Canada's Climate Retrofit Mission

Why the climate emergency demands an innovation-oriented policy for building retrofits

Why should Canada launch a climate retrofit mission?

- We need to transform our approach to building retrofits to meet climate change goals
- We can trigger economies of scale and learning in building retrofits to reduce costs, increase speed, and enhance value

Why is this not happening now?

- Most energy efficiency policies evaluate retrofits using static cost-benefit analyses, with a focus on short term results
- The market structure is segmented. Each project is unique, and a building owner must navigate a confusing array of contractors and products
- At the current pace it will take 142 years to retrofit all low-rise residential buildings and 71 years to retrofit all commercial floor area
- We need to re-shape our market and policy environments to meet climate goals

What innovations could scale-up building retrofits?

Promising solutions include:

1. Integrated design and project delivery
2. Pre-fabrication of building components
3. Mass customization to deal with building specific challenges
4. Aggregating similar buildings into large-scale projects
5. Application of digital technologies
6. Enhance the user experience

New innovations combined into new retrofit delivery models should aim to:

1. Reduce costs, by at least 50%
2. Increase speed, to take days instead of months
3. Enhance value for users and society

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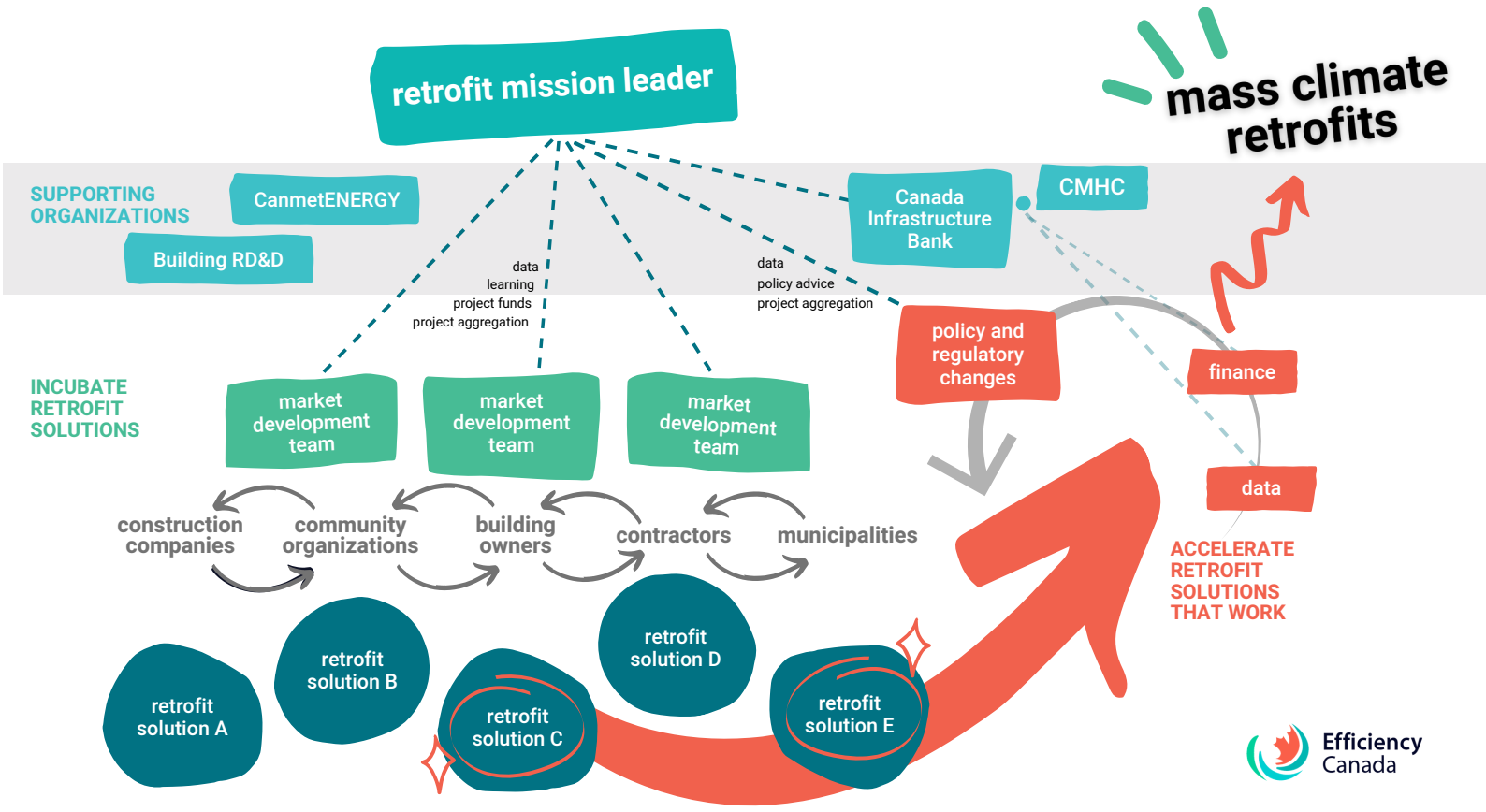

How can we do this?

- Through a mission-oriented approach that establishes a societally relevant goal and invites multiple bottom-up solutions
- A national organization can guide the mission
- On-the-ground market development teams will engage supply chains, building owners, and policymakers to re-shape existing markets, producing new retrofit solutions
- The solutions that meet performance goals will be accelerated to achieve the mass retrofit of the building stock.

What will this accomplish?

Within a generation, we can:

1. Eliminate fossil fuel use in buildings
2. Free up as much as 50 TWh of clean electricity to decarbonize other sectors
3. Prepare our buildings for climate change, making them healthier and more resilient

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