THE FUTURE OF ABANDONED PROPERTIES

activating underutilized assets for equitable regional redevelopment

May 2019

Partners

Sponsors

Collaborators

OVERVIEW

This brief was developed by graduate-level students and faculty from the IIT–Institute of Design (ID) in Sustainable Solutions workshop to provide guidance for leaders in the Calumet region to intervene towards sustainable regional regeneration.

The work is the result of a 14-week collaboration between ID and the Calumet Collaborative, Fidelity labs and Hitachi. It briefly introduces the context of brownfields in the Calumet region, and presents sustainable solutions considering brownfields redevelopment as a critical path for **strengthening local economies, enhancing self-governance, developing equitable regions, improving life outcomes and building local capacity** in the Calumet region.

Sponsors

FidelityLabs

Fidelity Labs rapidly develops new products and businesses to revolutionize the financial wellbeing of Fidelity's current and future customers. Their passion combined with digital first, human-centered design and agile methodologies create solutions designed to drive transformational shifts and impact at scale.

HITACHI

Over the years, **Hitachi America R&D** has pursued research with leading business partners and research institutions, supporting many backbone businesses of Hitachi including semiconductors, automotive systems, IT platforms and networks. Today, Hitachi America R&D is applying this market/customer-driven approach in developing innovative solutions to lead Hitachi's "Social Innovation Business" in the Americas.

Partners

ID

IIT Institute of Design (ID) continually challenges what design is and can be. Founded by László Moholy-Nagy in 1937 as the "New Bauhaus," we focus not just on design itself, but the impact it has on the world around us. For over 80 years ID has ignited designers' imaginations—evolving design to combine form with human behavior, conquer complexity with clarity, and challenge convention through innovation in pursuit of a more sustainable future.

Calumet COLLABORATIVE

The Calumet Collaborative is a bi-state nonprofit organization dedicated to achieving inclusive regional prosperity and improving quality of life in the Calumet region through sustainable development. The NGO catalyzes innovative partnerships between Illinois and Indiana stakeholders to advance a thriving Calumet region with a focus on (1) Livable Communities, (2) Economic Opportunity, (3) Environment, (4) Culture and heritage.

ChiBy DESIGN

ChiByDesign is a Black-owned and people of color led human-centered design firm. Staffed by Chicagoans who care deeply about their home and dedicate their talents to designing the city that everybody deserves, ChiByDesign believes that empowering the people who are most affected by social disparity and environmental injustice with the tools and mindsets of design can unlock limitless creative and effective interventions for more equitable and sustainable futures.

Collaborators

RESPONDNOW

Respond Now enhances the quality of life in south suburban communities by working to alleviate hunger and prevent homelessness for people at risk.

THE COMMUNITY BUILDERS

The mission of **Community Builders** is to build and sustain strong communities where people of all incomes can achieve their full potential.

KENWOOD OAKLAND COMMUNITY ORGANIZATION

KOCO's organizing approach engages residents in identifying the issues that they want to see addressed, and facilitating the planning, strategizing and training opportunities to aid residents in addressing issues.

Everybody Counts

Everybody Counts develops programs and services identified by people with disabilities as being necessary and appropriate, and to increase community options for independent living through outreach, awareness activities, education and advocacy.

CLARETIAN ASSOCIATES
Building Community in South Chicago

Claretian Associates carries on a rich and collaborative tradition of responding to the needs of South Chicago and its surrounding communities by providing affordable housing and vital services that benefit the safety and wellbeing of our residents and families.

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I.
INTRODUCTION

Exective Summary

This brief is intended to yield alternative infrastructures for activating abandoned properties in the Calumet region. The explorations resulted from the integration of multiple methods, including design, systems thinking, and asset mapping. It is intended to provide creative pathways for those interested in exploring the future of abandoned properties in the Calumet region. This document represents the work of students and faculty, and it highlights potential interventions from a broad array of possibilities. It is also part of an ongoing collaborative effort to spark new conversations and mobilize actions oriented towards sustainable and equitable futures in the Calumet region and beyond.

This brief is divided into three main sections: Introduction, System of Solutions, and Next Steps. The Introduction section provides information about the context of exploration as well as the approach taken. The System of Solutions section relies on speculative scenarios to demonstrate how new interactions in the lives of the residents and visitors could give form to new economies in the Calumet region. This section also presents how these multiple scenarios are interconnected at three different levels in the system: micro (ecosystem of products and services, meso (platforms and infrastructures), and macro (social systems). Finally, the plans for the continuation of the project during the coming months are outlined.

The future of

Brownfields research project

The Future of Brownfields is an ongoing collaboration between IIT-Institute of Design and the Calumet Collaborative. During the first phase of the project (November 2017 - May 2018), the collaboration proposed five strategies for exploring brownfield redevelopment as critical paths for regional regeneration: leverage assets, empower science, involve residents, strengthen local economies, and build integrated infrastructures.

These strategies were used to inform the prototype of three concrete interventions during the second phase (May 2018- August 2018) :

- Flag Calumet: *a collectively built modular art installation that gathers data about environmental conditions to increase local residents understanding of and connection with the local environment.*
- Mini Calumet: *a simulation game designed to support local youth to explore alternative governance systems capable of dealing with the socio-ecological challenges of the Calume t region.*
- Act Calumet: *a digital platform for civic empowerment that mediates interactions among residents to optimize local resources.*

In its third phase (September 2018- December 2019), the collaboration advances these micro-pilots by iterating and refining the infrastructures prototyped in phase two, and co-designing alternative models for scaling up implementation and impact. This report refers to efforts underlying the Act Calumet concept.

Brownfields in the Calumet Region

The Calumet region is a post-industrial area, with approximately 900 square miles, home to over 70 municipalities. The region's boundaries encompasses the Southeast side of Chicago, South Cook County and Northwestern Indiana in the United States. This bi-state territory is not only large, but incredibly diverse. The region boasts proud and diverse communities, important natural ecosystems, and a powerful industrial heritage. During industrial development, the prioritization of economic growth over environmental responsibility led to high level of pollutants from industrial effluent and waste that compromised the integrity of the land, water, dunes, and other elements of the ecological landscape of the region.

cvriesendorp. 2011. "Calume t." Text. Field Museum. January 28, 2011

After years of disinvestment, a patchwork of abandoned industrial, commercial and residential properties has been left behind in the Calumet region. Current ownership systems are based on property rights that protects the owner, and prevents local residents from intervening on these sites. These models lead to inadequate solutions for re-injecting resources and life into those properties in a sustainable manner as they rely on external agents with specific interests engaging in slow and bureaucratic processes, usually with high value being lost through multiple transactions. However, if local residents could be empowered to reactivate these abandoned properties, then living conditions and their surroundings could be improved. So, could the Calumet region.

Design Approach

Through nonlinear, design-led approaches, researchers were able to uncover complex challenges influencing the redevelopment processes of abandoned properties, especially during the reactivation phase. The project was divided in four phases: featuring, integrating, scaling up, and transitioning. All of them were structured around prototyping activities that explored alternative services for reactivating abandoned properties. These services were intended to respond to social, cultural, natural, political, manufactured, financial, digital, and human implications shaping complex issues when redeveloping properties. Although not extensive, below we highlight key activities of each phase:

Featuring

Immersion & Site Visits

Site visits, prototyping, and observations surfaced several social dynamics in the region. The learnings from these engagements shaped the design trajectories represented in this brief.

- Francis Parkman and the neighborhood in Fuller Park
- Chicago mayoral candidate's forum in the southside
- Claretian Associates in South Chicago Neighborhood
- Community Builders in South side of Chicago
- Washington Park
- Abandoned property on S Federal St

Featuring workshop

Students participated in the co-creation activity exploring new flows of different types of capitals for enabling sustainable solution through the innovation lenses of ecological, governance, human, networks, cultural, built, digital and financial.

Integrating

Cross-pollination & Iterating

Students changed groups, and explored multiple of prototyping activities to test different hypothesis. They also co-develop new concepts with experts, community members, partner institutions, and other organizations.

Scaling Up

Expert forum discussion

The class hosted a panel where experts reacted to students prototypes and conceptual infrastructures. The exploration was centered around the introduction of new technologies and emerging financial services that could empower residents in reactivating abandoned properties in the Calumet region.

Transitioning

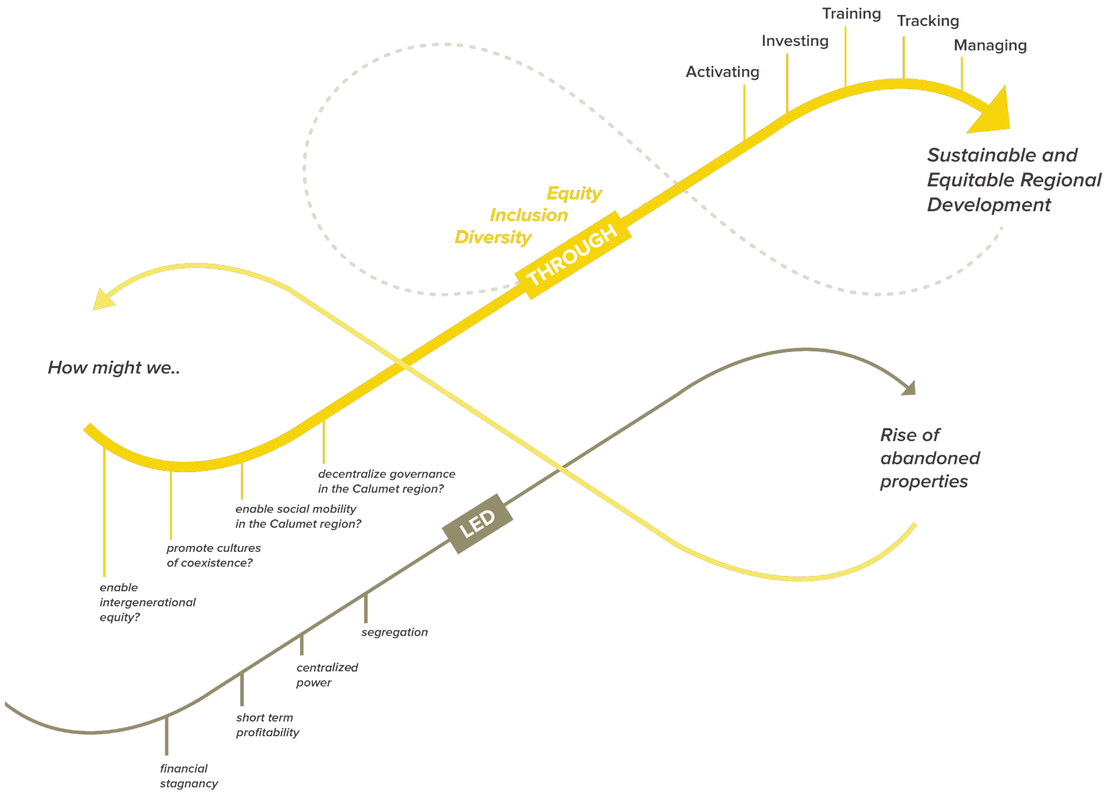
Workshop

Representatives of partner organizations and other experts joined a hands-on interactive session, and co-designed future scenarios based on the conceptual infrastructures and prototypes previously developed by the research team.

Rethinking a regional redevelopment problem

By exploring the complex challenges underlying abandoned property redevelopment in the Calumet region through new lenses, researchers were able to uncover several social tensions influencing reactivation processes. These include but are not limited to financial stagnancy, centralization of power, short-term profitability, and segregation.

Once these tensions were challenged, new questions could be raised, and alternative conceptual infrastructures were explored. On one hand, the questions presented below are not meant to be exhaustive; rather, they serve as an indication of new possibilities for leveraging the underutilized and under-realized assets available in the region. On the other hand, the conceptual infrastructures resulted from the early stage exploration centered around several fundamental challenges of diversity, inclusion, and equity embedded in the very nature of current market and economic structures. Combined, these efforts enabled researchers to uncover five actionable properties that guided their work: **activating, investing, training, tracking, managing.**



Activating

Bringing new activities and opportunities to abandoned or vacant spaces

Training

Equipping residents with new skills and expertise

Investing

Instilling belief in the region's long-term potential through contributions of money, time, effort, or energy

Managing

Coordinating efforts across the region

Tracking

Monitoring people and places to ensure safety, identify opportunities, and recognize good work

II.
SYSTEM OF SOLUTIONS

All solutions presented in this brief should be considered as interventions that simultaneously work not only to integrate multiple systems, but also to interconnect multiple levels (macro, meso, micro). The combination of three levels is to form a system of solutions for long-term, sustainable redevelopment.

Macro

Systems dynamics

It relates to systems dynamics. Rational knowledge is applied to understand the structures and functions based on laws of social, ecological and/or technical systems.

Meso

Platforms and Infrastructures

It relates to institutions, organizations and communities that reveal connections between micro-macro. Integrative knowledge is applied to fit functional and relational complexities.

Micro

Products and Services

It relates to adaptations of natural phenomena, as well as culture and its diversity at the individual level. Subjective knowledge is applied within specific contexts.

Portfolio of
Interventions

By incorporating the five actionable properties uncovered during research (**Activating, Investing, Training Tracking, Managing**) into structured ideation processes and prototyping activities, researchers were able to propose conceptual infrastructures that challenged current approaches to reactivating abandoned properties in the Calumet region. Combined, they can unlock the territory towards more sustainable and equitable futures. Recognizing that these are not representative of the multiplicity and diversity of potential futures, the interventions were designed to be speculative, and to prompt new ways of going about intervening in the Calumet region.

On the following pages, this brief presents several diagrams and scenarios to introduce alternative pathways for regional redevelopment.

Strengthening local economies

a strong local economy is evidenced by generative Calumet businesses and external business partnerships

Enhancing self governance

self governance is evidenced by stronger tenant-owner relationships, community lead programs and public private partnership

Improving life outcomes

improved life outcomes are evidenced by civic engagement, public services, and environmental remediation

Building local capacity

local capacity is evidenced through expertise development and job satisfaction

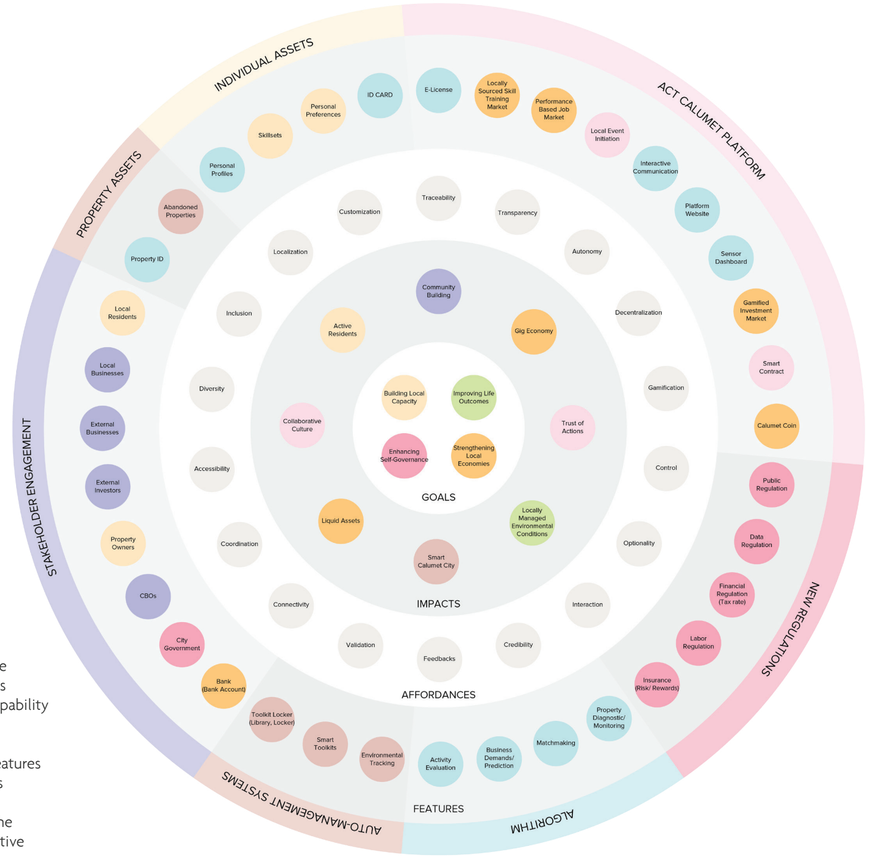
Sustainability lenses

How to read this diagram

Features can embed unique affordances into the infrastructures we operate in. These affordances determine the impacts we generate, and our capability to achieve broader societal goals.

The outermost ring suggests a cluster for the features being highlighted in the proposed interventions

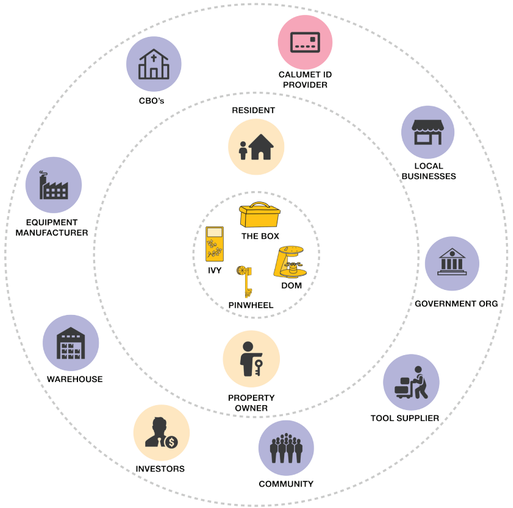
As you move towards the center, you can see the affordances those features bring and the collective impact they make in the service of our goals.



Understanding

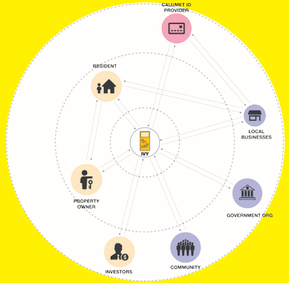
agents involved

Three key players are at the center of our proposed interventions: Residents, Property Owners, and Investors. These roles are not exclusive, but represent three distinct functions in our system. A resident is anyone who lives in the Calumet region. Property owners own land or residences. They may occupy their property, or they may rent it out to others. An investor is anyone who allocates resources (e.g. money, time, effort, energy, among others) towards the longevity of the region. These individuals may or may not live in the Calumet region. Through the five actionable properties, these agents are activated in different ways, consequently creating, extracting, and delivering different types of value.



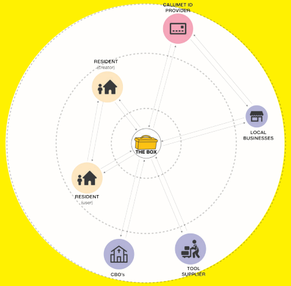
INVESTING

Bringing new activities and opportunities to abandoned or vacant spaces



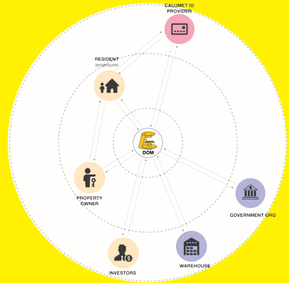
TRAINING

Instilling belief in the region's long-term potential through contributions of money, time, effort, or energy



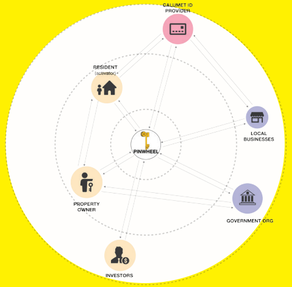
MANAGING

Equipping residents with new skills and expertise



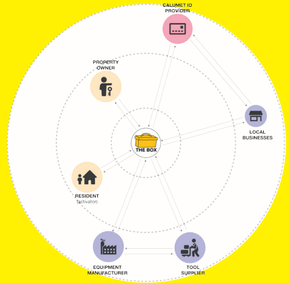
ACTIVATING

Monitoring people and places to ensure safety, identify opportunities, and recognize good work



TRACKING

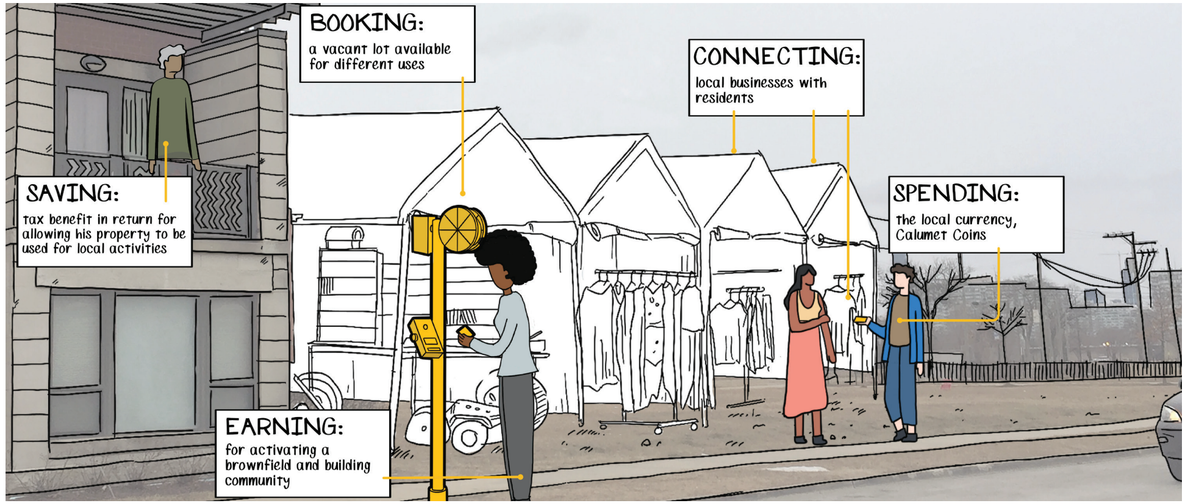
Coordinating efforts across the region



Repurposing

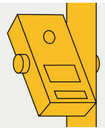
Owners and residents receive incentives for repurposing vacant lots and abandoned sites.

There is an infrastructure that tracks the type of exchanges and businesses happening in that space.



Accessible identification

The Calumet Card is a form of local ID that can be issued with flexible forms of verification.



Pop-Up infrastructure

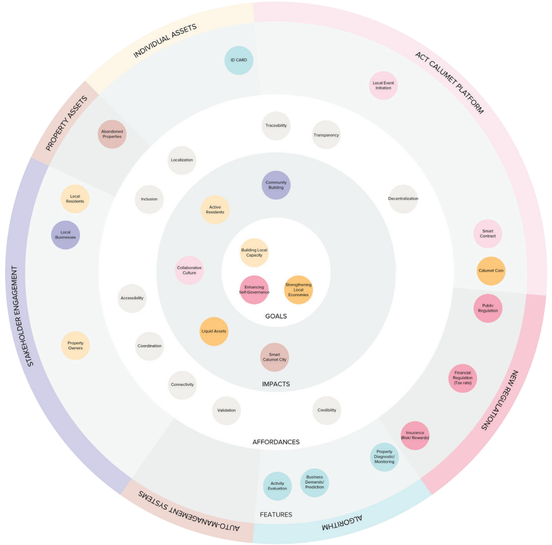
A wind-powered card reader grants Calumet residents access to vacant lots. Motion-activated cameras allow the landowner to safely monitor activity on their property.

Chip-enabled

The Calumet Card can be used like a credit or debit card with local vendors.

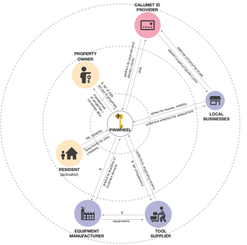
Anotomy of Systems

Shows the goals, impacts, affordances and features of the new infrastructure when residents and owners activate empty lots.

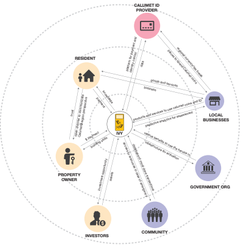


Activating

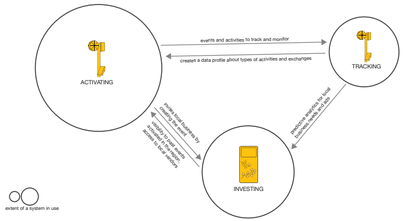
Tracking



Investing

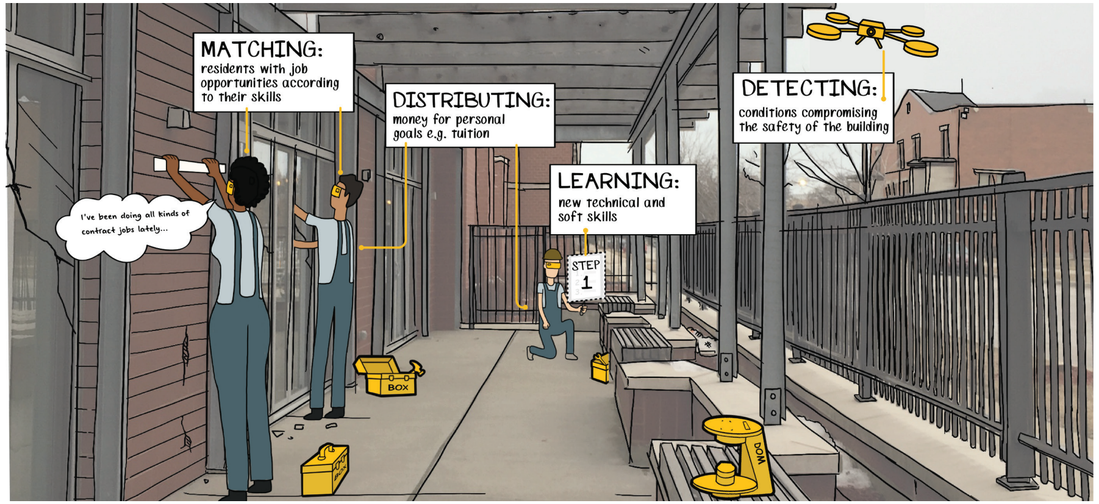


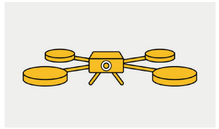
Connection Map



Building skills

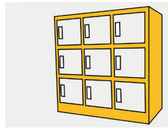
Residents receive on-the-job training to strategically fix local properties. Compensation is flexible and can be directed towards immediate needs, mid-term, or long-term goals.





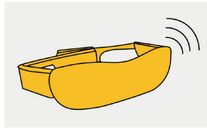
Smart monitoring

A sensor-enabled drone assesses properties using built in temperature, humidity, and air quality sensors along with a camera and GPS.



Crowd-sourced expertise

Residents can contribute and check out task-specific toolboxes from a shared locker.



Individualized content

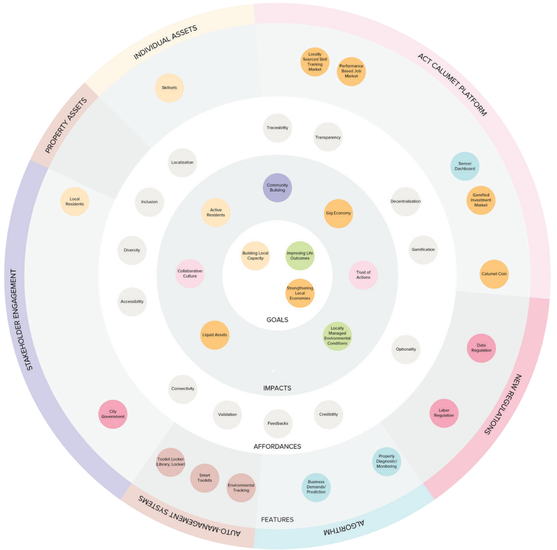
AR (Augmented Reality) glasses guide workers through tasks at an individualized pace. Tools embedded with haptic sensors provide real-time feedback.

Job matching

Artificial intelligence identifies and suggests job opportunities to workers with the appropriate skills.

Anotomy of Systems

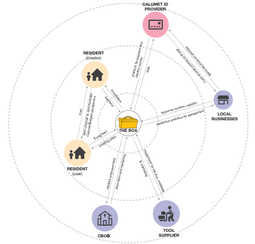
Shows the goals, impacts, affordances and features of the new infrastructure when residents and owners sign up for jobs, learn new skills and work.



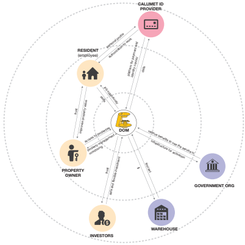
Investing

Tracking

Training



Managing



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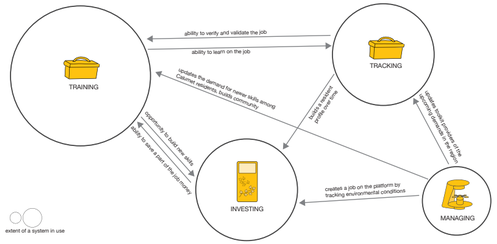
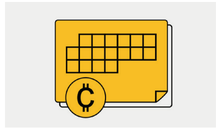


Liquidity

Residents with a proven track record can access funds in advance of completing a job to pay off burdens like parking tickets. Calumet Coins left to grow over time can be spent at a future date.

Encrypted

Blockchain technology ensures that the identity and activity of Calumet Cardholders are protected.



Flexible access

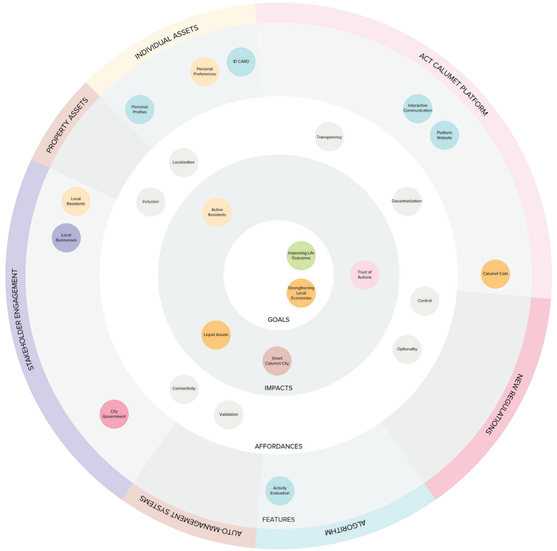
Access Calumet Coins in advance of completing a job to meet immediate needs.

Goal setting

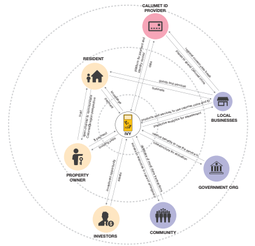
Accumulate more Calumet Coins over time by diverting earnings towards mid-term and long-term goals.

Anotomy of Systems

Shows the goals, impacts, affordances and features of the new infrastructure when residents and owners use the Ivy system.



Investing



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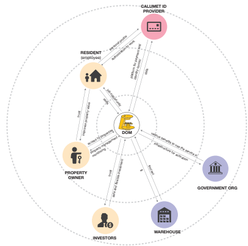

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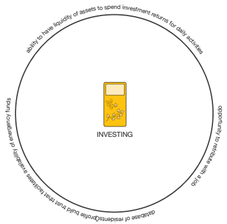


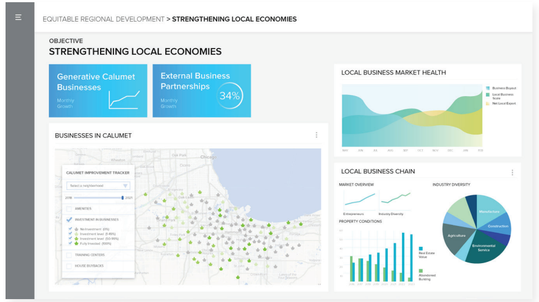
extent of a system in use

Speculative Dashboard

Regional View

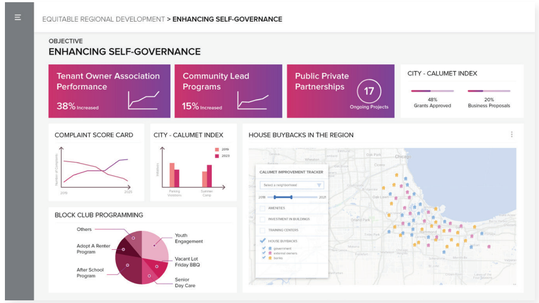
In this part, we present dashboards that resulted from speculations about how data would showcase the desired objectives: strengthening local economies, enhanced self-governance, improving life outcomes, and building local capacity.

The data is imagined to originate from multiple sources, such as, the different infrastructures that facilitate a multitude of interactions at the individual, property, city and regional level.



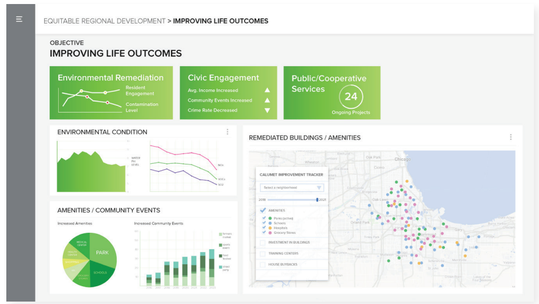
strengthening local economies

A strong local economy is evidenced by generative calumet businesses and external business partnerships



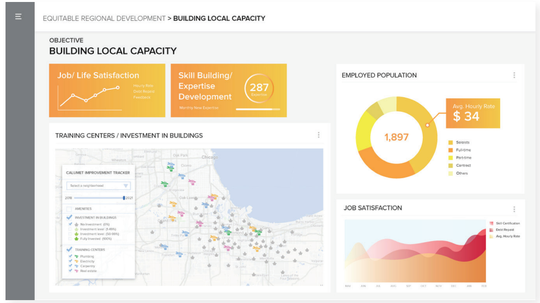
ehancing self-governance

Self-governance is evidenced by stronger tenant-owner relationships, community lead programs and public private partnerships.



improving life outcomes

Improved life outcomes are evidenced by civic engagement, public services, and environmental remediation.



building local capacity

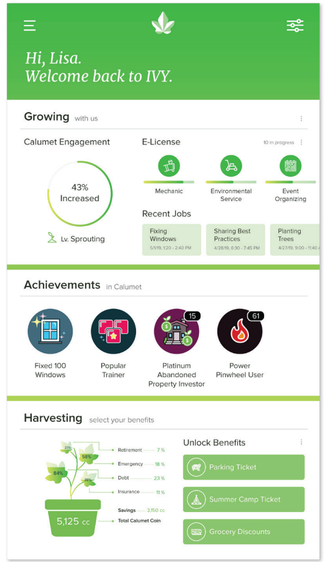
Local capacity is evidenced through expertise development and job satisfaction.

Speculative Dashboard

Individual, property & city View

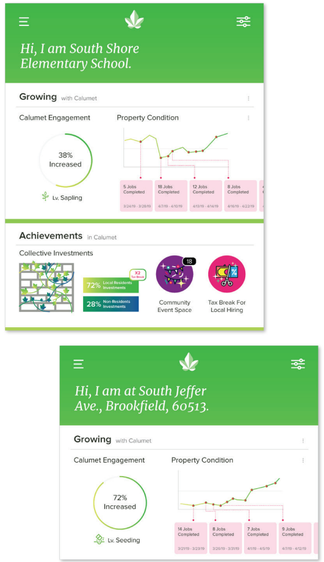
Individual profile view

This provides a stark contrast to how an individual is currently viewed. For example, **Lisa is currently viewed as a single mother, who is an immigrant and unemployed.** However, through this new system not only is she able to engage productively, there are new forms of value available to her to buy and sell in this new marketplace.



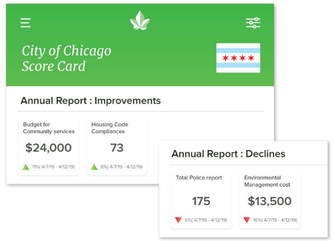
Property profile view

This provides a stark contrast to how a property is currently viewed. For example, **a public school needing repairs are seen as a liability.** However, through this new system, the property itself has a voice and is reframed as something that generates value for the community.



City profile view

This is a speculative view of the city's profile in this system. This is to emphasize the value gained by the city if they collaborate with Calumet in this initiative.



Speculative

Data Flow & Scenarios

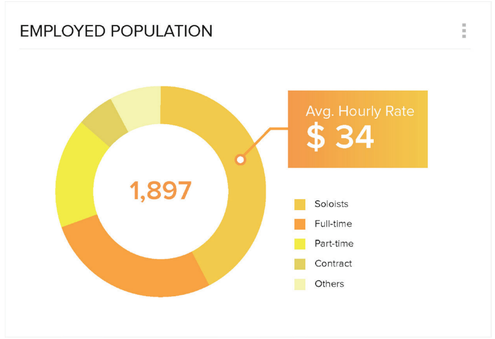
Data flows

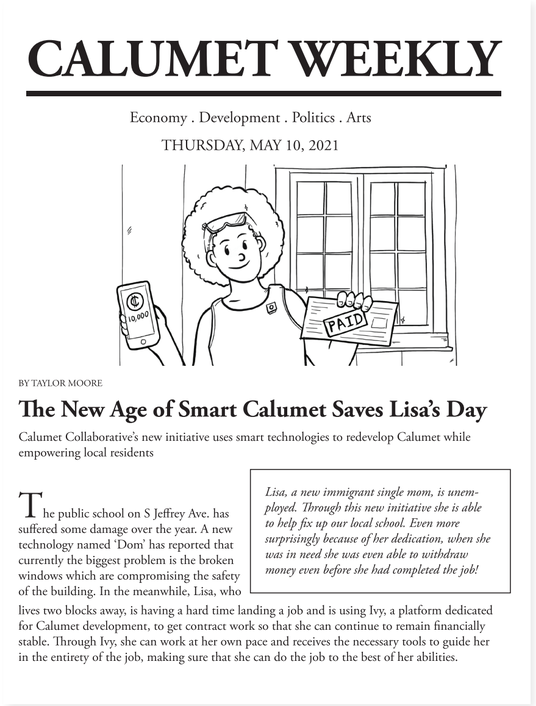
This is a depiction of how one micro level action at the individual level, comes to inform different metrics that sit in different dashboard views at the aggregate level

News realities

This is a depiction of how a human interest story is linked to the data behind the "building local capacity"

building local capacity





CALUMET WEEKLY

Economy . Development . Politics . Arts

THURSDAY, MAY 10, 2021

BY TAYLOR MOORE

The New Age of Smart Calumet Saves Lisa's Day

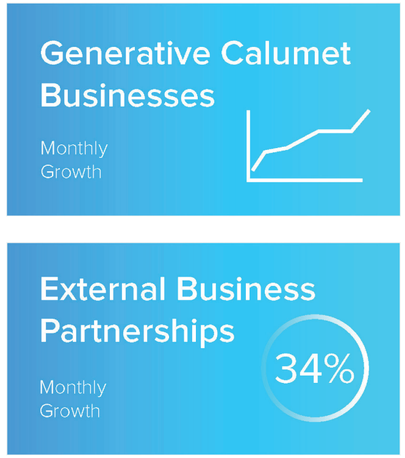
Calumet Collaborative's new initiative uses smart technologies to redevelop Calumet while empowering local residents

Lisa, a new immigrant single mom, is unemployed. Through this new initiative she is able to help fix up our local school. Even more surprisingly because of her dedication, when she was in need she was even able to withdraw money even before she had completed the job!

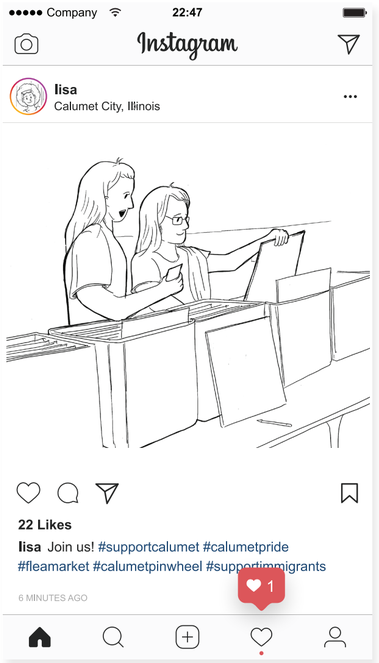
The public school on S Jeffrey Ave. has suffered some damage over the year. A new technology named 'Dom' has reported that currently the biggest problem is the broken windows which are compromising the safety of the building. In the meanwhile, Lisa, who lives two blocks away, is having a hard time landing a job and is using Ivy, a platform dedicated for Calumet development, to get contract work so that she can continue to remain financially stable. Through Ivy, she can work at her own pace and receives the necessary tools to guide her in the entirety of the job, making sure that she can do the job to the best of her abilities.

Share Calumet

#CALUMET #CALUMETFLEAMARKET



This is a depiction of how the dashboard may connect to social media and update with real-time information.



III.
NEXT STEPS

All solutions presented in this brief should be considered as interventions that simultaneously work not only to integrate multiple systems, but also to interconnect multiple levels (macro, meso, micro). The combination of three levels is to form a system of solutions for long-term, sustainable redevelopment.

Dr. Carlos Teixeira and Ph.D. Candidate Andre Nogueira have secured seed funding for micro-piloting the Flag Calumet project from the Arts and Culture team of the Kresge Foundation. Thus, as off today, The Future of Brownfields Research Project will continue until the end of 2019. Researchers are also interested in advancing the work of the Act Calumet during summer 2019 to prototype with individuals and organizations living in the Calumet region several concepts and platforms presented in this brief. The overall goals for the next phase would be to

(1) advance the findings from the Sustainable Solution Workshop Spring 2019 through rigorous prototyping, and

(2) apply for funding to support a sustainable, long-term research project.

We thank all the participants involved in this section of the third phase of the Future of Brownfields research project. Their commitment and contributions were critical to the development of this brief. We welcome feedback and suggestions that can contribute to moving this initiative forward.

THE FUTURE OF
ABANDONED PROPERTIES

activating underutilized assets for equitable regional redevelopment

May 2019

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RESPONDNOW
THE COMMUNITY BUILDERS
Everybody Counts
KENWOOD OAKLAND COMMUNITY ORGANIZATION
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