Metropolitan Economic Strategy, Sustainable Innovation, and Inclusive Prosperity for the Serra Gaúcha Region

1st International Congress on Environmental and Social Responsibility
FSG, Caxias do Sul, June 16, 2015

Dr. Marc A. Weiss
Chairman and CEO
Global Urban Development (GUD)
“Faced with the global deterioration of the environment, I want to address every person who inhabits this planet. In this encyclical, I especially propose to enter into discussion with everyone regarding our common home.”

Pope Francis
GLOBAL URBAN DEVELOPMENT

OUR COMMON FUTURE
THE WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT
# World Population (in billions) 8000 BC to 2042

## World population milestones (US Census Bureau estimates)

<table>
<thead>
<tr>
<th>Population (in billions)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
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<tbody>
<tr>
<td>Years elapsed</td>
<td>9,804</td>
<td>123</td>
<td>33</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td>15</td>
<td>16</td>
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</tbody>
</table>
Global Greenhouse Gas Emissions
This indicator describes emissions of greenhouse gases worldwide.

Figure 1. Global Greenhouse Gas Emissions by Gas, 1990–2010

“No problem can be solved from the same level of consciousness that created it.”

Albert Einstein
“Getting Richer by Becoming Greener”
Sustainability in Business

CONFESSIONS OF A RADICAL INDUSTRIALIST
PROFITS, PEOPLE, PURPOSE—DOING BUSINESS BY RESPECTING THE EARTH

RAY C. ANDERSON
with ROBIN WHITE
MARC A. WEISS

Metropolitan Economic Strategy: The Key to Prosperity

Metropolitan Economic Strategy is now essential for every nation and urban region to generate sustainable prosperity and quality of life.
Investing in Fundamental Assets and Building Dynamic Industry Networks

A good economic strategy consists of two key elements:

1) building from strength — investing in the fundamental assets and activities that make people more productive and places more valuable;

2) generating dynamism — promoting modern, globally competitive industry networks that accelerate the pace of innovation and growth.
PEOPLE are the most vital economic asset in the world

INVESTING IN FUNDAMENTAL ECONOMIC ASSETS:

• Transportation
• Infrastructure
• Education
• Workforce Development
• Research
• Technology
• Markets
• Capital
• Health
• Safety
• Environment and Amenities
• Culture
• Quality of Life
The Four Greens

- **Green Savings** — cutting costs for businesses, families, communities, and governments by efficiently using renewable resources and by reducing and reusing waste.

- **Green Opportunities** — growing jobs and incomes through business development and expanding markets for resource efficiency, sustainability, and clean technologies.

- **Green Talent** — investing in fundamental assets such as education, research, technological innovation, and modern entrepreneurial and workforce skills, because people are now the world’s most vital green economic resource.

- **Green Places** — establishing sustainable transportation and infrastructure, and protecting and enhancing the natural and built environment, to create more attractive, livable, healthy, vibrant, prosperous, productive, and resource-efficient areas and communities.
Exhibit 1

Global GHG abatement cost curve beyond business-as-usual – 2030

Abatement cost
€ per tCO₂e

- Residential electronics
- Residential appliances
- Retrofit residential HVAC
- Tillage and residue mgmt
- Insulation retrofit (residential)
- Cars full hybrid
- Waste recycling

- Low penetration wind
- Cars plug-in hybrid
- Degraded forest reforestation
- Nuclear
- Pastureland afforestation
- Degraded land restoration
- 2nd generation biofuels
- Building efficiency new build

- Gas plant CCS retrofit
- Coal CCS retrofit
- Iron and steel CCS new build
- Coal CCS new build
- Power plant biomass co-firing
- Reduced intensive agriculture conversion
- High penetration wind
- Solar PV
- Solar CSP

Abatement potential
GtCO₂e per year

Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO₂e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.

Source: Global GHG Abatement Cost Curve v2.0

(Pathways to a Low-Carbon Economy, McKinsey & Company, 2009)
From the California Commission on Industrial Innovation to Sustainable Innovation and Clean Technologies
California’s $56 Billion Green Savings

Per Capita Electricity Sales (not including self-generation) (kWh/person) (2006 to 2008 are forecast data)

Per Capita Income in Constant 2000 $

US GDP/capita
16,241
31,442
94%

Cal GSP/capita
18,760
33,536
79%

2005 Differences
= 5,300kWh/yr
= $165/capita

Source: Energy Efficiency: The first and most profitable way to delay Climate Change
UCLA Institute of the Environment Oppenheim Lecture February 25, 2008
Arthur H. Rosenfeld, Commissioner California Energy Commission
The Economic Value of Quality of Life

“Over the long term, places with strong, distinctive identities are more likely to prosper than places without them. Every place must identify its strongest, most distinctive features and develop them or run the risk of being all things to all persons and nothing special to any. [...] Livability is not a middle class luxury. It is an economic imperative.”

*MIT Economics Professor Robert M. Solow
Winner of the 1987 Nobel Prize in Economic Sciences*
Sustainable Economic Development Strategy for Berkeley, California, 1979-84

This paper is the summary report of a larger project researched and written by the Berkeley Economic Development Project group, which includes Harjorie Bennett, Daniele Farber, Linda Gardner, Jay Jones, Joyce Klemperer, Nancy Leigh-Frauenthal, Neil Mayer, Michael Peitz, Amy Skovaa-Cox, Matthew Spindler, and Paul Sussman, all associated with the University of California and the Planners’ Network. Copies of the related papers are available from the Institute of Urban and Regional Development, University of California, Berkeley.

The authors would like to thank the City Manager’s Office of the City of Berkeley, the staff of the Institute of Urban and Regional Development, and the College of Environmental Design, University of California, Berkeley, for material support. We also wish to thank Barry Rosen, City Manager’s Office, who acted as the City’s liaison on this research project.
Prosperity in Paradise: Growing the Sarasota County Sustainable Economy

Recommendations

Global Urban Development Team
April 14, 2011
Planning for Sustainable Economic Development Across the Americas

07th June | Tuesday

08h30 | Registration
09h00 | Opening and Welcome
Cid Blanco Junior, Cultural Infrastructure Director, Ministry of Culture
Stewart Sarkozy-Banoczy, Department of Housing and Urban Development
Washington, DC, USA
W. Paul Farmer, American Planning Association – Washington, DC, USA
Luciano Ducci, Mayor of Curitiba
Edson Ramon, President, Associação Comercial do Paraná (ACP) – Curitiba, Brazil
Eduardo Guy de Manuel, President of the Regional Council on Administration, Amcham Curitiba
Odome Fortes Martins, Coordinating Vice-President of Conex-Ri, ACP – Curitiba, Brazil

10h00 | Coffee Break
10h30 | Keynote Speaker: A Vision for Urban Sustainability
Jaime Lerner, Urban Planner

11h30 | Sustainable Economic Development: An Overview
Panelists
Marc Weiss, Global Urban Development – Washington DC, USA
Emilia Queiroga Barros, President, Brazil 2020 Agenda – Lauro de Freitas, Bahia, Brazil
Moderator: Eduardo Guimarães, Municipal Secretary for International Relations and Ceremonies – Curitiba, Brazil

14h30 | Case Studies: Planning for Sustainable Economic Development in the Americas – Part 1
Panelists
Rob Bennett, Executive Director, Portland Sustainability Institute – Oregon, USA
Stephanie McLeish, Clean Energy Economy Policy Advisor, Office of the Secretary, Department of Natural Resources and Environmental Control, State of Delaware – Dover, Delaware, USA
Gil Polidoro, President, Coordenação do Região Metropolitana do Curitiba (Cormec)
Moderator: W. Paul Farmer, CEO, American Planning Association

16h00 | Coffee Break
16h30 | Case Studies: Planning for Sustainable Economic Development in the Americas – Part 2
Panelists
Larry Zinn, Chairman, San Antonio Green Jobs Leadership Council – San Antonio, Texas, USA
Paul Krutzko, President and CEO, SPA/RK (former Chief Development Officer of the City of San Jose, and current Secretary-Treasurer of the International Economic Development Council) – Ann Arbor, Michigan, USA
Ken Heatherington, Executive Director, Southwest Florida Regional Planning Council
Fort Myers, Florida, USA
Moderator: Rodrigo Rocha Loures, President, Industrial Federation for the State of Parana (FIEP) – Curitiba, Brazil

18h00 | Cocktail Reception
GLOBAL CLIMATE PROSPERITY AGREEMENT: “THE ONE TRILLION DOLLAR DEAL”

Dr. Tariq Banuri, Director, Division of Sustainable Development, United Nations Department of Economic and Social Affairs, and Dr. Marc A. Weiss, Chairman and CEO, Global Urban Development.

March 2009

The Global Climate Prosperity Agreement -- “The One Trillion Dollar Deal” -- can become the worldwide game-changer that will demonstrate the positive path forward for human civilization in the 21st century, namely the peaceful transition from the current globally unsustainable economy to an advanced technology-driven and environmentally sustainable industrialized society. Key private sector executives are organizing this completely voluntary, market-oriented, public-private investment and development strategy whereby corporations, financial institutions, insurance companies, pension funds, equity investment funds, and others will commit to invest one trillion dollars in developing countries over the next decade to build a new and modern infrastructure based entirely on renewable energy and clean technologies, including plug-in electric vehicles and “smart” and “super” electric grids. These investments and related projects will be supplemented and enhanced by additional funds, tax incentives, and regulatory policy support from governments, along with funds that will come from international donor agencies, official development assistance, and private philanthropy. The United Nations and World Bank, including various UN agencies and regional development banks, can play a key role in enabling these investments to succeed.
$6.2 Trillion Global Business Investment in Green Opportunities since 2007

GREEN TRANSITION SCOREBOARD®

More than $6.2 trillion has already been invested by the private sector in sustainable companies and technologies globally since 2007.

www.greentransitionscoreboard.com
Local and Regional Economic Development Opportunities Related to the Implementation of the Sao Jose do Norte EBR Shipyard in Rio Grande do Sul

Report by Global Urban Development (GUD) to M. Stortti Business Consulting Group, Federation of Industries of Rio Grande do Sul (FIERGS), and Rio Grande do Sul Development Agency (AGDI)

December 2012

Introduction

Global Urban Development (GUD) was commissioned to supplement the M. Stortti Business Consulting Group report for FIERGS, Evaluation of the Regional and Local Impacts due to the Implementation of the Sao Jose do Norte EBR Shipyard. The Stortti team’s detailed evaluation identifies many important economic, physical, social, and environmental impacts, and proposes policy guidelines and practical solutions addressing key challenges related to transportation, infrastructure, services, job training, housing, health, construction, environment, and other major issues. Their evaluation takes on wider significance in the context of M. Stortti’s comprehensive statewide report, Basic Guidelines of an Industrial Development Plan for the Ocean Industry in Rio Grande do Sul.

As an additional contribution to the Stortti team’s evaluation and recommendations, GUD’s perspective is to review and analyze potential opportunities to generate broad-based and diversified economic, business, employment, and income growth, primarily in Sao Jose do Norte but also regionally, that can obtain strategic benefit from the major investments and new jobs that will come from building and operating the EBR Shipyard.
Rio Grande do Sul Leapfrog Economic Strategy: Most Sustainable and Innovative Place in Latin America by 2030
21ST CENTURY LEAPFROG ECONOMIC STRATEGY:
RIO GRANDE DO SUL BECOMES THE MOST SUSTAINABLE AND INNOVATIVE
PLACE IN LATIN AMERICA BY 2030

A Report to the Rio Grande do Sul State Government (AGDI) and the
World Bank, by Global Urban Development (GUD) and Unisinos, applying
GUD’s Metropolitan Economic Strategy, Sustainable Innovation, and
Inclusive Prosperity Framework

Dr. Marc A. Weiss, Nancy J. Sedmak-Weiss, and Dr. Elaine Yamashita Rodriguez

Porto Alegre, Brazil

March 24, 2015
GLOBAL URBAN DEVELOPMENT

What is our fundamental challenge for global urban development in the 21st century?
Can we possibly succeed in enabling every community to peacefully grow and thrive?
Why can’t we all just get along?

Barcelona • Beijing • Belo Horizonte • Curitiba • Hong Kong • Istanbul • London • Porto Alegre • Prague • Rehoboth • San Francisco Bay Area • Singapore • Sydney • Toronto • Washington, DC

NEWS AND EVENTS

2015 GUD LEAPFROG ECONOMIC STRATEGY REPORT: Brazil’s State of Rio Grande do Sul Becomes the

http://www.globalurban.org/2015_RS_LEAPFROG_ECONOMIC_STRATEGY.pdf
The proposed Leapfrog Economic Strategy for Rio Grande do Sul to become the most sustainable and innovative place in Latin America by 2030 directly addresses **five key economic challenges**:

1. the Leapfrog Economic Strategy doubles the RS economic growth rate to an average of 4 percent annual per capita GDP growth over 16 years;
2. the Leapfrog Economic Strategy dramatically increases productivity by upgrading skills and technologies;
3. the Leapfrog Economic Strategy expands the working age population by retaining and attracting a more educated and talented workforce;
4. the Leapfrog Economic Strategy strengthens global competitiveness by producing technologically advanced and innovative goods and services that compete more effectively with imports and are in greater demand as exports;
5. the Leapfrog Economic Strategy improves infrastructure and education by attracting substantial international and private sector investments, and by enhancing resource efficiency.
“The focus on Sustainable Innovation is vital for the success of the Leapfrog Economic Strategy. The future of the world will be about finding ways for billions of people to live and thrive in peace with each other and in peace with nature. And the good news is that in the 21st century, people, places, and organizations can literally “get richer by becoming greener” – earning and saving more money by conserving and reusing resources much more efficiently.

Many of the major technological advances of the coming decades will involve enabling people to enjoy economic prosperity and quality of life in ways that conserve and reuse natural resources and protect and enhance global ecosystems. The places in the world that Leapfrog into such a future, as some places already are doing, will have a huge economic competitive advantage over the rest of the world. And the first places among emerging economies in developing countries that can accomplish such technological breakthroughs definitely will Leapfrog into the front ranks of global competitiveness. This will happen for two main reasons. First, because their expertise and experience, reflected in their products and services, will be of enormous value to the rest of the world, as it will be to their own people.

Second, because many global resources will flow to such places from elsewhere: talent, technologies, investors, entrepreneurs, students, scholars, traders, tourists, developers, donors, and much more. The world has a huge interest in supporting places committed to Sustainable Innovation, and this growing interest and the global resources that come with it will increase exponentially during the coming decade.”
RIO GRANDE DO SUL FUNDAMENTAL ASSETS

- European Immigrant Craft Skills
- Independent Businesses and Family Farming
- Gaucho History and Traditions
- Educated Middle-Income Population
- Urban-Industrial Heritage
- Higher Education and Research Institutions
- Energy and Infrastructure, including Ports and Waterways
- Quality Health Care
- High Ranking on Human Development Index (HDI)
- Collaborative Business Support Organizations
- Workforce Development System
- Participatory Governance and Citizenship
- Creativity and Innovation-Oriented
- Pro-Sustainability
- Vibrant Culture and Quality of Life
- Temperate Seasonal Climate
- Fertile Land and relatively Abundant Water
- Strategic Location (Mercosul)
**GLOBAL URBAN DEVELOPMENT**

## Rio Grande do Sul’s Top Industry Rankings in Brazil

<table>
<thead>
<tr>
<th>FIRST</th>
<th>SECOND</th>
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<tbody>
<tr>
<td>Agricultural Machinery/Equipment</td>
<td>Beverages</td>
</tr>
<tr>
<td>Automation and Controls</td>
<td>Chemical Products</td>
</tr>
<tr>
<td>Biodiesel</td>
<td>Electrical-Electronic Products</td>
</tr>
<tr>
<td>Leather and Footwear</td>
<td>Furniture</td>
</tr>
<tr>
<td>Rice</td>
<td>Industrial Machinery/Equipment</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>Metal-Mechanical Products</td>
</tr>
<tr>
<td>Wine</td>
<td>Naval and Offshore</td>
</tr>
<tr>
<td></td>
<td>Plastics and Rubber</td>
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</table>

<table>
<thead>
<tr>
<th>THIRD</th>
<th>FOURTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind Energy</td>
<td>Food Processing</td>
</tr>
<tr>
<td></td>
<td>Motor Vehicles</td>
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</tbody>
</table>

Source: AGDI, 2013 RS Industrial Policy
Rio Grande do Sul Technology Businesses

Empleados na industria de transformação de média-alta e alta tecnologia, por COREDE - 2013

Número de empleados nos segmentos de média-alta e alta tecnologia (por divisão da CNAE 2.0)

Total RS: 180,056

Fonte: dados da RAIS/MTE; classificação do IEDI (2013)
Elaboração: SEPLAG/DEPLAN - 09/2014
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY
KEY DRIVER:

Renewable Energy and Clean Technologies
SUSTAINABLE INNOVATION
BUSINESS ADVISORY SERVICES

Participating small- and medium-sized businesses save $350,000 per year (on average)
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:
Precision Production, Smart Machines, and Digital Technology
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

Advanced Manufacturing
Sustainable Innovation Technologies

- Advanced Sensing, Measurement, and Process Control
- Advanced Materials Design, Synthesis, and Processing
- Visualization, Informatics, and Digital Manufacturing Technologies
- Sustainable Manufacturing
- Nano-manufacturing
- Flexible Electronics Manufacturing
- Bio-manufacturing and Bio-informatics
- Additive Manufacturing (including 3-D Printing)
- Advanced Manufacturing and Testing Equipment
- Industrial Robotics
- Advanced Forming and Joining Technologies
Advanced Manufacturing Sustainable Innovation Centers

America Makes: US National Additive Manufacturing Innovation Institute, Youngstown, Ohio
Advanced Manufacturing
Sustainable Innovation Technology Parks

UK University of Sheffield Advanced Manufacturing Park
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

Sustainable Innovation in Chemicals, Polymers, and New Materials
Global Branding and Marketing

- Fashion and Design
- Culture and Creativity
- Arts and Tourism
- Sports and Entertainment
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

Food Production Value Chain

Global Food Demand Will Increase 50% by 2030
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

Sustainable Innovation in Precision Agriculture and Biotechnology for Food, Health, and Environment
Rio Grande do Sul Leapfrog Economic Strategy

KEY DRIVER:

Strengthening Value Chains

- Diversifying Products and Services
- Adding Value to Production
- Expanding Local and Regional Supplier and Distributor Networks
GLOBAL URBAN DEVELOPMENT

RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

INFRASTRUCTURE, TRANSPORTATION, AND LOGISTICS
GLOBAL URBAN DEVELOPMENT

RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

HIGHER EDUCATION, RESEARCH, AND WORKFORCE DEVELOPMENT
GLOBAL URBAN DEVELOPMENT

RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

ENTREPRENEURSHIP AND STARTUPS
Rio Grande do Sul Leapfrog Economic Strategy

KEY DRIVER:
International Support

McKinsey Global Institute

May 2014

Connecting Brazil to the world: A path to inclusive growth
RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

KEY DRIVER:

SUSTAINABLE INNOVATION ZONES
GLOBAL URBAN DEVELOPMENT

SUSTAINABLE INNOVATION ZONES

Freiburg

East London

London

Barcelona
SUSTAINABLE INNOVATION BUSINESS ACCELERATORS

MaRS Discovery District, Toronto, Canada
SUSTAINABLE INNOVATION ZONES

Introducing Target Cities

The pilot program, redefined.

Target Cities is a new two-year partnership with nine development projects across seven North American cities to amplify and accelerate district-scale community regeneration and create replicable models for next-generation urban revitalization.

The program, launched as a Clinton Global Initiative Commitment (CGI) in June 2014, is a fresh approach to building...
SUSTAINABLE INNOVATION ZONE MANAGEMENT

About the ecoDistrict

An ecoDistrict is a neighborhood or district with a broad commitment to accelerate neighborhood-scale sustainability. The DowntownDC ecoDistrict program is committed to helping make Downtown more sustainable by promoting better energy, water, waste, and transportation management in building construction and maintenance practices.

ecoDistrict Goals

- Reduce peak and overall energy consumption
- Enhance the economic performance, market positioning, and market share of Downtown buildings
- Develop and promote Downtown DC as one of the most sustainable downtowns in the world

DowntownDC Business Improvement District
GLOBAL URBAN DEVELOPMENT

SUSTAINABLE INNOVATION ZONES

Doing Business 2015
Going Beyond Efficiency

COMPARING BUSINESS REGULATIONS FOR DOMESTIC FIRMS IN 199 ECONOMIES
A World Bank Group Flagship Report

WORLD BANK GROUP
<table>
<thead>
<tr>
<th>Brazil</th>
<th>Latin America &amp; Caribbean</th>
<th>GNI per capita (US$)</th>
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<td>Ease of doing business rank (1–199)</td>
<td>120</td>
<td>Overall distance to frontier (DTF) score (0–100)</td>
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<td>Population (m)</td>
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<td>Starting a business (rank)</td>
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<td>Time (days)</td>
<td>92.8</td>
<td>Time (days)</td>
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<td>Cost (% of income per capita)</td>
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<td>Cost (% of property value)</td>
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<td>Minimum capital (% of income per capita)</td>
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<td>Getting credit (rank)</td>
<td>89</td>
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<td>Dealing with construction permits (rank)</td>
<td>174</td>
<td>DTF score for getting credit (0–100)</td>
<td>45.00</td>
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<td>DTF score for dealing with construction permits (0–100)</td>
<td>48.31</td>
<td>Strength of legal rights index (0–12)</td>
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<td>Procedures (number)</td>
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<td>Depth of credit information index (0–8)</td>
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<td>Time (days)</td>
<td>426.1</td>
<td>Credit bureau coverage (% of adults)</td>
<td>63.6</td>
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<tr>
<td>Cost (% of warehouse value)</td>
<td>0.4</td>
<td>Credit registry coverage (% of adults)</td>
<td>52.5</td>
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<td>Getting electricity (rank)</td>
<td>19</td>
<td>DTF score for protecting minority investors (0–100)</td>
<td>62.50</td>
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<td>DTF score for getting electricity (0–100)</td>
<td>89.20</td>
<td>Extent of conflict of interest regulation index (0–10)</td>
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<td>Procedures (number)</td>
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<td>Strength of minority investor protection index (0–10)</td>
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<td>Cost (% of income per capita)</td>
<td>31.6</td>
<td>Paying taxes (rank)</td>
<td>177</td>
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<td>DTF score for paying taxes (0–100)</td>
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<td>Payments (number per year)</td>
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<td>Time (hours per year)</td>
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<td>Total tax rate (% of profit)</td>
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<td>Protecting minority investors (rank)</td>
<td>35</td>
<td>Trading across borders (rank)</td>
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<td>Documents to export (number)</td>
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<td>Documents to export (number)</td>
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<td>Time to export (days)</td>
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<tr>
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<td>Cost to export (US$ per container)</td>
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<td>Documents to import (number)</td>
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<tr>
<td>Documents to import (number)</td>
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<td>Time to import (days)</td>
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<tr>
<td>Time to import (days)</td>
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<td>Cost to import (US$ per container)</td>
<td>2,323</td>
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<td>Enforcing contracts (rank)</td>
<td>118</td>
<td>DTF score for enforcing contracts (0–100)</td>
<td>53.60</td>
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<td>Procedures (number)</td>
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<td>Time (days)</td>
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<td>Cost (% of claim)</td>
<td>16.5</td>
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<td>Resolving insolvency (rank)</td>
<td>55</td>
<td>DTF score for resolving insolvency (0–100)</td>
<td>56.52</td>
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<tr>
<td>Time (years)</td>
<td>4.0</td>
<td>Cost (% of estate)</td>
<td>12</td>
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<tr>
<td>Cost (% of estate)</td>
<td>12</td>
<td>Recovery rate (cents on the dollar)</td>
<td>25.8</td>
</tr>
<tr>
<td>Recovery rate (cents on the dollar)</td>
<td>25.8</td>
<td>Strength of insolvency framework index (0–10)</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Doing Business database.
RS Universities as Potential Sustainable Innovation Zones
RS Technology Parks as Potential Sustainable Innovation Zones

RS Technology Parks

- Operating in 2014 (8)
- Being implemented (8)

Source: SEPLAG and GUD
RS Technology Incubators as Potential Sustainable Innovation Zones

RS Technology Incubators

Technology Business Incubators Operating in 2014 (30)

Source: SEPLAG and GUD
SUSTAINABLE INNOVATION ZONES

A Post-Industrial Brazilian Neighborhood Aims to be Latin America’s Silicon Valley

BY GREG SCRUGGS | NEXT CITY | JUNE 19, 2014

On June 9, Nôs hosted its latest working group on the 4o Distrito and invited Dr. Marc Weiss, international professor of economics and business management at Unisinos Porto Alegre. Weiss is chairman and CEO of Global Urban Development, a network of urban affairs leaders, and currently advising the Rio Grande do Sul state government on metropolitan economic strategy.

In 1996, he authored a strategic economic development plan for Washington, D.C. that fingered the area north of Massachusetts Avenue, which he coined “NoMa,” as a potential development opportunity in a blighted area, anchored by media companies and accessible by a new Metro station. The results today are total assessed real estate values in the billions of dollars and 40,000 workers daily, which have injected activity into the neighborhood.
NoMa – DC’s Newest Neighborhood

At Full Build-Out:

- 26 million SF planned
- 14 million SF office
- 10,000 residential units
- 1,300 hotel rooms
- 1 million SF of retail

$9 billion private investment
REPORT FOR THE OECD AND THE GOVERNMENT OF WALES ON THE NOMA (NORTH OF MASSACHUSETTS AVENUE) STRATEGIC ECONOMIC DEVELOPMENT INITIATIVE IN WASHINGTON, DC

Dr. Marc A. Weiss, Chairman and CEO, Global Urban Development
May 2008

[Note: on June 18, 2012, the New York Avenue Metro Station was officially renamed as the NoMa Metro Station.]

1. Rationale for the initiative

Problem to address: In 1997 the city of Washington, DC was suffering from slow job growth, insufficient new investment and development, population loss, declining government revenues, and troubled low-income neighborhoods. Formulating and implementing a major new private sector-oriented economic development strategy had become a vital necessity.

Policy context: During August 1997, the US Congress passed legislation, signed by President Clinton, entitled the National Capital Revitalization Act. This law was primarily designed to address long-term structural fiscal imbalances harming the financial viability of the District of Columbia Government, such that it was running substantial budgetary deficits, unable to raise sufficient revenue to meet its expenditure obligations. Two years earlier, the federal government created the District of Columbia Financial Responsibility and Management Assistance Authority (the "Control Board") to order substantial reductions in personnel and spending, and to directly manage the DC government. In 1997 the Control Board was tasked by Congress with producing a strategic economic development plan designed to grow private sector businesses and jobs for DC residents, among other reasons, in order to increase the tax and revenue base.

Action concept: In the fall of 1997, Dr. Andrew Brimmer, Chairman of the Control Board, hired Richard Monteith as the Director of the Office of Economic Development and Department of Housing and Community Development, and then hired me as the Senior Adviser to Mr. Monteith, and as the Coordinator of the Congressionally mandated strategic economic development plan. Within one year Richard Monteith and I, working with literally thousands of city and regional stakeholders from business, government, labor, civic, community, and faith-based leadership, including a 40-member steering committee, produced an Economic Summit held at the World Bank, attended by more than 2,000 people, and published The Economic Resurgence of Washington, DC: Citizens Plan for Prosperity in the 21st Century. The city's first-ever comprehensive, private sector growth-oriented economic development strategy focuses on three broad categories: strategic industries (six key industry networks/clusters, plus growing businesses and jobs across the private sector), strategic populations (workforce development, plus attracting and retaining residents) and strategic areas (downtown and neighborhoods). The centerpiece of the plan was 40 strategic actions whose implementation was committed to begin within one year of the plan's publication in November 1998. Among these 40 actions were two that are central to this report: Action 26—Develop NoMa (North of Massachusetts Avenue) as a Technology, Media, Housing, and Arts District; and Action 29—Build a Metro Station at New York Avenue to Spur Development.
The Economic Resurgence of Washington, DC
Citizens Plan for Prosperity in the 21st Century

By the People, For the People

The Strategic Economic Development Plan for Washington, DC, and The Economic Summit are co-sponsored by the District of Columbia Government, the Financial Responsibility and Management Assistance Authority, the United States Department of Commerce Economic Development Administration, the Local Initiatives Support Corporation, Fannie Mae, and the World Bank.

Coordinators: Richard Monteilh and Dr. Marc Weiss
District of Columbia Department of Housing and Community Development

November 1998
1998 WASHINGTON, DC ECONOMIC PLAN

NoMa

ACTION 26: Develop NoMa as a Technology, Media, Housing, and Arts District

ACTION 29: Build a Metro Station at New York Avenue to Spur Development
Abandoned buildings and vacant land in NoMa, 1997
Yale Steam Laundry abandoned building in NoMa, 1998 (completely renovated in 2008 for residential lofts)
NoMa’s Fundamental Assets in 1998

- Centrality of Location/Regional Accessibility
- Rail Infrastructure
- Large Development Sites
- Industrial Loft-Style Buildings
- Broadband Fiber Optic Cable
- Washington, DC as a Global Media Center
- IT and Telecom in Metropolitan Washington
- Urban Multimedia Arts/Tech Lifestyle
NoMa’s New Fundamental Assets

Getting Richer by Becoming Greener

• Compact
• High-Density
• Resource-Efficient
• Transit-Oriented
• Walkable
• Bicycle-Friendly

• Mixed-Use
• Green/LEED Buildings
• Broadband Infrastructure
• Smart Growth
• New Urbanism
• Livable Community
Financing NoMa Metro Station

- Private Sector: $35 million
- District of Columbia Government: $44 million
- Federal Government: $31 million
Financing NoMa: New York Avenue Metro Station Corporation

With bands playing and pennants flying, people thronged to the groundbreaking of New York Avenue station on Saturday, December 16, 2000. The turning of the earth for the first “in-fill” station came less than a month before completion of the 103-mile Metrorail system and the opening of the Green Line in Prince George’s County, Md.

As with past Metro stations, New York Avenue station is at the core of a revitalization initiative. In this case, it’s the redevelopment of Washington’s New York Avenue corridor that is expected to emerge as a prime site for high tech companies, federal agencies and retail activity. The development plan for the new station comprises three funding partners: the District of Columbia, the federal government and private interests. Creation of this unique funding arrangement was spearheaded by a stakeholder group known as the New York Avenue Metro Station Corporation under the leadership of Dr. Marc Weiss, a District of Columbia public policy specialist.
Located Next to NoMa Metro Station

US Department of Justice, Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)

NoMa Metro Station and Courtyard Marriott Hotel
NoMa Community Outreach and Neighborhood Benefits

- McKinley Technology High School
- NoMa Community Outreach & Marketing Center
- Employment training and placement
- Infrastructure improvements
- Exempt from Metro Station special property tax assessment
- Rhode Island Place shopping center
- New retail stores and services in several locations
- City First Bank (community development financing)
- New and renovated affordable housing
- Promoting affordable homeownership
- Metropolitan Branch Trail (hiking and biking)
- Capitol Bikeshare
- Neighborhood commercial & arts center (H St. NE)
- New light rail line (H St. NE)
- NoMa Business Improvement District (NoMa BID)
NoMa Business Improvement District (NoMa BID)
New and renovated commercial and residential buildings in NoMa, 2011
Formerly abandoned Judd & Detweiler Printers in NoMa converted to Sirius XM Satellite Radio, 2001
FIRST STREET/PUBLIC REALM

NoMa in 2011
DC's Next Engine for Economic Growth

- $6 billion in net new tax revenues over 20 years
- 41,000 permanent jobs
- 28,000 construction jobs
- 12,000 new residents

Source: Robert Charles Lesser and Company/Green Door Advisors, February 2008
NoMa Next video

http://youtu.be/UDQOjX3sH8A
For more information,

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