

# **NTT WEST's Challenges to Improve FTTH Quality**

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**NTT WEST Corp.**

# INTRODUCTION

# NTT Group Formation



Established in 1869, as Public company.  
Incorporated in 1985 and was split into 5 major  
companies in 1999.



**Regional  
Communications**

**Long-Distance &  
International  
Communications**

**Mobile  
Communications**


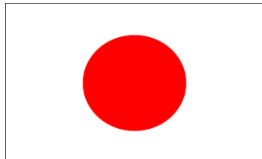





**System  
Integration**



**NTT  
docomo**

**NTT Data**

# Country Data

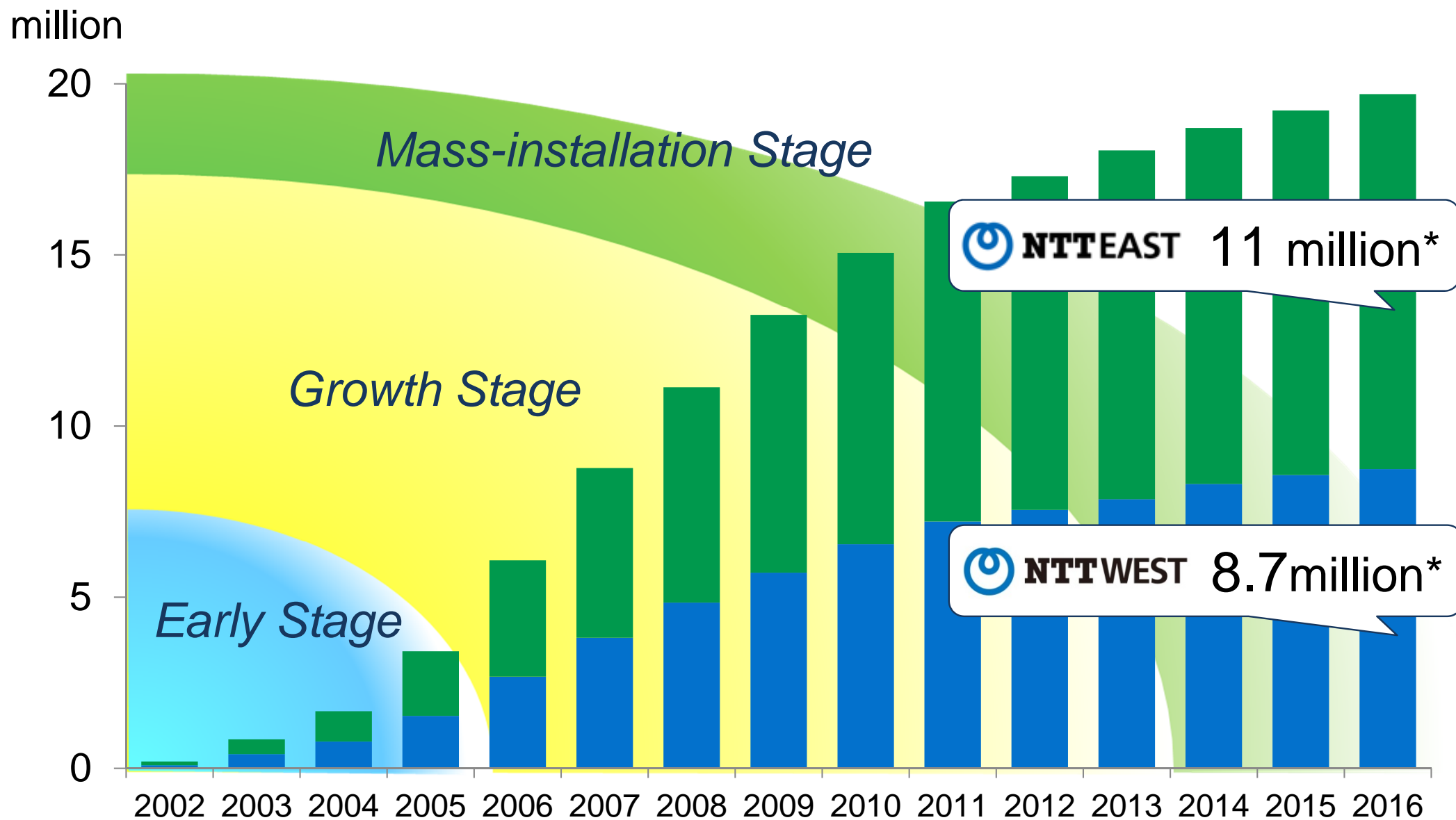
|  |  | <b>India</b>  | <b>Japan</b>  |
|--|--|--|--|
| <b>Population</b>                     |  | 1.3 billion  | 126 million  |
| <b>Area</b>                           |  | 3,287,590 km <sup>2</sup>  | 377,972 km <sup>2</sup>  |
| <b>Internet Penetration</b>           |  | 26.0 %   | 91.1 %   |
| <b>Fixed-broadband Penetration</b>  |  | 1.3 %  | 30.7 %   |
| <b>Mobile phone Penetration</b>     |  | 78.1 %   | 126.5 %  |

As of 2015

Source: Embassy of Japan in India, as of Oct,2014  
ITU World Telecommunication/ICT Indicators database, 2017



# FTTH Subscribers of NTT



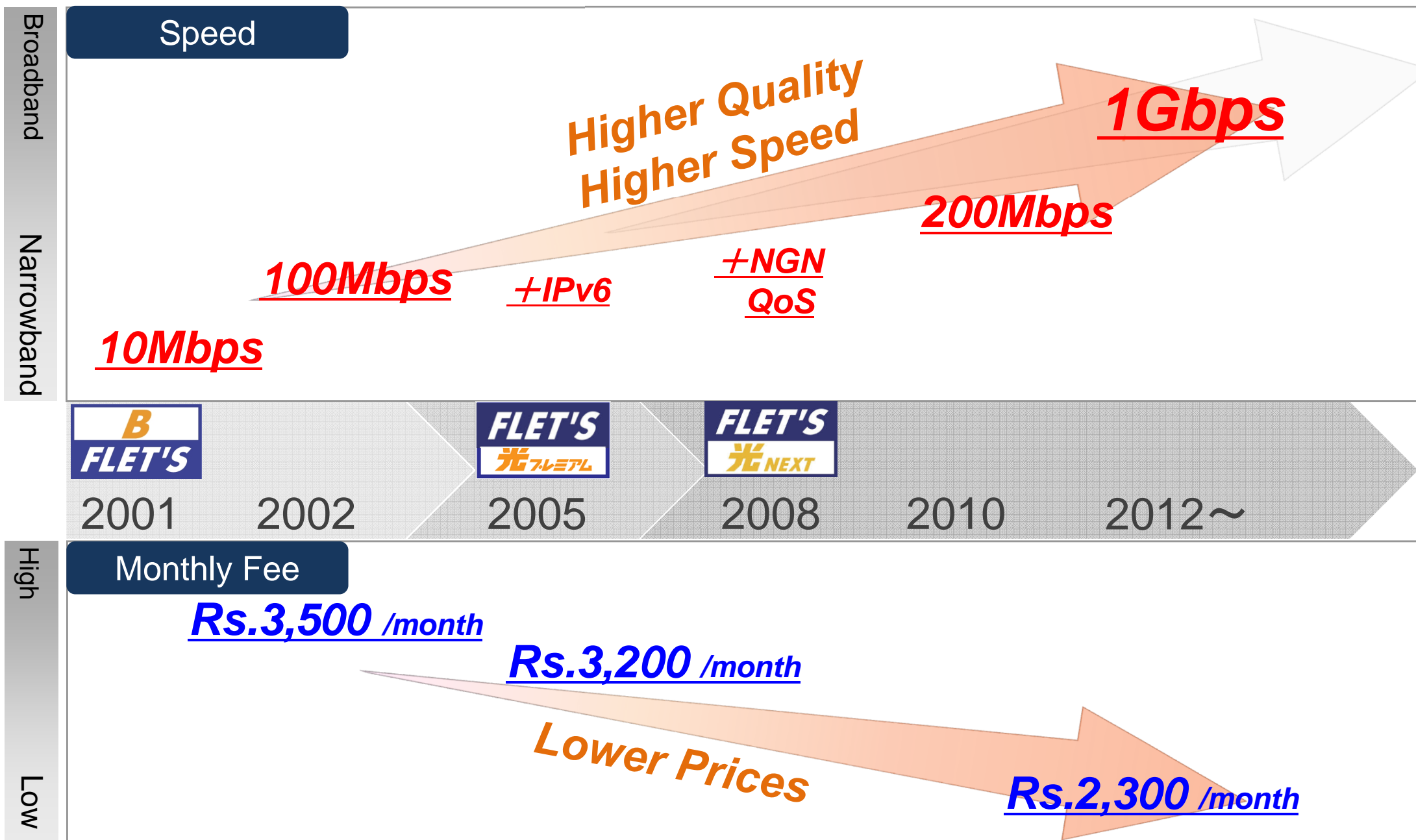
\*As of Sep 30, 2016

# Our Vision

**High quality services at a low cost.**



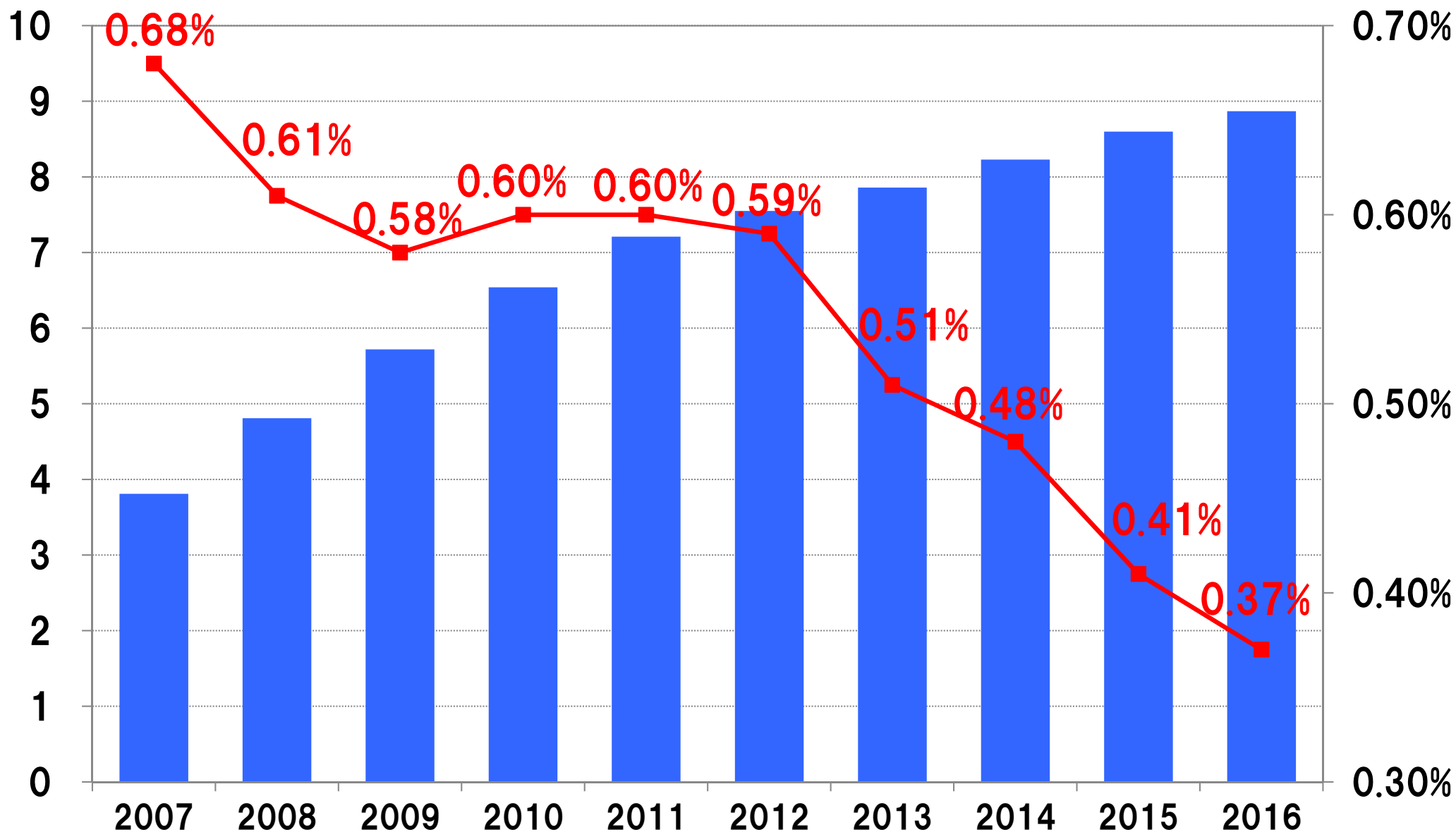
# Transition of NTT WEST Services



# Transition of Failure Rate

Number of FTTH Subscribers  
(Million)

Failure Rate



# Keys to Success

Design

Deployment

Maintenance

## Efficient Design

- ✓ Grand Design policy
- ✓ Standardized manuals
- ✓ Demand forecast
- ✓ Area design based on demand
- ⋮

## Efficient Installation & Operation

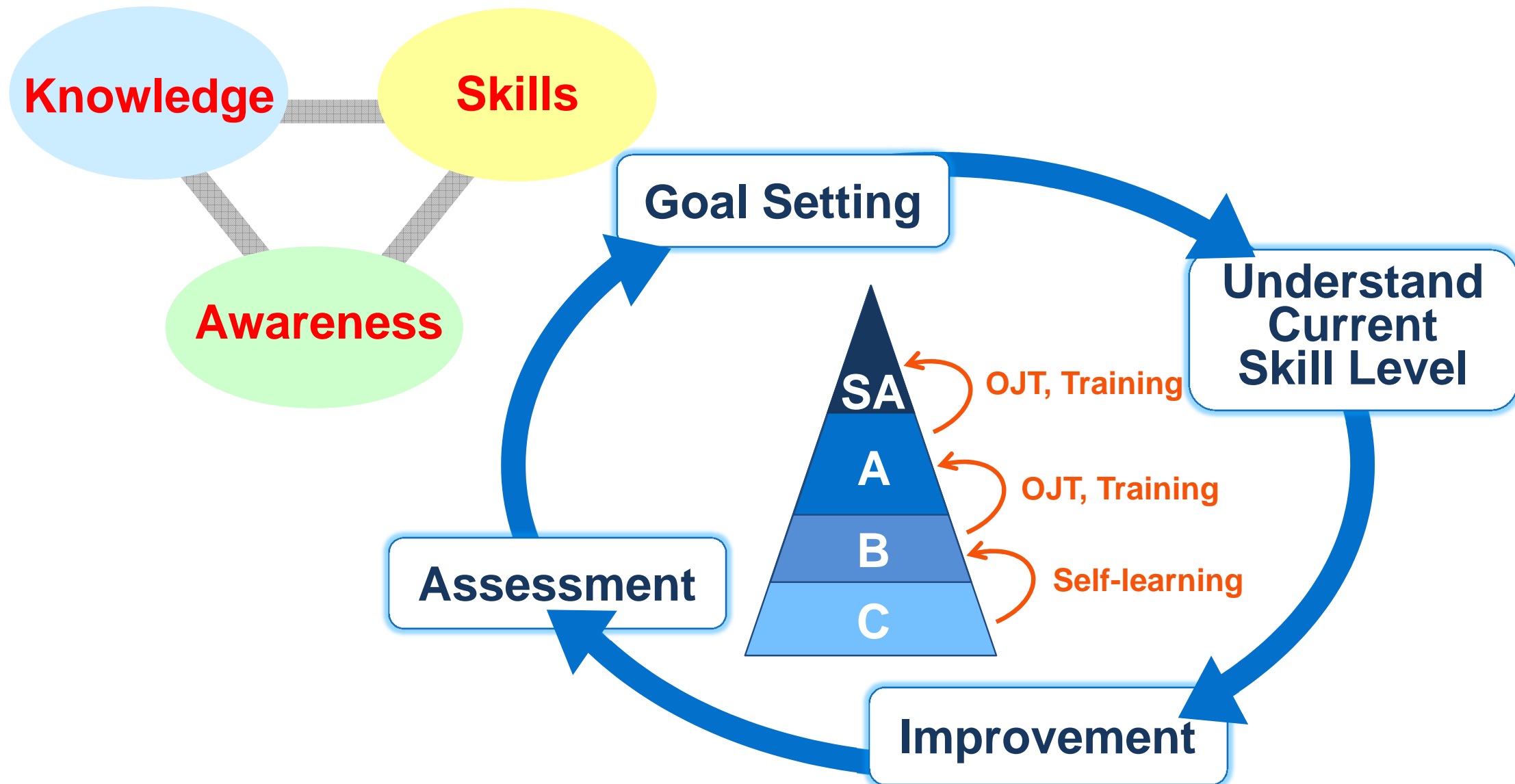
- ✓ Standardized operation process
- ✓ Appropriate product selection
- ✓ Accurate user database & facility database
- ✓ System linkage
- ✓ Shorten the lead time
- ✓ Detect the failure point remotely
- ⋮

## Human Resources Development

- ✓ Career Development Plan
- ✓ Training Structure etc.

# Skill Level Management

- NTT WEST manages career development in three critical aspects.  
(Knowledge, Skills, Awareness)



# Training Programs for Engineers

Skill  
Level

Internal  
Certification

Training Program

SA

43  
courses\*

➤ Optical  
Professional  
Course

Knowledge

Skills

Awareness

➤ Meister's Cup  
Competition

➤ KAIZEN Competition

➤ Transmission of  
Veteran's Skills  
(Gold Meister)

Skills

Awareness

➤ OJT  
➤ Off-JT  
(Group  
Training)

Knowledge

Skills

Awareness

A

74  
courses\*

B

78  
courses\*

➤ e-learning

Knowledge

C

Total **195**

courses\*

\*As of Sep 30, 2016



# Training Images

## Optical Professional Course

- ✓ 2-year-program to train high-skilled leaders



## Transmission of Veteran's Skills

- ✓ Veterans pass on skills to up-and-coming generations.



## Meister's Cup Competition

- ✓ Annual competition for high-level technical skills



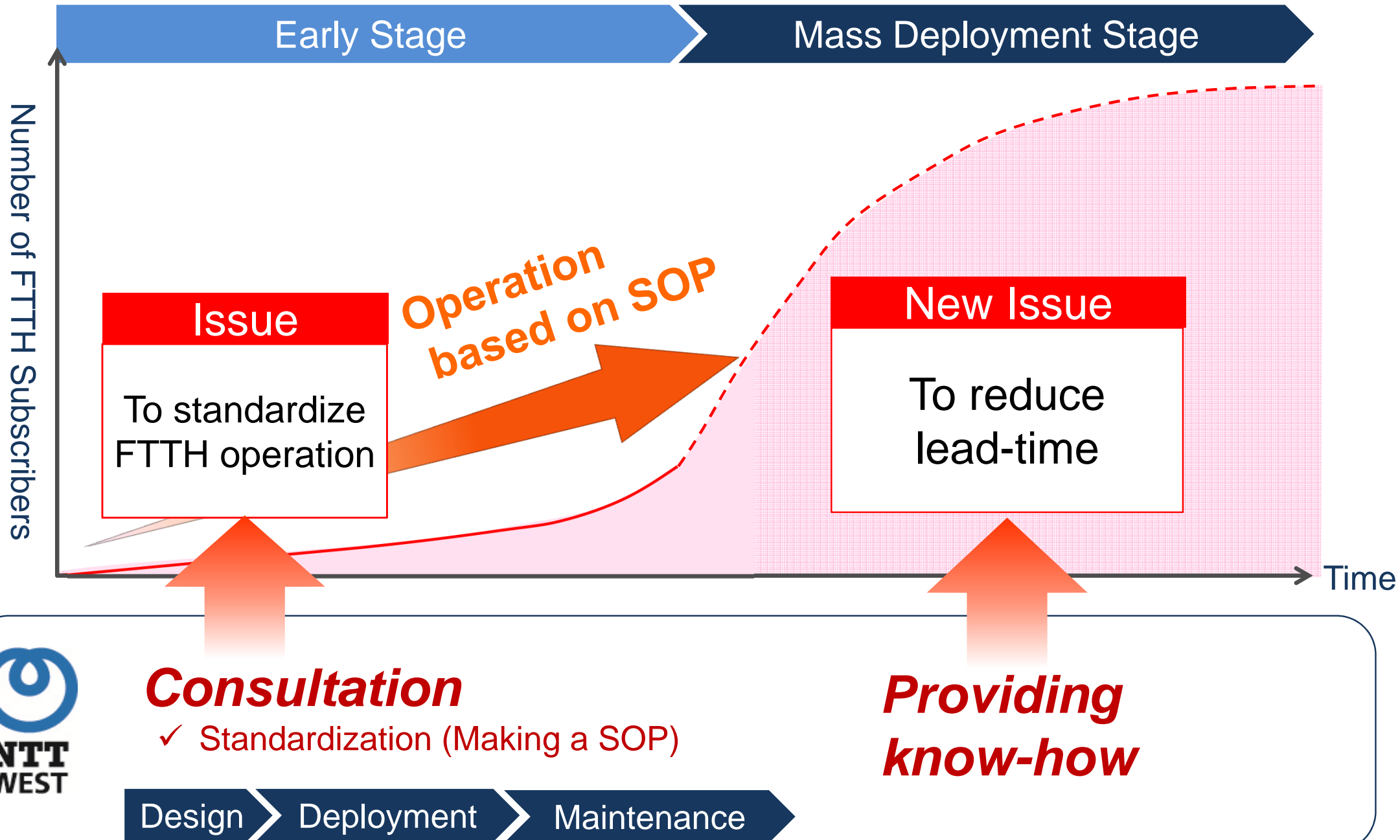
## KAIZEN Competition

- ✓ Annual competition to improve quality in various aspects of work



# CASE STUDY IN SOUTH EAST ASIA

# Background of A Telecom Operator



# Our Proposal

Order

Design

Installation

Maintenance

Long lead-time

Issue

Causes

Fewer installations per day

Too frequent back jobs  
(Low quality)

Not knowing  
procedures

Not following  
procedures

Not following  
procedures

Unable to install  
appropriately

Lack of  
Knowledge

Low  
Awareness

Lack of  
Technical Skills

***Packaged Training Program***

Proposal

**Knowledge**

×

**Awareness**

×

**Skills**



# Outline of Training Program

## Knowledge

### ★Lecture

- ✓ Basics of optical fiber
- ✓ Characteristics
- ✓ Layout of FTTH components etc.



## Skills

### ★Practical

- ✓ Drop / Indoor Cabling
- ✓ Assembling connectors
- ✓ Installation in actual sites(OJT) etc.



## Awareness

### ★Awareness building

- ✓ Keeping discipline
- ✓ Chanting a slogan in unison
- ✓ Confirming a goal
- ✓ Safety education
- ✓ Importance of teamwork etc.



# Training Results



✓ Basic knowledge understanding

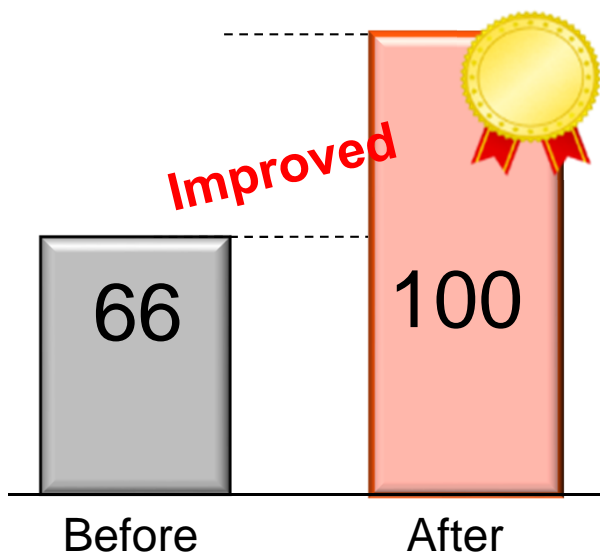


✓ Proper treatment of fibers

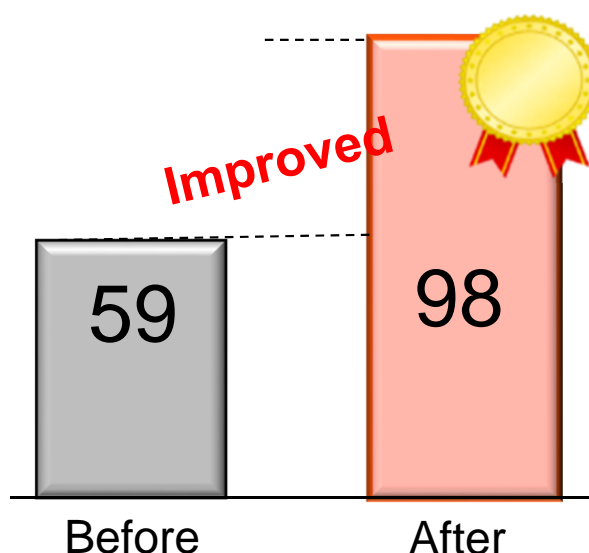


✓ Proper disposal of fibers

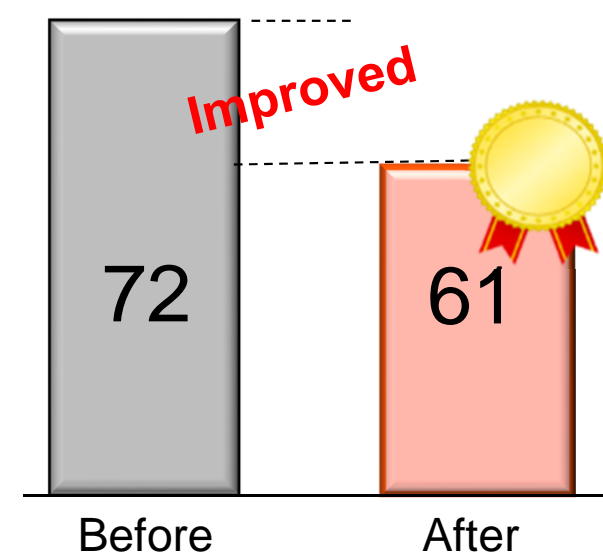
## Knowledge (Ratio)



## Technical Skills (Ratio)



## Speed (Minutes)





# Training Results

Before



Inappropriate location of a drop cable in a closure



Good !

After



Fiber cable is pinched by S-clamp



Good !



High-place work Without a safety belt



Good !





# Positive Effects

## Feedback from Client



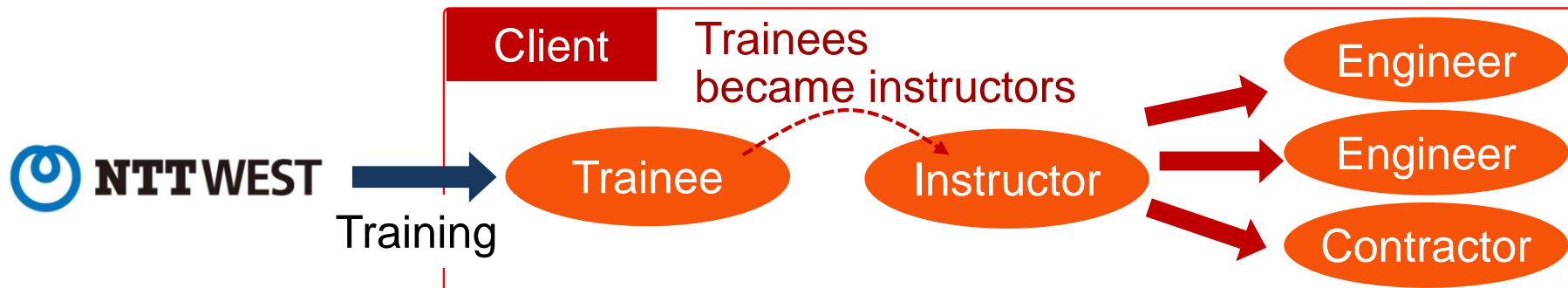
NTT WEST's training significantly improved our engineers' skills.

We learned not only technical skills but also leadership and a mindset. We should expand them to others.



## After the Training

NTT WEST's trainees are expanding NTT WEST's way to other engineers and their contractors as instructors.



## Certification

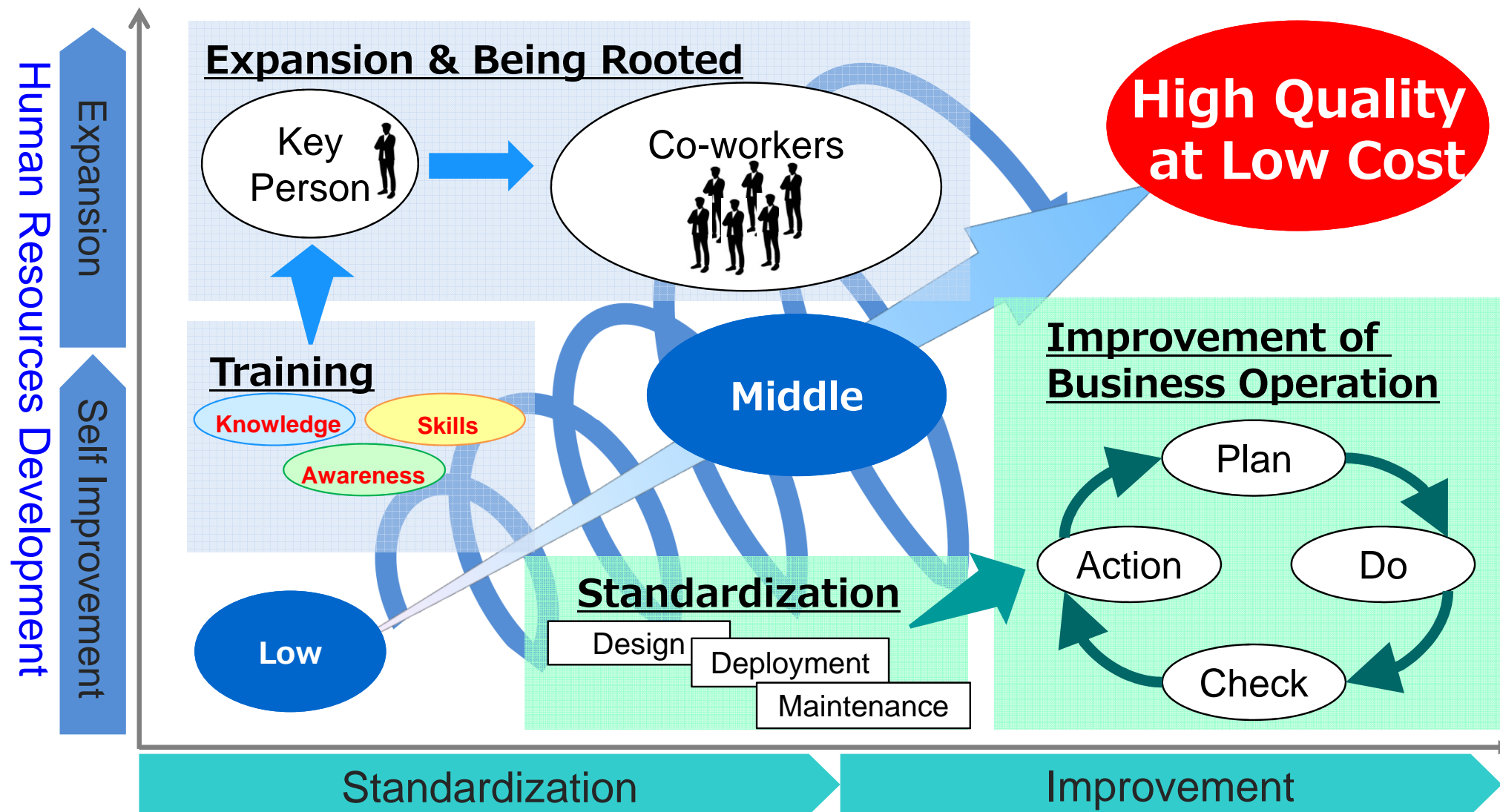
The training program is certified by FTTH COUNCIL APAC.



# HOW TO ACHIEVE HIGH QUALITY FTTH

# Approach to the Goal

- NTT WEST has realized **“High Quality at Low Cost”** with **“Human Resources Development”** and **“Business Process Reengineering”**.
- NTT WEST can provide diverse solutions based on both aspects.



# Contact Us



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