

## A new business model and “Startup” companies in Marine Industry

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### Abstract

Fast development in technologies for the automation of design, operation and manufacturing domain, skilled man powers are involved in creative development using technologies as an independent or through company. To provide a platform and utilize the power of creative and innovative mind, every country has been operating a “startup” company option to start as a unique business. Author would like to express the importance of a startup company in marine industry and how the gap can be reduced between startup companies and corporate to service for the future need in marine.

### Introduction

“Startup” is a new company to bring the idea or imaginary thought into a reality by innovation, developing and validating a reliable product, improving process or services, and it can be a scalable business model with high potential of employment generation. This is a new business model to meet the market needs with minimum investment and creates an opportunity to become young entrepreneur without business background. Startup India was initiated by Government of India on 15<sup>th</sup> August 2015, and this action plan for this initiative is based on i). Simplification and hand handling ii). Funding support and incentives and iii). Industry-academic partnership and incubation. Based on certain conditions, “Startup” certificate is issued by the Department of Industrial Policy and Promotion (DIPP) for the registered company, and this certificate helps to get income tax exemption, trademark and patent application filing, public procurement, credit limit guarantee and self-certification compliance for the period of seven years.

Central government has initiated many incubation centres and encouraged private sector to establish an incubation centre to motivate startup companies that are in need of infrastructure to place a team and need recognition in the market to reach customer. In most of the state, separate startup centre is created to provide an opportunity from the college students to young entrepreneur in terms of financial support in development of product and reaching the market with good support from an incubation centre. There are many private companies formed as funding companies, which takes fund from various individuals and companies and this amount is provided to a potential company who has strong innovative ideas and thoughts for the development of product/service.

Presently, most of the incubation centre and funding agency/companies are extended their support to multimedia companies, Internet-based development for online shopping & market. Government has taken joined approach with different countries on development of agriculture, medical treatment and rural development field as seed funding for the development of innovative ideas to reach people and improve their standard of life. When it comes to marine industry, authors do not

find companies coming forward to encourage this kind of initiative. Marine industry is a unique field which does not connect directly to human life and marine indirectly supports human society in transportation and petroleum product's development. When compare to other industries, marine industry needs more development to use latest technology like the cloud, the Internet of things and artificial intelligence from design to operation of ship.

### **Startup in India**

This startup is promoted for the easy start of companies with less investment, which encourage non business background people can do business. It is possible to get a foreign investment, and it creates job creation and skill development. Government of India has created a platform to communicate among startup companies, incubators, mentors, corporate and investors as "Startup HUB."

- (i) **Incubator(s):** Is a company that supports in providing space to set up an office and to execute minimum services at the initial period. Some incubator can support in financially but depends on the future of that business. In addition to that, support is offered for marketing, material preparation for services, helping in strategy to grow the business by providing free consultancies. This business incubator help for the period of maximum three years and after the development, separate office will be provided outside the incubation centre.
- (ii) **Mentor(s):** is an expert, in particular, domain which is ready to support start-up companies for the development. Incubator companies request for registration of mentor from different domain expert and are used for the consultancy to offer start-up companies business meeting. Getting a mentor is a difficult task for start-up companies, and that has been taken care by incubator by adding as a mentor. Mentor can be anywhere from India and outside India also. Maximum support is assured that start-up companies reaching to the targeted business growth.
- (iii) **Corporate(s):** Corporate have been linked with start-up plat form to have easy communication among every stake holder. Recently, many corporate have come out with and requirements to improve the corporate business technology development using start-up company's talent. Business development talks are provided from corporate to enrich the star up companies in business development and supporting in critical issue during the development.
- (iv) **Accelerator(s):** This is another kind of support for the startup companies who has the product ready at the initial stage. In that case, accelerator helps from marketing material preparation to reach reaching the market and achieving set target.
- (v) **Pitching:** This is a program organized by the an investor to support financially for the selected start-up companies. Invitation is sent to all start-ups who are all willing to take financial support for the development of their products or services. Here investor comes with an expert in different domain and based on the idea or innovation in the product,

considering the need in market; Start-ups are selected to provide a financial support. Many state government also organizing similar program to create a job opportunity and economic development to society.

**Startup in Marine Industry:**

Many schemes are introduced by government of India to support and encourage startup companies through the different ministry and corporate. Most of the domains are related to information technology, the Internet of things, electronic, agriculture, technology hardware, automotive, renewable energy, non renewable energy, clean energy, green energy, telecommunication, health care, life science and rural development. In author knowledge, very few companies are started in marine industry under start-up. To start a start-up, please refer Fig1. Author had an opportunity to meet two marine start-up companies (i) GreenSHIP Research and Technology and (ii) Shallow waterways shipping but the practical situation different from paper news. For other industries, there are many corporate support and incubator from big companies to utilize the new idea and innovation. Whereas for the marine industry, incubator and financial support need to be improved in India.

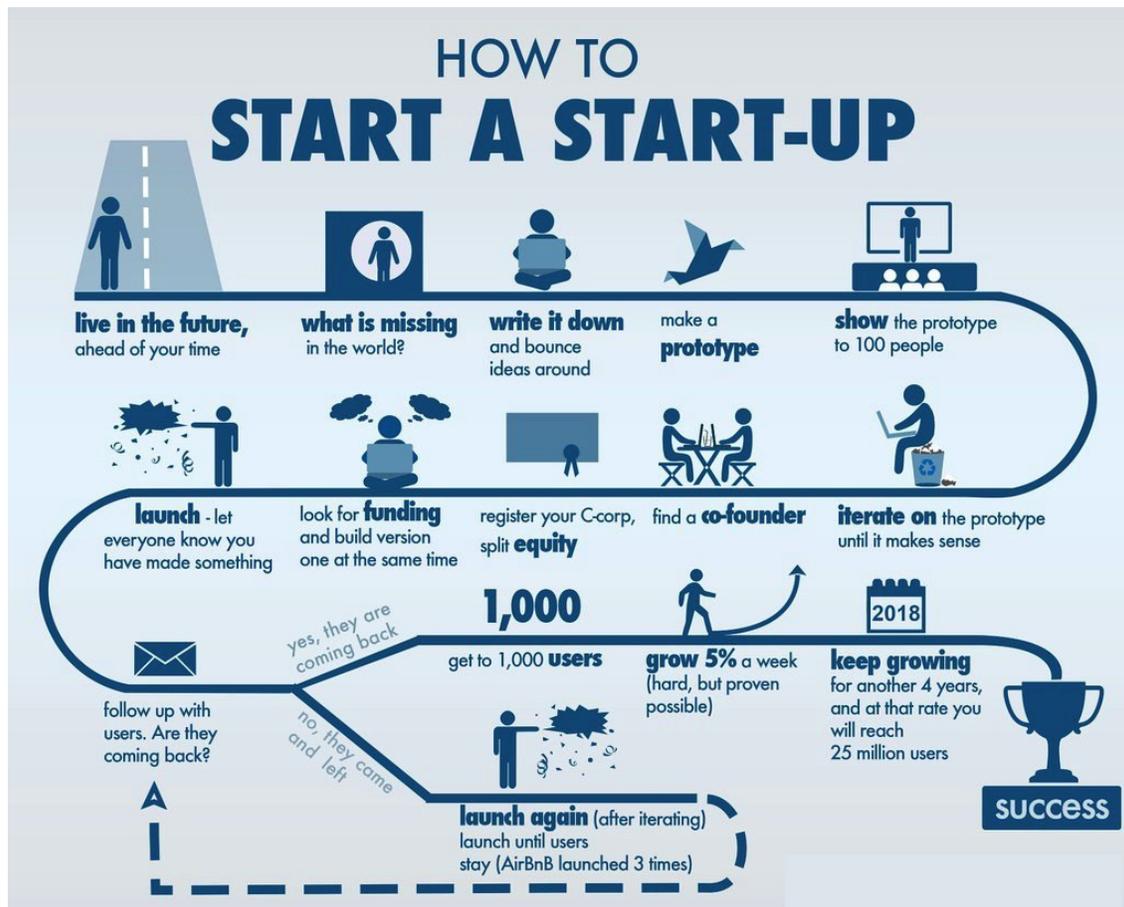


Fig 1. How to start a startup (Source: the Internet)

### **Need of Marine Incubation Centre**

Recently, Indian Register of Shipping (IRClass) in partnership with Siemens and Ministry of Shipping, to build competency in the field of maritime & shipbuilding start-up is started as “Centre of Excellence in Maritime & Shipbuilding (CEMS)”. This start-up is mainly targeted for providing training in more than 24 labs, and it is good opportunity to get trained for better service in marine industry. Marine/shipping is an international business, and small development can be utilized all over the world. When compare to other domains like satellite, telecommunication, system hardware and software development, marine industry development is less. There are opportunities to improve the design and operation using latest technology, but it happens in locally within company. It is not easy to accommodate all experts in one company for any development. Current world, everyday new technology or improvement which needs to be updated to get the full strength of development.

To improve the marine design and operation, authors recommend having an incubation centre to accommodate start-up companies by providing space for office and easy to provide mentor service because of enormous experts in all companies. Technology is going to lead the world and by adopting the latest technologies in marine industry, marine services can offer best price, and whole world can get benefits.

### **Case Study (i): GreenSHIP Research and Technology**

This company was started in 2015 to provide the ship operation solution to operate the ship more economically by providing trim curve services to operate the vessel with optimum trim and provides route optimization and speed optimization services. As the company has an expert on these services but financially not strong enough. They approached few corporates to offer a service and ask for financial support for the development of new products. Company is ready to accept the trim curve service because of technical competency and fuel saving is remarkable. Services were not accepted because of insufficient network (Office) all over India. As a startup company, it is not easy to have an office entire India. Though solution is useful and can be benefited, startup company is not able to get that services from company. If that is under some marine incubation centre, this issue must have been resolved, and company must have grown well. Having knowledge, does not fetch business in India but needs financial support and infrastructure to reach customer.

Products: This company was ready to develop three products as (i) GeoFLEET (ii) GeoPMS and (iii) GeoTRACK and three trade marks have been registered.

(i) **GeoFLEET**

This product is aimed to reduce the operational cost of the ship. This product includes eight modules, which are shown in Fig.1. This kind of services is provided only few companies internationally. Though this tool is more competitive, due to financial support, this has been kept idle now. If this is the situation for this kind of international product, how can we expect more products in marine industry without support of corporates.

# GeoFLEET

- (i) Fleet Management
- (ii) Engine Performance
- (iii) Fuel Management
- (iv) Energy efficiency operational index (EEOI)
- (v) Hull Condition Monitoring
- (vi) Trim Optimisation
- (vii) EU MRV
- (viii) Reporting

Fig 1: GeoFLEET Product

(ii) GeoPMS

This is mainly used for maintenance purpose. Due to the development of technology, this product is easy to develop and same time, using the cloud, monitoring and maintenance is much easier than any tool. These product stake holders ship owner, charter and management company.

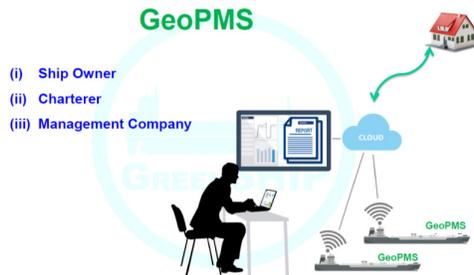


Fig 2: GeoPMS Product

(iii) GeoTRACK

This is product aimed to support fisher man community in India. More than 3 lakhs fishing boats are running in everyday in Indian costal. Every year, due to natural disaster or international borer issue, few boats and fishers are disappearing. This is a loss for the country as we lost human and big loss for the fisherman's family. India is well developed in technology, but this happens every year. To over this issue, this product was aimed to develop, but not completed due to financial issue. Though this product can be developed for fisher man community, need support from government or corporate, which can benefit to company and society. Schematic is provided in Fig 3.



# GeoTRACK

Fig 3: GeoTRACK Product

### Case Study (ii): Shallow waterway shipping

This is also start-up company in marine industry. India has longest inland waterways but not utilized well. Current government has taken initiative to utilize the inland water ways for domestic transport as shipping transport is the cheapest mode of transport when compare other modes. Keeping the business opportunity in mind, eBarge has been designed by this company with Green container, which can be used in shallow-water ways. This design was patented “**eBarge Green Container**” and skeleton design were completed and showed fuel & cost saving for one voyage. As a startup company, able to reach many ship owners and big companies but it was asked for detail construction drawing, which needed minimum of 10 lakhs and needs more man power. Due to various reasons, this patent has been kept idle without financial support.

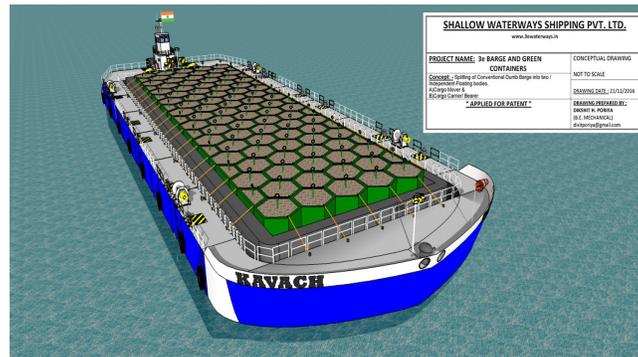


Fig. 4: eBarge Green Container

### Conclusion

Startup is a good opportunity for the youngster and who has a creative idea/innovation solution for the industry or society. Financial support for start-up company is going well in national as well as international level for IT, health, software industry and few more industries. As it was discussed about two marine start-up company, situation needs to be improved in marine industry. Authors would like to insist that encouraging many start-up companies in marine industry can improve the existing process or services and same time. Atleast one incubator can come for marine industry to have space to use new ideas and innovation. Young generation talent and ideas can be utilized well. New ideas can be brought from marine/shipping/naval students and passed out degree holders into the marine industry which improve complete voyage/design/construction /operation of ship.