ENERGY VALLEY:

Generating Sustainable and Inclusive Prosperity and Quality of Life for the *Scandinavian Bay Area* by Developing Green Innovation and Competitiveness

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During 1981 and 1982, I served as the Deputy Director of the California Commission on Industrial Innovation (CCII, 1982), which was created by California Governor Jerry Brown and Co-Chaired by David Packard, co-founder of HP, and by Steve Jobs, co-founder of Apple. The Commission was the first advanced technology-led regional economic development initiative in the US, designed to promote the growth of the still relatively new "Silicon Valley" industries in computer hardware, software, and related electronics and devices, together with other new technologies including biotechnology, renewable energy (solar photovoltaics and modern wind turbines), electric vehicles, energy efficiency, and much more (Coyle, 1982; Weiss and Schoenberger, 2015). The impetus for establishing CCII was the competitive challenge to Silicon Valley and California from Japanese electronics companies that were heavily subsidized to promote product exports through Japan's industrial policies (Vogel, 1980; Johnson, 1982).

Throughout the 1980s, Silicon Valley survived the competitive challenge from Japan and continued to grow and thrive. Starting with the 1969 invention by Intel of integrated-circuit microprocessors ("microchips") that then enabled development and large-scale production of "microcomputing" by new desktop and laptop computers (PCs); and

culminating, with the emergence of the Internet in the 1990s, of a dramatic transformation in information and communications technologies globally. Over several decades in this process, Silicon Valley ultimately became the "Global Intellectual Hub of Digitalization" and remains so to this day.

The California Commission on Industrial Innovation completed its work in 1982, and I became one of the world's first professional experts on technology-led economic development at the sub-national level (states and provinces, regions and districts, cities and counties, towns and communities). Over the next few years I published several key articles on this subject, including "High Technology Industries and the Future of Employment" (Weiss, 1983a); "State and Local Government Roles in Industrial Innovation" (Peltz and Weiss, 1984); "State and Local Economic Development: Where to Put Your Money" (Weiss, 1986); and "Community Planning for Technological Development: A New Bargaining Process" (Weiss and Metzger, 1987).

In addition, during 1980-81, I coordinated a team of UC Berkeley faculty and graduate students that produced the first Sustainable Innovation-led economic development strategy in the US, for the Berkeley city government (Weiss and Markusen, 1981; Weiss, 1983b). A centerpiece of this highly equitable and inclusive strategy was a plan for the city, the university, and the Lawrence Berkeley National Laboratory together to become grow businesses, jobs, incomes, and assets by becoming world leaders of "alternative energy" (alternative to fossil fuels), primarily through energy efficiency and renewable energy, especially solar and wind (Weiss and Schoenberger, 2015; Weiss, 2023). The city of Curitiba, Brazil in the early 1970s implemented one of the world's first urban sustainable economic

development strategies, led by then-Mayor (and future GUD Vice Chair) Jaime Lerner (Schwartz, 2004; Lerner, 2016).

This approach to urban and regional (state and local) economic development later served as the foundation for the *Metropolitan Economic Strategy, Sustainable Innovation, and Inclusive Prosperity* strategic policy and action framework that I developed during the mid-1990s at the US Department of Housing and Urban Development (HUD) as a major national policy for the Clinton-Gore Administration (Cisneros, Weiss, et al,1996; Weiss, 1997; Cisneros and Weiss, 1997; Weiss and Weinstein, 1997; Monteilh and Weiss, 1998; Cisneros and Weiss, 1999: Weiss, 2001a; Hall, 2001, Hughes, 2001), as well as a state government policy initiative for the US National Governors Association (Weiss, 2002a), and currently as an ongoing international initiative through Global Urban Development (Weiss, 2001b; Weiss, 2002b; Yang, 2002; Weiss 2003a; Weiss 2003b; Cahyadi, Kursten, Weiss, and Yang, 2004: Fazzano and Weiss, 2004; Weiss, 2005; Hall, 2005; Yunus, 2005; Weiss, 2006a; Weiss, 2006b; Weiss, 2007a; Seymoar, 2007; Weiss, 2007b; Hall, 2007; Weiss, 2008; Yunus, 2008; Weiss and Nixon, 2011; Energy and Climate Partnership of the Americas, 2011; Weiss and Schoenberger, 2015; Weiss, 2023; Weiss, 2025).

Indeed, GUD combines the economic relationships between Innovation, Sustainability, and Inclusiveness into a unified strategic vision, and has applied it in very advanced ways, for example, our 2008-09 Silicon Valley Climate Prosperity Strategy (Silicon Valley Climate Prosperity Council, 2009); our 2010-11 Sustainable Economic Development Strategy for Sarasota County, Florida, with major funding by the US Department of Energy (Nixon, Cleveland, Weiss, and Victors, 2011); and our 2012-15 Leapfrog Economic Strategy,

with major funding from the World Bank, for Brazil's State of Rio Grande do Sul to become the most Sustainable and Innovative place in Latin America by 2030, (Weiss, Sedmak-Weiss, and Rodriguez, 2015).

My half-century of professional, academic, and economic policymaking expertise and experience is now being deployed for the new Energy Valley project, funded by Region Skåne, to design an innovative regional economic strategy enabling the Scandinavian Bay Area (consisting of southern Sweden and eastern Denmark) to become the "Global Intellectual Hub of Electrification" initially focusing on: 1) Digitalization and Internetification of Electrification; 2) New Applications of Power Electronics for Secure and Affordable Clean Energy Generation and Distribution, including for electric vehicle charging, battery storage, and district heating; and 3) Smart and Sustainable Urban and Regional Development. This significant opportunity is now made possible by the large-scale installation of EnergyNet smart microgrid network systems in residential and commercial buildings and community infrastructure in Lund and many other Swedish and Danish cities and towns, that will be rapidly accelerating over the next decade and beyond.

The Scandinavian Bay Area and Regional Innovation and Competitiveness

The evolution of Silicon Valley also gave birth to a rapidly expanding global interest in measuring, evaluating, and promoting regional economic competitiveness and innovation. By the early 1990s it was becoming a burgeoning field, with numerous books, starting with *Silicon Landscapes* (Hall and Markusen, 1985), *Technology in the Garden*

(Luger and Goldstein, 1991), *Technopoles of the World* (Castells and Hall, 1994), *Regional Advantage* (Saxenian, 1994), and many others. Soon there was an extensive academic, professional, business, and policy literature describing and analyzing key factors effectively advancing innovation and technology investment, development, and employment growth. This led to a wide range of comparative national rankings of countries with respect to their global competitiveness and innovation capacity, such as the World Economic Forum's Global Competitiveness Index (World Economic Forum, 2018). For example, in IMD's World Competitiveness Ranking 2025, Denmark is ranked fourth and Sweden is in eighth place, out of a total of 69 national economies (IMD 2025). Some comparative analysis also focused on regions within countries, including comparative rankings assessing and measuring their relative economic competitiveness.

One of the most important of these rankings is the European Union's Regional Competitiveness Index. Their most recent report, completed in 2022 and updated in 2023, is the Regional Competitiveness Index 2.0 (Dykstra L., et al, 2023). The EU's geographical categorization of designated regions (at the NUTS-2 level) includes three regions, in whole or in part, that are inside the Scandinavian Bay Area:

1) The Capital Region of Denmark (Hovedstaden), including Copenhagen, is ranked as the 7th most competitive region out of a total of 234 EU regions, with highest scores for Institutions, Macroeconomic, Technological Readiness, and Innovation (DG Regio, DK01).
2) South Sweden (Sydsverige), including both Skåne and Blekinge Counties, is ranked as the 28th most competitive EU region, with highest scores for Institutions, Higher

Education and Life-Long Learning, Technological Readiness, and Innovation (DG Regio, SE22).

3) West Sweden (Vastsverige), including both Halland and Västra Götaland Counties (Halland is part of the Scandinavian Bay Area), is ranked as the 30th most competitive EU region, with highest scores for Institutions, Higher Education and Life-Long Learning, Technological Readiness, and Innovation (DG Regio, SE23).

Clearly the Scandinavian Bay Area already has the necessary institutional, educational, and technological infrastructure, which combined with an abundance of technical, entrepreneurial, and creative talent, to successfully become both an EU leader and a world leader of Sustainable Innovation and Green Competitiveness, and especially to become the leading Global Intellectual Hub of Electrification.

Another key source of information is the Organization of Economic Cooperation and Development (OECD), representing many of the more developed countries globally (currently OECD includes 38 Member countries, including Sweden and Denmark). OECD's Centre for Entrepreneurship, SMEs, Regions, and Cities regularly publishes important data and many excellent reports on various key challenges and opportunities for regional economic growth and development (OECD, 2026). In addition, the OECD engages in periodic lengthy and detailed Territorial Reviews of national, regional, and urban economies, including a review of Skåne in 2012 (OECD, 2012), of Copenhagen in 2009 (OECD, 2009), of the Oresund Region in 2003 (OECD, 2003), and a major Oresund case study in 2013 (Nauwelaers, Maguire, and Marsan, 2013). I have carefully studied all of these reports and other OECD material related to the Scandinavian Bay Area, and the

evidence is very persuasive: Energy Valley can succeed here, because southern Sweden and eastern Denmark together have both the capabilities and the resources to accomplish this extraordinary vision (Hall, 2014; Persson and Persson, 2021).

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