

As a result, this study reports the design process of IES as well as introduces the service concept of IES. The findings of this study relate to various challenges and solutions of the services design process in the development of IES at the case university. The results of this study are of practical value for design and management of similar services.

1 The design process of international expertise services

The design process of IES consisted of three main phases, namely 1) needs and analysis, 2) planning and implementation, and 3) evaluation and improvement (Figure 1). Next, we describe the main stages of the design process.



Figure 1 The design process of international expertise services (IES)

2 Needs and analysis

The design process started with needs and analysis phase. This included identifying and analysing the needs of the *main stakeholders* of IES. The main interest groups were identified to be the case university, working life and regional companies, and research trainees themselves. The needs of the key stakeholders were carefully analysed to make sure that the concept would serve its purpose. This was done through interviews of representatives of key stakeholders as well as reviews of various reports and studies indicating the needs.

The *case universities* primary need towards new service was enhancement of integration education, R&D, and regional development. These activities are main pillars of the case university's mission, however their integration at operational level is a great challenge. Exploring and designing new ways for closer integration of these activities and new synergies was found to be important. In the case of *working life*, it was found that the Helsinki Metropolitan area is lacking skilled work force and increasingly needs to import international knowledge workers. In addition to long-term contracts, companies are looking for more

flexible ways for recruiting knowledge workers to their projects. While companies are getting more interested in internationalization and working together with international experts, they are very careful when recruiting new permanent work force. This makes it difficult for international research trainees to find a job themselves, even though there is an increasing need for demand. The needs analysis revealed that *research trainees* are looking for unique work experience that boosts their career development in the future. Also, they are looking for enjoyable and unforgettable experience in a different country and culture. They want to have some fun during their stay, too.

3 Service concept of IES

The service concept of IES gives an insight of the benefits and costs for the key stakeholders involved (Figure 2). In other words, it illustrates what the different stakeholder get from and what they give to the IES. The main stakeholders of the IES are the case university, international research trainees, and the working life. The term “working life” refers to employers, in other words to companies and other organizations.

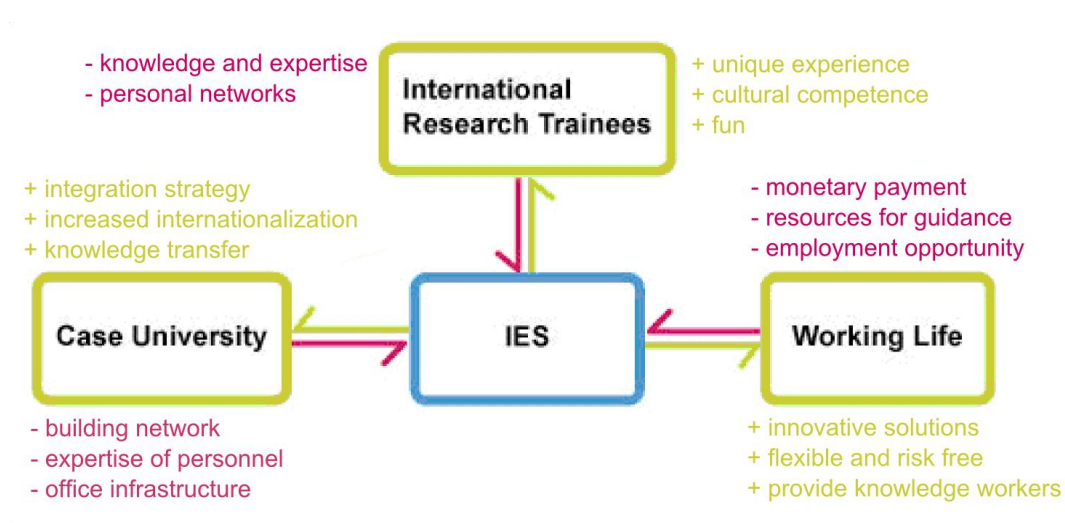


Figure 2 The service concept of IES

Case University

IES functions as a tool for the *case university* to integrate education, R&D and regional development. These are the main tasks of Universities of Applied Sciences in Finland. Teachers and coordinators educate the research trainees by offering project guidance. R&D results are generated through IES by projects carried out in close cooperation with companies in the region, making regional development possible.

IES also benefits the case university’s mission to internationalize its organisation. An international work environment consisting of international and Finnish research trainees as well as coordinators and teachers at the university provides staff and students with a multicultural experience. People involved get an opportunity to develop language skills and intercultural competences throughout the whole organisation.

IES's competence networks and partnerships with Higher Education Institutions, innovation regions and enterprises internationally and regionally have created a foundation for cooperation in the field of applied R&D. This network differs from university's traditional student exchange network, since the international trainees are hired by the university and their work relates to ongoing R&D-projects. The network further enhances the transfer of knowledge between research organisations and working life.

Getting companies involved and convincing them to use international expertise services was sometimes a challenging task. This was the case particularly in the beginning, when IES were launched. While there is need from working life for importing knowledge and expertise; companies are often hesitant when thinking about cooperating with Higher Education Institutions. It was important to win trust, show the benefits of IES and be clear about the outcome from the beginning. Companies expect practical results that benefit their development, so it was very important to target their needs and offer specific solutions. The case university had a clear need to develop a trustful network. Besides increasing the network with companies, it was of substantial importance to find suitable international Higher Education Institutions that were willing to participate within IES. The case university has had for several years a broad existing network of around 150 international Higher Education Institutions. This international network mainly functioned in the past for the purpose of traditional cooperation like student- and teacher exchange. A new network needed to be developed in the field of applied R&D to be able to implement IES, which might take several years to succeed.

When providing services and R&D solutions to companies, there is a certain level of quality that needs to be guaranteed. Students are still developing their competences and need to be guided through the implementation process to be able to deliver and maintain this quality. IES requires experts (teachers) for guiding the research trainees regarding the substance of their projects while coordinators are needed for the process guidance and implementation of practicalities.

An office infrastructure including IT facilities is needed for IES. At the case university, IES is facilitated by various research laboratories. They function as an authentic learning environment providing international research trainees, students and teachers with an opportunity to study, learn and develop different innovations. Such an international environment offers international research trainees, along with the Finnish ones, an opportunity for completing practical work placements and thesis work. Also, a financial contribution is done by the case university, providing the research trainees with a compensation (salary) for their placement at the R&D environment.

International research trainees

IES focuses on increasing the quality of the learning experience by offering *research trainees* a chance to learn in a unique way. Several factors contribute to the creation of this experience. The setting and the working culture are designed to support the learning and R&D-work. Characterised by a flat hierarchy; research trainees, students, coordinators and teachers are working within a supportive structure. Within this community, innovative thinking is encouraged and a good working spirit is considered as a key factor of success. Even though team work and support are important, research trainees carry additional responsibility for the outcome of their projects and have freedom to implement their own ideas.

Another aspect is that by working in a multicultural international environment, the research trainee is able to develop cultural competences. By carrying out an applied R&D project for working life, the research trainee gets a valuable practical work experience which might boost their career development. Besides professional development, the trainee is also able to develop personally. For many research trainees this is the first time abroad, and now they can experience to live by themselves in another country.

IES also aims at providing the research trainee with an enjoyable experience. Fun activities are regularly organized for team building purposes. Singing karaoke, curling, bowling, but also trips to Lapland, Stockholm, St. Petersburg and Tallinn are examples of events organized within IES to give research trainees an unforgettable experience.

Research trainees with different cultural backgrounds from all over the world provide working life and the university with knowledge, expertise and a fresh approach. They have usually good personal contacts in their home countries, thus increasing the network for international expertise services. Research trainees who have completed their placements are valuable for alumni purposes. When they enter to working life themselves, they are potential assigners of new projects within IES. Also they are a marketing tool; many new research trainees within IES have applied for a job placement because former research trainees have been talking positively about their experience within IES.

Working life

Working life benefits from international expertise services by getting innovative and creative solutions to specific problems. International research trainees with diverse backgrounds often have a fresh approach and bring in new expertise into the projects. For companies, IES is a flexible and a risk free way to internationalize their business. Neither a work space nor a salary contract needs to be provided while benefitting from additional R&D input.

IES has turned the case university into a recruitment channel for international experts. It is a way to utilize international partnerships to bring in expertise from higher education institutions and similar labour market clusters from around the world; this way offering a solution to the lack of knowledge workers domestically.

In return, the company pays money for IES. The amount of the payment usually covers the costs for employment of the research trainee, but can vary per case. The company also provides resources for guiding research trainees, especially regarding the content of their projects. Working life gives research trainees, an employment opportunity for doing applied R&D work and getting the chance to experience a 'real life' industry project.

4 Evaluation and improvement

During the past 3 years, about 50 research trainees from 15 different countries have been doing their internship placement for an average of 5 months at the case university's laboratories (Laurea SIDlabs). During this time, IES has been constantly evaluated by coordinators, teachers, company representatives, research trainees and students. Seminars, workshops, presentations and meetings are regularly planned to evaluate the service. Every semester a seminar is organized where participants are encouraged to provide feedback about IES and brainstorm ideas how to improve the service. Presentations about on-going research projects are given, so research trainees can evaluate and get to know each others' projects.

During meetings with the companies, the progresses of the projects are evaluated with representatives from working life. Also, questionnaires are used to get insights about the experiences of the different stakeholders. Improvements are made based on constant evaluation. An example of an improvement and innovation is the development of an online recruitment channel (redlabs.laurea.fi/wiki), which is still in prototype phase, where potential research trainee candidates can apply for an internship placement. Applicants are also able to find more information about doing their internship at 'Laurea SIDlabs' and living in Finland. Coordinators, on the other hand, use the online service to manage the recruitment process more efficiently. IES and Laurea SIDlabs is partly improved and developed by the research trainees themselves. Regularly there are internal projects aiming to improve the service.

5 Conclusions

The purpose of this paper was to increase the knowledge of the development of international expertise services (IES) in a university context. The study was an action research based case study. The authors of this paper have been involved in developing the IES concept at the case university. As a result, this study reported the design process of IES as well as introduced the service concept of IES. The findings of this study related to various challenges and solutions of the services design process in the development of IES at the case university. The results of this study are of practical value for design and management of similar services.

The design process of IES consisted of three main phases, needs and analysis, planning and implementation, and evaluation and improvement. These stages of development process were explained in detail. The service concept of IES, introduced in this article, gave an insight of the benefits and costs for the key stakeholders involved. The main stakeholders of the IES are the case university, international research trainees, and the working life.