

# THE WAY DEPENDS ON WHERE WE ARE

Factor-driven economy

### **BASIC REQUIREMENTS**

- Institutions
- Infrastructure
- Macroeconomic environment
- Health and primary education

### Efficiencydriven economy

Innovation-

driven

economy

### **EFFICIENCY ENHANCERS**

- Higher education and training
- Goods market efficiency
- Labor market efficiency
- Financial market development
- Technological readiness
- Market size

### **EFFICIENCY ENHANCERS**

- Business sophistication
- Innovation

### **DIRECT IMPACT**

- Availability and quality of ICT infrastructure
- Digital Readiness

### INDIRECT

- Improving development of human capital, eeducation
- Increased access to knowledge
- Increasing market efficiency/ reach ecommerce
- Increase efficiency in existing process / value chance

### **INDUCED**

- Decreasing barriers to creating of new knowledge (inventions)
- Decreasing barriers to innovation in new products, services, processes and markets

Source: The Global Competitiveness Report 2010-2011

Source: Jati Sengupta, Understanding Economic Growth, Springer 2011, OECD Broadband and the Economy, Future of Internet 2008; Lipsey, Richard; Kenneth I. Carlaw & Clifford T. Bekhar, Oxford Press 2005; Brynjolfsson, Erik, and Adam Saunders (2010) MIT Press and Ericsson Analysis

20 years

**DIRECT** 

**INDIRECT** 

INDUCED

Source: OECD Broadband and the Economy, Future of Internet 2008

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# **UKRAINIAN ECONOMY**

### The most problematic factors for doing business



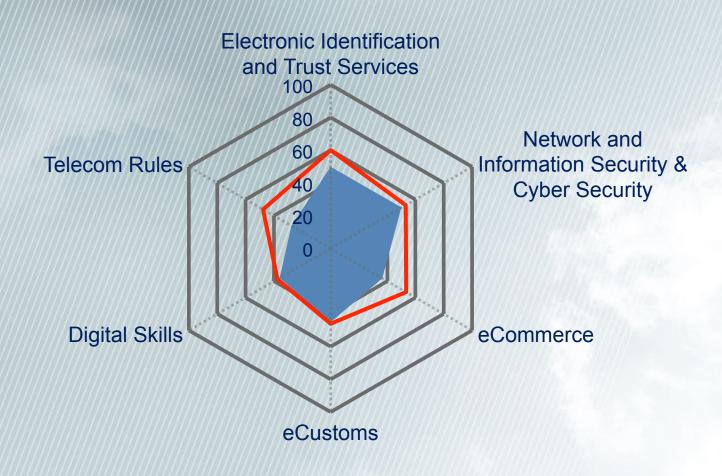
# **ECONOMIC IMPACT of ICT**

- ♦ +1000 Broadband users +80 JOBS
- ♦ +10% penetration +1,5-2% increase in GDP
- ♦ +2 x BB speed +0,3% increase in GDP
- ♦ +1% Up in BB penetration +3,5% of NEW BUSINESS

Source: Chalmers Institute of Technology, Arthur D Little, Stockholm School of Economic

# **UKRAINE CURRENT STATUS**

HDM Study



■ Ukraine ■Average of EaP countries



# **DIGITAL AGENDA FOR EU**

### To reboot the EU economy;

To enable Europe's citizens and businesses to get the most out of digital technologies.

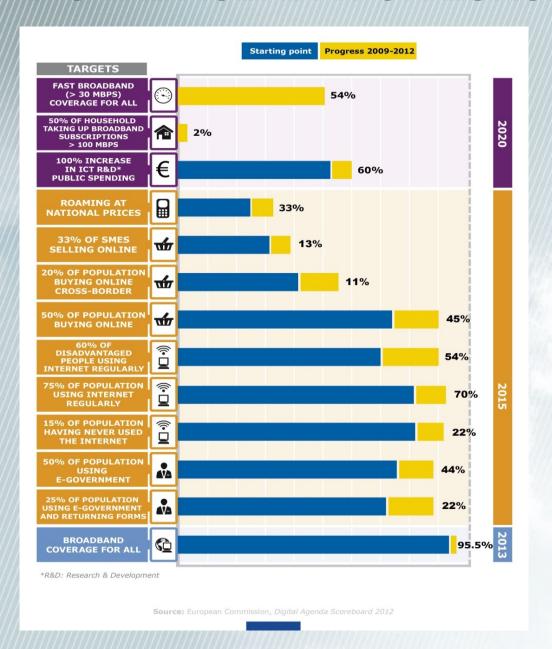
### **Seven Pillars**

- 1. Digital Single Market
- 2. Interoperability & Standards
- 3. Trust & Security
- 4. Fast and ultra-fast Internet access
- 5. Research and Innovation
- 6. Enhancing digital literacy, skills
- 7. ICT-enabled benefits for EU society

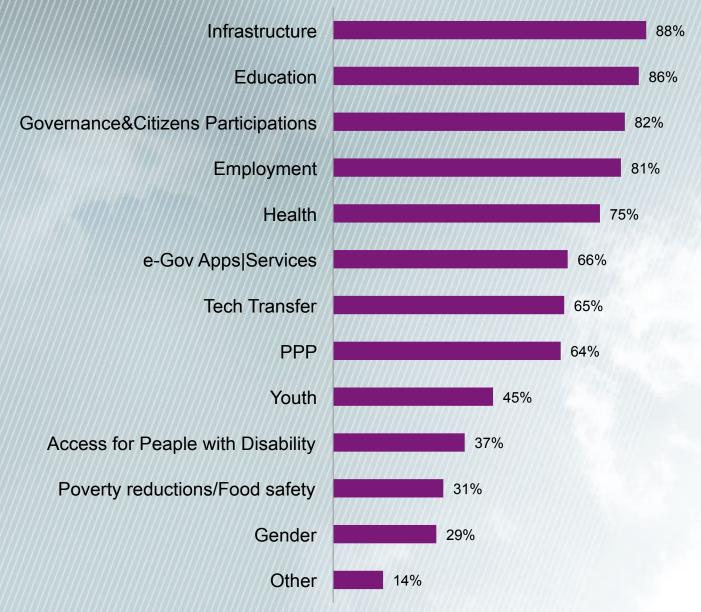
- the entire EU to be covered by broadband above 30 Mbps by 2020, 50 % of the EU to subscribe to broadband above 100 Mbps by 2020
- 50 % of the population to buy online by 2015
- to halve the proportion of the population that has never used the internet from 30 % to 15 % by 2015
- to double public investment in ICT R&D to € 11 bn by 2020

http://ec.europa.eu/digital-agenda/en/

# **DIGITAL AGENDA FOR EUROPE**



# KEY TARGETS OF WORLD DIGITAL AGENDA



Source: ITU/UNESCO Broadband Commission for Digital Development

# **ECONOMIC ENABLERS**

HUMAN CAPITAL	INFRASTR UCTURE	FINANCE	ENERGY	LAW Enforcement	
*					doesn't work
	*				no efficiency
		*			frustration
			×		non competitive
				*	corruption
					SUCCESS

# MAIN PILLARS OF UKRAINE DIGITAL AGENDA

TELECOM & ICT INFRASTRUCTURE

**DIGITAL SKILLS** 

**E-MARKET** 

**DIGITAL GOVERNANCE** 

**INNOVATIONS** and R&D

TRUST AND CYBERSECURITY

BENEFITS FROM ICT FOR SOCIETY AND ECONOMY

BRING

**NEW LIFE** 

TO ECONOMY

AND TO

SOCIETY

# **TELECOM & ICT INFRASTRUCTURE**

No Broadband Plan

Lack of Fast BB penetration (no 4G)

Lack of Cloud infra

Digital Divide Zones

### NATIONAL BROADBAND PLAN

- · Targets and KPIs
- List of white spaces
- National and regional programs
- Financing models
- Legislative

### **INCREASE BB PENETRATION**

- Law about access to passive infrastructure
- Decrease discount for providers on state infrastructure
- Deregulation
- Simplify certification for telecom equipment

### **NEXT G TECHNOLOGY**

- Technology neutrality till end of 2015
- · G-Cloud for state services

### HARMONIZATION WITH EU

Harmonization the scope of laws and directives

### **KPI 2020:**

- 1. Broadband for all
- 2. 50% of all BB
  - connection
  - >30 Mbps
- 3. 20% of all

BB

connection

>100 Mbps

# **DIGITAL SKILLS**

Low e-skills

No e-health

Low trust to e-services

No smart living

### **REEDUCATION PROGRAM**

- "Evening school" project
- IT oriented learning
- "Coworking spaces" project

### **OPEN DIGITAL UNIVERSITY**

- For everyone and for anywhere
- New actual content
- Accreditation

### **DIGITALIZE SCHOOL**

- Content Modernisation
- Access to online content
- Teacher staff reeducation

### PILOT SMART LIVING

- Smart metering
- Public online services
- Online medical care

### **POPULARIZATION "E - style"**

- Publications
- TV/radio/online lections and seminars

# **E-MARKET**

Technological lag

Undeveloped ecommerce

Low innovation involved

Low trust to eservices

Legislation barriers

### **IPR**

- Restructurization of Ukrpatent
- IPR enforcement body

### **E-COMMERCE**

- Marketplace formation and trustmark implementation
- Incentives for e-users
- Popularization of e-commerce
- Law "e-commerce"
- Law "e-money"
- e-procurement

### **DATA PROTECTION**

Law enforcement body

# **DIGITAL GOVERNANCE**

Low trust to Gov't services

Hard Paper Gov't machine

Lack of interoperability

No Transparency

**Obsolete Legislation** 

### STATE E-SERVICES

- Law "Administrative Services"
- · Portal of state e-services

### **EFFICIENCY OF STATE GOVERENANCE**

- Architecture of ministries functions;
- Data architecture;
- Application architecture;
- Technological architecture;
- Information security architecture;
- Common business processes, unified document templates, standards, and standard solutions

# **INNOVATION** and R&D

Raw and industry oriented science

Brain drain

Low financing

Lack of venture investments

### **BUSINESS CLIMATE FOR R&D**

- Data and IPR protection environment
- No monopoly
- Government efficiency

### **SCIENCE OFFICE**

- "INNO hub"
- Modernization National Academy of Science

### **VENTURE FINANCING**

• "INNO fund" for startups and innovations

### **IPR**

- Restructuration of UkrPatent
- IPR rules enforcement body

# TRUST AND CYBERSECURITY

Law and rules enforcement

Lack of specialists

Leak of information

No IPR protection

Corruption

### **NATIONAL CYBER SECURITY**

- National Cyber Security Strategy
- Cyber security enforcement body
- Professional emergency response teams

### **NETWORK AND INFORMATION SECURITY**

- In financing sector
- In critical services and applications

### **AWARENESS**

- Information about risks
- "First aid" in case of cyber attack

### **ONLINE SAFETY FOR EVERYBODY**

- Safety for children
- Safety of personal data

# BENEFITS FROM ICT FOR SOCIETY AND ECONOMY

Non energy efficiency economy

Poor health care

Safety

### **SMART CITY**

- Smart mettering
- eTicket
- Smart grids/networks
- Online city services
- Smart living

### **eHEALTH**

- Monitoring of RISK GROUP
- Online medical consultation

### **SAFE GUARD**

- Online monitoring of borders
- IT and Telco military applications

# THANK YOU for ATTENTION!

Lena Minitch

Lena.minitch@me.gov.ua

+ 380 67 218 00 11