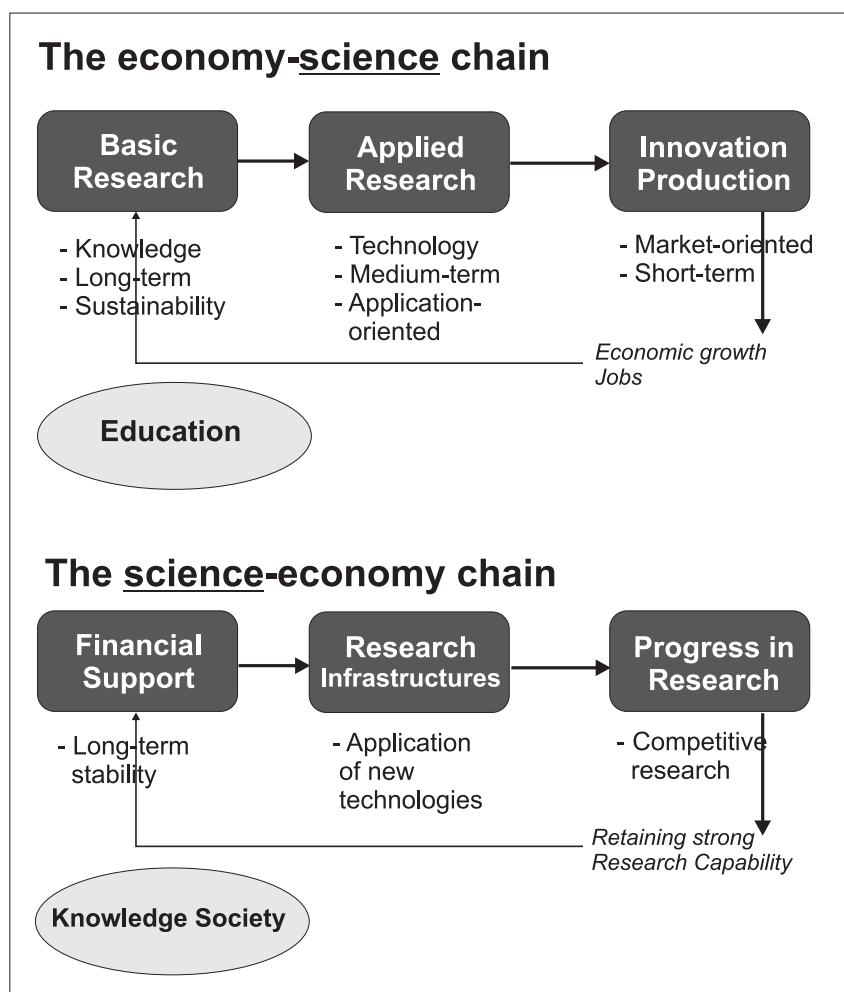


**SCIENCE AND TECHNOLOGY (S&T) IN THE WORLD AND UKRAINE  
(compiled by Ya. Yatskiv)**

**THE ROLE OF SCIENCE\***



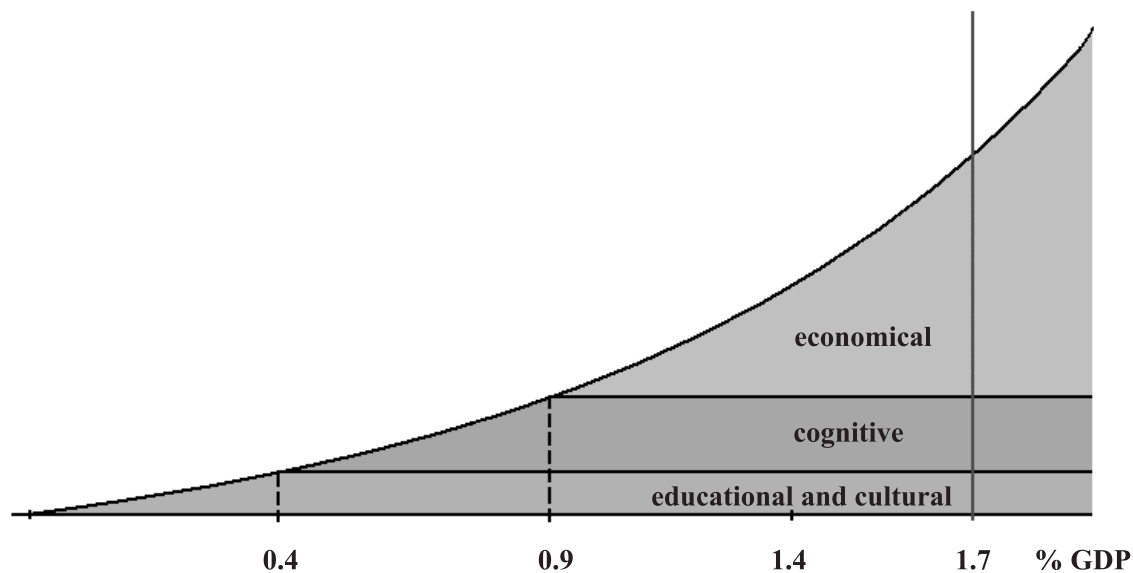
The model illustrates the interdependence between science and the economy as main elements of the 'innovation train', with basic research providing the knowledge base for applied research and innovation, leading to job creation and economy growth.

A major precondition for this is a well functioning education system with close links to both science and innovation.

On the other hand, the fundamental requirements for basic research to thrive are satisfactory funding with long-term stability and the availability of the relevant research infrastructures. Both elements are intimately dependent on general economic progress in society.

\*Towards a Europe of Knowledge and Innovation, EIROforum 7 (E-mail: info@eiroforum.org).

**THE ROLE OF S&T DEPENDING ON INVESTMENT (in % of GDP)**



**INVESTMENT IN R&D (IN % OF GDP) FOR 2000**

EU countries	1.8
USA	2.8
JAPAN	3.0
UKRAINE	0.3

**FULL-TIME EQUIVALENT RESEARCHES PER 1000 OF THE WORKFORCE FOR 2000**

EU countries	5.7
USA	8.1
JAPAN	8.5
UKRAINE	6.0

## **Informational chapter**

### **INVESTMENT IN R&D (IN \$) PER POPULATION**

#### ***In the World***

	<b>GDP / year in \$</b>	<b>Population</b>	<b>Ratio in \$ / person</b>
Total	$\sim 25 \cdot 10^{12}$	$\sim 6.5 \cdot 10^9$	$\sim 4000$
R&D	$\sim 450 \cdot 10^9$	$\sim 6.5 \cdot 10^9$	$\sim 70$

#### ***In the former USSR***

	<b>GDP / year in \$</b>	<b>Population</b>	<b>Ratio in \$ / person</b>
Total	$\sim 2 \cdot 10^{12}$	$\sim 250 \cdot 10^6$	8000
R&D	$\sim 40 \cdot 10^9$	$\sim 250 \cdot 10^6$	160

### **SCIENCE AND TECHNOLOGY IN UKRAINE**

#### ***Investment in various R&D***

<b>Type of activity</b>	<b>Function</b>	<b>Funding % optimal / real</b>
Basic Research (BR)	New knowledge (NK)	15 / 16
Applied Research (AR)	Transformation of NK to MP	25 / 15
Developments / Designs (DD)	New Tech New Material etc.	60 / 70

#### ***Various types of budgetary funding (in % to total amount)***

<b>Index</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Basic (provided directly to institutions)	45.1	33.5	34.7	39.9	45.9
State S&T programs (on competition basis)	7.6	3.7	13.1	9.8	3.4
State orders of S&T products	9.3	3.9	6.2	3.3	3.7
Others (provided by governments to various agencies)	38.0	58.9	46.0	47.0	47.0