

Markku Löytönen, Ingrid Schwab-Matkovits, Jack Spaapen ja Tapio Varmola

EVALUATION REPORT OF LAUREA UNIVERSITY OF APPLIED SCIENCES 2010



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Esipuhe

Laurea-ammattikorkeakoulun tutkimus-, kehittämis- ja innovaatiotoiminnan (TKI) volyyymi on suomalaisen ammattikorkeakoulukentän suurin. Vuonna 2009 TKI-toiminnan volyyymi oli 11,7 miljoonaa euroa, josta ulkopoolisen rahoituksen osuus 3,1 miljoonaa euroa. Laurea on käyttänyt TEKES-rahoitusta parina viime vuonna ammattikorkeakouluista eniten. Viimeisen vuoden aikana TKI-toiminnan painopiste on siirtynyt entistä enemmän kilpailtuun rahoitukseen, ja myös EU:n puiteohjelmärahoitusta on saatu.

Laurean TKI-toiminnan kärki kohdentuu metropolialueen hyvinvointiosaamisen ja turvallisuusalan kehittämiseen yhdessä maamme johtavien toimijoiden kanssa. Tärkeimmät kansainväliset yhteistyöyliopistot ovat Tohoku Fukushi University (Japani), University of Arizona (USA) ja University of Cambridge (UK).

TKI-toiminta Laureassa kehittää merkittävässä määrin opetustoimintaa, sillä Laurean kehittämispohjaisen oppimisen malli, Learning by Developing - LbD - tuotti vuonna 2010 yhteensä 63604 TKI-toiminnassa tuotettua opintopistettä. Luku on ammattikorkeakoulujen kärkitasoa. Viime vuonna syntyi lisäksi yhteensä 18 opiskelijälähtöistä yritystä. Näin suurta yritysten määrää voidaan pitää jopa kansainvälisessä vertailussa hyvänä saavutuksena.

Tulevaisuudessa Laurean kotimaisessa TKI-toiminnassa painottuvat metropolialueen korkeakouluyhteistyö, erityisesti FUAS-liittouma, ja SHOKKI-ohjelmat. Euroopassa tärkeimmät kumppanit ovat Suomen EU-puheenjohtajakaudella käynnistetty, noin 250 organisaation laajuinen European Network of LivingLabs (ENoLL), jonka temaattisten ryhmien koordinoinnista Laurea vastaa, sekä eurooppalaisten kärkiammattikorkeakoulujen yhteenliittymä UASnet. Laurean käynnistämä Active Innovation Net tuo maailman nopeimmin vanhenevien maiden (Japani, Korea, Taiwan) kärkikorkeakoulujen hyvinvointiosaamisen Laurean henkilöstön ja opiskelijoiden ulottuville.

Vantaalla maaliskuussa 2011

Pentti Rauhala
rehtori
Laurea-ammattikorkeakoulu

Foreword

In 2015, according to its strategic intention, Laurea will be an internationally acknowledged university of applied sciences specialising in future areas of expertise and regional development in the metropolitan area. In order to gain its strategic intention, consequently, Laurea, as the first Finnish University of Applied Sciences (UAS), in 2010, took the step to organise an international review of its research, development and innovation (RDI). The purpose of the Research Review was defined as following

- To gain feedback on how Laurea RDI has performed in relation to the essence, roles and aims of its RDI, in particular, Laurea's vision for 2015
- To advance the international discussion concerning the role of the UASs' RDI, and
- To develop appropriate indicators for UAS-based research.

For the external review board, Laurea UAS invited Professor Markku Löytönen from the University of Helsinki, Finland (chairperson of the external review board), Professor Ingrid Schwab-Matkovits from Burgenland University of Applied Sciences, Austria, Dr. Jack Spaapen from the Royal Netherlands Academy of Arts and Sciences, and Dr. Tapio Varmola, Rector of Seinäjoki University of Applied Sciences, Finland.

In their report, the evaluation board considers international level RDI and a high quality research culture as a central means for attaining Laurea's vision. In order to support this development the evaluation board has provided the Laurea community with valuable external feedback regarding its performance and its way of orchestrating its RDI operations. Additionally, the external evaluation report can be considered a milestone in the future development of the RDI of the Finnish UASs in general. Hence, apart from providing feedback to Laurea, the report discusses the evolving role and challenging task of applied research and development in general. Thus, in addition to the actual research results from RDI in Finland, the UASs' RDI is expected to serve education, to support the world of work and regional development and to promote lifelong learning.

In Laurea, it is our belief that, throughout the analytical and critical dialogue, the external review board together with Laurea personnel will advance, in the best possible way, the national and international discussion on the role, essence, quality and impact of RDI in UASs. Laurea wants to express its sincerest thanks to the members of the evaluation board for its most valuable contribution for the development of UAS based RDI.

The external evaluation report acknowledges Laurea's achievements among the Finnish UASs by stating: "The figures (volume of R&D financing, invention applications, R&D based credits etc.) given by the Laurea RDI self-evaluation report point out Laurea's position at the top of the Finnish Universities of Applied Sciences." Additionally, the report continues: "Laurea is esteemed as a regionally operating UAS in the metropolitan area of Helsinki."

The report also recognises the merits of the Laurea's Learning by Developing (LbD) model, by stating, that "the Learning by Development (LbD) model is well known in the national and international community and has been referred to in many publications and at annual conferences by international lecturers as well". It continues by stating that, "Learning by Development" is a pedagogical approach or model, which suits Laurea's mission excellently." Moreover, the report claims that the benefits of LbD are its aim to integrate teaching and R&D activities and create customer-oriented, innovative development projects together with businesses and other organisations. However, the report draws attention to the importance of broadening LbD model as a tool for Laurea's research and development activities.

Together with the acknowledgements related to Laurea's results, the evaluation report, as requested, discusses themes which are subjects for further development. It pays attention e.g. to the variation in the quality and impacts of the various RDI projects which, according to the report, might be due to a lack of coherence within the overall research strategy. The evaluation board relies on combining the research policy with mutual learning, which will together have the capacity to support RDI quality and, at the same time, leverage the individual RDI projects' impact and know-how into Laurea UAS's core capabilities. The report puts forward nine recommendations related to the RDI procedures and infrastructure. The recommendations pertain to the research methodologies, intra-organisational learning, publication strategy, and the coherence of the research programmes, staff-development, monitoring, evaluation, indicators and benchmarking, as well as competitive funding.

Vantaa, March 2011

Pentti Rauhala
President
Laurea University of Applied Sciences

1 Evaluation Task and the External Review Group

According to the audit manual for 2008-2011 by the Finnish Higher Education Evaluation Council (Audits of Quality..., 2007) an improved quality of HEIs is a factor in international and national competition. High quality enhances the competitiveness of Finnish society and the international attractiveness of education provided in the country. A highly educated population as well as more extensive promotion and utilisation of knowledge and competence are defined as the core elements of national competitiveness in the Finnish national innovation strategy. Using various means, the aim is to enhance the Finnish position in the international division of labour. At the same time, internationalisation is a prerequisite for higher quality and improved innovations (see e.g. The Global Competitiveness Report 2010-2011).

The most thorough method to assess current activities and prepare for future strategies is to apply an external evaluation as a process. In such a process, the first part of the evaluation is an in-depth self-assessment. The second part of the assessment is based on external review that uses the self-assessment material, other related material (typically explaining the local educational system and its legislative and resource bases to foreign reviewers), and a site visit.

Following Laurea University of Applied Sciences (UAS) decision to carry out evaluation of its research, development, and innovation (RDI) activities, a self-evaluation process was launched resulting in a detailed and as such a highly informative report of 83 pages (Laurea RDI Self-Evaluation..., 2010). The report consists of a text explaining Laurea UAS' strategy, main activities, and an overview of Laurea UAS' position in the Finnish educational system, as well as a detailed view of Laurea UAS' resource base. The text part is followed by in-depth self analysis of selected RDI projects.

For the external review board, Laurea UAS invited (in alphabetical order) Professor Markku Löytönen from the University of Helsinki, Finland (chairperson of the external review board), Professor Ingrid Schwab-Matkovits from the Burgenland University of Applied Sciences, Austria, Dr. Jack Spaapen from the Royal Netherlands Academy of Arts and Sciences, and rector Tapio Varmola from the Seinäjoki University of Applied Science, Finland (Annex I).

The specific task issued to the external review board was outlined as follows:

“Research, development and innovation (RDI) is a relatively new phenomenon in the Universities of Applied Sciences (UAS) hence, the nature of UAS based RDI varies among countries and higher education institutions. Due to the still evolving nature of RDI in UASs, one of our starting points in the self-evaluation report has been to enlighten the essence of UAS based RDI as seen by Laurea. Moreover, it provides, for the purposes of the external Research Review, information regarding the characteristics, purpose and quality of the RDI activities and various projects in Laurea University of Applied Sciences.”

And as more specific questions as follows: “The self-evaluation report defines the purpose of the Research Review as following:

- To gain feedback for the further development of the performance of Laurea RDI related to its essence, roles and aims
- To take forward the international discussion concerning the role of the UASs’ RDI, and
- To develop appropriate indicators for the UAS based research.”

Our external review board studied the self-evaluation material submitted to us prior to the site visit that took place 6-8 June 2010. The detailed visit program is attached in the Annex part of this report (Annex II).

2 Research Culture of Laurea

2.1 The Complexities of Building a UAS Research Culture

Like most UAS in Europe, Laurea is in the process of developing a research culture that fits its mission and complies with legal demands. The mission of the UAS according to Finnish law is:

Working on research, artistic and cultural premises, polytechnics shall provide higher education for professional expert jobs based on the requirements of working life and its development; support the professional growth of individuals; and carry out applied research and development that serves polytechnic education, supports the world of work and regional development, and takes the industrial structure of the region into account. In executing these tasks, polytechnics shall promote lifelong learning. (Act 351/2003, Amendment 564/2009).

If we regard what is said about research for UAS, Laurea stands for a challenging task. It clearly entails to conduct applied research and development. Furthermore, its research and development should serve polytechnic education, support the world of work and regional development, and take the industrial structure of the region into account. And finally, UAS (and thus Laurea) should promote lifelong learning. It is clear that to meet these demands and expectations, Laurea has to develop and maintain a rather elaborate research policy and culture. In this, Laurea has to decide on what to focus (research policy), what kind of qualities to expect from its researchers (quality assurance), and how to maintain quality in the long run (monitoring and evaluation), how to connect to other related research institutions (collaboration), how to relate to important stakeholders in society (relevance), how to judge the quality of its output (research assessment), and the effects it has in society (impact assessment). Moreover, its research also has to affect its education and take regional industry into account.

2.2. Learning from and Collaborating with University Research

For an answer to the question how to do all this, we can look at academia. But while it makes sense to look there, because academic research culture has de-

veloped over a number of centuries, we also have to keep in mind that it has a different mission, more geared towards fundamental or basic research. However, especially during the last decades, university missions (and its funding) have become much more comprehensive, and now as a rule including demands for technical, socio-economic and cultural relevance of research. Therefore, there is a growing overlap between work done at the general and technical universities and the UAS and this creates also new opportunities for mutual exchange and collaboration. In the Netherlands, for instance, a number of traditional universities merged over the last decade with the universities of applied sciences, in an attempt to mutually attune education and research policies.

Traditionally, the main distinction with university research lays in the fact that academic research is in principle unbound, that is, researchers, more in particular the international research community, decide what is relevant to study and what is not. These decisions are typically made by researchers communicating their research findings in the international literature, or in conferences, where through debate future research topics and directions are decided. However, more and more, governmental policies both at the national and the international level, are demanding also from the universities that their research leads to practical applications and use in society. For Europe, the prime example here is the Lisbon agenda from 2000 where the European governments decided that Europe should become by 2010 "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion".

In this European perspective, it is very important that Laurea maintains and further develops sustainable relations with other research institutions, UAS and academic universities, and both at the national/regional level and internationally. Preferably, these relations should be built up through combining bottom-up approach (from the researchers) and top-down research strategy (that is from the perspective of Laurea's research focus)

The far reaching ambition of Lisbon 2000 has not been reached in 2010, however, one can see a growing collaboration between research producers and industry and other societal sectors. This has consequences for the research endeavours in terms of organisation, funding and evaluation. The traditional borders between different kinds of research are becoming less clear, and more and more research is conducted in the context of application. In Laurea's self evaluation report, the different types of research and innovation are defined according to Statistics Finland: basic research is work undertaken to acquire new knowledge, without any particular application in view. Applied research, on the other

hand, primarily aims for a specific practical application. Product and process development (development work) is defined as systematic work that draws on existing knowledge gained from research and/or practical experience with the aim of producing new materials, products, production processes or methods and systems, or substantially improving existing ones. Innovation refers to all the measures that produce or aim to produce new or improved products or processes i.e. innovations. Broadly defined, innovation refers to any measure that produces or aims to produce the adoption of innovations. Innovation, in a word, is the whole process of knowledge circulation that leads to new products or services.

2.3 Relations with Non Academic Stakeholders

In addition to the relations with other research institutes, Laurea should also define its position in this knowledge circulation process in terms of sustainable relations with all relevant other stakeholders, and from there develop an appropriate management strategy. Innovation is the result of collaboration of different expertise and different disciplines, inside and outside academia. Such a process is rarely spontaneous, it needs careful management, and including incentives to stimulate collaboration, for example small start up funds, go-betweens that have experience in different worlds.

A key word in creating a relevant stakeholder environment is arguably 'encounter', referring to moments of creative encounters between researchers and stakeholders. There is a variety of mechanisms applied in different institutions to organise such encounters, ranging from individuals functioning as bridge builders to full blown events around specific interest themes. It would be wise to gather information about the different options through the European UAS network.

Given the formal demands by law, and the position of UAS in relation to the academic universities, each institution, and thus Laurea, has developed its own research strategy and culture. According to the self evaluation report, Laurea's mission is to be a university of applied sciences specialising in service innovations, and focusing on regional development in the Greater Helsinki Metropolitan Area. In 2015 Laurea will be an internationally acknowledged university of applied sciences specialising in future areas of expertise and regional development in the metropolitan area. In this, Laurea's focus is on the one hand on interna-

tional partnerships and competence, and on the other on services to the Greater Helsinki Metropolitan Area. It also wants to strengthen its competence in the development of the European Research Area. To be short, Laurea aims at connecting regional and international developments. This is a high ambition, but not unrealistic given the level of the overall higher education and research sector in Finland. But it does mean for Laurea in order to realize this high ambition that it has to make serious work of a further developing high quality research culture.

2.4 Conclusions

In order to connect the local with the global, Laurea needs to maximize its profit from the sustainable relations it is building up. To do this, and to be most successful in the European Research Area, two conditions are essential: 1. high quality of researchers, and 2. reliable partners, also of high quality.

The question is what does it take to develop high quality research culture? In academic circles, research culture developed over centuries. The main purpose of research culture is to maintain conditions for high quality research. It comprises of at least three vital elements: (i) certain standards for doing good and reliable research, which on the one hand regard the qualities of people, and on the other the research methodologies used and the infrastructure to support this; (ii) certain ways to communicate the results of research, and other more theoretical thoughts and understandings. This regards both the communication with the wider research community, and on the other hand with other communities, professional sector, industry, government, society at large; (iii) regular internal and external evaluation procedures to maintain a certain level of quality of people and work. It also includes various feedback mechanisms into education, most importantly a structural training of the next generation researchers.

2.5 Recommendations

In developing and maintaining a research culture that is both robust and internationally visible, Laurea should elaborate the following elements in a coherent research policy:

a. Research Methodologies

If you want to play a role in the above described research and innovation process, the other players expect you to be strong and innovative in terms of research methodology. It is our impression that Laurea has some very good researchers in this sense, but also that a number of people involved lack a high enough level. In some cases, it appeared that even a basic methodological knowledge was missing. Raising of the bar is necessary here. Also we found a lack of structural feedback of findings and difficulties into the research process, in other words, a lack of intra-organisational learning.

b. Publication Strategy

Given the complexity of Laurea's mission, a publication strategy is arguably more challenging than for a regular university department. Laurea's mission aims at different audiences, other researchers, but also industry, policy and society at large. To develop such a comprehensive publication strategy, it is absolutely necessary to set some benchmarks for each publication category. These benchmarks should be realistic, you cannot compete with academic departments, but you can collaborate with them (provided you have enough quality researchers). But is important also to focus on other media that serve different audiences.

c. Coherent Research Programmes

From the interviews, and also from the self evaluation report (SWOT) we learned that there is a lack of coherence in the overall research strategy. One of the reasons for this lack of coherence might be that there is not enough feedback from the practice into the research process in terms of asking more general questions that can be shared with other research projects. That way, it is possible to enrich the research portfolio as a whole (next to the individual project). Also, bringing together different stakeholders on a regular basis to discuss research and development issues of different projects might be helpful.

d. Staff Development

Developing a research culture means of course educating and training researchers. In traditional universities researchers typically go through a 4 year training program (PhD), which of course cannot be expected from a UAS. Yet, this is part of the competition. Apart from regular training programs provided for UAS researchers, participation in academic training programs should be stimulated. Particular attention should be paid to the development of the so called soft skills that are a necessity in collaborative research.

e. Monitoring and Evaluation, Indicators and Benchmarks

A research culture can only thrive when solid systems of quality control are in place, both internal and external. All research output should be judged by a competent committee and once every 5 or 6 years a truly external assessment should be conducted, preferably international. Output should be judged both on scientific quality and societal relevance. For reference to indicators and benchmarks that can be used, we include one example of an evaluation guide that is used in UAS in the Netherlands, plus a review study on quality evaluation in the UAS sector (see annex III and IV).

f. Competitive Funds

Competition for funds is a good way to further develop research culture. Because it is not easy for a UAS to compete with academic researchers, different strategies can be used to get into the game. Collaboration with academics is becoming more common, also in the European funds (Laurea has had some success there), but also substantial funding through specific foundations can help here. In the Netherlands, UAS can compete for funding in a special fund, the Stichting Innovatieve Alliantie (SIA), Foundation for Innovative Alliance.

We wish to put forward one final remark with respect to the learning by developing model that Laurea is using. From the self evaluation report, we learn that research, development and innovation in the UAS are geared towards the needs of local business and industry, and to the wider community. Central in Laurea's strategy is the concept of learning by developing (LbD), which means that R&D is integrated with learning. Consequently, at Laurea there is no separate R&D unit. Practically speaking, the LbD model is embedded in development projects in the world of work, which aim to produce new practices and require collaboration between lecturers, principal lecturers, students and workplace experts.

While this model is understandable from the perspective of leaving the responsibility for research at the ground level, some kind of separate R&D unit might be necessary to develop a more coherent research policy and culture. Clearly such a unit should not serve as a research 'czar' but as a coordinating unit that on the one hand coordinates without taking away responsibilities at the ground level, and on the other stimulates further quality assurance and create new opportunities for collaboration.

3 Integrating Teaching and Research

The mission of Laurea is to be a university of applied sciences (UAS) specializing in service innovations and focusing on regional development in the Greater Helsinki Metropolitan Area. According to the new strategy (2010-2015), one aspect of Laurea's profile is "an operating model that promotes the development of working life by integrating learning and R&D (Learning by Developing)" (Laurea, 2010, 3). The Strategy Implementation Plan contains four critical success factors with four dimensions. "Learning by development" is one of the dimensions.

"Learning by development" (LbD) is a model that has been developed in Laurea for several years (Raj, 2007; Piirainen, 2008; Kallioinen, 2008). An international evaluation has been carried out concerning the functionality of this pedagogical model (2008). LbD has been a crucial basis for the quality awards given by the Ministry of Education for Laurea in 2005 and 2007 for pedagogical development and regional impact.

According to the self-evaluation report "the basis of the Learning by Development model is in development projects that are genuinely rooted in the world of work, which aim to produce new practices". Laurea aims for:

- integrating the three main tasks: teaching, R&D and regional development
- strengthening student-centred R&D
- strengthening multi-disciplinary activities in R&D in seven regional campuses
- lowering the levels of hierarchy in the management of R&D

The report states that "Laurea's management model can be described with the expression 'Freedom within Frameworks'".

Activities in the LbD model are described as Laurea's core process, which integrates the workplace, workplace development, research and learning. In various development projects the aim is to develop new competencies in collaboration with students, teachers and experts from working life. Laurea's "competence production process" is depicted in Figure 4 in Laurea's RDI Self-Evaluation Report submitted to the external evaluation board.

"Learning by development" is a pedagogical approach or model, which suits Laurea's mission excellently. However, there is a great challenge to broaden this model to be a tool for Laurea's research and development activities.

The benefits of LbD are its aim to:

- integrate teaching and R&D activities
- create customer-oriented, innovative development projects together with businesses and other organisations

Recommendation:

On the one hand the LbD is an innovative model, well connected with the name of Laurea, but on the other hand LbD alone may be not sufficient, so the external evaluation board recommends as elaborated in chapter 2 some explicit measures to enhance the RDI activity. If Laurea wishes to pursue expansive research projects besides development projects, it would be necessary to:

- gather the R&D expertise in Laurea into larger entities
- clarify the profiles of Laurea both in education and R&D
- ensure the competence of the R&D personnel

Laurea is going to take part in the auditing process concerning its quality assurance system. This is organised by the Finnish Higher Education Evaluation Council and will be implemented in Laurea during next academic year. This will be a convenient forum for making the quality assurance system of R&D activities more systematic and transparent.

Laurea's organization is characterized by decentralization. The external evaluation board found out that there are many parallel development projects going on, for instance in the field of home care of the elderly, which do not communicate at all mutually. The knowledge and know-how is not accumulating sufficiently within Laurea and its various campuses. There might be a need to assess whether the decentralized organization is the best solution for R&D activities or not.

In the LbD model students' role in implementing R&D projects is emphasized, which makes the supervision of the projects very challenging. The external evaluation board found out that there is considerable variation in the standards of the projects also concerning the management competencies. It would be necessary for Laurea to continue and deepen the training projects for the R&D personnel for instance together with the Universities and Universities of Applied Sciences in the Helsinki Metropolitan Area or with joint projects with some other UAS's in Finland and abroad.

4 Internationalisation and Regional development

4.1 Global Growth Starts with Local Knowledge

Concerning the slogan “global growth starts with local knowledge“, Laurea’s self-evaluation report emphasizes the important role of Universities of Applied Sciences for the internationalisation of regions: The internationalisation of the Finnish Innovation System has been highlighted as a critical success factor of the sustainable economic and social development of the country. Higher education and research institutions together with multinational companies are considered to be the driving force of internationalisation. Laurea’s Research and Development Strategy is based upon a vision of the basic prerequisites for economic and social welfare in the European Union and Finland, and on predictions about the future development of Laurea’s area of operation (the Greater Helsinki Metropolitan Area). (See Laurea RDI Self-Evaluation Report).

4.2 The Polytechnics Act Concerning Applied Research and Development and Regional Development

The Polytechnics Act points out the regional tasks for Universities of Applied Sciences (in Chapter 1. “General provisions”, Section 4. “The mission of polytechnics”): “...carry out applied research and development that serves polytechnic education, supports the world of work and regional development, and takes the industrial structure of the region into account.”

4.3 Observation

Laurea’s strategy describes on the one hand the important regional role as an innovative competence-centre, on the other hand the role as transmitter und mediator of international competence.

Laurea is esteemed as a regional operating University of applied sciences in the metropolitan area of Helsinki. Laurea’s management, the teachers and the stu-

dents interact with the environment in a network with public institutions, private companies and employers. During our review, the Integration of research, development and innovation (RDI) and education at Laurea was shown in the management's presentation of the strategy and the stakeholders' presentation of several on-going projects. The peers were able to discuss with teachers, students, management and with several present partners of the public sector and private companies the goals, the scientific methods, the expectations and the output, as well as the challenges and cooperation experiences. Most of the stakeholders were enthusiastic about the commitment of the students and the open-minded culture of cooperation among teachers, students and project-leaders. The management also mentioned that international partners were involved; their specific roles and tasks, financial or contractual details were not specified.

The figures (volume of R&D financing, invention applications, R&D based credits etc.) given by the Laurea RDI self-evaluation report point out Laurea's position at the top of Finnish Universities of Applied Sciences.

4.4 Conclusions

Laurea operates intensively and as an esteemed local project-partner for public and private institutions and employers in the metropolitan area of Helsinki. Laurea's RDI activities focus on development projects in the fields of welfare, knowledge-intensive business, and services in security and social responsibility. The projects and cooperation are characterized by a bottom-up and student driven approach.

The Learning by Development (LbD) model is well known in the national and international community and referred to in many publications and at the annual conference with international lecturers as well.

The systematization of international research project partnerships and their concrete realization has been identified as a challenge.

4.5 Recommendations

We recommend enriching the extensive regional partner network with the competence of submitting and coordinating European research projects. This expansion will also enhance the scientific focus in the Laurea core competences.

We suggest to systemize the involvement of regional and international stakeholders and to develop a documentation by a further development of the “Partners and Project Map” containing the most important characteristics (scientific methods etc.) and experiences within the projects; to develop an internal expert-system, available and accessible for teachers, students, partners within Laurea.

We recommend further to develop a set of instruments for qualitative internationalization of research at Laurea RDI; e.g. a European expert platform for exchange and applying specific scientific methods. Further potential lies in human resources development e.g. by grants given for research mobility to internationally recognized research institutes or by a mentoring system with research departments in international companies.

We would advise the systematic identification, assessment and documentation of a potential European research partner in the core competencies of Laurea’s RDI activities.

We recommend the orientation on international indicators used in the higher education sector (publications with a review-system, citation index, 3rd party funding, scientific awards, patents...). An additional discussion on European level should be initiated to establish a special set of indicators for Universities of Applied Sciences which demonstrates their typical functions and tasks like their regional impact, their relevance for SMEs etc.

5 Quality Management

5.1 Self-Evaluation

Laurea had prepared an extensive self-evaluation report describing Laurea's RDI strategy and its national context with the Finnish Innovation System, the primary areas of the Laurea RDI project portfolio and the evaluation of selected RDI projects plus a critical reflection in form of a SWOT analysis (strengths, weaknesses, opportunities and threats). An international peer board had been invited by Laurea to evaluate the RDI strategy and activities within a peer review in June 2010 on the campuses of Laurea. This indicates a very quality oriented approach and shows the commitment to constant improvement.

5.2 Regulations by the Act and Aims of the RDI Performance set by the Ministry of Education and Culture

The Polytechnics Act points out (in Chapter 3. Steering and evaluation of operations, Section 9. Quality assessment)

“A polytechnic shall be responsible for the quality and continuing development of the education and other activities it provides. The polytechnic shall evaluate its education and other activities and their impact. The polytechnic shall also participate in external evaluation of its operation and quality assurance system on a regular basis and publish the findings of its evaluations.”

Four targets for RDI are mentioned in the performance agreement made with the Ministry of Education for 2010-2012 and annotated by Laurea's self-evaluation report as follows:

1. Raising the proportion (%) of national competitive research funding (Academy of Finland, Finnish Funding Agency for Technology and Innovation) to one per cent of total funding. Currently at Laurea the proportion is 0.7%, compared to the average among universities of applied sciences of 0.4%.

2. Credit completed and student attendance in R&D projects. The current level is 4.48 credits (national average 2.8) and the target is 8 credits by 2012.

3. International mobility of teachers and researchers (at least 1 week) for full-time lecturers and R&D staff. The current level is 0.43 (national average 0.48), the target level is 1.

4. Publications in proportion to full-time lecturers and R&D staff. The current level is 0.47 (national average 0.49) and the target is 0.80.

5.3 Observation

Laurea's quality assurance system is linked to their strategies and their implementation and published in a brochure. The integration of RDI is promoted by Laurea's pedagogical approach and reflected within the curriculum and the LbD model. The Laurea Ethical Committee provides the ethical principles for research as expressed by the Finnish National Advisory Board on Research. Laurea has a description of the RDI process and its facilitation for projects with external funding. Laurea also provides some performance indicators like the number of publications, of credits completed by each student in R&D, volume of R&D financing etc., evaluating the impact of the RDI.

Furthermore Laurea developed an evaluation tool for RDI projects, based on the relevant Laurea's RDI factors. This tool covers eight aspects, the projects goal level and the current situation may be evaluated and a scale from one to five should be used by the project personnel.

5.4 Conclusions

The quality management at Laurea is in compliance with the Polytechnics Act ("The polytechnic shall evaluate its education and other activities and their impact and participate in external evaluation..." etc.) the management is interested in establishing a quality management system, even a specific "Laurea RDI project evaluation tool".

The project method follows a very ambitious bottom-up approach and is practiced with much verve – this sometimes leads to different attitudes (to different

perceptions of scientific-methodological and procedural characteristics) within the realized projects.

The evaluation tool for the strategic aspects of Laurea's RDI may provide a very useful aid if the used scale will be well founded and a mutual understanding will be developed. Improvements should be made in a more specific scale for the rating and in the underlying knowledge of its application.

The QM system needs – in addition to the ambitious bottom-up approach (self-evaluation tools) – also a stronger orientation towards international scientific standards and an additional structured and centralized monitoring.

5.5 Recommendations

The development of the “evaluation tool for the strategic aspects of Laurea's RDI” should be continued, as mentioned before.

The implementation of a Project Office could improve standardization, and provide support for European research project development, internationalization, documentation and quality assurance and support a sustainable RDI competence.

A common database for research RDI projects could facilitate internal communications and knowledge transfer and support the documentation of indicators.

Internal and external assessments for research project proposals, processes and outcomes should be established to provide a common view of the applied scientific methods and to assess the aspects in Laurea's evaluation tool for RDI projects.

6 Control and Decentralisation Strategy

Since the beginning, Laurea UAS' strategy for developing and maintaining its research profile has been a bottom-up process. As the result, many of Laurea UAS' RDI projects have been innovative and well-organised. For the most part, the track record is very good providing not only learning opportunities for students but also serving the third parties involved and their interests. Best RDI projects have also produced several peer reviewed articles in good international journals as well as publications in more locally oriented yet professionally valuable journals. While the best RDI projects have been outstanding in output and quality, some – and perhaps too many – RDI project have been less productive, less innovative, and less useful for either the students or the third parties.

Our conclusion is that the method of bottom-up with the idea of allowing RDI projects to pop up following researchers' and third parties' sometimes ad hoc interests have come to end. The reason is simple; while useful in Laurea UAS' early stages such an approach has created a much too varied research profile – or, in fact – the lack of a clear profile. It is our sound understanding that Laurea UAS' needs to develop its research profile based on Laurea UAS' strategy and adjusted for Laurea UAS' operative fields. In practise, this means several mutually dependent and sometimes potentially painful steps including (at least):

- Creating, launching, and maintaining a discourse that leads to a more specific yet dynamic research profile with clearly defined focal areas that match with operative fields
- Creating a mechanism that allows Laurea UAS' leadership to ensure that resources are directed to RDI projects in concordance with the current research profile
- Creating a mechanism that allows innovative bottom-up processes to come up with fresh ideas for RDI
- Creating an atmosphere that understands the use of top-down method along with bottom-up method and accepts the fact that the creation of a more specific research profile also means that several of currently operative RDI fields are not necessarily among the focal fields in the future i.e. when setting focal points other branches need to be cut away

The first thing to do prior to taking any of the steps mentioned above is to “wake up” Laurea UAS' faculty and staff by showing leadership commitment to the

creation of a new, more focused and continuously dynamic research profile. After this, the next step should be a planning phase of how to proceed from the beginning until the creation and adoption of the new research profile – a period of time of perhaps 1-2 years. Such a process is a long haul project including information dissemination to and among faculty and staff, organising of seminars, creating documents and – above all – managing a Laurea-wide discourse consisting of several minor discourses spanning from unit to unit. Such a process is owned by Laurea UAS' leadership yet it must involve the entire faculty and staff. There is a rich literature available of many well-documented working examples of how to run such a process.

While taking the steps outlined above, mutual learning as well as the use of networking capabilities to identify and strengthen Laurea UAS' core capabilities must be taken care of. In an organisation of the size of Laurea UAS, special care needs to be placed on activating the entire faculty and staff. When integrating top-down with bottom-up methods, the creation of a mutual terminology for the discourse is very important. If the process to create a new dynamic research profile stays within the leadership without commitment of each unit and all individuals increases the risk of only distancing the leadership from the floor resulting perhaps highly potential documents with virtually no action taking place. Thus, the entire process needs to be carefully planned as outlined above and it needs to be given adequate resources. In fact, an operation of this magnitude should be reflected on the budget level instead of assuming that resources be found and allocated from the existing funds directed to each unit.

7 SWOT Analysis

Our external review board applauds Laurea for conducting a self evaluation and using a SWOT analysis for self reflection. This summary of Laurea's activities, or at least of a number of groups, has been of great help to the external review board. It is clear however that, while the resulting graphs give a comprehensive representation of the complex activities of the different groups, the robustness of the data underpinning these graphs is not yet sufficient. A major other problem is that in the graphs nominal scales (where items are labelled) and ordinal scales (where items are ranked) seem to get mixed up. Also, the scale categories seem to refer to different sociological categories (people, disciplines, and organisation). The graph suggests an unambiguous relationship between the 5 different scoring levels, which cannot be the case. The producers of the self evaluation realize that and will continue to improve this method. To be more concrete, the eight aspects can each be ranked for example on a scale from 1 to 5, indicating how far one has progressed on an aspect. One project for example can for instance generate more scientific knowledge than another (say a 4 against a 2). That is an ordinal scale. The levels that are distinguished represent a nominal scale; they are just labels for different aggregation levels. It doesn't make sense to have the two in one graph.

Secondly, as is mentioned in the self evaluation report, it is at least remarkable that most of the targets set by Laurea are met before the projects reached their end. Setting aside discussions about the robustness of the methodology, this could mean that targets were set not very ambitious. It could of course also mean that the groups are so successful that they reach their goal earlier than anticipated. Either way, there is something to think about. Our external review board has the idea that arguably the first is the case that targets could be set at a more ambitious level. In any event, a separate R&D unit that we mentioned in chapter 2 would be the place to discuss this issue.

One way to find out which of the two is the case here would be to look at the SWOT analysis. The external review board commends Laurea for presenting this kind of analysis and self reflection; however, it would have been helpful to set up the SWOT analysis along the lines of the eight aspects that form the graph. Now we have to guess what items in the SWOT analysis are referring to each of the eight aspects. Let's take for example the aspect of generating new scientific knowledge. It would have been helpful to see in the SWOT analysis in a systematic way what in Laurea are the strengths and weaknesses, and what are the opportunities and threats. For example, we presuppose that the most di-

rect strength for this aspect is that Laurea's share of international publications passing the referee procedure is 16% of Finnish UAS. We presume that this is an impressive number, but we have no way of knowing this.

The external review board wants to make a few remarks with respect to the SWOT analysis. On the one hand, the board is pleased with the analysis; on the other hand, it can only serve as a good guideline for new policy if it has certain robustness. The overall goal of a SWOT analysis is to assess internal aspects (strengths and weaknesses) and relate them to external factors (opportunities and threats). And from there draw conclusions for future policy. The more the items in the SWOT are based on 'hard evidence' the better the chances are for developing a good policy. But while in some cases, Laurea presents concrete evidence (for example with the RDI credits); in other cases this does not happen (for example in case of the student employment rate or the number of PhD theses). Furthermore, in a number of cases, no facts are presented but conclusions are drawn, for example "stronger connections with international Finnish companies are needed" (not a weakness, but a wanted policy measure). Also, in a few cases, items in the four categories get mixed up, which also make it harder to draw clear conclusions. For example, the sentence "If we can't provide "something special" it is difficult to attract international experts to Finland" belongs in the weakness category, not in the threat category.

Despite these points of critique, the external review board speaks well of the attempt to conduct a SWOT analysis, but it just wants to stress that to profit from a SWOT, it is necessary to be more rigid in the methodological approach. It is not enough to list all kinds of items in the four categories, and the underpinning of the items should be as concrete as possible. With the further development of the self evaluation method, in particular the eight aspects, Laurea has an excellent framework to conduct a solid SWOT analysis that provides robust insight for further policy development. It becomes clear from the concluding chapter of the self evaluation and of the interviews the external review board held that Laurea realizes this and will work on further development of this method.

8 Summary of Recommendations

As a summary of our main recommendations, we list the following 9 issues. We wish, however, to begin by pointing out how valuable and important step the organising of the international review of Laurea UAS' RDI is for her future development. It is with our sincere thanks that we provide our report above and the following list.

1. The areas of Laurea's core competence – RDI on welfare, business-service, and security – should be made highly visible as the main foci of Laurea. Therefore Laurea should develop a coherent research policy based on Laurea's key activities. There are fair amounts of excellent expertise that provide an opportunity to develop a highly successful policy. Laurea should define its position in the knowledge circulation process in terms of sustainable relations with all relevant stakeholders, and from there develop an appropriate management strategy.

2. In developing and maintaining a research culture that is both robust and internationally visible, Laurea should elaborate the following elements in a coherent research policy: a. Research Methodologies; b. Publication Strategy; c. Coherent Research Programmes; d. Staff Development; e. Monitoring and Evaluation, Indicators and Benchmarks

3. Laurea should establish sustainable relations with other research institutions, UAS and academic universities, and both at the national/regional level and internationally. Laurea should choose very carefully her partnering organisations. Preferably, these relations should be built up through combining bottom-up approach (from the researchers) and top-down research strategy emphasising topics in Laurea's research focus.

4. LbD as a strategy has been highly successful as regards Laurea and her first years in action. It has provided Laurea with an innovative brand as a teaching institute and as an approach it certainly has led to many success stories with very competent students entering the job market. We feel, however, that LbD should be carefully evaluated from the RDI point of view so that the benefits of the LbD could be extended to RDI and thus appeal even stronger to current and potential partners to join Laurea in her efforts to develop a domestic and international RDI reputation.

5. Since the beginning, Laurea has successfully applied a policy of bottom-up as regards what topics and what projects have been on the agenda for Laurea's re-

search groups and different units. Referring to item #1 above, we strongly recommend this policy be critically reviewed with more emphasis on views by Laurea's leadership and its role in creating a new research policy for Laurea.

6. It is very important to develop the skills of Laurea's faculty. While many of the projects carried out by Laurea's various units are clearly of high quality, there still is far too much variation; methodologies and methods are not always on the required level and this should be made one of the focal points in personnel training. We also feel that competence in methodology and methods should be carefully reflected when recruiting faculty for positions with research on the agenda.

7. Many projects that we had the opportunity to familiarise ourselves were carried out professionally. However, there seems to be a fair amount of variation of how to design, prepare for, carry out, and report the results of an individual project. Laurea would clearly benefit from a more standardised and streamlined guidelines for principal investigators. Developing good tools for project management may sound like a somewhat practical issue yet it makes management less time-consuming. Probably the implementation of a Project management office could improve standardization and provide support for European research project development and quality assurance. Collaborations in this matter among the UAS in Finland would most likely prove highly beneficial.

8. We urge Laurea to develop tools and appropriate indicators for reviewing her RDI activities. This is a major task and it might be worthwhile to consider working together with other UAS in Finland and Europe and with the Ministry of Education and Culture. Consulting either on site or based on documentation what UAS institutions and review boards abroad have developed and achieved will certainly benefit Laurea in this respect.

9. Finally, we wish to note that Laurea is funding a major portion of all RDI activities using her own finances. We feel that the amount of competitive financing should be increased by encouraging Laurea's faculty to submit applications to both domestic and european or even international providers of research funding. As a summary of our main recommendations, we list the following 9 issues. We wish, however, to begin by pointing out how valuable and important step the organising of the international review of Laurea UAS' RDI is for her future development. It is with our sincere thanks that we provide our report above and the following list.

9 References

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10 Annexes

Annex I – Short CVs of the external external review board members.

Annex II – Program of the site visit.

Annex III – Evaluating the societal relevance of academic research, a guide. EriC Project, 2010, The Hague.

Annex IV – Measuring performance of applied R&D. A study into performance measurement of applied R&D in the Netherlands and some other countries. Center for Science and Technology Studies. 27 p. Universiteit Twente, Enchede.

Annex I – Short CVs of the external review board members.

Professor Markku Löytönen — MSc 1979 and PhD 1986 University of Helsinki. In 1995 he was appointed associate professor at the University of Turku, and 1999 full professor of human geography at the University of Helsinki. His research interests range from the history of geography and exploration to quantitative methods and GIS with special interest in the geography of health. His list of publications totals over 250 titles, mostly articles, reviews and research reports. He is domestically a well-known author of popular science books, among them five books for children, for which he has received five literature awards. He is on the editorial board or editorial advisory board of *Journal of Health and Place*, *International Journal of Health Geographics*, and *Belgeo*. He has served as the Editor-in-Chief of *Fennia* and as the Editor-in-Chief of *Terra*. Some of Löytönen's past and current positions of trust include Vice Rector of the University of Helsinki, Vice President of the International Geographical Union, full member of the Finnish Academy of Science and Letters, Vice Chair of Finnish Research Council of Biosciences and the Environment, and board member of the Federation of Finnish Learned Societies. He was recently inducted into the Order of the White Rose of Finland.

Professor Ingrid Schwab-Matkovits – Managing Director of the University of Applied Sciences Burgenland in Austria. She is also lecturer at the University of Vienna and author of several textbooks, case studies and articles in the field of University Development and Management.

She gained expertise as a Peer in several peer reviews in Higher Education Institutions in Austria, Switzerland and Kosovo. She is Member of Higher Education Counsel for the private Pedagogical University in Burgenland; she is Member of the supervisory board BIOENERGY 2020+ (center of excellence research), Foundation Member in the Managing Board of the Association of Universities of Applied Sciences in Austria (FHK). She is Vice Chairman of the University Council - Danube University Krems.

Dr Jack Spaapen – coordinator Quality Assurance and Research Evaluation at the Royal Netherlands Academy of Arts and Sciences. He is responsible for all Academy activities in the area of Research Evaluation, including funding instruments and prizes. He is coordinator of the FP7 SIAMPI project on social impact assessment (2009-2011). In this project case studies are conducted in various research areas in the arts and sciences in Spain, France, the UK and the Netherlands. He initiated a national project on developing methods for the assessment of the societal relevance of research (www.eric-project.nl). He represents the Academy in several European networks on R&D evaluation. Next to his work

in evaluation, he is involved in studies regarding the development of international relations between researchers in the Netherlands and researchers in Africa and South East Asia. This includes setting up a new program for collaboration between African and European academies, and analyzing best practices for collaboration between countries in South east Asia and the EU. He was trained as a sociologist and cultural anthropologist at the University of Amsterdam with a Ph.D. in science and technology studies. His thesis (1995) focused on developing a method for the evaluation of research in the context of policy demands, that is how to assess the broader, societal value of research. Previously he worked as a researcher in a commercial bureau for industrial marketing in Amsterdam, in a government office for urban planning in Lelystad, and two departments at the University of Amsterdam (Science and Technology Dynamics and the Institute for Development Research).

Dr. Tapio Varmola – Completed his PhD (University of Tampere) in 1996 with a thesis “Market orientation: Entering a New Educational Era!”. His research interests focus on market education, professional education, and education policy. He received a position of docent (University of Tampere) in 2003. He served as a training director for extension studies (University of Tampere) in 1982-1991 to become the president of the Seinäjoki University of Applied Sciences since 1992. Other positions of trust include board member of ARENE (conference of Finnish Universities of Applied Sciences) 1996-1999 followed by a term as the president of the board 2000-2004. He has served as vice-chair of the The Finnish Higher Education Evaluation Council, among many other domestic positions.

Annex II – Program of the site visit.

**Laurea Research Review
International review board visit program, 6th to 8th of June
2010**

Sunday, 6th of June, 2010

Arrival to Finland and transportation to the Hotel
Scandic Simonkenttä
Address: Simonkatu 9, Helsinki
Hotel's web-page:
<http://www.scandichotels.com/en/Hotels/Countries/Finland/Helsinki/Hotels/Scandic-Simonkentta/?redirected=true>
at 14.00 from OS0348
at 16.50 from KL1169

19.30 Review Board dinner at Restaurant Juuri in Helsinki downtown
Address: Korkeavuorenkatu 27, Helsinki,
Restaurant's web-page <http://www.juuri.fi/juuri-keittioe-a-baari>

Monday, 7th of June, in Otaniemi Campus and in Leppävaara Campus

Breakfast at the hotel

08.20 Transportation from Scandic Simonkenttä to Laurea Otaniemi
Address: Laurea Otaniemi, Metsänpojankuja 3, Espoo

9.00 – 9.20 Opening of the Research Review working seminar
(Meeting room LabLife)

The essence of the UAS based RDI, the purpose of the Research Review and the content of self-evaluation
Presentation by President Pentti Rauhala

Evaluation of the Integration of RDI and Education, Regional Development and Internationalisation

09.20 – 10.20 The introduction (10 min) of the Safe Home RDI project, Interviews of the representatives of staff, students and partners (Meeting room LabLife)
Anne Vuorinen, Director, Laurea
Paula Lehto, Principal Lecturer, Laurea
Johanna Leskelä, Project Manager, Laurea
Katja Tikkanen, Project Worker, Laurea

Antti Tolvanen, Project Manager, CaringTV Commercialization, Laurea
Raija Kasanen, Chief of Home care, City of Espoo
Mirjam Nyberg, Senior Counselor, City of Espoo
Juha Hasari, Product Manager, Videra
Elina Koivula, Student, Laurea

10.20 –

Transportation to Leppävaara Campus
Address: Laurea Leppävaara, Vanha maantie 9, Espoo

Review Board's internal meeting with coffee and refreshments
(Meeting room 254)

11.15 – 12.15

Introduction (10 min) of the projects related to security and social responsibility, interviews of the representatives of staff, students and partners
(Meeting room 254)

Introduction of the Laureas Security RDI portfolio
Juha Knuutila, Principle Lecturer, Laurea

From SATERISK and RIESCA:
Jyri Rajamäki, Principle Lecturer, Laurea
Seija Tiainen, SATERISK Project Manager, Laurea
Mikko Leinonen, Risk / security manager, Loomis
Suomi Oy, mikko.leinonen@fi.loomis.com
Pasi Kämppe, Student, Laurea
pasi.kamppi@laurea.fi.
Jouni Viitanen, security police,
jouni.viitanen@poliisi.fi
Pasi Kämppe, Student, Laurea
pasi.kamppi@laurea.fi.

12.15 - 13.30

Review Board lunch meeting (Flow Corner)

13.30 – 14.30

Introduction (10 min) of the Guarantee RDI project, and interviews of the representatives of staff, students and partners
(Meeting room 254)

The people for the Guarantee project from Laurea are:

Rob Moonen, project manager, BBA
Jukka Ojasalo, scientific leader, Ph.D.
Heikki Seppälä, researcher, BBA
Niko Suomalainen, researcher BBA

Rinne Koti-Säätiö: Tuula Kotimäki, project coordinator, bachelor of social work
Teemu Huttunen; vice president Viwell

- 14.30 – 15.00 **Review Board internal meeting with coffee and refreshments** (Meeting room 254)
- 15.00 – 16.00 **Introduction (10min) of eNNI RDI (Electronic Documentation of Nursing Care) and interviews of the representatives of staff, students and partners** (Meeting room 254)
Mikko Karppinen, Student, Degree Programme in Nursing, Laurea Lohja
Leila Konkola-Loikkanen, Special Planner, HUS (Hospital District of Helsinki and Uusimaa) Lohja district
Erja Huovila, Information Officer, Laurea Lohja, Project Coordinator eNNI
Outi Ahonen, Senior Lecturer in Nursing, Laurea Lohja, Project Coordinator eNNI
Elina Ora-Hyytiäinen, Principal Lecturer ELO, Project Manager eNNI.
- 16.00 – 17.00 **Discussion and the interviews of Laurea management** (Meeting room 254)
President Pentti Rauhala, Vice-president Jouni Koski, Vice-president Maarit Fränti, Development Director Outi Kallioinen, Director (Administration and Finance) Kimmo Hannonon, Director Taina Viiala, Director Anne Vuorinen, Research Director Petteri Ikonen, Director Tuija Hirvikoski
- 17.00 – 18.00 **Review Board Internal meeting** (Meeting room 254)
- 18.15 **Transportation from Laurea Leppävaara to Scandic Simonkenttä**, Address: Simonkatu 9, Helsinki
- 19.00
agement **Dinner at restaurant Loiste Vaakuna with the management**
Address: Kaivokatu 3, Helsinki
Restaurant's web-page:
http://www.ravintolaloiste.fi/etusivu_en.html

8th of June, at Leppävaara Campus

Breakfast at the hotel
Check-out before transportation.

08.15 Transportation from Scandic Simonkenttä – Laurea
Leppävaara
Address: Laurea Leppävaara, Vanha maantie 9, Espoo

Evaluation of the Integration of RDI and Education, Regional Development and Internationalisation

9.00 – 10.00 Introduction (10min) of Mmm - the Use of Multiple
Senses in Tourism
Marketing Communication RDI project (Meeting room
254)

**Interviews of the representatives of staff, students
and partners.**

Asta Bäck, VTT, Senior research scien-
tist, asta.back@vtt.fi

Lasse Loven, Metsähallitus, Development Man-
ager, lasse.loven@metsa.fi

Pauli Simola, Research Worker and Student,
pauli.simola@laurea.fi

Juha Uutela, Senior Lecturer,
juha.uutela@laurea.fi

Annica Isacsson, Principal Lecturer,
annica.isacsson@laurea.fi

Leena Alakoski, Project Manager,
leena.alakoski@laurea.fi

10.00 – 10.30 **Review Board internal meeting with coffee
and refreshments**
(Meeting room 254)

10.30 – 11.30 Introduction (10min) of the Active Coalition and re-
lated RDI project (Driving Change in Welfare Ser-
vices for Aged) (Meeting room 254)
**Interviews of the representatives of staff, students
and partners**
Laurea Hannele Niiniö, Project Manager, Laurea
Anne Äyväri, Principal Lecturer, Laurea
Jaakko Valvanne, Senior Specialist in Services for
the Elderly, City of Espoo

Anne Aaltio, Specialist, City of Vantaa
Timo Järvensivu, Research Manager; Aalto University School of Economics
Tuula Heinonen, Project Coordinator, City of Vantaa
Anne Toikko, Student Assistant

11.30 – 12.30

Introduction (10min) of the E2C (Express to Connect) RDI project,
Interviews of the representatives of staff, students and partners

(Meeting room 254)

Anne Äyväri, Principal Lecturer, Laurea
Tuula Ikonen, Senior Lecturer, Laurea
Tiina Wikström, Senior Lecturer, Laurea

12.30 – 14.00

Review Board lunch meeting (Flow Corner)

14.00 – 15.30

Review Board's feedback on Laurea's RDI
(Meeting room 254)

15.45

Transportation from Laurea Leppävaara to Helsinki - Vantaa airport

Annex III – Evaluating the societal relevance of academic research, a guide. EriC Project, 2010, The Hague.

Annex IV – Measuring performance of applied R&D. A study into performance measurement of applied R&D in the Netherlands and some other countries. Center for Science and Technology Studies. 27 p. Universiteit Twente, Enchede.



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