



# Innovation in Rural Development - ERA-IP-2010-15

## Erasmus IP Pre study material

Topic: Tools for innovation process management, stage gate

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Work load for student: 5 hours

Form of the material:

Take an overview of Stage-Gate web-pages ([http://www.stage-gate.com/knowledge\\_pipwhat.php](http://www.stage-gate.com/knowledge_pipwhat.php)). Watch video about the story behind Stage-Gate model.

Power Point, 10 Slides: Consider especially the last slide from the point of view how could you apply those questions in your innovation case!

# Typical innovation process?



# Phases in a typical innovation process

- Decision to start **knowledge acquisition**
- **Impulse** (market need, new technology, ...) => go/no go decision
- **Idea** generation => go/no go decision
- **Concept** investigation => go/no go decision
- **Prototype** => go/no go decision
- **Pilot** production, commercialisation => go/no go decision
- **Manufacturing** ramp up

# Two different processes

Inter- preparative process	<ul style="list-style-type: none"><li>• Decision to start knowledge acquisition</li><li>• Impulse (market need, new technology, ...) =&gt; go/no go decision</li><li>• Idea generation =&gt; go/no go decision</li></ul>
Analytical problem solving process	<ul style="list-style-type: none"><li>• Concept investigation =&gt; go/no go decision</li><li>• Prototype =&gt; go/no go decision</li><li>• Pilot production, commercialisation =&gt; go/no go decision</li><li>• Manufacturing ramp up</li></ul>

Ability to generate a stream of new product, to improve upon old ones, and to produce existing product in an increasingly efficient way, depends on two fundamental processes =>

- Analysis
- Interpretation

*“Innovation – The missing dimension”, Lester and Piore 2004*

# 1. Analysis, rational problem solving

- In designing a new product, the product development manager first seeks to **define a clear objective**, usually based on research into customer needs
- Then identifies the **resources** -human, financial, and technical-that are available **to meet that goal**, as well as constraints on those resources.
- He then **organizes a project** to accomplish the goal. The key is to **divide the problem** into a series of discrete and separable **components** and assign each one to a knowledgeable specialist.
- The **solution** is obtained by **bringing the components together** in some optimum combination as quickly and efficiently as possible.
- Managers role leading **problem solver or negotiator** resolving conflicts

## 2. Interpretation

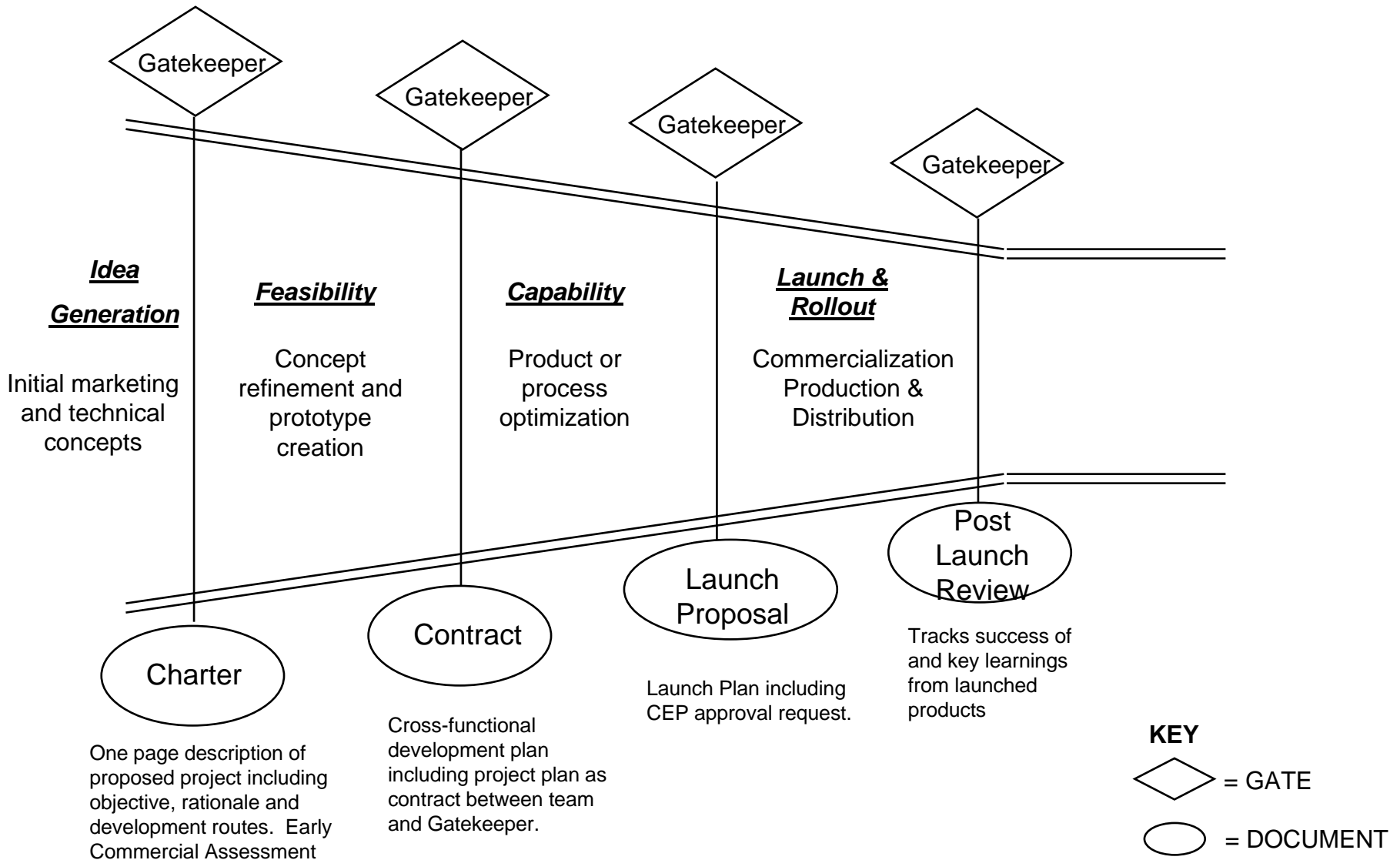
- is **not directly towards the solution** of well-defined problems
- This process **don't have a clear end-point**, it's ongoing in time
- Activity, out of which **something innovative emerges** – a new insight about the customer, a new idea of a product, a new approach producing or delivering it
- The role of manager has less to do with problem solving or negotiation between interests, rather the role is in **initiating and guiding conversations among individuals and groups**
- The interpretative view is **not widely understood or even recognized!**

- Analysis
- Interpretation

Both are needed, in economic organization analytic decision must be done; however, the imperative process determines the range of alternatives from which business choices are made!



# Innovation process in enterprise



# Example, key questions in different phases

