SPPI in Hungary

Scientific research and development services
R&D

HUNGARIAN CENTRAL

STATISTICAL OFFICE

**Voorburg Group
Vienna**

Ildikó Hamvainé Holocsy

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R&D

How to define R&D

Creative work undertaken on a systematic basis in order to increase the stock of knowledge to devise new applications.

R&D are characterised by the element of

- creation;
- novelty;
- adaptation of scientific methods;
- Creation of new knowledge

Observation system

How to develop the observation system?

1. **Industry approach** (economic units classified to the R&D sector, or

2. **Product approach** (economic units where R&D is carried out).

1. Industry approach

Classification (NACE Rev. 2)

72   **Scientific** research and development (R&D**)**

72.11 Research and experimental development on
biotechnology

72.19 Other research and experimental development
on **natural sciences and   engineering**

72.20 Research and experimental development on
social sciences and humanities

Main indicators

How big is this sector in Hungary?

Comparison with the total population indicators:

➢ GDP: > 0,3%

➢ Turnover: < 0,2%

➢ Number of enterprises: > 2000 (~ 0.4%)

➢ Number of employee: > 12000(~ 0.4%)

Industry structure

Classification Nave Rev. 2	Turnover %	Number of employees %	Number of units %
7211	**12**	**7**	**8**
7219	**72**	**72**	**58**
7220	*16*	*21*	*34*
Total:	*100*	*100*	*100*

R&D industry

Is dominated by

- **small enterprises** (share of units with less than 10 employees > 93%, turnover >20%);
- very **dissimilar services;**
- High level of **segmentation;**
- **Excluding units** classified in other sectors (e.g. government and education sector).

2. Product approach

- **To cover all units irrespective of their organizational form** (where R&D is carried out).
- enterprises;
- government organizations;
- research institutes;
- universities;
- clinics

Type of activity

- Basic research
- Applied research
- Experimental development
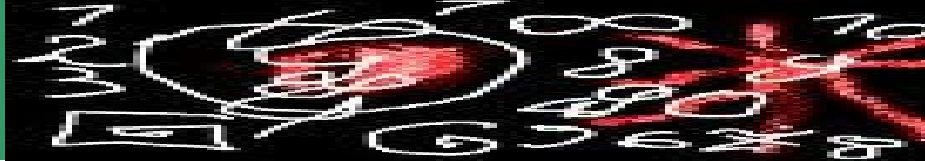
Annual survey in HCSO

Main indicators, 2008

2800 R&D units **were observed**

- ➢ universities   52%
- ➢ businesses   41%
- ➢ government   7%

Financial sources

- ➢ Businesses   48,3%
- ➢ Government 41,8%
- ➢ Funds from abroad 9.3%
- ➢ Non profit   0,6%

In 2008 the enterprises financed the largest part (before leading role of the government sector)

Staff of a R&D project

- **Researchers and engineers**- creation of new knowledge

- **Technicians** - technical tasks (under the supervision of researchers

- **Other supporting staff** – craftsmen and secretarial staff

The main price determining characteristics

➢ type of products ;

➢ type of project (domestic: business / government, international);

➢ type of client;

➢ Qualification of the staff members;

➢ technology used;

Basic pricing method used

- **Prising method based on working time** (e. g. charge out rates) for:

➢ professor;

➢ team leader;

➢ researcher;

➢ PhD;

➢ Assistant

The prices should reflect **an average** for the reference period.

Product list

- **Product list** defined specifically for the R&D SPPI - developed with respondents;

- **Specific product / transaction** agreed with each individual observation unit.

Pilot project

- European Transition Facility program to involve sources from outside (2006 February – 2007 May, methodology and pilot survey)
- **SPPI observation:** pilot project

  Q2 and Q3/2006
- **The supply of data**: voluntary**,**
- **Price collection**: by post, e-mail and personal visit

Questionnaire

➢ **Name** of the service (column a);

➢ **Code of the representative services** (column b); contains of the CPA (max. 6 characters) and another 4 number for the unique identification of the services;

➢ **Measure** (column c, e. g. FT/ hour, Ft/day);

➢ **Prices of the previous and current quarter** (column e and f);

➢ **Turnover data from the previous year** (at least for 4 and 6 level deep of CPA (column g);

Questions

- ➢ Sampling based on **Business Register** (BR) , or **R&S**, or combined **?**
- ➢ **Statistical unit: ?**
- ➢ **Selection of units: ?** (by cut-off with random or subjective sampling being completed)
- ➢ What **type of prices** should be collected? (real transaction price dos not exist!)

Thank you for attention!

Ildiko.Holocsy@ksh.hu