

WIPO/IP/HEL/00/5

ORIGINAL:English

DATE:October2000



NATIONALBOARD OF PATENTS AND
REGISTRATION OF FINLAND



WORLD INTELLECTUAL
PROPERTY ORGANIZATION

**FORUM ON
CREATIVITY AND INVENTIONS – A BETTER FUTURE FOR
HUMANITY IN THE 21ST CENTURY**

organized by
the World Intellectual Property Organization (WIPO)
and
the National Board of Patents and Registration of Finland

in cooperation with
the Ministry of Trade and Industry of Finland,
the Ministry of Education, Science and Culture of Finland

and
the International Chamber of Commerce (ICC),
the International Federation of Inventors' Associations (IFIA),
the Confederation of Finnish Industry and Employers (TT),
the Finnish Inventors' National Federation (KEKE)

**Finlandia Hall
Helsinki, October 5 to 7, 2000**

**INVENTORS AND THEIR STRUGGLE, A WAY OF LIVING – A PERSONAL
REVIEW FROM AN INVENTOR'S LIFE**

*Document prepared by Mr. Sten -Magnus Kullberg, Inventor, Geodesign AB,
Linköping, Sweden*

An inventor as a mixed -up creature

1. A major group of inventors are nonconformists that rock the boat for friends, colleagues and the State. Their view of the world differs, they look from another angle and that is why they suddenly become inventors, finding themselves in a position that is new. In school they do not accept everything coming from the teacher. They ask questions openly and within themselves to understand what the teacher put forward as a truth. A lot of time they think of other explanations, why is it like this, and not like that? By time a unique form of carrier develops, not in the mainstream but on the outside.

2. When this develops in life, it may happen at any time from the early teenage years to middle or senior age. Suddenly you realize that you are an inventor and your thoughts and values are different. This way does not represent an easy way of living. In general, inventors do not get paid for their inventions. They are not good in business and die poor, without any major benefits from their inventions. The inventor is a mixed creature of science and art! In this complexity, how can the inventor survive? How should the inventor benefit from his inventions? What can society do to help him?

Inventors' careers

3. Before answering any of these questions I would like to introduce myself and present my career as an inventor with some of those questions and possibilities that were mentioned just before. I was born in 1955 and grew up in the countryside in the South of Sweden. At an early age I worked at my father's gas station. Repairing cars and providing service was an opportunity to meet many different people. Educated at the technical gymnasium (high school) and later at the electromechanical university and furthered on as a civil engineer in survey and focused on environmental issues. Graduated in 1982. My examination essay was on an odd Austrian philosopher/scientist, Viktor Schauberg, a man whose ideas have inspired me in many different ways. My first real job was at a research institute in 1984, where I stayed until 1992, when I founded my own company, which is still alive. Then, employed part-time at a water company (during 1995 -2000).

4. Below is a list of my inventions over the last twenty years. It will give you insight on an inventor's life and struggle and also provide you with some explanations of failure and success.

Inventors' innovations

Year	Employed	Invention	Realization	Failure or success - an explanation
1979	Student	Low cost procedure for reduced water consumption on flush toilets.	Tests. No patent.	No money for patents, no financial competence. No time leftover, as studies took all time.
1987	Swedish Geotechnical Systems (state owned company)	Flexible sealing layer at disposal sites - "a roof tile technique"	Built a model. Applied for patent.	No field tests. No finance. No PCT. Could not sell the idea to a customer. No success.
Year	Employed	Invention	Realize	Failure or success

1988	Swedish Geotechnical Institute (State research institute)	Erosion control in water courses by established rigid element.	Proposal to invention group at SGI. No patent	25% extra on monthly salary. No good contact net. Not into develop, no final product. The extra income increased self-confidence
1991	Geodesign (100% own company)	Leachate water tower – a device for treatment of contaminated water – using Salix branches and Light Expanded Clay.	Model research, patent application. Project together with waste incineration company for developing in large scale.	Big problems occur with service on the system. No more money for holding patent or further development. Dropped the project 1994. No success
1993	Geodesign	Establishment of flexible element for erosion control in water	Model research. No patent application.	Dormant application. No money and other resources to continue.
1995	Geodesign	Device and procedure for compaction and disposal of incinerator ashes.	Field test. Patent application.	No financial backup. Dropped the patent 1996. Still very interesting project
1995	Geodesign	Mobile flood barrier designed as triple section tube fabricated in plastic membrane.	Prototype. Field test. 50/50 invention together with former student colleague. PCT application	Patents sold due to “conflict” with a colleague in 1996. He founded an ew company with venture capital. Today a competitor on the market.
1995	Geodesign	Anchor-device for mobile plastic tube flood barrier, based on multilayer drainage sheets.	Prototype. Field test. 50/50 invention together with former student colleague. PCT application	Patents sold to colleague in 1996. He founded a new company with venture capital. Today a competitor on the market.
1995	Geodesign	Flood barrier based on pallets, metal supports and plastic membrane	Prototype. Field test. PCT-application. Production	One year to develop. Agents in Germany and Holland. Acceptance on the market. First reference in Sweden 98, Holland 98 and Germany 99. Grand Prix in Geneva 2000. Success with Aqua Barrier. Still tuffe economic situation, as it is expensive to go to market
Year	Employed	Invention	Realize	Failure or success
1995	RIBEA	Device for aeration of water based on hydrocyclones.	Prototype. Field test. Applied in car wash water recycling system. PCT patent.	Two years to develop for water treatment plant. Systems sold in Germany, Sweden and Finland. Oral royalty promise from company not transferred to legal agreement. Success for system but being deceived so far
1996	Geodesign	Device for treatment of water based on textile strips.	Prototype. Field test.	Hard discussion with Baltic company regarding development and license. No agreement. Dropped the patent
2000	Geodesign	Device for mixing and aeration of oxygen to water.	Prototype. Field test.	No patent yet. No money or time for marketing. Dormant patent application
2000	Geodesign	Extended flood barrier based on self-anchoring metal supports, pallets and membrane.	Prototype. Field test.	Enhanced the confidence in the standard flood barrier “Aqua Barrier”

5. A career as an inventor during twenty years is only a part of the truth. Over the years a lot of experience has been accumulated and hopefully someone can learn from it.

Invention process

6. The process of how to invent and to get an idea that is new, is complex. First of a basic knowledge in one or two disciplines or subjects is a basic requirement. You have to learn why and how something works. The more disciplines you govern, the higher the potential. II

7. Here it is important to understand that the truth you learn in school is the best for today but not good enough for the future 100 years ahead. If you have the feeling that the truth and explanations of today are only models and if you know them very well, then you can start to combine experience from different sectors of life, science and art.

8. In any moment you will find yourself close to an invention. In most cases you cannot force it. The process is driven in the full conviction of at last a good solution to a problem. When you suddenly see the solution, sometimes you realize the consequences of it, true or not and how it will conquer the world. What influences it, you will have to branch to work it out. In this first juvenile moment you do not see any problems. There are no competitors on the market, your idea is super and better than the world has ever seen. You do not think about the cost to develop it, you just live with the nice feeling of having invented something.

9. To include all the factors important for success is almost impossible. You will miss some of them, but be lucky enough to have life teach you. Hopefully, not too late, as it is better and easier to correct something when it is small. It is very difficult to be objective to one's own thoughts and ideas. Moreover you are so fascinated over them, that you do not see even a simple mistake. With experience as time passes on, you will come directly to the right assessment of the invention.

10. Here, I expose a problem for the lonely inventor. The more feedback from others you get the better it is. They will reflect from their horizons and quicker than you will realize and correct all the defects that occur in most cases.

11. Having a colleague or a friend as an inventor or partner can both be hell and heaven. It is heaven because of the positive interaction in the invention process and hell when the invention process is over and the business phase starts. At this point, two inventors have to merge their thoughts in the best strategy to be accepted on the market. Normally it is not their best area, where conflict easily arises on what to do next.

12. It is always best if an agreement on paper is done before you start to invent. This will happen the second time you invent, because you have learned the lesson and faced the problems of colleague inventors.

Inventors' financial process

13. When having adjusted the perfect solution that will cover the world, then you will come to the question of how to realize your invention. To rise the capital needed and how to do it without giving away the invention. This great idea must be worth a fortune. By talking to industry, to potential customers you understand that the cost to develop your thought costs a fortune. Your confusion is total. Why is so much money needed for developing, I did it for

nothing. This is where the artist -inventor meets the industrialist and you learn that the first time is hard.

Innovation rights, one among UN Human Rights (a proposal)

14. Reflecting back on the innovations I have made, there have always been questions of how to finance the patent application and when to file it. Once you have applied, time runs quickly. In 18 months you must decide on the PCT patent. During this first time you must be ready to meet the financial situation otherwise you will lose this chance to protect your invention. Feeling that finance is a problem, the State will risk the fact that brilliant ideas will never reach the market. The inventor keeps the solution for himself. Therefore innovation rights, and the right to this property, should be written alongside all the other human rights (UN Declaration of Human Rights).

15. In this way, the State would encourage every individual to put the ideas forward independently of his financial situation. Like the musicians who have royalty upon their music, the inventor should get royalty when using the innovation in society, not depending upon the business capacity to form an agreement as an inventor. No, automatically the society should award the inventor. Today, time and money is the question; will the inventor of the future gain from his patent. With increasing access to the Internet it could be possible to create such a system that would also form a united world of ideas. Innovations are the embryo of the future. Fragile as a child they must be protected and raised. The benefit of innovations will be for the State as well as for the inventor. And most important, it will enhance the spirit of human beings as creators.

[End of document]