Skúsenosti s realizáciou Operačného programu Informačná spoločnosť (2000-2006) v Grécku

Seminár „Metropolitné optické siete a OPIS (Operačný program Informatizácia spoločnosti)", 19. apríla 2007, Banská Bystrica

Ioannis Drakopoulos

jdrako@dexteraconsulting.com

Presentation Overview

- Operational Program Information Society

- Broadband projects for Greek Municipalities

- Invitation 93: Optical MAN

- Invitation 105: Wireless Man

- Other projects
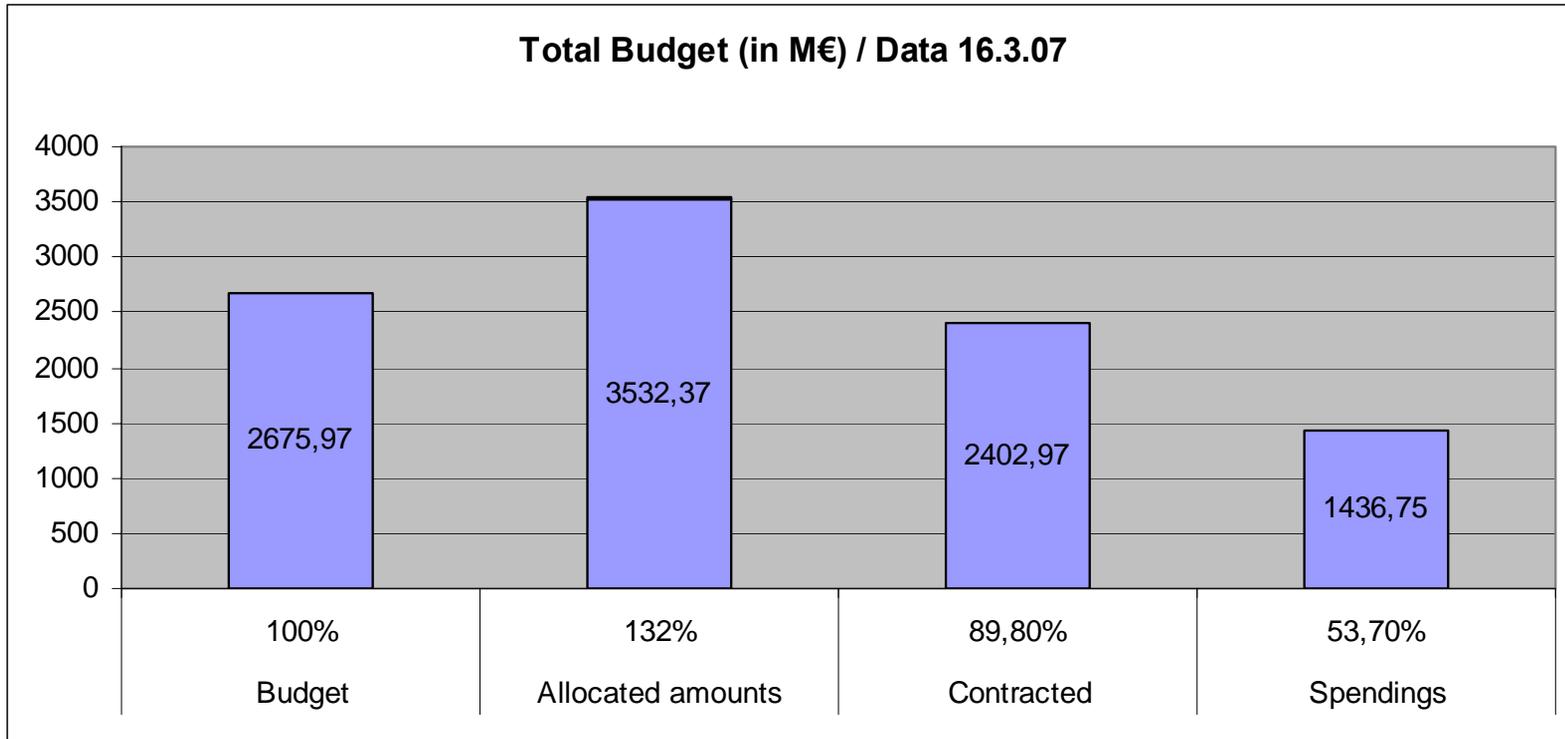
- Beyond ICT Policy: Lessons Learned

Operational Programs Information Society

- Greek Population: 10M

- GR OPIS (2000-2006)

- Public Expenditure 2.269,6M€, National Contribution 25% & EU Contribution 75%

- ESF (25,6%) & ERDF (74,4%) combined funding

- 5 Action Lines
  - Education & culture (14,8%)
  - Citizens & quality of life (31,0%)
  - The digital economy and employment (31,8%)
  - Communications (20,0%)
  - Technical Assistance (2,4%)

- Slovak Rep. Population: 5M

- SK OPIS (2007-2013)

- Public Expenditure 1.168,3M€, National Contribution 15% & EU Contribution 85%

- ERDF funded only

- 4 Action Lines
  - Electronization of public administration and development of electronic services (63,0%)
  - Development and renewal of the national infrastructure of repository institutions (11,6%)
  - Improvement of broadband internet access (22,3%)
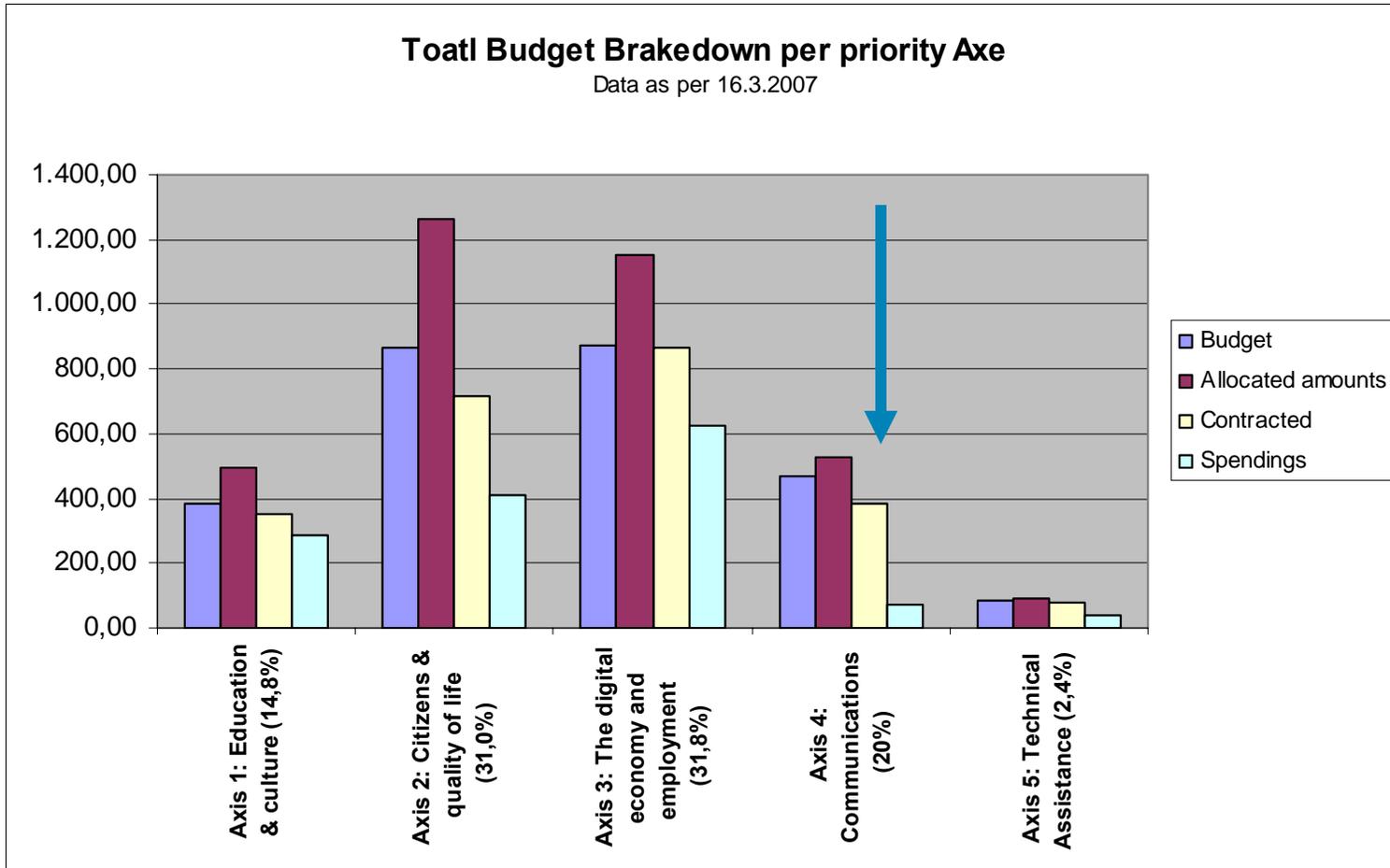 - Technical Assistance (3,1%)

Current status of OPIS implementation
Budget/Allocations/Contracts/Spending

Total Budget (in M€) / Data 16.3.07

	Budget	Allocated amounts	Contracted	Spendings
Value	2675,97	3532,37	2402,97	1436,75
Percentage	100%	132%	89,80%	53,70%

Current status of OPIS implementation
Budget/Allocations/Contracts/Spending

Toatl Budget Brakedown per priority Axe
Data as per 16.3.2007

Legend:
- Budget
- Allocated amounts
- Contracted
- Spendings

X-axis categories:
- Axis 1: Education & culture (14,8%)
- Axis 2: Citizens & quality of life (31,0%)
- Axis 3: The digital economy and employment (31,8%)
- Axis 4: Communications (20%)
- Axis 5: Technical Assistance (2,4%)

Greek strategy for Broadband in the framework of the Greek OPIS 2000-2006

- **Creation of competitive broadband networks throw out the Greek territory.**

- **Interconnection of a significant number of public sector bodies, health, secondary education, University institutions.**

- **Increase of competition in the provision of communication services and infrastructures aiming at price reduction.**

- **Stimulation of business activities in the areas with available broadband networks.**

- **Coverage with broadband infrastructures and services of less developed urban areas or rural areas of the country.**

- **Coverage of the long term telecommunication needs for a large part of the Greek population. Stimulation of the demand for Broadband services.**

- **Indirect support to broadband content creation industry throw mass broadband penetration to the general population of the country.**

Measure 4.2 of Greek OPIS

Basic targets of measure 4.2 of Operational Program is the development of Broadband infrastructure for local access including:

- Small cities
- Suburban and rural areas
- Leas developed areas of the country

Aiming at:

- Market deliberation and opening

- Increase of competition

- Increase the standard of leaving by providing advanced e-health, e-learning and e-commerce services.

- Creation of new jobs and

- Increasing of the economic development rate of the areas

Finally basic target of Measure 4.2. was the adaptation of the country at the major principals of the initiative: "e-Europe 2005, An information society for all".

Broadband Strategy in OPIS
Invitations for the implementation of Broadband Strategy

- **Invitation 84:** Penetration Studies -Dissemination Actions. Accomplished

- **Invitation 165:** Deployment of Pilot Broadband Cities, Accomplished

- **Invitation 93:** Deployment of Municipalities Optical Networks, Under tendering process.

- **Invitation 105:** Deployment of Municipalities Wireless Networks. Under tendering process

- **Invitation 147:** Funding of private initiatives, Evaluation

Invitation 93 Optical MAN for Municipalities

- The total available funding was 59M Euros for the creation of Optical Metropolitan Area Networks – MAN, in 75 Municipalities of the country.

- The minimum acceptable number of interconnected Points of Public Interest is 20 but the average from the approved proposals is 45 Points of Public Interest like (Schools, Universities, Tax Offices, Public Hospitals, Municipality Buildings, Libraries, Museums, Chamber of Commerce, Police, Fire Brigade..

- The optical MANs of the 75 Municipalities are in total over 735 Km interconnecting more than 2.800 points of public interest across the country, changing in a way the broadband availability map of the country.

- Allocation of 3M€ at Technical Assistance which is obligatory for the participants in the project. The Technical Assistance contracts were awarded in Regional level.

Invitation 93 Optical MAN for 75 Municipalities

- The target was the **interconnection of public buildings** in the covered areas (Education, Healthcare, Culture, etc).

- Basic principal is the stimulation of competition both at the level of network access services as well as at the offered services for the benefit of the consumer – user. **The above shall be based upon an Open Architecture Dark Fiber Infrastructure and a cost based operation module.**

- Invitation 93 **encourages the long term leasing of a part of the network** at the private sector (per meter or per fiber pair) which shall generate income necessary for the development and the maintenance of the network.

- The projects shall mainly include:
  - **Civil engineering works**
  - **Fiber Optics**
  - **Network equipment for connected Public Buildings.**

- It is possible to finance proposals for **regional MANs for nearby municipalities** of 1st degree as far as one of the Municipalities shall be the leader .

- **Municipalities (Final Beneficiaries of the Invitation 93) are the owners of the networks** that shall be created.

- The RFP must be according the guidelines of European Commission as these are mentioned at the resolution:**SEC (2003) 895 της 28.7.2003 "Guidelines on criteria and modalities of implementation of structural funds in support of electronic communications".**

Invitation 105: Wireless Broadband networks in 120 Municipalities and 20 Local Associations of Towns and Villages.

- As a complimentary measure to the development of Optical MANs (invitation 93), Special Secretary for the Information Society decided to fund with 42M Euros the creation of wireless broadband networks in more than 120 Municipalities and 20 Local Associations of Towns and Villages. Under the same intervention is expected the interconnections with EDUnet (education network) of schools from remote areas of the country.

- Using this invitation, small municipalities have the chance to develop Wireless Broadband connectivity (i.e. using Wi-Fi technology) within 10 different points of interest in their territory. Municipalities shall use this wirless network for their interconnection at "Syzefksis".

- In total, from this invitation shall be financed the interconnection of more than 1260 schools of primary and secondary education, more than 360 culture & sports centers, more than 1800 public sector buildings and finally more than 320 regional health centers.

Funding of private-sector companies for the development of broadband access in the Regional Areas of Greece
(http://www.broadband.gov.gr)

BROADBAND
DEVELOPMENT

Project Name & Funding source	The project **«Funding of private-sector companies for the development of broadband access in the Regional Areas of Greece»** has been included in the O.P.I.S. and is co-subsidized by ERDF at the rate of 70%, with regard to public participation. **The total budget to be made available through this Call amounts to 210,000,000 euros**
Project Description and scope	The aim of the project described in this Call is **to support the development of the necessary infrastructure for the provision of broadband services to those regions of Greece, where such infrastructure neither currently exists nor is it expected to be deployed under the current market conditions in the immediate future, or where no competitive conditions are expected to be developed.** The aim of the state subsidy is the bridging of the digital divide in those regions. The total budget is distributed as follows in two main axis: 1. the **development of broadband access** in the regional areas of Greece, though the subsidization of infrastructure development, from now on called "Axis 1" of the project, and 2. The **stimulation of the demand for broadband services** through subsidization actions of end-users in the Greek Districts, from now on called "Axis 2" of the project.
Coverage	The entire project covers the whole of the Greece, with the exception of : –the district of Attica (the islands of Argo-Saronic Gulf are included in the project) –the Metropolitan area of Thessalonica The individual prefectures of the country are grouped into seven (7) zones, so that the entire project is divided into an equal number of sub-projects. **For each zone one and only one proposal is selected for subsidization.**
Operation Model	50% of the budget shall be Public Spending, while the remaining 50% shall be covered by private participation.

Broadband coverage
thru the use of HellasSAT

- Within the framework of the project for the development of Broadband infrastructure, there is a specific funding scheme for the use of Broadband services thru Hellas SAT satelite for islands or remote areas of the country (mountains). The availale Broadband network must be supporting triple play (voice, data, video).

- Users could be schools, health care centers, municipal offices (Villages) and army camps.
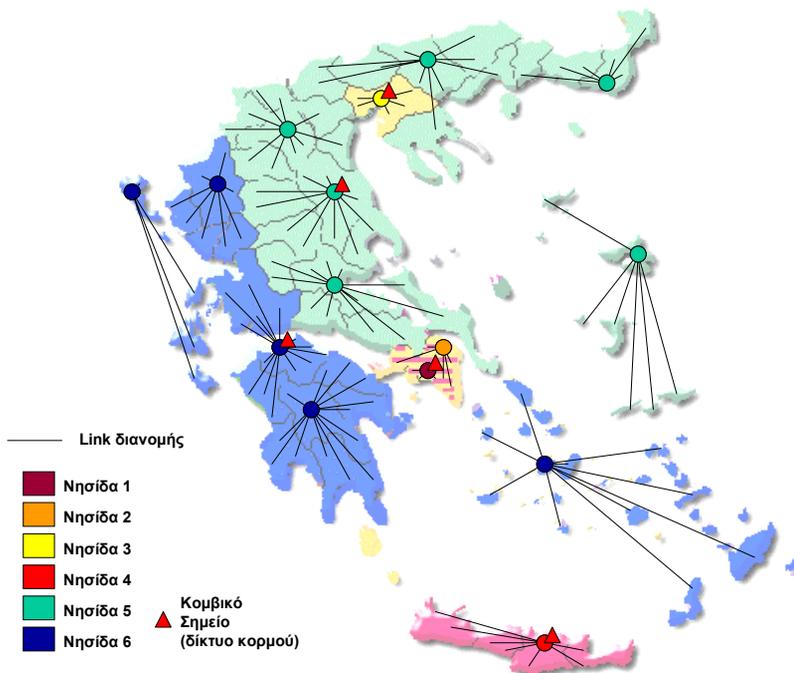
Public Sector Broadband Network "SYZEFXIS"
(http://www.syzefxis.gov.gr/)

Project Name & Funding source	**The "SYZEFXIS" project, which is financed by the Operational Programme "Information Society" in the framework of Measure 2.2.,** is the first venture of providing large scale broadband telecommunication services in Greece **The budget of the project is approximately 75.5 m€, 70 m€ of which concern the technical part of the project, while 5.5 m€ the training part in the "SYZEFXIS" services.**
Project Description and scope	The "SYZEFXIS" project implements the network of the public administration which **will connect all the bodies of the public sector (hospitals, social insurance funds, libraries etc), the public administration and local authority with broadband networks** for their internal communication so as to be able to provide all citizens and enterprises access, via the Internet, to all the services of the public administration without digital exclusions. The "SYZEFXIS" project is a typical project of providing telecommunication and telematic services of large range and scale since **it covers all the Greek territory with presence in approximately 1,800 points.**
Public Bodies covered	Such bodies (65 in total) are: ▪All the bodies of the **Ministry for the Interior, Public Administration and Decentralization**: general secretariats, regions, local government organisations, prefectures, citizen service centers. ▪All the bodies in the **health sector**: Regional Health System, hospitals, health centres etc. ▪All the **managing authorities of the 3rd CSF of the ministry of Economy and Finance.** ▪All the **army offices** of the country. The number of final clients is approximately **1,800 and each one of them is connected only with its central building**..
Services	"SYZEFXIS" provides advanced telematic services and value added services: **advanced telephony and fax services, calls to/ from fixed and mobile telephones as well as telephony for abroad, access to the Internet with all the related services, teleconference, tele-training, remote access services (tele-work), certification and electronic transaction security services (infrastructure of public key) etc.** The provision of single prices for telephone calls outside "SYZEFXIS" (local –long distance – mobile – international) follows the international practice while the telephone calls inside "SYZEFXIS" are provided rate-free. It concerns bodies of the Greek public sector, the needs of which are not restricted to simple telephone connections, but they are expanded including advanced voice, data and picture services.
Operation Model	The objective of "SYZEFXIS" is the provision of Internet services and not infrastructures while it applies the logic of providing services at the level of services with pre-agreed qualitative and quantitative characteristics (Service Level Agreement).

Public Sector Broadband Network "SYZEFXIS"
(http://www.syzefxis.gov.gr/)

- **Subproject 1 (ATTICA-1): Area 1 (Ministries, general secretariats, managing authorities and army offices – services located in the region of Attica).**

- **Subproject 2 (ATTICA -2): Area 2 (The region of Attica, the local government bodies of the 1st and 2nd degrees and the Citizen Service Centres of the region of Attica as well as the hospitals and health centres of the same region).**

- **Subproject 3 (PREFECTURE OF THESSALONIKI): Area 3 (The bodies of the four categories belonging to the prefecture of Thessaloniki).**

- **Subproject 4 (CRETE): Area 4 (The bodies of the four categories belonging to the region of Crete).**

- **Subproject 5 (NORTHERN GREECE): Area 5 (The bodies of the four categories belonging to the regions of Eastern Macedonia & Thrace, Western Macedonia, Central Macedonia (with the exception of the bodies of the prefecture of Thessaloniki), Northern Aegean, Thessaly and Sterea Ellada [Continental Greece]).**

- **Subproject 6 (SOUTHERN GREECE): Area 6 (The bodies of the four categories belonging to the regions of the Ionian Islands, Epirus, Western Greece, the Peloponnese and Southern Aegean).**

- **Subproject 7: Backbone network.**

- **Subproject 8: Training management.**

- **Subproject 9: Public Key Infrastructure service**

The budget of the project is approximately 75.5 m€, 70 m€ of which concern the technical part of the project, while 5.5 m€ the training part in the "SYZEFXIS" services.

Link διανομής

Νησίδα 1
Νησίδα 2
Νησίδα 3
Νησίδα 4
Νησίδα 5   Κομβικό Σημείο
Νησίδα 6   (δίκτυο κορμού)

Wireless Hot Spots

Financing of enterprises for the creation of wireless hotspots of broadband access
(www.w-hotspots.gr)

Project Name & Funding source	The above action is included in action category **"Projects of initial application of broadband network technologies"** of Measure **4.2** "Development of infrastructures of local access networks". **The total budget of the action comes up to 21,427,120€ ; 10,000,000€ of the budget concern private participation and 11,427,120€ public expenditure. The strengthening of private investments and plans is done on the basis of De Minimis rule.** **(About 400 beneficiaries)**
Project Description and scope	The project "Financing of enterprises for the creation of wireless hotspots of broadband access" subsidises the development and operation of wireless hotspots in public mass places for access to the Internet with the use of LMDS, ADSL or Broadband Satellite Internet Access technologies.
Coverage	The development of wireless hotspots of broadband access is carried out in areas where a considerable number of users/ visitors gather, such as: **guest, accommodation and entertainment areas** (hotels, restaurants, students' residences, sport facilities/ gyms etc), **waiting/ transportation areas** (airports, railway stations, ports/ marines/ bus stops etc), **educational centres, universities**, private schools, cultural areas (museums, archaeological sites, galleries etc), **shopping centres, department stores, banks, event and conference areas** (conference centres, commercial exhibition areas, Press centres etc) **and other areas of providing services for the citizens** (hospitals, courts, public bodies etc).
Operation Model	Businesses (e.g. hotel, tourist ones etc) have the possibility through the Wireless Hotspots to offer wireless access to network or Internet, Intranet, Extranet services of added value to users who move in the area they cover: moving citizens/ visitors of public or/ and private places –external visitors, guests, clients as well as employees.

Public Sector Broadband Network "SYZEFXIS"
(http://www.syzefxis.gov.gr/)

Results of the project

- The modernization and improvement of the operation of the Greek public administration bodies (implementation of the model of e-government) with the provision of advanced telematic services and added value services as well as the training in the framework of upgrading the human resources both as regards the use of information technology systems as well as the acquisition of basic skills in the use of new technologies.

- The effective utilisation of the information technology systems of the Greek public sector bodies through the operational interconnection of these systems, the installation of a hierarchic servers' network and the management of the final users in the closed environment logic.

- The exploitation of alternative information sources and the avoidance of overlapping – repetitions in data bases and network facilities.

- The effective management of the data transfer of the Greek public sector bodies and the central and allocated support of telematic applications.

- The cost reduction of the communication among the Greek public sector bodies with a simultaneous increase in the speed and security of the data transfer.

- The unified upgrading of the services provided for the citizen through automated and user-friendly information services and services of concluding transactions with the Greek public services.

- The quick and easy search of information by the citizen which have as a source bodies of the Greek public sector.

- The improvement of serving the citizen, especially for procedures which require involvement of more than one bodies having the provision of one-stop services as the final objective.

- The utilisation of the possibilities offered by the liberalization of telecommunications and the development of alternative implementation and financing ways for telecommunication projects.

- The decrease of the "digital gap" in the framework of the information society.

- At the same time, along with the implementation of the project, the aim is the development of the information and communication industry in an environment of healthy competition and the complete utilisation of the investments on information and communication technologies. A big project, such as SYZEFXIS, is expected to influence the telecommunications market, mainly in the field of providing broadband services.

- Furthermore, another benefit is the fact that the contractor of each one of the 7 subprojects of telecommunication nature will consolidate his/her position in the field of broadband services acquiring a big comparative advantage so as to prevail in the market of these services and will be promoted to an important factor of the telecommunication market in the area of activation.

One Stop Governments Shop: "ARIADNE" Citizens Service Centers

The "Ariadne" programme is designed to improve communications with the public and the quality of service the citizen receives from the country's public services.

It signals the collaboration between the central public administration and local government authorities, and is currently implemented through both central and decentralized actions.

The citizen have access to administrative information and data (e.g. e-forms) in the following ways:

1. By telephone
2. Via the Internet
3. Through service structures on the local level.

These structures, providing a total of about 1000 service points, have already been set up in local government authorities across Greece. These 1000 citizen service points will also be public Internet access points.

DEXTERA
CONSULTING

Thank you for your attention.

Ioannis Drakopoulos

jdrako@dexteraconsulting.com

www.dexteraconsulting.com

Other key projects of Greek OPIS

Project Name	Project Description	Number of Projects	Indicative Budget in M€
TAXISnet	Advanced network and services for Tax Authorities. Framework project with over 25 subprojects for interconnection, applications, databases, equipment, training etc	12	90
Primary & Secondary Schools /EDUnet	Network for Primary and Secondary Schools. Connection to the Internet, equipment, help desk, etc	3100	136
Infrastructure for Universities /GUnet	Equipment, Networking, Academic Network, E-Learning, IT Labs	155	60
Municipalities Portals	Basic E-Government Applications & information Portals for Municipalities	1	33
Police On Line	Network and Equipment	3	50
eHealth	MIS for Hospitals and Health Centers of the country, IT equipment and networks	34	100
Grants	SMEs/Farmers/Industrial Companies/ Very small companies/Professionals	8	500

2. Beyond ICT Policy:

Lessons Learned
from the implementation of the Greek OPIS

Beyond ICT Policy: Lessons Learned

Four interrelated messages emerging from actual policy design and implementation in a late ICT adopter country in the EU

1. <u>Policy Implementation matters very much</u>.

Observed time-lag and divergence between policy design and actual implementation.

Therefore, it should be taken into consideration during the policy design phase. <u>Strategic Management of policy implementation</u> should be put in place. This does not apply in most cases.

2. <u>ICT adoption is not just a matter of implanting ICT facilities</u>

The crucial issue in the next few years, not – or not just- to speed up investment in ICTs but **<u>how to make them work</u>**. In this respect, ICT adoption is related to <u>organizational changes</u> and <u>new ways of doing things</u>. The **interlocking between ICT adoption and Organizational Reforms and mindsets change**.

3. <u>IS is mainly about people</u>

Set up "IT champions teams" in every PS organization/department, Create Human networks and work closely with IS communities, Establish support mechanisms, Train all people involved.

4. <u>Mobilize the market and society:</u> Create a critical mass of users, infrastructures and applications

Not only efficiency and effectiveness of specific actions and projects, but how and to what extent a large-scale <u>public intervention</u> can stimulate <u>market actors and market dynamics</u> as well as <u>mobilize society at large</u>.

Policy implementation observed
The problems we faced…

- **overlapping** in the division of responsibilities among different public administration entities involved in the implementation phase,

- **diverging priorities** set among different government departments and ministries,

- **complexity in the legal and regulatory framework**

- **"bad looser" behavior** exhibited by a number of bidders led to significant delays in the implementation time-plan

- **lack of expertise** and understanding of the specificities of ICT technologies by public officials (non-intelligent customers)

- **Technophobia** – cultural aversion to the use of ICTs by lower and middle level public officials.

- **low political and managerial priority** and commitment in promoting ICT usage and integration in the public sector

Conclusions and some thumb advises

- Do not re-invent the wheel. Other countries experience is very useful. Cultivate the culture of bench-learning.

- From the culture of the "very big and complex IT systems" to the Internet culture. Dolphins not whales approach.

- Some simple thumb advise from Prof Kalogirou (Head of OPIS MA 1999-2004) :
  - Think the big picture.
  - Start small and now.
  - Move fast. Some fast wins are crutial for the overall success!
  - Maximize efficiency (in terms of project cost, quality and implementation time) and effectiveness in terms of user requirements.
  - Do not implement all at once. Modular approach and Step-by- step implementation.

Operational Program Digital Convergence
(NSRF 2007-2013)

Ellada \ Ελλάδα
Convergence and Competitiveness Objectives 2007-2013
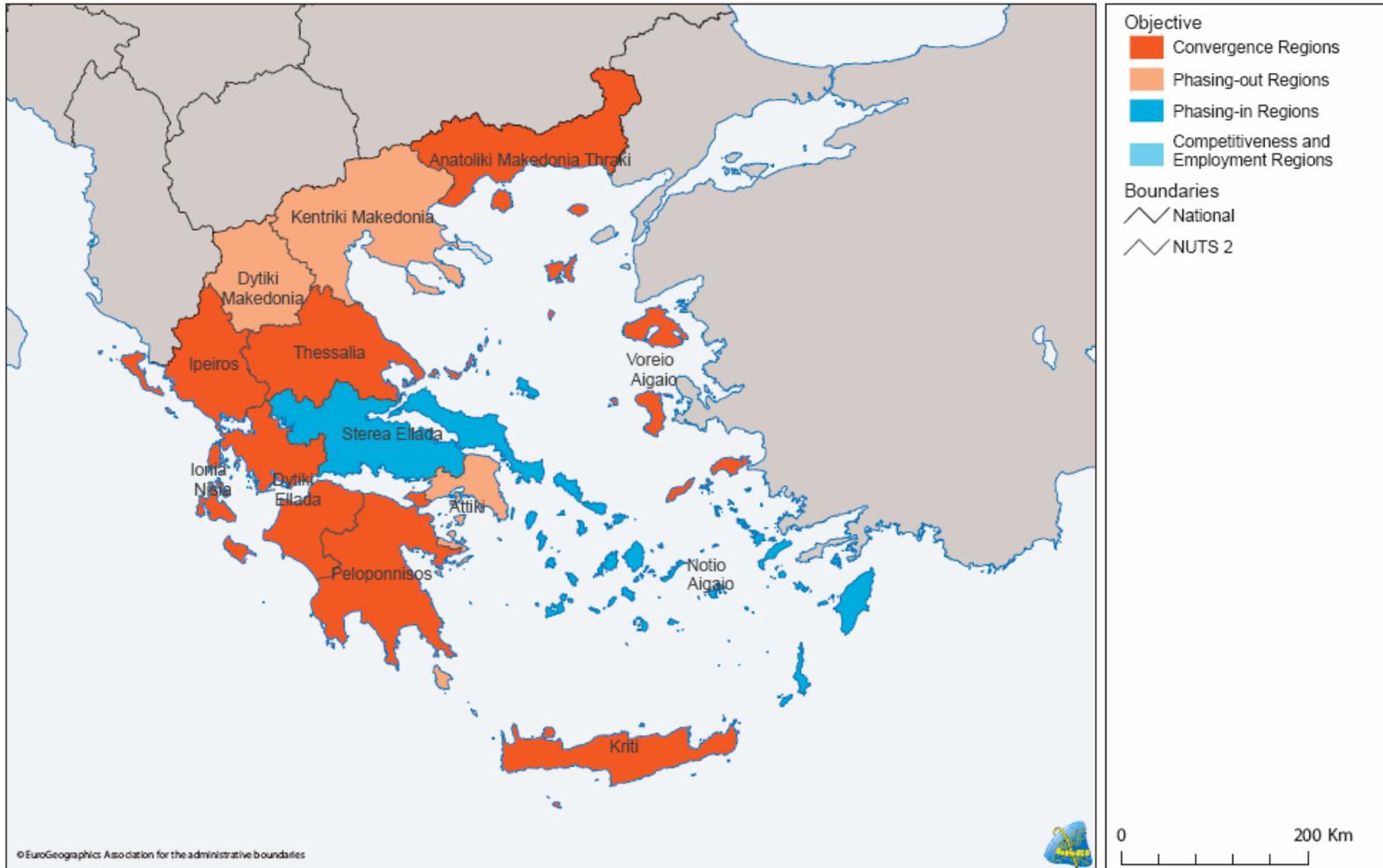
General Information

Total Budget: € 20,1 billion

6 vertical operational programs

5 regional operational programs

–**3 regions under statistical effect rule (Phasing out)** *5.765 M€*

–**2 regions under phasing In rule** *582 M€*

Information Society as a horizontal axis

Important Topics

- **Fewer Operational Programs** **(6 horizontal + 5 regional)**

- **39% of funding allocated to ROP instead of 32% during 3d programming period**

- **Funding and Managerial Consolidation of co-funded and national part of the Public Investments Program**

- **Fore payments since 1/1/2007**

Operational Programs 2007 - 2013

- OP Environment and Sustainable Development

- OP Enhancing Accessibility

- OP Entrepreneurship & Competitiveness

- OP Digital Convergence

- OP Human Resources

- OP Technical Support

Operational Programs 2007 - 2013

OP Digital Convergence

(Indicative fields of intervention)

- **Enhancing ICT use in enterprises**

- **Restructuring of the Public Sector**

- **Development of digital services for the citizens and the enterprises**

- **Supporting the ICT Sector**

- **Amelioration of everyday life by means of ICT – ICT infrastructure (broadband networks etc.)**

- **Enhance Entrepreneurship in sectors utilizing ICT**

OP Digital Convergence 2007 – 2013
Stream of actions

P R O D U C T I V I T Y	Enhancing ICT use in enterprises	Broadband Access availability Supporting electronic transactions Dissemination of best entrepreneurial practices
	Digital Services for companies Restructuring of the Public Sector	E-procurement E-certificates Electronic one-stop-shop for enterprises
	Supporting the ICT Sector	Simplification of the legal framework regarding ICT projects Coordination of the expansion of Greek ICT COs presence abroad
	Enhance Entrepreneurship in sectors utilizing ICT	Simplification of the setting up procedures for new companies, especially those based on innovative entrepreneurial models Improvement of entrepreneurial skills at the university
Q U A L I T Y o f L I F E	Use of ICT for creating better conditions to everyday life	Enhancing the penetration of Broadband Large Scale information Campaign ICT support to education
	Development of digital services for the citizens	Transforming the 20 most popular services to electronic Targeted actions for the citizens (e.g. mobile educational centers)

Regional Operational Programs 2007 - 2013

- ROP Macedonia – Thrace

- ROP Western Greece – Peloponnesus – Ionian Islands

- ROP Crete – Aegean Islands

- ROP Central Greece - Epirus

- ROP Attica

Community Allocation to Operational Programs
(*million €, prices 2004*)

Operational Programs	ERDF	ESF	Cohesion Fund	Total
Enhancing Accessibility	1.250		1.700	2.950
Environment & Sustainable Development	220		1.580	1.800
Entrepreneurship & Competitiveness	1.200			1.200
Digital Convergence	830			830
Human Resources		4.000		4.000
Technical Support	192			192
(Objective 3)	181			181
Total of SOP & Objective 3	3.873	4.000	3.280	11.153
Total ROP	7.014			7.014
Total	*10.887*	*4.000*	*3.280*	*18.167*

Community Allocation to ROP
(*million €, prices 2004*)

ROP	ERDF	*Cohesion Fund*
Macedonia & Thrace	2.356	*2.698*
Central Greece & Epirus	989	*454*
Western Greece – Peloponnesus – Ionian Islands	790	
Crete & Aegean Islands	2.147	*128*
Attica	733	*3.067*
Total	7.014	

Regional Operational Programs
2007 - 2013

ROP will cover a common field of actions:

- **Social structures and services**

- **Health and social solidarity (hospital and social care infrastructure, special units of health centers and open care centers, specialized equipment)**

- **Culture (amelioration of the basic cultural infrastructure, protection and elevation of the cultural heritage)**

- **Accessibility and local environmental projects**

- **Sustainable urban development policies**

- **Enforcement policies for Mountainous, Disadvantaged and Island regions**

Community Allocation per objective and year
(*million €, prices 2004*)

	2007	2008	2009	2010	2011	2012	2013	Total
Cohesion Fund	469	469	469	469	469	469	469	**3.280**
Regions below 75% EU GDP	1.194	1.194	1.194	1.194	1.194	1.194	1.194	**8.358**
Statistical Effect Phasing out	1.014	950	887	824	760	697	634	**5.765**
Phasing in	205	158	110	63	15	15	15	**582**
Total	*2.907*	*2.797*	*2.686*	*2.575*	*2.464*	*2.401*	*2.337*	***18.167***

Looking at IS POLICY IMPLEMANTATION: 476 years later…: Does it still have value?

"The difficulties they encounter in acquiring their principalities arise partly *because of the new institutions and laws they are forced to introduce in founding the state and making themselves secure. It should be borne in mind that there is nothing more difficult to handle, more doubtful of success, and more dangerous to carry through than initiating changes in a state's constitution. **The innovator makes enemies of all those who prospered under the old order, and only lukewarm support is forthcoming from those who would prosper under the new**. Their support is lukewarm partly from fear of their adversaries, who have the existing laws on their side, and partly because men are generally incredulous, never really trusting new things unless they have tested them by experience. In consequence, whenever those who oppose the changes can do so, they attack vigorously, and the defence made by the others is only lukewarm. **So both the innovator and his friends come to grief**".*

> *Niccolo Machiavelli, «The Prince», 1531*

Hope that we will not come to grief 476 years latter too!