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# Needs Analysis in Belgium's Flemish Community

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## NEEDS ANALYSIS IN BELGIUM'S FLEMISH COMMUNITY

Confronted with a growing need for educational buildings and a significant lack of funds, Belgium's Flemish Community carried out an inquiry into building needs at all levels of education. This article concentrates on the methodology used for the inquiry, the findings and the consequences for Flemish educational building policy.

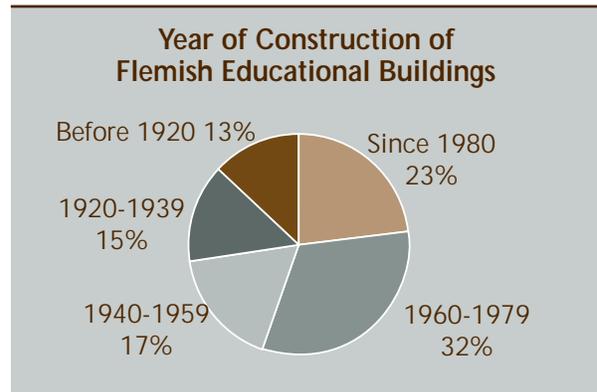
The inquiry was commissioned by the *Dienst voor Infrastructuurwerken van het Gesubsidieerd Onderwijs* (DIGO; Subsidised Education, Infrastructure Works Department) and took place from June 1995 to late 1997. DIGO is a government agency that subsidises the purchase, construction and renovation of buildings for municipal, provincial and private institutions. It grants subsidies of up to 60% of total construction costs for primary education and 70% for secondary and higher education; the construction must not exceed the maximum legal standards for educational buildings. Demand for state aid in financing educational infrastructure has been increasing for some years, and the funds available – US\$90.6 million per year – are far from sufficient. A waiting list has accrued, which in March 1998, represented a total of \$394 million in construction projects.

The aim of the inquiry was fourfold:

- to examine the degree to which existing buildings meet present educational needs;
- to recognise the needs that are not met;
- to provide an estimate of the funds necessary to accommodate those needs;
- to develop a needs-driven policy for administering building subsidies and planning future investments.

### Historical perspective

Many of the educational buildings in use today in the Flemish Community were built according to now outdated ideas about teaching methods, safety, hygiene and architecture and need to be adapted to current educational policy and practice.



Beginning in the late 1980s, educational institutions were allowed considerable freedom to design and equip their buildings. Previously the buildings had to satisfy minimum conditions set by experts to meet the demands of the day; now the stress is on the physical and financial maximum standards below which an institution is eligible for subsidies. This development provides for a more cost-effective building policy and greater freedom for school boards, although it undermines the legal support of a policy formed in the interest of maintaining quality building stock.

### Quantitative approach

The inquiry was articulated around three core notions: evaluation of the building stock, needs and effects.

### Evaluation

The inquiry evaluated the "pedagogic suitability" of building stock, whether the elements of a building – structural condition, safety, site, upkeep and teaching environment – help or hinder educational activities (Hawkins and Lilley, 1992). The evaluators were the school principals. In the 500 institutions surveyed, only 28% of the principals judged their buildings to be suitable for educational purposes, and 18% found them unsatisfactory. The table below shows the percentages of institutions that gave "unsatisfactory" ratings to their various facilities.

(Percentage of institutions rated as unsatisfactory)	
Classrooms .....	41%
Available floor space .....	40%
Location .....	24%
Safety .....	21%
Physical structure .....	18%
All elements combined .....	16%

## Needs

The inquiry measured various levels of needs:

- Perceived: School boards of 80% of the institutions surveyed felt that construction work or the purchase of a building was necessary.
- Expressed: Principals at over half of the institutions had submitted plans to call for tenders or to purchase a building.
- Normative: One fifth of the institutions had received unsatisfactory ratings for both their most recent building inspection report and fire safety report. Subsidies required to bring them up to norms would total \$701 million.
- Comparative: Subsidies solely limited to meeting the needs of buildings judged as unsuitable for educational purposes would total \$553 million.
- Global: If needs are restricted to buildings 1) where work is planned, 2) whose inspection reports are unsatisfactory and 3) which are deemed unsuitable for educational purposes, 7% of the institutions are concerned.

### Total Costs to Meet Varying Degrees of Building Needs\*

Perceived .....	\$1 909 million
Expressed .....	\$1 353 million
Normative .....	\$701 million
Comparative .....	\$553 million
Global .....	\$317 million

\*Estimates based on the 500 institutions surveyed and a cost per square meter of construction or modernisation of US\$925.

## Effects

The intention of the inquiry was to make possible a more rational and needs-driven school building policy. An analysis was carried out to test the effect of a number of factors on the suitability of school buildings. The area in which an institution is located, the age of its buildings, the presence of temporary constructions, the reports of the building inspectors and fire brigade, the degree of neighbourhood decay and the intensity of use have a significant effect on the suitability of buildings. In an effort to provide a

more rational, needs-driven policy, a statistical model based on these factors was developed. It showed however that the explanatory power of external factors, though significant, is too small for one to predict with certainty whether a building would satisfy requirements for pedagogic suitability.

## Recommendations

### Increasing investment funds

Belgium, with 1.1% capital expenditure of the total education budget in 1992, is well below the OECD national average of 7.9%. The share of capital expenditure in the Flemish Community has not been much higher hitherto as is apparent from the investment funds granted to the Flemish Community for the years 1996 to 2000. The annual funds for these years amount to 4 billion Belgian Francs, which for 1996 represents 1.7% of the total education budget (BF 236 billion). DIGO cannot possibly meet existing needs at short notice with the current budget. This argues the case for increasing the investment funds.

### Needs-oriented distribution of resources

Resources should be distributed among institutions in a more needs-oriented manner, beginning with the systematic upgrading of the 16% of building stock that does not satisfy requirements in any single area of evaluation.

### Relying on experts' reports

Resources should be allocated based on needs by making use of objective criteria. As the statistical model developed for this purpose cannot guarantee a successful needs-oriented policy, an alternative solution may lie in working with reports of the building inspection and fire brigade. Building experts could 1) critically evaluate the suitability of a building in consultation with its users and the pedagogic inspection, 2) appraise the necessity of work and 3) if work is justified, decide on its execution. This in turn could lead to the submission of an application for subsidy.

Working with experts' reports must be as objective as possible. It is recommended that such construction work abide by legally fixed physical minimum and maximum standards. Institutions whose buildings do not meet the minimum standards would be obliged to carry out work and would receive subsidies; those that match the minimum standards but fall short of the maximum would not be obliged to carry out work but would be eligible for subsidies if they decided to do so; those that satisfy the maximum standards would not be eligible for subsidies and would have to defray their own construction costs.

### **Budgeting the resources**

A long waiting list hinders not only the rapid processing of subsidies but also discourages prospective builders from submitting subsidy applications. The budget of the investment funds should better dovetail with actual needs. One solution is to simultaneously determine the investment budget and take stock of the funds requested in subsidy applications, when setting the annual budget.

### **Increasing the return on future investments**

The yield of future investments can be increased, thereby procuring savings over time. Workable methods exist, such as providing expert construction advice, master planning (the start up of a planning activity that can as easily take place at government level as at contractor level), encouraging innovation (e.g. by organising a school building prize) and pursuing flexibility in design.

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## **SCHOOL CONSTRUCTION IN THE UNITED STATES**

*The following is taken from the "Annual School Construction Report, January 1999" written by John B. Lyons of the United States Department of Education.*

The Department of Education's 1998 Common Core of Data Survey for public elementary and secondary schools reports an estimated capital outlay of \$27.5 bil-



Lake Orion High School, Michigan  
NCEF/Gary Quesada – Hedrich Blessing

lion in the 1995-1996 school year; a 12.6 percent increase over the prior year, and a tripling of outlays over the past decade. The National Education Association (NEA) reported \$29.1 billion in capital outlays for 1997-1998, a 12.7 percent increase over the prior year, and a 173 percent increase over the past decade.

### **School construction outlook**

The construction of educational buildings is expected to witness a 7 percent plus growth during calendar year 1999. Although an expected weaker economy in 1999 will no doubt dampen construction in general, the continued increase in student enrollments, especially in the West, coupled with continued successful passage of school construction bond programs, insures school construction and rehabilitation will remain vibrant through 2000.

Of the three categories of kindergarten to year 12 schools, middle schools saw the highest level of construction in 1997-1998 followed closely by elementary schools. Total school construction, including new schools, additions to existing schools, and significant renovation projects completed, required almost \$12.7 billion. While new school construction continued to be the most visible element, it amounted to only 49 percent of all school construction, followed by additions at 29 percent and 22 percent for modernization. By the year 2000, additions to school buildings is expected to rank third.

### **Regional school construction – 1997**

While it is difficult to identify and provide solid consistent school construction data, an evaluation of regional activities – using the 10 Federal districts as a model – shows that the two Southwestern regions as a block continued to lead the nation in total school