

KDDI's Initiatives toward Metaverses and Issues related to Design

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OONO Takuya
General Manager
Intellectual Property Department
General Administration Division
KDDI CORPORATION

Agenda

1. What is Metaverse?
2. KDDI's Initiatives ~ Real City-linked Metaverse
3. Virtualcity Guidelines and Issues related to Design



What is Metaverse?

Components of Metaverse

"Metaverse"

= "SNS-based online games"

x "Web3 (item ownership and user-centered economic activities)"

	Before Metaverse	Pre-Metaverse	Metaverse
a virtual environment composed of three-dimensional "space"	Y	Y	Y
The existence of a manipulable alter ego (avatar) and the ability to operate in a virtual environment using the avatar	Y	Y	Y
Real-time Interactivity	Y	Y	Y
Permanent accessibility from multiple devices	N	Y	Y
Ability to connect simultaneously and to share a virtual environment by an extremely large number of people	N	Y	Y
Interoperability with other virtual environments	N	N	Y
The existence of an autonomous economic zone within a virtual environment	N	N	Y



KDDI's Initiatives ~ Real City-linked Metaverse

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New city development utilizing real city-linked metaverse



- Real city-linked metaverse (= virtualcity, au version metaverse) is a metaverse in which real and virtual worlds are fused centering on the real city. It aims to expand the real world using the Metaverse.
- KDDI, together with local governments and urban stakeholders, aims to create new city development where real cities and virtual spaces are linked and developed together.

“Virtual Shibuya”

Shibuya Ward-official distribution platform, the first municipality-official virtual business in Japan, launched in May 2020.

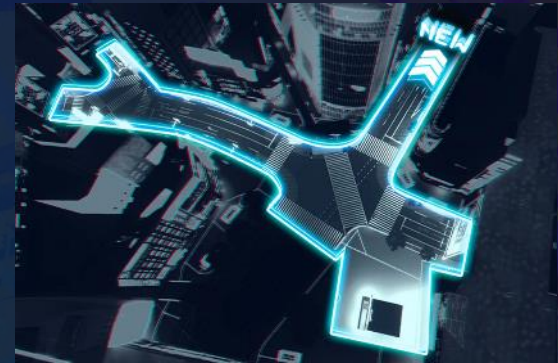
KDDI builds a space on the cluster. Available in platform-on-platform format.

The most distinctive feature of this virtual space is that it is not planned and operated by a single metaverse operator, but is a virtual space in which multiple stakeholders related to Shibuya cooperate and are linked to real cities.



< Range of Motion >

- Expanded to the area in front of MODI since April 2021



au 5G
バーチャル渋谷 ハロウィンフェス

HalloweenFes

2021

楽しむ、それが未来をつくる。
FUN FOR GOOD

今年の渋谷のハロウィーンは、
ただ楽しいだけじゃない。

熱狂的なエンターテインメントと
最先端のテクノロジーを掛け合わせ、
“楽しむことが、より良い未来につながる”
ハロウィーンを実現します。

一人一人が楽しんだ分だけ、
この街の未来が出来あがっていく。
誰もが、どこからでも楽しめる
バーチャル渋谷でのハロウィーン、開幕です。

#バーチャル渋谷 #FunForGood

10.16 Sat - 10.31 Sun

Over 1 million people in total have experienced it

渋谷5G
エンターテインメントゾーン

FUTURE
DESIGN
SHIBUYA
2020-2021

PLAY!
DIVERSITY
SHIBUYA
— 2020-2021 —

電力パートナー

東急 東急不動産

SHIBUYA109
ENTERTAINMENT

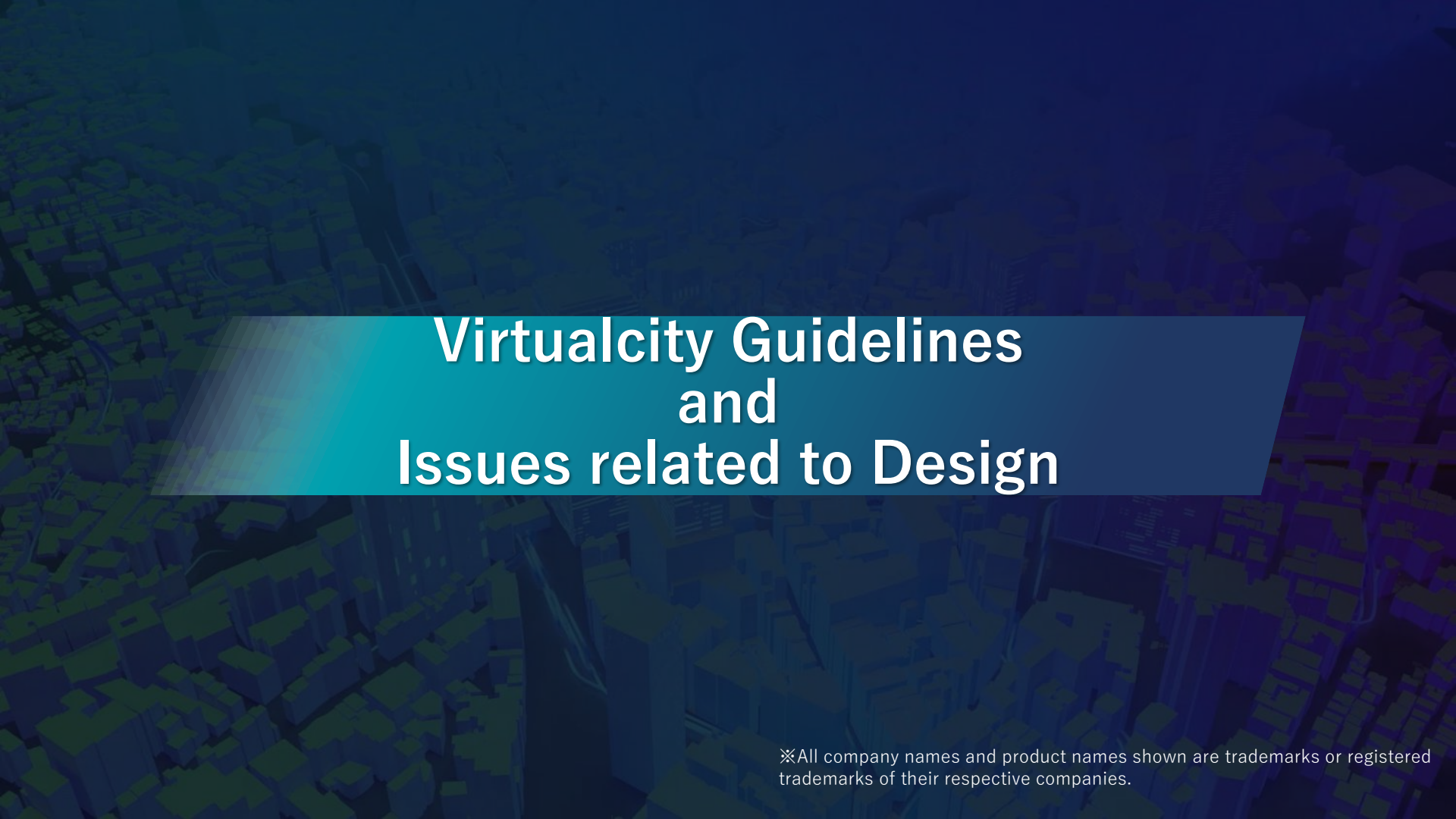
Adobe

TOKYO MX

LAWSON
ENTERTAINMENT

CHARGE
SPOT

後援: 東京都 渋谷区 渋谷区
Shibuya City



Virtualcity Guidelines and Issues related to Design

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バーチャルシティコンソーシアム

VIRTUALCITY CONSORTIUM

au 5G



東急

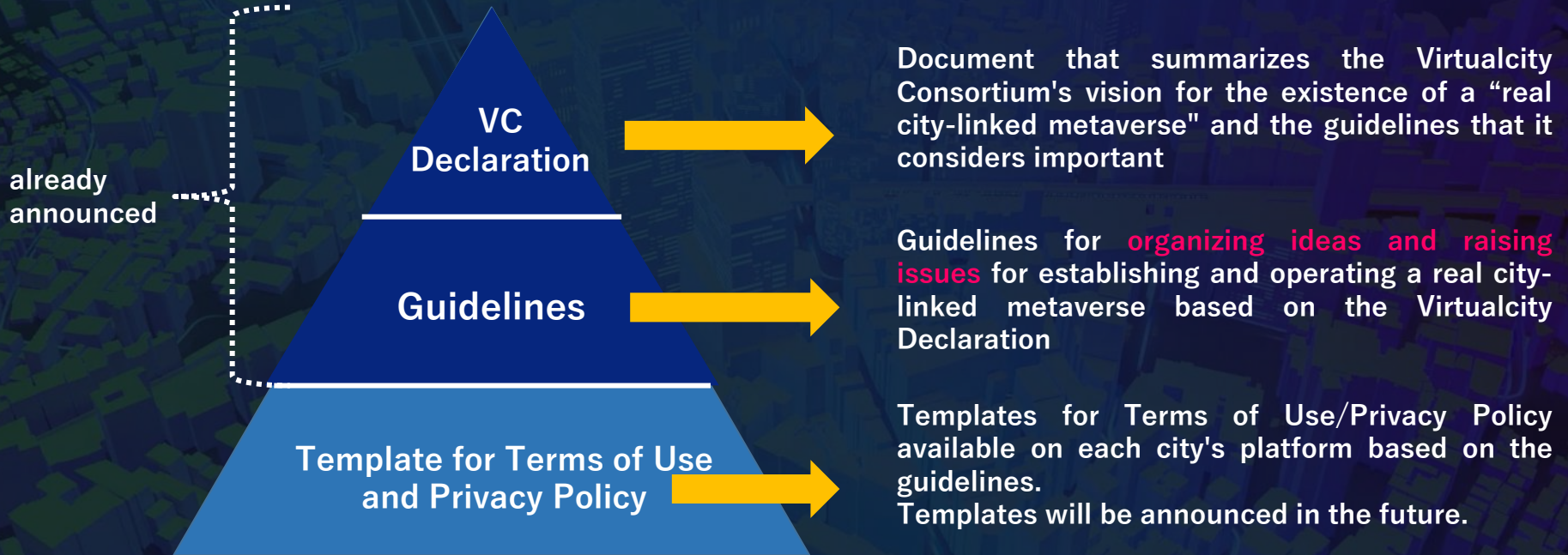
MIZUHO

みずほリサーチ&テクノロジーズ

渋谷未来
デザイン

Activities of the Virtualcity Consortium

- As the metaverse develops, it is necessary to **clarify the issues to be addressed and discussion points**.
- "Declaration of Virtualcity" and "Virtualcity Guidelines ver. 1" were announced.



Key Topics for Virtualcity Guidelines

Real City-linked Metaverse

Reproduction and modification of real city landscapes

Concept of "publicness"

Cooperation with real cities and arrangement of commercial distribution

Items that need to be organized in real city-linked metaverse

Metaverse

Revitalization of the creator economy

UGC Copyright

Ownership of data and digital assets

Avatar's portrait rights and publicity rights

Items that need to be organized in both metaverse and real city-linked metaverse

Issues related to design in the (urban city-linked) metaverse

- **Reproduction of urban landscapes, buildings, signboards, posters, etc.**
 - Most cases are subject to the limitation of rights under the Copyright Act, while some cases require caution.
 - Residents' consent is not mandatory under current law, but it is important to build relationships with local governments and community groups.
- **UGC (User Generated Content) Rights**
 - In principle, copyrights of avatars and other user creations belong to their creators.
 - When promoting n-th creation, it is important to establish mechanisms such as open licensing.
- **Content that imitates the design of real products**
 - Production and distribution of content that imitates the design of real products, such as virtual sneakers
 - Handling of clothing, etc. associated with the creation of avatars based on the person's own photography

For more detail, please refer to
<http://shibuya5g.org/research/docs/guideline.pdf>

Tomorrow, Together

KDDI