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PATHS TO NEW PROSPERITY IN INDUSTRIAL REGIONS OF THE WEST

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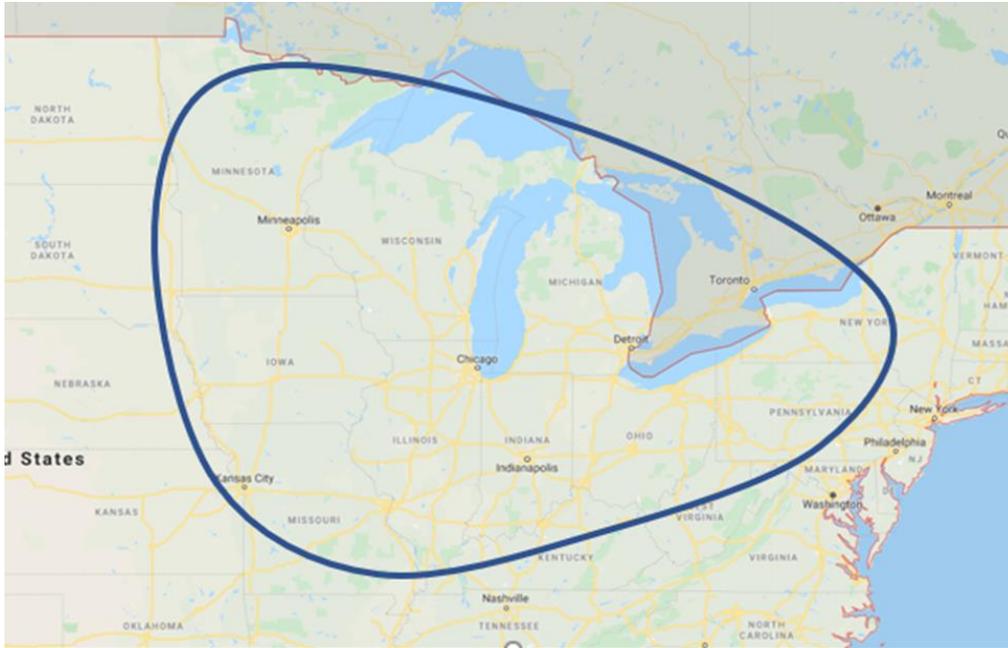
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Storied Regions

The industrial heartlands of our Western democracies hold a special place in our countries economic, social, and cultural history and national identity. The British cities of the Midlands and North launched the industrial revolution as their textile mills and machine-builders powered growth and Britain’s global reach. The German Ruhrgebiet, the coal and steel region in its Northwest, was the engine of German industry and military might—as was the French Hautes de France and Grand Est not too far away. The coal-countries of Silesia and Małopolska in Poland defined Polish economic identity and culture for generations. In Canada, the amazing natural bounty of the vast continent was converted in Ontario to processed foods, agricultural tools and tractors, the steel for a railway across the continent, and autos soon co-produced with the US, in the cities of Hamilton, London, and Windsor.

Sharing the Great Lakes with Ontario, the American Upper Midwest was the crucible of whole new industries, from the oil industry, the aviation industry, and the car industry that put the world on wheels – then converted to the arsenal of democracy that helped then-allies win World War II. With the Marshall Plan US industrial riches were subsequently turned to rebuild a Europe shattered by war and to head off Communism and political chaos after World War II.

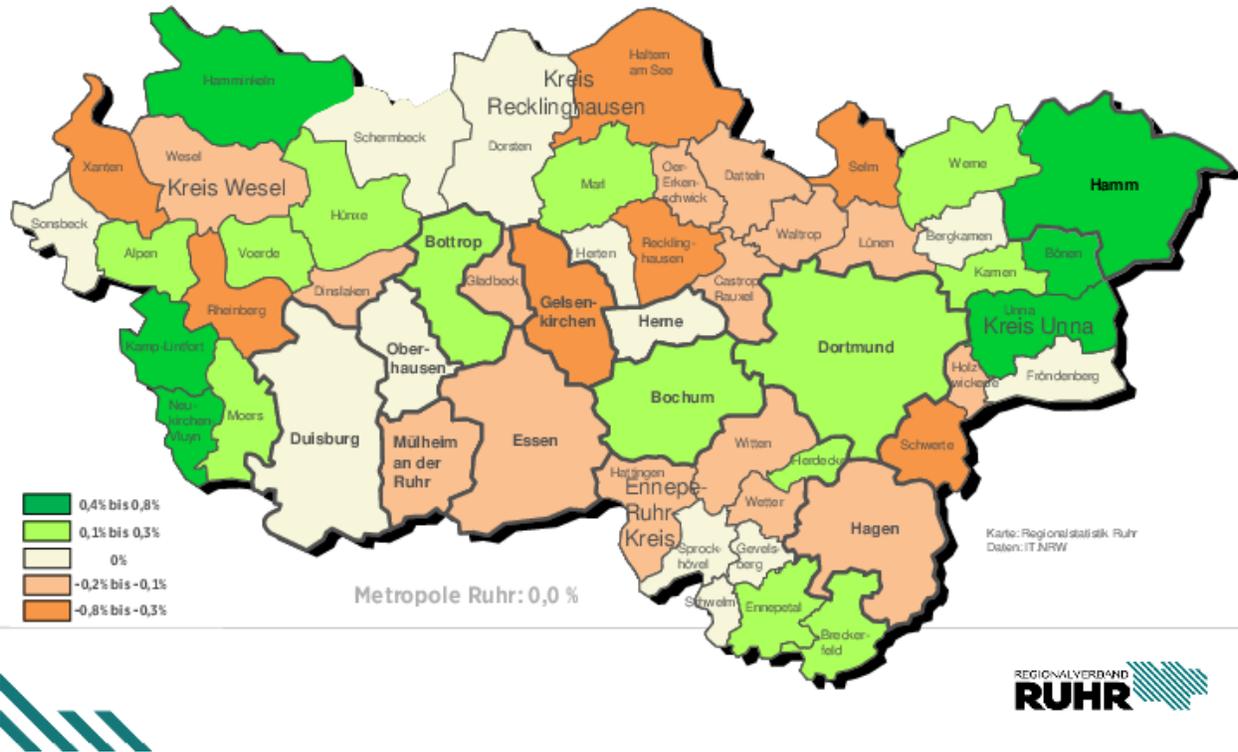


Much has changed in these older industrial regions since they were the centers of our countries' economic might, creating plentiful good jobs as they powered our countries' 19th and 20th-century economies.

Over recent generations, globalization, the march of technological change, and new competitors around the world diminished these regions' economic primacy, shuttered many employers' doors, and left many once thriving communities struggling. This collective transition earned the American Midwest its "Rust Belt" moniker –while the same name in different forms came to describe similar regions in Ontario and Western Europe.

Countries and communities in these older industrial regions have been looking to facilitate a difficult, sometimes painful transition from old economy to new. The European Union long has had a policy and program aimed at facilitating structural adjustment in relatively declining regions. In Germany, the federal policy enshrined in the Constitution has meant a more deliberate long-term multi-faceted strategy to manage a successful transition in regions and communities like the Ruhrgebiet, and to bring life in the re-adopted East up to German living standards.

Bevölkerungsentwicklung in der Metropole Ruhr vom 31.12.2018 bis zum 31.12.2019



In France a long term move to devolve decision-making away from Paris has empowered local leaders in older industrial regions like Lyon and Strasbourg to organize a successful transition. In Poland and elsewhere in Europe, the EU's focus on facilitating economic structural change and move away from fossil fuels in older industrial regions has spurred a transition forward.

The UK, Canada, and the US have not had a history of federal "place-focused" economic development policy but are now focusing more attention on "leveling up" struggling regions in the UK, and closing the gaps between the economically high-flying global cities in the US, Canada, and the UK – like San Francisco, New York, London and Toronto – and Heartland communities left behind. Meanwhile public-private leadership in some but not all of the West's older industrial city-regions have made and run plans to leverage their local assets – whatever they may be – and foster a new round of economic dynamism.

The result of these efforts means that these former Rust Belt regions in the West are today no economic monolith of hollowed out factory, farm, and mill towns. Many older industrial-region communities – both large and small— have successfully shed their industrial and farm-town skins, and are winning in today's globalized, tech-based, and knowledge-driven economy.



However, a large number of older industrial communities, having lost anchor employers, still struggle with an exodus of population and a crumbling and fraying of community infrastructure and civic fabric.

Today there is new urgency to accelerate and support the transition to new economic vitality for communities in these former Rust Belts that are still making a transition. Residents who are still struggling economically, feeling ignored or disrespected, uneasy about a changing society, are receptive to the siren song of economic nostalgia, nationalism, nativism, and retreat from the international community.



But many of the solutions to economic decline, and its populist offspring, are right in front of us. In this paper, prepared to support a transatlantic discussion of revitalizing older industrial regions in the West, we lift up, illustrate, and share some of the varied success paths that many formerly industrial

communities *have taken* to find new economic success. As we begin to share them more purposefully across the Atlantic, we can also work more purposefully to restore and enhance the economic and political health of our own economies, our democracies, and our alliance.

Paths to New Prosperity: Numerous Routs to New Economic Success

There are many good ideas and answers emanating from communities throughout Europe and North America, and a host of practical case studies to learn from where older industrial towns, cities, regions and their public-private economic development strategies and partnerships are beginning to make a difference.

“Green” and “Blue’ Economy Leadership

A number of evolving older industrial communities are finding new economic purchase by driving innovation, new business, and new job development in a number of fast growing emerging global business sectors, including in the “Green and Blue” sustainable economy of the future.

We see this in the US Midwest, where astride 1/5 of the world’s surface freshwater, former industrial giants along the Great Lakes are positioned to lead in building the “blue economy”, strategically develop attractive water-enriched lifestyle communities, and grow a smart water-technology industry, providing solutions for a multi-trillion dollar global market.

In communities like **Milwaukee, Wisconsin** on the shores of Lake Michigan, local leaders are supporting water-technology firms and innovators, building a Milwaukee-area water-technology cluster, guided by the employer-led Water Council. The Water Council has developed into a global research and technology hub through the coordinated efforts of the private and public sectors, academic institutions, and government programs. The effort began more than two decades ago as leaders —seeking to rebrand their community from its signature machine tool, beer, and motorcycle industries— turned to another asset central to the city’s economic history and storyline —its location and abundant water supply. Twenty years on, Milwaukee is home to a network of more than 238 water-technology businesses. The Water Council and the City of Milwaukee offer small-business services, promote tech challenges to drive innovation, and provide resources, programming, and networking opportunities to those involved in the water industry. Moreover, Milwaukee’s Water Technology District spurred more than \$211 million in development between 2010 and 2014, and the overall water industry cluster has been a national success story, with annual revenues exceeding \$10 billion. Other industries and sectors have contributed resources as well: in 2009 Marquette University Law School launched a new curriculum in water law that further “positions the Milwaukee region as the world water hub.”

Another favored “green” economic transformation strategy for many restructuring regions, particularly in Europe, but increasingly in the US, Canada, and the UK is as centers of the transition to renewable energy sources, and more sustainable “green” communities.



Old industrial communities like the many in Germany’s historic coal and steel region are guiding their economic transition by leaning in to the “green” revolution. Communities like **Bottrop, in North-Rhineland Westphalia** are organizing around a goal of reducing carbon emissions by 50 percent in 10 years, and to serve as a prototype for other “innovation cities” in Europe. Other communities in the historic coal and steel region of the Ruhrgebiet also vie to be “green” model-cities, including **Essen, Bocham,** and the hardest-hit by coal phaseout —**Gelsenkirchen**. These communities test new models of how to support sustainable business growth, technology deployment, and build a community with rich quality of life and place.

Just beginning is the evolution of the historically coal-dependent region of **Silesia, Poland**. Located in south-western Poland, bordering Slovakia and Czechia, **Silesia** is Poland’s most important coal basin and one of the EU’s largest mining regions, defining the region’s culture and identity since the 18th century. Like many other coal-dependent regions, putting coal to work led to the development of variety of heavy industries in Silesia and several important urban centers.

The Polish government remains committed to coal and despite the large push for energy transition in the EU, there has been limited development within this realm in Poland. Regional leaders have, however, begun to seek an economic path forward that would make it independent of coal and to facilitate new economic development strategies and future acceptable to the area’s residents. Challenges ahead include supporting residents to adapt and acquire skills and qualifications in a new economy. The phaseout of traditional industries (e.g., mining, metallurgy, energy) means some facilities

have already been closed, and others are set to close soon. Reclamation of the postindustrial areas, as well as creation of new jobs, pose important challenges to Silesia.

To meet these challenges, [Silesia is building on its notable infrastructure](#), force-labor skills, and facilities, including its R&D centers to lay out an economic development blueprint for the transformation of this region. Its recently developed Action Plan for Transformation includes a variety of strategies, including: “Silesia Professionals,” better adaptation of the educational offer of vocational schools to the key needs of the economy; Development of post-mining area management systems in the Silesian Voivodeship; Building the [KSSNON business accelerator](#) as a regional center for creativity, innovation, and entrepreneurship in Żory; Inter Silesia, helping the SMEs sector internationalize; Innovative Silesia, investments in a network of highly specialized, integrated industrial and research; and Low-emission Silesia, investments in reduction of emissions and development of renewable energy sources.

Back in the US Midwest, coal from nearby Appalachia and abundant natural gas provided the power for the rise of mighty industries. But today a new source of energy and emerging economic strength and renewal is coming from wind energy. For example, by setting ambitious goals, the State of **Iowa** has become the second largest wind energy producer in the US, leading the nation in megawatt capacity per capita, and on track to be the first state to derive 40 percent of its energy from wind. Wind farms are spread throughout the state, but two large new projects are currently under construction **in rural Adair County**, nestled between Des Moines, Iowa, and Omaha, Nebraska. These projects are part of Des Moines–based MidAmerican Energy Company’s Project XI, the nation’s largest wind energy project. The two wind farms, Arbor Hill and Orient, will add 550 megawatts of capacity to the grid and power more than 230,000 homes. The development is set to bolster these rural county’s bottom line, adding an estimated \$6.6 million in annual county property taxes and \$4.8 million in landowner payments. The expected income from the project has been used to improve roads, build new bridges and develop green infrastructure. The wind farms could also bring construction and long-term maintenance jobs to communities that have struggled to keep workers.

Innovation leadership in other emerging sectors

There are a host of additional fast growing global emerging sectors beyond smart water and clean energy in which older industrial and rural communities can find paths to new economic growth, and job and business development. These include emerging sectors like:

- *Data analytics and information technology*, a \$3.76 trillion global market (2019)ⁱⁱ
- *Food systems*, a \$5 trillion market (2015)ⁱⁱⁱ
- *Transportation and mobility*, an \$8.1 trillion market (2015)^{iv}
- *Health and bioscience*, a sector that makes up significant shares of national economies (more than 17 percent of the US economy,^v)
- *Advanced manufacturing*, with applications across a variety of sectors, from healthcare to aerospace to water sensing devices to bioengineered human body replacement parts.

Many older industrial communities possess valuable infrastructures to support innovation —like leading research and teaching universities; globally engaged large, small and medium sized enterprises; and wealth in families and corporations— that are particularly relevant in leveraging and creating new jobs and businesses.

Transportation and **new-mobility** solutions represent a rapidly changing and growing market for manufacturing, estimated at \$8.1 trillion in 2015 and projected to nearly double that figure by 2024.^{vi} While the manufacturing economy in North America, the UK, and European Community countries is very diverse, a large segment of manufacturing has been related directly or indirectly to the automobile industry.^{vii} As mobility and transportation preferences change, a new market has emerged, not dominated by personal ownership of automobiles but by a “new mobility” landscape. This new sector is defined multimodal transport and a fast-changing variety of products and service innovations, such as shared-service scooters and ride-sharing applications, all made possible by next-generation information technology and business models.

In the US Midwest nowhere are these opportunities and challenges playing out more vividly than in **Detroit** and **Southeast Michigan** where the auto industry was born. There, locally developed automakers Ford Motor Company and GM are redefining themselves as transportation solution-based businesses. For example, GM launched its Maven car-sharing service and has a strategic investment and partnership with Lyft. New-mobility testing and projects have already come to Michigan, not just from the traditional Big Three automakers but also from technology companies such as Alphabet (Google’s parent company, which is working with Fiat Chrysler to develop and test autonomous vehicles in Novi) and Uber, which opened an innovation hub in Wixom to work on self-driving technology with automakers. Emerging innovations are also being pursued by the region’s two national prototyping centers for autonomous vehicles: Mcity at the University of Michigan and the new American Center for Mobility at the former Willow Run bomber facility in Ypsilanti. The confluence of innovation and new technology development is creating a self-sustaining new-mobility startup business ecosystem, aided by Detroit’s Techstars Mobility Accelerator, which brings startup founders from around the country to crosspollinate innovations in the Motor City. Companies as diverse as Revvo (which makes sensing devices to monitor tire health) to LaneSpotter (a cycling app) are among the startups in the organization’s fourth class of nascent businesses.

Healthcare and **biosciences** are also large sectors of Western countries’ economies, consistently creating high-paying jobs and facilitating large amounts of research and development that translate into new products and services. The industry grows in and around the complexes of healthcare centers, teaching hospitals, medical research complexes, and universities, all of which the subject countries have in abundance.

In the US, the industrial Midwest is home to many industrial corporate giants, but also hosts seven of the top 25 US research medical schools in the country and 15 of the top 50. Moreover, in 2019 the University of Michigan, Washington University in St. Louis, and the University of Pittsburgh ranked second, third, and fourth in competitive National Institutes of Health research, funding research that translates directly into new pharmaceuticals, medical treatments, and technologies.

The contribution of these medical research and teaching complexes to local economic development in many older industrial communities is seen in **Grand Rapids’ Medical Mile**, and the **Cleveland Clinic’s** collaboration with Case Western University. In addition, clusters of bioscience, medical parts, and tool design and production companies have helped many older industrial communities, such as **Kalamazoo, Michigan** (biotech and medical equipment), and **Warsaw, Indiana** (an orthopedics capital), build or maintain vibrant local economies centered around medical manufacturing.

Nowhere is medical excellence more central to small city economic success than in **Rochester, Minnesota**, home to the world-famous Mayo Clinic. Located in the prairies along the banks of the Zumbro River in the southeastern corner of Minnesota, Rochester is primarily known for the Mayo Clinic, founded in 1864 by William Worrall Mayo, an immigrant from England who became Rochester's "country doctor." The clinic grew exponentially in the 20th century; today it employs 65,000 people, including more than 4,800 doctors and researchers. In 2018–19, U.S. News & World Report ranked the Mayo Clinic as the top hospital in the country. With more than 2 million patients a year, Mayo contributes to the success of other employers, including the Federal Medical Center Rochester, one of six intensive medical centers for federal inmates in the country, and the local service industry. With more than 2,700 employees, IBM is the second largest employer in the city, as Rochester has historically been one of its most important R&D sites with some of the fastest supercomputers in the world. Rochester is regularly ranked as one of the most livable and successful cities in America, and in 2018 it was ranked as one of the most innovative cities in the country.

Medical products and **bio-science** are also a current growth opportunity in the **UK**. With its mass purchasing of vaccines and the reshoring of PPE during the pandemic, the proportions manufactured in the UK have, according to the Financial Times, risen from 1 per cent at the beginning of the pandemic to some 70 per cent today. These are extraordinary shifts from global to domestic manufacturing and represent an opportunity to rebuild good jobs, businesses, and supply chains in the sort of places that have lost out in the past.

Given their legacy of designing, prototyping, manufacturing, and distributing sophisticated manufactured goods at scale, older industrial regions have the opportunity to be an innovation and technology creator and **advanced manufacturing leaders**. While not a sector in its own right, advanced manufacturing is a series of improvements to traditional material fabrication that enhances the precision of each component through computer-controlled production, and today sophisticated machine-learning. This integration of traditional skilled labor with IT and increased automation has revolutionized the factory floor and labor markets in the past several decades, producing a new set of high-skill, high-wage jobs.

In the **UK**, arguably the crucible of modern industrial era manufacturing –especially in the Midlands and the North of England, we can see how R&D investment is beginning to drive a new future in **South Yorkshire** and **Sheffield**– an Advanced Manufacturing Research Centre has been built as a partnership between the University of Sheffield and leading employers using local steel-making heritage to forge a new future in advanced manufacturing, including partnerships with Boeing, Rolls Royce, and McClaren. It also supports these firms' local suppliers via an extensive apprenticeship program and a wide range of demonstration facilities. Leveraging the Sheffield Universities' technical expertise and talent base to lure in new companies, their suppliers, and new public and private investments is developing the world's first Advanced Manufacturing Innovation District (AMID), according to its founder, Keith Ridgway. Ridgway is now supporting the spread of this model to older industrial communities across the UK including an Advanced Forming Centre at the University of Strathclyde where Ridgway is currently posted up.

To further replicate the approach, the universities of **Sheffield, Manchester, and Strathclyde** have united in one pitch to the government to scale up the AMRC model, through a series of pan-regional partnerships –the **Northern Powerhouse, Midlands Engine**, and now the **Western Gateway** [covering South Wales and western England]– have built on the innovation and talent at universities to support their economic strategies. The effort envisions a spread of AMIDs and mini-AMIDs that are engaged with the best and brightest researchers in universities" –including technical institutions and community

colleges which are more likely to have apprenticeship programs and be close to local industry. This network seeks to foster innovation clusters supported by universities and research centers based on the different competencies and niches in different towns such as **Wakefield** (creative industries), **Mansfield** (precision engineering), or **Bolton** (textiles).

Advanced manufacturing is also facilitated by high-speed connections to the digital economy. The **German federal government** is pushing the extension of 4G mobile network coverage and high-speed internet access to small towns and rural regions so firms, including SME's, entrepreneurs, families, and learning/research institutions can be full participants in today's economy. Those investments are critical to facilitating communities' participation in a program called Industry 4.0, which enables them to build machine learning systems to manage data exchange, networks, inventories, and communications in the internet of things, up and down the supply and production chains.

And manufacturing continues to become more refined across the US industrial Midwest, from robotics and AI as rising center of expertise in **Pittsburgh, Pennsylvania**, once the Steel City, to the American Center for Mobility and Mcity in **Southeast Michigan**.

Rockford, Illinois, is a classic mid-sized Midwest manufacturing city that continues to thrive by sharpening its skills and selling to the world. Located on the northern fringe of Illinois adjacent to Wisconsin, Rockford is the state's largest city outside the immediate orbit of Chicago. While decades of deindustrialization hit Rockford's traditional employers hard, a continued commitment to innovation in advanced manufacturing, healthcare, and education has enabled the city's population to grow while other Midwestern cities have lost population. More than 20 percent of the metro area's residents now work in advanced manufacturing; 50 percent work in the three sectors of advanced manufacturing, healthcare, and education combined. Rockford's globally competitive manufacturers include UTC Aerospace, Woodward, Fiat Chrysler, and Magna, putting Boone County—one of two counties in the metro area—among the top 50 counties in the country for exports as a percentage of GDP. Outside of manufacturing, Rockford is home to UPS's second-largest air package operation, as well as Mondelez International and General Mills. Although the metro area has no major universities, it is working toward providing a free, four-year in-state education to every Rockford high school graduate through an initiative called the Rockford Promise, akin to the Kalamazoo Promise, a higher education scholarship program for Kalamazoo Public Schools graduates in Michigan.

Tech-driven emerging sector growth can also be found in the most traditional of sectors, like **agriculture**. As we have seen in the **US Midwest**, the IT revolution has revolutionized agriculture and food production. Rural Mid-America already plays a sophisticated global game—delivering the nation's prodigious agricultural output (valued at \$3 trillion annually) with \$140 billion¹ headed to foreign markets. But the Heartland is more than the world's breadbasket—it is an innovation center as well.



Today, shifting consumer preferences and market dynamics in the US are creating new opportunities. Exciting new entrants are growing hyper-local, farm-to-table experiences and “foodies” of all socio-economic status are choosing food with attributes that align to their tastes and values. Agriculture and food tech entrepreneurs have been developing and deploying innovations to produce a bounty of nutritious food while protecting natural resources. For example, cloud-based software both boosts crop yields and saves water and energy as in-field sensors deliver the correct amount of water to each plant. Another startup works to end the annual U.S. waste of 20 billion pounds of “ugly” produce with a B2B marketplace where growers can connect with food companies to offload surplus or imperfect foodstuffs. Another improves photosynthesis in commodity crops to produce a higher protein feed (more energy) and a healthier oil, while requiring less inputs.

One example of a smaller town community taking advantage of these new market dynamics is **Decorah, Iowa**. A small city of fewer than 10,000 residents, has developed into a rural foodie hot spot, hosting varied food experiences at everything from local wineries and breweries to “pizza farms,” a component of the farm-to-fork movement. Craft breweries, such as Toppling Goliath, and wineries, such as Winneshiek Wildberry Winery, tap into a growing interest in organic and local food. Decorah has used these strengths to create a strong tourist culture that features outdoor activities and museums that supplement this food sector-based growth.

University and talent-led economic revival

With today’s knowledge economy rewarding the most talented and best educated, older industrial regions that manage to create conditions that attract and keep talent, win in a global knowledge driven economy. As we’ve seen a key asset to communities are the talent-building institutions, from leading universities to private and public colleges, technical institutions, and community colleges, that endow that region with unique advantages in this new economy.

Germany has long understood this and purposefully introduced research and learning institutions into transitioning economic regions to drive a new economy evolution. The University of Bochum was

founded in this Ruhrgebiet coal and steel city in 1962, opening to students several years later. The first German University created after World War II was placed in Bochum purposefully to accelerate the economic transition of the region. Another example of this purposeful leveraging of research and learning institutions is in the Ruhrgebiet's city of Duisburg. Here one of the well-known Fraunhofer institutes — part of a network of 72 public and privately funded applied research institutions sprinkled across Germany — supports its dense network of SMEs to develop new cutting-edge processes and products. Several newer Fraunhofer institutes, like Duisdorf's dedicated to microelectronics, were created in former industrial regions beginning 25 years ago as part of a deliberate effort to revitalize historic older industrial regions.

Leveraging research and learning institutions to aid economic transition is also at work in **Małopolska**^{viii}, historic coal dependent region in **southern Poland**. The region is anchored by Krakow and includes 182 municipalities and is one of the regions most affected by low-carbon transformation in Poland and the European Union. Małopolska ranks 11th among all European regions in terms of the number of coal-related direct jobs and 12th in terms of the risk of socio-economic effects of energy transformation. Małopolska was the first Polish region with a dedicated plan for climate change mitigation and adaptation —which includes new regulations and limits on coal usage. The objective of the Plan is to strive for climate neutrality and contribute to the EU climate goals for 2030 (i.e., a cut of at least 40% in greenhouse gas emissions compare to 1990 levels, a share of renewables of at least 32%, and at least 32.5% improvement in energy efficiency).

Forward plans look to build a new economy leveraging the regions many scientific institutions. With 28 higher education institutions and universities and more than 100 research and development centers, Małopolska has considerable potential in terms of R&D based activities. Institutions such as the Polish Academy of Sciences AGH, Technical University, and Agricultural University have formed a common research consortium called InnoTechKrak. These alongside several industry-oriented research units, such as 'BIER Molecular Biotechnology' and 'STEC - Stem Cell Therapeutics Excellence Centre' offer an infrastructure to supports new regional enterprises. In addition, the Academic experts at the Jagiellonian University, AGH, and Technical University in Kraków offer free counselling to micro, small, and medium enterprises in the fields of energy-saving construction, renewable energies, information networks, and biotechnologies. The goal is to increase knowledge transfer from academia to business, guided by the regional smart specialization.

Manchester, in the North of England and once one of the world's leading industrial cities, is looking to build on its economic revival beyond a downtown residence-building approach by powering innovation, new job and business growth percolating out of its Universities' — particularly the University of Manchester. As reported in the Financial Times, with academics developing new technologies including uses for graphene, a kind of carbon with important industrial uses, the University is heading an effort to capture and multiply the business and economic spillovers. A £1.5bn ID Manchester project will transform a faded central campus into a gleaming development, complete with residential blocks, commercial units, and multinational tenants known as ID Manchester envisioned as part of a "trailblazing innovation district." Once known as Cottonopolis because of its booming textiles industry in the 19th century, Manchester is one of the many cities in the north of the UK that suffered a deindustrialization, now reinventing itself as a commercial hotbed for the 21st century in areas such as manufacturing, life sciences, and the creative and cultural industries. Universities, which were once insulated from financial pressures and the need to think and act locally, are at the forefront of Manchester's makeover. Universities act as magnets for young people, draw in investment, and find

themselves increasingly intertwined with the corporations that hire their graduates and put their research to profitable use. Including Manchester Metropolitan and Salford universities, the city has one of the largest student populations in Europe.

London and the **Kitchener- Waterloo** region in Ontario, Canada are two traditional manufacturing hubs that have evolved more diverse knowledge-driven economies, due to the presence of two of Canada's top tier Universities –Western and Waterloo University. In **Kitchener** years ago, faculty and researchers at Waterloo University spun out Research in Motion, producers of the then revolutionary Blackberry phone. New technology innovations have supported the evolution of traditional auto parts and electronics industry into global giants like auto parts maker Linamar, and new products such as Electrohome's projection screen industry. Combined with a burgeoning financial services and technology industry the region has come to be known as Canada's Silicon Valley. Population and business growth is boosted by the continued exodus of talent outward from Toronto's expensive and congested urban megapolis.



London, Ontario is well beyond the Toronto metro orbit and a more classic case of traditional auto manufacturing and food processing town. Boosted by the presence of Western University as an anchor; that and a growing health medical complex and good quality of life have helped it grow again in population and in key sectors. These include its traditional agri-food and manufacturing, now complemented by emerging digital media and technology, health, and professional services, which have been growing in recent years.

And in the industrial **US Midwest**, with 20 large scale research universities that rank in the top 200 globally (more than any other comparable region), and 2,500 accredited higher education institutions anchoring its communities in total, no region has a stronger talent and innovation base to build on.

Figure 2: **Top-ranked research universities in the Greater Midwest**

World ranking	Institution	State/province
10	University of Chicago	Illinois
20	University of Michigan, Ann Arbor	Michigan
21	University of Toronto	Ontario
24	Carnegie Mellon University	Pennsylvania
25	Northwestern University	Illinois
43	University of Wisconsin–Madison	Wisconsin
50	University of Illinois at Urbana-Champaign	Illinois
54	Washington University in St. Louis	Missouri
64	Purdue University	Indiana
71	University of Minnesota, Twin Cities	Minnesota
71	The Ohio State University	Ohio
77	McMaster University	Ontario
81	Pennsylvania State University	Pennsylvania
93	Michigan State University	Michigan
110	University of Pittsburgh	Pennsylvania
132	Case Western Reserve University	Ohio
146	Indiana University Bloomington	Indiana
163	University of Rochester	New York
173	University of Notre Dame	Indiana
190	Western University	Ontario

Source: "World University Rankings 2019," *Times Higher Education*, 2019

These institutions help the Midwest produce a disproportionate share of US talent across a range of disciplines. While the Midwest accounts for only 22.6 percent of the US population, it grants a significant share of US postsecondary degrees including 25.2 percent of US bachelor's degrees, 26 percent of STEM degrees, and 24.2 percent of all higher education degrees awarded nationally (Figure 10).^{ixx}

Leading university systems —flagship campuses and beyond— have been central to attracting and preparing talent, and they act as anchors for new-business growth and economic development in many of the region’s historic industrial cities. Research and learning institutions have been major contributors to impressive economic success —and often economic revival— in communities such as **Minneapolis-St. Paul** (University of Minnesota), **Cleveland** (Cleveland State University and Case Western University), **Columbus** (Ohio State University), and **Pittsburgh** (University of Pittsburgh and Carnegie Mellon University). Colleges and universities also help to drive a more dynamic local economy in many small and midsize older industrial communities such as **Toledo, Ohio** (University of Toledo), **South Bend, Indiana** (Notre Dame), **West Lafayette, Indiana** (Purdue University), and **State College, Pennsylvania** (Penn State University).

And in **Kalamazoo, Michigan**, a multi-faceted economic development strategy kept top talent when pharma giants Upjohn and Pfizer largely closed their doors, by helping scientists start new, smaller biotech firms; remade a newly walkable downtown with entertainment, arts, and craft beer; and extended free public higher education to all high school graduates through the Kalamazoo Promise, marking the community as a talent magnet and reversing trends of urban exodus.

These higher education and technical training institutions can also be the fulcrums for revival as they partner with employers to deliver the technical skills needed for today’s modern workplace. One such example is **Georgetown, Kentucky**. A small city of around 35,000 people located in northern Kentucky south of the Ohio River, Georgetown was transformed in 1985 when Toyota selected it for the company’s first manufacturing center in the United States. Since then, the Toyota plant has produced more than 11 million cars and has become the company’s largest vehicle plant. The city has nearly doubled in size since 2000, with a median household income 32 percent higher than that of the rest of the state. Toyota and other advanced manufacturers chose Georgetown in part because of an organized commitment to train the technical workforce needed for the industry. Bluegrass Community & Technical College has educated more than 10,000 students across seven campuses, including at its Advanced Manufacturing Center, which offers programs in advanced manufacturing technology, electrical technology, and industrial maintenance technology. The program is supported by the Kentucky Federation for Advanced Manufacturing Education, a partnership of regional manufacturers (including Toyota and many of its suppliers) that provides a five-semester paid work and school experience for students that results in a full-time job, an associate’s degree in applied science, and little to no college debt. Students can also continue their degrees at four-year institutions such as the University of Kentucky College of Engineering, where 74 percent of students participate in educational co-ops with an average hourly wage of \$20.50.

Inclusive Growth Strategies

A strategy for leveraging talent and maximizing the contributions of all is at work in those communities who have focused both inwardly and outwardly on building the skills, nurturing the number of economic contributors among their own residents, and attracting additional talent from outside.

This is the case for the many older industrial communities and regions that have lost domestic population and educated talent who have purposefully recruited and then economically benefited from flows of immigrants — providing an important counterweight to community economic and population decline.

This is true across much of the US Midwest where immigrants are a major —in some cases the only— source of population and new-business growth. From 2000 to 2015, non-native-born populations in Midwest metros grew 34 percent (more than 1 million people) and accounted for 37 percent of all Midwest communities’ population growth.^{xi} From **Racine** and **Janesville, Wisconsin**, in the west to **Akron, Ohio**, and **Erie, Pennsylvania**, in the east, growth in immigrant populations has offset slowing growth and decline of the native-born population. Immigrants in the Midwest contribute to local economic growth and job creation, transform neighborhoods, and provide new workers of all skill levels needed to revitalize local economies —from doctors and STEM professionals to agricultural and meat-packing workers.



Troy, Michigan is one example of a newly thriving Midwest community. A small city in the suburbs north of Detroit, Troy has the highest foreign-born population of any community in Michigan (over 29 percent of all residents). Most are of Indian or Iraqi descent, and many are well educated. Troy also has the highest number of refugees in Michigan, with strong representation from India and other countries on the subcontinent, as well as from the Middle East. This serves as a testament to Troy’s welcoming and integrative policies, as well as support organizations such as Samaritas, which assists refugees from Iraq and Syria in resettlement. Other factors make Troy a destination city for immigrant families, such as a top-notch school system and Troy’s status as the safest city in Michigan. The residents of Troy speak 86 different languages. The city’s young people, whether first-generation immigrants or long-time Michiganders, benefit from growing up and attending classes with students from different backgrounds.

Industrial **Ontario, Canada** has also seen new economic life emerge supported by a very welcoming federal as well as local immigrant policies. **Hamilton, Ontario**, was once known as “the Steel Capital of Canada” or “the Hammer,” and was able to grow and prosper during the 20th century with steel manufacturing and industrialization leading to a flux of immigrants moving to the region for work. The 1990s were characterized by job loss as the city faced a major economic crisis as manufacturing industries shed jobs. Local leaders pushed efforts to diversify — seeding new industries including agribusiness, and life sciences. Placemaking and creating an attractive community with a strong quality of life through initiatives such as bike lanes, green space, and a safe and pollution-free urban area have

been focal points in Hamilton. Concerned with declining immigration to the city, especially as a place historically known for having significant levels of immigration, Hamilton leaders set goals to increase economic opportunity and growth through immigrant and migrant welcoming strategies. Largely, these initiatives have been successful as Hamiltonian saw an influx of people from Toronto and abroad, with presently about two-thirds of the population growth being international. Today, Hamilton is now ranked by the Conference Board of Canada as having one of the most diversified economies in Canada.

A different model of inclusive growth is playing out in **Preston, England**, a once thriving mill-town of 140,000 in England’s northwest, the city is often held up as an emblem of the “left behind” north. But nudged by the radical Labour councillor Matthew Brown, Preston has embraced a different ambitious reform and redevelopment plan. Starting in 2011, local leaders frustrated by what they viewed as London-centric New Labour policies of Tony Blair and Gordon Brown Preston began their own experiment, now known affectionately as the “Preston model”. The city democratized its public institutions and invited people to participate in decision-making at all levels of the city’s economy.

Based on the idea of community wealth building, the Preston model looks to create a “bottom-up” more democratic and inclusive economy, one kept in the hands of the city’s inhabitants. Through creation of worker co-ops, public enterprise, community land trusts, and public planning initiatives, to date it appears to have had some success in reviving the city’s economy, what one group heralded as “the most improved city in the UK”.



Another model of inclusive growth furthering the economic evolution and success of **The Twin Cities of Minneapolis and St. Paul, Minnesota**. In the Twin Cities, business, governmental, and community leaders have a long record of collaborating to effectively nurture growth by organizing and investing in education, transit, arts and culture, and urban revitalization. These investments in quality of life and place have been enabled since 1971 by one of the country’s few successful efforts to share tax revenue across municipalities. Today, the Twin Cities rank at or near the top of the country’s large metro areas

on a variety of measures, including per-capita income, educational attainment, transportation access, quality of government services, and amenities such as parks and bike trails. But with a strong economy, the current challenge is to foster success for all of the area's residents —to ensure inclusive growth that benefits marginalized populations. In Minneapolis-St. Paul, public-private leaders, aided by leading policy innovators at the Center for Economic Inclusion, have created inclusive growth indicators and identified a family of effective strategies to implement their initiatives. With large minority refugee resettlement communities, Minneapolis-St. Paul continues to act at the forefront of inclusive economic growth through active policies and advocacy.

A different type of empowerment project was successful in the City of **Dortmund, Germany**. With help from the Wuppertal Institute, Dortmund ran from 2016-2019 an initiative around Sustainable Urban Reconstruction focused on how people can be empowered to shape their living environment considering their own needs and values. The DoNaPart Project was focused on improving the quality of life and the environment for residents in the Westerfilde and Bodelschwingh districts over the long term. An inclusive design and implementation of a sustainable transformation process in the fields of energy, mobility, and consumption was conducted. Citizens, local companies, and civil society groups of the area were actively involved in the development and the implementation of interventions. An energy-saving competition was sponsored, an open community meeting place was created for the project, as well as an open bike repair workshop, and WiFi-network. Participants placed great importance on projects that enable social learning processes and can potentially be continued after the project's official termination. Before and after the project a representative survey of 500 residents was conducted in the relevant city district, examining the internal, social, and behavioral aspects of empowerment, and impact on quality of life which empirically validated the positive contributions of the initiative.

Global engagement

Older industrial regions in the West were their nation's vanguard in building out global trade, sending products abroad and capturing far-flung markets. Creation points for many internationally engaged and competitive companies, universities, and communities' engagement with the world was a cornerstone of these region's economic success. Today a globally connected population and mindset remain of vital importance — not only to a region's cultural fabric but also to finding renewed economic prosperity.

While globalization and trade often produce economic dislocations and is oft-times blamed by residents working in declining industries as the source of their troubles, there is evidence that on balance trade can bring new jobs and economic benefits and that participating in global networks and production at the community level correlates with local economic prosperity. For example, relatively economically prosperous Midwest communities are far more likely to be engaged in exporting to global markets than less well-off peers. These successful communities manifest other proxies of global engagement. For example, in communities committed to tackling climate change, nine of the 12 states that constitute the US industrial Midwest, 63 percent of high-income counties are home to communities that remained committed to uphold the standards laid out in the Paris Agreement to reduce greenhouse gas emissions.

One of these newly diversified and thriving older industrial communities is **Grand Rapids, Michigan**. Long known for furniture making and manufacturing, Grand Rapids was one of the communities hit hardest by the Great Recession, losing 12.1 percent of its jobs and almost 5 percent of its population. Starting in 2010, however, Grand Rapids has staged an impressive comeback, growing jobs faster than any other metro area in the Midwest. Highly functional and organized civic, business, and political

leadership coalition set out over a decade ago to create conditions to revitalize the community. In addition to purposeful strategies to expand medical complexes, along with arts, cultural, and higher education institutes and a redeveloped riverfront, Grant Rapids leaders committed to make the city an environmentally sustainable community leader and joined a global sustainable cities peer learning network. With business leaders out front, the city set goals for reducing energy use, water use, and carbon emissions; increasing the use of public transportation; and providing new transportation options, earning Grand Rapids the title of greenest midsize city in the country by Fast Company magazine.

407 US #ClimateMayors, representing 70 million Americans, have committed to adopt, honor and uphold the climate goals of the Paris Agreement



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Furthermore, many older industrial communities in Western democracies rely on global markets and trade. A great example of a classic industrial community that relies on a leading anchor employer and industry that stays on the cutting edge of innovation and winning in competition in global markets, is the small industrial city of **Columbus, Indiana**. Forty miles south of Indianapolis, Columbus has maintained a healthy economy in part due to a longstanding commitment to innovation by local employer Cummins Inc. The Fortune 500 company designs and produces engines and related equipment, and it is a continuous leader in clean technology, helping Columbus reach a median income 13.6 percent higher than the rest of the state. As of 2015, Columbus was also ranked first nationally among metro areas for its share of GDP from exports, with exports accounting for more than 50 percent of the city's GDP. Columbus is also home to buildings and public sculptures by world-renowned architects such as Eero Saarinen, I. M. Pei, and Robert Venturi —the origin of the city's nickname, Athens on the Prairie. The city's world-class architecture has bolstered tourism and supplemented the economy beyond its globally engaged companies.

Remaking infrastructures

In an interdependent global marketplace, “winning” communities have global reach, with infrastructure that supports global connectivity for businesses, and full participation in the economy for all residents.

A symbol of blue-collar prosperity from a bygone area, **Cleveland, Ohio**, has seen the beginnings of an economic renewal in part due to its significant investment in public transit. Cleveland's HealthLine bus rapid transit system was completed in 2008, replacing a traditional bus system and connecting the city's two largest employment centers —downtown and University Circle, five miles apart— along Euclid Avenue. Running 24 hours a day via 36 stations, HealthLine was designed to closely resemble a fixed-rail system and reduces end-to-end travel time from 40 to 28 minutes. It currently serves more than a million customers per year. Development along the 7.1-mile transit corridor has been robust. The number of jobs along Euclid Avenue has doubled, fueling a demand for consumption that has been answered with hip restaurants, retail outlets, and cultural venues. The initial \$200 million investment has yielded over \$9.5 billion in development to date. With a return of \$190 for each transit dollar invested, the return on investment for Cleveland's bus rapid transit project is the highest for any public transit project in the nation.

The European Union has long used infrastructure development as a key lever to facilitate economic growth and development in regions that were not as full participants in the overall EU prosperity and were oft-times going through a painful economic structural transition. The EU's Cohesion Fund (CF) helps pay for transport and environment projects within member countries whose residents' incomes are at or below 90% of the EU average. Over €63 billion is spent — in specific geographies — focusing on developing trans-European transport networks, rail and public transport, and projects supporting energy efficiency and use of renewable energy.

Furthermore, in today's data-driven, wired global economy, access to high-speed Internet is a fundamental precondition for businesses to grow and individuals to participate in the economy. To this end, extending high-speed Internet infrastructure is a particularly critical component of stitching older industrial and smaller communities into the global economy. In addition, communities with special quality-of-life assets can become attractive to year-round residents and businesses if cyber-connectivity allows businesses to operate globally —a trend accelerated by the Covid19 pandemic.

A good example of this dynamic is observed in Michigan's remote Upper peninsula in **Marquette**, where Northern Michigan University and partners have extended broadband access to Marquette and other rural Upper Peninsula communities, making work, learning, and new business development possible in this lifestyle-rich but otherwise isolated region.

As was vividly seen during the pandemic, high speed internet is now, more than ever, an essential infrastructure undergirding economic growth and facilitating participation in the economy. To spread economic growth evenly to more people and places, the **German** federal government races to build digital backbones and high-speed internet access to small towns and rural regions so firms, entrepreneurs, families, and learning/research institutions can be full participants in today's economy.

Back in the States, **Valparaiso, Indiana** located on the outskirts of the Chicago metropolitan region, has worked proactively to develop its infrastructure capabilities over the past decade. In 2014, after a local business's efforts to expand were thwarted by a lack of high-speed internet infrastructure, city leadership began laying the foundation that would eventually become a dark-fiber network known as ValpoNet. Launched in May 2018, ValpoNet provides a foundation for new-business growth through a backup network and greater connectivity. This in turn has attracted significant private-sector investment, as the dark-fiber network allows multiple ISPs to operate on the same infrastructure, enhancing competition among ISP providers and providing additional subscription services for

businesses. Valparaiso has also been actively upgrading its traditional infrastructure, providing quality public transportation and an intracity bus line to connect the city with Chicago and South Bend.

Harnessing place-based assets

A variety of natural, historical and other place-based assets can serve to underpin new economic growth in transitioning older industrial regions.

Situated just over an hour's commute from the Twin Cities, **Eau Claire, Wisconsin**, is a former forestry industry town nestled at the confluence of two rivers with beautiful topographic features. In addition to a large campus of the University of Wisconsin system, the Eau Claire region is home to an outpost of the Mayo Clinic, which employs 3,600 people; Jamf, which employs hundreds and produces software for Apple; and Cray Inc. in nearby Chippewa Falls. The city also hosts large music festivals, including Eau Claires, and boasts a vibrant downtown that recently added a new arts center, the result of a public-private partnership. The recently opened concert, arts, and classroom space, the Pablo Center at the Confluence, has already spurred \$120 million in nearby investment.

In Germany, there is the Zollverein Coal Mine Industrial Complex in **Essen**, one of the iconic coal and steel facilities that more than a century ago revolutionized these industries. Zollverein today is a UNESCO world Heritage site, museum, conference area, and start-up incubator for technology firms playing to the region's historical strengths and numerous small and medium-sized enterprises (SMEs) to provide new data and business-to-business solutions.



Repurposing former industrial landscapes

Heavy industry defined the landscape of many older industrial communities, and the damage done to the environment tarnished much of this landscape when the economy shifted, and many industrial sites became redundant. Shuttered waterside factories, plants, and port facilities left a legacy of brownfields, abandoned industrial sites, and toxic waterways. Fixing these problems is crucial to economic growth of older industrial regions.

The US Midwest and Great Lakes offer many examples of how reclamation of former industrial sites can drive economic renewal. **Milwaukee**, Wisconsin, as it cleaned up its industrial waterfronts, began to promote its cultural institutions, entertainment, and recreation venues along the Milwaukee River and the shore of Lake Michigan. In **Traverse City, Michigan**, cherry canneries that once littered the Lake Michigan waterfront are long-gone and Grand Traverse Bay is attracting year-round professionals-in-residence. The public-private Riverfront Conservancy in **Detroit** has repurposed miles of former industrial waterfront and factories as repurposed offices, condominiums and waterfront public spaces for recreation and festivals—contributing mightily to this iconic communities economic rebirth.



For decades, the Ashtabula River and Harbor on Lake Erie provided the town of **Ashtabula, Ohio** with a stable manufacturing and shipping economy. Following the decline of both industries, water reconnection and restoration —including a \$22 million investment under the federal Great Lakes Restoration Initiative— have begun to revive the economy. Redeveloping the waterfronts, reestablishing fish habitats, cleaning out 120,000 cubic yards of toxic sediment in Ashtabula Harbor, and restoring coastal wetlands have led to a surge in water-based recreation, new businesses, and real estate development in downtown Ashtabula. Boat registrations rose 42 percent between 2008 and 2017, with a new steelhead fishery on the river adding a strong new economic driver. The newly developed harbor business district has added 27 businesses since 2010, including 10 bars and restaurants and 11 boutiques and retail stores, increasing Ashtabula County’s tourism sales by 14 percent between 2011 and 2016.



A similar tale of industrial cleanup and revival is playing out across the globe in **Katowice, Poland**. There, the area where today the Euro-Centrum Science and Technology Park is now located, was a once a degraded site of the "Wimach" Chemical Apparatus Plant and the paint factory. Beginning in 2004 the company and City of Katowice agreed to develop the Euro-Centrum Industrial Park, creating the foundations of today's Science and Technology Park. The first step was the restoration of the degraded area, restoring abandoned post-industrial areas. Intensive construction and modernization carried out in 2006-2008 resulted in 6 hectares of revitalized area, 4 newly built and 7 rebuilt facilities. Using the energy-saving experiences of Western partners, a new centerpiece of Park Euro-Centrum was an innovative energy-saving office building.

The initiative expanded and evolved to become the Euro-Centrum Science and Technology Park, including development of R&D facilities and technical training centers, alongside a fund and incubator services to support the creation of new technology companies. The EU Union helped develop a passive building, then unique in Poland, intended for laboratory and service purposes. Restaurant, business meetings, and special events space were created to serve the occupants of the Park. Further revitalization saw a Training Center for Modern Heating Techniques and a Solar Systems Testing Center, equipped with a solar radiation simulator (the so-called artificial sun) for testing the quality and durability of solar collectors. Additional low-energy facilities were erected in the Park hall with office and implementation space and a warehouse with the largest photovoltaic research installation in Poland. This is where modern companies carry out their projects and develop new production lines related to renewable energy sources. Today over 7 hectares of post-industrial areas have been revitalized, 6 new facilities were built and 12 were modernized, thus providing a seat for over 130 companies and a workplace for approximately 1500 employees.

Metropolitan penumbras

For other older industrial and farming communities leveraging proximity to burgeoning global city regions is an almost inevitable path to new prosperity — a path that can be accelerated with strategic actions.

In the US heartland, building out from nearby **Des Moines, Iowa** the state capitol and today a thriving financial, insurance, and services community, **Iowa's Lincoln Corridor** illustrates how rural and metro hinterland areas can define a new, distinctive economic path. Known for more than a century for its rolling pastoral lands and cornfields, Jefferson, Perry and other towns located along Central Iowa's newly christened Lincoln Corridor are emerging as a major success story for rural transformation and sustainability by diversifying job opportunities, creating inclusive environments, and connecting communities along the 90-mile Raccoon Valley Trail. Inspired in part by the Future Ready Iowa public-private partnership, firms like Accenture chose Jefferson as the site for its first rural "Forge," a \$35-million software-development initiative aimed to transform the town of approximately 4,500 residents into an "epicenter creativity and technology." With support from local business, state and national leaders, the Forge became both a training hub for high school coders and career-minded community college students and a recruitment arm for companies like Accenture, Corteva Agriscience, Facebook, Microsoft, among others. Jefferson turned to expand the Forge to neighboring Perry with a 30-credit, one-year diploma software development program — inviting more students to participate, including Perry's fast-growing number of immigrant residents. By 2019 in Perry, 36% of residents identified as Hispanic and the influx of young families dropped the median age in Perry to 30 years old. This shift presented Perry with new opportunities to educate and include second-generation Hispanic residents in

Perry's diversifying workforce by offering access to programs like those through the Forge. Also 95.9% of residents have access to high-speed internet, and today technology is on track to become the area's fastest growing sector.

A number of **Ontario, Canada** communities like **Thorold** that were, until recently, economically diminished old-line manufacturing towns are seeing a recent spike in population growth and new economic development. This is largely due to the fact that they are in reach of an ever-expanding Toronto-powered regional economy. Residents tired of endless traffic, commutes, congestion, and costs are finding a richer quality of life, and saner existence in many outer-ring communities.

Multi-faceted economic development strategies

Other similarly situated older industry regions animate more multi-faceted economic development plans, where a combination of strategies and elements have turned the tide of economic decline and nurtured a new era of economic vitality.

Such is the case in **Austin, Minnesota**, a small manufacturing city in rural Southern Minnesota, home to iconic brands of Hormel Foods (inventors of SPAM) and Red-Wing Shoes. Feeling like a small town, Austin is actually a dynamic and evolving older industrial community where leaders have worked successfully to keep it on a forward-leaning economic course. Anchor employer Hormel has remained one of the most innovative Fortune 500 companies and has also helped endow a world-class cancer research center. Started in 1942 by Jay C. Hormel, The Hormel Institute, University of Minnesota, has a seven-decade history of making significant scientific discoveries aimed at improving the health of the world, including cutting-edge research on better ways to prevent, detect, and treat cancer. The Southern Minnesota Initiative Foundation, a regional philanthropy, has also facilitated ongoing programming to support entrepreneurs and small and medium sized new business creation and growth through early-stage investments, traditional loans, micro loans, technical assistance, mentoring and other support programs. Workforce Riverland Community College, a growing part of the Minnesota State College/University system, has its main campus in Austin and its training and degree programs support the needs of local industry. A new Austin Assurance Scholarship program ensures a two-year degree or training certification at no cost to local high school graduates. And a new Austin Community Recreation Center affords a beautiful, new \$35 million community resource with first-class programs, facilities and equipment. Alongside the MacPhail Center for the Arts (the only non-metro Minnesota location of this arts and education leader) whose \$8 Million center is slated to open in 2020, will enhance what is already a rich quality of life.

Also, in the Midwest, **Green Bay, Wisconsin** is realizing the economic payoff from purposeful work to redevelop a downtown district and waterfront, expand the University of Wisconsin-Green Bay's footprint including a new Engineering School and partnerships with current and start-up businesses, and leveraging the iconic football Green Bay Packers' brand and role in the community including a new Packers-Microsoft Tech Incubator development adjacent to legendary Lambeau Field.

Canada's **Windsor, Ontario**, an industrial community across the Detroit River from Detroit, Michigan, first grew as the Canadian partner to Henry Ford and Ford Motor and as home to the Hiram Walker distillery. With recent decades of economic restructuring and downsizing in its base industry, and under the cloud of more layoffs and Great Recession that left Windsor reeling, Mayor Drew Dilkins sought to chart a new course. A new economic blueprint has just been released by the Mayor borrowing expertise from Public First, one of the leading UK policy and communications strategy organizations.

“Windsor Works” lays out a blueprint for regeneration to diversify the local economy beyond its traditional manufacturing base.



Windsor has strong fundamentals to build on –it is a safe, well managed city with a high quality of life whose population is growing. The plan lays out the L.I.F.T. Strategy, focusing on Location, Infrastructure, Future Economy and Talent to grow and strengthen the city. Windsor is seeking to combine ongoing leadership in new mobility and electrical vehicle systems, and strong partnerships with the community’s college and university to support innovation and build the region’s talent base, while leveraging a new state-of-the-art international bridge crossing between Canada and the U.S., as well as a modern hospital to grow new opportunities in health services industries —large-scale infrastructure projects are not common for comparable cities. The focus will be on stronger ties to Detroit, improved and enhanced infrastructure that supports a vibrant waterfront and downtown, and investments that both support existing automotive sector jobs while supporting the future of the evolving industry.

Ruhrgebiet^{xii} The Ruhr area in western Germany is known as the “German industrial heartland” and “Europe’s Rust Belt”. It developed as an industrial area in the 19th century based predominantly on coal and steel (and beer). The region saw significant growth and expansion in the late 19th and early 20th with 2.2 million manufacturing jobs at its peak. The “rust” of this area began quite early in the 1960s-1970s as the area saw closing coal mines and steel mills. Global structuring of these industries required a shift of the economy. The last five decades have seen a conscious restructuring from coal and steel-based specialization to a more diversified service economy. Measures to ensure a smooth transition for workers included social protection, retraining, early retirement and other long-term strategies negotiated with key stakeholders. There have also been initiatives to regenerate the physical landscape of the energy-intensive mining sector, with industrial sites being preserved and converted into tourist attractions for those who want to experience the Ruhr industrial culture. One of the largest industrial coal facilities, the “Zollverein”, was named a United Nations Educational, Scientific and cultural Organization (UNESCO) World Heritage Site. Despite coal mining being completely eliminated in 2018,

about 500-600,000 manufacturing jobs still exist in the region, alongside 2 million jobs in the service sector. Emerging industries include science, logistics, IT, research, automotive, and insurance.

The Path Forward

As these examples from North America and Europe illustrate, the transition from “old” economy to thriving “new” can and is being made. By many paths, building on their own unique mix of assets, treating their particular challenges, older industrial communities are finding ways to turn the economic corner, and find a new era of economic vitality in a very changed world and economy. As they do so, community residents are newly optimistic, forward-looking, and less prone to embrace the siren song of nativism, nationalism, nostalgia and retreat from the world.

The Covid-19 crisis and the path to full recovery give America and its Western allies additional reasons to work together to both rethink and rebuild the fundamentals of our economic and political power. The crisis has dramatically exposed the tightly intertwined interdependence of our economies, supply chains, and even our physical health, as well as dangers of an overreliance on China and others for critical supplies and infrastructures. A coordinated and comprehensive transatlantic work and investment program to rebuild our economies will be particularly important to the politically salient regional geographies characterized by structural economic change within our democracies.

As the US and our Western allies reopen and retool our innovation infrastructure, production base, and supply chains to be more resilient and less dependent on China, we can help each other by working even more closely together.

As detailed more fully in the Austin-Westwood background paper on the interrelationship of economic recovery and reduced political polarization (also prepared for the *Revitalizing Industrial Regions* summit) leaders of our Western democracies have an urgent task to attack the root causes of right-wing populism — economic anxiety and relative decline. Unless local and federal leaders in the Western nations focus on and accelerate economic success for people and places where residents are alienated and feeling left behind, buffeted, and threatened by social, demographic and economic change, these citizens will continue to drive a polarizing populist politics that is undermining our democracies and our transnational alliances.

After World War II, the United States, through the Marshall Plan, took action to prop up the economy (and aid a successful political evolution, avoiding chaos and communist/authoritarian rule) in a Europe shattered by war. Now again is the time to take the models and successes we have seen in so many of our older industrial communities and apply them more aggressively to turn the fortunes older in industrial regions, and other “left-behind” people and places.

There are paths, policies, practices, and strategies that are working to help communities adapt to profound economic and social changes. Let’s identify and equip our leaders with policy blueprints for accelerating economic transition in still struggling regions and spread more economic opportunity to those people and places. We would do best to act in concert, not alone — that is, to facilitate a new round of transatlantic cooperation in helping and learning from each other regarding what works, and the most effective paths forward, together.

ⁱ This community vignette, as well as most of the US case studies included in this paper were first published and sourced in the 2020 publication from the Chicago Council on Global Affairs, *A Vital Midwest: The Path to New Prosperity*

ⁱⁱ “Gartner Says Global IT Spending to Reach \$3.8 Trillion in 2019,” Gartner, January 28, 2019, <https://www.gartner.com/en/newsroom/press-releases/2019-01-28-gartner-says-global-it-spending-to-reach--3-8-trillio>.

ⁱⁱⁱ Lutz Goedde, Maya Horii, and Sunil Sanghvi, “Global Agriculture’s Many Opportunities,” McKinsey & Company, June 2015, <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/global-agricultures-many-opportunities>.

^{iv} “Global Logistics Market: Soaring Popularity of E-commerce to Help Market Display Exponential Growth, Says TMR,” Transparency Market Research, February 3, 2017, <https://www.transparencymarketresearch.com/pressrelease/global-logistics-industry.htm>.

^v “National Health Expenditure Data: Historical,” Centers for Medicare & Medicaid Services, accessed November 14, 2019, <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical>.

^{vi} “Global Logistics Market,” Transparency Market Research.

^{vii} Zoe Lipman, “Manufacturing the Future in the Industrial Midwest,” Center for American Progress, 2012, https://www.americanprogress.org/wp-content/uploads/2012/10/RER_Midwest.pdf.

^{viii} Much of this description was previously published by the European Union as Regional Case Study

^{ix} Data include the states of Illinois, Indiana, Iowa, Minnesota, Michigan, Missouri, Ohio, Pennsylvania, Wisconsin

^x John C. Austin, “The Rust Belt Needs Capital to Turn Talent and Innovation Into Jobs,” Brookings Institution, August 14, 2018, <https://www.brookings.edu/blog/the-avenue/2018/08/14/the-rust-belt-needs-capital-to-turn-talent-and-innovation-into-jobs>.

https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2018_PEPANNRES&prodType=table

^{xi} Rob Paral, “Immigration a Demographic Lifeline in Midwestern Metros,” Chicago Council on Global Affairs, March 23, 2017, <https://www.thechicagocouncil.org/publication/immigration-demographic-lifeline-midwestern-metros>.

^{xii} Parts of this summary were published in the OECD publication; *Regions in Industrial Transition - Policies for People and Places*

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