

Importance of process oriented organizations

Capt. Stjepan Bedić, Team Stellar
(stjepan.bedic@teamstellar.org)

Abstract

This paper analyzes different types of start-up aerospace organizations, common mistakes and the importance of process oriented management systems. It is made using experience in starting up 5 airlines, one microlight aircraft production, two GLXP teams and 4 space technology companies' startup.

1. Introduction

Many private initiatives in aerospace industry emerge every day but most of them remain promising but unrealized projects, often ending after a few years (and often a couple of millions of dollars of expenses).

Aerospace industry is different when compared to other industries because it has been developed as an industry that often didn't require any financial justification, it is very sensitive to global economical movements and it is often started and lead by aerospace enthusiasts and engineers instead of managers. This paper will present common problems when attempting to start a private aerospace business, with emphasis to the importance of process oriented management setup.

2. Common mistakes and problems

2.1 We need money!

Of course, so does any project. This paper analyzes common misconceptions about fundraising and should provide guidelines to make the good foundations to be eligible for investment.

2.2 He's a good expert, but is he a good boss?

Author has worked in several organizations with experts who have vast experience and knowledge in their fields of work. Very often such persons are being offered a leadership position, because a false

logical conclusion is made, leading to think that if a person is good at doing a certain job, this person will also be a good leader to other persons doing the same job. The main problem is that a manager's job is rarely seen as a job that requires education, training, skills and experience. Nobody would offer an aerospace engineer to work, for example, as a surgeon in a hospital, without proper education, training, skills and experience, but for some reason a leader's role is given away like it is something unimportant. This paper will analyze the major requirements for a person to be a good manager.

2.3 We have great experts, but who's doing what?

After resolving the issue of persons capable to lead, the team's next step is to become an ORGANIZATION. What differentiates a group of people from an organization is a strict definition of roles, duties and authorizations for each person.

This paper will show common mistakes with setting up the organizations, such as:

- Customizing the management setup, positions and roles according to persons in the team.
- Creating a system "upside down", like building a house from the roof towards the foundations, instead of other way around
- No definition of duties during the initial "volunteering, multi-functioning and enthusiastic" phase of the project.
- Micromanagement errors

After seeing the common problems, a solution is provided in a form of a process oriented management system. Such a system does not care who is on board in the team during startup, it looks at the processes. The main process, for example, sending a probe to the Moon has supporting processes, such as, rocketry, lander, rover, mission control and communications.

The management roles are defined according to the needs, not the availability of managers. The needs are well known if the main process and the supporting processes are well defined.

Creating a process oriented management system is the best way to avoid:

- Two persons doing the same thing
- Certain jobs not being done by anyone
- Idle persons
- Persons with too many tasks

2.4 We need a plan!

Now when we have adequate managers and the management setup, we need a plan. A good way to create a plan is to use brainstorming sessions. The managers of each process must agree on:

- The interdependence of the tasks within different sectors,
- The deadlines,
- The milestones,
- Integration,
- Budget planning and spending, especially with partial or phased budgets.

Once a plan has been agreed upon, a technical solution must provide adequate access, control and overview of the plan. There are many technical solutions from simple tables, time tables, project management programs etc., but the best solution was shown to be the online project management software with options for:

- Collaboration
- Automatic updates via e-mail
- Automatic deadline tracking and warnings
- Resources assignment
- News, forum, file sharing etc.

2.5 How much does it cost?

A good budget can only be made if there are:

- Adequate leaders
- Adequate management setup
- A realistic and detailed plan

A budget must contain all expenses, including those not related to the main process, such as legal, advertising, travel, office materials etc.

The main difference between a private aerospace budget and a budget for a state-funded project is shown in the next paragraph.

2.6 What's in it for the guy who has money (the so called "investor")?

There is no doubt that any organization knows how to prepare a budget, but in the private aerospace business, same like in any private business, the budget itself is not enough. An investor will not be satisfied if the organization only shows that it knows how to spend money (budget), they will be satisfied only if the organization shows that they can earn more than they will spend. It's a simple formula which is very often missing from the startup aerospace companies.

PLANNED INCOME > EXPENSES

In addition to a sound business plan which is showing income, it is a good practice to show a possibility to provide deliverable goods even during the initial phases of the project.

3. Summary and Conclusions

The analyzed cases of startup aerospace projects have shown a need for many projects to leave the phase of "childhood dreams" and turn into sound businesses. Development phases described in this paper are necessary in order to make the dreams come true.