



# PROJECT KINETIC: MAKING INCLUSIVE MOBILITY A REALITY IN DETROIT AND MICHIGAN

Detroit is globally recognized as “Motor City,” and Michigan itself is famous for putting the world on wheels more than a century ago. As home to nearly one-fifth of the nation’s auto production — and the birthplace of the 20th Century’s revolutionary car, Ford’s Model T — Michigan has always been at the global forefront in designing and building the future of transportation.

The automotive industry as we know it is poised to change dramatically, disrupting the world of mobility as autonomous and electric vehicles become more common on the roads and connected, intelligent infrastructure begin to replace standard offline equipment. In the next century, up to [40 percent](#) of the miles traveled in major cities are expected to be traversed by electric and shared autonomous vehicles. Additionally, as more intelligent infrastructure comes online, it is expected that there will be up to 90 percent fewer crashes as new mobility solutions become more reliable and accessible for everyday drivers.

The only challenge is how to get there.

Like most American cities, Detroit depends on mobility to connect its residents to opportunities and fundamental services. Too many Detroiters have been forced in the past to either break their budgets to afford costly transportation options or else severely limit their access to jobs, health care, education and civic activities. Under Mayor Mike Duggan’s leadership, the city released a Strategic Plan for Transportation in 2018 that laid out a number of initiatives to increase the number of mobility options for Detroiters and improve the ones that are currently available. However, from the [highest auto insurance costs](#) in the nation to the lack of historical financial investment in transit, there continues to be a need for more inclusive mobility solutions in Detroit.

That is why it comes as no surprise that, despite Michigan’s leadership in the automotive space, industry, government and philanthropic leaders throughout the state are beginning to wonder whether there is more that can be done to propel Michigan — and most importantly, its residents — into the 21st Century of mobility solutions.

With that ambitious goal in mind, the city of Detroit joined with PlanetM, Michigan’s mobility-focused brand and business development program, as well as Boston Consulting Group (BCG) and BCG Digital Ventures to tackle this issue head-on. Together, they engaged a lineup of smart, strategic, well-connected and passionate partners to address and attempt to solve the mobility challenges facing Detroit residents while creating a roadmap for cities across Michigan and the nation to do the same.

## **What it Takes to Develop a Successful Public-Private-Philanthropic Initiative**

When Mark de la Vergne first took his position with the city of Detroit as its Chief of Mobility Innovation, he and his team hit the road running with its first major transit pilot with the ride-sharing company Lyft, providing them experience with bringing a mobility pilot from concept to reality. Through this process, the team also recognized the need for a more strategic and intentional approach to identifying and pursuing mobility pilots for Detroit residents. Knowing that the Boston Consulting Group (BCG) had recently created a unique innovation model for its private sector clients, the city joined forces with the group to determine how BCG’s methodology could provide the city a more human-centered and innovative development process.

In December 2017, the city approached PlanetM, Michigan’s mobility initiative through the Michigan Economic Development Corporation, and together the three parties formed a unique collaboration known as Project Kinetic.

United by the common goal of ensuring Michigan remains a global center for mobility innovation for generations to come, the group recognized that proactive and intentional steps needed to be taken to set Michigan up for future success.

That is why, after this initial partnership was decided, the group began identifying other key stakeholders in the state to join their efforts in applying BCG’s unique methodology to Project Kinetic. Centered on building

public-private partnerships to bring each sector's unique strengths to the table, BCG's methodology aims to develop new innovative mobility solutions by maximizing the contributions of each sector. Traditionally, the public and private sectors may operate independently of one another, and still successfully innovate and produce meaningful outcomes. However, as the automotive industry evolves, transportation needs change and mobility becomes increasingly high-tech, public and private sectors must rely on one another in ways they have not before in order to be even more successful.

When the group set out to identify others that could join the Project Kinetic team, each party engaged its own networks to identify potential partners. Those considered for Project Kinetic included the automotive, technology, utility, property development, and other sectors, many of whom were competitors, but had relationships with Detroit residents and were invested in bettering the city's quality of life. Partners were asked to commit staff and remain engaged in the solution development throughout the process. These requests presented concerns for some potential partners due to the financial and time commitments involved. In the end, however, Project Kinetic successfully engaged ten partners from the private, public and philanthropic sectors, and each of them contributed unique and meaningful perspectives and resources.

BCG, for example, contributed to the group by providing its methodology, along with the capacity to manage the projects and contribute deep expertise in business strategy and innovative mobility solutions. The public sector, meanwhile — including PlanetM and the city of Detroit — offered unparalleled access to residents and regulations, with the power to gather meaningful public input and influence city regulations to enable mobility solutions. The private sector, comprised of General Motors, Lear Corporation, Bedrock and DTE Energy, contributed its know-how in developing front-end and back-end software, along with hardware and other assets that could be built into the mobility solutions — not to mention the sector's access to capital which would be necessary to stand-up pilots and grow solutions. Finally, by involving the New Economy Initiative and Quicken Loans Community Fund to represent the philanthropic sector, Project Kinetic would have greater access to a network of critical partners from foundations and other social impact organizations, thus providing a deeper understanding of the challenges facing residents that would help inform mobility solutions.

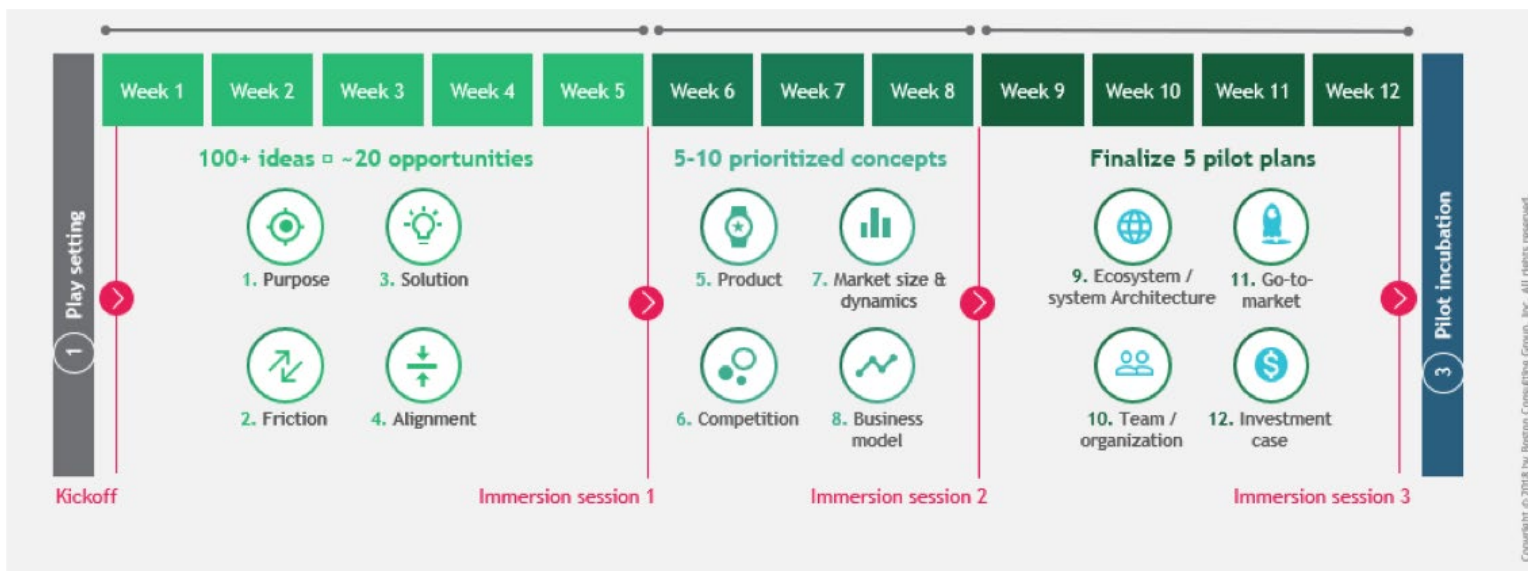
By working with the city of Detroit's Office of Mobility Innovation, PlanetM and BCG and BCG Digital Ventures engaged a strategic group of partners from each of these

sectors that had connections to and involvement within the state's mobility ecosystem, allowing them to provide unique perspectives to solving the city's mobility issues.

Together, the partners set out to identify and address mobility challenges for Detroit residents, with the goal of making it easier, safer and more affordable for residents to get where they need to go. The partners conducted more than 100 hours of focus group interviews with residents to identify what their greatest areas of concern were around mobility. Throughout the process, the partners were committed to ensuring the community was involved every step of the way. The focus group interviews helped identify four "problem statements," or objectives for Project Kinetic's final pilots to address:

1. *Neighborhood mobility*: The partners set out to improve mobility offerings for Detroit residents and identify solutions to complement existing public transit offerings.
2. *Downtown accessibility*: Traffic conditions and parking offerings needed to be improved to support the growth of activity in Downtown.
3. *Electric vehicle utilization and education*: To ensure Michigan remains flexible in developing future mobility solutions, strategies will be necessary to increase the utilization of electric vehicles, in addition to educating residents about these technologies.
4. *Traffic safety*: Transportation within the city must be a safe activity for both drivers and pedestrians alike. The final pilots would need to help build a future technology infrastructure that will reduce the number of traffic fatalities in the city.

Throughout Project Kinetic, the partners united in their efforts to make Detroit a global center for mobility innovation, intending for Project Kinetic to serve as a model for other cities and municipalities to emulate in order to better integrate mobility solutions into their own communities. Additionally, with all of the partners involved in the city's mobility ecosystem — and therefore bought into its future success — a critical element of trust was established from the very beginning, helping create bonds within the group that would carry them forward through the coming months of trial-and-error as Project Kinetic began to truly take shape.



## GETTING TO WORK: A 12-WEEK INNOVATION SPRINT

Before beginning Project Kinetic, Boston Consulting Group (BCG) and BCG Digital Ventures already applied its methodology when working with companies of all sizes to build timelines that allowed them to creatively and agilely identify solutions. This methodology involves a weeks-long Innovation Sprint, during which time a series of potential pilot ideas, considered concepts, are narrowed down to a select few.

In the case of Project Kinetic, elements of BCG’s methodology were adapted to produce the most meaningful concepts. These adjustments included increasing the number of partner organizations involved — Project Kinetic had eight — in addition to increasing the number of concepts that could be selected and adapting the Innovation Sprint timeline.

### A field of opportunities: Weeks 1-5 (Immersion Session #1)

Beginning in January 2018 and spanning the course of 12 weeks, the partners formed its original “working team” made up of members of their organizations. Centered within the mobility sphere — and with a laser-focus on increasing equity by addressing the four problem statements identified by Detroit residents — the partners spent the first five weeks considering any and every idea they could. These first five weeks involved conducting the more than 100 hours of focus group interviews to understand pain points of Detroit residents and what needs were not being met for the city; the group compiled information about what a typical day looked like for Detroit residents, to better understand their experiences with transporta-

tion throughout the city. While developing the concepts in these first weeks, the working team also conducted a market assessment scan to understand current industry and technology trends, along with analyzing other accelerators and exemplars that would impact the concepts. This preceded the ideation phase within the first five weeks where the working team conducted rapid brainstorm and concept ideation sessions and identified quick concept testing of early ideas.

Eventually, the more than 100 concept ideas that the working team identified during these first five weeks were whittled down to 20 concepts, which they presented to the Project Kinetic Board at the first of three Immersion Sessions.

The Project Kinetic Board is comprised of senior-level delegates from each of the partner organizations — the city of Detroit, PlanetM, BCG, DTE, Bedrock, General Motors, Lear Corporation and New Economy Initiative. During these Immersion Sessions, the working team made high-speed pitches to the board, which in turn would ask a series of questions regarding the feasibility of each project and how it aligns with the overall problem statements that Project Kinetic set out to solve. At the conclusion of each Immersion Session, the board would vote by evaluating each concept based on:

1. *Desirability*: does the concept solve a clear, compelling mobility issue for Detroit residents and city employees?
2. *Viability*: would the concept be financially sustainable over the long term?
3. *Feasibility*: will the concept be possible with today’s technological capabilities and would it be possible to implement it in 12 months’ time?

<b>Board</b> Votes on concepts to move forward in Immersion Sessions	 Jed Howbert Executive Director, Jobs and Economy	 Maria LaLonde Senior Program Officer	 Trevor Pawl Group VP	 Michelle Andersen Partner	 Chris Stutzman Partner	 Warwick Stirling Director Strategy and Innovation	 Praveen Singh VP Connectivity	 Camilo Serna VP Corporate Strategy	 Kevin Bopp VP Parking Ops	 George Roberts Director of Public Spaces
	 Mark de la Vergne Chief of Mobility Innovation	 Kevin Smith Manager	 Seun Phillips Director	 Mike Quinn Principal	 Tobias Krause Project Leader					
<b>Working Team</b> Creates a portfolio of new innovative business concepts	 Garry Bulluck Deputy Chief Mobility Innovations	 Stacey Matlen Consultant	 Amanda Roraff Operations Manager	 Bryce Koizumi Consultant	 Jason Robertson Strategic Design Lead	 Megan Staake Analyst	 Paul Maeda Sales Manager	 Gabe Rodriguez Manager	 Pam Taylor Mobility Project Manager	 Vittoria Valenti Public Spaces Project Manager
	 Kenny Fennell Consultant	 Nick Inchaustegui Intern	 Kathryn Snorrason Manager	 Laura Ucros Tellez Consultant	 Jayesh Srivastava Senior Strategic Designer	 Kate Wagoner Analyst		 Kelsey Peterson Corporate Strategy		

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Each member of the board could access this voting rubric electronically to determine which concepts would continue to the next round.

The first Immersion Session began with 20 concepts, and by the conclusion of the session, the working group walked away with a focus on 10 prioritized concepts.

### Entering the beta stage: Weeks 6-8 (Immersion Session #2)

In the following three weeks between Immersion Sessions One and Two, the working team refined the core components of each concept, in some cases testing the concepts with Detroit residents that would be typical users of the concepts. During these three weeks, the working team identified what the product would look like for each concept and began considering business scalability; in other words, it created business models, considered the market size, determined partner potential, analyzed alternative offerings and worked through the social impacts each concept would have. The group continued finalizing its pitch decks for each concept, building fast pitches that could still provide ample detail about each concept for the board.

Once the concept product itself was built, the organization needed to be finalized. This involved furthering the go-to-market strategy for each concept by defining the product and how to best position the service it offered; developing a brand for the concept's product; determining what an ideal customer buying experience would be; and understanding growth tactics. An operations plan

was also created by defining business processes to ensure smooth operation of the concept's business after it went live. Beyond that, each concept also needed to acquire a leadership team and talent to help ensure that, following the launch, each concept would be a continued success. This meant defining roles, creating job descriptions and hiring a qualified team with the right skill sets.

At the end of week eight, the working team met with the Project Kinetic Board for its second Immersion Session, pitching its 10 concepts and fielding increasingly more complex questions from the board to determine which concepts were worth pursuing further. At the end of the second Immersion Session, after the board members evaluated and voted on the remaining concept, the working team set off with five remaining concepts.

### Fine-tuning the concepts: Weeks 9-12 (Immersion Session #3)

For the remaining four weeks, the working team finalized those five concepts. This involved ensuring there were clear visions and value propositions, product definitions, and robust concept testing in place. The working team also finalized its business case and growth plans for each of the concepts, developing an investment thesis for the city and the partners, along with a sustainable partner engagement strategy to continue progress after the Innovation Sprint was complete. The working team also confirmed certain deliverables for each concept, including a portfolio, product concepts, concept video, and a strategic communications plan with key messaging.

Building the actual business of each concept involved determining the appropriate venture structure and governance model to help stand up the company. Each concept's business also reviewed and finalized its breakeven business model based on in-market testing that was conducted. Finally, an execution plan was established to carry out controlled testing and to prepare the business for the launch of each concept.

By the time the final Immersion Session took place at the end of the Innovation Sprint's twelfth week, each concept had been analyzed, refined and aligned to effectively address Project Kinetic's problem statements, with solid business plans and market strategies. During this meeting, however, the working team and Project Kinetic Board realized the final five concepts they identified would create data points about mobility options in the city; however, none of the concepts or current projects within the city focused on analyzing and interpreting that data. That led the group to add a sixth concept to the mix that would be data-focused, rounding out the total concepts for Project Kinetic.

While each concept was a product of the entire team, everyone remained involved in working on the concepts at some level; however, clear ownership needed to be defined in order to continue the momentum that was built over the 12-week sprint and ensure each partner organization knew what their next steps would look like moving forward.

### **Post-Innovation Sprint pilot incubation**

With the Innovation Sprint complete and the final six concepts identified, Project Kinetic moved into what is perhaps the most critical time period for the concepts as the group began working to stand the concepts up as pilots.

After the pilots were identified, the biggest challenge was to assign ownership of the pilots to the partners, who would then be responsible for taking the lead in standing up the pilot. These decisions also involved determining who would be best suited to provide the capital, assets and resources needed for the pilot.

Initial conversations around these next steps involved the potential creation of a separate entity, referred to as the Kinetic Launch Pad, which would allow for all partners to jointly own and fund the pilots. Beyond that, the Launch

Pad would provide necessary capacity and capabilities to rapidly invent, build and grow new community-focused concepts to continuously improve mobility for — and the lives of — Detroit and Michigan residents. A significant consideration in creating this entity, however, was the amount of resources needed to start, in addition to also needing to deploy the pilots. Ultimately, the partners determined the Kinetic Launch Pad was not the best direction to move in for achieving the goals initially set out for Project Kinetic, which were to prioritize getting the final six pilots deployed. Therefore, the Launch Pad was tabled for the time.

After that, the partners began identifying who among them would be best to take ownership over each pilot. Declaring ownership over a pilot involved a commitment to providing capital, assets and resources to fund the pilot, in addition to setting up and executing the pilot itself. The pilots and their owners included:

1. Car4U: General Motors
2. ChargeD: DTE Energy
3. Microtransit: City of Detroit
4. Busority: LEAR
5. ParkDetroit: City of Detroit
6. CTI: City of Detroit, General Motors

Following this process, PlanetM took over the management of Project Kinetic and established a new meeting cadence for the working team and board. The working team continued working closely to stand up the pilots and held monthly project management meetings to discuss the progress of each pilot, discuss challenges and coordinate with one another to overcome barriers by relying on each other's networks and resources. The Project Kinetic Board, meanwhile, continued to meet quarterly for more macro-level status updates and direction.

During this pilot incubation phase, the working team for each pilot first focused on finessing each pilot as it prepared to launch each of them within the city. While some of the work involved in this phase was already developed during the 12-week sprint, this phase went even further to identify the granular details necessary to successfully deploy each pilot. Throughout this phase, additional funding was also identified and raised by the working team and board to support the eventual launch of each pilot.

# REFLECTING ON PROJECT KINETIC

Project Kinetic was truly a one-of-a-kind mobility endeavor that will revolutionize the way Detroit and the state of Michigan approach future mobility solutions.

As with any undertaking that deviates from the status quo, the process of implementing Project Kinetic was not completely linear. Along the way, the partners — including the working teams and the board members — faced their share of challenges while also learning critical lessons about successfully developing and implementing future mobility solutions.

## **Disrupting a hundred-plus-year-old industry will be difficult**

Simply put, doing new things is hard. Change can be uncomfortable and humans by nature are resistant to significant shifts in the status quo, and Project Kinetic was just that; by using the methodology from BCG, Project Kinetic was inherently different. From its public-private-philanthropic partnership design to its high-intensity 12-week Innovation Sprint to its final pilot incubation phase to make each pilot a reality — Project Kinetic required steadfast commitment, trust, and engagement from all those involved in order to overcome the challenges it faced.

## **Money doesn't grow on trees**

At every step of the way, Project Kinetic was heavily dependent on the funding commitments from its partners and their networks, and securing that funding proved difficult. In the pilot incubation phase following the Innovation Sprint, the implementation of each pilot was slowed further as funding was still being raised, procurements were still pending, partnerships were being amended and approvals were being pursued throughout the process, instead of being identified and resolved prior to implementation. This led to additional issues, as certain pilots utilized funding provided through federal grants, which came with bureaucratic strings attached, ultimately delaying the launch of certain pilots even further.

## **Change moves slowly**

After the rapid pace of the 12-week Innovation Sprint, the much slower timeline that followed for launching each pilot was challenging in many ways. Each partner had their own ideas for how best to proceed with the pilot incubation phase. At one point, the partners considered creating the Project Kinetic Launch Pad as a standalone entity that would focus on deploying the six pilots and act as an idea-churning entity where private industry could join with the

public and philanthropic sectors to identify new pilots. This entity would essentially turn the Innovation Sprint into its own business model.

Through continued conversations between the partners about the best options for moving forward with deploying the six pilots — as well as what any future work should look like — the group determined the best way to stay true to Project Kinetic's mission was to prioritize deploying the six pilots they identified. This led to the identification of Project Kinetic's eventual operating platform, which was to support the deployment of six pilots by connecting concept owners to resources, capital, talent, partners, assets and opportunities that move each concept from pilot to scale.

Even continued engagement from partners was not guaranteed, as the frequent, cross-functional touch-points that were taking place during the highly intensive Innovation Sprint were no longer occurring at the same cadence. By establishing regular meetings between the working teams and the board helped create accountability for continuing to move each pilot closer to its eventual launch.

## RECOMMENDATIONS FOR FUTURE STUDIES

Not only did this experience help the partners understand how intricately connected they all were to one another and the state's mobility landscape, but it also provided them all a meaningful perspective of the challenges Detroit citizens face when trying to navigate within their city. The lessons learned by the partners are critical for others that may be looking to replicate Project Kinetic, to keep in mind in order to succeed.

### **Community comes first**

With its genesis coming from the city of Detroit and BCG, Project Kinetic was hyper-focused on ensuring the residents of Detroit were at the center of every single step of the process. If asked for the reasoning of the group's approach at any point in the process for Project Kinetic, the partners would have an exact answer as each step was informed and approved by the community members themselves.

While it can be exciting to tout innovation that takes place within a community, it is necessary to ensure the innovation is intentional and of true benefit instead of being mere lip service; in other words, the community's needs and improving their overall quality of life must be prioritized above all else in order to have a meaningful impact and achieve long-lasting solutions.

## Listening can be underestimated

Every partner involved in Project Kinetic contributed a unique and valuable perspective, and each person and their organization held a great amount of influence within the city and state. Each person was purposefully chosen to sit in that room together week after week, month after month, to develop, build and deploy these pilots. By checking egos at the door and taking the time to genuinely listen to one another's thoughts, feedback and concerns, the partners were able to productively tackle any challenges that came their way and strengthen their own relationships with one another even further.

## Do not be afraid of the word “no”

At different points along the Project Kinetic journey, the partners had to be comfortable with both turning down opportunities and having their own proposals rejected. As with any undertaking, mission creep is a real phenomenon, and it was necessary at times for the group to decline certain opportunities — promising or exciting as they may have been — in order to ensure resources were used responsibly, and to ultimately stay true to their original goal of improving the lives of Detroit residents through increased mobility solutions.

## CASE STUDY: CAR4YOU

**The Car4You Pilot: A revolutionary community car-sharing program that provides low-cost vehicle access by the hour in Detroit's Osborn neighborhood.**

- **Timeframe to stand up: March 2018-August 2019**
- **Team: General Motors, Maven, Matrix Human Services, Osborn Neighborhood Alliance City of Detroit, PlanetM**

Over the past decade, downtown Detroit has rebuilt itself through a years-long renaissance. However, as the downtown district experiences a resurgence, the city's surrounding neighborhoods are also working to create additional opportunities for their residents, especially around issues of mobility. Today, the city of Detroit is home to more than [672,000 residents](#), but it has a large footprint in the state, being able to fit the cities of Manhattan, San Francisco and Boston within its boundaries. With a space this large, too many residents are left facing a lack of public transit in certain areas of the city, creating transit deserts in neighborhoods and other residential clusters. Through collaborative partnerships between community

members, advocacy organizations, and the private and public sectors, neighborhoods are developing creative solutions to support greater accessibility and mobility options for their residents.

Car4You is a revolutionary car-sharing program that offers low-cost vehicle access by the hour in the Osborn neighborhood on the East side of Detroit. Although there have been low-income car-sharing programs deployed in the past, Car4You stands out due to its unique partnership approach across the public, private and philanthropic sectors, in addition to the pilot's focus on building a business model from the onset.

When the group originally began preparing for the 12-week Innovation Sprint, a key problem statement they set out to address was neighborhood mobility. Just as much about the integration of high-tech innovations in our transportation, mobility is also an indicator of a high quality of life. For individuals without the means to afford or access transportation, this presents challenges for completing daily tasks that many take for granted. From going to work, securing job interviews, visiting the grocery store, picking up prescriptions or accessing childcare, mobility provides a quality of life that is vital in the creation of equitable economic opportunities.

With this mandate in mind, the group set out to bring the pilot to life. General Motors knew that when it came time to implement the Car4You pilot, it would be critical to have community-based partners to help shepherd it through to the finish line. Ultimately, the partners included Maven, General Motors' mobility brand; the nonprofit Osborn Neighborhood Alliance and Matrix Center, a community hub on the northeast side of Detroit; neighborhood residents; the City of Detroit; and PlanetM to bring the pilot to life. Along the way, however, the team was faced with its share of challenges, both those anticipated and those unexpected, that taught them valuable lessons along the way.

## Identifying home base

Before the team could move forward with implementing this new service, it needed to identify a neighborhood to host the pilot. As with any new endeavor, signing onto the pilot would require a certain amount of commitment, trust and passion for addressing mobility and accessibility issues.

The nonprofit Osborn Neighborhood Alliance and Matrix Human Services became a key partner alongside GM, Maven and PlanetM to get the community buy-in critical to deploying the pilot. Acting as a community hub, Matrix already provides a variety of services for residents, acting

as a food pantry, offering youth services, employment-related support services and providing a senior center. Matrix had already explored mobility-related services in the past and was willing to explore a new program like Car4You to provide its residents better access to services and resources through mobility solutions.

## Building out the fleet

Once the neighborhood was on board, the team had to identify the types of cars that would be deployed in the Car4You fleet. There was much consideration around whether the fleet should be electrified or if it should be made up of traditional internal combustion engine, or ICE, vehicles. When identifying what the fleet would look like, the team was tasked with building out a business case and model to justify the decision. Ultimately, while an electrified fleet would be ideal, it would have increased the cost of the project significantly, therefore GM supported the Car4You pilot by supplying off-lease Chevy Spark models for the fleet. These vehicles ultimately leveraged the greatest amount of efficiencies, as they were in the early stages of their life cycles, kept the overall program costs low, and allowed Maven to provide access to the vehicles at the lowest rate for the neighborhood's residents. Beyond that, the pilot also leveraged the local team at Matrix to support with daily needs (e.g. cleaning and maintenance) to further reduce costs, as well.

## Addressing contract complications

When it came time to solidify the legal details of the agreement, the team at General Motors shared a typical Maven Parking contract, which outlines conventional terms around each party's responsibilities and liabilities; some additional details were added to help clarify how Maven and Matrix would support the vehicles on a daily basis. While this contract was similar to those typically used for Maven's agreements, certainly these were new terms for the Matrix and Osborn's team who were not familiar, nor had been exposed to this type of agreement. As a result, the on-going discussions to resolve and help parties get comfortable with the agreement likely extended the process for an additional 6 to 9 months while the team at Matrix and its legal support team reviewed and considered the contract with GM. In the end, the delay allowed all partners to be entirely comfortable with the project, as offering the additional time and relationship building opportunities, which reinforced the ultimate goal of the pilot. This also emphasized the need for the group to establish trust with the neighborhood in order for the pilot to provide a strong benefit for the community. On the other hand, however, this delay required the team

to reevaluate when the pilot would be rolled out to the public.

Concerns around how the local team would afford to maintain and clean the vehicle fleet every day were also addressed separately through General Motors' corporate giving program, providing them a \$5,000 grant to support the cleaning, maintenance and parking fees for the vehicles. As a private sector company with fewer bureaucratic processes to navigate, the support from GM's corporate giving program helped keep the pilot moving smoothly while the insurance contract was sorted out.

## Introducing the pilot to the public

Once the team was ready to introduce the pilot to the public, it leveraged a community event, the Osborn Neighborhood Parade, that was taking place in the Osborn neighborhood in August 2019, more than nine months after its originally planned launch date of November 2018 which — without having set out to achieve this type of revolutionary pilot before — the group now understands may have been an optimistic timeline. A few days ahead of the parade, Maven, Osborn, and the City of Detroit invited local influencers to a small event to help educate them on the service, teach them how to sign up and use the program, and offer a chance to answer questions. These individuals could help spread the word in the community as well as act as programs ambassadors during the event.



*The Maven tent introducing the Car4You pilot in Detroit, MI. in August 2019.*

During the parade, Maven set up a tent with a Chevy Spark model vehicle on display while team members from, GM, Maven, the city of Detroit, PlanetM, and the community members recruited to act as ambassadors by Matrix, were on-site to educate the public about the pilot. The



interest and engagement with the pilot at the community event exceeded the team's expectations. The Car4You team anticipated it would take time to see members of the community signing up for the phone app because the neighborhood had never hosted a car-sharing program like Car4You before; however, that day they signed up 10 residents on the spot. Throughout the day, community members shared their interest in the pilot, taking time to sit in the car itself and experiment with using the phone app.

Critical for the usage of this pilot is access to a cell phone to operate the phone app, along with a credit card to pay for the vehicle; however, not all residents may have access to these items, which in turn challenges the nature of this pilot being committed to increasing accessibility options for residents. For those that do not, residents appear to be leveraging family and friends to be able to utilize the pilot, and in the four months that the pilot has been live, this issue has not prevented community members from utilizing the Car4You service. The team is continuing to track this issue and willing to explore additional solutions to address these challenges.

As a typically car-sharing program, Maven (and Car4You) does not require its members to have their own car insurance, as the Chevy Sparks in the fleet are insured by the team deploying the pilot. Offering this benefit — especially in a city and state with the [highest car insurance rates](#) in the nation — was a highly attractive feature of the pilot for community members.

Today, the Maven and Car4You fleet is available for residents to utilize 24/7 and has increased its utilization rate to approximately 7.5 percent within its first four months. The Car4You team remains committed to continuing its education efforts for the community, engaging community ambassadors to advocate for the program and promoting the availability of the app through Matrix's office in Osborn neighborhood. The team continues highlighting the significant benefits for residents who utilize the pilot, including the increased accessibility to fundamental services like groceries, prescriptions and childcare, all of which contributes to a strong quality of life.

## KEY TAKEAWAYS

While standing up the Car4You pilot, the team learned a series of valuable lessons to help inform their work on similar projects in the future.

### **Leverage positive relationships**

A key aspect to successfully launching the pilot was having the City of Detroit lead the identification and introduction of the partners. While General Motors and Maven were sincerely interested in building both the community relationship as well as a positive business model, leveraging the City's working relationship with Osborn Neighborhood Alliance only bolstered the trust between parties. The City also had the knowledge and appreciation of the cultural match between the organizations, which ultimately played out very positively.

### **Don't make assumptions**

When General Motors presented the insurance contract to the Osborn neighborhood alliance, it considered the contract a standard agreement that the company establishes for many its partnerships; the community members, however, did not anticipate receiving that type of detail and intricacy in the contract and as such, the introduction timeline was significantly delayed in order to work through those details, some of which may have been avoided if the agreement was presented earlier on in the discussions. In the future, each organization now recognizes the value in building trust at the outset to help processes like these run more smoothly.

### **Be the right kind of partner**

When it came time for the team to introduce the pilot to the public, it recognized that the pilot would be better received if it was introduced by fellow community members using a peer-to-peer approach. Not only did this result in the community buying into the pilot more quickly than the team expected, but it built trust with the community ambassadors that the team engaged in the process, ensuring residents felt like they were involved in a major decision impacting their community.

### **Patience is key**

The team involved in rolling out the pilot was passionate about seeing it come to life; however, it was critical that the team be patient to allow enough time for partners and community members to buy into the idea and ensure everyone involved was comfortable and on board with the Car4You pilot. That is why, when the rollout timeline was pushed out by months and the various contract complexities were dissected, the team held off on rolling out the pilot until all parties involved were comfortable and united in their enthusiasm to launch.

# CASE STUDY: CHARGED

**The ChargeD Pilot: Four ChargePoint DC fast charger stations located in the heart of Detroit that enable people to fast-charge their electric vehicles (EVs) while enjoying the nearby community park and learning about the benefits of EVs and mobility technologies.**

- **Timeframe to stand up: March 2018-September 2019**
- **Team: DTE Energy, Blue Energy, Chargepoint, City of Detroit, General Motors, PlanetM**

At the very beginning of the Innovation Sprint, team members from DTE Energy identified a concept idea that would enable greater electric vehicle utilization in the city of Detroit and would help residents better understand these technologies. Through the ChargeD pilot, the group — led by DTE Energy with support from Blue Energy, Chargepoint, the city of Detroit, General Motors and PlanetM — strategically positioned a first-of-its-kind charging infrastructure within the city to encourage the deployment and use of electric vehicles (EVs). While there are other chargers available in the area, these chargers often require a vehicle to be plugged in for anywhere from five to sixteen hours to receive a full charge. As a result, unless residents have the ability to charge at home, driving an electric vehicle can invoke “range anxiety” for residents and visitors of Detroit. This presents a significant barrier to EV ownership for many city residents living in apartment complexes or condominiums and also to EV deployment for fleets of transportation network companies.

## How Long Does it Take to Charge an EV?

Typical time to fill up an 80-mile battery by charging type



The ChargeD pilot is helping increase EV accessibility for all Detroit residents and visitors by allowing them to charge their vehicles within 30 minutes, creating a foundation for a future network of similar DC fast charger stations in the city. Through this pilot, the group is also helping to enable deployment of a fleet of ridesharing electric vehicles, which would in turn increase mobility options for residents and visitors.

To begin, DTE and the city of Detroit launched an RFP seeking interested partners for the ChargeD Pilot. Through this process, Blue Energy and Chargepoint were brought onboard. However, in addition to their Project Kinetic monthly member meetings and quarterly Board meetings, the ChargeD team needed to establish a weekly cadence of check-ins to keep the working group engaged, aligned and moving forward. Once established, these meetings lasted nearly a year.

As the team navigated the process, a series of challenges arose that were both anticipated and unexpected.

## Location, location, location

One of the largest concerns at the beginning of the implementation process for the ChargeD pilot was the question of where these fast chargers would exist in the city. The group wanted to identify an area that made sense in terms of both density and nearby activity, so drivers could enjoy nearby shops or green space while allowing their vehicles to charge, in addition to ensuring accessibility to the spaces themselves.

For nearly eight months, the group worked through options for different locations throughout the city for these chargers. Initially, the group considered installing six chargers at Capitol Park, believing that because the city of Detroit owns the park land, it is also actively engaged with the detailed operation and plans for the park. However, while the team was conducting a site visit to Capitol Park, it discovered the renovation plans by the Downtown Detroit Partnership (DDP) — a business development service separate from the city that is responsible for the operations on all park land throughout downtown Detroit — severely limited the parking spaces available.

Recognizing the lapse in communication between their team and the DDP, the ChargeD team quickly integrated the DDP into their planning for the fast chargers. With their assistance, the team came to consensus that the best and quickest way to move forward was locating four fast chargers at Beacon Park. Here the team could benefit from DTE-owned land adjacent to a DDP-operated downtown park with sufficient city-owned parking spaces.

## Permitting surprises

While the group was working to build this fast-charging infrastructure, it was aware there was no set blueprint for doing so, as this would be the city's first network of fast chargers. As such, the process for attaining right-of-way permits, land licensing permits, building permits and others became a painstaking and timely process.

However, this also highlighted yet another benefit of the unique nature of Project Kinetic's overall public-private-philanthropic partnerships; while DTE Energy and Ferndale Electric — the electrician selected through an additional RFP process by DTE for electrical work on the customer side of the meter — would work together to apply for permits as needed, they benefitted by having a champion within the city of Detroit to help them better understand the permitting process and help them in moving the permits to approval. In the end, it took 9 months overall to receive all permits necessary to install the ChargeD infrastructure in the park, but in hindsight, the team realizes this could be significantly shortened if all necessary permitting requirements were laid out upfront and submitted in parallel where possible.

## Integrating software

The team placed a high priority on ensuring the customer experience using the charging infrastructure was as seamless as possible. However, paying for parking through the city's ParkDetroit app and paying for the charging station itself through ChargePoint's app involves the customer navigating two separate systems and providing multiple payment streams for one transaction. The team acknowledged the ideal scenario would be to create a single point of payment for customers that would then ultimately be split into two revenue streams on the backend between the city and Blue Energy. However, integrating these two software programs proved more difficult than anticipated. In the end, the team was unable to integrate software prior to launch and made sure to increase the awareness of the two apps when rolling out the chargers to the community. While this solution allowed the pilot to move forward, the ideal outcome would be to have a more seamlessly integrated customer experience by paying through a single app.

## Introducing the pilot to the public

The group rolled out the ChargeD pilot to the public in September 2019, holding an event at Beacon Park to demonstrate the capabilities of the fast chargers and emphasize the commitment of the city, private industry and the state in creating an all-electric future. During the event, General Motors and DTE altogether provided four Chev-

rolet Bolts to demonstrate the use of the fast chargers, and members of the public could explore the new infrastructure in Beacon Park. While DTE Energy acted as a project manager throughout the installation process, Chargepoint provided the charging equipment, and Blue Energy will own and operate the infrastructure moving forward.



*A Chevrolet Bolt during the ChargeD rollout event in Detroit, MI, on Sept. 18, 2019.*

The public's overall reception to the pilot was largely positive. While the team did not conduct a heavily targeted outreach campaign ahead of the rollout event, nearly 100 community members turned out. Residents and businesses alike showed excitement at the prospect of these new fast chargers being available and the implications for their ability to own electric vehicles in the future.

That is not to say, however, there are not still hurdles to overcome since this infrastructure was introduced. Due to the different placement of charging ports on different makes of electric vehicles (EVs), these four fast-charging EV parking spots replaced what were originally six traditional public parking spaces, which created some frustration among the public. Enforcing parking at the charging stations is also an ongoing challenge to ensure only EVs are using the spaces.

These challenges highlight the importance of the second phase of the ChargeD pilot: continuing to engage the public to better understand how to use the fast chargers and which vehicles are compatible with them, since not every EV may be able to use them. Utilization of the fast chargers will remain low while EV adoption is still limited. The team is now working to establish an action plan for additional outreach and educational programming, bringing in team members from the local nonprofit organization, NextEnergy, to provide additional support.

## KEY TAKEAWAYS

Throughout the process of standing up the ChargeD pilot, the group learned a series of important lessons that those looking to forge a new path for their own community similar to Project Kinetic should keep in mind:

### **Identify champions to keep the pilot moving**

As the pilot was identified by the team at DTE Energy from the very beginning of Project Kinetic's Innovation Sprint, it made DTE Energy the natural champion to lead the ChargeD pilot from its stages as a concept to a rolled-out pilot. However, it proved equally important to have champions identified from within the city of Detroit and each of the companies involved in the pilot rollout to ensure progress did not stall, despite any challenges or hurdles they faced along the way.

### **Gather the right stakeholders in the room**

The pilot could have deployed almost a year earlier than it did if the appropriate stakeholders were involved in the planning and deployment process from Day One, which could have helped the team select a location sooner and coordinate permits earlier. Much of this was a product of the team not knowing what they did not know; however, making sure to recruit a thorough and intentional group of stakeholders to support these necessary early decisions is key to a successful and meaningful rollout.

### **Don't discount the importance of educating the community**

Installing the DC fast chargers in Beacon Park and bringing them online was only the first hurdle ChargeD had to clear; once the fast chargers were introduced to the public, the community still needed to be better educated about how to use the new technology and the benefits of owning electric vehicles. Without completing this critical education and community engagement, the full benefit of the ChargeD pilot cannot be realized. The team is scheduled to begin additional public engagement in Spring 2020, nearly six months after the pilot was launched, to continue educating residents about the benefits and uses of the fast chargers.