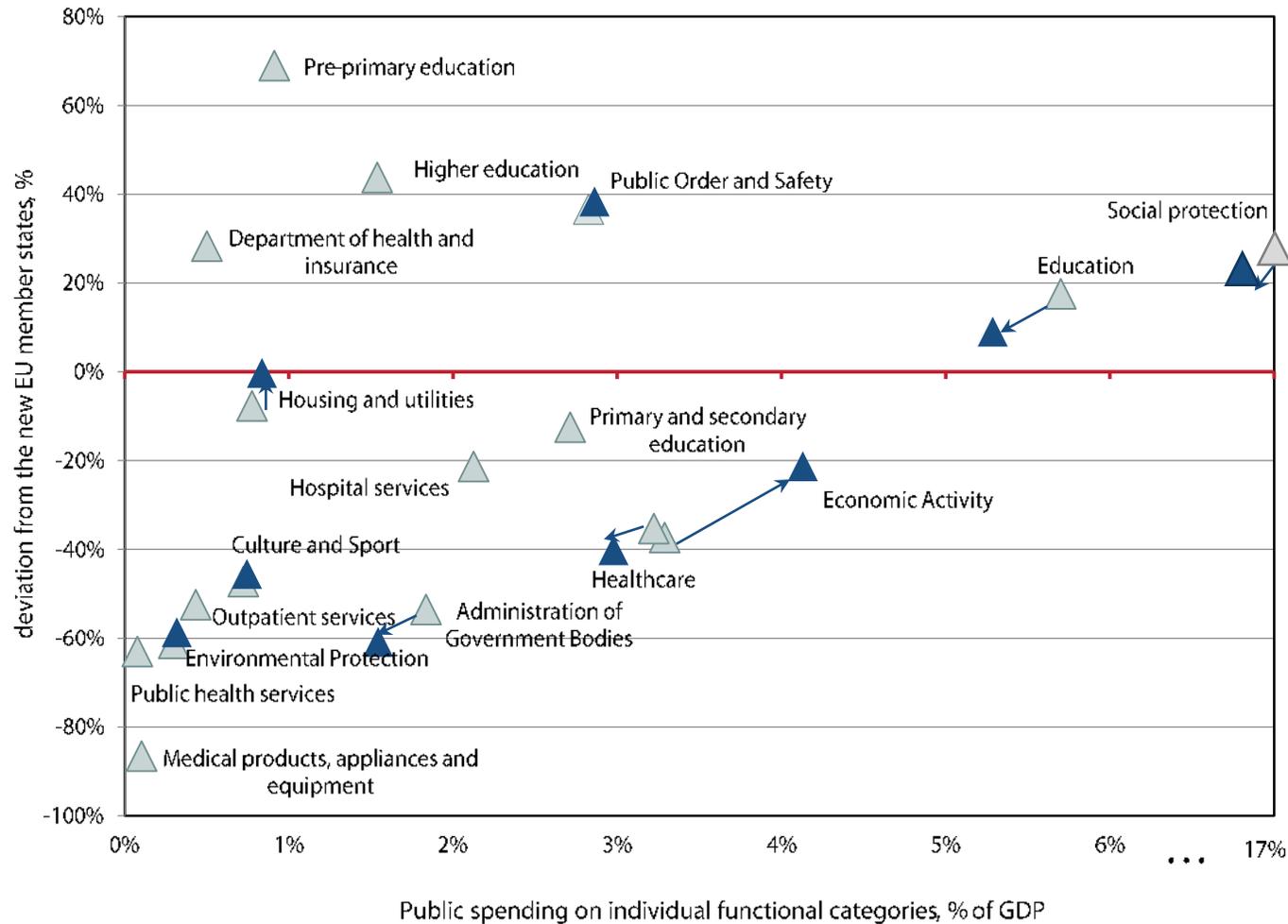




Budget request Ministry of Education



The structure of expenditures, functional classification



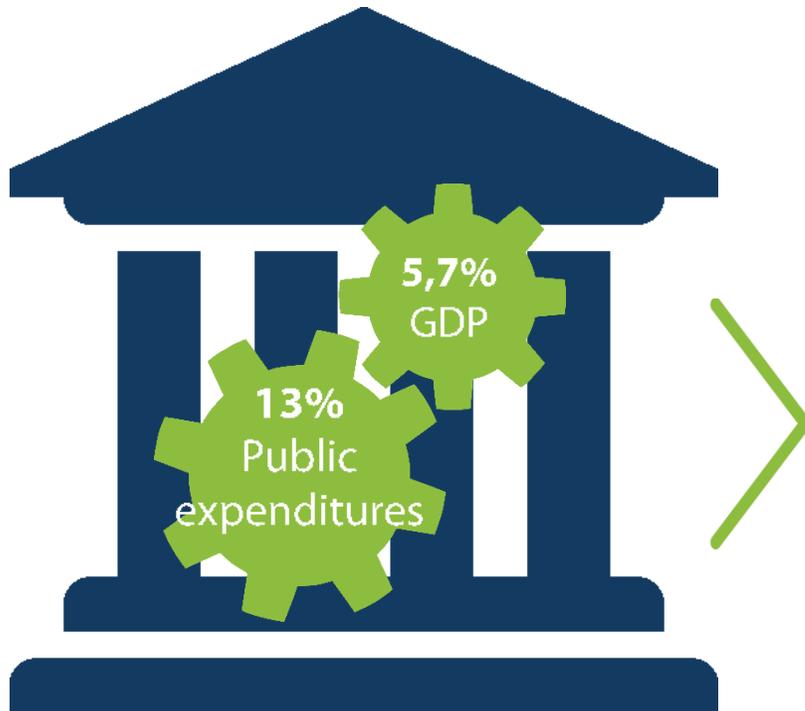
The primary comparison shows potential issues in areas

- Underfunded health care, especially medical supplies and equipment
- Underfunded secondary education and excessive spending on higher education
- Too much spending on public order and safety

Further benchmarking should be sector-specific

* defense spending, expenditures on debt service is not included in the chart
UkrStat, IMF, Ukrainian Treasury

INPUT



OUTPUT



Share of rural schools–
67%, share of pupils in
rural schools– 31%



Chronically underfinances
capital expenditures



80% of school graduated
enter the higher schools



Underqualified teachers
with extremely low
salaries

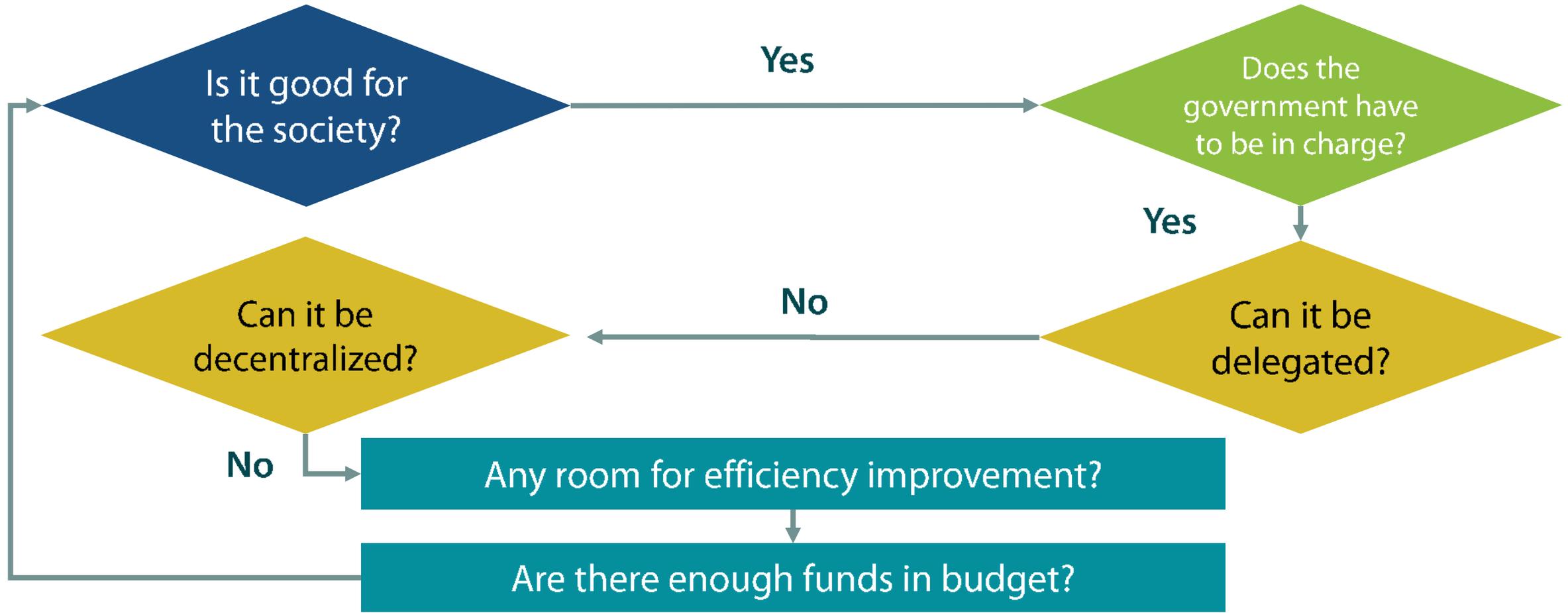
OUTCOME

- ✓ 15% of school graduates in 2016 failed the math test (scored less than 9 out of 62)
- ✓ Rural pupils are far behind their urban equals
- ✓ There are no Ukrainian universities among top-rated internationally
- ✓ The labor productivity remains low despite increasing share of well-educated people

FAIL

Sources: UkrStat, Eurostat, CEDOS, State Treasury, CES calculation

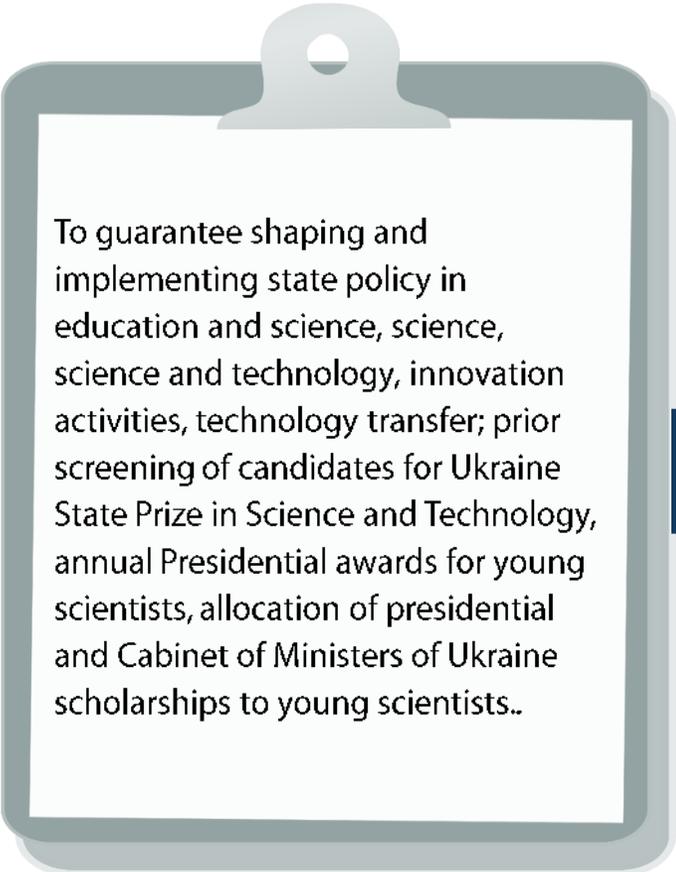
Canadian algorithm for analyzing government functions



Bourgon J. 2009. Program review: The Government of Canada's experience eliminating the deficit, 1994-1999. The Centre for International Governance Innovation

Canadian algorithm: implication for MoE Example 1

GENERAL MANAGEMENT IN EDUCATION AND SCIENCE



To guarantee shaping and implementing state policy in education and science, science and technology, innovation activities, technology transfer; prior screening of candidates for Ukraine State Prize in Science and Technology, annual Presidential awards for young scientists, allocation of presidential and Cabinet of Ministers of Ukraine scholarships to young scientists..

Public policy in education and science

- ✓ Good for society
- ✓ Cannot be delegated or decentralized
- ✓ Education and science policies should be separated

State awards in science

- ✓ Good for society
- ✓ Cannot be delegated or decentralized
- ✓ Should be united with the other similar programs in science

PhD and other scientific grades certification

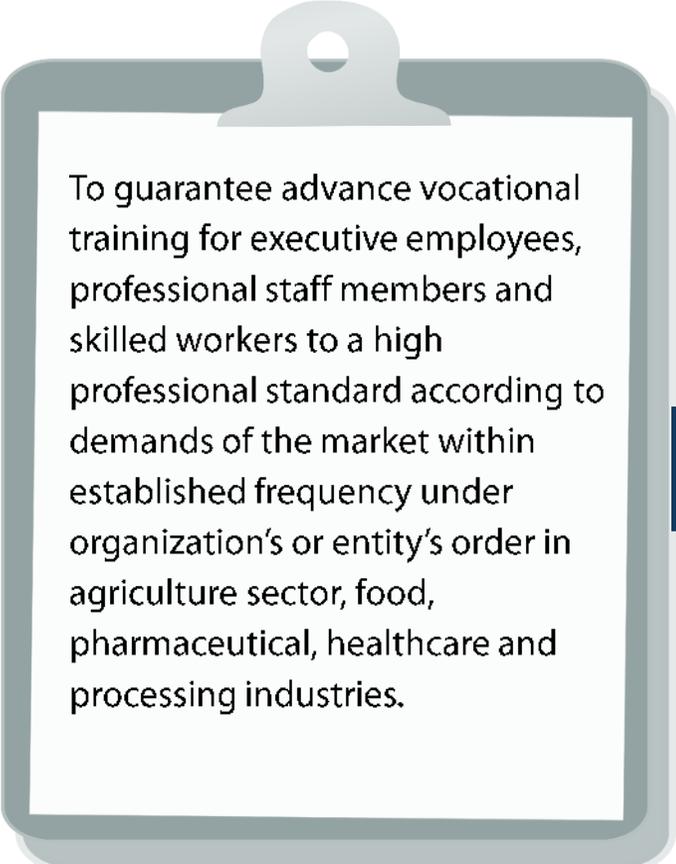
- ✓ Good for society
- ✓ Should be decentralized to the level of universities
- ✓ Government's function should be the control of practices in universities, not certification of PhDs

TRAVEL ALLOWANCES FOR STUDENTS OF UNIVERSITIES AND VOCATIONAL COLLEGES



- ✓ Good for society in terms of equity of access to education
- ✓ Should be performed via social scholarships in monetized way.
- ✓ Differentiated scholarships could be regarded depending on the student's accommodation

ADVANCED TRAINING FOR SCIENCE AND EDUCATIONAL EMPLOYEES, PEOPLE EMPLOYED IN FOOD INDUSTRY, PROCESSING INDUSTRY, AGRICULTURE, MEDICAL AND PHARMA

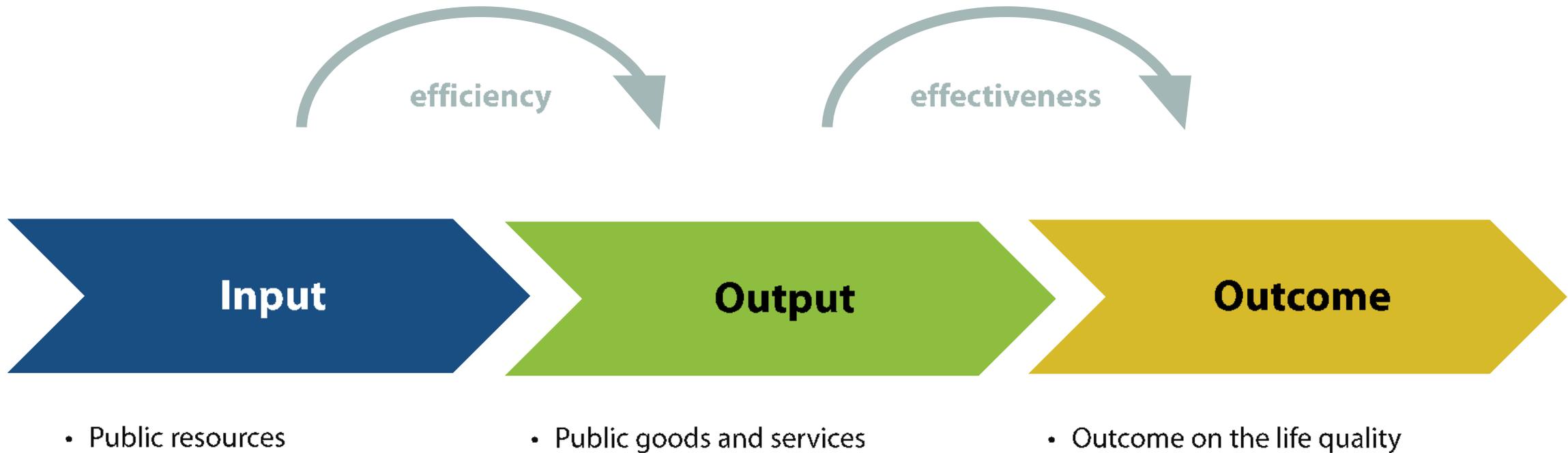


To guarantee advance vocational training for executive employees, professional staff members and skilled workers to a high professional standard according to demands of the market within established frequency under organization's or entity's order in agriculture sector, food, pharmaceutical, healthcare and processing industries.



- ✓ Teachers advanced trainings is needed in Ukraine
- ✓ But it should be the separate program.
- ✓ For the other industries the funding and services must come from private sources

Input-output-outcome model



Analyzing input-output-outcome

INPUTS

- **To compare policy alternatives,**
- **To search for the possible savings or (as opposite) the need to expand funding to existing programs**
- **To plan for the medium-term perspective.**

Analyzing input-output-outcome

INPUTS



- ✓ The situation is satisfactory – human, material, financial resources are considered, they are directly involved in the program. What can be improved:
- ✓ Integrate resources of researches and developments, which are done under state order, in the program
- ✓ Add equipment, software etc.
- ✓ Do not confuse resource with facility
- ✓ To allocate resources to monitor after the indicator of program implementation

Analyzing input-output-outcome

INPUTS

PERFECT PROGRAM– EXPLORATIONS ON ANTARCTIC STATION “ACADEMIC VERNADSKY”

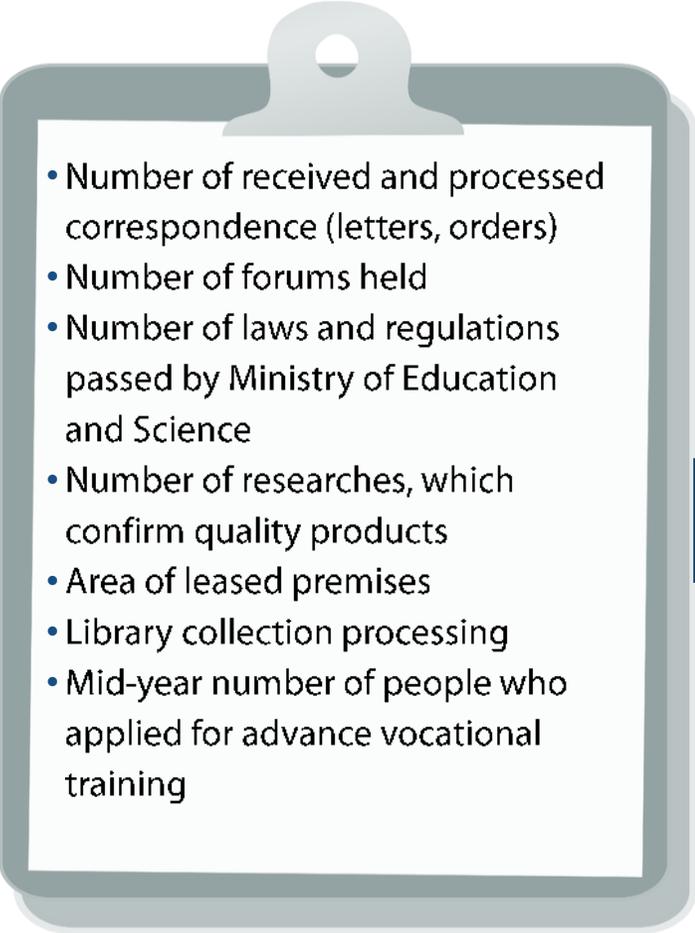
- ✓ Number of institutions
- ✓ Mid-year number of full time equivalent including explorers/researchers, support personnel, skilled staff, polar explorers.
- ✓ Expenses for reference list publications of scientific works of national researchers and experts regarding Antarctic exploration
- ✓ Expenses for materials release for scientific and technical conferences
- ✓ Expenses for annual scientific journal “Ukrainian Antarctic Journal” publication
- ✓ Expenses for popular science journal “Expedition” publication
- ✓ Purchase of supplies, fuels and oils for Antarctic station, food items, working clothes, medicines and household goods for members of Antarctic expeditions
- ✓ Expenses for chartering of a vessel and Antarctic expeditions delivery
- ✓ Expenses for carrying out of ecological activities and waste recycling in compliance with Madrid protocol requirements
- ✓ Organization, logistic and maintenance support of the National Antarctic scientific center
- ✓ Expenses for conducting training assemblages and training sessions, designing training modules aimed on specialist training, medical checkup of members of Antarctic expedition
- ✓ Field support of members of Antarctic expedition

OUTPUTS

- To identify efficiency of the inputs usage.
- To assess whether there is enough (or there is an excess) of the product produced to achieve the desired result.
- To reflect final output, but not internal processes.

It is necessary to draw an annual report on the achievements of each program in order to monitor the achievements according to the results. Based on such report, a bigger annual report on state policy implementation of the program can be put together, in compliance with the program of overall direction and administration.

OUTPUTS

- 
- Number of received and processed correspondence (letters, orders)
 - Number of forums held
 - Number of laws and regulations passed by Ministry of Education and Science
 - Number of researches, which confirm quality products
 - Area of leased premises
 - Library collection processing
 - Mid-year number of people who applied for advance vocational training
- 

- ✓ Indicators should represent the aim of the program (and the aim itself should correspond to higher goal). What can be improved:
- ✓ Remove indicators of the process, leaving only final output.
- ✓ Average expenses per one unit of product should be informative, sometimes averaging does not provide information.

Analyzing input-output-outcome

OUTPUTS

WELL DESIGNED PROGRAM– EXPLORATIONS ON ANTARCTIC STATION “ACADEMIC VERNADSKY”

- ✓ Number of scientific and technological works
- ✓ Number of scientific and technological works, which will be put in practice in scientific work
- ✓ Number of scientific and technological works according to priority areas of science development
- ✓ Number of Antarctic expeditionists
- ✓ Number of materials for scientific and technical conferences
- ✓ Number of international organizations, which get contributions under Antarctic Treaty
- ✓ Circulation of scientific journal “Ukrainian Antarctic Journal”
- ✓ Circulation of popular science journal “Expedition”
- ✓ Number of reference list publications of scientific works of national researchers and experts regarding Antarctica exploration

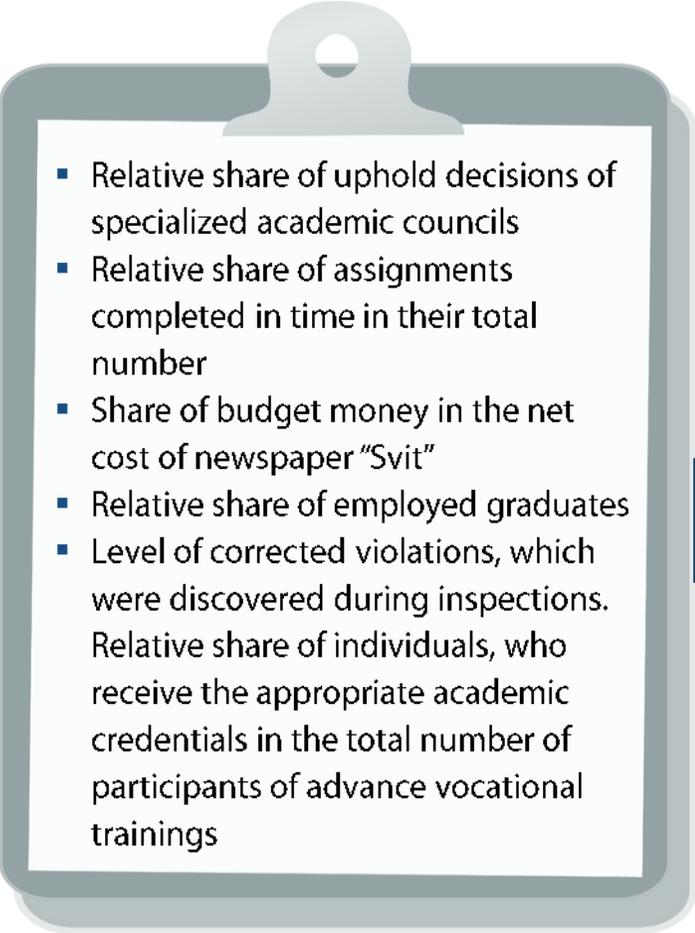
OUTCOME

To identify whether the resources used in the budget program led to improvement of indicator that was important for general public.

Ministry of Education and Science has strong analytic base and it releases regular reports about education and science conditions in Ukraine, however, unfortunately, data in these reports is not reflected in budgetary programs that is why it is hard to assess the effectiveness of public money spending.

The achievements under each program has to serve the budget holder's higher level goal.

OUTCOME

- 
- Relative share of uphold decisions of specialized academic councils
 - Relative share of assignments completed in time in their total number
 - Share of budget money in the net cost of newspaper "Svit"
 - Relative share of employed graduates
 - Level of corrected violations, which were discovered during inspections. Relative share of individuals, who receive the appropriate academic credentials in the total number of participants of advance vocational trainings
- 

- ✓ Indicators have to demonstrate the advance in achieving the program's goals. In Ukraine, final output within the program is barely analyzed.
- ✓ Index of effectiveness is more likely referred to retrenchment measures (calculation of expenses per piece).
- ✓ Quality indicators do not usually let to assess the real quality because their performance grow near 100%.

Analyzing input-output-outcome

EFFECTIVENESS AND QUALITY ANALYSIS (OUTCOME IS NOT IDENTIFIED)

WELL DESIGNED PROGRAM– EXPLORATIONS ON ANTARCTIC STATION “ACADEMIC VERNADSKY”

- ✓ Average cost of training of 1 Antarctic expeditionist (conducting training assemblages, training sessions, and field support)
 - ✓ Average cost of materials release for scientific and technical conferences
 - ✓ Average cost of annual scientific journal “Ukrainian Antarctic Journal” publication
 - ✓ Average cost of popular science journal “Expedition” publication
 - ✓ Average cost of 1 scientific, scientific and technological work completion
 - ✓ Performance share in scientific works according to priority areas
 - ✓ Performance share in meaningful development, which will be put in practice in scientific work
 - ✓ Share in timely training and conducting of Ukrainian Antarctic expedition
- 100% according to all indicators

Achievement, which Ukraine gains from explorations at the Antarctic station “Academic Vernadsky”, is not identified. In order to formulate it, some consultations are needed. There are the following variants: to support Ukraine’s reputation in the world community, to preserve the station as scientific heritage, or to obtain a scientific result.

What ministries should have in order to change to objective budgeting?

QUESTIONS TO BUDGET HOLDERS:

- ✓ Financial resources for analytics and programs creation?
- ✓ Consultations from western advisers? Assistance from general public?
- ✓ To order sociological surveys, statistics?
- ✓ New staff recruiting to strengthen monitoring and report preparation?
- ✓ Clear, accurate and comprehensive formulation of work procedure of Cabinet of Ministers of Ukraine within the system of new rules?

About the project



This analysis of the budget requests of the Ministry of Education and Science was prepared within the project “Public Spending in Ukraine: How to Achieve More at Fewer Costs?” implemented by Centre for Economic Strategy and the Institute for Economic Research and Policy Consulting in cooperation with the “Support to the reform of public finances” Project realized on behalf of German and Great Britain Governments by the federal enterprise Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.





Budget requests analysis of Ministry of Education and Science of Ukraine

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