Beyond Mobility

Initiatives for Super Cities and Smart Cities

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Corporate Planning Department
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1. Community-Based Activities
About Regional Revitalization

Our company aims to establish "community involvement" by entering into agreements with local public bodies and working with agents to support local revitalization efforts.

- conclusion of a partnership agreement with local public bodies
- expansion of regional network through support for problem solving
- market development utilizing the regional network

In efforts to resolve issues, we won't stop!

*As of the end of January 2021, including unofficial offers
Cross-Divisional Projects - Regional Revitalization Project (2)

Efforts to resolve issues after the conclusion of the agreement: Contributing broadly to SDGs

**Contributing to local efforts to prevent traffic accidents**
- Provision of traffic safety information using automobile insurance pamphlets
- 10 Year Anniversary Plan: traffic safety events utilizing telematics technology
- Holding traffic safety seminars for local junior and senior high schools by principal agents

**Contributing to local disaster prevention and disaster mitigation initiatives**
- Hosting disaster timeline seminars and providing BCP kits for infectious diseases
- Holding of “power vehicle experience events” to help ensure power supply during disasters
- Hazard map information and "cmap.dev" information provision

**Contributing to the realization of harmony in society**
- Holding lectures by participating athletes and hands-on sports events for the disabled
- Holding traffic safety seminars for foreigners by trainees of the Global Human Resources Course
- Holding web seminars on measures against infectious diseases for foreign nationals in cooperation with the Chamber of Commerce and Industry in Japan

**Initiatives to create a hybrid local community in response to environmental changes**
- In response to COVID-19, WEB seminars and other hybrid events held nationwide
2. About Smart City X
"Smart City X" Initiatives (1)

Creating businesses together under the theme "Smart City in the New Normal Era" Global Open Innovation Program

Smart City X Overview

<table>
<thead>
<tr>
<th>Partner</th>
<th>Supporter</th>
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<tbody>
<tr>
<td>Aioi Nissay Dowa Insurance</td>
<td>idemitsu</td>
</tr>
<tr>
<td>SEKISUI</td>
<td>Eat Well, Live Well.</td>
</tr>
<tr>
<td>NTT WEST</td>
<td>Ajinomoto</td>
</tr>
<tr>
<td>HAKUHODO</td>
<td>Uniquely Yours</td>
</tr>
<tr>
<td>Nihon Unisys, Ltd.</td>
<td>Suzuki</td>
</tr>
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<td>DeNA</td>
<td>LION</td>
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Venture capital "Scrum Ventures" established

Municipality / Providing PoC field & Knowledge sharing

<table>
<thead>
<tr>
<th>Prefecture</th>
<th>City</th>
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<tbody>
<tr>
<td>Mie</td>
<td>Kashima</td>
</tr>
<tr>
<td>Tokyo</td>
<td>Shibuya</td>
</tr>
<tr>
<td>Fukui</td>
<td></td>
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<tr>
<td>Osaka</td>
<td></td>
</tr>
</tbody>
</table>

Mentor / Knowledge sharing & Networking

<table>
<thead>
<tr>
<th>Resource Partner / Solutions &amp; Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon</td>
</tr>
</tbody>
</table>

39 Count ries & Regions

Social Innovation

Consumer Product & Service

Energy, Resource & Sustainability

Connectivity, Infrastructure

Mobility

 Accepted Startups

351
"Smart City X" Initiatives (2)

**Our company aim**
- Creating opportunities for alliance and open innovation with large companies
- Utilizing the fields of local governments that aim for advanced initiatives
- Study of new business models in Super Cities & Smart Cities

**Aim of Scrum Ventures**
- Future commercialization and implementation of concrete advanced services and applications in society, not limited to demonstration experiments
- Providing value from the perspective of the general public through a concrete understanding of various regional issues rather than community development in specific areas
- Realization of community-based, affluent and fulfilling lifestyles and well-being, not from the viewpoint of industry or technology
"Smart City X" Initiatives (3)

Efforts in FY2020

We are proposing Co-creation projects to Mie Prefecture and Shibuya Ward, which are participating municipalities, as fields for demonstration projects.

- **"Mobility" area**
  - Creating "Community Safety MAP" using telematics data
  - Considering "traffic congestion avoidance" from the reward program by our partner Miles

- **"Disaster prevention and mitigation" area**
  - Considering the use of "cmap"
The establishment event in August last year was covered by many media including NHK*.

NHK Online News Article <Excerpt>
"Smart City X" Aiming to Enhance Convenience in Daily Life with Digital Technology

Large companies and startups from a variety of industries, including transportation and insurance, are launching a joint project aimed at DX = Digital Transformation, which will greatly improve the convenience of everyday life with digital technology. We will develop new services related to daily life following COVID-19.

The project "Smart City X" was announced on the 26th.

Among the major companies, JR East, Aioi Nissay Dowa Insurance, Toyota Motor's "TRI-AD" and 6 other companies involved in software development such as automated driving will participate, aiming for DX = digital transformation that greatly improves the convenience of daily life by making full use of digital technology.

Takuya Miyata, CEO of the Silicon Valley investment company "Scrum Ventures" who called for the project, said, "As an opportunity to digitize changes in customs triggered by the new coronavirus, I would like to create positive social change through cooperation between companies."

* NHK: Nippon Hoso Kyokai : Japan Broadcasting Corporation

Broadcasted multiple times on the day and the next day by NHK. Widely distributed in Japan and overseas through various media such as Nikkei, Business Insider, and The BRIDGE
日本勢6社、世界の新興と

トヨタ自動車のグループ会社や出光興産、JR東日本など国内企業6社が、新たなスマートシティ開発で世界のスタートアップとの提携に動く。新型コロナウイルス禍で生まれた新たな働き方や移動手段、通信環境などの分野で、技術革新のアイデアを集めよう。合弁会社の設立やスタートアップへの出資を通じて実用化を目指す。

8月26日（水）朝刊

日本経済新聞

トヨタ系や出光、JR東

あいおいニッセイ同和損害保険、日本ユニコム、博報堂など国内のほほ。

「Smart City X” Initiatives (5)」 Morning edition of the Nihon Keizai Shimbun on 2020/8/26
3. The World We Want to Realize
Our company, local authorities and startups make "livability" a reality for residents.

Municipalities

Residents

Startups

Aioi Nissay Dowa Insurance

Utilizing the 10 billion yen venture investment quota of Aioi Nissay Dowa
Our company aims to provide new value by multiplying the data collaboration platform accumulated at Super City & Smart City by the data collected by us.
Our Company's Aim (Mobility)

"Beyond Mobility" powered by "Data"

Using telematics data (Length: 450,000 circumferences of the Earth)

Using publicly available data

Using partners' data

Strategy to connect all areas of life

Super City

Building a digital infrastructure and platforms that support livelihoods

Product & service strategy focusing on connected vehicles

Autonomous driving and mobility services

Connected vehicles (telematics)
Our Company's Aim (Philosophy)

Through this initiative, our company provides residents and local companies with a safe and secure society. We aim to be a company that can support new innovation through non-life insurance.

Aioi Nissay Dowa Insurance

Push from new innovation

Point 1

Services from the consumer's perspective
Safe and secure society

Point 2

Pursuing a company that is truly chosen by customers in the region

Aioi Nissay Dowa to become more strong in retail business
4. Introduction of Specific Activities
As an insurance company, it is essential to **identify the risks** involved in Smart Cities from the verification stage and to **provide risk hedging methods** as soon as they are implemented in society.

**Users (residents)**
- Supporting fun activities
- Supporting the Realization of a Safe, Everywhere Life

**Operator (local government)**
- Supporting safe business operations
- Supporting increased attractiveness of operational services

**Participating businesses**
- Supporting construction of new service systems
- Support for providing substantial compensation in the event of an accident

**Added value of peace of mind to the convenience of Smart Cities**

**Compensation for user use risks**

**Compensation for operational risks**

**Compensation for the service itself**

Will it be accepted by users?
Will it be an attractive service?
Is it really convenient?
Can you deal with the trouble?
Is it profitable?
Does it make sense to participate?

MS&AD Insurance Group Holdings, Inc.
Introduction of specific examples currently under way

[Major Local Governments]

<table>
<thead>
<tr>
<th>Region</th>
<th>Local government</th>
<th>Recent Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tohoku</td>
<td>Yahaba-cho, Iwate Prefecture</td>
<td>➢ 3/1 Submitted for public offering (waiting for results)</td>
</tr>
<tr>
<td>Kanto</td>
<td>Kamakura</td>
<td>➢ Chosen as a Super City collaborator</td>
</tr>
<tr>
<td></td>
<td>Maebashi</td>
<td>➢ Chosen as a Super City collaborator</td>
</tr>
<tr>
<td>Kinki</td>
<td>Osaka City, Osaka Prefecture</td>
<td>➢ 2/26 Submitted for public offering (waiting for results)</td>
</tr>
<tr>
<td>Chugoku, Shikoku</td>
<td>Takamatsu</td>
<td>➢ Chosen as a Super City collaborator</td>
</tr>
<tr>
<td>Kyushu</td>
<td>Nobeoka</td>
<td>➢ Chosen as a Super City collaborator</td>
</tr>
</tbody>
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*In addition to the above table, discussions are ongoing on "Shibuya-ku" "Mie Prefecture" and "Tsukuba-shi"
[Initiative I] Use of the startup "Miles" (1)

- We are considering developing an app that uses the data from "means of transportation" and "mobility information".
- Accumulating and utilizing "mobility information" to contribute to the development of safe and secure communities.
- Local governments and partner companies issue coupons to users to provide them with added value.

**What is Miles?**

- **Silicon Valley-based** startup (established in 2016) (Seed/6.1 M, as of March 2020)
- **Developing an application that gives users points according to the means of transportation and distance and allows users to exchange them for benefits.**
  
  The nine categories of walking/running/bicycle/car/ride share/car pool/bus/train/ship/airplane are determined using an original algorithm.

**Accumulating points by moving**

- Miles app

**Converting points into coupons**
Real and diverse human flow data is acquired from Miles, aiming at optimum traffic improvement and economic vitalization.

- **Controlling the means of transportation by giving points according to the means of transportation**
  *Data is also used to optimize the operating hours of railways and route buses.*

- **Revitalizing local economies and acquiring and utilizing settlement data through reward coupons**

**[Initiative I] Use of the startup "Miles" (2)**

**Using data to suggest more optimal and personalized routes**
[Initiative I] Use of the startup "Miles" (3)

Data visualization by Miles

※ Number of data items:1838 / Number of participants: 8 (As of March 11 2020)
Switching from driving private cars to other means of transportation attracted by adding points

Eliminate congestion

[Example of proposal to Maebashi City]

<table>
<thead>
<tr>
<th>Popularization of private cars</th>
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</thead>
<tbody>
<tr>
<td>Prefectures</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>1 Gunma</td>
</tr>
<tr>
<td>Maebashi city</td>
</tr>
<tr>
<td>2 Tochigi</td>
</tr>
<tr>
<td>3 Ibaraki</td>
</tr>
<tr>
<td>4 Toyama</td>
</tr>
<tr>
<td>5 Yamanashi</td>
</tr>
<tr>
<td>47 Tokyo</td>
</tr>
<tr>
<td>Japan</td>
</tr>
</tbody>
</table>

Data: As of March 2017
Japan Automobile Inspection and Registration Information Association

It is possible to incentivize people to use particular mode of transportation by adding points. Examples: 10x points for train and bus; 5x points for bicycle. (Such incentives for subway are also used in the US to eliminate road traffic jams)

- Possible to change point coefficients depending on mode of transportation
- Mode of transportation identified based on data from GTFS and Wi-Fi
MS&AD Insurance Group Holdings, Inc.

[Initiative II] Safety MAP (1)

✓ Scoring user's driving data to compete with other users like in a game
✓ Participants in the event experience "Fun eco and safe driving" and promote safe driving by residents

Event Summary

[Community Participatory Eco-Driving and Traffic Safety Campaign Promotion Events]

- Participants are given tags using telematics technology.
- The status of driving is checked with a smartphone app.

[Duration]
About 1 ~ 2 months

[Tag cost]
Free

[Tag distribution limit]
200 pieces

[Participants]
Individuals, individual groups, corporations, local government groups, etc.

Points

Aioi Nissay Dowa Insurance holds an event for local residents to experience how to promote "Eco-driving and safe driving" using new technology.

With cooperation with local governments, it is expected that the increased number of participants will contribute to safe driving.

We provide a great opportunity to enjoy and objectively check safe driving techniques. We can also contribute to the creation of an environmentally friendly automobile society by promoting eco-driving.

<Events held>
Miyakojima City  Saga City  Saitama Prefecture

MS&AD Insurance Group Holdings, Inc.
<About Traffic Safety Maps>

- **Mapping hazardous areas** based on travel data collected at events
- Traffic safety measures such as identifying dangerous areas and **improving the road environment**

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**Points**

- school facilities, Visible

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**Mapping Image**

Data obtained on driving operations are plotted on a map

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**Key data obtained from driving**

- sudden brake
- sharp handle
- rapid acceleration
- smartphone use
- overspeed
5. Our Company's Ideal
Ideal: Dealing with local governments

**Until now ・・・**

Continuation of community-based business

**From now on ・・・**

Co-creation with local governments

**Agreements concluded: 326 ***

*As of the end of January 2021, including unofficial business partners*

- Utilizing our company's strengths in regional networks, we conclude agreements with local governments.
- We have worked together with agents to establish "community-based sales" by supporting the resolution of regional revitalization issues.

**Support for the creation of local areas**

- Our company & agents
- Local public bodies
- Local financial institutions
- Local companies
- Industry associations
- Mass media
- Universities
- Fire departments

**Both approaches maintained**

- Super City
- Smart City

**New mobility**

- Flying car
- Drone

**Beyond Mobility**

- Telematics

**Positioning as "Phase 2" for regional revitalization efforts**

- Aiming for a new co-creation model with local governments through Super City & Smart City initiatives
Aioi Nissay Dowa Insurance