The Housing-Labour-Climate Trap: Mapping Interlocking Pressures in a Fast-Growing Bioregion

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About the Problem

The region faces a convergence of intensifying pressures including rapidly rising housing costs, increasingly precarious labour markets, growing migration, climate exposure, and demographic change. These pressures do not operate independently; they interact to form reinforcing feedbacks that constrain household mobility, strain infrastructure, and limit the effectiveness of incremental policy responses. This project would map how housing, labour, and climate dynamics intersect, revealing why many households remain trapped despite economic growth, and where systemic shifts could open pathways toward a bioregion that is both affordable and resilient.

About the Community Partner

The Waterloo Institute for Complexity and Innovation (WICI) is a research institute focused on applying complexity science to real-world challenges. WICI brings expertise in systems modelling, agent-based analysis, network science, and scenario exploration, and works across academia, government, industry, and community partners to support evidence-informed decision-making in complex systems.

Impact on the Organization

This project advances WICI's capacity to integrate housing, labour, climate, and infrastructure dynamics within a unified analytical framework, while generating reusable models, methods, and insights that support policy engagement, student training, and cross-sector collaboration.

Potential Connections & Data Sources

Housing and land market data (CMHC, municipal planning), labour market and commuting data (Statistics Canada, workforce boards), climate risk and infrastructure data (municipal plans, conservation authorities), mobility and accessibility data (regional transit agencies), and participatory systems mapping and modelling data.