

# Systematic and customer value driven innovation

## Formulate the problem and value-increasing challenges



### Select functional level

Customer

Technical

Physical

### Make a preliminary system architecture

### Formulate value goals

Functions	Metrics	Target Value
Main		
Additional		
Unwanted		
Costs	Metrics	
Purchase cost		
Operating cost		

## Generate concepts

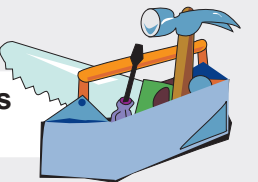
Try



### Use functional modelling principles

Strategy	Functional principle	Degree of Difficulty	Degree of Usage
Re-use		Easy	Frequently
Re-fine			
Re-duce			
Re-inforce			
Re-form			
Re-place		Difficult	Strategically

### Use the Triz tools



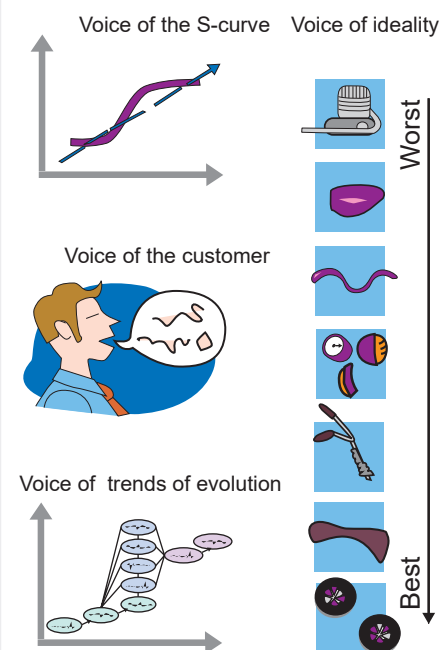
### Use other creativity and problem solving tools



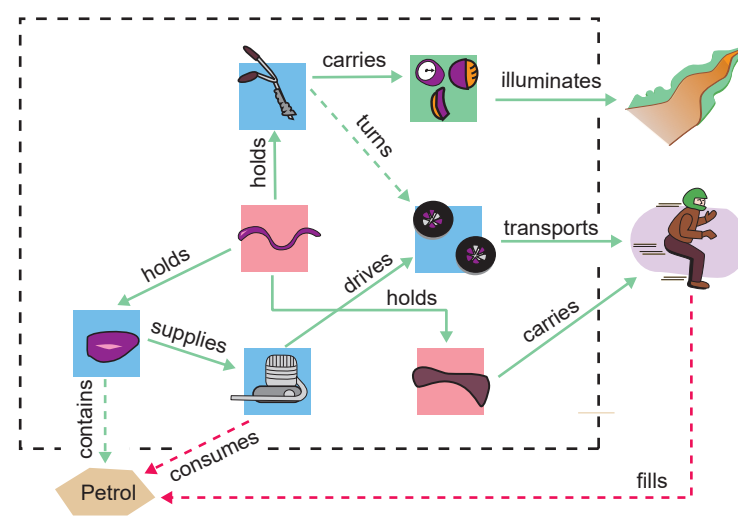
### Use engineering tools to develop a practical solution


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### If needed add more voices



### Create the functional model



### If needed add more perspectives



Impact on environment

### Formulate value-increasing challenges

1. How to reduce the engine's consumption of petrol.
2. How to simplify filling the tank for the user.
3. How to stabilize the handlebars' turning of the wheels.
4. How to improve the tank's ability to contain petrol.
5. How to reduce the cost of the frame.
6. How to eliminate the saddle's negative effect on the environment.

### Select the value-increasing challenge to address

### If needed add more perspectives

Cost

Production

Specific

High-quality work leads to high-quality concepts. The quality of ideas and concepts developed is directly proportional to the level of effort, precision, and attention to detail put into the work process. When teams follow a thorough and disciplined process to formulate the problem and value-increasing challenges, they are more likely to generate brilliant concepts that are both innovative and practical.

Methodical, function- and cost-based thinking creates the framework that holds the process together. The goal should be to bring each new generation of products one step closer to the ideal.

While all products and concepts can be improved, not everything needs to or should be changed to deliver unrivaled customer value.

### Move to R&D portfolio

