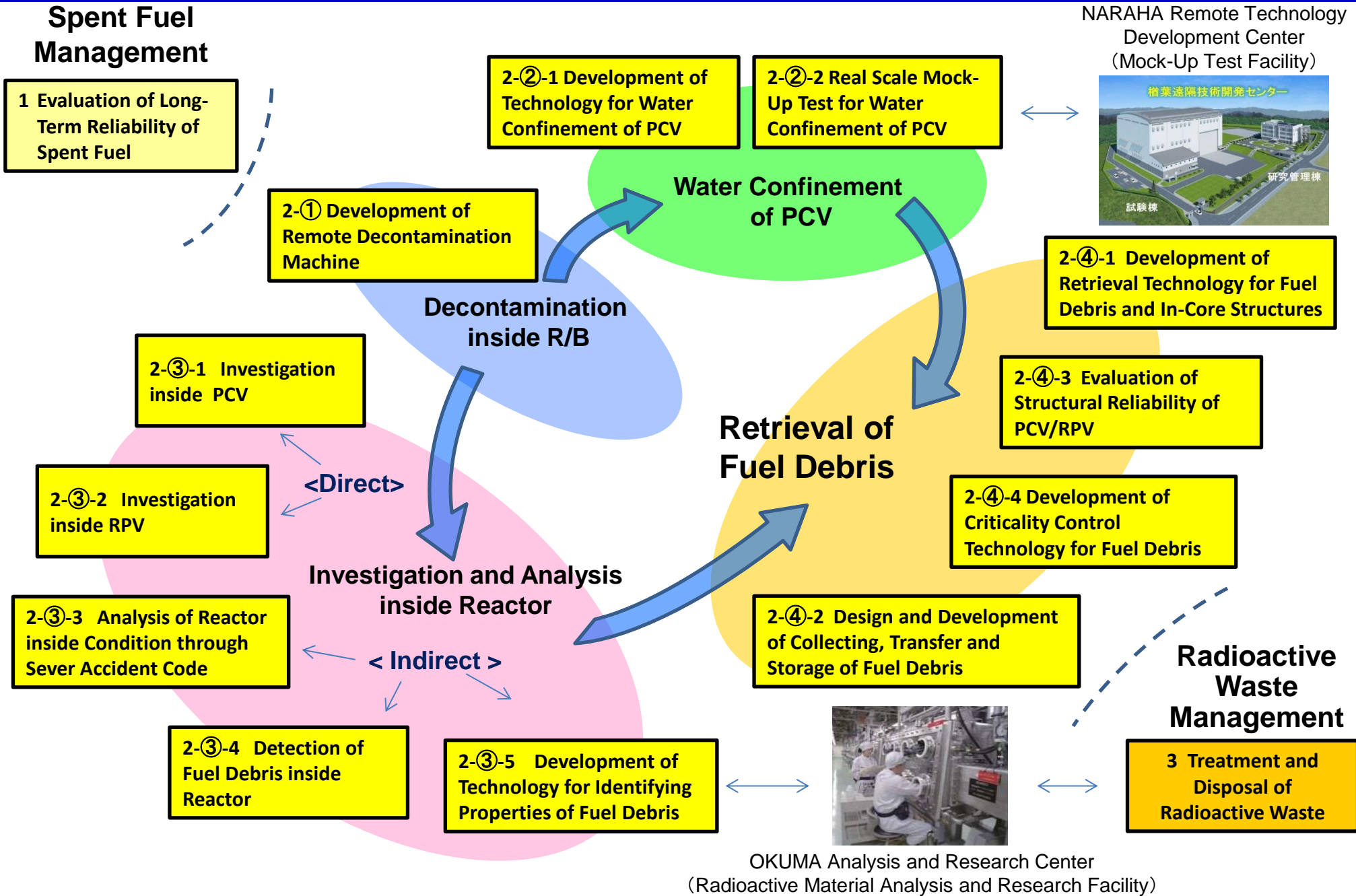


# Total Structure of R&D 14 Projects

1-1-①



# Revision of the Mid-and-Long-Term Roadmap

June 25, 2015

Contaminated Water and Decommissioning Issues Team  
Cabinet Office

# Main point of revision of the Mid-and-Long-Term Roadmap

## 1. Give priority to risk reduction

Fast progress



Risk reduction

Give priority sequence to actions in order to certainly reduce risks in a long-term, not only to concentrate on speedup

Contaminated water management,  
Fuel retrieval

Fuel debris retrieval

Solid radioactive wastes, Secondary waste  
generated from contaminated water treatment



Deal with as soon as possible



Deal with safely, surely and carefully with careful  
preparation



Deal with in a long-term

## 2. Clarifying milestones



Clarifying goals for the next few years, taking local  
demands into account

## 3. Construct stronger confidential relationship with the locals through drastic disclosure, etc.

Establishment of Fukushima Council  
(February, 2014)



Further enhanced communication

(International Forum on Strategy for the Decommissioning of F1, etc.)

## 4. Further reduction in workers' exposure dose, Enhancement of Organization for Industrial Safety and Health Management

## 5. Reinforcement of Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF), the Control tower of technical strategy for decommissioning

Foundation of NDF (August, 2014)



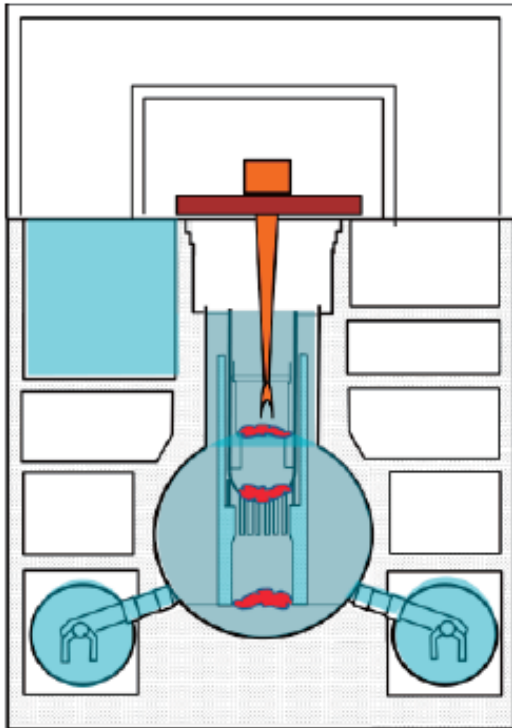
Total management of R&D,  
Concentrating wisdom from all over the world

# Clarification of Milestones

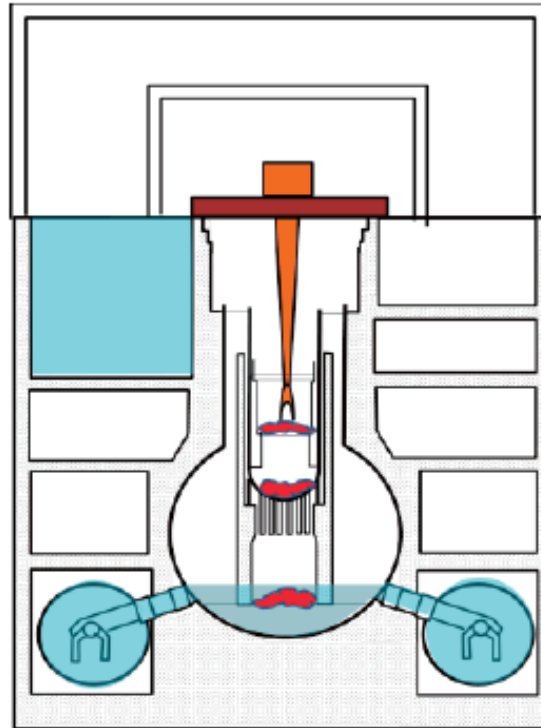
- Clarify the nearest target (green) for highly prior measures, while adhering the general framework (blue)

Overall	Completion of decommissioning	In 30 – 40 years
<b>Contaminated water management</b>	Completion of treatment of stagnant water in buildings	by 2020
Removing	Additional effective dose rate at the site boundary < 1 mSv/y	FY 2015
Isolating	Start of preparation to decide the long-term management of ALPS-treated water	first half of FY2016
Preventing leakage	Suppression of inflow rates into buildings < 100 m <sup>3</sup> /day	FY 2016
Stagnant water treatment	Storage of all water generated by treatment of highly contaminated water in welded-joint tanks	In early FY 2016
	Reduction of radioactive materials in stagnant water in buildings by half	FY 2018
		NEW
<b>Retrieval of spent fuel</b>	Decision on methods for the treatment and storage	around 2020
	Start of spent fuel retrieval at Unit-1	Later half of FY2017 → FY 2020
	Start of spent fuel retrieval at Unit-2	First half of FY 2020 → FY 2020
	Start of spent fuel removal at Unit-3	First half of FY 2015 → FY 2017
<p>※The changes in milestones are mainly due to “Measures for Safety and Security”, including measures for preventing dust dispersion or reduction of workers’ exposure dose, etc. The schedule delay due to “troubles” or “delay in decision” should not be happen hereafter.</p>		
<b>Retrieval of fuel debris</b>	Methods for debris retrieval from every Unit	In around 2 years
	Decision of the method for debris retrieval from the 1st implementing Unit	First half of FY2018
	Start of debris retrieval from the 1st implementing Unit	In 2021
<b>Radioactive waste</b>	Conclusion of basic policy for waste disposal	FY2017

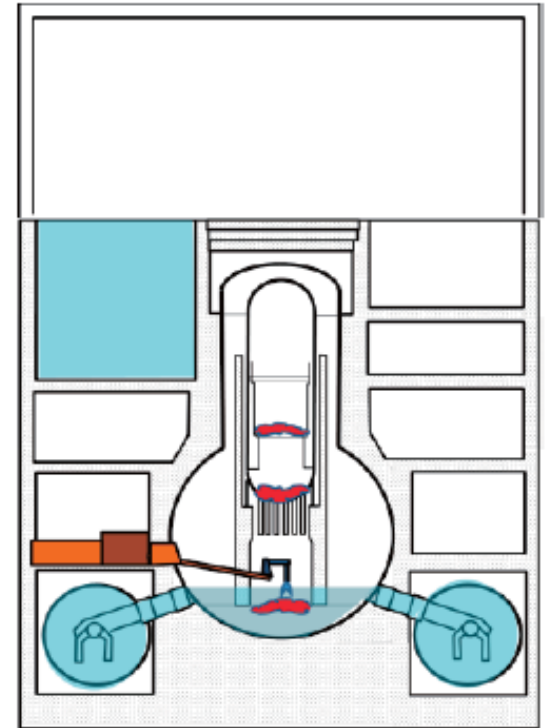
# The Overview of Fuel Debris Retrieval Operations



Submerged Top-access Approach



In-air Top-access Approach

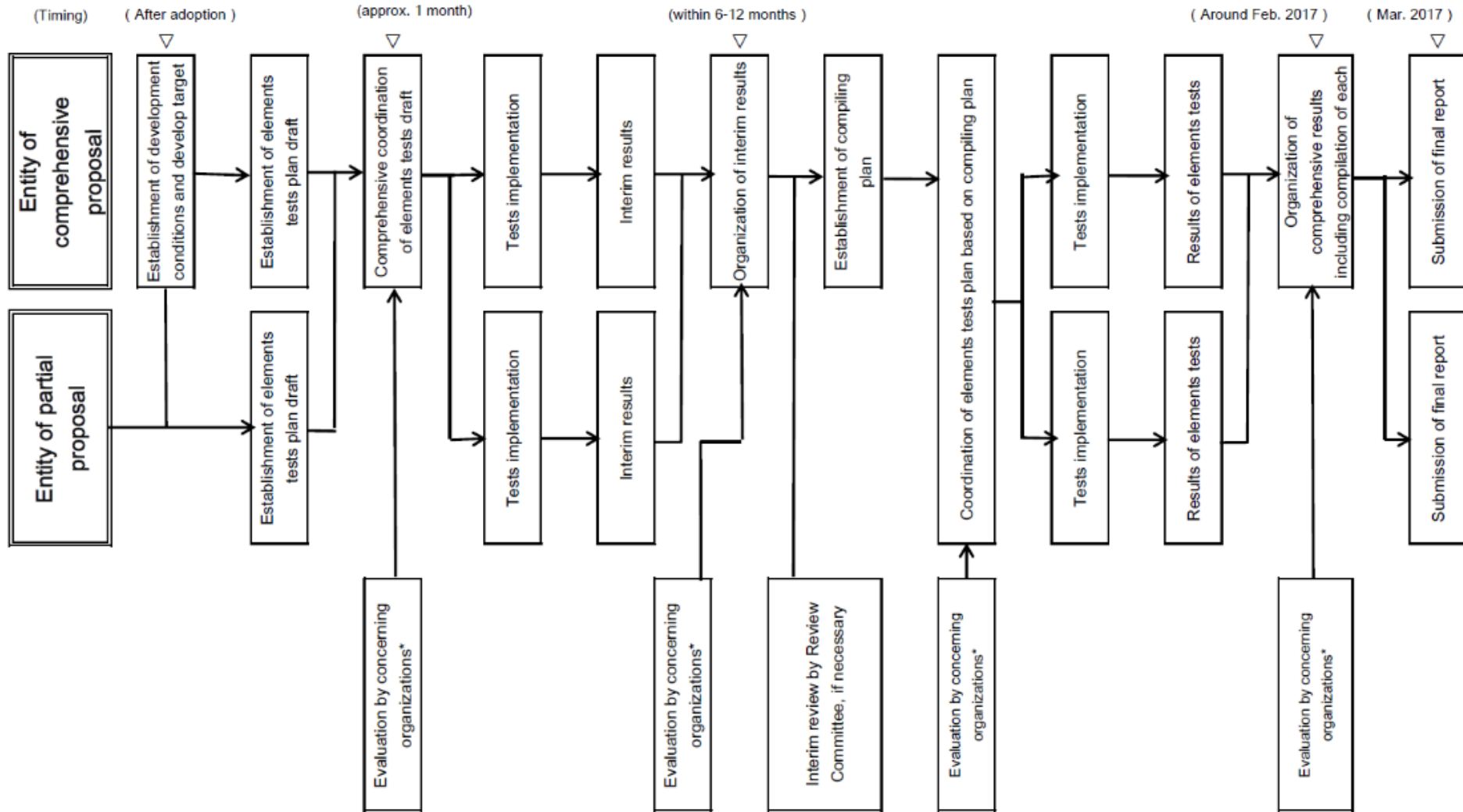


In-air Side-access Approach

Source: Nuclear Damage Compensation and Decommissioning Facilitation Corporation, "Technical Strategic Plan 2015 for Decommissioning of the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company - Towards Amendment of the Mid-and-Long-Term Roadmap in 2015" (April 30, 2015)

# The Timeline of the Subsidized Project

## (Project of Development of Fundamental Technologies for Retrieval of Fuel Debris and Internal Structures)



# The Timeline of the Subsidized Project (Project of Upgrading Approach and System for Retrieval of Fuel Debris and Internal Structures)

