

STEPS Centre

Innovation Policy and problems of creation and development of the NIS in Ukraine

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Key new measures related to innovation policy introduced during 2006 – 2007

- State Agency for Investment and Innovations (SAII) launched its first competition for the innovation and investment project in late autumn 2007. The Agency was created in December 2005, upon the initiative of the President of Ukraine, but with unclear roles and responsibilities. Hence, it has only recently begun implementing innovation schemes.
- Start of the restoration of tax incentives for technoparks (mid-2006-beginning of 2007) – but subsequently blocked by the Ministry of Finances.
- Work of a special commission aimed at reforming the science system (late 2005 – late 2006). The commission was created upon the President's initiative but its recommendations have been not implemented. However, recommendations of the commission have created the basis for starting reforms.
- Decision of the National Council of Defence and Security on stimulating S&T and innovation activity (August 2006). It has had no substantial impact on innovation activity, but it has stimulated discussion at the national level on how to support innovation development in the best way.

Innovation governance SWOT overview

STRENGTHS

- Large and partially preserved S&T potential, including existence of relatively large pool of qualified specialists with degrees in natural sciences and engineering and a number of research organizations.
- Infrastructure for innovation activity is formed, including creation of technoparks, business incubators and other elements of innovation infrastructure (data on the number of such organizations is presented in another section of this report)
- Information technology adoption is growing fast in the country, which creates important preconditions for successful innovation development
- The number of laws and other legislative acts that regulate innovation activity, especially in the area of IPR protection. These laws cover almost all aspects of R&D and innovation, and contain important definitions and measures of innovation support. However, not all laws are working effectively due to some contradictions that exist in the Ukrainian legal system. In any case, there is some basis for further development of relevant institutions aimed at support of innovation activity.

Innovation governance SWOT overview

WEAKNESSES

- Demand for innovation is not high within Ukrainian industry. The national industrial sector is dominated by activities with low technology content where innovation development is less relevant.
- No specialized non-state funds aimed at support of innovation activity have been created. There are very few sources (both state and private) that are financing R&D and innovation on a competitive basis in Ukraine.
- The quality of the business environment remains low, as the time for establishing a new company is longer than in neighbouring countries and the price of doing business (formal taxes and corruption) is usually higher.
- The regulation acts and laws contain some contradictions: the most clear example is related to the prohibitive restrictions in a Budget Law on stimulating innovation activity. The regulation acts contain very few quantitative indicators of innovation development and measures to guide their implementation.

Innovation governance SWOT overview

OPPORTUNITIES

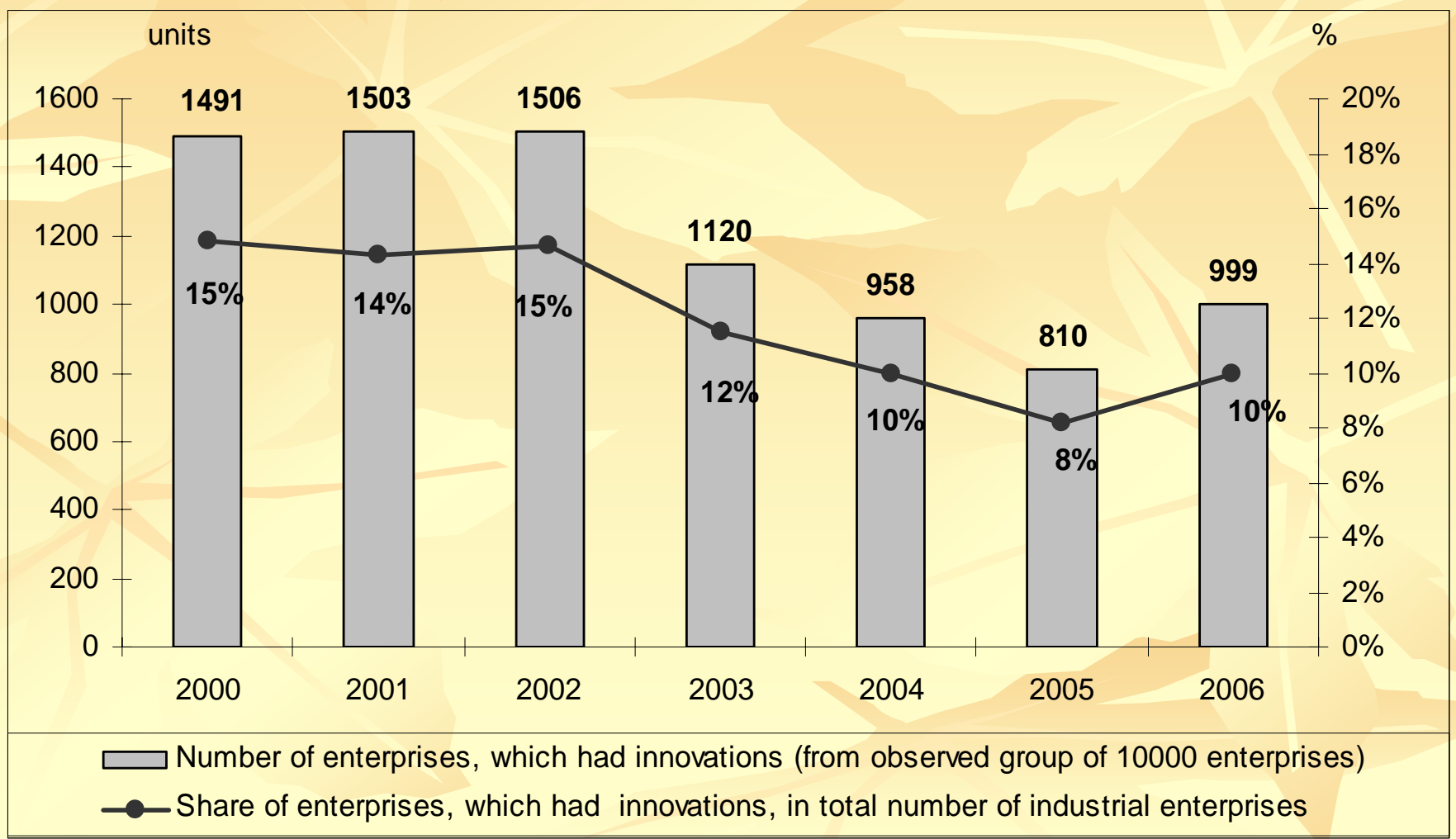
- There is a lot of room for the development of innovative businesses in the SMEs sector.
- Expansion of the EU and rising costs have created the conditions for the transfer of some production capacities to Ukraine from neighbouring Central European countries.

Innovation governance SWOT overview

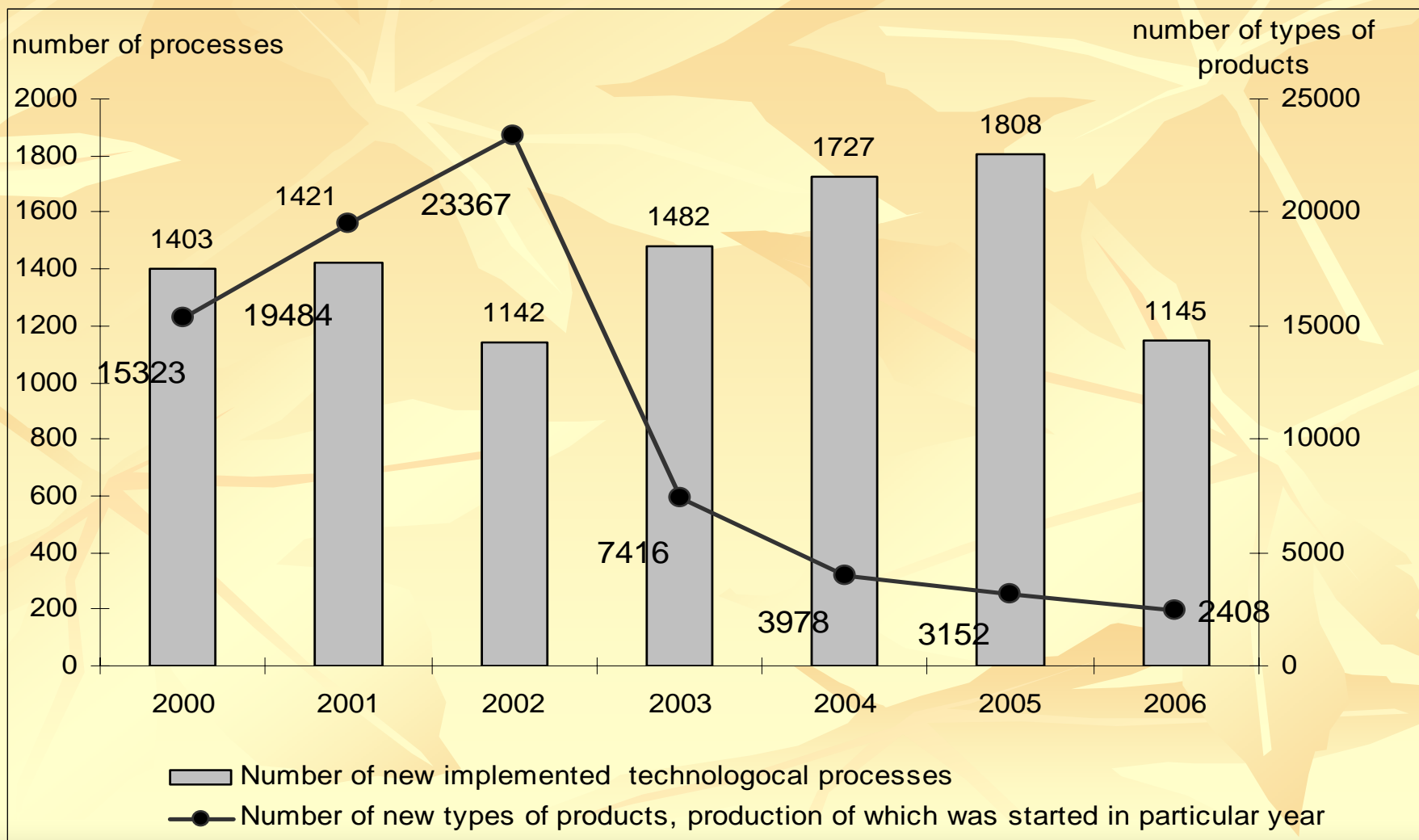
THREATS

- Domination of resource intensive sectors will be preserved in the national economy.
- Lack of political consensus on modernization and continuation of the current political stalemate create unstable conditions for innovation activity.

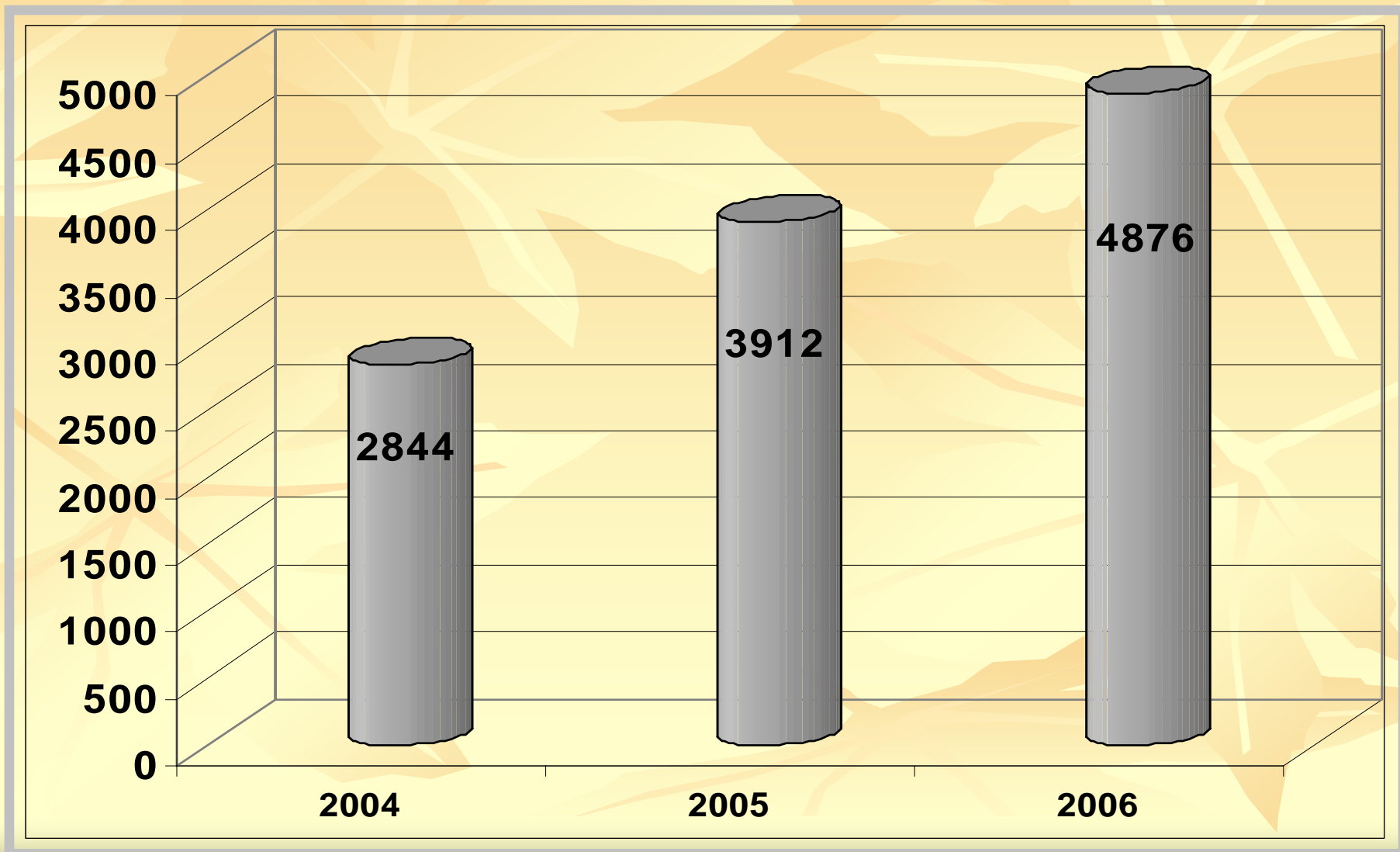
Number of enterprises, which had innovations, and their share in total number of industrial enterprises, 2000-2006



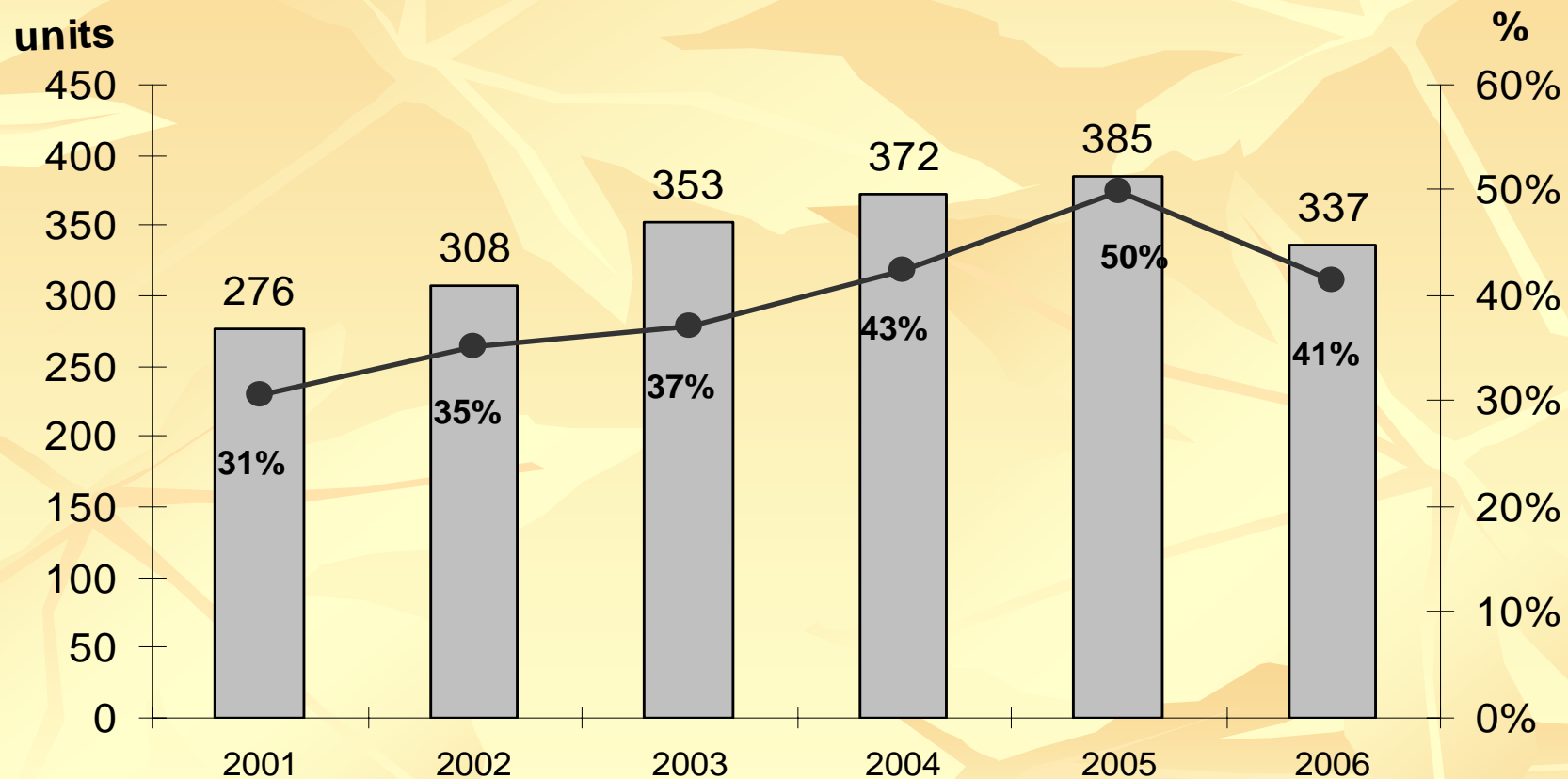
Innovation products and processes in the Ukrainian industry in 2000-2006



Volume of innovation production in industry, 2004-2006 (mln. euros)



Number of enterprises, which exported innovation production, and the share of this production in total volume of innovation production, 2001-2006



■ Number of enterprises, which sold innovation production overseas

● Share of exported innovation production in total volume of innovation production, %

National innovation policy objectives

Objective	Quantitative target (if set)	To be achieved by (year)
Promotion of S&T development, law establishes fixed share of expenses on R&D as a share of GDP. (Comment: this indicator seems very high and it cannot be reached within a few years)	1.7%	2005
Creation of the system of permanent S&T forecasting		Since 2008
Realization of Bologna Process Goals aimed at the creation of a joint educational space in Europe.		2006-2010

Elements of business infrastructure in Ukraine, 1998-2006

Type of infrastructure	1998	2000	2002	2004	2006
Business-incubators	28	46	63	73	70
Business-centres	57	132	257	300	404
Regional funds for business support	48	72	107	149	104
Technoparks	-	3	7	16	16

Key problems of innovation development

1. Substantial difference in GDP per capita between Ukraine and other neighbouring countries, such as Poland, Hungary and others, which have already started to build modern innovation systems.
2. Weak orientation of the financial system to support innovation activity.
3. General low level of financing of innovation activity.
4. Obsolete industrial structure with high share of mining and ferrous metallurgy sectors, which is not favourable towards innovation activity. Growth of the energy consumption level.
5. Very few R&D results from the national S&T system are used in innovation activity. Patent activity of the state R&D sector is negligible.

Key problems of innovation development

6. Lack of incentives for high-tech SMEs development.
7. External orientation of intermediary service companies, which are trying to sell results of R&D and inventions to foreign customers only.
8. Decline of quality of R&D personnel, including aging and the decline in qualifications due to deteriorating of the quality of education in natural sciences and engineering.
9. Permanent changes in the system of state governance of innovation system that leads to loses of qualified cadres and changes in strategy.
10. Low impact of learning programmes on innovation activity in Ukrainian society.

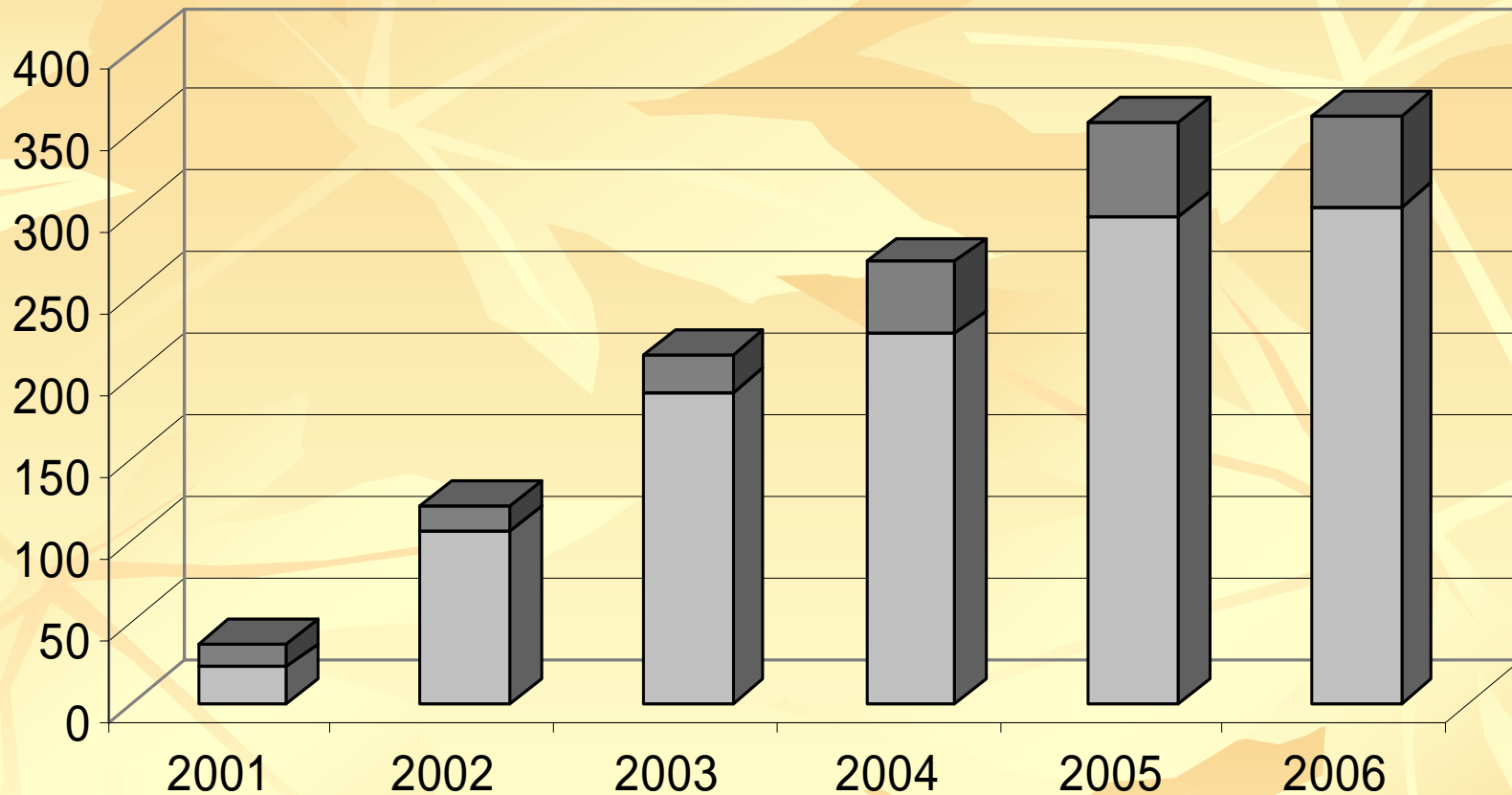
Factors that prevented innovation activity amongst Ukrainian industrial enterprises in 2006

Factor that prevents innovation activity	The share of enterprises which mentioned the factor from the total number of surveyed enterprises, %
1. Inadequate own financial resources	80.1
2. High required investment in innovation	55.5
3. Inadequate financial support from the side of the state	53.7
4. High level of economic risk	41.0
5. Poor legal base for innovation activities	40.4
6. Long period for return on investment	38.7

Factors that prevented innovation activity amongst Ukrainian industrial enterprises in 2006

7. Lack of financial resources of potential consumers to buy innovative products	33.3
8. Lack of qualified personnel	20.0
9. Difficulties in establishing co-operation with research institutes and other enterprises	19.7
10. Inadequate information about consumer markets	17.4
11. Inadequate information about innovative products	17.3
12. Low demand for innovative products in the market	16
13. Unwillingness of the enterprise to innovate	15.5

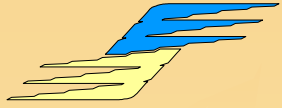
Volume of innovation production of Ukrainian technoparks in 2001-2006, million Hryvnas



- Volume of innovation production sold in foreign markets
- Volume of innovation production sold in domestic market

2. INPUT - Knowledge creation

	Indicator	2000	2001	2002	2003	2004	2005	EU-25	Ukr/EU25
2.1	Public R&D expenditures (% of GDP)	0.37	0.40	0.35	0.41	0.43	0.41	0.69	0.59
2.2	Business R&D expenditures (% of GDP)	0.45	0.39	0.42	0.49	0.43	0.39	1.26	0.31
2.3	Share of medium-high-tech and high-tech R&D (% of manufacturing R&D expenditures)		92.63	90.33	90.99	86.86	87.65	89.20	0.98
2.4	Share of enterprises receiving public funding for innovation (%)		0.39	0.35	0.56	0.47	0.44		



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Thank you for attention !