

## Transformation, Innovation and Adaptation for Sustainability in Tourism – Case Study: Turinn Cluster

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*Abstract:* - The present stage of evolution of the human society is characterized by an unprecedented development of tourism, materialized in the inclusion of new and new regions in its range of capitalization. Therefore, not without reason, some researchers consider tourism as the most dynamic world industry of the 21-st century, which we have just entered only a decade ago. The first condition to develop leisure activities is the existence of attractive resources, the “raw material” which, by means of adequate planning, may become a proper supply. Apart from the attractions, an importance that should not be neglected is held by the position of the country compared to the general orientation of international tourism flows, the size of the domestic tourism market, the stage of economic and social development, the specialized infrastructure, the tradition of tourism activities, implementation of cluster policy, etc. The objective of this paper is to argue the importance of innovative clusters for the regional development having as example Romania. Many empirical studies emphasize a positive relationship between the cluster-like organization and the development extent at local or national level. The current article comprises a synthesis of these studies. On these grounds the formal clusters from Romania are analyzed in terms of their capacity to catalyze the regional development.

The main conclusion of the work is that the Romanian economy does not have the experience of cooperation within a micro-economic network. The innovative clusters are very young and they have not demonstrated their growth potential.

Sustainable development is a global and long-term challenge. **Sustainability** for tourism as for other industries has three independent aspects: economic, socio-cultural and environmental. Sustainable development implies permanence, which means that sustainable tourism requires the optimal use of resources (including biological diversity), minimizing the negative economic, socio-cultural and ecological impact, maximizing benefits of local communities, national economies and conservation of nature. As a consequence, sustainability also refers to the management structures needed to meet these goals.

**The goal of achieving sustainable tourism** should be subordinated to national and regional plans of economic and social development. Actions may cover for economic goals (income growth, diversification and integration of activities, control, development potentiating and zoning), social goals (poverty and income distribution inequality improvement, indigenous socio-cultural heritage protection, participation and involvement of local communities) or environmental goals (protection of tourism functions, conservation and sustainable use of biodiversity). Some experts prefer to speak about sustainable tourism development rather than sustainable tourism, the first referring to all aspects of development, and the second to some aspects and components of tourism – such as long distance air transport that may easily not be sustainable under current technologies, even using the best practices. With respecting and promoting the principles of sustainable development, tourism is a means of protection, conservation and capitalization of the cultural, historical, architectural and folklore potential of countries.

**Motto:** “Drawing cluster boundaries is often a matter of degree, and involves a creative process informed by understanding the most important linkages and complementarities across industries and institutions to competition”. (Porter, M. E. (1998) Clusters and the new economics of competitiveness. Harvard Business)

**Key-Words:** - innovative cluster sustainable tourism, cluster theory, cluster benefits, *institutional* cluster, regional development, economic growth.

## 1 Introduction

Among the global competition for markets, the chances of the economic success of one country or one region are based on the specialisation of the offer and the focus on the development effort of key-fields, where there are competitive advantages, resources and competences. In this context, the innovative clusters in tourism are a successful solution because they offer a combination of entrepreneurial dynamism, intense connections between companies and institutions, which hold top knowledge, respectively pro-active synergies between the main actors of innovation (Fallon, P. and Schofield, P. (2009) and Mazilu, M., 2010) At the level of the European Union, *the innovative clusters* are considered the “engine” of the economic development and innovation, these representing a very good frame for the development of business, for the collaboration between companies, universities, research institutions, suppliers, clients and competitors located in the same geographical area (local, regional, national, cross-national). In recent years there has been a growing interest in the role of location in the global economy. Some have argued that globalization is rendering the significance of location for economic activity increasingly irrelevant (O'Brien, 1992; Cairncross, 1997; Gray, 1998). Others, however, espouse the opposite view, that globalization is actually increasing rather than reducing the importance of location, that it is promoting greater regional economic distinctiveness, and that regional economies rather than national economies are now the salient foci of wealth creation and world trade (Ohmae, 1995; Coyle, 1997, 2001; Krugman, 1997; Storper, 1997; Porter, 1998a; Scott, 1998, 2001; Fujita et al., 2000, Ron Martin & Peter Sunley, 2003, Mazilu, M., 2011). The innovative clusters in tourism, must not act only regionally, (eg. Turinn- Cluster, in Mehedinti County) but they must look for excellence where it is possible, and on an international level there are few that work alone. The public institutions must be opened to the granting of the necessary support for the innovative clusters.

## 2 Problem Formulation

Based on GD no. 720/2010, the Ministry of Economy, Trade and Business Environment is responsible for organizing and monitoring the development and implementation of

Romania's industrial policy. In accordance with the commitments made by Romania within the EU Accession Treaty and to ensure similarity with other European Union Member States, the National Reform Programme for 2011-2013 – Industrial Policy Section (approved by the Romanian Government in April 2011) – and the Industrial Policy Document stipulate *the importance of clusters' policy and competitiveness poles* for economic recovery and increase of regional and national competitiveness.

At EU level, **innovative clusters** are considered the “engine” of economic development and innovation, representing a proper framework for business development. (COM 614/27.10.2010 «An Integrated Industrial Policy in the Era of Globalisation» and COM 546/6.10.2010 «An Innovation Union», two emblematic initiatives of EUROPE 2020 Strategy). With increased globalization and competitiveness on national, European and international markets, membership to an innovative cluster becomes a real advantage for SMEs, due to both quick and easy access to research results in order to implement them in production and development of innovative products using advanced technologies and joint development strategies. Since 2009, within the Romanian-German bilateral cooperation, GTZ (German Technical Cooperation Society) has assisted the Department of Industrial Policies of the Ministry of Economy, Trade and Business Environment for benchmarking analysis on the cluster policy and development of the study “Romanian Cluster Mapping” (Fig. 1), the concept approach being “bottom up” from the level of the 8 development regions of Romania.

However, within the project INOVCluster, developed by a consortium of companies in the Sectoral Plan of Industry Research, the Guide for the implementation in Romania of the innovative cluster concept was developed, which offers a methodological and pragmatic basis for those who want to implement the new innovative concepts of cluster and

competitiveness pole. The guide was disseminated to all stakeholders in seminars regionally and nationally.

Implementing the concept of cluster and regional competitiveness pole started from the economic theory of Michael Porter, namely “*a cluster is an economic concentration of enterprises, especially SMEs, in a given geographical area, interconnected, with own research nuclei (centres), training centres, specialized suppliers, in a certain field that competes but also cooperates*”, and a competitiveness pole is an innovative regional cluster, regionally or nationally oriented, or a network of clusters. Romania’s economic reality required the presence of catalyst institutions (entities specializing in technological transfer and innovation, consulting firms, chambers of commerce, etc.) in the “Four-leaf clover” Model (Fig. 1).



**Fig 1. The Romanian cluster model: the four-leaf clover.**

**Clusters and competitiveness poles in Romania** do not have legal entity, they are built upon a Collaboration Protocol signed and stamped by all members, but the Associative Structure Management Association has legal entity. In Romania were created, naturally, about regional **27 innovative clusters and competitiveness poles** in different economic sectors: automotive, ICT, creative industries, renewable energy, aviation, maritime and river, agrifood, tourism and 49 industrial parks with about 760 companies from different business sectors.

On July 1, 2011, the **National Cluster Association (ROCA)** was established and the Ministry of Economy, Trade and Business Environment joined the **ECA – the European Cluster Alliance**.

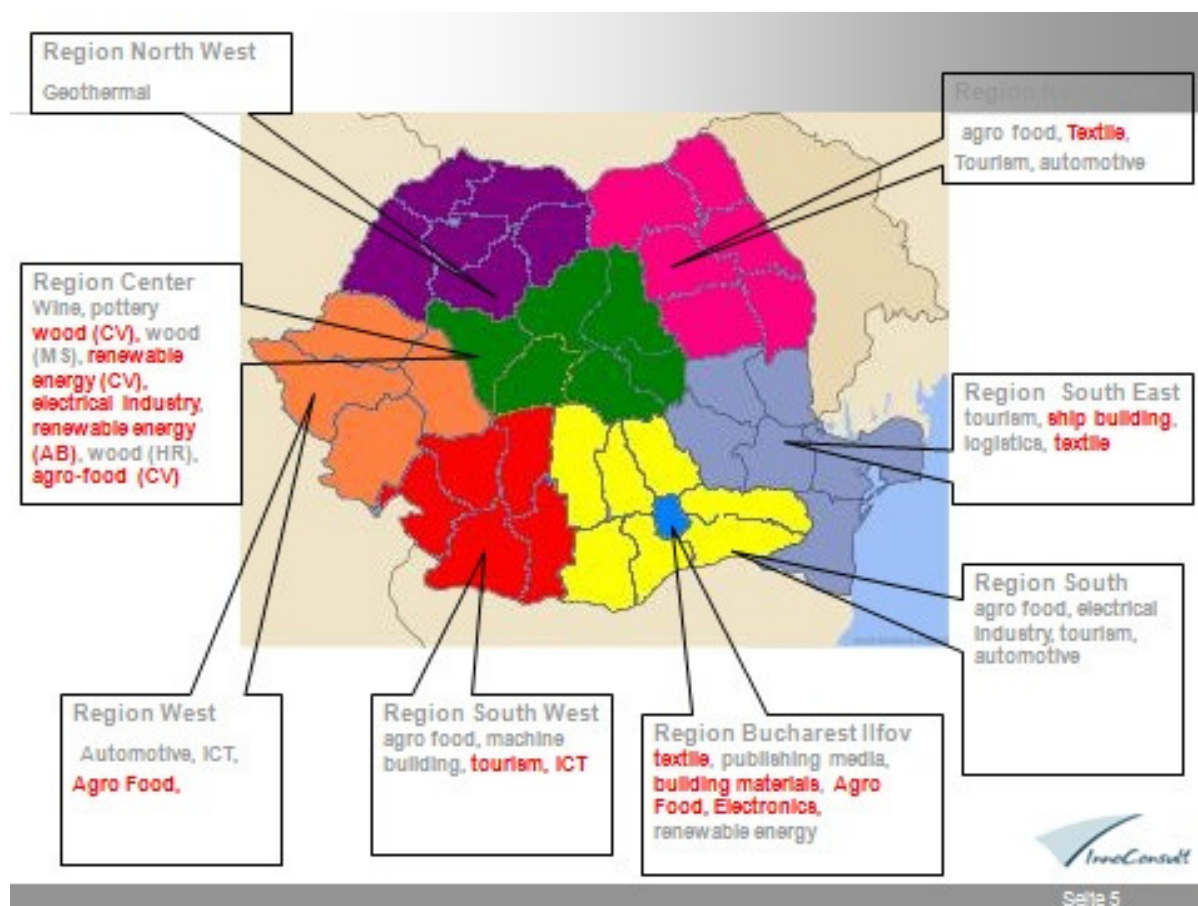
Currently, funding innovative clusters in Romania is ensured only by private funds, and in first quarter of 2012 European funds under SOP IEC «Increase of Economic Competitiveness» will also be accessible by both competitiveness poles and to attract SMEs in chains of providers and clusters.

The Ministry of Economy, Trade and Business Environment supports the strengthening of competitiveness of innovative clusters under the new project of the Sectoral Research Plan for the Industry and their Participation in regional programs (South Eastern Europe, Black Sea, Danube strategy, etc.) or economic missions in EU Member States in order to perform an experience exchange and best practices. In January 30 to 31, 2012, in Brasov, under the best practices exchange with EU Member States, the Conference of Clusters in Romania was held, where experts from Spain presented specific ways of accessing structural funds for projects of innovative clusters. TURINN cluster is a **tourist cluster**, designed as a geographic concentration of companies and institutions interconnected through tourism activities. This includes suppliers, services, governments, institutions, universities and competitors (Capone, 2004). Beni (2003), who defines the tourist cluster as a set of tourist attractions, less differentiated, concentrated in a geographical area which offers quality facilities and services, political and social cohesion through effective collective coordination and adoption of the excellent management of a network of companies that generate comparative and competitive advantages. For Novell et al. (2006)<sup>1</sup>, the objective of a tourism cluster is to mobilize companies which generally work alone to create, recov and successfully promote tourism in a region.

### 2.1. Prerequisites of development of innovative clusters in tourism involve:

- The existence of competitive enterprises;
- The favourable geographical location, natural potential, cultural traditions, food, sincere hospitality;
- Key partners are concentrated in the vicinity;
- The existence of formal and informal links between cluster partners

<sup>1</sup> Novell, M., Schmitz, B., Spencer, T., „Networks, Clusters and Innovation in Tourism: the UK Experience”, *Tourism Management*, Vol. 27, 2006, pp. 1141-1152



**Fig. 2. Romanian Cluster Mapping**

A cluster in tourism is associated with tourist product and a tourist destination. Costa (2005) and Mazilu (2012) add that cluster development in tourism should include the following components:

- ✓ *static elements* represented by accommodation and catering services;
- ✓ *mobile elements* given by passenger transport services, those of tourism agencies and tour operators, rent a car services;
- ✓ *dynamic elements*, i.e. recreational, cultural and sports services being primarily responsible for increased consumption by increasing spending by visitors.

According to Ferreira (2003), the tourism cluster includes, in addition to specific activities of the tourism and accommodation sector, catering, transportation, entertainment and various attractions, operators and tourism agencies, guides, crafts, car rentals, and support activities, such as organizational support services, transport infrastructure, education and training, consultancy and other business services. It requires the participation of other actors than those specific to develop a tourism cluster (Brown, Geddes, 2007). According to these authors, the government should encourage programs to attract private investment,

to finance investments in infrastructure and to promote tourism in the region, because only such a cluster can grow and can ensure the competitiveness of a tourist destination.

## 2.2. The functionality of clusters in tourism. Clusters in tourism, and not only them, can work in many forms:

- ❖ *Geographical*: spatial initiating of clustered economic activities from the local level (e.g., clusters in health, mountain or coastal tourism) and ending in the global level (e.g., space tourism cluster);
- ❖ *Horizontal*: some industries / sectors can enter (they are subnets) within larger clusters (e.g., tour operators or hoteliers system);
- ❖ *Vertical*: in clusters there can be actual shared / interconnected stages of the production process. In this case, it is important to know which of the network participants is the initiator and which is the final executor of innovation within the cluster;
- ❖ *Lateral*: within the cluster different sectors join (merge), which are able to ensure global impact on the economy, resulting in new inner combinations (e.g., the conglomerate type cluster);
- ❖ *Technological*: the compatibility of branches using one and the same technology (e.g., tourist reservation system cluster);



❖ *Focus*: cluster of companies, concentrated around a centre-enterprise, technological centre or educational institution;

❖ *Qualitative*: essential in this case is not the reality of cooperation between companies, but how they cooperate. The network does not always automatically stimulate innovation. Conversely, it happens as with networks, that innovation processes are blocked in exchange for raising, increasing protection measures (technological, commercial secret, etc.).

Mutual relationships with suppliers can stimulate innovation processes, but they also can be used, transposing onto them the partners' expenses and thus being in financial constraints.

For a potential sustainable development of tourism clusters, some specific statistical criteria should be considered such as:

- Sectoral turnover in the region compared to the sectoral turnover at regional / national level;
- The rate of employment in the sector from the area given;
- Higher than average growth in the sector (annual data, sectoral comparison);
- Identification with a larger number of newly established SMEs in the area / tourism sector;
- Concentration of a large group of bodies/institutions with competence in economic infrastructure development and/or providing services/training to local companies operating in the area.

commercialization of new processes, new products and new organizational structures and procedures<sup>2</sup>.

A broad definition, like the one above, is useful when applied to the field of tourism. Hjalager describes an appropriate sub-division of innovations into five categories - product, process, management, logistics and institutional innovations, described in the following section<sup>3</sup>:

• **Tourist product innovations**

This category consists of changed or new tourist products or services, developed for the commercialization stage.

Their novelty should be evident to producers, suppliers, consumers or competitors. Loyalty programs, events based on local traditions and environmentally sustainable accommodation facilities are examples of production innovations of recent years

• **Promotion innovations**

These innovations involve a way of raising the performance of existing operations with new or improved technology or by redesigns of the entire production line. These kind of innovations can be combined with or result in product innovations (e.g., robots for cleaning and maintenance of green hotels, self-service devices and computerized management and monitoring systems make up good examples).

• **Human resources management innovations**

New job profiles, collaborative structures and authority systems among others belong to this category, often in combination with the introduction of new tourist products, training,

Productivity growth of companies located in a certain area:	Delimitation of the direction and pace of innovation	Fostering the creation of new business:
<ul style="list-style-type: none"> <li>• facilitating access to new suppliers and specialized workforce.</li> <li>• access to specialized information.</li> <li>• complementarities</li> <li>• links with institutions</li> <li>• motivation in sustainable growth and more effective monitoring of the environmental effects of tourism</li> </ul>	<ul style="list-style-type: none"> <li>• identification of specific needs unmet or poorly met</li> <li>• correcting feedback to close loop links with institutions</li> <li>• protection of intellectual property as a fundamental component of the business strategy of the innovative cluster</li> </ul>	<ul style="list-style-type: none"> <li>• real time knowledge and predicting market trends</li> <li>• preservation of relationships with various institutions in the cluster</li> <li>• rapid response and flexibility in the tourist market.</li> </ul>

**Fig. 3. The innovative element in the innovative tourism cluster**

**2.3. Innovation in tourism**

One way to define, in general, the term innovation is: “Innovation is the search and discovery, development, improvement, adoption and

<sup>2</sup> Regulatory reforms and innovations”, OECD Report, p. 17.

<sup>3</sup> All information concerning the sub-division of innovations is based upon Hjalager, A-M. “Repairing innovation defectiveness in tourism”, Tourism Management, 23, 2002, p.465f

improvement and specialisation services, etc. These can for instance lead to staff empowerment through job enrichment, training and decentralization.

- **Logistics innovations**

Materials, transactions, information and customers constitute examples of the flows handled in tourism. Recent innovations in this field are Internet marketing, enhancement of airport hub systems and integrated destination information systems.

- **Institutional innovations**

This category deals with collaborative and regulatory structures in communities. Institutional innovations go beyond the individual firm. They transect public and private sectors and form new rules and regulations. Reforms of the financial incentives that restructure social or health tourism concepts, the setting up or change of credit institutions and changes in the conditions for obtaining finance are such examples affecting tourism

The global competition requires a constantly innovated and improved productivity level, including the efficiency of the workforce. Managers and public officials need to learn new skills to attract visitors to the region or country and the workforce needs to develop specialist skills in areas such as mountain trekking and ski lift maintenance. Nevertheless, a lot could be gained from applying a cluster approach in trying to understand geographically limited concentrations of tourism actors and the linkages and alliances involving related operators and industries. The cluster approach may be one tool available in fostering economic growth, by promoting potential and established tourism clusters.

Cluster development is not automatic, although clusters often arise spontaneously. Supporting structures and efforts to promote clusters may constitute the difference between success and failure. Therefore a lot can be learned from the development of clusters around the world and attempts to support them. One simply has to be cautious about copying the concept and believing that it will be applicable anywhere.

In particular when focusing on tourism clusters, which to a large extent is a neglected area of research as well as of practical implementation, it is important to look beyond national borders to learn more. The following section will give a brief overview of tourism clusters in three areas of the world, discussing how they developed, what role they play as well as what can be learned from their experiences.

The identification methodology used to select a tourist area relevant to creating a cluster, as with the TURINN cluster was based on three main components:

- **physical proximity** (geographical concentration);

- **SMEs dominance** – high concentration of small companies (the number of SMEs is greater than the number of large companies);

- **intercompany networks** in some of the interconnected industries.

**Within the TURINN “cluster” (CLUSTER FOR SUSTAINABLE AND INNOVATIVE TOURISM (TURINN) Founded in 2011, founding member of the Romanian Association of Clusters (ROCA):** <http://clustero.eu/ro/turinn-cluster>), grouped companies have identical or interrelated business areas, but even if their fields are different, the common element is that in a region a particular type of industry or economic activity becomes dominant and highly effective. Although between companies there are competitive relationships and they are specialized on types, varieties of similar products, there is cooperation between them, associating themselves in areas that provide an increase in competitiveness, thus creating the optimum competition – cooperation ratio, called “cooperative competition”.

The interest or lack of interest shown by public authorities towards sustainable economic growth can be highlighted to some extent by the tourism policy and its effects on the short-term (contribution to the economic development of the country or region) or long-term – economic strength when confronted with an economic crisis, increased competitiveness in the global market and improvement of a country’s image in the international community.

### 3 Problem Solution

While few would deny the benefits of an innovation-based economy, it is possible to implement a “clusters’ policy” to be seen as very ambitious for a country that still needs to add the missing pieces to complete the image of a functioning market economy. Policy makers and economic analysts most often fall prey to the vagaries of international politics, importing, wrongly, success stories from abroad, incompatible with the realities of the domestic market.

**Romania intends to involve in the modern housing the following economic activities/clusters:**

- Woodworking and furniture production

- Ecologic building materials (green house) and constructions
- Modern technologies for renewable energies
- Household appliances
- Cultural and historical restoration (tourism)
- Some expectations of our clusters to be provided within partnership events:
  - Development of joint initiatives on the global market
  - A regional sectorial cluster network integrating companies, R&D entities and local administration
  - Business opportunities and exchange of best practices
  - Jointly development of practical tools and solutions related to cluster strategy
  - Jointly access to EU innovation programs
  - Links between ADC project and Danube Strategy project
  - Definition of “cluster manager” profile and development of transnational cluster strategy etc

Specifically, the innovative element "should be in high demand" in the contemporary landscape of Romania, especially in creative fields par excellence, as is tourism. Imperatively, it is necessary to:

- better use European instruments for R & D cluster projects – recommendation: it is proposed that 30% of structural funds are used for R & D projects
  - specific call for proposals from the R & D projects from clusters
  - increase European networks: thematic tools for creating networks
  - integrate the complexity of European and national forms of financing (companies, research centres and universities);
  - increase mutual interest on a territorial and sectoral basis
  - new and continuing professionalization.

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#### 4 Conclusion

A program to develop a regional *cluster* can take about five years, and 6 to 10 years more until the *cluster* can reach maturity, and its overall impact on economy will be felt in the next 10 to 20 years. In other words, an interventionist industrial policy of such an extent will operate with tools that work more slowly, requiring many processes of learning and cumulative effects and, as such, will produce tangible results in a broad horizon of time.<sup>4</sup>

Therefore, it requires, in addition to everything mentioned above, tenacity and patience. Potential results are extremely promising and can reward in full the effort of businesses, government and the many support institutions involved, by the contribution they can make to ensure a vigorous and sustainable economic growth.

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