

A map of the state of Rio Grande do Sul, Brazil, is shown in the background. The map is color-coded with green for forested areas, yellow for agricultural land, and brown for urban and developed areas. The state's coastline is visible on the right side.

# **21<sup>st</sup> Century Leapfrog Economic Strategy: Rio Grande do Sul Becomes the Most Sustainable and Innovative Place in Latin America by 2030**

**12<sup>th</sup> Annual Regional Development Councils (COREDES-RS) Meeting  
Santa Cruz do Sul, November 12, 2014**

**Dr. Marc A. Weiss**

**Chairman and CEO, Global Urban Development (GUD), and**

**International Professor of Economics and Business Management, Unisinos**



**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.

# **METROPOLITAN ECONOMIC STRATEGY, SUSTAINABLE INNOVATION, AND INCLUSIVE PROSPERITY**

## ***Aligned with 5 Worldwide Economic Trends***

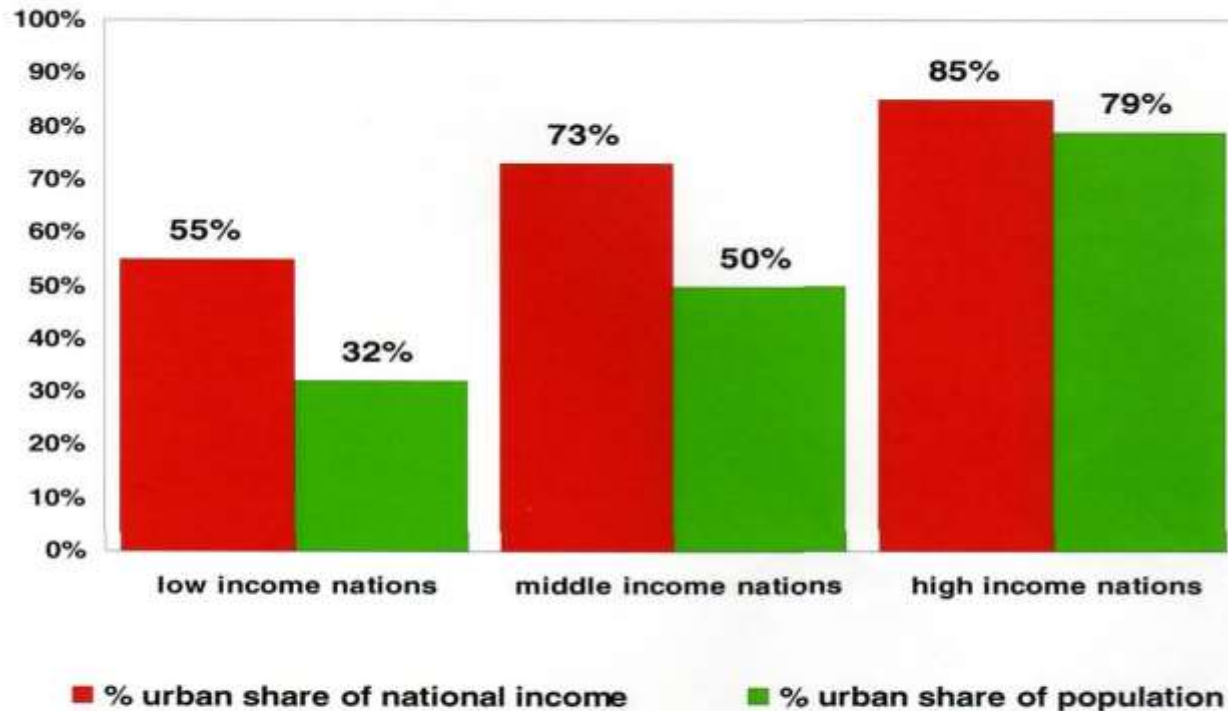
- **Knowledge and Information-Based**
- **Technology and Communications-Intensive**
- **Urban and People-Centered**
- **Resource-Efficient and Sustainable**
- **Globally Oriented**

# **METROPOLITAN ECONOMIC STRATEGY: 4 PILLARS**

1. Innovation
2. Urban & Regional Development
3. Sustainability
4. Inclusiveness

# Urban Development and Economic Prosperity

**Figure 1. In every nation, the urban share of national income is higher than the urban share of the national population.**



Source: Based on the World Bank World Development Report and WB World Development Indicators

## Why Urban Areas are More Economically Productive

They combine **SPECIALIZATION** and **DIVERSITY**:

- the critical mass of skills and resources;
- the necessary population density and concentration of market incomes;
- the range of specialized knowledge and institutions;
- the wide diversity of vitally needed facilities and services;
- and the fully developed physical and human infrastructure that are prerequisites for new ideas, products and production methods, technological and organizational innovations, and dynamic economic growth and investment.



## **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



**STATE POLICY APPROACHES TO PROMOTE  
METROPOLITAN ECONOMIC STRATEGY**

BY  
DR. MARC A. WEISS

PUBLISHED BY  
THE NATIONAL GOVERNORS ASSOCIATION  
CENTER FOR BEST PRACTICES

OCTOBER, 2002

## **Metropolitan Economic Strategy for America's Cities and Regions**

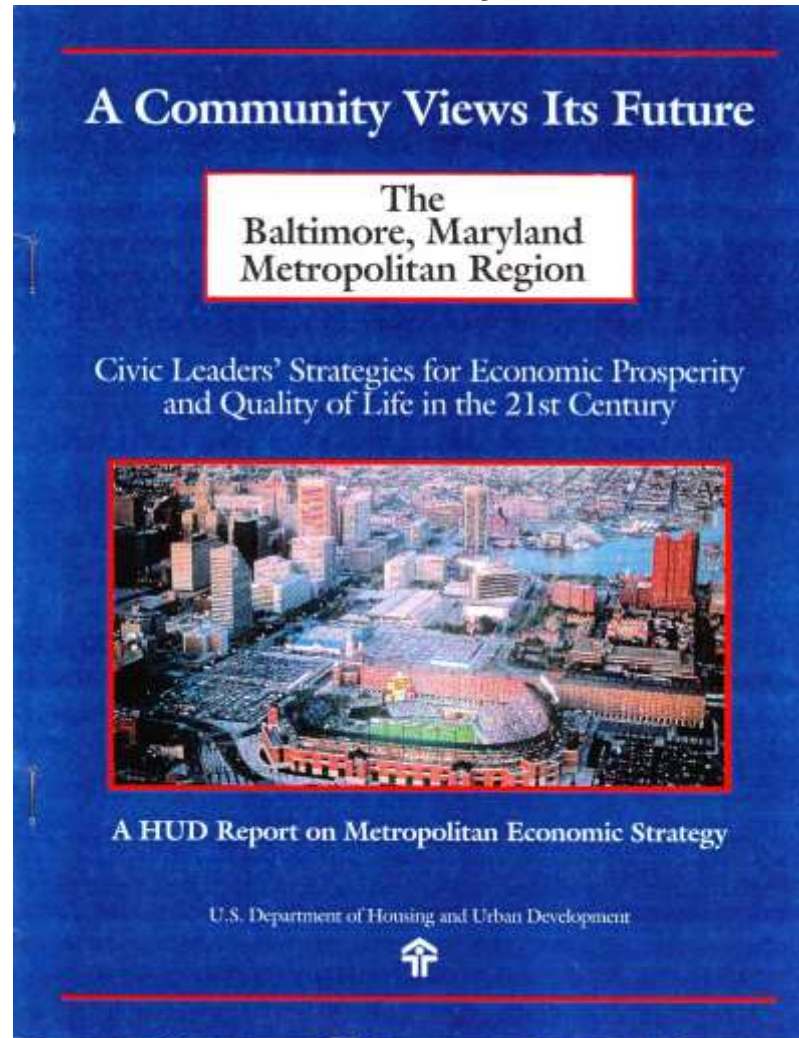
**Henry G. Cisneros and Marc A. Weiss**

### **The New American Economy**

After a quarter-century of sweeping change in the global economy, the metropolitan regions of the US are positioned for prosperity. Metropolitan regions have been centers of manufacturing and commerce since the beginning of the industrialization and urbanization of America in the 19<sup>th</sup> century. In more recent years, the new knowledge and information-based, technology and communications-intensive, globally oriented economy has changed the economic dynamic of metropolitan regions. Some regions have prospered as centers of the New Economy by growing new types of service industries – business, professional, financial, health – and by spawning whole new manufacturing sectors – computers, electronics, telecommunications, multimedia. Other regions have become more competitive by transforming older manufacturing industries, such as automobiles or apparel, into more productive, technology-driven industry “networks”.

Our study, based on evidence from case studies of 12 U.S. metropolitan regions and analysis of quantitative data on 114 of the country's largest metropolitan regions, finds that most U.S. metropolitan regions are freshly positioned to succeed in the new global economy and to bring increased prosperity to America's families and communities in the 21<sup>st</sup> century.

## Clinton Administration *Metropolitan Economic Strategy* National Policy Initiative





## U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WASHINGTON, D.C. 20410-0001

## THE SECRETARY

In America today, nearly 80 percent of the population and almost 90 percent of the employment growth is in metropolitan regions. We are individuals and families looking to the future for good jobs and business opportunities, for rising incomes to own homes, for children to get a worthwhile education, for communities to thrive in health and safety. All of us share a common fate in a new metropolitan economy that will determine our nation's prosperity and quality of life in the 21st Century.

This New Economy -- knowledge and information-based, technology-intensive, and globally oriented -- demands new skills in education, research, and workforce development. To be competitive now requires regional collaboration and innovative leadership: a Metropolitan Economic Strategy for investment in transportation and infrastructure, environmental preservation, and community revitalization.



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 3-PART STRATEGIC FRAMEWORK**

## **STRATEGIC INDUSTRIES**

- **Industry Networks**
- **Growing Businesses and Jobs across the Private Sector**

## **STRATEGIC POPULATIONS**

- **Workforce Development**
- **Attracting and Retaining Residents**

## **STRATEGIC AREAS**

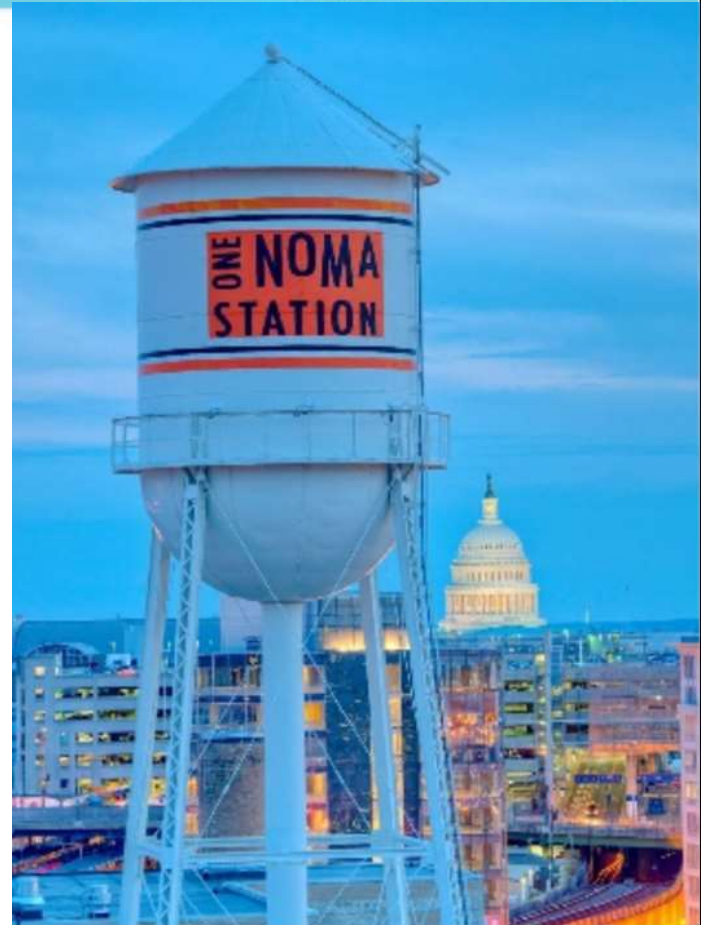
- **Downtown**
- **Neighborhoods**



## DC's Next Engine for Economic Growth

# NOMA

- **\$9 billion private investment**
- **\$6 billion net new tax revenue**
- **41,000 permanent jobs**
- **28,000 construction jobs**
- **12,000 new residents**
- **26 million square feet of new and renovated office, residential, hotel, and retail space**





**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 Monteilh 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. Monteilh, and as the Coordinator of the Congressionally mandated strategic economic development plan. Within one year Richard Monteilh 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 21<sup>st</sup> 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.

**RELATÓRIO PARA A OCDE E O GOVERNO DO PAÍS DE GALES SOBRE A INICIATIVA DE  
DESENVOLVIMENTO ECONÔMICO ESTRATÉGICO DA NOMA (NORTE DA AVENIDA  
MASSACHUSETTS) EM WASHINGTON, DC**

*Dr. Marc A. Weiss, Presidente e CEO, Global Urban Development<sup>1</sup>*

*Maio 2008*

**[Nota: em 18 de junho de 2012, a Estação de Metro New York Avenue  
foi oficialmente rebatizada como Estação de Metro NoMa.]**

**1. Base lógica para a iniciativa**

*Problema alvo:* Em 1997 a cidade de Washington, DC estava sofrendo de baixo crescimento de empregos, desenvolvimento e novos investimentos insuficientes, perda de população, receitas governamentais declinantes, e vizinhança de baixa-renda problemática. Formular e implementar uma grande e nova estratégia de desenvolvimento econômico orientada para o setor privado tornara-se uma necessidade vital.

*Contexto político:* Durante agosto de 1997, o Congresso dos EUA aprovou legislação, assinada pelo Presidente Clinton, intitulada Ato de Revitalização da Capital Nacional. Essa lei foi primariamente projetada visando os desequilíbrios fiscais estruturais de longo-prazo prejudicando a viabilidade financeira do Governo do Distrito de Columbia, que estava operando sob déficits orçamentários substanciais, incapaz de levantar receita suficiente para cumprir suas despesas obrigatórias. Dois anos antes, o governo federal criou a Autoridade de Responsabilidade Financeira e Assistência Administrativa do Distrito de Columbia (a "Controladoria") para ordenar substanciais reduções em gastos e pessoal, e para gerenciar diretamente o governo de DC. Em 1997, a Controladoria recebeu a incumbência do Congresso de produzir um plano de desenvolvimento econômico estratégico para aumentar negócios do setor privado e empregos para os residentes de DC, entre outras razões, com o intuito de ampliar a base de receitas e impostos.

# **KEY LESSONS FOR ECONOMIC DEVELOPMENT**

**LESSON 1: THINK AND ACT STRATEGICALLY**

**LESSON 2: CREATE COMMON IDENTITY AND SENSE OF PURPOSE**

**LESSON 3: INVOLVE EVERYONE**

**LESSON 4: TAKE ACTION AND PRODUCE RESULTS**

**LESSON 5: BUILD ON THE FUNDAMENTALS**

**LESSON 6: FOCUS ON THE BIG RESOURCES**

**LESSON 7: BE YOURSELF**

**LESSON 8: COLLABORATE WITH AND SUPPORT THE PRIVATE SECTOR**

**LESSON 9: BE COMPREHENSIVE – LINK GROWTH OF BUSINESSES,  
JOBS, AND INCOMES TO PEOPLE AND PLACES**

**LESSON 10: CONNECT TO THE DYNAMICS OF THE REGIONAL ECONOMY**

**LESSON 11: WORK WITH AND STRENGTHEN CIVIL SOCIETY**

**LESSON 12: IMPROVE QUALITY OF LIFE – SUSTAINABILITY AND  
INCLUSIVENESS**

# **GLOBAL URBAN DEVELOPMENT**

Curitiba, Brazil

**Metropolitan Economic Strategy Report**

*Alicia Fazzano, Fellow, and Dr. Marc A. Weiss, Chairman and CEO*

July 2004



**CLIMATE PROSPERITY**

*Green Savings, Green Opportunities, Green Talent, Green Places:  
Generating Jobs, Incomes, Sustainable Innovation, and Resource Efficiency*

**GLOBAL CLIMATE PROSPERITY AGREEMENT:  
“THE ONE TRILLION DOLLAR DEAL”**

*Dr. Tariq Bamuri, 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 21<sup>st</sup> 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.

## Planning for Sustainable Economic Development Across the Americas

### schedule

07<sup>th</sup> 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  
**Odone Fortes Martins**, Coordinating Vice-President of Concex-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 McLellan**, 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 da Região Metropolitana de Curitiba (Comec)  
 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 Krutko**, President and CEO, SPARK, (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



## 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.



**United Nations World Urban Forum 6**  
Naples, Italy; September 2-6, 2012

*Networking Event 101:*

**Metropolitan Economic Strategy and Sustainable Economic Development in Brazil**

Wednesday, September 5 / Pavilion 5, Room 13 / 1400 to 1600 hours (2 to 4 pm)

This Networking Event will highlight a comprehensive framework for growing and developing productive, innovative, competitive, sustainable, inclusive, and prosperous cities, regions, and states in Brazil. Global Urban Development (GUD) is working with the Federation of Industries of Minas Gerais and the Federation of Industries of Rio Grande do Sul, the States of Minas Gerais and Rio Grande do Sul, the Cities of Belo Horizonte and Porto Alegre, and Brazil's Federal Government, to apply GUD's framework for promoting Metropolitan Economic Strategy and Sustainable Economic Development. Speakers include key business and government leaders from Brazil.

Moderator: **Marlene Fernandes**, International Advisor, Brazilian Institute for Municipal Administration (IBAM), **Rio de Janeiro**

Presenters:

**Mauro Borges Lemos**, President, Brazilian Agency for Industrial Development (ABDI), **Brasilia**

**Olavo Machado Jr.**, President, Federation of Industries of Minas Gerais (FIEMG), **Belo Horizonte**

**Marcus Coester**, President, Rio Grande do Sul Development Agency (AGDI), **Porto Alegre**

**Marc Weiss**, Chairman and CEO, Global Urban Development, **Washington, DC**

Discussants:

**Ines Magalhaes**, National Secretary of Housing, Ministry of Cities, **Brasilia**

**Cid Blanco Jr.**, Director of Culture, Communications, and Events, Olympic Public Authority, **Rio de Janeiro**

**Fabio Veras**, Deputy Secretary of Economic Development, State of Minas Gerais, **Belo Horizonte**

**Emilia Queiroga Barros**, Vice President, Global Urban Development, **Belo Horizonte**

## **Advanced Manufacturing and Sustainable Innovation: The Third Wave of Industrial and Urban Economic Growth for Minas Gerais**

*A Report to the Federation of Industries of Minas Gerais (FIEMG)  
by Global Urban Development (GUD)*

October 2012

### **Executive Summary**

Minas Gerais has succeeded in its first century-long wave of economic growth through industrialization and urbanization, made great strides over the past decade in the second wave of economic growth through rising incomes and growing consumer demand, and is now poised for a third wave of globally competitive prosperity and productivity driven by Sustainable Innovation. Minas Gerais already has developed several new Sustainable Innovation Pipelines, from biomedical to information technology. The next great surge for the Third Wave, the newest and most dynamic and productive Sustainable Innovation Pipeline for Minas Gerais, will be in Advanced Manufacturing. Brazil can compete directly with Advanced Manufacturing public policies and private companies throughout the world; and Minas Gerais can become one of Brazil's national leaders in this rapidly growing industrial technology field.

**Manufatura Avançada e Inovação Sustentável:  
A Terceira Onda de Crescimento Industrial  
em Minas Gerais**

*Relatório para a Federação das Indústrias do Estado de Minas Gerais (FIEMG)*

*por Global Urban Development (GUD)*

Outubro de 2012

## **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.

# **Oportunidades de Desenvolvimento Local e Regional relacionados a Implementação do Estaleiro EBR de São José do Norte, no Rio Grande do Sul**

*Relatório do Global Urban Development (GUD) para o Grupo Empresarial M. Stortti Consultores, Federação das Indústrias do Rio Grande do Sul (FIERGS) e para a Agência de Desenvolvimento e Promoção do Investimento do Rio Grande do Sul (AGDI)*

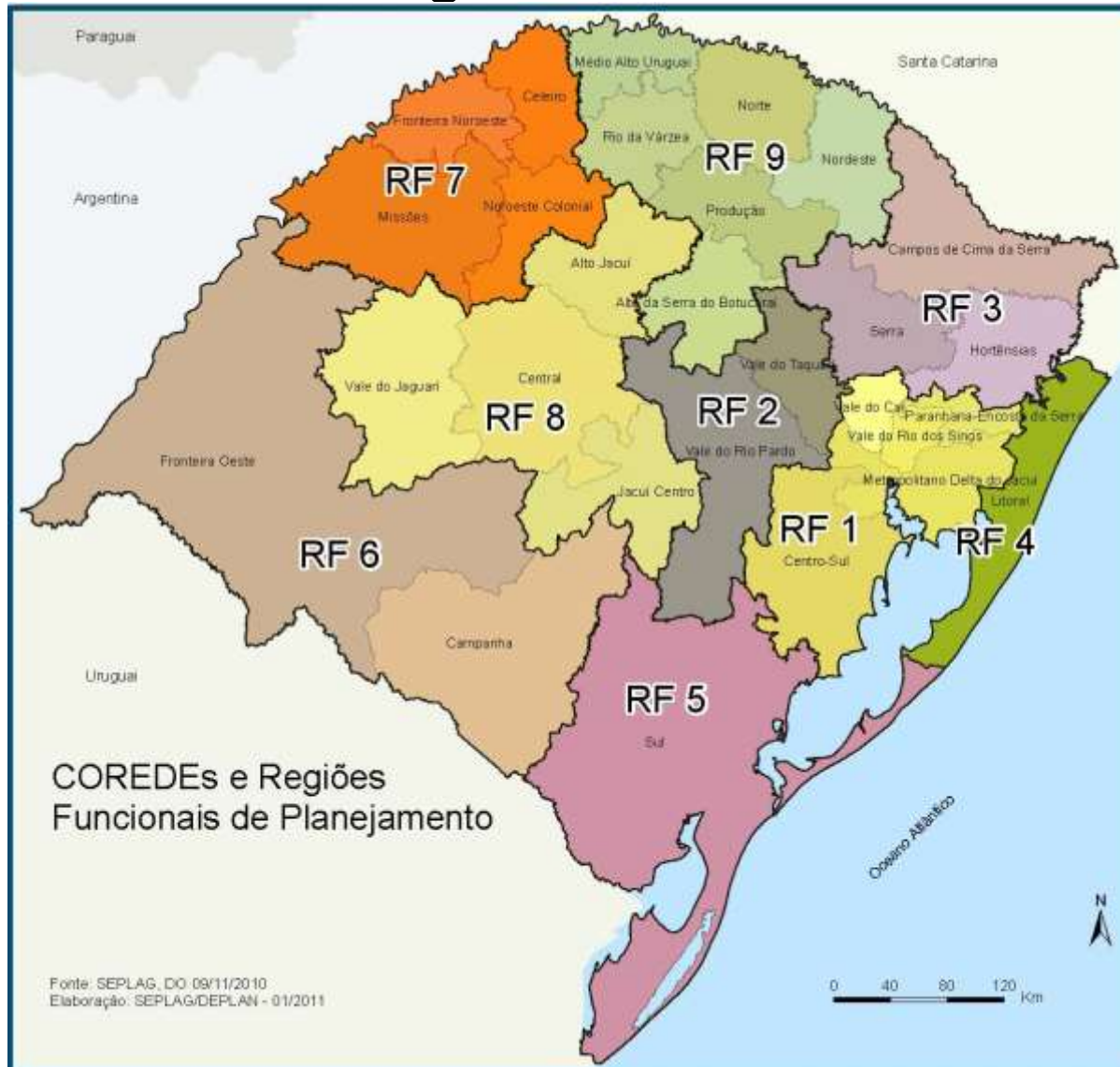
Dezembro de 2012



# Rio Grande do Sul Leapfrog Economic Strategy: Most Sustainable and Innovative Place in Latin America by 2030

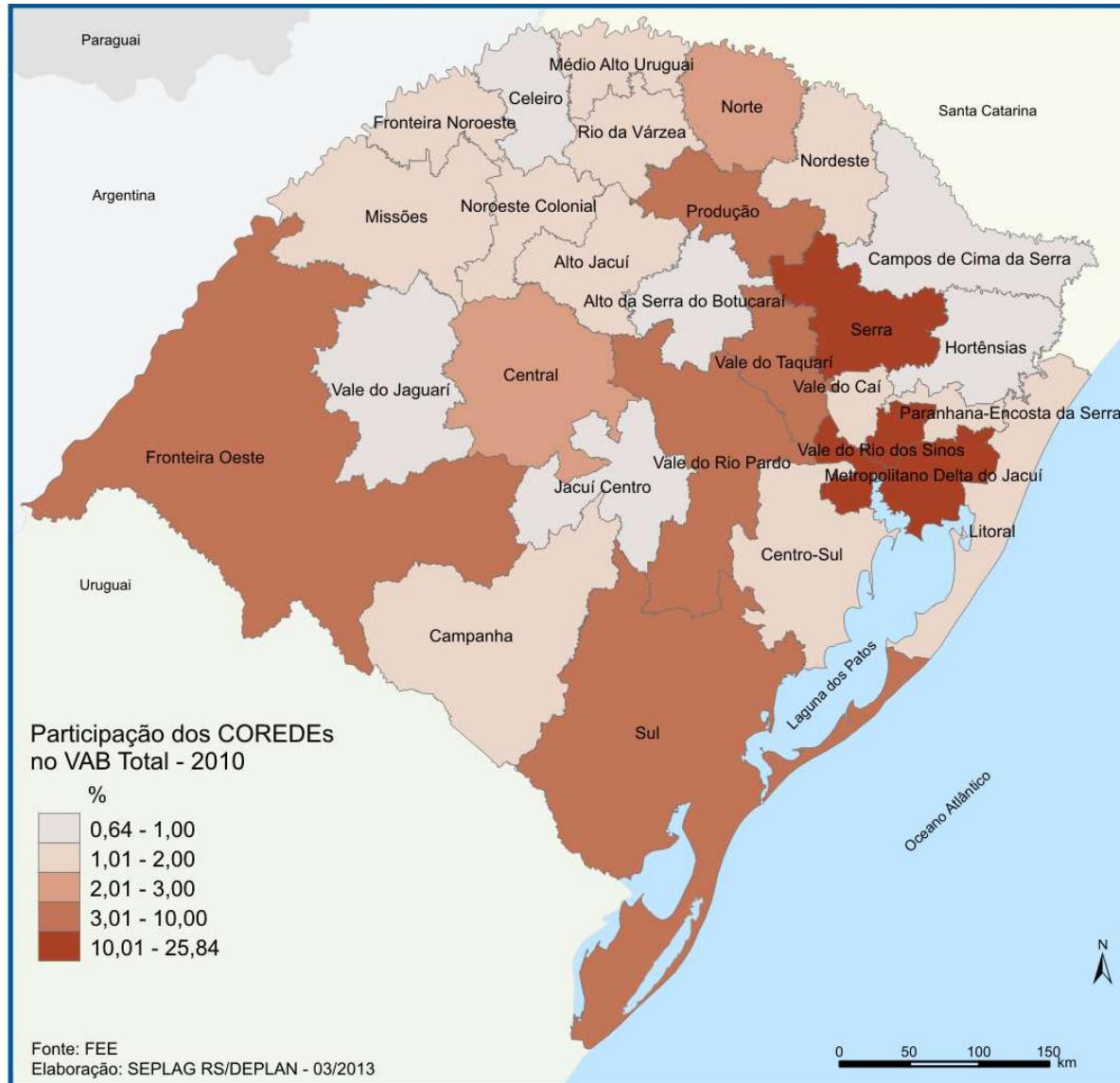


# Rio Grande do Sul Leapfrog Economic Strategy: Regional Focus





# Rio Grande do Sul Leapfrog Economic Strategy: Regional Development Councils (COREDES-RS)



# 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)

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

## **FIRST**

Agricultural Machinery/Equipment  
Automation and Controls  
Biodiesel  
Leather and Footwear  
Rice  
Transportation Equipment  
Wine

## **THIRD**

Wind Energy

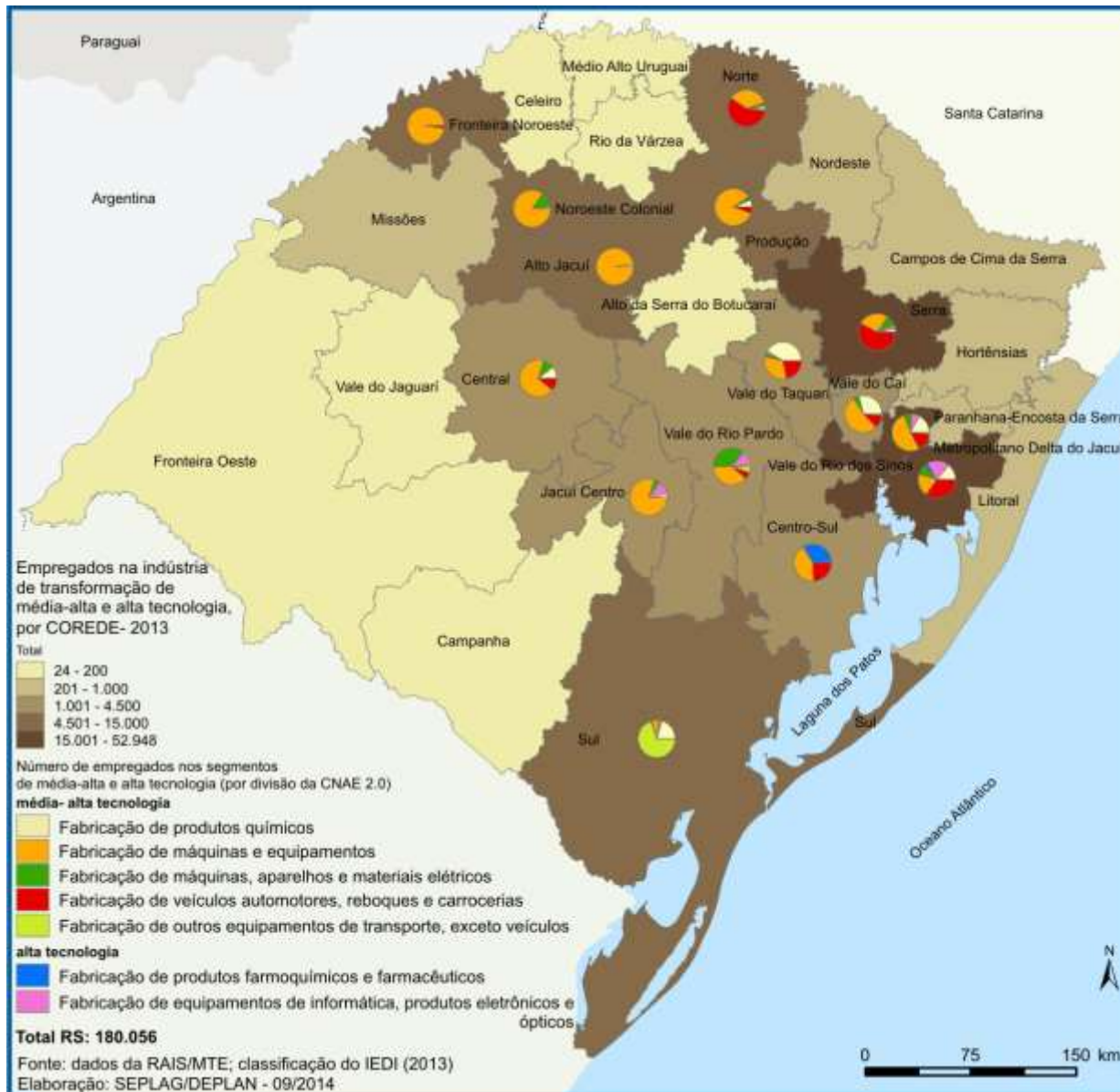
## **SECOND**

Beverages  
Chemical Products  
Electrical-Electronic Products  
Furniture  
Industrial Machinery/Equipment  
Metal-Mechanical Products  
Naval and Offshore  
Plastics and Rubber

## **FOURTH**

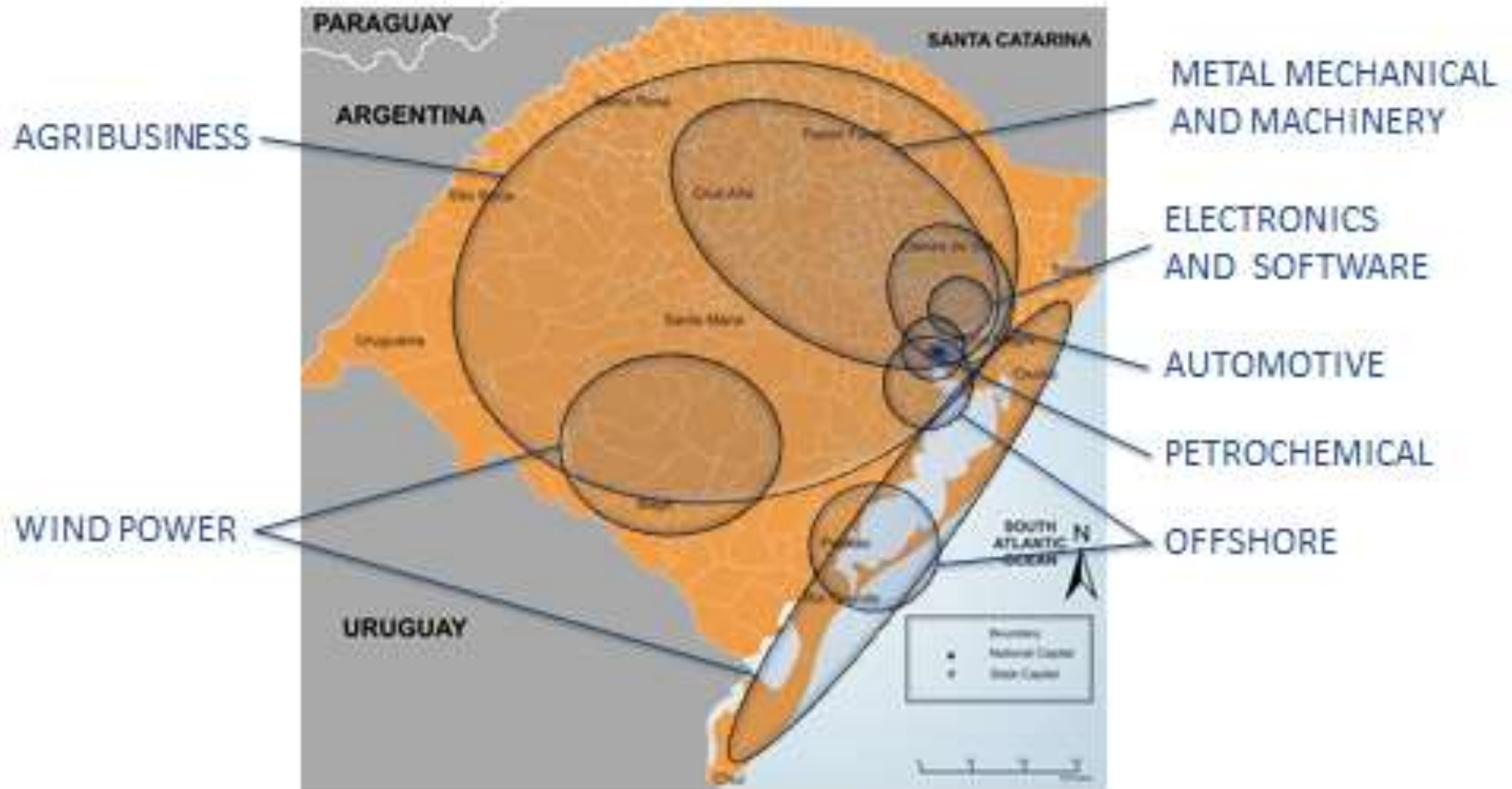
Food Processing  
Motor Vehicles

# Rio Grande do Sul Technology Businesses



# Rio Grande do Sul

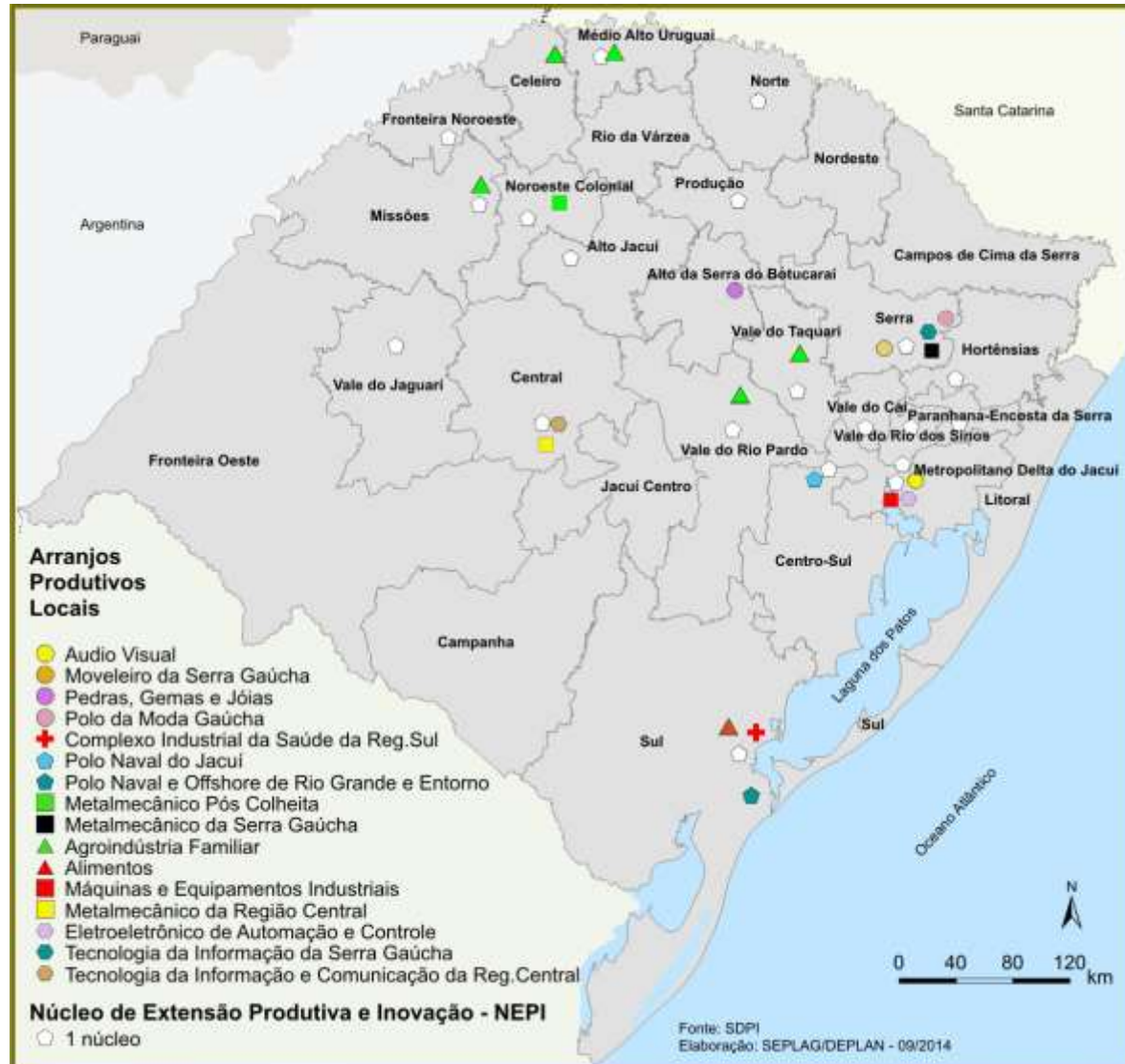
## Illustrative Economic Geography



Source: AGDI, 2012



# Rio Grande do Sul Industry Networks (APLs) and Productive Innovation Extension Centers (NEPIs)



# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER:

## Precision Production, Smart Machines, and Digital Technology



**FISL15**  
15º Fórum Internacional  
SOFTWARE LIVRE  
A tecnologia que liberta



boxbrazil





# 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

**AmBev**



# **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**



# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER:

# Renewable Energy and Clean Technologies



CONSTRUINDO UM  
FUTURO SUSTENTÁVEL

# SUSTAINABLE INNOVATION BUSINESS ADVISORY SERVICES



FORMERLY

Participating small- and medium-sized businesses save \$350,000 per year (on average)

# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER:

## Precision Engineering and Naval/Offshore Industry Value Chain





# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER:

## Sustainable Innovation in Chemicals, Polymers, and New Materials



# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

## KEY DRIVER:

# Global Branding and Marketing

- Fashion and Design
- Culture and Creativity
- Arts and Tourism
- Sports and Entertainment



Todeschini



TRAMONTINA





# 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

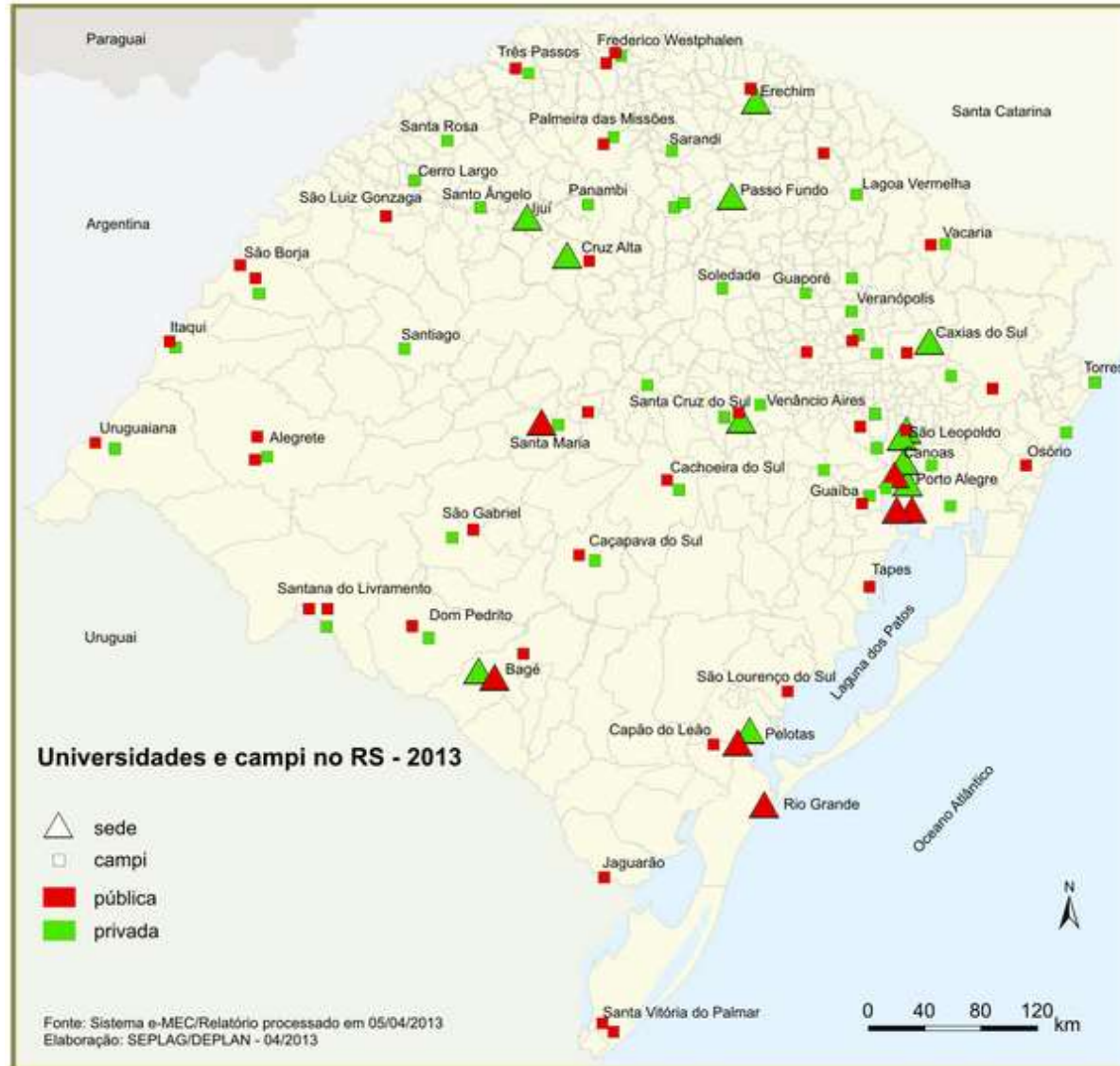
# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER:

## HIGHER EDUCATION, RESEARCH, AND WORKFORCE DEVELOPMENT

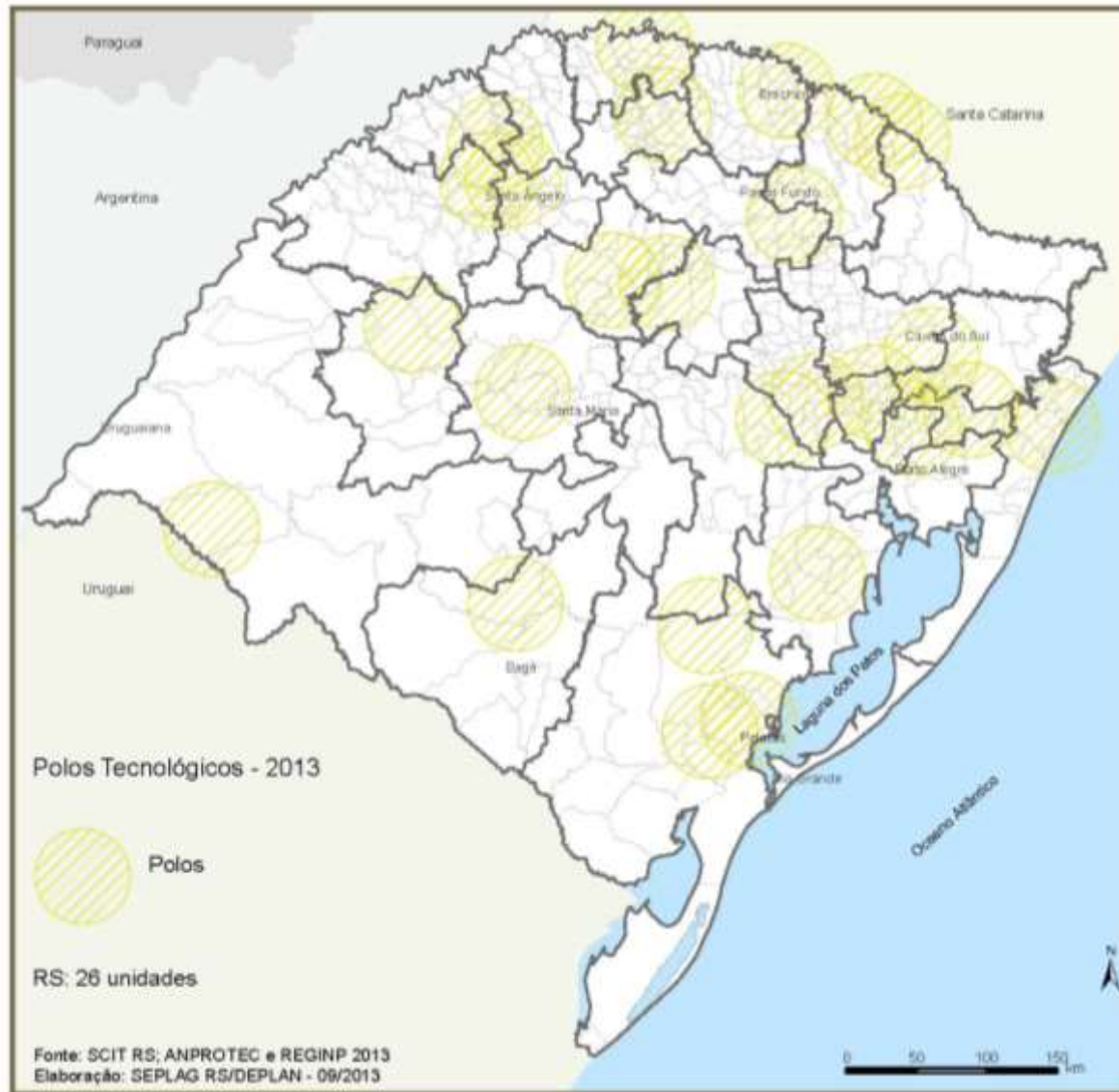


SENAI Centro Tecnológico de Mecatronica, Caxias do Sul

# Rio Grande do Sul Universities

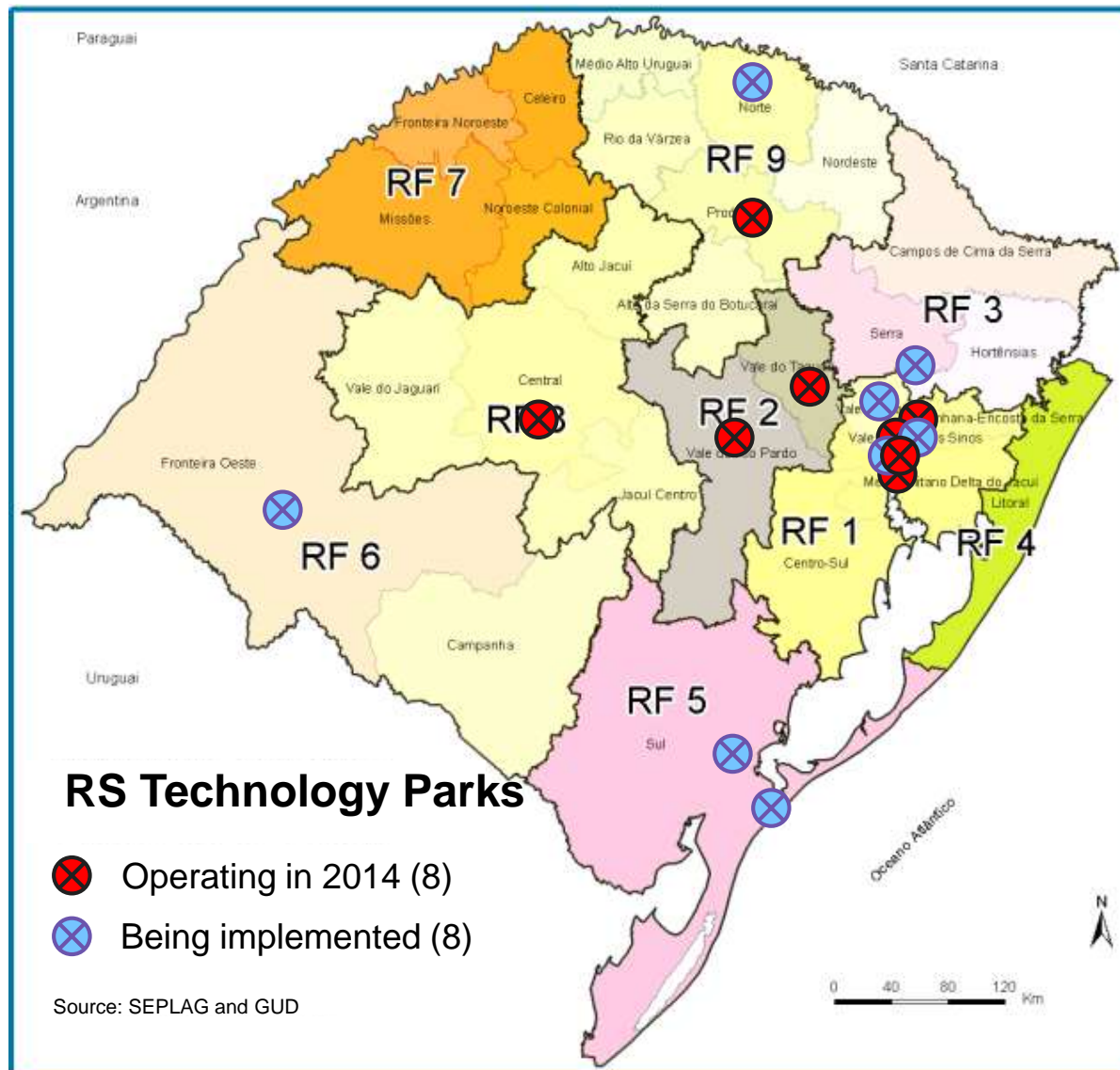


# Rio Grande do Sul Technology Poles





# Rio Grande do Sul Technology Parks





# Advanced Manufacturing Sustainable Innovation Technology Parks

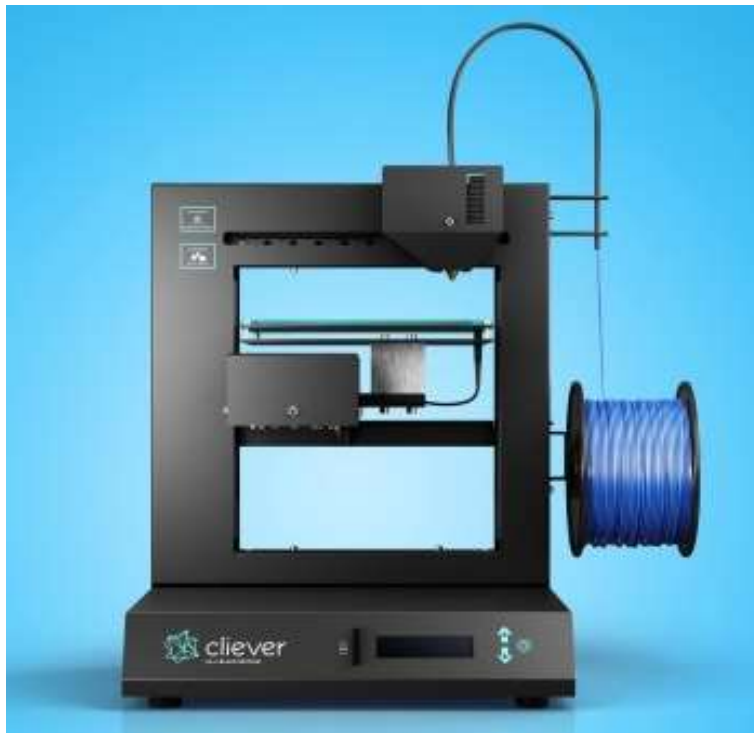


**UK University of Sheffield Advanced Manufacturing Park**

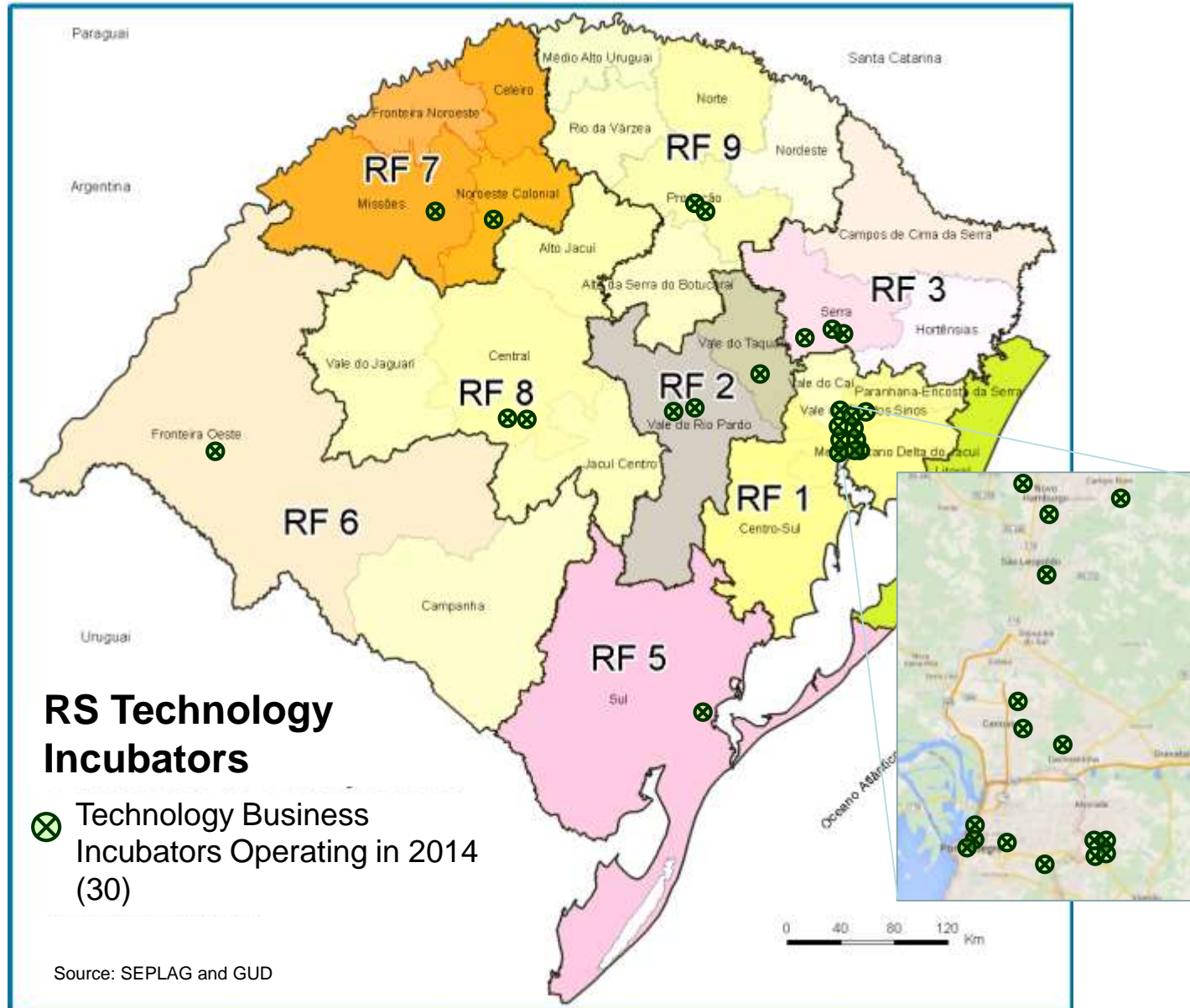
# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

## KEY DRIVER:

# ENTREPRENEURSHIP AND STARTUPS



# Rio Grande do Sul Technology Business Incubators





# SUSTAINABLE INNOVATION BUSINESS ACCELERATORS



MaRS Discovery District, Toronto, Canada

# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY

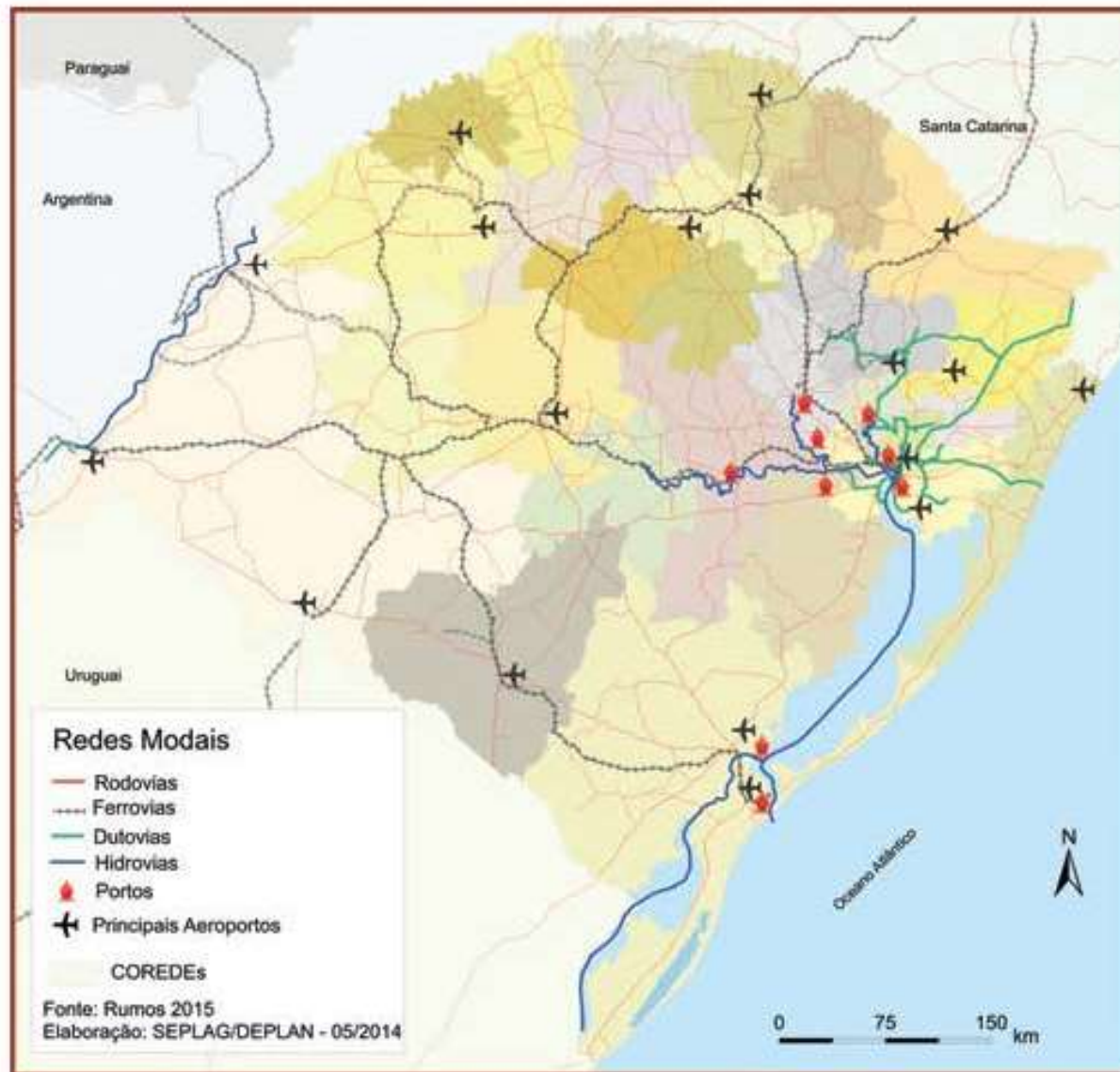
## KEY DRIVER:

# INFRASTRUCTURE, TRANSPORTATION, AND LOGISTICS





# Rio Grande do Sul Transportation and Logistics Infrastructure



# NoMa Metro Station



# 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



Groundbreaking for the New York Avenue station. From left: Metro general manager Richard A. White; Dr. I. King Jordan, president of Gallaudet University; Therman Walker of the North Capital Business Association; Dr. Marc Weiss; D.C. City Councilman Vincent Orange; Delegate Eleanor Holmes Norton; D.C. Mayor Anthony Williams; Metro Board member Gladys Mack; D.C. City Councilman and Metro Board member David Catania.

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



# RIO GRANDE DO SUL LEAPFROG ECONOMIC STRATEGY KEY DRIVER: SUSTAINABLE INNOVATION ZONES



# SUSTAINABLE INNOVATION ZONES



**Freiburg**



**London**



**Barcelona**

# SUSTAINABLE INNOVATION ZONES



Resilient Cities 

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

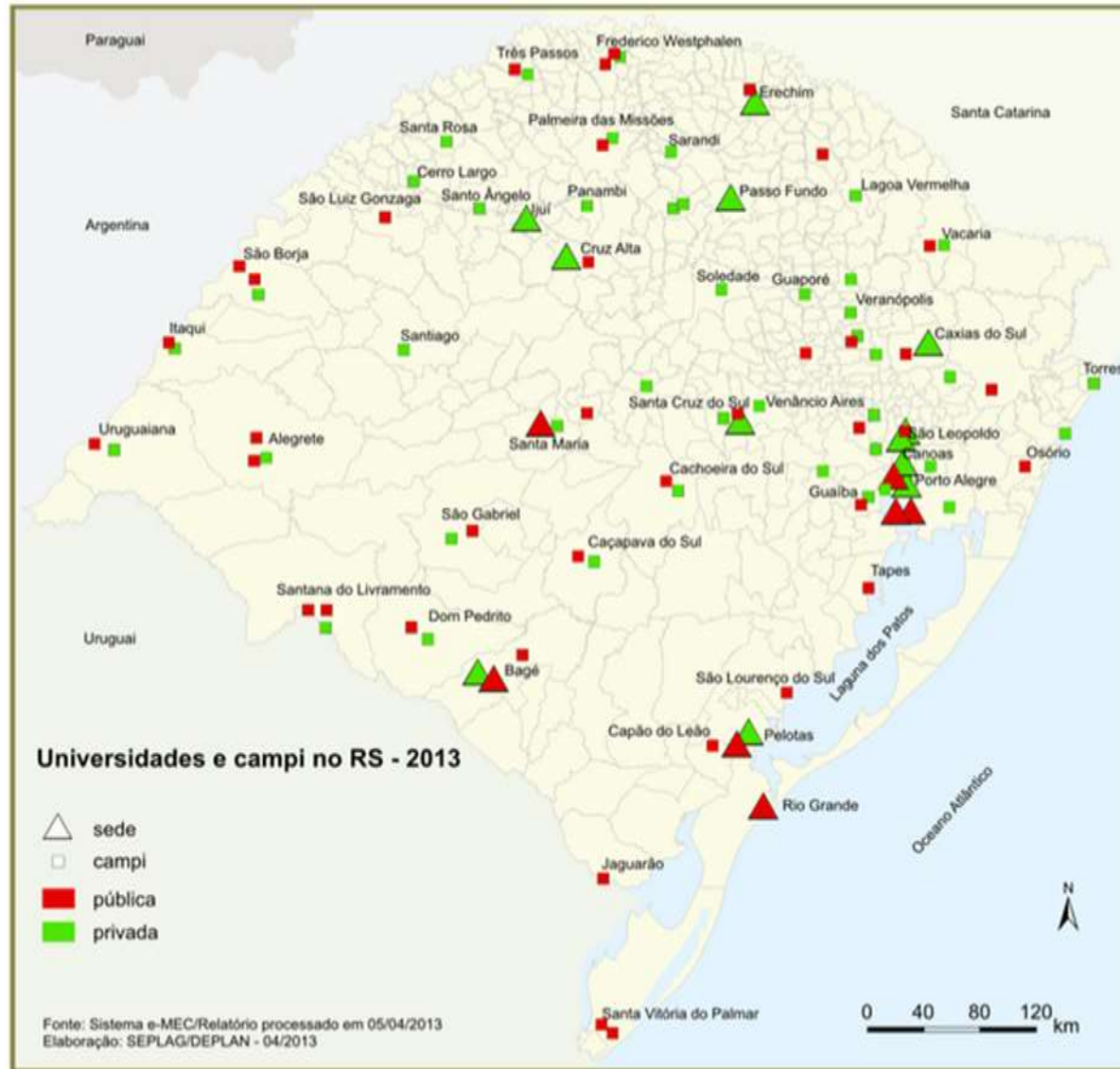
BY GREG SCRUGGS | NEXT CITY | JUNE 19, 2014

On June 9, Nós hosted its latest working group on the 4<sup>o</sup> 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 1998, 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.

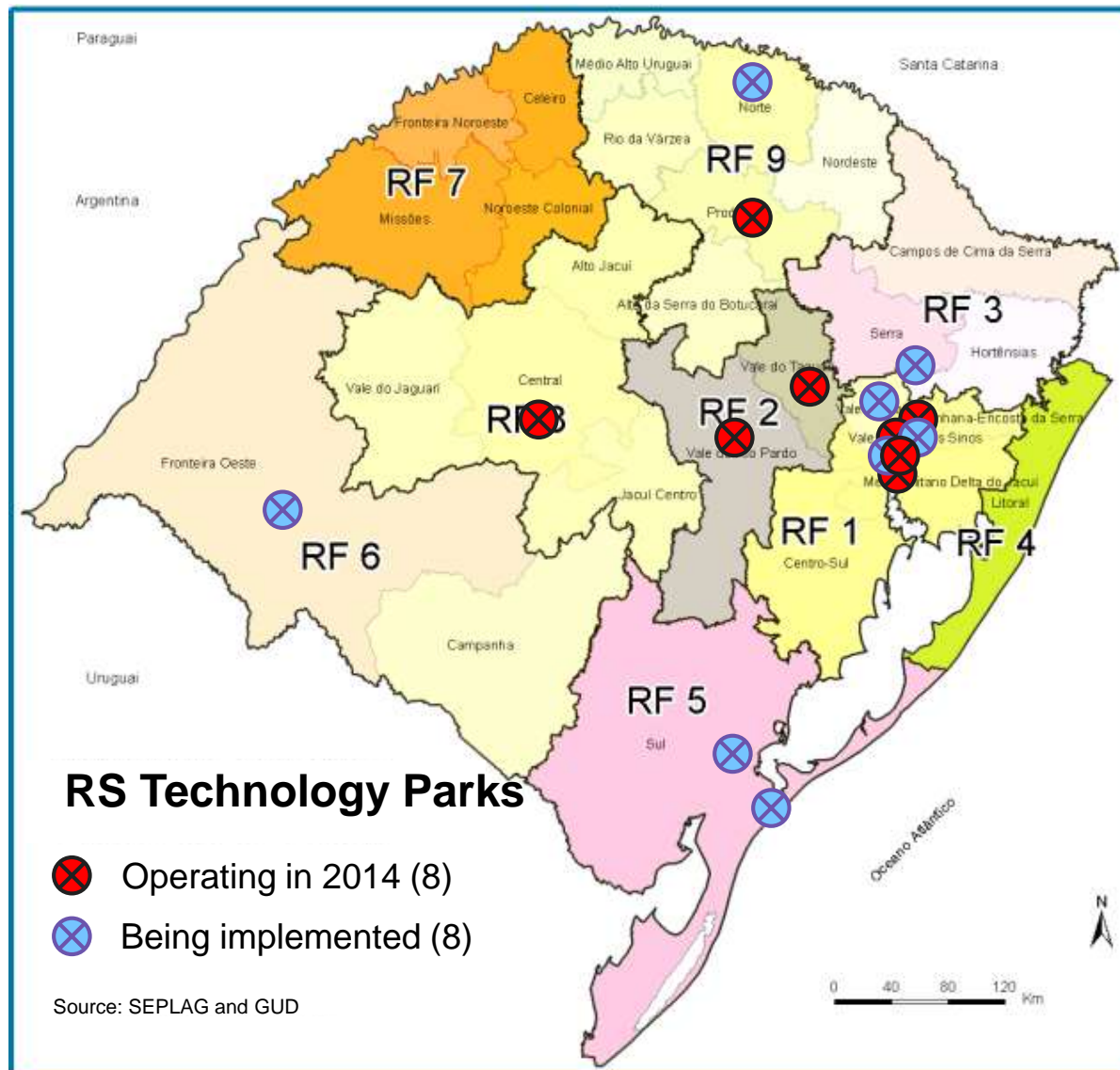


## RS Universities as Potential Sustainable Innovation Zones

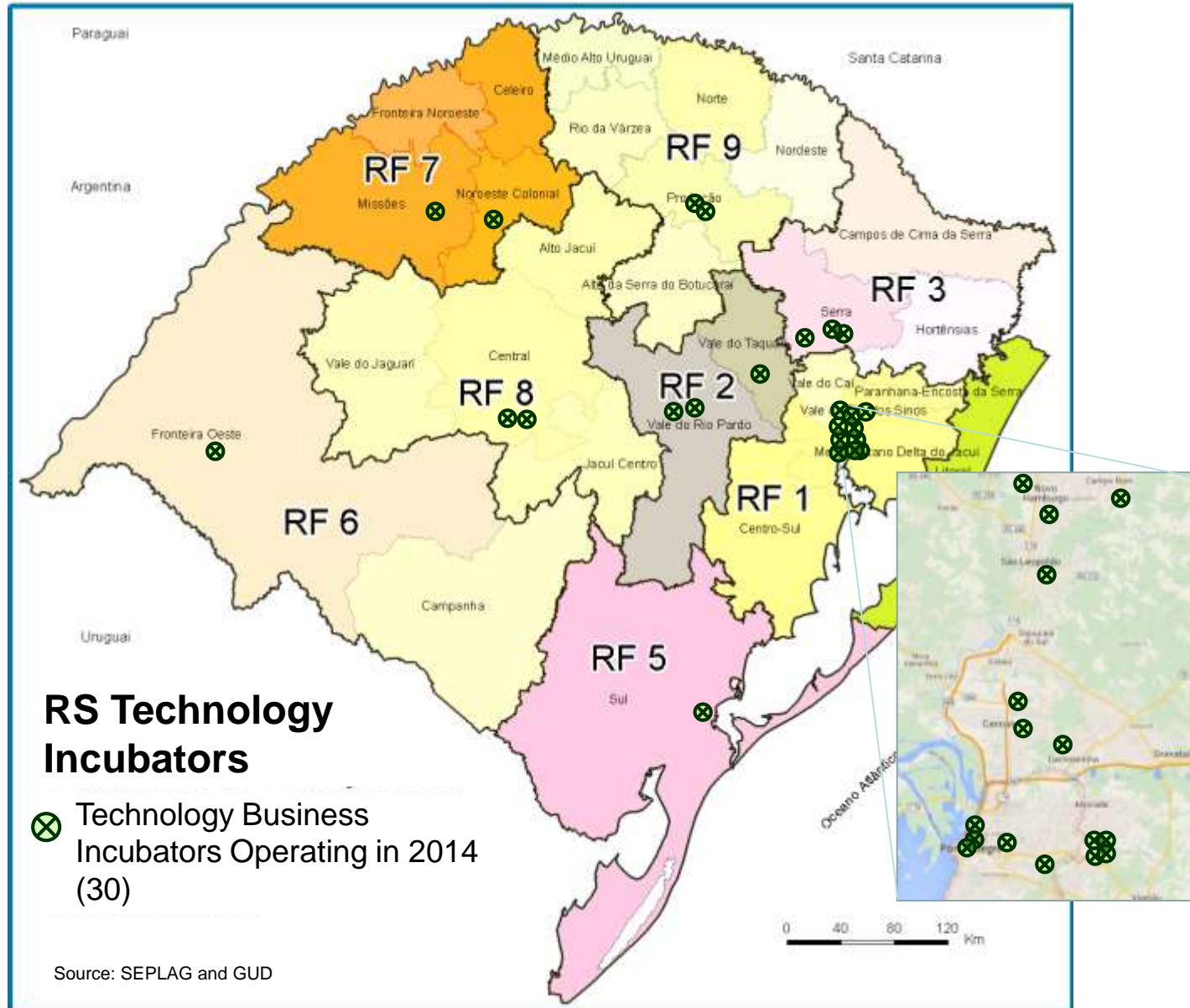




# RS Technology Parks as Potential Sustainable Innovation Zones



# RS Technology Incubators as Potential Sustainable Innovation Zones



# SUSTAINABLE INNOVATION ZONES



The screenshot shows the EcoDistricts website's 'Target Cities' page. The header features the EcoDistricts logo and navigation links: ABOUT, TARGET CITIES, TRAINING, PROTOCOL, SUMMIT, BLOG, JOIN, and a SEARCH button. The main heading is 'TARGET CITIES' with a sub-link 'HOME / TARGET CITIES'. Below this is a collage of six images: a 3D architectural rendering of a city block, a person on a bicycle on a green-painted street, a child jumping on a colorful circular mural, a mural of a person, a group of people working on a project, and a group of people walking. To the right of the collage is a yellow sidebar with links: PROJECTS, PARTNERS, COLLABORATORS, and UPDATES. Below the collage is a section titled 'Introducing Target Cities' with the subtitle 'The pilot program, redefined.' and a paragraph: '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.' Below this is another paragraph: 'The program, launched as a Clinton Global Initiative Commitment (CGI) in June 2014, is a fresh approach to building'.

**EcoDistricts**

**ABOUT TARGET CITIES TRAINING PROTOCOL SUMMIT BLOG JOIN**

**SEARCH**

## TARGET CITIES

HOME / TARGET CITIES

**PROJECTS PARTNERS COLLABORATORS UPDATES**

"The transformation of the Sun Valley neighborhood is a top priority for the City of Denver and the Denver Housing Authority. We are excited about the Target Cities initiative because we believe the EcoDistricts Protocol provides a framework for this to happen at a scale that is the most sustainable, inclusive, and ultimately replicable for other City neighborhoods." - Michael B. Hancock, Mayor, City of Denver

### 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



## ECODISTRICT



### About the ecoDistrict

An ecoDistrict is a neighborhood or district with a broad commitment to accelerate neighborhoodscale 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.

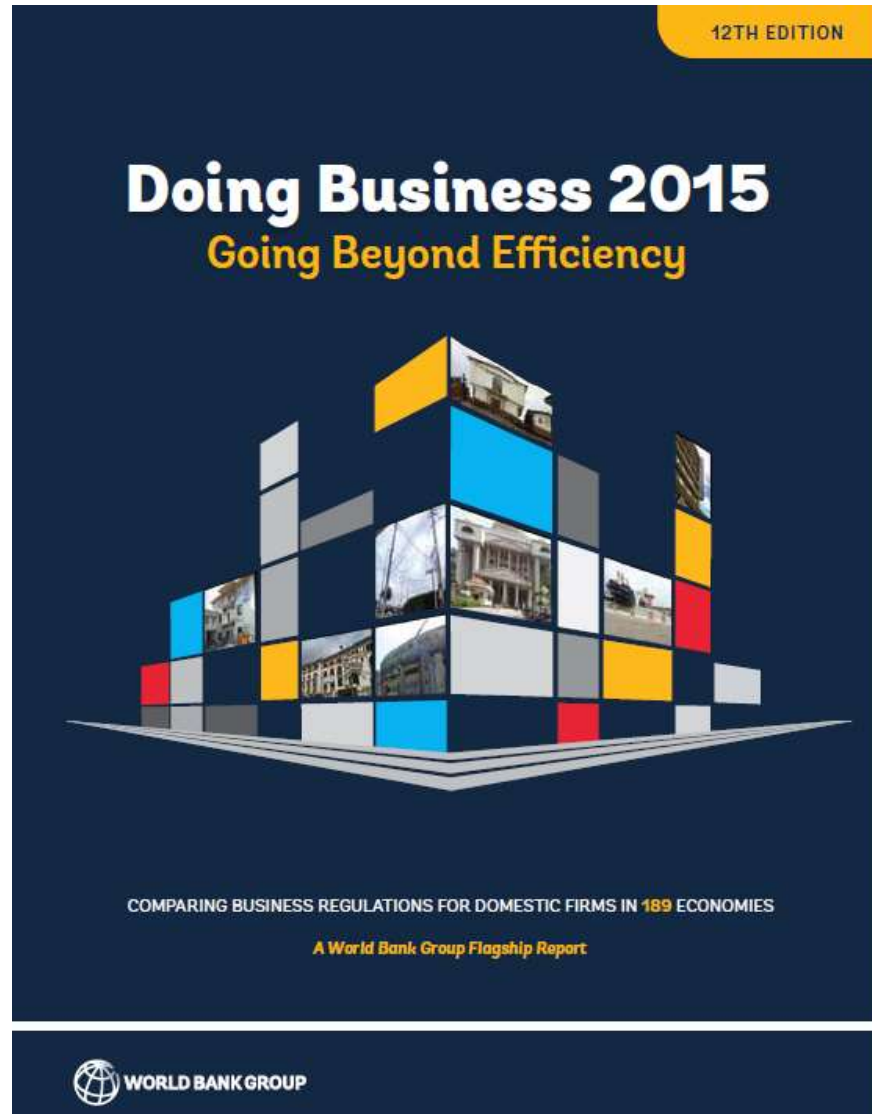
### ecoDistrict Goals

- 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



# SUSTAINABLE INNOVATION ZONES



# World Bank, *Doing Business* 2015

	Ease of Doing Business Rank ▲	Starting a Business	Dealing with Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Minority Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
Egypt, Arab Rep.	112	73	142	106	84	71	135	149	99	152	126
Palau	113	111	66	98	21	71	183	132	105	127	167
Indonesia *	114	155	153	78	117	71	43	160	62	172	75
Ecuador	115	165	59	120	80	89	117	138	114	88	151
Maldives	116	50	24	108	169	116	135	134	132	91	135
Jordan	117	86	126	44	107	185	154	45	54	114	145
Belize	118	148	69	54	120	160	169	61	91	170	71
Nicaragua	119	120	134	95	134	89	172	164	74	70	110
Brazil *	120	167	174	19	138	89	35	177	123	118	55
St. Kitts and Nevis	121	87	16	10	170	151	87	137	67	116	189
Cabo Verde	122	78	114	133	62	104	170	91	101	39	189
Guyana	123	99	38	155	103	165	135	115	82	71	150
Argentina	124	146	181	104	119	71	62	170	128	63	83

Source: *Doing Business* database.

## Top 5 countries worldwide

1. Singapore
2. New Zealand
3. Hong Kong SAR, China
4. Denmark
5. Korea, Rep.

Rank	Economy	Rank	Economy
1	Singapore	31	France
2	New Zealand	32	Poland
3	Hong Kong SAR, China	33	Spain
4	Denmark	34	Colombia
5	Korea, Rep.	35	Peru
6	Norway	36	Montenegro
7	United States	37	Slovak Republic
8	United Kingdom	38	Bulgaria
9	Finland	39	Mexico
10	Australia	40	Israel
11	Sweden	41	Chile
12	Iceland	42	Belgium
13	Ireland	43	South Africa
14	Germany	44	Czech Republic
15	Georgia	45	Armenia
16	Canada	46	Rwanda
17	Estonia	47	Puerto Rico (U.S.)
18	Malaysia	48	Romania
19	Taiwan, China	49	Saudi Arabia
20	Switzerland	50	Qatar
21	Austria	51	Slovenia
22	United Arab Emirates	52	Panama
23	Latvia	53	Bahrain
24	Lithuania	54	Hungary
25	Portugal	55	Turkey
26	Thailand	56	Italy
27	Netherlands	57	Belarus
28	Mauritius	58	Jamaica
29	Japan	59	Luxembourg
30	Macedonia, FYR	60	Tunisia

34. Colombia\*

35. Peru\*

39. Mexico\*

41. Chile\*

52. Panama\*

**\*Top ranked Latin American countries**

BRAZIL		Latin America & Caribbean		GNI per capita (US\$)	
Ease of doing business rank (1-189)		Overall distance to frontier (DTF) score (0-100)		Population (m)	
				11,690	
				200.4	
<b>Starting a business</b> (rank)		<b>Registering property</b> (rank)		<b>Trading across borders</b> (rank)	
DTF score for starting a business (0-100)		DTF score for registering property (0-100)		DTF score for trading across borders (0-100)	
Procedures (number)		Procedures (number)		Documents to export (number)	
Time (days)		Time (days)		Time to export (days)	
Cost (% of income per capita)		Cost (% of property value)		Cost to export (US\$ per container)	
Minimum capital (% of income per capita)				Documents to import (number)	
		<b>Getting credit</b> (rank)		Time to import (days)	
		DTF score for getting credit (0-100)		Cost to import (US\$ per container)	
<b>Dealing with construction permits</b> (rank)		Strength of legal rights index (0-12)		<b>Enforcing contracts</b> (rank)	
DTF score for dealing with construction permits (0-100)		Depth of credit information index (0-8)		DTF score for enforcing contracts (0-100)	
Procedures (number)		Credit bureau coverage (% of adults)		Procedures (number)	
Time (days)		Credit registry coverage (% of adults)		Time (days)	
Cost (% of warehouse value)				Cost (% of claim)	
		<b>Protecting minority investors</b> (rank)		<b>Resolving insolvency</b> (rank)	
<b>Getting electricity</b> (rank)		DTF score for protecting minority investors (0-100)		DTF score for resolving insolvency (0-100)	
DTF score for getting electricity (0-100)		Extent of conflict of interest regulation index (0-10)		Time (years)	
Procedures (number)		Extent of shareholder governance index (0-10)		Cost (% of estate)	
Time (days)		Strength of minority investor protection index (0-10)		Recovery rate (cents on the dollar)	
Cost (% of income per capita)				Strength of insolvency framework index (0-16)	
		<b>Paying taxes</b> (rank)			
		DTF score for paying taxes (0-100)			
		Payments (number per year)			
		Time (hours per year)			
		Total tax rate (% of profit)			



Source: Doing Business database.

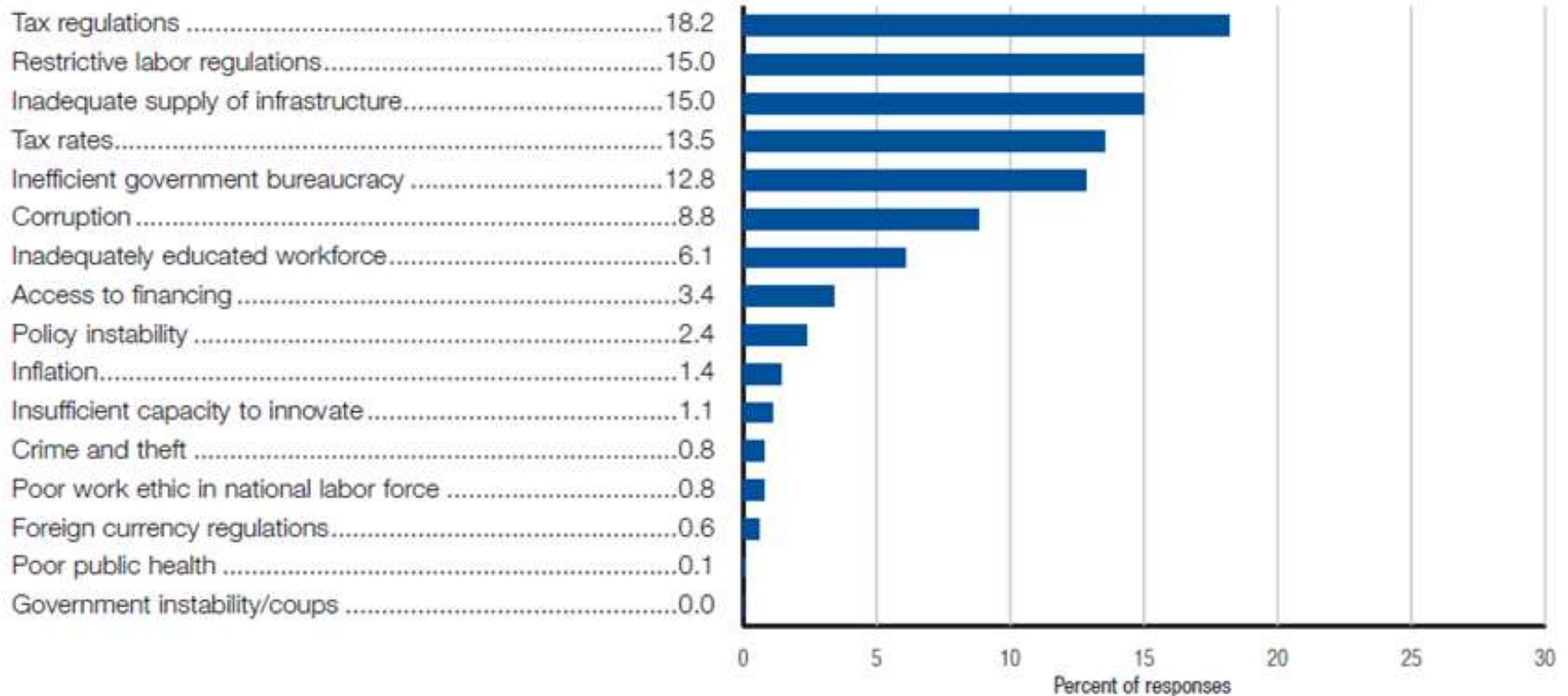


# World Economic Forum, *The Global Competitiveness Report 2014-2015*

2.1: Country/Economy Profiles

## Brazil


### The most problematic factors for doing business



# World Economic Forum, *The Global Competitiveness Report 2014-2015*

2.1: Country/Economy Profiles


## Brazil

 2nd pillar: Infrastructure, 1-7 (best)	76	4.0
A. Transport infrastructure, 1-7 (best)	77	3.5
Quality of overall infrastructure, 1-7 (best)	120	3.1
Quality of roads, 1-7 (best)	122	2.8
Quality of railroad infrastructure, 1-7 (best)	95	1.7
Quality of port infrastructure, 1-7 (best)	122	2.7
Quality of air transport infrastructure, 1-7 (best)	113	3.4
Available airline seat kilometers, millions of seats km/week	9	3827.3
B. Electricity and telephony infrastructure, 1-7 (best)	70	4.5
Quality of electricity supply, 1-7 (best)	89	4.1
Mobile telephone subscriptions, /100 pop.	37	135.3
Fixed telephone lines, /100 pop.	51	22.3

# World Economic Forum, *The Global Competitiveness Report 2014-2015*

2.1: Country/Economy Profiles

## Brazil

 12th pillar: Innovation, 1-7 (best)	62	3.3
Capacity for innovation, 1-7 (best)	44	4.1
Quality of scientific research institutions, 1-7 (best)	50	4.0
Company spending on R&D, 1-7 (best)	43	3.5
University-industry collaboration in R&D, 1-7 (best)	54	3.8
Government procurement of advanced technology products, 1-7 (best)	77	3.4
Availability of scientists and engineers, 1-7 (best)	114	3.3
PCT patent applications, applications/million pop.	50	3.2

## Especial Inovação & Parcerias

**Cadeia produtiva** Falhas nessa área são problema apontado por executivos

# Mobilidade depende de melhoria nos processos

Suzana Linsendes  
Para o Valor, do Rio

A inovação capaz de gerar produtividade e estimular a produção de conteúdo nacional é o caminho para o Brasil avançar nos projetos de mobilidade, do ambiente urbano ao sistema de logística, e deixar para trás os quilômetros de atraso no planejamento deste segmento. Por outro lado, para que empresas brasileiras estejam aptas a participar de processos produtivos em cadeias internacionais, é necessário avançar em processos, principal falha apontada por grandes empresas americanas estabelecidas no Brasil e que buscam fornecedores locais. Esses foram os principais temas abordados pelos participantes do Workshop "Applying new technologies for greater mobility", ou "Aplicação de novas tecnologias para maior mobilidade", na 3ª Conferência de Inovação Brasil-Estados Unidos.

Com a participação da representante da indústria, da área acadêmica e do governo, o encontro ressaltou a importância de alinhar o trabalho ao mesmo ritmo mais amplo, não apenas focado em avanços tecnológicos. Wagner Rittencourt de Oliveira, vice-presidente do INDES, citou alguns exemplos de atuação do banco em projetos de mobilidade, como a utilização de dispositivos para o transporte de cargas, mas destacou a relevância de buscar parcerias no exterior e estimular a cadeia de fornecedores em foco como veículos híbridos e sistemas de logística.

A secretária de Desenvolvimento e Produção do Ministério da Desenvolvimento da Indústria e Comércio Exterior, Heloisa Meneses, mostrou a disposição do governo em estruturar parcerias entre as indústrias nacionais e americanas em programas como o PAC de Mobilidade Urbana. Heloisa reconhece que as empresas americanas estão passas à frente das brasileiras em processos, mas enxerga claramente um conjunto de oportunidades de parcerias entre as empresas dos dois países para alcançar "o desenvolvimento com nacionalização progressiva".

Apartar de os participantes apontaram como consenso a necessidade de estreitar as relações entre os participantes da cadeia de mobilidade dos dois países, promovendo, sobretudo, uma inte-



Mário Weiss trabalha em projeto de estratégia de desenvolvimento econômico sustentável com governo de MG e RS

gração maior entre os institutos de pesquisa americanos e as indústrias brasileiras, algumas iniciativas já estão em andamento no Brasil.

Um dos exemplos é o projeto que o Governo do Estado de Rio Grande do Sul está desenvolvendo com a Global Urban Development (GUD). Mário Weiss, CEO da GUD, é um especialista em estratégias metropolitanas de economia sustentável e ganhou destaque como assessor especial do secretário do Departamento de Habitação e Desenvolvimento Urbano das EUA e participante do Conselho presidencial sobre Desenvolvimento Sustentável no governo de Bill Clinton.

Weiss, que vem trabalhando em projetos de estratégia de desenvolvimento econômico sustentável com a Federação das Indústrias e os governos estaduais de Minas Gerais e Rio Grande do Sul, em parceria com a Agência Brasileira para o Desenvolvimento Industrial (ABDI), acaba

de se mudar para Porto Alegre. Weiss, defensor de projetos de inovação em cidades que estimulam a população a caminhar mais, disse que resolveu mudar-se porque queria viver o dia a dia da região para entender seus reais problemas.

“Os projetos de inovação não precisam ser caros ou sofisticados. Eles têm que oferecer conforto à população”

Na capital gaúcha, Weiss, que é professor adjunto de Assuntos Internacionais e Públicos na Universidade de Columbia (Estados Unidos), participou do projeto do governo gaúcho para integrar nove regiões metropolitanas como as mais importantes centros produtivos do Estado, com a participação da Universidade do Vale do Rio dos Sinos (Unisinos). “Os projetos de inovação não precisam ser caros ou sofisticados. Eles têm que oferecer conforto à população. Por exemplo, é preciso criar condições nas cidades para que as pessoas possam caminhar mais ou utilizar bicicletas com segurança”.

Ivana De Pellegrini, presidente da Agência Gaúcha de Desenvolvimento e Promoção de Investimento, explica que busca parcerias para que a mobilidade ajude a tornar mais eficiente a produção no Estado, com a adaptação dos setores às práticas de sustentabilidade.



For more information,

please visit the GUD website:

[www.globalurban.org](http://www.globalurban.org)

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`marcweiss@globalurban.org`