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PRESS RELEASE  
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THE INNOVATION IN INDUSTRY AND SERVICES  
during the period 2010- 2012

Final results

For the correct interpretation of results,  
kindly see the methodological note on page 7 of the press release.

*During the period 2010-2012:*

- *one out of five enterprises introduced or implemented a new or significantly improved product, process and organizational or marketing method.*
- *over half of the product innovative enterprises developed innovations in own enterprise*
- *7.4% of the innovative enterprises had cooperation agreements in order to perform innovative activities*
- *the benefits of the advance lead time was the main method for maintaining or increasing the competitiveness of innovative enterprises;*
- *the most innovative SMEs have been recorded in the South-East Region (36.1%) and in the North-East Region (31.7%);*

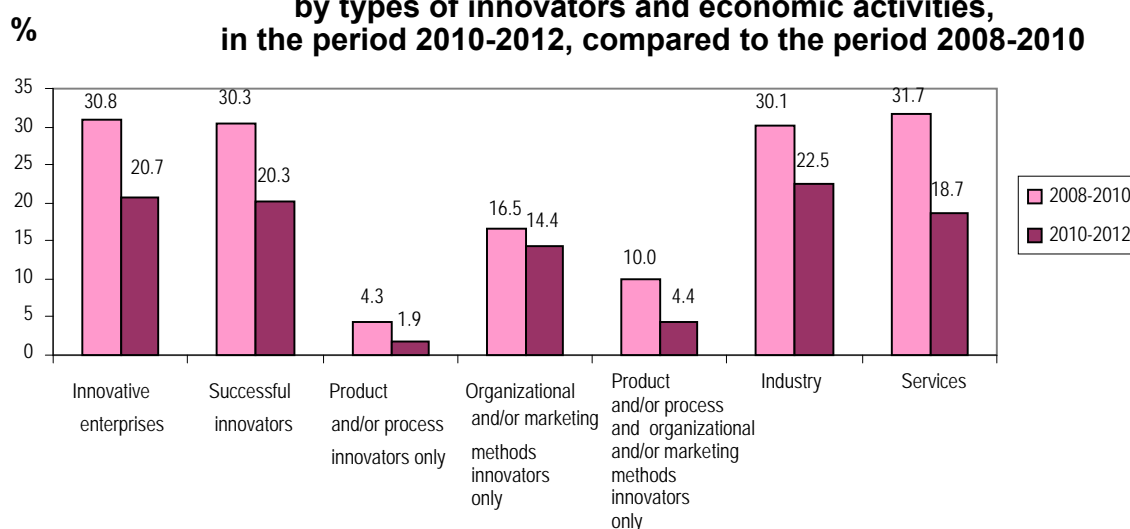
*In 2012, the weight of expenditure on internal research-development activities almost doubled.*

According to the statistical survey outcomes on enterprise innovation, **during the period 2010-2012, the weight of the innovative enterprises was 20.7%, 10.1 percentage points less**, compared to the period 2008-2010.

**The product and/or process innovative enterprises had a weight of 6.3% in total enterprises**, 8.0 pp less, compared to the period 2008-2010, when there had been a weight of 14.3%.

**The organizational and/or marketing innovative enterprises had a weight of 18.8%**, 7.7 pp less, compared to the period 2008-2010, when their weight had been 26.5%.

**The weight of the innovative enterprises, in total enterprises,  
by types of innovators and economic activities,  
in the period 2010-2012, compared to the period 2008-2010**



**The enterprises in industry** had a weight of **22.5%**, 7.6 pp less compared to the period 2008-2010, while the enterprises in **services** had a weight of **18.7%**, 13.0 pp less compared to the period 2008-2010.

However, some economic activities recorded high weights of innovative activities. Thus, the most innovative economic activity in industry was the manufacture of tobacco products, 80.0% of the enterprises, while in services it was the research - development activity 55.5% of the enterprises.

**The first 10 innovative activities in the period 2010-2012**

Top	Economic activity	%
1	Manufacture of tobacco products	80.0
2	Research-development	55.5
3	Manufacture of basic pharmaceutical products and pharmaceutical preparations	52.3
4	Manufacture of motor vehicles, trailers and semi-trailers	38.0
5	IT services activities	35.6
6	Repair, maintenance and installation of machinery and equipment	35.6
7	Financial intermediation, insurance activities and pension funds excluded	34.6
8	Insurance, reinsurance and pension funds activities (public social insurance excluded)	34.0
9	Decontamination services and activities	33.3
10	Manufacture of machinery and equipment n.e.c.	32.2

By enterprise size class, **big enterprises are more innovative, 40.1%**, compared to medium size enterprises, 26.6% and small ones, 18.3%. This trend was also noted in the two sectors, industry and services.

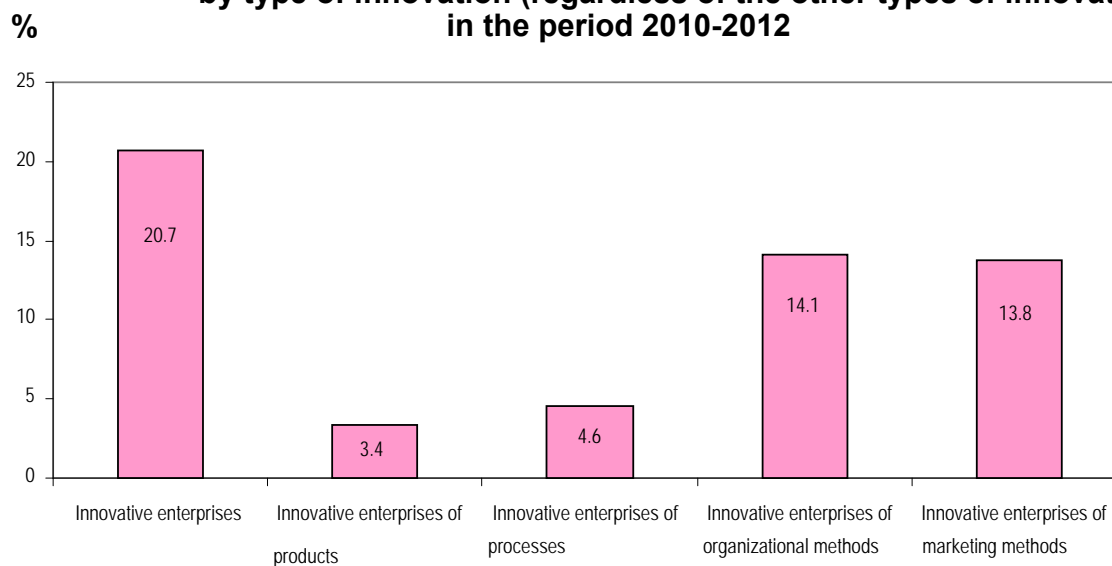
In the period 2010-2012, out of the total product and/or process innovative enterprises, 7.8% were innovators of products and processes, 3.6% were process innovators only and 2.4% were product innovators only. Out of the total organizational and/or marketing innovative enterprises, 9.1% implemented both organizational and marketing methods, 5.0% implemented only organizational methods and 4.7% introduced only marketing new methods.

### Type of innovators in the period 2010 – 2012

	Number of enterprises	Weight in total enterprises (%)
Total enterprises	28866	100.0
Innovative enterprises	5968	20.7
<b>Innovative enterprises of products and/or processes</b> (regardless of organizational and/or marketing innovations)	<b>1806</b>	<b>6.3</b>
Innovative enterprises of products <b>only</b>	351	1.2
Innovative enterprises of processes <b>only</b>	706	2.4
Innovative enterprises of products <b>and</b> processes	634	2.2
Enterprises with innovative products and unfinished and/or abandoned processes	115	0.5
<b>Innovative enterprises of organizational and/or marketing methods</b> (regardless of product and/or process innovations)	<b>5427</b>	<b>18.8</b>
Innovative enterprises of organizational methods <b>only</b>	1446	5.0
Innovative enterprises of marketing methods <b>only</b>	1354	4.7
Innovative enterprises of organizational <b>and</b> marketing methods	2627	9.1

**By type of implemented innovation** (regardless of the other innovations), in the period 2010-2012, the most innovative enterprises implemented **organizational methods, 14.1%** and **marketing methods 13.8%**. **The weight of the product innovative enterprises was of 3.4%** and **of the process innovative enterprises of 4.6%**.

### The weight of innovative enterprises, in total enterprises, by type of innovation (regardless of the other types of innovations), in the period 2010-2012



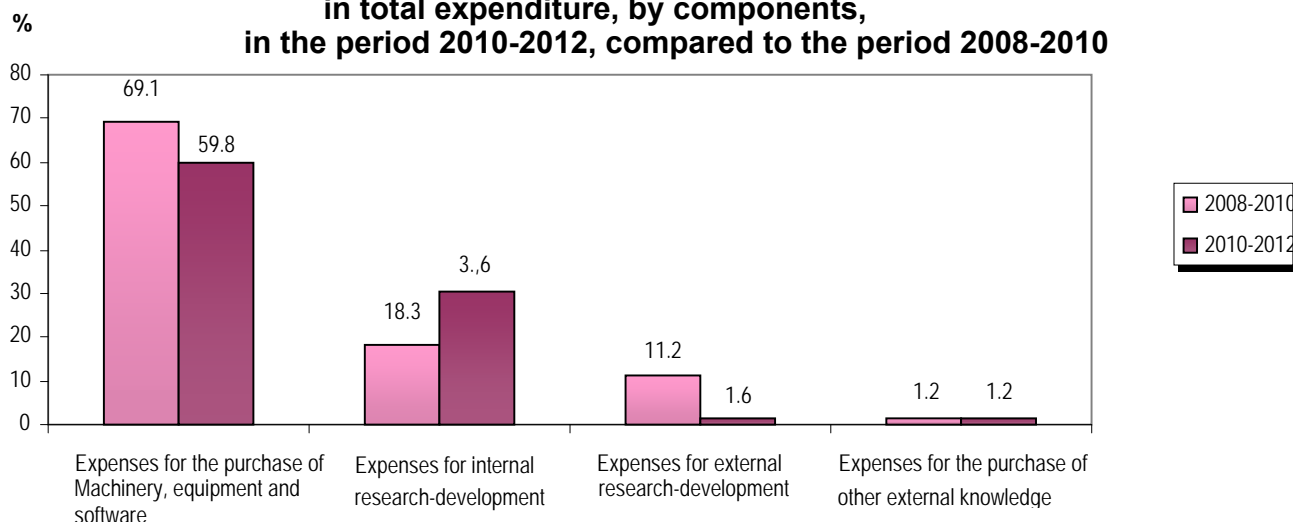
In the period 2010-2012, compared to the period 2008-2010, three times fewer enterprises, 1.1% compared to 3.0%, introduced new products on the market and two times fewer enterprises, 4.6% compared to 8.8% during 2008-2010, developed new products only for the enterprise.

In the period 2010-2012, **out of the total of innovative enterprises of products (goods), 56.4% developed the innovations in own enterprise**, 21.2% enterprises introduced products together with other enterprises, 12.4% made them by adapting or modifying the products and 6.9% were made in other enterprises.

**The most important market for the products** remains **the local or regional one** which has been **mentioned by 88.8% of the total innovative enterprises**, 65.5% of the innovative enterprises sold their products on the national market, 34.2% on the European Union market and 15.0% of the innovative enterprises sold their products in other countries.

**In 2012, the total value of expenses for product and/or process innovation**, was of **2917.3 million lei**. Compared to 2010, **the internal research-development expenditure almost doubled**, from 18.3% to 30.6%. There was a decrease of 9.6 pp in the external research-development expenses, from 11.2% to 1.6%. The expenses for the purchase of machinery, equipment and software decreased by 9.3 pp, from 69.1% to 59.8% and the expenses for the purchase of other external knowledge remained unchanged (1.2%), similar to 2010.

**The expenditure weight for the product and/or process innovative activities, in total expenditure, by components, in the period 2010-2012, compared to the period 2008-2010**



In the period 2010-2012, **the public financing of enterprises increased by 13.2 pp, from 4.3 % to 17.5%** compared to the period 2008-2010.

**The customers or the purchasers from the public sector and the competitors or other enterprises in the same field of activity** had been **the main sources of information** of the enterprises to support the process of innovation. By the type of source, they are: internal sources, market sources, sources from institutions and other sources.

If in the period 2008-2010, 11.2% of the innovative enterprises had cooperation agreements to perform innovative activities, in the period 2010-2012, only **7.4% of the innovative enterprises had cooperation agreements to perform innovative activities**.

The main cooperation partners of the innovative enterprises had been the suppliers of equipment, materials, components or software, 5.3% and the clients or purchasers in the public sector, 3.5%. By economic sectors, there is a greater cooperation in industry than in services.

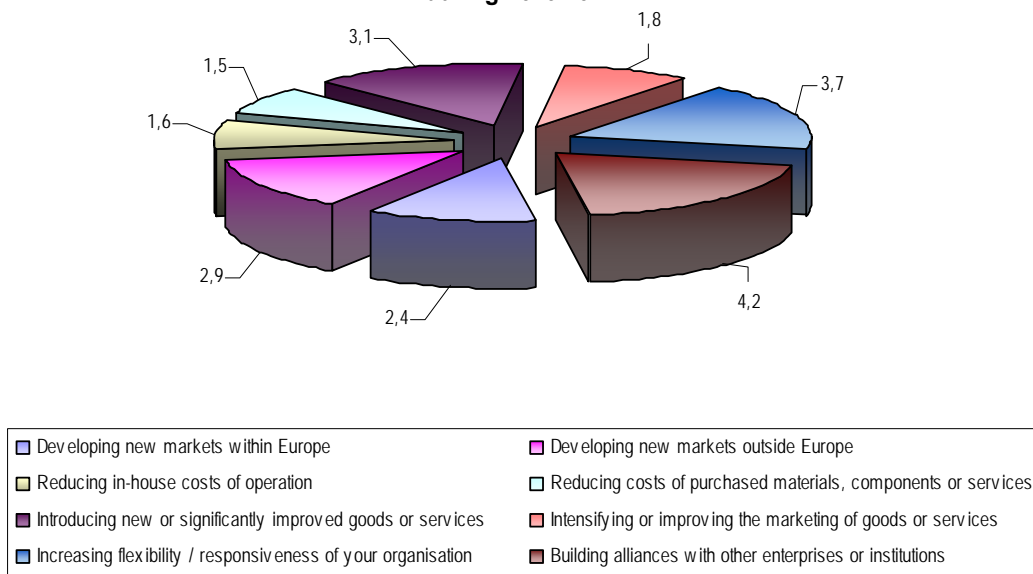
**The weight of enterprises involved in cooperation, by size class, by activity and by partners, in the period 2010-2012**

Type of partner	Enterprises				Activities	
	Total	Small	Medium	Big	Industry	Services
Any type of cooperation	7.4	5.7	6.9	22.5	9.0	5.1
Other enterprises within the group	2.0	0.8	2.3	11.7	2.5	1.4
Suppliers of equipment, materials, components or software	5.3	4.2	4.3	18.0	6.9	3.1
Clients or purchasers from public sector	3.5	2.2	4.0	12.3	4.0	2.8
Clients or purchasers from private sector	-	-	0.1	-	-	-
Competitors or other enterprises in the same field of activity	1.0	0.4	1.6	4.8	1.0	1.1
Consultants, commercial labs, private R&D institutes	2.6	2.0	2.6	7.9	3.3	1.6
Universities or other Higher Education institutions	1.5	0.7	1.6	7.7	1.6	1.3
Public administration, public or private research institutes	2.3	1.4	2.6	9.2	2.5	2.1

The enterprises declared that the most efficient methods to maintain or increase the competitiveness of the product and/or process innovation were those regarding the benefits of advance lead time, 4.8% and those regarding the complexity of products or services (4.5%).

In order to be competitive and to get profit, every enterprise has some targets. To achieve these objectives, the enterprises use various strategies. From the analysis of the data obtained for the period 2010-2012, 4.2% of the innovative enterprises mentioned that their main strategy was to develop alliances with other enterprises or institutions and 3.7% of them mentioned the increase of the flexibility/sensibility of the organisation. The chart below presents the main strategies used by the enterprises.

**The weight of innovative enterprises which indicated a high importance degree for reaching enterprises' goals, in total enterprises, during 2010-2012**



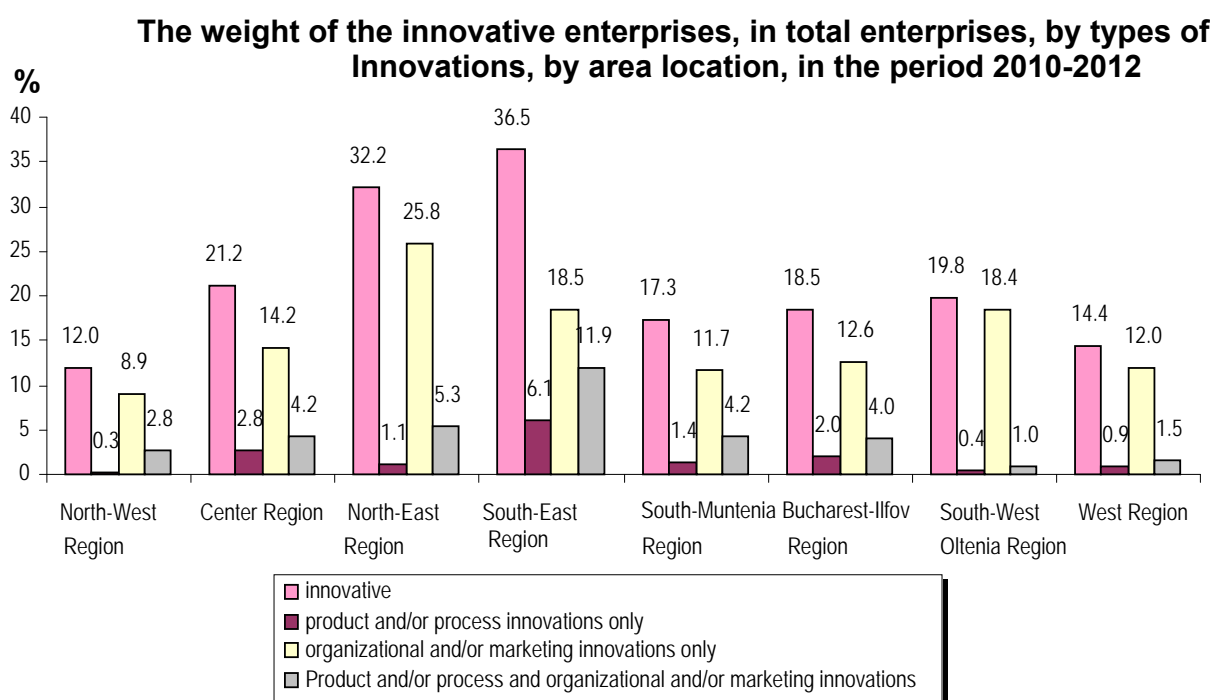
At the same time, the innovative enterprises identified a number of obstacles in achieving the innovative activity. These factors have been named according to the impact on the innovative activities.

**Lack of qualified personnel was the most important obstacle in achieving the objectives of enterprises in the period 2010-2012.**

### ***Innovation by area location***

The statistical survey kept a trace of the enterprises by their headquarters address, regardless of the region where the enterprise or its workstation is located.

**In the period 2010-2012, the highest weights were recorded in the South-East Region 36.5% and the North-East Region 32.2%** and the lowest weights were registered by the West Region 14.4% and by the North-West Region 12.0%.



**The most innovative small and medium enterprises (SMEs) were recorded in the South-East Region, 36.1% and in the North-East Region, 31.7%.** The less innovative SMEs were recorded in the North-West Region, 11.4%.

**The most product innovative SMEs** were recorded in the **South-East Region, 6.5%**, 16.0% process innovative SMEs and 26.8% organizational methods innovative SMEs.

In the **Nord-Est Region**, were recorded **the most marketing methods innovative SMEs, 22.2%**.

A weight of 0.4% of the SMEs in the South-East and North-East Regions had new products on the market and 1.5% of the din SMEs in the South-East Region had new products for the enterprise only.

The highest weight of SMEs that received public financing was recorded in the North-East Region, 2.6% and **the most SMEs that cooperated were in the South-East Region, 2.8%**.

## METHODOLOGICAL NOTE

**1. The data source** is represented by „**The integrated statistical survey on the research-development activity and innovation of business enterprises**”– **CDI-BES**, questionnaire available at the address <http://www.insse.ro/cms/>, through which data on human resources and research-development expenses, as well as data on innovation in enterprises are collected according to the Regulation (EU) no. 995/2012 of the Commission of October 26, 2012, that establishes the implementing rules of Decision 1608/2003/EC of the European Parliament and Council of July 22, 2003, regarding the production and development of the Community statistics in the field of science and technology. The questionnaire is divided in four parts. Part I and Part III of the questionnaire refers to the innovation in enterprises and is based on the European questionnaire “Community Innovation Survey” (CIS) used in all the Member States of the European Union ; the collection taking place every two years. At European level, the data from CIS represent the main source of information for the study of the behaviour of enterprises on innovation. The results of the survey meet the guiding principles proposed by OECD/Eurostat and included in – Guide for the collection and interpretation of data on technological innovation - OSLO Manual, Edition 2005.

**2. The statistical survey is a selective type survey.** The type of statistical survey used and the procedure of the sample extraction is that of the stratified survey with simple random selection without come back within each stratum, where the stratification variables are the following: the economic activity, the class size of enterprise by number of employees and development region.

The statistical survey regards all the enterprises, regardless of class size and/or economic activity. The enterprises with 100 employees and over are exhaustively researched. The class sizes by number of employees are as follows: 0-9 (micro), 10-49 (small), 50-249 (medium), and 250 and over (big).

**Small and medium enterprises (SMEs)** are those enterprises with a number of employees of 10-249 persons.

The number of the units studied in the statistical survey **CDI BES 2012** was of 16190 enterprises. Out of them, there was selected a number of **9119 enterprises with more than 9 employees** from the whole industry and part of the services (wholesale, transport and storage, information and communications, financial intermediation and insurance, architecture and engineering activities; testing activities and technical analysis, research-development and advertising and market research activities) **that represented the coverage of the enterprises for the innovation statistics**, divided in the following class sizes of enterprises, by the number of employees:

10-49 (small), 50-249 (medium), 250 and over (large). The base of sample selection ensures representativeness calculated according to the turnover of 95% of the total active units. The maximum admitted error of estimations is of  $\pm 3\%$ . **The un-weighted response rate** was of 84.7% for the whole CDI-BES questionnaire and of **84.1% for the coverage of the innovation statistics**.

### 3. Concepts and definitions

**The innovation** represents the introduction in the enterprise of a **new or significantly improved product, process** or of a **new organizational or marketing method**.

The innovation should have new characteristics or intentions of use or which provide a significant improvement over what was previously used or sold by the enterprise. Nevertheless, an innovation may fail or may take time to be established.

An innovation needs to be new or significantly improved only for the enterprise. It may be initially developed or used by other enterprises.

**The innovative enterprises** are the active enterprises that launched new or significantly improved products (goods or services) on the market or introduced new or significantly improved processes or new organisational or marketing methods.

**The term applies to all types of innovators, innovators of product, of process, of organizational or marketing methods**, as well as **the enterprises with ongoing or abandoned innovations**.

**The non-innovative enterprises** are the enterprises that did not have an innovative activity during the period under study. Those enterprises answered to a limited set of questions of the statistical survey regarding the lack of innovative activity.

**Expenditure for innovative activities** represents the expenses made by enterprises to achieve the following innovative activities: internal research-development, external research-development, purchase of machinery, equipment and software, purchase of other external knowledge (patents, licenses, know-how etc), as well as other activities.

**Public financing of innovation** includes the financial support the enterprise receives from various authorities: local/regional, government (ministries, governmental institutions), the European Union.

**Information sources** include those sources that have given information on new innovative projects or have contributed to finalize the existing projects.

**The cooperation in the field of innovation** means the active participation to common research-development projects and to other projects regarding the innovation, achieved together with other enterprises or institutions. It is not necessary that both partners have common immediate commercial benefits out of the cooperation. Contracting works without an active collaboration means lack of cooperation.

**Competitiveness of innovations in enterprises** refers to the efficiency of the methods used to maintain or increase the competitiveness of the product and/or process innovations, such as: patents, protection by utility model, registration of drawings, of copyrights, registration of trademarks, benefits of advance time, complexity of products or services, classification (confidentiality agreements included).

**Strategies used to attain the enterprise objectives were as follows:** develop new markets in Europe or outside Europe, reduce operating costs, reduce costs with the purchased materials, components or services, introduce new or significantly improved products or services, enhance or improve the sale of products or services, increase the flexibility/ sensibility of the organisation and develop alliances with other enterprises or institutions.

**Obstacles** in achieving own objectives of enterprises refer to: strong price competition, strong competition as to the product quality, reputation or brand, lack of demand, innovations of competitors, dominant market share held by competitors, lack of qualified personnel, lack of adequate financing, high cost of access to new markets, high cost to meet regulations or legal requirements.

*For more information, kindly see the publication "The innovation in the business enterprises for the period 2010-2012", date of issue July 31, 2014.*

**The next press release** will be issued on Tuesday, July 26, 2016.