Østfold Innovation Ltd. Development and implementation of a business incubator at the Østfold University College of Engineering, Norway.

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Abstract — Business incubators have been established several places in Norway the last 10 years, but very few at regional engineering colleges. Regional business incubators have traditionally been established outside of academic institutions with few relations to students and academic staff. Norwegian engineering colleges have traditionally educated engineers for the established industry, with focus on pure technical skills, and has limited knowledge of how to create new companies, writing business plans and hunt for venture capital. In 1999 a report was published by ECON, stating that Norway will probably loose 800000 jobs over the next 20 years, due to changes in industry structure. Norway has 4 million inhabitants, and since this, several big industry companies have shut down. Until this point, colleges in Norway were not allowed to create commercial companies and own shares in them. This was altered, and new programs like "Young Enterprise" were started up in the compulsory school system. As an answer to this new challenge, Østfold College of Engineering started a process to establish a business incubator. A strategic alliance between academia, industry and government was established. The process lasted for nearly 2 years before the business incubator could open the doors inside the college. In this process the whole project was nearly shut down several times due to political struggles in the region. The business incubator "Østfold Innovation Ltd" have today shareholders from industry, academia and local and regional government. The business incubator will use 80% of its resources toward young entrepreneurs, and the rest towards traditional inventors and business. Several new promising ideas/companies are now under development in the incubator, and the incubator is running several entrepreneurship programs aimed at youths in the region. Østfold College of Engineering was the first college in Norway to start entrepreneurship program for students, the UK Young Enterprise graduate program. This program is managed and run by Østfold Innovation Ltd, giving the business incubator a unique possibility to create new companies. The implementation of a business incubator at Østfold College of Engineering will hopefully boost the ability of the college to become an economic engine in the region.

Index Terms — Business incubator, Industry & University partnership, entrepreneurship program, Young Enterprise.

BACKGROUND

Business incubator concepts emerged in Norway in the beginning of 1985, mainly as a part of political programs to boost economy in regions where traditional industry had to close down. Governmental founding was targeted towards remote regions in North Norway, in a hopeful wish to keep up working places in doomed towns. Huge resources were used to create a few new working places, and to keep dying factories artificially alive. Standard business policy in many Norwegian towns was to turn acres of land into "factory-areas", where industry could settle down and create new working places, and thereby tax-income to the communities. But why move to a new place? In the county of Østfold, huge "factory-areas" was established outside the towns of Moss and Halden with limited success. Business and market consultants were engaged by the communities to help people with ideas to establish new businesses. In many cases these business departments inside the communities was unable to help with no more than simple advices and a telephone-number to another governmental agency, which hopefully could help. These agencies were in lack of money, competence, network and stimulating partnerships. Due to severe industry collapses in the towns of Sarpsborg and Fredrikstad in Østfold County, a business incubator was established in the abandoned buildings of a deserted factory. The "Nedre Glomma Etablerersenter" acted as the first inter community business incubator in Østfold, financed by the towns of Fredrikstad and Sarpsborg together with the County council of Østfold. This incubator had a unique single link to the Østfold College, represented by the foreman of the board, Mr. Steinar Kjuus, assistant Professor in economics. Up to this point one should think that Norwegian authorities expected that empty buildings and deserted "factory-areas" was the key to establish new industry, and profitable working places in Norway. None regarded the colleges and universities as places where new business opportunities could be created, and in the middle of 1990 this was mostly correct. The colleges and universities educated students for jobs in the existing industry, jobs

that was going to disappear. Many colleges and universities avoided contact with industry, and if it existed, it was due to personal engagement by few very motivated professors. The majority of professors kept to the textbooks and their little isolated academic island.

University & Industry interaction before 2000

In 1998, after only two years the new business incubator "Nedre Glomma Etablerersenter" had to close down because of political struggle between the two towns that financed it. Since the incubator was located in Sarpsborg, politicians in Fredrikstad stopped to support it. Regional authorities did also finance the incubator, but it was not enough. The incubator had to close the doors 6 months after Fredrikstad left the partnership. Partnership between towns in the county of Østfold was hard to establish, and struggle between towns is a common rule. The best example is the Østfold University College itself. It is located in three different towns; informatics & economics in Halden, engineering & natural sciences in Sarpsborg and nursing & art in Fredrikstad. The close down of the business incubator "Nedre Glomma Etablerersenter", and the university location, are just two examples of the damaging effects this battle between towns inside the county of Østfold ends up with. The mentality is that, if I can't get it, none shall have it! The separated location of the Østfold University College, because every town wants a bit of it, is also preventing collaboration, research and development inside the College itself. Interaction between these separated units did almost not exist before 2000.

Inside the County of Østfold, research and development for the industry was not handed over to the University, but to a competing research organisation, the "Østfoldforskning". This research organisation was established by the County council of Østfold, and located outside the campus. This organisation was manned by high competent people, and given the opportunity to gain from industry experience. Many of the people working there did so because they were thinking that the university was to "laid back" and isolated. The effect was that the students in the County of Østfold was denied the competence and experience of the county's own research organisation, and that the intellectual development of the university was blocked. No one reacted, and the university itself seemed satisfied in its isolated academic surroundings.

Interaction between university and industry was not only stopped by passive professors and an outsourced research organisation, but also by Norwegian law. Universities and colleges were not allowed to participate in commercial business, and could not own shares in corporate companies. This made investments in laboratory instruments, and commercial use of them difficult. The director of the Østfold University College had to leave the board of directors of "Østfoldforskning", the regional research organisation, because of these rules. The university was almost denied to earn money, and relied totally upon governmental founding. Law prohibited commercial interaction with industry.

By the late 1990 several governmental development programs had been run to boost business in the regions. These programs promoted partnership between governmental institutions and industry, and were open for everyone that applied. Writing of appliance-papers demanded network and resources, so few small companies with limited resources was able to apply. Many of the projects that were launched inside these programs ended up with huge paper-reports and no results. This was due to the founding process. Money was granted for analyses and project-evaluations, not for making things happen. This way of making things happen, or not happen, is inherited from governmental bureaucracy. Governmental organisations are aimed at writing reports, and have limited traditions for "making dreams come through".

Key factors blocking university & industry interaction in Østfold County by 1998

- **Community struggling:** Partnership between towns in the county of Østfold is hard to establish, and struggle between towns is a common rule. This attitude stopped the running of the first business incubator whit university relations.
- **Separated University:** The Østfold University College is divided between three towns. Interactions between these geographical separated departments are almost non-existent. They fight rather than collaborate.
- **Outsourced R&D:** The County council of Østfold established a competing research organisation outside the university. Students in the County are thereby denied the competence and experience of the county's own research organisation.
- **No business allowed:** Universities and colleges were not allowed to participate in commercial business, and could not own shares in corporate companies. Law prohibited commercial interaction with industry.
- **Academic isolation:** Most professors at the university preferred to "stay by the text-book", and to avoid contact with industry. When it happened, it was due to engagements by single enthusiasts.
- **Paper projects:** Many regional development programs/projects was aimed at analysing and report writing. Money was not granted for making things happen, and research reports ended up in the bookshelves.

Factors like these isolated the universities and colleges in their own academic world. No or little experience from the industry penetrated the organisation, except when a new professor was employed. Connection with "the real world" was limited, and the task of the universities and colleges was to prepare the students for the real world, a world that was to change.

NEW POLITICAL CHALLENGES FOR THE COUNTY OF ØSTFOLD

During the 1990's, several towns in the County of Østfold was loosing hundreds of working places each year. Traditional industry was closing down, and no new industry re-established. Statistics showed that in the county of Østfold, with 240000 inhabitants, and 92000 industry employees, approximately 1600 working places was closed down every year. In 1999 ECON published a report stating that Norway, with 4 million inhabitants, would probably loose 800000 jobs over the next 20 years, due to changes in industry structure. The industry in the County of Østfold consists mainly of primary-industry, and the workforce had one of the lowest educational levels in Norway. The expectations towards the new business incubator, "Nedre Glomma Etablerersenter" was huge. During the incubators two years of existence, over 600 persons had applied for consultancy, but only 3 companies had actually been established inside the incubator. These numbers may seem low. Approximately half of the population in the county lives in the two towns of Sarpsborg and Fredrikstad, so the incubator had to produce near 800 working places each year to keep up with the vanishing jobs. This huge number, 800/year, was of course an impossible task, but the actual results made by the incubator was clearly to low. This low result must be coupled to the educational level of the inhabitants of the County of Østfold, and not to the efforts made by the incubator, manned by only two persons. Every employee carried out 150 consultancies each year, a respectable result. Research done by "Confederation of Norwegian Business and Industry", NHO (Næringslivets Hovedorganisasjon), shows that the creation-grade for new companies is coupled with the educational level in the region, and especially the competence of engineering and natural sciences. This result must be coupled to the limited success of the first incubator. It seems that the "seed" the incubator had to work with was of to poor quality.

Challenges in industry politicks

- **1600 jobs/year:** To keep up with the closing down of working places in Østfold, it is necessary to create 1600 new jobs each year. Half of these, 800/year, must come in the towns of Fredrikstad and Sarpsborg.
- **Primary industry:** The majority of industry in Østfold is primary industry, relying on raw material. The products consist mainly of semi-manufactured articles.
- **Low competence:** The workforce in the County of Østfold has one of the lowest educational levels in Norway. This is a cause of the industry structure in the region.
- **Bad seed:** Entrepreneurship and the ability of creating new companies are coupled to the educational level in the region. Incubators in Østfold must be anticipated to have more challenges than in other regions.

NEW LAWS FOR THE ØSTFOLD UNIVERSITY COLLEGE

The syllabus of the faculty of engineering in the Østfold university college was directed towards industry that was closing down. In the laboratories of the faculty of engineering no or little research was done, no new ideas was generated. The students was equipped with old traditional knowledge, the same knowledge that the leaders of the vanishing industry was equipped with, knowledge that did now help them from bankruptcy. At this point national politicians was starting to speak up about entrepreneurship and the isolation of the universities and colleges. New working places had to be created, but who was going to create new working places? The new generation had to create the new working places, but they needed new knowledge. They need creativity and network, and they need knowledge of doing business, and to create their own working place. But was it possible to do this at the universities and colleges, organisations with limited contact with the existing industry, and with no practical knowledge of creating new business? Things had to change, and it did. The Norwegian Parliament approved new laws for the university and college structure. By 2000, the most significant changes was:

Key factors in the new university and college law

- **Regional leadership:** Until the beginning of 1990 the different departments of the college in Østfold acted as independent units with their own dean. No collaboration existed. A common leadership for the region was established.
- **Price pr. Student:** Founding was connected to the number of students that studied at the different departments. Unpopular studies, and departments with few students was near to bankruptcy, and some had to close down.

- 20% research prohibited: Professors could not longer only keep to the textbook. 20% of the working time was to be used on research and development. Papers and research-results was to be economically rewarded.
- **Business allowed:** The universities and colleges were allowed to create companies, and to own shares in corporate business. Engagement in research & development programs was to be economically rewarded.

BAD ECONOMY FORCES THE ENGINEERING DEPARTMENT TO SEEK PARTNERSHIP

The engineering department with laboratories and equipment was one of the most expensive departments in the Østfold University College. The new centralised administration, laws and financing system started an internal struggle in the new regional university college. Competing departments was not happy about financing this expensive engineering department in the town of Sarpsborg. The feeling among the professors in the engineering &natural science department was that if the other departments got the chance, they would close down engineering education, and share the money among them.

Beside of this, computer science was extremely popular among the students. This made the computer department wealthy, since financing now was connected to the numbers of students each department educated. This left the other traditional studies in engineering with few students and almost no money. Next disaster was that the computer-engineering department was moved organisationally to another department in another town. With this profitable education taken out of the hands of the engineering department, economics grew even worse.

The disaster did not stop, because pupils in high school did not want to study mathematics and physics anymore, and the recruitment for engineering education dropped drastically. Since the department was paid for each student, financing of the department got even worse. One thing that could help this situation was to move the department of engineering to another department in another town, and reduce cost by using common resources. Again this started a struggle between the different towns in the County of Østfold. Fear was that if the engineering department were located into another "hostile department", the engineering education would slowly disappear, extorted by its host. In the city hall, fear was about loosing tax income and competence. This struggle had a positive influence; it opened up for a closer coalition and partnership between the department of engineering and the town of Sarpsborg who hosted it. The plans for moving were therefore abandoned.

Factors increasing the need for change in the engineering department

- **Expensive education:** In regards to other departments in the Østfold University College, engineering was expensive, and the laboratories were not profitable. The closing of this department would benefit the other departments.
- **Exit computer engineering:** The computer engineering education was moved to another department. This education was the only popular and profitable in the engineering education.
- **Unpopular mathematics:** Pupils in high school started to choose other topics than mathematics and physics if possible. This reduced recruitment to engineering and natural sciences drastically. Industry and engineering had a bad reputation.
- **Moving and extortion:** Moving the department of engineering to another town and merge it with another unfamiliar department, could reduce cost, but extort the engineering education.

The engineering & natural science department was in severe trouble, out of friends inside the university, and out of money. The department was forced to seek help outside the university system, and to start an extensive marketing campaign.

The secret weapon was the student projects. For several years students had been doing different projects for the industry, and in the last year of the engineering education, a 4 months long graduate project had to be carried out. These projects were of high quality, but had never before been shown public. The engineering department decided as a part of the examination, that the students had to display their projects in front of the public for three days. This was called "EXPO", and audience from everywhere was invited in to see. Representatives from industry and government showed up, and as a blessing from heaven, Mr.Gudmund Hernes, the Norwegian minister of education came to open the third "EXPO". This boosted the interest among the professors in the engineering department to seek contact with industry and governmental institutions. Today, the three days long EXPO exhibition is the most important meeting place between university and industry, and an enormous stimulation. The Østfold university college is alone in Norway with this concept. No other college or university has managed to copy it in its full scale. Lack of money was its mother, and desperation its father.

Professor Karsten Jacobsen had for several years been running projects with the industry, and he was the driving force behind education in "product development" and innovation. Graduate projects in product development showed clearly high potential for commercialisation, and professor Jacobsen was motivating his students to create new companies. Displayed at EXPO, these student projects, in combination with ordinary engineering projects, started the discussion if it was possible to create new industry out of them.

The constant lack of money motivated professors at the engineering department to attend governmental and regional development programs. Four of the most important programs was: RUSH, SMB-kompetanse, Byoffensiven and Entreprenørskap for unge i Østfold. These programs gave money and opportunity, and were targeted towards creating new

industry and working places. New partnerships were created, and in 2000, the engineering department was the biggest department regards to external activity in the Østfold university college.

THE NEED FOR A BUSINESS INCUBATOR

In 1998 several factors motivated the first steeps towards establishing a business incubator at the Østfold University College's engineering department, located in the town of Sarpsborg. In the neighbouring town Fredrikstad, who left the coalition behind the first business incubator, work was undertaken to establish a new research organisation, located in connection with the college department for nursing. This motivated politicians in Sarpsborg to start up collaboration with the college of engineering". Money to carry out preliminary research was available through the new regional development program called "Byoffensiven", administrated by Mr.Terje Knutsen at the County council of Østfold. Entrepreneurship was becoming familiar among politicians and authorities. Mr.Terje Beck, at the "Confederation of Norwegian Business and Industry, region Østfold" NHO (Næringslivets Hovedorganisasjon i Østfold), had since1996 been running the "Young Enterprise" program in the county's compulsory school system with great success. Both the engineering students graduate projects, and the business incubator had to close down, and local authorities were searching for a way to wake it up again. Politicians was in search for new industry and new working places, industry was in search for new products and new markets. The student graduate project exhibition, EXPO, had convinced several politicians and industry managers that new jobs and new products could be born through the engineering department in the Østfold University College. The triangle; Industry, university and government had common interests; new wealth, new products and new working places.

Factors motivating the engineering department to collaboration and development

- Out of money, out of friends: New laws about financing and central administration in the Østfold university college had made the engineering department close to bankruptcy. This forced the department to look for partnerships.
- **EXPO:** Every year the student's graduate projects was displayed for the public in three days. This gave national attention and boosted self-confidence and possibilities for partnership.
- **Product development:** Professor Karsten Jacobsen had developed a course of study in product development and innovation. The graduate projects from his students looked promising for establishing new industry in the region.
- **Incubator experience**: Assistant professor in economics, Mr.Steinar Kjuus, the former foreman of the board in "Nedre Glomma Etaberersenter", the first business incubator in the region, had competence and experience about incubators.
- **Network:** Bad economy had forced the engineering department to participate in regional and national development programs. One called "RUSH", run by Mr.Arthur Almestad, gave important new competence and new partnerships.

Factors motivating local and regional authorities to collaboration and development

- **Unemployment:** The County of Østfold had to create 1600 new working places every year to keep up with unemployment. Traditional primary industry was vanishing, and unemployment was rising.
- **Need for competence:** The work force in the County of Østfold had one of the lowest educational levels in Østfold. New industry had to be based on competence and knowledge, which the university was the only supplier of.
- Young Enterprise: Several entrepreneurship programs was undertaken to motivate young people to start business of their own. The most important program, Young Enterprise, demonstrated the need for a business incubator.
- **Regional development program:** Through the development program "Byoffensiven" (the town offensive), money was available to carry out analysis and development projects.
- **Community struggle:** Competition between the two towns Sarpsborg and Fredrikstad motivated politicians in Sarpsborg to seek alliances with the engineering department, and to participate in development projects.

Factors motivating regional industry to collaboration and development

- **New products:** Industry in the County of Østfold was loosing market-shares, and the education in product development and innovation, at the engineering department was looked upon as a possibility to get new product ideas.
- **New competence:** Students graduating from the course of study in product development was looked upon as a possibility to get new innovative competence into old traditional industry organisations.
- **Student projects:** 90% of the student's projects at the engineering department are run on commission from industry. These projects are regarded to have essential value for the industry, and the interest for using students is huge.

THE PROCESS AND BIRTH OF A BUSINESS INCUBATOR INSIDE CAMPUS

In the autumn of 1998 a project group with representatives from the Østfold University College, the City of Sarpsborg, the County council of Østfold and the industry sat down to formulate a project plan, aimed at establishing a business incubator inside the Østfold University College's engineering department in the town of Sarpsborg.

Original project development group:

- 1. **Steinar Kjuus**, Østfold University College, assistant professor in economics, former foreman of the board in the first business incubator "Nedre Glomma Etaberersenter".
- 2. Arthur Almestad, National research council and Østfold University College, project leader for the regional development program RUSH.
- **3. Tore Hansen,** City council of Sarpsborg, representative for the city manager of Sarpsborg, industry and business consultant.
- **4. Svein Erik Moe,** City council of Sarpsborg, department of trade and property, "Borg Næring og Eiendom", former manager of the first business incubator "Nedre Glomma Etaberersenter".
- **5. Bjørn Gitle Hauge**, Østfold University College, assistant professor in technology, project leader of the regional entrepreneurship program for young people, "Entreprenørskap for unge i Østfold ".
- **6.** Egil Norvald, Østfold University College, assistant professor in economics, responsible for innovation and business- entrepreneurship at the economics department
- 7. **Josef Filtvedt,** managing director of Dynatech ltd, Mechanical Engineering Company, business specialising towards product development.
- **8. Svein Vikhals,** Østfold University College, trade and business representative at the engineering department. Former president of the "Norwegian engineers union".
- 9. Terje Knutsen, City council of Østfold, manager for the regional development program "Byoffensiven".

The authorization for the project group was given in the strategic plans for the City of Sarpsborg, Østfold University College and County of Østfold. Through a process lasting for approximately 3 years, strategic political work had been done in front to implement a mandate for establishing a business incubator in the strategic plans of the county, city and university. This made it possible to apply for founding of a preliminary development project from the three partners.

Authorization given through strategic plans:

- Østfold University College, dep. of Engineering & Natural sciences: The strategic plan for 1997-1998, paragraph 5.2.3, approves to establish a business incubator after model from the Swedish business incubator "Tecno-center"
- **City of Sarpsborg:** In the strategic trade plan, trade strategy nr.3, competence collaboration is one of the central strategies, and a business incubator is an initiative to accomplish this.
- County of Østfold, regional development program "Byoffensiven": The initiative to re-establish a business incubator in Sarpsborg falls into the strategic objects for this program, aimed at boosting city activity and economy.

A project plan for a preliminary study of how to establish a business incubator was worked out in the autumn of 1998, and the final proposal was ready in January 1999. This preliminary project work was calculated to cost over 750000,-kr, approximately 100000,-\$, and founding was given from all four partners.

Founding of preliminary project

County of Østfold: 354185,-kr
City of Sarpsborg: 177093,-kr
University College: 177092,-kr

4. Industry: 56750,-kr

The project plan was supported by 5 more companies and the "Confederation of Norwegian Business and Industry, region Østfold" NHO (Næringslivets Hovedorganisasjon i Østfold). The plan aimed at seeking competence from successful business incubators all over the world, and to find a suitable administrative model, which all partners could adopt.

The project process was divided into 3 main phases, main-project, preliminary-project and preliminary study. The money was given for the preliminary study, lasting for one year. This was a normal splitting of the project process, used by the Norwegian research Council.

3-phased project process

- 1. **Preliminary study:** Define partners, evaluate other business incubators in the world and propose models for organization and establishment.
- **2. Preliminary project:** Test and development of organization models, development of business-plan. Establish founding and partners.
- 3. Main project: Start up and run a business incubator at the Østfold University College, dep. of Engineering.

The project leader of the preliminary study was hired from outside the Østfold University College, from the regional research organisation, "Østfoldforskning". This was done in order to establish better relationship and interaction between the Østfold University College and the regional research organisation. The city council of Sarpsborg acted as the formal project owner since this was necessary to establish founding from the regional development program, "Byoffensiven". The project group consisted of 6 persons from the Østfold University College, all from the original project development group, and Mr.Tore Hansen from the City of Sarpsborg. A reference group was established to secure connection to other partners in the county.

Preliminary study reference group:

- **Karl Reinhold Halmeid:** Director of "The Norwegian industrial and regional development fund" (Statenes nærings og distriktsutviklingsfond, SND)
- **Pelle Valebjørg:** Director of the "BI Norwegian school of management and business" a private university college situated in Sarpsborg, and in some areas competing with the Østfold University College in economics.
- Øivind Bråten: Former city manager of Sarpsborg, Master of economics, and director of the Sarpsborg department of trade and property, "Borg Næring og Eiendom".
- Svein Erik Moe: Director of the Norwegian inventors union, and former director of the first business incubator, "Nedre Glomma Etablerersenter"
- Johan Horsrud, Director of "Labyrinth Development Ltd."

The project was now manned with representatives from all regional partners that was central for the development of the project, with one exception. No other towns in the county of Østfold was interested in participating. "Byoffensiven", the founding development program, was run by a board of directors consisting of the chairman's from all of the city councils in the county, so all other towns was properly informed. Sadly, the interest for education in engineering was limited to joust one town, and the financing of the business incubator was to be done by the City of Sarpsborg and the Østfold county council. In the preliminary study it soon became evident, that when the Østfold University College left the project leader responsibility over to another organisation, it also abandoned control of the project development. This delayed the establishment of the incubator until 2001. Surprisingly for the Østfold University College, a debate started up about localising the business incubator elsewhere. A confrontation showed up between the Østfold University College and the private college, "BI Norwegian school of management and business. Both wanted the incubator inside their own campus. The struggle ended when 20 professors and employee's from the Østfold University College privately guarantied for 200000,-kr in rent, to secure establishment of the incubator at the engineering campus. This private initiative from employees was unique in the history of the engineering department, and it boosted the feeling of ownership around the campus.

In the spring of 2001 a preliminary board of directors for the business incubator was elected, and shares was sold to interested partners. If this had happened 2 years before, the Østfold University College could not have participated, due to Norwegian law. This law had changed, and together with 8 other companies, the Østfold University College bought share-capital for 2.6 million kroner, almost 350000\$\scrt{s}\$.

Localisation of the incubator was secured at the engineering campus, management system was established and share-capital was secured. Management capital was also secured for the first two years, and Mr.Bjørn Horten was employed as managing director for the business incubator in June 2001, now called "Østfold Innovasjon Ltd." The process had lasted for two years since founding was given for project development. This was by many people regarded as to long and expensive, but looking back on the history, this time was needed to secure partnership, network and experience in the political game in the county of Østfold. This time had also matured professors at the Østfold University College, and secured ownership for the incubator at management level in the Østfold University College.

BUSINESS INCUBATOR STRATEGY AND PROJECT-DEVELOPMENT

The board of directors was elected in general assembly 20.December 2001 and consisted of only of 6 members, representing partners from industry, county council, city council, Østfold University College, BI Norwegian school of management and business, the Norwegian industrial and regional development fund, and local business consultancy department. In the spring of 2002, Mr.Bjørn Winther Johansen was employed at the business incubator. He had formerly been working in the first incubator, "Nedre Glomma Etablerersenter", and gave the organisation vital experience and competence. Strategy was worked out, and the incubator decided to put 80% of its resources towards students and young entrepreneurs.

Business strategy

The Business incubator shall be a profitable centre for product development and innovation, and be an active partner for industry, university and private inventors. The incubator shall offer housing, administrative help and network for single private inventors. Priority shall be given towards students and business ideas with advanced levels in knowledge and technology.

Target areas

- 1. Young Entrepreneurs: Special attention shall be given towards youths in all levels of the school system, they are the inventors and business managers for the future.
- 2. Innovations in industry: The incubator shall focus on increasing the grade of innovation in the established industry by using student projects and to couple industry with ideas from private inventors and others. The incubator shall develop an idea bank. Today 5 development programs for composite materials, sheet metals, energy, car electronic and boat design is run for the industry.
- 3. **Incubator service:** Administrative help, competence, room and network shall be given to single inventors and companies in their first years of establishment. There are by April 2003 4 inhabitants in the incubator, and it is room for 8 companies. 50% of the capacity in the incubator is used.

Entrepreneurship programmes

Østfold Innovation Ltd. is running several programs directed towards young entrepreneurs, and has a close relationship towards "Young Enterprise". Østfold Innovation Ltd is the first organisation in Norway to run the "Young Enterprise" graduate program at the Østfold University College. 17 student companies are under administration. Motivation programs for entrepreneurs are run in the compulsory school system and at colleges in the county. Three main projects are run and developed by Østfold Innovasjon Ltd.

- 1. Young Enterprise graduate program: Østfold Innovasjon Ltd is running 17 student companies from the engineering department in Østfold University College. This is the first graduate program for students to be run in Norway.
- **2. Innovation Camp:** Motivation program and inventor contest for pupils in the compulsory school system. Pupils are given professional help in marketing and design.
- **3. Generator:** Motivation program for students in the Østfold County to develop ideas, write business plans and participate in Venture Cup.

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