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INNOVATION SUPPORT SERVICES AS A FACTOR OF DEVELOPMENT

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## INNOVATION SUPPORT SERVICES AS A FACTOR OF DEVELOPMENT

Finland is internationally evaluated among the most innovative and competitive countries in the world. Finland ranks number four in domestic patent applications per population after Japan, USA and Germany. Finland has near 500 domestic patent applications per million inhabitants. Additionally many innovations in IT have not been patented. Finland uses about 3.3 percent of GDP to research and development activities with both public and private funding. Finland has advanced technology and innovation policies and an active network of organisations in the field of innovation activities.

The Foundation for Finnish Inventions supports and promotes Finnish invention work and the development and exploitation of inventions. The Foundation's basic tasks consist of consultancy, evaluation and protection of inventions, funding patenting, product development and marketing as well as other promotional activities for commercialising inventions.

Finland has during recent years been also very active in the field of innovations in information technology. It covers now about one third of Finland's exports, the two other main industries are forest and metal industries. Of course the largest activities are related to Nokia and its world wide success in mobile phones, networks and communication products.

This growth has a remarkable influence to the field in many ways. Information technology attracts children and students to their future careers. At universities, often as result of inventions from research, new start up companies have been established and many of them have grown to international success.

Many innovative companies are specialized in certain sectors of information technology and communications including in e-commerce or mobile systems.

There are also companies based on internet encryption and security innovations, software solutions, different platforms and also integrated voice and data applications in different information technology products. Remarkable number of small companies are also subcontractors to major companies.

### Know-how Needed

Successful enterprises know why they should and how to invest in research and development which brings results. Although small and medium-sized companies often suffer from lack of resources, know-how and innovative environment, they still manage to produce important inventions and patents. The result is evident in the form of new products, improved competitiveness and success.

Innovations and success in an enterprise depend greatly on the ability to develop, acquire and apply new scientific knowledge and know-how. Research and development within the enterprise, along with the existing and developing expertise of its personnel, provide a basis for the propagation, development and exploitation of competitive inventions. Information and know-how turn into a strategic resource for the enterprise. Often new enterprises are established based on potential and interesting invention, which may become a successful invention.

The success of an innovation may result from technical advantages and / or commercial advantages.

An enterprise can view its know-how through the eyes of a customer or an outside expert by identifying the key expertise in research and development and in the whole value-added chain within the enterprise, and where ideas are generated. On the other hand, one must also investigate where the need for development of know-how and training of personnel is the greatest.

The management of an enterprise or a team plays a central role in the development and utilization of intellectual resources. Customer contacts, aside from forming the basis for most business, are also important sources of inspiration, product ideas and new approaches to research and management problems.

In addition to enterprises, a large number of inventions are made in universities based on research work. Also private persons are a remarkable source for new ideas and inventions.

### From Inventions to Innovations

Both in information technology and in other technical fields the main phases involved in developing an invention into a commercially successful innovation include:

- evaluation;
- use of IPR;
- product development;
- marketing;
- commercialisation.

All these phases require specialists and financial resources. Commercialisation is the key to making the invention successful and earn revenues.

The main objective with any invention is to develop it into a marketable product and an economic success. Computing the value of an invention is very difficult, especially in advance of marketing. The value of an invention and the attendant technical and commercial risks change greatly as product development and commercialisation progress. This value frequently goes up, but only a fraction of inventions made in the world turn out to be breakthrough innovations. In many cases, the inventor's expectations for the success of his or her invention come crashing down if possibly applied patent is not granted, the product does not function as expected, costs get too high, the product does not sell, or a competitor enters the market with a better new product.

The chances of an inventive product should be examined from a business viewpoint by finding and evaluating answers to the following questions:

1. Who are your customers and what are your channels of distribution?
2. Does your profitability analysis look promising?
3. How important is the product to your business and your image?
4. Do you have the requisite intellectual and economic resources for product development?
5. How will the product impact your operations and bottom line?

Continually assessing the product's commercial potential throughout the development process is of key importance. Marketing and commercialization measures take on added import as the project approaches the commercialization phase. The business idea itself is usually evaluated in the light of factors external to the organization on the one hand and internal factors on the other.

### Constant Renewal is Vital

Demand is a central prerequisite for business and for new products and methods. Consumers demand and buy new products, and industries require better and more efficient equipment to keep up with domestic and international competition. To make a product succeed, enterprises need inventions, product development and aggressive marketing. New products also have a great impact on employment, particularly in small and medium-sized enterprises, as they secure existing jobs and create new ones. Preparing for the future and for global markets is a long-term project.

New technologies change the fabric of the economy and facilitate an improved standard of living and the creation of new jobs. Growth of the economy is largely based on know-how and jobs requiring expertise are multiplying. This has a great bearing on education as well. Services account for over two-thirds of the output and jobs in OECD countries. The world is going through a period of fundamental change due to the rapid development of information technology and its ever-increasing utilization and proliferation to most fields of technology. New technologies support a renewing society.

FOUNDATION FOR FINNISH INVENTIONS

