

Smart Specialisation across the world

The case of Latin America



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INTRODUCTION: new models for global trends

GENERAL TREND

GLOBALISATION + knowledge economy
=
importance R&D+I



The **ROLE** of
TERRITORIES and
public **POLICIES**
HAVE CHANGED

- Competitive sophistication and differentiation
- Innovation as an open process (open innovation models)
- From local to global value chains ("*glocalisation*" and complex productive systems)
- Specialised diversification as a base for future development

New **TERRITORIAL
SPECIALISATION** approaches
Focus on **VALUE ADDED** and
R&D+I
Focus on **GOVERNANCE** and
STRATEGIES

INTRODUCTION: opportunities from collaboration

Since global challenges are shared across the world, the possibility of **profiting from mutual learning and transferring** arises.

*The example of **UE-LAC interest in territorial development** approach*

LATIN AMERICA

- Interest in **Latin American** countries to overcome dependence on commodities, and need to respond to competition **from lower-wage countries = productive diversification**
- Not possible top-down; Hence interest in **decentralization** (via to create adequate environments to develop more added-value activities)
- At the same time there is the **need to remove obstacles created by national borders**. There are administrative divisions that in the 21st century hamper development and contribute to marginalization.

EUROPE (EU)

- Great interest in European experience in **regional development policies**:
 - *diversification based on innovation and competitiveness*
 - *Cross-border cooperation*
- The new **model of international diplomacy** is different from a traditional one based on development aid: Today it is **based on processes of technical collaboration** (e.g. multi-level governance systems).
- This also leads to **new processes of triangular cooperation**, to facilitate the acceleration of processes of appropriation of the **technical and methodological skills**.



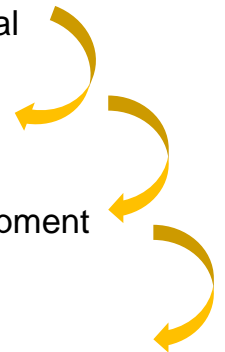
INTRODUCTION: some background on cooperation

- There are very positive experiences in many countries in different projects, some financed by UE (DEVCO), but others thanks to the support of the European Parliament.
- Priorities under this cooperation have been different on different continents, including issues of sustainability, urban development and cross-border cooperation.
- An additional issue is that of **Smart Specialisation Strategies (RIS3)**.

REGIONAL INNOVATION SMART SPECIALISATION STRATEGIES



- Rethinking exercise on how to achieve the regional advantage under an international basis.
 - More than **20 years of experience** from European **Cohesion Policy**.
 - **European leadership** in territorial development
- USA is now promoting its RIS, Australia its RIS3 (Region Capitals, Hunter Region), as is the case in some parts of East Asia. And there is **a particular demand in Latin American countries**.



SMART SPECIALISATION: concept and strategies

The path of **European learning experience** in regional strategies...

CONTEXT

1990...

Technological innovations generating **new products and processes** as well as incremental **improvements** in them.

1995...

Oslo Manual 1st & 2nd Ed.
(1992/1997)

2000...

Implementation of a **new or improved product** (products/service) or **process, marketing technique, organizational model** within the organization or regarding external relations

2005...

Oslo Manual 3rd
Ed. (2005)

2010...

THE BROAD CONCEPT OF INNOVATION, based on research and business models, design, brand image and value for end-users, taking into account the different stakeholders within the innovation cycle

2015...

2020

Europe 2020
Innovation Union (2010)

**SMART
SPECIALISATION**



CHARACTERISTICS

ORIENTATION

Building-up an innovation system: innovation tied to R&D and technology, stakeholders around the system, S&T policy definition

INSTRUMENTS

- R&D+T support
- Quality
- ICT investments
- Infrastructures
- Sensibilization

ORIENTATION

Innovation system dinamization: triple helix, cooperation networks, R&D+I policy integration, broad innovation

INSTRUMENTS

- Clusters & networks
- R&D+I collaboration
- New sectors
- Intermediate agents
- Internationalisation
- NTBF
- Transference

ORIENTATION

Sustainable knowledge society: specialised diversity, global focus, socio-environmental sustainability

INSTRUMENTS

- New sectors
- Intermediate agents
- Public procurement
- Regulation
- Key Enabling Technologies (KET)
- Social & networks
- Global alliances

SMART SPECIALISATION: concept and strategies

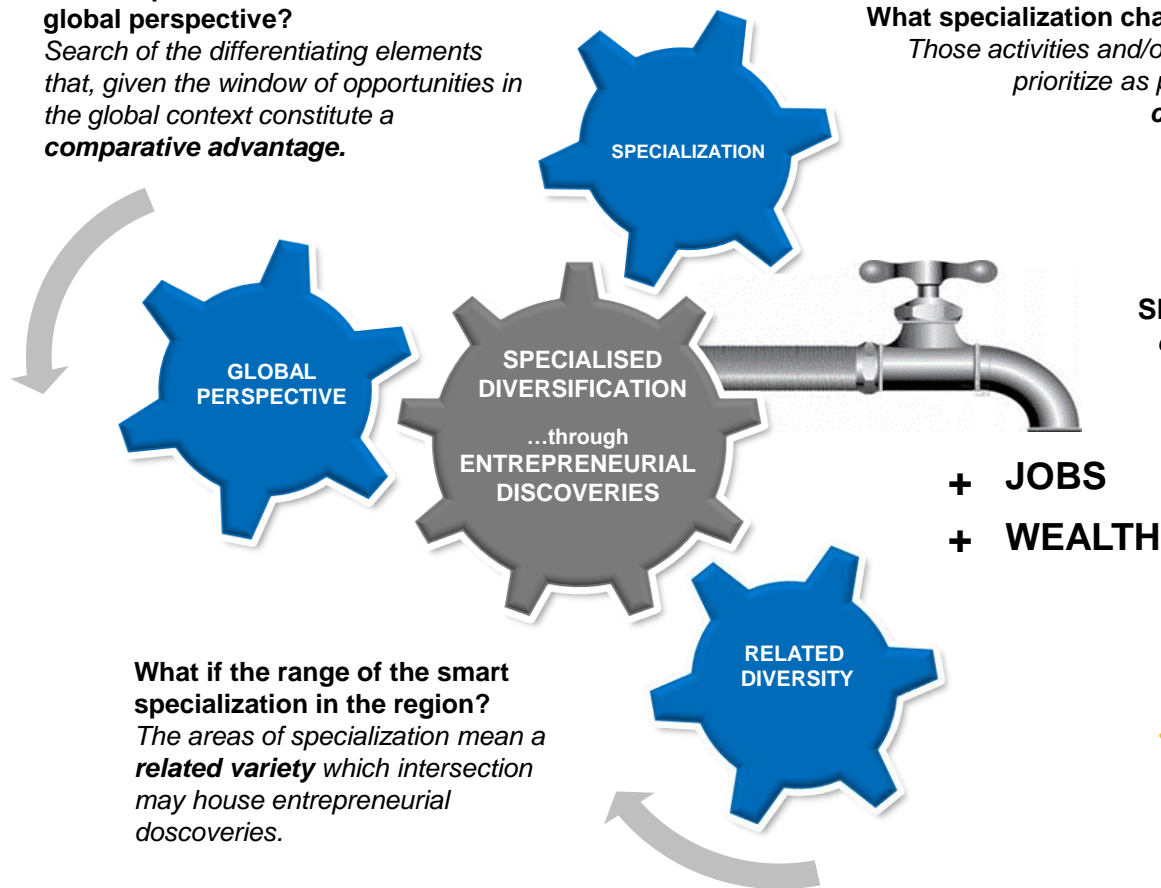
3 KEY AXIS in Territorial Smart specialisation

How is specialization inserted in a global perspective?

*Search of the differentiating elements that, given the window of opportunities in the global context constitute a **comparative advantage**.*

What specialization characterises the region?

*Those activities and/or technology domains to prioritize as part of the bet to reach a **competitive advantage**.*



SMART SPECIALIZATION as a continuous process generator of employment and wealth for the territories.

+ JOBS
+ WEALTH

What if the range of the smart specialization in the region?

*The areas of specialization mean a **related variety** which intersection may house entrepreneurial discoveries.*

SMART SPECIALISATION

The mechanism of the specialised diversification



SMART SPECIALISATION: concept and strategies

Smart Specialisation Strategies (RIS3)

STRATEGY

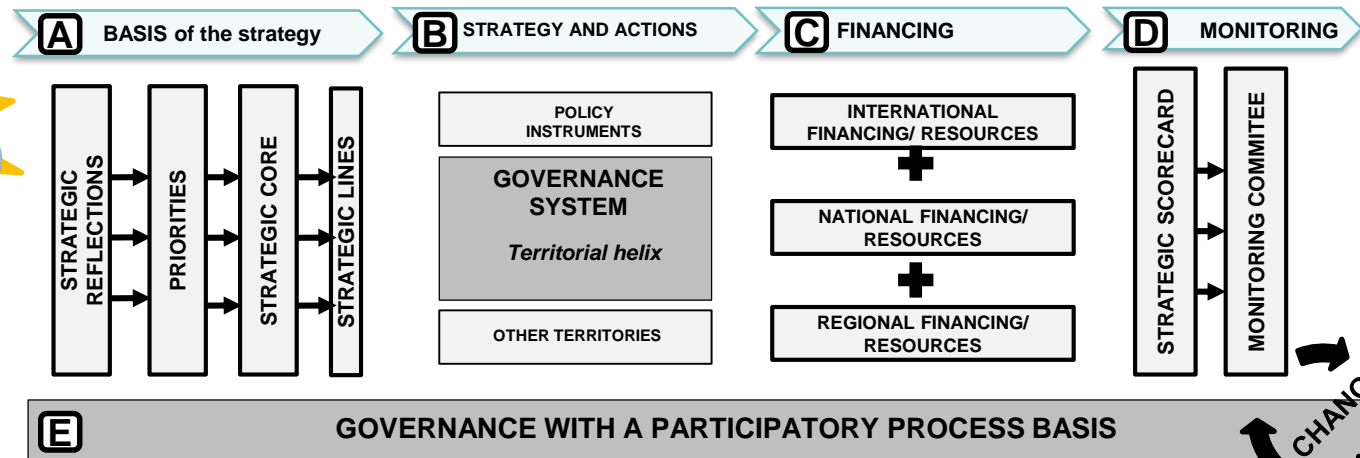
- Sound territorial competitive analysis
- Sectors and technology prioritization
- Strategic definition
- Operative definition
- Resources and commitments
- Monitoring and evaluation mechanisms
- Participatory governance setting

SUCCESS FACTORS

- Long term focus/vision
- Leadership engagement for the process
- Adequate management structure
- High level of social capital and trust
- Broad participatory processes in definition and implementation
- Open mind at all levels: absence of risk aversion

STAGES in building an STRATEGY

From reflection to action and improvement...



INTERNATIONAL COMPARISON

European and Latin American starting point

- **Interest in regional innovation and competitiveness increased** during the last decade in LAC.
- **Most of the countries has initiated a policy definition** process and decentralization (some cases).
- European Union experience in RIS attracted the interest of many LAC, but the implementation of this methodology differs across the continent.
- EU financed a number of **projects focused on technical assistance** on regional policy, strategy, governance and innovation.
- LAC and EU regions/countries differences (economic structure, technological level, institutional setting) in the framework of globalization results in **collaboration opportunities for both sides**.

RIS3 international focus approach

EUROPEAN EXPERIENCES OF INTERNATIONAL COLLABORACION ON REGIONAL POLICY

- **ARGENTINA:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/argentina/
- **CHILE:** http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/chile/
- **COLUMBIA:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/colombia/
- **MEXICO:** http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/mexico/
- **PERU:** http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/peru/
- **URBAN AMBIT:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/urbelac/
- **CROSS-BORDER AMBIT:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/eulac-cbc/
- **RIS COOPERATION:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/eulac-ris/
- **CROSS-BORDER RIS COOPERATION:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/eulac-cbris/
- **CENTRAL AMERICA:**
http://ec.europa.eu/regional_policy/en/policy/cooperation/international/latin-america/sica/

INTERNATIONAL COMPARISON: the LAC case

Existence and sophistication of RIS in different Latin-American countries...

- Prioritization effort on most competitive niches (low tech in general/ commodity export pattern)
- Focus on economic transformation (diversification)
- Search for positioning in international markets
- Lack of sound governance models
- Low levels of social capital

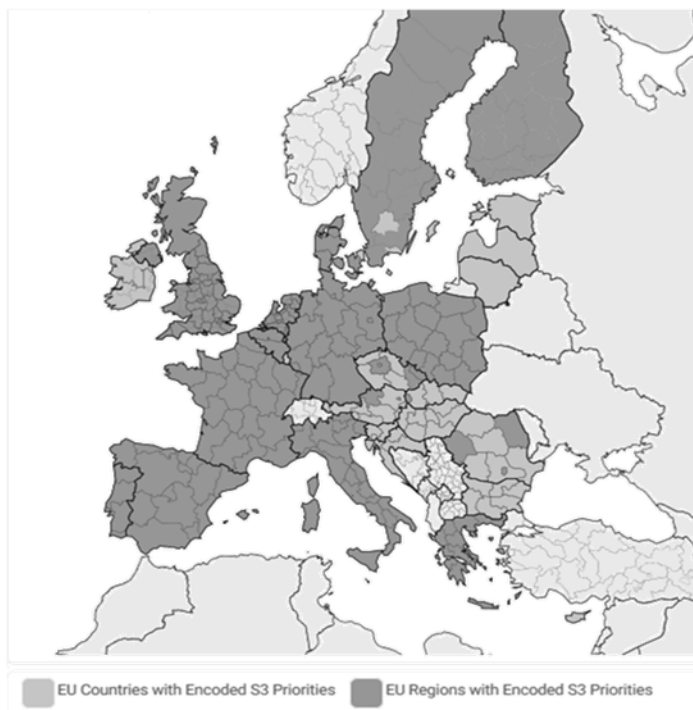


Top 20 specialisation sectors	Number of regions
Crop & animal production, hunting & related service activities	101
Power generation / renewable sources	50
Food, beverage & tobacco products	40
Tourism, restaurants & recreation	38
Fishing & aquaculture	23
Human health activities (medical service)	23
Biotechnology	20
Mining of metal ores	19
Motor vehicle & other transport equipments	19
Textiles, wearing apparel & leather & related products	17
Information service activities	16
Water collection, treatment & supply	14
Other manufacturing	13
Basic pharmaceutical products & pharmaceutical preparations	12
Forestry & logging	11
Chemicals & chemical products	10
Computer programming, consultancy & related activities	9
Machinery & equipment n.e.c.	9
Other mining and quarrying	0
Other sectors	126
TOTAL	579

INTERNATIONAL COMPARISON: the EU case

A new framework from the old RIS was defined and implemented in Europe since 2014: Smart Specialisation Strategies...

- Prioritization effort on most competitive niches (high tech)
- Search for positioning in international markets
- Focus in governance consolidation and evaluation/monitoring
- Challenges on implementation: changes in designing and delivering the policy (from financing to services).



Sector prioritized in RIS3	Number of regions
Agriculture, forestry & fishing	76
Construction	46
Creative, cultural arts & entertainment	57
Energy production & distribution	135
Human health & social work activities	158
Information & communication technologies (ICT)	107
Manufacturing & industry	488
Mining & quarrying	12
Public administration, security & defence	22
Advanced Services	72
Tourism, restaurants & recreation	79
Transporting & storage	74
Water supply, sewerage, waste management & remediation activities	37
Wholesale & retail trade	3

Source: Author based upon the data of the EYE@RIS3 tool <http://s3platform.jrc.ec.europa.eu/map>

INTERNATIONAL COMPARISON: the EU case



The overall analysis of main strategies exercises and projects in LAC resulted in the identification of **5 areas** shared by most LAC territories and **linked to Smart specialisation**

Characteristics in depressed regions of Latin America for the definition of regional innovation strategies

		STRENGTH	OPPORTUNITIES	WEAKNESSES	THREATS
RESOURCES	TECHNOLOGY	LOW	MEDIUM	MEDIUM	-
	FUNDING	-	LOW	HIGH	HIGH
	TERRITORY	HIGH	HIGH	LOW	MEDIUM
CAPACITIES	TRAINING	LOW	MEDIUM	MEDIUM	MEDIUM
	SOCIAL CAPITAL	-	MEDIUM	HIGH	HIGH
	GOVERNANCE	LOW	LOW	MEDIUM	MEDIUM

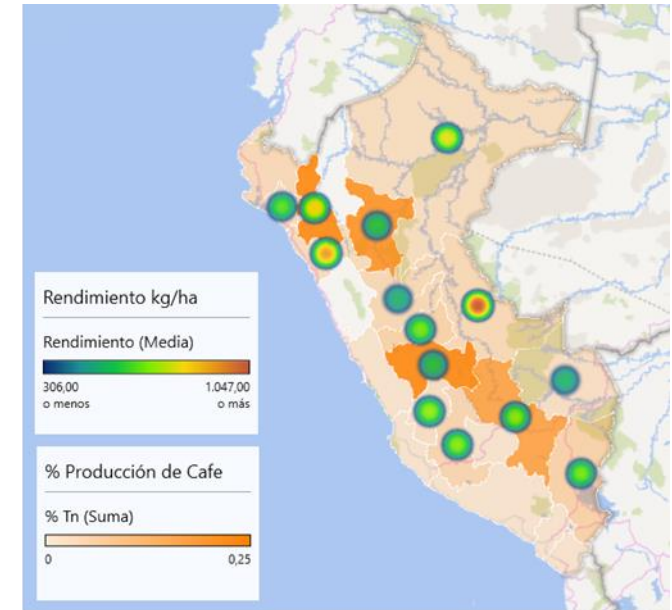
Source: Author, based upon the final Report of the CBRIS project

- An interesting concrete example has been the “**Proyecto Red**” (**Network Project**) in Chile (2010-2013). Under the RED, the EU has worked with the Chilean government and regions, to develop regional innovation policies through the use of the EU’s RIS methodology (in practice RIS3).
- Regarding the RED, the results have helped in the **improvement in the definition of regional public policies** to support innovation, particularly in the use of the regional part of the Fund for Innovation and Competitiveness (FIC-R).
- In this legislature the Government of Chile in its Agenda for Productivity, Innovation and Growth has launched various **Strategic Programmes for Productive Development based on the principle of Smart Specialization**, with national or regional dimension.
- They have been supported by the skills and orientations generated in the regions by the RIS, which continue to influence public spending priorities in different regions.



SOME CASE EXAMPLES: Peruvian case

- Peru is embarked on its own policy with the National Productive Diversification Plan, which among other objectives intends to "**reduce regional productivity gaps**".
- In that country, the EU (REGIO) has supported in different regions the definition of regional policies and programmes to support innovation.
- In the Peruvian regions of Cusco and Puno EU support helped to define the needs in promoting **competitiveness global markets and exploiting value chains in camelids (alpaca) and coffee**, including prospects for future cross-border cooperation with Bolivia.
- The recommendations are being carried out in other project funded by the CAN (Comunidad Andina) INPANDES.



- The Amazon triangle between **Colombia, Peru and Brazil** is distant from major markets with many logistics problems, energy supply and telecommunications. It is also an area where illegal production and environmental exploitation represent a challenge, requiring solutions involving of economic development and new sources of employment.
- In this case, the EU (REGIO) project helped to identify aquaculture as sector with development possibilities, and at the same time compatible with environmental sustainability in an area that is critical to the conservation of the planet.



Paiche
[Arapaima
Gigas]



Paco-
[Piaractus
brachypomus]



Gamitana
[**Colossoma**
macropomum]



Tilapia
[Oreochromis]

SMART SPECIALISATION as a shared input for the triple frontier

General competitive gaps in Latin America, elements of smart specialisation and possible instruments

COMPETITIVE GAPS	SMART SPECIALISATION (degree of relevance for the element)			Some possible MECHANISMS
	SPECIALISATION	DIVERSIFICATION	GLOBAL FOCUS	
LACK OF CONNECTION between knowledge generators and training providers and the private sector	HIGH	MEDIUM	LOW	<ul style="list-style-type: none"> Technology transfer Mobility of staff/researchers Technological entrepreneurship
WEAKENING OF COOPERATIVE STRUCTURES due to inefficient management	HIGH	HIGH	MEDIUM	<ul style="list-style-type: none"> Training and capacity-building activities Development of cluster structures Internships and exchange of experiences
BOTTLENECKS between different segments of the value chain	VERY HIGH	LOW	HIGH	<ul style="list-style-type: none"> Collaborative round tables Development of cluster structures
Very low level of MODERNIZATION with an impact on productivity	HIGH	LOW	HIGH	<ul style="list-style-type: none"> Technology transfer Technical training activities Specialist technical assistance
LOW LEVEL OF TRAINING AND CAPACITY-BUILDING of technicians and managers in production plants	HIGH	MEDIUM	LOW	<ul style="list-style-type: none"> Training activities (in general) Mobility of researchers Technical assistance
Lack of an ENTREPRENEURIAL AND INNOVATIVE CULTURE and interest in differentiation and added value	MEDIUM	HIGH	MEDIUM	<ul style="list-style-type: none"> Awareness actions Training activities in management and innovation
Little or no INFORMATION AND TRANSPARENCY in the system	MEDIUM	HIGH	LOW	<ul style="list-style-type: none"> Studies (technological, economic, market, etc.). Communication activities
Limited LEADERSHIP (political and business) to transform the system	MEDIUM	MEDIUM	HIGH	<ul style="list-style-type: none"> Joint round tables Capacity-building activities in management
Critical situation (poverty and development) of PRODUCERS	HIGH	MEDIUM	LOW	<ul style="list-style-type: none"> Marketing platforms Cooperatives of producers

Source: generalisation based upon the final report of the EU-PERU "Cooperation on Regional Innovation Systems in the framework of Regional Policy" project.

The EU (REGIO) projects have had considerable added value in Latin America.

1

A key contribution of the European experience has been first to convey the idea that **REGIONAL DEVELOPMENT** is only possible through **STRATEGIC THINKING** on a long-term approach and **ADDRESSING SYSTEMICALLY THE DIFFERENT CHALLENGES** to regional competitiveness.

2

It has contributed to developing **SOCIAL CAPITAL** in areas that have carried out EU supported projects. So that once the project is finished **THE ACTORS** who were mobilized, **CONTINUE TO SEEK WAYS THAT ALLOW THEM TO FURTHER DEVELOP** the approaches previously defined.

3

The projects have promoted, with involvement of the regional firms, concrete alliances with European regions, and with European institutions and enterprises, **creating NEW COMMERCIAL-TECHNOLOGICAL OPPORTUNITIES on each side**



4

Another lesson is the **IMPORTANCE OF COORDINATION AND INTER-INSTITUTIONAL COOPERATION**, mobilizing REGIO alongside the external relations services of the EU, with the support of the European Parliament, in order to deliver more effective international diplomacy in regional and urban development policy.



The Next Possibilities in the Future

- Renewal of existing instruments and implementation of a new one:
 - *European Parliament Preparatory Actions*
 - *Partnership Instrument (FPI/EEAS)*
- Increase the scale and the scope of the technical cooperation across the world (commercialization, technology, global value chains, etc.).
- Internationalization the scope of come instruments such as S3 Platform
- Coordination of the different efforts in international cooperation within the EU Commission



EU world leadership in territorial Smart specialisation approach