Improving the Interface between Academia, Business and Society

by Erkki Ormala

Professor of Practice, Innovation Management
Aalto University, Business School
• Industrial Innovation in Transition
• Innovation calls for people
• Aalto University experience
• Bit Bang
Innovation networks enable new ways of knowledge creation and utilization with orchestration capability.

From traditional large enterprise to extended enterprise.
Democratising Innovation/Crowdsourcing

Source: Modified from Schenk and Guittard, 2009
Knowledge sharing
Company view
Engaging the World’s Leading Institutions

• Access and drive global intellectual vision and insight
• Form strategic collaborations with world-leading institutions to multiply efforts
• Build global test beds to learn from broader audiences
• Access to talents and new knowledge
The three basic missions of universities

Research

University

Knowledge sharing

Education
Knowledge Sharing: Management Principles

- Complementary competence and excellence
- Genuine commitment for knowledge sharing/trust
- Collaboration platforms/joint campus presence
- Mobility of research personnel
- R&D/recruitment/education all involved
- Transparent management and collaboration rules
- Fair rules for IPR ownership and use
- Reformed reward and incentive systems
Innovation Calls for People

- with educated mind set
- with networking skills
- with entrepreneurial mind set
- with problem solving skills
- with global view, cultural understanding
- with tolerance for uncertainty
- who have courage to look beyond their own comfort zone
- who are open for different views
- with open mind and flexibility for the change
- with passion to work
- with language skills

People need to think beyond the routine, and need to have the ability not just to adapt to change, but to help create it
Aalto University
– Where *science* and *art* meet *technology* and *business*

Seppo Laukkanen
Associate Vice President
Research and Innovation Services
Aalto University
The best connect and succeed at Aalto University, an institution internationally recognised for the impact of its science, art, and learning.

A world-class university by 2020

<table>
<thead>
<tr>
<th>International mission</th>
<th>Contributions to a better world</th>
</tr>
</thead>
<tbody>
<tr>
<td>National mission</td>
<td>Competitiveness and welfare of Finland</td>
</tr>
</tbody>
</table>

Core strategy

- Research excellence
  - Original, impactful, interdisciplinary
- Trend-setting art
  - Art, architecture and design as key drivers for innovation
- Pioneering education
  - Students in focus, a new learning culture and approaches
- Societal impact
  - Multidisciplinary innovation, new business, entrepreneurship

Strategic enablers

- Leadership | Internationalisation | Services | Infrastructure

Culture built on common values

- Passion | Freedom | Courage | Responsibility | Integrity

Schools

- School of Arts, Design and Architecture | School of Business
- School of Chemical Technology | School of Electrical Engineering
- School of Engineering | School of Science
Research excellence
Focus and relevance by building on strengths

Based on extensive international research evaluation (RAE), 2009

4 National Centres of Excellence in Research
5 ERC Advanced Grants
12 ERC Starting Grants
7 Academy of Finland professors and over 35 research fellows.
Aalto is participating both of the 1 billion euro EU FET flagship projects (Human Brain and Graphene).
# Aalto Key Areas of Research

<table>
<thead>
<tr>
<th>Field</th>
<th>Approximate funding 2014*</th>
<th>Appointed professors</th>
<th>Indicative contributions of the Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ARTS</td>
</tr>
<tr>
<td>ICT &amp; digitalization</td>
<td>65M€ (50M€)</td>
<td>98</td>
<td>+</td>
</tr>
<tr>
<td>Materials &amp; sustainable use of natural resources</td>
<td>45M€ (30M€)</td>
<td>61</td>
<td>+</td>
</tr>
<tr>
<td>Art &amp; design knowledge building</td>
<td>20M€ (&lt;5M€)</td>
<td>28</td>
<td>+++</td>
</tr>
<tr>
<td>Global business dynamics</td>
<td>40 M€ (15M€)</td>
<td>85</td>
<td>+++</td>
</tr>
<tr>
<td>Advanced energy solutions</td>
<td>15M€ (10M€)</td>
<td>20</td>
<td>+</td>
</tr>
<tr>
<td>Human-centered living environments</td>
<td>20 M€ (&gt;5M€)</td>
<td>25</td>
<td>++</td>
</tr>
<tr>
<td>Health and well-being</td>
<td>10 M€ (5M€)</td>
<td>14</td>
<td>+</td>
</tr>
<tr>
<td>Complementary research areas</td>
<td>35M€ (&gt;10M€)</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>~250 M€ (~130M€)</td>
<td>386</td>
<td></td>
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</tbody>
</table>
Entrepreneurship ecosystem

Aalto Start-up Center
80 companies in incubation/ 32 high growth

Corporate partners
Complementary Parties
Coaches

EIT ICT Labs EIT Nodes & partners in Europe

AppCampus
3500+ submissions reviewed in 24 mths
300 Investment decisions made
100 Applications launched
Approaching 10 million downloads

Startup Sauna
20-40 companies in acceleration / year
20 million Euros raised
30 students trained with internships
SLUSH
Established as the leading Start-Up event in Europe

PYK (Small Business Center)
Training for entrepreneurs

Aalto Center for Entrepreneurship
Around 200 innovation proposals/year
-> 10-15 companies
->15-20 patent applications

Aalto Ventures Program
Problem based learning program to foster entrepreneurial mindset and skills
Co-operation with Stanford

AaltoES
9000 community members
100 activists
Annually 8000 participates events

Research & Education

Aalto University
Otaniemi Campus

Aalto University

Programs
Platforms
Factories and accelerators
Labs and Hubs

Society and business life
Partners, startups
Student and faculty entrepreneurship
Research, Art Learning
Spaces

People
Bit Bang: Aalto University postgraduate course

- The course aims to teach doctoral candidates essential skills such as teamwork, multidisciplinary collaboration and scenario building, as well as providing participants with a global, future-centric perspective on industry and business.
- Teams to write two scientific papers on topics outside their comfort zone
- Participants from all Aalto Schools
- High level external speakers
- One week tour in one of the leading innovation hubs of the world
- Bit Bang 6 2013-2014: ‘Future of Media’
BIT BANG 6 – the Future of Media

- Media industry is going through the biggest revolution since the invention of printing
- The whole media industry around the world is trying to adapt into the new realities of revolutionary technologies and looking for new business opportunities
- Bit Bang 6 will explore how the media players can find sustainable solutions to problems that currently threaten their future prosperity

Issues:
- What excites people in the future
- What are the new technologies for content creation, content aggregation, distribution and consumption
- How the on-line distribution environment will change the advertisement business and the management of copyright
- Is piracy an inevitable future or can we find new ways to compensate
- What is the role social media
- etc ...
The Future of Media Seminar
-predicting the unpredictable-
Aalto Bit Bang 6 in collaboration with Futurice
Wednesday, 21\textsuperscript{st} of May 2014, 14:30-19:00

14:30 Coffee & refreshments
15:00 Welcome
Erkki Ormala (Professor of Practice, Aalto University), Risto Sarvas (Service Design Lead, Futurice)
15:15 Keynote: New Media, New World
Greg Niemeyer (Professor, University of California Berkeley)
16:00 Bit Bang Pecha Kuchas
Junior's day at school in 2025
Transparent Media Driving Spaceship Earth
16:30 Live Paper Against Mediaquake
Valterri Halla (CTO, Leia Media)
17:00 Bit Bang Pecha Kuchas
Wearable Technology in Future Media
Ethical Personalization Act 2025
17:30 Crowdsourcing and Funding in Filmmaking
Timo Vuorensola (Director, Iron Sky & Star Wreck)
18:00 Closing
18:05 Refreshments

Register here by May 14\textsuperscript{th}: http://bit.ly/1gsWZmm
Aalto University School of Business, NOKIA hall, Runeberginkatu 14-16
Thank you