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Model of the innovative development of the regions on the example of Tomsk and its multiplexing to other regions

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Grigory Zhuravlev as an engineer in 2007 TUSUR. In 2010 he entered the master's office TUSUR. In 2006 he was co-founder and development manager for the company, which he later sold one of the largest companies of Tomsk. In 2008 became co-founder and commercial director, which was later also sold to one of the major Russian companies. In 2010 came the young company as Commercial Director and Board member, has attracted orders of \$ 100 000. In spring 2011, and founded a new company out of all the other projects so Activities start your own project.

This paper describes how the triple helix model in Tomsk and what points can multiplietsirovat to other regions of Russia

Subtopics:

Key-words: start-up, innovative development, government support, universities, investment

Introduction

Tomsk has always been famous for its universities. But in the last few years have been very active around the steel zone high-tech companies appear remarks. In Tomsk, 6 universities, 100 and 000 students emenno because of this there is a large number of startups and many of them are quite successful. And every year an increasing number of these companies. Parameter for many Tomsk much stands out from other Russian cities. In this article I will try to understand the causes of such activity.

State of the art about the topic

In Tomsk is an active policy is to involve youth in entrepreneurship, and part of these programs is to create a high-tech businesses. The presence of a large university database allows to obtain a sufficiently large quantitative projects. In Tomsk with a population of 500 000 people are placed 6 universities (not including branches with other Universities). Each year in Tomsk universities appears about 100 new students or teaching projects. and some of them become startups. In Tomsk, a fairly good conditions for successful growth and development of these companies. Since the other regions as well try to build in a system for successfully growing start-ups, the example of Tomsk is very revealing.

Methodology

In this paper, I used more than the knowledge that has accumulated as a result of e my active work in an innovative environment, Tomsk. And just a few statistics available on the websites of

administrations and universities. this article the more reason to experience a startup and interaction with all branches of the helix.

Findings and interpretation

Consider, as a young start-up interacts with all branches of the spiral, as it is becoming and how each of the branches and helps him in some time.

In the Tomsk region is actively developing innovative entrepreneurship. Many alumni and students willing to work not for hire, and create your own business.

The interaction of young start-ups with universities occurs in several ways. Universities may be the suppliers of personnel for start-ups and generators of most startups, aides during the various R & D, as well as can be and customers on the development of start-ups.

State interacts with the young start-ups as zakonotvoret (creating laws that promote the growth and development of start-ups), as sponsor (holding all sorts of contests and grants), but it can also act as customer and product start-ups.

Large companies are the same in several roles. On the one hand, they often act as generators of these startups (employees of big companies are separated into a separate company, sometimes as a subsidiary of a large company), as large companies become investors start-ups (by buying the share of start-up or completely absorbing it with the whole team) and as large companies and customers may be the products of these startups.

Also, all three of these branches to help start-ups in getting acquainted with all the infrastructure business, conducting various kinds of forums where young startups may find yourself booking, partners, sponsors, team employees, etc.

We consider separately the interaction with the startup of each branch separately. Some moments will be based on personal experience. During the study produced several startups, some of which became successful, some of them were created in collaboration with universities to develop projects, I often sought the help of government support mechanisms, one of startups was sold to the Tomsk company. So in these considerations do not try to show all the example of my projects, as well as the example of friends who have created successful businesses.

Startup - University:

As I said above, universities help to create startups. Most start-up teams born in the university. During the development of a startup to attract students and university graduates for the development and growth.

Also in the universities have their own grant programs that help the very first steps of the startup (of a group of student friends to create a business starting a command).

At each university to establish a business incubator where start-up can try to move from a simple idea or prototype to the adult business.

Young start-ups unable high-quality equipment can conduct the first R & D in the walls of universities, many universities are helping to make it free.

Quite often, universities are buying the development of start-ups. Especially if they can be used as models for the education of future students and to improve the functioning of the university.

At Tomsk State University was established about 100 companies. Where are the young graduates, students, faculty and graduate students, using as a basis for intellectual property of the University, are developing manufacturing. And some of the new company owned by the university, and he gets a share of the profits in the development of this company. Many professors who participated in the research on this development are often present in these enterprises either as employees or as consultants and also in some cases are part of the shareholders. FL - 217 contributed to the so began the commercialization of university intellectual property. With the adoption of this law, the number of enterprises in the universities each year increased by approximately 20-30 new companies. Sometimes universities buy the products produced by the Tomsk companies, particularly in the field of IT and electronics products. In

particular, all vehicles of one of Tomsk universities are equipped with navigation equipment designed and produced by young Tomsk. Also, in one of the buildings TUSUR installed climate monitoring, developed as one of the Tomsk companies.

Company in which I came as a commercial director and member of the board of directors sat down with the first order for the university, it's just the company has developed a navigation system.

Startup - State:

The state creates laws that encourage the creation and development of start-ups (in particular the Federal Law № 217), as it creates a special area in which the conditions for the development of innovative business (SKOLKOVO SEZ).

The state spends a lot of competitions and programs to support the federal level (Zvorykinsky project RFBR fund Bortnik, Kulibin, etc.), as well as programs at the regional level (first step, Business Start, Vista, competitions and innovative projects, etc.) All of these contests aimed at developing innovative projects and turn them into business.

The state also provides funds which are engaged in financing, promotion and other assistance for young innovative companies (Rusnano, MER, etc.).

At some points the state can act as the customer and the customer innovative products of young companies.

Adoption of 217 and 218 of the Federal Law has increased the number of startups and established making it possible to involve them in small funds for the initial growth.

The regional administration and the city is actively pursuing competitions for young companies. During the year in Tomsk is the order of 10 contests, in which a start can get from 10 000 to 50 000 \$, so government support are about 100 enterprises. In addition, the company Tomsk good show themselves at the federal level, quite often receive federal grants of \$ 200 000.

The same young companies involved in state orders for equipment, in particular at the moment the company that developed the system of navigational equipment is working to install the navigation equipment on all city transportation city.

All the companies in which I have somehow been involved were the recipients of grants and this is a great help to them in early stages of the project, particularly in research and development.

Startup - Large Business:

Quite often happens that a large group of employees of the company decided to start his own business and then project it (the team) or go completely out of the company, creating a separate business, or opens a subsidiary into which the whole group and there are already developing their project under the supervision of parent company.

Just the reverse process is a group of young startups receive funding from a large company in exchange for a share of start-up company. Or a large company decided that start-up project designed to improve the situation in a big company buys a start-up entirely (the very design and development team).

Big companies often buy products because of startups they (big companies) do not always have the time and opportunity to develop such products.

At Tomsk companies are often small companies, some of them works to carry out small research and development, to which large companies prefer not to spend and buy the results of developments of small companies. It often happens that within a company created by a group of people that decides to implement his idea of a separate company, is one of the Tomsk companies into a group of companies consisting of 5-6 companies. When a subsidiary company was an investor and the founder of these companies.

Both companies that I co-founded the ball was successfully sold to larger companies. This shows that this type of interaction is very good work in Tomsk.

Now consider the combination of interactions between participants in the system (the university - a start - the state, big business - startup - State University - start-up - big business). As a result of such interactions may appear quite successful startup.

University - Startup – State

217 FZ offers universities the right to commercialize the company and its development. Thanks to this law at the universities of Tomsk to create about 100 new companies. And created under this Federal Law, Tenders and Grants dramatically increase the chance of survival for a new startup. The same state can be a customer for professionals to start-ups, creating a state target location after training in which graduate goes to work in a new young company that will help young teams get qualified because they themselves difficult to pay for such target sites that state aid would be here needed.

After the adoption of the Federal Law - 217 Tomsk began actively setting up business in universities. In turn, the regional administration began to actively support them. Only in 2010 in the Tomsk region supported 50 such companies grants of \$ 15 000. For 2011, planned to increase funding in the first quarter of this year for 20 start-ups to teach such funding.

Big business - startup – State

Big business can become a generator of startups or the customer for the development of these start-ups, the state, in turn, can act as a guarantor of funding start-up team. If the startup is turned by a subsidiary of a large company (for the allocation of R & D company), the State may hit of the new company or SKOLKOVO SEZ with a view to creating an enabling environment for R & D of the new company.

Tomsk Region is currently actively working on settling their companies in SKOLKOVO. At the moment, the company received a Tomsk resident status and still SKOLKOVO about 10 companies are in the process review.

Also in the Tomsk region created in the SEZs already populated by 50 residents and is planned to increase that number to 70. According to this indicator Tomsk region ahead of all other special economic zones.

University - startup - Big Business

The University has a large number of inventions, not brought to market. Large companies often have resources that can be invested in order to verify the business. At the junction of these positions may be born a start, the university gives it its intellectual property and engineers, and big business, in turn, invests finance and management personnel.

In Tomsk, in the last year created 10 new businesses have invested their universities to develop research and enterprise invested highly qualified engineers and managers.

Now let's see how "intertwined" in the start-up triple helix.

Consider, as an interaction with each of the branches, the branches interact with each other to jointly contribute to the success of a startup.

University helps new startup of its intellectual property, helping big business startup finance, the state helps to create a startup good working conditions and facilities SKOLKOVO SEZ. University receives from the startup order for graduates, business start-up receives from the development, the state receives from a startup in a decrease in unemployment taxes. University in cooperation with the state should monitor there is a need in the startup specialists, university and business follow the presence of R & D and marketing advantages over competitors, government and business follow the financial condition of a startup.

This scheme is implemented in Tomsk and is already beginning to yield results. This experience can be applied in other regions.

Conclusions, policy implications and directions for further research

In Tomsk, a lot of unique compared to other Russian cities. Tomsk model of interaction between the branches of helix works quite well and improved every year, but whether the vector is selected and placed the development priorities? whether changes to promote innovative growth of the region?

The next step in his see prodolzhanie observing system. as well as making recommendations that would help make our region even more attractive place for new high-tech companies.

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