



Economic Transformation in Aging Industrial Regions

Transatlantic Media Dialogue / Networking Seminar
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Organizing Partner: Ecologic Institute Berlin – Brussels – Vienna – Washington DC



Concept of the Study Tour

The Ruhr District is one of the largest industrial regions in Europe, growing from a series of small medieval towns into the most densely populated region of Germany (with nearly 5.3 million people it is 50% larger than Berlin) in the last 150 years. As in its counterparts in the U.S. and other parts of Europe, the Ruhr District's breakneck economic growth was driven by the engines of early industrial development – coal and steel production. The region was instrumental in industrial production and economic activity in Germany through both World Wars and also played a major role in the economic reconstruction of Germany after World War II. However, like the U.S.'s Rust Belt, the last 50 years have been exemplified by the decline of the industries that built the cities, provided the main sources of employment, and imbued the region with a distinct way of life and culture.

During the past decades considerable efforts have been undertaken to modernize and diversify the economic base of the region. Former industrial icons – pitheads, coal mines, gasometers, blast furnaces, and even breweries – have been gradually turned into industrial monuments along what is now called the Ruhr's "Industrial Heritage Trail". Moreover, the Ruhr District has placed particular emphasis on education, technical research, renewable energy technologies and the arts in an attempt to create new jobs and, in part, foster an enhanced identity. In terms of the arts and education, the Ruhr District is the home of 19 universities and technical schools (the first was opened in Bochum in 1965), 100 concert houses, 120 theatres, over 200 museums and numerous festivals. Renewable energy companies and projects – like the Science Park Gelsenkirchen and RWE's focus on electric mobility – dot the current landscape as well. The Fraunhofer Institute, for example, has research centers in Dortmund, Duisburg and Oberhausen focusing on logistics, material flows, as well as environmental and energy technology. Researchers at the Max Planck Institute work on bioinorganic chemistry and advanced coal research in Mülheim and molecular physiology in Dortmund. Also, The Technologie Zentrum Dortmund is a industrial park with over 230 companies employing over 8,000 people active in fields like environmental technologies (including fuel cells, wind and

solar), while the areas universities have specific focuses on various growth fields (for example, green building in Duisburg and materials and neuroscience in Bochum).

Once famous for brownfields, smog, soot-stained buildings, and poisoned waterways, the reclamation of former industrial zones – exemplified, for example, by the International Building Exhibition at Emscher Park – in the Ruhr District has resulted in a landscape and atmosphere that defies the stereotypical expectations of visitors from other parts of Germany.

Discussions will focus on the following topics which are centered on local and regional efforts to craft policies, initiatives, and partnerships to spur economic transformation in regions formerly dependent on heavy industries, while also creating sustainable, well-paying jobs, augmenting the area's international economic competitiveness, and expanding cultural and recreational opportunities:

- Policy frameworks to enable structural change in Germany and the US.
- The economy of aging industrial areas yesterday, today and tomorrow.
- The creative economy.
- Industry – past and future – and the giants of tomorrow: from coal to renewables?
- The coverage of transformation processes in the media: the example of Ruhr2010.
- Best practice of structural change in Germany and the US.

Participants will visit area businesses, cultural offerings, and development projects that demonstrate successful engagement with the process of economic transformation. These sites will include the Tetraeder, the Zollverein Coal Mine Industrial Complex, the Ruhr Museum, the Science Park Gelsenkirchen, RWE e-mobility center, the Gasometer in Oberhausen and the Dortmund U-Tower.

The Ruhr District: History and Challenges

The coal industry, with seven billion tons being mined before the Ruhr District's economy reached a tipping point, was the region's main economic foundation. The demand for coal was bolstered by the seemingly unending demand for steel during the two World Wars and the "economic miracle" during the Cold War. Everything from automobiles to weapons required steel and bituminous coal was an essential ingredient in the production of steel and the Ruhr economy thrived as a result.

This economic boom over nearly a century resulted in increased migration from eastern European regions such as Masuria, Silesia and Poland as well as Italy, Turkey, and various Arabian and Asian countries. The integration of these populations has not always run smoothly. There are success stories as well, like the uneventful opening of Germany's largest mosque in

Duisburg through a community-supported consultation process. An additional challenge is the fact that the predominantly industrial region traditionally placed little emphasis on academic and cultural pursuits and as a result a substantial middle class was never established.

Like many in Germany, a central part of any Ruhr resident's life is football (and we don't mean American football) and loyalty to one's football club was and still is of the utmost importance. In fact, many locals are more inclined to self-identify first as fans of one of the professional football clubs (FC Schalke 04, in Gelsenkirchen, and Borussia Dortmund play in the top league, while teams from Duisburg, Oberhausen, and Bochum are in the second league, while Rot-Weiss Essen and other local clubs periodically make it into the higher leagues), than as residents of the region. Attempts to form a single political entity in the Ruhr District date back to the 1920s, but these have yet to succeed, which inhibits some reforms and eliminates some possibilities for collaboration – though Ruhr.2010, outlined below, points to opportunities for overcoming these challenges.

With the end of Germany's economic boom and the restructuring of the economy, the Ruhr District suffered for its overwhelming dependence on coal, steel, and heavy industry – mirrored by similar dynamics in regions of the U.S. over the past 40 years. The economic changes in the Ruhr District resulted in 275,000 unemployed workers. At the height of the downfall the region experienced elevated levels of child poverty and most of the 53 cities in the region faced budget shortfalls, and, as a result, many cities were forced to enact stringent measures to help reign in expenses. Efforts such as: public parks being mowed less frequently in Oberhausen; water temperature in public pools being lowered in Bochum and Duisburg; school refurbishing being halted; streetlights being turned off; and termination of youth programs were put in place.

The region is strewn with remnants of its industrial past and this has played a central role in the transformation of the region. Not only do these attest to the past industrial might of the region, but they also serve as important symbols to the residents with regard to their lives and their heritage. Thus, the re-structuring of the region by utilizing these monuments and odes to the past has not only transformed and strengthened the region but has helped heal the wounds of the past and preserve the unique identity of the Ruhr District.

Restructuring of the Ruhr

The economic transformation and restructuring of the Ruhr District has been characterized by the following changes:

- 1) Diversifying the structure of industry, both by encouraging small, medium, and large enterprises, as well as fostering growth in the different industrial sectors and the service

sector. Examples range from the giants of ThyssenKrupp and Hochtief AG (Germany's largest construction company) to Boehringer Ingelheim microParts GmbH in Dortmund (with 450 employees, which makes medical and bio-technology products for diagnostics and therapy) and Scheuchten Solar in Gelsenkirchen (a PV manufacturer and systems provider).

- 2) Aggressive development of business start-ups – Gelsenkirchen has a prominent solar cluster with firms like abacus solar AG (a solar services company located in the Science Park Gelsenkirchen); while Dortmund has a micro- and nanotechnology cluster in Dortmund with over 30 companies (like iX GmbH, which manufactures sensors and integrated optical systems, and Raith GmbH, which provides systems and testing software for the semiconductor industry) and over 1,900 employees.
- 3) Introducing and encouraging creative industries and helping existing industry become more innovative.
- 4) Fostering of new technologies being established in new industries and existing ones, especially through advanced research and development.
- 5) Investments in infrastructure that supports the other advancements (these include investments in: education, research, teaching organizations, financial possibilities, support services).

Changes in socio-economic viewpoints were central to the region as leaders looked to transition the economy and the population's mindset and outlook away from coal and steel. Residents and workers of the region understand the slow but difficult decline of the formerly leading industries. The communities have demonstrated a predominantly supportive attitude toward the transformation and the sense of communal solidarity that many residents learned in the mines and factories helped to smooth some of the challenges of the transition. Economic transformations do not occur overnight, and the Ruhr District still has much ahead of it in terms of changes and challenges.

A focus on education and research has been specifically helpful in triggering the transformation. However, it is also important to note that not all industries and sectors have experienced growth at a uniform pace, some have made dynamic advancements while others lagged behind, therefore support services were essential in ensuring that transitions were not abandoned halfway through the process. Incorporating different agents of the technology framework into formal and informal networks was crucial during the transition. Both endogenous (such as the environmental technology and renewables clusters emerging in North Rhine-Westphalia) and exogenous factors (linking global networks, investments from other countries) were important

in the Ruhr District's transformation; these endogenous and exogenous factors complemented each other, which has helped facilitate the transformation.

Despite continued challenges, many of the region's efforts to save parts of its history for posterity, reclaim land and water once thought lost to industrial pollution, and create new jobs have been effective. The "Industrial Heritage Trail", which stretches for hundreds of kilometers, winds past former industrial sites and factory buildings that are now home to museums, artists, and offices.

Energy politics, climate change, and the Ruhr District

Germany boasts some of the most ambitious energy and climate objectives in the world. By 2020, the country seeks to have reduced its greenhouse gas emissions 40% below 1990 levels – for comparison, German emissions are already over 20% below 1990 levels, while US emissions are approximately 15% above those levels. In terms of energy policy, a recently released "Energy Concept" from the German government sets a goal of acquiring 80% of electricity and fully 60% of all primary energy from renewable sources by 2050. What role nuclear energy and coal will play in this vision of Germany's energy future is hotly contested in the society and remains very much in the air. As political and economic dynamics play out, the Ruhr District will be squarely in the middle of these developments.

Two of Germany's four major electric utilities are in North-Rhine-Westphalia – Eon in Düsseldorf and RWE in Essen. These companies find themselves at the nexus of three different energy-related challenges facing Germany. Both are rapidly expanding the production of renewable electricity to take advantage of Germany's feed-in tariff support – though also to diversify production options and meet climate change targets. Both companies maintain nuclear plants, which are in the process of being phased out in Germany, but exactly when and how has become a major issue with the release of the "Energy Concept". And, lastly, both companies derive the majority of their electricity from coal – especially in the Ruhr District. Germany still gets a substantial amount of electricity from coal, and it is unlikely that the country can move away from coal and nuclear power at the same time. Additionally, the country still provides some subsidies for coal mining and a recent move to extend these subsidies to 2018 has the possibility to save some jobs in the Ruhr District, but may also make Germany non-compliant with an EU-Directive on coal subsidies. These major utilities, foremost in the Ruhr District, are at the center of all these debates.

Further, attempts at economic transformation in the Ruhr District have not only focused on culture and education, but also on industrial redevelopment and the fostering of industries of the future. Renewable energy and electrical systems have been part of this vision. Among a slew of new companies that have sprung up in the renewable energy industry, Eickhoff GmbH is

one example of an already-extant company in the Ruhr District that retooled and entered a new industry to survive: a major mining equipment manufacturer, the company also now makes gear boxes and other equipment for windmills. RWE and Eon are also playing a major role, having moved boldly into the renewable energy sector after initial reluctance and now supporting the build-up of infrastructure for electric automobiles. Policies may change over time, but these major utilities plan on selling energy in the future and recognize the potential for growth by supporting the move from gas to electricity to power Germany's car fleet.

Importantly, the government's imposition of climate change objectives, renewable energy targets, and the feed-in tariff law have not been without certain costs. To cover the feed-in tariff payments in 2011, the so-called Ökostromabgabe (renewable electricity charge) will increase by nearly 70%, increasing the average rate-payers yearly bill by € 70. Due to eco-taxes, gasoline costs around \$8 per gallon. These have implications for households, and the significant increases in electricity prices have caused some consternation in the public and slightly hurt the image of the solar industry (the production price dynamics of which in combination with the feed-in tariff were responsible for the increase in electricity prices).

However, these additional costs either address environmental externalities (in the case of gasoline) or provide support for a burgeoning industry with significantly fewer externalities (in the case of renewables). Coal and nuclear power continue to receive subsidies, and when these rate-payers are forced to pay the full economic costs for these energy sources, many renewables will be cost competitive with traditional sources – with some sources, like wind, already approaching production price parity.

Ruhr.2010: The Cultural Capital of Europe in 2010 – Concept and overview of the year's program

Every year, the Council of the European Union designates one or more cities as a European Capital of Culture. The designation allows a selected city or cities (as Essen, Istanbul and Pecs in Hungary are all cultural capitals this year) to profile its heritage, history, and also its cultural offerings. Selected cities put on a year's worth of events drawing tourists and engaged citizens from all over Europe. Selection has proven a boon not only to tourism, but also, importantly, for cultural identity and cultural offerings – like music, theater, museums, and the arts in general. Essen, Germany and the surrounding cities that make up the Ruhr District submitted a bid under the name Ruhr.2010 to highlight the changes that have taken place in the region and to continue to enhance the region's burgeoning new reputation. The winning bid of Ruhr.2010 was the first time that a region was chosen as a European cultural capital.

The main themes of the Ruhr.2010 program are: mythology, metropolis and moving Europe. These themes are made evident through the cornucopia of artistic mediums utilized by the

program. The main goal of the program is to address the mythology surrounding the Ruhr District, focus on the emergence of the region as a metropolis and highlight the capability of the region to move Europe into action through the power of art and culture.

The mythology of Ruhr helps shed light on the historical context that is at the base of the structural transformation of the region. The backdrop of the coal and steel industries, the ethic of hard (sometimes back-breaking) work, a pronounced love for football, the regions' cultural and religious diversity and the arrival of countless immigrants are all essential elements of the Ruhr District that have been considered in the program.

The theme of the Ruhr metropolis is intended to help re-energize innovation and creativity that will be central to the region's economic (and cultural) prospects over the coming decades. The focus on the metropolis component looks to present the Ruhr District as an example of how the natural and man-made landscape can be used harmoniously to dramatically transform a region for the betterment of society and the environment.

As the European Capital of Culture, Ruhr.2010 seeks to present the region as a model and set certain standards that the rest of Europe can ultimately follow. Ruhr.2010 highlights a "Europe of people and creativity, research and active involvement." Keeping with this motif, the moving Europe theme hopes to mediate a thoughtful exchange between European citizens, bolster networks among artists, advocate academic dialogue at an international level and address issues such as culture, education, identity and migration.

The purpose of Ruhr.2010 is to function not as a festival but as an in-depth look into the transformation that has and is still occurring in the region. The program attempts to answer the following questions: How does a region develop from industrial urban sprawl to cultural capital? How do people cope with change? How do they design their living spaces? How do they integrate new influences from foreign cultures? How can people be encouraged to embrace culture they would normally never encounter? These are some of the themes that we will explore during the course of our study tour of the region.

One of the most unique events of the year was the "world's largest picnic" held in July along 60 kilometers of Europe's busiest expressway. The road was blocked for the day, and various cultural and other events were staged, with a specific focus on different culture, nations, and generations. The biggest feature was the creation of the world's longest table – consisting of 20,000 tables lined up together. Over 3 million visitors took part, of which 1 million were cyclists. Specific emphasis was placed on drawing residents who live by the highway and normally look out upon it to come down and experience the road in a totally different way.

Transatlantic aspects of economic transformation

Spread over a much larger physical area, coal and heavy industry have resulted in comparable economic developments in the United States. Cities and large towns of the Rust Belt and the Upper Midwest have experienced a similar decline of formerly dominant industries and employers. Political and civic leaders have attempted to address and halt the decline in a variety of ways with varied results. Cities that were dependent on coal and steel have been looking for solutions for decades, while those areas dependent on the auto and other industries are facing new closures and layoffs. Detroit has taken extreme measures to reduce its infrastructure burdens by leveling entire neighborhoods and creating urban farms. As in Germany and other industrial regions of the EU, many U.S. cities and states are courting new and growing industries – renewable energy and advanced automobiles are among those industries being supported in both places. A focus on education, cultural offering and the arts, as well as the creative economy in general is viewed as additional opportunities for creating new jobs and a method for attracting entrepreneurs.

These transatlantic similarities present the jumping off point for this dialogue, as we look at the developments, shortcomings and remaining challenges of the Ruhr Region and compare these experiences to comparable issues facing the United States.

We look forward to the dialogue!

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