Interoperability of the V4+ e-Tourism Systems being a way to the Economic and Human Development.

Prof. Dr Hab. Andrzej Janicki - Katolicki Uniwersytet Lubelski (former);
- Wojskowy Instytut Medycyny Lotniczej
Msc. (Econ.) Monika Walczak - Ministerstwo Spraw Zagranicznych
Content:

1. Introduction — see the slide 3
2. Intentions — see the slide 18
3. Solutions — see the slide 28
4. Methods — see the slide 34
5. Conclusions — see the slide 52
6. Sources — see the slide 68
The Visegrad Group (also known as the "Visegrad Four" or simply "V4") reflects the efforts of the countries of the Central European region to work together in a number of fields of common interest within the all-European integration.
The Czech Republic, Hungary, Poland and Slovakia have always been part of a single civilization sharing cultural and intellectual values and common roots in diverse religious traditions, which they wish to preserve and further strengthen.
All the V4 countries aspired to become members of the European Union, perceiving their integration in the EU as another step forward in the process of overcoming artificial dividing lines in Europe through mutual support.

They reached this aim in 2004 (1st May) when they all became members of the EU.
Introduction (4)

The V4 was, not created as an alternative to the all-European integration efforts, nor does it try to compete with the existing functional Central European structures.

Its activities are in no way aimed at isolation or the weakening of ties with the other countries.

To be continued…}
On the contrary the V4 Group aims at encouraging optimal cooperation with all countries, in particular its neighbours, its ultimate interest being the democratic development in all parts of Europe.

The Formula “V4+” we can understand as a cooperation mechanism of V4 Group with third countries.
The Visegrad Group as a whole, wishes to contribute towards building the European security architecture based on effective, functionally complementary and mutually reinforcing cooperation and coordination within existing European and transatlantic institutions.
In order to preserve and promote cultural cohesion, cooperation within the Visegrad Group will enhance the imparting of values in the field of culture, education, science and exchange of information. The Visegrad Group would happen, in the words of Polish MEPs, in the EU body representing the voice of the new Member States and concerned for the implementation of their interests.
The Group's activities would contribute to the adoption by the "EU-wide initiatives proposed by its members".

It is obvious that regional cooperation is more and more important.

But what about the risks connected with the members EU-wide initiatives?
Following publications by Paolo Reboani – the former economic and international adviser to the Italian Minister of Employment and Special Policies

- “…there is a growing risk of political and economic disgregation. It is time to restore the fundamentals of the European project around a clear political and economic agenda. The 2014 European election can be a solid rock upon which to build a new phase of this political agenda, paving the way to a new Convention and a revision of the Treaty…”
"…The next steps on economic and Monetary Union (such as the Banking Union) should open the way to more integrated economic policies.

Moreover, it is also for strengthening the fiscal union and for defining an industrial compact and, also, a social compact."
Polish-Czech point of view of the economy, eg. industry and services, including e-Tourism, will be the subject of public discussion:

- **organized on** the occasion of the Polish-Czech Economic Forum on 8 April 2013;

- **with** the participation of the Czech Ambassador in Poland and the Czech Under-Secretaries of State of the relevant ministries.
All the activities of the Visegrad Group are aimed at strengthening stability in the Central European region.

The participating countries perceive their cooperation as a challenge and its success as the best proof of their ability to integrate also into such structures, such as for example the European Union.
The main topic of the meeting in Warsaw, which took place March 13 on the occasion of the Polish presidency of the V4, was to discuss the deepening of cooperation based on a network of experts like a one of crucial V4 Group initiatives.
Network of Experts on the Rule of Law and Fundamental Rights in the Western Balkans (V4 - Western Balkans Expert Network on Rule of Law and Fundamental Rights) is one of the elements of the V4 initiatives.
This idea of the Polish Presidency of the Visegrad Group, which was presented and adopted at a meeting of foreign ministers on Oct. 25, 2012, in Warsaw.

The leading institution in this network was Polish Office of the Ombudsman.
Linking sustainable Tourism cultural heritage, and ICTs for development, the demand-driven e-Tourism Initiative will strengthen developing country capacities to promote their tourism product and dynamically match it to worldwide demand.

The e-Tourism Initiative is part of UNCTAD’s technical cooperation activities [see Intentions (2)].
Intentions (2)


- The organization's goals are to "maximize the trade, investment and development opportunities of developing countries and assist them in their efforts to into the world economy on an equitable basis." (from official website).
The organization works to fulfill this mandate by carrying out key functions:

- It functions as a **forum for intergovernmental deliberations**, supported by discussions with experts and exchanges of experience, aimed at **consensus building**.

- It undertakes **research, policy analysis and data collection** for the debates of government representatives and experts.
The UNCTAD’s focuses on the development and implementation of IST-based tools that will help communities tap the international market by strengthening and including local institutional and human capacities in the global market and promoting local involvement and ownership.
- It provides technical assistance tailored to the specific requirements of developing countries, with special attention to the needs of the least developed countries and of economies in transition.

When appropriate, UNCTAD cooperates with other organizations and donor countries in the delivery of technical assistance.

(To be continued …)
Travel and tourism comprise the leading application field in business-to-consumer (B2C) e-commerce, representing approximately half of the total worldwide B2C turnover.

Even in the 1960s, travel applications (i.e., computerized airline reservation systems) were at the forefront of Information Technology (IT).

Above mentioned activities are important also for human development.
Several facts explain this – the product is a confidence good, consumer decisions rely on information available beforehand, and the industry is highly networked, based on worldwide cooperation between stakeholders of different types.

The latter factor and the related problem of interoperability represent a major challenge for IT solutions.
Harmonise, a European project based on a Semantic Web approach and utilizing a Web services infrastructure, deals with business-to-business integration on the "information" layer by means of an ontology-based mediation.

It allows tourism organizations with different data standards to exchange information seamlessly without having to change their proprietary data schemas.
• The "weak" coupling takes into consideration the specific industry context, with its majority of small or medium-sized enterprises (SMEs) and with many different, also legacy, solutions.

• Real world business tests show that this approach meets industry expectations and can facilitate the necessary network effect in order to create an interoperable e-Tourism marketplace.
Intentions (10)

- Linking sustainable tourism and ICTs for development, the demand-driven e-Tourism Initiative will strengthen developing country capacities to promote their tourism product and dynamically match it to worldwide demand.
Launched at the eleventh UNCTAD quadrennial ministerial conference in São Paulo, Brazil, the e-Tourism Initiative is part of UNCTAD’s task force on sustainable tourism for culture & development.

The Initiative is part of the UNCTAD XI Information and Communication Technologies for Development Partnership.
Solutions (2)

For many developing countries, and particularly the LDCs, the small economies and the island developing States, e-Tourism provides:

- significant potential for poverty reduction;
- economic growth;
- human development.

It is often of hard currency for then and is also primary source one of the largest sources of employment.
Solutions (3)

- **ICTs** can make developing countries more autonomous and self-sufficient in constructing their own brand images and promoting their own **tourist attractions**.

- **In maximizing** their comparative advantage in this sector, developing countries can adjust their tourism services to suit their **own development strategies** and become better integrated in the world economy.
The target population for this project is composed of ministries of tourism, national tourism boards, destination management organizations, local tourism stakeholders and other relevant partners.
Solutions (5)

- The Initiative focuses on the development and implementation of IST-based tools that will help communities tap the international market by:
  - strengthening and including local institutional activities;
  - human capacities in the global market;
  - promoting local involvement and ownership.
Solutions (6)

The partnership encompasses activities in the areas of free and open-source software, e-Tourism cultural, ICT policies, e-measurement, IST indicators and e-finance.
Methods (1)

- The immediate objective is to design, create and establish a steady e-commerce market place by identifying, promoting and integrating the providers of national goods and services with regard to international business.
Other objectives are:
- to enable destination countries to organize their tourism services,
- to develop new tourism products,
- to improve the quality of their services and foster public-private partnerships,
- to improve the competitiveness of the sector.

(To be continued...
Methods (3)

...)

- as well as providing an Internet platform, (e-platform) necessary methods and tools for the effective applications of proper services (eg. Collating the relevant information standardizing it and disseminating it on the internet);

In that case the authors have based their researches on the original e-platform „LabTSITM” developed in Poland for modeling and processes simulations. The platform is nested on Parallel Virtual Machine (PVM) and Virtual Loglan Processor (VLP).

The Solution is unique one within Transaction Systems Class.

As an illustration of the suggestion on the matter of User-Centric Design is shown below on the Figure 1:
ROZWÓJ GOSPODARCZY
REGIONALNY/GLOBALNY RYNEK ELEKTRONICZNY

Inteligentny Agent

Spis użytkowników
Zarządzanie zezwoleniami
Zarządzanie relacjami S-K
Zarządzanie działaniami
Zarządzanie rachunkami

Transakcja

Inteligentny Agent

Mechanizm zawierania transakcji

Tworzenie cen i źródeł dostaw oferowanych

Dynamiczne tworzenie cen $
Oznaczenie cen i podawanie ofert
Ustalone ceny $X

Zarządzanie katalogami

Narzędzie e-zawartości i usługi
Maszyna katalogująca i wyszukująca

Harmonogram pracy

Obiekty biznesowe

Zarządzanie zapotrzebowaniami
Przetwarzanie zamówień i finansowanie
Analizy przestrzenne
Wybór sposobu dostawy

Struktura procesu handlowego

Sprawozdania i analizy

Realizacje dostaw i zobowiązań

Dostarczanie
Fakturowanie
Zapłaty
Depozyt

Architektura zastosowań sieciowych

Serwer
Administrowanie platformą
Fax
E-mail
EDI
XML
Http
WAP/SMS/GPRS

Dane telemetryczne
Środki przesyłu danych
Dane z czujników
Usługi transakcyjne

Warstwy referencji przestrzennej

Referencje przestrzenne
Dane bazowe
As the attitude towards business and human development, it includes a corresponding generic business model, educational material, various guides and related road maps for building user skills, with the aim of strengthening national capacity in this field.
• The business model is adapted to conditions in the country to ensure the platform's sustainability.
• The success of such an initiative depends on the involvement of local entities, from the start, in taking ownership of the project and jointly defining its framework.
Methods (6)

- Their responsibilities towards each other should be clearly understood, accepted and followed up.
- This is, in the long run, the purpose of the awareness-raising seminar planned for the start of the V4+ common project.
Methods (7)

• For small local businesses, access to information and marketing networks is difficult or impossible, and only e-commerce provides an appropriate response.

• With its endless possibilities and its low cost, e-commerce is a key factor of competitiveness for small tourism enterprises.
The use of ISTs (Information Society Technologies) allows for the development of new products targeted at new niche markets, improves customer satisfaction and the competitiveness of tourism service providers.
ISTs can also definitely contribute to a country's autonomy with regard to the ways in which its tourism & cultural heritage supply is organized, promoted and sold on the international market.

The share of benefits from e-tourism that will accrue to local entrepreneurs and communities can thus increase substantially.
The e-Tourism Initiative is the digital component of UNCTAD’s Task Force on Sustainable Tourism for Development, established in June 2003.

The Task Force aims to design and implement an UNCTAD-wide integrated programme on tourism as an engine for Economy and Human Development.
In maximizing their comparative advantage in this sector, developing countries can adjust their tourism services to suit their own development strategies and become better integrated in the world economy.
Methods (12)

- **Strategies** should be designed for the integration of ISTs into tourism SME business operations that rely on a strong partnership-building approach **involving government, business providers and local communities** as well as having in mind the **semantic WEB Aproach and onthology based mediation.**
This should be accompanied by measures to develop human resources and foster tourism-oriented entrepreneurship through awareness-raising and support. In maximizing their comparative advantage in this sector, developing countries can adjust their tourism services to suit their own development strategies and become better integrated in the world economy.
Strategies should be dedicated as well as for the integration of ISTs into tourism SME business operations which is based on a strong partnership-building approach involving government, business providers and local communities.

The authors are in the position to be helpful in this challenge (if necessary).
Above mentioned strategies:
- should be **accompanied** by measures to develop human resources
- and
- foster tourism-oriented entrepreneurship through awareness-raising and support.

The e-Tourism Initiative is part of UNCTAD’s technical cooperation activities.
The thrust of UNCTAD technical cooperation is human and institutional capacity development in the following mail areas of its work, namely:
- trade policies;
- trade negotiations;
- integration of developing countries in the multilateral trading system;

(to be continued …)
Methods (17)

- **Investment policies** and investment promotion and **enterprise development**;
- **Trade support services**, logistics and trade facilitation;
- **Special programmes** and cross-sectoral issues including Debt Management and Financial Analysis;
- **Cross-divisional** training programmes.
This paper suggests some recommendations for decision makers, entrepreneurs and practitioners in the tourism industry field:

- **Entrepreneurs** need to adopt business models which are tailor-made for their own e-business objectives and the **Small Tourists Enterprices (SMTEs)** environment.

(to be continued…)
- SMTEs can combine various e-business IST models. External service providers have great potential to assist SMTEs.

- The V4+ governments should develop a national visions, a strategic plans and policy guidelines for SMTEs e-commerce activities.
The development of e-commerce strategies should involve all tourism stakeholders.

The policy makers are also responsible for establishing the appropriate laws, regulations and service standards that will enable to build trust and consumer confidence.
Meeting of Prime Ministers of the Visegrad Group (V4), the President of the French Republic and the Chancellor of the Federal Republic of Germany on 6 March 2013, presented among other determination to create a single market by removing existing barriers.
In particular in the field of on-line Europe should continue to engage the actions to create a fully functional digital single market (eg. multifunctional and multimedial).

The following factors are important:
- “Security of e-commerce”;
- “User-friendly Web interface”;
- “IT (Information Technology) Infrastructure”;
- “Level of trust between customer and company”;
- “Customer acceptance”.

© OECD 2004
Conclusions (6)

- Countries of Central and Eastern Europe together with Germany and France feel responsible for the unity of Europe and the future of European integration.

- Tax systems V4+ should reflect new realities in the field of IST. It should be adjusted equally to the realities of digital and traditional sectors.
Conclusions (7)

- SMTEs can combine various e-business models.
- External service providers have great potential to assist SMTEs.
- Stakeholders should also find ways to integrate SMTEs into industry-wide associations.
- This will encourage SMTEs to stop competing at the destination level, and to develop networks for mutual benefit.
In line with above co-operation, they need to formulate and implement networking or strategic alliances through partnerships with other SMTEs or large firms, especially in the area of brand management, customer relationship management, human resources management.
As regards marketing, association with e-shopping will allow SMTEs to conduct Internet-based e-Tourism without bearing:
- all the start-up costs,
- improvements cost,
- advertising and technical difficulties,
which could be shared by all the merchants in the mall instead.
Associations of e-shopping will provide SMTEs with the opportunity to take advantage of e-commerce systems e.g. interactivity, mass customisation, real time and a database of customers, and

knowledge base of SMTEs environment management, all level decisions support etc.
In the established stage, SMTEs may need to re-design their website to focus more on „customer retention” than „customer acquisition”.

They should also try to develop and manage their own digital brand. Brand power is more important on line than off line because the main stage of e-business is the virtual world where consumers are more dependent on recognised brands.
The authors of the Presentation suggest - in this place - to appropriate V4+ officials to create next 2 new networks of experts, which are dedicated to:

1) coordination of IST development activities of V4+ countries forming the synergy of this based on User-Centric approach criteria, (we propose Czech Leadership of this network);

2) creation a common V4+ knowledge base of IST applications (including e-tourism & culture). (we propose Slovak Leadership of this network).

As an illustration of the matter we add 2 figures below:
### FIG 2: Scenarios in knowledge acquisition methodology cadmium

<table>
<thead>
<tr>
<th>STEPS</th>
<th>scenario 1</th>
<th>scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>supported by a knowledge engineer</td>
<td>Self-knowledge acquisition in a computer model of a personal assistant</td>
<td></td>
</tr>
<tr>
<td>formal description language:</td>
<td>formal description language:</td>
<td></td>
</tr>
<tr>
<td>UML</td>
<td>OWL</td>
<td></td>
</tr>
<tr>
<td>Tools:</td>
<td>Tools:</td>
<td></td>
</tr>
<tr>
<td>Poseidon for UML</td>
<td>Protege OWL</td>
<td></td>
</tr>
<tr>
<td>Magic draw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Techniques:</td>
<td>Techniques:</td>
<td></td>
</tr>
<tr>
<td>diagrams</td>
<td>forms</td>
<td></td>
</tr>
<tr>
<td>actions</td>
<td>diagrams</td>
<td></td>
</tr>
<tr>
<td>use cases</td>
<td>use cases</td>
<td></td>
</tr>
<tr>
<td>taxonomies</td>
<td>taxonomies</td>
<td></td>
</tr>
</tbody>
</table>

**Knowledge Base:**
- model of informal KADM
- model of informal KADM

**Environment:**
- expert (constructor)
- other sources of knowledge
- knowledge crude
FIG 3. Structure of the main package (namespace) Knowledge Base
Finally, both the policy makers and the entrepreneurs should work together to raise awareness of e-commerce through training and education for stakeholders, employees and consumers.

The above mentioned officials should be ready to implement this 2 proposed new network of experts, as soon is possible.
Conclusions (14)

- Not only the e-business but as well as the e-commerce cannot be implemented without empowering and enabling tourism and cultural heritage stakeholders to take advantage of New Internet and Information Society Technologies (IST).
Sources:

2. [http://www.unctadxi.org/templates/Page____1215.aspx](http://www.unctadxi.org/templates/Page____1215.aspx)
13. Piotr Filipkowski „Lab TSI TM – Platforma modelowania i symulacji”