

# Behavioral Insights Initiative in YOKOHAMA



5/24/2019

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Deputy Mayor of Yokohama City

# **Outline**

**I . Brief History of Yokohama**

**II . Behavioral Insights in Yokohama**

**III . YBiT (Yokohama Behavioral insights and Design Team)**

# Yokohama Overview

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- Area: 435 km<sup>2</sup>
- Population: 3.74 million
- GDP: 11.5 billion USD

# Yokohama's Influence on Japan's Modernization



Yokohama Archives of History Collection

# Sharp Population Increase

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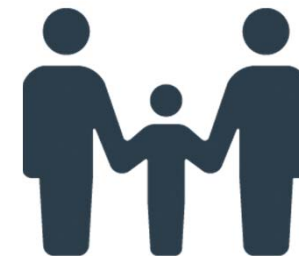
**【1985】**

**3 million** people

Along with  
rapid economic growth

**【1945】**

**625 thousand** people



Population

# Five Major Urban Issues

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**Waste**



**Water resources**



**Pollution**



**Traffic**



**Overdevelopment**

# Two Waste Management Case Studies

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**Waste**

# 2003-2012 Result

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**Waste Reduced by 43%**

※Target was 30% reduction



**The closing of 2 out of 7  
Incineration plants,**

**leading to \$1 billion in savings**



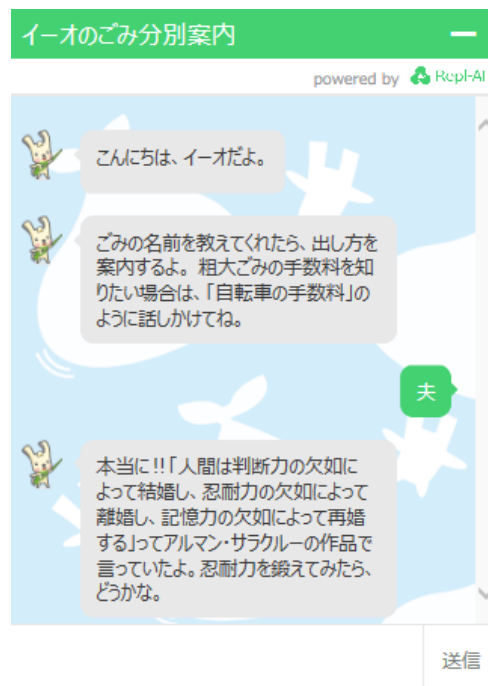
# Awareness Efforts



**11,000** information sessions in 2 years (2002-2003)

# Chatbot for Garbage Separation

Tell me how to discard my husband.



Armand Salacrou said, "People get married by misunderstanding, get divorced by impatience, get remarried by forgetfulness"

How about forging your patience?



# Environmental Future City

2011



2018

## SDGs Future City

Paris Agreement



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21-CMP11



SDGs  
17 Goals



**Yokohama has established**

**Yokohama SDGs DESIGN CENTER**



**to solve SDGs relevant issues with diverse stakeholders.**

## II . Behavioral Insights in Yokohama

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# **Yokohama Smart City Project**

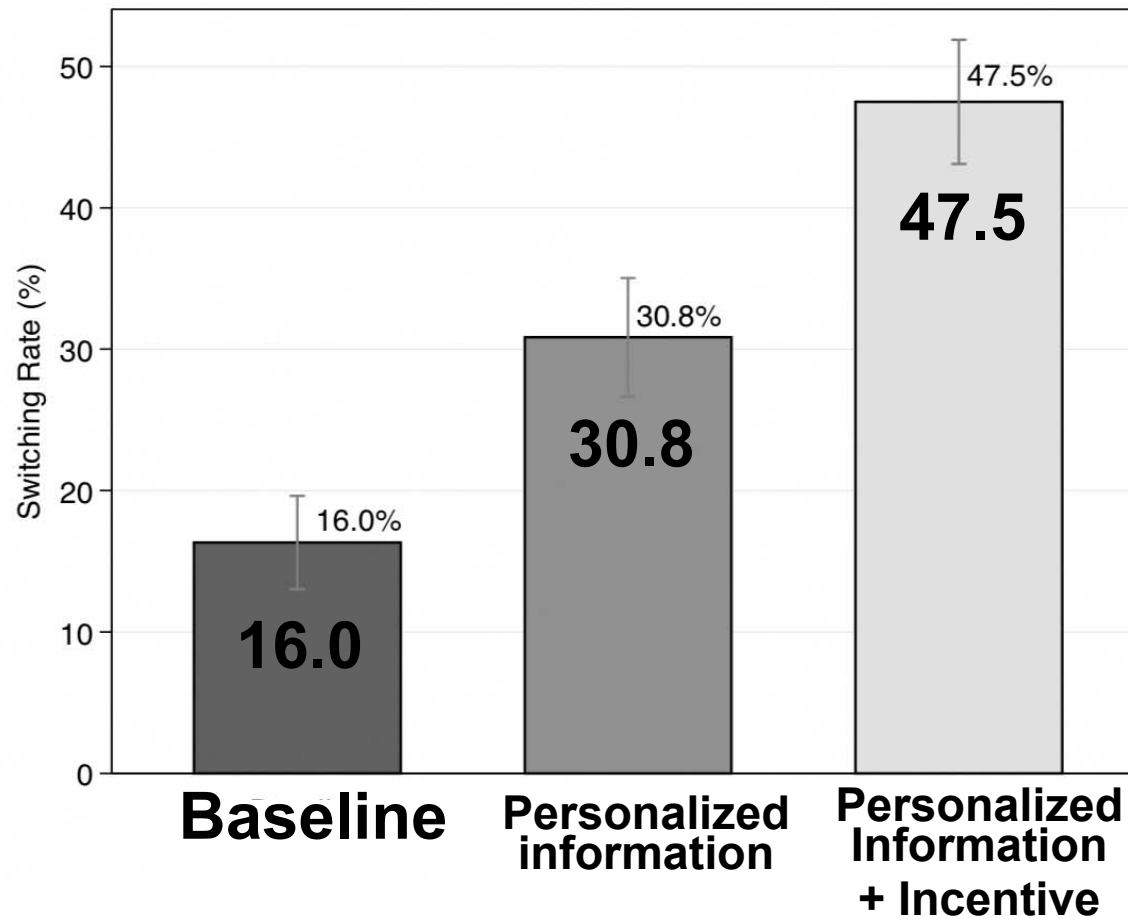
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**In Yokohama city,  
we have coordinated with 34 businesses  
and implemented 15 projects.**

# The Power of Nudge for Behavioral Change

## Switching Rate by Treatment Group



Source: Ito, Ida, Tanaka (2016)

# Energy Conservation Project Leveraging BI



“Let’s Join International Sports Events  
by Your Energy Saving Action!”

## Checklist for Energy Saving

**一般部門 横浜カーボンオフセットプロジェクト**

横浜市で行われる  
**ラグビーワールドカップ2019™**  
**東京2020オリンピック・**  
**パラリンピック等に**  
**エコで参加しよう!**

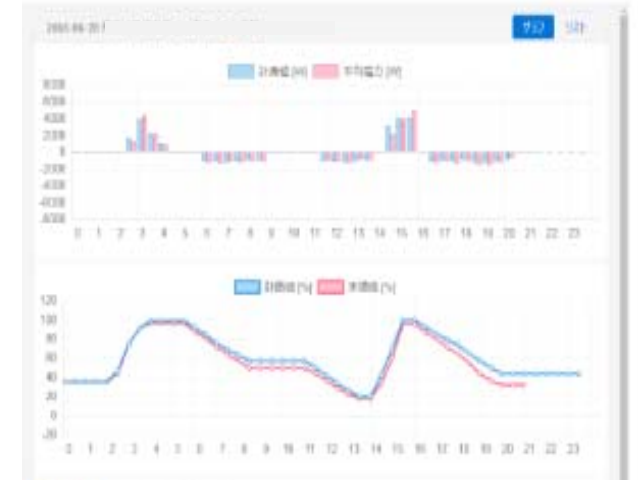
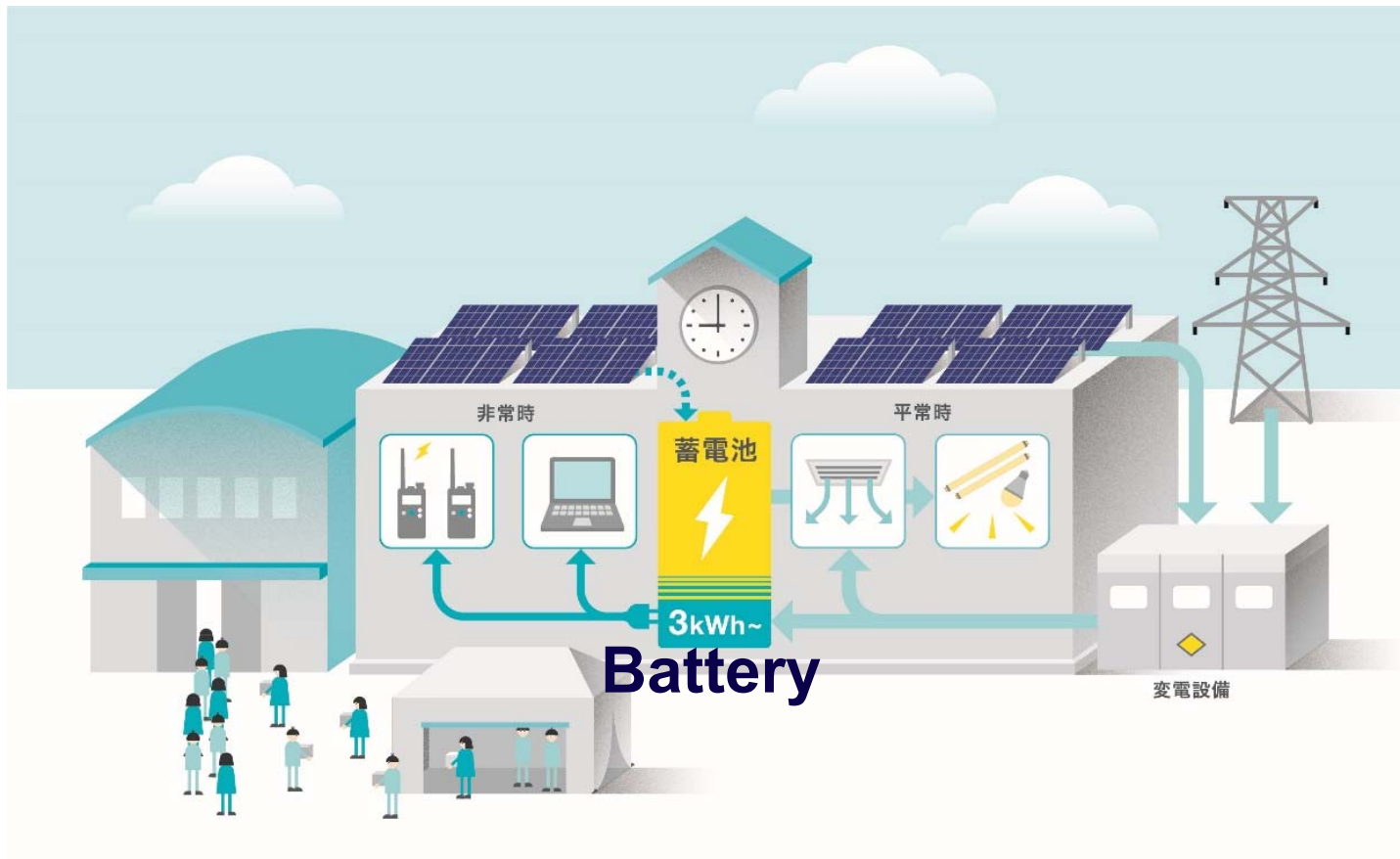
横浜市で行われる大規模イベントを  
環境にやさしい大会にするために、  
みんなで省エネに取り組んで

**Rugby World Cup 2019™**  
**Olympic and Paralympic Games Tokyo 2020**

家族みんなの省エネ行動リスト	できた日数	CO2削減量(g) (1日当たり)	合計(g)
① 洗濯物を干すときは、乾燥機ではなく自然乾燥(天日干し)してみよう。	×	1025 g	g
② 車でおでかけするときは、エコドライブをこころがけよう。	×	943 g	g
③ エアコンの設定温度を1℃下げてみよう。	×	149 g	g
④ 冷蔵庫の設定温度は「自動」モードか、「中」モードにしよう。	×	80 g	g
⑤ シャワーを1分短くしてみよう。	×	79 g	g
⑥ 炊飯器の保温機能は必要なときだけ使おう。	×	59 g	g
⑦ 冷蔵庫の中身はすっきり整理しておこう。	×	57 g	g
⑧ エアコンのフィルターを月に1～2回掃除してみよう。 <small>(掃除してからの日数)</small>	×	54 g	g
⑨ 明かりのつけっぱなしはやめよう。	×	26 g	g
⑩ テレビのつけっぱなしはやめよう。	×	22 g	g
⑪ 部屋を片付けてから、掃除機をかけよう。	×	7 g	g



# Virtual Power Plant (VPP) Project



# Aging Society and Declining Population

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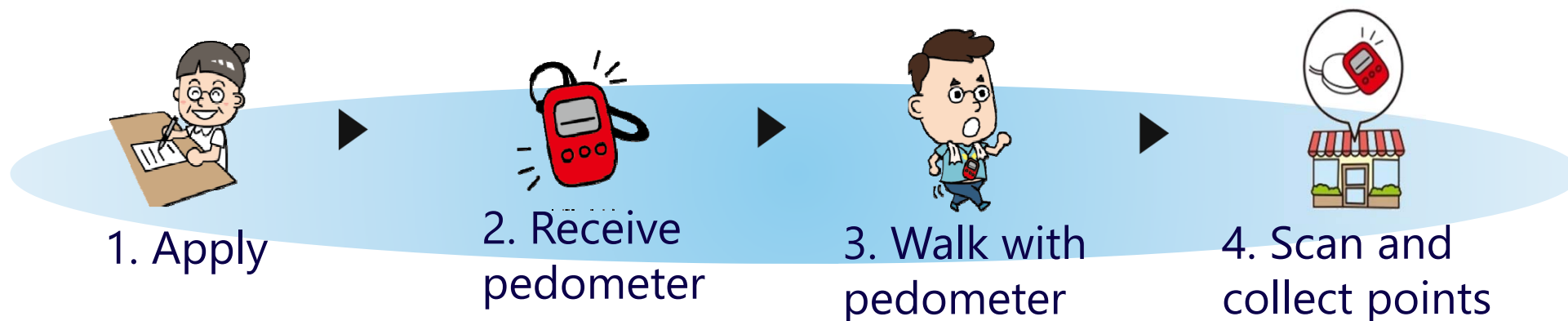


# Yokohama Walking Points Project



\よこはま/  
ウォーキングポイント

いろんなシーンで  
ポイント貯めて、楽しく健康づくり!



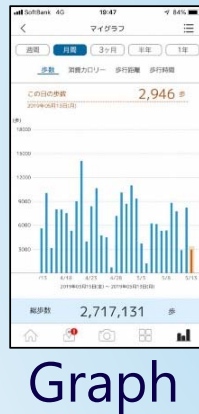
**More than 300,000**

**Yokohama residents currently participate!**

# Application in Terms of BI

Attractive

Easy



Graph

Walking course



Photo

Collection



Incentive

Social



Timely

Pop-ups appear when a new mission is added.



# Great Effect in 2018

Half of the participants developed exercise habits.  
41% realized health improvement

- ✓ Metabolic syndrome, 13%↓
- ✓ Locomotive syndrome, 22%↓



41% of participants are more socially connected.

Customers traffic in 35% of participating shops increased.



# Specific Health Checkups



Health checkups focusing on visceral fat for early detection of non-communicable diseases

**21.9% (2017)** → **40.5% (2023)**



**BI**

# Cardiovascular Disease: second cause of death

**C**ardiac **R**ehabilitation **E**nhancement in **Y**okohama for the **N**ext generation with a **N**ovel approach

## CREYON<sup>2</sup> project



**Exercise × Medication × Food**



**Decreases recurrence of CVD  
and  
healthy life expectancy!!**

# Behavioral Insights × Technology => BI-Tech



CREYoN<sup>2</sup> project





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## III. YBiT (Yokohama Behavioral insights and Design Team)



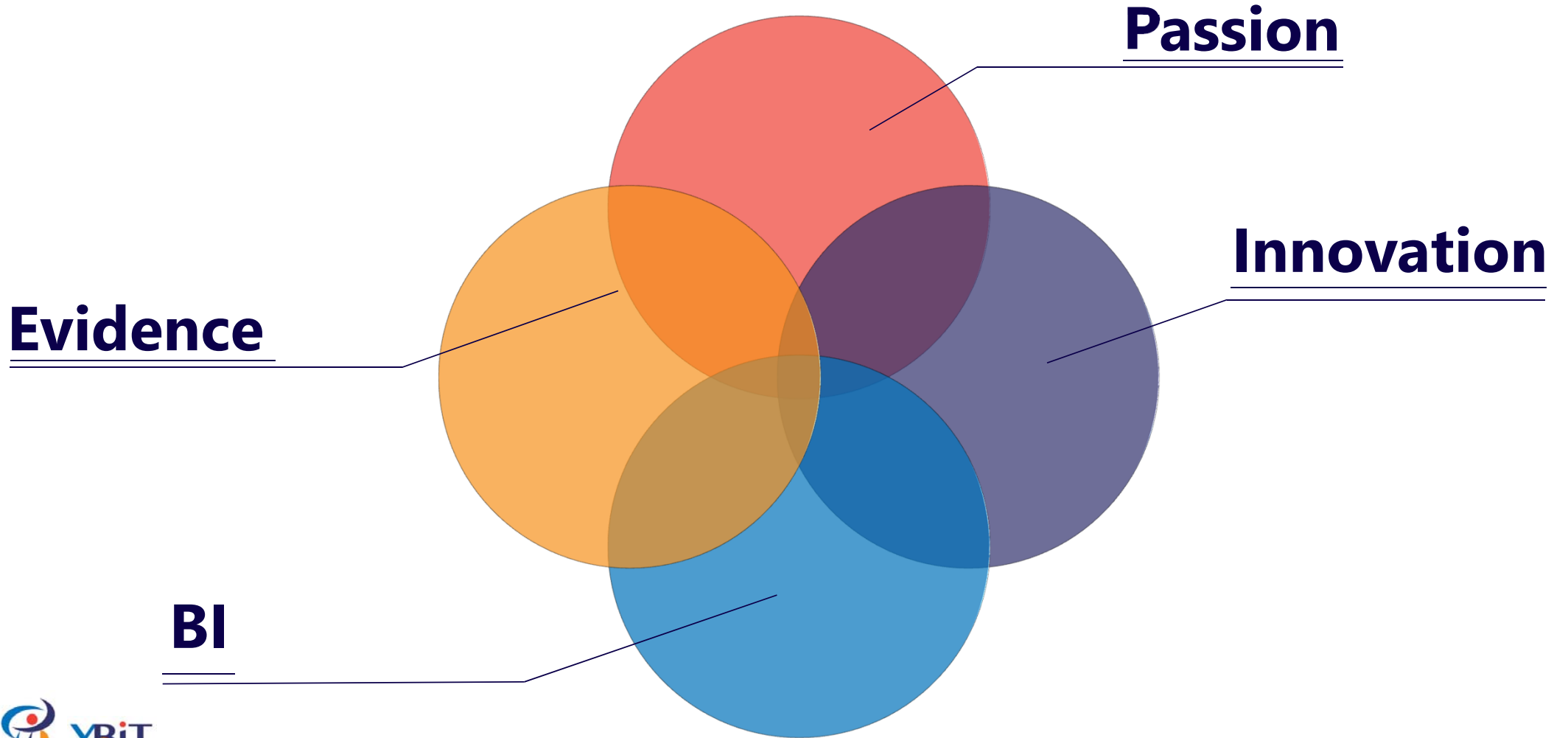


better choice for all

**Yokohama Behavioral insights  
and Design Team**

# Vision

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# Four Key Strategies

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**Cases and toolkits**



**Workshops**



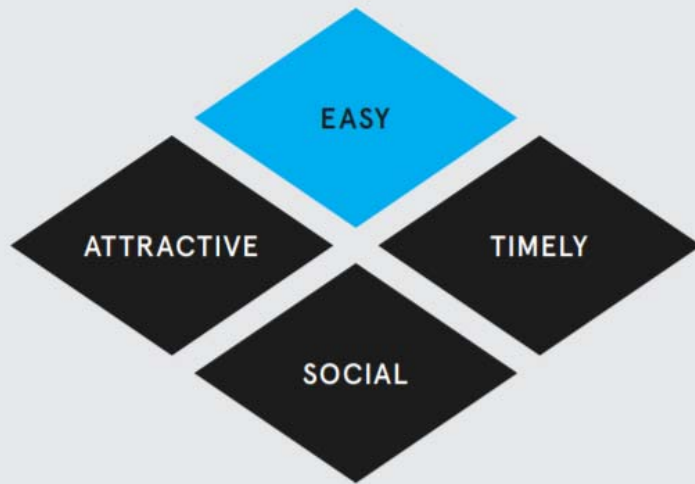
**Program creation**



**Network**

## EAST

Four simple ways to apply behavioural insights



## Utilization

### EASTとは

- ✓ 行動変容を促す施策の検討時に活用できるフレームワーク（頭文字をとり、「EAST」）
- ✓ 英国BIチームが、研究と学術文献に基づいて作成。
- ✓ 効果的な施策について考える際、シンプルで記憶に残るフレームワークを持つことが有用。

簡単に (Easy)  
E-1 デフォルト機能の活用  
E-2 面倒な要因の減少  
E-3 メッセージの単純化

印象的に (Attractive)  
A-1 関心をひく  
A-2 インセンティブ設計

社会的に (Social)  
S-1 社会的規範の提示  
S-2 ネットワークの力の活用  
S-3 周囲へ公言させる

タイムリーに (Timely)  
T-1 介入のタイミング  
T-2 現在バイアスを考慮  
T-3 対処方針を事前に計画



# Workshops

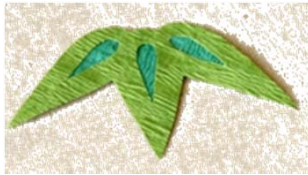




# Program Creation



**Level 3**



**Level 2**

**CREYoN<sup>2</sup> project**

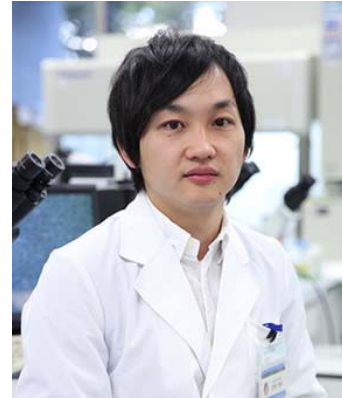
*Handwritten red notes:*  
1. 2019年10月10日  
2. 2019年10月10日



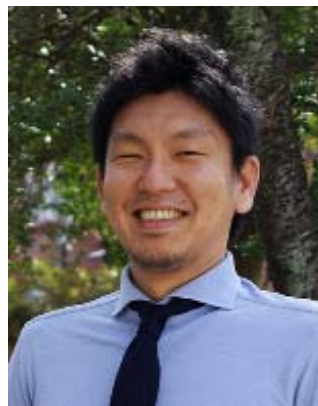
**Level 1**



## Advisory board



**Dr. Takanori Ida**  
**Dr. Fumio Ohtake**  
**Dr. Takeharu Yamanaka**  
**Dr. Takanori Takebe**  
**Dr. Shusaku Sasaki**  
**Dr. Koichiro Ito**  
**Dr. Hiroshi Murayama**

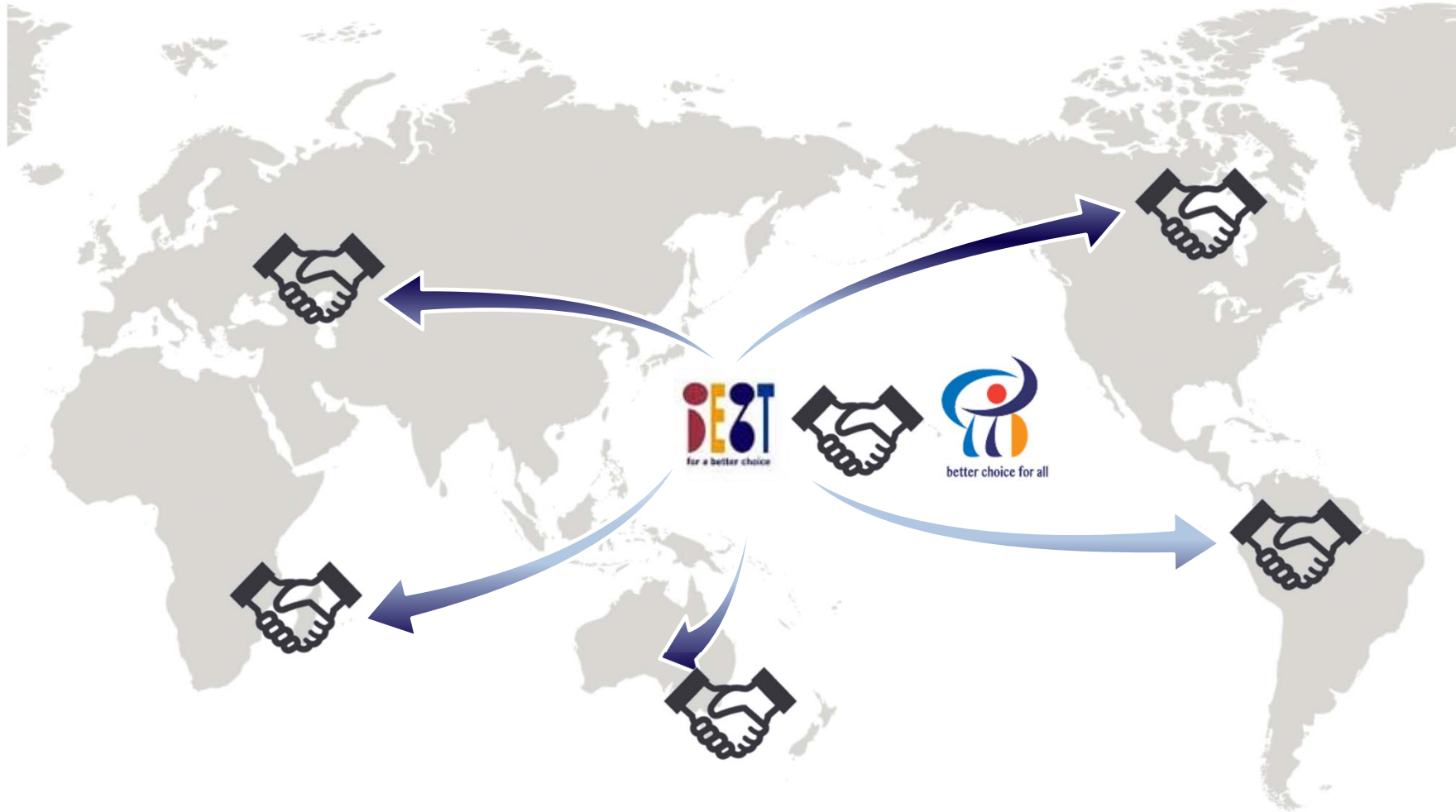


**Behavioral Sciences Team**

*for a better choice*



# Reason for smooth Expansion No. 1



# Reason for Smooth Expansion No. 2

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**We are YBiT core members!  
(All core members are Yokohama City officials.)**

**Thank you for your attention.**