

INNOVATIVE STARTUP: EXPERIENCE FROM AUSTRALIA

Duong Hong Anh¹

Vietnam MOST Science and Technology Representative Office,
Canberra, Australia

Hoang Minh Thuy

National Science and Technology Programs Office, MOST

Abstract:

The paper deals with a study of actual status of start-up eco-system in Australia and support programs for start-up ecosystem offered by the Australian Government (CSIRO Innovation Funds, Businessmen Program, and Export Market Development Support Fund). The paper presents a look to forms of mobilization of capitals (possibilities to mobilize capitals from communities), forms of investment (start-up acceleration courses, start-up incubators, angel investors and venture investors) and reforms of legal policies (tax incentives, policy of protection of enterprises in case of bankruptcy) provided by the Australian Government to support enterprises to do innovative start-ups. Then the paper proposes lessons of experience for Vietnam in its efforts to build up a start-up nation.

Keywords: Start-up system; Innovation; Australia.

Code: 17110901

1. Introduction

When the world economy changes with a high daily rhythm, the Australian Government has realized challenges and difficulties which the country would face if not assessing serious remarks on its advantages as well as drawing out suitable orientations for future. In the declaration on innovation announced by the Federal Government, the Australian Prime Minister Malcolm Turnbull made know that the Australian Government commits to make AUD1.1 billion investments for a period of 4 years (2016-2020) to promote innovation, development and research activities. A volume of AUD200 million will be used to set up an innovation fund to support enterprises in application and development of technologies from the Federal organization CSIRO (the Commonwealth Scientific and Industrial Research Organization) and Australian universities.

¹ The author's contact email address: anhdh.17@gmail.com

The start-up ecosystem in Australia is passing a strong development period. During the 2014-2016 period, the start-up gets intensive attentions from the Government and communities as well as possibilities to enhance quality of start-ups. The outcomes of focused chances for development of soft infrastructure to support start-ups include incubators, start-up acceleration courses and shared space for working, and rich capitals were invested for this sector from angel investors and venture investment funds.

The legal environment of Australian also provides solutions to support start-ups such as shorter time for establishment of start-ups, more simple formality procedure for issuance of business licenses. The Australian Government also issues tax incentives for R&D innovation activities to encourage companies to participate in innovations. During the 2014-2015 period, the program of R&D tax incentives provided supports for more than 13,000 enterprises with the total volume of incentive taxes of AUD2.4 billion for eligible R&D projects. In addition to that, the projects related to reform bankruptcy-related laws also offer chances for large companies and traditional companies to conduct a re-structuring process for innovation.

The following part presents efforts of Australia in the process to build up a start-up and innovation nation.

2. Extension of market and building of start-up ecosystem in Australia

2.1. Start-up ecosystem in Australia

The Australian economy is 13th ranked in the world and 9th ranked among the highest GDP per capita nations. Australia has a stable labour market and high average income rate of population with the average monthly salary of AUD18.22 (equivalent to USD14.48). It is high to remark that Australia has not suffered any economic crisis during the last 26 years. The rate of ownership of private house is high despite of the high price of real estate market in Australia, particularly in Sydney and Melbourne. The Government provides the full costs for the education system. 40 among 43 universities in Australia get supports from the Government in form of package of loans and allowances for students. Australia has the global community medical system and the health care system with world standards.

Despite of a healthy economic system, Australia has a low rate of investment for domestic innovative start-ups. By 2015, only 54% of Australian population considers carefully long-term visions for business directions. Only 19% of Australian population, however, has interests for business and they built already their own business plans for the next 3

years. During the process to build up a start-up ecosystem, the Australian Government wants to mobilize entrepreneurship among population, to stimulate people to follow their own ideas and to dare to accept risks in case of business failures. Through the package of supports of National Innovation and Science Agenda which is valued at AUD1.1 billion by the Federal Government with the Prime Minister Malcolm Turnbull, some new tax incentives were introduced for investors during initial stages of their projects of development of business incubators and start-ups. These measures lead to the first kick-offs in the cities with strong operations of start-up ecosystems such as San Francisco, Shanghai, Singapore, Tel Aviv and Berlin. As results, innovative start-ups and start-up ecosystem in Australia get more supports for commercialization of their business ideas. By 2016, the notion of “innovative start-up” gets more popular among Australian population. According to *Startup Muster Report 2016*, Sydney leads the country in the number of innovative start-ups with 35% of the total number, then Melbourne with 14% and Brisbane with 9%.

According to a report by National Innovation and Science Agenda (NISA), start-ups in Australia offer jobs for 1.44 million labours during the years from 2006 to 2011. The list of successful Australian start-ups includes Atlassian (the enterprise is evaluated at AUD4.4 milliard), AfterPay, Canva, Envato, Kogan, Big commerce, Airtasker, Menulog and others. Thousands of start-ups in Australia operate mainly in technological sectors such as Artificial Intelligence (AI), Virtual Reality (VR), Augmented Reality (AR), Wearable technologies, Fin-techs and etc. This fact shows the intensive changes of the system and the high rates of their attracting forces.

2.2. Extension of market

The number of start-ups in Australia is 23 million by 2015. The figure is lower than the number of 314 million of start-ups in the US and the one of 63 million of start-ups in the UK. Clients of Australian start-ups are mainly the Australian Government and large corporations with the respective values of contracts of purchase and service are AUD41 billion and AUD2,000 billion by 2012. However, the most challenges for new start-ups are to meet requirements of the Government and large corporations when doing transactions. They need to have capacities to compete with other start-ups to gain shares from AUD billion valued cakes. In order to achieve targets under transactions, the sides are required to have indicators to show their own advantages they may mobilize as well as to understand positions of competitors to win benefits. The Government cooperates only with those start-ups which give commitments to provide services with technological innovation at lowest possible prices. In exchange, transaction partners have

to help start-ups extend markets, identify potential customers, reduce hazards and enhance benefits.

The relations of cooperation between the Government, large corporation and start-ups do not stop at transaction for commodities but also to consolidate links between partners in communities of enterprises, universities and research institutes. Together they can introduce innovative initiatives to market and, as result, to push up economic development. The Australian Government also encourages and builds up “an innovation culture” for young generations through funds for promotion of education, particularly for key disciplines such as science, technology, manufacturing and mathematics. The Government allocates, from the AUD1.1 billion support fund, a share of AUD50 million to encourage women and young girls to participate in small and medium enterprises (SME) where are also start-ups.

When realizing the left-behind position in comparison to other advanced countries, the Australian Government decided to spend a AUD200 million valued investment for enterprises to apply and to develop technologies produced by CSIRO and Australian universities. Researchers and enterprises once joining their hands for commercialization of research outcomes would offer chances of practical works for student as well as great economic benefits.

2.3. Programs of supports by the Australian Government for start-up ecosystems

Similarly to other advanced countries in the world, the Australian Government offers programs to support start-ups under conditions these enterprises need to exhibit their necessary qualification for such supports.

2.3.1. CSIRO Innovation Fund

Having been established in 1916, the Federal organization CSIRO now is the federal scientific organization of Australia. With a 100 year history of development, CSIRO has showed its successes in successful efforts for numerous breaking-through initiatives and innovations for the world.

During his mandate, the Australian Prime Minister Malcolm Turnbull calls to push up the plan of “ideas’ boom” to fasten links between scientists, universities and enterprises in order to create a new ecosystem where innovative initiatives get applied in various fields (*ABC News, 2015*). Therefore, CSIRO, with its role of representative organization in field of

science-technical research of Australia, built up a CSIRO Innovation Fund which has objectives to support commercialization of initial ideas of CSIRO, other universities and research institutes. The operation of the enterprises established from these ideas would offer jobs, push up the economy and enhance the growth capacities of Australia.

The CSIRO Innovation Fund was established by December 2016 with objectives to become a bridge to help enterprises develop research ideas and commercialize their products (*Marshall, 2015*). During the 2003-2014 period, newly established enterprises offered jobs for 1.6 million persons and are capable of doubling their productivity in comparison to other enterprises (*Potter, 2016*). It is the reasons that the enterprises targeted for investment by the CSIRO Innovation Fund are start-ups, spin-offs and SMEs. Through this fund, these companies would have chances for exchange of research and get supports for training innovation activities in the following directions:

- Improvement of procedure of shifts for commercialization of the Government supported research products and of encouragement for new ideas in Australia;
- Supports for enterprises to develop and to enhance productivity rate and export product volume of Australia as well as to offer more jobs, particularly in spear-head economic sectors of Australia;
- Building of innovative start-up ecosystem of Australia and, at the same time, continuing efforts of supports for individuals and organizations to build up innovation culture and to enhance production capacities.

Some other support funds are available but the market competition remains increasingly tough. In order to attract investors as well as to use investments effectively, the CSIRO fund gives the following proposals:

- *Investments for commercial benefits and national benefits*: At the same time when the supports are provided for enterprises to realize ideas, the Australian Government actually implements the Entrepreneurs' Program which targets to support start-ups to commercialize feasible ideas, to create markets, to provide specific information, to offer consulting services as well as to provide other necessary skills;
- *Focus on investment for private companies which have major part of ownership capitals raised in business process in Australia*: Globalization trends have become the platform for fast development of international investments. The strong growth of global value chains

helps enterprises optimize their production procedures through the maximal use of different advantages of every country (*National Agency for Science and Technology Information, 2015*). In addition to policies for attraction of international investments for innovation, the Australian Government issues incentive policies for domestic enterprises;

- *Extension of proposals for investment by CSIRO, universities and research organizations of Australia and their partners, including SMEs:* Plans for recent reshuffles of investment calls by the Australian Government support start-ups by providing more chances of access to potential sources which would realize ideas and develop business models.

In 2015, the Australian Prime Minister Malcolm Turnbull, in his speech at the mandate inauguration ceremony, stated that the technological innovation is extremely important for the country. His Government also commits to spend AUD200 million during the next 10 years for the CSIRO Innovation Fund and to extend support programs, to provide incentives and to encourage the start-up spirit, to build up the innovation culture, to accept business risks for new economic growth of the country and more chances of jobs in the future.

2.3.2. *Entrepreneurs' Programme*

Entrepreneurs' Programme which replaced the Fund for Commercialization and the 2014 Fund for Investment and Innovation of Australia targets to help enterprises increase productivity and competitiveness through supports by and access to a network of consulting experts and supporting actors over the whole country.

This program is to provide allowances for founders through the Fund for trade promotion and business growth supports. This program has duties to provide investment packages up to 50% of the total volume of projects which is equivalent to AUD250,000 for trading companies and legal partners and equivalent to AUD1 million for the remaining candidates.

Businessmen also can get advises from experts without needs to pay any fees. Here they would get a share of knowledge and experience to push up the business growth through activities under the program Innovation Connections.

In addition, Entrepreneurs' Programme provides supports for costs related to investments and helps start-ups to enter other markets in the world. Investments, both present and future, can get supports up to 50% of the

total project value which is equivalent to USD500,000. Enterprises and experts in domestic projects can get packages of supports up to AUD25,000.

2.3.3. Export Market Development Grant (EMDG)

While other countries such the US and the UK issue tougher policies to control immigration waves, the Australian Government continues policies to support foreigners which live and work in Australia. Immigrating people play important roles in setting up of business activities in Australia. They establish enterprises, mainly of small size, and then offer chances of jobs and develop import-export activities in all industrial sectors of Australia. By this way, they become one of the factors that cause positive impacts to economic development of the country.

From another side, the immigration waves are also one of the actors which help Australia avoid the economic recession thanks to formation of economic benefits and the tendency of lower average life expectancy, to support GDP growth and to improve business activities.

Therefore, the EMDG Fund was established to help export companies in various fields in their efforts for extension of external markets and to encourage domestic tourism. Those enterprises which spent more than AUD15,000 for export activities can get a reimbursement at the size of 50% of the total expenditures but not exceeding AUD5,000.

In order to be eligible for participation in the EMDG Fund, the enterprises need to push up export of commodities and services, to encourage tourism activities during events and workshops in Australia. The enterprises which are qualified for that should get a support of about AUD50 million during the term of supports.

2.4. Roles of universities and research institutes

In context of the fast development of start-up ecosystem, the universities hold important roles in training of human resources and building up of teaching programs which are oriented to stimulate students to take part in start-ups as well as to form the start-up ecosystem even from their university environment.

In 2016, the number of founders of start-ups which hold university degrees makes 84.4%. The *Startup Muster Report 2016* also showed that 5.8% of founders hold certificates of vocational training and 9.8% of founders have secondary education degrees. Also, 70.5% of founders which hold university degrees finish at least one university in Australia and the

remaining 29.5% get their higher education abroad. This is not a surprising fact because 67% of founders are Australian citizens and 33% of them are expatriates. More than 80% of founders which are aged more 20 years hold bachelor degrees or higher. The responsibilities of founding members of start-ups are bound closely to their qualification degrees and certificates/diplomas. The skills they have include software development (64%), business (61%), marketing (37%), scientific research (13%), technics (14%) and juridical fields (11%).

3. Mobilization of capitals and forms of investment

3.1. Possibilities of mobilization of capitals from communities

As always, difficulties of small size enterprises face to get their positions in market are related to mobilization of capitals and to identification of potential clients. Actually, governments of various levels in Australia do not allocate any supports for initial capitals (start-up funds) for installation of SMEs except only small size allowances for salaries (Small Biz Grant) or some tax incentives (tax cut) and some deductions (accelerated depreciation). Instead of that, actually the Australian Government is preparing policies to supports SMEs including start-ups through facilitation of initial operations as well as reductions of costs. These enterprises can easily mobilize capitals from communities as well as get some supports for protection of interests for their business investments.

The legal regulations by the Australian Government are creating legal spaces for extension of activities to mobilize capitals from communities (Crowd-sourced Equity Funding - CSEF). Similarly to other forms of mobilization of capitals, CSEF allows companies to mobilize capitals through an on-line gate. The difference of CSEF is it permits investors to purchase AUD10,000 share of equity capitals of a company through a legal CSEF forum and then to get a volume of interest instead of a product or service. Australian enterprises having the total turnovers and the total asset under USD25 million are encouraged to apply for the CSEF forms of mobilization of capitals. Similarly to other forms of mobilization of capitals, private companies if wishing to mobilize CSEF capitals have duties to submit reports such as annual financial reports for shareholders.

The CSEF forms of mobilization of capitals help companies mobilize about AUD5 million every year with costs lower than other traditional forms of mobilization of capitals can do. The CSEF forms of mobilization of capitals are recognized as solution of financial supports for SMEs as well as start-ups.

However, at the same time, as measures for protection of investors, the Australian Government sets up a legal barrier to limit the number of companies and CSEF forums. This means that start-ups are missing a mode for mobilization of capitals they may use to develop their business ideas.

Realizing these shortages, the Australian Government promulgates new laws to permit enterprises to access to CSEF sources with numerous forms of mobilization of capitals and to remove competition disadvantages in comparison to foreign investors. In practice, foreign enterprises as well as other enterprises using CSEF capitals as tools of investment are not allowed to mobilize CSEF capitals in Australia.

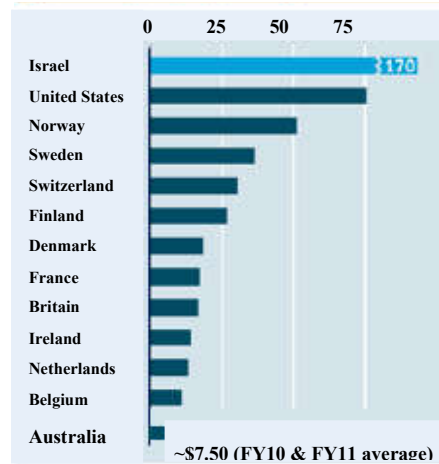
Similar situations are seen in some other countries. Namely, New Zealand allows all the enterprises to mobilize CSEF capitals and the UK, the US and Canada observe a very small number of enterprises which do not use the CSEF forms of mobilization of capitals. Particularly, after one year of application of CSEF forms of mobilization of capitals, more than 20 innovative enterprises in New Zealand managed to mobilize USD12 million from various funds.

On 22nd March 2017, the Australian Parliament had approved a law to allow the CSEF forms of mobilization of capitals for public companies which get valid from 29th September 2017. On 9th May 2017, the Government announced a program to get opinions for a draft of supplementary laws in terms of CSEF forms of mobilization of capitals for private companies.

3.2. Forms of investment

Some start-ups develop their business on basis of their own internal potentials. An individual may not have enough finances for establishment of an enterprise but the participation in co-working models (Shared space for working) would help them easier co-act with others. After certain time of linking the ones who have common interest orientations may join their capitals to set up an enterprise.

However, almost all the start-ups after having been established face difficulties in mobilization of external capitals (funding). When putting the objective to become a start-up and innovative nation, the Australian Government offers AUD36 billion valued support packages for globalization of its ideas and helps start-ups step in Silicon Valley, Tel Aviv and other 3 markets (*Borrello and Keany, 2015*). However, according to the 2013 PwC report, the capacity to attract venture investors of Australia is 20 times lower than the one of Israel, the world second nation in technology innovation and investment, after entering Silicon Valley.



Source: 2013 PwC report

Figure 1. Average venture capitals

The 2013 PwC report also indicated that the Australian start-ups always have to face considerable competitions in capital calling in all the stages, particularly in initial stages. In 2012, only about AUD53 million of the a total amount of AUD600 million were invested for 62 enterprises in initial stages and were invested by 12 start-up acceleration courses and start-up incubators, 500 angel investors, 10 angel groups and 20 venture investors.

For founding their business, start-ups need, in initial stages, to mobilize capitals from their own sources. Then the supports come from their families, friends, relatives and, later, the loans from banks, venture investment funds and angel investors. Namely there exist the following forms of investment:

- *Start-up acceleration courses and start-up incubators:* When participating in start-up acceleration courses and incubators, start-ups have chances to realize earlier their own economic potentials. After providing supports of capitals valued at USD8 million, the Australian Government committed to provide additionally more than USD15 million during the next 4 years to support start-up acceleration courses, incubators and start-ups to develop ideas and generation of incomes from their own business activities. The Startup Incubator Program by the Australian Government started operation since 2nd September 2016. The Government provided very active supports through policies through supply of land and minimal infrastructure, partial financial supports for incubators at the moment of establishment, then leaves them to operate for their own life. The income sources of incubators come from costs

that the incubated enterprises pay. Those which cannot generate incomes in this stage are not required to pay them immediately and the payment can be delayed up to the time the enterprises start operation and begin generation of incomes;

- *Venture Capital Limited Partnership*: As standard, when having formed business ideas, the developers start to look for investors. The data from Australian Private Equity and Venture Capital Association Limited - AVCAL show that venture investors made AUD128 million valued investments in start-ups by 2012. It is not a small investment volume but, in comparison to the top world scale (e.g. AUD500 million by Israel), Australia has still a long road to go (*PwC, 2013*). Therefore, the Australian Government issued reform options to change the form of venture capital (VCLP) which leads to higher competitiveness as well as attracts more capitals of venture investment for start-ups, namely:
 - + Start-ups and VCLP investors sign a joint venture contract where investors would be exempted of 10% of taxes, non-refundable by laws, for investments rising during the years in initial stage of venture investment (Early Stage Venture Capital Limited Partnerships - ESVCLPs);
 - + Maximal investments for ESVCLPs, new and under implementation, have increased from AUD100 million to AUD200 million;
 - + When investment volumes of ESVCLPs come up to the level of AUD250 million, it is not necessary to sell the enterprises.

The reshuffles of VCLPs and ESVCLPs would loosen conditions and requirements, allow start-ups to carry out different investment activities as well as enhance diversity of investment activities. The tax incentives for VCLP investments get valid since 1st July 2016.

- *Angel investors*: In a general view, angel investors have common objectives as venture investors do. There is, however, a difference where *angel investors* are individuals which have high net asset values (more than AUD1 million), with expectation to maintain this incomes in future. Initially, start-ups start their business activities thanks to their own capitals and the ones mobilized from their families and friends for development of a prototype product or trial versions of products during initial stages. In addition, on basis of social relations, start-ups look for investors which are identified as to have high net asset values (more than AUD1 million) or for individuals which have the incomes of more than USD200,000 per year. Angel investors, as rules, make themselves decisions and they are not under influence by any person. They may

participate in a group to select objective decisions for a transaction of investments. By 2015, the Australian Government provided a tax incentive package of AUD106 million for angel investors when start-ups, in initial stages, start looking for venture investment funds.

However, families and friends would not contribute their money until they could see commitments by these individuals which show really their wishes to do start-ups. Banks also cannot offer loans to start-ups if they do not see these plans feasible. Also, angel investors including venture investors should find difficult to make supports of capitals if they do not see the start-ups make full commitments. First, the individuals who wish to do start-ups need “to bet” themselves for business dreams.

4. Policy reforms to extend innovative start-ups

As some recent surveys reveal the regulations by the Australian Government still make many barriers for enterprises in implementation of innovation, particularly SMEs. Therefore, the Australian Government, during the recent time, is discussing and issuing tax incentives as well as protection measures for enterprises in case of bankruptcy.

4.1. Tax incentives for investors

Rosenberg and Marron (2015) summarized and globalized basic tax policies towards business and investment activities. Also, they indicated how the tax and finance policies cause impacts to investment capital sources, particularly for SMEs and start-ups. As standard, start-ups are easy to make losses during implementation of their business ideas so it is not easy for them to get benefits from tax reduction incentives including tax credits from R&D activities, reduction of capital related taxes and other incentive policies. The tax reforms would bring more benefits for these enterprises such as chances to get access to many forms of investment which might create growth potentials.

Realizing this problem, the Australian Government issued tax incentive policies for those who make investments for start-ups. On basis of successful outcomes of the program of investments for incubators for enterprises in the UK, the Australian Government made a supports package of more than AUD500 million for about 2,900 companies during the first two years.

Research activities which have roots from public investments play basic roles in pushing up of innovation, enhancing of productivity, helping create new knowledge and absorbing of available knowledge of the world. By 2008, the total R&D investment volume of Australia was about 2.24% of

GDP which is lower than the average level of OECD member countries (2.35%) but higher than some developed countries such as England, France and Canada. Therefore, the program of tax incentives for R&D activities (R&D Tax Incentive) of Australia is assessed as the world largest program of indirect supports. By 2015, the operational costs of the program were estimated at about AUD3 billion which makes 0.71% of the Government budgets (*Innovation Australia Annual Report 2014-2015*)

Investors classified as eligible are considered for application of the programs of tax reduction/exemption where newly established enterprises would get a 20% reduction of non-reimbursable taxes, under condition of the investment level of USD200,000 per year. The exemption of capital-related tax is applied during 10 years for eligible investments which secure a continued operation during 12 months.

However, not all investors would get favours from these incentive policies. First the investors need to pass a check called “*Sophisticated investor*” according to the 2001 Law on Businesses or, if they fail this check, their maximal investments for start-ups need to be at least AUD50,000 in the year the incomes start.

In addition, start-ups which get invested need to meet the following conditions:

- Enterprises are newly established and then evaluated on basis of indicators related to capacities of expenditures, income volumes and prices of listed stocks;
- Enterprises are classified as innovative by their own evaluations on basis of score defined indicators or by the Australian Customs Service.

4.2. Reform of the Law on bankruptcy to encourage innovations

In addition to efforts to encourage the people to follow their business ideas, the Australian Government provides also support packages for individuals which do start-ups to accept risks and to be ready to re-do them in case of failure. It is the case of the Law on bankruptcy which target to encourage innovations. As norms, the start-ups would get failures several times before they gain success and they would get rich experiences from this process. This would require the enterprises to accept to change business culture and to restructure their enterprises.

The concerns toward the violation of laws by illegal transactions are usually taken as reasons which make angel investors hesitate to participate in start-ups in initial stages. Actually almost all the laws pay high attentions to money fines and have trend to exaggerate failures. Therefore, the

Government is considering the issuance of amendments and revisions for these laws.

The Government focuses on creation of a more equitable relation in order to encourage enterprises as well as to protect investors, namely:

- *Reduction of the bankruptcy formality time down to 1 year*: Actually, the time for bankruptcy formality of individuals lasts at least 3 years. The recent reports show that the long time would discourage failing enterprises. The actual policies show that if Australia wants to develop start-up economy it is necessary to minimize the time and fines of enterprises suffering bankruptcy;
- *Supply of “a safe harbour” for enterprise owners during re-structuring time*. The recent exchange of point of view provides certain solutions to protect enterprise owners which want to restructure their enterprises. This restructuring work would make increase risks for unprotected loans and enterprise owners which are found in situation of legal troubles due to bankruptcy. Now the legal regulations will protect them from juridical process due to bankruptcy but also require them, at the same time, to get consulting experts of re-structuring procedure the registration for consulting service being made at the Australian Securities and Investment Committee (ASIC);
- *Neutralization of the article “ipso facto” in contracts*: The Federal Administration agrees to annul liabilities of parties in order to cancel or change some articles of contracts on basis of their own plans for management or plans for reshuffle (related to re-structuring processes). The enterprises actually conducting re-structuring activities can continue their business works without needs to terminate their contracts.

5. Experience lessons for Vietnam

Being advantageously positioned with the boom of technology, extended markets, more swimming management mindset, Vietnam gets some success in initial stages of efforts for development of start-up ecosystem. There is a chance for Vietnam to become a highlight in the community of start-ups in South-East Asia.

In the Industry 4.0, the creative economy gets established by the convergence of science, technology, industries and the boom of innovative ideas. However, the real situation that no one in Vietnam can deny shows well that scientists and enterprises are not really linked closely, therefore many research results, after having passed acceptance formalities, cannot be applied in production activities or commercialized in market. In comparison

to Australia and other advanced countries, Vietnam actually lacks an ecosystem for start-ups in sector of technology including organizations, investment funds, consulting experts and space for shared experiences. Therefore, the Prime Minister issued Decision No. 844/QD-TTg on 16th May 2016 for approval of the project “Supports for the National innovative start-up ecosystem up to 2025” (shortly called Project 844). The concrete objectives of Project 844 are, by 2020, to attract VND1,000 billion and, by 2025, VND2,000 billion of investments for innovative start-ups and, on this basis, to turn Vietnam into a start-up nation. The main contents of Project 844 deal with the formation of a start-up ecosystem, the building of mechanisms and the promotion of establishment of venture investment funds, support funds for start-ups, S&T development funds, start-up supporting centers and favourable environment for formation and effective operation of the community of start-ups. This would lead to a start-up nation through really effective efforts.

At the Forum for Young Businessmen and Start-up Young People held by the Vietnam Young Businessmen Association and the Vietnam Private Economic Sector Forum, the Deputy Prime Minister Vuong Dinh Hue said that a start-up nation will be recognized when the start-up is taken as a national policy and we need to have a start-up movement with the vision of the nation (*Chu Thanh Van, 2017*). A country, if wishing to develop and to become rich and strong, would have a strong community of enterprises as well as build up a spirit of the start-up nation. A “start-up nation” needs to have start-up individuals which go in front lines and dare to accept risks for realization of fascinated dreams and new ideas. Vietnam needs to promote and propagate the start-up spirit over the whole country, in social environment as well as educational environment. It is also the stand of view by Mr. Nguyen Quan, Former Minister of Science and Technology (2015): “Vietnam can begin with start-up companies from universities, then provinces, cities and then the whole nation”.

Vietnam can also learn experiences of the model of successful start-up nations from other countries such as Israel, Korea and, particularly, Australia. However, every nation, in its practical conditions, faces specific difficulties when applying experiences of start-up from other countries. Therefore, Vietnam needs to apply learnt experiences flexibly in conformity to its legal environment and socio-cultural context to set up a good ecosystem for start-ups. The lessons learnt from Australia for the start-up process of Vietnam include:

First, the State should conduct propaganda campaigns to encourage individuals to make start-up and to dare to accept failures. The Australian

practice shows that averagely 75% of start-ups cannot survive 3 years after establishment. This figure in Vietnam is very much lower. The Vietnamese practice shows, after 3-5 years, 20-30% of newly established enterprises survive including 3-5% from start-ups. These figures say a low rate of success of start-up and the investment for start-ups is a type of venture investments and the funds for start-ups are venture ones. Therefore, holding the same stand of view with the Australian Government with Prime Minister Malcolm Turnbull, the Vietnamese Deputy Prime Minister Vuong Dinh Hue emphasized the necessity to build a failure and risk accepting culture in efforts to build the start-up culture. The creation of an environment where start-ups can express their views, can have rights to fail and to continue again efforts for start-up and innovation would help a stable development of a start-up ecosystem. The communities of start-ups in Australia and Vietnam can learn much from these errors to get lessons for future success. The Australian experience of incubators shows a good process: the Government provides active supports for establishment of incubators through a supply of lands, minimal infrastructure facilities and partial finance supports, and then leaves them almost fully to operate and to develop themselves. Enterprises when participating in programs of incubators have to pay certain fees. However, if they cannot produce immediately turnovers, they can delay payments until their operation can generate turnovers. It is the motivation to establish incubators and to operate them successfully. This model demonstrates well its effectiveness. Only 25% of incubated start-ups stop their existence after 3 year of operation which is 3 times higher than other types of enterprises. One of the most remarkable start-up incubators in the programs by the Australian Government is Landing Pad Program. This program provides start-ups with essential supports for development of enterprises, extension of markets, acceleration of business, higher links and competitiveness in international markets. Australian Landing Pads actually operate in Singapore, San Francisco, Tel Aviv, Berlin and Shanghai. Similarly, in Vietnam actually the incubator models are in the initial stages then face many difficulties in establishment of legal formalities, selection of management mechanisms, development of human resources and capitals. Vietnam actually makes efforts to develop the models of technological incubators in universities, enterprises and State-owned incubators for high tech enterprises.

Second, the formation of the incubator models shows the universities encourage the start-ups and, by this way, offer chances to students. The Australian Government built a fund for promotion of education and training activities for science, technology, manufacturing and mathematics to kick-off an innovation culture. Holding the same view, the Vietnamese

Government should pay attentions on development of education and focused investments for universities and colleges which would follow modern directions, higher qualities and international standards. It would include higher standards in development of infrastructure systems and contents of training-research and organization-management activities. More intensive exchanges and links between domestic universities and foreign ones would be also favorable for development of start-ups. Universities should pay more attentions on train young talents where the experience of development of start-ups from local and foreign experts is highly appreciated.

Third, in initial stages, all the start-ups wish to get partners to make capital contributions, to share financial pressures and to look for suitable finance investors. The Australian Government announced reshuffle plans for mobilization of capitals to support start-ups which help them start operation. Actually, while start-ups in Australia only need to demonstrate and justify their ideas, their colleagues in Vietnam have to develop their enterprises up to certain extent before they may get investments from funds. It means that in Vietnam, the funding sources may be large but the access to them is not always available for all. The rate of failure of start-ups in Vietnam is 80% even in the first year after establishment.

Fourth, through programs of tax incentives for R&D activities during the 2014-2015 period, the Australian Government provided supports for more than 13,000 enterprises with more than AUD2.4 billion for eligible R&D projects. Therefore, the Vietnamese Government needs to build up policies to reduce capital barriers and to facilitate the access to investment capitals by start-ups.

Fifth, Vietnam needs to complete legal systems to facilitate start-ups. These policies cause influences to the start-up process of the nation and are capable to fill up the gaps the private sector cannot overcome. This could be a useful support tool for start-ups. While Australia is conducting a series of reforms to encourage investors and start-ups through tax incentives for R&D activities and laws for bankruptcy procedure, the Vietnamese Government could not issue concrete policies to secure and to protect interests of start-ups.

Finally, Vietnam needs to enhance cooperation ties with developed countries to identify and to develop the start-up models and the start-up strategies. The State needs to issue mechanisms for attraction of foreign investments and funds for start-ups. Vietnam also needs to pay more attentions to qualities and effectiveness of FDI projects than the ones to their contribution for GDP growth rate. Measures are also to be taken to

reduce maximal use of existing advantages coming from cheap labours, natural resources and natural conditions. For better and long term, attraction of FDI capitals the State needs issue tougher moves in administrative reforms where unnecessary administrative formalities would be removed and better swimming mechanisms for investments would be offered.

Technologies are creating important socio-economic shifts in the world. If Vietnam wants to become a start-up nation, it has to make strong investments for research and development of products with high innovative science-technology contents. In the lessons of innovation learnt from Australia, we find the importance of huge investments allocated every year for S&T activities but high innovative contents cannot be seen always in every research result of them. Therefore, for promotion of strong shifts in S&T sectors and stimulation for start-ups the policy makers in Vietnam need to issue good policies as well as to build up the innovative start-up ecosystem which need to operate efficiently./.

REFERENCES

In Vietnamese:

1. Chu Thanh Van. 2017. Vietnam can become a start-up nation like Israel. Available at: <<https://www.vietnamplus.vn/viet-nam-co-the-tro-thanh-quoc-gia-khoi-nghiep-nhu-israel/447213.vnp>>

In English:

2. Borrello, E. and Keany, F. 2015. Innovation statement: PM Malcolm Turnbull calls for 'ideas boom' as he unveils \$1b vision for Australia's future. Available at: <[http://www.abc.net.au/news/2015-12-07/pm-malcolm-turnbull-unveils-\\$1-billion-innovation-program/7006952](http://www.abc.net.au/news/2015-12-07/pm-malcolm-turnbull-unveils-$1-billion-innovation-program/7006952)>
3. Kinner, C., McCauley, A. và Gruszka, A. 2016. Crossroads report: An action plan to develop a vibrant tech start-up ecosystem in Australia. Available at: <<https://startupaus.org/resources/crossroads-report/>>
4. Innovation Australia Annual Report 2014-2015. 2017. Available at: <<https://industry.gov.au/Innovation-and-Science-Australia/Innovation-Australia/Annual-reports/Pages/Innovation-Australia-Annual-Report-2014-15.aspx>>
5. Marshall, L. 2015. Unleashing Australia's innovation potential for CSIRO blog. Available at: <<https://blog.csiro.au/unleashing-australias-innovation-potential/>>
6. Nehme, M. 2017. Australia finally has crowd-sourced equity funding, but there is more to do. Available at: <<https://theconversation.com/australia-finally-has-crowd-sourced-equity-funding-but-theres-more-to-do-74921>>
7. Potter, B. 2016. Start-ups create all new jobs. Available at: <<http://www.afr.com/news/startups-create-all-new-jobs-20160823-gqzh15>>

8. PwC: The Startup Economy. 2013. Available at: <<https://www.digitalpulse.pwc.com.au/wp-content/uploads/2013/04/PwC-Google-The-startup-economy-2013.pdf>>
9. Rosenberg, J. and Marron, D. 2015. Tax policy and investment by startups and innovative firms. Full Report. Tax Policy Center. Available at: <<http://www.taxpolicycenter.org/publications/tax-policy-and-investment-startups-and-innovative-firms/full.>>
10. Startup Muster. 2016. Startup Muster Annual Report 2016. Available at: <<https://www.startupmuster.com/reports/Startup-Muster-2016-Report.pdf>>
11. Weisfeld, J. 2017. The Rising Success Of Startups Down Under: Inside Australia's Entrepreneurial Ecosystem. Available at: <<https://www.forbes.com/sites/grouphink/2017/08/10/the-rising-success-of-startups-down-under-inside-australias-entrepreneurial-ecosystem/#b50a6f51cda2>>.