# Deloitte.

# **Optimal Reality**

Imagine if you could take any moment in time, make a copy of that moment, play out and test every eventuality and then in the real world, make a decision to achieve the optimal result.

What if we could minimise the impact of flight delays from bad weather? Or help solve road congestion issues before and when they happen? Imagine what our travel options look like when they include drones, flying cars and autonomous vehicles?

Optimal Reality is our digital twin and simulation platform which creates a digital replication of dynamic systems. Helping operators consider millions of permutations in real-time to help them optimally respond to the physical world around them.

### Key features of Optimal Reality

#### WHAT:

### Solving for wicked problems

We work with ambitious and pioneering clients to help identify and solve their "wicked problems". These are problems clients have never been able to solve before because of existing limitations to technology and capability. We help clients understand how the power of Optimal Reality can solve these problems, transform them and drive their business forward, faster.

#### HOW:

### Leveraging a platform as a service

We've built a platform that brings physical assets, processes or systems into the digital world through instrumented systems (IoT), data science, simulation and advanced visual interfaces to optimise some aspect of the physical system.

#### **Built for speed**

Inspired by Formula 1, we are obsessed with the speed and performance of our solution. Our goal is to run 'faster than real time', so you can respond to a continuously changing environment, just like an F1 race.

#### WHY:

#### Enabling humans in the loop

We integrate the physical-digital-physical journey, empowering a human to make the right decisions from millions of possible scenarios with far more certainty. It's a concept pioneered by the automotive industry and flight simulation that we're now applying to a variety of complex challenges. We're able to provide organisations the ability to test in a risk-free environment, before making expensive and costly decisions.



### $\odot R$ The benefits of Optimal Reality

# It allows clients to see their business differently

- We bring together historically autonomous transport networks to have a more complete view of all systems and networks that a business operates within.
- We have the unprecedented ability to look at the impact of millions of what-if scenarios playing out at once.
- We help organisations plan and operate within the ecosystem of a smarter city and therefore have an evolving approach and view to mobility.

## It allows clients to operate their business differently

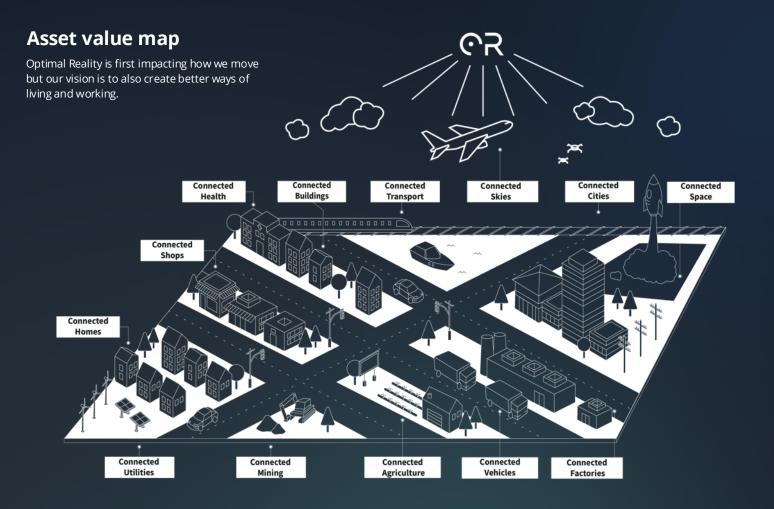
- We base our solutions on a common, integrated model that ties together macro and micro decisions. This allows for future planning, day-of and post-operation decisioning.
- We are enabling transport organisations to plan, prepare and deliver growth like never before, dramatically improvingtheir customers' experience.
- We have made our interfaces incredibly intuitive, distilling complex technology into a tool anyone can use. It's designed for operations staff, not tech staff.

### Sectors suitable for Optimal Reality

Optimal Reality is focused on an overall vision for areas such as smart cities and the rapidly evolving transport and energy sectors.



# **Deloitte**



### Impact of Optimal Reality

Optimal Reality enables Deloitte to build the next generation of Digital Twins.

### Key outcomes

- Smart cities
  - We've designed our approach to help make cities smarter, from how they plan for the future to how they operate in real-time. We've focused Optimal Reality on the rapidly transforming industries of transport, energy and how they converge in areas like climate change.
- Future of mobility •

We have built a digital twin that will optimise airborne and ground delay, helped enable hundreds of millions in fuel savings and improved task load efficiency of air traffic controllers.

Digital twin platform •

Transport is converging and we're ready. We've built a common approach that helps air traffic controllers, road and rail operators, regulators, private freight and logistics and others within this ecosystem work together to shape the future of mobility and create smarter cities.



### More questions?

For more information, contact the 'wicked team' or visit our website.

### Sean McClowry

Partner

**Caleb Sawade** 

Partner Deloitte Consulting **Deloitte Consulting** smcclowry@deloitte.com.au csawade@deloitte.com.au

### **Steph Bradley**

Director **Deloitte Consulting** stepbradlev@deloitte.com.au