

Success Factors of NEDO Projects by “NEDO Success Stories”

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1. NEDO's Role in R&D



Ministry of Economy, Trade
and Industry (METI)

Council for Science
and Technology Policy



Coordination with policy making
authorities



- Promotion of R&D
- Efficient project management



Consortium

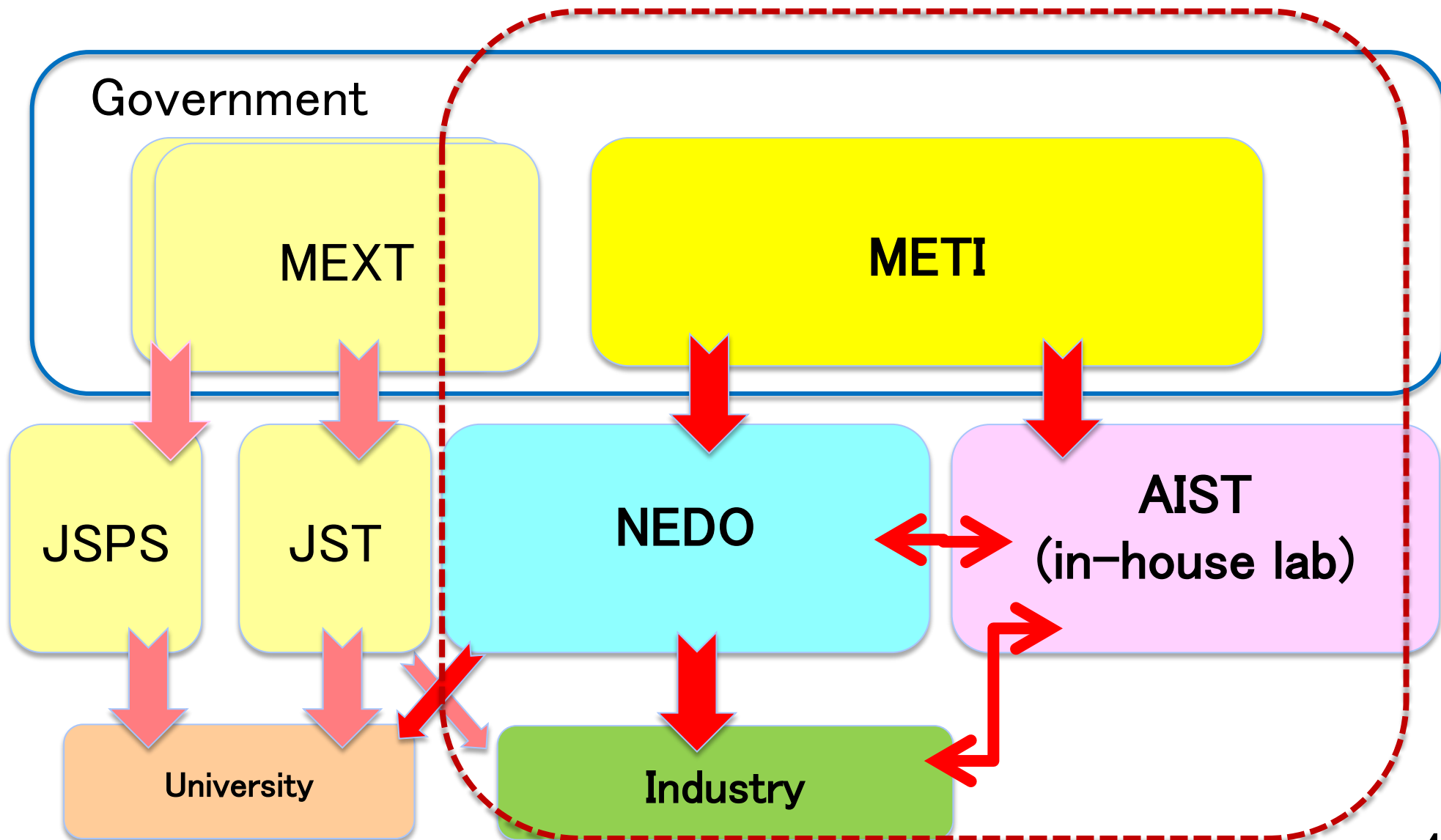
Combined efforts of industry,
government, and academia

Industry

Universities

Research institutes

Simplified structure of R&D funding system in Japan

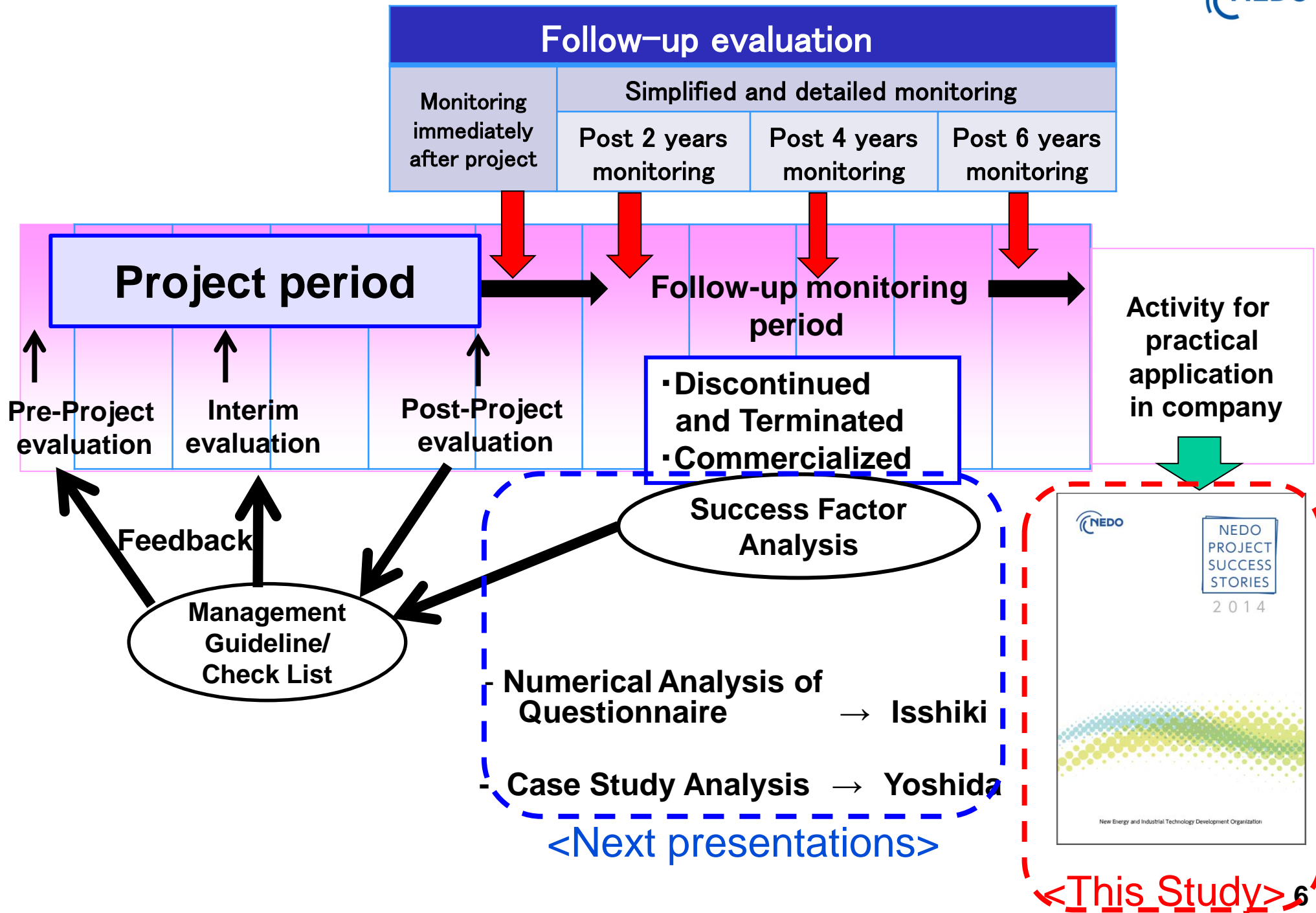


2. Purpose of study

- Improve the success rate of NEDO projects
- Improve NEDO project management
- Build the system for handing down the knowledge



3. Methodology



“NEDO Success Stories”

<Contents of NEDO Success Stories>

- Development background
- The development path / breakthrough
- Product overview, functions and benefits
- NEDO roles and management

Project participant's view



**Started in 2008.
71 Success stories.**

Analysis Methods of Success Factors

“Bean Count”: Each and every success factor is counted and categorized.

Material: *NEDO Success Stories 2014*

Business participants' comments concerning contributions to the commercialization of NEDO projects are counted.

Example Cases from the *NEDO* *Success Stories 2014*



PV



Wind Power



Fuel Cell



Gas Turbine Power
Generator



Clean Diesel Engine



Blu-ray Disc



Perpendicular Magnetic
Recording (HDD)

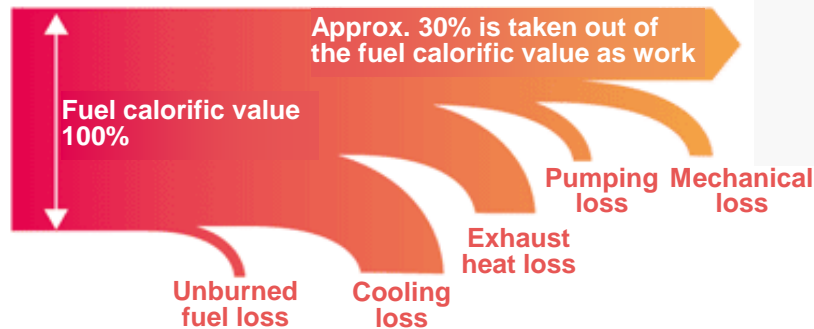
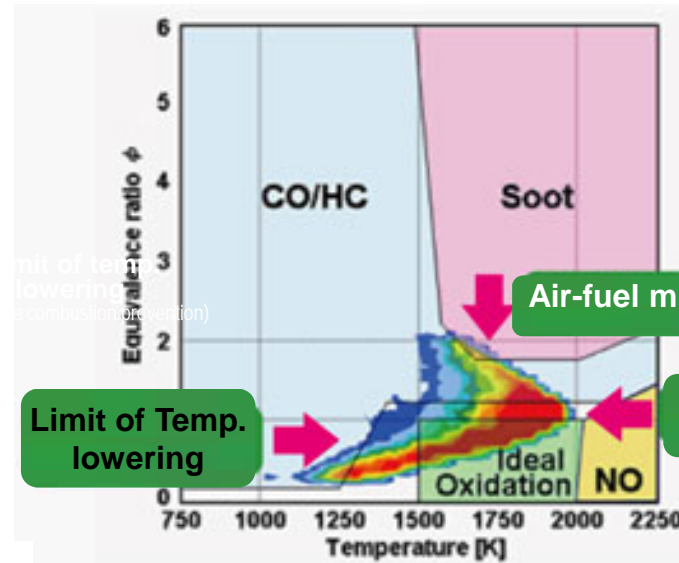


X-ray CT Equipment



Robot Suit HAL

4. Success Cases [Clean Diesel Engine]



Back to the basic

**Aggressive goal :
20% increase in fuel
efficiency**

Success Factors

- Simulation technology developed with Hiroshima University
- Prototype served as a bridge between laboratory and the enterprise division.

Success Cases [Blue-ray Disc]

Seeds

FY1995
Blue LED
on sale

NEDO Project
(1998 to 2002 / 9 companies)

FY2003
Blue-ray
on sale



Needs

BS Digital HD Broadcasting Starts in 2001.
The volume of one DVD is insufficient
for recording a 2 hour movie in high quality.)



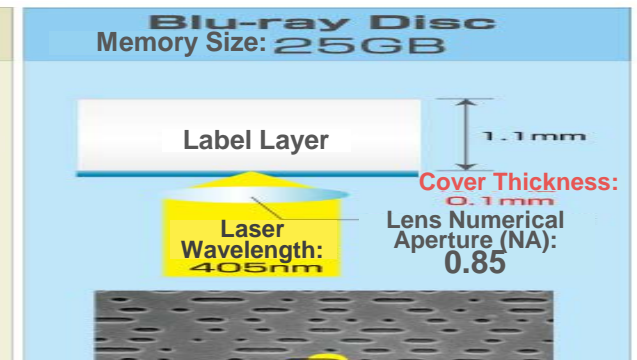
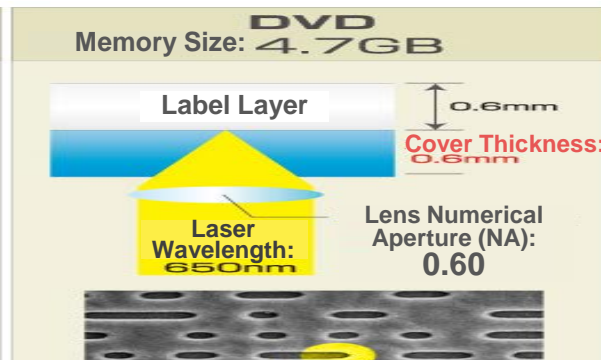
The 9 participating companies
collaborated and engaged in R&D.

Important factor of success

In preparation for commercialization

Committee on Intellectual Property (IP) and International
Standardization Committee are set up during Project
period.

The three basic parameters (spot size,
wavelength, and lens numerical
aperture) are set at the very beginning



5. Results of NEDO Project Success Factors Analysis

	List of Success Factors
①	Challenges towards high risk R&D
②	Collaborative setting for working together with other companies (even competitors)
③	Collaboration with universities, especially mechanism clarification
④	Incorporation of users as the receiver of the output and player of comercialization
⑤	Advice from external expert through NEDO committees
⑥	Demonstration experiment using the prototype

Sheet of Analysis (Bean Count)

Project	①	②	③	④	⑤	⑥	Remarks
A			○		○	○	
B	○	○	○				
C		○		○		○	
D	○	○	○		○		
E			○		○	○	
F	○		○				
G	○		○				
H				○	○	○	
I		○	○	○			
J	○		○			○	
K			○		○		

Results of NEDO Project Success Factors Analysis

(Aggregation of comments from 71 stories in *NEDO Success Stories 2014*)

(Multiple answers)

	Success Factors	No. of Cases
⑥	Demonstration experiment using prototype	48
①	Challenges towards high risk R&D	41
②	Collaborative setting for working together with other companies (even competitors)	37
③	Collaboration with universities, especially mechanism clarification	35
④	Incorporation of users as the receiver of the output and player of commercialization	23
⑤	Advice from external expert through NEDO committees	19

6. Summary

The following success factors are identified from the *NEDO success stories*.

- 1) Demonstration experiment using **prototype**
- 2) Challenges and **aggressive goals**
- 3) Collaboration with even competitors that generate **synergy effects**
- 4) Collaboration with universities, **mechanism clarification**
- 5) Incorporation of **user**
- 6) **Advice** from external expert