



semana  
de la  
ingeniería  
**2022**

El poder de la ingeniería  
en la innovación

6 | 7 | 8 | 9 JUNIO

presencial + streaming





# Innovación en la industria de la Construcción

Aplicado al sector de la Arquitectura, la Ingeniería y la Construcción

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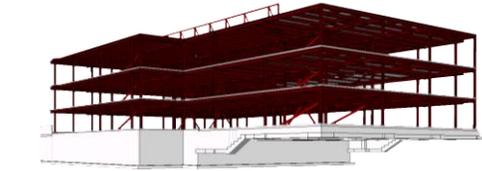
Ing. Alejandro de León

A photograph of two construction professionals, a man and a woman, wearing hard hats and work clothes. They are standing at a wooden workbench on a construction site, looking at architectural blueprints. The man is wearing a blue hard hat and a blue shirt, while the woman is wearing a yellow hard hat, glasses, and an orange jacket. On the workbench, there are two tablets displaying digital blueprints and a laptop. The background shows a cluttered construction site with wooden beams, metal scaffolding, and various tools.

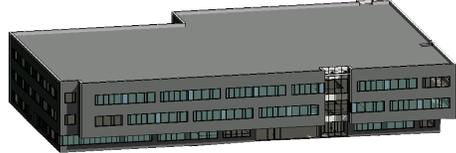
# BIM

ES CONSTRUIR ANTES DE CONSTRUIR

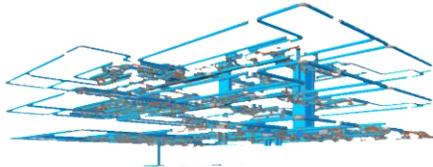
# BIM Modelos Inteligentes



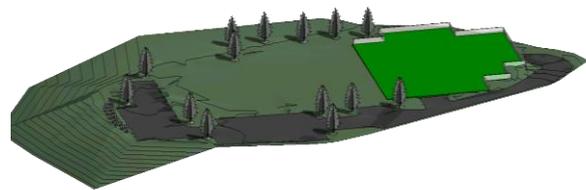
Estructuras



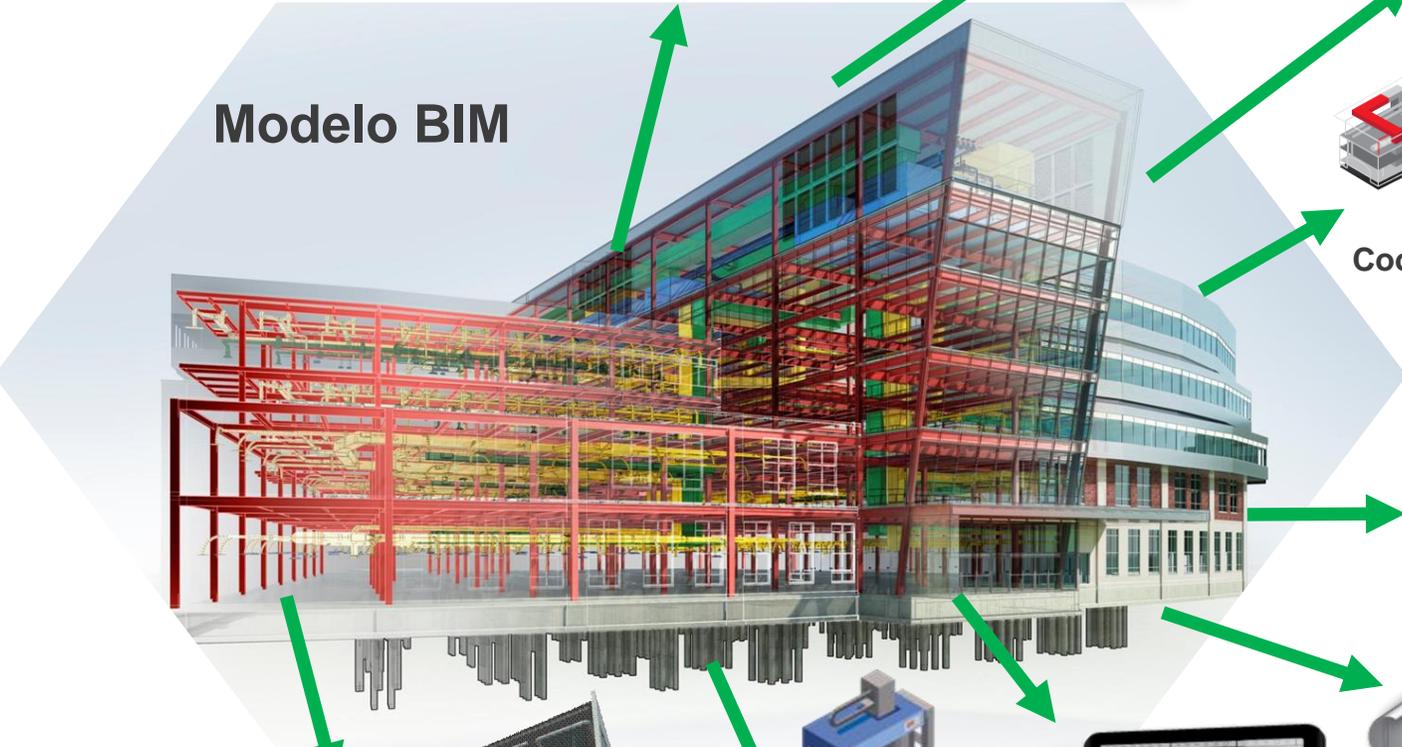
Arquitectura



Instalaciones



Civil



Modelo BIM



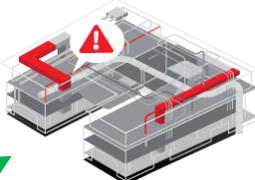
Planeación y Logística



Programa  
Obra



Cuantificación



Coordinación



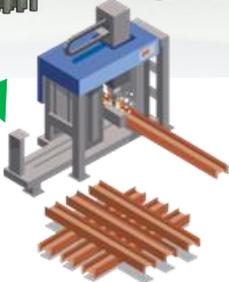
Ejecución



Constructibilidad



Visualización  
Documentación



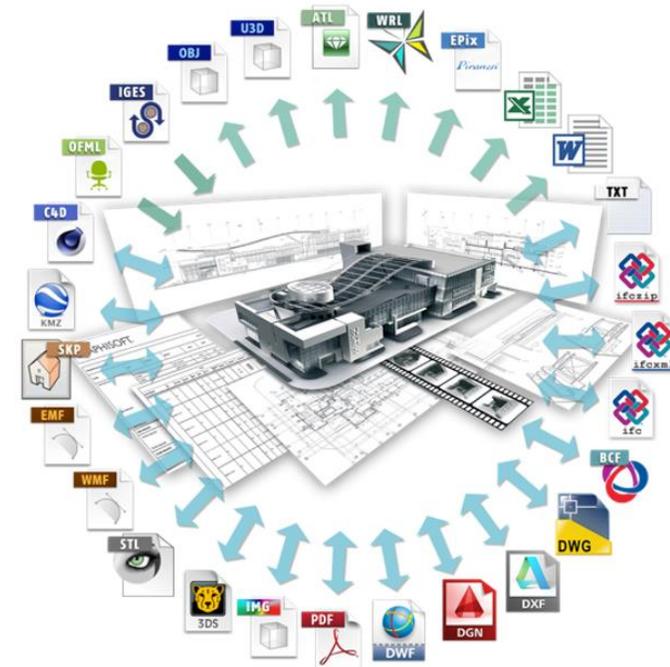
Fabricación

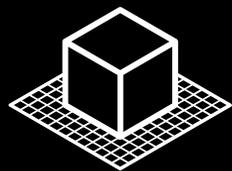


Controlar  
costos

# Lenguaje Común de Datos

- ✓ Interoperabilidad
- ✓ Estándares abiertos y neutrales para facilitar la interoperabilidad
- ✓ Intercambios de datos confiables
- ✓ Flujos de trabajo de colaboración

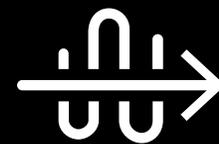
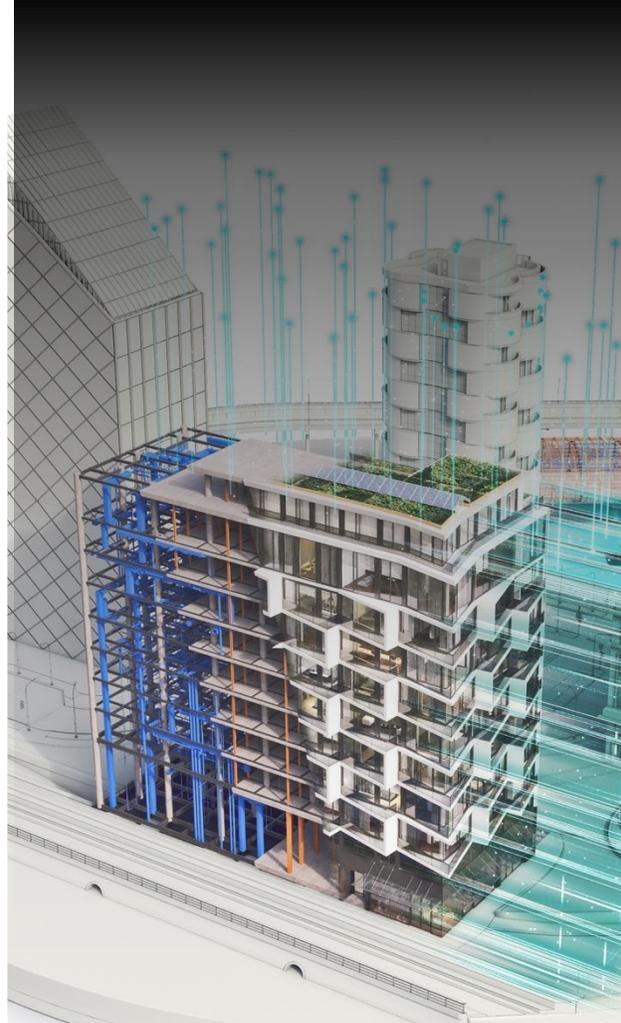




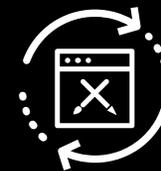
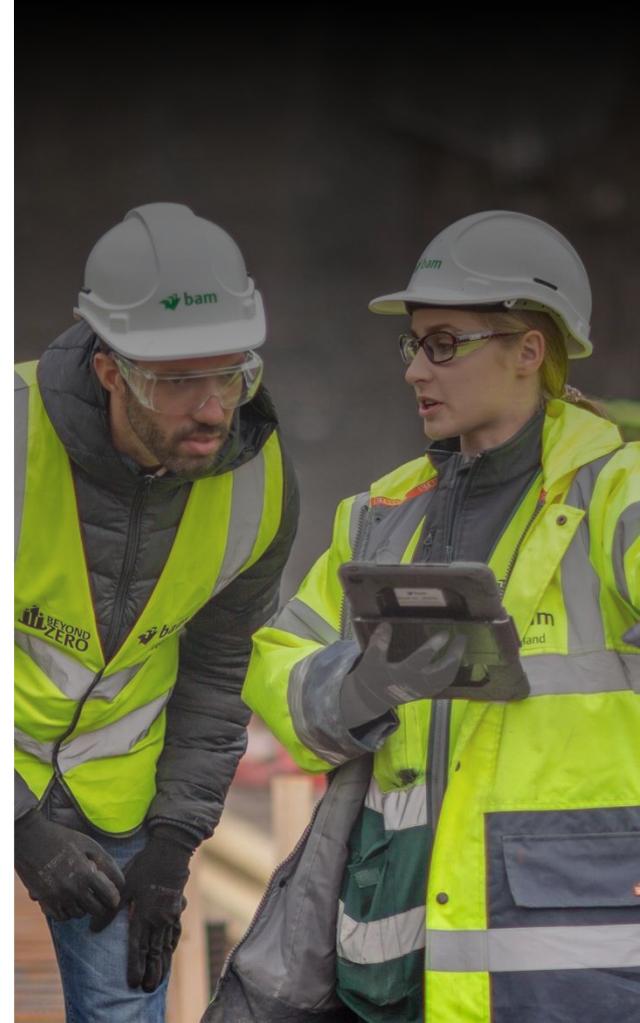
**Digitalizar**



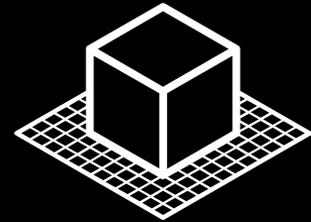
**Conectar**



**Optimizar**



**Evolucionar**

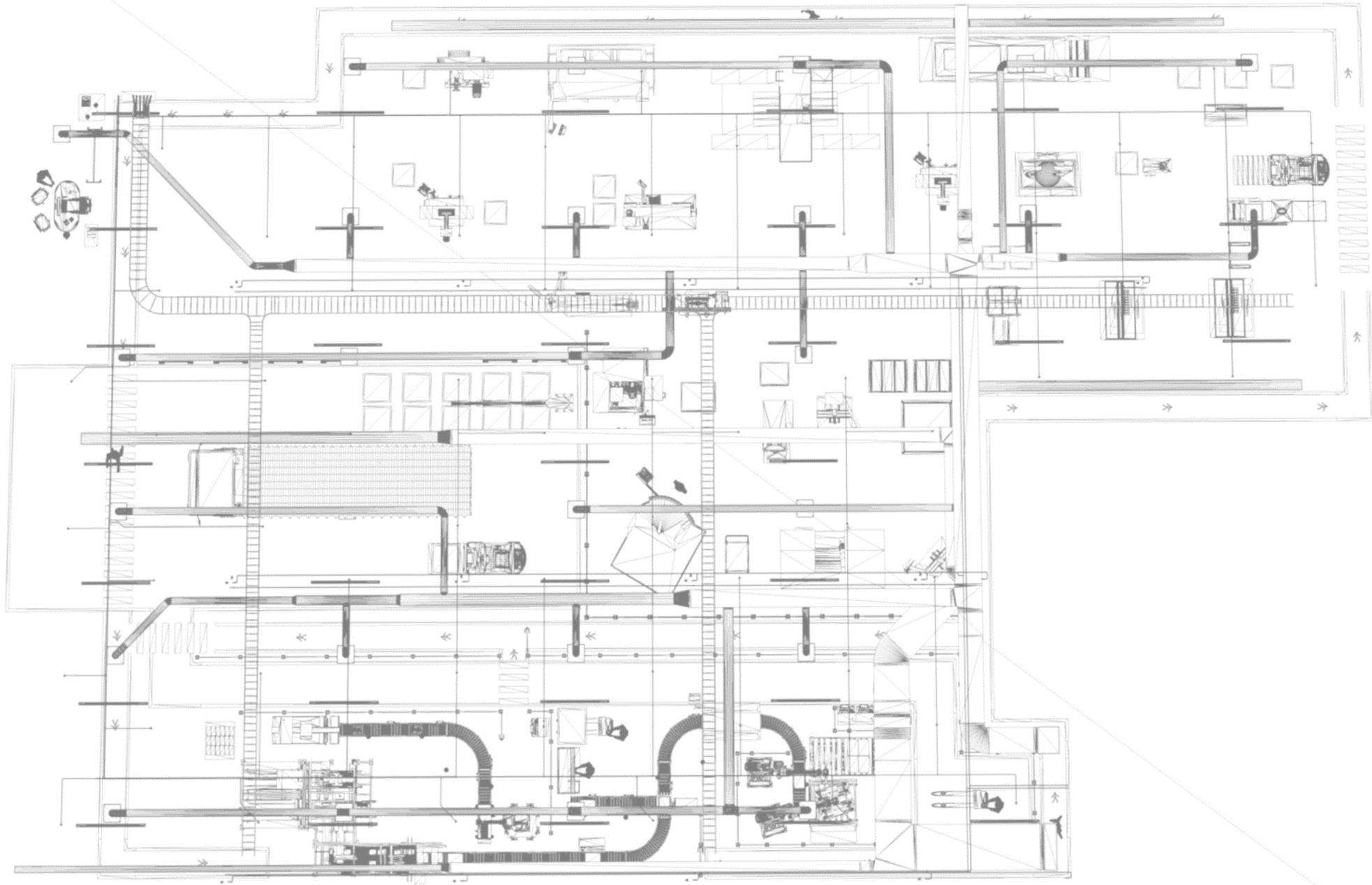


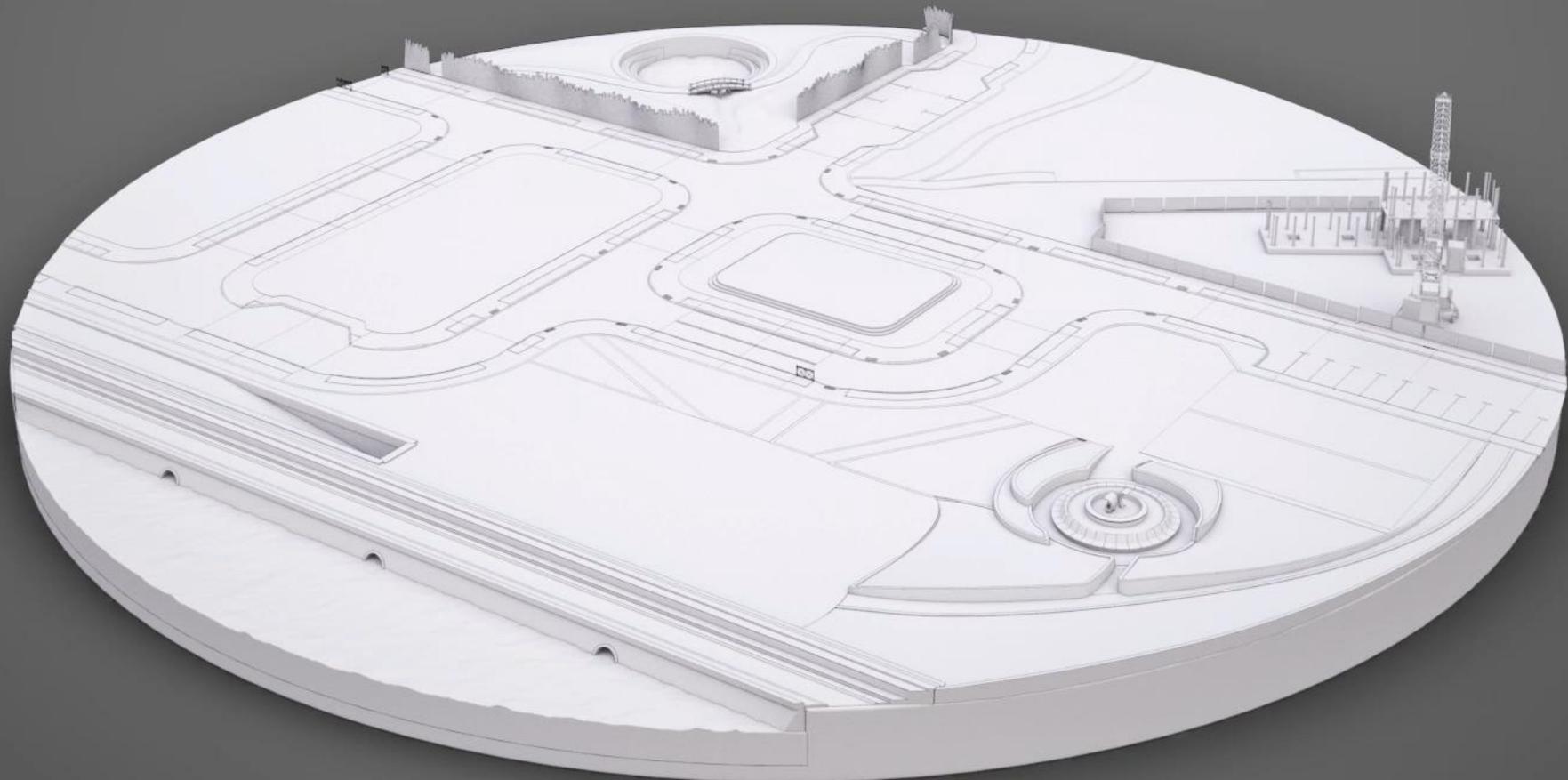
## Digitalizar

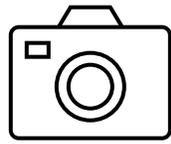
- Modelos Digitales
- Aumento de la eficiencia
- Gestion de Datos
- Capacidad de gestionar proyectos más complejos y de alto rendimiento



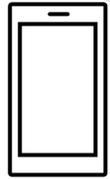








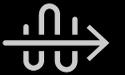
# Cloud rendering



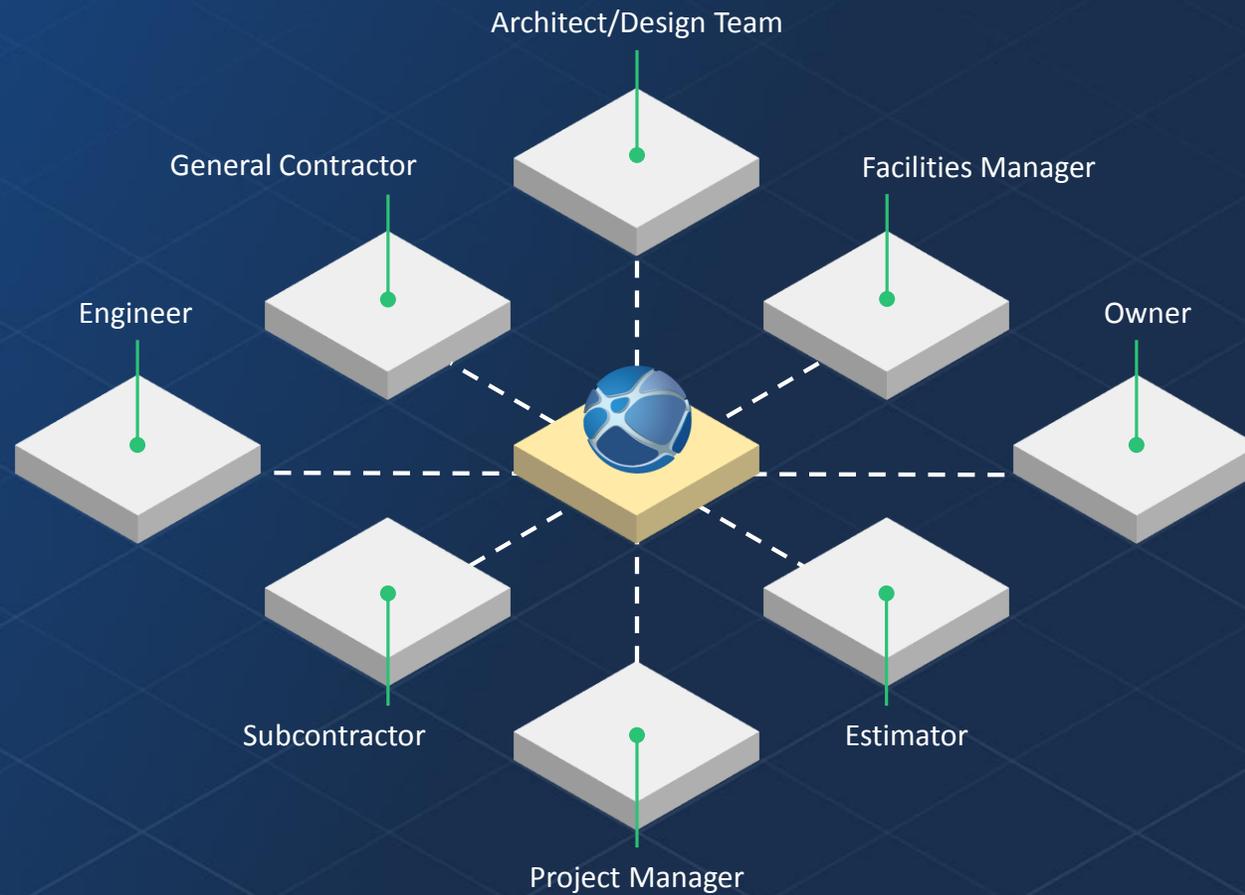


## Conectar

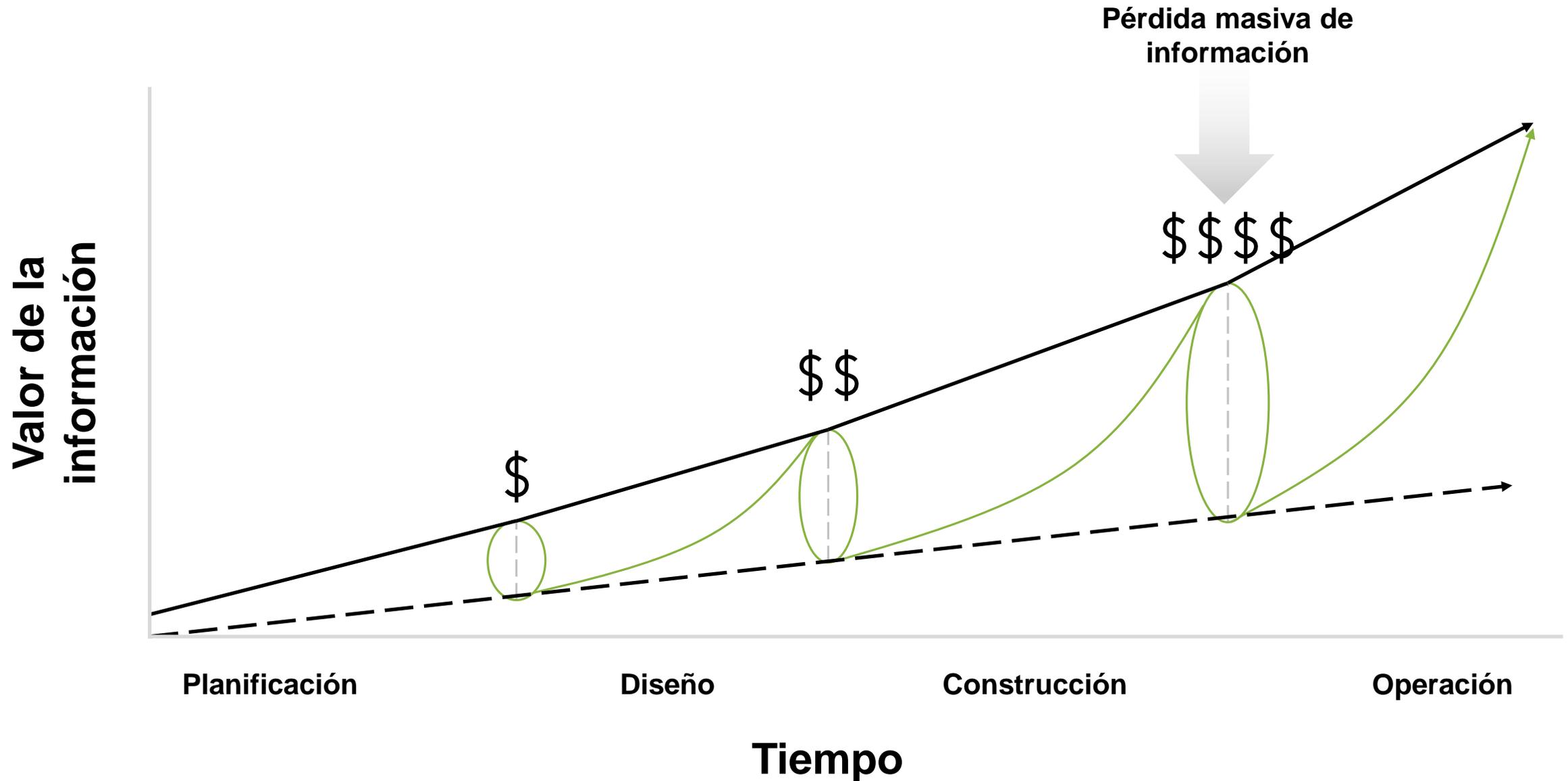
- Entorno Común de Datos CDE
- Gestión documental-Worflows
- Acceso a los Datos en forma colaborativa
- Colaboración fluida en todo el ciclo de vida de los proyectos

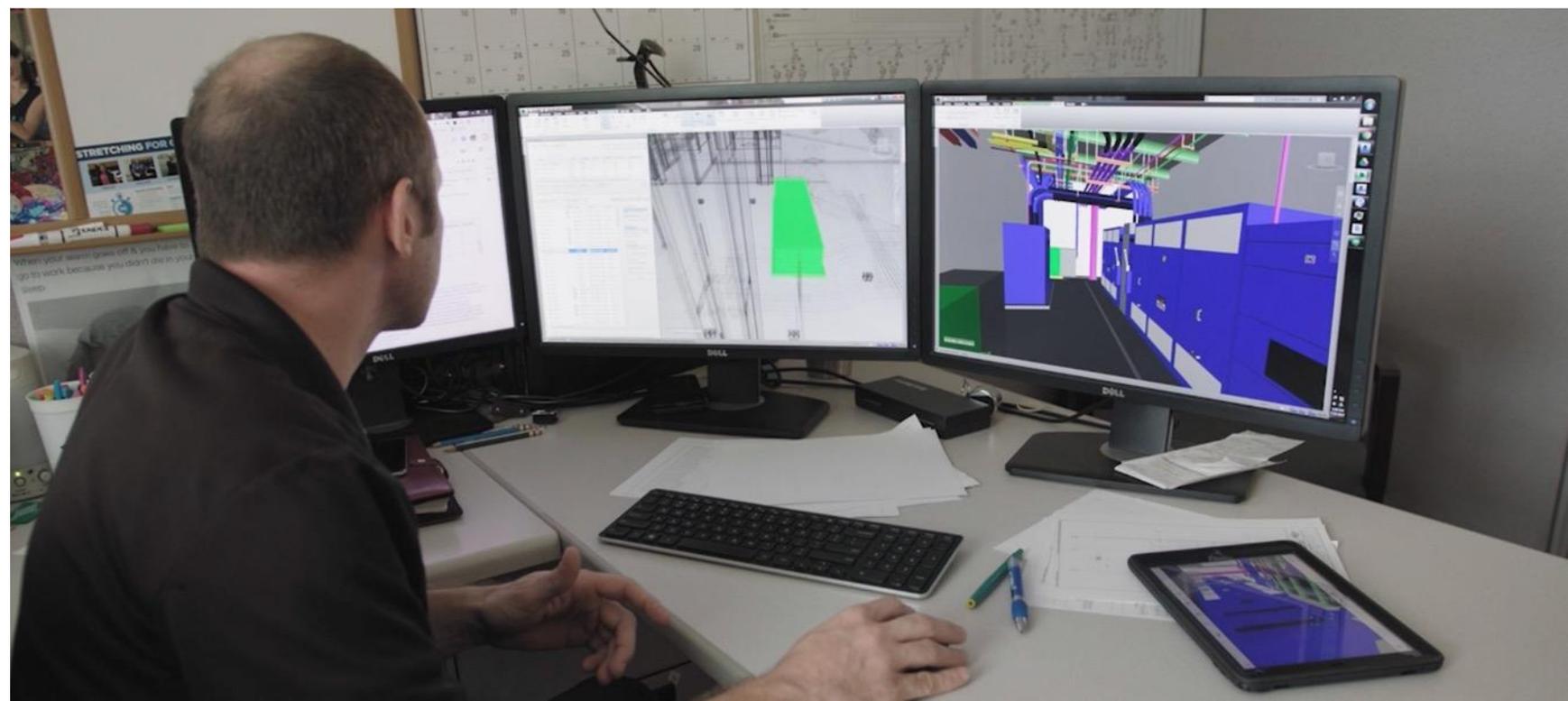
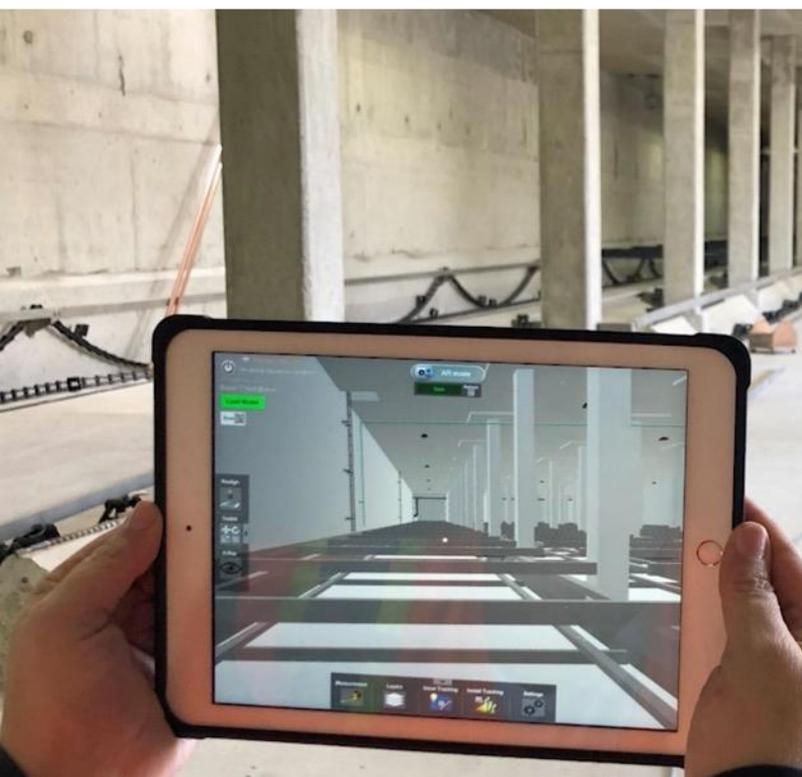
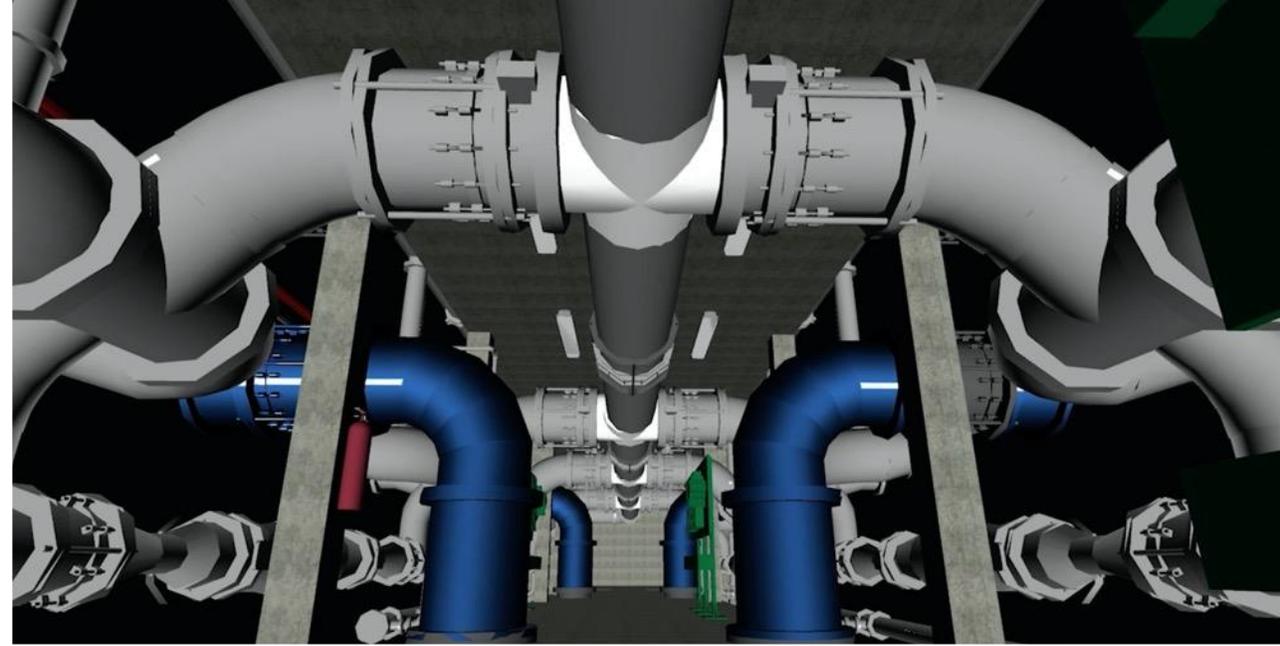
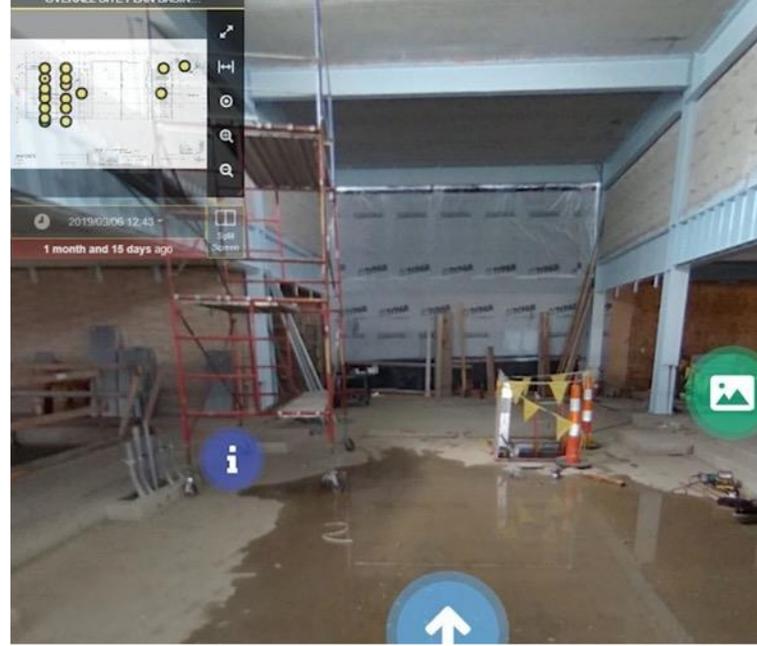


# Entorno de datos común

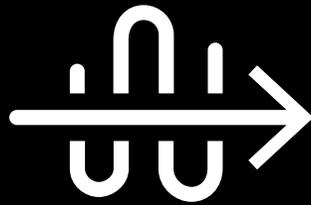
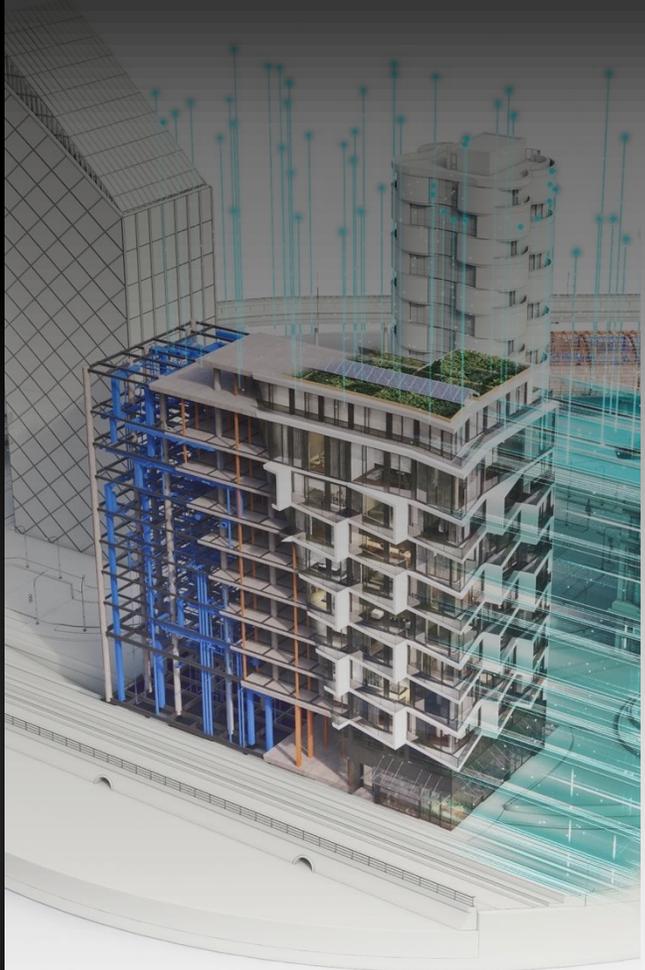


# MÁS conexión MENOS pérdida





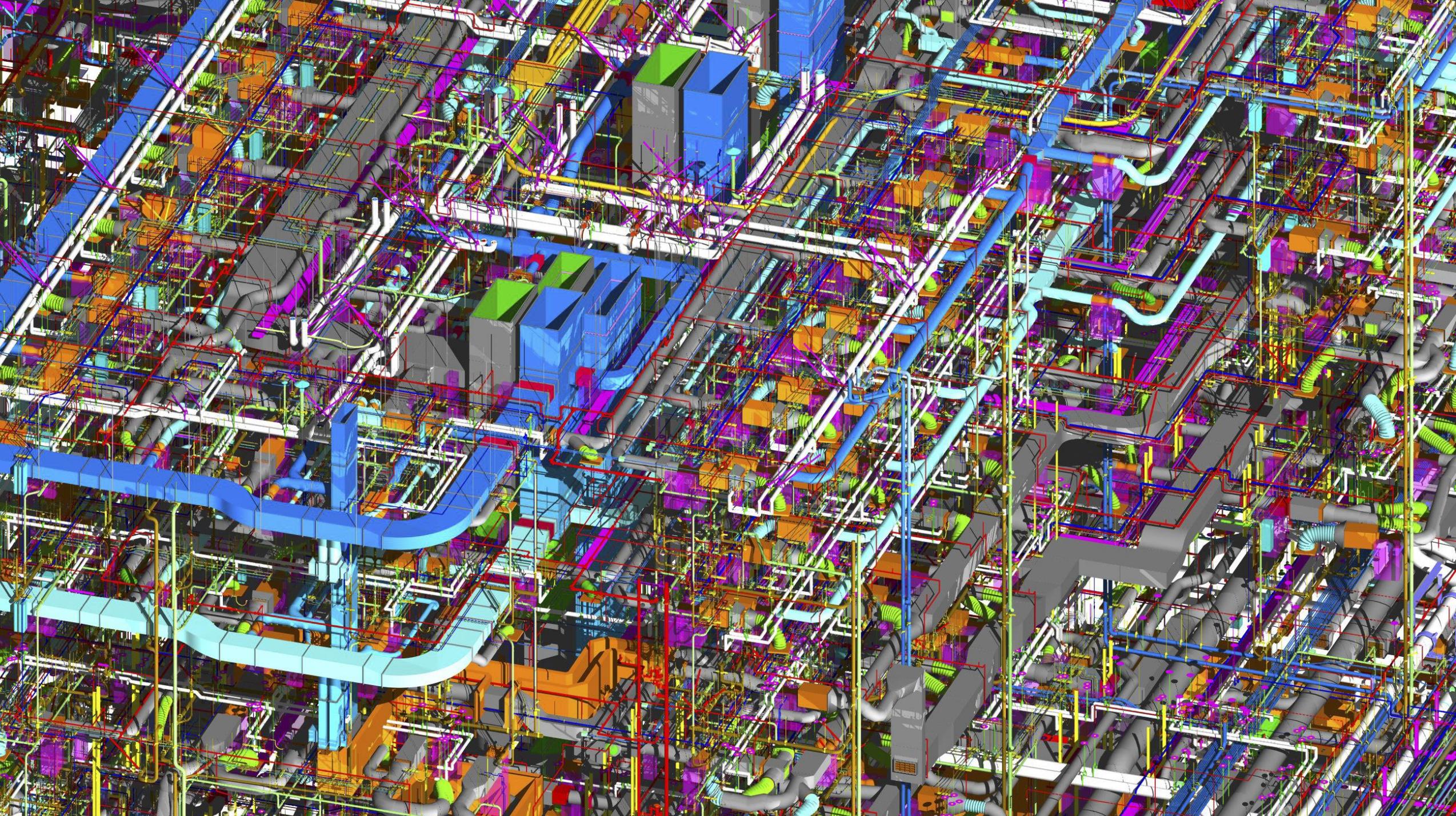




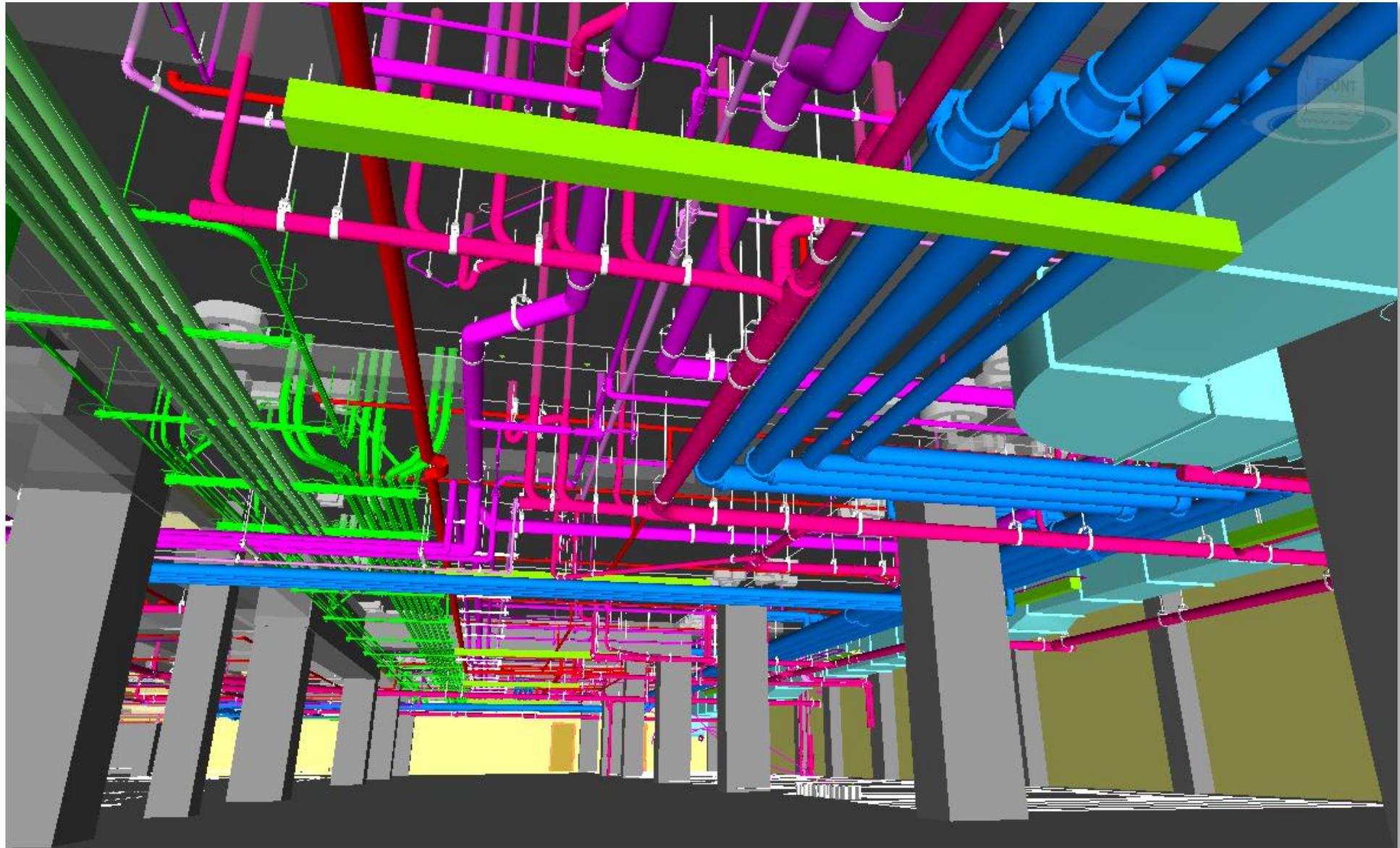
## Optimizar

- Diseño Generativo.
- Modelados. Deteccion de interferencias
- Construccion modular.
- Mejora de la capacidad de ejecución de proyectos y el rendimiento ambiental
- Reducción del número de errores





# Detectar interferencias



Home Insert Annotate Modify Analyze View Manage Output Survey Rail Transparent InfraWorks Collaborate Help Add-ins Express Tools Featured Apps **Geolocation**

Toolspace Palettes Explore Project Explorer Create Ground Data

Parcel Alignment Intersections Profile View Move Rotate Trim Layer Properties  
 Feature Line Profile Assembly Copy Mirror Fillet Make Current  
 Grading Corridor Pipe Network Stretch Scale Array Match Layer  
 Create Design Profile & Section Views Draw Modify Layers Clipboard

Start RidgeGate\_Corridor

TOOLSPACE

Active Drawing View

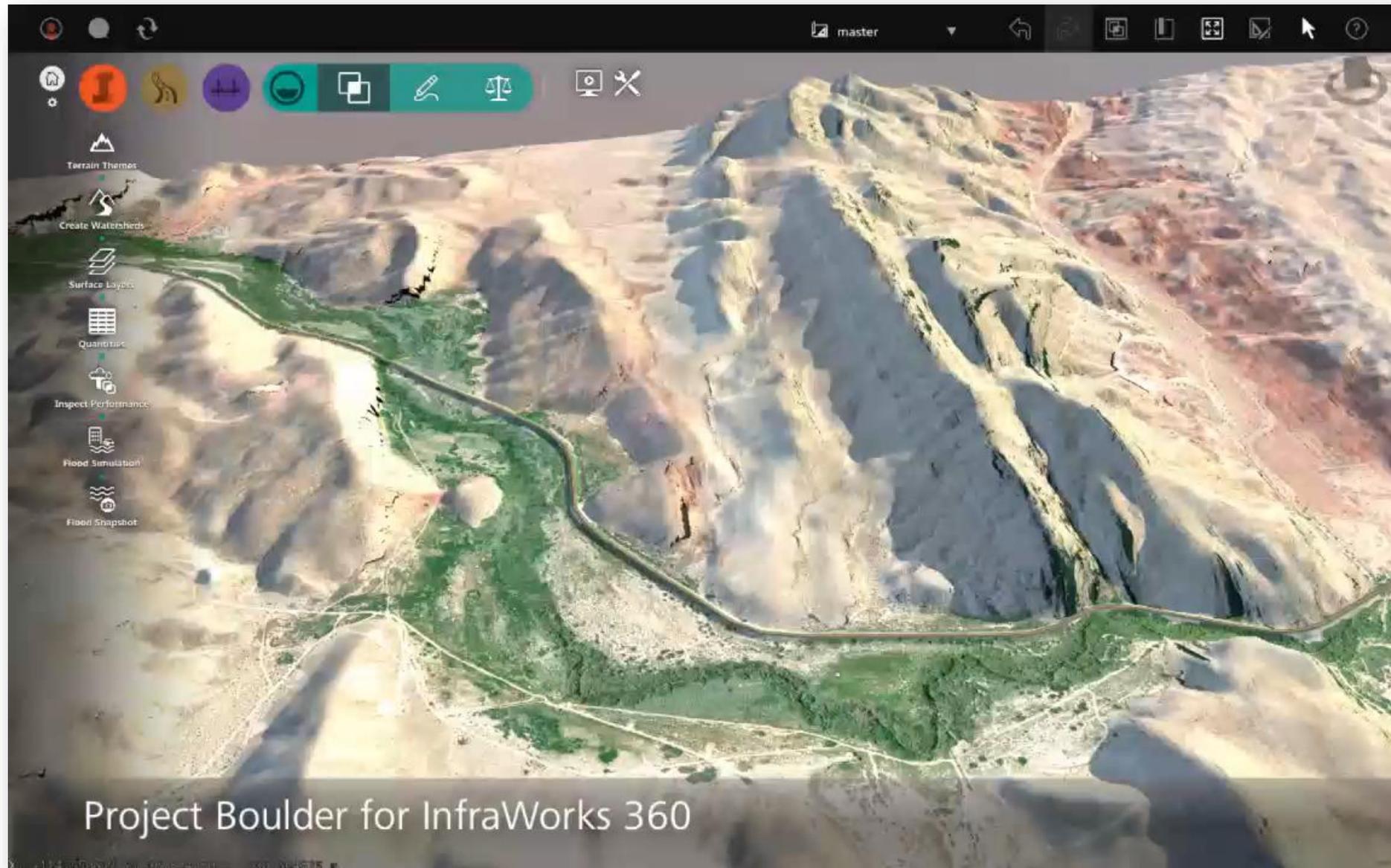
- RidgeGate\_Corridor
  - Points
  - Point Groups
  - Surfaces
  - Alignments
  - Feature Lines
  - Sites
  - Turnouts and Crossovers
  - Catchments
  - Pipe Networks
  - Pressure Networks
  - Bridges
  - Corridors
  - Assemblies
  - Intersections
  - Survey
  - View Frame Groups
- Data Shortcuts [Autodesk Docs\Infrastructu...
  - Surfaces
  - Alignments
  - Pipe Networks
  - Pressure Networks
  - Corridors
  - View Frame Groups

Prospector Settings Survey Toolbox

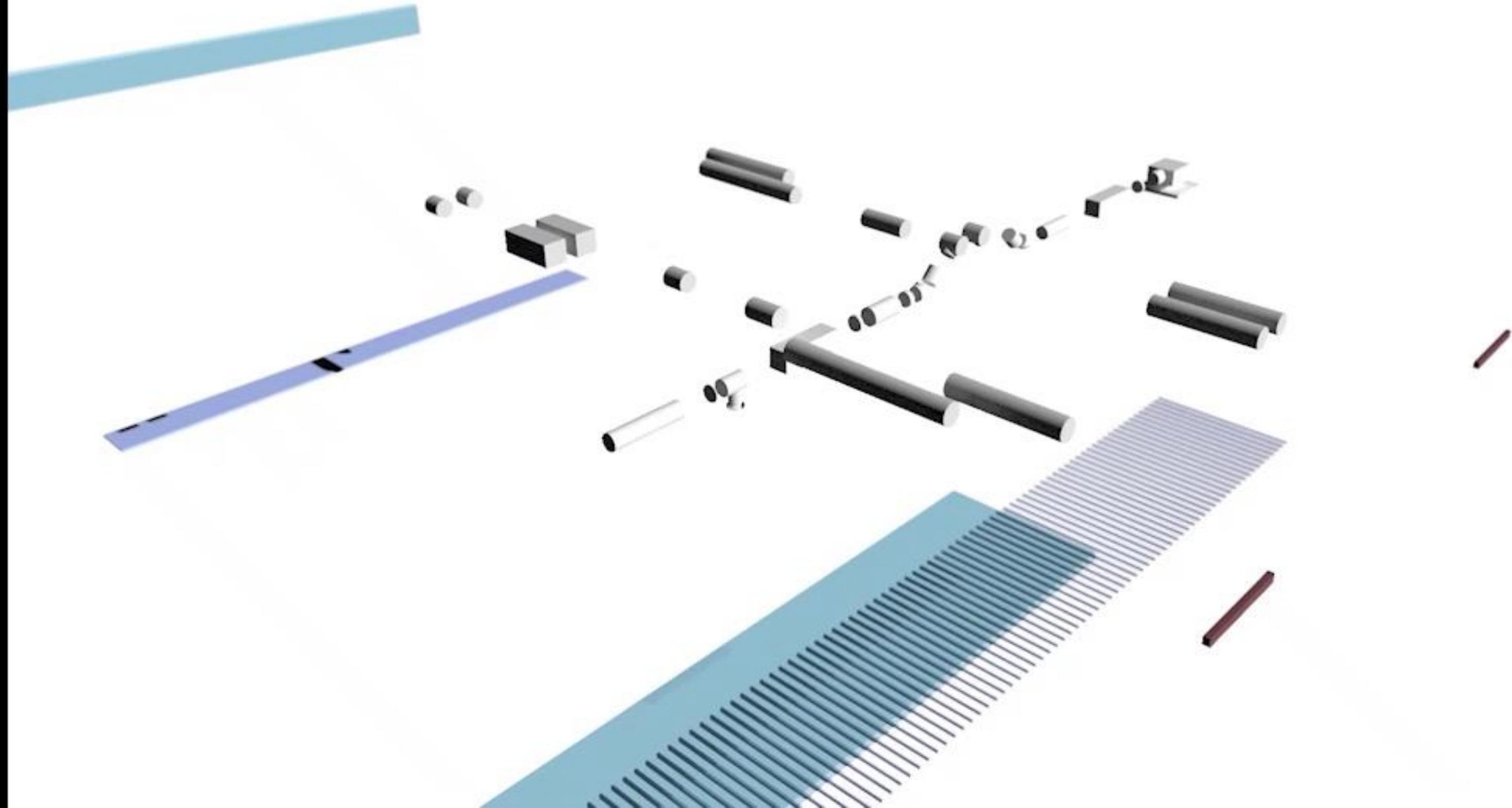


Command: \*Cancel\*  
 Command: \*Cancel\*  
 Type a command

# Simulación de Inundaciones

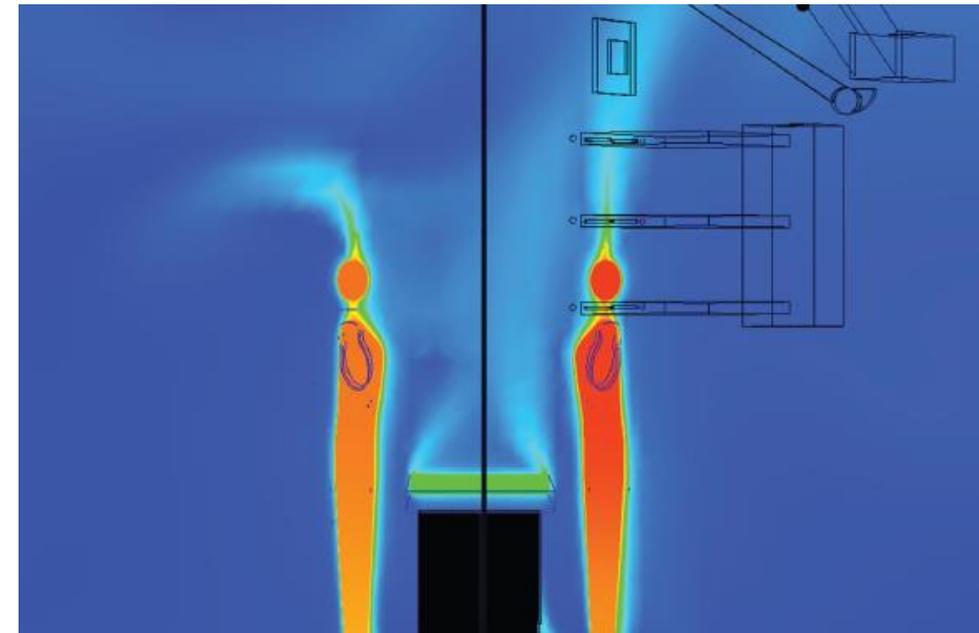
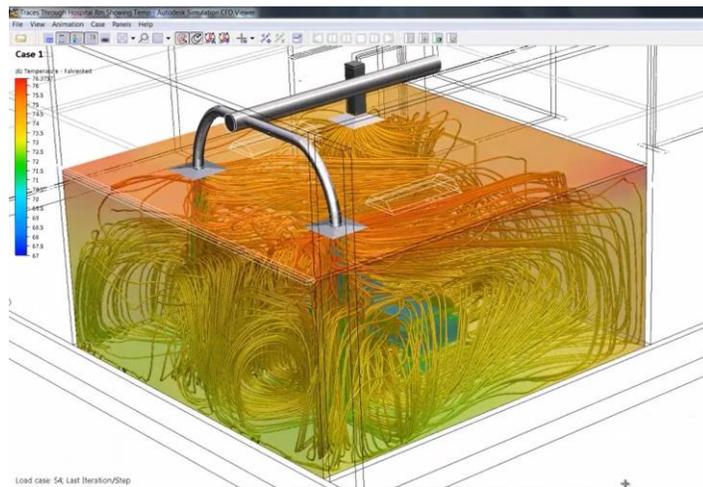
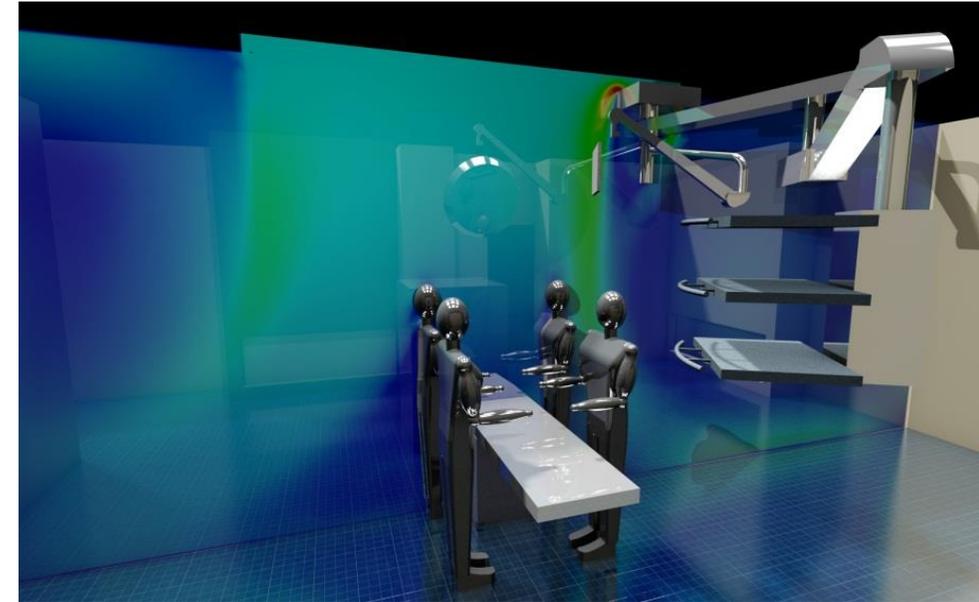
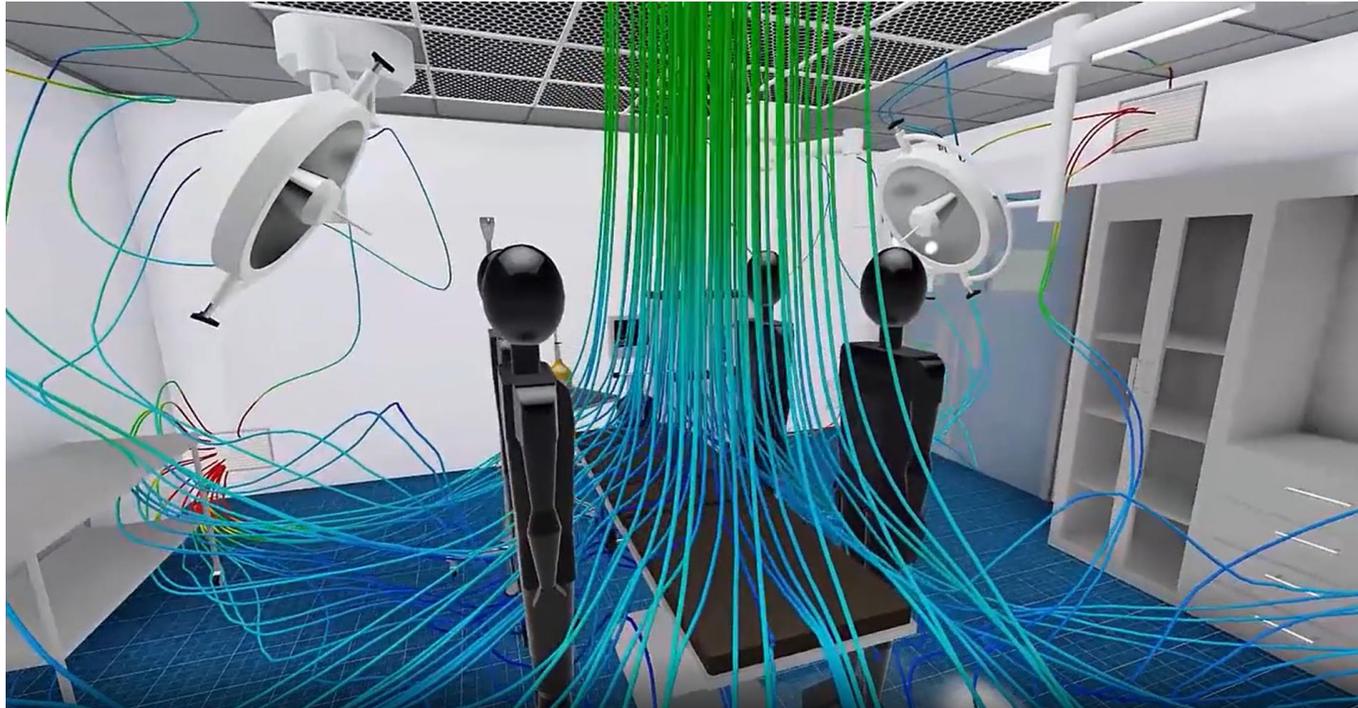


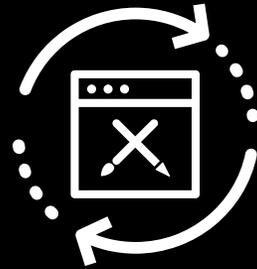
# Construcción Modular





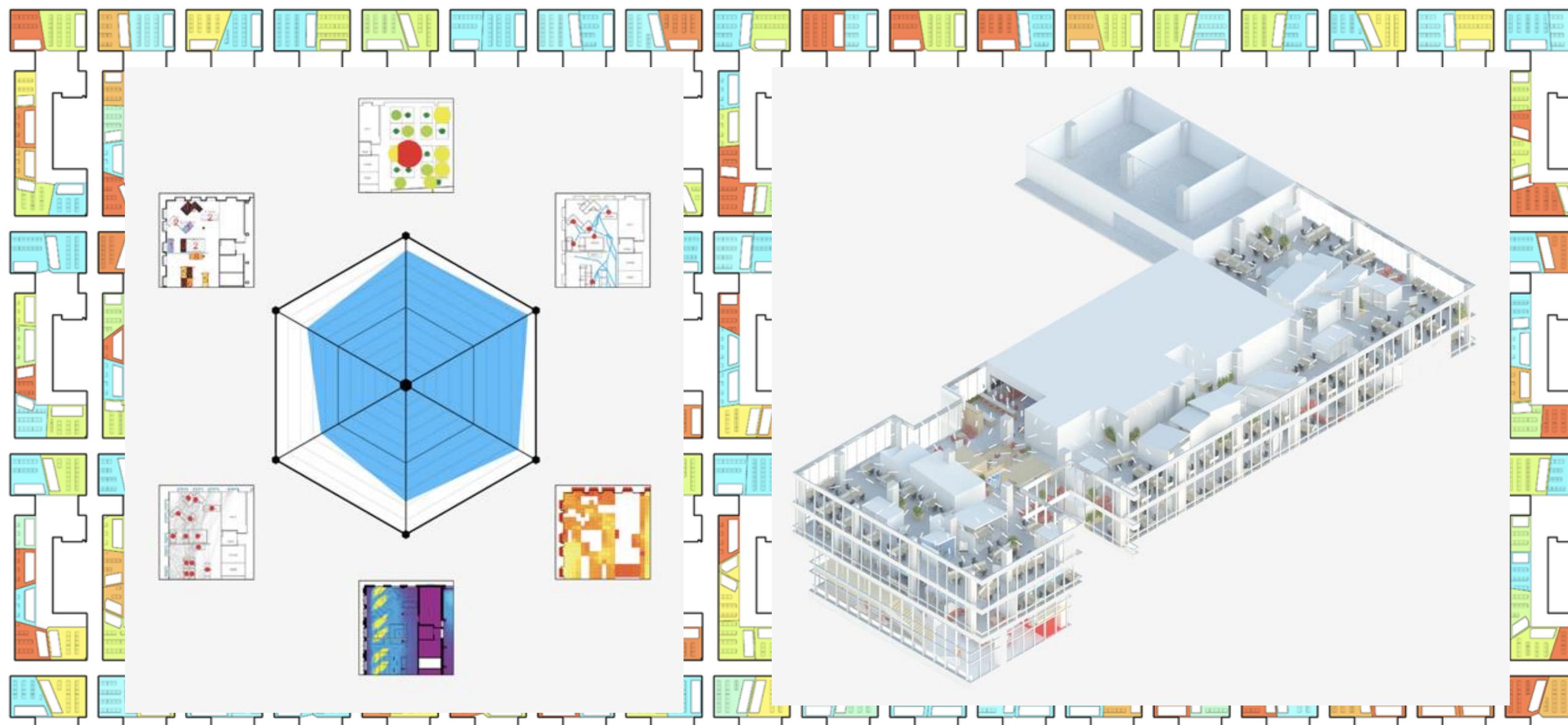
# Modelado de fluidos





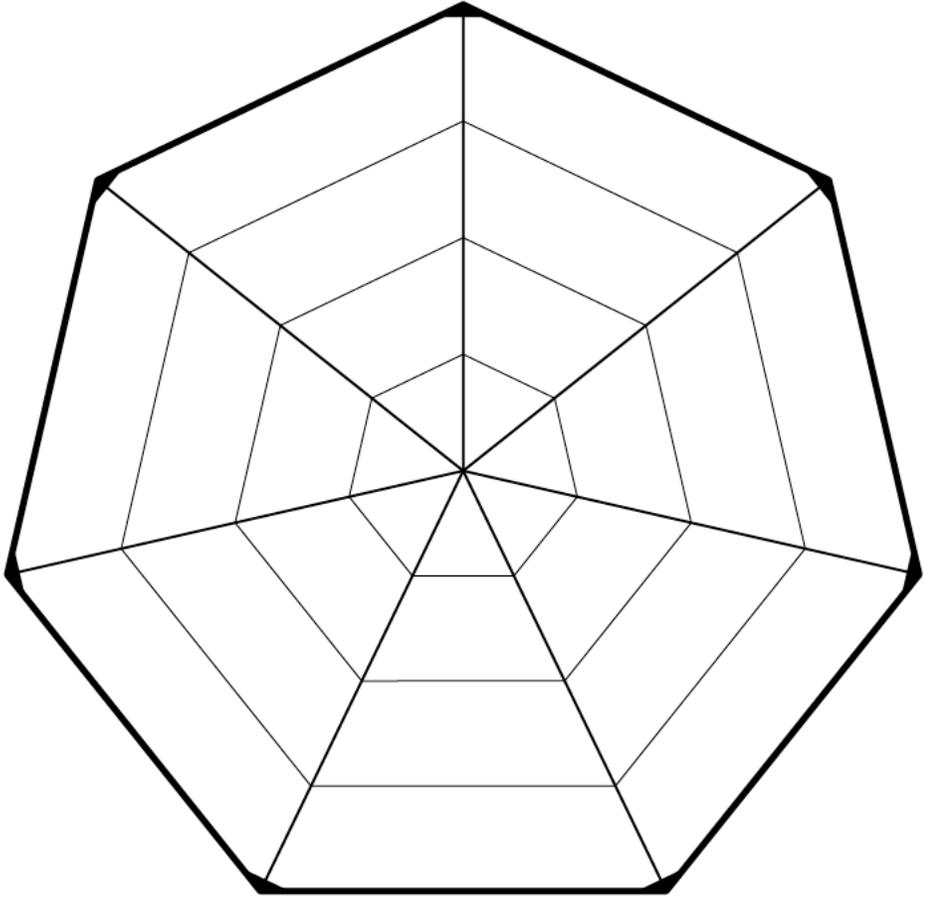
## Evolucionar

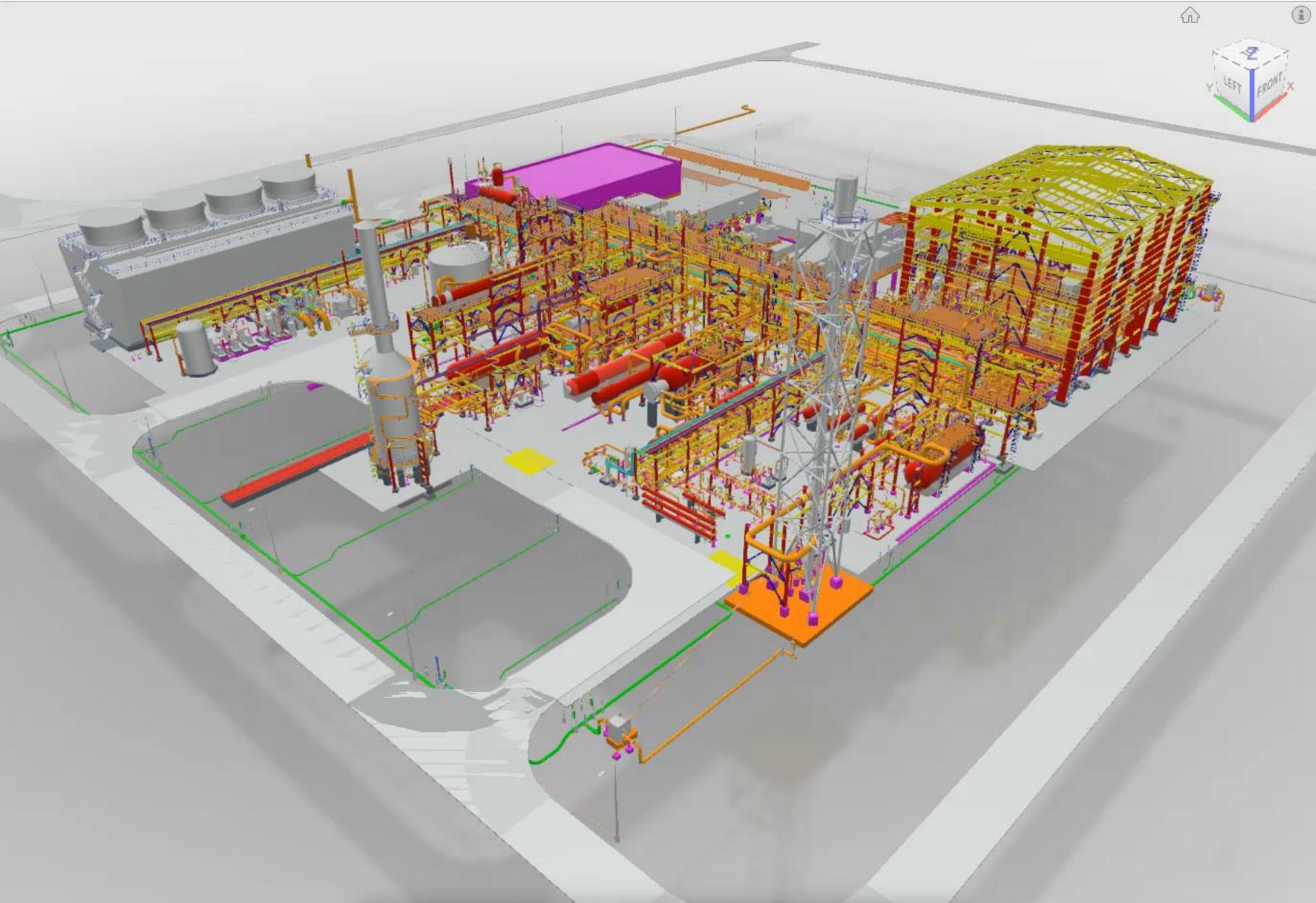
- Diseño y datos circulares
- Modelos de negocio innovadores
- Inteligencia Artificial / Construction IQ
- Metaverso
- Calculadoras de huella de carbono.



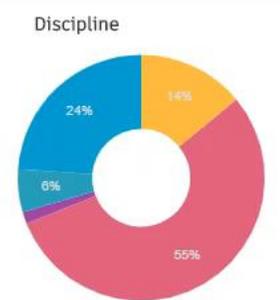
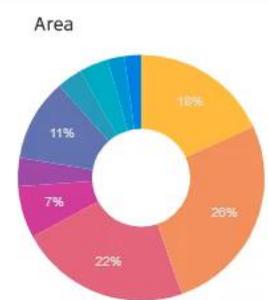
# Diseño Generativo



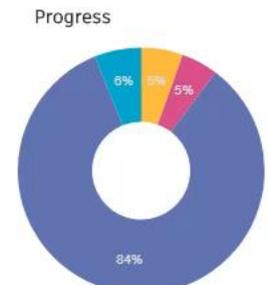
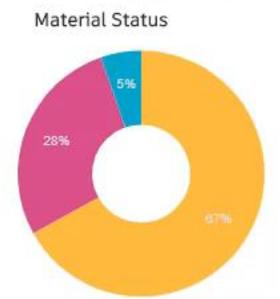
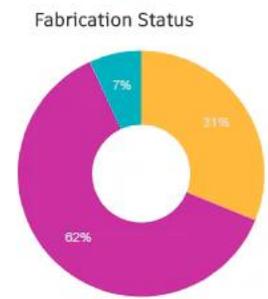
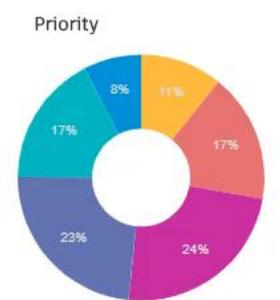
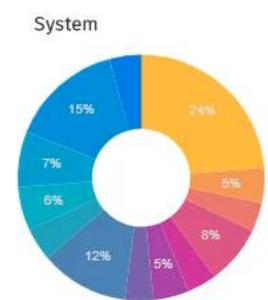




Project



Piping

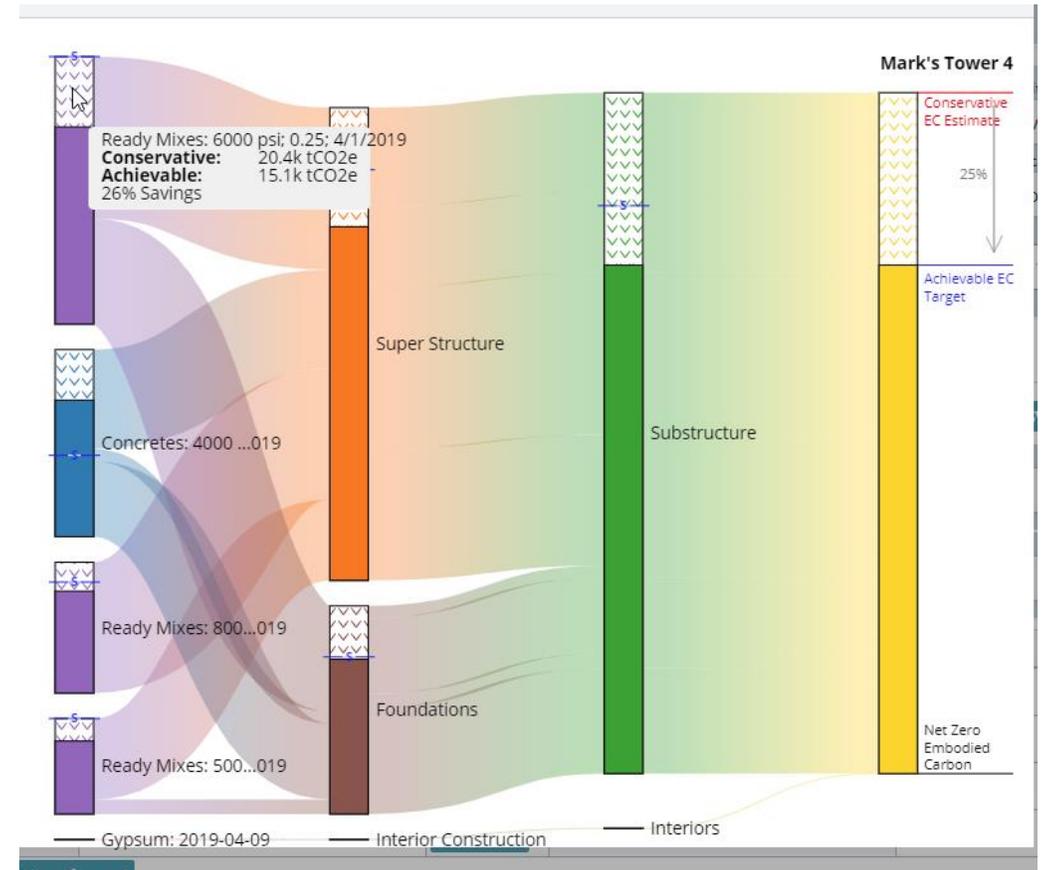
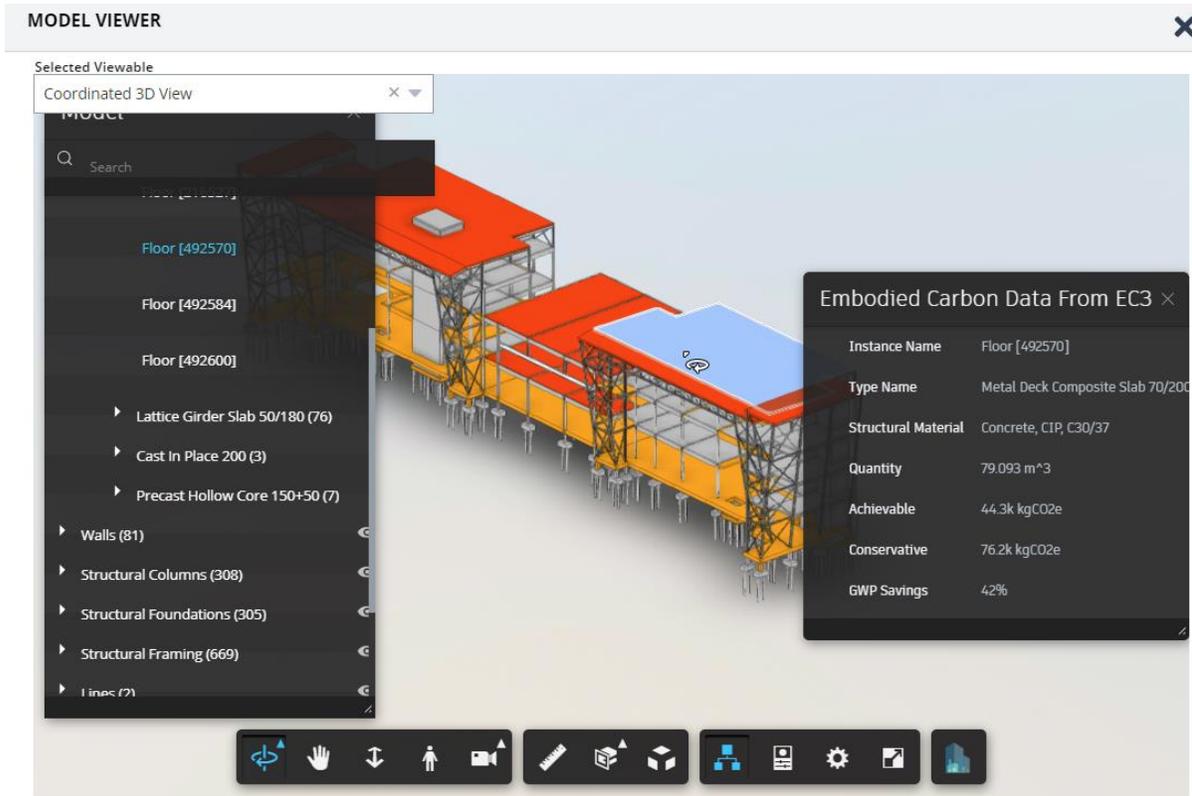


IWP

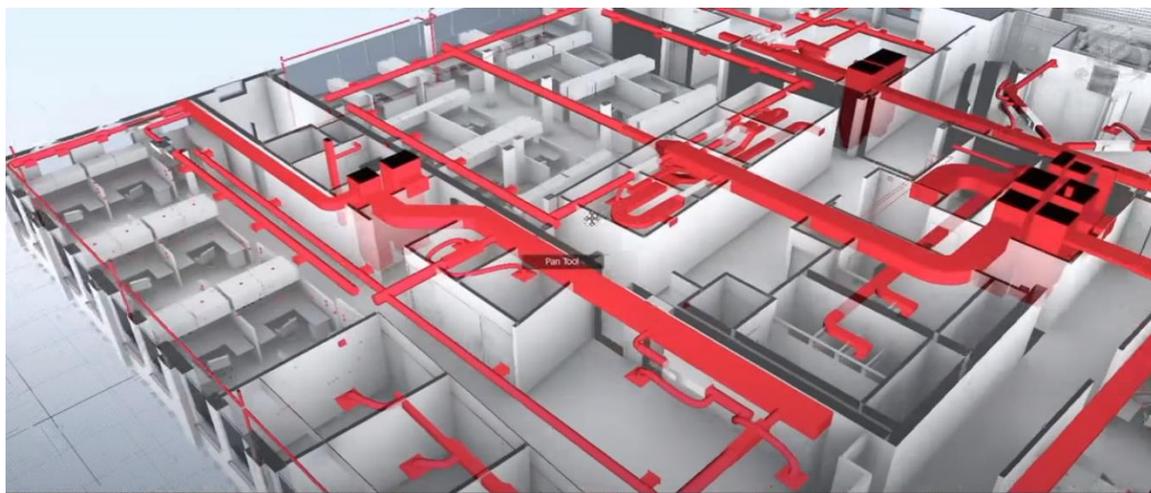
Value	% Components
Other	52.76 %



# Calculadora de Carbono Embebido en Construcción

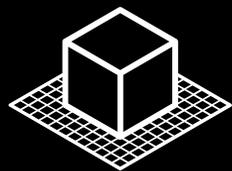
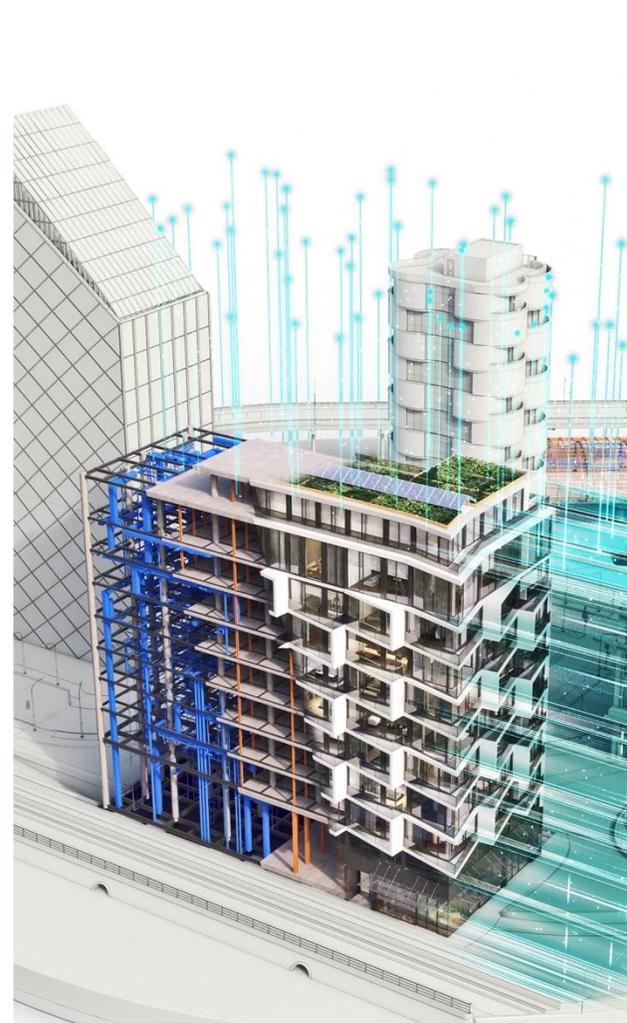


# Operación y mantenimiento





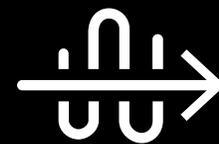




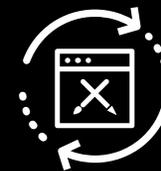
**Digitalizar**



**Conectar**



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**Evolucionar**



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