# adaptis

build circular.™

A decarbonization decision platform for buildings.

Adaptis is the only software platform for **whole lifecycle decarbonization** (A-D) of new and existing buildings. We are on a mission to make decarbonization management **intuitive**, **scalable**, *and* **affordable**.

Our tools help building owners and AEC professionals reduce energy needs and emissions, minimize the embodied carbon of construction, divert waste from landfills and extend building life.

We use proprietary, patent-pending methodologies and AI-powered technology to do this **20X faster** and at **one-tenth the cost** of traditional consultants, delivering **20%+ lower whole lifecycle costs** and **immediate payback**.
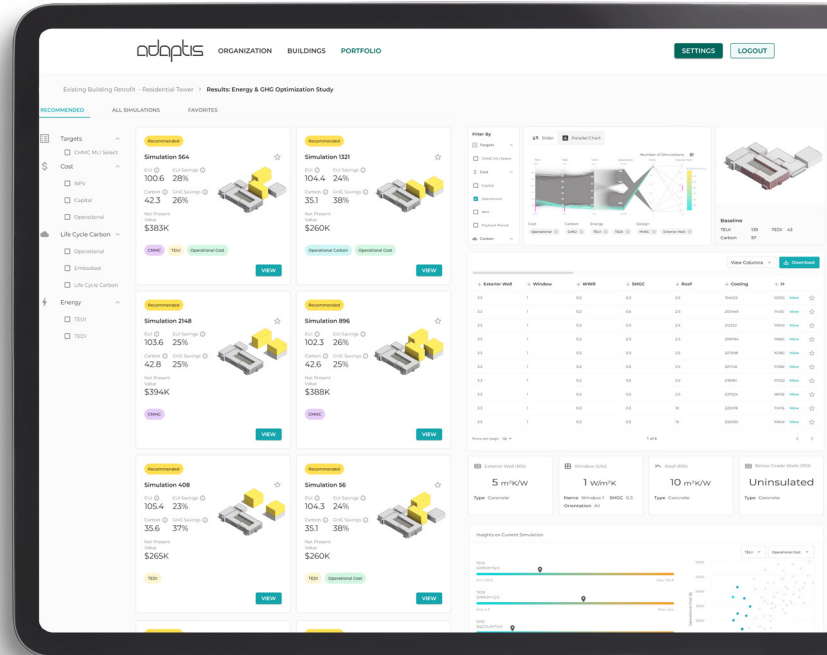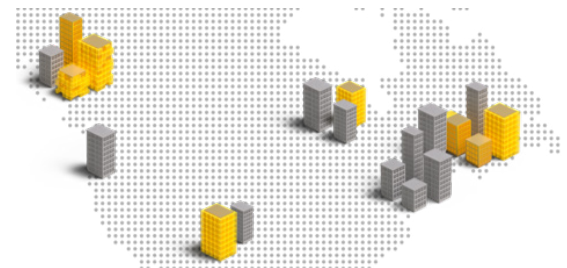

CUSTOMERS
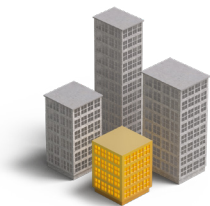
Individual Developers, Contractors and Building Owners

Individual assessments, one at a time

Architects and Consultants

Multiple assessments, simultaneously

Portfolio Building Owners, Developers, Municipalities, and Institutions

Multiple assessments, over time

TRIDEL   ARLINGTON GROUP   THE CORA GROUP   METAFOR   AMBUE   Triovest   minto   Avenue Living

TEAM

Adaptis is a diverse and highly technical team of architects, engineers, and sustainability experts, devoted to creating a decarbonized, resilient and circular built world. We draw on our extensive collective experience at industry-leading firms and advanced research experience (95%+ of team with PhDs/MScs in Engineering and Sustainability).

diamond schmitt
ENTUITIVE
SvN   KPMB
UNIVERSITY OF WATERLOO

Sheida Shahi, CEO, Co-Founder
Architect, OAA, PhD in Circular Engineering

FLUOR
wood.
Smithsonian
UNIVERSITY OF WATERLOO

Aida Mollaei, CTO, Co-Founder
Civil Engineer, PhD in Circular Engineering

CHALLENGES

The construction industry is responsible for massive consumption and GHG emissions:

- Consumes 50% of all raw materials.
- Produces over 40% of all GHG emissions.

Large degree of unnecessary demolition and not enough salvage and reuse:

- 60% of building demolitions could have been avoided with timely renovations, retrofits, and adaptive reuse.
- 85%+ of demolished materials end up in landfills, making up 25% of landfills.

Mandates for decarbonization are expanding globally:

- 45%+ emission reduction by 2030 (Canada, US, EU).
- Net-zero carbon by 2050, which requires retrofitting 80%+ of today's buildings (Ontario, US, EU).

> The current linear model of decarbonization is **slow, complex**, and **expensive**.

- It takes a multi-disciplinary team of 5+ consultants, 6+ months to develop recommendations for one building.
- These consultants charge $100K+ per building.
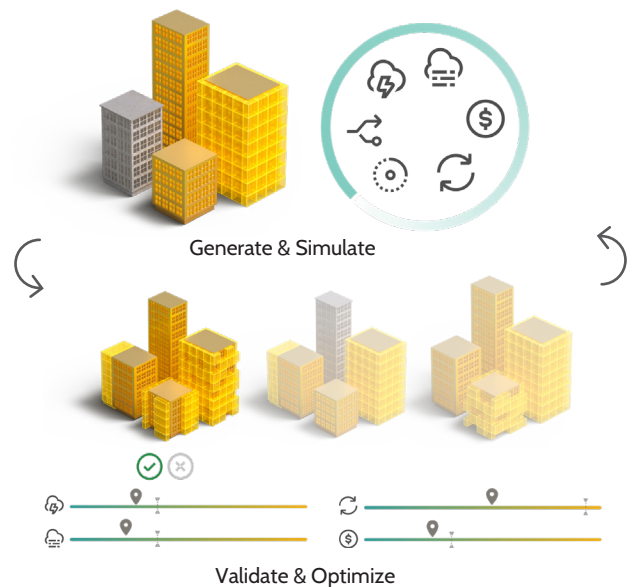- Even with the best-laid plans, 20% of projects end up over budget.

Initial Design   Analysis & Reporting   Revisions
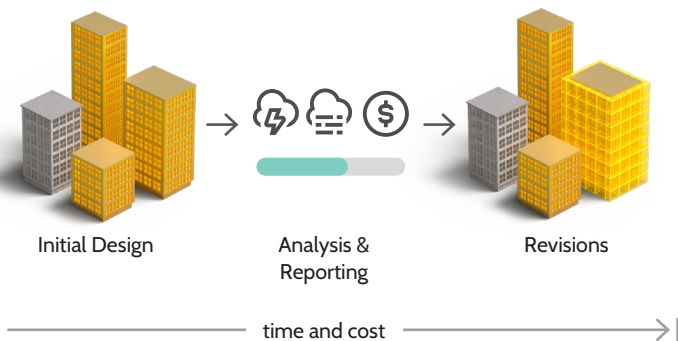
time and cost

SOLUTION

Adaptis is pioneering a circular model of decarbonization that is fast, affordable, and lives in real-time. At Adaptis, we:

1 Design
Simulate design options and generate recommendations that meet carbon, cost, waste diversion and compliance requirements;

2 Validate
Assess actual carbon impact during construction and occupancy; and

3 Optimize
Track and continuously optimize maintenance, capital flow, and plans for future adaptation or deconstruction.

We use proprietary, patent-pending methodologies for whole life cycle decarbonization assessment, optimization, and capital planning. In addition, our engines augment compliant methodologies and datasets for energy modelling, embodied carbon, and cost-benefit analysis.

Our methodologies adhere to industry standards, including ISO 14044:06, ISO 14064:2019, and the GHG Protocol. We fulfill all compliance criteria for mandatory reporting, such as ASHRAE, NECB, CAGBC, FCM, CIB and CMHC.

Generate & Simulate

Validate & Optimize

build circular.™

Adaptis enables **real-time** and **interactive** decarbonization planning for every building, from design to demolition

FEATURES

	PACKAGES (tailored to customer goals)		
Energy & Emission Reduction	Net-Zero Energy Planning	Net-Zero Carbon Planning	Whole Lifecycle Decarbonization Management
Operational energy and emission reduction	✓	✓	✓
Embodied carbon reduction		✓	✓
Lifecycle costing and cost-benefit assessment	✓	✓	✓
Climate resiliency assessment	✓	✓	✓
Funding program, certification, carbon-offset quantification and compliance automation	✓	✓	✓
Generated and optimized massing for improving environmental metrics[1] and emission reduction	✓	✓	✓
Circularity			
Lifecycle maintenance and waste reduction		✓	✓
Deconstruction and end-of-life planning		✓	✓
Material recycling and reuse maximization			✓
Material salvage value assessment			✓
Post-deconstruction tracking			✓
Material banks resiliency assessment			✓
Optimized Design for Circularity[2]			✓
Generated and optimized future adaptation scenario			✓
Decarbonization Management			
Decarbonization roadmap generation, comparison, and customization			✓
Year-over-year & cumulative cost-benefit[3] comparison across design/retrofit options and sequences of options			✓
Live roadmap—editable and auto-adaptive to market conditions, industry regulations, portfolio and asset-level changes			✓
Portfolio and individual asset views			✓
Progress tracker to inform future portfolio and capital planning[4]			✓

1. Including daylight availability, thermal comfort, wind, views, shading, radiation (facade, site), solar energy potential, etc.
2. Including Design for Disassembly (DfD), Design for Manufacturing (DfM), etc.
3. Considering benefits of i) each retrofit option, ii) sequences of assigned retrofits to a building, and iii) aggregated results of assigned retrofits on a portfolio.
4. Considering external factors in real-time, including: i) financial landscapes, ii) industry regulations, iii) portfolio or asset changes.

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