DIGITAL AGENDA FOR UKRAINE
THE WAY DEPENDS ON WHERE WE ARE

Factor-driven economy
- BASIC REQUIREMENTS
  - Institutions
  - Infrastructure
  - Macroeconomic environment
  - Health and primary education

Efficiency-driven economy
- EFFICIENCY ENHANCERS
  - Higher education and training
  - Goods market efficiency
  - Labor market efficiency
  - Financial market development
  - Technological readiness
  - Market size

Innovation-driven economy
- EFFICIENCY ENHANCERS
  - Business sophistication
  - Innovation

DIRECT IMPACT
- Availability and quality of ICT infrastructure
- Digital Readiness

INDIRECT
- Improving development of human capital, e-education
- Increased access to knowledge
- Increasing market efficiency/reach e-commerce
- 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

UKRAINIAN ECONOMY

The most problematic factors for doing business

- Corruption: 17.8
- Policy instability: 14
- Access to financing: 13.9
- Government instability/coups: 10.5
- Inefficient government bureaucracy: 8.8
- Inflation: 8
- Tax rates: 7.7
- Tax regulations: 4.3
- Foreign currency regulations: 4.1
- Restrictive labor regulations: 3.4
- Insufficient capacity to innovate: 1.8
- Crime and theft: 1.7
- Inadequate supply of infrastructure: 1.7
- Poor public health: 1.1
- Inadequately educated workforce: 0.8
- Poor work ethic in national labor force: 0.6

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

Network and Information Security & Cyber Security

Electronic Identification and Trust Services

Telecom Rules

Digital Skills

eCommerce

eCustoms

HDM Study

Ukraine

Average of EaP countries
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

DIGITAL AGENDA FOR EUROPE

TARGETS

- Fast broadband (> 30 Mbps) coverage for all: Starting point 54%, Progress 2009-2012 54%
- 50% of household taking up broadband subscriptions > 100 Mbps: Starting point 2%, Progress 2009-2012 60%
- 100% increase in ICT R&D/public spending: Starting point 13%, Progress 2009-2012 60%
- Roaming at national prices: Starting point 33%, Progress 2009-2012 33%
- 33% of SMEs selling online: Starting point 13%, Progress 2009-2012 11%
- 20% of population buying online cross-border: Starting point 11%, Progress 2009-2012 45%
- 50% of population buying online: Starting point 11%, Progress 2009-2012 54%
- 60% of disadvantaged people using internet regularly: Starting point 11%, Progress 2009-2012 70%
- 75% of population using internet regularly: Starting point 11%, Progress 2009-2012 70%
- 15% of population having never used the internet: Starting point 11%, Progress 2009-2012 22%
- 50% of population using e-government: Starting point 11%, Progress 2009-2012 44%
- 25% of population using e-government and returning forms: Starting point 11%, Progress 2009-2012 22%

*R&D: Research & Development

Source: European Commission, Digital Agenda Scoreboard 2012
<table>
<thead>
<tr>
<th>Key Targets of World Digital Agenda</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Infrastructure</td>
<td>88%</td>
</tr>
<tr>
<td>Education</td>
<td>86%</td>
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<tr>
<td>Governance &amp; Citizens Participations</td>
<td>82%</td>
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<tr>
<td>Employment</td>
<td>81%</td>
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<td>Health</td>
<td>75%</td>
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<td>e-Gov Apps</td>
<td>Services</td>
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<td>Tech Transfer</td>
<td>65%</td>
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<td>PPP</td>
<td>64%</td>
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<td>Youth</td>
<td>45%</td>
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<tr>
<td>Access for People with Disability</td>
<td>37%</td>
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<tr>
<td>Poverty reductions/ Food safety</td>
<td>31%</td>
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<tr>
<td>Gender</td>
<td>29%</td>
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<tr>
<td>Other</td>
<td>14%</td>
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</table>

Source: ITU/UNESCO Broadband Commission for Digital Development
## ECONOMIC ENABLERS

<table>
<thead>
<tr>
<th>HUMAN CAPITAL</th>
<th>INFRASTRUCTURE</th>
<th>FINANCE</th>
<th>ENERGY</th>
<th>LAW Enforcement</th>
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</tbody>
</table>

- **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

**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

Low e-skills

No e-health

Low trust to e-services

No smart living
E-MARKET

Technological lag

Undeveloped e-commerce

Low innovation involved

Low trust to e-services

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 GOVERNANCE

• 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

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

Poor health care

- Monitoring of RISK GROUP
- Online medical consultation

Safety

- Online monitoring of borders
- IT and Telco military applications

SAFE GUARD
THANK YOU for ATTENTION!

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