

# Smart Specialization in Latin America

## RIS3 Project and the Science, Technology and Innovation Strategy for Pernambuco ECT&I-PE (2017-2022)

Brussels, March 2017

**Lúcia Melo**

Secretary of Science, Technology And Innovation  
of Pernambuco, Brazil

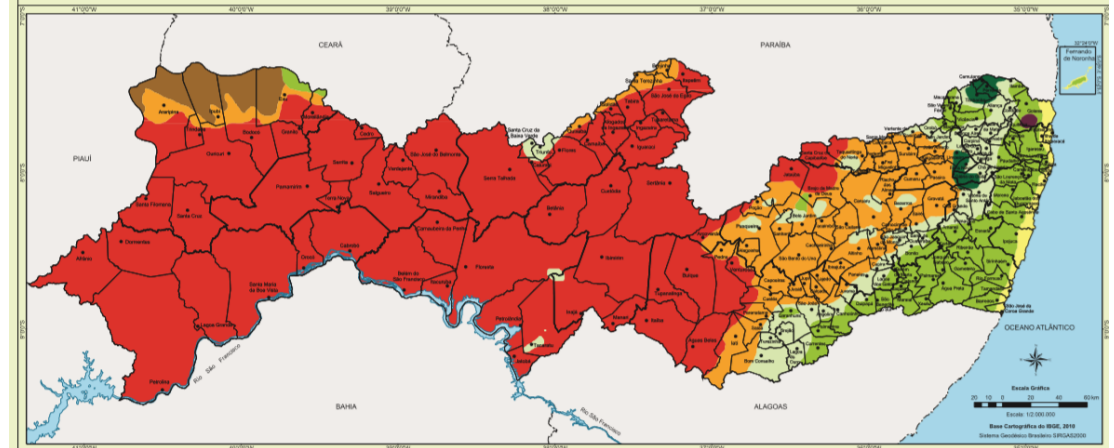
SECRETARIA DE  
CIÊNCIA, TECNOLOGIA  
E INOVAÇÃO



GOVERNO DO ESTADO  
*Pernambuco*

JUNTOS, FAZEMOS MAIS.

# Location of Pernambuco

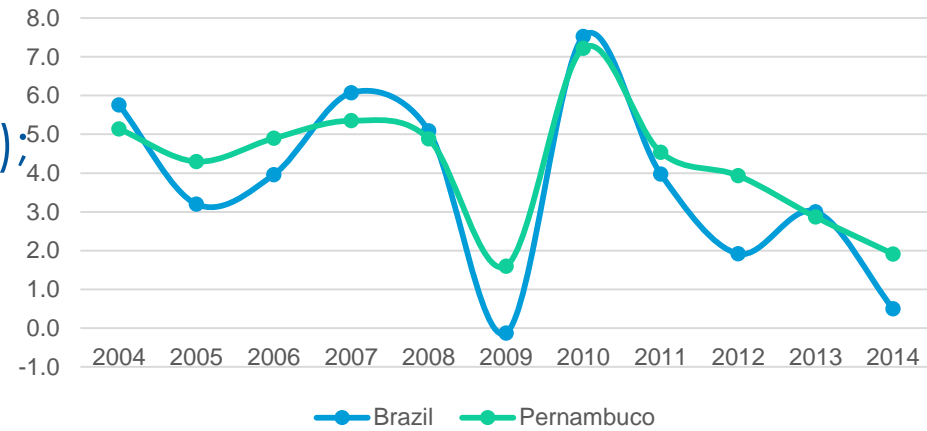


Diversity of Territories and Biomes

# Some Quick Facts About Pernambuco

- Total population of 9,3 million inhabitants (with 185 municipalities and an area of 98 thousand km<sup>2</sup>);
- The GDP is nearly US\$ 66 billion per year (US\$ 7,1 thousand per capita), representing 2.7% of Brazil's national GDP, (2014);
- The service sector is the largest component of the GDP (73%), followed by Industry (22%) and Agribusiness (5%);
- Exports include sugar (36%), fruit and juice (13%), fish and crustaceans (12%), electric and electronic products (11%), chemicals (7%) and clothing (6%); recent exports of automobiles;
- The large ports of Recife (cruise and cargo) and Suape (cargo) are the country's furthest harbors to the east and among the furthest to the north (closest to Europe). Suape is one of the most efficient port in Brazil;
- 10 years of accelerated economic growth: 4.1% average annual growth rate (2004-2014).

Brazil and Pernambuco: GDP growth rate (%)



# Challenges for Pernambuco



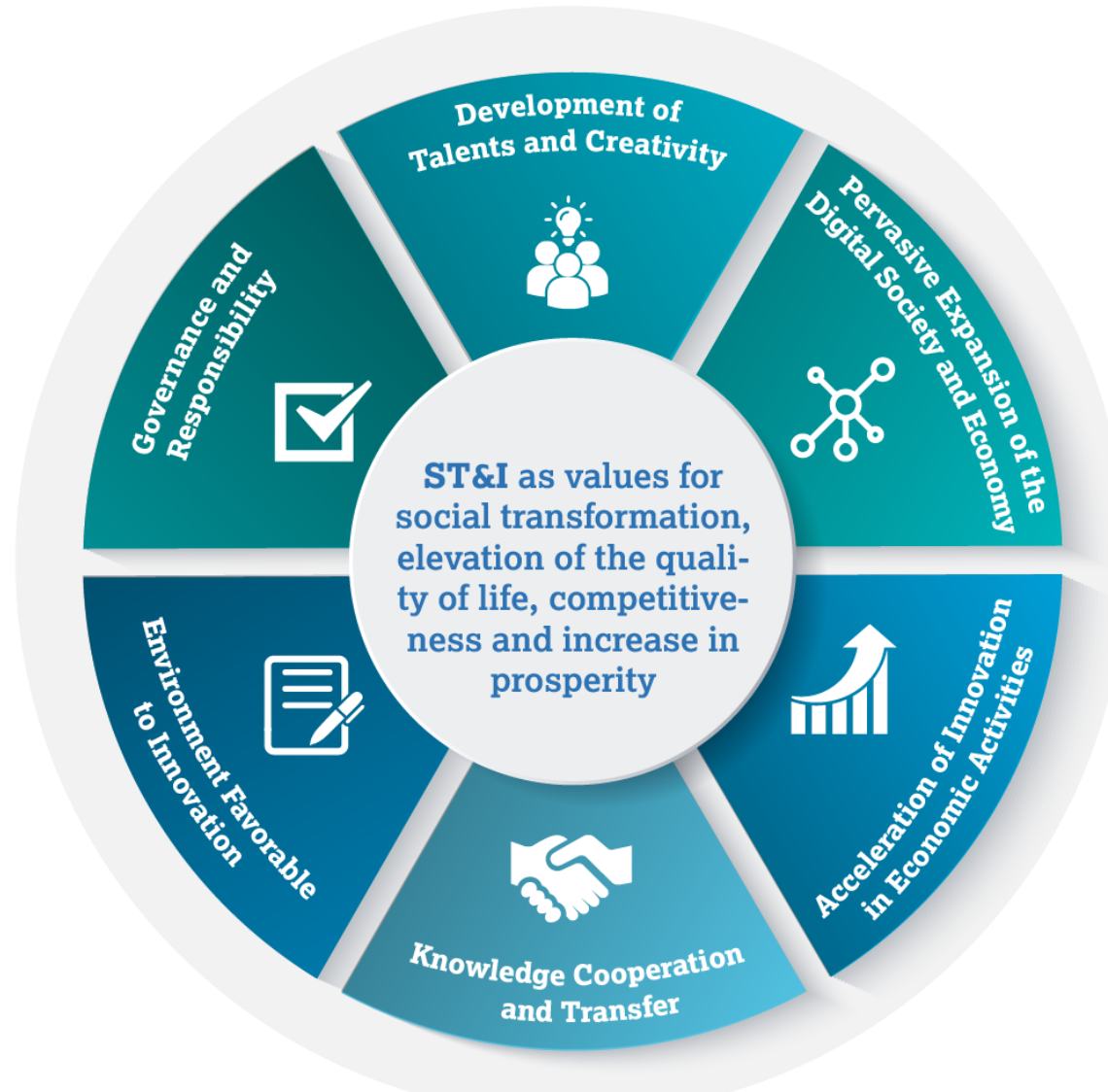
- Increase productivity and competitiveness in economic activities;
- Reduction of social and economic inequalities;
- Promotion of creativity and skills in the workforce (especially STEM+C);
- Creation of a cultural environment that is favorable to innovation;
- Diffusion of disruptive technologies in the production of goods and services;
- Innovation as a tool for economic recovery.

# About the Strategy of Science, Technology and Innovation for Pernambuco – ECT&I-PE (2017-2022)

- Comprises a series of guidelines for an orchestrated set of actions to be taken by government, enterprises, academia and society;
- Assumes that knowledge and innovation are the key factors for economic growth and development in the 21st Century;
- Aims to promote the conditions necessary for the improvement of competitiveness through knowledge and innovation;
- Ultimately aims social transformation, elevation of the quality of life and increase in prosperity;
- Main principles: be inclusive; endogenous capacity building; foresight oriented; diversity, people and culture as assets; local, national and global networks.

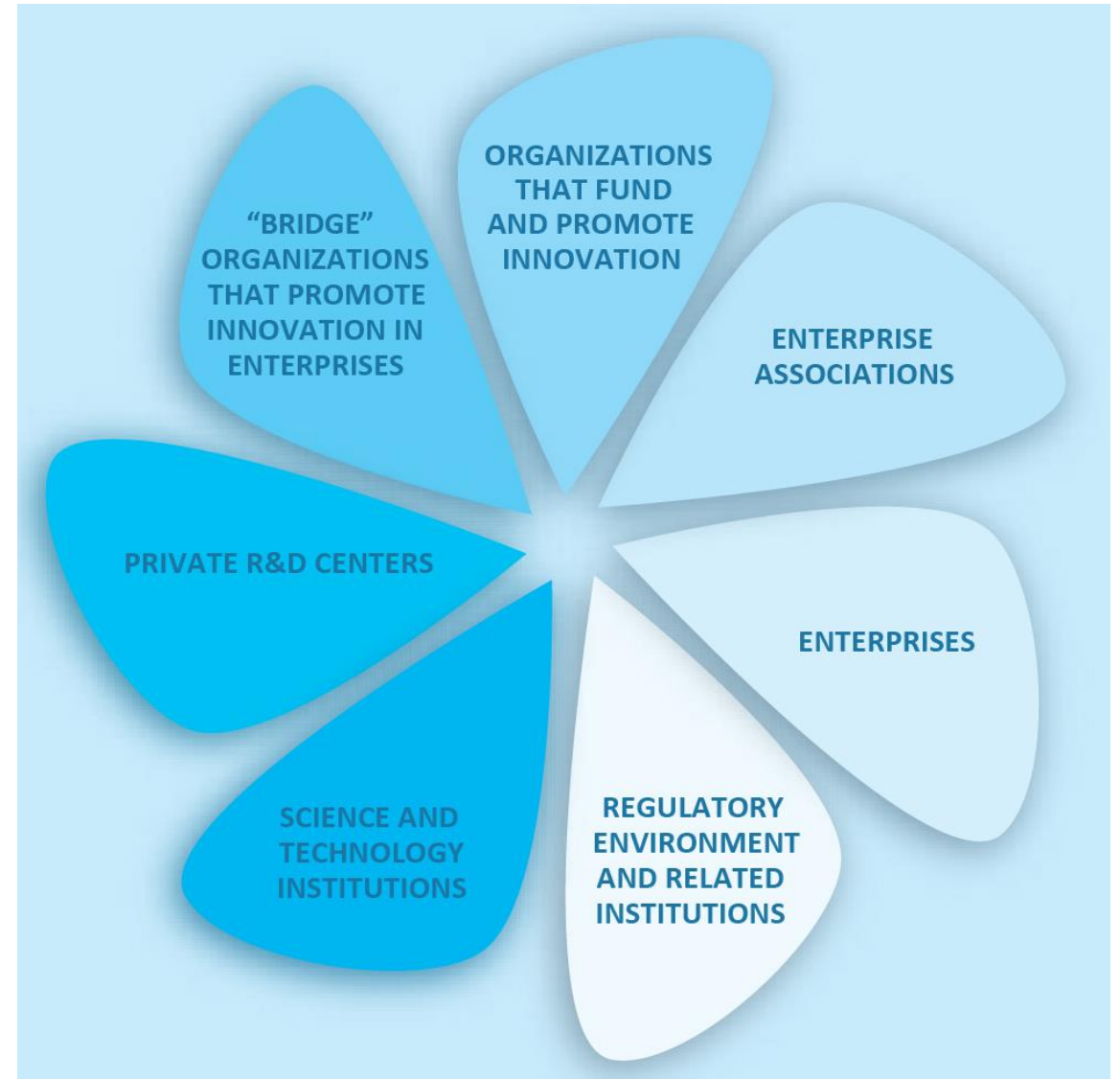


# The Six Central Axis

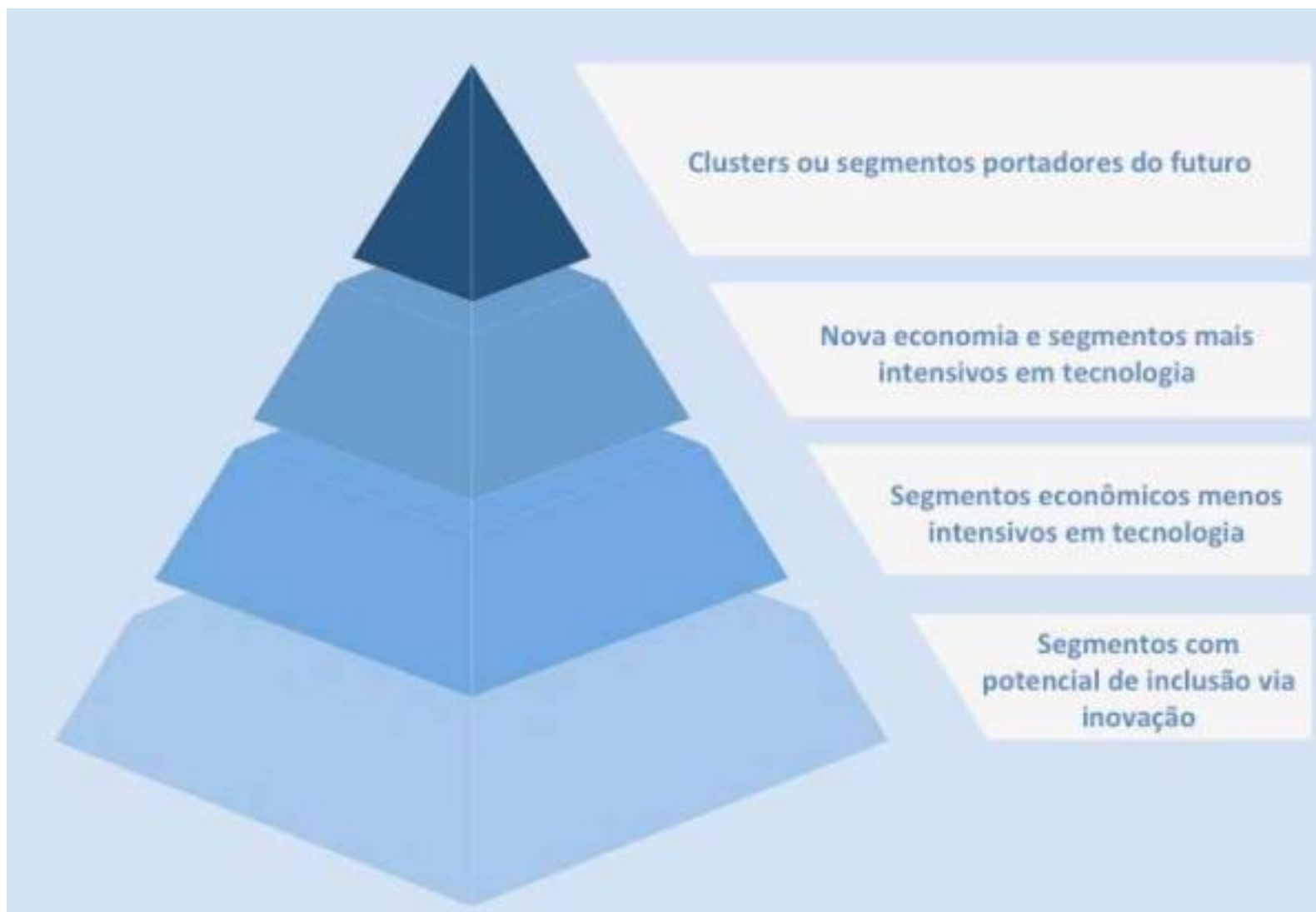


# The Pernambuco System of Innovation

- Eight private research and innovation institutions, plus several public habitats for innovation;
- Five universities and over 70 private higher education schools with nearly 400 thousand students enrolled every year;
- Over 8,3 thousand researchers, 1,3 thousand research groups and 155 graduate programs.

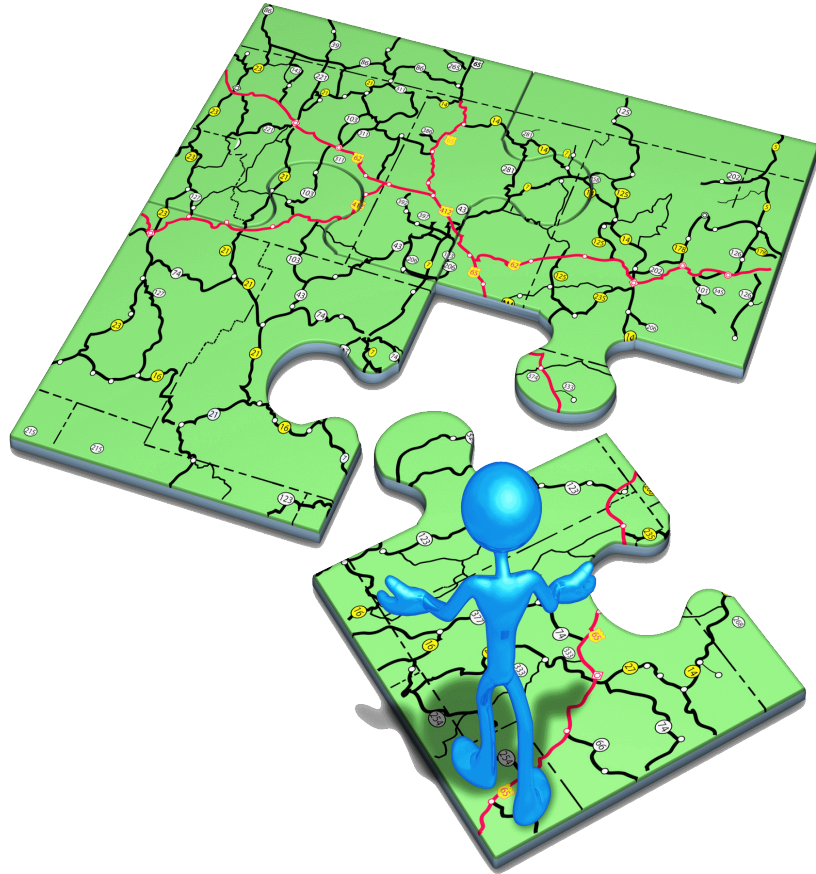


# Categories of the Economic Sectors for the Strategy



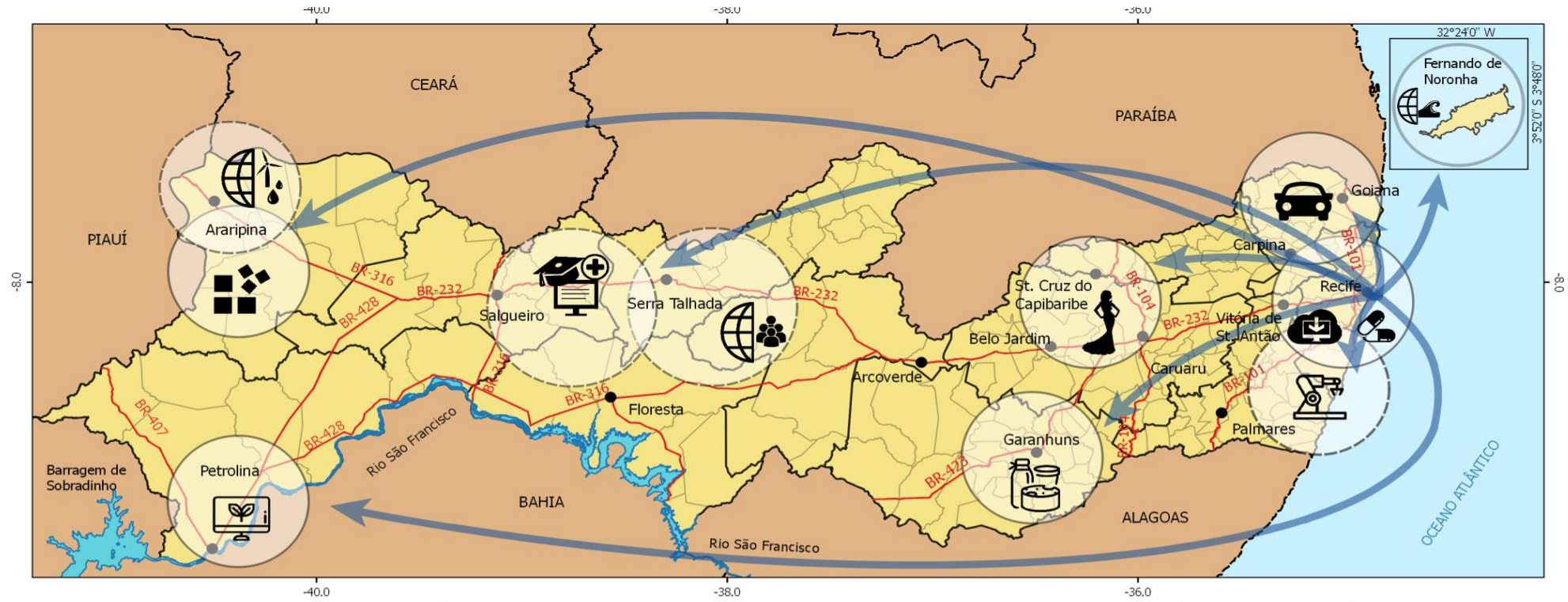


# Territorially Based Action Formats



- **Innovative Territories:** Spaces where various stakeholders meet for the promotion of knowledge and innovation within the context of specific sectors and local problems;
- **Knowledge Alliances:** Large partnerships between the stakeholders of the system in order to promote creativity, entrepreneurship and innovation;
- **Real World Labs:** Spaces for cooperation between the civil society and science and technology institutions for mutual learning regarding "real world" problems and solutions;
- **Global R&D Centers:** Environments for the articulation of local stakeholders and other national and international agents for the R&D of solutions to global challenges in segments that demand robust strategies and initiatives.

# Innovative Territories



## Localização



## Territórios Inovadores

### Centro Global de Pesquisa

- CGP do Semiárido, Terras Secas e Energias Renováveis
- CGP em Clima e Oceanos
- CGP em Inovação Inclusiva

### Demais Territórios

- Gesso
- Agricultura Inteligente

- Serviços de Educação e Saúde
- Laticínio
- Fármaco
- Confecção
- TIC

- Automotivo

- Metal-mecânico

### Fases

- Potenciais
- Em implantação

### Alianças de Conhecimento



## Convenções

- Limite municipal
- Limite de RD
- Limite estadual
- Rodovias
- Recursos hídricos
- Sede municipal



Escala numérica: 2.000.000  
Sistema Geodésico Brasileiro SIRGAS 2000.

Elaboração: Maria do Carmo Portella e Jurema Regueira; Novembro, 2016

Conteúdo: Territórios Inovadores e Alianças de Conhecimento.

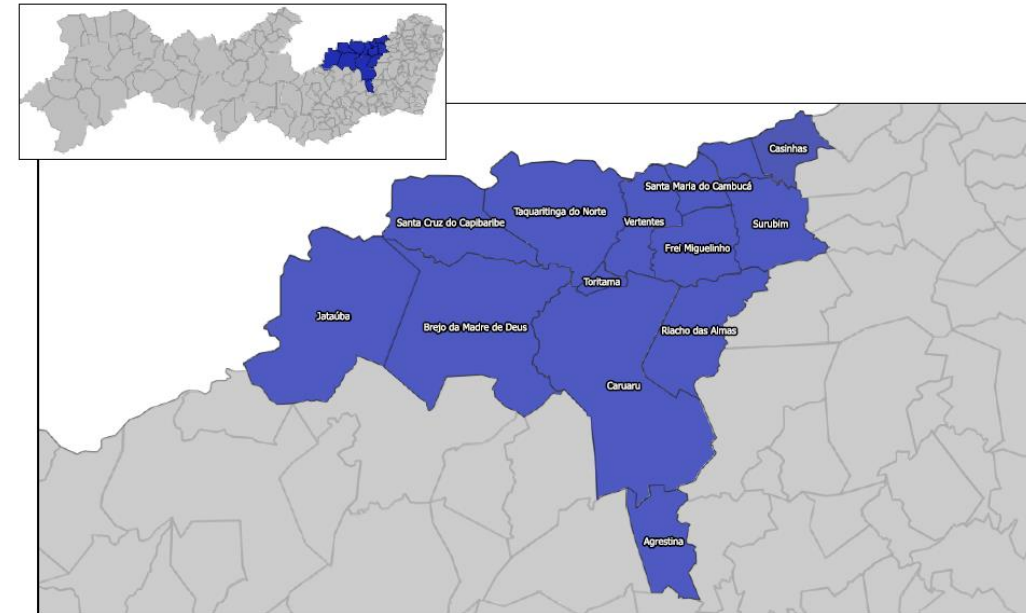


# Project RIS3-PE: Innovation Strategies for Smart Specialization in two Selected Innovative Territories in Pernambuco

- RIS3 methodology in Brazil: Pernambuco was chosen to be the pilot state;
  - Two economic sectors and territories were selected: textile/clothing and automotive/IT;
  - Aims to identify and mobilize regional resources for ST&I;
  - Will analyze the need for support in innovation within the selected sectors;
  - Smart Specialization and Entrepreneurial Discovery.
- Contributions to the RIS3 Project from the Science, Technology and Innovation Strategy for Pernambuco 2017-2022:
    - ✓ Geographic characteristics of the selected territories and policy context;
    - ✓ Pernambuco Innovation System: actors and functions;
    - ✓ The concept of innovative territories and strategic alliances for the development of Local Systems of Innovation.

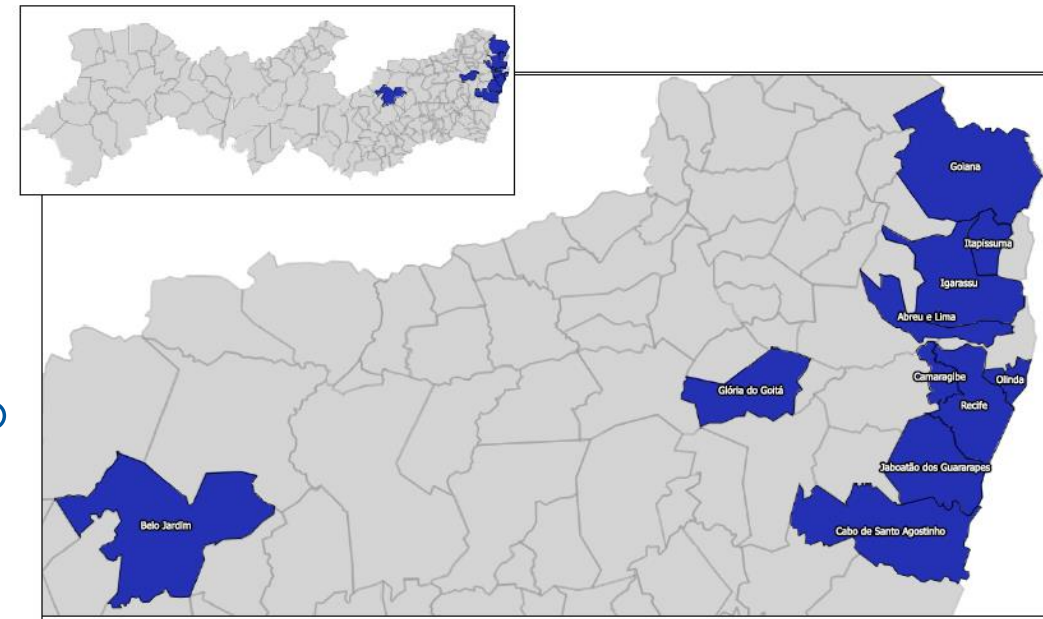
# Textile/clothing sector in Pernambuco – geographic and innovative characteristics of the territory

- 14 municipalities (150 Km from Recife);
- Population: 752 thousand;
- 80 thousand employed in this sector;
- Yearly production: 720 million pieces;
- 15 thousand companies (formal);
- High degree of informality (80%);
- Low education level of workers;
- Low technological intensity;
- Focus on local market;
- Spontaneous and dynamic development;
- ST&I Institutions: UFPE, UPE, SEBRAE, SENAI, ITEP-Technology Center and Lease of Creativity (Armazém da Criatividade).



# Automotive Sector in Pernambuco – geographic and innovative characteristics of the territory

- 11 municipalities (including state capital Recife);
- Population: 3.4 million;
- 80 companies (automaker and suppliers);
- 8,500 people employed;
- Principal company: Fiat Chrysler Automobile (FCA);
- FCA: 250 thousand cars per year, including export;
- High level of training (most local employees);
- High Technology intensity;
- Global Research and Innovation Center;
- Interaction with local universities;
- Global Market;
- ST&I Institutions: UFPE, UFRPE, UPE, Technology Parks (Porto Digital-IT, Parqtel), CESAR, SENAI.





# Project RIS3 - A Timeline

2008

Bilateral EU-Brazil  
Sector Dialogue  
Agreement

2015

- Ministry of National Integration, Ministry of Planning and Budget, CGEE and DGREGIO
- Pernambuco is selected to be a pilot for the elaboration of regional innovation strategy - RIS3 in Brazil
- Technical visits and field work in Recife and Caruaru (Brazil) and in Porto and Setubal (Portugal)
- Two industrial sites/sectors were selected for the study: textile and automotive
- Pernambuco starts to discuss with several stakeholders the basis for a state innovation plan

2016

- Preparation and arrangements of the Project RIS3 PE
- Development of an Innovation Mobilization (Caravan of Innovation) by the Secretary for ST&I of Pernambuco in 5 different cities to discuss the Strategy with local stakeholders
- Elaboration of the Science, Technology and Innovation Strategy for Pernambuco – ECT&I-PE

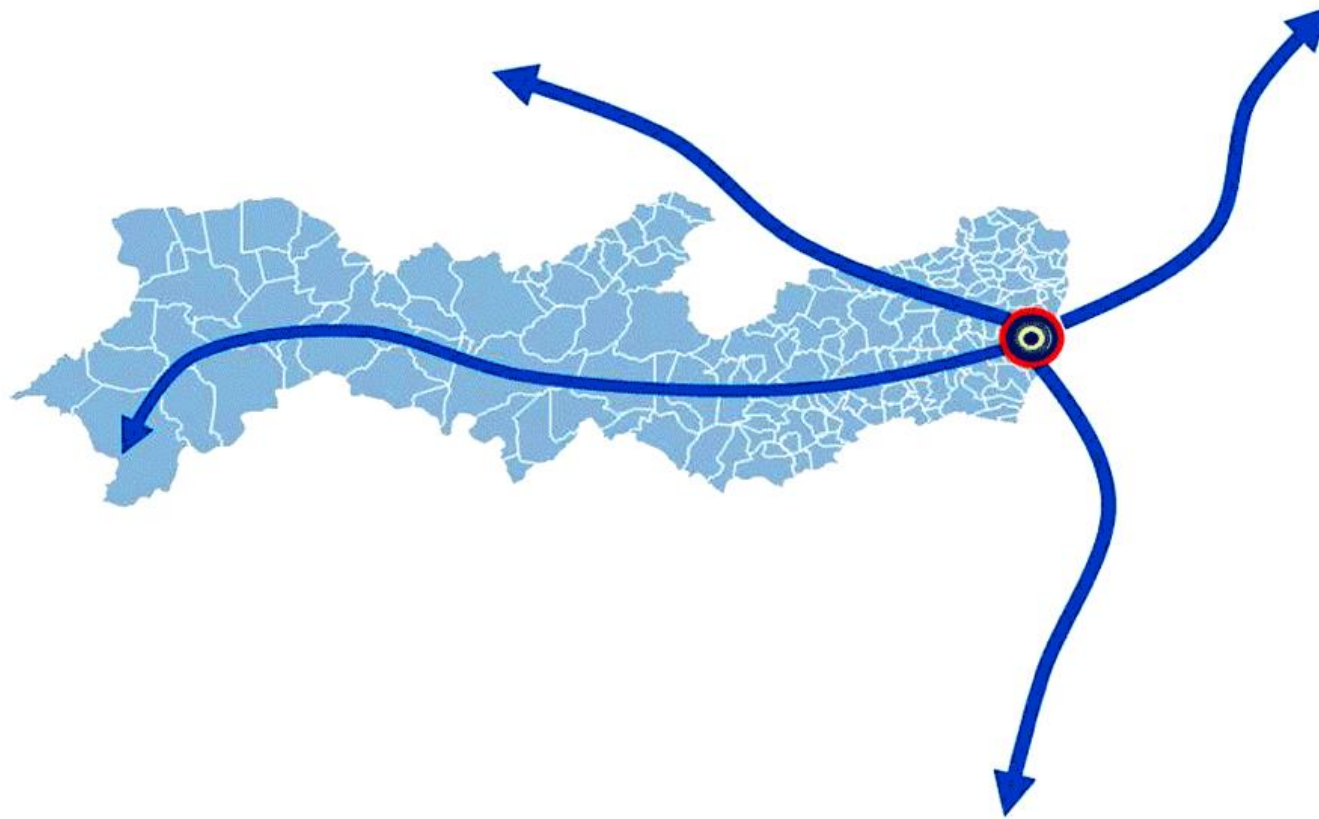
2017

- Elaboration of the RIS3-PE Phase 2: Inception Report
- Workshop in Recife with the main stakeholders, policy makers and specialists (March 20th)
- Technical visits and field work in selected territories (March 20th-24th)
- Development of the study under the coordination of the Center for Social Studies, University of Coimbra
- Implementation of the Pernambuco's ECT&I

# Business Opportunities and Positive Effects of the Cooperation within the RIS 3 Project

- Identification of convergence points for international cooperation;
- Enhancement of State's role in promoting innovation beyond governmental funding;
- Establishment of a new model of development based on innovation and on the involvement/interaction of several actors within a territory;
- Development of territorial innovation systems;
- Accelerate the economic recovery through inclusive and sustainable innovation.

# Locally Inspired, Globally Connected!



Thank you!