

World Innovation Symposium on Human behavior

Activity report of BEST



# A brief summary of recent activities of the Behavioral Sciences Team (BEST)

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## ➤ **Established**

- **In April 2017 on the initiative of Japan's Ministry of the Environment (MOE)**
- **MOE also has its nudge unit (Nudge PT; Platinum) since 2015**

## ➤ **Mission**

- **To promote autonomous behavior changes with the personalized approach of respecting every person's values while preserving freedom of choice, in order to enable people to make better choices**

# **Behavioral Sciences Team (BEST)** – Japan's nationwide challenge

## ➤ **Purpose**

- **To apply initiatives that are based on BIs including nudges to the society as a government policy or a business strategy as early, and disseminate them in an autonomous way**

## ➤ **Goals**

- **To perform policymaking and practices through robust effectiveness measurement and based on evidence, improve transparency, and ensure accountability**
- **To disseminate effective behaviorally-informed approaches to the public and private sectors, that complement the traditional policy approaches**
- **To create a win-win-win situation for various stakeholders, and let the BI approaches take root in communities**

# Behavioral Sciences Team (BEST) – Japan's nationwide challenge

## ➤ Members

- Industry, academia, politics, central & local governments, and other relevant individuals [*all-Japan system*]
- Every person and entity that is ambitious to make Japan and the world a better place
- 10+ central gov'ts joined thus far: Ministry of the Environment; Cabinet Secretariat; Cabinet Office; National Police Agency; Consumer Affairs Agency; Ministry of Internal Affairs and Communications; Ministry of Foreign Affairs; Ministry of Finance; Ministry of Education, Culture, Sports, Science and Technology; Japan Sports Agency; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and Industry; Agency for Natural Resources and Energy; Ministry of Land, Infrastructure, Transport and Tourism; National Personnel Authority; Board of Audit

## ➤ Policy Field

- All policy fields; not only energy & environment, but health care, education, transportation, etc.

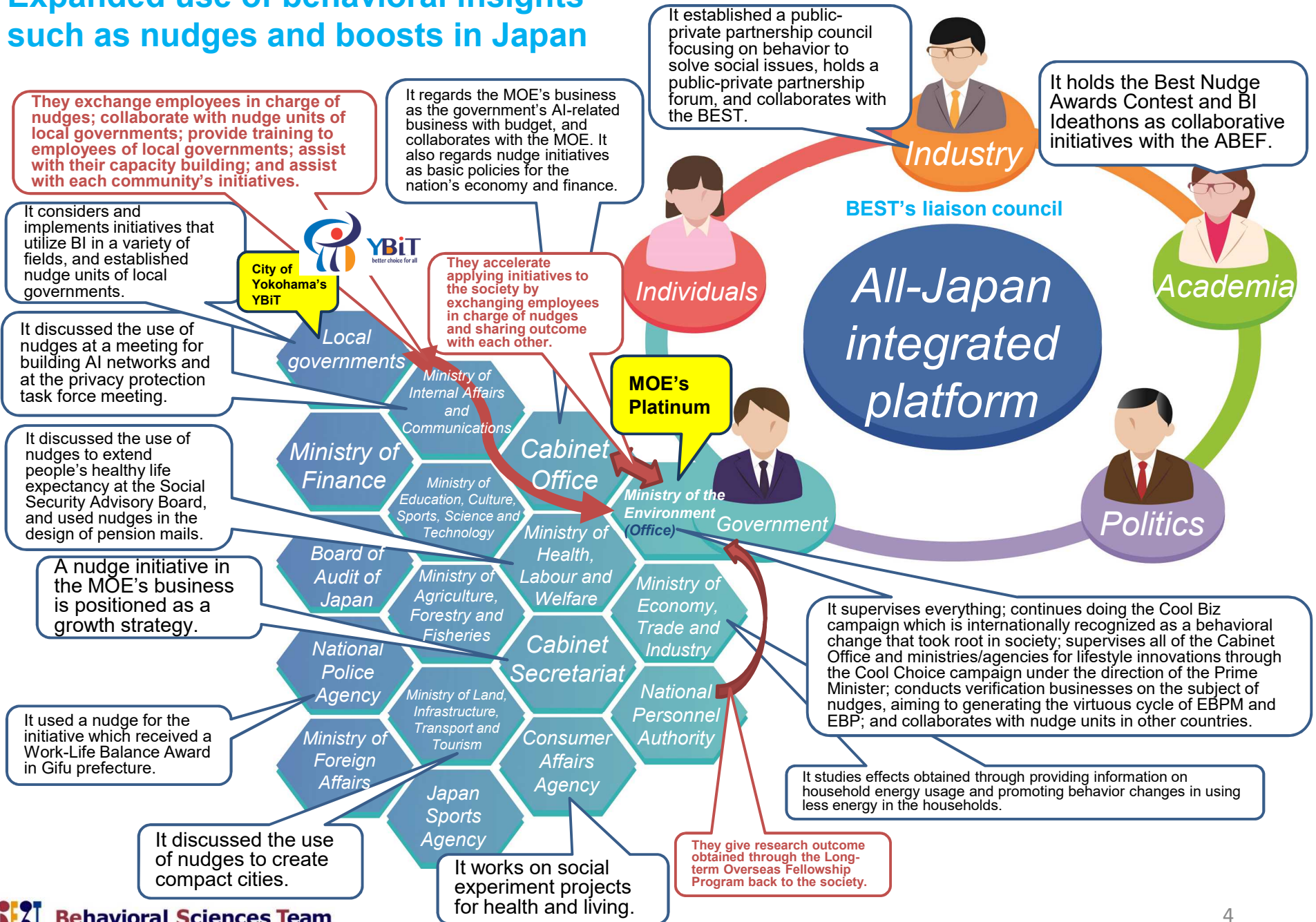
Open space for open discussion  
where everyone can join  
[NOT limited to governments]

## ➤ Global cooperation

- Info sharing, policy dialogue, collaborative study, int'l conference, etc. with overseas governments, businesses, and experts.

# Expanded use of behavioral insights such as nudges and boosts in Japan

Letters in red: cross-organizational collaboration



# BEST and ABCs

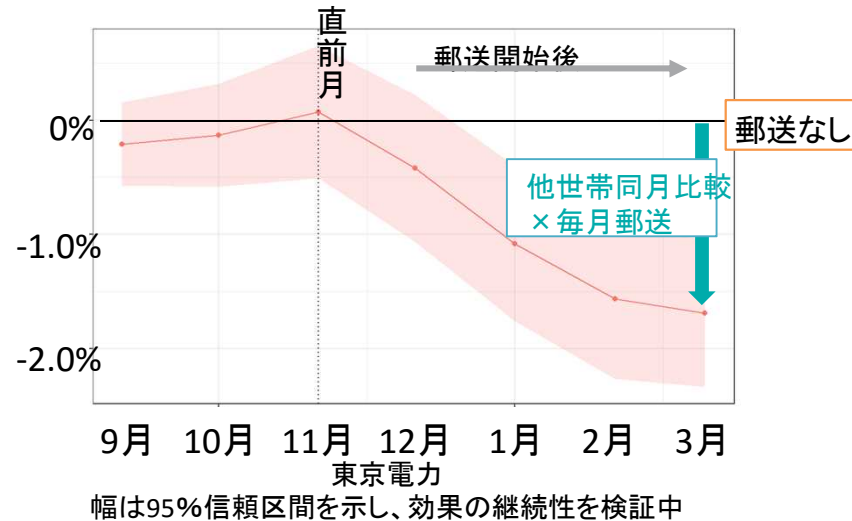
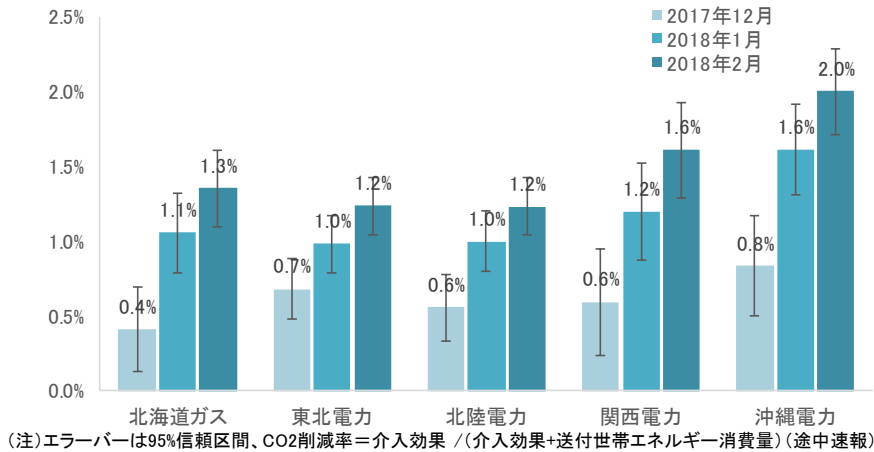


**Behavioral Sciences Team**  
*for a better choice*

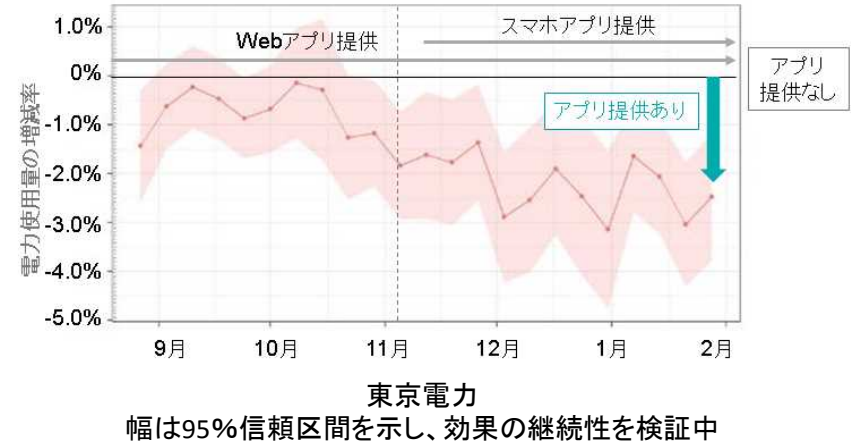
- ✓ **BEST is for a better choice**
- ✓ **BEST helps autonomous behavior changes**

# First year results (FY2017)

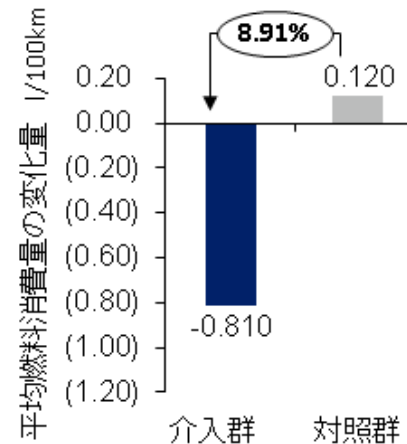
Home Energy Reports produced statistically significant energy savings in the 1.2-2.0% range, varying by locality and climate.



When reinforced with feedback sent via Web and smartphone app, energy usage reductions in the 3% range were seen.



Eco-driving pilot studies showed improvement in driving behaviors such as reduction in sudden braking and abrupt starts, and fuel consumption was reduced by approximately 9 percent.



\*not statistically significant; large-scale experiment is in preparation.

**Which do you think  
is more effective  
for the Japanese?**





# Example: Examining best design of an energy-saving report for households

\*Letters in red: improvements made in the 2nd business term

**Evidence**

**Synchrony** (1) Allcott, 2011. Social norms and energy conservation. (2) Ferraro *et al.*, 2013. Using Nonpecuniary Strategies to Influence Behavior: Evidence from a large-scale Field Experiment. (3) Behavioural Insights Team, 2016. Update Report 2015-16.

**Loss aversion** (1) Fryer *et al.*, 2012. Enhancing the efficacy of teacher incentives through loss aversion: A field experiment. (2) Behavioural Insights Team, 2016. Update Report 2015-16.

**Inhibition of the boomerang effect** (1) Schultz *et al.*, 2007. The constructive, destructive, and reconstructive power of social norms. (2) Central Research Institute of Electric Power Industry, 2015. Effects of increasing people's motivation to use less energy through the provision of information with social norms messages.

**Working hypothesis**

- Mail households HER with messages prepared based on knowledge of behavioral sciences such as **synchrony** (social norms), **loss aversion**, and **the inhibition of the boomerang effect**. This helps decrease power usage of the households.

**Demonstration design**

- Period: from early December 2017
- Trial method: randomly select 60,000 households from TEPCO Energy Partner's customers, and classify them into two groups: a intervention group (40,000 households) and a control group (20,000 households)

**Knowledge of behavioral sciences used**

Verification	Overall effects	frequency of mailing	mail size	method to compare power usage	price indication	compliments	tips
60,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
2/3 Intervention, 1/3 Control	1/3 Monthly, 1/3 Bimonthly, 1/3 Every 3 months	1/2 A4 size, 1/2 A3 size	1/2 comparison with other households, 1/2 comparison with own household	1/3 None, 1/3 Gain expressions, 1/3 Lost expressions	1/4 None, 1/4 Text, 1/4 Icon, 1/4 Text and icon	1/4 None, 1/4 Indicating the rate of using tips, 1/4 Indicating saved amount, 1/4 Indicating both the rate and saved amount	
			<b>Synchrony</b>	<b>Loss aversion</b>	<b>Inhibition of the boomerang effect</b>		

**Measurement of effectiveness**

- Perform a randomized controlled trial (RCT)
- Analyze power consumption per household for a specific period (comparison between intervention and control groups, and comparison between intervention groups)
- Examine effects with a statistical model using panel data (power consumption) of households at a specific point in time.

XX [Wh per household per day]

Energy-saving effects (average value ± confidence interval)

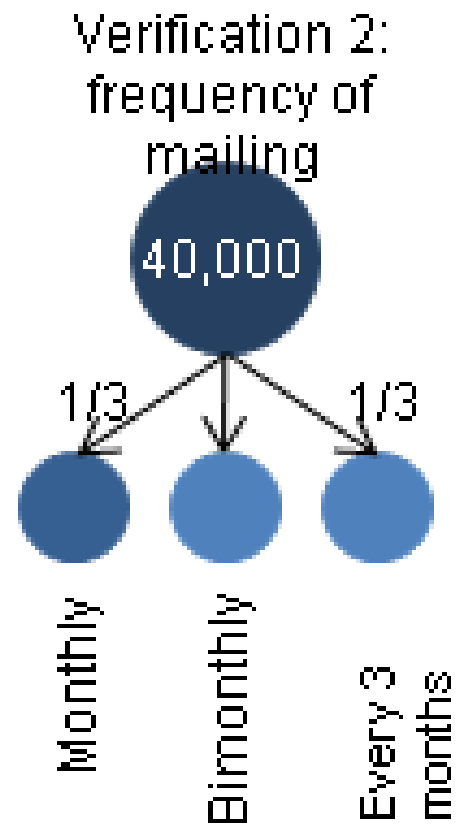
**Structure for going through the PDCA cycle**

- Have an internal review meeting which participants include external intellectuals, review the plan based on research in Japan and abroad and through a check by an internal expert team.

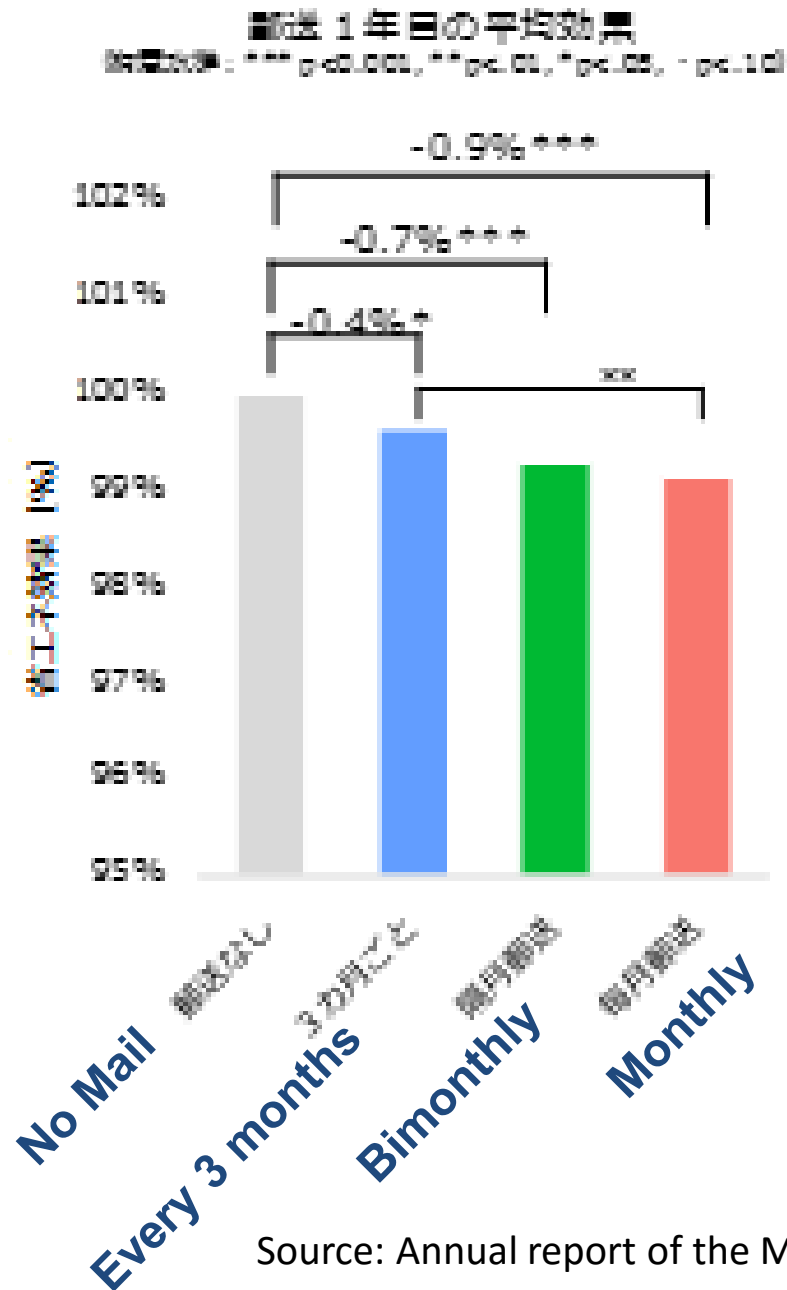
Plan (5-year plan) → Do → Check (Expert team checks at the consortium's internal review meeting) → Action (Review the plan)

Research in Japan and abroad (interviewing intellectuals including those in nudge units of foreign countries, and latest examples)

# Frequency of mailing

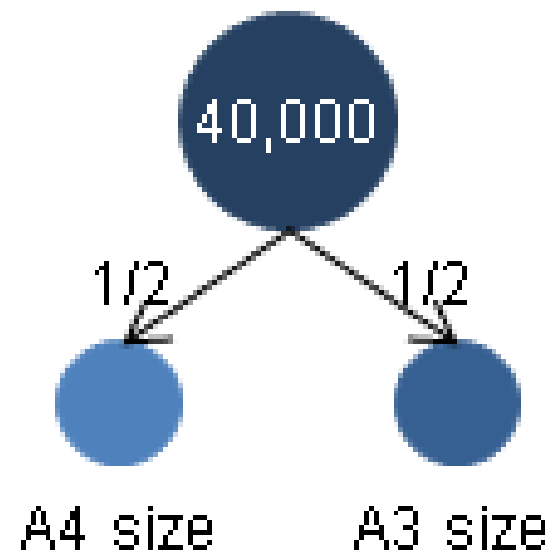


# Frequency of mailing

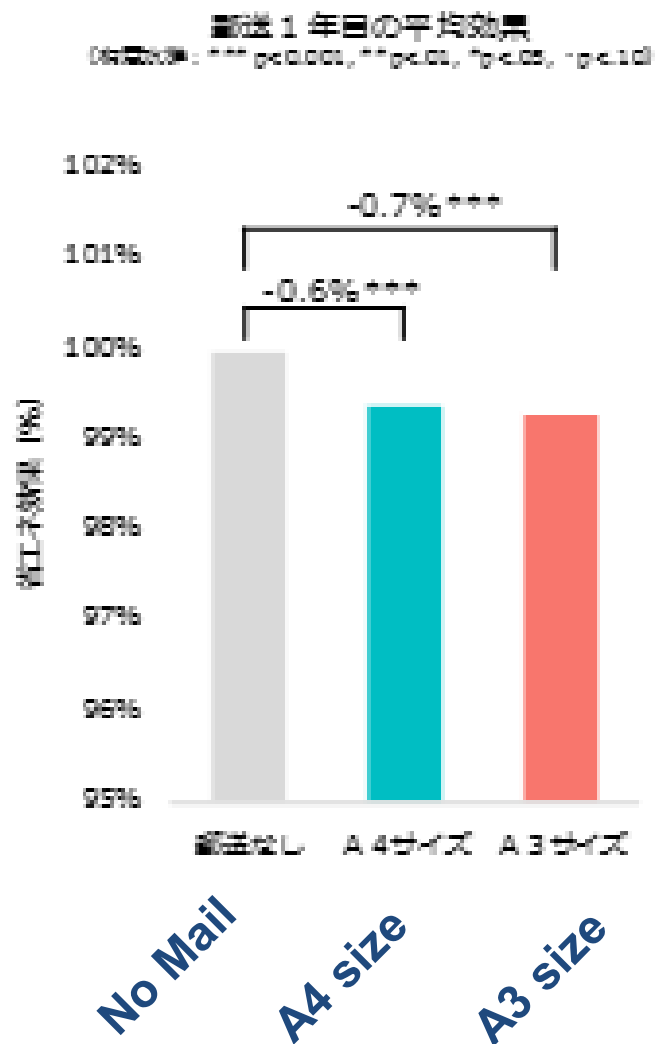


# Mail size

Verification 3:  
mail size

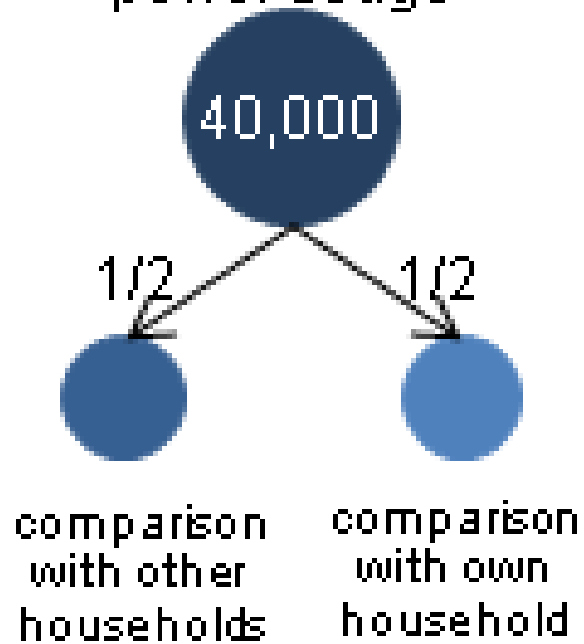


# Mail size

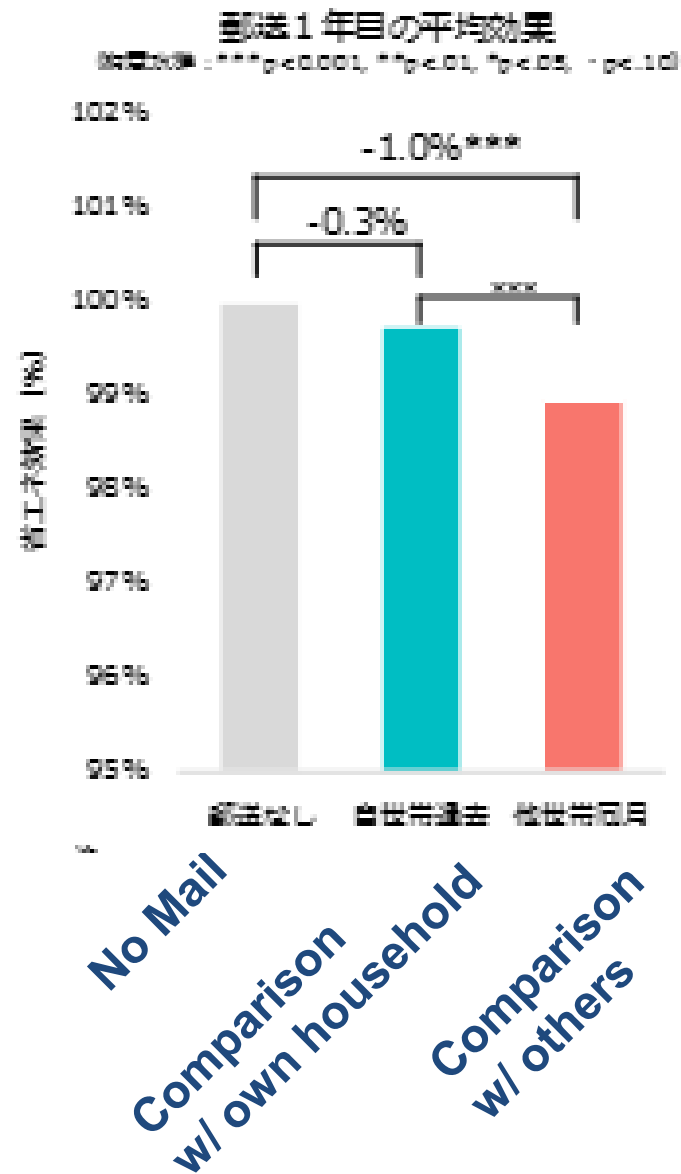


# Comparison

Verification 4:  
method to compare  
power usage

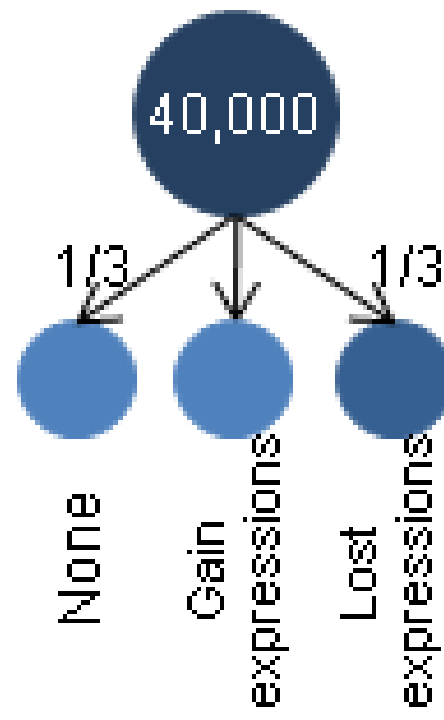


# Comparison



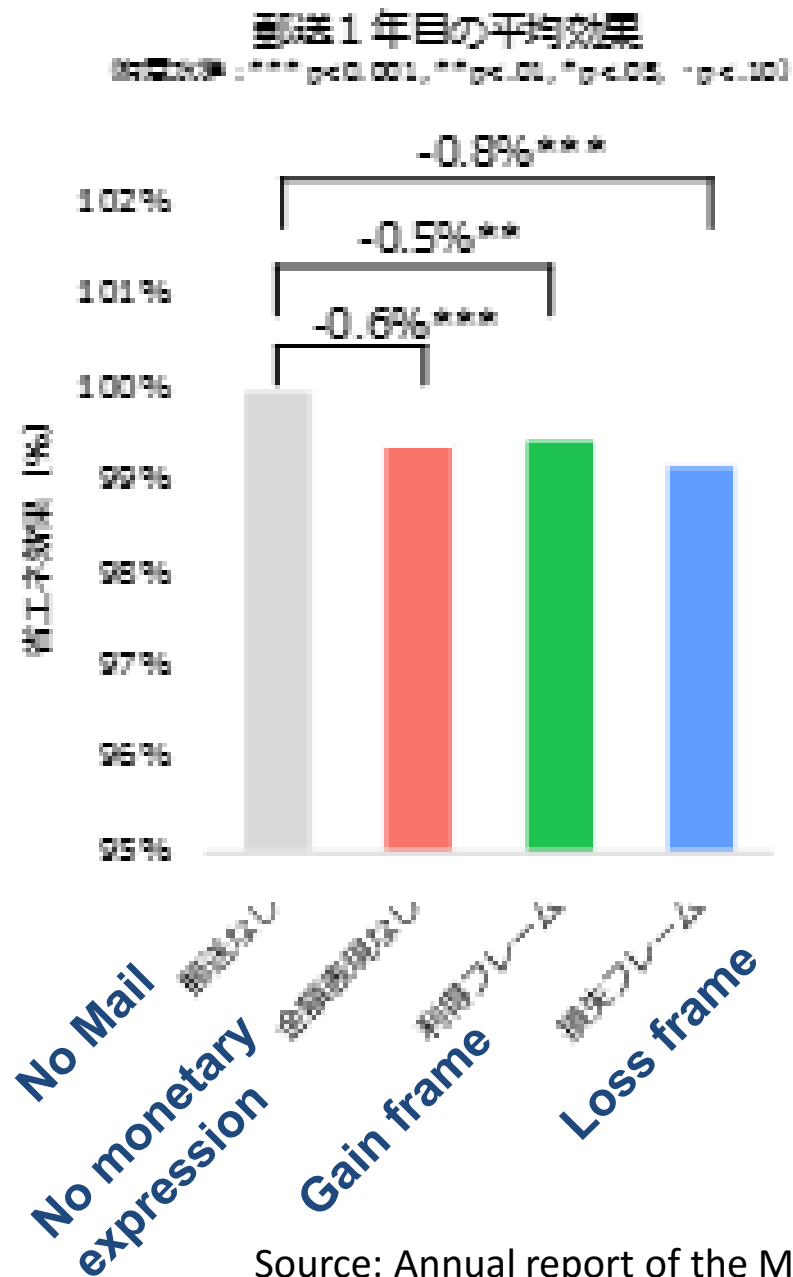
# Gain or Loss

Verification 5:  
price indication





# Gain or Loss



# Global Public Comment

On this year's activity of BEST

From **TODAY** through **July 1st**

For more info, see MOE's press release

Your  
opinion is  
priceless!



# Tentative plan

- (1) 日本版ナッジ・ユニットBESTとしての全体戦略やロードマップの策定  
(※行動に起因する社会課題の解決のためのイノベーション戦略(仮称))
- (2) 倫理的配慮の深堀り、「良い」ナッジ/「悪い」ナッジの検討
- (3) 日本のナッジの事例集作成・事例紹介
- (4) 地方公共団体の参考に資する行動インサイト活用の手引きの作成
- (5) 府省庁・地方公共団体を対象としたキャパシティビルディング  
(※環境省/内閣府/横浜市のナッジ・ユニット/チームとの連携により実施中)
- (6) 国際連携・国内外への発信(※本シンポジウム等)

