

M O N E T

The letter 'O' in the word 'MONET' is replaced by a circular illustration. The illustration depicts a cityscape with a blue sky, white clouds, and a green ground. In the center of the circle is a white circle with a smaller white circle inside it. Below this central circle is a blue car with the word 'MONET' written on its side. The car is on a green hill with a few houses and a tall tower in the background.

MONET TECHNOLOGIES INC.

MONET = All Japan

SoftBank



HONDA



ISUZU



Corporate profile

“Life will get much better with mobility services”

Name	MONET Technologies Inc.
Location	3-3-1 Marunouchi, Chiyoda-ku, Tokyo
Foundation	September 28, 2018 (Joint venture: January 23, 2019)
Management	<p>President and CEO: Junichi Miyagawa</p> <p>Vice president and COO: Shibao Yoshihide</p> <p>Director: Keiji Yamamoto</p> <p>Director: Ryuji Wakikawa</p>
Capital	50 billion JPN *1
Shareholding structure *2	<p>Softbank Corp:37.3%, Toyota Motor Corporation:37.0%</p> <p>Hino Motors Ltd.:10.0%, Honda Motor Co.Ltd.:10.0%</p> <p>Isuzu Motors Limiyrf:1.1%, Suzuki Motor Corporation:1.1%, SUBARU Corporation:1.1%, Daihatsu Motor Co.Ltd:1.1%, Mazda Motor Corporation:1.1%</p>
Services	<ol style="list-style-type: none"> 1. On-demand mobility services 2. Data analytics services 3. Autono-MaaS business *3

*1 Includes legal capital surplus

*2 Rounded off at the second decimal place

*3 “Autono-MaaS” is a new word created by combining “Autonomous vehicle” and Mobility as a Service (MaaS).” It describes services that use autonomous vehicles provided by Toyota.

Society MONET aims to realize

MONET aims to realize people's **enriched welfare** by not only **making their travels convenient**, such as essential shopping and communing to hospitals, but also creating **novel mobility value** that has never existed before.



The transportation vulnerable, shoppers with little means of transportation, local transportation issues

Problem solving

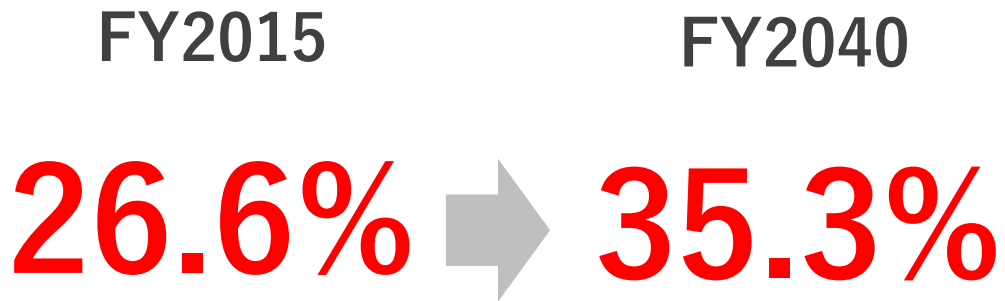
Creation of innovative mobility services

Community revitalization

Social issues we face

Aging society

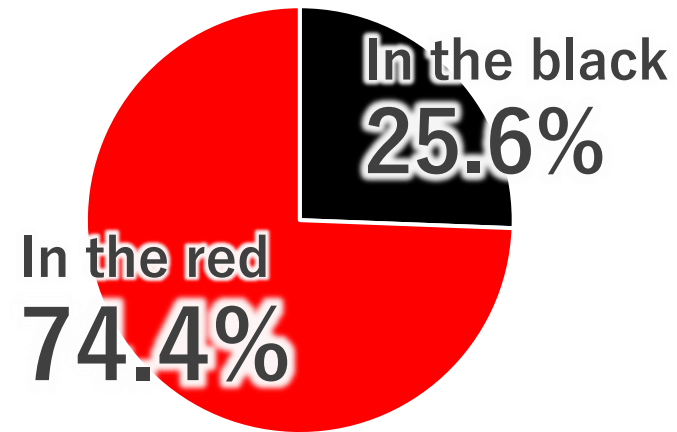
Ratio of population at 65 or older in total population (Aging ratio)



Cabinet Office, White Paper: Aging Society, 2021

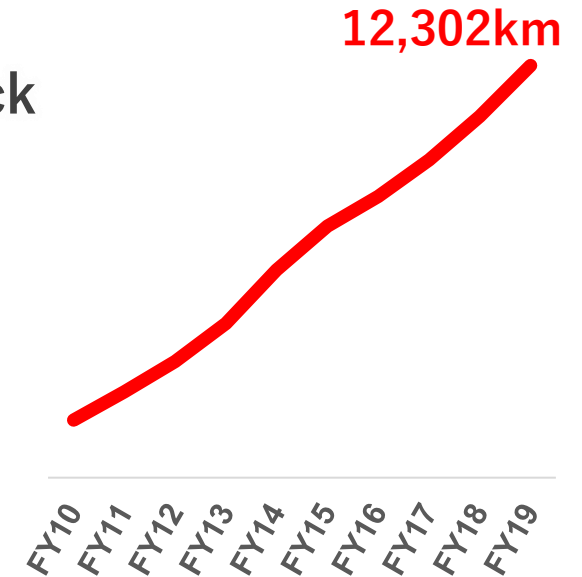
Retention of local transportation

Balance of shared bus operators (FY2019)

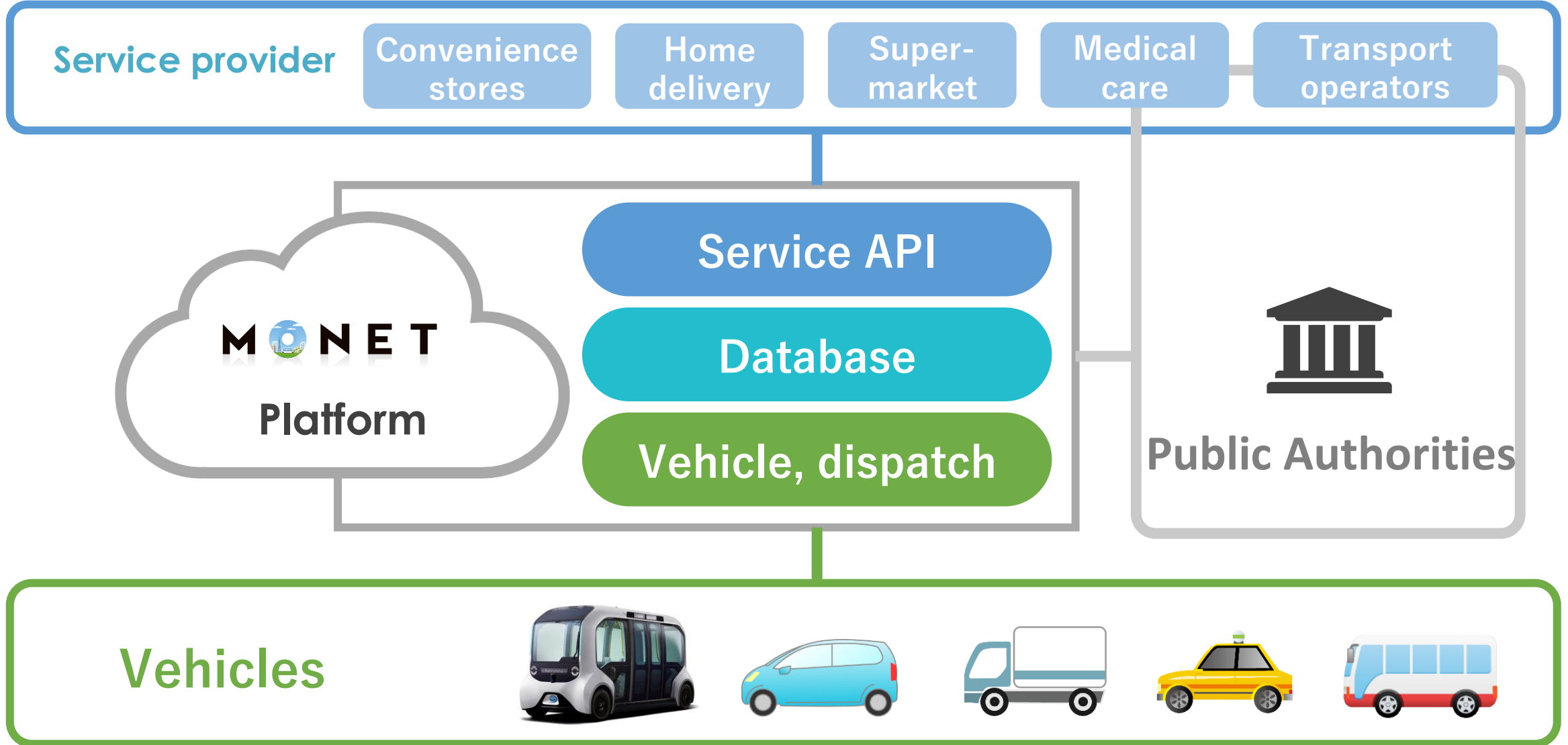


Ministry of Land, Infrastructure and Transport, White Paper: Transportation policies, 2021

Length of discontinued fixed-route bus lines (FY10-19, total)



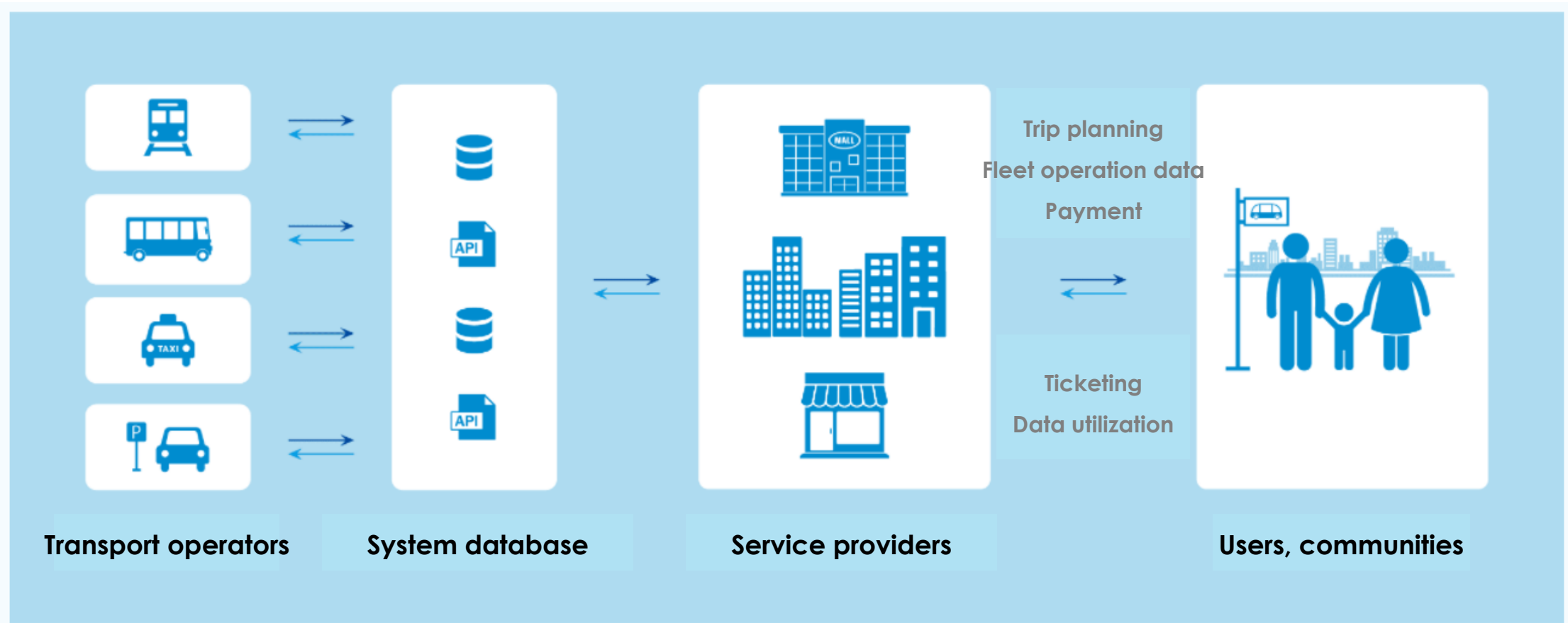
MONET=Platform provider in the autonomous driving era



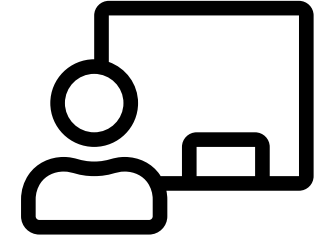
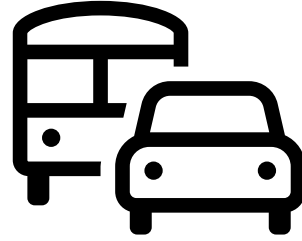
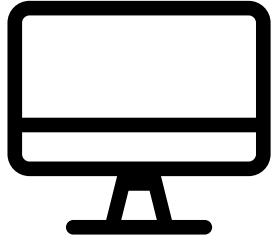
MaaS is ...

“MaaS” stands for “Mobility as a Service.”

MaaS integrates mobility data such as automotive travels etc., produces innovative services, provides customers with novel added values, and then plays an important role in community development as a result.

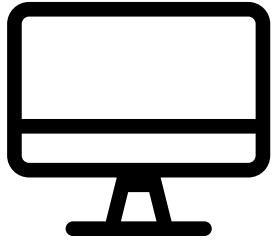


Factors of MaaS



System × **Mobility** × **Expertise**

No easy to implement/continue MaaS business



System

MaaS = Realtime supply-demand matching



Realtime supply-demand network realizes value-added services.

What are To-Be Supply and Demand models?

To-Be Demand model (for citizens)

e.g.,

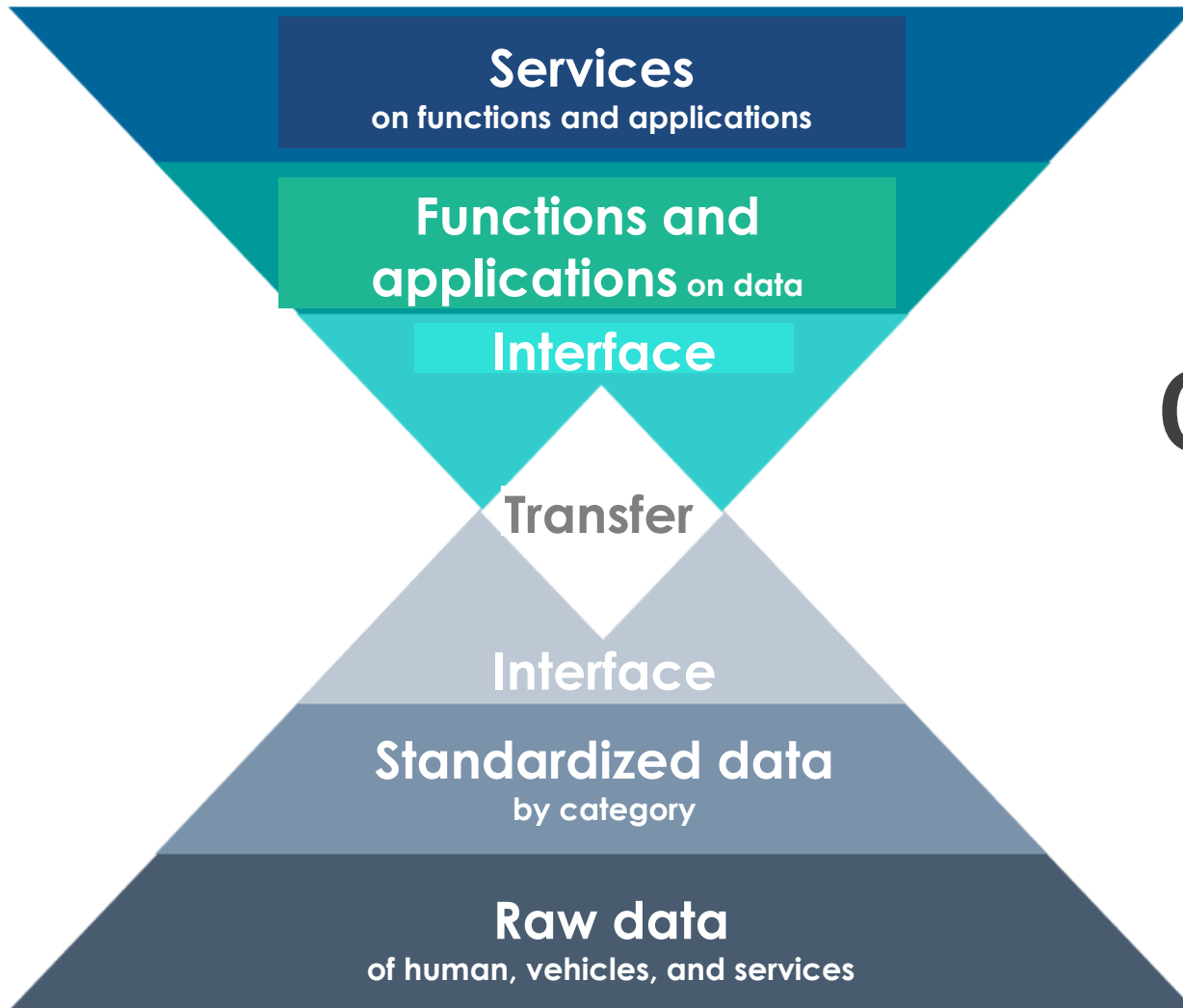
- Can move when needed without waiting
- Provided with services right away when needed

To-Be Supply model (for vehicles)

e.g.,

- Can provide services at the right timing
- Can make the supply optimized and efficient/fully utilized

For real-time supply and demand matching



Collection and transfer
of human, vehicles
and service data

Example of “Demand data” collection



Human movement data = demand movement

Example of “Supply data” collection

MONETプロジェクト車両管理画面
リアルタイム： 2019/05/29 09:54 現在

2019/05/29 09:55:10 1 (TQ600216) 豊田330あ3131

稼働状況
稼働中: 27.1%
停止: 72.9%

日別走行距離 (km)
05/15(Wed): ~100
05/16(Thu): ~100
05/17(Fri): ~100
05/18(Sat): ~100

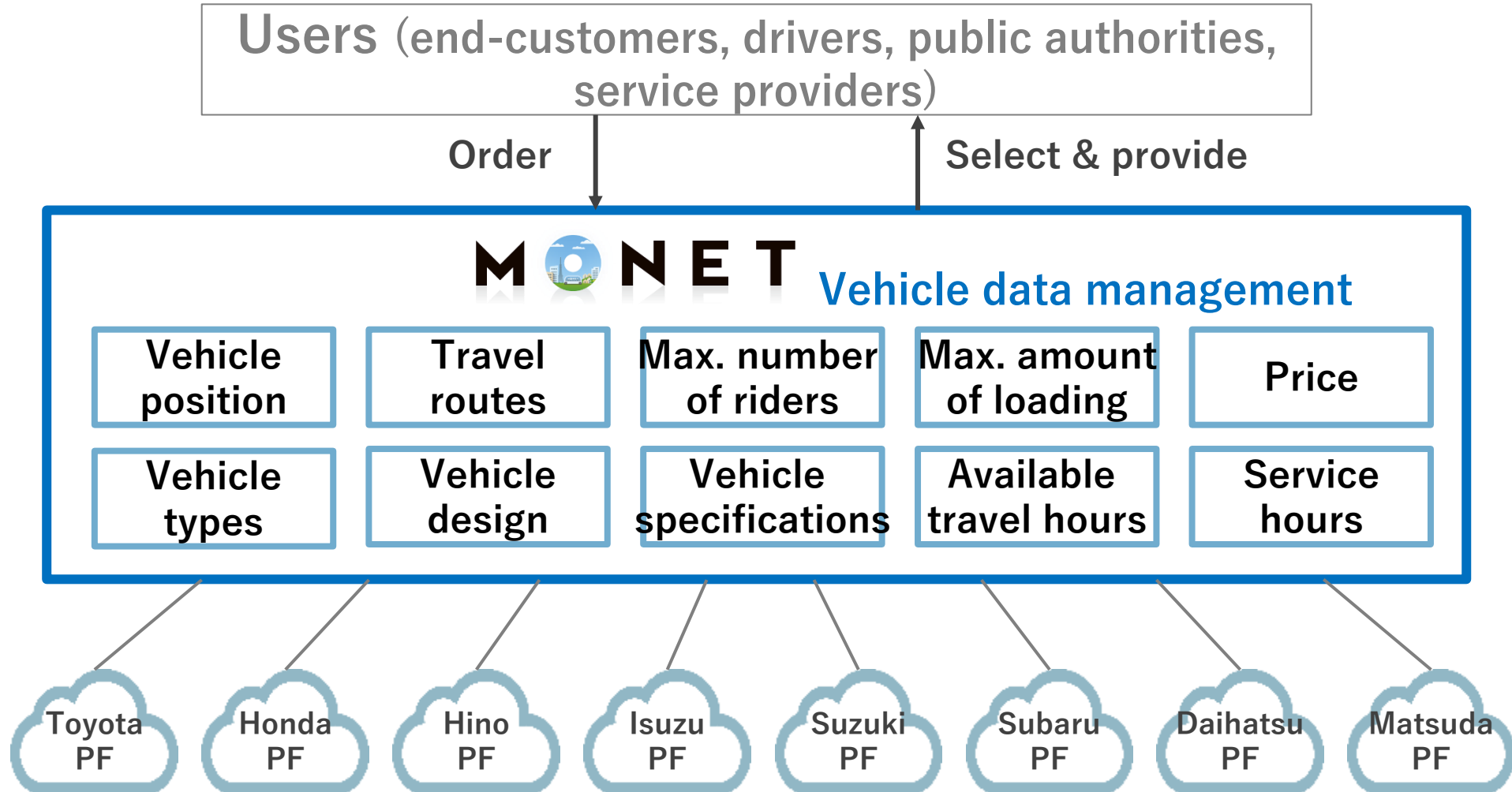
Speed (km/h), Engine RPM, X-axis acceleration (G), Y-axis acceleration (G), Z-axis acceleration (G)

TransLog
ステーション表示: Off
指定した条件で表示
ステーションコード
ステーション名
車両表示: On
指定した条件で表示
車両ID
車両ナンバー
リアルタイム: On
走行軌跡: On
指定した条件で表示
表示中の走行軌跡を出力
モード選択: 物番 検出
日付

Vehicle travel data = Service supply

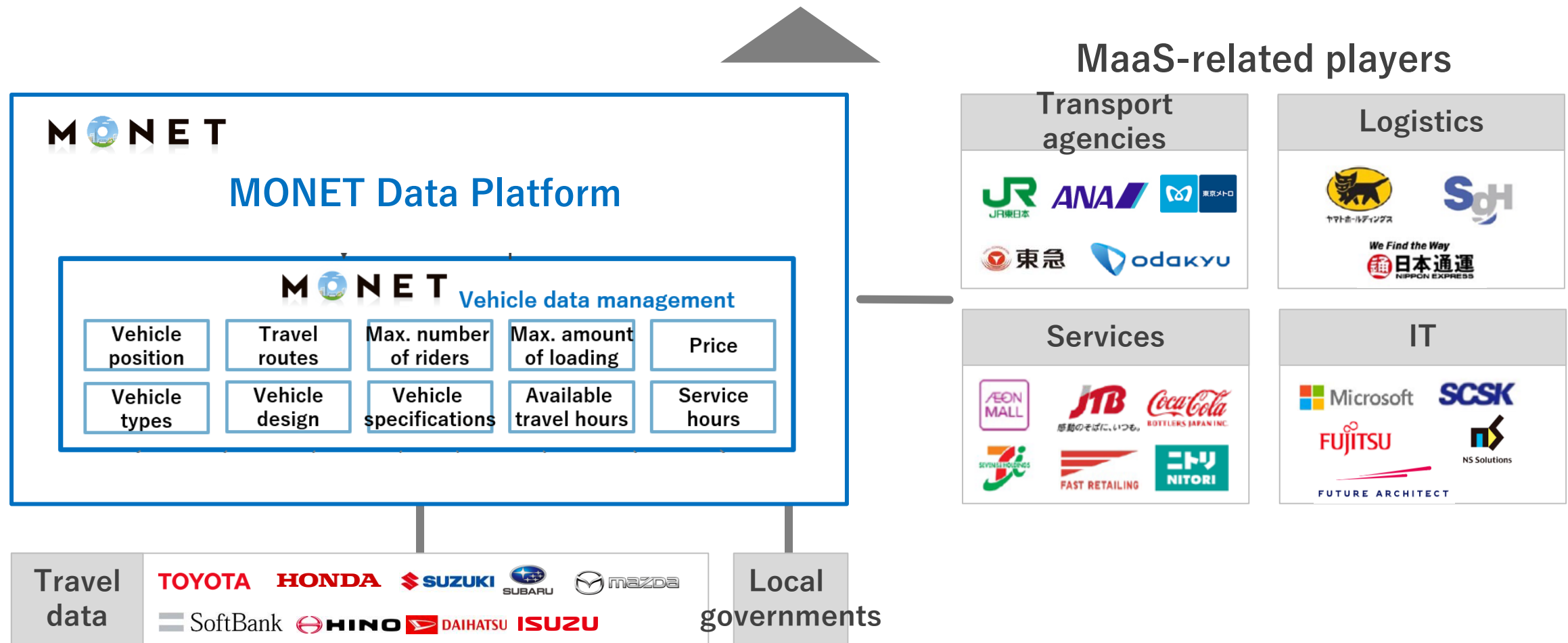
“Supply data” arrangement model

Data/vehicle arrangement by order



Data and service sharing is essential among public authorities and corporations for expansion of MaaS

Public authorities, transport operators, corporations, and citizens



Retail



Logistics



Trading houses



Leading companies in each sector



Services



686



Media



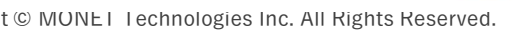
Foreign affiliates



Real estate



Transportation



Issues on data/service sharing

1

Similar conflicting services/applications abound

What are competition/cooperation areas?

2

Confidential data must not be shared with others

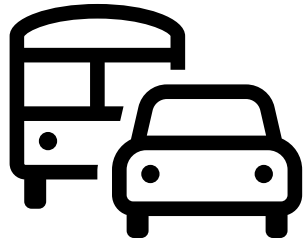
What is the added value for data sharing among organizations?

3

Permission for use must be obtained from end-users

What is the added value for end-customers?

Ideas to accelerate data/service sharing must be thought out.



Mobility

Roadmap for autonomous driving

Levels of autonomous driving

Level	Level name	Steering	Travel zones
1	Driver assistance (Conventional cars)	Human	Limited
2	Partial automation (Hands-off)	Human	Limited
3	Conditional automation (Eyes-off)	System	Limited
4	High automation (Brain-off)	System	Limited
5	Full automation	System	Unlimited

Technology development



- Vehicle, monitoring center, camera performance, traffic lights response etc.

Infrastructure improvement



- Road conditions, designated lanes, network environments, tree logging etc.

Regal regulation amendment



- Many of the related regulations are under discussion.

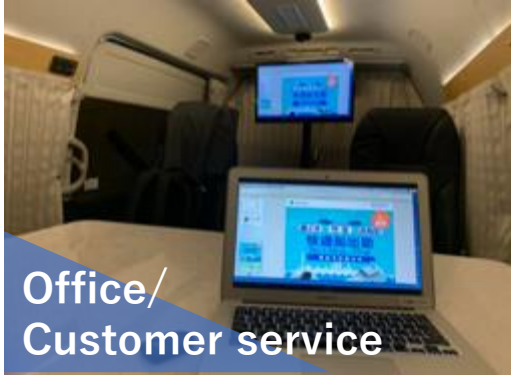
Securing profitability



- Vehicle costs are high.
- A team of two (crew/remote supervisor) costs twice.

Multi-Task Vehicles

Coordinate interior by service



Office/
Customer service



On-demand shuttles



Tourism/Amusement



Municipal offices/
Onboard sales



Medical care/
Nursing



Transportation
in a disaster

Verify vehicles for MaaS towards autonomous driving era

Mobile medical services that make online medical care “Mobile Clinic”

Lessen burdens of patients to visit hospitals/doctor's offices



Online connection



Neighborhood

Online medical care



Nurse



Online medical equipment



On-site public services equipped with an online counter “Mobile Public Office”

Mobility-utilized **Integrated emergency drills**



Online **Sign language consultation**



Application cases

- Consultation service desk
(Public services, tax, employment)
- Welfare, nutrition, maternity consultation
- Specific health guidance
- Sign language consultation for the hearing impaired
- Integrated emergency drills

Things to think about in the mobility area

1

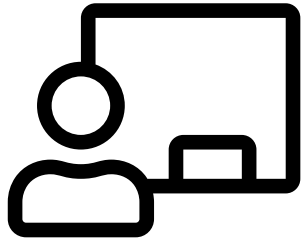
Ideas to let autonomous driving sink in

- Importance of safety and reliability and importance of convenience
- What are autonomous driving services that citizens need? What are social movements?

2

Vehicle interiors for autonomous driving

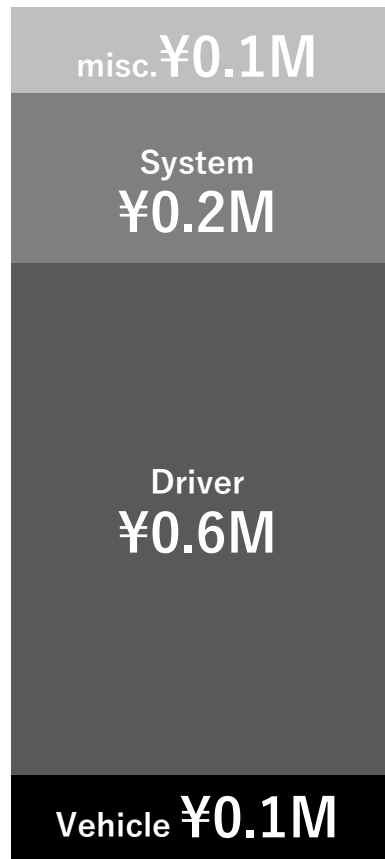
- What are autonomous driving services that citizens need? What are social movements?
- What are vehicle interiors and facilities that fit various services?



How to realize MaaS

Revenue structure of MaaS

No easy to secure profitability of MaaS



Cost
¥1M
/month

Business days /mth	20 days
Business hours /day	8 hours
Num. of transports /hr	3 (every 20 min)
Num. of passengers /transport	5
Transportation fee /passenger	¥300

Sales
¥0.72M
/month

- ▶ Misc.: Parking, Gas etc.
- ▶ System : Dispatching, Fleet management
- ▶ Driver: 8 hrs. * 20 B days
- ▶ Vehicle: Hi-Ace 3 year-lease

What are your thoughts about how to secure profit? Please share your ideas.

1

What to do to increase sales

- Measures to increase users
- Introduction of high-price services

2

What to do to reduce costs

- Reduction of vehicle maintenance costs (e.g., by sharing vehicles)
- Saving driver costs (as short/mid-term measures until full automation)
- Cutting system development/maintenance costs
- Saving gasoline costs (EV expansion = Status check-up of the infrastructure development for charging stations)
- Reduction of parking costs



**Life will get much better with
mobility services**

