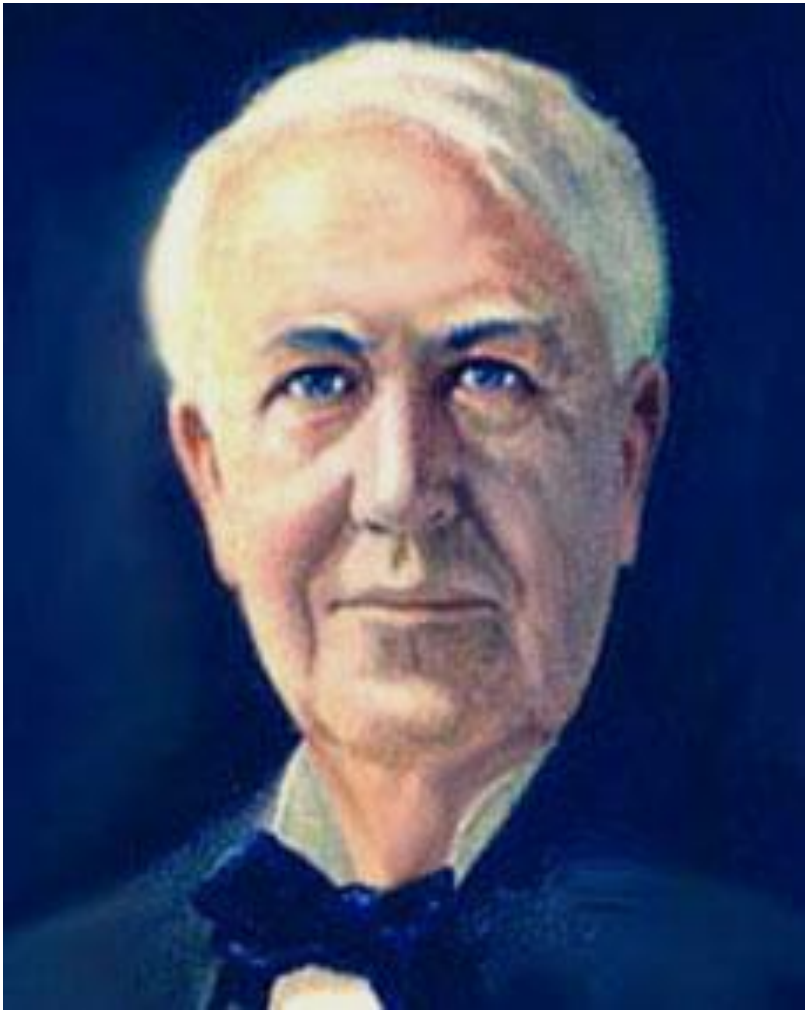




creativity



innovation



Thomas Edison

“I have not failed, I’ve just found 10,000 ways that won’t work”

Bill Ford on Innovation

“..if we want to succeed as a company – and as an industry – we must drive innovation into everything we do: into technology, into safety, into design and into real - world solutions for environmental issues, like the impact of energy usage on our world.”

*Chairman Bill Ford's speech at National
Press Club Washington, DC
November 22, 2005*

Barrier to Innovation

1. The right answer
2. It is not logical
3. Follow the rules
4. It is not practical
5. Avoid ambiguity
6. It is not my area
7. Don't be a Joker
8. I am not a creative person



Barrier to Innovation

- ✿ Poor leadership
- ✿ No perceived benefit
- ✿ Lack of time
- ✿ Lack of interest
- ✿ Lack of vision
- ✿ Lack of initiative
- ✿ Restrictive culture
- ✿ Risk avoidance
- ✿ Inadequate funding
- ✿ Lack of expertise
- ✿ Wrong measurable
- ✿ Fear of loss

Supporting Factors & Barriers

Supporting Factors	Barriers
Leadership and support from top management	Resistance to change
Culture, Climate and Identity	Organization culture and climate
Rewards and Recognition	Corporate structure
Competition and deregulation, need and diversity	Workloads and Lack of skills

Desired Future



**Innovation
Champion**



Discrepancy

Gap

Need

**Strategy on how to
get there**



Current State

- Lack of useful ideas
- Lack of skills or support for creative and strategic breakthroughs
- Perhaps, other challenges and problems

*10 Steps to achieve
organisational innovation*

1

Strategic Corporate Direction

2

Business/Operation Planning

3

Cultural Alignment

4

Innovation Education

5

Ideas Management System

6

Innovation Metrics

7

Rewards & Recognition

8

Organisational Support & Process

9

Finance & Commercialisation

10

HR Strategies



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Total Innovation Management



*A New Paradigm in
Innovation Management*

OBJECTIVES

- ✿ To introduce a new management paradigm: Total Innovation Management (TIM).
- ✿ To increase the awareness about the importance of creativity and innovation in organisation.



What is TIM?

*“The term Total Innovation Management (TIM) is define as the innovation synergy among **technology, organization and culture** and oriented to building up innovation **competence** for an organisation.”*

Chen., Gang., Zhangshu., Zheng., Jin., Jingjiang., Liu., Qingrui., Wang., Xie., Xu., & Yong. (2007). Total Innovation Management: a novel paradigm of innovation management in the 21st century. *The Journal of Technology Transfer*, 32(1-2), 9-25.

Who Started to Develop TIM?

This paradigm was developed and popularized by **Institute of Management Science & Strategy of Zhejiang University** and a group of scholars in American advisory company of **Stanford University (SDG)**.



From Where Did The Ideas to Develop TIM Came From?



The ideas to develop TIM was inspired by the thoughts of **system and biology**, the complex and changeable **internet environment**, and the observations of some leading Chinese firms and famous transnational companies' innovation practices, like **Haier**, **Legend**, **Baosteel**, **3M** and **HP**.



Why We Need TIM?

- More and more enterprises find that innovation is becoming the **critical source and driver** for enterprise's **survival and development**.
- The paradigm of TIM provides a basis for an **upgraded**, a more **unified** and **better view** of innovation management.
- It's not enough to focus on technological context of innovation, some **non-technological factors**, such as the **organizational structure**, **cultural characteristics**, **market**, **innovation strategy**, and **management style** may also have an important influence on innovation performance.

TIM FRAMEWORK & CHARACTERISTICS

There are three layers on total innovation:

1. Involves innovation in all **functional area**, including organizational, cultural, institutional, process, etc.
2. It covers the whole space-time dimension and continuous innovation in every department by, **everybody (all as innovators), at anytime to innovate**, including the whole value chain innovation.
3. The innovation **synergy among innovative elements**.

TIM FRAMEWORK & CHARACTERISTICS

TIM promotes tag lines such as:

“NOW EVERYONE CAN INNOVATE”

“EVERYONE IS INNOVATOR”

**“INNOVATE BY EVERYONE AT
EVERYWHERE, ON EVERYTHING
AND AT ANYTIME”**

TIM FRAMEWORK & CHARACTERISTICS

TIM ELEMENTS:

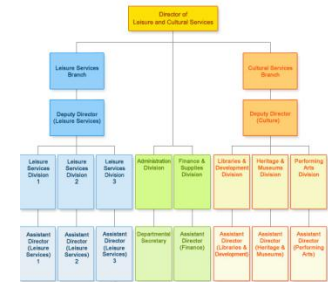
1. **Strategy:** Organizational strategy should be developed timely and kept in dynamic balance.
2. **Technology:** Technology innovation is the key source for enterprises to accumulate core competence and accordingly to obtain the competitive sustainable advantage.
3. **Management:** This refers to the innovation of managerial theory, thought, paradigm, mechanism, and tools. For example 6 Sigma management mode of GE is one of typical management innovation.



TIM FRAMEWORK & CHARACTERISTICS

TIM ELEMENTS:

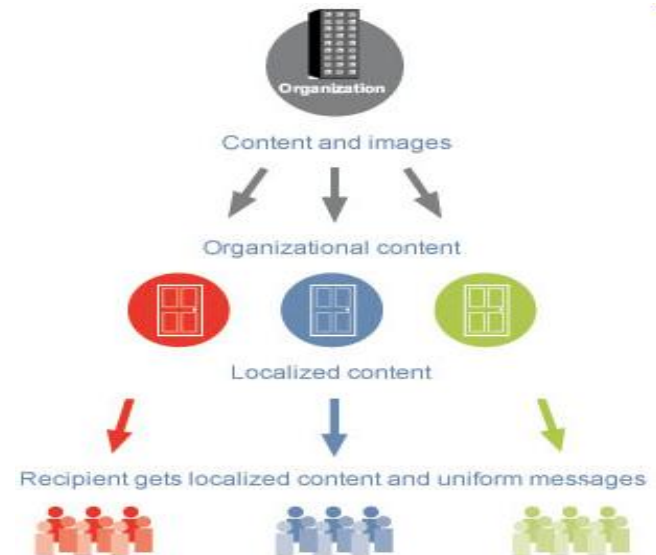
- Organization:** Organizational structure must be **adjusted correspondingly** according to the demand of innovation.
- Culture:** Changes in **mind set and culture** is the prerequisites to carry out all innovation. In 3M for instance there is a strong innovative culture to encourage innovation and tolerating failures.
- System:** System innovation means the innovation of **rules and regulations** about enterprise's routine, performance evaluating, staff rewards and punishments, salary system, training and promotion and so on.



TIM FRAMEWORK & CHARACTERISTICS

TIM ELEMENTS:

7. **Market:** Market innovation means the innovation of marketing channel, the operational ways by which to create new market, new channel and new ways, such as using Blue Ocean Strategy.



TIM FRAMEWORK & CHARACTERISTICS

CHARACTERISTICS OF SUCCESSFUL TIM COMPANIES:

- Systematic **collection of all impulses** that could lead to innovation
- **Creativity** of employees
- **Ability to evaluate** the possibility of the innovation idea
- Good **team work**
- **Project-based** approach and ability to manage projects
- Cooperation with external **experts** (universities, research laboratories...)
- Proper rate of **risk-taking**
- Employees' **motivation** (the employees are willing to improve the product and the operation of the whole company)
- **Continued education** of employees
- Ability to **finance** the innovation activities

The Context of TIM Formation

1. **Environmental impetus** - The requirement of the complex and changeable internet environments.
2. **The practice needs** - The requirement of total innovation practice in firm.
3. **Cultural foundation** - agree with innovative culture.



Some of TIM Formation Tools

GENERAL INNOVATION TOOLS

- ★ Benchmarking
- ★ Brainstorming
- ★ Business Process Reengineering
- ★ Change Management
- ★ Technology Audit
- ★ Technology Forecast
- ★ Value Analyses

PRODUCT INNOVATION TOOLS

- ★ Design for X
- ★ Quality Function Deployment

MANAGERIAL INNOVATION TOOLS

- ★ Failure Mode and Effect Analysis
- ★ Peer Evaluation
- ★ Team Building
- ★ ISO 9000
- ★ Total Productive Maintenance

PROCESS INNOVATION TOOLS

- ★ Design for Manufacture and Assembly
- ★ Lean Thinking
- ★ Continuous Improvement
- ★ Concurrent Engineering
- ★ Just In Time