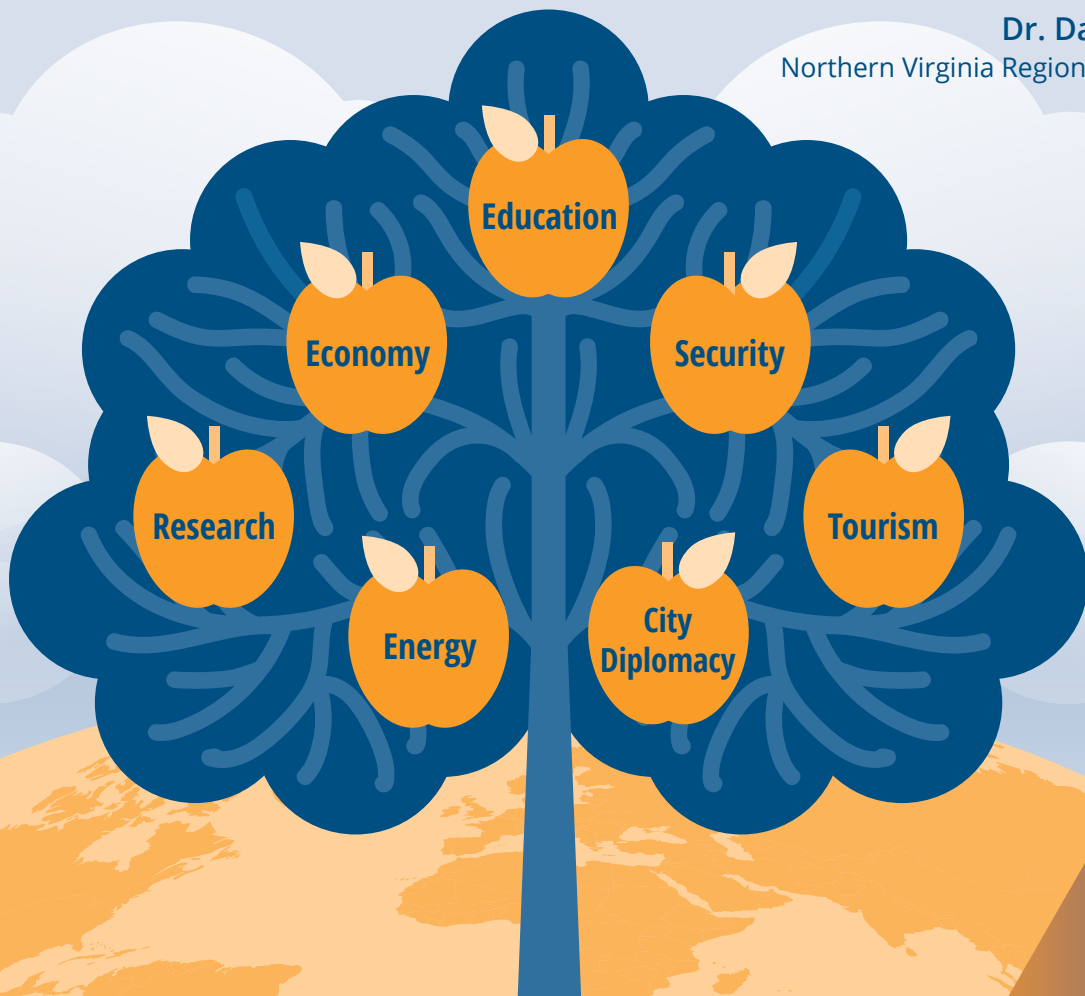


Harvesting Overlooked Potential:

International Cooperation through Strategic Local Level Engagement

Dr. Dale Medearis
Northern Virginia Regional Commission





The Northern Virginia Regional Commission (NVRC) is a regional council of governments representing 13 localities and approximately 2.5 million people of the northern Virginia suburbs of Washington DC. According to Virginia Code, NVRC is a political subdivision (government agency) of the Commonwealth. NVRC's 24-member board is composed of elected officials of member local governments. Chief functions are providing information and professional and technical services for members, and serving as a mechanism for regional coordination. A statutory purpose is to "promote the orderly and efficient development of the physical, social and economic elements of the district by planning, and encouraging and assisting localities to plan, for the future."



Table of Contents

Introduction	2
“City Diplomacy” and the Rise of Local Level Global Engagement	4
Strategic Transatlantic Engagement and Outcomes Benefitting Main Street: Local Governments and City Diplomacy	10
Looking Ahead – Strengthening Transatlantic Engagement in Northern Virginia	16
Conclusion	19
Endnotes	20
Author	24

Introduction

The relevance of transatlantic relations, especially to the United States, is very often grounded in concepts about national-level and macro-geopolitical issues. The narratives between the U.S. and Europe address shared values for rule-of-law and democracy, joint concerns about macro-geopolitical security, common interests about sustainable energy and climate change policies, economic inter-dependence through foreign investment and trade, and appreciation for the importance of cross-national science and technology research.

The international challenges of climate change, health pandemics, economic development profoundly affect sub-national governments who also bear the responsibilities of responding. The necessity to address these challenges at the local level is driving a vigorous re-orientation about how U.S. local governments engage and act abroad.

But however critical the focus on national-level issues has been for global and transatlantic relations, their predominance within mainstream foreign policy debate and implementation has overshadowed the equally relevant economic, environmental, social, security, and science cooperation that occurs at the local level. The international challenges of climate change, health pandemics, economic development profoundly affect sub-national governments who also bear the responsibilities of responding. The necessity to address these challenges at the local level is driving a vigorous re-orientation about how U.S. local governments engage and act abroad.

But this re-orientation is slowed by a serious lack of understanding at all levels in the United States about how profoundly global affairs affect their communities – especially the benefits to Main Street. There is an even more dire lack of understanding about how local governments themselves can or are able to respond on the global stage. For example, despite a growing body of literature, research and social media about the influences on U.S. metropolitan areas of trade, investment or tourism, there are few specific quantitative indicators or metrics for U.S. local governments to access or use to further their comprehension about the effects of job growth or revenue generation within their own localities.

National and local leaders tout the importance of lesson learning or commercial ties to global engagement. But there is little understanding and fewer resources within U.S. local governments about how to strategically search for and apply innovative technologies

and policies with domestic or local benefits. The practice at the local level of cultivating research, science or commercial partnerships that can lead to domestic applications of clean energy technologies, climate-resilient urban infrastructure policies or career technical education innovations is under-appreciated and seriously lacks support.

Local governments must also confront negative perceptions about global engagement as marginal, irrelevant or even wasteful. These cynical views are grounded in accounts and reports about international trips used as junkets and boondoggles or empty events that lack outcomes to local priorities.¹ The necessity for local governments to connect to Main Street was touched on recently by the U.S. State Department's Special Representative for Sub-national Affairs when she asserted "city diplomacy must first and foremost serve the core purpose and objective of local government: to improve the lives of residents."²

For the last decade, the Northern Virginia Regional Commission (NVRC), a regional council of governments representing 13 counties, cities and towns of Northern Virginia and their 2.5 million residents, has worked to redefine global engagement at the local level. The NVRC has developed a business model that prioritizes international work around outcomes that service the communities of Northern Virginia. To this end, NVRC's global engagement focuses primarily on the unilateral transfers of policy and technical innovations for potential application to Northern Virginia. NVRC's international work also prioritizes engagement with countries on the basis of their status as technical and policy pioneers and their economic connectivity to the region. Furthermore, strategic partnerships with the region's science, research, academic, commercial and civil society institutions whose global activities converge with NVRC's are used to accelerate the applications of lessons from abroad.

This paper will share observations about the current trends of international work by local governments in the United States and the particular challenges of focusing and clarifying local level benefits.

Over the past twenty years, NVRC's experiment with this unique form of global engagement has reaped sizeable dividends for Northern Virginia. A sample of NVRC's and its local governmental members' successes through this type of work include the transfer and adoption of wastewater treatment technologies from Innsbruck, Austria, to Alexandria, the application of renewable energy policies from Stuttgart to the region and commercial investments from Switzerland in Arlington County. As a result of these accomplishments, and others, Northern Virginia has emerged as a potentially new model for local governments across the U.S. aspiring to work internationally in strategic and outcome-oriented contexts.

This paper will share observations about the current trends of international work by local governments in the United States and the particular challenges of focusing and clarifying local level benefits. It will share how NVRC's global engagement model addresses global and transatlantic challenges. Finally, it closes with insights about ways that NVRC's model of global engagement might possibly be broadened across the region and potentially extend to other parts of the United States and transatlantic relationships.

CHAPTER 1

“City Diplomacy” and the Rise of Local Level Global Engagement

Local Governments and “City Diplomacy”

Global engagement by U.S. local governments has attracted a great deal of attention within U.S. domestic and foreign policy circles. “Global Cities” and “City Diplomacy” characterize the work by Sister Cities International and think tanks such as the Truman Center’s “City and State Diplomacy Task Force”³, Bloomberg Foundation’s “Cities Network”⁴, the JP Morgan Chase/Brookings Institution’s “Global Cities Initiative”⁵ or the Carnegie Endowment’s “U.S. Foreign Policy for the Middle Class.”⁶ In 2022, the importance of working with local governments internationally led the U.S. Department of State to create a “Special Representative for Subnational Diplomacy” with a portfolio and staff to support “U.S. national security priorities by integrating local ideas into foreign policy and fostering connections among cities, municipalities, and communities in the United States and abroad.”⁷

City Diplomacy and equivalent U.S. local-level programs overseas is strongly rooted in national-level foreign policy programs and goals. This has especially been the case with counterparts in Europe since the end of the Second World War.⁸ Under the brand of “soft power”, “cultural” or “citizen diplomacy”, the U.S. Government often invites local governments to take part in foreign policy events to highlight positive U.S. cultural, political or commercial experiences. The purpose of involving local governments is to serve as instruments of “soft power” and to present a positive impression of their communities abroad against the backdrop of broader geopolitical issues.⁹

Within these macro-geopolitical contexts, local governments often justify their international activities under the cover of “lesson learning” and “best practices exchanges”.¹⁰ Local elected officials, staff or citizens travel overseas to share ideas and experiences about their communities’ transportation, water infrastructure, or education.¹¹ Success has been and is still often defined simply by the travel itself,

modest follow-up “meet-and-greet” events, or the numbers of partnerships with counterparts abroad. In the case of the latter, it is often the case for U.S. local governments to establish as many as 10, or even 20 partnerships with counterparts overseas.¹² The work internationally by local governments is seldom self-financed, problem-focused, or filtered through any prioritization process that could lead to local-level domestic outcomes.¹³ Ironically, the relatively large and topically diverse sets of activities parked under the umbrella of foreign policy engagement provide just enough relevancy to U.S. local governments to work globally as “citizen diplomats” without requiring a focus on Main Street. But the diffuse nature eliminates the gravitas to ensconce it on to the level of any serious policy discussion or resource allocation.

Local governments often validate global engagement through international economic connections. Mayors, elected officials and local governmental staff frequently point to the presence of ports, trade zones, or international businesses in their localities.¹⁴ The U.S. Government, particularly the departments of State and Commerce, help local and state governments travel overseas on trade missions to foster job creation, business creation and revenue generation through foreign investment, trade and tourism.¹⁵

The Focus on Main Street

But the vast breadth of the world’s geography and complexity of global challenges collides with the very narrow geographic and intensely local obligations: the legal mandates, budgetary limits, political and technical borders of U.S. counties, cities and towns. Local governments in the U.S. have reached a confusing crossroads about how to engage internationally as the scale and effects of phenomena such as climate change, immigration, the global economy and public health pandemics escalate. Richmond Mayor Levar Stoney captured this tension between foreign policy “soft power” goals and local-level needs when he recently commented that “Richmond lacks the capacity to focus too heavily on foreign policy, with concerns over infrastructure and the economy taking priority”.¹⁶



SOURCE: METROPOLITAN WASHINGTON AIRPORTS AUTHORITY

*Metro Station at Dulles
International Airport (IAD)*

Delivering benefits to Main Street through global engagement is drawing more U.S. local governments to look more closely at the quality of their engagement overseas. Local governments in the U.S. are realizing that the quantity of activities, trips or partnerships is insufficient when trying to meet the needs of their local infrastructure, economic development, education or environmental programs. The Carnegie Endowment for International Peace framed this tension as a national call for “a deeper understanding of domestic economic and social issues and their complex interaction with foreign policy decisions.”¹⁷

The pivot by local governments from “soft power” international partnerships to helping Main Street USA through global economic engagement also is complicated. This is particularly the case with concerns about economic investment from foreign commercial actors as pretexts for espionage against the United States. In July of 2022, the U.S Federal Bureau of Investigation announced concerns about “nation state use of sister city relationships to conduct foreign malign influence against U.S. state and local leaders.”¹⁸ These fears played out recently in the Commonwealth of Virginia’s efforts to block the Ford Motor Corporation from building an electric car battery plant and worries about Ford’s supply-chain ties to China.¹⁹

Local governments who attempt to forge more purposeful engagement through international economic or commercial engagement must confront the lack of clear quantitative metrics and statistics concerning trade, investment, tourism and other important economic indicators within their own boundaries.

Local governments who attempt to forge more purposeful engagement through international economic or commercial engagement must confront the lack of clear quantitative metrics and statistics concerning trade, investment, tourism and other important economic indicators within their own boundaries. The Brookings Institution recognized this and how local level “international relations’ decisions are frequently separated from those stewarding the regional economic development agenda and thus misaligned with the broader efforts to grow business and job opportunities.”²⁰

Paradoxically, a complicating variable clouding global economic effects at the local level is the relative abundance of national- and state-level data profiling the effects and trends of FDI, trade and tourism. According to the Global Business Alliance, international companies employ over 7.9 million U.S. workers and pay wages that are on average approximately \$85,000 and approximately 10 percent higher than those of the average worker in the U.S. International businesses also account for approximately 13 percent of all corporate R&D in the United States.²¹ But, to repeat in order to emphasize, rarely is this information available at the scale of a local government.

The Relevance of the Transatlantic Economy to the U.S.

The Center for Transatlantic Relations at Johns Hopkins University has identified a variety of global economic trends that might inform efforts by U.S. cities and counties to respond and engage on the global stage more purposefully. Drawing from publicly accessible governmental data sources such as the U.S. Department of Commerce’s Bureau for Economic Analysis, the 2022 “Transatlantic Economy” finds that:

- > The Transatlantic Economy is the most vibrant economic relationship and vibrant commercial artery in the world;
- > The total “foreign affiliate sales” between the U.S. and Europe is approximately \$5.7 trillion and that by comparison, foreign affiliate sales between the U.S. and Asia is only \$3.00 trillion;
- > The transatlantic digital economy (trade in digitally-enabled services by major area) between the U.S. and Europe is approximately twice that between Asia/Pacific and the United States;
- > The U.S. exports \$247.8 billion to Europe and imports \$142 billion. The U.S. exports \$122.3 billion to Asia/Pacific and imports \$78.8 billion;
- > Germany is the largest investor in the United States of inward foreign direct investment of U.S. energy with over 128 greenfield projects;
- > Three of the top five purchasers of renewable energy in Europe for the period 2008 – 2021 were American (Amazon with over 4,000 megawatts, followed by Microsoft and Google with approximately 3,000 megawatts each).²²

It is the exception rather than the rule, when data collection, analysis and geocoding are conveyed down to the level of local governments and also displayed publicly. Clarifying the global economic dynamic at the local level can reap huge dividends. For example, the economies of Northern Virginia differ greatly from those of central or southern Virginia. The strategies deployed by the Commonwealth and local governments to find and apply investment or trade from abroad are likely to vary depending on what global economic attributes and assets they are able to identify – and broadcast around the world.

For example, in 2016, “Virginia firms sold \$1.4 billion worth of material to Chinese buyers with the biggest sales coming from pulp and paperboard, meat products and scrap metal.”²³ By contrast among Virginia’s largest export to the EU (approximately \$807 million in 2020) consisted of advanced aircraft, spacecraft and related aviation technology.^{24 25} Just beyond the shores of Virginia Beach, Siemens/Gamesa is building the largest offshore windfarm in the United States. In Arlington County, Amazon, the largest procurer of renewable energy in Europe and North America, is building its second Northern American headquarters. Clarifying the effects of these investments and activities and their influence on the local



World Trade Center of
Los Angeles FDI 2023 Report

■ “City Diplomacy” and the Rise of Local Level Global Engagement



SOURCE: DOMINION ENERGY

Virginia Beach Windfarm

economies, ecologies and communities stands to illuminate global economic engagement more clearly and potentially help local governments market themselves abroad.

The World Trade Center of Los Angeles has set the special precedent of tracking and publicly displaying foreign direct investment within the boundaries of Los Angeles County. Since 2020, in partnership with the County’s local research institutions, the WTCLA tracked and ranked foreign investment in Los Angeles County by industrial sector and the top 25 investing countries.

Moreover, WTCLA has geocoded and displayed the placement of that investment across the County and southern California region.²⁶

Making clearer the dynamic and effects of global economic engagement at the local level after the Los Angeles model could further strengthen more purposeful global engagement. It could help steer the development of a comprehensive plan and strategy, which in turn, could help frame, prioritize and then guide other broader global activities for local governments. The economic development offices of many large U.S. cities and counties often have budgeted staff and programs for global affairs.²⁷ The local economic development offices have a serious influence among local governments that could serve as a vital catalyst for persuading the creation of a city- or county-wide global engagement strategy. The EDA offices’ work could also help identify the ties between the local level effects of FDI and trade and their relationship to luring and applying global firms that produce vital technologies or equipment and services useful to local government’s priorities.²⁸

Cross-National Technology and Policy Transfer at the Local Level

Local governments in the U.S. have tried to justify activities overseas by highlighting the exchanges of lessons and best practices. But transferring and applying policy and technical innovations is complicated and not as simple as add-water-and-stir. Moreover, the time of local governmental staff and elected officials is very constricted and totally focused on the domestic obligations of their local government. The technologies and policies leading to low-impact stormwater management in Stuttgart, Germany cannot automatically fit in Alexandria, Virginia — and vice versa. It takes time, resources and focus to search internationally for innovations, interpret how they function and determine whether they could be suitably applied into the U.S. — or overseas. Transferring and applying lessons across borders also requires the steady involvement of local governmental staff, elected officials and public.

Experience has demonstrated that a first step towards making cross-national lesson learning by U.S. local governments more efficient and strategic is to first prioritize the focus on transfers of lessons from abroad to the U.S. with the potential to impact the local government. The search for pioneering cities and programs abroad has benefitted in the past by focusing the search for lessons and innovations from countries abroad which perform better than U.S. local governmental counterparts. Multiple benchmarks make clear that the U.S. lags behind many counterparts overseas in areas such as greenhouse gas emissions, solar PV capacity, or use of public transport and biking.^{29 30}

Searching for lessons abroad with application to local authorities is invariably the first step. Understanding how the innovations from abroad can be applied is a second. There are several precedents that have demonstrated the value and means of taking these steps to global lesson learning through strategic partnerships between local governments and their local science, research, academic institutions.³¹ Local colleges, universities, research and science institutions often have formal global research and exchange programs that can help with a possible global search, study and application of innovations to a local government.

The value of stronger and more formal partnerships between local governments and science, research and academic institutes in global engagement was broadcast too by the National Science and Technology Council 2022 “Biennial Report to Congress on International Science and Technology Cooperation”. The 2022 Report calls out that “the United States is missing out on both short- and long-term strategic opportunities to engage internationally and is being left behind as a result” and addressed the value and need for local level engagement through cross-national science and technology cooperation.³² This was a theme also picked up by the UN Climate Change Conference.³³

It takes time, resources and focus to search internationally for innovations, interpret how they function and determine whether they could be suitably applied into the U.S. — or overseas. Transferring and applying lessons across borders also requires the steady involvement of local governmental staff, elected officials and public.

CHAPTER 2

Strategic Transatlantic Engagement and Outcomes Benefitting Main Street: Local Governments and City Diplomacy

The NVRC's international work draws from the special constellation of international social, academic, scientific, and commercial qualities. The following indicators help convey a sense of the region's global vitality and status:

- > Were Northern Virginia an independent country, its \$250 billion GDP would be the 49th largest economy in the world;
- > Northern Virginia is home to 4 of the top 10 income localities in United States;
- > Northern Virginia hosts five of the top 10 localities in the United States with populations possessing a bachelors degree or higher;
- > 27.7 percent of Northern Virginia's population is foreign born and the region is a majority-minority demographic;³⁴
- > Northern Virginia is home to over 700 international firms;³⁵
- > Northern Virginia is home to the largest data center market in the world;³⁶
- > Northern Virginia hosts George Mason University — the largest public research university in the Commonwealth of Virginia.³⁷

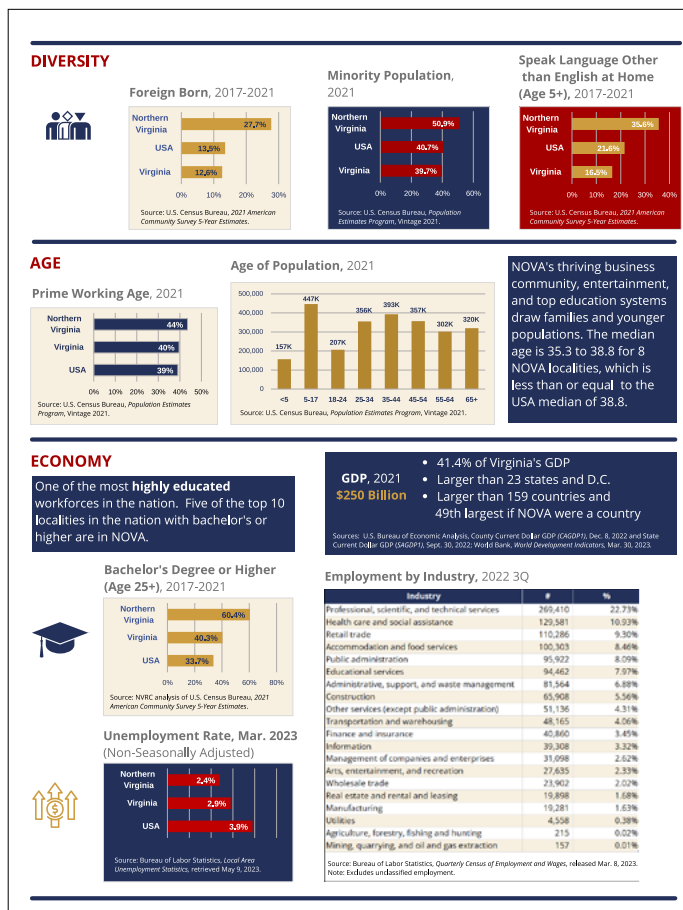
Strategic Transatlantic Engagement and Outcomes Benefitting Main Street: Local Governments and City Diplomacy

Like other large metropolitan regions in the United States, the abundance of global connections presents special opportunities for determining international work for the local governments, such as with whom, towards what ends and how. Since its inception in 1999, NVRC's international work has involved mostly partners in Germany by drawing on three critical filters. These filters include the large economic presence in Northern Virginia; Germany's status as a global pioneer in multiple urban energy, climate and sustainability sectors; and, Germany's status as a leader in science and technology research.

Preliminary economic metrics, like those from Arlington County Economic Development (AED), substantiate NVRC's work with Germany on economic grounds. For the period 2015-2020, Germany accounted for approximately 50 percent of all total foreign investment in Arlington County (about \$95,000,000). Switzerland accounted for approximately 30 percent of all foreign investment (about \$57,000,000) and the United Kingdom approximately 15 percent (about \$28,500,000) and "other" countries approximately 5 percent (about \$9,500,000) for the same period.³⁸ Other relevant local governmental global economic assets in Northern Virginia focused on Germany include Fairfax County Economic Development's offices in Berlin, Germany – one of five offices the agency has overseas.³⁹ Moreover, Loudoun County's Office of Economic Development has staff and formal programs to engage overseas with countries such as Germany.⁴⁰

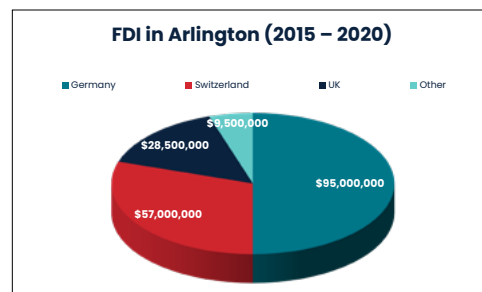
NVRC's global work and prioritization with German local and regional governments also is based on 50-years of successful lesson learning. The City of Alexandria and Arlington County were pioneers in transatlantic relations during the late 1970s and early 1980s and the means used to inform the development of the Washington Metro system and Alexandria's waterfront from the work of cities such as Hamburg.^{41 42}

Since 2000, NVRC has expanded on these decades-old precedents and also added more formal cooperation through the region's research, science, commercial and civil society partners to help accelerate the collaboration with countries such as Germany. NVRC has a science and research agreement for climate research with George Mason University, an agreement




SOURCE: NORTHERN VIRGINIA REGIONAL COMMISSION

NVRC Demographic Data Chart



SOURCE: ARLINGTON ECONOMIC DEVELOPMENT

Arlington County Pie Chart on FDI



■ Strategic Transatlantic Engagement and Outcomes Benefitting Main Street: Local Governments and City Diplomacy

with the Northern Virginia Technology Council to collaborate on economic development and technology exchange and with the George C. Marshall International Center to support cross-national lesson learning.

The following three case studies profile further details about NVRC's current global engagement business model and offer insights into where its work can grow and evolve.

CASE STUDY 1

Renewing Northern Virginia's Urban Wastewater Infrastructure: Science and Technical Innovations From Europe

Alexandria Renew is the City of Alexandria's wastewater utility. It is one of the most advanced water treatment plants in the world. Like counterparts around the region and nation, the City of Alexandria has tried to comply with U.S. federal regulations to reduce nutrient pollution from wastewater and to mitigate the degrading effects of oxygen depletion. The challenges for wastewater treatment plants such as Alexandria Renew are compounded by the need to reduce costs and energy consumption associated with sludge volume and nitrogen due to the application of blowers in the aeration processes and methanol.

Since 2008, Alexandria Renew has worked with counterparts in Innsbruck, Austria (and subsequently Copenhagen, Denmark) to transfer and apply a patented biological process for removing nitrogen from wastewaters containing high ammonia concentrations — DEMON (DEamMONnification). The DEMON process was developed by Bernhard Wett from the University of Innsbruck. Unlike the conventional and costly denitrification methods for removing nitrogen, which require large amounts of energy and methanol, DEMON uses anaerobic ammonium oxidizing bacteria (anammox) to efficiently and reliably remove ammonia from wastewater. In Alexandria, the DEMON process required 60 percent less energy, reduced dependence on methanol and cut sludge residues by 90 percent. In 2011, the US National Association of Clean Water Agencies (NACWA), recognized the Alexandria Sanitation Authority (ASA) in the "Research & Technology" category of its annual *National Environmental Achievements Program* for "enhancing nitrogen removal and increasing sustainability with innovative sidestream treatment" through the use of the DEMON process.⁴³

The research and science faculty at Virginia Tech helped contribute to the application of the DEMON process. Virginia Tech's Sustainable Environmental Research Laboratory network of scientists and researchers staff partners with academic, practitioner and industrial counterparts to develop innovative technologies. It is the contemporary equivalent of the agricultural extension model in which scientific research and new technical knowledge is conveyed through education.

Parallel to the application of the DEMON process is the City of Alexandria's "River Renew", \$454 million investment to mitigate the City's centuries-old challenges with combined sewer overflows (CSO). For centuries, the wastewater and stormwater has flowed through the same pipes in Old Town. Almost each rain event leads to the flow of untreated sewage water into several of the City's streams and the Potomac River. Two new tunnel systems are being bored to capture and convey the untreated rain and wastewater to the Alexandria Renew plant for treatment. The boring machine, named "Hazel" after the 1970s environmental justice leader Hazel Johnson from Chicago, are from the German firm Herrenknecht. The project is expected to be finished by 2025.⁴⁴

When finished, the "River Renew" project will stop the flow of polluted wastewater that has flowed past the African American Heritage Park and the graves of African-American soldiers buried at the National Cemetery.


CASE STUDY 2

Career Technical Education to Advance Northern Virginia's Sustainable Energy Programs: Lessons From Germany's Dual System

Sustaining Northern Virginia's transition towards carbon-free produced electricity by 2050 rests on the ambitious installation of renewable energy systems and technologies, including solar photovoltaic, wind, and electric vehicles. Installing and maintaining these technologies, in turn, depends on the development and retention of a highly trained and skilled workforce. This will be particularly important as the demand for clean energy workers such as electricians, electrical power-line installers and electrical repairers rises in the wake of the COVID pandemic.

However, Northern Virginia's high-tech-focused economy, research-intense academic landscape, high-performing primary school systems and large college-educated population has often marginalized appreciation for vocational education and training. Moreover, according to the Brookings Institution's 2019 report, "Clean Energy Jobs", fewer than 20 percent of workers in clean energy production and energy efficiency sectors are women, while black workers fill less than 10 percent of these sector's jobs.⁴⁵ This at a time when, according to the 2021 "National Solar Jobs Census", solar energy jobs were up 11 percent in the Commonwealth of Virginia.⁴⁶

Moreover, cross-cultural educational and language exchanges at the primary school level are often privately funded and oriented to affluent families, which has tended to marginalize students from economically distressed communities. As a consequence, there is an under-representation of students from communities of color in international educational exchange. According to the National Center for Education Statistics, fewer than 7 percent of students who study abroad are Black or Hispanic.⁴⁷



■ Strategic Transatlantic Engagement and Outcomes Benefitting Main Street: Local Governments and City Diplomacy

NVRC is leading a program to introduce the educators and career technical education (CTE) teachers from the Northern Virginia high school systems to the German vocational training and apprenticeship model as they relate to electric vehicles, renewable energy, grid transmission and related environmental technologies. The German vocational training program of harmonized accreditation, paid apprenticeships and mentoring is considered a global benchmark for vocational training – especially in the automobile technology and environmental technology sectors.

The participating teachers and educators will study the German vocational training and apprenticeship programs at schools, businesses, technical institutes, unions and chambers of commerce in the Stuttgart and Hamburg regions. They will study the potential application to Northern Virginia of accreditation, paid apprenticeships, safety standards, curricula planning from German counterparts. The participating educators also will discuss plans for follow-up exchanges to Stuttgart and Hamburg for approximately 12 of their students in the summers of 2024 and 2025. The project is designed around existing and long-term partnerships involving educational, local governmental and commercial institutions between the existing automotive technology program in Arlington Public Schools and internships for students at German car dealerships such as Mercedes Benz.

CASE STUDY 3

Cross-National Applied Science and Technology Supporting Local Sustainability: Northern Virginia Partnerships with George Mason University

Since the 2015 Conference of Parties in Paris, much work at the UN Conference on Climate Change has focused on the importance of cities and local governments working together to address climate change. There is special eagerness to formalize global engagement by local governments and their host research institutes. For example, Drexel University is working with the City of Philadelphia and Columbia University with the City of New York to promote sustainable energy infrastructure in Asia.⁴⁸

NVRC has picked up on this trend of strategic partnerships between local governments and their neighboring academic and research institutions. In 2013, NVRC partnered with science and research faculty, staff and students at George Mason University to advance the application of sustainability and climate programs from countries such as Germany to Northern Virginia. The partnership has involved multiple international lesson learning exchanges related to climate planning. The outcomes of this work have helped inform renewable energy programs in Northern Virginia and created the basis for further large-scale cooperation between the two organizations. Two of the more recent concrete examples of this partnership include:

Solarize NOVA. In 2014, moved by the inspiring performance of cities such as Bottrop or Stuttgart, Germany and the declared solar objectives of Arlington and Loudoun

■ Strategic Transatlantic Engagement and Outcomes Benefitting Main Street:
Local Governments and City Diplomacy

counties (50 MW each by 2050 under their respective Community Energy Plans), NVRC launched the Solarize NOVA program. Solarize NOVA is a non-profit, community-based outreach initiative sponsored by the NVRC and the Local Energy Alliance Program (LEAP). A core element of Solarize NOVA is the facilitation of solar PV installation through bulk purchasing and free solar site assessments. Another is the “Solar Map” — a product of cooperation between NVRC and George Mason University’s geospatial computing facilities. The map provides homeowners and business owners with information about potential solar energy generation on the rooftop of their home and/or business. The map is the first of its kind in Virginia.⁴⁹

NVRC/Verband Region Stuttgart – George Mason University/University of Stuttgart Climate Applied Science Climate Resiliency Partnership.

In March 2023, NVRC, together with their regional governmental counterparts from Stuttgart and faculty from George Mason’s Virginia Climate Center and the University of Stuttgart met to develop more formal applied science and research with the potential to lead to local-level outcomes benefitting climate resiliency programs in both regions. Through the George Mason University Climate Center (established in 2022), a workplan has evolved that will bring together local governmental staff, practitioners, science and research faculty together from the Stuttgart and Northern Virginia regions. The two regional governments and their academic colleagues will study the exchange of lessons related to urban heat island mitigation, “green” planning that promotes social inclusion, economic and cost-effective climate resilient plans, emergency monitoring systems for intense rain events and hydrological models to aid local government respond to future precipitation, runoff from climate change and land-use development change trends. Other subjects of cooperation between the two regions includes the assessment of potential of green roofs in the region through subsequent research into stormwater runoff, modeling and policy development.



*George Mason University
Campus (Research Hall)*

Looking Ahead – Strengthening Transatlantic Engagement in Northern Virginia

Two decades since its launch, NVRC's international business model is still evolving. But while imperfect, the multiple successful precedents and strengths of the NVRC model hold strong potential for aiding other U.S. local governments aspiring to engage internationally – especially with counterparts across the Atlantic. For the short-term, NVRC looks to sustain focus on the continued transfer and adoption of policy and technical lessons that benefit Northern Virginia's communities. This will draw from the current collaboration with priority countries through NVRC's local governmental, commercial, NGO, science and research partners. NVRC also aims to tie applications of transferring environmental innovations from abroad to parallel social and economic programs and priorities of Northern Virginia.

Some examples of this work include:

Utilizing Cross-National Applied Science/Research Partnerships

Data Centers. Northern Virginia is the largest data center market in the world. The growth of data centers has hugely impacted energy consumption in the region. For the past three years, NVRC has engaged with faculty and staff at Virginia Tech University to study the exchange and application of energy efficiency processing technologies and building designs with counterparts in the region of Frankfurt, Germany (the country's data center hub) and at the Technical University of Darmstadt.

Ecological Social Housing. Local governments of Northern Virginia strive to build and maintain housing that is equitable, ecological, accessible, affordable and dignified. But climate change, car-dependent transportation systems and the region's high costs of living complicate the realization of this goal. NVRC will work with the region's local governments and Virginia Tech's School of Architecture to study, understand

and apply innovative policies from European data center regions and their experiences with social housing that emphasizes transit-oriented development, “green” infrastructure, co-location of social services multi-cultural/multi-generational living – that is also economically cost-effective.

First Responders. Since 2020, George Mason University (GMU) and the Fairfax County Fire Department have partnered to mentor graduate students working with data analytics and computer science to gain real-world work experience through analyzing call volume requests for emergency services. These applied research experiences have the opportunity to extend to other fire departments across Northern Virginia — and even potentially involve counterpart academic and research centers in Aachen and Frankfurt, Germany (partner fire departments with Arlington and Loudoun County respectively).⁵⁰

Career Technical Education and Sustainable Technologies. Following a 2023 exchange by “career technical education” (CTE) teachers and educators to Stuttgart and Hamburg, Germany, NVRC aspires to plan exchanges in 2024 and 2025 for the CTE students working with environmental technologies. NVRC looks to explore potential adoption of elements of the German Dual System into existing environmental technology internships with water or waste utility partners in the Northern Virginia region in which German-based businesses or where German-based technologies are deployed (such as Alexandria Renew).

Local Level Quantitative Metrics for International Trade and Tourism. NVRC is studying the potential extension of its work to assess and map the effects of local level FDI to equivalent metrics and indicators for global trade and tourism. Global trade and tourism and the dollar flows and job creation potential is well-tracked at the state level. But this is seldom the case at the local level. For example, Northern Virginia accounts for the largest percentage of tourism revenue in the Commonwealth of Virginia.⁵¹ There are large numbers of global tourists with a profound impact on the local economy. Understanding and clarifying local level international tourism trends, in partnership with a local research institute such as Virginia Tech or George Mason University, could help local governments react more strategically to specific countries and sectors. One potential outcome could also be the exchange and application of best practices “sustainable tourism” programs from pioneering countries such as Germany, Switzerland or Austria to Northern Virginia.



SOURCE: HEINER MUELLER-ELSNER

Hamburg Pergolenviertel



SOURCE: ALEXANDRIA RENEW

Herrenknecht's "Hazel" Boring Machine at Alexandria Renew Wastewater Treatment Plant



SOURCE: DALE MEDEARIS

Image From 2022 Workshop at Lyceum on “Community Remembrance”

Lesson Learning From Abroad to Strengthen Memorialization of Public Spaces Wounded by Racial Injustice. In April 2022, NVRC partnered with the City of Alexandria’s Community Remembrance Project, Virginia Tech’s Washington-Alexandria Architecture Center and the Goethe Institut to develop a workshop for sharing ideas about potential designs, interpretations and plans to aid the planning of Alexandria’s “Community Remembrance Initiative”. The workshop brought together planners, architects, civil rights leaders, elected officials to share ideas and projects about public spaces wounded by racial justice and prospective means to interpret those spaces in Northern Virginia. Several experts from Germany familiar with the design and interpretation of memorials concerning the Holocaust shared their work. The expectation is that this form of Transatlantic lesson learning on this particular topic can extend to other communities of the Commonwealth and nation.

Developing Global Engagement Strategies for Local Governments. The strengthening of global engagement by local governments will increasingly depend on the development of formal, transparent and inclusive strategies. Creating formalized plans, strategic engagement and allocating resources to highlight the immense economic, social and environmental benefits is no longer an option – it will become a necessity for local governments. In this light, since December 2021, the NVRC has communicated with its members the importance of developing formal, data-driven strategies and plans for global engagement. Cities and regions in Europe such as Helsinki, Zurich and Barcelona have developed strategic plans to guide their global work. Local authorities such as Loudoun and Fairfax counties also have undertaken initial steps to publicly evaluate the level of their work abroad. This has involved Fairfax County re-aligning its relationship with the Western District of Moscow, Russia, and Loudoun County terminating its relationship with Shunyi District (Beijing), China.⁵²

Transatlantic Business Community. In Northern Virginia, the coordinated and formal collaboration among local governments, local research/academic institutes and global businesses has the potential to pay dividends for Northern Virginia communities through coordinated cross-national lesson learning. The Northern Virginia region is home to multiple world-class companies, universities and colleges. Formalizing collaboration among these organizations around shared but carefully selected priorities has the potential to promote multiple beneficial outcomes. For example, Swiss- or German-based firms with a presence in Northern Virginia might collaborate with local business school programs to benchmark climate or sustainability performance between the European headquarters and the business operations in Northern Virginia. This might lead to the Northern Virginia-based operations voluntarily applying those lessons or best practices – but via data-driven benchmarking and analysis.



Conclusion

Planning strategic global engagement by local governments is emerging as an imperative. Responding to that imperative demands thematic focus, geographic prioritization and operations that lead to outcomes that support a local government's obligations. This imperative is driven in part by the fact that the United States lags behind other countries when it comes to purposeful international work. The Truman Center observed that "cities throughout China have dozens of staff – Shanghai has approximately 100 dedicated to building bilateral and network relationships around the world."⁵³ The demand for more strategic engagement on the global stage by local governments will only intensify as issues such as climate change, health pandemics, commerce and weak federal policies push local governments onto the global stage. The NVRC business model of global engagement can serve as a useful inspiration for local governments across the United States and world.

Endnotes

- 1 San Francisco Examiner Editorial “Mayor Breed’s Poorly Timed European Vacation Highlights Tenderloin Failure”, March 16, 2022. <https://www.sfexaminer/archives/editorial-mayor-breed-s-poorly-timed-vacation-highlights-tenderloin-failure/article23feb141-af68-55b3-827f-74cd93cf19e3.html>. Accessed April 3, 2023.
- 2 Hachigian, Nina “Cities Will Determine the Future of Diplomacy” Foreign Policy, April 16, 2019. Page 2. <https://foreignpolicy.com/2019/04/16/cities-will-determine-the-future-of-diplomacy/>. Accessed April 3, 2023.
- 3 Truman Center. “Broadening Diplomatic Engagement Across America: Report of the Truman Center City and State Diplomacy Task Force”. June 2022. Page 5. <https://www.trumancenter.org/issues/report-of-the-truman-center-city-state-diplomacy-task-force>. Accessed April 3, 2023.
- 4 Bloomberg Philanthropies: Driving Innovation in Cities <https://bloombergcities.jhu.edu/about>. Bloomberg Cities Network. Accessed April 13, 2023.
- 5 “About the Global Cities Initiative” Brookings Institution. <https://www.brookings.edu/about-the-global-cities-initiative/>. Accessed April 3, 2023.
- 6 Carnegie Endowment. “US Foreign Policy for the Middle Class: Perspectives From Ohio”. 2018. https://carnegieendowment.org/files/USForeignPolicy_Ohio_final.pdf. Accessed April 3, 2023.
- 7 US Department of State. The Special Representative for City and State Diplomacy. <https://www.state.gov/bureaus-offices/under-secretary-for-economic-growth-energy-and-the-environment/the-secretarys-office-of-global-partnerships/the-special-representative-for-subnational-diplomacy/>. Accessed April 3, 2023.
- 8 Sister Cities International. “Our History”. <https://sistercities.org/about-us/our-mission/our-history/>. Accessed April 13, 2023.
- 9 Truman Center. “Broadening Diplomatic Engagement Across America: Report of the Truman Center City and State Diplomacy Task Force”. June 2022. Page 5. <https://www.trumancenter.org/issues/report-of-the-truman-center-city-state-diplomacy-task-force>. Accessed April 3, 2023.
- 10 Sister Cities International. “Our History”. <https://sistercities.org/about-us/our-mission/our-history/>. Accessed April 3, 2023.
- 11 Meyers, Robert “A Touch of the Old World for Alexandria’s Waterfront?” Washington Post, September 18, 1980. <https://www.washingtonpost.com/archive/local/1980/09/18/a-touch-of-the-old-world-for-alexandrias-waterfront/9fe0c884-49c9-49a1-99fb-db34bd260359/>. Accessed April 3, 2023
- 12 City of Los Angeles: Sister Cities of Los Angeles. <https://sistercities.lacity.org/>. Accessed April 3, 2023.

- 13 Dolowitz, D. Medearis, D. (2009). "Considerations of the Obstacles and Opportunities to Formalizing Cross-National Policy Transfer to the United States: A Case Study of the Transfer of Urban Environmental and Planning Policies From Germany." *Environment and Planning*. Vol. 27, pp. 684-697.
- 14 Truman Center. "Broadening Diplomatic Engagement Across America: Report of the Truman Center City and State Diplomacy Task Force" June 2022. Page 5. <https://www.trumancenter.org/issues/report-of-the-truman-center-city-state-diplomacy-task-force>.
- 15 Ahmed, Salman; Engel, Ros. "Making U.S. Foreign Policy Work Better for the Middle Class". Carnegie Endowment for International Peace. 2020. Page 25. <https://carnegieendowment.org/2020/09/23/making-u.s.-foreign-policy-work-better-for-middle-class-pub-82728>. Accessed April 13, 2023.
- 16 Kulig, Kalina. "Richmond Mayor and Ambassador Speak at Diplomacy Panel on Campus". *The Collegian*. October 29, 2022. <https://www.thecollegianur.com/article/2022/10/richmond-mayor-ambassador-speak-at-diplomacy-panel-on-campus>. Accessed April 3, 2023.
- 17 Carnegie Endowment for International Peace. "Making U.S. Foreign Policy Work Better for the Middle Class." 2020. Page 3. https://carnegieendowment.org/files/USFP_FinalReport_final1.pdf. Accessed April 3, 2023.
- 18 United States Department of Justice, Federal Bureau of Investigation. Office of the Private Sector Liaison Information Report (LIR) #220711008. "Potential Use of U.S. Sister City Relationships by Nation States to Further Foreign Political Agenda." July 11, 2022.
- 19 Schneider, Gregory "Youngkin Says He Blocked Ford Battery Plan on China Concerns." *The Washington Post*, January 13, 2023. <https://www.washingtonpost.com/dc-md-va/2023/01/13/youngkin-virginia-ford-battery-china/>. Accessed April 3, 2023.
- 20 Brookings Institution "Global Cities Initiative Toolkit" <https://www.brookings.edu/global-cities-initiative-the-exchange/>. Accessed April 3, 2023.
- 21 Global Business Alliance. "Foreign Direct Investment", <https://globalbusiness.org/foreign-direct-investment-in-the-united-states-2022/>. Accessed April 3, 2023.
- 22 Dr. Dan Hamilton, September 20, 2022. "The Transatlantic Economy at the Local Level: The Case of Northern Virginia & Hamburg, Germany". An Overview of Transatlantic Relations at the Local Level. Northern Virginia Regional Commission. <https://www.youtube.com/watch?v=tX8e2xiztuw>. Accessed April 3, 2023.
- 23 Leahy, Norman. "A Trade War May Be Coming to China." *The Washington Post*. April 4, 2018. <https://www.washingtonpost.com/blogs/all-opinions-are-local/wp/2018/04/04/a-trade-war-comes-to-virginia/>. Accessed April 4, 2023.
- 24 Dr. Dan Hamilton, September 20, 2022. "The Transatlantic Economy at the Local Level: The Case of Northern Virginia & Hamburg, Germany". An Overview of Transatlantic Relations at the Local Level. Northern Virginia Regional Commission. <https://www.youtube.com/watch?v=tX8e2xiztuw>. Accessed April 3, 2023.
- 25 Virginia News. "What are Virginia's Top Exports?" August 25, 2021. <https://www.wfxrtv.com/news/regional-news/virginia-news/what-are-virginias-top-exports/>. Accessed April 13, 2023.
- 26 World Trade Center of Los Angeles (June 2022), "Foreign Direct Investment in California 2022", <https://laedc.org/wpcms/wp-content/uploads/2022/06/WTCLA-FDI-22-Report.pdf>. Accessed April 3, 2023.

- 27 Truman Center. “Broadening Diplomatic Engagement Across America: Report of the Truman Center City and State Diplomacy Task Force”. June 2022. Page 5. <https://www.trumancenter.org/issues/report-of-the-truman-center-city-state-diplomacy-task-force>. Accessed April 3, 2023.
- 28 Ikenson, Dan. “Much Maligned Multinational Enterprises Are Essential to Biden’s Build Back Better Agenda” *Forbes*. May 20, 2021. <https://www.forbes.com/sites/danikenson/2021/05/20/much-maligned-multinational-enterprises-are-essential-to-bidens-build-back-better-agenda/?sh=43572c363081>. Accessed April 3, 2023.
- 29 Bullis, Kevin. “Why Solar Installations Cost More in the U.S. Than in Germany” MIT Technical Review. December 26, 2012. <https://www.technologyreview.com/2012/12/26/181009/why-solar-installations-cost-more-in-the-us-than-in-germany/#:~:text=The%20most%20obvious%20difference%20between,for%20only%20half%20of%20it>. Accessed April 25, 2023.
- 30 Buehler, Ralph, Pucher, John, and Kunert, Uwe “Making Transportation Sustainable: Insights from Germany”. Brookings Institution Metropolitan Policy Program. April 2009. https://www.brookings.edu/wp-content/uploads/2016/06/0416_germany_transportation_report.pdf. Accessed April 25, 2023.
- 31 Marchio, Nick & Berube, Alan. “Benchmarking Greater Washington’s Global Reach”. 2015. Page 29. The Brookings Institution, Metropolitan Policy Program.
- 32 National Science and Technology Council.. “Biennial Report to Congress on International Science and Technology Cooperation” 2022. <https://www.whitehouse.gov/wp-content/uploads/2022/09/09-2022-Biennial-Report-to-Congress-on-International-Science-Technology-Cooperation.pdf>. Page ix. Accessed April 3, 2023.
- 33 COP 26, Glasgow. October 31 to November 12, 2021. “Scaling Up: Case Studies in Collaborations Between Cities and Higher Education Institutions”. <https://www.youtube.com/watch?v=f3kZXSqjJM>. Accessed April 12, 2023.
- 34 Northern Virginia Region Dashboard. <https://www.novaregiondashboard.com/>. Accessed April 12, 2023.
- 35 NOVA Economic Development Alliance: An Unparalleled Talent Base. Handout, April 13, 2023.
- 36 Loria, Keith. “Northern Virginia Filling in New Data Center Capacity Faster Than Anywhere Else in the U.S.”. Commercial Observer. March 17, 2023. <https://commercialobserver.com/2023/03/northern-virginia-ranks-no-1-in-data-center-absorption/#:~:text=Northern%20Virginia%2C%20the%20world%20s%20largest,which%20was%20set%20in%202021>. Accessed April 25, 2023.
- 37 NOVA Economic Development Alliance: An Unparalleled Talent Base. Handout, April 13, 2023.
- 38 Ms. Marian Marquez, September 20, 2022. “The Transatlantic Economy at the Local Level: The Case of Northern Virginia & Hamburg, Germany”. An Overview of Transatlantic Relations at the Local Level. Northern Virginia Regional Commission. <https://www.youtube.com/watch?v=tX8e2xiztuw>. Accessed April 3, 2023.
- 39 Fairfax County Economic Development Authority – Berlin. <https://go.fairfaxcountyeda.org/berlin>. Accessed April 3, 2023.
- 40 Loudoun County Economic Development — International. <https://biz.loudoun.gov/key-business-sectors/international/>. Accessed April 3, 2023.

- 41 Rayasam, Renuka. "The End of an Era". *Der Spiegel*. June 1, 2012. <https://www.spiegel.de/international/europe/founder-of-german-marshall-fund-guido-goldman-retires-a-834696.html>. Accessed April 4, 2023.
- 42 Boodman, Sarah. "Northern Virginia Officials Going to Europe on Study Mission". *The Washington Post*. August 16, 1980. <https://www.washingtonpost.com/archive/local/1980/08/16/n-va-officials-going-to-europe-on-study-mission/e7a3e5c4-6237-4d1c-bfd1-9a22ace99974/>. Accessed April 4, 2023.
- 43 Water Online "Alexandria Renew Launches Full-Scale Anammox Sidestream Facility". May 18, 2015 <https://www.wateronline.com/doc/alexandria-renew-enterprises-launches-full-scale-anammox-sidestream-facility-0001>. Accessed April 12, 2023.
- 44 Alexandria Renew. July 14, 2022. "Hello Hazel. Alex Renew Welcomes Our Healthier Waterways Heroine" <https://alexrenew.com/news/hello-hazel-alexrenew-welcomes-our-healthier-waterways-heroine>. Accessed April 12, 2023.
- 45 Muro, Mark; Tomer, Adie; and Shivaram, Ranjitha "Clean Energy Jobs" The Metropolitan Policy Program at the Brookings Institution. April 2019. Page 4-5. https://www.brookings.edu/wp-content/uploads/2019/04/2019.04_metro_Clean-Energy-Jobs_Report_Muro-Tomer-Shivaram-Kane_updated.pdf. Accessed April 10, 2023.
- 46 National Solar Jobs Census 2021. <https://irecusa.org/resources/national-solar-jobs-census-2021/>. Accessed April 12, 2023.
- 47 Engel, Laura. "Underrepresented Students in US Study Abroad: Investigating Impacts" Institute for International Education (2017). Page 10. <https://www.iie.org/wp-content/uploads/2022/12/Underrepresented-Students-and-Study-Abroad.pdf>. Accessed April 10, 2023.
- 48 COP 26, Glasgow. October 31 to November 12, 2021. "Scaling Up: Case Studies in Collaborations Between Cities and Higher Education Institutions". <https://www.youtube.com/watch?v=f3kZXSqwjM>. Accessed April 12, 2023.
- 49 Solarize NOVA. <https://solarizenova.org/>. Accessed April 25, 2023.
- 50 Medearis, Dale; Morrison, John; Tirelli, Justin; Russ, Eli; Shank, Randall. "Strategic Global Engagement by Fire Departments: The Case of Northern Virginia." International City/County Managers Association. July 1, 2022. <https://icma.org/articles/pm-magazine/strategic-global-engagement-local-fire-departments-case-northern-virginia>. Accessed April 25, 2023.
- 51 Northern Virginia Drives Tourism Spending in Commonwealth. Visit Fairfax. September 17, 2019. <https://www.fxva.com/press-releases/post/northern-virginia-drives-tourism-spending-in-commonwealth/>. Accessed April 25, 2023.
- 52 Loudoun County Board of Supervisors. Board Meeting Notes. "Termination of Sister-City Relationship with Shunyi District, China". July 6, 2021. https://loudoun.granicus.com/MetaViewer.php?view_id=77&clip_id=6713&meta_id=196644. Accessed April 25, 2023.
- 53 Truman Center. "Broadening Diplomatic Engagement Across America: Report of the Truman Center City and State Diplomacy Task Force". June 2022. Page 5. <https://www.trumancenter.org/issues/report-of-the-truman-center-city-state-diplomacy-task-force>. Accessed April 3, 2023.



Author



Dr. Dale Medearis has worked as a senior regional planner for the Northern Virginia Regional Commission (NVRC) since 2007. He currently co-leads the NVRC's regional climate mitigation, resiliency and international programs. Prior to working for NVRC, Medearis spent approximately 20 years at the Office of International Affairs, U.S. Environmental Protection Agency (EPA), in Washington DC. At EPA he helped manage the Agency's programs for urban sustainability, Eastern and Western Europe, the OECD, and Middle East. He serves as a board member of the American Friends of the Alexander von Humboldt Foundation and the Friends of the Goethe Institute. Medearis has a Ph.D. in Environmental Design and Planning from Virginia Tech University, an M.S. in Cartographic and Geographic Science from George Mason University, an M.G.A. in Government from the University of Pennsylvania, and a B.A. in International Relations from the University of Redlands.



The Konrad-Adenauer-Stiftung (KAS) is a German political foundation and think tank. Worldwide, KAS is in charge of over 200 projects in more than 120 countries, where it promotes freedom and liberty, peace, and justice. KAS also focuses on consolidating democracy, the unification of Europe and the strengthening of transatlantic relations, as well as on development cooperation. The KAS office in Washington DC was established in the late 1970s and to this day it stands for and sees itself as a promoter of these values.

Published by:

Konrad-Adenauer-Stiftung USA
1233 20th Street N.W. #610
Washington, D.C. 20036
U.S.A.
Tel.: +1(202) 464-5840
www.kas.de/usa

Disclaimer:

All rights reserved. No part of this publication may be reprinted or reproduced or utilized in any form or by any electronic, mechanical or other means, now known or hereafter invented, including photocopying or recording, or in any information storage or retrieval system, without permission from the publisher.

The views, conclusions and recommendations expressed in this report are solely those of its author(s) and do not reflect the views of the Konrad-Adenauer-Stiftung, or its employees. This publication of the Konrad-Adenauer-Stiftung e. V. is solely intended for information purposes. It may not be used by political parties or by election campaigners or supporters for the purpose of election advertising. This applies to federal, state and local elections as well as elections to the European Parliament.



The text of this work is licensed under the terms of the "Attribution-ShareAlike 4.0 International, CC BY-SA 4.0" (accessible on <https://creativecommons.org/licenses/by-sa/4.0/deed.en>)

Cover illustration: ©Carmel Steindam Graphic Design



Konrad-Adenauer-Stiftung USA
1233 20th Street N.W. #610
Washington, D.C. 20036
U.S.A.
www.kas.de/usa