

Functioning Advanced Scientific Equipment (FAST)

Financial plan

Guideline

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# Introduction

Certain activities compiled in the operational plan, as presented in the related document the FAST Operational plan Guideline, obviously come with cost implications. Moreover, the FAST Concept is based on the principle of sustainable economy. Thus the operational costs for starting up a new piece of equipment necessarily have to be covered by an investment capital, but after about two years the equipment is expected to cover its own running costs as well as, whenever possible, generate a profit which can strengthen the laboratory or the research in general.

A FAST financial plan Guideline (this document) has thus been developed to be complementary to the FAST Operational plan Guideline document. The purpose with the financial plan is to prepare a strategy for the Institution to cover all the expenses that come with the running, maintenance and servicing of new or repaired piece of equipment.

The financial plan compiles estimated costs as well as sources of funding. The cost recovery plan shows how costs related to procured or repaired equipment can be covered, and proposes options of funding sources. The two first sections thus address each piece of equipment.

Please note that the budget for the first year is expected to look different from the budget for the second year and onwards, as only the first year includes procurement, transportation and installation.

The final version of the financial plan should be signed by the Vice Chancellor/Director, one representative from the researchers and one from the technicians and technologists (in countries which operates with technologists).

Laboratory business plan

The third section of the document proposes the development of a business plan for the laboratory as a whole.

## Related documents

1. FAST Operational plan Guidelines.
2. FAST Support Services.
3. FAST Concept.
4. FAST institutional framework in Nigeria.

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# Procurement and running costs per equipment

The unit can be calculated in USD, EURO or in local currency. Some estimation is done as a percentage of the procurement cost of an equipment.

The compiled cost estimates are obviously nothing but general proposed estimations, The exact numbers can only be known in each specific case. The estimates can nevertheless serve as guidelines and it has been found that the total running costs for a piece of equipment during its life time is roughly three times the procurement costs or more.

| Cost item  | Amount  | Comments |
| --- | --- | --- |
| Procurement |  |  |
| Transportation / shipping and  | 14,5 % if arranged by the supplier  | Transportation from manufacturer to university |
| Custom clearing | VAT 5 %, Government social fees 7,5% |  |
| Insurance during transportation | Up to 2,5% of the value of the transported goods  | Level depends on country |
| Physical infrastructure* Construction of new buildings to host the equipment and / or improvement of available laboratories
* Protection against dust, temperature, humidity, lightening, flooding and vibration
* Maintenance of physical infrastructure
 |  |  |
| Supplies* National electricity costs
* Procurement and installation of electricity generator and back-up system, as well as fuel and maintenance
* Water
* Computers and printers
 |  |  |
| Consumables* Use related: reagents, gases, glass ware, enzymes etc
* Instrument related: columns, vials, syringes etc
 | Approx. 10 % of procurement cost per year |  |
| Installation* Planned visits by person in charge of installation
* Additional visits due to that the lab is not ready or all items are not available
 |  |  |
| Routine running of the laboratories * Payment of staff
* Staff incentives
* Administrative expenditure
 |  |  |
| Repair and maintenance * Repair and user manual
* Spare-parts
* Servicing tools
* Extended warranty
* Service contracts
* Visit by supplier repair person
 | Approx. 10 % of procurement cost per year |  |
| Insurance during use | Approx. 1% of procurement cost per year | To cover theft, fire, water leakage, injury etc |
| Training events | Approx. 5 % of procurement cost per year |  |
| * Supplier equipment training at time of installation
 | Approx. 600 USD /day and equipment | 6 days (2 installation, 2 user, 2 repair) |
| * Supplier equipment training , abroad, per person
 | Approx 5,000 USD |  |
| * Supplier equipment training , at the university, per four persons
 | Approx. 3,500 USD |  |
| * Local equipment training
 |  |  |
| * Good Laboratory Practice (GLP) , Standard Operational Procedure (SOP) training
 |  |  |
| Other capacity strengthening activities |  |  |
| Decommissioning |  |  |
| Monitoring and evaluation of equipment management and use |  |  |
| Outcome evaluation planningof staff performances |  |  |
| TOTAL |  |  |

# Cost recovery per equipment

|  |  |  |
| --- | --- | --- |
| Activity / Source | Amount per year | Comment |
| Bench fees |  | From internal or external users |
| Selling analytical services |  | For research or commercial purposesCost rates shall be adapted to the capacity of the buyer |
| Selling training courses on equipment use |  | For research or commercial purposesCost rates shall be adapted to the capacity of the buyer |
| Selling products |  |  |
| Fundraising |  | For example research grants from donor agencies, private sector and government |
| Contribution from university core funds |  | Must be a line item the university annual budget |
| Fund reallocation |  | From for example project overlapping interests, such as capacity strengthening |
| Saved costs as a result of reduced outsourcing |  | In the case the new equipment reduces or removes costs related to having analyses performed elsewhere |
| TOTAL |  |  |

# Business plan guidelines

### 1. Written pitch

A pitch is a short presentation of our product, service or organization and its purpose is to convince the recipient of something, such as that our solution to each problem is the best. We describe our business idea, in short, so that anyone who reads our entry can quickly get an overview of what it contains. We may want to use the structure called NABC (Need, Approach, Benefits per cost, Competition).

* Start by describing the problem or need we have identified.
* Then we describe our idea briefly.
* Then its benefits, our solution might be more effective than competitors or cheaper to produce?
* End the pitch with a brief description of the options to our solution.
* And then an invitation to the reader, what do we want the reader to do when reading our pitch? Do we want the reader to invest in our company or perhaps try our product?

We try to catch the interest of the reader in the introduction of our pitch, if possible we try to engage the reader's thoughts and feelings by delivering both touching stories and facts.

### 2. Vision

* What is the vision? Why are we doing this?
* Where do we see our institution in 5-10 years and what goals do we want to achieve?
* In addition to the market and use we envision for your product / service right now, are there any other potential markets and uses for our product / service in the future?

### 3. Summary of the Business Plan

Business Plan Canvas (BMC) is a plan and a tool that is used to create an overview of our business plan. We shall think through your business idea and describe the essence of our idea with a few short sentences in each box to keep track of how everything is connected. A template is available; please find the template in the appendices.

### 4. Business Plan details

The business plan consists of nine different areas[[1]](#footnote-1).

4.1 Value proposition

4.2 Customer Segments

4.3 Distribution Channels

4.4 Customer Relationships

4.5 Revenue

4.6 Key Partners

4.7 Key Activities

4.8 Key Resources

4.9 Costs

#### 4.1 Value proposition

* Please describe what problem or need we solve with our idea and
why it is important for our customer to get this solved.
* What makes our solution unique?
Include concept, product, service, business plan, etc.
* Describe the benefit for the customer to use our product / service.
Express it in terms of money, time, convenience, quality improvements, etc.
* Described our competitors’ products / services and why the customer should buy our product / service over our competitors’.
* Described how we are going to protect our product / service and create competitive advantage.
Address industrial designs, patents, rate of innovation, design, marketing, etc.
* Described if there are any patents or legal protection that prevents us from selling our product / service to customers?
* Explain whether our product is fully developed? If not, how much time and capital would be required to create a salable product / service?
* Described in what aspects your institution will be environmental and socially sustainable?

#### 4.2 Customer Segments

* Please describe our first customers? How many are they? What do they think about our offer?
* Please describe our customers in detail. Include if relevant; age, gender, country, culture, religion, language, income, lifestyle, values, purchasing behavior, personality, etc.
* How are we going to reach our customers?
* Have we verified that our customers are interested in the solution we are offering to their problem or need? How did we go about to find this out?
* Try to estimate how much money our customer could spend on our product / service. What do we base this number on?
* Please describe our potential market. Include size, growth prospects, trends and developments, etc.

#### 4.3 Distribution Channels

* Where and how will we sell our product / service? Address physical options, digital, etc.
* How are we going to deliver our value proposition to our customers?
* Are there any barriers of entry that might exist on the market? If so how would we overcome them?

#### 4.4 Customer Relationships

* How are we going to get customers?
* What it will require to establish and maintain a relationship with our customers?
Include time, money, resources, etc.
* How will our customer know about our institution and what we are offering?
* How will we get the customer to buy our product / service?
* How are we going to differentiate our offer from our competitors?
Will we compete with technology, design, service, availability, price, etc.?
Does our institution have better sustainability benefits?
* Once we have customers, how will we retain them in the long run?

#### 4.5 Revenue

* How will we make money on our idea?
Where will we get the money from?
Include direct sales, distributors, advertising sales, service agreements, licensing, franchising, subscriptions, etc.
* In what quantity do we expect to sell your product / service?
When will we sell your product /service?
* What price will our customers pay for our product / service?
How did we come up with that price?

#### 4.6 Key Partners

* Who are the collaborations and partners that are important for our institution?
Include suppliers, distributors, manufacturers, advertising agencies, retailers, etc.
* Which are the important resources we get access to from our key partners?
Include personnel, material, knowledge, patents, etc.
* Have we described how we will initiate a relationship with potential partners?
* Have we evaluated our collaborations / partnerships from an ethically, socially, environmentally and economically sustainable perspective?

#### 4.7 Key Activities

* Please present the key activities that we and our team need to be really good at in order to create and deliver our value proposition to our customer. Include manufacturing, product development, logistics, sales, outsourcing, software development, design, customer service, etc.

#### 4.8 Key Resources

* Please describe the most important resources needed to create and deliver our product / service? Include personnel, website, social media, computers, IT and other physical infrastructure, buildings, office space, vehicles, patents, trademarks, etc.
* Do our distribution channels require specific resources?

#### 4.9 Costs

* Which are our biggest costs, or will be our biggest costs when our institution is finally up and running?
Please rank the expected costs in order of size.

Please include also our marketing costs.

* Will the institution need capital in the first year and how do we plan to finance this?
* Please describe our calculations in this business plan.
What assumptions have you made in your calculations?

### 5. The team

* Please describe the team members, their role and what relevant experiences they have.
Why will our team be successful with this idea?
* Does our team lack specific experience or knowledge?
If so how do we plan is to get access to this specific experience or knowledge?
* What motivates us?
Why are we and our team doing this?

### 6. Risk analysis

* Have we received any indication that customers are willing to pay for our product / service?
* Please described and evaluated the risks concerning the different parts of our business plan that could jeopardize the success of our institution including technical, economical, market, personnel, environmental barriers and other constraints.
* Present how we will manage these risks and minimize their impact?
If possible, then we use scenarios to describe our plans.

### 7. Implementation plan

Create an implementation plan with activities and milestones.

* Who is responsible for what? How? And when?

A template is available.

### 8. Cash flow budget

Please describe our cash flow budget and explain the numbers and the assumptions we have based our calculations on. A template is available. Please customize and adapt the template provided to reflect your specific business since no two budgets are the same.

### 9. Income statement budget

Please describe our income statement budget and explain the numbers and the assumptions we have based our calculations on. A template is available. Please customize and adapt the template provided to reflect your specific business since no two budgets are the same.

1. After we have filled in our Business Model Canvas (BMC), we can easily go through the description of what we are offering and see what assumptions we have made. Since reality rarely matches exactly the assumptions written down on paper, we can now use our completed BMC to formulate hypotheses which we can then test, and we can modify our BMC depending on what the tests show. If our description of our offer in a BMC for example contains: ”My offer is the use of umbrellas that provide shade on the beach” a possible testable hypothesis could be; “Shadow is something we request on the beach” and “Umbrellas are the best way to provide shade on the beach”. Do our potential customers agree with us or are there things we haven’t thought about? Reflect again over the Outcome challenges and the Output mapping in this journal. [↑](#footnote-ref-1)