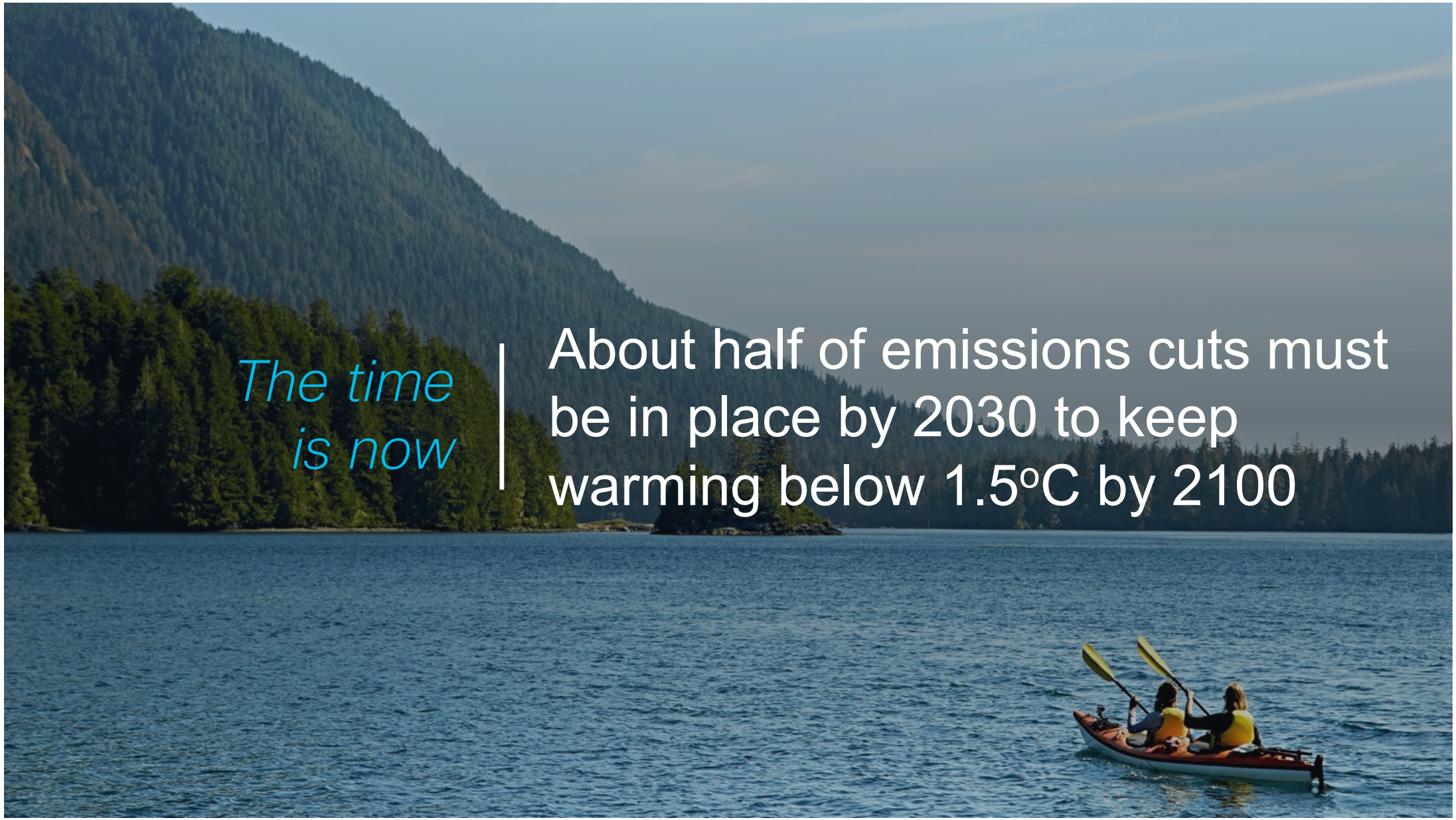
The bridge to possible

The Road to Net-Zero

IT solutions to sustainability challenges

Joel Obstfeld
Distinguished Engineer, Emerging Technologies and Incubation


The time is now
About half of emissions cuts must be in place by 2030 to keep warming below 1.5°C by 2100

Green IT

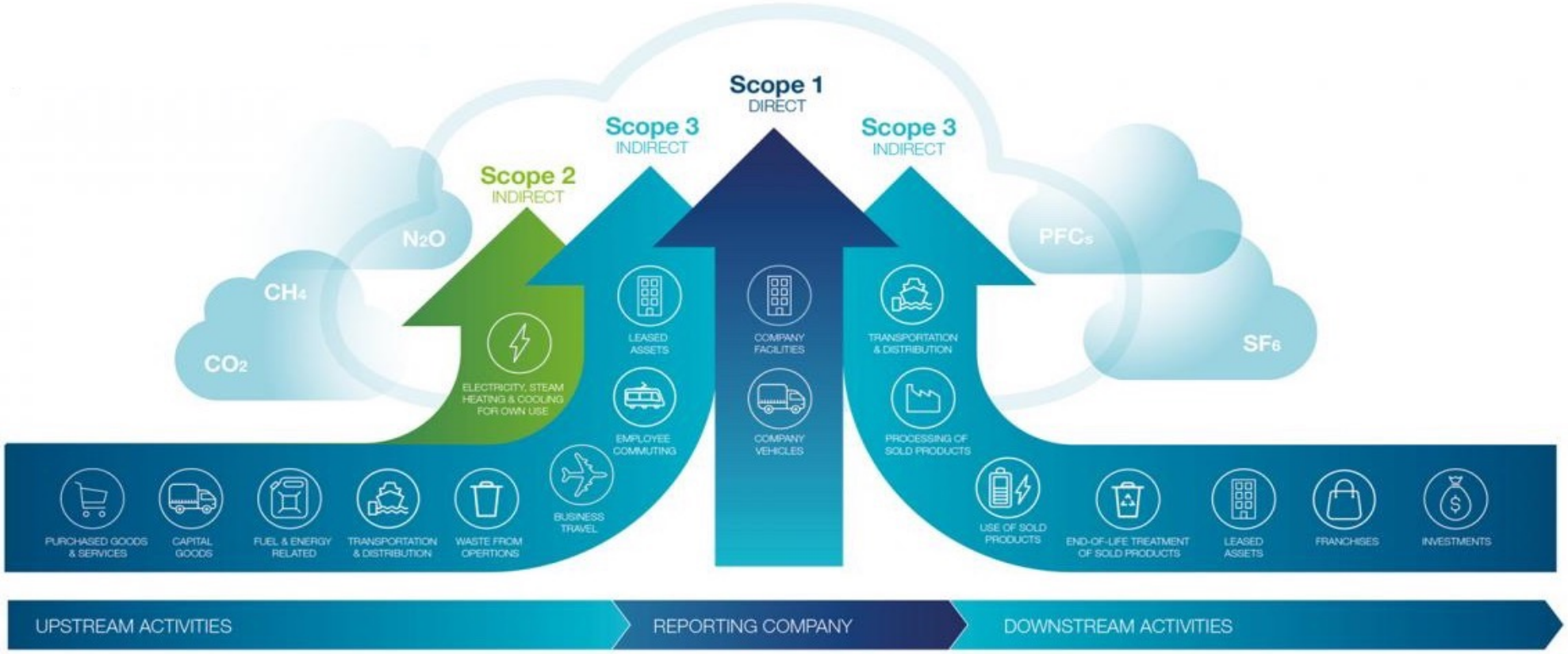
Enhance and optimize the IT footprint – maximize energy efficiency, reduce environmental impact, increase circularity and recyclability

IT for Sustainability

Decarbonization through digitization – IT as the foundation for innovative solutions applied across the business to advance Net Zero plans

Source : Greenhouse Gas Protocol

Scope emissions



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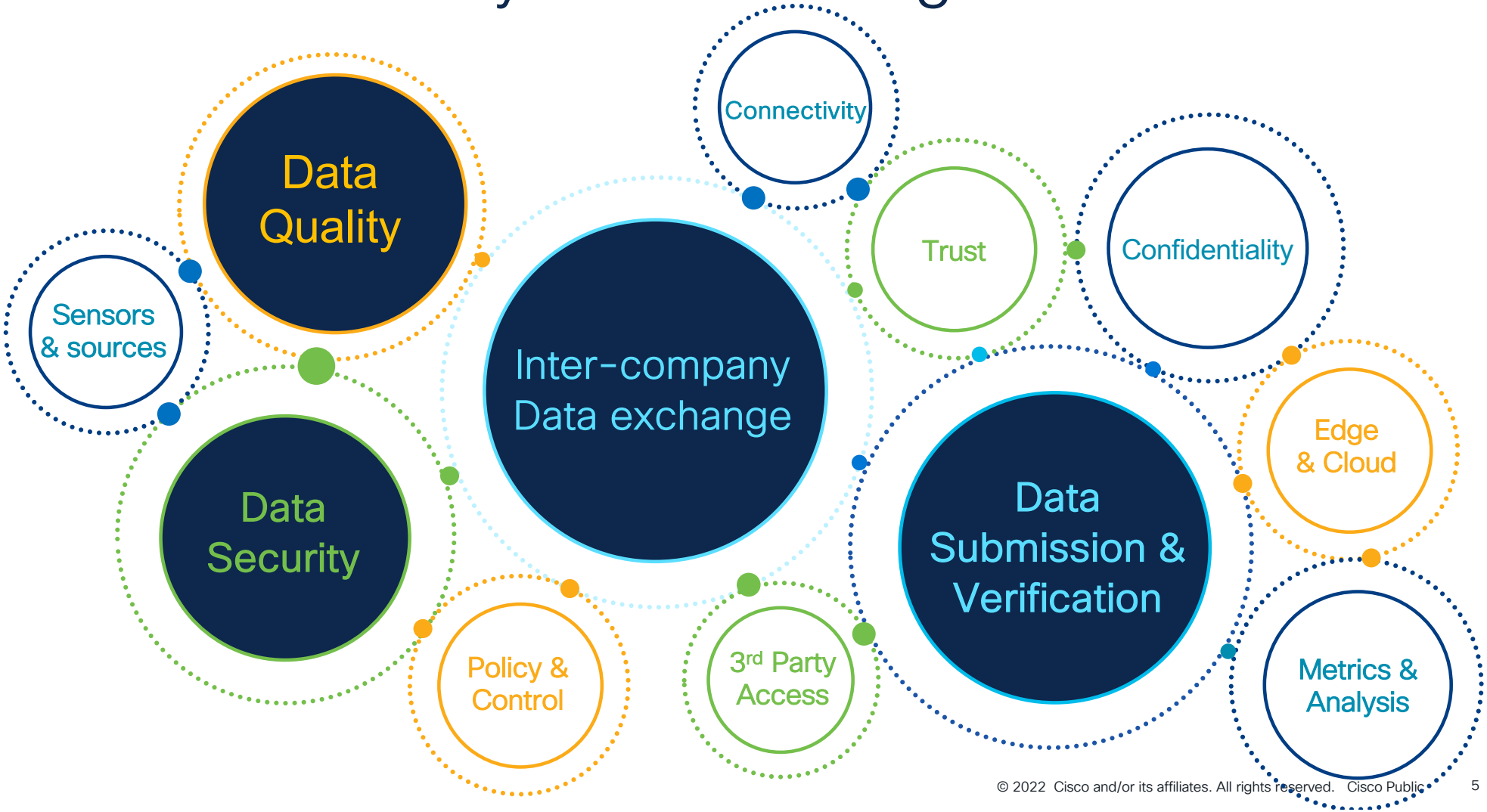
The Sustainability Data Challenge



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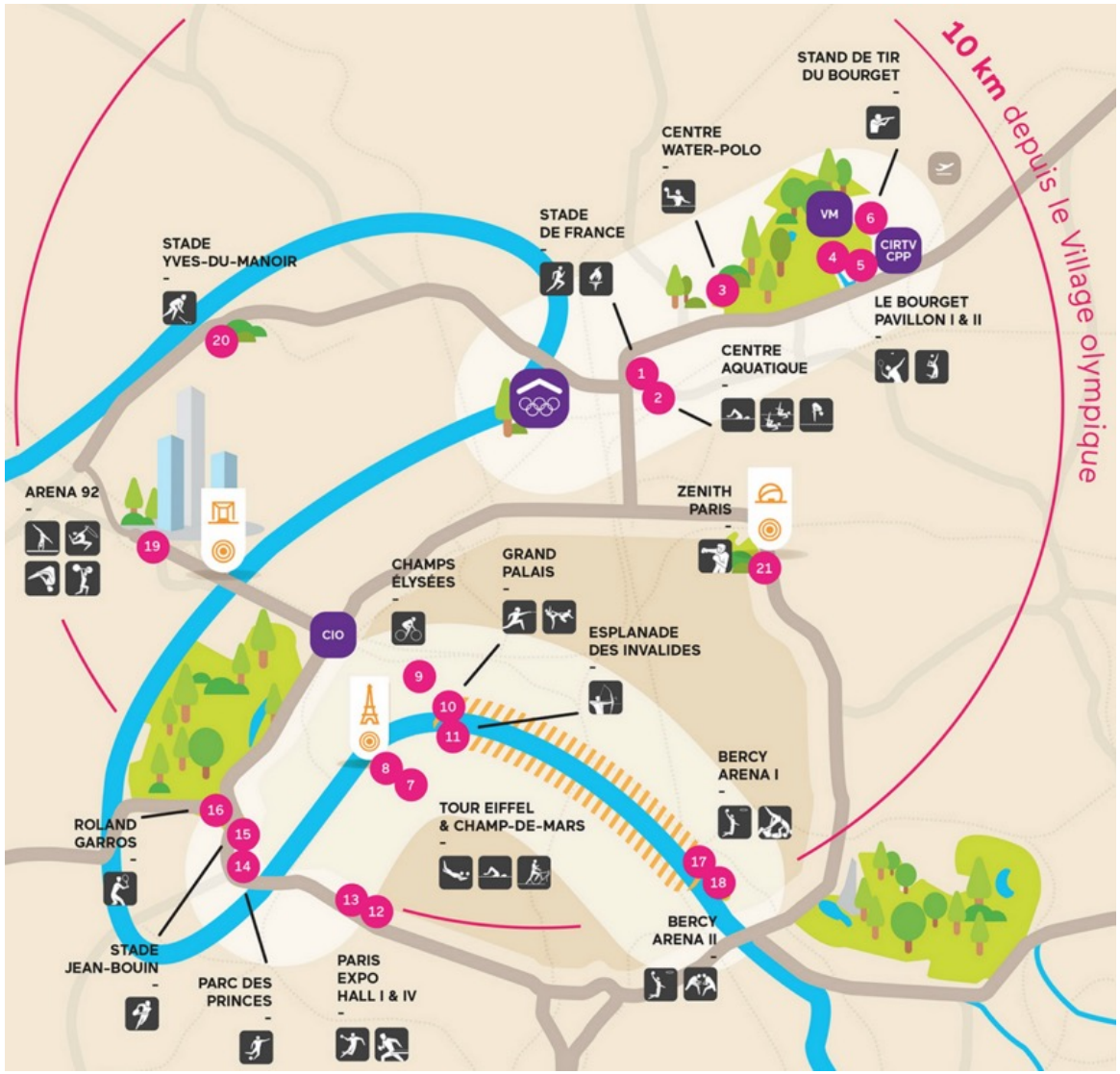
Case Study: Paris 2024 Olympics Stadium Sustainability

PARIS 2024

32 sports
329 events
762 sessions
10500+ athletes
19 days of competition



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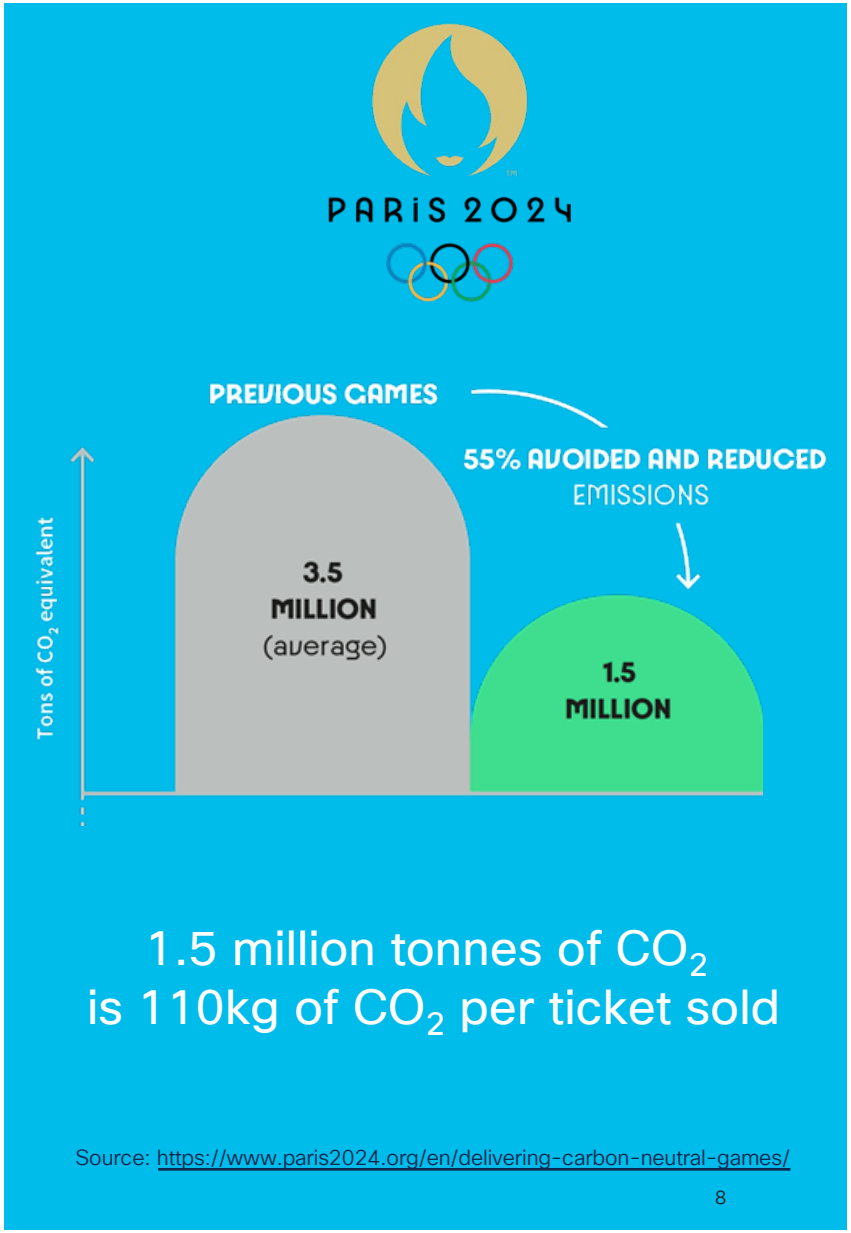
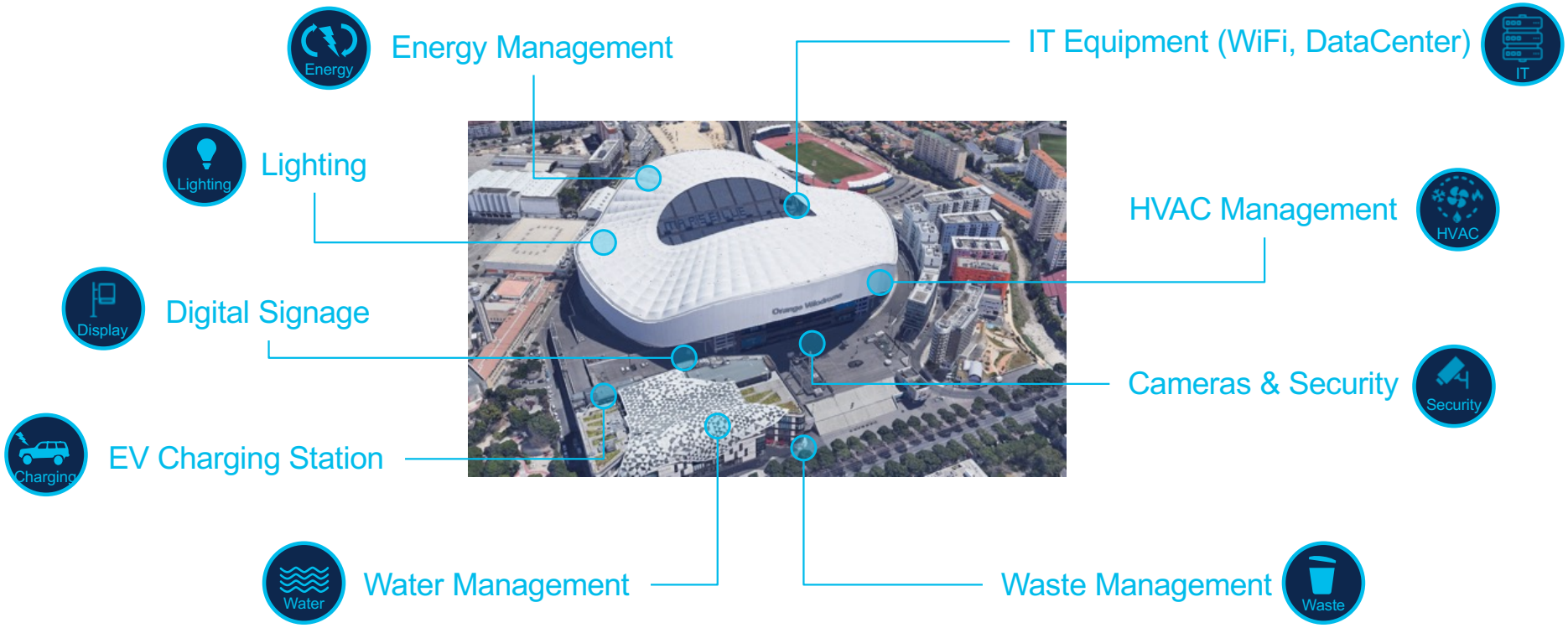
Environmental ambition

- Be the first major sporting event to positively impact the climate
- Goal to cut emissions by more than 55% vs previous games
- Initiatives include:
  - 100% renewable energy during the Games
  - Circular economy principles in action
  - Sustainable food sourcing
  - Responsible digital technology
  - Clean mobility solutions
  - Biodiversity protection
  - Water management



Source: https://www.paris2024.org/en/delivering-carbon-neutral-games/

Stadium Infrastructure driving Sustainability impact



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How to optimize stadium energy consumption?

100+ ***events per year***

5k 20k 67k ***3 guests configurations***

365 ***days/year open for tours***

Challenge

- Limited capacity to configure the stadium's utilities & equipment
- Many 3rd parties responsible for operations of the stadium – increases data sharing complexity
- Energy consumption higher than stadium activities actually require

Expected Outcome

- Optimize stadium overall equipment energy consumption (IT, HVAC …) based on actual stadium usage and occupancy

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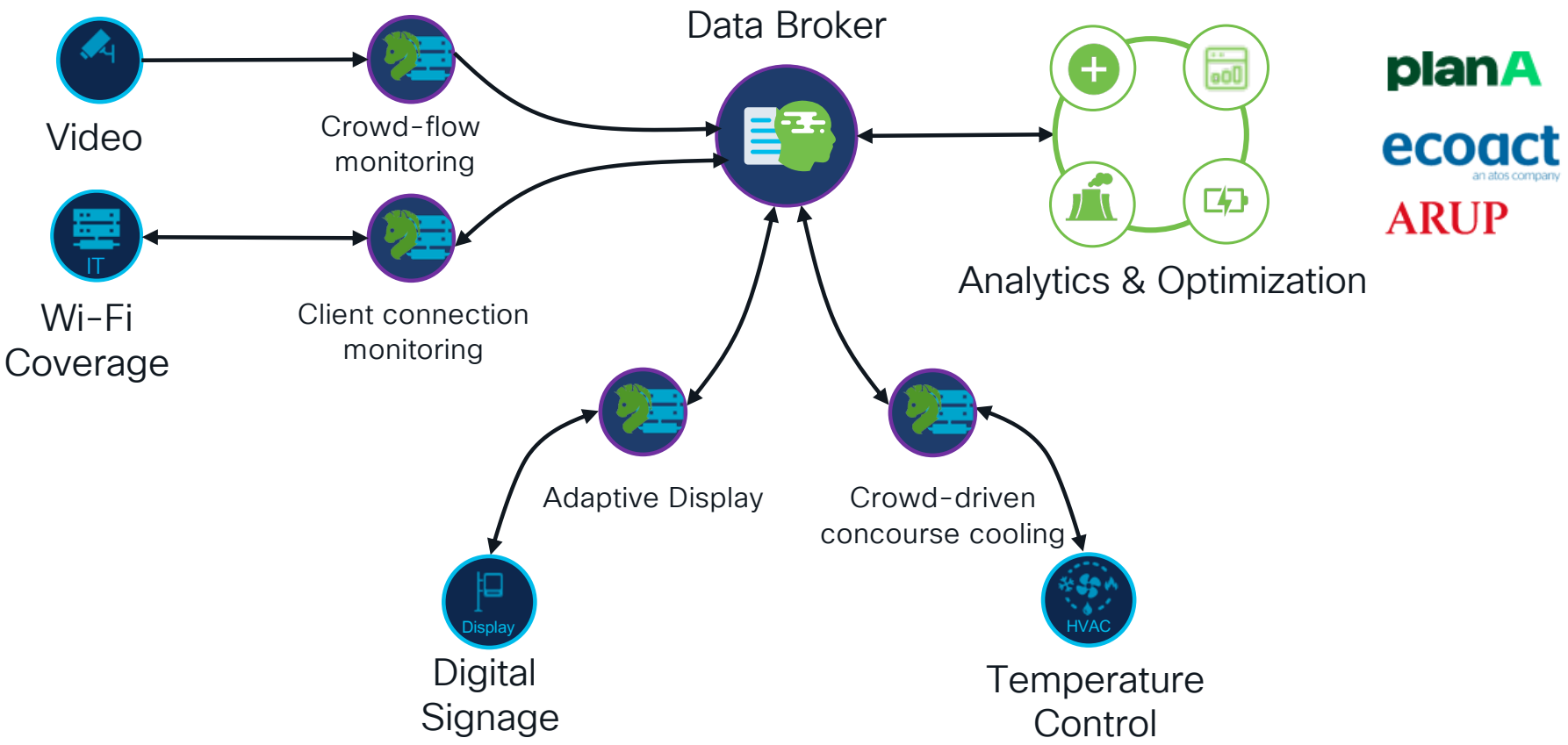
Application Data Flow



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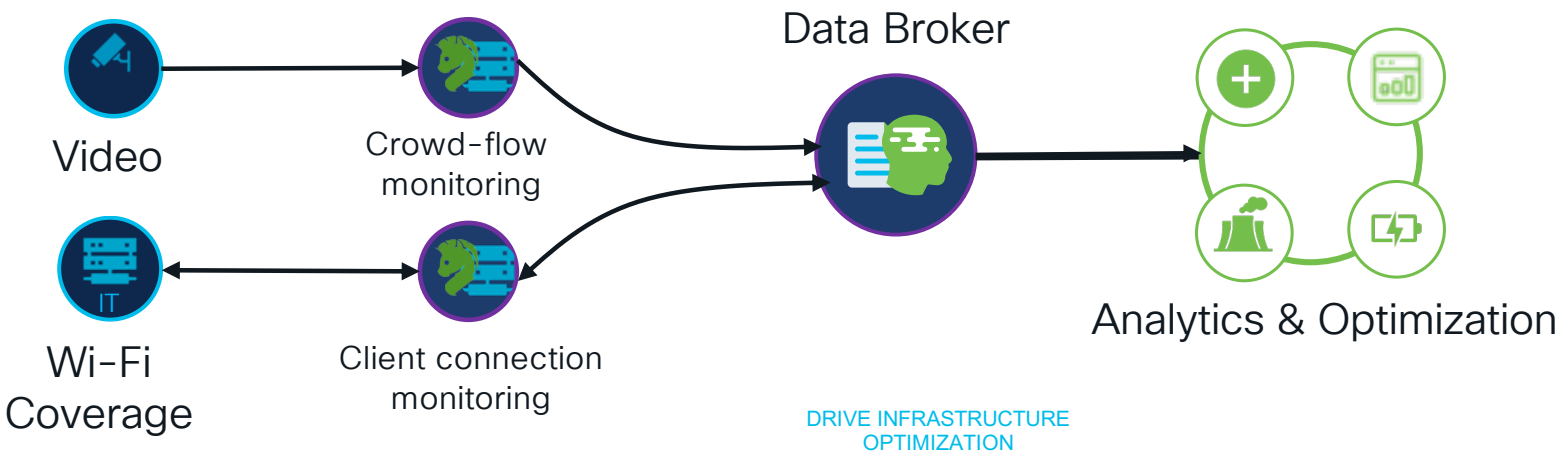
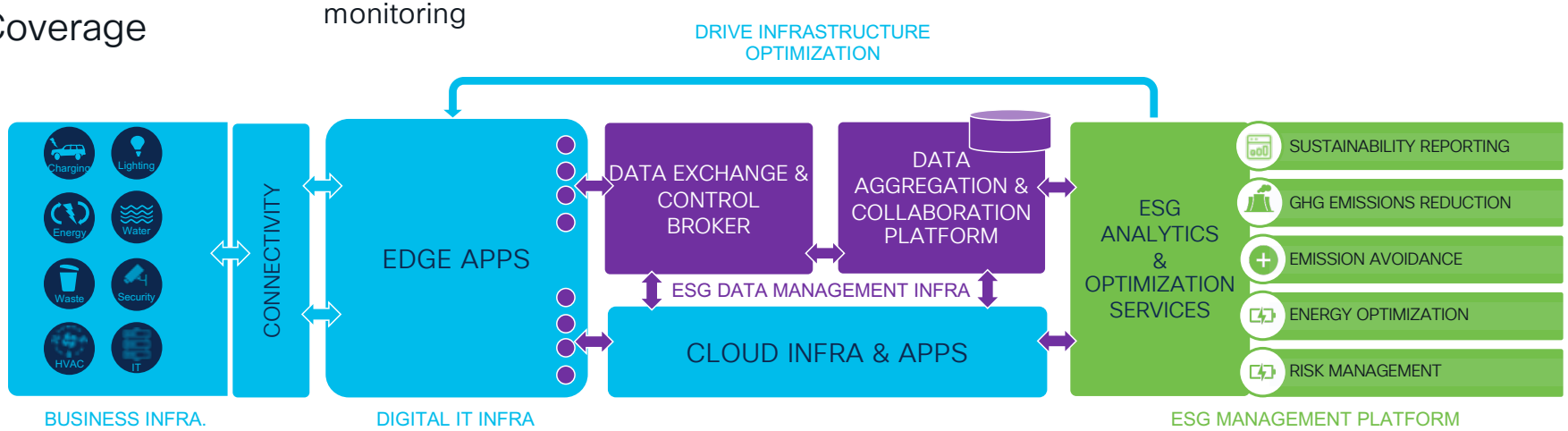
Solution Architecture





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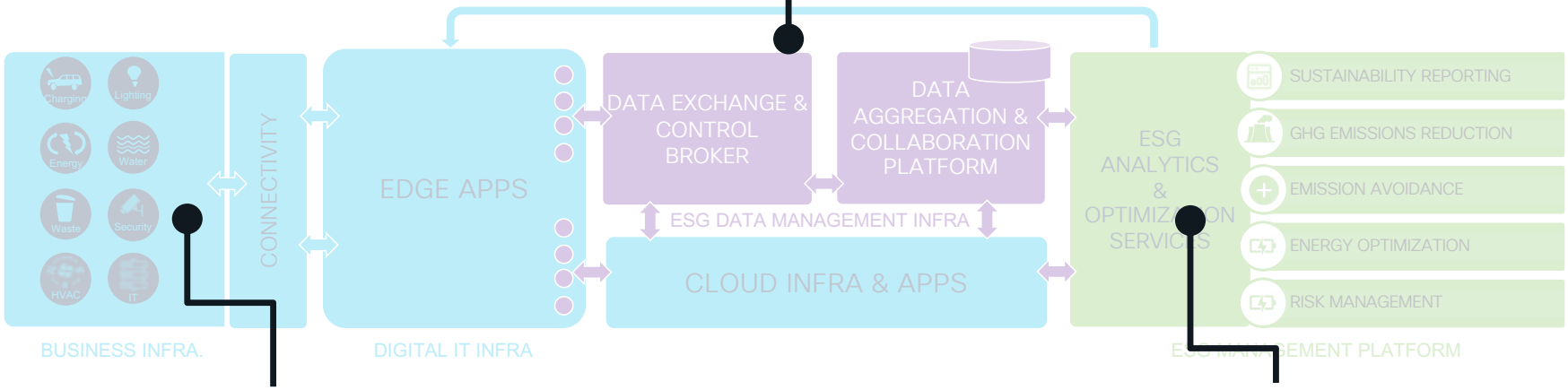
ESG Management Roles

- IT Infrastructure Operations
- Sustainability Operations



- Stadium Facilities & Operations
  (Power management, Security, Catering, Waste & Recycling…)

- Stadium Sustainability Manager
- Sustainability Consultant and Partners
- Auditors

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Open source policy-based data sharing platform

BitBroker allows data owners to share selected portions of their data in controlled and managed ways with chosen third parties

Share Data with Confidence: https://www.bit-broker.io/

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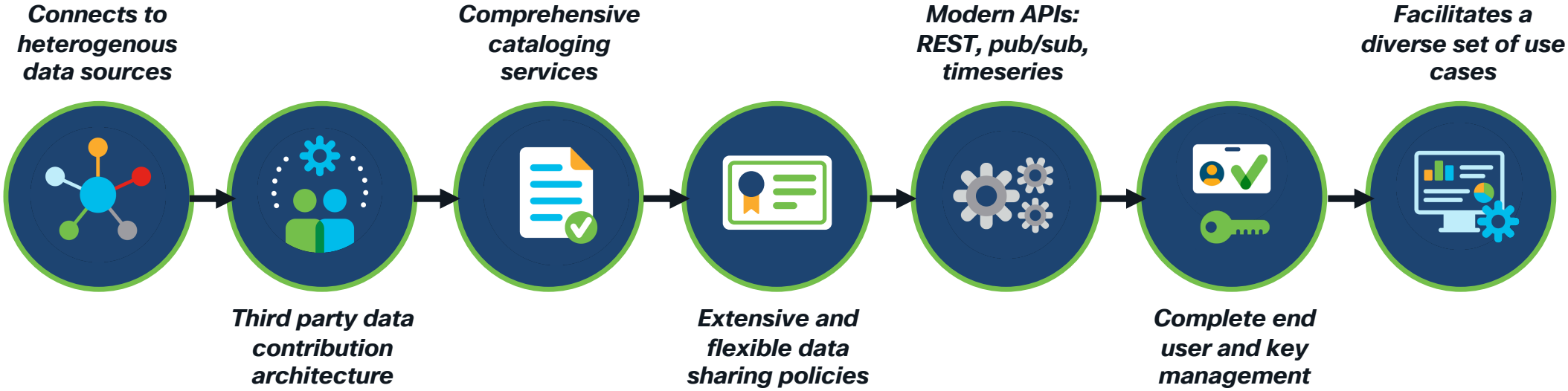
BitBroker Workflow



A complete, horizontal, end-to-end solution for non-technical domain experts
Built from industry proven and scalable web technologies

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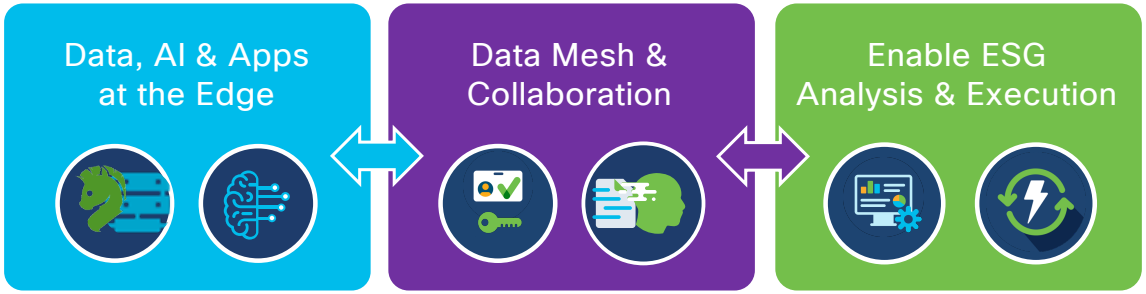
In Summary



- IT has a key role as the foundation layer for your business's sustainable future
- Edge solutions will enable collection of quality data and control loop
- Ecosystem collaboration around the data to drive quality outcomes
- From pledges to plans for action… from estimates to actual data and automation

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Thank you

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Q & A