

Study of the results of successful post-project activities based on follow-up monitoring data. (Part II)

American Evaluation Association Conference
November 3, 2006

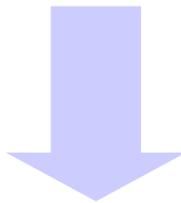
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1. Introduction

- > NEDO has used **Follow-up Monitoring** to track various **post-project activities** of participating organizations in the past NEDO projects.
- > NEDO has conducted **questionnaires survey** and **interviews** to companies of which post-project activities have reached commercialization stage. The focus of the interviews is to identify the **background**, the **major events** of the project and its post-project activities, and the influence of the project management on those events.

But....



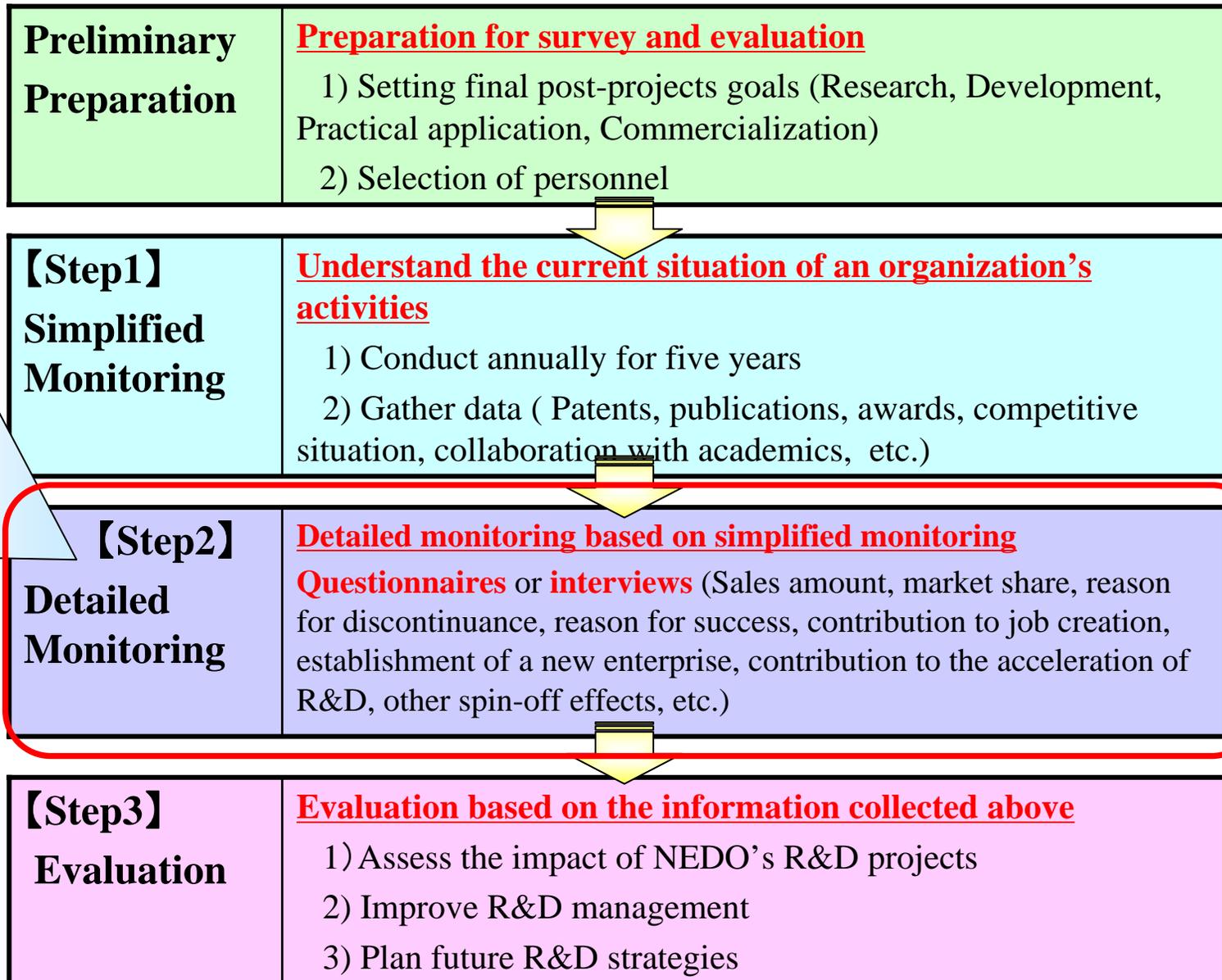
It was **difficult to identify** the various important managerial events of an R&D project in terms of their **timing, order, and the extent of their influence** on the project.

2. Objectives

> Through interviews with companies, NEDO has specifically tried to identify important management factors which have led to R&D achievements and practical use of these achievements. A “Follow-up Chart” was created to visualize these factors in chronological order.

> NEDO is trying to verify the effectiveness of the method, and also trying to derive lessons learned and recommendations in order to improve its project management.

3. Overview of Follow-up Monitoring and Evaluation at NEDO

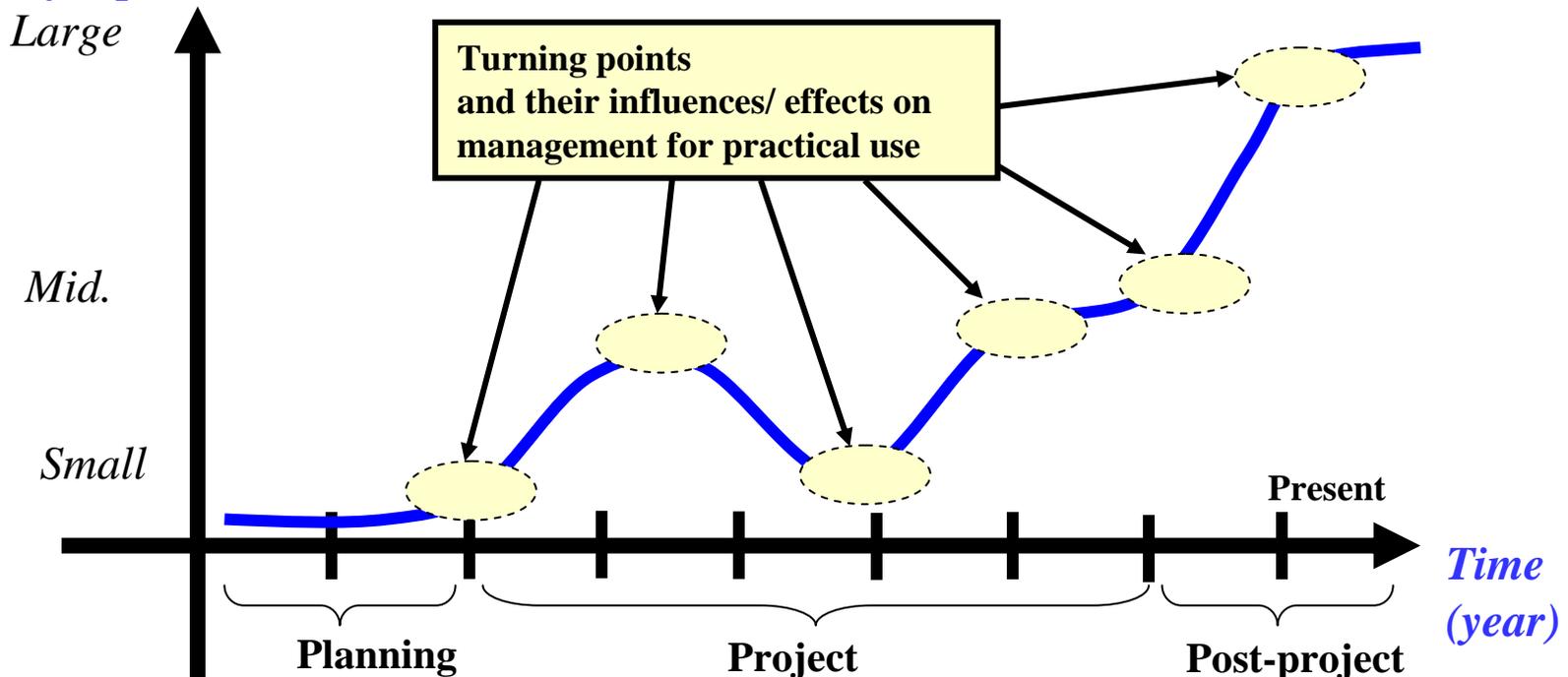


In addition, NEDO develops **Follow-up Charts** for each project by using obtained information at the interviews.

4. What is a Follow-up Chart ?

- > Follow-up chart is a tool which **chronologically identifies significant events** in project management.
- > **NEDO makes Follow-up charts as a part of detailed monitoring.**
- > **NEDO creates the lines on the chart during interviews with each company.**
- > Horizontal axis represents **time**; vertical axis represents **potential for the practical use** of technology.
- > The coordinates against the vertical axis are based on interviewee's subjective opinion, because of the difficulty in measuring the potential objectively.
- > **Interviewee is a person who understands the whole project, including the pre- and post-project statuses.**

Potential for practical use



5. Number of Follow-up Charts



NEDO started to use Follow-up Charts as a tool for interviews since FY2004

The Follow-up Chart was implemented in FY2004 for a trial run. In FY2005, NEDO used Follow-up Charts in almost all companies which achieved commercialization.

Number of Follow-up Charts

Monitoring year	Number of private companies which achieved commercialization	Number of Follow-up Charts (Commercialization)
FY2004	40	3
FY2005	33	32
Total	73	35

6. Case study (I)

Potential for practical use

Trial productions were tested by real users, which led to greater possibilities for commercialization.

There was a key person who coordinated between the business division and the research division.

Necessary to cope with the new law (of waste control)
Couldn't overcome technical problems

Unclear business image

Successfully lowered costs

Ex-post evaluation

Commercialization

Large

Mid.

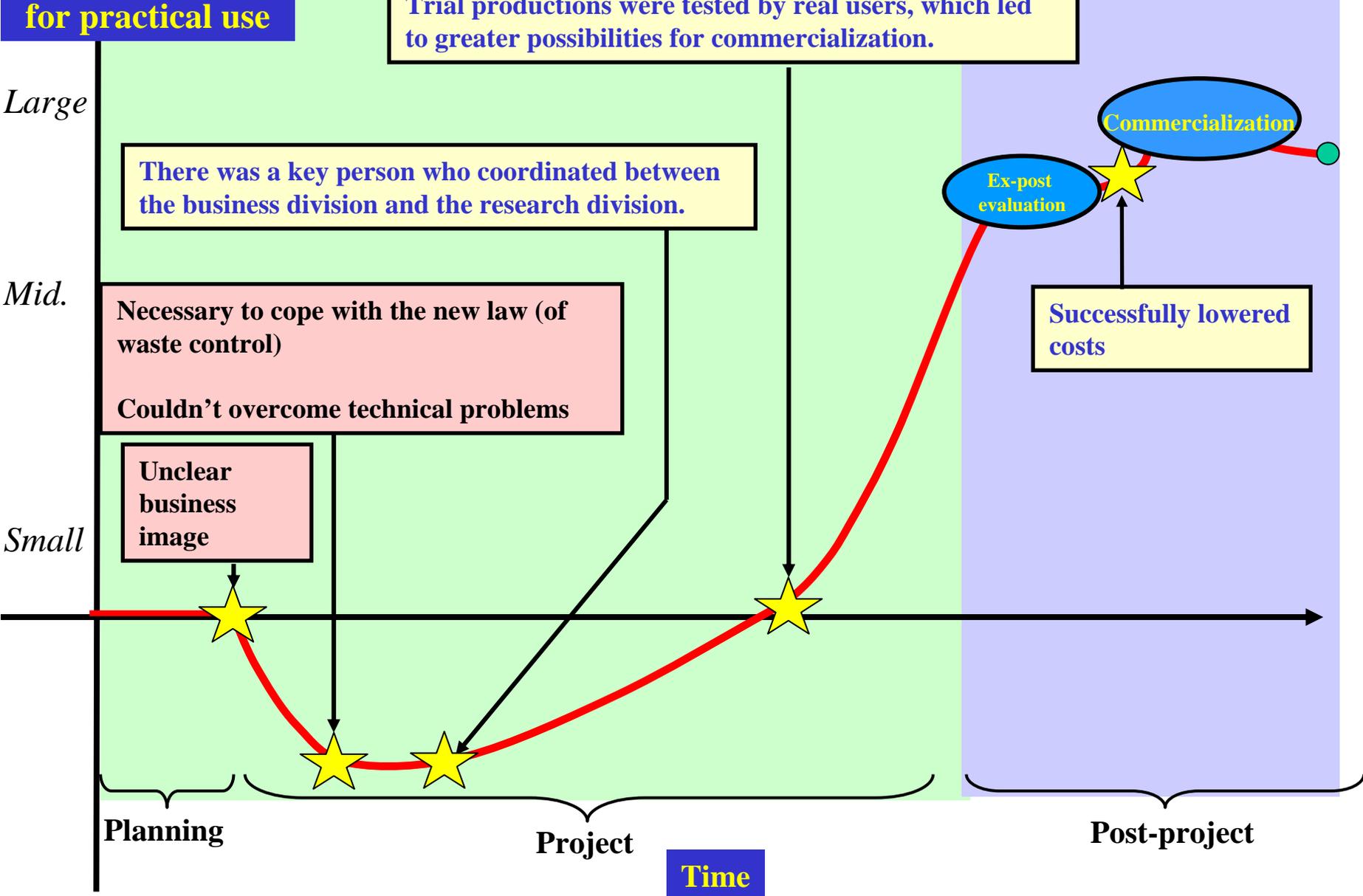
Small

Planning

Project

Post-project

Time



6. Case study (II)

Potential for practical use

Large

Mid.

Small

Too difficult to imagine the practical use because of the nature of the project (basic research)
Poor research facilities

With the intermediate evaluation as turning point, build the ideas for practical application

Intermediate Evaluation

Support from business division

Practical application

Commercialization

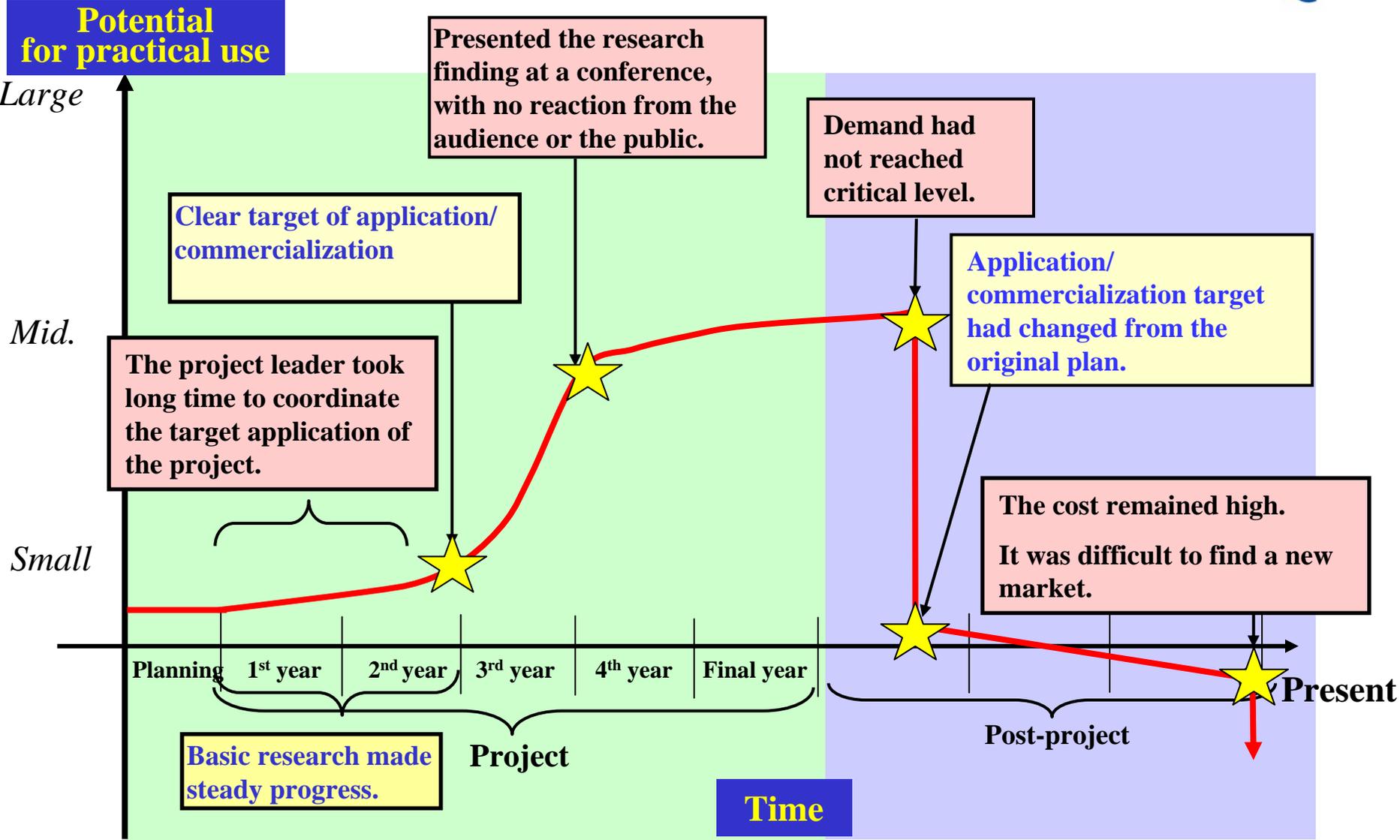
Ex-post Evaluation

Defined the focus of R&D by exhaustive needs analysis.



Time

6. Case study (III)

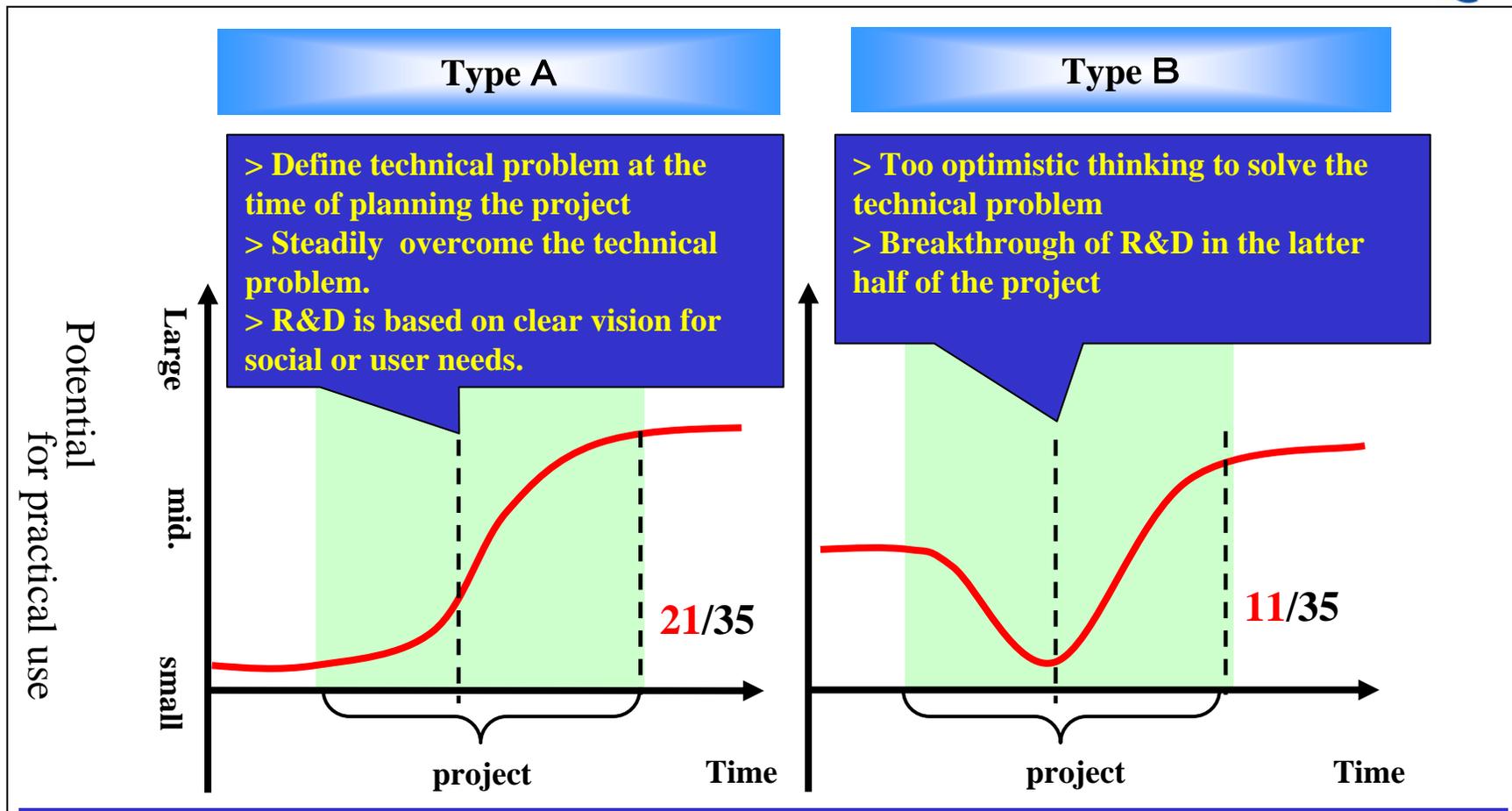


7. Lessons derived from case studies with regard to improving R&D management methods and increasing potential for practical use.

- 1) Choose project participants (contracting companies/ research institutions) who have **high technical capability** not only for NEDO's project theme, but also for related technology areas.
- 2) Use the **intermediate evaluation** as an opportunity to direct participants' mind towards the practical use and commercialization of research results.
- 3) Call for participation of a **key person**, in each company/ research institutions, who can integrate the R&D and business divisions, or oversee the whole project process from R&D to commercialization.
- 4) Make each participant's responsibility and mission clear, and find a project leader who has **strong leadership skills**.

etc

8. Pattern of successful studies which achieved commercialization



At the intermediate evaluation of a NEDO project, the followings are necessary for project management

- 1) To identify technical problems which should be solved in the latter half of the project, and to define how to approach these problems. and**
- 2) To conduct related market research and to assess the possibility of application of the technology.**

9. Conclusions

- 1) By using a follow-up chart, we can **visualize a cycle** of a project from the beginning to present, including various events which have occurred.
- 2) We can derive lessons to **improve R&D management** methods from each project using a follow-up chart. More precisely, we can categorize various follow-up charts into similar patterns and derive **common lessons** based on those patterns.
- 3) We should note that selection of the events and the shape of the chart would **depend on interviewees' personal opinions**. Therefore we should create a separate follow-up chart for each interviewee, **reflecting various opinions and personal experiences** of project leaders, researchers, NEDO staff and other project participants.