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English - Or. English

DIRECTORATE FOR EDUCATION
EDUCATION POLICY COMMITTEE

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Centre for Effective Learning Environments Board of Participants
Group of National Experts on Education Facilities Evaluation

INTERNATIONAL PROFILES OF EDUCATIONAL FACILITIES POLICY AND PRACTICE

To be held at the OECD Conference Centre, Paris
on Friday 2 July at 9.30 a.m. to 5.30 p.m.

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Background

1. At its last session in March 2009, the CELE Group of National Experts on Education Facilities Evaluation (GNEEFE) agreed to revise and implement a questionnaire, known as an "International Profile on Educational Facilities Policy and Practice" [EDU/EDPC/CELE/GNEEFE(2009)3]. The objective of the International Profile is to provide a country-based reference tool for policymakers, facilities managers, architects, planners, researchers and others on issues that both drive and shape the provision of physical learning environments in different countries. The purpose of the study is **not** to collect internationally comparable statistics. Rather, it seeks to collect information on strategic issues of interest to CELE members and others related to the planning, design, construction, maintenance, management, financing and evaluation of educational facilities.

2. This paper briefly describes the type of information collected in the International Profiles questionnaire and other survey instruments developed in collaboration with the European Investment Bank. Table 1 shows the country respondents to the questionnaires.

Development and implementation of International Profiles Phase 1 questionnaire

3. Belgium (Fl.), Ireland, Korea, Mexico, New Zealand, Palestinian Authority and Portugal agreed to participate in the first phase of the project. Over a period of several months of discussion between the Secretariat and the pilot group, a new International Profile questionnaire was developed. Examples of responses were provided in the questionnaire to assist respondents, who were also asked to provide estimated response times for questionnaire completion. Information was collected in three areas:

- Current policy-related issues and challenges. Respondents were asked to describe:
  - Current education infrastructure-related issues or challenges.
  - The education system as it relates to education facilities.
  - Policy review or major education policy reform implicating educational facilities in the last five to ten years.
- Decision-making and procurement approaches. Respondents were asked to describe:
  - Bodies responsible for investment decisions, their function and relationships with other decision-making bodies and stakeholders.
  - Method(s) of project delivery (e.g. PPPs).
  - Maintenance approach(es).
- Additional sources and reference material.

4. To date, five countries have responded to the questionnaire, which are available on the GNEEFE web-based platform (https://community.oecd.org/community/gneefe).

Collection of additional information

5. Information on education facilities was also collected to inform the joint CELE-European Investment Bank study on Strategic Investment Planning for Educational Infrastructure. In 2009, two questionnaires were developed and implemented by CELE in collaboration with the EIB.

6. The aim of *questionnaire on strategic investment planning* is to collect data on the process for assessing needs in capital planning projects. Seven countries responded to the survey, which contained three sections.

- Identification and assessment of needs:
  - Identification of needs related to major investments in educational infrastructure.
  - Critical information collected to inform investment decisions.
  - Methodologies used to collect and process these data.
- Decision-making in strategic planning:
  - Bodies responsible for investment decisions, their function and relationships with other decision-making bodies and stakeholders.
  - Prioritising needs.
- Principal guidelines or regulations used to inform the planning process.

7. The aim of the *survey on space standards*, to which seven countries responded, is to collect information on existing space standards and the use of these standards in capital planning projects. It was understood that space standards are not defined in some countries, while in others they are used to refer to the minimum or average or recommended area per student for different activity areas. If space standards existed in the country/state/province/region, information was requested on occupancy levels, floor area per student and by activity area, and on how these standards are used in capital planning projects. In those cases where space standards were not used, respondents described how spatial requirements were defined in the capital planning process.

8. All questionnaire responses are available on the GNEEFE web-based platform (https://community.oecd.org/community/gneefe).

Towards a comprehensive information collection

9. This paper illustrates that there is a large repository of information related to the strategic planning, design, construction, maintenance, management, financing and evaluation of educational facilities. Annex 1 provides an example of a complete profile, in which responses to all questionnaires has been integrated into the one document.

Table 1. Respondent to OECD/CELE questionnaires in 2009-10

Questionnaire	**International Profiles Phase 1**	**Strategic Investment Planning**	**Space Standards**
Respondent			
Belgium - Flanders	■	■	■
Canada - BC		■	
Hungary		■	
Japan			■
Korea	■		■
Mexico	■	■	■
New Zealand			■
Palestinian Authority	■		
Portugal	■	■	■
Turkey		■	
UK -Scotland		■	

Note. Shading indicates that the questionnaire was completed.

Action

The Group of National Experts is invited to:

- ADVISE the Secretariat on next steps for the use and dissemination of information contained in the profiles.

ANNEX 1. INTERNATIONAL PROFILE ON EDUCATION FACILITIES POLICY AND PRACTICE

BELGIUM FLANDERS

1. CURRENT POLICY-RELATED ISSUES AND CHALLENGES

1.1. Public-private partnerships for educational infrastructure

The DBFM-project (Design-Built-Finance-Maintain) is a specific kind of public-private partnership whereby the Flemish government and a private partner, Fortis Bank-Fortis Real Estate, have formed a company to invest 1 billion EUR in school buildings in Flanders. The DBFM-company will take responsibility for the design, construction, financing and maintenance of 211 large building.

For 30 years, the DBFM company will place the new school building at the disposal of the school community, maintain the schools and guarantee that certain minimum requirements in terms of quality are met. In exchange, school boards will periodically pay an availability-fee to the company, which in turn is (partly) subsidised by the Flemish Government. After 30 years the ownership of the school building is then again transferred to the school board, free of charge.

1.2. Energy-efficiency in school buildings

The following measures were taken regarding rational energy use in school buildings:

- Schools can save more on their energy bills by implementing energy accounting, conducting energy audits, installing oil meters, adjusting heating systems, and training energy coordinators.

- Since 2006, extra budget was provided for schools to invest in energy-efficiency measures. In 2006 an extra budget of 10 million EUR was made available; in 2007 this amount was increased to 28 million EUR, and in 2008, to 50 million EUR. Both AGIOn and GO! invested additional resources in energy efficient school buildings. Given the high priority of investment in energy-efficiency measures, GO! invested an additional 12 million EUR in its own schools.

- Newly constructed school buildings will have to meet the strict E70-energy performance norm.

- A pilot programme was established involving the construction of 24 schools built according to the passive standard.

1.3. Focus on quality

AGIOn has formulated some basic principles for quality school buildings in Flanders and has translated those in strategic policy objectives. Contemporary school buildings should, first of all, be functional and sustainable. They should be safe, comfortable, easy to maintain and easily accessible. They should support the school's pedagogical project, provide a stimulating learning environment and be suitable for flexible and multifunctional use. In addition, they should be sustainable in various ways: they should have an open relationship with the surrounding community, they should have lasting architectural value, they should be economically sustainable, with a good cost-return ratio for construction and management and, finally, they should be environmentally friendly in terms of building materials, energy and water consumption.

Following initiatives are taken to increase quality in Flemish school building projects:

- Development of an expertise centre for school building matters, including the establishment of a documentation and information centre accessible for schools and architects.

- Provision of information and advice for schools concerning good practices in planning and design, among others through the documentation of good practices, the organisation of workshops, and the individual guidance of running projects.

- Quality monitoring of the entire school building stock in Flanders through a 5-yearly survey.

1.4. Community use of school buildings and multifunctional accommodations and school sites

The Flemish government seeks to promote community use of school buildings, and support building projects that take into account the multifunctional use of school infrastructure and school sites. In this respect, AGIOn is currently undertaking a research project on the spatial translation of the "community school" in Flanders. The educational network GO! is setting up two pilot projects in which a school will be combined with housing and sports facilities.

1.5. Project definitions and masterplanning

It is in the interest of schools to monitor and steer the planning, design and building process. To enable this process, the government will supply for this purpose the necessary planning and evaluation instruments, in particular with regard to project definitions and post-occupancy evaluation techniques.

It is also in the interest of the schools to plan their school building projects ahead, taking future scenarios into account. This can be done through masterplanning. GO! is currently preparing a limited number of masterplans for schools as pilot projects.

1.6. Better integration of ICT in school buildings

Recent research indicates that schools are very often not able to realise their curriculum objectives due to poor quality of ICT equipment. Governments must ensure a consistent quality of ICT infrastructure to enable schools to meet their objectives and attainment levels. Therefore it is appropriate to invest in structural ICT resources.

1.7. Investing in adequate infrastructure for technical and vocational education

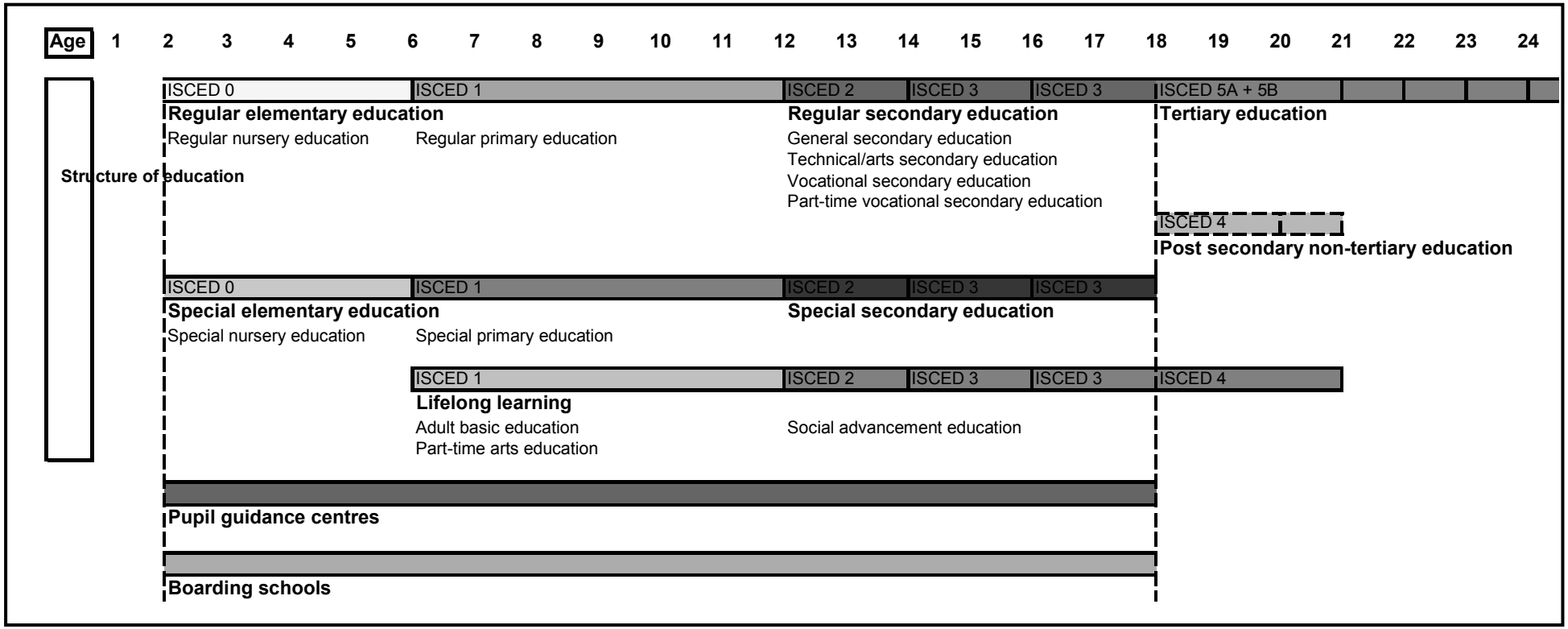
The operational budgets for schools offering technical and vocational education are insufficient to bring their technical equipment up to date with the latest technological developments in the industry. The government should therefore seek structural solutions to make the necessary investments.

1.8. Modular classrooms to meet urgent needs

GO! Education of the Flemish Community is preparing to significant numbers of modular classroom units, which will serve as a transitional solution during new school construction and also as additional space in large cities where increasing student populations create are creating infrastructure challenges. Existing container classes perform poorly, and the new units are expected to have the same quality as newly build school buildings.

2. DESCRIPTION OF EXISTING SCHOOL BUILDING STOCK

2.1. Map of education system as it relates to educational facilities



2.1. Size of school building stock

Education level	ISCED level	Number of school sites with own buildings	Estimated average numbers of school buildings per school site	Estimated total number of school buildings	Estimated number of separate educational spaces per school site	Estimated total number of educational spaces	Estimated average m² per school site	Estimated m² of the total school building stock
Regular elementary education	ISCED 0+1	3 616	2.41	8 723	22	78 673	1 233	4 458 288
Regular secondary education	ISCED 2+3+4	1 381	3.91	5 399	66	90 643	6 572	9 076 556
Special elementary education	ISCED 0+1	231	2.55	590	35	7 976	1 702	393 061
Special secondary education	ISCED 2+3	146	3.57	522	44	6 390	2 939	429 108
Lifelong learning	ISCED 1+2+3+4	628	1.51	946	20	12 590	1 376	863 989
Pupil guidance centres		170	1.10	186	18	3 076	571	96 986
Boarding schools		146	2.06	301	52	7 587	3 667	535 360
Total		**6.318**	**2.64**	**16 666**	**33**	**206 935**	**2 509**	**15 853 348**

Source: AGIOn,(2009). *De schoolgebouwenmonitor 2008. Indicatoren voor de kwaliteit van de schoolgebouwen in Vlaanderen.* Antwerpen, Garant.

2.2. Building period of school buildings

Education level	ISCED level	Before 1920	1920-1949	1949-1969	1969-1989	1990 and after	Total
Regular elementary education	ISCED 0+1	14%	17%	28%	24%	17%	100%
Regular secondary education	ISCED 2+3+4	12%	15%	32%	29%	13%	100%
Special elementary education	ISCED 0+1	7%	12%	27%	31%	24%	100%
Special secondary education	ISCED 2+3	11%	13%	23%	30%	23%	100%
Lifelong learning	ISCED 1+2+3+4	26%	19%	25%	17%	13%	100%
Pupil guidance centres		6%	13%	44%	32%	7%	100%
Boarding schools		12%	25%	29%	25%	9%	100%
Total		**13%**	**16%**	**29%**	**26%**	**15%**	**100%**

Source: AGIOn,(2009). *De schoolgebouwenmonitor 2008. Indicatoren voor de kwaliteit van de schoolgebouwen in Vlaanderen.* Antwerpen, Garant.

2.3. Average number of educational spaces per school site

Education level	ISCED level	General classrooms	Learning support space	Specialised spaces (lab's, art facilities,	Media centre/library	Multipurpose room/auditorium	Cafeteria	Sporting facilities (indoor)	Sport fields (outdoor)	Playgrounds	Toilets	Storage	Teachers room	Administration	Health services	Social space	Space for sleeping and
Regular elementary education	ISCED 0+1	10.08	1.25	0.66	0.23	0.60	1.04	0.67	0.26	1.57	2.59	1.89	0.80	1.22	0.10	0.10	0.10
Regular secondary education	ISCED 2+3+4	25.54	1.29	13.45	0.80	1.26	1.56	1.19	0.68	1.56	5.92	5.42	2.54	5.72	0.75	0.36	0.95
Special elementary education	ISCED 0+1	13.43	2.31	1.41	0.37	0.59	1.00	0.94	0.40	1.79	4.31	1.89	1.09	1.99	4.04	0.32	1.31
Special secondary education	ISCED 2+3	12.29	1.71	9.39	0.32	0.48	1.31	0.89	0.65	1.64	5.36	3.28	1.56	4.01	3.00	0.23	0.54
Lifelong learning	ISCED 1+2+3+4	9.04	0.51	3.58	0.49	0.59	0.53	0.05	0.00	0.65	2.66	1.88	0.77	2.33	0.08	0.07	0.02
Pupil guidance centres		0.32	0.04	0.02	0.72	0.83	0.89	0.00	0.00	0.05	3.74	2.00	2.61	8.71	2.25	0.03	0.00
Boarding schools		3.13	0.55	1.82	0.32	2.32	1.51	0.56	0.98	1.05	7.99	3.60	1.05	2.18	0.59	2.79	40.75
Total		**13.06**	**1.22**	**3.95**	**0.40**	**0.78**	**1.12**	**0.73**	**0.36**	**1.46**	**3.56**	**2.68**	**1.24**	**2.58**	**0.54**	**0.23**	**1.12**

Source: AGIOn,(2009). *De schoolgebouwenmonitor 2008. Indicatoren voor de kwaliteit van de schoolgebouwen in Vlaanderen.* Antwerpen, Garant.

2.4. General usability of school buildings

Education level	ISCED level	Very unsatisfactory	Unsatisfactory	Average	Satisfactory	Very satisfactory	Total
Regular elementary education	ISCED 0+1	8%	13%	26%	39%	14%	100%
Regular secondary education	ISCED 2+3+4	6%	13%	28%	39%	14%	100%
Special elementary education	ISCED 0+1	11%	15%	25%	34%	16%	100%
Special secondary education	ISCED 2+3	10%	18%	25%	34%	13%	100%
Lifelong learning	ISCED 1+2+3+4	7%	19%	26%	37%	12%	100%
Pupil guidance centres		5%	13%	27%	43%	12%	100%
Boarding schools		3%	19%	23%	45%	10%	100%
Total		**7%**	**14%**	**27%**	**39%**	**14%**	**100%**

Source: AGIOn,(2009). *De schoolgebouwenmonitor 2008. Indicatoren voor de kwaliteit van de schoolgebouwen in Vlaanderen.* Antwerpen, Garant.

2.5. School sites evaluated as 'satisfactory' or 'very satisfactory'

Education level	ISCED level	Safety	Condition	Functionality	Comfort	Symbolically/ aesthetics	Cost	School site
Regular elementary education	ISCED 0+1	61%	49%	48%	63%	39%	12%	48%
Regular secondary education	ISCED 2+3+4	59%	41%	43%	50%	35%	9%	49%
Special elementary education	ISCED 0+1	58%	43%	38%	55%	35%	11%	48%
Special secondary education	ISCED 2+3	60%	48%	43%	58%	36%	9%	50%
Lifelong learning	ISCED 1+2+3+4	61%	53%	49%	51%	50%	32%	48%
Pupil guidance centres		56%	56%	57%	58%	41%	28%	49%
Boarding schools		63%	50%	49%	70%	54%	16%	70%
Total		**60%**	**48%**	**47%**	**58%**	**39%**	**14%**	**49%**

Source: AGIOn,(2009). *De schoolgebouwenmonitor 2008. Indicatoren voor de kwaliteit van de schoolgebouwen in Vlaanderen.* Antwerpen, Garant.

3. DECISION-MAKING, FINANCING AND MANAGEMENT

3.1. Decision-making

For publicly funded privately run schools and publicly funded and publicly run schools, school building policy is highly decentralised. Schools and school boards decide autonomously to undertake construction work, in collaboration with an architect. School boards and architects are responsible for the planning process. There is only limited 'investments planning at the central government level.

Decision-making procedures and functions of the bodies involved do not differ according to level of education, but according to:

- **Educational network** to which a school belongs:
  - ***"GO! Education of the Flemish Community***" is a public body acting under the authority of the Flemish Community. It is responsible for financing the construction of schools in the educational network "Education of the Flemish Community". GO! owns the school buildings in the network and acts as a client. It is responsible for 17% of educational facilities in Flanders.
  - ***AGIOn***, ***Agency for Infrastructure in Education***, is an agency within the Flemish government that subsidises school building projects in publicly funded, publicly run educational institutions and publicly funded, privately run educational institutions. AGIOn does not own the schools. Within these networks the schools themselves own the buildings and act as clients. Both the GO! And AGIOn implement the policies of the Minister of Education and Training, but both institutions can take their own policy initiatives. It is responsible for 61% of publicly funded, privately run educational institutions, and 22% of publicly funded, publicly run educational institutions.
- **Type of procurement method** for the school building project (**see Section 3.1**):
  - ***Regular financing – Design-Bid-Build***
  - ***PPP-financing – Design-Build-Finance-Maintain***
  - ***Other PPP models.***

3.2. Responsibilities for financing educational facilities

		Education networks					
		GO! Education of the Flemish Community		Publicly funded, publicly run education		Publicly funded, privately run schools	
		Bodies	**Role**	**Bodies**	**Role**	**Bodies**	**Role**
Financing	Regular financing - Design-Bid-Build	GO! Local (school groups)	Financing of small infrastructure works	Local authorities	Initiative to build, demand for subsidies	School boards	Initiative to build, demand for subsidies
				Representative organisation	Prioritisation of projects, support	Representative organisation	Advice, support
		GO! central administration	Financing of large building projects	AGIOn	Approval of subsidies, file handling, information, support, policy	AGIOn	Approval of subsidies, file handling, information, support, policy
		Minister	General policy, budgeting	Minister of education	General policy, budgeting	Minister of education	General policy, budgeting
		GO! central administration	Maintenance	School Board or local authorities	Maintenance	School Board or local authorities	Maintenance
	PPP-financing – Design-Build-Finance-Maintain	GO! Local (school groups)	Initiative to build	Local authorities	Initiative to build, demand to join DBFM	School boards	Initiative to build, demand to join DBFM
		GO! central administration	Control, availability fees, file handling, policy	AGIOn	Control, availability fees, file handling, policy	AGIOn	Control, availability fees, file handling, policy
		DBFM-company	Finance , control and maintenance	DBFM-company	Finance , control and maintenance	DBFM-company	Finance , control and maintenance
		Minister	General policy, budgeting	Minister of Education	General policy, budgeting	Minister of Education	General policy, budgeting
	Other PPP models	GO! central	Financial input or disposal of property (buildings, land ,...)				

3.3. Responsibilities for planning, design, construction, maintenance management and evaluation of educational facilities

		Education networks					
		GO! Education of the Flemish Community		Publicly funded, publicly run education		Publicly funded, privately run schools	
		Bodies	**Role**	**Bodies**	**Role**	**Bodies**	**Role**
Planning, design, construction, maintenance, management, evaluation	Regular financing - Design-Bid-Build	School	Maintenance, advice building programme	Schools	Planning, design, construction, maintenance, management, evaluation	Schools	Planning, design, construction, maintenance, management, evaluation
		GO! local (school groups)	Maintenance, proposals for large projects, advice building programme	Local authorities	Planning, design, construction, maintenance, management, evaluation	School Boards	Planning, design, construction, maintenance, management, evaluation
						Representative organisation	Advice, support, information, expertise, policy
		GO! central administration	Planning large infrastructure works, building programme, selection of architects, coördination of planning and construction	AGIOn	Advice, support, information, expertise, policy	AGIOn	Advice, support, information, expertise, policy
		Flemish Government Architect	Advice, support, information, expertise, policy	Flemish Government Architect	Advice, support, information, expertise, policy	Flemish Government Architect	Advice, support, information, expertise, policy
		Minister of Education	General policy	Minister of education	General policy	Minister of education	General policy
	PPP-financing – Design-Build-Finance-Maintain	GO! local (schoolgroups)	Advice				
		GO! central administration	Advice, support, information, expertise	AGIOn	Advice, support, information, expertise, policy	AGIOn	Advice, support, information, expertise, policy
		DBFM-company	Design, built, maintain	DBFM-company	Design, built, maintain	DBFM-company	Design , built, maintain
		Flemish	Advice, support, information,	Flemish	Advice, support,	Flemish	Advice, support,

		Government Architect	expertise	Government Architect	information, expertise	Government Architect	information, expertise
		Minister of education	General policy	Minister of education	General policy	Minister of education	General policy
	Other PPP models	School	Maintenance, advice building programme				
		GO! local (school groups)	Maintenance, proposals for large projects, advice building programme				
		GO! central	Approval of projects, building programme, specifications, Selection of PPP-partner, evaluation and control of PPP-contract				

4. PROCUREMENT METHODS

There are three principal procurement methods used: regular financing: Design-Bid-Build; PPP-financing using Design-Build-Finance-Maintain; and other PPP models.

4.1. Regular financing – Design-Bid-Build

The procedure for design and construction in GO! Education of the Flemish Community involves the different steps:

- Preparing the building programme by the central administration in collaboration with the school group and the school.
- Appointing a designer by the administration or in collaboration with the Flemish government architect.
- Guiding the design process by the central administration together with the school group and the school.
- Calling for tenders and appointing the contractor.
- Guiding and carrying out the construction works via the designer.

A school that belongs to publicly funded, publicly run education or publicly funded, privately run education in Flanders can be subsidised by AGIOn to carry out construction works. The subsidies add up to 70% of the total building cost for primary education and 60% for other education levels. There are several procedures in subsidising construction works. Besides the standard procedure for the construction of new buildings and renovation, there are other procedures:

- A 'fast' procedure for relatively small projects.
- Specific investments like for example investments in energy efficiency or the purchase of an existing school building.

Every procedure has four phases:

- Inclusion on a waiting list.
- Agreement on granting of subsidies.
- Norm control of the design and assignment of the works to a contractor.
- Payment of subsidies.

4.2. PPP-financing – Design-Build-Finance-Maintain

Fortis Bank Belgium - Fortis Real Estate has been selected as the private partner in a 36-year Framework Agreement to Design, Build, Finance and Maintain new school buildings in Flanders. AGIOn jointly set up the DBFM-company, which is responsible for the Design (D), Build (B), Finance (F) and Maintain (M) of 211 low-energy schools with a total investment of 1 billion EUR. The School Board will be able to make use of the school building for 30 years. During those 30 years the DBFM-company guarantees that the school is maintained and meets certain requirements. In return, the School Board pays a recurring availability fee, a part of which is subsidised by AGIOn. After 30 years, the school building is transferred to the School Board without any costs.

4.3. Other PPP models

Different procedures can be followed when traditional PPP models are used, for example the procedure of a promotional contract which involves:

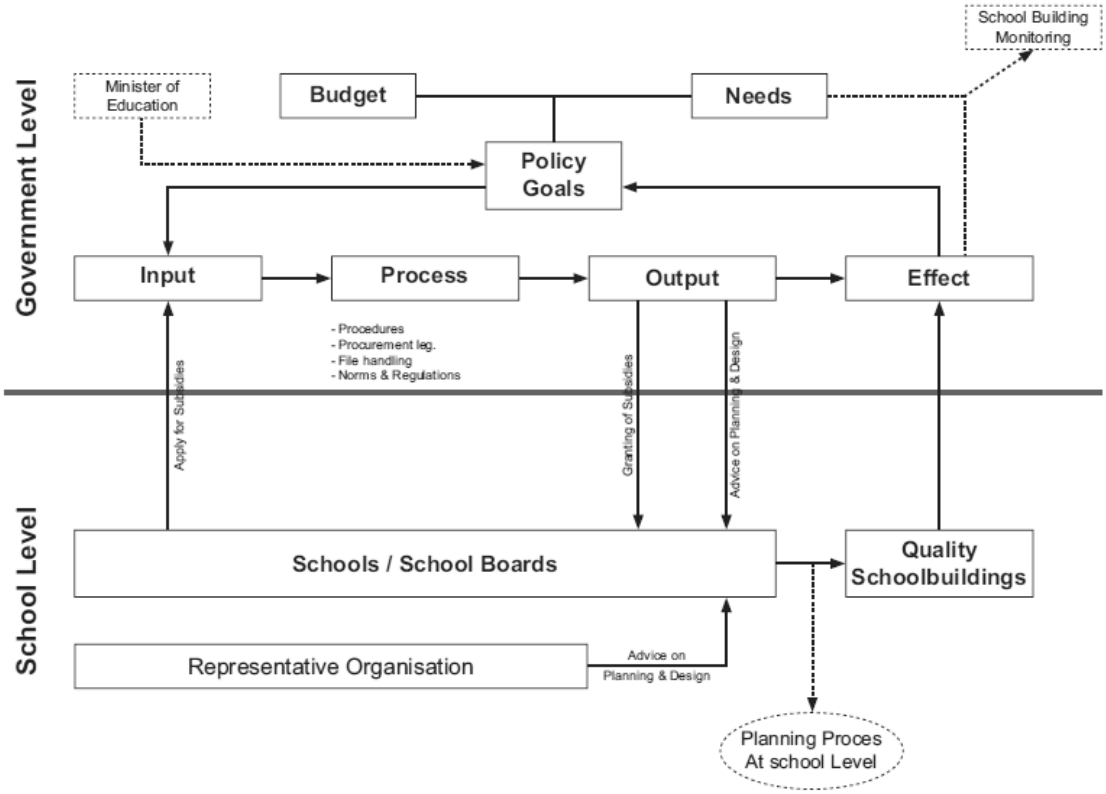
- Establishing a building programme in cooperation with school group and school.
- Establishing procurement guidelines for Design-Build-Finance, possibly with assistance from external expertise.
- Appointing a supervisor who is responsible for design, financing and construction.
- Following up of the contract in collaboration with the school or school group.

5. STRATEGIC INVESTMENT PLANNING

5.1. Process for strategic investment planning

For publicly funded privately run schools and publicly funded and publicly run schools, school building policy is highly decentralised. Schools and their school boards decide autonomously to undertake construction work and (with the architect) plan the project. Although guidance on applying for subsidies exists, there are no general regulations for planning construction works at school level. In fact, little is known about how construction projects are actually planned at school level.

There is only limited investment planning at the central government level. Its role is to approve subsidies, giving priority to certain types of urgent construction works to ensure the continuity of education. To obtain subsidies, schools mainly have to be sure that the planned works meet the general physical and financial norms.



5.2. Assessing needs

Needs assessment is not part of a planning process as such. Its purpose is to evaluate the educational facilities policy at the central government level and to inform policy makers about the quality of the building stock and the existing problems. Given the many problems on the field, this might lead in the

future to a stronger commitment of the central government or other, local, governments to more active planning and steering in school building investments, but it was not the initial purpose to monitor the quality of the building stock.

Needs assessment at the central government level in Flanders takes the form of a 5-yearly general quality evaluation of the existing school buildings (6 380 school buildings). It is an on-line questionnaire completed by school principals. Data are collected by a specialised firm, and data are analysed and published by AGIOn in *The School Building Monitor*.

The following elements are measured, including "quality":

- Number and level of investment in school buildings.
- Description of the school building (size (in m²), age, type of buildings).
- Quality of the building stock using 48 quality criteria within the following dimensions: security, physical state, aesthetics, functionality, comfort, cost and school site.
- Use of the school building (intensity of use, multifunctionality, community use).
- Quality of the planning process at the school level (participation , selection of architects, advice about finance and planning, educational specifications, opportunity to evaluate the building project from planning to completion of the works).

There is no use of demographic analysis and projections based on educational needs at the central government level. All planning activities are made at the school level, which decides autonomously to carry out construction works. The central government, on the other hand, tries to support and coach schools to optimise the quality of the planning process at school level.

5.3. Prioritising needs

When the overall investment needs exceed the allocated budget, the general rule is that construction projects are put on a waiting list and construction projects are approved chronologically. The gap between the need for investments and the available amount of subsidies is so wide that the waiting list mounted up to 1 442 billion EUR in 2008. This means that a school has to wait for more than 8 years already before its application can be approved. To meet urgent construction works though, AGIOn can follow special procedures for:

- Urgent maintenance works that stay under 100 000 EUR.
- Priority works to meet urgent needs (fire safety, sanitary, works after purchase).
- Purchasing existing school buildings.
- A special procedure for energy-efficiency in school buildings.

6. USE OF SPACE STANDARDS

6.1. Use of maximum space standards to calculate government subsidies

Maximum space standards are used by the central government as a maximum limit for which building programmes are eligible for subsidies (Tables 6.1, 6.2 and 6.3). In other words, building programmes that exceed the maximum space standard will not be subsidised. These standards are calculated relative to enrolment, subject and teaching periods per week. The maximum space standards consider the school building as a whole, although gymnasiums and spaces for vocational training are separate spaces.

It is important to note that space standards are **not** used as "guidelines" to inform schools on the surfaces they need to accommodate certain functions. Educational facility policy allows schools maximum freedom to decide how to organise and accommodate their school building, and it is the decision of the school concerning the functional requirements (*i.e.* classrooms, cafeterias, circulation spaces) of the school.

Table 6.1. Calculation of subsidies for facilities providing pre-primary and primary education

General spaces	Additional spaces	Enrolment	Occupancy	Teaching periods	Total gross area in m²
Global gross area of the school building in m²		Schools < 72 pupils	<26		250
			26-44		360
			45-56		485
			57-65		590
			66-71		675
		Schools > 72 pupils	72-165		760+7,9*(#pupils-72)
			166-349		1495+6,9*(#pupils-165)
			>350		2765+6,3*(#pupils-349)
		Total gross area's in m² are augmented with 5% for schools that provide both pre-primary and primary education			
	Religious education			per 24	+42
	Gym		>40-<120		+80
Specific space for gym and sports			120-220		320
			221-490		485
			>491		805
		Occupancies of toddlers have to be multiplied by 0,8 for the calculation of the gross area in m² of spaces for gym			

Table 6.2. Calculation of subsidies for facilities providing secondary education

General spaces	Additional spaces	Occupancy	Teaching periods per week per teacher	Total gross area in m²
General subjects		<100		#pupils*22
		101-200		2200+12*(#pupils-100)
		201-300		3400+10*(#pupils-200)
		301-400		4400+8,5*(#pupils-300)

		401-500		5250+7,5*(#pupils-400)
		501-600		6000+7,0*(#pupils-500)
		601-700		6700+6,5*(#pupils-600)
		701-800		7350+6,0*(#pupils-700)
		801-900		7950+5,5*(#pupils-800)
		>901		8500+5*(#pupils-900)
Vocational subjects and art subjects in grade 1 of secondary education	General			(#teaching periods per week per teacher/32)*150
	Construction			#pupils enrolled in construction*3,2 + 230m² for storage
	Wood			(#teaching periods per week per teacher/32)*150 + 190m²
Vocational subjects and art subjects in grade 2 and 3 of secondary education Gym and sports	Car assembly			(#teaching periods per week per teacher/32)*300
	Chemistry			(#teaching periods per week per teacher/32)*155
	Decorative techniques			(#teaching periods per week per teacher/32)*175
	Photography			(#teaching periods per week per teacher/32)*155
	Glass Techniques			(#teaching periods per week per teacher/32)*155
	Graphic communication			(#teaching periods per week per teacher/32)*155
	Trade			(#teaching periods per week per teacher/32)*100
	Wood			(#teaching periods per week per teacher/32)*175 + 190 m²
	Jewelry			(#teaching periods per week per teacher/32)*100
	Cooling techniques			(#teaching periods per week per teacher/32)*155
	Agriculture			(#teaching periods per week per teacher/32)*155
	Body care			(#teaching periods per week per teacher/32)*130
	Maritime education			(#teaching periods per week per teacher/32)*175
	Mechanics-electricity			(#teaching periods per week per teacher/32)*175
	Fashion			(#teaching periods per week per teacher/32)*155
	Building of musical instruments			(#teaching periods per week per teacher/32)*155
	Optics			(#teaching periods per week per teacher/32)*100
	Orthopedics			(#teaching periods per week per teacher/32)*100
	Personal care			(#teaching periods per week per teacher/32)*155
	Dental techniques			(#teaching periods per week per teacher/32)*100
	Textile			(#teaching periods per week per teacher/32)*155
	Tourism			(#teaching periods per week per teacher/32)*100
	Food			(#teaching periods per week per teacher/32)*175
	Ballet			(#teaching periods per week per teacher/32)*155
	Plastic arts			(#teaching periods per week per teacher/32)*155
	Performing arts			(#teaching periods per week per teacher/32)*155
	Construction			#pupils enrolled in construction*18 + 340m²
			<32	485 (or 600 for secondary schools with 3rd grade)
			33-64	805
			65-96	1200
	Additional space for gym and sports		+1-16	+200

Table 6.3. Calculation of subsidies for the school site in general

Car park		24m² per staff member
Bicycle and motorcycle park		1,2m& per pupil of staff member
Playgrounds	Primary education	8m²/pupil (min 250m²)
	Secondary education	4 m²/pupil

7. REGULATIONS, LEGISLATION AND GUIDELINES

7.1. General education legislation

- Special (mandatory) decree on the Education of the Flemish Community of 14-7-1998 (B.S. 30-9-1998).

- Decree of the Flemish Government (mandatory) on the economic budget for school groups and the central level of community education of 6 July 1999 (BS 20.10.1999)

7.2. Financial and physical norms

- Decree (mandatory) of 7 May 2004 establishing the internal autonomous agency with legal personality Agency for Infrastructure in Education (AGIOn).

- Decree (mandatory) of the Flemish Government of 5 October 2007 describing the regulations determining the need for the construction and expansion of new buildings. It also defines the maximum financial (cost/m²) and physical (m²/pupil) area that can be subsidised by the Flemish government for schools, boarding schools and pupil guidance centres. AGIOn controls every application for subsidies by assessing whether they meet the financial and physical norm. Apart from these general maximum norms, there are no norms or regulations regarding the size of classrooms, functional design of schools, etc.
  See also http://www.agion.be/juridisch%20kader/fysische%20en%20financiële%20normen.aspx

7.3. Procurement

- Legislation Decree (mandatory) on the award of public contracts to private contractors. This ensures that there is fair competition between private contractors and that the government can get the best price on the market.

7.4. Energy performance in schools

- Decree (mandatory) of 7 December 2007 on energy performance in schools. The decree covers the requirements for low energy use in new schools. From 1 January 2008 schools must comply with the standard E70-norm. Designs for school buildings that do not meet the E-70 norm cannot be subsidised.

7.5. Fire, accessibility, health and safety

- There are a number of (mandatory) rules and norms regarding fire safety, health and hygiene and accessibility to ensure that school buildings meet basic standards.

8. NATIONAL REVIEW OF EDUCATION FACILITIES POLICY

8.1. Background to the 2008 evaluation

In 2008, AGIOn conducted its first evaluation of the quality of its school buildings in Flanders using a monitoring system, based on international experience. As part of this policy evaluation, research focused on the policy outputs that have been produced (investments, advice and guidelines) and the effects of these policies (the quality of what is being built). The primary focus of the research was the quality of school building, but the use and planning of school buildings was also taken into account. To measure the outputs and effects, a monitoring system was developed, for which indicators are used to describe the effectiveness of policy. These indicators require systematic and recurrent data collection.

To ensure that the right indicators were selected to assess the quality of school buildings, the notion of "quality", as it exists in Flemish school building policy, was tested from four perspectives, namely:

- General ideas on architectural quality of buildings emerging from scientific and government publications about architectural quality and Post-Occupancy Evaluations.

- Recent opinions on good school architecture from international think-tanks and organisations such as the American DesignShare or the British Commission for Architecture and the Built Environment.

- Current work on quality in school buildings undertaken by the OECD Centre for Effective Learning Environments (CELE), especially the "Evaluating Quality in Educational Spaces" project (see www.oecd.org/edu/facilities/evaluatingquality).

- Criteria used in existing surveys and evaluation instruments to assess the quality of school buildings. Over 30 evaluation scales and questionnaires were examined, from which a common set of descriptive and quality indicators were selected.

This review produced a list of useable quality indicators. Some relate to the habitability, safety and hygiene of school buildings – basic requirements for teaching to be carried out under acceptable conditions. Other indicators include criteria linked to the 21st century challenges for school buildings in terms of sustainability, the changing social role of schools, and recent evolutions in pedagogy and teaching methods.

The statistical data used for monitoring purposes were collected from all schools in Flanders via an online survey carried out in early 2008. In the survey, school principals were asked to assess their building using a large number of criteria relating to diverse aspects of quality including, and of course, the 21st century challenges. In addition to the quality of the buildings, attention was given to more descriptive information, such as building management and the age and surface area of the school buildings. Usable information on 3 618 school sites was collected, representing about 60% of the total.

8.2. Results from the school building survey

The survey's most important finding concerning the effectiveness of school building policy is that most educational facilities in Flanders are adequate in terms comfort, condition and safety. Thus, the basic quality of educational facilities is sound. But AGIOn also found that some school buildings (about 7%) do not meet basic standards. This group of schools is faced with the most urgent problems.

In relation to quality aspects associated with 21st century challenges for educational infrastructure, however, most of school buildings are severely underperforming. 26% cannot provide these new conditions, while only 21% can. Some figures from the survey illustrate this:

- Only 42% of school buildings sufficiently support the pedagogical project of the school.
- Only at 48% of the school sites, school principals are satisfied with the integration of ICT-equipment in the buildings.
- Only at 30% of the school sites, principals are satisfied with the available working and meeting space for teachers.
- Only at 30% of the school sites, pricipals say that educational spaces are sufficiently flexible and multifunctional in use to support different teaching and learning methods.
- Only at 35% of the school sites, the school buildings allow safe and easy multifunctional use by parents and the wider community.
- Only at 35% of the school sites, the school entrance is sufficiently secured.
- Only at 30% of the school sites, school buildings are sufficiently accessible for disabled pupils and teachers.
- Only at 22% of the school sites, school buildings are sufficiently energy efficient.

Concerning building size, the survey found that, on average, there is a shortage of educational space in Flanders. At 32% of the sites, the school buildings are considered too small. Besides a lack of traditional classrooms, the need for more support areas is most remarkable (such as libraries or multi-media centres, relaxation spaces, staff rooms and multifunctional halls). The lack of space is most pronounced in the Brussels-Capital Region.

AGIOn discovered that the problem of school buildings exists to a greater or lesser extent in all Flanders' educational networks and at all levels of education. While 21% of school buildings were evaluated as inadequately usable, 53% are adequately usable. The differences in quality and the problems linked to them are, in fact, related to the problem of poverty. School buildings located in poor, often inner-city, neighbourhoods were generally assessed as worse than the school buildings located in more affluent areas.

Besides the quality of the buildings themselves, the survey addressed the process of realising new school building projects. It showed that school boards are generally given sufficient opportunities to participate in new building projects. In addition, in most cases a well-developed building programme was established beforehand. Most school boards also received the advice needed with regard to planning, design and financial matters. The opportunity to evaluate the project at fixed points in time and to fine-tune it was provided in most cases. Two criteria were met to a far lesser extent. Only for 51% of new building

or renovation projects, a procedure for the motivated selection of architects took place and, there were very limited opportunities for teachers, pupils, cleaning staff, parents and local residents to participate in the planning of the building.

Regarding the management of the buildings, survey results show that most schools have a prevention plan or a policy note on health, safety and the environment. However, a masterplan setting out a school's long-term policy on infrastructure was available at only 42% of sites. In terms of energy sources for heating, gas is the most commonly used (74% of sites), while fuel oil comes second (42% of sites). Renewable energy sources are very rarely used for heating buildings.

Findings on the use and occupation of school buildings were generally positive: only 14% of the sites have empty spaces. In most cases, these are small parts of the building and the reason for this is often the fact that those rooms are no longer suitable for teaching. At 59% of the sites, buildings and classrooms are also used outside of school hours; this extracurricular use is to a large extent linked to the buildings' capacity to be made accessible in an easy and safe way. In most cases, extended use of school buildings occurs on a regular basis.

8.3. Review findings

After many years of underinvestment and a policy aimed mainly at alleviating the greatest need, Flanders is now faced with the important challenge of increasing the number and quality of its school building stock. Recent initiatives, like an increase in the regular budgets for school building, the DBFM-project and the extra investments in energy efficient measures, are already a step in the right direction. The AGIOn survey monitoring the current state of school buildings in Flanders however shows that the need for quality buildings and additional financial resources still remains considerable. This requires a sustained investment policy whose leitmotif is quality, innovation and sound planning and design support for schools.

9. ADDITIONAL SOURCES

AGIOn URL: www.agion.be

GO! Education of the Flemish Community URL: www.g-o.be

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