

A First-Timer's Experience with Value Analysis through Functional Performance Specifications; Insights on its Usability and Benefits in a Business Setting

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Presentation Overview

Audience

Individuals that are new to Value Analysis and Functional Performance Specifications.

Key Message

Value Analysis and Functional Performance Specifications are a **simple** and **beneficial** method and tool that can be used in a number of applications.

Presentation Structure

Part A – Project Overview

Part B – Project Deliverables



Project Overview



Project Objective

Project

Ontario Ministry of Transportation (MTO)
Provincial Highway Management (PHM)
Value Analysis (VA) Initiative

Reason

Organizational change.

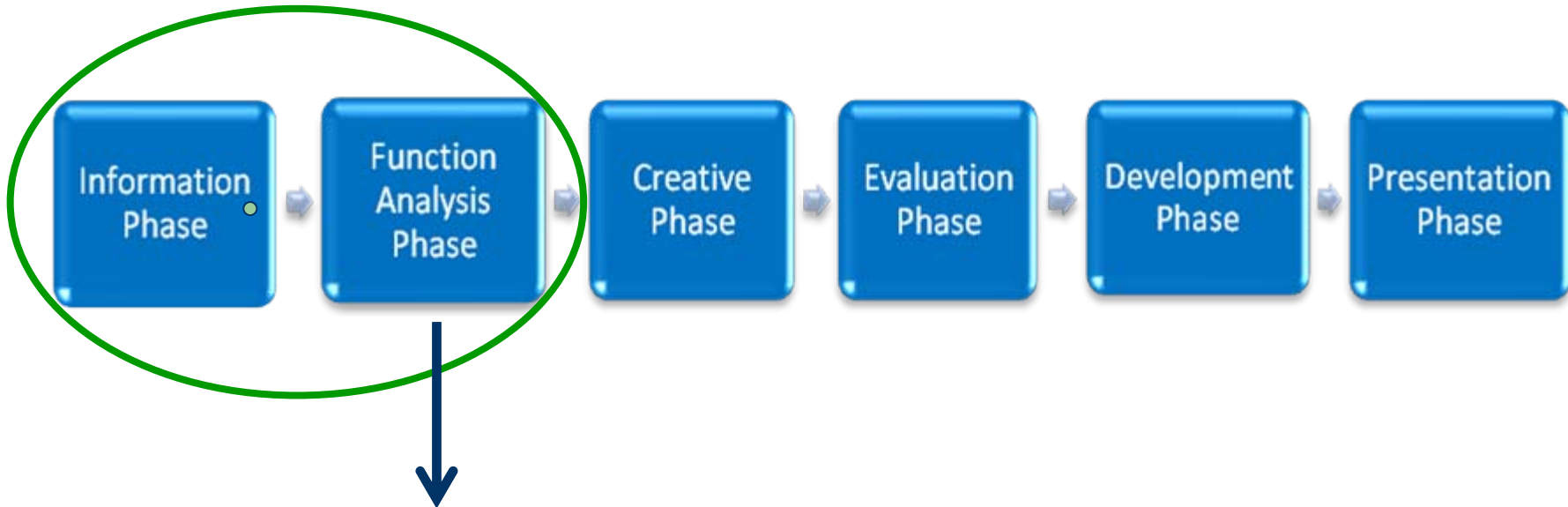
Objective

Develop the ability to strategically deploy available resources to be consistent with the priorities of the Division now and in the future.

Why Value Analysis to Find a Solution?

- Facilitated and Creative Process
- Generates Alternative Solutions
- Buy in for Change
- Fosters Innovation
- Maximize Use of Resources

Typical Value Analysis Workshop



- **Function or FAST Diagram**
 - **Functional Performance Specification**
 - **Function Resource Table**

Project Approach

PROJECT STAGE

OBJECTIVE

DELIVERABLE

Stage 1

What is our business?

Function Diagram

Stage 2

What is the size of our business?

Functional Performance Specifications

How are the division's resources used?

Function Resource Table

Stage 3

Adjustment

VA

Implementation



Stage 2

- **17+ Workshops with 80+ Participants**
- **2,500 Characterizations (Functional Performance Specification)**
- **1,700 Allocations (Function Resource Table)**

Project Deliverables



What is our Business?



Branch 1 – Optimize the Transportation Network

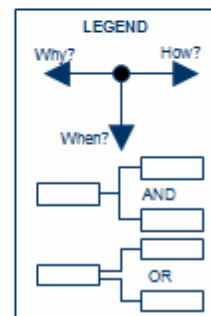
STRATEGY

TACTIC

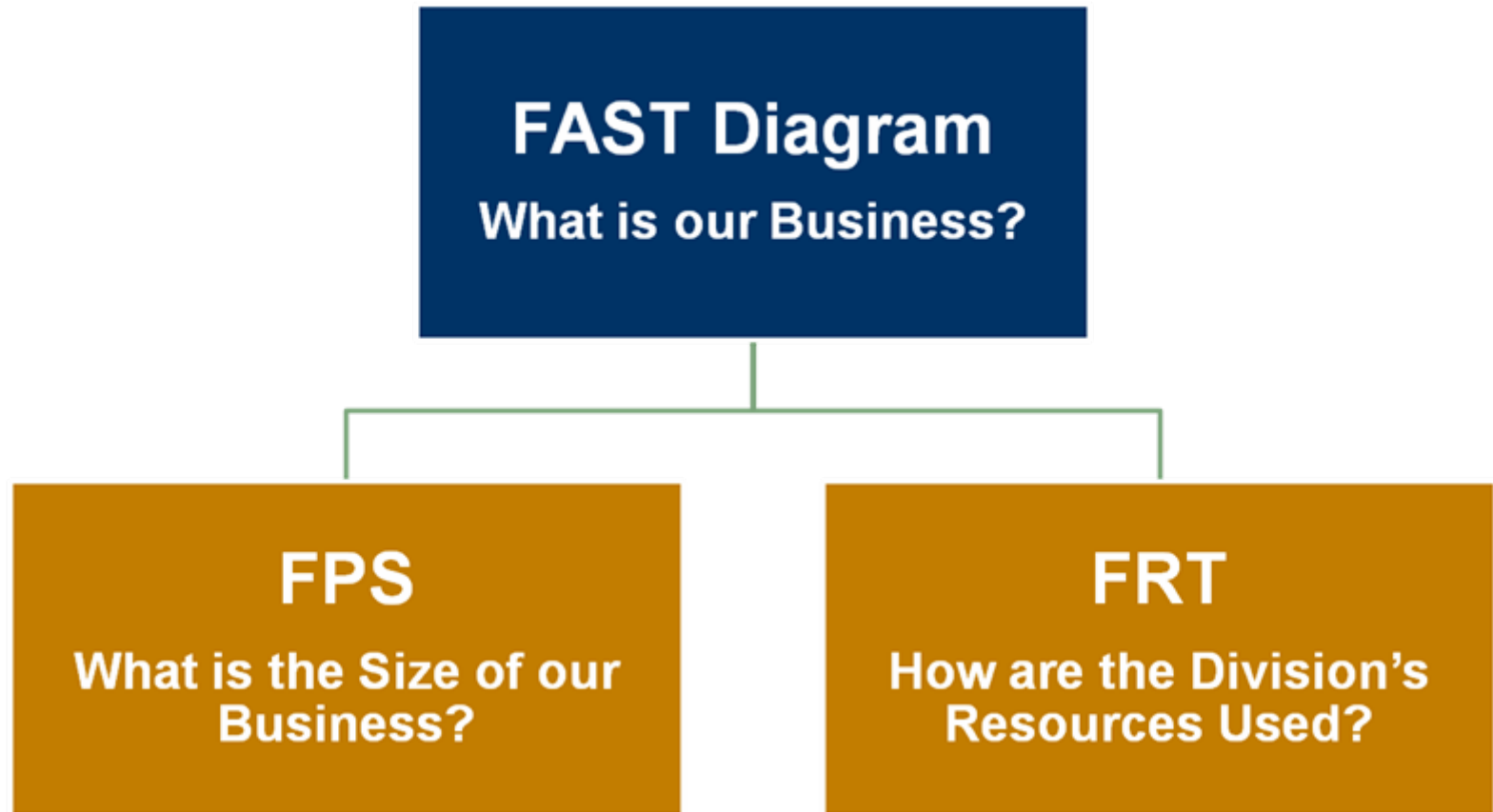
DEPLOYMENT



Go To Strategy



Function or FAST Diagram; Relationship between tools.



What is the Size of our Business?

Function	Group	Criteria	Level/Target	Flexibility
1.1.13 Analyze Operations and Safety Needs	Group T	Number and Frequency of Collisions Database Maintained	All collisions on Provincial Network (39,000). Once per Year	F0
	Group C	Number of Corridors Reviewed Annually for Access Compliance	5	F2
	Group H	Number of Reviews and Responses to External Stakeholder Requests	20 per week	F1
	Group T	Number of Reviews and Responses to External Stakeholder Requests	10+ per week	F1

Typical Examples of Characterizations

- Performance, e.g. how fast?
- Size, e.g. length, volume, weight,
- Quantity
- Time Related, e.g. schedule, frequency, timeliness, duration, time to complete,
- Location
- Access, e.g. users, stakeholders, locations, confidentiality,
- Compatibility requirements
- Quality, Accuracy, Reliability,
- Style or Aesthetic requirements, and
- Constraints, e.g. legal, code requirements.

How are Division's Resources Used?

FUNCTION	Resource 1	Resource 2	Resource 3	Resource 4	TOTAL
Function 1					0
Function 1.1	.25	1		.5	1.75
Function 1.2		.5			.5
Function 1.3	.25			.5	.75
Function 2					0
Function 2.1	.25	.5	.5		1
Function 2.2	.25		.5		.75
TOTAL	1	2	1	1	4

Key Project Success Factors

- Dedicated and Experienced Project Team
- Clearly Defined Objective
- Comprehensive FAST Diagram

FPS Projects ...

PRODUCT

- Integrated Product Development Using Functional Specification -
- VM to Characterize Vehicle Fleet Requirements in Montreal
- Using FPS to Define Montreal's Requirements for New Subway Cars
- Using FPS and VE to Understand User Needs and Develop a Building Prototype
- Functional Performance Specification in IT development
- 407 Transitway, FPS and VE

PROCESS

- Scoping Projects with VE to Achieve Context Sensitive Solutions
- VE-FPS Guides Strategy for Winter Highway Closures in N. Ontario

ORGANIZATIONAL REVIEW

- Using Value Management to redesign a government organization
- Using Value Management to Restructure a Government Ministry
- Redesigning a Government Business Using FPS



Thank You



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