



Centre for Economic Development,  
Transport and the Environment

Leverage from  
the EU  
2007-2013



**HAMK**  
UNIVERSITY OF APPLIED SCIENCES  
Professional Teacher Education Unit

## ROLL OUT THE TALENT

### Final project report



**Tuomas Eerola, Pirjo Tuominen, Riitta-Liisa Hakkarainen,  
Marja Laurikainen & Niina Mero**

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printed  
ISBN 978-951-784-645-5  
ISSN 1795-4266  
HAMK AOKKn julkaisuja 2/2014

e-publication  
ISBN 978-951-784-646-2 (PDF)  
ISSN 1795-424X  
HAMKin e-julkaisuja 3/2014

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**PUBLISHER**

HAMK University of Applied Sciences  
PO BOX 230  
FI-13101 Hämeenlinna, FINLAND  
tel. (03) 6461  
julkaisut@hamk.fi  
www.hamk.fi/julkaisut

Layout: HAMK Publications  
Cover Photo: Ville Salminen

Printed in: Tammerprint Oy, Tampere

Hämeenlinna, February 2014

## Foreword



Finland's well-being and competitiveness require new expertise and new competence areas. Resources associated with competence, creativity and innovativeness and their use must be allocated according to changing needs. Education can be used to create the conditions for reinforcing existing competence areas and finding new competence areas and interfaces between them.

The internationalisation of enterprises and increased mobility of educated workforce create international labour markets that promote development, specialisation, differentiation and structural alliances in educational markets. This requires networking between different levels of education, such as vocational education and universities of applied sciences. The flexibility of vocational education in relation to the development of talented people has to be increased by offering students opportunities to select parts of their qualification from other programmes, and by focusing optional studies on business and industry modules that enable the development of top expertise.

Increasing student participation in learning a profession is a challenging task right now, as upper secondary vocational education has become more attractive and is more popular than ever. Individualisation of learning involves building, creating, supporting and guiding educational and career paths for the talented. This requires a new kind of innovative cooperation and construction of operating networks and systems.

One of the strengths of the Finnish education system is the fact that we take care of everyone – also those who need special support in their studies. This should also be the case in the future. However, today more and more students choose upper secondary vocational education after completing their basic education. Thus, vocational education is attracting a growing number of young people who are talented in many different ways. They are the potential top experts of the future and need suitable guidance in their studies. Flexible education solutions and consideration of individual strengths are the prerequisites for developing top expertise. It is important to note that people who need special support in some parts of life may be extremely talented in another area.

The Roll out the Talent project was born of the desire to recognise and support strengths. Based on preliminary reports, vocational institutions have implemented individualised solutions for potential top experts, but they ap-

peared to be random rather than systematic in nature. ROLL OUT THE TALENT was based on the need to enhance cooperation between educational institutions and enterprises in order to create flexible study path solutions that take students' individual strengths and lifelong learning into account in a systematic manner.

This report describes the results achieved in the ROLL OUT THE TALENT project. It also outlines the project implementation methods. This report supplements the final administrative report compiled in accordance with the European Union Structural Funds information management system (EURA 2007).

We hope this provides an interesting read,

Hämeenlinna, 14.1.2014

Tuomas Eerola, Project Manager

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# 1 Purpose and aims of the project

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The purpose of the ROLL OUT THE TALENT project is to reinforce the overall functionality of the education system for students who are applying for vocational education with the aim of becoming leading lights in their fields.

The aim of the ROLL OUT THE TALENT project was to build regional and cluster-specific partnership networks and innovative operating models that develop vocational top expertise. On the other hand, the project reinforces existing partnership networks in vocational education and the business world, also steering their activities to take the special needs of potential top experts into consideration. The project produces regional and industry-specific models for recognising top expertise and supporting study and career paths. These models and operating methods can also be utilised in other clusters and areas, both nationally and internationally.

The results targets for the project were:

- ✓ to build regional and cluster-specific partnership networks that create innovative operating models to develop top expertise
- ✓ to build Roll OUT THE TALENT teams that serve as regional drivers for development work
- ✓ to produce study and career path steering models for students aiming to become top experts
- ✓ to compile descriptions of cooperation models and operating methods to support the development of top vocational expertise
- ✓ to develop a coaching programme for regional partnership networks that develop top vocational expertise
- ✓ to develop an innovation index for assessing and further development of models that enable top expertise.

## 2 Project implementation model



The implementing partners for the project were HAMK University of Applied Sciences (HAMK) and four vocational education organisers operating in different geographic regions. The project was planned in cooperation with the implementing partners. HAMK Professional Teacher Education Unit had the main responsibility for planning and compiling the funding application. A preparation group consisting of teacher trainers and project staff from HAMK Professional Teacher Education Unit was appointed for project planning.

HAMK Professional Teacher Education Unit is the project administrator and coordinates development work. HAMK had overall responsibility for implementing the project aims, coaching the actors, producing material, development work regarding the innovation index, national and international dissemination of the results, and project finances.

Operating models to enable the development of top expertise were developed in four regions: Hyvinkää-Riihimäki, Imatra-Lappeenranta, Pori-Rauma, and the Vaasa region. A vocational institution operating in each region selected 3 – 4 clusters (sectors) to participate in the project, and invited members to join the ROLL OUT THE TALENT team established within the project. The composition of the regional ROLL OUT THE TALENT teams was based on the assumption that new, innovative activity will arise at the interfaces between different sectors and organisations. The composition of the teams is described in more detail in section 9.1.

Development of operating models was based on the joint aims of the project as well as on regional and sector-specific development plans drawn up at the beginning of the project. The ROLL OUT THE TALENT teams functioned as the drivers of regional development activities in addition to disseminating and embedding the results.

A steering group made up of key stakeholders directed project implementation. The composition of the steering group is presenting in section 5.1. During implementation, cooperation took place with project possessing similar targets, which was aimed at achieving synergy benefits and joint impact.

### 3 Key actions

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The key project actions were:

1. The formation of regional **ROLL OUT THE TALENT teams** to support and development of vocational top expertise and innovative solutions.
2. The development of a **coaching programme** aimed at regional partnership networks, which was tested in conjunction with orientation training for the ROLL OUT THE TALENT teams.
3. The creation and modelling of regional **partnership networks and their operating methods** with the target of developing top vocational top expertise.
4. The arrangement of **training events** in the implementation region, during which teachers and workplace counsellors in the region were given instruction concerning the recognition and development of top expertise.
5. The development of an **innovation index**, which assists in assessment and further development of the innovativeness of vocational education and business world cooperation models. The index was tested by measuring the innovativeness of the cooperation models produced during the project.
6. The production of **material** to support the development and recognition of vocational top expertise, which was disseminated by means of social media. The development of a three-stage **social media utilisation model** suitable for the needs of project work. The dissemination work involved cooperation with several other projects. For example, international dissemination was handled in conjunction with international vocational skills competitions.
7. Proven practices were **disseminated and in part embedded** as part of vocational education and as part of professional teacher education, vocational guidance counsellor and special needs teacher education, and continuing education for teachers by arranging, for example, two joint workshops with professional teacher education units and the KILTA project.

## 4 Target groups and partners

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The immediate target groups for the ROLL OUT THE TALENT project are:

- ✓ Professionals who guide students aiming to develop into top experts:
  - vocational teachers
  - guidance counsellors
  - workplace supervisors.
- ✓ Regional and national partnership networks for vocational education and the business world
- ✓ Basic vocational education bodies
- ✓ Professional teacher education, vocational special needs teacher education, vocational guidance counsellor education and continuing education for teachers.

The indirect target groups for the ROLL OUT THE TALENT project are:

- ✓ Those studying towards a profession
- ✓ Education providers, the civil servant and trade union leadership of vocational institutions
- ✓ International partnership networks for vocational education and working life
- ✓ Companies
- ✓ Employment administration actors.

The development partners for ROLL OUT THE TALENT are:

- ✓ Hyria Education
- ✓ WinNova Länsirannikon Koulutus Oy Ltd
- ✓ Saimaa Vocational College Sampo, formerly South Carelian Vocational College (EKAMO)
- ✓ Vaasa Vocational Institute (VAO)
- ✓ HAMK University of Applied Sciences, Professional Teacher Education Unit.

## 4.1 Corporate partners

Direct (companies reporting to the project) partners:

- ✓ Fazer Bakeries Ltd, Fazer bakery outlet Prisma Lappeenranta
- ✓ Finnlines
- ✓ Hyvinkään Veteraanitalosäätiö (Hyvinkää Veterans' Housing Fund)
- ✓ JV Nortech Metal Oy
- ✓ Konditoria Aleksanteri Oy (bakery and café)
- ✓ Kristina Cruises Oy
- ✓ Leipomo Toivonen Oy (bakery)
- ✓ Linnan Vartijat Oy (security)
- ✓ Outotec (Finland) Oy
- ✓ Skanska Talonrakennus Oy (building construction)
- ✓ Tarkmet Oy (component solutions)
- ✓ Turvatiimi Oy (security).

Indirect partners (took part in project activities):

- ✓ Osuuskauppa Hämeenmaa (cooperative)
- ✓ Rautaruukki Oy (steel products)
- ✓ Ravintola GOTO (restaurant)
- ✓ Saimia (university of applied sciences)
- ✓ Vaasa Engineering Oy (VEO)
- ✓ Wärtsilä Oy Abp.

## 5 Basic project information and administration

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<b>Project name</b>	ROLL OUT THE TALENT
<b>Programme</b>	ESF Operational Programme in Mainland Finland
<b>Programme section</b>	National section
<b>Objective 3</b>	Development of skills, innovation and services systems that promote the functioning of the labour market
<b>Responsible authority</b>	North Ostrobothnia Centre for Economic Development, Transport and the Environment
<b>Starting date</b>	1 May 2011 (funding decision 19 October 2011)
<b>Ending date</b>	28 February 2014
<b>Name of implementer</b>	HAMK University of Applied Sciences
<b>Project responsible person</b>	Seija Mahlamäki-Kultanen
<b>Project manager</b>	Tuomas Eerola
<b>Funding authority monitor</b>	Henri Helander
<b>Project assistant / planner</b>	Elisa Tuominen (until 31.12.2011) Johanna Kokkomäki (1.1.2012 – 21.5.2013) Marja Laurikainen (starting on 1.5.2013)
<b>Social media content production</b>	Niina Mero      Raimo Uotila

**Trainers / experts**

Anita Olkinuora  
 Anu Raudasoja  
 Juha Haukka  
 Martti Majuri  
 Päivi Pynnönen  
 Teija Ripattila

Anne Ruotsalainen  
 Erja Kärnä  
 Kari Korpelainen  
 Pirjo Tuominen  
 Riitta-Liisa Hakkarainen  
 Tia Isokorpi

**5.1 Steering group****Composition of steering group, full members:**

Taina Kivioja, Development Manager, WinNova Länsirannikon Koulutus Oy (chair),  
 Martti Majuri, Research Manager, HAMK Professional Teacher Education Unit  
 (deputy chair),

Mari Rökköläinen, Counsellor of Education, Finnish National Board of Education,  
 Marja-Terttu Tanttinen, Advisor, The Federation of Finnish Technology Industries  
 (until 15.1.2014),

Teija Ripattila, Project Manager, Skills Finland ry,

Jukka Jännetyinen, Guidance Counsellor, Hyria Education (until 12.9.2012),

Sari Vivolin, Guidance Counsellor, Hyria Education (12.9.2012 – 28.1.2013),

Leena Hietanen, Guidance Counsellor, Hyria Education (from 12.9.2012),

Aki Haimi, Project Service Manager, HAMK University of Applied Sciences,

Tuomas Eerola, Project Manager, HAMK University of Applied Sciences (rapporteur),

Johanna Kokkomäki, Project Planner, HAMK University of Applied Sciences (until  
 21.5.2013),

Marja Laurikainen, Project Assistant, HAMK University of Applied Sciences (from  
 21.5.2013)

In addition, the people serving as project monitors were invited to steering  
 group meetings: Advisor Paula Lohikoski and EU Coordinator Henri Helander,  
 from the North Ostrobothnia Centre for Economic Development, Trans-  
 port and the Economy.

**Deputy members:**

Markku Nummi, Head of Unit, Vaasa Vocational Institute, VAO,

Elisa Helin, Counsellor of Education, Finnish National Board of Education,

Juha Mäntynen, Representative, Confederation of Finnish Construction Industries RT

Eija Alhojärvi, Executive Director, Skills Finland ry,

Vesa Markkanen, Lecturer, Saimaa Vocational College Sampo,

Marjatta Kariniemi, Risk Manager, HAMK University of Applied Sciences,

Pirjo Tuominen, Senior Lecturer, HAMK University of Applied Sciences

## 5.2 Assessment team

The steering group appointed members representing the bodies outlined in the project plan to a ROLL OUT THE TALENT assessment team. The assessment team was responsible for defining the assessment plan and monitoring its implementation, and for development work related to the innovation index. The assessment team reported to the project steering group. The assessment is addressed in more detail in section 10.

### **The members of the assessment team were:**

Tuomas Eerola, Project Manager, HAMK University of Applied Sciences (chair),  
Marja-Terttu Tanttinen, representative for business life, The Federation of Finnish Technology Industries,  
Kari Korpelainen, representative for professional education research, 2K Consulting,  
Martti Majuri, representative of professional teacher education, HAMK University of Applied Sciences,  
Pirkko Takatalo, representative of vocational education development networks, The Finnish Association for the Development of Vocational Education and Training AMKE ry,  
Johanna Kokkomäki, Project Planner, HAMK University of Applied Sciences (until 21.5.2013),  
Marja Laurikainen, Project Assistant, HAMK University of Applied Sciences (from 21.5.2013)

## 6 Funding

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The main national funder for the project was North Ostrobothnia Centre for Economic Development, Transport and the Environment. The project received support from the European Social Fund (ESF). HAMK University of Applied Sciences and all four regional institutional partners also participated in project funding.

## 7 Project results

### 7.1 ROLL OUT THE TALENT teams

The target areas and implementing partners were four vocational education and training providers with their networks of business and industry partners:

- ✓ Hyria Education, Hyvinkää-Riihimäki region
- ✓ WinNova Länsirannikon Koulutus Oy Ltd, Pori-Rauma region
- ✓ Saimaa Vocational College Sampo, Formerly South Carelian Vocational College (EKAMO), Imatra-Lappeenranta region and
- ✓ Vaasa Vocational Institute (VAO), Vaasa region.

Each of the four education providers selected the clusters (sectors) to be included in the project and appointed the members and project contact person for the ROLL OUT THE TALENT teams. The members are: a vocational guidance counsellor, vocational teachers representing various clusters, a representative from vocational adult education, a representative from vocational higher education, a representative from the region's business and industrial life and possible experts. The composition of the teams varied somewhat based on regional needs and the teams' operating plans. Each team was led by a principal lecturer or senior lecturer from the HAMK Professional Teacher Education Unit.

TABLE 1. ROLL OUT THE TALENT teams

Vocational institute	Contact person	ROLL OUT THE TALENT team leader
Sampo (Ekamo)	Anna-Liisa Pekkanen	Riitta-Liisa Hakkarainen
Hyria	Markku Loiskekoski	Pirjo Tuominen
VAO	Antti Koskimies	Anita Olkinuora (until 31.8.2013) Tuomas Eerola (from 1.9.2013)
WinNova	Eija Martikainen	Tuomas Eerola

The regional ROLL OUT THE TALENT teams acted as the drivers of development. They have built cooperation, networks and operating models. The goal of a team has been to facilitate different, innovative study paths for students who possess particular strengths. The ROLL OUT THE TALENT teams participated in a coaching programme developed and implemented in the project. HAMK University of Applied Sciences was responsible for implementing the coaching programme. As part of the coaching, the teams compiled operating plans aimed at developing different and innovative study paths for talented students. Such study paths are, for example, various models for expanded on-the-job learning, a university of applied sciences path, an internationalisation path, an entrepreneurship path, and a Taitaja path. The coaching and operating plans were completed on 25 September 2012, after which implementation of the plans began. In the final phase of the project, some of the new operating models were measured by means of an innovation index developed during the project.

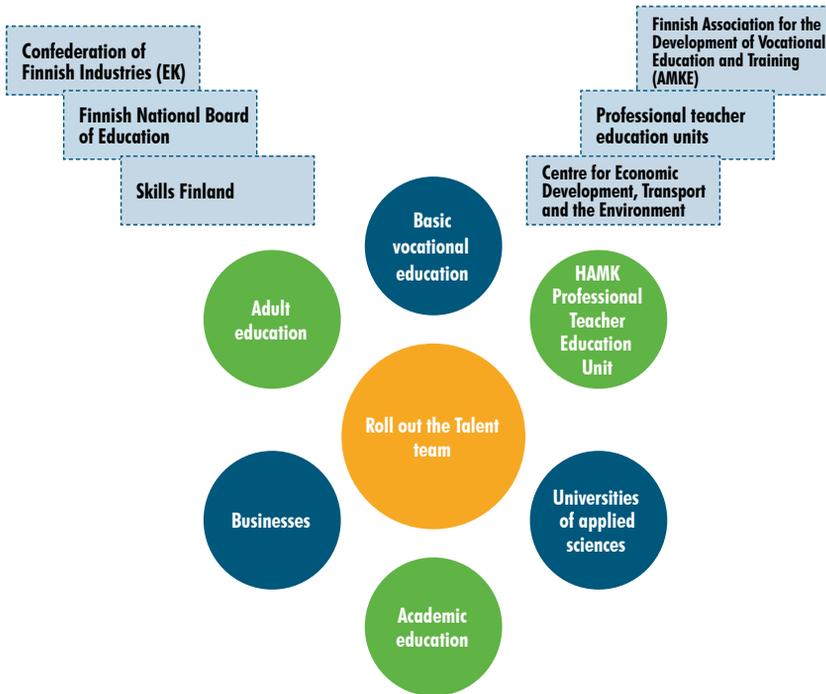


IMAGE 1. ROLL OUT THE TALENT team environment. Image: Johanna Kokkomäki.

## 7.2 Coaching programme

The project involved developing a coaching programme that provided orientation for vocational top expertise and study paths for talented students. The

aims of the programme, compulsory and optional content, target groups, implementation and assessment are outlined in appendix 1.

The coaching programme was tested in conjunction with orientation provided for the ROLL OUT THE TALENT teams on 1 December 2011 – 25 September 2012. Implementation of the coaching was multidisciplinary in nature, comprising joint training days for everyone, regional training and consulting days, guided orientation to Finnish Championships in vocational skills, the Taitaja2012 event in Jyväskylä, guided remote work, and independent work in the ROLL OUT THE TALENT teams. The ROLL OUT THE TALENT Wiki online environment was utilised during implementation of the coaching.

Feedback on the coaching programme was collected from the participants. That feedback indicated that the aims, content and implementation were quite successful. Based on experience, the coaching programme developed in the project could be utilised more extensively in the future.

TABLE 2. Example of coaching programme implementation, Case Hyria.

Date	Content Sectors	Alat
1.12.2011	Joint regional workshop in Hämeenlinna	
14.3.2012	Recognising a top expert from the talent perspective	All
24.4.2012	Jyväskylä Taitaja event VIP tour and ROLL OUT THE TALENT seminar	Social and health care/ business and administration
2.5.2012	Introduction to Taitaja activities and review of its benefits as a method of supporting a talented person	All
30.8.2012	The importance of tacit knowledge and mentoring to support a top expert	Social and health care/ business and administration/ Safety and security
25.9.2012	Joint seminar for all regional teams at Mustiala	All
8.4.2013	Training afternoon for the Hyria team with the theme of recognising a top expert and individual solutions for completing studies	Social and health care/ business and administration
1.12.2011 – 8.4.2013	Sector-specific meetings and remote guidance as needed	All



IMAGE 2. ROLL OUT THE TALENT teams during coaching at Mustiala, 25.9.2012.  
Photographer: Niina Mero.

### 7.3 Regional and cluster-specific cooperation models

In the following sections, the ROLL OUT THE TALENT team leaders report on the results that were achieved in the project during development work on operating models to develop top expertise. Materials produced together in regional ROLL OUT THE TALENT teams were used as reference material.

#### 7.3.1 Hyria

##### Regional and sector-specific development themes

##### Regional themes

The following themes were set as joint development targets for the entire region.

1. All sectors have a single joint vision of individual support for a student: Maximised participation in Taitaja vocational skills competitions and creation of a model for those sectors which do not yet have Taitaja activities.
2. In addition to the above, utilisation of cooperation time will be developed into a visible part of the implementation of Hyria's curriculum by, for example, planning courses that support a student's application for university of applied sciences studies (UAS studies) or the opportunity for students to complete courses from different sectors.
3. The process of motivating and inspiring business and industry to participate in the ROLL OUT THE TALENT project is in progress. Preliminary discussions have been held in various sectors in order to open up cooperation with business and industry.

##### Sector-specific development themes

Social and health care: Individual teaching solutions have been considered in the social and health care sector from the perspective of university of ap-

plied sciences cooperation. Initiation of Taitaja activities and its integration with implementation of teaching. The possibility to complete studies in safety and security.

**Business and administration and metalwork:** Developing corporate cooperation and subsequent support for skills are also a focus of interest in business and administration and in metalwork.

**Safety and security:** The aim in safety and security is to be involved in preparations to make the field a demonstration event at vocational skills competitions. Negotiations also began concerning the possibility of completing UAS studies as part of a vocational qualification in the field.

TABLE 3. Clusters and sectors involved in the Hyvinkää-Riihimäki region ROLL OUT THE TALENT team.

Cluster	Sector	Contact person	Corporate cooperation
Well-being	Social and health care	Minna Tuomi	Hyvinkään Veteraanitalosäätiö (Hyvinkää Veterans' Housing Fund)
Electronics - mechanical engineering and process industry	Machinery and metal technology	Jussi Horelli	–
Service sector	Business and administration	Matti Kymäläinen	Turvatiimi Oyj and Linnan Vartiijat Oy
	Safety and security	Jari Sisso	–

The ROLL OUT THE TALENT team set a particular development theme of supporting top experts through Taitaja activities. Hyria did not have jointly organised activities to prepare for vocational skills competitions, a situation which contributed to making this aim important. Taitaja activities have been incorporated into the strategy of the institute, and project implementation is supported by embedding and making such activities visible also in teaching.

Joint training and development events and sector-specific meetings were held during the project. The operating plan for the project was flexible and could be developed and revised as needed. One of the goals of organising joint events was to revise the operating plan and make possible changes to it. A second goal involved deepening the theme jointly selected by the Hyria team to support top experts, in other words, to develop Taitaja activities at Hyria.

TABLE 4. Model implementation and schedules, Case Hyria.

Sector Cluster	Social and health care Well-being cluster	Safety and security Service sector cluster	Business and administration Service sector cluster	Metalwork Electronics – mechanical engineering and process industry
Starting point Autumn 2012	<p>Info related to Taitaja coaching/ Plan for aims Annual clock and recruiting for coaching Info about UAS studies and agreement with Laurea</p>	<p>Negotiations about demonstration event at Lahti2014 Taitaja event Student recruiting Planning of teaching Attracting partners from the business world</p>	<p>Taitaja coaching / annual clock Developing corporate cooperation / on-the-job learning positions</p>	<p>Developing corporate cooperation to support top experts</p>
Spring 2013	<ol style="list-style-type: none"> <li>1) Semifinals and preparing for them</li> <li>2) Preparation of materials, e.g. Video</li> <li>3) Developing corporate cooperation</li> <li>4) Possibility to complete UAS studies</li> <li>5) Possibility to complete safety and security studies (Control of Threatening Situations)</li> <li>6) Developing counselling activities</li> <li>7) Hiring a student assistant</li> </ol>	<ol style="list-style-type: none"> <li>1) Preparation for starting competition activities/getting students involved</li> <li>2) Preparation of materials, e.g. Video</li> <li>3) Getting teachers involved</li> <li>4) Developing cooperation with the business world</li> <li>5) Cooperation between sectors</li> </ol>	Semifinals/	---
Autumn 2013	<ol style="list-style-type: none"> <li>1) Preparation for semifinals</li> <li>2) Making Taitaja activities part of basic education and reinforcing cooperation with the business world</li> <li>3) Possibility to complete UAS studies</li> <li>4) Using the innovation index for review and development of the process</li> </ol>	<ol style="list-style-type: none"> <li>1) More in-depth preparation and developing Taitaja activities as a part of teaching</li> <li>2) Motivating teachers to participate in Taitaja activities</li> <li>3) Negotiations begin with Laurea concerning completion of UAS studies</li> <li>4) Using the innovation index for review and further development of the process</li> </ol>	Filling in the innovation index and review of the process	---
Spring 2014	<ol style="list-style-type: none"> <li>1) Participation in semifinals</li> <li>2) Continuum for completing the UAS path</li> <li>3) The possibility to complete studies in safety and security.</li> </ol>	<ol style="list-style-type: none"> <li>1) Preparation for the Taitaja competition, students select the participant</li> <li>2) Continuation of teaching implementation from the competition viewpoint</li> </ol>		

### **Testing of models**

The methods to support realisation of the operating plan were implemented in an outstanding manner in social and health care and in safety and security. Both sectors began developing their activities in an area which was unfamiliar and untested. Both sectors clearly demonstrated how important networking is when implementing the plan under development. Well-maintained relations with another institute or the business world contribute to the realisation of ideas. Similarly, teamwork among actors in a project is also fruitful.

### **Testing models in social and health care**

Testing in the social and health care sector involved students who were selected to embed Taitaja activities and students who were completing UAS studies as part of their vocational qualification studies (practical nurse). The practical nursing students who were preparing for the semifinals of the Taitaja competition during the project were the first Taitaja competition participants from Hyria's social and health care programme.

Along with participation in the Taitaja competition, a second testing involved the possibility to complete UAS studies during practical nursing studies. This model became possible because of networking that occurred when a Hyria teacher took part in a working life exchange with the university of applied sciences. These contacts led to joint planning of which study module would best enhance the competence of practical nursing students. Implementation of the study module jointly decided by the actors began in early spring 2013.

Another networking theme has developed between the social and health care and safety and security during the project: cooperation during the project has opened up more opportunities for practical nursing students to utilise safety and security competence. Social and health care students now have the chance to select a module of safety and security studies called Control of Threatening Situations. In terms of content, it is an excellent choice for the changing work of a practical nurse.

### **Testing of models in safety and security**

The testers in safety and security progressed along the Taitaja path towards national skills competitions – the Lahti2014 Taitaja event. Interested student were able to choose competition activities as part of their individual study path. While participating in exercises to prepare for the competitions, they simultaneously complete optional studies included in their qualification. They also get the opportunity – in the words of the students – "to practice assignments that we wouldn't otherwise be able to do".

Teachers and a representative of working life also functioned as testers. The above-mentioned have also developed their own competence during this pro-

ject. The teacher has become familiar with Taitaja activities and networked through Taitaja activities. The working life representative has developed his/her professional skills by means of, for example, specialist in competence-based qualifications training and by serving as a substitute teacher at the institute.

Safety and security has also begun to develop possibilities to complete UAS studies as part of the safety and security qualification. Negotiations with Laurea University of Applied Sciences began in autumn 2013.

### 7.3.2 Saimaa Vocational College Sampo

#### Regional and sector-specific operating plans

South Carelia Vocational College, Ekamo is a multidisciplinary education provider that offers young people education in more than 20 vocational qualifications in seven different fields of education. Ekamo has approximately 3,000 students in three locations: Lappeenranta, Imatra and Ruokolahti. On 1 August 2013, Etelä-Karjalan aikuisopisto Aktiva, which provides adult education, and Ekamo were combined to form a single organisation: Saimaa Vocational College Sampo.

Ekamo's ROLL OUT THE TALENT team comprised five sector-specific groups. These were Machinery and metal technology (mechanical fitting and maintenance), electrical and automation technology (vocational qualification for automation assemblers), vehicle technology (vocational qualification for vehicle mechanics), food production (vocational qualification for baker-confectioners, and social and health care (vocational qualification for practical nurses). The development work for top expert study paths from different sector-specific starting points involved teachers, guidance counsellors and administrative staff as well as Saimaa University of Applied Sciences, Aktiva adult education centre, Fazer-makeiset Oy and Leipomo Toivonen Oy. The project contact person at Ekamo was Anna-Liisa Pekkanen and the team leader at HAMK was Riitta-Liisa Hakkarainen.

At the start of the ROLL OUT THE TALENT, the sector-specific operating plans were built around the following themes:

- ✓ Development of an annual clock for Taitaja coaching in electrical and automation technology and practices for individualising study paths
- ✓ Taitaja coaching process in Machinery and metal technology and principles for peer learning
- ✓ a Roll out the Talent operating model in vehicle technology, or on-the-job learning, qualification modules to supplement vocational skills (core subjects) utilisation of possibilities for differentiation relating to integration and the curriculum

- ✓ in food production, completion of a further qualification for confectioners as part of the vocational qualification for bakers-confectioners
- ✓ in social and health care, recognition of vocational qualification for practical nurses as part of the UAS degree.

### Regional and cluster-specific cooperation models

Ekamo's Machinery and metal technology programme has a long history in terms of Taitaja activities and a staff that is committed to coaching. The sector's aims in the project were closely related to collecting tacit knowledge produced by good Taitaja coaching practices. The education has a well-established culture of activities and competition that is aimed as more effective group learning through peer learning. In practice, peer learning means that students who are farther along in their studies or have more developed skills teach basic skills to students who are just starting their studies. As their skills develop, the new learners gradually become teachers of new beginners. This brings a sense of community to teaching, and the culture of peer learning is transferred from one course to the next as a natural part of Machinery and metal technology teaching. The cycle turns the students into one big learning team in which the teachers also learn.

In the Machinery and metal technology area, preparation for the actual competitions mainly takes place as a part of normal teaching by completing work similar to competition assignments. A diverse combination of networking and business world cooperation is built up around the Taitaja activities in the education. Networking with companies, former students, other vocational institutes, universities of applied sciences and the university, as well as degree committees and various funders is of utmost importance with regard to maintaining and developing competitive activities. Networks are actively utilised so that, for example, students work at workplaces and professionals from the business world come to the institute.

In the electrical and automation technology sector, the project aim was to develop an annual clock for Taitaja coaching in electrical engineering, in other words, to schedule and make the coaching process more systematic and individualise study paths. The need to review the starting points arose from teachers' observations that top expertise in the field typically correlates with mathematical talent. Joint degree students are often vocational top experts, since good study capabilities, initiative, self-direction and motivation make it easier to combine vocational design competence with manual skills. In electrical engineering, competition and coaching activities have been utilised to develop students' vocational competence. The aim is not to compete just for the sake of competing, but to develop better expertise and professional skill in order to give the student the skills needed to obtain a good job or apply for further studies.

During the ROLL OUT THE TALENT project, an annual clock was developed and modelled for coaching in the sector. According to this clock, activities begin in August-September with communications targeting new students and are immediately followed by registration for the mechatronics semifinal event. Coaching for the semifinals begins in October-January, during which the goal is to increase student motivation for developing their competence through training. Coaching for those who advance to the finals begins in January, when, in addition to coaching the finalists, it is important to motivate those who didn't qualify to try again in future competitions. In such cases, coaching involves making a situation analysis and considering the reasons for not qualifying with the student and focusing on finding the motivation to practice again for future semifinal events. Coaching for the finals ends in the spring with the Taitaja competitions. Studies in electrical engineering make use of peer coaching, where students who have already participated in the competitions work with new competitors, especially before important competitions.



IMAGE 3. Annual clock for Taitaja coaching in electrical engineering, Case Sampo.

The aim for vehicle technology education was to create a joint learning culture in which the outcome of work and learning would be the best possible quality of work. The methods for achieving this aim included utilising possibilities for differentiation of the sector-specific curriculum as well as modules to supplement vocational skills (core subjects) and integrating vocational studies.

Within the framework of the project, pilot education for two groups was planned for autumn 2012. This involved first-year students doing seasonal work at a tyre company in addition to more extensive workshop teaching at the institute. Instead of individual success, the goal was to produce 'uniform quality' for the business world, which means good professionals who can work in on-the-job learning positions, are apt and possess the right attitude required to remain committed to a job. Another goal was to work with companies to develop a practice in which a successful on-the-job learning period would provide the student with the chance to become a 'workplace godchild', thus receiving several opportunities for on-the-job learning and perhaps even be employed by that same company after completing his/her studies.

In the pilot education, integration of core subjects with the vehicle technology curriculum was intended to occur so that some of the core subjects (mathematics, physics, chemistry, sector-specific environmental studies and ICT, which are known as integrated core subjects in the model) would be taught by vocational teachers in vehicle technology on a sector-specific basis. The advantage of this system is that integration directly with the sector being studied develops the student's understanding of the importance of the subject and content in relation to the profession. The combination of core and vocational subjects enhances development of the student's practical competence, because combining theory and practice is natural in conjunction with workshop learning. Other core subjects (languages, physical education, arts and culture, social, business and labour market studies, both optional and compulsory) are taught separately. The pilot experiment began with high expectations, but change pressures resulting from combining organisations made it difficult to complete during the project.

TABLE 5. Plan for scheduling integrated core subjects and core subjects in vehicle technology studies.

	Period 1	Period 2	Period 3	Period 4
Year 1	- 24 h/year integrated core subjects (8 credits) - 6 h/year core subjects (2 credits)	- 30 h/year integrated core subjects (10 credits)	- 21 h/year integrated core subjects (7 credits) - 9 h/year core subjects (3 credits)	- 30 h/year integrated core subjects (10 credits)
Year 2	- 24 h/year integrated core subjects (8 credits) - 6 h/year core subjects (2 credits)	- 33 h/year integrated core subjects (11 credits)	- 21 h/year integrated core subjects (7 credits) - 9 h/year core subjects (3 credits)	- 27 on-the-job learning (9 credits)
Year 3i heavy	- 24 h/year integrated core subjects (8 credits) - 6 h/year core subjects (2 credits)	- 27 on-the-job learning (9 credits)	- 21 h/year integrated core subjects (7 credits) - 9 h/year core subjects/year (3 credits)	- 33 h/year integrated core subjects (11 credits)
Year 3 light	- 24 h/year integrated core subjects (8 credits) - 6 h/year core subjects (2 credits)	- 21 h/year integrated core subjects (7 credits) - 9 h/year core subjects/year (3 credits)	- 27 h/year (9 credits)	- 33 h/year integrated core subjects (11 credits)

In food production, the ROLL OUT THE TALENT project was used to examine the possibilities of combining a vocational qualification for baker-confectioners with further qualification for confectioners so that the top expert study path in the confectioners field is deepened by adding optional study modules from the further qualification to the vocational qualification utilising on-the-job learning and coaching for Taitaja, EuroSkills and WorldSkills competitions.

In this operating model, the optional study modules that are similar in content for both levels of education are Confectioner's Decorating Work (further qualification) and Manufacture of special products in small-scale production (vocational qualification). The student can complete the Confectioner's Decorating Work module as a skills demonstration at the semifinals of the Taitaja, EuroSkills or WorldSkills competitions. Preparation for the competitions takes place in cooperation with a partner from the business world according to the practice of on-the-job learning. The advantage of this study path is that student simultaneously earns a vocational qualification certificate and a skills demonstration certificate (partial certificate) for the further qualification. In this way, talented students will already gain a higher level of professional skills and expanded competence during basic studies.

It will also be easier for adult students to complete a further qualification and/or other parts of a specialist qualification by means of an apprenticeship, which will facilitate working in management or supervisory positions. Additionally, a reciprocal model makes it possible for an adult student to select study modules from the course offering in food production. Similarly, a student with a parallel degree in food production (such as cook) can complete partial certificates from the confectioner's further qualification. In this way the resources of adult education and vocational basic education can be combined and education packages offered to other food production professionals.

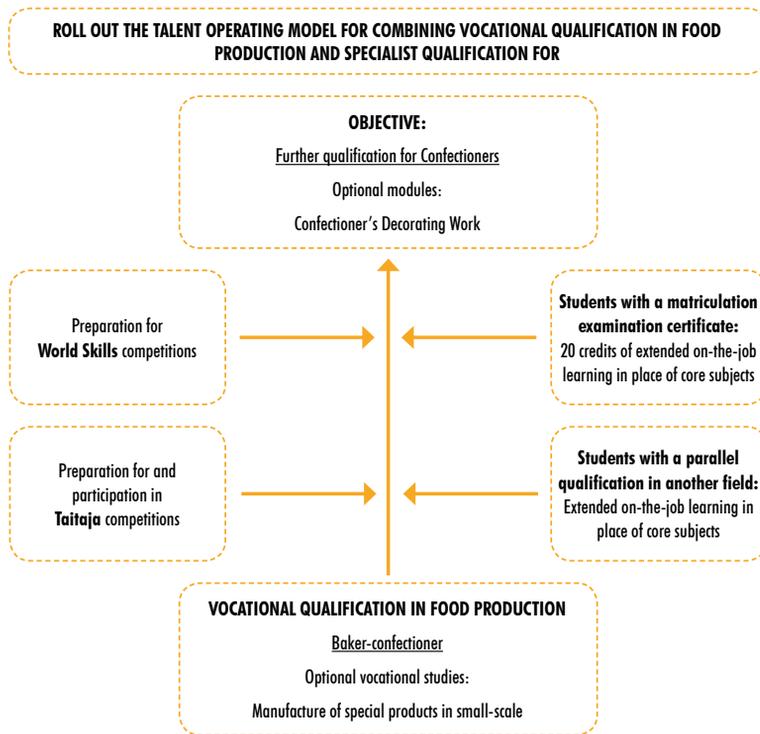


IMAGE 4. Vocational qualification in food production and Further qualification for confectioners.

The aims of social and health care education were related to the recognition of vocational qualification studies in practical nursing in university of applied sciences degrees (UAS degrees) through optional courses and credit transfer. The question arose of what kind of teaching content in a vocational qualification in social and health can be recognised as part of UAS studies and what modules or courses of a UAS degree could a practical nursing student aiming to enter studies to qualify as a registered nurse, public health nurse or physiotherapist at Saimaa University of Applied Sciences possibly complete as optional studies during the vocational qualification. The goal of surveying the opportunities for cooperating with universities of applied sciences was to give students the possibility to benefit from a vocational qualification in later UAS studies in the form of shorter study time resulting from recognition or credit transfer.

Until now, the lack of practices for recognition of prior learning (RPL) in social and health care degree programmes at universities of applied sciences has prevented a seamless continuum of social and health care studies without overlapping in the same municipality. During the project, a national skills test process related to competence recognition began in which the idea was for the student to complete a theory test and case-style assignment in order

to demonstrate competence obtained in prior studies and on-the-job learning with regard to the content and objectives of the course considered for credit transfer. The process is intended to shorten the lead time and raise the rate of approval. These are also important indicators of educational effectiveness in university of applied sciences studies, so both levels of education have a common interest in terms of recognising prior learning. During the project, a situation was achieving in which the views of vocational basic education and university of applied sciences teaching became closer, and the opportunities for RPL arrangements are more visible.

### **Taitaja path**

Within the framework of national and international vocational skills competitions, Ekamo has developed vocational top expertise coaching for more than 10 years, starting when the institute hosted the 2002 Taitaja competition in Lappeenranta. The Taitajien taitaja (Best Winner) award, which has become established practice at vocational skills competitions and is used in Taitaja competitions throughout Finland, dates back to that time. The idea for the prize was originally developed at Ekamo for the Lappeenranta competition.

Methods of coaching and preparing for vocational skills competitions vary in different fields of education, as became apparent in personal interviews and joint workshops during the project. However, a common feature in the Ekamo-style of top expertise pedagogy has been to offer all interested people opportunities and possibilities to develop into a vocational top expert, either by competing or by means of related preliminary preparation assignments. Activities associated with vocational skills competitions improve all students' conditions for learning and raise the level of vocational competence. In order to support competitive activities aimed at vocational top expertise, Ekamo has a Taitaja team comprising teaching staff. The team's task is to develop competition-related coaching, maintain the continuity of activities, and pass on the experiences of competitors and coaches to support the professional growth of new top experts.

The theme of the ROLL OUT THE TALENT seminar held at Ekamo on 25 April 2013 was the characteristics of a top expert and recognising a top expert as well as building an innovative operating environment to support study paths for top experts. Sector-specific development was continued in working groups on the basis of an introduction by Professor Kari Korpelainen. The outcome of the afternoon workshop was that each sector-specific operating model idea included features that could be combined to lay the foundation for recognising top expertise, coaching, and developing and standardising competition practices throughout the organisation. This was the opening volley for the Taitaja study paths at Saimaa Vocational College Sampo operating model, which combined annual clock thinking for coaching towards Taitaja competitions, more unified operating methods for coaching and diverse study paths for top experts. The above-mentioned Taitaja team is a key play-

er in the uniform model, and is responsible for annual implementation and maintenance of the process related to the organisation. Development of the Taitaja study paths operating model was completed in autumn 2013 in cooperation with the ROLL OUT THE TALENT team.

The development of practices to identify potential top experts during the first autumn of studies is also one of the cornerstones of the developing process. The Taitaja team is the development generator, which together with Sampo's pedagogical development team is responsible for the model for further developing practices and implementing the model inside the organisation, as well as for organising joint meetings relating to Taitaja coaching and top expertise within the rhythm of the annual clock.

The enablers of vocational expertise development on the Taitaja study paths are good practices developed in different fields of study, which we aim to benchmark and develop further with consideration to sector-specific starting points inside the organisation. These include the culture of peer learning derived from the Machinery and metalwork sector, the integration of core and vocational subjects developed in the vehicles sector, and utilisation of possibilities for differentiation of the curriculum in the studies of students who progress at an individual pace. Cooperation with the business world and networking as well as more extensive on-the-job learning are other methods that can increase the efficiency of the learning process for students striving for top expertise. Alternative paths for further development of top expertise, either during or after basic education, are provided by ideas developed in the social and health care fields: the UAS path and its possibilities for recognising prior learning and the study of further qualification modules through flexible cooperation arrangements between adult education and vocational basic education.

The benefit of the Taitaja study path model on the road to becoming a top expert appears multifaceted from the perspective of both student and organisation. The Sampo model provides a broader context and development possibilities for cooperation between different fields of study in comparison to the earlier style of carrying out competitive activities separately and with varied operating methods in different sectors. During the ROLL OUT THE TALENT project, the organisation has gained a better understanding of the nature of Taitaja activities and the importance of long-term work in training students who want to become top experts. Sampo's pedagogical strategy is still under construction, but the aim is to make the pedagogical development group's proposal for promoting top expertise a part of Sampo's strategy and operations through systematic and comprehensively organised actions.

The new Study paths model can also be utilised in curriculum work and for individualising the curriculum (PSP work). The operating principles and study and guidance practices developed in the model can be utilised on a student-specific basis depending on the student's own goals or interests. The model also contributes to better recognition of prior learning. The Taitaja path has

already been recorded as one possible study path in Sampo's new individualisation plan (PSP plan), which will be fully implemented in autumn 2014.

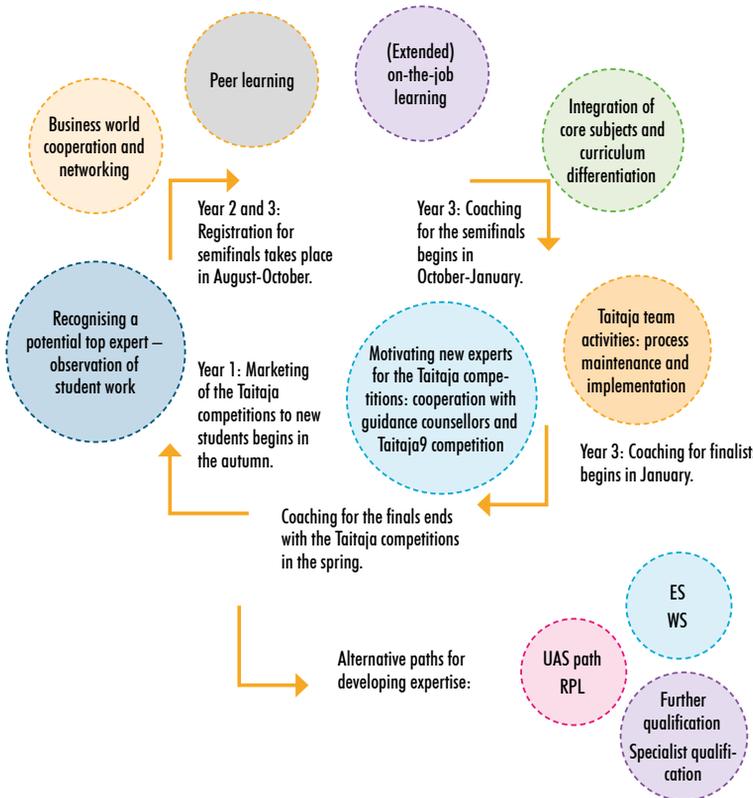


IMAGE 5. Enablers of vocational expertise development on the Taitaja path, Case Sampo.

### 7.3.3 Vaasa Vocational Institute

The following clusters and sectors from the Vaasa region took part in the ROLL OUT THE TALENT project: the Electronics, mechanical engineering and process industry cluster, Energy, Machinery and metal technology, the Built environment cluster, Construction. Development work for operating models that develop top expertise was based on Vaasa Vocational Institute study paths.

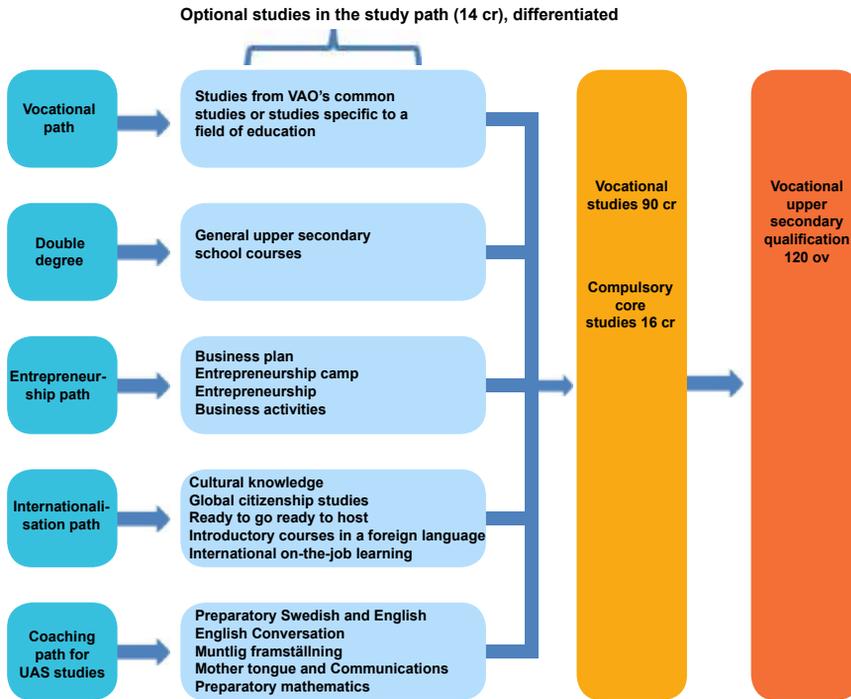


IMAGE 6. Study paths at Vaasa Vocational Institute.

The particular focus of the ROLL OUT THE TALENT project was to develop an international path, extended on-the-job learning applications and a coaching path for university of applied sciences studies (UAS studies) applicable for potential top experts and for double degree students.

**Energy**

3RD YEAR OF STUDY				
Extended on-the-job learning abroad	Theory studies with the group	Study path courses / double degree	on-the-job learning	on-the-job learning

The student goes abroad in the middle of the first on-the-job learning period. The group has theory studies in period 1 and 2. The student will carry out upper secondary school math courses independently. The student will carry out vocational studies through extended on-the-job learning.

IMAGE 7. Schedule for on-the-job learning abroad as part of the vocational qualification for automation assemblers at VAO.

### Karppi model

In addition to Vaasa Vocational Institute, the development partners for an international study path and operating model aimed at potential top experts called the Karppi model were Wärtsilä Oyj Abp and Vaasa Engineering Oy (VEO). This is a matter of international cooperation implemented with several actors, part of which involves recognising and supporting diversity of talent and developing new, flexible study models for students completing their on-the-job learning abroad. This resulted in the development of an operating model that, for example, is also suitable for students completing a double degree. Development of the model is based on cooperation that started already in 2005. The model is described in more detail in a PowerPoint video recording that can be viewed on social media channels at <http://bit.ly/HuiputKehiinFace> and <http://bit.ly/HuiputKehiinYoutube>.



IMAGE 8. An on-the-job learner in international company at Vaasa Vocational Institute.  
Photographer: Olli Karppi.

### Electronics, mechanical engineering and process industry cluster

The model is also spreading to other fields at the Electronics, mechanical engineering and process industry cluster at Vaasa Vocational Institute. The cluster has also experimented with university of applied sciences cooperation so that vocational qualification students could complete UAS studies as part of their studies. Correspondingly, those studying at the university of applied sciences can learn practical skills at Vaasa Vocational Institute. Furthermore, Machinery and metal technology is building a learning environment that offers more flexible possibilities for vocational qualification-further qualification cooperation. All in all, metal technology at Vaasa Vocational Institute has invested in building a workshop environment that can meet the demands of today's business life and offer a learning environment that enables the development of top expertise.



IMAGE 9. Antti Koskimies presents the Machinery and metal technology learning environment at Vaasa Vocational Institute. Photographer: Tuomas Eerola.

### A DESCRIPTION OF THE VAASA UNIVERSITY OF APPLIED SCIENCES (UAS) PATH IN MACHINERY AND METAL TECHNOLOGY

The Vaasa education model provides a flexible study path from vocational college to a university of applied sciences, and from there to university. Students at Vaasa Vocational Institute (VAO) have the option of selecting the UAS path. In this case, the relevant studies consist of languages and mathematics. An average of 20 students take the UAS path in technology each year. In practice, this means that VAO students have been able to select agreed courses from the university of applied sciences (VAMK) and complete them there for credit in vocational college studies. Furthermore, students have completed studies such as Robotics and Technical engineering measurements at VAMK in a separate group for VAO's technology students. VAMK students with a general upper secondary background attend VAO to complete studies in Machining by chip removal and interior installation exercises in electrical engineering. VAMK also arranges a preparatory mathematics course for all interested VAO students. Students who successfully complete the course are eligible for two units of credit transfer at VAMK.

#### Results

Cross-curriculum studies go farthest in the machinery field, which simultaneously serves as a pioneer in this area. Construction and electrical engineering are also at a good development phase. In the long run, the university of applied sciences saves in machinery and equipment investments. The institutes already use the same CAD programs, which have a direct continuum at VAMK. The same harmonisation is also being performed over the long term in other sectors, such as programmable logics. Through teacher cooperation, the content of studies has been revised so that students at the vocational college already obtain skills needed for UAS studies.

#### Construction

In the construction sector, the development of flexible study paths for potential top experts was focused on including extended on-the-job learning as part of personal study plans.

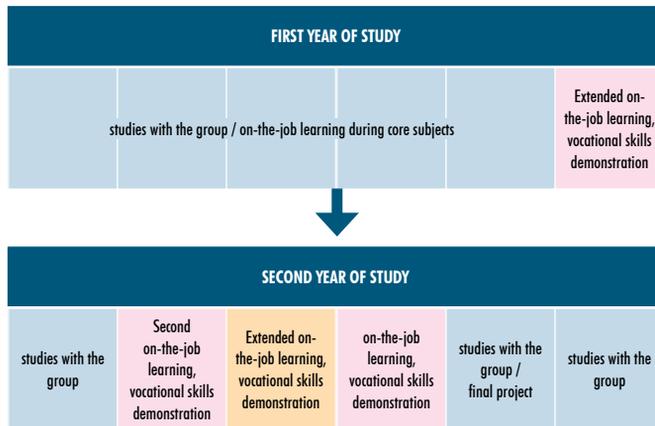


IMAGE 10. Shortened study time, upper secondary school graduate, construction (80 credits), at VAO.

### Case: flexible study path in the construction sector

#### CONSTRUCTION STUDENT, UPPER SECONDARY SCHOOL GRADUATE L.

Upper secondary school graduate L started construction studies in autumn 2012. The studies were based on basic education, and the student was given 40 credits for prior skills. In the very beginning, the head of the student's group noticed that the student had personal initiative and was quick to learn. A personal study plan was drawn for upper secondary school graduate L. The plan included extended on-the-job learning. It also included a plan on how the student could complete the construction studies as quickly as possible.

- While the rest of the group was studying core subjects, upper secondary school graduate L was proceeding with studies at the school's workplace according to the personal study plan.

More detailed plan below; 80 credits of vocational studies:

##### First year

1. period: normal basic work
2. period: structural work with first and second year students
3. period: structural work with first and second year students; roof and facade
4. period: structural work with first and second year students; indoor work
5. period: structural work with first and second year students
6. Extended on-the-job learning including six weeks of second year on-the-job learning (basic work, demonstration completed)

##### Second year

1. period: normal indoor work, renovation work
2. period: on-the-job learning; six weeks of third year studies (renovation work, structural work, facade, roof, renovation, demonstration)
3. period: on-the-job learning; third year studies (indoor work) + thesis
4. period: on-the-job learning normally with second year group. Six weeks. Indoor work demonstration.
5. period: normal
6. period: normal, indoor work.

Student will graduate on 31 May 2014.

### 7.3.4 WinNova

WinNova Länsirannikon Koulutus Oy Ltd's participation in the ROLL OUT THE TALENT project comprised Laboratory Technology, Hotel, Restaurant, Catering and Tourism Industry and Construction. The following is a description of the operation models that were developed by sector.

**Cluster: Electronics, mechanical engineering and process industry**  
**Sector: Laboratory Technology**  
**"One-third at work" model**

An extended on-the-job learning study path aimed at potential top experts was developed in cooperation between Outotec (Finland) Oy and WinNova. The cooperation model was called Kolmannes työelämässä (One-third at work) This is an application of the 2 + 1 model, in which approximately one year of a three-year programme is spent at the workplace. A key part of the model is cooperation between the institution and the company all the way from recruiting students and promoting the attractiveness of the sector to employment of the students. Extended on-the-job learning is carried out in a way that allows flexible study at the workplace and the institute, ensuring that the requirements of the qualification are met. The model is described in more detail in a video and is already spreading to other companies with which the WinNova laboratory cooperates. A description of the model with English subtitles is available on YouTube at <http://bit.ly/HuiputKehiinYoutube>. The video is called Towards Excellence in Vocational Skills, 2+1 Study Path.



IMAGE 11. The "One-third at work" cooperation model was selected as the most innovative ROLL OUT THE TALENT operating model. In the photo: Matti Santala and Taru Saarenmaa at the Outotec (Finland) Oy test laboratory in Pori.

**Cluster: Service**  
**Sector: Hotel, restaurant, catering and tourism industry**  
**Flexible study paths in the tourism, catering and home economics**

Länsirannikon Koulutus Oy, WinNova, Ravintola GOTO Oy, Finnlines Oy and Kristina Cruises Oy participated in developing the flexible study paths in the ROLL OUT THE TALENT project.

- \* The aim is to create individual progression paths for so-called exceptionally successful students.
- \* Not an operating model or study path that is duplicated every year.
- \* The starting point is to take the student's needs into consideration and combine them with the needs of working life.
- \* For the institute to provide the conditions for a student to progress rapidly and promote vocational development in genuine, independent work assignments.
- \* Requires flexibility and the ability to react quickly to changing situations from both the institute and the supervising teacher.

IMAGE 12. Key principles of the Flexible study paths model in the hotel, catering and tourism industry.

Quality on-the-job learning positions are essential to the operating method. A hidden talent may be revealed at the workplace – students who are good at school may not always be good at the workplace. The enthusiasm to develop personal competence towards excellence may arise when a student comes under the supervision of a top chef in a top kitchen. Stress tolerance is best revealed in workplace kitchen.

Cruise companies have been good partners for the institute, providing students with a challenging learning environment that is full of opportunities (of which there has been a shortage at Länsirannikko). The ROLL OUT THE TALENT project has developed existing cooperation: in particular it has development student counselling and attempted to flexibly respond to company recruiting needs.

### **Cluster: Built Environment**

#### **Sector: Construction**

#### **Construction – five zeros vision**

Developing flexible study and career paths for potential top experts in construction is based on cooperation between Skanska Talonrakennus Oy and WinNova. WinNova's values are safety and people orientation. On the other hand, Skanska has a five zeros vision of loss-making projects, of environment incidents, of accidents, of ethical breaches, of defects. This vision is the foundation for cooperation between Skanska and WinNova, the forms of which are:

- ✓ Membership in a working life committee
- ✓ On-the-job learning, locations include
  - TVO Visitor Centre 2005
  - Prisma Rauma 2006
  - Kaunisjärven palvelutalo (retirement home) 2011
  - Several different apartment building worksites in Pori and Rauma
  - Pori Cotton Factory
- ✓ Taitaja semifinals
- ✓ ROLL OUT THE TALENT project
- ✓ Anticipation Chamber for Construction.

The ROLL OUT THE TALENT project has developed cooperation models that enable a study and career path for top experts. Development of the model will also continue after the project ends.

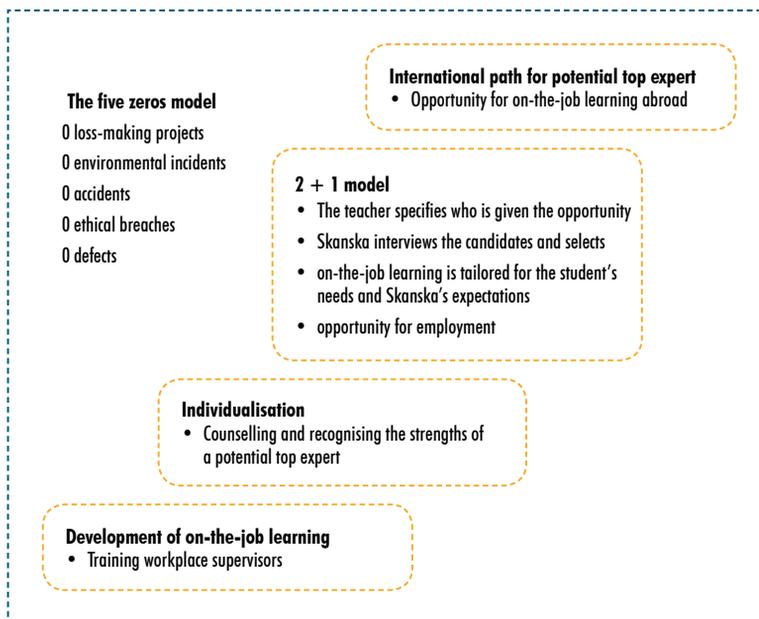


IMAGE 13. Top expert study path, Case Skanska Talonrakennus Oy & WinNova Construction.

## 7.4 Training events

According to the project plan, the ROLL OUT THE TALENT project arranged training events for regions involved, the purpose of which was to support the sectors and projects involved in the product regarding regional dissemination and embedding of the results.

## 7.5 Innovation index

The ROLL OUT THE TALENT project produced an index as a tool for assessment and further development of regional cooperation models and study paths. This index is based on Professor Kari Korpelainen's theoretical model The nature of innovativeness. The project steering group selected this particular model as the theoretical foundation for the index being developed at the recommendation of the ROLL OUT THE TALENT assessment team. The ROLL OUT THE TALENT assessment team was responsible for index development work, but all of the regional ROLL OUT THE TALENT teams also took part in the development process.

Based on the Nature of innovativeness model, the index measures four areas:

- ✓ Recognition of an idea or value
- ✓ New learning
- ✓ New production
- ✓ Sharing of an idea or value.

The test version of the innovation index was completed in autumn 2013. The index was tested by measuring some of the regional cooperation models according to the choice of the regional ROLL OUT THE TALENT teams. In order to select the best models, the ROLL OUT THE TALENT assessment team compiled scoring criteria that were connected to the theoretical foundation of the index and linked to the ROLL OUT THE TALENT aims. The models that received the best innovativeness score were recognised at the ROLL OUT THE TALENT final seminar held in Hämeenlinna on 3–4 December 2013. In addition to the above, the index was tested in cooperation with the IN-NOKOMPPI project by measuring Turku University of Applied Sciences' project workshop model.

Feedback on the index was collected from various actors in conjunction with testing. The final version of the index was developed on the basis of the feedback. The innovation index is appendix 2 to this report.

### 7.5.1 Prize-winning models

As measured by the innovation index, the best ROLL OUT THE TALENT operating models were recognised at the Coaching of Vocational Excellence event held in Hämeenlinna on 3–4 December 2013. The event was arranged in cooperation with the Competitiveness and quality for vocational education through excellence in skills (KILTA) project. The event also served as the final seminar for ROLL OUT THE TALENT.

The "One-third at work" model developed in cooperation between Outotec (Finland) Oy and WinNova received the prize for most innovative model.



IMAGE 14. Taru Saarenmaa and Marjut Jokinen from Outotec (Finland) Oy and Eija Martikainen from WinNova Länsirannikon Koulutus Oy Ltd accepting the prize for the most innovative ROLL OUT THE TALENT operating model. Photographer: Niina Mero.

The other prizewinning models were:

- ✓ "Making Taitaja activities a part of safety and security education" developed by Hyria Education Oy, Turvatiimi and Linnanvartijat
- ✓ "The Karppi model (An international path for top experts)", developed by Vaasa Vocational Institute (VAO), Wärtsilä Oyj Abp and Vaasa Engineering Oy (VEO)
- ✓ "Taitaja study paths at Saimaa Vocational College Sampo", developed by Saimaa vocational College Sampo, Saimia (UAS), Fazer-makeiset and Leipomo Toivonen Oy.

Video recordings of the prizewinning models are available on YouTube at the ROLL OUT THE TALENT playlist address: <http://bit.ly/HuiputKehiinYouTube>.

## 7.6 Material to enhance development of top expertise

### 7.6.1 Publications

The project produced the following publications to support the development of top expertise and disseminate project results:

Tia Isokorpi's publication "Huippuosaamisen pedagogiikka – Näkökulmia oman ammatillisen huippuosaamisen saavuttamiseksi" (The pedagogy of top expertise – Perspectives on achieving personal vocational top expertise), autumn 2013;

The project contributed four articles to a publication edited by Tuomas Eerola entitled "Towards Vocational Top Expertise" (print and electronic publication):

- ✓ Recognising and supporting a student's special strengths
- ✓ Professional growth as part of preparation for top expertise
- ✓ Top experts on the interfaces of work and education
- ✓ How key competences for lifelong learning can support top expertise.



IMAGE 15. Tia Isokorpi presents the recently published book *Huippuosaamisen pedagogiikka* (The pedagogy of top expertise) at the Coaching of Vocational Excellence event in Hämeenlinna on 3 December 2013. Photographer: Niina Mero.

The project published an interim report on 1 November 2012 (electronic).

The project produced a final report that presents the implementation and results of the project. The publication is available in Finnish and English.

A Wiki website was established for the project (<http://bit.ly/HuiputKehiinWiki>), and it also serves as a material bank. In addition to all the material produced during the project, the material bank also contains a joint list of material published earlier that supports the development of top expertise. The Wiki website also has a blog that highlights current project issues and other topics related to the theme.

A Facebook group has been set up for the project (<http://bit.ly/HuiputKehiinFace>). Discussion revolving around the top expertise theme has taken place in the group, for example, in the form of a question of the month. The page also provides information about current matters and shares project work.

A "playlist" for the project has also been established on the HAMK UAS YouTube account (<http://bit.ly/HuiputKehiinYoutube>). The playlist contains all videos produced in the project.

The large number of videos has been produced in the project. All of the video material is available on the Wiki website, ROLL OUT THE TALENT Facebook page and on the HAMK UAS / Roll out the Talent YouTube playlist. The next section presents a list of the videos produced during the project.

## 7.6.2 Video material

During discussions held in the planning phase of the ROLL OUT THE TALENT project, the parties involved particularly hoped that the project would produce material in video format that would be available for viewing on information networks. The ROLL OUT THE TALENT project produced the following video materials to support the development of top expertise. The videos can be viewed in the social media community services listed in the previous paragraph.

### DESCRIPTIONS OF OPERATING MODELS

- ✓ Kohti ammatillista huippuosaamista: 2 + 1 opintopolku
- ✓ Towards Excellence in Vocational Skills, 2+1 Study Path
- ✓ AMK-polku – tie osaamisen syventämiseen (UAS path – the road to deepening expertise)
- ✓ Huippu-osaajaksi kilpailemalla (Becoming a top expert through competition) – Case Ekamo
- ✓ Turvallisuusalan huipuksi ja kilpailemaan (Becoming an expert and competitor in the safety and security sector)
- ✓ Karpin malli (The Karppi model) -powerpoint video

### TRAILERS

- ✓ Towards excellence in vocational skills
- ✓ AMK-polku – tie osaamisen syventämiseen (UAS path – the road to deepening expertise)
- ✓ Huippuosaajaksi kilpailemalla (Becoming a top expert through competition) – Case Ekamo
- ✓ Mikä tekee mestarin? (What makes a champion?) Taitaja 2012
- ✓ Lahjakkuus – Potentiaalista voimaksi (Talent – Potential for power)

### EXPERT INTERVIEWS

- ✓ Teija Ripattila, ROLL OUT THE TALENT – KILTA cooperation
- ✓ Tia Isokorpi, emotional skills and mental coaching
- ✓ Taina Kivioja, the significance of ROLL OUT THE TALENT as a part of vocational education
- ✓ Tuomas Eerola, A three-stage model for utilising social media

## TEACHING MATERIAL

- ✓ Lahjakkuus – potentiaalista voimaksi (Talent – potential for power)

## LECTURE RECORDINGS (only available in Finnish)

- ✓ Videos recorded at the ROLL OUT THE TALENT coaching day held on 25 September 2012:
  - Huiput työelämässä (Experts in the business world), Case Outotec (Finland) Oy
  - Alueellinen ohjaussuunnitelma lahjakkaan ohjauksen välineenä (A regional guidance plan as a tool for counselling talented students), Erja Kärnä
  - Lapland Vocational College entrepreneurship school – Miten menestyjiä valmennetaan? (How to coach successful people) Anne Ruotsalainen
- ✓ Videos recorded at the VIP event at the Taitaja2012 on 24 February 2012:
  - Tunnelmia VIP-kierrokselta (Impressions from the VIP tour)
  - Miia Sironen
  - Teemu Mikkonen
  - Markus Lintuala, ICT-academy
  - Welcome from the Taitaja2012 organisation, Pekka Kolehmainen
  - Taitaja2012 cooperation, Pekka Kolehmainen
  - Taitajat kilpailevat – koulutus kehittyy. (Skilled people compete – education develops) Tuomas Eerola's opening remarks at the VIP event
  - Mikä tekee mestarin? (What makes a champion?) Valmentajat ja tuomarit kertovat (Coaches and judges speak out)
- ✓ Videos recorded at the final seminar on 3–4 December 2013:
  - Seminar opening (Riku Riihilahti and Riittamajja Kuusela-Rantanen)
  - Welcome from the City of Hämeenlinna and HAMK University of Applied Sciences (Sari Rautio and Pertti Puusaari)
  - Yhteistyöstä voimaa (Strength from cooperation) (Teija Ripattila, Skills Finland ry and Tuomas Eerola, ROLL OUT THE TALENT)
  - Osuuskauppa Hämeenmaa regional cooperative (HR Director Susa Nikula)
  - Ruukki (HR specialist Irina Nordström)



- Riku Riihilahti interviews:
  - ◇ Samppa Jaara
  - ◇ Kari Kähkönen
  - ◇ Mira Laine
  - ◇ Sara Kaloinen
- Opiskelijoiden kokemukset joustavista opintopoluista (Student experiences of flexible study paths)
- Huippuosaamisen pedagogiikka (The pedagogy of top expertise) (Tia Isokorpi)
- WorldSkills-kilpailun kokemukset (WorldSkills competition experiences) (student Antrei Hartikainen & expert Marko Varjos)
- Katsaus tulevaan kilpailutoimintaan (A survey of future competition activities) (Tapio Kattainen, EuroSkills Technical delegate)
- Presentation of ROLL OUT THE TALENT results, speeches by cooperation partners
  - ◇ Taina Kivioja
  - ◇ Mari Rökköläinen
  - ◇ Markku Pelkonen
  - ◇ Markku Vengasaho
  - ◇ Tuomas Eerola
- What happens after the project period? Summary of group work.
- Ajatuksia ammatillisen koulutuksen ja huippuosaamisen kehittämisen tulevaisuudesta – ”Maailman osaavin kansa 2020”, (Reflections on developing vocational education and top expertise in the future – ”The Most Highly Skilled Country in the World 2020”), Veijo Hintsanen, Rector (emeritus), HAMK University of Applied Sciences

### 7.6.3 Other material

During the project, preparation of a Master of Business Administration (MBA) thesis entitled ” *How Finnish vocational institutes support talented students in their professional growth towards vocational excellence?*” (working title) began at the University of Wales. The work addresses the development of top expertise at Finnish vocational institutes, how talented students are supported during their studies and how top expertise appears in the institutes.

## 8 Some quantitative results

The ROLL OUT THE TALENT project was a qualitative development project in nature. However, the project did have some quantitative objectives as well. The following table presents the realisation of some of the quantitative objectives.

TABLE 6. Realisation of quantitative objectives.

	<b>OBJECTIVE</b>	<b>Realisation 31.12.2013</b>
Number of regional implementations	4	4
Number of people starting	44	50
Number of companies	12	12
Number of participants in communications and dissemination events	1050	1470
<b>FINANCES</b>		
Budget	338 021 €	311 231,14 €
Separately reported	40 000 €	41 264,50 €

## 9 Communications and dissemination

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Internal and external communications for the project was based on a communications plan. The communications plan was updated as the project progressed. A particular objective was to develop a social media utilisation plan to support both internal and external communications.

### 9.1 Communications plan

The target of the project's internal communications as the organisations involved in the project, regional bodies for vocational skills demonstration, project personnel, steering group and funders. These groups were informed about the progress and impacts of the project and, in particular, the steering group was informed of matters relating to finances and the monitoring indicators.

Internal communications for the project was continuous and took place via the following channels:

- ✓ e-mail
- ✓ website and social media community services
- ✓ the intranets of the administrator and partners
- ✓ meetings and cooperation events
- ✓ personal contacts
- ✓ the target institutes provided information about the project to vocational students through normal communications channels.

The target groups for the project's external communications were the educational organisations and their networks (also other professional teacher education units, vocational upper secondary, adult and university of applied sciences actors), the Finnish National Board of Education and business life organisations.

The project results were also disseminated via international forums and networks.

External communications took place through the following channels:

- ✓ websites and online materials
- ✓ social media
- ✓ posters, brochures and other dissemination material and promo products
- ✓ articles (web, newspaper articles, print and electronic publications)
- ✓ seminars and exhibitions (domestic and international)
- ✓ in conjunction with professional teacher education, guidance counsellor education and special needs teacher education (basic and continuing education).

## 9.2 Three-stage model for utilising social media

The first stage of the project involved opening a website that presented basic information about the project. At a later stage, the website functioned as a mini-portal to social media environments.

After the regional ROLL OUT THE TALENT teams began operating, a ROLL OUT THE TALENT Wiki was opened as a common working environment and communications channel and material bank for actors.

In the third stage, after the project began to produce results, a HAMK ROLL OUT THE TALENT discussion group was opened in Facebook and a project playlist was set up on the HAMK UAS account on YouTube.



IMAGE 16. Three-stage model for utilising social media in the ROLL OUT THE TALENT project.

### 9.3 Important events

EuroSkills 2012, Spa-Francorchamps BELGIUM 4 – 6 October 2012

- The ROLL OUT THE TALENT project shared an exhibition booth with Skills Finland ry and CIMO at the competitions. Among other things, the booth presented the project from the perspective of guiding top expertise. The event attracted more than 40,000 visitors.

WorldSkills 2013, Leipzig GERMANY 2 – 7 July 2013

- The ROLL OUT THE TALENT project shared an exhibition booth with the Ministry of Education, Finnish National Board of Education, Skills Finland ry, CIMO, EduCluster Finland and HAMK Skills Trainers' Academy. The project and its results were presented and the "Towards Vocational Top Expertise" publication distributed to delegates from all participating countries, the hosts of the upcoming WorldSkills and EuroSkills events, competition event experts, exhibition booths of countries participating in the exhibition, participants in the Skills Experience trip, and other visitors to the booth. The event had approximately 205,000 visitors.



IMAGE 17. THE ROLL OUT THE TALENT project was presented at the Finnish stand at the WorldSkills2013 event in Leipzig. Photographer: Pirjo Tuominen.

Taitaja 2013, Joensuu, 14 – 16 May 2013

- The ROLL OUT THE TALENT project shared an exhibition booth with HAMK Professional Teacher Education Unit projects. The project and its results were presented at the booth. Visitors were given the opportunity to write about their best learning experience. A summary of the responses has been compiled for further development. This event had some 37,000 visitors.

Coaching of Vocational Excellence (ROLL OUT THE TALENT final seminar)  
Hämeenlinna, 3–4 December 2013

- The seminar was held in cooperation with the KILTA project run by Skills Finland ry. Approximately 150–160 people took part in the seminar. The programme included expert presentations, functional tasks, and development work carried out in smaller groups. The seminar also presented the results of the ROLL OUT THE TALENT project and included speeches by bodies involved in the project (steering group, regional partners, companies) concerning the success of the project.



IMAGE 18. The Coaching of Vocational Excellence event was held in Hämeenlinna on 3–4 December 2013 in cooperation between the KILTA and ROLL OUT THE TALENT projects. Event host Riku Riihilahti, KILTA project manager Teija Ripattila and ROLL OUT THE TALENT project manager Tuomas Eerola. Photographer: Niina Mero.

Taitaja 2012 Jyväskylä

- The ROLL OUT THE TALENT project shared an exhibition booth with HAMK Professional Teacher Education Unit projects. A VIP tour for representatives of partner institutes and a ROLL OUT THE TALENT seminar were also arranged in conjunction with the Taitaja event. The seminar included case examples of institute-company cooperation and an interview of the 2011 Taitajien Taitaja (Best winner). The Taitaja event had some 42,000 visitors.

UAS and vocational education research days in Hämeenlinna on 10 – 11 October 2013

- The ROLL OUT THE TALENT project held a round table session in cooperation with the Finnish Association for the Development of Vocational Education and Training AMKERY and the INNOKOMPPI project run by Turku University of Applied Sciences. The theme of the session was Innovativeness and, for example, the innovation index developed in the ROLL OUT THE TALENT project was presented there. Around 20 people took part in the round table session.

Ammatillisten opettajakorkeakoulujen yhteistyöpäivät (Cooperation Days for Professional Teacher Education Units), Jyväskylä, 14 – 15 November 2013

- The ROLL OUT THE TALENT project held its own session on top expertise and innovativeness at the event. The results were presented to the entire group of participants. The number of participants was about 40.

Joint coaching day for ROLL OUT THE TALENT regional partners at Mustiala, 25 September 2012

- The final event for the coaching programme, which involved all regional partners and some of the cooperation projects.

ROLL OUT THE TALENT workshop – Views on guiding talented people in Turenki, 17 January 2013

- This workshop was aimed at guidance counsellor educators and involved brainstorming and developing practices for guiding talented people as part of guidance counsellor education. The workshop promoted a new kind of innovative cooperation and building of operating networks and systems in guidance counsellor education. There were 13 participants.

The project has also has a presence at many other events and seminars related to developing top expertise and vocational education, such as Henkilöstönkehittäjien Talvipäivät in Tervakoski on 19 – 20.2012, Huippuvalmennuspäivät in Kuopio (9 – 10.2.2012, Teacher Education Unit round table in Hämeenlinna (14.3.2012), Hanke exhibition at HAMK Professional Teacher Education Unit in Hämeenlinna (28.3.2012), Huippuosaamiseen suuntautuvalle opettajankoulutusryhmälle in Hämeenlinna (29.3.2012), TaitajaPLUS seminar in Hämeenlinna (29.3.2012), Skills cruise seminar (24 – 26.5.2012), Elinikäinen ohjaus ammatillisessa koulutuksessa seminar in Järvenpää (10 – 11 October 2012), and Huippuvalmennuspäivät in Pori (6 – 7 September 2012).

Several coaching days and workshops were also held at regional partner institutes.

## 9.4 Media publicity

The ROLL OUT THE TALENT project has been visible in the following media:

- ✓ Hämeen Sanomat newspaper, 4.12.2013: "Joustavat opintopolut hiovat huippuosaajia" (Flexible study paths shape top experts) (print newspaper and electronic version / Hämeen Sanomat website)
  - An article about the Coaching of Vocational Excellence event (ROLL OUT THE TALENT final seminar) on 3 – 4.12.2013 in Hämeenlinna (in cooperation with the Skills Finland ry KILTA project).
- ✓ Satakunnan Kansa newspaper, 9.12.2013: "WinNova palkittiin oivaltavasta yhteistyöstä yritysten kanssa" (WinNova recognised for innovative cooperation with companies) (electronic newspaper / Satakunnan Kansa website)
  - WinNova "One-third at work" cooperation model was recognised as the most innovative model in conjunction with the Coaching of Vocational Excellence event on 3.12.2013).
- ✓ Satakunnan Kansa newspaper, 27.12.2013: "Tee työtäs leikiten" (cover and story on inside page)
  - An article about Tia Isokorpi relating to top expertise and its pedagogy, about which Isokorpi has also written a book entitled *Huippuosaamisen pedagogiikka – Näkökulmia oman ammatillisen huippuosaamisen saavuttamiseksi* (The pedagogy of top expertise – Perspectives on achieving personal top vocational expertise). One of the ROLL OUT THE TALENT outcomes.
- ✓ Radio Häme, 3.12.2013: A story about the Coaching of Vocational Excellence event on 3 – 4.12.2013 and an interview of Tia Isokorpi associated with the publication of her book entitled *Huippuosaamisen pedagogiikka – Näkökulmia oman ammatillisen huippuosaamisen saavuttamiseksi* (The pedagogy of top expertise – Perspectives on achieving personal top vocational expertise)
- ✓ HAMK University of Applied Sciences newsletter, December 2013: "Ammatillisen osaamisen asiantuntijat koolla Hämeenlinnassa" (Vocational competence experts meet in Hämeenlinna)
  - An article about the Coaching of Vocational Excellence event held on 3 – 4.12.2013 in Hämeenlinna.

- ✓ Skills Finland ry website, 2.12.2013: ”KILTA ja HUIPUT KEHIIN -hankkeet järjestävät yhteisen seminaarin joulukuussa Hämeenlinnassa” (KILTA and ROLL OUT THE TALENT projects hold joint seminar in Hämeenlinna in December) (news on the Skills Finland ry website)
  - Marketing for the Coaching of Vocational Excellence event held on 3 – 4.12.2013.
- ✓ Skills Finland ry newsletter, December 2013: ”Huippuvalmennuksen suurtahtuma Hämeenlinnassa” (Coaching of Vocational Excellence event in Hämeenlinna) (electronic newsletter on the Skills Finland ry website + e-mail distribution list)
  - Information about the Coaching of Vocational Excellence event held on 3 – 4.12.2013.
- ✓ Skills Finland ry Skills forum (discussion channel), November – December 2013: ”Huippuvalmennuksen suurtahtuman 3 – 4.12.2013 markkinointi ja kuulumiset” (Marketing and information for the Coaching of Vocational Excellence event held on 3 – 4.12.2013)
- ✓ Häme Development Centre Ltd website, November – December 2013: ”Huippuvalmennuksen suurtahtuman 3 – 4.12.2013 markkinointi” (Marketing for the Coaching of Vocational Excellence event held on 3 – 4.12.2013)
- ✓ HAMK Professional Teacher Education Unit's Facebook page, throughout the project
- ✓ The regional partners' own communications channels throughout the project, for example, the WinNova website 9.12.2013 "WinNovan ja Outotec Finlandin yhteistyö palkittu" (Prizewinning cooperation between WinNova and Outotec")
- ✓ An article for the Artelogi publication (Tuomas Eerola and Pirjo Tuominen) in autumn 2013, not published at the time this report was written.

## 9.5 Regional and national dissemination

The partner institutes and ROLL OUT THE TALENT teams were responsible for disseminating and embedding the results in their respective regions. The project administrator supported the regions in this task by, for example, arranging training events and producing materials. National and international dissemination was primarily the responsibility of the administrator – HAMK

University of Applied Sciences. One concrete example of regional embedding and further development:

*The Mestari-kisälli (master-apprentice) training started in the Baker-confectioner programme at Sampo is an example of further development of the Taitaja study path model. It involves offering top expert coaching in the confectionery field for students aiming at the EuroSkills and WorldSkills competitions and their coaches. The master-apprentice programme combines aspects of vocational basic education and adult education in order to develop top expertise. This is a thematic continuation of the competence development model developed in the food industry that crosses the boundaries of qualifications, thus making modules from the further qualification part of the vocational qualification.*

National dissemination work was accomplished by producing material to support the development of top expertise as outlined above, and by disseminating these materials via social, electronic and print media and by organising and participating in events to promote this matter. National dissemination was handled with the cooperation projects, especially the KILTA project administered by Skills Finland ry, the INNOKOMPPI project administered by Turku University of Applied Sciences and the Yhdessä (Together) project administered by HAMK University of Applied Sciences. In order to disseminate the themes of top expertise development to professional teacher education, two joint Workshops were held for professional teacher education units, the Finnish National Board of Education, KILTA project and ROLL OUT THE TALENT project. International dissemination was primarily accomplished by participating in large international vocational skills competitions, where it was possible to extensively reach representatives from the project's target groups all at once.



IMAGE 19. In order to develop vocational top expertise it is important that one keeps in shape. ROLL OUT THE TALENT drinking bottles worked well as marketing materials of the project. Photographer: Niina Mero.

## 9.6 International dissemination

International dissemination was implemented for the Cedefop Study Visit group in Hämeenlinna on 23.5.2012, at the EuroSkills 2012 event at Spa-Francorchamps, Belgium on 4 – 6.10.2012, at the WorldSkills 2013 event in Leipzig on 3 – 6.7.2013 and for the Kazakhstani Kasipkor rector group on 12.11.2013. This final report and some of the other dissemination material have also been published in English.

List of English-language dissemination material:

- ✓ Video: Towards Excellence in Vocational Skills, 2+1 Study Path
- ✓ Brochure: Roll out the Talent
- ✓ Publications: Four articles in the "Towards Vocational Top Expertise" publication edited by Tuomas Eerola (print and electronic publication)
  - Recognizing and supporting a student's special strengths
  - Professional growth as part of preparation for top expertise
  - Top experts on the interfaces of work and education
  - How key competences for lifelong learning can support top expertise
- ✓ Final report
- ✓ Thesis: University of Wales / Master of Business Administration (MBA) thesis entitled "*How Finnish vocational institutes support talented students in their professional growth towards vocational excellence?*" (working title).

## 9.7 Workshops

In accordance with the project plan, the ROLL OUT THE TALENT project held two workshops, the target of which was to disseminate top expertise development themes nationally, especially to professional teacher education, professional special needs teacher education and guidance counsellor education. A joint workshop for professional teacher education units, the KILTA project, the Finnish National Board of Education and the ROLL OUT THE TALENT project was held in Turenki on 17.1.2013. A second workshop was held in conjunction with the cooperation days for professional teacher education units in Jyväskylä on 14 – 15.11.2013.

## 9.8 Cooperation with other projects

### **Kilpailukykyä ja laatua ammatilliseen koulutukseen huippuosaamisella, KILTA**

The target of the KILTA project administered by Skills Finland ry is to improve the quality and competitiveness of vocational education by enhancing the competence of teachers and workplace supervisors and their skills to educate top experts.

ROLL OUT THE TALENT has been in continuous cooperation with the KILTA project, for example, regarding dissemination work. The project managers of each project are members of the steering groups of the other project. At the end of 2013, a joint project plan called the Ihanuutta2013 tour was drawn up for improving the effectiveness of dissemination work. However, the project idea did not receive funding at this time.

### **Ammatillinen koulutus työelämän innovaatioiden edistäjäksi**

The Vocational Education as a promoter of business world innovations project administered by the Finnish Association for the Development of Vocational Education and Training AMKE ry develops the innovation practices and structures of educational providers, the innovative ability and innovation pedagogy competence of employees, and new innovative educational services. Pirkko Takatalo from AMKE ry is a member of the ROLL OUT THE TALENT assessment team.

### **Innovaatiokompetenssien mittaaminen, INNOKOMPPI**

The public education system should produce experts for the labour market who are capable of actively participating in the innovation processes of different organisations. The public, private and third sectors continuously need reforms that can be either small improvements to existing products, services or practices or completely new innovations. For universities of applied sciences, this means more effective theme-related

- ✓ teaching and learning methods and
- ✓ tools for assessing the effectiveness of various teaching and learning methods.

INNOKOMPPI – responds to these challenges by producing methods that allow institutes to better verify the impact of different pedagogical operating methods on improving innovation skills. In the future, these new methods will make it possible to focus the resources allocated for education on activities that best provide the innovation competence needed by the labour market.

ROLL OUT THE TALENT has done dissemination cooperation work with INNOKOMPPI. It has also cooperated on testing of the indicators developed in each project.

### **YHDESSÄ**

The YHDESSÄ project develops the pedagogical skills, guidance competence and multidisciplinary cooperation of the staff and stakeholders of vocational upper secondary education and creates new operating models and work forms for the institutes. The goal is to promote the participation and commitment of vocational basic education students to their studies as well as to reduce discontinuation of studies and prevent educational exclusion.

ROLL OUT THE TALENT has produced materials in cooperation with the YHDESSÄ project.

### **HAMK Skills Trainers' Academy**

The basic task of HAMK Skills Trainers' Academy is to promote vocational top expertise by means of education and research. The activities of the Academy are also part of the quality assurance of vocational skills competitions. HAMK Professional Teacher Education Unit administers the ROLL OUT THE TALENT project and HAMK Skills Trainers' Academy. Both projects have objectives to promote the development of top expertise and their activities support each other.

### **Huippuosaamista oppisopimuskoulutuksella project network**

Representatives of one of the project network's sub-projects – Utilising apprenticeship training to develop top expertise – from Salpaus Further Education Adult Education and Working Life Services attended a cooperation meeting in Hämeenlinna on 20.8.2013. In addition, the Top expertise through apprenticeship training project network took part in a joint Coaching of Vocational Excellence event in Hämeenlinna on 3 – 4.12.2013.

### **Huippuosaamiseen suuntautuva opettajankoulutusryhmä**

During 2011 – 2012, the HAMK Professional Teacher Education Unit implemented professional teacher education aimed at developing top expertise. The experiences gained from this group were utilised in disseminating ROLL OUT THE TALENT project themes to professional teacher education.

### Lapland Vocational College Yrittäjyyskoulu

Lapland Vocational College entrepreneur school offers students who are planning business activities (vocational upper secondary qualification, further and specialist vocational qualification) the chance to build their own entrepreneurship plan under the guidance of an expert team of coaches. Coaching in the vocational qualification is constructed around the 10-credit entrepreneurship and 10-credit business modules. For further vocational qualifications, the coaching is mainly built around optional business-related modules.

The experiences gained from the entrepreneurship school and its dissemination project have been utilised in coaching arranged for ROLL OUT THE TALENT teams.

## 10 Assessment



The purpose of assessment is to evaluate realisation of the project objectives and the quality of project activities. Project impact is assessed to the extent that is possible during the period of project implementation. A ROLL OUT THE TALENT assessment team was responsible for assessment. The composition of the team is presented in section 5.2. Project assessment was based on an assessment plan drawn up in compliance with the project plan and was specified according to a proposal from the steering group's assessment team. Feedback was also obtained through social media channels.

TABLE 7. ROLL OUT THE TALENT assessment plan.

Action	2012	2013	2014	Note:
<b>ROLL OUT THE TALENT assessment team</b>				
Establishment	x			Steering group appoints assessment team 12.6.2012
Specification of assessment plan	x			Assessment team specifies assessment plan 24.8.2012
Innovation index development work	x	x		In cooperation with Finnish Association for the Development of Vocational Education and Training AMKE ry, INVOIKO/MPEI, Turku, UKS
Steering group continuously assesses project progress	x	x	x	
Administrator continuously assesses project progress	x	x	x	
Joint impact of project		x	x	Joint impact is assessed with KILTA projects and other cooperation projects
<b>Feedback</b>				
Orientation for ROLL OUT THE TALENT teams	x			Feedback form, feedback collected in Mustiola, 25.9.2012
Regional training events		x		Feedback form
Participants in project activities		x		Webropol survey
Survey for vocational students		x		Webropol survey
Assessment statement requested from regional vocational upper secondary education bodies		x		In writing
<b>Monitoring information</b>				
Monitoring reports	x	x	x	Returned to EURA system according to instructions from the funder
Annual and final reports as required by the funder	x	x	x	According to funder's instructions
<b>Reporting</b>				
Continuous collection of reporting information	x	x	x	Collected continuously in the ROLL OUT THE TALENT wiki
Interim report	x			Published in electronic format
Final report			x	Published in electronic and paper format in Finnish and English
<b>Innovation index</b>				
Index used to score the developed operating methods		x		The best methods are recognised at the final seminar

The final results of a Webropol survey for project actors and statements concerning the planning and implementation of vocational skills demonstrations requested from regional bodies were not yet available when this report was written. These results will be reported in the final report saved in the European Union's Structural Funds information management system (Eura 2007) after the project concludes. Preliminary results indicate that, in terms of cooperation between actors, the project administrator and other project actors are considered to be good cooperation partners, but there should have been more internal cooperation inside the organisations. Participants also appear to be satisfied with project management and objectives – the opportunity to provide feedback and influence the progress of the project received particularly high scores. Preliminary results indicate that although communications was on the whole successful, there was room for improvement in the use of Wiki as an electronic workspace for the project. Personal benefit from the project as well as promotion of cooperation seem to be receiving a score of between 3 and 4 on a scale of 1–5. People are very satisfied with the video recordings, which is evident from the following direct quotes from feedback:

*"Outstanding! Clear and good examples that are easy to use as a model."*

*"They were the best results of the project!"*

*"In my opinion, developing study paths was the best outcome of the project."*

There appears to be considerable variation in the opinions concerning the innovation index.

Based on the assessment information to date, the project implementation model is functional. Interfaces between different sectors and different organisations formed in the regional ROLL OUT THE TALENT teams, which enhanced the development of new ideas and dissemination of good practices. A comment from an Outotec (Finland) Oy representative illustrates the enthusiastic atmosphere: "one of the most inspiring projects that I've been involved in".

The project has achieved its quantitative objectives and will also reach its key qualitative objectives. The project has promoted the development of top expertise in the regions that took part in the project and contributed to improving the overall functionality of the qualification system from the viewpoint of educating young, potential top experts. The project has produced a large amount of material to support the development of top expertise and conducted active dissemination work through social media throughout the country and, to a certain extent, internationally as well. The project has achieved synergy benefits from cooperation with other projects, especially the KILTA project and, in terms of developing innovative operating environments, the IN-NOKOMPPI project.

The ROLL OUT THE TALENT project developed an innovation index which, based on testing, is a functional tool for assessing the innovativeness of cooperation models between vocational education and the business world, and for further development of the models.

The development of top expertise themes have been embedded as part of education for professional teachers, special needs teachers and guidance counsellors carried out at HAMK University of Applied Sciences and for continuing education for teachers. Top expertise themes have also been actively disseminated to other universities of applied science that provide professional teacher education.

## 11 Project impacts

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The regional, cluster-specific cooperation networks and good practices will remain in use and will undergo further development after the project. Responsibility for development work after the project lies with the regional target institutes. As a result of dissemination work, the models can also be applied in other regions and clusters. The orientation and coaching programme for ROLL OUT THE TALENT teams can also be utilised in the future when providing orientation for regional partnership networks regarding the recognition and development of top expertise.

The innovation index developed in the project can be applied by all vocational top expertise developers. The top expertise development themes have been disseminated to professional teacher education, professional guidance counsellor education and professional special needs teacher education. The project results can also be utilised in staff training for staff training of education personnel funded by the Finnish National Board of Education.

The test results from the innovation index indicate that the following structural and functional changes are likely to occur:

- ✓ a change in the work of a professional teacher: corporate cooperation, individual guidance and recognising talented people, guidance in the early phase of studies, from guidance counselling to career counselling
- ✓ cooperation and study paths that cross the boundaries of institute levels: cooperation between universities of applied science and upper secondary institutes, flexible transition from upper secondary to university studies
- ✓ company participation in promoting the appeal of their sector, and planning, implementation and assessment of studies: cost-effective and functional models for extended on-the-job learning
- ✓ flexible study paths: seeing students with particular strengths as 'special needs students' and a positive attitude towards developing top expertise.

## 12 Reporting



The annual reports for 2011 – 2013 have been saved in the European Union Structural Funds information management system (Eura 2007 system). It has been possible to follow the project activities and implementation via the ROLL OUT THE TALENT Wiki and social media. The interim report for the project was published in electronic format on 1.11.2012. This final report will be published in electronic format and in print in Finnish and English. The monitoring reports required by the project's main national funder have been saved in the Eura 2007 system. The standard final project report required by the main funder will also be saved in the Eura 2007 system.

## 13 Summary of project results, good practices and further development needs

The aim of the ROLL OUT THE TALENT project was to build regional and cluster-specific partnership networks and innovative joint operating models that develop vocational top expertise. Another project objective was to reinforce existing partnership networks in vocational education and the business world, also steering their activities to take the special needs of potential top experts into consideration.

The project achieved its quantitative objectives. Operating models to enable the development of top expertise were developed in four geographic regions: Hyvinkää-Riihimäki, Imatra-Lappeenranta, Pori-Rauma, and the Vaasa region. A vocational institution operating in each region selected 3–4 clusters (sectors) to participate in the project, and invited members to join the regional ROLL OUT THE TALENT team established within the project. The ROLL OUT THE TALENT team functioned as the driver of regional development activities in addition to disseminating and embedding the results. The composition of the regional teams was based on the assumption that new, innovative activity will arise at the interfaces between different sectors and organisations. The ROLL OUT THE TALENT teams participated in the coaching programme for orientation towards developing top expertise which was developed and implemented in the project.



IMAGE 20. ROLL OUT THE TALENT teams during coaching day at Mustiala, 25.9.2012.  
Photographer: Niina Mero.

The project produced regional and industry-specific operating models for recognising top expertise and supporting study and career paths. The models are different applications of extended on-the-job learning, university of applied sciences paths, internationalisation paths and Taitaja paths. These models and operating methods can also be utilised in other clusters and areas, both nationally and internationally. Development of the operating models was based on the joint aims of the project as well as on regional and sector-specific development plans drawn up at the beginning of the project. The new operating models are partly described in this report (section 7.3) and partly as videos that can be viewed on social media channels: <http://bit.ly/HuiputKehiinFace> and <http://bit.ly/HuiputKehiinYoutube>.

The ROLL OUT THE TALENT project produced an index as a tool for assessing the innovativeness of regional cooperation models and study paths and for their further development. The index was based on Professor Kari Korpelainen's theoretical model The nature of innovativeness. The index was tested by measuring some of the regional cooperation models. As measured by the innovation index, the best ROLL OUT THE TALENT operating models were recognised at the Coaching of Vocational Excellence event held in Hämeenlinna on 3–4 December 2013.

The project produced materials to promote the development of top expertise: print and electronic text material and a lot of video material. Some of the material was also published in English. The materials are freely available for viewing and utilisation on the above-mentioned social media channels.

During the project, a three-stage model for utilising social media was developed to support implementation and dissemination of results. In order to achieve synergy benefits, the project also cooperated closely with several projects that have similar targets.

The partner institutes and ROLL OUT THE TALENT teams were responsible for disseminating and embedding the results in their respective regions. The project administrator – HAMK University of Applied Sciences – supported the regions in this task by, for example, arranging training events and producing materials. National and international dissemination was primarily the responsibility of the administrator. Dissemination work was carried out on social media channels, via brochures, by organising events and workshops, and by participating in important national and international events to promote the development of top expertise.

The regional, cluster-specific cooperation networks and good practices will remain in use and will undergo further development after the project. The test results from the innovation index indicate that the following structural and functional changes are likely to occur:

- ✓ a change in the work of a professional teacher: corporate cooperation, individual guidance and recognising talented people, guidance in the early phase of studies, from guidance counselling to career counselling
- ✓ cooperation and study paths that cross the boundaries of institute levels: cooperation between universities of applied science and upper secondary institutes, flexible transition from upper secondary to university studies
- ✓ company participation in promoting the appeal of their sector, and planning, implementation and assessment of studies: cost-effective and functional models for extended on-the-job learning
- ✓ flexible study paths: seeing students with particular strengths as 'special needs students' and a positive attitude towards developing top expertise.

These structural and functional changes are not only caused by the ROLL OUT THE TALENT project, but can be attributed to the joint impact of different projects and actions. Flexible education solutions have clearly increased; the focus has shifted from teaching and study guidance towards lifelong learning and career guidance that takes its key skills into consideration. Young, potential top experts who possess particular strengths benefit from these changes: they have the opportunity to receive the guidance that they need – and which is challenging enough to maintain their study motivation. These individualised, flexible solutions mean that every young person and adult studying towards a profession will benefit from the new operating models. The ROLL OUT THE TALENT project has contributed to this development work.

However, the development of flexible and innovative operating methods still requires more work. Despite the excellent case examples, there is still room for deeper cooperation between the business world and institutes on a wide front. Finland needs innovations in order to succeed. The majority of innovations are practical in nature – often based on tacit knowledge. This is why it is extremely important for vocational students' learning environments to support innovativeness and for students to gain experiences of innovative operating methods already during their studies. It is equally important to develop innovative ability and remove barriers to innovativeness are equally important. A vocational top expert is not just an excellent worker but also very good at developing his or her own work. The innovation index developed in the ROLL OUT THE TALENT project provides a tool for assessing the innovativeness of operating methods and for their further development. However, the functionality of the index could be improved by testing it in different operating environments – and by turning it into a tool that works in an online environment. There are also development needs associated with the methods of analysing results obtained from the index.



## 14 Acknowledgements

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On behalf of the project administration, I would like to thank all of the ROLL OUT THE TALENT project partners – without your enthusiastic and committed cooperation this project would never have happened.

A warm thank you to our regional development partners Hyria Education, WinNova Länsirannikon Koulutus Oy Ltd, Saimaa Vocational College Sampo and Vaasa Vocational College and the partnership networks of these institutes, companies and public sector actors for productive cooperation. Thank you to the steering group members and stakeholders represented in the group, cooperation projects, HAMK University of Applied Sciences, and the project's main national funder North Ostrobothnia Centre for Economic Development, Transport and the Environment.

I would also like to express my heartfelt thanks and congratulations to all of the project actors in the regions and here at HAMK University of Applied Sciences for the good results. Running this project has been one of the most inspiring and enjoyable assignments of my career.

Hämeenlinna, 14.01.2014

Tuomas Eerola  
Project Manager

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HAMK Skills Trainers' Academy, <http://www.hamk.fi/skills>

HAMK University of Applied Sciences, <http://www.hamk.fi>

Hyria Education, <http://www.hyria.fi>

Innovaatiokompetenssin mittaaminen, INNOKOMPPI,  
<http://innokomppi.turkuamk.fi>

KILTA-projekti, <http://www.skillsfinland.fi/fi/valmennus/valmennushankkeet>

Kulttuurikilpailu, <http://www.sakustars.fi>

North Ostrobothnia Centre for Economic Development, Transport and the Environ-  
ment, <http://www.ely-keskus.fi/web/ely/ely-pohjois-pohjanmaa>

ROLL OUT THE TALENT project, <http://www.hamk.fi/huiputkehiin>

Saimaa Vocational College Sampo, <http://www.edusampo.fi>

Skills Finland ry, <http://www.skillsfinland.fi>

Taitaja task bank, <http://www.skillsfinland.fi/fi/component/tehtavapankki3>

Vaasa Vocational College, <http://www.vao.fi>

WinNova Länsirannikon Koulutus Oy Ltd <http://www.winnova.fi>

WorldSkills Europe, <http://www.euroskills.or>

WorldSkills International, <http://www.worldskills.org>

## **APPENDICES**





**ROLL OUT THE TALENT**

# Study paths for potential top experts

A coaching programme for regional partnership networks that develop vocational top expertise

[www.hamk.fi/aokk](http://www.hamk.fi/aokk)



**ROLL OUT THE TALENT**

### Aims of the coaching programme

The aim of the coaching programme is to develop new, regional and cluster or sector-specific study and career paths for potential top experts, taking into consideration the principles of lifelong learning.

The programme aims to improve the functionality and applicability of the education system for talented students who possess particular strengths.

The aim is to deepen regional cooperation and increase innovative activities at the interface between different organisations and vocational fields.

The programme strives to increase awareness of top expertise with the goal of further raising the vocational competence level.

[www.hamk.fi/aokk](http://www.hamk.fi/aokk)



## ROLL OUT THE TALENT

### Coaching programme content

#### Joint content for all parties

- Establishment of a regional ROLL OUT THE TALENT team
- Joint planning of team coaching and specification of the coaching programme
- Recognition of talent and guidance for students with particular strengths
- Familiarisation with Taitaja activities and the possibilities they offer
- Regional study and career guidance paths
- Top expertise and entrepreneurship
- Compiling and testing regional operating plans
- Assessment of development work

#### Optional content

- Mental growth as a coach, mental coaching
- New national qualification requirements
- Vocational skills competitions, advanced content
- Mentoring
- Integration of core subject modules

## ROLL OUT THE TALENT

### Target groups for the coaching programme

Representatives from the following groups are selected to the target group according to regional needs:

#### Vocational upper secondary education

vocational teachers  
student counsellors  
institute management and regional bodies  
workplace supervisors

#### Vocational further education

people working with further and specialist vocational qualifications

#### Higher education

representatives of universities of applied sciences

#### Business life / companies

company personnel  
business life organisations

#### General upper secondary education

upper secondary school representatives

## Implementation of the coaching programme

## ROLL OUT THE TALENT

Implementation is multidisciplinary in nature, consisting of contact days, remote work and independent work in the ROLL OUT THE TALENT teams established at the start of coaching.

The supervisor of the coaching process is a principal lecturer or senior lecturer from the Professional Teacher Education Unit. One member of the regional ROLL OUT THE TALENT team is designated as the contact person. The trainers are experts from the Professional Teacher Education Unit and other experts on developing top expertise from institutes and companies.

Implementation is specified in cooperation with the customer and the ROLL OUT THE TALENT team. The duration of the coaching programme is from six months to one year. Coaching includes 4-5 training days and the required number of consulting meetings as well as remote guidance by means of social media. Implementation can also be credited.

### Main themes for the contact days:

Contact day 1: Joint planning, specification of the ROLL OUT THE TALENT coaching programme, coaching targets

Contact day 2: Recognition of talent and guidance for students with particular strengths

Contact day 3: Familiarisation with Taitaja activities and its possibilities they offer (visit to a Taitaja event, VIP tour)

Contact day 4: Optional content

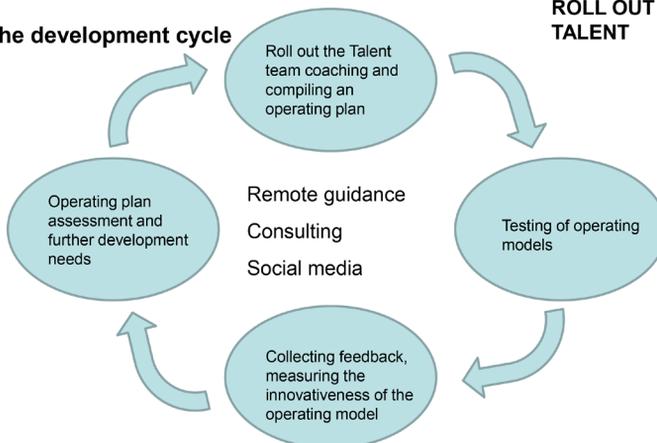
Contact day 5: Regional study and career guidance paths, top expertise and entrepreneurship, presentation of the operating plan, feedback

### Main themes for consulting meetings and remote guidance:

Building the operating plan, producing material to promote top expertise, testing of operating models, dissemination of results, special regional themes, assessment of results and feedback.

## The development cycle

## ROLL OUT THE TALENT



## ROLL OUT THE TALENT

### Outcomes of the coaching programme

1. Establishment of a regional ROLL OUT THE TALENT team
2. Specification of the team's coaching programme according to regional needs
3. Creation of regional and sector-specific models for study paths aimed at talented students
4. A regional operating plan is compiled in conjunction with the coaching programme (= study path plan for students who possess particular strengths).
5. Production of material to support the development of top experts

## ROLL OUT THE TALENT

### Assessment of results

Written feedback is collected from participants in the coaching and reviewed at a sector or cluster-specific consulting meeting. Feedback can also be collected from cooperation partners that took part in the coaching or testing process.

The resulting models are assessed by means of the innovation index developed in the ROLL OUT THE TALENT project. Assessment is carried out by measurement according to the innovation index instructions. The results and further development needs are jointly analysed at a sector or cluster-specific consulting meeting.

# INNOVATION INDEX

## ROLL OUT THE TALENT project

*[www.hamk.fi/huiputkehiin](http://www.hamk.fi/huiputkehiin)*

Version 5, 10.1.2014

# INDEX INSTRUCTIONS

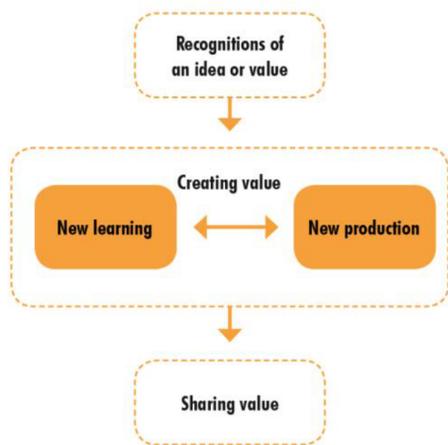
## The nature of innovativeness

*The innovativeness of an individual or community is the recognition of ideas that solve problems or produce value, rapid adoption of ideas and/or continuous production of solutions that produce value, and their dissemination to those who require and are interested in them (Professor Kari Korpelainen, 2009).*

This definition is well suited to the education context when the emphasis is on learning. For this reason, the definition was selected as the **theoretical foundation for the index**. The questions selected for the index were also influenced by thoughts presented by Professor Vesa Harmaakorpi and Anssi Tuulenmäki concerning the practical origin of innovations and draft documents for the upcoming EU programming period, according to which

- social innovations are not assessed only by means of economic criteria but on the basis of the **added value they provide for society**
- innovations are generally **linked to their context**
- **practical experimentation and quality testing** are closely linked to innovations

The theoretical framework of an index (Korpelainen, 2009):



## The purpose of the index

The index is used for **assessing the innovativeness of regional cooperation models** associated with vocational basic education and for **further development of those models**. The index was tested by assessing cooperation models developed in the

ROLL OUT THE TALENT project and study path models intended for young top experts. The index is also used to assess how favourable an environment the models provide for the creation of innovativeness in the future. Based on experiences, version 5 of the index has now been developed.

The index is an **assessment tool and a tool for further development**. The index is context-bound. For example, testing of the index involved assessing and illustrating the development work that took place in the ROLL OUT THE TALENT context. The index is used to **document tacit knowledge**. The index also serves as a tool for further development of the model, highlighting factors that enhance and prevent implementation and dissemination of the model. **The objective of completing the index is an innovative situation in which the model is developed further.**

**During the testing phase for the index, assessment was particularly performed in relation to the aims of the ROLL OUT THE TALENT project and in relation to the individual aims of the ROLL OUT THE TALENT teams.**

*ROLL OUT THE TALENT aims:*

*The aim of the project is to build regional and cluster-specific partnership networks to to develop vocational top expertise. The project reinforces the overall functionality of the education system for students who are applying for vocational education with the aim of becoming leading lights in their fields. The project reinforces existing networks for developing business and industry. The project produces models for recognising top expertise and support study and career paths that can also be utilised in other clusters and areas, both nationally and internationally.*

Based on the testing results, the ROLL OUT THE TALENT assessment team selected the most innovative models, which were recognised at the final project seminar. The choice was based on context-bound scoring criteria drawn up by the assessment team.

## Index testing

**The index was completed by region and cluster.** A responsible person was chosen from each

cluster (the regional ROLL OUT THE TALENT team member), who organises an assessment event where the index is completed. All cooperation partners, such as institutes and companies, teachers, student counsellors, workplace supervisors, students, university of applied sciences representatives, adult education representatives, were invited to join in cluster-specific measurement (the composition of the assessment team varied on a case-by-case basis).

A short discussion was held concerning the index questions, after which a joint response was recorded. A differing opinion can be submitted concerning a response. A representative from HAMK Professional Teacher Education Unit was responsible for running the assessment discussion and recording the results. The measurement situation lasted for approximately 2-2.5 hours.

### Scale

The index uses the following scale:

- Yes / No + verbal justification (+ possible development target)

### The interpretation of innovativeness (Korpelainen & Saikkonen, 2009)

Innovations can be seen as new solutions that verifiably produce value. They can be new "for the entire world" (so-called genuine innovations) or according to a looser definition new only for the user/applier. They can be product, service or method innovations (process innovation). Today, there is also a lot of talk about social innovation and business or concept innovation.

The concepts of creativity and innovativeness can be approached from different perspectives. Depending on the viewpoint, the concepts mentioned above can be seen as either different concepts or synonymously. The term creativity is generally used in psychological research. Since the 1990s, business economics research in particular has utilised the concept of innovativeness instead of creativity. In part, this is due to the fact that creativity does not always produce innovations, which have a certain need and goal orientation associated with them. Innovativeness can be seen as a superordinate, the skill to achieve new things and creativity as a subordinate - the skill to produce ideas (Korpelainen, 2005).

Thus, innovativeness is part of the implementation phase of an idea, but it is not included in creativity. There are also other interpretations. Miettinen (1996, 32) combines innovativeness with creativity and reformation and defines creativity as a feature of the entire innovation process - actors, activities and outcome.

In diffusion research, the concept of innovativeness refers to the time between receiving information about an innovation to the adoption of that innovation (Kolehmainen 1997, 154). Rogers defines innovativeness as the speed of adopting a new idea in comparison to the other members of the adopter's community (Rogers & Shoemaker 1971, 28; Kolehmainen 1997, 154). In line with this view, the first institutions to create or apply new innovations or new educational or work methods are more innovative than others.

For the most part, the question of creativity or innovativeness depends on the branch of science involved. Innovativeness is a social process. The same applies to creativity: for example, according to Csikszentmihalyi's (1997; 1999) so-called field theory, referring to something as significantly creative (the so-called Big C) requires a statement from the field - opinion leaders - concerning the creativity of an individual or product. When we place education alongside innovation, we are close to business and industry and the utilisation perspective, which is why it may in this connection be more natural to speak of innovation than creativity. It is essential to understand that innovativeness includes both the adoption/learning of ideas and their production. Another key requirement for innovativeness is the recognition of ideas, problems or problem areas. Furthermore, ideas should be shared (either for a fee or free of charge) in order for them to spread. The vision of innovativeness adopted in the above-mentioned project can also be illustrated in a diagram (above).

Innovativeness is an important skill needed for developing innovations between individuals and communities and for utilising those innovations. Attention has recently been focused particularly on the community nature of creativity and innovativeness. From these starting points, innovativeness is defined as follows (Korpelainen 2009): *The innovativeness of an individual or community is the recognition of ideas that solve problems or produce value, rapid adoption of ideas and/or continuous production of solutions that produce value, and their dissemination to those who require and are interested in them.*

This definition is well suited to the education context when the emphasis is on learning. It attempts to present the key areas of innovativeness and was utilised when planning the Educational organisers as actors in innovation system (KIT) project and related questionnaire presented here. Innovativeness can be visible in different ways at different levels of the education system. The production aspect of new knowledge is clearly emphasised more at universities of applied sciences than at upper secondary institutes.



## **INNOVATION INDEX**

### **HOW DO I COMPLETE THE FORM?**

- ✓ Read the attached instructions (pages 1-3) before completing the form.
- ✓ Select one cooperation model or operating method / sector (cluster) for measurement.
- ✓ From now on, that cooperation model will be referred to as the "model". The model is assessed as it is in the development phase at the time of measurement.
- ✓ The letters Y / N in the table stand for the options Yes and No. Justification / comments / development needs are recorded in the last column for both 'Yes' and 'No' responses.

***Name of the cooperation model or operating method to develop top expertise:***

---

### **1. BACKGROUND QUESTIONS**

1.1 Institutes and companies involved in the development work:

--

1.2 Cluster (sector):

--

1.3 Persons who responded to the index (teachers, representatives from business and industry, students, other experts):

--

1.4 Date of response:

--

1.5 The activity that is the target of measurement has been recorded in the strategy of the institute

Y/N

How?

--	--	--

1.6 The model implements the strategy of the institute

Y/N

In what ways?

--	--	--

<b>2. RECOGNITION OF AN IDEA OR VALUE</b>		
2.1 The model promotes recognition of new ideas and opportunities	Y/N	How? Other justification / comments / development needs
2.2 The model has increased the ability to recognise talented people	Y/N	In what ways? Other justification / comments / development needs
2.2 The model has increased readiness to recognise prior learning	Y/N	Justification / comments / development needs
2.4 The model has created a new partnership network	Y/N	What kind? Other justification / comments / development needs
2.5 The model has significantly developed an existing network	Y/N	How? Other justification / comments / development needs
2.6 The model has developed the institute / company strategy or an operating method	Y/N	How? Other justification / comments / development needs
2.7 The model has increased regional cooperation	Y/N	What kind? Other justification / comments / development needs
2.8 The model has produced a new study or career path model for vocational students or adult students	Y/N	In what ways? Other justification / comments / development needs
2.9 The model has improved quantitative or qualitative foresight of educational needs	Y/N	In what ways? Other justification / comments / development needs
2.10 The model achieves the aim set for it	Y/N	Justification / comments / development needs
2.11 The model improves the starting point for development work	Y/N	In what ways? Other justification / comments / development needs

<b>3. NEW LEARNING</b>		
3.1 The model enhances learning aimed at becoming a top expert	Y/N	How / how is the result verified? Other justification / comments / development needs
3.2 The model utilises new technology (such as e-learning, mobile)	Y/N	In what ways? Other justification / comments / development needs
3.3 The model has developed teacher competence	Y/N	In what ways? Other justification / comments / development needs
3.4 The model has developed student counsellor competence	Y/N	In what ways? Other justification / comments / development needs
3.5 The model has developed workplace supervisor competence	Y/N	In what ways? Other justification / comments / development needs
3.6 The model has developed student counselling practices	Y/N	In what ways? Other justification / comments / development needs
3.7 The model has developed corporate partner competence	Y/N	Justification / comments / development needs
3.8 The model makes effective use of existing learning environments	Y/N	Justification / comments / development needs

<b>4. NEW PRODUCTION</b>		
4.1 What is the most important new element in the model?		
4.2 The model has produced new interfaces *)	Y/N	Justification / comments / development needs
4.3 The model has produced new or has significantly developed partnerships	Y/N	Justification / comments / development needs
4.4 The actors have gained access to new networks	Y/N	Which? Other justification / comments / development needs
4.5 The model creates a new kind of learning environment and/or new learning methods have been tested in the model	Y/N	How? Other justification / comments / development needs
4.6 The model promotes production of new knowledge and implementation of new operating methods	Y/N	How? Other justification / comments / development needs

\* Interfaces mean joint activities between different organisations or vocational fields at the national and international level.

<b>5. FURTHER DEVELOPMENT</b>
5.1 What are the key development targets for the model in the future
5.2 Who is responsible for further development of the model?
5.3 What are the key factors in terms of promoting and hindering development of the new model?

6. SHARING VALUE		
6.1 The model has been documented / described	Y/N	How? Other justification / comments / development needs
6.2 The benefits of the model have been assessed	Y/N	What are the benefits / for whom Other justification / comments / development needs
6.3 An embedding plan and further development plan have been compiled	Y/N	Justification / comments / development needs
6.4 The model has been disseminated within the organisation	Y/N	How? Other justification / comments / development needs
6.4 The model has been disseminated to cooperation partners	Y/N	How? Other justification / comments / development needs
6.4 The model has been openly disseminated to the public	Y/N	How? Other justification / comments / development needs
6.8 Media visibility	Y/N	Justification / comments / development needs
6.8.1 In the organisation's internal media		
6.8.2 On public websites		
6.8.3 In social media		
6.8.4 In the local newspapers		
6.8.5 In national newspapers		
6.8.6 On TV / radio		
6.8.7 Seminars / press conferences		
6.9 Feedback on the model has been collected	Y/N	How, from whom? Other justification / comments / development needs
6.10 What kind of new cooperation is required for further development of the model?		
6.11 Development work according to the model is particularly focused on (select one or more)		
<input type="checkbox"/> Recognition of an idea or value		<input type="checkbox"/> New production
<input type="checkbox"/> New learning		<input type="checkbox"/> Sharing value

## Assessment criteria and scoring for the innovativeness of regional and cluster-specific cooperation models

Applicable for assessing results collected by means of the ROLL OUT THE TALENT innovation index

Criterion	Max. score	Instructions for scoring
1 All of the cooperation partners are represented in the measurement situation (assessment discussion)	10	One person (1 point) - half of the cooperation partners (5 points) - all of the cooperation partners comprehensively represented (10 points)
2 Number of Y / N responses	5	Yes responses 0 - 10 (1 point), 11 - 20 (2 points), 21 - 30 (3 points), 31 - 40 (4 points), over 40 (5 points)
3 Quality justification in the responses	15	Assess the score on the scale: no justification (0 points) - some responses justified (5 points) - the majority of Y and N responses justified (10 points) - all Y responses are justified and the partners have a justified joint understanding of the development needs in N responses (15 points)
4 Something new has been developed in the operating model	20	Something new for operating model developers (1 - 5 points), something new for the cluster (6 - 10 points), something new for the region (11 - 15), something absolutely new (16 - 20 points)
5 The operating model implements a development plan compiled for the cluster involved at the beginning of the project.	15	The leader of the ROLL OUT THE TALENT team involved assesses this criterion in relation to the team's development on the following scale: not realised at all (0 points) - the operating model corresponds to the development plan completely (15 points)
6 How well the operating model has become established at the practical level	10	Used by model developers (1 - 5 points), established as an operating method in the cluster (+ 1 point), also disseminated for use by another cluster (sector) (+ 1 point), disseminated as an operating method for partner organisations (+ 1 point), disseminated as an operating method throughout the region (+ 1 point), disseminated throughout the country and/or internationally (+ 1 point)
7 The model is considered to produce new competence	15	The operating model is considered to produce new competence for some cooperation partners (for example, those studying towards a vocation) (1 - 5 points), the operating model is considered to produce new competence for several cooperation partners (6 - 10 points), evidence of the operating model's impact on developing competence is based on collected feedback or some other type of systematically collected information (11 - 15 points)
8 During the model measurement situation (assessment discussion), the partners have equally evaluated the completed development work and needs for further development	10	Mainly assessed completed development work (1 - 5 points), mainly assessed development needs (also 1 - 5 points), both assessed (6 - 10 points)
<b>TOTAL</b>	<b>100</b>	

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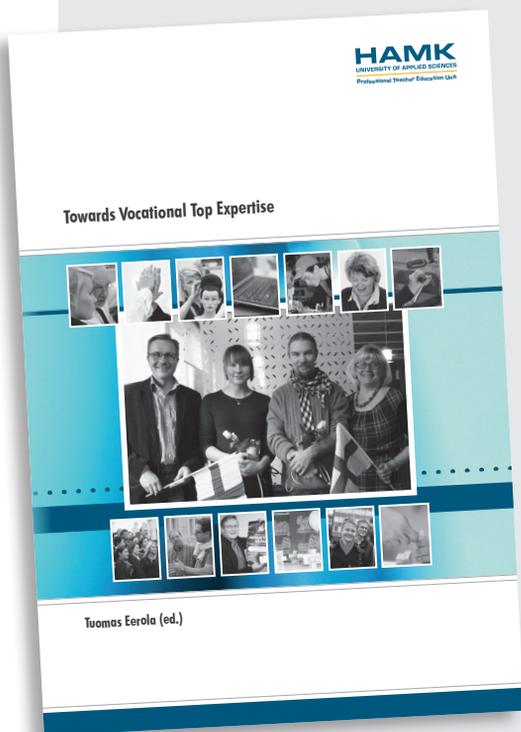
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## Towards Vocational Top Expertise

The book 'Towards vocational top expertise' gives visibility to the work carried out by the HAMK Professional Teacher Education Unit and its cooperation networks to develop vocational top expertise. The book is intended for all those interested in developing vocational competence and vocational education and training in educational institutions and companies alike. Developing top expertise is examined at the level of the individual, the operating environment and the methods.

Hopefully, this publication will also help fuel discussion about how we can best recognize potential top experts, guide and encourage their growth, build learning environments that support the development of top expertise, and apply guidance and counselling methods that optimally support the development of top expertise.



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## Competitions for Everyone

Vocational skills competitions have become established as a form of supporting and developing vocational education. Currently a topical issue lies in developing opportunities for competitors with special needs to enter. *Competitions for Everyone* explains the main concepts related to the topic, and describes competition activities and the main organisations that arrange them. The publication is intended for vocational special education teachers and tutors, workplace mentors and trainers, and anyone else interested in vocational skills competitions. The publication is funded in Finland by the National Board of Education, and the project has also received support from the European Social Fund.



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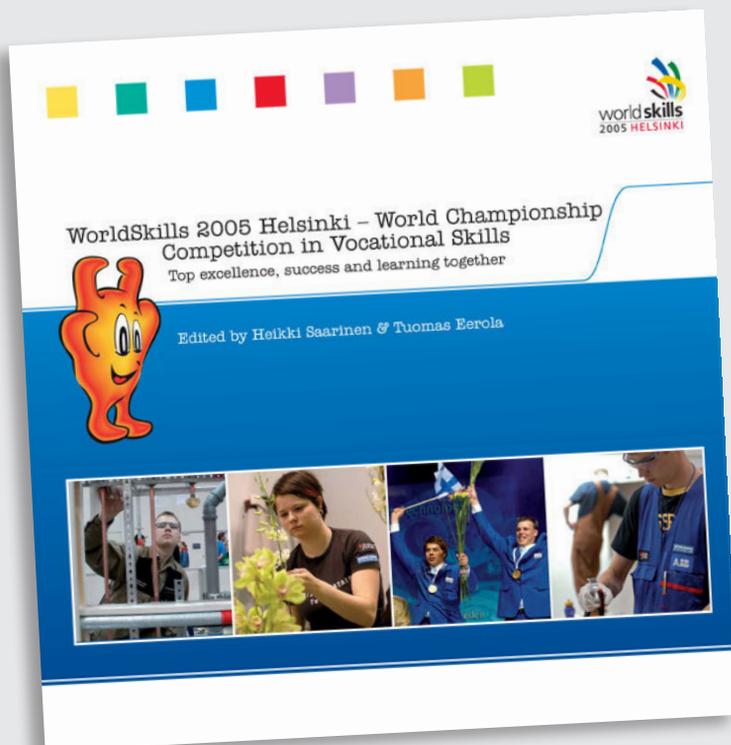
## WorldSkills 2005 Helsinki – World Championship Competition in Vocational Skills

WorldSkills 2005 Helsinki – World championship competition in vocational skills was a success in many ways. The writers of this publication are the representatives of the arrangement organisation and cooperative projects of the WorldSkills 2005 Helsinki competition. It is an excellent overview of the background, planning, implementation, national and international cooperation and results of the competition. The book provides valuable information for the organizers, coaches and competitors of vocational skills competitions and to all those interested in the development of vocational skills and education.



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Leverage from  
the EU  
2007-2013



Vocational upper secondary education has increased its appeal and is now more popular than ever. An increasing number of young people choose vocational education after completing comprehensive school. This means that vocational education is attracting more and more young people with talents in many different areas. They are the potential top experts of the future and require suitable guidance in their studies.

Developing vocational top expertise requires consideration of individual strengths and flexible education solutions that arise out of close cooperation between the business world and educational institutes. On the other hand, cooperation between different sectors is also needed in order to build interfaces that enable the creation of new and innovative operating models.

The ROLL OUT THE TALENT project was born out of the desire to recognise and support the strengths of vocational students and to develop new and innovative operating models. ROLL OUT THE TALENT promoted regional cooperation between institutes and companies. The project produced operating and study path models that take into consideration the individual strengths of vocational students and the principles of lifelong learning.

This is the final report of the ROLL OUT THE TALENT project, and it describes the implementation of the project and its results. The purpose of this publication is to disseminate the good practices produced in the project, both nationally and internationally. The publication is aimed at workplace supervisors, vocational teachers, student counsellors, the management of institutes, teacher trainers and all those interested in developing vocational top expertise.

