



EUROPEAN
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COVER PAGE AND DECLARATION

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I confirm that this assignment is my own work, is not copied from any other person's work (published/unpublished), and has not been previously submitted for assessment elsewhere.

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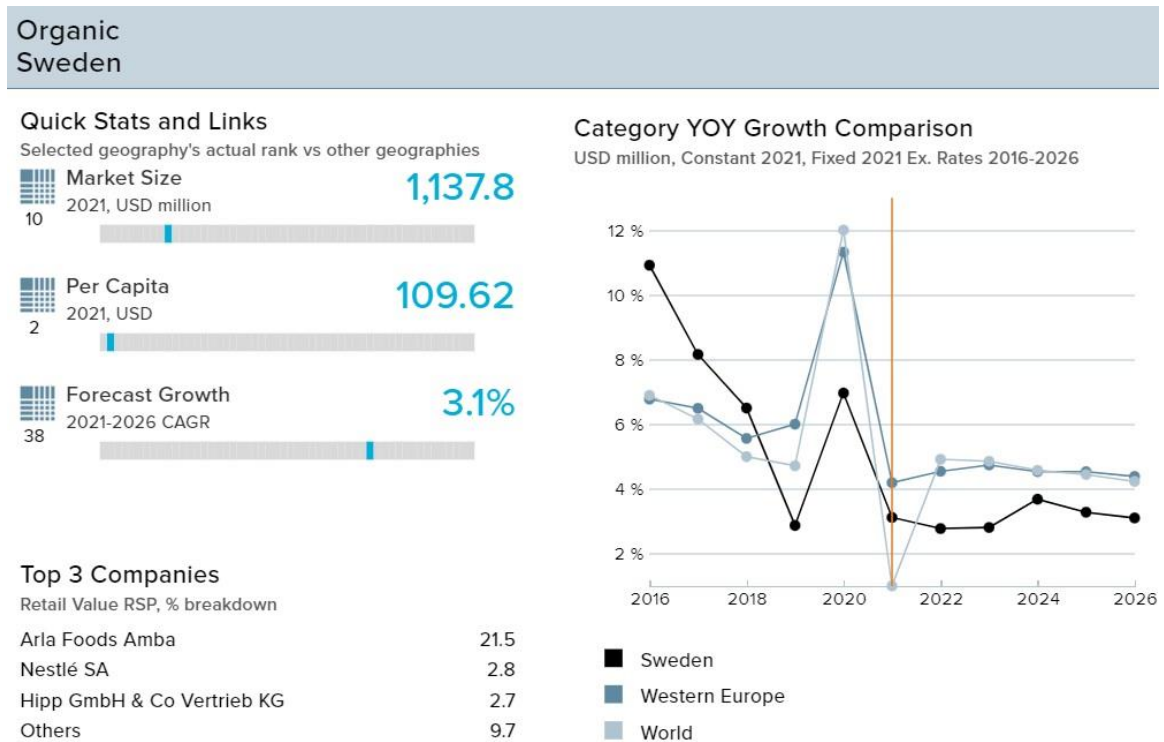
1.Part One: Aspire Hometown Food Market, an all organic natural food store.

Introduction:

"Across Europe, organic delivers. In ten years, consumers have more than doubled their consumption of organic." (IFOAM) **Conventional food** is everywhere. It's **cheap and easy**, but it **doesn't offer many long-term benefits** to humans or the environment. However, this is precisely why organic food is more important now than ever before.

The organic segment in Sweden is led by Arla Foods with a value share of 21.5% in 2021, followed by Nestle SA and Hipp GmbH & Co Vertrieb KG with value shares of 2.8% and 2.7% respectively.

Despite ranking 10th globally in market size, Sweden ranks 2nd in terms of Per Capita spending on organic products, indicating again, that organic products are reaching a saturation level. Furthermore, with other health and wellness labels seeing increasing demand, year on year growth for organic products is expected to remain low, around the 3.0% mark for the period 2021-2026.



Organic products in Sweden represent 1.9% of global demand, with market size of US\$1,137.8 million and a per capita expenditure of US\$109.62 in 2021. Organic products in Sweden are expected to witness a 3.1% CAGR 2021-26, which is significantly lower than that of neighboring countries Norway (5.0%) and Finland (6.7%), though it must be noted these markets are much less mature than Sweden.

Project Name: Aspire Hometown Food Market, an all organic natural food store.	Project Number: P-101-2022
Date: May-8-2022	Revision Number: V 1.0
Expected Start Date: 01-Jun-2022	Expected End Date: 30-Nov-2022

1. PROJECT GOALS

There is a constant rise in the demands of organic food today, especially in the metro and big cities, so to fulfill the rising demands, the organic farmers and suppliers will need to work double hard, which is why investing in organic food business will ultimately help the farmers to produce the quality food to cater to all demanding population.

1. INCREASING SALES AND PROFIT
2. MORE CONSUMERS
4. LESS RISK, LESS VULNERABLE BUSINESS
5. MORE VARIETY

2. DELIVERABLES

- Finding a Location for the Store, to be easy reachable for customers.
- Apply for necessary registration and Permits, so we can be allowed to sell our organic food products.
- CCTV camera, to watch and keep the store safe.
- furnishing and interior decoration, to give a good look.
- cash registers, and online E-store, phone systems, to provide more suitable point of sale.
- shelving, to arrange the products inside the store.
- Dumpsters, to get ride of expired food.
- fire alarms and smoke detectors, to save the business from damaged by fire.
- ACs cooling. Keeping the good atmosphere of Sensitive Food.

3. SCOPE DEFINITION

The project will include:

- CCTV camera
- furnishing and interior decoration
- cash registers, and phone systems
- shelving
- Dumpsters
- fire alarms and smoke detectors
- ACs cooling

The project will not include:

- Finding a Location for the Store
- Apply for necessary registration and Permits
- hosted sites not part of project scop.
- Type of sold products.

4. PROJECT MILESTONES

- fire alarms and smoke detectors, 08-jun.
- ACs cooling, 30-jun.
- interior decoration, 01-Jul.
- CCTV camera,02-Aug.
- furnishing, 02-Aug.
- shelving, 02-Aug.
- Dumpsters, 02-Aug.
- cash registers, 01-Sep.
- phone systems, 01-Sep.
- Re-perform user testing to verify completion of project, 01-Oct.

5. ASSUMPTIONS, CONSTRAINTS, DEPENDENCIES & Risks

Assumptions:

- *Building the E-Store, Confidence – medium, impact- low.*
- *Knowing the new business model. Confidence – medium, impact- high.*
- *Procurements issues. Confidence – low, impact- high*
- *Data will be available by the required dates*
- *Facilities and workstations will be made temporarily available for the project team*
- *The project can be implemented within the cost budget.*

Constraints:

- *Project timeline fixed at 30th Nov 2022 for completion*
- *Governments Regulations.*
- *Resource constraints. There are lacking of expert people.*
- *stakeholders needs.*
- *It may be difficult to free up the required internal staff when needed.*

DEPENDENCIES:

- *Fire alarm design should be approved from Civil Defense.*
- *Business Process Design from USDA organic regulations.*

Risks:

- *Timelines for required procurement process is likely to be months*
- *Availability of resources including external resources as there are lead times of 2 to 3 months on booking external resources.*
- *Operational demands on staff (IS & Functional) may impact on their availability for project related work.*

6. Summary Budget

- *Project almost cost around 1,8 million euros, they are subject to change on the scale of +/- 30%.*

7. PROJECT ORGANIZATIONAL STRUCTURE

Function	Name	Role
Quality Control	Jason Craft	Consultant
Customer Service	Jennie Rutter	Consultant
Marketing	Eric Rudolf	Consultant

PMO	Bash mom	Project Manager
Executive Sponsor	Anne Milkovich	Executive Sponsor
Owner	Chancellor Leavitt	Sponsor
computer networks	Steve Peterson	Team Leader
Web Developer	Julie Dirksen	Team Leader
Procurement	Jason Peterson	Team Leader
Facility	Mark Clements	Team Leader

8. Roles and Responsibilities

Role	Name	Responsibilities
Executive Sponsor	Anne Milkovich	Authorize investment and provide funding.
Sponsor	Chancellor Leavitt	Lead the project: direct activity, monitor execution, manage risks, resolve issues.
Project Manager	Bash mom	Develop planning documents, coordinate the planning team, ensure follow-through on plan, act as technical Subject Matter Expert, prepare technical environment for integration.

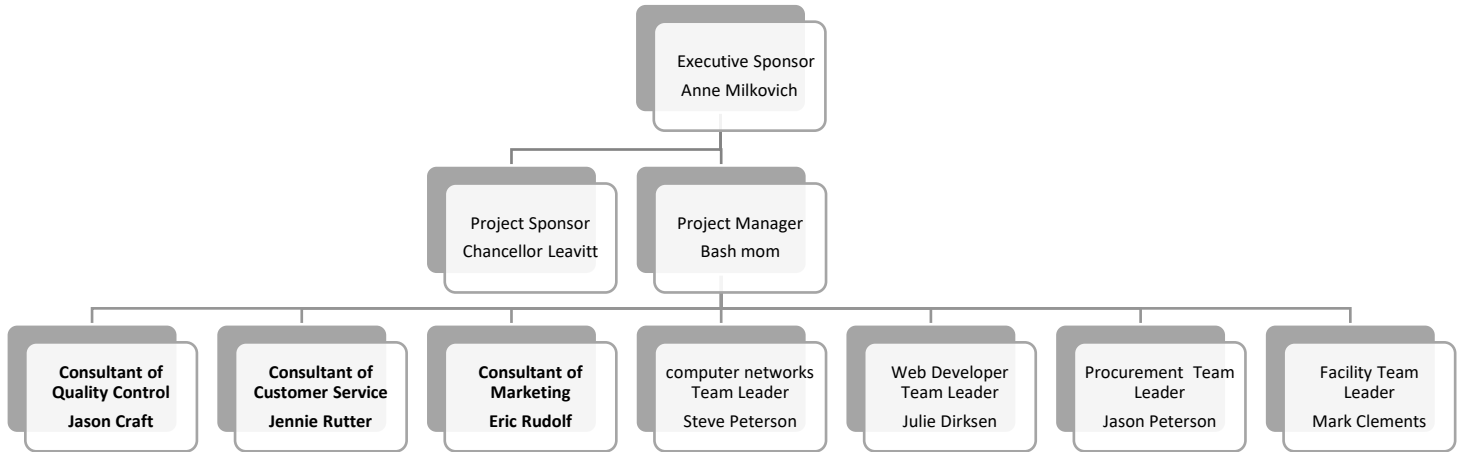
9. PROJECT AUTHORIZATION

Approved by:	Business Manager	Date
	Anne Milkovich	May-8-2022
Approved by:	Project Manager	Date
	Bash mom	May-8-2022

Team Member Breakdown and Responsibilities:

Acquire Project Team is the process of confirming human resource availability and obtain the team needed to complete project activities:

- **Internal VS External human resources**
- **Central location VS distant location**
- **Level of expertise, and associated cost**



Task Name	Mark Clements	Jason Peterson	Julie Dirksen	Steve Peterson	Eric Rudolf	Jennie Rutter	Jason Craft	Chancellor Leavitt
fire alarms and smoke detectors	R	I	I	C	I	C	A	S
ACs cooling	R	I	I	C	I	C	A	S
furnishing and interior decoration	A	R	I	I	C	C	C	S
shelving and Dumpsters	R	I	I	I	A	I	C	S
cash registers, and phone systems	A	R	R	A	I	I	C	S
CCTV camera	A	I	C	R	I	I	C	S

R = Responsible A = Accountability C = Consult I = Inform S = Sign off

Change Control Procedures

- a. Submit requested change (Change Request Template)
- b. Submit justification for requested change
- c. Perform impact analysis in case of approval
- d. Perform impact analysis in case of rejection
- e. Change request evaluation
- f. Update various plans (in case of approval)
- g. Justify rejection (in case of rejection)
- h. Log the Changes Request.

Plan Communications Management:

Source	Target	Need	Document name	Frequency	Method
Project Manager	Sponsor	Progress report	MPR	Monthly	e-Mail
		Risk plan	Risk plan	When happened	e-Mail
Project team	Project Manager	checkpoint	WP Progress Report	2 week	e-Mail
Project Manager	Customer	Plan update	Project Plan	Monthly	Hard copy
		Progress report	MPR	Monthly	Hard copy

STAKEHOLDER REGISTER

Project Name	All organic natural food store.	Date	May-8-2022
Project Number	P-101-2022	Document Number	
Project Manager	Bash mom	Project Owner/Client	Aspire Hometown Food Market

Stakeholder Name	Title and Project Role	Contact Information	Category	Stakeholder Analysis Group
Bash mom	Project Manager	By Email / Phone/ online meeting	Internal	Key player
Jason Craft	Consultant of Quality Control	By Email / Phone/ online meeting	External	Keep informed
Jennie Rutter	Consultant of Customer Service	By Email / Phone/ online meeting	External	Keep informed
Eric Rudolf	Consultant of Marketing	By Email / Phone/ online meeting	External	Keep informed
Anne Milkovich	Executive Sponsor	By Email / Phone/ online meeting	External	Meet their needs
Chancellor Leavitt	Owner	By Email / Phone	Internal	Meet their needs
Steve Peterson	computer networks	By Email / Phone	Internal	Key player
Julie Dirksen	Web Developer	By Email / Phone	Internal	Key player
Jason Peterson	Procurement	By Email / Phone	Internal	Key player
Mark Clements	Facility	By Email / Phone	Internal	Key player
Customers	-	Advertisement	External	Keep informed

Project Scope Planning:

Detailed scope description

This project is opening a new revenue to Aspire Company, it is about to establish new business with considerable health care. This business takes care about organic food. Now days, people in swidden are going to include health foods in their males. So, this project creates a new market place which is suitable for bringing, saving and selling the organic food.

Acceptance criteria:

- a. shorter durability
- b. manufactured in clean environment
- c. health benefits
- d. packaging contains the organic food producer's logo

- e. easy to prepare

Project deliverables:

- a. CCTV camera
- b. furnishing and interior decoration
- c. cash registers, and phone systems
- d. shelving and Dumpsters
- e. fire alarms and smoke detectors
- f. ACs cooling

Project exclusions:

- a. Finding a Location for the Store
- b. Apply for necessary registration and Permits
- c. hosted sites not part of project scop.
- d. Type of sold products.

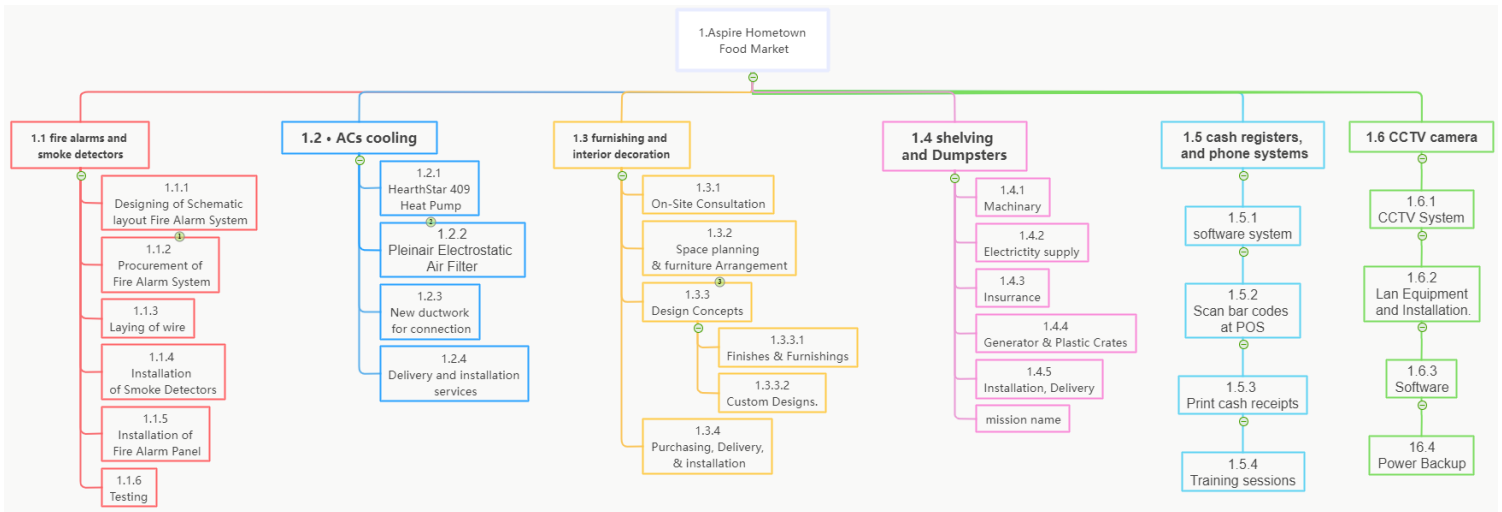
Project Constraints:

- a. COVID-19 may affect demand.
- b. The market place should be ready by 30-Nov-2022.
- c. Budget.
- d. Time/ resource / personal limitations.
- e. The source of goods including the Quality.

Assumptions:

- a. All raw material will be available.
- b. Permanent Employee will not be reassigned.
- c. Funding will be available when required.

Work Breakdown Structure (WBS):



Projected Completion Times:

Define activities is the process of identifying the specific actions to be performed to produce the project deliverables. Decomposing the work package into smaller components called Schedule Activities to provide a basis for estimating. The activity list is a comprehensive list including all schedule activities that are planned to be performed on the project.

Task name	Start Date	End Date	Status	Assign to
1.1 fire alarms and smoke detectors	6/8/2022	7/20/2022		
1.1.1 Designing of Schematic layout Fire Alarm System	6/8/2022	6/13/2022	In Progress	Mark Clements <mark-clements@aspire.com>
1.1.2 Procurement of Fire Alarm System	6/13/2022	6/20/2022	Not Started	Jason-Peterson <jason-peterson@aspire.com>
1.1.3 Laying of wire	6/21/2022	7/13/2022	Not Started	outsource company <out-source@company.com>
1.1.4 Installation of Smoke Detector	7/13/2022	7/19/2022	Not Started	outsource company <out-source@company.com>
1.1.5 Installation of Fire Alarm Panel	7/13/2022	7/19/2022	Not Started	outsource company <out-source@company.com>
1.1.6 Testing	7/19/2022	7/20/2022	Not Started	Mark Clements <mark-clements@aspire.com>
1.2 ACs cooling	6/30/2022	8/2/2022		
1.2.1 HearthStar 409 Heat Pump	6/30/2022	7/11/2022	Not Started	outsource company <out-source@company.com>
1.2.2 Pleinair Electrostatic Air Filter	7/11/2022	7/15/2022	Not Started	outsource company <out-source@company.com>
1.2.3 New ductwork for connection	7/11/2022	7/15/2022	Not Started	outsource company <out-source@company.com>
1.2.4 Delivery and installation services & Test	7/11/2022	8/2/2022	Not Started	Jason-Peterson <jason-peterson@aspire.com>, outsource company <out-source@company.com>
1.3 furnishing and interior decoration	8/2/2022	9/6/2022		
1.3.1 On-Site Consultation	8/2/2022	8/4/2022	In Progress	Jennie Rutter <jennie-rutter@aspire.com>
1.3.2 Space planning & furniture Arrangement	8/5/2022	8/16/2022	Not Started	Mark Clements <mark-clements@aspire.com>
1.3.3 Design Concepts	8/17/2022	8/30/2022	In Progress	Jennie Rutter <jennie-rutter@aspire.com>
1.3.3.1 Finishes & Furnishings	8/17/2022	8/23/2022	In Progress	Chancellor Leavitt <chancellor-leavitt@aspire.com>
1.3.3.2 Custom Designs.	8/23/2022	8/30/2022	In Progress	Jennie Rutter <jennie-rutter@aspire.com>
1.3.4 Purchasing, Delivery, & installation	8/30/2022	9/6/2022	Not Started	Jason-Peterson <jason-peterson@aspire.com>, outsource company <out-source@company.com>
1.4 shelving and Dumpsters	8/2/2022	9/2/2022		
1.4.1 Machinery	8/2/2022	8/8/2022	Not Started	Mark Clements <mark-clements@aspire.com>
1.4.2 Electricity supply	8/2/2022	8/8/2022	Not Started	Mark Clements <mark-clements@aspire.com>
1.4.3 Insurrance	8/8/2022	8/9/2022	In Progress	Jason Craft <jason-craft@aspire.com>
1.4.4 Generator & Plastic Crates	8/9/2022	8/15/2022	Not Started	Mark Clements <mark-clements@aspire.com>
1.4.5 Installation, Delivery	8/16/2022	9/2/2022	Not Started	outsource company <out-source@company.com>
1.5 cash registers, and phone systems	9/1/2022	10/12/2022		
1.5.1 software system	9/1/2022	9/21/2022	Not Started	Julie Dirksen <julie-dirksen@aspire.com>
1.5.2 Scan bar codes at POS	9/22/2022	9/28/2022	Not Started	Julie Dirksen <julie-dirksen@aspire.com>
1.5.3 Print cash receipts	9/28/2022	10/5/2022	Not Started	Jason-Peterson <jason-peterson@aspire.com>
1.5.4 Phone System	9/29/2022	10/5/2022	Not Started	Steve Peterson <steve-peterson@aspire.com>
1.5.5 Training sessions	10/5/2022	10/12/2022	Not Started	outsource company <out-source@company.com>
1.6 CCTV camera	8/2/2022	9/13/2022		
1.6.1 CCTV System	8/2/2022	8/8/2022	Not Started	Julie Dirksen <julie-dirksen@aspire.com>, Steve Peterson <steve-peterson@aspire.com>
1.6.2 Lan Equipment and Installation.	8/8/2022	8/26/2022	Not Started	Steve Peterson <steve-peterson@aspire.com>
1.6.3 Software	8/29/2022	9/2/2022	Not Started	Julie Dirksen <julie-dirksen@aspire.com>
16.4 Power Backup	9/5/2022	9/13/2022	Not Started	outsource company <out-source@company.com>, Steve Peterson <steve-peterson@aspire.com>

Program Evaluation and Review Technique (PERT)

- PERT uses three time estimates (optimistic, most likely, and pessimistic)
- PERT is probabilistic in nature, based on a beta distribution for each activity time and a normal distribution for expected time duration

PERT Calculations:

Estimated activity duration =

$$\frac{(\text{Optimistic Estimate} + 4 \times \text{Most Likely Estimate} + \text{Pessimistic Estimate})}{6}$$

- **optimistic time (O):** the fastest an activity can be completed, in our project is 19 weeks
- **most likely time (M):** the project manager's required delivery date completed, in our project is 21 weeks
- **pessimistic time (P):** the longest amount of time given to finish the activity, completed in our project is 26 weeks

Now we are going to implement the above equation as follow:

$$E = (19 \text{ weeks} + 4 \times 21 \text{ weeks} + 26 \text{ weeks}) / 6$$

$$E = 21.5 \text{ weeks.}$$

At the same time, PERT can help to calculate the **standard deviation (SD)** from this estimate. The equation is **SD = (P-O) / 6**.

$$SD = (26 - 19) / 6$$

$$SD = 1.16$$

Then, project time for completion is between 20.34 weeks to 22.66 weeks.

Project Budget:

The project budget will include such things as labor costs, material procurement costs and operating costs. But it's not a static document. Your project budget will be reviewed and revised throughout the project.

Determine Budget is the process of aggregating the estimated costs of individual activities or work package to establish an authorized cost baseline.

No.	Items Descriptions	Type	Quantity	Amount	Total
Devices And Systems					
1.	1.1 fire alarms and smoke detectors	Device	30	50	1500
2.	1.1.1 Designing of Schematic layout Fire Alarm System	Pcs	1	74350	74350
3.	1.1.2 Parts	Pcs	1	150000	150000
4.	1.1.3 Laying of wire	Meter	64	250	16000
5.	1.1.4 Installation of Smoke Detector	Men	1	30000	30000
6.	1.1.5 Installation of Fire Alarm Panel	Device	1	35000	35000
7.	Total Expenses				€ 306,850.00
8.	1.2 ACs cooling	Device	4	156000	624000
9.	1.2.1 HearthStar 409 Heat Pump	Device	3	40092.12	120276.36
10.	1.2.2 Pleinair Electrostatic Air Filter	Pcs	30	517.32	15519.6
11.	1.2.3 New ductwork for connection	Meter	250	225.72	56430
12.	1.2.4 Delivery and installation services & Test	Men	10	907.2	9072
	Total Expenses				€ 825,297.96
13.	1.3 furnishing and interior decoration				
15.	1.3.2 Space planning & furniture Arrangement	Meter	250	60	15000
16.	1.3.3 Design Concepts	Hours	60	45	2700
17.	1.3.3.1 Finishes & Furnishings	Items	1	60000	60000
18.	1.3.3.2 Custom Designs.	Hours	30	35	1050
19.	Total Expenses				€ 78,750.00
20.	1.4 shelving and Dumpsters	Meter	60	70	4200
21.	1.4.1 Machinery	Device	1	3000	3000
22.	1.4.2 Electricity supply	Device	1	5000	5000
23.	1.4.3 Insurance	-	-	-	-
24.	1.4.4 Generator & Plastic Crates	Pcs	25	20	500
25.	Total Expenses				€ 92,500.00
26.	1.5 cash registers,	Device	2	25000	50000
27.	1.5.1 software system	Software	1	30000	30000
28.	1.5.2 Scan bar codes at POS	Items	3	700	2100

29.	1.5.3 Print cash receipts	Device	1	2500	2500
30.	1.5.4 Phone System	Device	1	20000	20000
31.	Total Expenses				€ 104,600.00
32.	1.6 CCTV camera	Items	30	150	4500
33.	1.6.1 CCTV System	Device	1	5000	5000
34.	1.6.2 Lan Equipment and Installation.	Meter	1500	100	150000
35.	1.6.3 Software	Software	1	3000	3000
36.	16.4 Power Backup	Device	1	6000	6000
34.	Total Expenses				€ 168,500.00
Staffing					
36.	Staffing (120 hrs per mtg x 3 for research, planning, resource materials, logistics, etc.)	Hours	200	375	75000
34.	Consultants (for building toolkits and facilitation)	Hours	60	400	24000
35.	Labor	Hours	2500	14	35000
36.	Personnel Subtotal				€ 273,500.00
TOTAL PROJECT BUDGET					€ 1,849,997.96

Determine Contingency Reserves :

There are several methodologies for establishing contingency reserves.

- Monte Carlo analysis
- EMV – Expected Monetary Value
- Decision Tree analysis
- Percentage of project

We will choose the percentage of project option, and we will choose 5%.

Determine Management Reserves:

5-10% of the cost baseline for the management reserve

Project Budget		
Cost Baseline		Management Reserves
€ 1942497.85		€ 184,999.79
Cost Estimate	Contingency Reverse	
€ 1,849,997.96	€ 92,499.89	
Total	Cost Baseline+ Management Reserves	€ 2,127,497.64

Risk Analysis:

“Risk is an uncertain event that, if occurs, has an effect on at least one project objective”.

“*Known risks* are those that have been identified and analyzed, making it **possible to plan responses for those risks**”

The objectives of the project risk management are to increase the probability and impact of positive events, and decrease the probability and impact of negative events in the project.

Project Risk Management Steps

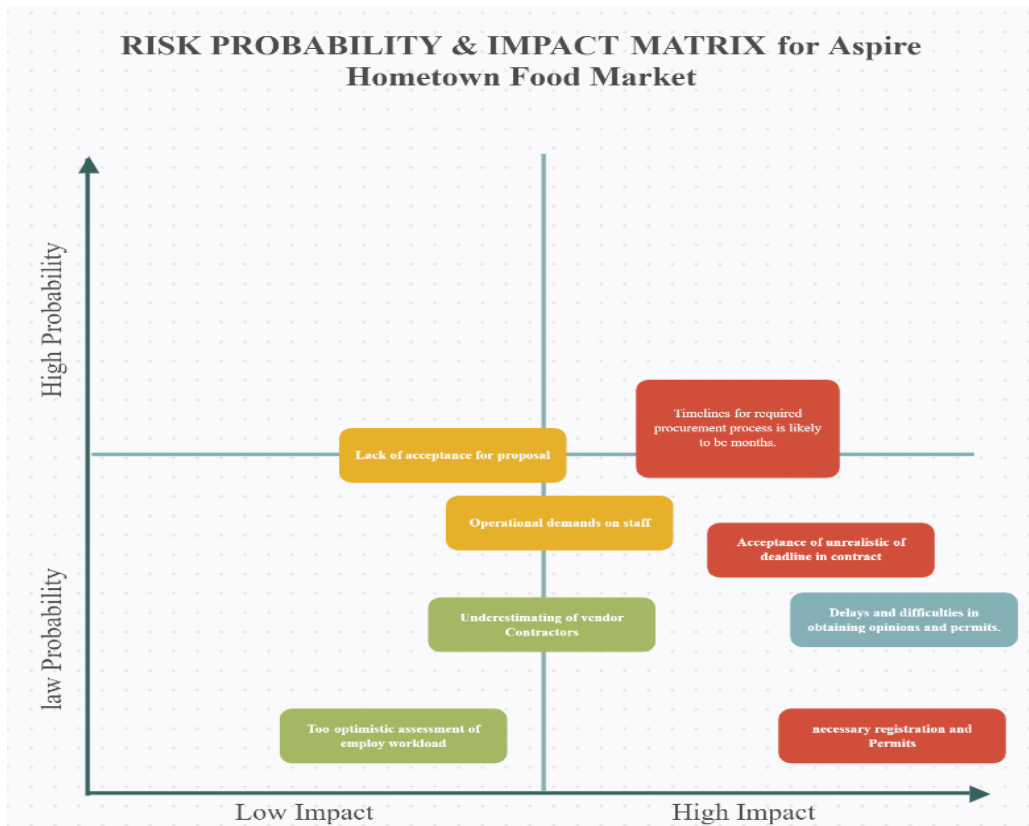
- Risk Identification
- Risk Quantification
- Risk Response
- Risk Monitoring and Control

Risk no.	Risk Owner	Risk Name and Description	Reason	Effect	Probability (1-5)	Impact (1-5)	Level of Risk	Mitigation Summary	Cost of strategy
001	Sponsor	Lack of acceptance for proposal	Delays in approval	Increase in costs due to the suspension of work of design team	3	2	Low	Alternative designing solution	0
002	Sponsor	Delays and difficulties in obtaining opinions and permits.	Delay of designing work	Disturbed designing process	2	5	High	Earlier diagnosis in local authorities office, organization of meetings preceding the designing process.	60 € /h, design 40 € /h, Labor 400 € /h, Consultant.
003	Sponsor	necessary registration and Permits	Expanding the ending date.	Stop the whole project.	1	5	High	Start applying for necessary Permits	60 € /h, design 40 € /h, Labor 400 € /h, Consultant.
004	Facility office	Too optimistic assessment of employ workload	Approval of unrealistic deadlines for individual work	Delay in requested work.	1	2	Low	Proposing for employees to work overtime.	40 € /h, Labor 60 € /h, design
005	Procurement Office	Timelines for required procurement process is likely to be months.	Processes are needed and approvals take much time.	Increase in costs due to suspension of work.	3	4	Medium	Create time line and start contacting with vendors.	60 € /h, design 40 € /h, Labor 400 € /h, Consultant.
006	Operations offices	Operational demands on staff		may impact on their availability for	3	3	Medium	Agreements which allow the staff to work in	0

				project related work.				specific time without any calling.	
007	Procurement Office	Acceptance of unrealistic of deadline in contract	Faulty contractual provision	Vendor failed to handover the deliverables	2	4	High	Prepare two other vendors to proceed with jobs.	Depend on unfinished works.
008	Procurement Office	Underestimating of vendor Contractors	Budget may not be sufficient to changes Rates	Increase in project time	2	3	Medium	Limiting scope to local availability.	30 +/- of Budget.

Risk Format:

- There is a risk **that** {your risk}
- **because** {the causes of the risk}
- **therefore** {the impacts of the risk} may happen



Risk Monitoring and Control

Risks can be monitored on a continuous basis to check if any changes need to be made. New risks can be identified through the constant monitoring and assessing mechanisms.

Additional Funds Request (if needed):

For successful completion of Aspire Hometown Food Market, an all organic natural food store. we need more budget funds because of mitigating the Risk mentioned above.

The total additional fund required is 30 +/- of Budget, which is around 554999.388 euros.

The total fund required is 2,404,996.38 euros.

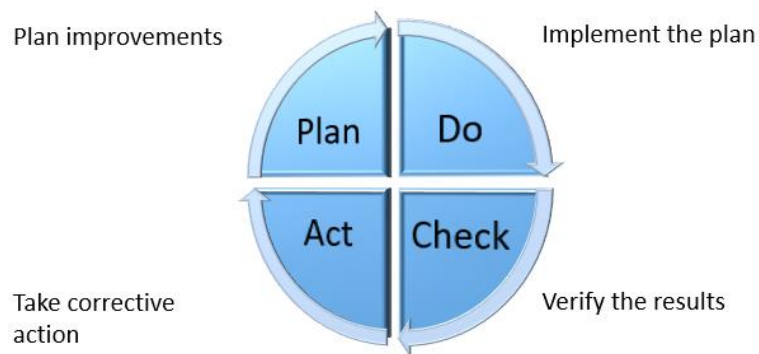
Quality Control Measures:

"Quality Control consists of the observation techniques and activities used to fulfill requirements for quality."

- *American Society for Quality (ASQ)*

Quality Control (QC) measures vary widely by industry, and the concerns or standards of those industries. For example, in food processing and water management, quality control checks may include tests for contaminants, annual inspections, and certifications. In manufacturing, quality control measures may include certification by a particular group and random product testing to make sure the items are functioning as they are intended.

Deming's P.D.C.A. cycle



Plan Quality:

Plan Quality is the process of identifying quality requirements and/or standards for the project and product and documenting how the project will demonstrate compliance.

Quality Control Tools & Techniques:

Some of the tools and techniques you can use to perform quality control include...

- Design for X (DFX)
- Statistical Sampling
- Inspection
- Check list and follow up of the workflow process.

These quality control tools and techniques can help you in three ways...

- Confirm that your project is meeting the quality standards
- Provide a basis for corrective action
- Provide feedback about your quality assurance process

Part Two: Thailand high-speed railway

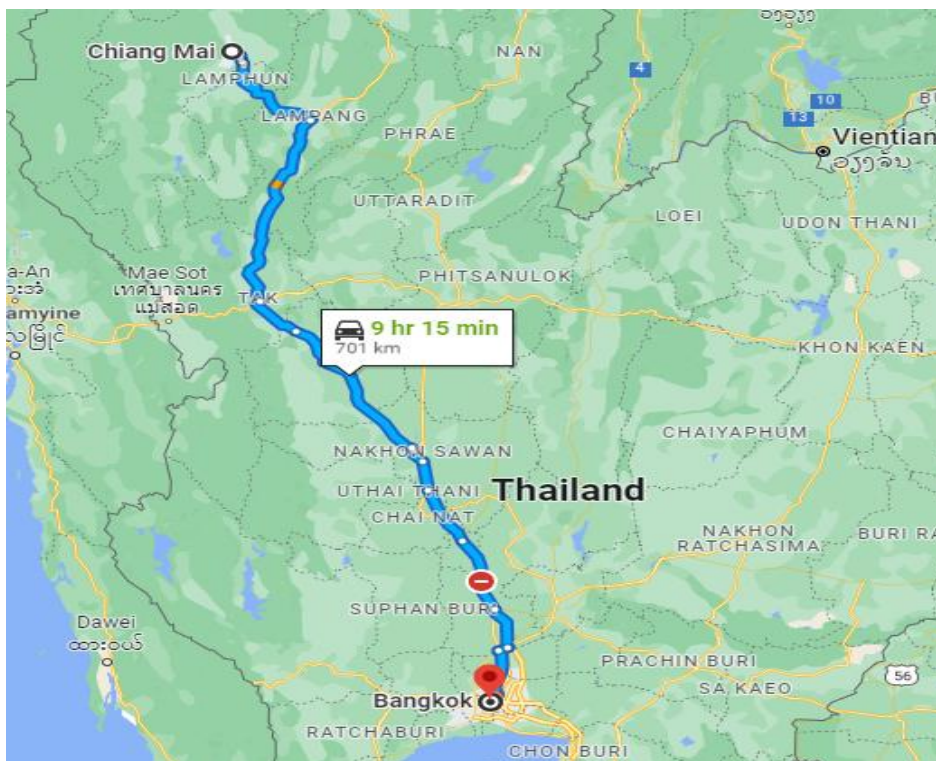
There is no fixed definition of high speed rail. It can be loosely defined as trains operating at speeds of at least 125 mph, with the fastest modern trains reaching speeds of about 220 mph.

HSR is also defined by dedicated tracks and separated grade crossings, which dramatically reduce delays. And HSR is almost always part of a network of conventional and commuter trains, as well as transit systems. When all of these pieces are tightly coordinated and working in harmony, HSR creates a paradigm shift in travel options.

Connects Bangkok and Chiang Mai Province, a major tourist destination with more than 7 million domestic and international visitors annually and growing. The route also runs through such historic capitals as Sukhothai and Ayutthaya.

Provides an alternative to flying between central Thailand and northern Thailand, allowing passengers to stop along the way.

Thailand is planning to establish a high-speed railway to connect Bangkok to Chiang Mai in the North of Thailand. For all the hype surrounding Thailand's planned high-speed railway lines, their economic impact will be minimal without better planning to improve urban amenities and productivity in the services sector, say Japanese researchers.



The total population of Thailand is 70,132,294 Lives according to the <https://www.worldometers.info/world-population/thailand-population/>

The whole area has a combined population of 1,197,931 residents, making Chiang Mai the second largest city in Thailand after Bangkok (**10.7 million people**).

the railway is pass through major cities and province which have the population of more than 15 million, who are going to depend on railway for travelling and shipments. Also the local trading will increase in high profit that allow local people to sell their handy craft outside their localities. The length of the railway will be 670 KM, and the total budget is 100 billion baht (๒,๙๓ billion USD). The cost of one KM construction is **130 million baht** (3.81 million USD) which include the Stations and Trucks..

- Total distance: 670 kilometers
- Investment budget: 100 billion baht
- Type: high speed (more than 200 kilometers per hour)
- Track gauge: 1.435 meter (standard gauge).

2.a. why that the railway should be built.

As prime minister, Gen. Prayut wants cost of ticket is no more exceed than 1200 Bhat, then the revenue form ticket can cover the project budget in short time, including profit, if the project work in full capacity. Let us estimate the blow scenario:

Number of train = 20 trains.

Each train capacity = 600 person.

Travel per hour = 10 travels.

Cost of ticket = 1200 Bhat.

Time of operation days = 16 hours.

One day revenue can be almost 1,152,000,000 Bhat. It will also improve economic situation, and meets the environmental and energy challenges of this century.

The railway benefits:

- a. Jobs is increasing.
- b. Benefit of Economic.
- c. Enhancing in traffic and increases productivity.
- d. Get rid of environmental pollution.

2.b. What are the additional ways for the proposed railway to earn income?

In the long run, the real estate sector in the northeastern provinces along the 11 railway will boast the most growth .

- a. The average household sizes in provinces along the railways with great potential for real estate development.
- b. Regarding the wholesale and retail industry, EIC expects to see hypermarket¹⁰ businesses expand in the northeastern provinces along the new railways
- c. Transportation and logistics businesses will burgeon in provincial areas near railway crossings and borders upon the completion of the railways.
- d. Tourism and recreation will also greatly benefit from the transport upgrade.
- e. Hotel businesses will flourish as the volume of tourists and business travelers rises.

Despite the rail stations can be used as a commercial center to revenue more income to the project.

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