af det treårige projekt Synopsis, som skal skabe et netværk mellem forskere og industri.
32. Det er muligt at gøre en forskel*: Ingeniøren*
    27.08.04 – For Tim McAloone er miljørigtig produktudvikling en livsstil, der rækker langt ud over DTU's mure
33. Jagten på innovationen*: Ingeniøren*
    27.08.04

34. Bilfabrikker som forbillede for produktudvikling*: Ingeniøren*
    02.05.04 – Ny trend: Produktionsfilosofien Lean Manufacturing skal trimme industriens udviklingsprocesser
35. Alarmerende behov for nye udviklingsmetoder*: Ingeniøren*
    02.03.03 – DI: Svagt dansk forskningsmiljø hæmmer virksomheder i at udvikle innovative produkter.
36. Industri og forskning i fælles front for bedre produktudvikling*: Ingeniøren*
    28.02.03
37. Alarmerende behov for nye udviklingsmetoder*: Ingeniøren*
    28.02.03
38. Produktudvikling: Produktudvikling der støver*: Ingeniøren*
    28.09.01 – Engelsk støvsuger-milliadær vender det blinde øje til markedsundersøgelserne, når han produktudvikler
39. Miljø-design kræver ny strategi*: Ingeniøren*
    26.05.00 – Afgørende miljøforbedringer kræver anderledes tænkning og mere plads til kreativitet i udviklingsfasen
40. A stunning hub at the centre of a revolution: *The Times Higher*
    14.10.94

CASPER BOKS

Prof.dr. Casparus Burghardus Boks
Norwegian University of Science and Technology (NTNU)
Faculty of Architecture and Design
Department of Design
Kolbjørn Hejes vei 2b, NO-7491 Trondheim, Norway
Phone: +47 735 90102
Email: casper.boks@ntnu.no

RELEVANT PROFESSIONAL EXPERIENCE:

01/2007-now **Norwegian University of Science and Technology**
Faculty of Architecture and Design (AD), Department of Design (ID)
Full Professor in Product Design, in particular Sustainable Product Design
Main research interests: Sustainable Product Design and Innovation, Design for Sustainable Behaviour, Environmental Management and Organisation, Strategic Product Innovation.
08/08 – 07/09: *Acting Director* of NTNU's Industrial Ecology Programme
07/09 – 07/13: *Deputy Head of Department*, Department of Product Design
08/13 – 07/17: *Head of Department*, Department of Product Design (from 01/17 Department of Design)
08/17 – now: *Vice-Dean for Research and Innovation*, AD Faculty

12/2000-12/2006 **Delft University of Technology, The Netherlands**
Faculty of Industrial Design Engineering, Department Design Engineering
Assistant Professor in Applied Ecodesign
07/2004-12/2004: *Visiting Professor at* Lund University, Sweden
International Institute of Industrial Environmental Economics

04/1996-11/2000 **Delft University of Technology, The Netherlands**
Faculty of Industrial Design Engineering
Ph.D. researcher, completed dissertation titled: 'The relative importance of uncertainty factors in product end-of-life scenarios'

08/1995-03/1996 **Philips Consumer Electronics, Eindhoven, The Netherlands**
Environmental Competence Centre: *Researcher on Applied Ecodesign*

UNIVERSITY EDUCATION:

Erasmus University Rotterdam, The Netherlands
Econometric Institute: *Master degree in Applied Econometrics (1995)*
Delft University of Technology, The Netherlands
Faculty of Industrial Design Engineering: *PhD degree in Industrial Design Engineering (2002)*

LANGUAGES:

Dutch:	Native speaker
English:	Fluent
Norwegian:	Fluent
German:	Average

Selected Tasks and Responsibilities

Participation in PhD examination committees as external evaluator or opponent

- O. Mont – Product Service Systems – Lund University (S) – 09/2004
- A. Plepys – Product Servicising – Lund University (S) – 09/2004
- E. Sundin – Remanufacturing – Linköping University (S) – 11/2004
- M. Lindahl – Design for Environment – KTH, Stockholm (S) – 06/2005
- H. Hellman – Fuel Cell Technology Management – TU Delft (NL) – 12/2007
- R. Wever – Packaging Design – TU Delft (NL)– 10/2009
- E. Verhulst – Change management for Sustainable design – Univ. Antwerpen (B) – 01/2012
- G. Wilson –Design for Sustainable Behaviour – Loughborough University (UK) – 05/2013
- S. van Dam – Home Energy Management Systems - TU Delft (NL) – 07/2013
- L. Kuijer – Social Practice Theory for Sustainable Design – TU Delft(NL) – 02/2014
- C. Park – Sustainable Design in the FMCG sector – Cranfield University (UK) – 09/2014
- K.K. Balakrishnan – PSS design for Indian Railways Catering – ITT Guwahati (India) – 05/2015
- H. Strömberg – Sustainable Transport Behaviour – Chalmers Univ. of Technology (S) 10/2015
- B. Nielsen – Design Thinking for Humanitarian Action – NTNU 10/2015
- C. Kobus – Smart Energy Applications – TU Delft 04/2016
- A. Bonou – LCA in Product Life Cycle Management – TU Denmark 11/2016
- A. Abedini – Designing for User Culture – Universiti Putra Malaysia 11/2016
- A. Shende – Creativity among M.Des students – ITT Guwahati (India) – 04/2017
- W. Baxter – Designing Circular Possessions – Imperial College London – 05/2017
- S. Sihvonen – Ecodesign implementation – Aalto University (Finland) – 10/2017

PhD research supervision (‡ = co-supervision, † = main supervision)

‡ Jaco Huisman (TU Delft): Eco-efficiency of End-of-Life Treatment – *Finished 2003*

‡ Hanna Hellman (TU Delft): *Probing and Learning in High Tech Young Firms – Finished 2007*

‡ Renee Wever (TU Delft): *New Packaging Concepts for Electronics – Finished 2009*

‡ Elli Verhulst (University of Antwerp): *Human factors in sustainable design implementation– Finished 2012*

‡ Silje Helene Aschehoug (NTNU): *Environmental Information supporting product development Data" – Finished 2012*

† Ida Nilstad Pettersen (NTNU): *User-centred ecodesign – Finished 2013*

† Bijan Aryana (NTNU): *Cultural Customisation of mobile products – Finished 2013*

† Kirsi Maria Laitala (NTNU): *Sustainable Clothing Use and Design – Finished 2014*

† Johannes Zachrisson Daae (NTNU*): Design for Sustainable Behaviour – Finished 2014*

† Marie Hebrok (NTNU): *Changing Food Wasting Practices – started 2014*

† Sofie Østergaard (NTNU): *Sustainable Product, Service and System design in the Industrial Bakery sector – started 2014*

† Faheem Ali (DTU/NTNU): Effective implementation of Design for Sustainability (cotutelle agreement with DTU – *started 2015*

† Raphaëlle Stewart (DTU/NTNU): Effective implementation of Design for Sustainability (cotutelle agreement with DTU – *started 2015*

† Lucy Chamberlin (NTNU): Communication of CE based value propositions – *started 2017*

† Juana Otero Camacho (NTNU): User acceptance for circular resource efficiency – *started 2017*

† Saara-Maria Kauppi (NTNU): Design of insect-based food products – *started 2017*

Received financial grants include:

2018-2021	EU TRANS-URBAN-EU-CHINA (Work package leader
2017-2020	ERA-NET LAC / NFR BIONÆR: ENTOWASTE (Project leader)
2016-2019	EU FP7 Marie Curie ITN on Circular Economy (Circ€uit) (Theme leader)
2014-2015	The Future of Europan Design and Applied Arts (EEA/FM) (Work package leader)
2013-2015	THE MEDICAL HOME - Sustainable services and technology for home medication (NFR Researcher project - PraksisVEL) (Responsible administrator)
2013-2016	MINDER: Methodologies for Improvement of Non-residential buildings' Day-to-day Energy-efficiency Reliability (NFR Researcher project - ENERGIX) (Work package leader)
2007-2008	PhD Supervision Collective for Sustainable Product Innovation (2007-2008), funded by Nordforsk (project leader)

Invited presentations and lectures include:

Hong Kong Polytechnic University, Oslo School of Architecture and Design, Xi'an University of Architecture and Technology, University of Antwerp, Kongsberg Summit, Delft University of Technology, Oslo and Akershus University of Applied Sciences, Czech Academy of Applied Art and Design

Conference Organisation Committees:

- Int. Conf. on Engineering and Product Design Education 2010, Trondheim
- CIRP International Conference on Life Cycle Engineering 2014, Trondheim
- Norddesign, 2016, Trondheim

Conference Scientific Committees since 2005 include: Norddesign 2008, 2010, 2012, 2014, 2016, EPDE 2010-2016, Ecodesign 2005, 2007, 2009, 2011, 2013, 2015, ERSCP/EMSU 2010, 2013, ICED 2009, 2011, 2013, 2015, 2017 CIRP/LCE 2007, 2009, 2011, 2014, CIRP/IPS2 2011, ICORD 2011,2013, 2015, ISDRC 2014

External evaluator

- For international scientific research funding bodies, including
  - The Netherlands (NWO)
  - Norway (NORAM)
  - Austria (Christian Doppler Forschungsgesellschaft)
  - Sweden (MISTRA)
  - Hong Kong, China (Research Grants Council Hong Kong)
  - USA (NSF BELMONT)
- External assessor for various international academic positions
  - Loughborough University - Professorship
  - University of Botswana – Professorship
  - University of South Denmark – Associate Professorship
  - Technical University Denmark – Associate Professorship
  - University College of Southeast Norway – Assistant Professorship
  - Oslo and Akershus University College – PhD student
  - Aalto University (Professorship)

Journal editorial boards, editorships, reviewer contributions

- Editorial Board Journal of Design Research
- Guest editor Journal of Cleaner Production
- Regular reviewer for various journals (including Journal of Cleaner Production, Journal of Industrial Ecology, International Journal of Product Development, International Journal of

Sustainable Engineering, Sustainable Development, International Journal of Design, Journal of Design Research. International Journal of Life Cycle Assessment, and several more)

Awards

- Best paper award: 2003 International Symposium on Environmentally Conscious Design and Inverse Manufacturing, Tokyo
- Best paper award: 2011 Ecodesign conference, Kyoto
- NTNU Industrial Ecology Publication Prize, 2012

Various

- National scientific committee for publication channels within Architecture and Design research (2016-)
- Leader national scientific committee for publication channels within Interdisciplinary Technology research (2014-2015)
- Chairman Norwegian Professional Council for Design Education (2015-2017)
- Member of the NTNU RSA (2016 -)
- EISA Green Awards – International jury member 2005-2013
- Member of Design Society (Founding member of the Ecodesign Special Interest Group)
- Member of the Norwegian Academy of Technological Sciences (NTVA)

SCIENTIFIC PUBLICATIONS:

Scientific publications, as of 15.09.2017:	Total	(as first author)
International Journal Articles:	37	7
International Conference Papers	137	42
Book Chapters	6	3
Editor conference Proceedings	2	2
Dissertation	1	1

- Citations in Scopus: 955, h-index: 18 (as of 15.09.2017)
- Citations in Google Scholar: 2359, h-index: 26 (as of 15.09.2017)

COMPLETE LIST OF SCIENTIFIC JOURNAL ARTICLES AND BOOK CHAPTERS)

Hebrok, M., Boks, C. Household food waste: drivers and potential intervention points for design – an extensive review. Journal of Cleaner Production. Volume 151, 10 May 2017, Pages 380–392

Boks, C, Daae, J. Design for Sustainable Use using Principles of Behaviour Change. In: Chapman, J. (Ed.): The Routledge Handbook of Sustainable Product Design, Part 21, Routledge, 2017

Daae, J., Boks, C. Tweaking the Interaction – By Understanding the User. In: Clune, S. et al. (Eds): Ashgate 'Design for Social Responsibility' series on Design for Behavioural Change,

Boks, C. An Introduction to Design for Sustainable Behaviour. In: Egenhoefer, R.B. (Ed.): Handbook of Sustainable Design. Routledge

Daae,J., Goile, F., Seljeskog, M., Boks C., Burning for sustainable behaviour, Journal of Design Research 14 (1), 42-65

Stewart, R., Bey, N., Boks, C. Exploration of the barriers to implementing different types of sustainability approaches. Procedia CIRP 2016 vol.48 pp 22-27

Ali, F., Boks, C., Bey, N. Design for sustainability and project management literature – a review. Procedia CIRP 2016 vol.48 pp 28-33

Blok, V., Long, T., Gaziulusoy, I.,, Ciliz, N., Lozano, R., Huisingh, D., Csutora, M., Boks, C.. From best practices to bridges for a more sustainable future: Advances and challenges in the transition to global sustainable production and consumption. Volume 108, Part A, 1 December 2015, Pages 19–30

Laitala,K., Boks, C. & Klepp, I.G. Making Clothing Last: A Sustainable Design Approach. International Journal of Design Vol. 9 No. 2 2015

Aryana B., Clemmensen T., Boks C. Users' Participation in Requirements Gathering for Country Specific Customization of Smart Phones in Emerging Markets. Universal Access in the Information Society, June 2015, Volume 14, Issue 2, pp 265-280

Daae, J., Boks, C. (2015). Opportunities and challenges for addressing variations in the use phase with LCA and Design for Sustainable Behaviour. International Journal of Sustainable Engineering, Volume 8, no. 3, pp 148-162

Daae, J., Boks, C. (2015). A classification of user research methods for design for sustainable behaviour. Journal of Cleaner Production, Volume 106, 1 November 2015, Pages 680–689

Verhulst, E., Boks, C. Employee Empowerment for Sustainable Design. Journal of Corporate Citizenship, Volume 2014, Number 55, September 2014, pp. 73-101(29)

Sorgendal, I., Boks, C. Challenging Interfaces are more fun! Operant Conditioning for the Interaction Designer. International Journal of Learning Technology. Volume 9, No. 2 pp. 94-110.

Kjollesdal, A., Asheim, J., Boks, C. Embracing Social Sustainability in Design Education, Scandinavian Journal of Educational Research, Vol. 58, No. 2, 173–188, 2014

Daae,J., Boks, C. Daae, J., Boks, C. Dimensions of behaviour change. Journal of Design Research, Vol. 12, No. 3 (2014) pp. 145 - 172

Pettersen, I.N., Boks, C., Tukker, A. Framing the role of technology in transformation of consumption practices: beyond user-product interaction. International Journal of Technology Management 63 (1), 70-103, 2013

Aschehoug, S., Boks, C. A Review of Domains for Relevant Sustainability Information Enhancing Sustainable Product Development. International Journal of Sustainable Engineering, Vol 6, Issue 2, 2013, pp 94-108

Aschehoug, S., Boks, C. Building sustainability knowledge for product development and design - Experiences from four manufacturing firms. Progress in Industrial Ecology, an International Journal 8 (1), 45-66

Aryana, B., Boks, C., Country Specific Customization in Emerging Markets: Insights from Case Studies in Iran and Turkey, International Journal of Logistics Economics and Globalisation, Vol. 4, No. 3, 2012, pp. 179-196

Volstad, N., Boks, C., On the use of biomimicry as a useful tool for the industrial designer. Sustainable Development (20) 189-199

Aryana, B., Boks, C., New Product Development and Consumer Culture, a Review. International Journal of Product Development, Vol. 16, Issue 1, pp. 45-62

Verhulst, E., Boks, C. The Role Of Human Factors In The Adoption Of Sustainable Design Criteria In Business: Evidence from Belgian and Dutch case studies, International Journal of Innovation and Sustainable Development, Vol. 6, No. 2, 2012

Verhulst, E., Dewit, I., Boks, C. Implementation of Sustainable Innovations, In: "ENTREPRENEURSHIP, INNOVATION AND SUSTAINABILITY", Ed. Prof. Dr Marcus Wagner. Greenleaf Publishing

Aschehoug, S., Boks, C., Støren, S., Environmental Information from Stakeholders Supporting Product Development, Journal of Cleaner Production 31 (2012) 1-13

Zachrisson , J. and Boks, C. Exploring Behavioural Psychology to support Design for Sustainable Behaviour Research, Journal of Design Research, Vol. 10, Nos. 1/2, 2012

Laitala, K. and Boks, C. Sustainable Clothing Design: Use Matters. Journal of Design Research, Vol. 10, Nos. 1/2, 2012

Laitala, K., Klepp, I., Boks, C. Changing laundry habits in Norway. International Journal of Consumer Studies 36 (2012) pp. 228-237

Laitala, Boks, Klepp, Potential for environmental improvements in laundering . International Journal of Consumer Studies, Volume 35, Number 2/March 2011

Boks, C., Diehl, J.C. D4S Benchmarking, in: Crul, M. (Ed.) Design for Sustainability: A Step-by-Step Approach. United Nations Environment Programme, Paris, France, ISBN 92-807-2711-7

Wever, R., van Onselen, L., Silvester, S., Boks, C. Influence of Packaging Design on Littering and Waste Behavior. Packaging Technology and Science, Volume 23, Issue 5, pages 239–252, August/September 2010

Boks, C., McAloone, T. Transitions in Sustainable Product Design Research,. International Journal of Product Development, vol. 9, no. 4, 2009, pp.429-449

Pettersen, I.N., Boks, C., The Ethics in Balancing Control and Freedom when Engineering Solutions for Sustainable Behaviour. International journal of sustainable engineering. Vol. 1, No. 4, December 2008, pp. 287–297

Boks, C., New academic research topics to further ecodesign implementation: an overview. International Journal of Product Development, Vol. 6, Nos 3/4, 2008

Wever, R., van Kuijk, J., Boks, C. User-centred design for sustainable behaviour. International journal of sustainable engineering. Vol. 1(1), pp. 9-20

Wever, R., Boks, C., Marinelli, T., Stevels, A., Increasing the benefits of product-level benchmarking for strategic eco-efficient decision-making. Benchmarking, an International Journal, Vol. 14, No. 6 Page: 711 - 727

Boks, C., Stevels, A., Essential Perspectives for Design for Environment, Experiences from the Electronics Industry, International Journal of Production Research, Volume 45, Issue 18 & 19 September 2007, pages 4021 - 4039

Boks, C. The Soft Side of Ecodesign. Journal of Cleaner Production 14 (2006) 1346-1356

Boks, C., Diehl, J.C., Integration of Sustainability in Regular Courses: Experiences in Industrial Design Engineering. Journal of Cleaner Production 14 (2006) 932-939

Stevels, A., Boks, C. Effectiveness of currently proposed EU Environmental Directives and Policies of Electronic Products. Science Technology, 2005, No.1, pp. 46-49, ISSN 1672-017 (in Chinese)

Chiodo, J.D., Boks, C.B., "Assessment of End-of-Life Strategies with Active Disassembly using Smart Materials". Journal of Sustainable Product Design, Vol. 2, 2002, pp. 69-82 (issued 2004)

Huisman, J., Boks, C.B., Stevels, A.L.N. Quotes for environmentally weighted recyclability (QWERTY): concept of describing product recyclability in terms of environmental value. International Journal of Production Research, Vol. 41, no. 16, 2003, 3649–3665

Boks, C. and Stevels, A. "Theory and Practice of Environmental Benchmarking for Consumer Electronics", Benchmarking - an International Journal, Vol. 10, No. 2, 2003, pp. 120-135

Boks, C. (2002) The Relative Importance of Uncertainty Factors in Product End-of-Life Scenarios, Ph.D. dissertation, Delft University of Technology, ISBN 90-5155-013-8

Stevels, A. and Boks, C. Design for end-of-life strategies and their implementation. Mechanical Life Cycle Handbook: Good Environmental Design and Manufacturing. M.S. Hundal, editor. Marcel Dekker, 2001.

Boks, C.B. and Tempelman, E.,"Future Disassembly and Recycling Technology", Futures, Vol. 30, No.5, pp. 425-442, Elsevier Science Ltd, June 1998.

Fortegnelse over bedømmelsesudvalg til
stilling Assistant Professor in Navigating Design Engineering Processes (201735) ved PLAN

Navn: Associate Professor Birgitte Hoffmann
Arbejdssted: PLAN
E-mail: bhof@plan.aau.dk

Navn: Professor Thomas Binder
Arbejdssted: KADK
E-mail: tbi@kadk.dk

Navn: Associate Professor Yutaka Yoshinaka
Arbejdssted: DTU
E-mail: yosh@dtu.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Assistant Professor in Navigating Design Engineering Processes (201735)

Position No.
201735

At The Technical Faculty of IT and Design, Department of Planning, Copenhagen a position as Assistant Professor in Navigating design engineering processes is open for appointment from December 1, 2017 or soon hereafter. The position is available for 3 years.

The Department of Development and Planning conducts research and teaching on development and planning in a broad sense, including socio-matieral aspects as well as more technical aspects of design, development and innovation.

Job description

The position as assistant professor involves resesearch within the fields of navigating design and innovation processes and engineering design. The assistant professor will also be expected to contribute to the development of the department's research activities related to design engineering practices and staging and facilitation of innovation with special focus on healthcare aspects and technologies. The ideal applicant will have a background in design engineering combined with experience in Science and Technology Studies (STS).

The assistant professor will be part of a research project which requires excellent skills in:

- translating knowledge from a variety of actors into specific design proposals
- navigating, staging and facilitating design interventions with multiple actors
- experiences with working in the field of healthcare
- ability to perform empirical fieldwork with Danish elderly
- experiences in collaborative work with private Companies

Furthermore, the position also calls for knowledge, competences, and experience, including teaching experience qualifying the following:

- have general knowledge on engineering and design issues including experience with engineering design and methods applied to design activities
- can demonstrate experience with research and teaching relevant to the competences required
- have the ability to work in interdisciplinary teams including socio-technical approaches to design

Teaching will primarily be in the programs Sustainable Design (Bachelor and Master) and Techno-Anthropology, (Bachelor and Master), but teaching in other study programmers at the University may also be possible.

The applicant is expected to be a promising researcher and teacher, who is active in international research networks that can contribute in developing interdisciplinary research projects and who is interested in collaborating with the broad range of stakeholders in teaching and research.

You may obtain further professional information from Head of section, Erik Hagelskjær Lauridsen, (45) 4490 3757, ehl@plan.aau.dk.

Qualification requirements:

Appointment as an Assistant Professor presupposes scientific qualifications at PhD-level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as an Assistant Professor cannot exceed a period of four years in total at Aalborg University in a temporary position (appointment at Assistant Professor level cannot exceed a period of eight years in total in Denmark). The application must contain the following:

- A statement outlining your reasons for applying, and intentions and visions with, the position.

- Your curriculum vitae, including personal data, educational background, scientific qualifications, dissemination skills, participation in committees and boards, and additional qualifications relevant for the position.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.
- A complete list of publications.
- Publications you wish to be considered by the assessment committee. You may attach up to 5 publications.
- A specification of your teaching qualifications relative to the teaching portfolio. If this is not enclosed you must include an explanation for its absence.
- References/recommendations.

An assessment committee will assess all candidates. The applications are only to be submitted online by using the "Apply online" button below.

For further information concerning the application procedure please contact Nickie Hermansen by mail EST-ST-HR@adm.aau.dk or phone (+45) 9940 7902 Information regarding guidelines, ministerial circular in force, teaching portfolio and procedures can be seen here.

Workplace
Copenhagen

Agreement
Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline
25/10/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

top

CV for Yutaka Yoshinaka (DOB March 18, 1967)
ORCID: 0000-0002-6502-3743

Department of Management Engineering,
Technical University of Denmark (DTU)
Diplomvej, Building 372, Office 222,
DK-2800 Kgs. Lyngby, Denmark
Phone: +45 4525 6065 Email: yosh@dtu.dk

Degrees:

- 2005: Ph.D. in Science & Technology Studies from Technical University of Denmark.
- 1998: MSc (Eng.) with specialization in Planning & Technology Management, Technical University of Denmark.
- 1988: AB (Physics major). Cornell University, Ithaca, New York, USA.

Positions (selected):

- 2006 - present: Associate Professor in Sociotechnical Competences and Innovative Processes at the Technology & Innovation Management Division, DTU's Dept. of Management Engineering.
- 2002 - 2005: Assistant Professor at the Section of Innovation and Sustainability, DTU's Department of Manufacturing Engineering and Management.
- 1998 - 1999: Research Assistant at DTU's Department of Technology and Social Sciences.
- 1990 - 1993: Instructor, Nippon Medical School, Department of Health Care Administration, Tokyo, Japan.

Research Areas:

Socio-Material Design; Science & Technology Studies; Front End Innovation; Designing for Patient Safety.

Memberships of scientific committees, review panels

- Editorial Review Board, *International Journal of Social and Organizational Dynamics in IT* (IJSODIT). (2009 - today)
- Scientific Committee, ServDes.2016 – Service Design and Innovation Conference (May 2016).
- Scientific Committee, 13th *and* 14th Participatory Design Conferences (Oct. 2014 & Aug. 2016).
- Scientific Committee, *Joint 4S/EASST Conference* 2012 - "Design and Displacement: Social Studies of Science & Technology" (Oct. 2012).
- Reviewer, Innovation Fund Denmark, Grand Solutions 2016.
- NSF Reviewer, U.S. National Science Foundation, Research Grant Applications for the Science, Technology & Society Program. (2009 & 2010)
- Assessment Committee, Assistant Professorship in Experience Design, Department of Industrial and Civil Engineering, University of Southern Denmark. (June 2009)
- Chair, Assessment Committees:
  Ph.D Thesis of Meiken Hansen, DTU Management Engineering. (May 2016)
  Ph.D Thesis of Liv Gish, DTU Management Engineering (May 2012)
  Ph.D Thesis of Giovanna Vianello, DTU Management Engineering. (August 2011)
- External discussant, Work-In-Progress seminars, Ph.D Thesis of Marta Gasparin, Copenhagen Business School (2014), Ph.D Thesis of Christina Lundsgaard, KADK The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation (2013); Ph.D Thesis of Jamie Wallace, Aarhus University (2010).

Supervision of PhDs:

- Main Supervisor for Angelos Balatsas-Lekkas. Title: 'Assemblages of Patient Safety: Bringing together matters of concern between design and multiple knowledge practices in healthcare.' With co-supervisors Ole Broberg and Jamie Wallace. Finished 2016.

Grants (ongoing or finished in 2012 or later):

- 2017-2018. Team member. 'Water Provisions Systems in Northern Uganda: Comparison of water provision systems in refugee settlements in Bidi Bidi, Yumbe District, Norther Uganda', Sub-Grant, Danish Refugee Council/Grundfos. (DTU Environmental Engineering, M. Rygaard Project Leader).
- 2010-2014. Team member (non-parnter) 'TempoS – Performing Temporary Spaces for User-Driven Innovation', Danish Council for Strategic Research. (C-DIST, University of Aalborg, Copenhangen, U. Jørgensen Project Leader).

Research collaboration with industry and public sector consultancy:

- 'Water Provisions Systems' (DRC/Grundfos) project (see above).
- Co-development of *Design Guide* and related dissemination activities in collaboration with Medical Device manufacturers, as a member of Danish trade organization MedicoIndustrien's *Expert Group on Design*. (2011-2017)

Brief Bio

Yutaka Yoshinaka is Associate Professor at the Technical University of Denmark (DTU). He holds an M.Sc.(Eng.) and Ph.D. from the Technical University in *Science & Technology Studies (STS)*. Recent work in research deals with new conceptions and frameworks for addressing design synthesis in engineering, with socio-technical dimensions of design and innovation, including generative design interventions involving users (co-design) and multivalent stakeholder positions (co-creation), at the fulcrum of inquiry.

Yutaka Yoshinaka
Current, Oct. 2017

List of Publications for Yutaka Yoshinaka, Assoc. Prof. PhD, DTU Management Engineering

Scientific Publications:

A. Balatsas-Lekkas and Y. Yoshinaka. (2013) The Role of Objects in the Constitution of Collaborative Spaces. Conference Proceedings of *Co-Create 2013: The Boundary-Crossing Conference on Co-Design in Innovation*. Aalto University, Helsinki, Finland, June 16-19.

C. Clausen, S. Pedersen and Y. Yoshinaka. (2012) Facilitating and Navigating User Knowledge in an Organizational Context. Proceedings of the *12th Participatory Design Conference*. Roskilde, Denmark, August 14-16.

C. Clausen and Y. Yoshinaka, eds. (2011) *Engaging Interaction in Design: Occasioning, exploring and facilitating design - through actors and objects*. Proceedings of the 7th SIDeR Conference (SIDeR´11), April 14-15. Kgs. Lyngby: Technical University of Denmark, pp. 90. ISBN 978-87-92706-11-9

C. Clausen and Y. Yoshinaka (2009) The Role of Devices in the Staging of Front End Innovation. In: Proceedings of the *International Conference on Integration of Design, Engineering and Management for Innovation* IDEMI09 – Porto. FEUP Faculty of Engineering and Management of the University of Porto, Portugal, September 14-15, 2009.

U. Jørgensen, C. Clausen and Y. Yoshinaka (2009) Design mellem teknologi, brug og form. In U. Jørgensen (ed), *I teknologiens laboratorium – ingeniørfagets videnskabsteori.* Lyngby: Polyteknisk Forlag, pp. 203-223. 2nd ed.

S. Brodersen, M.S. Jørgensen and Y. Yoshinaka (2009) Demokrati, magt og viden. In U. Jørgensen (ed), *I teknologiens laboratorium – ingeniørfagets videnskabsteori.* Lyngby: Polyteknisk Forlag, pp. 85-106. 2nd ed.

U. Jørgensen and Y. Yoshinaka (2009) Teknologi som genstand og vision. In U. Jørgensen (ed), *I teknologiens laboratorium – ingeniørfagets videnskabsteori.* Lyngby: Polyteknisk Forlag, pp. 13-36. 2nd ed.

C. Clausen and Y. Yoshinaka (2007) Staging Sociotechnical Spaces: Translating across Boundaries in Design. Special issue: 'Fostering Innovation during Early Informal Design Phases' (J. Legardeur and C. Merlo, guest eds.), *Journal of Design Research 6*, 1-2: 61-78.

C. Clausen and Y. Yoshinaka (2007) Sociotechnical Spaces: Guiding Politics, Staging Design. In B. Stahl (ed.), *Issues and Trends in Technology and Human Interaction,* Hershey, PA: Idea Group, pp. 213-29.

L. Alting, C. Clausen, U. Jørgensen and Y. Yoshinaka (2007) New Perspectives on Design and Innovation. In F.-L. Krause (ed.) *The Future of Product Development.* Proceedings of the 17th CIRP STC Design Seminar, Berlin, 26-28 March 2007. Berlin: Springer Verlag, pp. 649-663.

C. Clausen and Y. Yoshinaka (2005) Sociotechnical Spaces: Guiding Politics, Staging Design, *International Journal of Technology and Human Interaction 2*, 3: 44-59.

C. Clausen and Y. Yoshinaka (2004) Socio-Technical Spaces – A New Guide to Sociotechnical Politics? In K. Horton and E. Davenport (eds.) *Understanding Sociotechnical Action*, Workshop proceedings, Napier University, Edinburgh 3-4 June 2004, pp. 27-30.

C. Clausen and Y. Yoshinaka (2004) Social Shaping of Technology in TA and HTA, *Poiesis & Praxis, 2*, 2: 221-246.

R. Reuzel, W. Oortwijn, M. Decker, C. Clausen, P. Gallo, J. Grin, A. Grunwald, L. Hennen, G. J. van der Wilt and Y. Yoshinaka (2004) Ethics and HTA: Some Lessons and Challenges for the Future. *Poiesis & Praxis 2*, 2: 247-256.

Y. Yoshinaka, C. Clausen and A. Hansen 2003: The Social Shaping of Technology: A New Space for Politics? In A. Grunwald (ed.) *Technikgestaltung zwischen Wunsch und Wirklichkeit*, Berlin: Springer Verlag, pp. 117-137.

Curriculum vitae

Name & Home address:

Thomas Binder
Nørrebrogade 58A, 1. th.
DK-2200 København N, Denmark
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Short bio:
Thomas Binder is Professor in codesign at the Royal Academy of Fine Arts Schools of Architecture, Design and Conservation and holds a Ph.D. in Science and Technology Studies. He is part of the co-design research center, CODE engaging open design collaborations and participatory design in the context of design anthropology, interaction design and social innovation. His research includes contributions to methods and tools for experimental design research and open innovation processes with a particular emphasis on participation and learning. He has been editing and authoring several books such as (Re-) searching the Digital Bauhaus' (Springer 2008), Rehearsing the Future (Danish Design School Press, 2010), Design Research through Practice (Morgan Kaufman, 2011), Design Things (MIT press, 2011) and Design Anthropological Futures (Bloomsbury, 2016). He has been chairing the Participatory Design Conference in 2002, the Nordic Design Research Conference in 2005 and the Design Anthropological Futures Conference in 2015.

Education:
M.Sc.E. in Mechanical Engineering (Engineering Design and Control Engineering) from Technical University of Denmark, 1987. Ph. D. in Science and Technology Studies, Dept. of Social Sciences, Technical University of Denmark, 1993

Employment record:

7.1.2015 -	Professor with special duties (MSO) in codesign as experimental research practice at the Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation. *Senior researcher in CODE: research center of codesign, coproduction and social innovation, faculty member of the master program in codesign*
1.3.2009 – 6.1. 2015	Associate professor, Danish Center for Design Research/Danish School of Design *Teaching, research and tutoring ph.d. students on design theory, design research and participatory design*
1.4.2007 – 27.2.2009	Senior researcher, Center for Design Research/Danish School of Design *Conducting research and tutoring ph.d. students on design theory, design research and participatory design*
1.3.2004 – 31.3.2007	Research manager, Center for Design Research *Responsibility for initiating research, research networks and doctoral education. Managing budget and organization for the center established by the Danish Ministry of Culture in collaboration with the Royal Academy of Fine Arts, School of Architecture, Aarhus School of Architecture, Danmarks Designskole and Designskolen Kolding, with a yearly turnover of 20 mill DKK*
1.2.2004 – 1.8.2004	Visiting professor, Mads Clausen Institute, SDU *Teaching and tutoring ph.d. students*
1.7.1998 - 1.2.2004	Studio director for the Space and Virtuality Studio at The Interactive Institute, Sweden

Responsibility for forming a research program and conducting transdisciplinary research on how space and place is reshaped by digital media. Leader of the research group financed by the Swedish Stiftelsen for Strategisk Forskning on a 5 year grant, with a yearly turnover of 5 mill. SEK

1.9.1995 – 30.6.1998 Senior scientist at the research department at Danfoss A/S, Denmark
Responsibility for developing and conducting research-based approached to user-centered product design

1.9.1994 - 31.8.1995 Post Doc fellowship at the Dept. of Technology and Social Sciences, DTU
Grant by the Technical University of Denmark for research on design and learning, including association to international research environments outside Denmark

1.6.1990 - 30.8.1994 Consultant at Dept. of Human Resource Management, Technological Institute
Consultancy and research on Human centered systems and interactive media productions for workplace learning. Participation and project management in several projects financed by the EU.

1.2.1987 - 31.5.1990 Doctoral student at Dept. of Social Sciences, Technical University of Denmark
Grant from the Technical University of Denmark for the research topic: Learning processes in industrial product and production development

Project participation:

- Main applicant and participating researcher in International Network Programme (Denmark – Brazil) for the following project: Codesign, Citizenship and New Forms of Participation (2015)
- Participating researcher in the project "Give&Take", financed by the EU AAL programme, (2014-17)
- Main applicant for the Research Network for Design Anthropology: Towards ethnographies of the possible, interventionist speculation and the collaborative formation of issues, a project granted support by the Danish Research Council, FKK (2013-2015)
- Participating researcher in the strategic partnership: Lev Vel, funded by the Danish Council for Technology and Innovation (2010-2013)
- Participating researcher in the strategic research network: Temporary spaces of innovation, funded by the Danish Research Council for Strategic Research (2010-2015)
- Participating researcher in the project: Arbejdsmiljøhensyn i projektering og planlægning: Udvikling af en ny designpraksis, funded by Arbejdsmiljøforskningsfonden (the Danish fund for work life research) (2010-2012)
- Participating researcher in the project: Senior interaktion funded by the Program for user-driven innovation, Danish Ministry of Industry (EBST), (2009-2012)
- Project manager for the project: Udvikling af designantropologisk innovationsmodel med pilotprojekt på affaldsområdet (A design anthropological innovation model), funded by the Program for user-driven innovation, Danish Minestry of Industry (EBST), (2008-2009)
- Participating researcher in the project: Intervention i teknologiske og organisatoriske forandringer i tre sektorer (Workspace Design), funded by Arbejdsmiljøforskningsfonden (the Danish fund for work life research) (2005-2008)
- Scientific person in charge of the Interactive Institute participation in the project: Architecture and Technologies for Inspirational Learning Environments (2002-2004), funded by the EU Disappearing Computer Program.
- Project manager for the project: Assessment of training needs and design of multimedia training package for workers in the European Spring Industry, financed by the EU FORCE program, 1992-94
- National coordinator for the project: Multimedia based long distance course in logistics, financed by the EU Euroform program, 1992-94
- Participant researcher in the project Development and evaluation of technologies as support for flexible production groups in the clothing industry, financed by the EU BRITE/EURAM program, 1991-94

Visiting scholarships:

- Institute of Design, Illinois Institute of Technology, Chicago, (Visiting scholar, May 2005)
- Inst. of Informatics, Copenhagen Business School (Visiting lecturer/ external lecturer, spring 2004)
- STS program, Massachusetts Institute of Technology, (Visiting scholar Fall 1995)
- Dept. of Informatics, Lund university (Research associate, 1994/1995)
- Dept. of Technology and Education, Bremen University, (Research associate 1994/1995)

Research & Professional Networks:

- Peer reviewer for the evaluation of the quality of scientific research for the Italian ministry of Science (2012-14)
- Member of Steering committee for the Finish doctoral school: Design Connections hosted by UIAH and Ula, Finland (2007 - 2011)
- Member of scientific working group under the Danish Ministry of Science and Technology preparing suggestions for a strategic research program on User driven Innovation (fall 2006)
- Member of advisory committee to the Danish Government on design promotion (2005)
- Founding member of the Nordic Design Research Conference board (NORDES) (2005- 2007)
- Member of the Danish Design Council (Designrådet) (1.12.2004 – 1.10.2007)
- Member of the Scandinavian Work Life Learning research network organized by the Danish Pedagogical University (2002-2004).
- Chairman of the Swedish Interdisciplinary Association for Human Computer Interaction (STIMDI) (1.3.2001 – 12.6.2003)
- Member of the WHOLE research network (Work practice knowledge in technological and organizational development) involving 10 Universities and Research laboratories in Europe, financed by the EU TSER program, (1.1.1998 - 31.12.1999)
- Chairman of the society for technical education, the Danish Federation of Engineers (1.2.1996 – 1.2.1998)
- Vice chairman of the society for technical education, the Danish Federation of Engineers (1.2.1992 - 30.1.1996).
- Member of the Danish group of researchers associated to the CAPIRN network (International research network on culture and production), co-financed by the EU Fast program, 1990-92.

Teaching of BA and master-students

- Teaching and co-organizing Master program in codesign at the Royal Danish Academy of Fine Arts, School of Design (2014-)
- Teaching and tutoring undergraduate and graduate students in design theory and project work at the Royal Danish Academy of Fine Arts, School of Design (2009-)
- Responsible for second year of Master program in Interaction Design at Malmö University, 1999-2003, supervising master thesis work
- External lecturer in user-centered design at Institute of Informatics, CBS, (2004)
- External lecturer in contextual design at the Institute of Information and Media Science, Århus University (1.2.1998 – 31.12.1999)

Examiner (censor) for master and bachelor students:

- Communication and IT, University of Copenhagen
- Faculty of Informatics and Design, Cape Peninsula University of Technology, South Africa
- Hum-Tek education, Roskilde University
- Design and digital Media, IT-University in Copenhagen;
- IT-product design, Mads Clausen Institute, University of Southern Denmark
- Contextual design, Institute of Information and Media Science. Århus University

- Design & Innovation, Technical University of Denmark
- Architecture and Design, Aalborg University

Tutoring and evaluation of ph.d. students:

Tutoring completed:

- Eva Brandt (with Lauge Rasmussen, Technical University of Denmark),
- Iben Posniak Hansen (with Ole Broberg, Technical University of Denmark),
- Peter Fröst (with Peter Ullmark, Chalmers School of Architecture),
- Martin Johansson (with Bo Helgeson, Blekinge Institute of Technology),
- Lene Nielsen (with Janni Nielsen, Copenhagen Business School),
- Joachim Halse (with Finn Kensing, IT-University of Copenhagen)
- Sidse Grangaard (with Anders Brix, Royal academy of Fine Arts, School of Architecture)
- Kirsikka Vaajakallio (with Tuuli Mattelmäki, University of Art and Design, Helsinki)
- Mette Agger-Eriksen (with Pelle Ehn, K3, Malmö University)
- Sissel Olander (industrial ph.d.)
- Li Jönsson
- Signe Yndigegn (with Lone Malmborg, IT University of Copenhagen)

Tutoring on-going:

- Maria Foverskov

Opponent or Committee member for the following ph.d. students:

- Stefan Junestrand (School of Architecture, KTH),
- Jörn Messeter (Informatics, Lund University),
- Konrad Tollmar (Computer Science, KTH),
- Trond Are Ørritsland (Product Design, NTNU),
- Mads Borup (ITS, DTU),
- Alexander Øst (CTI, DTU),
- Birgit Fabius (MCI, SDU),
- Sune Netterstrøm, (IPL, DTU)
- Anne Katrine Gelting (Royal Academy of fine Arts, School of Architecture)
- Birger Sevaldson (Architecture Highschool Oslo)
- Tobias Løssing (Architecture School Aarhus)
- Vibeke Riisberg (Architecture School Aarhus)
- Rune Nielsen (IMV, AaU)
- Andreas Løkke Olesen, (Architecture School Aarhus)
- Ramia Mazé, (K3, MAH/BTH)
- Yan Ki Lee, (Hong Kong Polytechnic)
- Chris Heape, (Mads Clausen Institute, SDU)
- Brendon Clark, (Mads Clausen Institute, SDU)
- Mads Vedel Jensen, (Mads Clausen Institute, SDU
- Søren Bolvig (Architecture&Design, Aalborg University)
- Peter Dalsgaard (IMV, AaU)
- Johanna Sefyrin (Mittuniversitet, Sundsvall)
- Mette Mark Larsen (University of Southern Denmark)
- Flemming Tvede Hansen (The Danish Design School)
- Anne-Louise Bang (Kolding Design School)
- Mette Kjærsgaard (Aarhus University)
- Maiken Hillerup Fogtmann, (Architecture School Aarhus)
- Laurens Boer (University of Southern Denmark)
- Tariq Andersen (Copenhagen University)

- Lucy Kimbell (Lancaster University)
- Robb Mitchell (University of Southern Denmark)
- Tau Ulv Lenskjold (Royal Academy of fine Arts, School of Architecture)
- Sandra Neave (Glasgow School of Art)
- Rasmus Jørnø (Aarhus University)
- Signe Pedersen (Ålborg University)
- Maria Sparre-Petersen (KADK)

Committee member for evaluating applicants for Assistant Prof. , Associate Prof. and full Professor Positions

- Konstfack, Stockholm
- Architecture and Design, Aalborg University
- Faculty of Textiles, Engineering and Business, University of Borås
- Department of Environmental, Social and Spatial Change, Roskilde University
- Institute for Business and Technology, University of Aarhus
- Mads Clausen Institute, University of Southern Denmark,
- Institute of Information and Media Science, Århus University,
- Aarhus School of Architecture
- Royal Academy of Fine Arts, School of Architecture, Design and Conservation
- Umeå Institute of Design, Umeå University
- Parsons The New School for Design
- University of Queensland, Faculty of Engineering, Architecture and Information Technology

Keynotes, tutorials & workshops:

- Invited keynote for the Nordic Design Research Conference, Nordes, Design + Power, Oslo, June 15-17, 2017
- Invited participant for the Design Anthropology: Landscapes and Cities workshop, April 2 -4, 2017 at Radcliffe Institute for Advanced Studies, Harvard University
- Invited speaker for seminar on design research, organized by Campus France, Paris, May 26-27, 2016
- Invited speaker for the Restorative Justice Extending Empathy Workshop, Central Saint Martins College, London, April, 2015
- Invited moderator for the Open Design Forum, HKDI, Hong Kong, December, 2015
- Invited speaker at the research seminar, Mobilities and Design, Mobilities Lab, Lancaster University, April, 2014
- Co-organizer (with Peter Bertram) of the Ph.d Course: Experiment and reflexivity in design research, KADK, January 2014
- Invited presentation: "Den pragmatiske udveksling mellem forskning og udviklingsarbejde", konference om kunstnerisk udviklingsarbejde, KADK, December, 2013
- Invited presentation: "Forskning ind i undervisningen", KEA CSU seminar, November, 2013
- Co-organizer (with Lone Malmborg, Per-Anders Hillgren, Jörn Messeter, Yanki Lee and Sibukele Gumbo) of the panel: What can Design Laboratories do?, INTERACT conference, Cape Town, September 2013
- Co-organizer (with Maria Hellström Reimer, Andrea Kahn and Joachim Halse) of the Ph.d Course: Exploring fieldwork: A critical consideration of empirical methods and habits-of-mind in design research, MAH/KADK, April – October, 2013
- Invited presentation (with Eva Brandt): "Synspunkter på program og eksperiment i designforskningen", Forskertræf, Center for Designforskning, Januar, 2013
- Co-organizer (with Per Linde, Dagny Stuedahl and Cristano Storni) of the workshop: Exploring ANT in PD: reflections and implications for theory and practice, held at the Participatory Design Conference in Roskilde, August, 2012
- Invited presentation: "Towards a critical engagement with the possible" at the symposium Exploring Research through Practice, School of Design, Northumbria University, April 16, 2012

- Invited presentation: "The Co-design Laboratory: Rehearsing the Future. A design school pursuing new modes of participation" for the Collaboratorium Seminar series in Poznan, Poland, November 24'th, 2011
- Invited presentation: Anvendt entrepenørskab i undervisningen (Applied entrepeneurship i (design) education)" at the conference, "De Kunstneriske Uddannelser og Iværksætterkraften. Entreprenørskabskonference for Kulturministeriets Uddannelser", Charlottenborg, November 15'th, 2011
- Invited presentation: "Bevægelse i (kunstens) laboratorier, at the 25'th anniversary of Statens Værksteder, Gl.Dok, March 25'th, 2011
- Invited presentation: "Designbureauer som forskningspartnere. Forskningsalliancen DTU, Saxo Instituttet (KU) og DKDS. Case: Performing temporary spaces for user-driven innovation." at the yearly researcher seminar organized by the Danish Design Research Center seminar, Fåborg, August 19'th, 2010
- Co-organizer (with Pelle Ehn and Peter Ullmark) of the 3'rd Nordic Design Research Summer School, Pukeberg, August, 2010
- Invited presentation: "The co-design laboratory" at ANACT/ARACT workshop on "Changing industrial processes", Valpre, Lyon, June 23-24, 2009
- Thomas Binder, Participatory Design and the study of things in everyday life, invited paper at the , 1st Nordic explorative workshop in wardrobe studies: Research methods' hosted by Creative Encounters
- Organizer of NORDES Summer School 2008, Research and Design Experiments, Krogerup Højskole, August, 2008
- Eva Brandt & Thomas Binder(2008), Designing design research, workshop, NORDES summer school, Research and Design experiments, Krogerup
- Organizer (with Giorgio De Michelis (University of Milano Bicocca), Pelle Ehn (Malmö University), Giulio Jacucci (Helsinki Institute of Technology), Per Linde (Malmö University) Ina Wagner (Wien Technical University), of the workshop: "Making design take place", at ECSCW 2007, Limmerick, September, 2007
- Invited keynote, the meaning of 'participation' in participatory design at INTERPRETATION IN POLICY ANALYSIS: RESEARCH & PRACTICE, 31 May - 2 June 2007, Amsterdam, the Netherlands
- Invited speaker "Skilled in the design:lab" at the Research Seminar, Skilled practice – bridging the gap between use and design, Mads Clausen Institute, SDU, 20-21 Marts, 2007
- Organizer (with Julian Orr and Dvora Yanow) of the workshop: Locating Boundaries: A Workshop on Place, Space, and Design , Participatory Design Conference 2006, Trento, August, 2006
- Organizer (with Eva Brandt) of the workshop: Event based participation in Design, ID, IIT, Chicago, May 23'th, 2006
- Invited lecturer to ph.d course in the NORDCODE Network, Trondheim, November, 2006
- Invited keynote speaker for the NES 2005 conference (Nordic Ergonomic Society), Oct. 12'th, 2005
- Invited lecturer to ph.d. course on Transdisciplinarity in the Making professions, Oslo School of Architecture, May, 2005
- Invited lecturer to ph.d. course on Design based research, Learning Lab Denmark, March 21'th-22'th, 2005
- Binder, Thomas, *Designforskning og brugerdrevet innovation*, presentation at the conference Brugerdreven Innovation, Crossroads Copenhagen, february, 2005
- Keynote speaker at the Student Interaction Design Research conference, January 27'th-28'th, 2005, Sønderborg
- Organizer (with Jacob Buur) of the tutorial: User participation in product design, Participatory Design Conference 2004, Toronto, August, 2004
- Organizer (with Ina Wagner, Andreas Rumpfhuber & Per Linde) of workshop on Spatial qualities for disappearing Technologies in Learning spaces: Augmenting Places for Discovery and Learning, Tales of the Disappearing Computer, Santorini, June 2003
- Organizer (with Jacob Buur) of the tutorial: Video as Design Material – Expanding the Potential of Video in User Centred Design, at the Interact 2001 Conference in Tokyo, Japan

- Organizer (with Jacob Buur and Eva Brandt) of the tutorial: Video as Design Material, Expanding the potential of video in user centred design, NordiCHI 2000, Stockholm
- Organizer (with Jacob Buur and Chuck Kukla) of the tutorial: Strategies for Innovation in Design, at the CHI 1999 conference in Pittsburg, USA

Journals and peer reviewed conferences:

- Member of the program committee for the conference DPPI 2007 & 2011
- Conference chair (2005) and member of the program committee for the conference Nordes 2007, 2009, 2011, 2013, 2015, 2017
- Invited reviewer for MIT Press, Mattering Press and Bloomsbury Press (2012 -)
- Member of the program committee for the conference Include 2011
- Conference chair (2002) and member of the program committee for the conference PDC 2004, 2006, 2008, 2010, 2012, 2014, 2016
- Member of the program committee for the conference DIS 2008, 2010
- Workshop chair, for the Ethnographic Praxis in Industry Conference, Copenhagen, October, 2008
- Member of the advisory board for the journal, AI& Society, Springer, London
- Member of the scientific committee for the conference, Wonderground organized by the Design research society (2006)
- Member of the advisory board for the journal, Artifact, Taylor & Francis, London
- Member of the international advisory board for the International Conference on Design Research, Joining Forces September 22-24, 2005, Helsinki
- Reviewer for the Design of Interaction Systems Conference 2004 Boston, July, 2004
- Reviewer for the Conference on Human Computer Interaction 2003, 2004

Publications:

A. Peer reviewed international journals:

1. Storni, C., Binder, T., Linde, P., & Stuedahl, D. (2015). Designing things together: intersections of co-design and actor–network theory. CoDesign, 11(3-4), 149-151.
2. Binder, T., Brandt, E., Ehn, P., & Halse, J. (2015). Democratic design experiments: between parliament and laboratory. CoDesign, 11(3-4), 152-165.
3. Binder, Thomas and Lundsgaard Christina (2014), Designdialoger om Rum og Arbejde, Tidskrift for Arbejdsliv,
4. Telier, A (acronym for Binder, Thomas, Giorgio de Michelis, Pelle Ehn, Giulio Jaccuci, Per Linde & Ina Wagner) (2012), Drawing Things Together, *Interactions*, Volume 19 Issue 2, March + April 2012
5. Niels Christian Nickelsen & Thomas Binder (2009): Design and heterogeneous engineering. "Artifact", vol 2. nr. 2, Taylor and Francis, Oxford, UK
6. Ilpo Koskinen, Thomas Binder and Johan Redström (2008), Lab, Field, Gallery and Beyond, *Artifact*, Vol 2 Issue 1 Routledge
7. Thomas Binder and Eva Brandt (2008) The Design:Lab as Platform in Participatory Design Research. in Binder T, Brandt E and Gregory J (guest editors) *CoDesign.* Volume 4, Number 2, June 2008. Taylor and Francis.
8. Binder T, Brandt E and Gregory J (guest editors) (2008) *CoDesign.* Volume 4, Number 2, June 2008. Taylor and Francis.
9. Eva Brandt, Jörn Messeter, and Thomas Binder. Formatting Design Dialogues – Games and Participation. Article in Binder T, Brandt E and Gregory J (guest editors) *CoDesign.* Volume 4, Number 1, March 2008. Taylor and Francis.
10. Binder T, Brandt E and Gregory J (guest editors) (2008) *CoDesign.* Volume 4, Number 1, March 2008. Taylor and Francis.
11. Binder, Thomas Giorgio De Michelis, Michael Gervautz , Giulio Jacucci , Kresimir Matkovic , Thomas Psik, Ina Wagner, (2004) Supporting configurability in a mixed-media environment for design students, *Personal and Ubiquitous Computing* 2004:310-32, Springer-Verlag London
12. Binder, Thomas & Bente Elkjær (2000), Nye Læreskabeloner – nye lærerum tættere på og længere fra praksis, *tidsskrift for Arbejdsliv*, 2, nr. 3
13. Binder, Thomas, Martin Fischer and Jörn Nilsson (eds.) (1996), Learning with artefacts, special issue of *AI & Society*, Vol 10, Springer, London
14. Binder, Thomas and Linda Passarge, Supporting reflection and dialogue in a community of machine setters - lessons learned from design and use of a hypermedia type training material, in Binder, Thomas, Martin Fischer and Jörn Nilsson (eds.) (1996), Learning with artefacts, special issue of *AI & Society*, Vol 10, Springer, London
15. Binder, Thomas, Learning and knowing with artifacts - an interview with Donald A. Schön, in Binder, Thomas, Martin Fischer and Jörn Nilsson (eds.) (1996), Learning with artefacts, special issue of *AI & Society*, Vol 10, Springer, London
16. Binder, Thomas, Participation and reification in design of artifacts - an interview with Etienne Wenger, in Binder, Thomas, Martin Fischer and Jörn Nilsson (eds.) (1996), Learning with artefacts, special issue of *AI & Society*, Vol 10, Springer, London
17. Binder, Thomas (1995), Designing for workplace learning, *AI & Society*, Vol 9, Springer, London

B. Papers at peer reviewed conferences:

1. Binder, Thomas, Giorgio de Michelis, Pelle Ehn, Giulio Jaccuci, Per Linde & Ina Wagner (2012), What is the Object of Design? paper presented in the Alt.Chi track, *proceedings of the ACM CHI conference*, Austin, Texas
2. Binder, Thomas, Brandt, Eva, Halse, Joachim Foverskov, Maria, Olander, Sissel, Yndigegn, Signe (2011), Living the (codesign) Lab, *Proceedings of the Nordic Design Research Conference (NORDES)*, Helsinki
3. Foverskov, Maria and Binder Thomas (2011), SUPER DOTS: Making social media tangible for senior citizens, *Proceedings of the DPPI conference*, Milan

4. Brandt, Eva, Thomas Binder, Lone Malmborg & Tomas Sokoler (2010), Communities of everyday practice and situated elderliness as an approach to co-design for senior interaction, paper presented at OZCHI '10 Proceedings of the 22nd Conference of the Computer-Human Interaction Special Interest Group of Australia on Computer-Human Interaction
5. Sanders, Elizabeth, Eva Brandt and Thomas Binder (2010), A Framework for Organizing the Tools and Techniques of Participatory Design , short paper published in the *proceedings of The Participatory Design Conference,* Sidney, Australia
6. Niels Chr. Nickelsen and Thomas Binder (2008), Design practice as Heterogenous Engineering, proceedings of the *Networks of Design Conference*, Falmouth, UK
7. Eva Brandt and Thomas Binder (2007), EXPERIMENTAL DESIGN RESEARCH: GENEALOGY – INTERVENTION – ARGUMENT, *International Association of Societies of Design Research* , Hong Kong, November
8. Binder, Thomas (2007), Why Design:Labs, paper presented at the 2'nd *Nordic Design Research Conference*, Konstfack, Stockholm
9. Binder, Thomas, and Johan Redström, (2006) Programs, Experiments and Exemplary Design Research, full paper, *Wonderground conference*, Lissabon, November
10. Binder, Thomas et al. (eds) (2005), *In the Making*, Proceedings of the first Nordic Design Research Conference, Copenhagen, May 29-31, 2005
11. Johansson Martin, Peter Fröst, Eva Brandt, Thomas Binder, Jörn Messeter (2002) Partner Engaged Design: New Challenges For Workplace Design, PDC2002, June 02. Malmö
12. Binder, T., J.Gregory, I.Wagner (Eds.) (2002) PDC 02 *Proceedings of the Participatory Design Conference*, Malmö, Sweden, 23-25 June 2002. CPSR
13. Binder, Thomas & Jörn Messeter (2001), Configurability and Dynamic Augmentation of Technology Rich Environments, paper presented at *HCI International*, New Orleans,
14. Buur, Jacob, Thomas Binder and Eva Brandt (2000), Taking Video beyond 'Hard Data' in User Centred Design, paper presented at PDC 2000 conference in New York
15. Nilsson, Jörn, Tomas Sokoler, Thomas Binder, Nina Wetcke (2000), Beyond the Control Room, Mobile Devices for Spatially Distributed Interaction in Industrial Process Plants, paper, HUC 2000 conference, Bristol, September, 2000
16. Sokoler, Tomas, Thomas Binder , Jörn Nilsson and Nina Wetcke (2000), The Personal Bucket Organizer – supporting Spatially Distributed Interaction on a Waste Water Treatment Plant, NordiCHI 2000
17. Binder, Thomas, Setting the stage for improvised video scenarios (1999). Short paper, Extended abstracts, CHI Conference in Pittsburgh,
18. Binder, Thomas, Eva Brandt, Turid Horgen & Gregory Zack (1998), Staging events of collaborative design and learning, paper presented at the Concurrent Engineering Conference 1998 in Tokyo, July 13-18, 1998
19. Bagger-Nielsen, Kirsten, Jacob Buur and Thomas Binder (1997), From Usability testing to User Dialogue, Proceedings from International Ergonomics Association Conference in Tampere, June 1997
20. Brandt, Eva and Thomas Binder (1997), Customer/User workshops in product development, International Conference on Engineering Design in Tampere, August 1997
21. Binder, Thomas og Hans Hvenegaard (1994), Hvad kan forestillinger om en lærende organisation tilføre debatten om det udviklende arbejde?. Proceedings fra Nordisk Ergonomiselskabs Årsmøde, september, 1994
22. Binder, Thomas and Palle Banke (1994), Mediating between users and designers, user involvement in design of a flexible sewing machine, proceedings from 4'th International Conference on Human Aspects of Advanced Manufacturing and Hybrid Automation, Manchester, June, 1994
23. Binder Thomas and Palle Banke (1992), Design of human centred technology in the clothing industry: TA approach to the sewing machine technology, Proceedings from Technology and Democracy, 3'rd. European Congress in Technology Assesment, Copenhagen, November, 1992
24. Binder, Thomas and Klaus T. Nielsen (1991), Brugerinddragelse i design af produktionsudstyr, proceedings fra Nordisk Ergonomiselskabs Årsmøde, 1991

C. Books and Book chapters:

1. Binder, Thomas & Brandt, Eva, Design (research) practice, in Vaughan, Laurene (ed.) (2017) *Practice based design research*, Bloomsbury Academic, New York
2. Binder, Thomas, The things we do: encountering the possible, book chapter in Smith, R. C., Vangkilde, K. T., Otto, T., Halse, J., Kjaersgaard, M. G., & Binder, T. (Eds.). (2016). Design Anthropological Futures. Bloomsbury Publishing
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8. Buur, Jacob and Thomas Binder, Reflecting on Design Practice: Exploring Video documentary of Designers in Action, Panel paper and presentation at the DIS 2000, conference in New York, August 2000
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3. Binder, Thomas, At øve sig på fremtiden (2010), http://www.ebst.dk/brugerdreveninnovation.dk/atoevesigpaafremtiden
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Fortegnelse over bedømmelsesudvalg til
stilling P21743 Postdoc in Data Analysis and Data Mining in Problem-Based Learning
ved Department of Architecture Design and Media Technology

Navn: Associate Professor Michael Mullins
Arbejdssted: Department of Architecture Design and Media Technology
E-mail: mullins@create.aau.dk

Navn: Associate Professor Georgios Triantafyllidis
Arbejdssted: Department of Architecture Design and Media Technology
E-mail: gt@create.aau.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Postdoc in Data Analysis and Data Mining in Problem-Based Learning

Godkendt d.
Henrik Pedersen
dekan

Position No.
P21743

At the Technical Faculty of IT and Design, Department of Architecture, Design and Media Technology, Aalborg University Copenhagen a position as Postdoc in Data Analysis and Data Mining in Problem-Based Learning is available for appointment for a 1-year period from January 1 2018 or soon thereafter.
The Department of Architecture, Design and Media Technology has as its goal the development of an innovative cluster of engineering-based environments for education and research which integrate creativity, engineering and technology within the disciplines of architecture, urban design, industrial design, digital design and interactive media. The department is a leading research and educational environment in Denmark that addresses the challenge of the interplay between creativity and technology, and develops new areas in research and education directed towards the end-user.

Job description
The Postdoc position is part of a larger Erasmus+ research project on the use of Learning Semantics (LS) and Learning Analytics (LA) in the Problem-Based Learning (PBL) pedagogy (http://pbl3-project.eu/). This project aims to integrate LA in PBL to capitalize on their respective strengths and overcome their drawbacks. In addition, the semantic annotation of resources can enhance this new paradigm by enabling personalized learning.

The project consortium combines multidisciplinary competences and resources from the academia, industry and research community and it consists of five (5) partners from five (5) EU countries (Greece, Denmark, The Netherlands, Spain, Austria). As a successful candidate, you should therefore expect to be part of and cooperate with this consortium. This Postdoc position will focus on the data processing and analysis part for the LA part of the project and data representation for the LS part.

The Postdoc position is a combination of research and teaching. Research areas will be within data analysis, data fusion and mining, and machine learning. Participation in other relevant research projects currently running at the department is also expected. Teaching will be primarily focus on supervising relevant student projects and contributing to relevant courses. For the full study program please follow this link: http://www.sict.aau.dk/Til+Studerende+og+ansatte/Studieordninger/Medieteknologi/

You may obtain further information about the position from Assistant Professor Evangelia Triantafyllou, phone (+45) 9940 2082 or e-mail evt@create.aau.dk

Qualification requirements:
Appointment as Postdoc presupposes scientific qualifications at PhD-level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as a Postdoc cannot exceed a period of four years in total at Aalborg University.

The application must contain the following:

- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position are stated.
- A current curriculum vitae.
- Copies of relevant diplomas (Master of Science and PhD). On request you could be asked for an official English translation.
- Scientific qualifications. A complete list of publications must be attached with an indication of the works the applicant wishes to be considered. You may attach up to 5 publications.
- Dissemination qualifications, including participation on committees or boards, participation in organisations and the like.
- Additional qualifications in relation to the position. References/recommendations.
- Personal data.

The applications are only to be submitted online by using the "Apply online" button below.

An assessment committee will assess all candidates.

For further information concerning the application procedure please contact Anne Christoffersen by mail ach@adm.aau.dk or phone (+45) 9940 9680.

Information regarding guidelines, ministerial circular in force and procedures can be seen here.

Workplace
Copenhagen

Agreement
Employment is in accordance with the Ministerial Order on the Appointment of Academic Staff at Universities (the Appointment Order) and the Ministry of Finance's current Job Structure for Academic Staff at Universities. Employment and salary are in accordance with the collective agreement for state-employed academics.

Deadline
08/11/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

top

Fortegnelse over bedømmelsesudvalg til
stilling P21744 Postdoc in Airport City Futures ved Department of Architecture Design and Media Technology

Navn: Associate Professor Claus Lassen
Arbejdssted: Department of Architecture Design and Media Technology
E-mail: clla@create.aau.dk

Navn: Associate Professor Shelley Smith
Arbejdssted: Department of Architecture Design and Media Technology
E-mail: ssmi@create.aau.dk

Akademisk Råd har taget stilling til, at medlemmer af bedømmelsesudvalget er sagkyndige inden for stillingsområdet på et niveau, der mindst svarer til det, der forudsættes for stillingen, dog ikke under lektorniveau.

Postdoc in Airport City Futures

Godkendt d. ____
Henrik Pedersen
dekan

Position No.
P21744

At the Technical Faculty of IT and Design, Department of Architecture, Design and Mediea Techology a position as Postdoc in Airport City Futures is open for appointment from April 1st, 2018 or soon hereafter and for a period of one year.

The Department of Architecture, Design and Media Technology has as its goal the development of an innovative cluster of engineering-based environments for education and research which integrate creativity, engineering and technology within the disciplines of architecture, urban design, industrial design, digital design and interactive media. The department is a leading research and educational environment in Denmark that addresses the challenge of the interplay between creativity and technology, and develops new areas in research and education directed towards the end-user.

Job description

Applicant profile

The candidate for this position must have a relevant background in Urban Design as well as have proven good theoretical and analytical research skills within the 'mobility turn' in social research. Competencies within field studies, eye tracking, visual mapping as well as qualitative interviews will be preferred. Moreover, it will also be an advantage if the applicant can document experience with coordination of research projects.

Job description

The position will be associated with the research project: Airport City Futures (AirCiF). The project explores how Copenhagen Airport can be maintained and develop as an international aeromobilities hub, thereby securing and developing Denmark's international accessibility. This is done through an inquiry that will analyse management, planning and design factors of aeromobilities, and combine this with analyses of the user perspective, how aeromobilities are experienced by the passengers. It is expected that the candidate within the AirCiF-project has the right research profile to support the different work packages.

Limited teaching within the area can be expected, but also in other study programmes at the University.

You may obtain further professional information from Associate Professor Claus Lassen, tel. +45 9940 7207 or mail clla@create.aau.dk

Qualification requirements:

Appointment as Postdoc presupposes scientific qualifications at PhD–level or similar scientific qualifications. The research potential of each applicant will be emphasized in the overall assessment. Appointment as a Postdoc cannot exceed a period of four years in total at Aalborg University.

The application must contain the following:

- A motivated text wherein the reasons for applying, qualifications in relation to the position, and intentions and visions for the position are stated.
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Workplace
Aalborg

Agreement
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Deadline
10/11/2017

Apply online

Aalborg University (AAU) conducts teaching and research to the highest level in the fields of humanities, engineering, and natural, health, and social sciences.

top

Anledning / mødeforum og dato:	TECH akademisk råds møde 20175, den 25 oktober 2017

AALBORG UNIVERSITET

Fakultetskontoret for ENGINEERING, SUND og TECH

Dokument dato: 12-09-2017
Dokumentansvarlig:
Senest revideret:
Senest revideret af:
Sagsnr.:

Sagsfremstilling

Overskrift og varighed:	Digitalisering af godkendelsesprocessen af bl.a. bedømmelsesudvalg og tildeling af ph.d.-grader på TECH Akademiske Råd. 5 min
Sagsbehandler:	Anne Christoffersen – HR Servicecenter EST
Sagsfremstilling:	<u>Opdrag:</u> Ønske om mulighed for digitalisering/skriftlig godkendelsesproces i forbindelse med godkendelse af bedømmelsesudvalg og tildeling af ph.d.-grader ved Akademisk Råds møderne. <u>Nuværende godkendelsesproces er opdelt som følgende:</u>

Ordinære møder	Bedømmelsesudvalg (VIP stillinger)	Ph.d.-grader	Doktor-grader	Bedømmel-sesudvalg (Adj. prof/lektor)
Skriftlig høring	Bedømmelsesudvalg (VIP stillinger)			
Sommerprocedure (august)	Bedømmelsesudvalg (VIP stillinger)	Ph.d.-grader		

Ved de ordinære møder er bedømmelsesudvalg og tildeling af ph.d.-grader m.fl. ofte på som første punkter og gennemgås i plenum.

<u>Mulighed for fremtidig digital godkendelsesproces ved de *ordinære møder*:</u>
I forbindelse med tidligere politik om ”god videnskabelig praksis” er nedenstående afklaret:

Godkendelse af bedømmelsesudvalg til videnskabelige stillinger kan godkendes ved skriftlige høringer. Bedømmelsesudvalget er godkendt, hvis flertallet (8 stemmeberettigede) af Akademisk Råds medlemmer kommer med en aktiv positiv tilkendegivelse.

Ph.d.-grader kan tildeles via skriftlige høringer eksempelvis i forbindelse med sommerprocedure. Tildelingen kan ske, hvis flertallet (8 stemmeberettigede) af Akademisk Råds medlemmer kommer med en aktiv positiv tilkendegivelse.

	Alle godkendelsesprocesser omkring en doktorafhandling ***skal*** behandles ved et ordinært møde. Desuden har bedømmelsesudvalg i forbindelse med tildeling af titlerne adjungeret professor/lektor også altid været behandlet på de ordinære møder.
Indstilling:	Der er godt ræsonnement i at optimere den proces og allerede få medlemmernes stillingtagen til "godkendelsessager" inden de ordinære møder. Der indstilles til, at følgende godkendes digitalt inden møderne: • Bedømmelsesudvalg til videnskabelige stillinger • Ph.d.-grader • Bedømmelsesudvalg ved tildeling af titlen adjungeret professor/lektor. (*Samt at de også kan godkendes via skriftlig høring og sommerprocedure*) Der indstilles, at sagerne fremgår af dagsorden, så de kan behandles ved tvivlsspørgsmål samt evt. opståede tvivlsspørgsmål ved de skriftlige høringer/sommerprocedurer. Samt at doodlen journaliseres med referatet, så man altid kan gå ind og dokumentere godkendelse af sagerne. Behandling af doktorafhandlinger og tildeling af doktorgrader bør foregå på møderne. Processen for de skriftlige høringer bør følges, så der med dagsorden til møderne udsendes en Doodle, hvor medlemmerne melder deres indstilling ind; "godkendt", "ikke godkendt" og "til diskussion". Hver enkel ph.d.-grad skal godkendes, mens bedømmelsesudvalg godt kan stå som et samlet punkt. Medlemmerne modtager materialet med udsendelse af dagsorden en uge før mødet, hvilket vil være samme forberedelse som d.d. (Deadline kunne evt. være kl. 9 på dato for mødet)
Bilag:	

Mødeforum og dato:	TECH akademisk råds møde 20175, den 25 oktober 2017

AALBORG UNIVERSITET

Fakultetskontoret for ENGINEERING, SUND og TECH

Dokument dato: 09-10-2017

Dokumentansvarlig: MFG

Sagsnr.:

Sagsfremstilling til møder

Overskrift og varighed:	Kommunikation fra Akademisk Råd 10 min
Sagsbehandler:	Mark Gammeljord
Sagsfremstilling:	Den 12. september 20017 offentliggjorde Forsker Forum artiklen ”AAU-vedtægter: Protester mod rektors og direktørens firmatisering”. I artiklen er TECH akademisk råd citeret på følgende måde: *”Medarbejdernes ret til indspil ”udvandes”, lyder analysen fra Akademisk Råd/Teknik”.* Senere i artiklen er TECH Akademisk Råd endvidere citeret for følgende: *”Det antyder manglende respekt for rådets arbejde, udtaler Akademisk Råd/Teknik”.* Den fulde artikel kan læses her Det fremgår bl.a. af referatet fra Akademisk Råds Møde d. 6. september, hvor forslagene til ændring af AAU vedtægterne blev behandlet, at *”Flere medlemmer af rådet udtalte, at når der ses på det fremlagte ændringsforslag som helhed giver det indtryk af, at magten på universitetet centreres hos rektor”* Det fremgår ikke eksplicit af referatet at medarbejderens ret til indspil udvandes, ej heller at vedtægtsændringerne er udtryk for manglende respekt for rådets arbejde.
Indstilling:	Det indstilles, at Akademisk Råd beslutter, hvordan rådet ønsker den fremtidige kommunikation fra Akademisk Råd til omverdenen.
Bilag:	Vedlagt er artikel i Forskerforum
Beslutning:	

Vedtægtsændringer er loyalitetstest

Får uni'erne vedtægter, der indirekte vil føre til udpegning af minister-loyale bestyrelsesformænd?

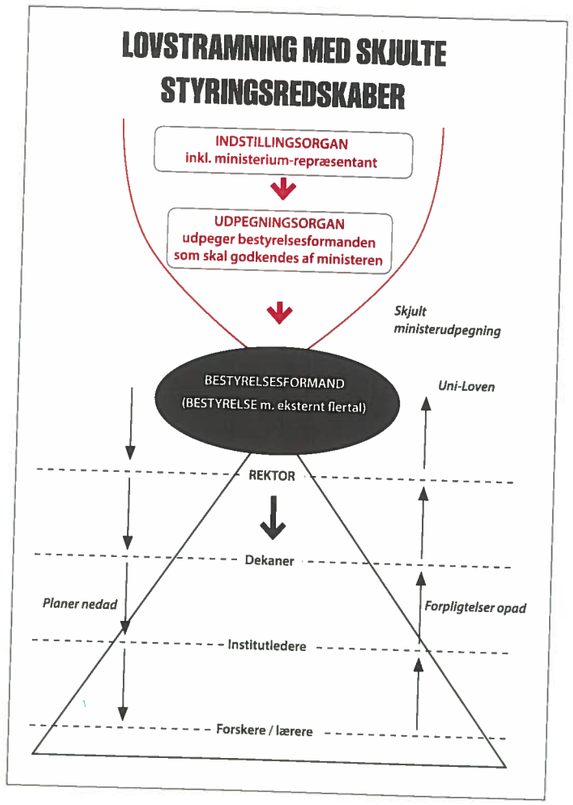
De kommende vedtægter er interessante, fordi de kan give en indikation på, om de nuværende bestyrelser er mere solidariske med deres uni end med uni-ministeren/ministeriet.

Uni'erne skal have justeret deres vedtægter inden 30. juni næste år. Inden da skal man nemlig have tilpasset sine vedtægter med nye udpegningsmekanismer til bestyrelsen, så de stemmer overens med ændringen af Uni-Loven under overskriften "Bedre rammer for ledelse". Uni-ledelserne er pålagt at indføre nye procedurer for udpegnings- og indstillingsorganer for bestyrelsesmedlemmer og ikke mindst bestyrelsesformænd. Bestyrelsesformanden skal have mere magt og have tættere relationer og forpligtelser overfor ministeriet og minister.

Netop nu foregår der et politisk spil om disse nye vedtægter på de enkelte uni'er. Men der er valgt forskellige procedurer:

I Aalborg har rektoratet valgt at lave en demokratisk høring nedefra af et forslag, som imidlertid ikke er modtaget venligt ved høring hos de ansatte i de rådgivende organer.

På **KU og AU** har rektoratet valgt at starte processen ovenfra i bestyrelserne. 1. udkast er til debat i bestyrelserne. Men det er "interne dokumenter", som FORSKERforum ikke kan få aktindsigt i. Først senere bliver disse sendt i høring nedad.



Lovændring med politiseret procedure

Formelt var begrundelsen for lovændringen for nye procedurer for udpegning af bestyrelsesformænd, at "samfundet" skal have større indflydelse på, hvem der udpeges. I første omgang gik dept.chef Agnete Gersing og minister Søren Pind efter at få en model med direkte ministerindflydelse på udpegningerne. Men efter store protester må man nu nøjes med en model med indirekte ministerudpegning.

Der er kommet en mere labyrintisk og politiseret procedure: Der skal nedsættes et udpegnings- og et indstillingsorgan på hvert uni' – og det skal fremgå af vedtægten. Det åbne spørgsmål er så, hvordan og om de nye vedtægter lægger op til indirekte ministerudpegning. Det afhænger i høj grad af de nuværende bestyrelsesformænds holdning. Vil AAU's bestyrelsesformand Lene Espersen fx acceptere en udpegningsmekanik, som indirekte vil føre til, at der udpeges minister-loyale bestyrelsesmedlemmer samt ikke mindst, hvem der skal være formand?

Vedtægt til udpegning af minister-loyale

Lovændringen indebærer en model, som kan opfylde dept.chefens og ministerens hensigt om at få magtfulde bestyrelsesformænd, der kan fungere som ministerens forlængede arm, vurderer **Peter Plenge**, som er eks-direktør på både KU (1991-98) og AAU. Som sådan har han indgående kendskab til formelle og uformelle elementer i uni-styring og til, hvordan love og styring udefra påvirker den daglige drift.

"Lovændringen åbner – worst-case – for, at ministeren får sat sin loyale bestyrelsesformand ind, eller at bestyrelsen frivilligt gør det ud fra en taktisk overvejelse. Ministeren har dermed fået 'en brobygger', og ministeren og Finansministeriet kan disciplinere universitetet til at rette ind efter diktater – og ikke efter hvad der er universitetets interesser og bedste faglige overbevisning" (**FORSKERforum 304: Lovstramning med skjulte styringsredskaber**).

Ifølge Plenges analyse er det således slet ikke uvigtigt, hvordan udpegningsmekanismen bliver (i vedtægten). Og det kan igen afhænge af den nuværende bestyrelsesformands relation til ministeren. Og her er det måske ikke uinteressant, at der her findes to eks-politikere: på AU Connie Hedegaard og på Aalborg Lene Espersen.

Forslag til AAU-vedtægt møder protester

Rektor og direktør beskyldes for at ville firmatisere AAU's ledelse

Styringskæde fra ministerium til bestyrelsesformand

Plenge påpeger også, at der ligger et nyt styringselement i et styrket tophierarki: "Bestyrelsesformanden tillægges mere magt på bekostning af rektoratet. Ministeriet forestiller sig groft sagt, at man kan styre via bestyrelsesformanden. Der tales jo klart om dialog mellem minister og bestyrelsesformand ved to obligatoriske, årlige 'hyrdemøder'. Her kan ministeren diktere sine og Finansministeriets politiske retningslinjer, som formanden så loyalt skal implementere nedad til rektor".

Indbygget i det nye styringshierarki ligger også, at forhandlingskanaler bliver lukkede kredsløb i toppen uden informationsforpligtelser eller inddragelse nedad:

"Styringstankegangen er jo påfaldende i lovforslaget, for rektoratet skal udtrykkeligt ikke deltage i disse møder, undtaget "efter behov" – og det er jo noget som ministeriet bestemmer. Det giver jo ministeren/ministeriet vide rammer for at diktere uden at blive modsagt af fagfolk, som har kendskabet til den daglige drift og det faglige. Det har bestyrelsesformænd jo ikke; de er eksterne."

Endelig ligger der også i lovændringen, at de nuværende udviklingskontrakter (med mere overordnede mål) erstattes af resultatkontrakter, hvis konkrete styringsmål kan defineres efter ministerens/ministeriets vurdering. Og heri kan der ligge et stærkt styringsredskab, ikke mindst hvis det er en ministerloyal bestyrelsesformand, der ovenfra kan implementere målstyringen.

FORSKERforum følger op på vedtægtsforhandlingerne, når der offentliggøres udkast på KU og AU.

jø

Folketinget har besluttet, at der skal være "Bedre rammer for ledelse", og i praksis betyder det, at udpegningsmekanismen skal justeres i uni'ernes vedtægter.

På AAU har rektoratet – rektor og direktøren – benyttet lejligheden til at prøve at smugle mere magt og styring ind til sig selv. Det fremgår af deres forslag til reviderede vedtægter (30.8 2017). Men det bringer sindene i kog hos de menige i Aalborg. Reformen vil nemlig øge topstyringen samt formindske de kollegiale, rådgivende organer samt deres indflydelse, lyder de første protester, som helt basalt efterlyser rektoratets begrundelser for reformen.

Mere magt til rektor og direktør

Rektor Per Michael Johansen vil få mere magt (§28-35). Han får eneret til at indstille til bestyrelsen om ansættelse af prorektor og uni-direktør. Han skal fastsætte regler for medarbejdervalgene til de styrende organer. Rektor skal agere som filter mellem organisation og bestyrelsen, idet han får eneretten til at orientere bestyrelsen om "sager af usædvanlig art eller stor betydning for universitetet" (§29).

Direktør Antonino Castrone vil få flere beføjelser (§39-41). Han skal repræsentere AAU udadtil i administrative spørgsmål (hvor rektor i dag fordeler efter delegations-ret). Direktøren skal agere stedfortræder for rektor (selv om han ikke er forskningskyndig). Direktøren skal fastsætte diverse regler (som kan have faglig betydning for forskning og undervisning).

Mindre medarbejder-indflydelse

Medarbejdernes ret til indspil "udvandes", lyder analysen fra Akademisk Råd/Teknik. Som når forslaget fx understreger, at Akademisk Råd blot er rådgivende i strategiske og budgetmæssige sager, som rettelig angives at være "en ledelsesopgave" (§73).

Nogle læser reformforslaget som ført af direktørens teknokratiske hånd; han har en fortid i AP Møller-Mærsk, og den

AAUs rektorat foreslår at AAUs direktør Antonino Castrone får flere beføjelser…

organisation er kendt for sin topstyring.

"Hvorfor disse vedtægtsændringer? Vi levnes næppe anden mulighed end at tolke forslaget som stærke tendenser til centralisering af magt og beslutningsprocesser og dermed en forringelse af medarbejdernes indflydelse i de kollegiale organer", lyder analysen fra **organisationsekspert Janne Seemann** (Akademisk Råd/Samf.). Hun kalder forslaget dybt problematisk for en vidensorganisation, idet vidensarbejderne – kernearbejderne på et uni – ikke vil være integreret i organisationens strategiske kerne, når vurderinger og prioriteringer er placeret i et suverænt ledelseslag.

Manglende respekt for Akademisk Råd

Et eksempel på centraliseringen er, at antallet af medlemmer i Akademisk Råd skal indskrænkes til 10 medlemmer og i institutråd til fem. Ledelsens begrundelse for dette er, at det sker *"med henblik på at mindske medarbejdernes administrative belastning"* (§74).

Det antyder manglende respekt for rådets arbejde, udtaler **Akademisk Råd/Teknik**. Og den "mindskede belastning" er en grotesk argumentation i en vidensorganisation, påpeger Janne Seemann: *"Det vil svække dynamikken i rådet og det fagligt konstruktive med- og modspil til institutlederen, som er en helt nødvendig forudsætning for et videnskabeligt institut. Et institutråd med en halvering af medarbejder-repræsentation er en farlig vej at bevæge sig på"*.

Mødeforum og dato:	TECH akademisk råds møde 20175, den 25 oktober 2017

AALBORG UNIVERSITET

Fakultetskontoret for ENGINEERING, SUND og TECH

Dokument dato: 16-10-17

Dokumentansvarlig: MFG

Sagsnr.:

Sagsfremstilling til møder

Overskrift og varighed:	Ny sammensætning af bedømmelsesudvalg for adjunktstillinger 5 min
Sagsbehandler:	Mark Gammeljord
Sagsfremstilling:	Den nuværende praksis for nedsættelse af bedømmelsesudvalg for adjunktstillinger på TECH er, at bedømmelsesudvalget består af i alt 2 personer – 1 intern bedømmer (formand) og 1 ekstern bedømmer. Bedømmerne skal være på mindst lektorniveau. Dekanen ønsker bedømmelsesudvalget udvidet til i alt 3 bedømmere – 1 intern bedømmer og 2 eksterne bedømmere. Bedømmerne skal fortsat være på mindst lektorniveau.
Indstilling:	Det indstilles, at Akademisk Råd godkender, at bedømmelsesudvalg for adjunktstillinger skal bestå af 3 bedømmere – hvoraf 2 er eksterne og 1 er intern.
Bilag:	
Beslutning:	

Mødeforum og dato:	TECH akademisk råds møde 20175, den 25 oktober 2017

AALBORG UNIVERSITET

Fakultetskontoret for ENGINEERING, SUND og TECH

Dokument dato: 13-10-2017

Dokumentansvarlig: Mark Gammeljord

Sagsnr.:

Sagsfremstilling til møder

Overskrift og varighed:	Akademisk Råd som en aktiv sparringspartner 30 min
Sagsbehandler:	Mark Gammeljord
Sagsfremstilling:	På Akademisk Råds møde d. 06-09-2017 fremkom der ønske om at debattere Akademisk Råds rolle som aktiv sparringspartner. Til punktet vil professor Thomas Bak give et kort oplæg om, hvordan han ser Akademisk Råds rolle som aktiv sparringspartner. Herefter vil dekanen give et oplæg om, hvorledes han tidligere har brugt Akademisk Råd, samt hvordan han ønsker at bruge Akademisk Råd fremadrettet. Slutteligt er der mulighed for en drøftelse, hvor hvert medlem har mulighed for at komme med input. Inden mødet bedes hvert medlem af Akademisk Råd overveje følgende: • Hvordan kan Akademisk Råd være en aktiv sparringspartner for dekanen? • Hvordan kan Akademisk Råd medvirke til en positiv udvikling for TECH fakultetet? • Hvordan kan det enkelte medlem bidrage til ovenstående?
Indstilling:	Det indstilles, at Akademisk Råd drøfter, hvordan rådet ønsker at være en aktiv sparringspartner for dekanen
Bilag:	
Beslutning:	

AR TECH & ENG	26. oktober 2016

AALBORG UNIVERSITET

Fakultetskontoret for
Det Teknisk-Naturvidenskabelig Fakultet
og Det Sundhedsvidenskabelige Fakultet

Dokument dato: 25. oktober 2016

Dokumentansvarlig: THD

Sagsnr.:

Sagsfremstilling til møder

Overskrift og varighed:	Resultatbudget 2018 TECH 10 min.
Sagsbehandler:	Troels Hedegaard Dissing (THD) + Morten Brunebjerg Kjeldsen (MOBK) (Begge ØC)
Sagsfremstilling:	Til mødet præsenteres fakultets forventede resultatmål, samt nøgletal for fakultetets resultatbudget i hovedtal. Resultatmål og investeringsbudget lever op til Rektors udmelding til dekanen. Bemærk: Økonomicentret er stadig i en proces med den endelige kvalitetssikring af enhedernes budgetter, så der kan forekomme mindre ændringer posterne imellem inden budgettet endeligt godkendes af Rektor, men resultatet forventes overholdt.
Indstilling:	Det indstilles, at Akademisk Råd tager fakultetets forventede resultatetmål til efterretning og godkender resultatbudgettet.
Bilag:	Powerpoints vedr. TECH budget 2018 vedlagt
Beslutning:	

TECH BUDGET 2018
AKADEMISK RÅD 25. OKTOBER 2017

DEKAN
HENRIK PEDERSEN

TECH 2018 I TAL – HELT OVERORDNET

- **TECH UDSPIL: + 10 mio. kr.**
- **RESULTATMÅL FRA REKTOR: + 24 mio. kr.**
- Implementeringspuljen 43 mio. kr. (2017: 42,1 mio. kr.)

- For at kunne præsentere et tilfredsstillende 2018 resultat for bestyrelsen, har rektor reguleret resultatmålet på alle fakulteter.
- I forhold til institutterne er den i foråret udarbejdede model ikke anvendt. Der er i stedet lavet en forholdsberegning ud fra budget 2017.
- Dekanen ønsker ikke at enkelte områder rammes særligt hårdt
- **Alle venter på Rektors nye budgetmodel for 2019**

AALBORG UNIVERSITET

TECH 2018 I TAL – INSTITUTTERNE

ALLE INSTITUTTER sigter mod et resultat på 0 (nul)

Ændringer i forhold til 2017:

- Flytning af studieleder og administration til fakultetet
- Finansiering af Forskerskolen flyttet til fakultetet
- AAU strategi og større strategiske indsatser finansieres af fakultetet

Påvirkning:

- Usikkerhed omkring STÅ prognose – kan føre til mindre indtægt end beregnet
- Store projekter, hvor det er nødvendigt, at vi ”spiller med” kan føre til færre midler på andre områder

AALBORG UNIVERSITET

Anledning / mødeforum og dato:	Akademisk Råd TECH 25. oktober 2017

AALBORG UNIVERSITET

Fakultetskontoret for
ENGINEERING, SUND og TECH

Dokument dato: 18. oktober 2017
Dokumentansvarlig: RPO
Senest revideret:
Senest revideret af:
Sagsnr.:

Sagsfremstilling

Overskrift og varighed:	Fokuspunkter 2018 20 minutter
Sagsbehandler:	Rikke Poulsen
Sagsfremstilling:	I lighed med tidligere år skal fakultetet som en del af universitetets budgetmateriale udarbejde et afsnit om fakultetets fokuspunkter for 2018. Grundet dekanskiftet har der i år ikke været tid til at gennemføre en større proces med længerevarende involvering. Formanden for Akademisk Råd og en repræsentant for de studerende er sammen med ledergruppen anmodet om input med en kort frist (4 arbejdsdage). På den baggrund er der udarbejdet et udkast til fokuspunkter for TECH i 2018 (præsenteres på mødet). AR's medlemmer bedes komme med jeres umiddelbare bemærkninger til punkterne. Fokuspunkterne præsenteres til ledergruppen den 24. oktober og til Akademisk Råd den 25. oktober, inden dekanen skal aflevere de endelige fokuspunkter den 31. oktober. Udarbejdelsen af fokuspunkter for 2017 skete i en tid med delingen af TEKNAT og i år er det sammenfaldende med dekanskiftet, processen har derfor ikke været hensigtsmæssig med henblik på at sikre transparens og relevant involvering, ligesom der ikke har været tilstrækkelig kommunikation omkring opfølgningerne. Det anbefales derfor, at der fremadrettet arbejdes mere målrettet med fokuspunkterne, jf. vedlagte procesplan, med henblik på, at der skabes større synergi mellem strategi og fokuspunkter samt en større bevidsthed omkring opfølgningerne.
Indstilling:	Der indstilles, at Akademisk Råd - Kommer med bemærkninger til de fremlagte fokuspunkter. - Tager den vedlagte procesplan for arbejdet med fokuspunkter fremad-

	rettet til efterretning.
Bilag:	Procesplan for det fremadrettede arbejde med fokuspunkter.

AALBORG UNIVERSITET

Fakultetskontoret for ENGINEERING, SUND og TECH

Dokument dato: 10. oktober 2017

Dokumentansvarlig: RPO

Senest revideret:

Senest revideret af:

Sagsnr.:

Udarbejdelse og opfølgning på fokuspunkter i budget XX

De senere år har de forskellige hovedområder som en del af universitetets budgetmateriale for det pågældende år skulle udarbejde et tekstafsnit kaldet *Fokuspunkter*, hvoraf det fremgår, hvilke særlige fokuspunkter det enkelte hovedområde har besluttet at prioritere i budgetåret. Tekstafsnittet og de konkrete fokuspunkter indgår herefter i universitetets samlede budget. I forbindelse med udarbejdelsen er dekansekretariatet ansvarlig for løbende inddragelse af relevante fagområder.

I løbet af budgetåret skal der følges op på fokuspunkterne ved tre periodeopfølgninger i henholdsvis maj, september og januar. I forbindelse med udarbejdelsen af fokuspunkterne angives det, ved hvilke perioder der sker opfølgning på de enkelte fokuspunkter. Dog skal der ske opfølgning på samtlige fokuspunkter ved den endelige periodeopfølgning i januar. Opfølgningen indgår endvidere som en del af universitetets årsrapport. Det er dekansekretariatet, der udfærdiger opfølgningerne i samarbejde med fakultets økonomiafdeling, der står for at indhente det relevante data fra de relevante fagområder.

Udarbejdelsen af fokuspunkter for 2017 skete i en tid med delingen af TEKNAT og i år er det sammenfaldende med dekanskiftet, processen har derfor ikke været hensigtsmæssig med henblik på at sikre transparens og relevant involvering, ligesom der ikke har været tilstrækkelig kommunikation omkring opfølgningerne.

Det anbefales derfor, at der fremadrettet arbejdes mere målrettet med fokuspunkterne med henblik på, at der skabes større synergi mellem strategi og fokuspunkter samt en større bevidsthed omkring opfølgningerne.

Tidsplan	Udarbejdelse af fokuspunkter	Opfølgning	Ansvarlige	Fagområdernes inddragelse
Januar		3. (endelig) periodeopfølgning Orientering om opfølgning til - Ledergruppen - Akademisk Råd - FSU - Områdeledere fak. kontor	Dekansekretariat og økonomi	Relevante fagområder inddrages i opfølgningen med henblik på levering af data (evt. ultimo december)
Februar	Dekansekretariatet udarbejder procesplan for året med kendte mødedatoer til dekanatets godkendelse. Efter godkendelse: Orientering til - Ledergruppen - Akademisk Råd - Områdeledere fak. kontor		Dekansekretariat	
Marts	Dekanatet udarbejder de overordnede rammer for fokuspunkterne. Orientering til - Ledergruppen - Akademisk Råd - Områdeledere fak. kontor		Dekansekretariat	

April	Ledergruppen involveres med henblik på forslag til fokuspunkter. Akademisk Råd involveres som rådgivende organ med henblik på forslag til fokuspunkter.		Dekansekretariat	Relevante fagområder involveres i kvalitetssikring af forslagene.
Maj	Ledergruppen behandler indkomne forslag og det foreløbige arbejde med fokuspunkterne på lederseminaret.	1. periodeopfølgning Orientering om opfølgningen til - Ledergruppen - Akademisk Råd - Områdeledere fak. kontor	Dekansekretariat og økonomi (fsva opfølgning)	Relevante fagområder inddrages i opfølgningen med henblik på levering af data (evt. ultimo april).
Juni	Dekansekretariatet udarbejder en sammenskrivning som oplæg til dekanatet.		Dekansekretariat	Relevante fagområder involveres i kvalitetssikring af forslagene.
Juli				
August	Dekanatet træffer beslutning om udkast til 2. behandling.		Dekansekretariat	
September	Ledergruppen involveres med henblik på udvælgelse og kvalificering af fokuspunkter. Akademisk Råd involveres som rådgivende organ med henblik på udvælgelse og kvalificering	2. periodeopfølgning Orientering om opfølgningen til - Ledergruppen - Akademisk Råd - Områdeledere fak.	Dekansekretariat og økonomi (fsva opfølgning)	Relevante fagområder inddrages i opfølgningen med henblik på levering af data (evt. ultimo august) Relevante fagområder involveres i kvalitetssikring af forsla-

	af fokuspunkter.	kontor		gene.
Oktober	”Buffer-tid” Endelig godkendelse fra deka-nat		Dekansekretariat	
November	Primo nov: Deadline Orientering om de endelige fokuspunkter til - Ledergruppen - Akademisk Råd - FSU - Områdeledere fak. kon-tor		Dekansekretariat og økonomi	
December				