



International review of curriculum and assessment frameworks

Thematic probe

**Curriculum review:
an international perspective**

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¹ The EURYDICE Network is the information network on education in Europe and forms part of the Socrates programme - the European Community Action Programme in the field of education.

Preface

This thematic probe report provides responses to six questions received from the Qualifications and Curriculum Authority (QCA) in March 2001, regarding the process of **curriculum review** in other countries. The questions pertain to:

1. the **frequency** of curriculum reviews;
2. the **aims and purposes** of the reviews;
3. the review **process**;
4. the level of **political involvement**;
5. links to **standard setting** and the **international dimension**; and
6. the **timeframe** for review.

Information has been provided for the following countries of the QCA-sponsored International Review of Curriculum and Assessment Frameworks (*INCA*) Archive:

Australia (the States of Queensland, Tasmania and Victoria), Canada (the provinces of Alberta, British Columbia, Ontario and Saskatchewan), France, Germany, Hungary, Ireland, Italy, Japan, Korea, the Netherlands, New Zealand, Singapore, Spain, Sweden, Switzerland, and the USA (the states of Kentucky, Maryland, Massachusetts and Wisconsin),

in sections dealing with each of the above areas of enquiry in turn.

The data was sourced initially from the *INCA* Archive (<http://www.inca.org.uk>), complemented, where possible within the limited timescale for the probe, by additional information from Ministries, agencies and our contacts in the countries or states concerned, and by other published information. Sources other than the *INCA* Archive are indicated. Readers will note that it has sometimes only been possible to provide limited information in response to certain questions for some countries.

The information provided is factual, in response to the original questions asked. The report does not aim to provide a comparative overview analysis of curriculum review across the countries of the *INCA* Archive.

There is generally no national curriculum review process in the federal countries participating in the Archive. Please see the background notes below.

Australia

Australia does not have a national curriculum for its schools. Each State/Territory has sole constitutional responsibility for the curriculum of its schools. However, in 1991, the Commonwealth and State/Territory Ministers for Education together began to develop "Statements" and "Profiles" for eight broad Key Learning Areas: the arts, English, health and physical education (HPE), languages other than English (LOTE), mathematics, science, studies of society and the environment (SOSE), and technology. There is now widespread use, throughout Australia, of the eight Key Learning Areas as the basic units of the school curriculum. (Further information is provided in section 1.)

Canada

There is no national curriculum in Canada. The country consists of ten provinces and two territories, each of which has exclusive authority for education in the individual province or territory, controlling all aspects of the education system.

The Ministers of Education from each province (or territory) have, however, established a National Secretariat - the Council of Ministers of Education, Canada (CMEC), to ensure communication on issues such as funding, curricula and student assessment. From time to time, CMEC undertakes national projects in curriculum and assessment, such as the School Achievement Indicators Program (SAIP), which involves assessment in selected schools, for students of selected ages and for selected subjects.

In addition, there is a Western Canadian Protocol. Under this agreement, the four Western Canadian provinces of Alberta, British Columbia, Manitoba and Saskatchewan, and the three northern territories of Nunavut, Western Arctic and Yukon Territory, have established parallel curricula in key subject areas. This is with the aim of providing continuity of educational provision across the age range and across the territories.

Germany

In Germany, overall responsibility for education lies with the individual regions (Länder), rather than with national government. The Ministers of Education and Culture in the Länder are responsible for the development and implementation of curricula for the subjects taught in the different types and levels of school in their regions.

Our contact in the German Eurydice Unit ² comments:

In all Länder, there are compulsory curricula for all subjects and there is a minimum standard core curriculum across most Länder.

Curricula for all types of schools - with the exception of the framework curricula for vocational instruction at vocational schools (see below) - are the responsibility of the Ministries of Education and Cultural Affairs in the Länder. These are binding on teachers, and it is the responsibility of the headteacher to ensure that the curricula currently in force are taught at his/her school. At the same time, curricula are formulated in such a way as to leave freedom of teaching methods to teachers themselves. Nevertheless, all teachers of a specific subject at a given school do meet to reach a degree of consensus on methods and assessment criteria.

Framework curricula for vocational schools are determined jointly by federal and Land authorities, with the agreement of the employers and unions on the basis of the training regulations for on-the-job training.

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Switzerland

General

There is no national curriculum and therefore no national body with responsibility for the curriculum; curriculum development and implementation is a cantonal affair.

The curriculum for compulsory education is fixed by the cantonal authorities and each canton has its own programmes for separate subjects or groups of subjects. In some parts of Switzerland, common curricula have been adopted, sometimes only for specific subjects, such as mathematics or foreign language teaching. For example, although each canton has its own distinct education plans, over the last 25 years, most cantons have adopted similar general guidelines for mathematics and a second foreign language at the upper secondary level (students aged 15/16+).

Upper secondary leaving examination - Matura

In addition, all students studying for the upper secondary leaving examination (the Matura), which is required for entry to higher education, follow harmonised cantonal curricula. That is, school curricula are still drawn up by cantonal authorities, but federal legislation, originally agreed in 1968, regulates the compulsory subjects to be included and the length of courses (at least four years). Since 1994, the Matura curricula issued or approved by a canton must be based on the national framework drawn up by the Swiss Conference of Cantonal Directors of Education (the EDK/CDIP). This framework proposes general learning aims and defines the educational and intellectual purpose of the upper secondary general/academic school (the Gymnasium).

Vocational upper secondary diploma (DMS Diploma)

In 1987, after more than 15 years of discussion, agreement was reached between the cantons on guidelines for the recognition of, and a curriculum framework for, vocational diplomas (known as DMS Diplomas). Courses of two or three years' duration, which conform to the guidelines and adopt the curriculum framework, are recognised by the committee of the EDK/CDIP, subject to the agreement of the commission for DMS Diplomas.

USA

There is no national curriculum or curriculum framework in the USA. The intended curricula are determined at the school district level in accordance with state guidelines. By autumn 1999, 49 of the USA's 50 states had some form of official curriculum documents and specific centralised learning standards for English, maths and science. Indeed, there is a move across the country to develop state-level core content standards, which provide some consistency across a state in terms of the curriculum content. Nearly every state has these standards in place, although they do vary in terms of specificity, areas covered, format, etc.

Additional background notes for some of the remaining *INCA* countries are provided as follows:

Italy

Our contact in the Eurydice Unit in Italy³, comments that the Italian school system is currently in a transition phase. It is gradually moving from a centralised education system, characterised for all school levels (from pre-primary to upper secondary education) by national curricula established by the Ministry of Education (advised by the National Council of Education), to a system in which an increasing level of autonomy is granted to schools.

As a result, the Ministry of Education - in accordance with advice provided by the National Council of Education and the responsible Parliamentary Committees - now defines, for all levels of education (from pre-primary to upper secondary) and all types and branches of study, the following **general** guidelines and principles:

- general learning objectives
- specific learning objectives related to students' competencies
- the subjects and activities which will make up the 'national curriculum quota' and annual numbers of teaching hours for these
- limits of flexibility in balancing the time devoted to subjects and activities of the national curriculum quota
- standards related to the quality of service, and
- general indications for student assessment and evaluation.

In addition, the recent approval of the law on the reorganisation of school cycles, has completely revised the structure of the Italian school system. This is set to change from the current four school levels (pre-school education, primary education, lower secondary education and upper secondary education) into a three-phase structure (pre-school education, primary cycle and secondary cycle).

In line with the above change in phases, the Ministry has defined framework national curricula for the new pre-primary and primary education phases, although these frameworks still await the definitive approval of the Parliamentary Committees and the National Council of Education. Curricula for secondary education have still to be established.

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New Zealand

Our contact in the Ministry of Education in New Zealand has provided the following background information on curriculum review in New Zealand.

Prior to the comprehensive revision of the whole school curriculum in the 1990s, the curriculum was specified through more than a dozen syllabuses and guidelines. These were provided for subjects and in some cases aspects of subjects, such as handwriting. The documents were of different vintages (spanning 1961-1986), covered different year levels and were written in different forms.

Following a major public consultation on the curriculum in the mid 1980s, the Department of Education began work on an overall framework for a revised school curriculum. This work did not, however, proceed beyond a draft document, published in 1988, which was effectively sidelined by the reform of the administration of education in 1989 and by a change of government in 1990.

Curriculum development resumed in 1991, at first under the 'Achievement Initiative' policy and, from 1993, under the umbrella of *The New Zealand Curriculum Framework*⁴.

The total revision of the New Zealand school curriculum, begun in 1991, in both English and Maori, is nearing completion in 2001. New National Curriculum Statements⁵ have been progressively replacing old syllabuses since 1992. They have been published initially in draft form for consultation and trialling, then published in final form, and finally 'gazetted' for mandatory implementation.

In 1996, the development and implementation of new Statements was paused by the Minister of Education in response to widespread concern across the school sector about the pace and scale of change. New timelines for the curriculum were announced in July 1997 introducing a transition period of at least two years between the publication of a final Statement and its mandatory application.

Spain

Our contact in the Eurydice Unit⁶ in Spain comments:

For a number of years, there was a very active Curriculum Development Centre in Spain. This was disbanded in 1996, when the new Government came into power.

Now, the regional Autonomous Communities develop the curriculum at regional level and individual educational establishments adapt the regional curriculum to their specific requirements. The State only legislates for the content of the minimum core curriculum, which accounts for 65 or 55 per cent of the curriculum actually

⁴ *The New Zealand Curriculum Framework (NZCF)* was published in 1993 setting out the overall policy direction for curriculum and assessment. This document does not have legal status.

⁵ There is one National Curriculum Statement for each essential learning area described in the NZCF. The Statements have a common format of 'Strands' containing eight progressive levels of 'Achievement Objectives' which specify expected learning outcomes.

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implemented (the latter figure applies in those Autonomous Communities with two official languages).

The minimum core curriculum was established by Royal Decree just after the LOGSE legislation was passed in 1990. In December 2000, some minor modifications were introduced. These were developed directly by Ministry advisers with the aim of adapting the minimum core curriculum to ensure that content remains relevant.

The frequency of curriculum reviews

1. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, what is the frequency of curriculum review? Are reviews regular or ad hoc? What triggers curriculum reviews?

Australia

Although there is no national curriculum in Australia, the individual States or Territories, which make up the Commonwealth, have agreed on eight Key Learning Areas for a curriculum framework. Expressed in terms of:

- Statements: which define the area of study, outline its essential elements, and describe a sequence for developing knowledge and skills; and
- Profiles: which describe learning outcomes,

the Key Learning Areas are adapted for use by all States and Territories.

The eight Key Learning Areas of:

- the arts;
- English;
- health and physical education (HPE);
- languages other than English (LOTE);
- mathematics;
- science;
- studies of society and the environment (SOSE); and
- technology

began to be introduced in 1991.

Although review of the Key Learning Areas is not national - individual States and Territories undertake this - the Curriculum Corporation, which is a national curriculum agency owned by the Commonwealth, State and Territory Governments, does *monitor* the use of the Statements and Profiles across the country on an *annual basis*.

It is worth noting, however, that when undertaking a review of the curriculum and the Key Learning Areas, individual States/Territories do take account of the *nationally agreed* goals for schooling. These can be found at <http://www.detya.gov.au/schools/adelaide/index.htm>

Frequency of review and the actual review process can vary considerably from State to State.

Queensland

The main trigger for the New Basics Project, a four-year curriculum research trial across 38 Queensland schools, which began in January 2001, was 'today's dramatically changing times'. The research trial/consultation/review will 'directly confront' changes in student attitude, economic changes, technological advances, and community and cultural changes, amongst others, as they apply to the curriculum.

Tasmania

Concern about an overcrowded curriculum has recently triggered a wide-ranging and radical consultation on the curriculum in Tasmania, which began in 2000. Prior to this, the State's last major curriculum policy statement for secondary education had been published in 1987; and that for primary education in 1991. The consultation was also triggered, to a certain extent, by the dawn of the new Millennium. Through it, the Department of Education aims to take stock of changes in the world; affirm the purposes of the education it is providing; and consult on what students should know, understand, value and be able to do as a result of the education provided.

See section 6. for further information on the timeframe for this review.

In addition, in Tasmania, the Department of Education regularly nominates specific curriculum areas for special attention. In 1998, for example, the area was health education. A three-year cycle allows for preparation in year one, full focus in year two, and follow-through in year three. Teachers are seconded to serve as curriculum officers to provide support to schools. The key curriculum initiative becomes one area for report in school evaluation. Initially, the scheme was voluntary but, because this led to inequalities for students in non-adopting districts, take-up has since become mandatory.

Victoria

In the State of Victoria, the eight nationally agreed Key Learning Areas are organised into the Victorian Curriculum Standards Framework (CSF). The CSF provides a common basis for schools to plan and review the curriculum (for children aged four/five to 15/16 years) and to assess and report on student achievement. The CSF has been implemented in Victoria since the end of 1997, and was reviewed during the period 1998-2000. The revised CSF (CSF 2000 or CSF II) was approved for implementation by the end of 1999, and has been being introduced since early 2000.

Canada

There is no national curriculum in Canada. The country consists of ten provinces and two territories, each of which has exclusive authority for education in the individual province or territory. As a result, there is no national, federal review of the curriculum.

Western Canadian Protocol

There is, however, a Western Canadian Protocol. Under this agreement, the four Western Canadian provinces (Alberta, British Columbia, Manitoba and Saskatchewan) and three northern territories (Nunavut, Western Arctic and Yukon Territory) have established parallel Kindergarten to Year 12 curricula (children aged five/six to 18 years) in key subject areas, with the aim of providing continuity of educational provision across the age range and across the territories. In this way, the provinces hope, for example, to ensure that there are fewer problems should students transfer from the education system in one province to another. This process of curricular reform commenced in the 1993/94 academic year, with specific territories being responsible for specific curricular areas, for example, Alberta for mathematics and Manitoba for the English language arts. The programme is outcomes-based.

Alberta and British Columbia belong to the seven member jurisdictions of the Western Canadian Protocol (WCP). The jurisdictions share materials and collaborate on curriculum or learning resource projects. In subject areas such as mathematics, where parallel curricula have been produced, there has been subsequent development of Canadian level texts and other learning resources to serve the larger market. Participation in WCP activities is, however, not mandatory and each of the participating jurisdictions retains the right to use or not use the cooperative products.

Alberta

As in most other territories and provinces in Canada, review of the curriculum in Alberta is cyclical and, as with the other members of the Western Canadian Protocol (WCP) (see above), takes account of the common WCP curriculum framework agreements. Frequency of review varies considerably from subject to subject and educational phase to educational phase, and varies typically between seven and 30 years. The social sciences curriculum framework for senior high school education in Alberta was last reviewed in the 1970s for example, and it is currently intended that a revised version will be available in the 2005-06 academic year.

British Columbia

Review of the curriculum in British Columbia is ongoing and cyclical, with a view to ensuring that the provincial curriculum for all students (from Kindergarten Year to Year 12, aged five to 18 years) remains current and relevant. The curriculum cycle aims to ensure that the whole curriculum is reviewed on a regular basis, but this does not require the Integrated Resource Packages (IRPs) to be revised at each curriculum review. IRPs consist of the provincially required curriculum (learning outcomes), suggested ideas for instruction, a list of recommended learning resources (books, videos, electronic resources, etc.) and possible methods for teachers to use in evaluating students' progress.

IRPs were first introduced in British Columbia in 1994, when the former curriculum began to be converted to IRP format. This initial cycle of review and conversion took place between 1994 and 1998.

In the current regular, cyclical IRP review pattern, in order to facilitate planning for upcoming changes, a detailed annual plan is generated each year, along with an updated long range plan for activities over a four-year period. These detailed plans - specifying which subjects are under consideration for review in which year - can be accessed at http://www.bced.gov.bc.ca/irp_implementation/is.html

Ontario

In Ontario too, the Ministry of Education has developed a cyclical process of curriculum review, development and implementation as a major concept in the management of the curriculum. The "Provincial Reviews of Programme" were initiated in 1985, as part of the Ministry's commitment to monitoring programmes in all subject areas, and to informing the public about the performance of the Ontario educational system. The most recent review of the whole Kindergarten to Grade 12 curriculum (children aged five to around 18 years) began in 1997/98 and has recently been completed (2000). Initially, the new provincial curriculum for elementary school education (Years 1 to 8, children aged six/seven to 13/14 years in Ontario) was launched. This concentrates on literacy and numeracy (the 'back to basics' curriculum). Revised curricula for the later years followed gradually.

Saskatchewan

In Saskatchewan, from 1981 to 1984, educators from across the province participated with the Ministry in a joint review of Kindergarten to Year 12 education (children aged five to 18 years). This review resulted in a new core curriculum policy which was implemented in the schools of Saskatchewan in September 1988, and represented the first major change to elementary school and high school curricula since 1963.

Since 1988, curriculum revisions in Saskatchewan have occurred whenever curricula have become outdated. There is a Curriculum Evaluation Programme which regularly monitors the effectiveness of curricula in order to facilitate improvements on a continuing basis. Consequently, the curriculum is known as the 'Evergreen Curriculum'. This is available at <http://www.sasked.gov.sk.ca/docs/evergrn.html>

A glance at the curriculum documents on the Saskatchewan Ministry of Education website, <http://www.sasked.gov.sk.ca/docs/subject.html>, quickly enables users to see how frequently/how recently curriculum frameworks in a given subject area have been revised. The English Language Arts curriculum for elementary (primary) level education, for example, dates from 1992, whilst that for students aged 12/13 - 16 ('middle level' students) dates from 1997, and that for students aged around 16-18 from 1999.

In 1999 a major 'actualisation' document for the core curriculum was produced. This aimed to provide a policy framework to guide those responsible for core curriculum review.

France

Primary level, children aged six to 11

Revised primary level curricula were established in 1995, and began gradual implementation in September of that year. Prior to that, the primary school curriculum documents dated from 1991. In 1998, reforms to some aspects of the curriculum were proposed in the "Charter to Build the School of the 21st Century" - see section 2 below. The 1995 curricula currently remain in force.

Lower secondary collège, students aged 11 to 15

Revised curricula for the four year groups in the lower secondary collège were finalised in 1996 and gradually introduced during the period 1996/1997 to 1999/2000 (one academic year for each year group).

Upper secondary lycée, students aged 15 to 18

Some amendments to the curricula in force are being gradually implemented in lycées over a three-year period from September 1999. These amendments did not follow on from a period of official/systematic review, but from a period of student, teacher and parent unrest.

In addition, the general inspectorate of national education is responsible for monitoring and evaluating the curriculum in operation and does so annually.

Germany

There is no national curriculum in Germany. The Ministries of Education of the individual regional authorities (Länder) develop their own region-wide curricula, with which schools must comply.

Our contact in the Eurydice Unit ⁷ in Germany comments that:

There are over 3,400 individual subject curricula in Germany.

Consequently, regular national curriculum review does not take place and there are no fixed dates for review.

Individual Länder do, however, review their curricula. School development and educational policy decisions (as part of social development) play an important part in influencing Länder to update curricula. The review process and procedures vary considerably from one Land to another.

Hungary

Prior to the change from the Communist to a democratic regime (in 1989), the last major revision of the curriculum in Hungary took place in 1978. Under the Communist regime, curricular changes occurred extensively on a national scale,

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essentially once every decade, and reform usually consisted of the introduction of a new, centralised curriculum obligatory for all schools. (The 1978 curriculum was modified slightly in 1983 - when it was reduced slightly.) From that time, and based on innovation inspired by teachers, some schools began to develop special, local curricula based on this central curriculum.

Legislative reforms in 1990 established a policy basis for curriculum development, namely a National Core Curriculum framework (NCC) within which local schools were to develop their curricula. Remodelling the school curriculum on this basis began on acceptance of the Public Education Act 1993. The NCC was formally adopted by the Government in October 1995 and began to be implemented in September 1998, at which time a new government came into power in Hungary. This triggered a national review of the NCC and its implementation, as a result of which further work on the NCC has recently been completed. This supplements the NCC with centrally-defined framework curricula. Based on the NCC, these framework curricula aim to serve as common ground for preparing school-level, local curricula. In other words, on initial introduction of the NCC, the curriculum model was a bipolar one - the NCC and local, school-level curricula. This model has since become 'three-polar', with the introduction of intermediate, centrally-defined frameworks, providing additional guidance.

By 31 December 1999, schools were expected to have prepared framework curricula based on the NCC. Local, school-based curricula, based on the framework curricula will be obligatory in all schools in Years 1, 5 and 9 (children aged six plus, 10+ and 14+ respectively) by 1 September 2001, although schools could begin introducing these local curricula in September 2000.

Ireland

Primary school curriculum (children aged four plus to 12)

A revised Primary School Curriculum ("Curaclam na Bunscoile") was introduced in Ireland in September 1999 and is being implemented in phases (over a four- to five-year period). Prior to this, the last major revision of the curriculum for primary schools took place in 1971.

The process of revising the Primary School Curriculum began with the work of the Review Body on the Primary Curriculum, which published an initial report in 1990. This report comprised a detailed appraisal of the 1971 curriculum and provided the basis for the redesign and restructuring presented in the final 1999 version.

Lower secondary curriculum (ages 12 to 15 years)

The curriculum in compulsory secondary - known as junior cycle - education in Ireland (students aged 12 to 15 years) is closely linked with the Junior Certificate (the school-leaving certificate). The junior cycle curriculum was introduced in 1989. In 1997, at the request of the Department of Education and Science (DES), the National Council for Curriculum and Assessment (NCCA) began a review of the junior cycle curriculum. The initial findings were published in 1999⁸, and this report is currently being used as the basis for further consultation and review.

⁸ NATIONAL COUNCIL FOR CURRICULUM AND ASSESSMENT (NCCA) (1999). *The*

Upper secondary education (ages 15 to 17/18 years)

Students in post-compulsory upper secondary - known as senior cycle - education in Ireland are either following one of three types of two-year Leaving Certificate programme (the established Leaving Certificate, the Leaving Certificate Applied, LCA, and the Leaving Certificate Vocational Programme, LCVP), or a one-year Transition Year programme.

The availability of a range of programmes at upper secondary level is aimed at encouraging students to continue in full-time education after completing the period of compulsory education (age 15).

Review during this phase relates specifically to an individual type of Leaving Certificate or to a specific subject syllabus. Recent reviews have involved both the established Leaving Certificate and the Leaving Certificate Applied (LCA).

Leaving Certificate (established)

A process of reviewing the subject syllabuses of the established (general/academic) Leaving Certificate began in the early 1990s and continues today. Some revised subjects have already been introduced to schools; some, such as physics and chemistry, were prepared and finalised for implementation in 2000; and others, such as the technology subjects, including engineering, have recently been completed for final approval.

Leaving Certificate Applied (LCA)

Since its introduction in 1995, the LCA * has been undergoing a process of continuous monitoring and review. In 1998, the NCCA published a review document. This recommended several changes to the programme structure and assessment arrangements, which began to be implemented for students commencing the programme in September 2000.

Transition Year

In addition, the NCCA is about to undertake a review of the Transition Year programme.

Our contact in the NCCA comments that:

In Ireland, the NCCA is generally attempting to establish the principle of aspects of the curriculum coming under review over time, with curriculum review in general being viewed as a cycle, rather than an event.

* Students following the LCA course study general (academic) subjects, vocational subjects, and spend a proportion of their time in vocational preparation/work experience.

Italy

Our contact in the Eurydice Unit in Italy ⁹ confirms that, in principle, a review of national framework curricula - by the Ministry of Education - is intended to take place every three years.

⁹ *Junior Cycle Review. Progress Report: Issues and Options for Development.* Dublin: NCCA.
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Japan

The national curriculum is set out in Ministry-defined 'courses of study', which are determined for each of four school levels: pre-compulsory kindergarten, compulsory elementary school, compulsory (lower secondary) junior high school, and post-compulsory upper secondary school.

Courses of study were first prescribed in 1947 and have since been revised in 1951, 1955, 1958, 1968, 1977, 1989 and 1998.

Once courses of study are revised, they are introduced gradually over time.

The 1989 revised courses of study, for example, were adopted in kindergartens in 1990, in elementary schools (children aged six to 12 years) in 1992, in junior high schools (students aged 12 to 15) in 1993, and in high schools (students aged 15 to 18 years) progressively from 1994.

The courses of study revised in 1998 were introduced in kindergartens during the school year March 2000 to March 2001; will be introduced in elementary (primary) and (lower secondary) junior high schools with effect from March 2002, and from March 2003 in (upper secondary) senior high schools.

Korea

Korea has a national curriculum, which has been revised regularly in accordance with a five- to ten-year cycle since the first revision in 1954. The curriculum has recently been reviewed for the seventh time, with the Seventh National Curriculum currently being introduced on a phased basis (introduction began in March 2000).

The Sixth National Curriculum was introduced in 1995, following a review which ran from October 1990 to October 1992.

There was a partial revision of the Sixth National Curriculum in March 1997. This introduced the teaching of English as a core subject at elementary school level, for children in Years 3, 4, 5 and 6 (ages eight to 12 years). Introduction was gradual, one Grade per year, from March 1997.

The Seventh National Curriculum is being introduced on a phased basis from 2000, as follows:

- March 2000 Grades 1 & 2 (elementary school), ages six to eight.
- March 2001, Grades 3 & 4 (elementary school), ages eight to 10 and Grade 7 (first year of junior high school), aged 12 to 13.
- March 2002, Grades 5 & 6 (final two years of elementary school), ages 10 to 12, Grade 8 (junior high school), ages 13 to 14, and Grade 10 (first year of senior high school), aged 15 to 16.
- March 2003, Grade 9 (junior high school), ages 14 to 15, Grade 11 (senior high school), ages 16 to 17.

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- March 2004, Grade 12, aged 17 to 18 years.

The Netherlands

In the Netherlands, the curriculum is expressed in terms of compulsory subjects, overall time allocation, and attainment targets. Attainment targets are reviewed in accordance with a five-year cycle.

Primary level education (ages four to 12 years)

The current primary level curriculum has its legislative basis in the 1985 Primary Education Act. In 1993 core objectives/attainment targets for primary level education were set. In 1998 revised attainment targets were introduced (for the period 1998-2003).

Lower secondary common core curriculum ('basisvorming', students aged 12 to 15 years)

Similarly, the national curriculum for the first cycle of secondary education (basisvorming) (specifying the subject areas, time allocation and core objectives) is updated every five years, the current period being 1998-2003.

Upper secondary

Revised requirements for the second cycle of HAVO (five-year general secondary education ending at age 17) and VWO (six-year general academic secondary education ending at age 18) were introduced in 1998.

Changes to the MAVO (four-year general secondary education to age 16) and VBO (four-year vocational and general secondary education) courses were last introduced on 1 August 1999, when the courses were combined as the four-year VMBO (pre-vocational secondary education).

New Zealand

The introduction of national curriculum Statements - applicable to all phases of school education for children aged three to 19 years - began in 1991, with the publication of the draft Statement "Mathematics in the New Zealand Curriculum". Curriculum Statements in English and Maori for all seven essential learning areas (language and languages, mathematics, science, technology, social sciences, the arts, health and physical well-being) are now nearing completion (March 2001). A 'stocktake' of the whole post-1991 curriculum reform process has recently begun.

Our contact in the Ministry of Education in New Zealand comments:

Prior to 1991, and the resulting curriculum reform, which took place throughout the 1990s, comprehensive reviews of the curriculum had also taken place in the 1940s, 1970s and 1980s. In addition, individual syllabuses were also reviewed from time to time. This ended with the comprehensive curriculum revision in the 1990s.

Whole curriculum reviews have tended to be triggered by new Governments or Ministers as responses to views that the school curriculum was failing to be responsive to changes in society, economy, technology, environment etc. Previous revisions of

syllabuses tended to be led by departmental officials responding to calls for change from the sector/subject groups.

Singapore

Our contact at the Ministry of Education in Singapore, comments that:

The Ministry of Education undertakes systematic curriculum review as part of a long-term process to ensure that the curriculum is forward-looking, remains relevant in the context of Singapore's economy, and meets the needs, abilities and interests of students. The curriculum planning and review process has been reduced from an eight- to 10-year cycle to a six-year cycle incorporating a mid-term review at the end of the third year. It involves a detailed study of the subject syllabuses, teaching approaches and the modes of assessment to align these with national policies and emerging trends.

Spain

Changes to the minimum core curriculum in Spain have gradually been implemented since 1990, when the LOGSE legislation replaced the 1970 curriculum with a new model of curricular design and development. This was motivated by two factors:

- to make the curriculum more coherent and relevant, by replacing the highly prescriptive curriculum with a more flexible one, and with teaching staff taking a more active role in its development; and
- to reflect the new distribution of responsibilities and the start of the decentralisation process, whereby the state-set core curriculum would be developed by the regions. (Spain has recently undergone a process of decentralisation. As a result, the Spanish education system is managed by 17 administrations - the 17 "Autonomous Communities", under the coordination of the Ministry of Education and Culture at state/national level.)

Our contact in the Eurydice Unit ¹⁰ in Spain comments:

As the regional Autonomous Communities develop the curriculum at regional level and individual educational establishments adapt the regional curriculum to their specific requirements, changes to/review of local curricula may happen on a more regular basis. The state only legislates for the content of the minimum core curriculum, which accounts for 65 or 55 per cent of the curriculum actually implemented (the latter figure applies in those Autonomous Communities with two official languages).

The minimum core curriculum was established by Royal Decree just after the LOGSE legislation was passed in 1990. In December 2000, some minor modifications were introduced. These were developed directly by Ministry advisers with the aim of adapting the minimum core curriculum to ensure that content remains relevant.

¹⁰ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

Sweden

Our contact in the Eurydice Unit in Sweden ¹¹ comments that there are three curricula - one for each form of school (pre-school, compulsory school - children usually aged seven to 16 years - and upper secondary/adult education). These contain general goals and guidelines following general agreement by Parliament on the principles behind the relevant curriculum, and extensive curriculum reviews do not occur very often. The data in *INCA* confirms this as follows:

Pre-school curriculum

The previous curriculum ran from 1987-1998; a revised curriculum was introduced in 1998.

Curriculum for the compulsory school (the 'grundskola' for children aged seven to 16 years)

This curriculum was last reviewed in 1994 (prior to this it had been reviewed in 1980, 1969 and 1962). Implementation of the curriculum revised in 1994 began in July 1995 and was completed during the 1997-98 school year. A five-year partial review, in the form of a pilot scheme in one third of schools, has been underway since 1999. This enables such schools to abandon the national subject timetable and determine their own timetable over the nine years of the *grundskola*, on condition that a minimum of 6,665 hours of instruction is provided over the nine years.

Upper secondary curriculum (students aged 16 to 19 years)

The most recent (small) revision took place in 2000, when an additional (seventeenth) national programme (for technology) was added at this level. Prior to that, the last major revision was in 1994; implementation began in 1995.

Our Eurydice contact further comments that:

Major curriculum reviews are often big political events, which take place after several years of investigation by a state committee and extensive discussions in Parliament. The reviews are triggered by political and pedagogical initiatives from the Government.

In addition to the broad guidelines for the curriculum, there are syllabuses for each subject. These are the 'course plans' for each subject in school. Syllabus review is carried out according to a 'rolling agenda'. The Government agreed new syllabuses for compulsory school education in spring 2000; the previous ones dated from 1994.

¹¹ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

Switzerland

General

There is no national curriculum and no national body with responsibility for the curriculum; curriculum development and implementation is generally a cantonal responsibility. Frequency of review can therefore vary considerably.

Our contact in Switzerland comments that:

although the situation varies from canton to canton, as a general rule, curriculum reviews tend to take place approximately every ten years. There is no formal trigger mechanism; reviews are usually initiated by changes in ideology, educational/pedagogical practice and other educational or social change.

Pre-school education

A new general curriculum for pre-school education in the French-speaking cantons came into force during 1994/1995.

Upper secondary education (students aged 15/16+)

Matura

There is some national agreement on the length of courses (four years) and the compulsory subjects to be included in the Matura - the upper secondary leaving certificate, which is required for entry to higher education. Initial agreement was reached in 1968 and, since 1994, the Matura curricula issued or approved by a canton must be based on the national framework drawn up in that year by the Swiss Conference of Cantonal Directors of Education (the EDK/CDIP). This framework proposes general learning aims and defines the educational and intellectual purpose of the upper secondary general/academic school (the Gymnasium).

A 'national' curriculum for a federal Matura certificate was introduced across the French-speaking 'collèges' in Switzerland (catering for students aged 15 to 19 years) in 1995. This will be fully operational by 2002.

DMS Diploma

In 1987, after more than 15 years of discussion, agreement was reached between the cantons, and guidelines for the recognition of, and a curriculum framework for, vocational diplomas (known as DMS Diplomas) were adopted by the EDK/CDIP. Courses of two or three years' duration, which conform to the guidelines and adopt the curriculum framework, are recognised by the committee of the EDK/CDIP, subject to the agreement of the commission for DMS Diplomas.

USA

There is no national curriculum in the USA. Individual states have the right to establish curriculum guidelines.

However, the United States Congress has enacted several pieces of national legislation affecting states, communities and schools. One of these, the Elementary and Secondary Education Act (ESEA), is re-authorised every five years. It sets

national goals for education, which are reflected in the individual education/curricular frameworks of the 50 states. Recent reviews of the ESEA took place in 1994 and 1999. See section 2. below for details of the aims and goals specified in ESEA on these two occasions.

Kentucky

Since the enactment of the Kentucky Education Reform Act 1990 (KERA), state-wide curriculum frameworks have been developed for the key curriculum areas of science, mathematics, social studies, language arts (reading and writing), arts and humanities, practical living, and vocational studies. The first frameworks were produced in 1994, and a complete revised programme of studies for Primary to Grade 12 (children aged from around six to 18 years) was finalised and published in 1998. This specifies the minimum content required for all students at all levels of the education system; it is then left to local districts and schools to use this as a basis for establishing and/or revising their own curricula.

Maryland

The Maryland School Performance Program (MSPP) was introduced in 1989. This involved the development of content standards and learning outcomes, which specify the essential knowledge and skills that all students are expected to learn by the end of specific Grades. The content standards help to clarify (for teachers, students, and parents) what students should master in reading, writing/language usage, mathematics, science and social studies. Local school systems then use the content standards and learning outcomes to guide their own curricula.

The first content standards and learning outcomes were developed in 1990, and the first linked tests under the Maryland School Performance Assessment Program (MSPAP) (for children in Grades 3, 5 and 8, ages nine, 11 and 14 respectively) began to be introduced in 1993.

The above, wide-ranging review was triggered by concern that previous standards-based reform, initiated in the 1970s, with the introduction of tests known as the Maryland Functional Tests (which assessed high school students' competency in reading, writing, maths, and citizenship), had set a performance floor for students. It was believed that the minimal competency students were achieving was not preparing them adequately for the competitive, information-based, technological world which awaited them outside the classroom.

The Maryland content standards were reviewed during 1998 and 1999 (the review took about 18 months), with revised content standards being approved by the Board of Education in July 1999, for introduction in the autumn of that year. Learning outcomes were revised during 2000 to reflect this revision, and MSPAP tests - which are currently being adapted to fit in with the revision - are expected to be completely aligned by 2002.

Massachusetts

Since the enactment of the Massachusetts Education Reform Act 1993, state-wide curriculum frameworks across seven subject areas have been developed for pre-kindergarten to Grade 12 education in Massachusetts (children aged four plus to around 18 years).

Each curriculum framework is always considered to be work in progress and, consequently, is subject to continual review to ensure that it remains current. Local communities use the frameworks to develop more specific, locally-adapted curricula, and the Department of Education bases the state-wide student assessment programme on the frameworks.

The most recent versions of the curriculum frameworks for the state of Massachusetts are as follows:

- arts, October 1999 (previous versions released in January 1996 and March 1999)
- English language arts, November 2000 (final prepublication draft) (previous version released in February 1997)
- foreign languages, August 1999 (previous versions released in January 1996 and April 1999)
- health, October 1999 (previous versions issued in January 1996 and March 1999)
- history and social science, September 1997
- mathematics, November 2000 (previous version issued in January 1996)
- science and technology/engineering, January 1996 (a revised framework is due for release imminently).

Copies of the individual curriculum frameworks can be downloaded at the following Internet address:

<http://www.doe.mass.edu/frameworks/>

Wisconsin

The state of Wisconsin has a state-wide core curriculum for kindergarten to Grade 12 (children aged five plus to around 18 years). Linked Wisconsin Model Academic Standards have been developed. By state law, since 1 August 1998, as a minimum, schools have been required to adopt the Wisconsin Model Academic Standards, or local standards, for mathematics, science, reading, language arts and social studies.

The aims and purposes of curriculum reviews

2. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, what are the aims or purposes of curriculum review? Are they, for example, to modernise the system, or to reduce the burden on teachers?

Compiler's note

Many of the countries, which commented on the questions in this thematic probe, made the point that curriculum review was often undertaken in their country with a view to modernising the system (to take account of recent educational, social or pedagogical changes). However, this has tended to result in an increase in the burden on teachers.

Australia

There is no national curriculum review programme in Australia. Responsibility lies with the individual States and Territories.

Queensland

The New Basics Project, a four-year curriculum research trial across 38 Queensland schools, which began in January 2001, aims specifically to 'directly confront the challenges of today's dramatically changing times', and to deal with 'new student identities, new economies and workplaces, new technologies, diverse communities and complex cultures. It will take account of mass media and popular culture, electronic communications, students' boredom with traditional print media, and rapid changes to communities and economies as they apply to the curriculum.'

Tasmania

A wide-ranging and radical review of the curriculum in Tasmania began in 2000. This was essentially triggered by concerns about an overcrowded curriculum in a rapidly changing world, and aims, through extensive consultation, to:

'take stock of the many changes in the world around us and to affirm the purposes of the education we are providing.....to determine what we want our children and young people to know, understand, value and be able to do as a result of their education.'

(Source: Office of Education, Department of Education, Tasmania, online at <http://www.doe.tased.edu.au/oe/curriculumconsultation>)

It also aims to respond to the concerns of teachers and principals (headteachers) who, in recent times, have made representations to the Minister and Department of Education to have the curriculum clarified and simplified.

The results of an initial consultation during 2000 showed considerable support for curriculum change and for a curriculum which supports the personal growth and development of students and the education of students for social responsibility. There was overwhelming agreement about the need to prepare young people for an uncertain future and to equip them to create a future they want to live in. The results of this

initial consultation were published in a 'Statement of Values and Purposes' in 2000. This Statement assisted with clarification of what is essential in the school curriculum, and it is on the basis of this that the Department of Education is currently consulting on developing what are known as the 'New Essential Learnings' as the basic framework of the new curriculum. An initial outline of the New Essential Learnings (NELs) was produced in December 2000. Further consultation took place between January and Easter 2001, and the NELs are being used and amended in 20 trial/pilot schools during 2001.

Further details of the curriculum consultation and the four NELs which comprise the revised curriculum framework - personal futures; social responsibility; creating and communicating; and investigating technologies and environments - can be found at the following website

<http://www.doe.tased.edu.au/ooe/curriculumconsultation/>

Victoria

In Victoria, the Curriculum and Standards Framework (CSF) was introduced in 1997. In 1998, the Board of Studies in Victoria was requested by the State Government to review the CSF with a view to:

- providing a simpler, less crowded structure, which set out literacy and numeracy, in particular, as curriculum priorities, and supporting curriculum design in schools;
- ensuring learning outcomes are at appropriate levels, which are challenging and based on internationally comparable standards;
- providing clear and specific statements, which allow clear and concise reporting of students' achievements to parents;
- supporting the use of information technologies in teaching, learning and assessment across all Key Learning Areas *; and
- ensuring that the revised curriculum is informed by national and international curriculum benchmarks and research into what works in classrooms.

The revised CSF (CSF II or CSF 2000), which was introduced in 2000:

takes account of the skills and knowledge students now need to prepare them for work and further learning in an increasingly information-rich world. This is reflected in a stronger emphasis on information technology in all learning areas and the development of work-related skills for a range of vocational opportunities (Board of Studies, Victoria, *CSF II: Overview*, online at <http://www.bos.vic.edu.au/csfc/ov/ov-a.htm>)

* The arts; English; health and physical education (HPE); languages other than English (LOTE); mathematics; science; studies of society and the environment (SOSE); and technology.

Canada

There is no national curriculum review programme in Canada. Responsibility generally lies with the individual provinces and territories.

British Columbia

The curriculum review programme in British Columbia is ongoing, regular and cyclical. This aims to ensure that the provincial curriculum for all students (from Kindergarten Year to Year 12, aged five to 18 years) remains current and relevant.

One expectation of the ongoing curriculum review cycle is that the learning resources industry will be better informed of the province's needs for curriculum support and have the appropriate lead time to develop quality texts and other resources that have a significant level of fidelity to the provincial curriculum. This necessitates a consistent set of timelines for curriculum review and revision.

The initial cycle of updating and converting all the Kindergarten to Year 12 provincial curriculum (for students aged around five to 18 years) to Individual Resource Packages (IRPs) aimed to introduce a curriculum which is consistent and readily understandable, and which facilitates accountability for student achievement across the system. In addition, the conversion of the former curriculum to IRPs also aimed to establish and strengthen curriculum connections to the province's post-secondary institutions and the world of work.

One of the key aims of current, ongoing review of the IRPs is to identify appropriate performance standards that can be directly related to the learning outcomes statements or content standards of the IRPs.

Conversion of the former curriculum to the IRP format began in 1994, and was completed in 1998. Individual Resource Packages consist of the provincially required curriculum (learning outcomes), suggested ideas for instruction, a list of recommended learning resources (books, videos, electronic resources, etc.) and possible methods for teachers to use in evaluating students' progress.

Ontario

In Ontario, the Ministry of Education has developed a cyclical process of curriculum review, development and implementation. The review component of the curriculum management programme is defined as 'the systematic gathering, analysis, interpretation and evaluation of information concerning educational programmes'. The reviews are seen as vehicles for programme improvement as well as providing for public accountability. The reviews were introduced as part of the Ministry's commitment to monitoring programmes in all subject areas and to informing the public about the performance of the Ontario education system.

One of the key aims of the most recent review, which took place in 1997/98, when a new provincial curriculum for elementary school education (children aged six/seven to 13/14 years) was launched, was to concentrate the curriculum on the basics of literacy and numeracy. Indeed, the revised curriculum is widely known as the 'back to basics' curriculum.

Saskatchewan

The 1981 to 1984 review of the Kindergarten to Grade 12 curriculum in Saskatchewan (students aged around five to 18 years) resulted in a report that established goals for public education geared to, then, current and future needs, and in

a new core curriculum policy which was implemented in the schools of Saskatchewan in September 1988. The new core curriculum aimed to:

- meet the individual needs of all students;
- provide students with knowledge, skills, attitudes and values that prepare them for further education, work and everyday life;
- recognise future, as well as present, needs of students; and
- accommodate all stages of student growth and development.

Since 1988, curriculum revisions in Saskatchewan have occurred whenever curricula have become outdated. Consequently, the main aim of curriculum review can be stated as being to ensure that curricula remain up-to-date and relevant.

France

Primary level education (children aged six to 11 years)

The revised curriculum in primary schools, which began to be introduced in schools in the autumn term of 1995, aimed to re-centre teaching on what were regarded as the essential skills of:

- the mastery of written and spoken French;
- the acquisition of working methods including the organisation of directed study (i.e. learning how to learn); and
- artistic and sports education.

The "Charter to Build the School of the 21st Century", which was launched in autumn 1998, focuses particularly on the primary school curriculum, the school timetable and the teacher's role. The Charter proposes reforms which aim to:

- 'lighten' the primary curriculum, further refocusing it on 'the basics' by giving priority to reading, writing and arithmetic to prepare children for post-11 education;
- unify school timetables and holidays;
- introduce a new role for primary teachers who, while remaining multi-skilled generalist teachers responsible for their students' education, will be trained to work with classroom assistants and also trained to work more collaboratively with colleagues. This is with a view to ensuring that subjects such as foreign languages (which are increasingly being taught at primary level), the arts and new technologies are taught by those best qualified to do so. In addition, primary school teachers will be given more authority to adapt the curriculum;
- introduce two hours per week of individual tuition/support in small groups for those children experiencing difficulties in certain areas of the curriculum, particularly French and mathematics;
- introduce the study of a compulsory foreign language for children in Years 4 and 5 (ages nine to 11); and
- possibly introduce assessment in French and maths for all children at the beginning of their final year of compulsory primary education (age 10), and re-examine the current mass diagnostic testing which currently takes place when

children are beginning year 3, aged eight, and in the first year of compulsory lower secondary education, aged 11.

More than 2,500 schools began piloting the proposed reforms in September 1999.

Lower secondary education ('collège' students, aged 11 to 15)

Revised curricula for the various classes in the lower secondary collège were gradually introduced during the period 1996 to 1999/2000. These had an emphasis on simplification of the curricula, with priority being given to the fundamentals of learning, such as literacy and numeracy. In addition and, in accordance with recent government initiatives, the curriculum in lower secondary schools in the education priority zones was adjusted further to concentrate even more on the basics. By 'the basics', the Government means not only literacy and numeracy, but also foreign languages and civic education.

Upper secondary education ('lycée' students, aged 15+ to 18 years)

Curricula in the three years of upper secondary education in France have also recently been reviewed. The key aim was to lighten the workload for students, by reducing their working week (including time in class, homework, and time for personal projects or course work). Other key reasons for the reform included:

- to allow more time for students experiencing difficulties to receive help;
- to allow for the introduction of civics education as a compulsory subject in upper secondary education; and
- to ensure that, whatever their course, students continue to study certain subjects until they leave school.

Germany

There is no specific data to be provided for this section.

Hungary

One of the main aims of the introduction of the National Core Curriculum (NCC) framework in Hungary was to modernise the education system.

Ireland

Primary curriculum (children aged four plus to 12 years)

The 1999 primary school curriculum revision aimed to take into account the educational, economic, social and cultural developments which have taken place in Irish society since the previous curriculum was introduced in 1971. The revised curriculum aims to "incorporate current educational thinking and the most innovative and effective pedagogical practice". It is designed to cater for the needs of children in the modern world.

Lower secondary curriculum (ages 12 to 15)

The curriculum for the lower secondary phase - known as the 'junior cycle' of education in Ireland - is currently under review. Four issues are receiving particular attention under the review remit. These are:

- whether the principles which underpin the curriculum are being fully realised;
- the current participation rates for the junior cycle and whether the grades obtained in the various subjects, at different levels, show evidence of underachievement;
- whether the current assessment arrangements are appropriate to the aims and objectives of the curriculum and syllabus; and
- whether the literacy (including information technology literacy), numeracy and oracy needs of the student are being addressed.

The review therefore focuses on the junior cycle as a whole, and the degree to which the aims and principles set out in the development of the Junior Certificate programme (followed by junior cycle students) have been realised in its implementation. The review committee is particularly concerned with the provision of an appropriate curriculum for all students. It is also considering the impact of the modes and techniques used in the assessment of the programme on those aims and principles, and on teaching and learning in schools. The current review also revisits the principles of equity and flexibility, and the possibilities for differentiation of the junior cycle programme to meet the needs of students who are educationally disadvantaged.

Upper secondary curriculum (ages 15 to 17/18 years)

Leaving Certificate (established)

The established Leaving Certificate is a two-year general/academic course for students usually aged 15 to 17 or 16 to 18 years. A process of reviewing the subject syllabuses for the established Leaving Certificate has been ongoing since the early 1990s. The brief for course committees embarking on the revision of subjects provides an indication of the common features of course revision across all subjects. These include:

- to provide articulation with, and progression from, the Junior Certificate course (see above);
- to cater for the variety of human needs, with particular reference to the vocational, further education and training aspirations of students on completion of the Leaving Certificate programmes;
- to achieve greater congruence between the aims and objectives of syllabuses as specified, and the modes and techniques used to assess student attainment; and
- to be sensitive to aspects of Irish and European culture, to gender equity and to the relationship with other subjects in the school curriculum.

Leaving Certificate Applied (LCA)

Since its introduction in 1995, the LCA - offering students a two-year course which includes general/academic subjects, vocational subjects and some vocational preparation - has been subject to continuing monitoring and review. The purpose of this review has been to identify difficulties experienced by schools/ centres in putting the programme into place, and to advise on measures that could be taken to address such difficulties.

Italy

Our contact in the Eurydice Unit in Italy ¹² comments that the usual aim of any form of curriculum review is its modernisation.

Japan

Since the end of World War II, the school curriculum has been revised approximately every 10 years, and on each occasion, an important issue has been the development of creativity. In recent curriculum revisions, an important objective was to put emphasis on logical thinking ability, imagination and intuitive ability of the kind that will serve as a source to generate new ideas.

Revised courses of study 1989

In revising the curriculum (expressed in the form of 'courses of study' for the four levels of education in Japan - pre-school, elementary, junior high school and high school) in 1989, the Ministry of Education took account of anticipated changes in society and the resulting changes in the life and attitudes of young people. The revised curriculum was intended to provide children with a sound foundation for their lifelong learning.

The basic aim of the revision of the courses of study was "to ensure, keeping the 21st century in view, the development of people who are rich in heart and who will be capable of coping with such changes in Japanese society as internationalisation and the spread of information media". The main objectives of the revision were:

to encourage the development of young people who possess richness of heart and strength of mind through every facet of the educational activities that take place at school, while taking into account children's levels of development, as well as of the characteristics of the respective subjects.

to place more emphasis on the essential knowledge and skills required of every citizen of the country and to enhance educational programmes that will enable each child to give full play to his or her individuality. A consistency in the curriculum for each subject area should be secured among different school levels, from kindergarten to post-compulsory secondary school.

to attach more importance to the nurturing of children's capacity to cope positively with changes in society, as well as to the provision of a sound base for fostering children's creativity. Children's willingness to learn how to learn is also to be stimulated.

to put more value on developing in children an attitude of respect for Japanese culture and traditions, as well as an increased understanding of the cultures and histories of other countries. Thus, children should be helped to develop the qualities required of a Japanese living in the international community.

¹² The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

Revised courses of study 1998

Further revised courses of study for all levels of education were finalised in 1998/99 for gradual introduction from 2000 (dependent on the specific level of education). The review (which was linked to the 'Programme for Educational Reform') aimed to ensure that revised curricula:

- foster a rich sense of humanity, sociability and self-awareness for students living in the international community;
- cultivate the ability to study and think for oneself;
- promote education which encourages individuality and fosters basic skills and abilities through the development of educational activities in a liberal, flexible and comfortable school life;
- enable each school to utilise original ideas for the advancement of distinctive education and the development of distinctive schools;
- enhance emotional education (i.e. foster individual schools' autonomy); and
- offer students diverse choices.

Korea

The national curriculum in Korea is subject to regular revision to meet various demands, both from inside and outside schools, as well as for social/national change

Aims of the Sixth National Curriculum review (review 1990-1992; implementation 1995)

In the 1990s, education policies emphasised preparing students for the future and the revised education law granting local autonomy was implemented in 1991. This resulted in district offices of education being inaugurated at the provincial level, thus setting a new benchmark in the democratisation and localisation of education. It was against this background that the Sixth National Curriculum was introduced in 1995. This aimed to give more autonomy to schools at municipal and local levels so that curricula would meet their individual needs.

The well-educated person was defined in the Sixth Korean National Curriculum as a person who was healthy, independent, creative and moral. In order to secure this development, the school curriculum was designed within a general framework as follows:

- to bring up students as democratic citizens with a sense of moral maturity and a heightened consciousness of civic life;
- to develop creative abilities to cope with social changes;
- to diversify content and methods of instruction with respect to the individual differences, abilities and needs of students; and
- to enhance the quality of education by improving the system of curriculum organisation and implementation.

The guiding principle of the Sixth Curriculum Revision was the "education of the self-reliant, creative and moral Korean to lead the 21st century".

Aims of partial Sixth National Curriculum review, 1997

There was a partial revision of the Sixth National Curriculum in March 1997, to introduce the teaching of English as a core subject at elementary school level, for children in Years 3, 4, 5 and 6 (ages eight to 12 years respectively).

This move towards English language teaching at elementary school level reflected a concern to encourage Korean students to learn more about the West in a 'greater globalisation' programme, and to help young South Koreans become more internationally-minded. The changes were a response to the previous Government's desire for the Republic of Korea to become a prominent member of the international community. Elementary school students were also encouraged to study the West's culture, including its food, sports and ways of life.

Aims of Seventh National Curriculum review, implementation March 2000 onwards

The basic purpose of the Seventh National Curriculum review is stated as being:

to loosen the rigid and centralised curriculum framework. Specifically, teachers are encouraged to be directly and actively involved in the decision and planning process for the curriculum. Local offices of education and schools should establish systematic and concrete guidelines for the organisation and implementation of the curriculum and develop individualised guidelines, which are customised for local needs and circumstances.

In addition, in the development of the Seventh National Curriculum, President Kim Youngsam's Presidential Commission on Education Reform (PCER) advised that, in preparation for the 21st Century, the development of creativity in elementary school, junior high school and high school children should be given high priority. To do this, the Commission proposed decreasing the number of compulsory subjects in the curriculum, increasing the importance of optional subjects, and diversifying the curriculum according to different achievement levels.

The Netherlands

Primary level curriculum (children aged four to 12 years)

In accordance with the requirements of the Primary Education Act 1993, the core set of objectives determining the content of the primary curriculum, which were originally set in 1993 and revised in 1998, aim to ensure a 'well-balanced curriculum geared to children's development and the diversity of the demands of the society to which they belong'.

Lower secondary core curriculum ('basisvorming', students aged 12 to 15 years)

The lower secondary core curriculum (basisvorming) is revised every five years. The revised set of core objectives for the period 1998-2003 were revised in such a way as to:

- emphasise greater internal consistency, more explicit cohesion between clusters of related subjects, a separate set of objectives for key skills, explicit emphasis on the competence-led nature of basisvorming, explicit attention to cross-curricular dimensions such as equal opportunities and environmental education, coherence between the primary, secondary and subsequent phases of education;

- reflect social changes and the desirable characteristics of secondary education, namely to achieve the broad education and development of all students;
- foster independent and active learning;
- provide differentiated education according to student needs; and
- maintain maximum continuity between existing and revised objectives.

In addition, they aim to:

- achieve a better alignment between primary education, the lower secondary core curriculum (basisvorming) and the second (upper) stage of secondary education;
- update the attainment targets for 1993 to 1998, especially with regard to the use of information and communication technology; and
- encourage students to take an active, independent approach to learning.

New Zealand

In the 1980s, comprehensive reviews of the curriculum (and of assessment and educational administration) were carried out. These responded to concerns at that time that school education in New Zealand had not adjusted rapidly enough to changes in society or to the growing demand for more equitable learning and assessment. Among the conclusions to emerge from the curriculum reviews were the need for a curriculum framework to provide a more coherent and integrated structure, for a school curriculum designed in consultation with all interested parties, and for assessment procedures which focused on improving the quality of learning.¹³

The reviews:

- sought a more equitable curriculum, particularly for those who were found to be disadvantaged by the previous system, such as girls, Maori students, Pacific Islands students, and students with different abilities and disabilities; and
- recommended an increased emphasis on culture and heritage to reflect a growing awareness of the bicultural identity of New Zealand society and its multicultural composition.¹⁴

The curriculum review, which began in New Zealand in 1991, and which resulted in the development of the New Zealand Curriculum, aimed to produce a curriculum which would provide direction to:

- all schools, including Maori-medium (kura kaupapa Maori) and special education schools (although not private schools, even though, in fact, many do use it);
- all students, irrespective of gender, ethnicity, belief, ability or disability, social or cultural background, or geographical location; and
- all years of schooling, from new entrants to the completion of schooling.

¹³ Sourced from: NEW ZEALAND, MINISTRY OF EDUCATION (1993). *The New Zealand Curriculum Framework*. Wellington: Learning Media.

¹⁴ Sourced from: NEW ZEALAND, MINISTRY OF EDUCATION (1993). *The New Zealand Curriculum Framework*. Wellington: Learning Media.

The New Zealand Curriculum would aim to:

- set out national directions for schooling and provide a framework for learning and assessment;
- recognise that all students should have the opportunity to undertake study in essential areas of learning and to develop essential skills;
- enable students to develop their potential, continue learning throughout life, and to participate effectively and productively in New Zealand's democratic society and in a competitive world economy;
- raise the achievement levels of all students and ensure that the quality of teaching and learning in New Zealand schools is of the highest international standard;
- recognise pre-school learning experiences and post-school education and training opportunities; and
- link school-based learning with the world outside school.

The 2001 curriculum 'stocktake' in New Zealand aims to inform an agreed direction and process for the ongoing development of the New Zealand curriculum.

Curriculum reviews seek to reflect the fact that New Zealand today operates within the context of rapid social and economic change and the curriculum must therefore help students to be adaptable and to play their full part in this changing environment. These changes include demographic changes, gender and cultural issues, major developments in technology, and environmental concerns. The New Zealand labour market has also changed in a number of ways. Rapid and comprehensive technological developments, the growth of the service sector, new ways of organising production, and the complexity and competitiveness of international markets are demanding both higher level skills and a broader range of skills. The composition of the labour market is also changing, as witnessed by the increase in women's participation in the workforce and a substantial rise in youth and long-term unemployment. The predominant focus of New Zealand's trading relationships is shifting from Europe to the Pacific and Asia. More trade is occurring with the non-English speaking world. The different languages and cultures of these new markets pose a challenge for education. In recent years, governments, both in New Zealand and overseas, have introduced major curriculum policies to reform outdated systems, meet the above challenges, increase educational opportunity and raise educational standards.¹⁵

Our contact in the Ministry of Education in New Zealand further comments:

Most changes to the curriculum have been to modernise and to address perceived deficiencies or imbalances in the curriculum.

The 1980s review was one which sought to get very wide public input and it succeeded in this, but the resulting draft curriculum was not developed to a final version as the Government responsible was voted out.

The 1980-1984 review was partly a response to concerns that the curriculum was getting overcrowded with new aspects being added, such as energy education, road safety, consumer education, peace studies etc. This is also a major component of the 2001 curriculum stocktake, as schools are claiming that the curriculum is overcrowded again, or over-specified, or that they are held to account for too much in relation to the

¹⁵ Sourced from: NEW ZEALAND, MINISTRY OF EDUCATION (1993). *The New Zealand Curriculum Framework*. Wellington: Learning Media.

specification - or a combination of all these. In addition, there are lobbies seeking additions or increased emphases in the curriculum, such as more attention to fitness and sport, financial literacy, business/enterprise, values education, drug education, suicide prevention etc. At the same time, there are major initiatives underway in literacy and numeracy, focussed mainly in the early primary years.

Singapore

Primary and secondary level education

In 1997, at the opening of the first session of the Ninth Parliament, when the President announced the review of the curriculum in line with the Government's educational thinking, the following key aims were stated:

- to develop the young to think creatively and apply knowledge in innovative ways;
- to recognise the wide range of abilities among students;
- to revise the school curriculum to stretch but not overload students;
- to reduce the amount of factual knowledge students are expected to acquire and to do more to build thinking and processing skills; and
- to review the system of assessment of both schools and students to meet their objectives, while maintaining rigorous standards.

Linked to this review, three new education initiatives were launched - a 'thinking skills' programme (designed to develop thinking skills and creativity in students); an information technology programme; and a national education programme (which incorporates the teaching of civics, social education, family education, and community/country education).

(Subject syllabuses are being revised in 2001 to reflect the incorporation of the above three initiatives. In the interim, the content of subject syllabuses was reduced by 10 to 30 per cent (sometimes by cutting down on duplication across subjects), to allow schools time to implement the new initiatives, whilst retaining the essential knowledge and skills of the foundation subjects.)

Our contact in the Ministry of Education in Singapore comments that:

Curriculum review is a continuous process to ensure that the curriculum remains progressive and future-oriented to meet the needs of the individual, community and nation. Subject content and approach may be examined. For example, in the current round of revisions, the curriculum has been revised to strike a better balance between the learning of content and process skills in all subject areas. Project work in the curriculum has been redefined to take on an interdisciplinary approach, which allows students to recognise the interconnectedness of different disciplines, identify the links and integrate knowledge to apply to problem solving and decision making.

Other curricular initiatives may include review of the relevance of the content areas of particular subjects. Ministry of Education initiatives such as national education, thinking skills and information technology are infused and integrated into the revised syllabuses, instructional materials, teaching approaches and assessment methods. This has served to make the load of teachers lighter than if these were treated as separate initiatives.

Spain

The 1990 LOGSE legislation, which replaced the 1970 curriculum with a new model of curricular design and development, was motivated by two factors:

- to make the curriculum more coherent and relevant, by replacing the highly prescriptive curriculum with a more flexible one, and with teaching staff taking a more active role in its development; and
- to reflect the new distribution of responsibilities and the start of the decentralisation process whereby the state-set core curriculum would be developed by the regions.

Our contact in the Eurydice Unit ¹⁶ in Spain comments:

As the regional Autonomous Communities develop the curriculum at regional level and individual educational establishments adapt the regional curriculum to their specific requirements, the aims of local/regional curricular review will depend very much on the relevant Autonomous Community. The state only legislates for the content of the minimum core curriculum, which accounts for 65 or 55 per cent of the curriculum actually implemented (the latter figure applies in those Autonomous Communities with two official languages).

The minimum core curriculum was established by Royal Decree just after the LOGSE legislation was passed in 1990. In December 2000, some minor modifications were introduced. These were developed directly by Ministry advisers with the aim of adapting the minimum core curriculum to ensure that content remains relevant.

Sweden

One of the aims of the 1998 review of the pre-school curriculum in Sweden was to help ensure that the three national curricula - the 1998 pre-school curriculum, the 1994 curriculum for the 'grundskola' (the all-through school for seven- to 16-year-olds), and the 1994 curriculum for upper secondary education (students aged 16 to 18 years) - link into each other and provide a common view of knowledge, development and learning.

The 1994 revision of the grundskola curriculum (implemented gradually from 1995) also aimed to ensure that the revised curriculum was truly inclusive. Consequently, the national curriculum for the compulsory basic school (the grundskola) in Sweden, is common to the grundskola, grundskola schools for Sami-speaking children, compulsory schools for those with learning difficulties, and special schools. (In addition, since 1998, it has also applied to those students of pre-compulsory school age (six to seven years) in the pre-school class in the grundskola.)

The revision of the grundskola curriculum in 1994 also introduced major changes to the number of hours of study allocated for certain subjects. A number of subjects were allocated fewer hours to make it possible to reinforce 'foundation knowledge'; to

¹⁶ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

provide more scope for the study of a greater range of languages; and to provide students with opportunities to make their own subject choices. This changed the balance between different subjects and resulted in a relatively large reduction in the number of hours allocated to handicrafts in particular, as well as to sports and health education. The hours allocated to the latter two subjects have since been increased (largely at the expense of students' options).

Our contact in the Eurydice Unit in Sweden ¹⁷ comments that:

reviews of the curriculum are often triggered by a new government coming into power, or by the simple fact that the curriculum is becoming old and does not reflect recent/modern pedagogical ideas. Another important factor behind recent reviews has been the change from a more detailed form of steering of the whole school system (via rules and regulations) to a more goal- and result-oriented steering. This calls for other forms of curricula. In addition, syllabuses need to be modernised to take account of new research and the development of new technology. Teachers have to analyse the curricula/steering documents and, from these, make the teaching goals concrete for their particular situation. As such one couldn't say that curriculum review reduces the burden on teachers.

Switzerland

There is no national curriculum in Switzerland - each canton has responsibility for the curriculum and consequently, also, for curriculum review. Cantonal curricula for mathematics and a second foreign language at the upper secondary level (students aged 15/16+) have been reviewed at a national level in recent years, as have the curricula for the upper secondary leaving certificate (the Matura - taken at around age 18) and for the vocational upper secondary DMS certificate. Such reviews were essentially undertaken to ensure comparability between standards/qualifications, and, consequently, to enable their recognition at universities and institutions of further and higher education throughout Switzerland.

Our contact in Switzerland comments that:

curriculum review is generally undertaken with a view to modernising the curriculum (to reflect recent changes in pedagogical thinking, social change etc.). However, this often results in an increase in the burden being placed on teachers.

USA

Although, as a confederation of individual states, the states themselves have autonomy for education and for curriculum review, on a national level, the United States Congress has enacted several pieces of legislation affecting states, communities and schools. The Elementary and Secondary Education Act (ESEA) is one example. This is re-authorised every five years. In 1994, it was re-authorised as the Goals

¹⁷ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

2000: Educate America Act, in a national effort to reform education around a core set of aspirations. These were that, by the year 2000:

- All children in America would start school ready to learn.
- The high school graduation rate would increase to at least 90 per cent.
- All students would leave Grades 4, 8 and 12 (aged 10, 14 and 18 years respectively), having demonstrated competency over challenging subject matter including English, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography, and every school in America would ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning and productive employment.
- The nation's teaching force would have access to programmes for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the 21st century.
- United States' students would be first in the world in mathematics and science achievement.
- Every adult American would be literate and would possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
- Every school in the United States would be free of drugs, violence and the unauthorised presence of firearms and alcohol and would offer a disciplined environment conducive to learning.
- Every school would promote partnerships that would increase parental involvement and participation in promoting the social, emotional and academic growth of children.

In 1999, ESEA was re-authorised as the Educational Excellence for All Children Act. This builds on the 1994 re-authorisation of the ESEA and the Goals 2000: Educate America Act and aims to help all children achieve challenging standards. In summary, its aims are:

- To improve student performance by raising academic standards. Individual states are required to establish (curriculum) content standards, student performance standards, and assessments aligned with the standards.
- To implement continuous improvement and accountability, based on challenging standards. States will hold all school districts accountable, and school districts will hold schools accountable, for continuous and substantial gains in overall student performance and in the performance of the lowest-performing students.
- To provide teachers with up-to-date training and support through a new "Teaching to High Standards" initiative.
- Through the "Technology for Education Initiative", to put useful technology into schools and classrooms to help teachers teach to high standards.
- To strengthen the teaching of reading and reduce class size.
- To emphasise maths and science education.
- To improve foreign language instruction by setting a national goal that 25 per cent of all public elementary (primary level) schools should offer high-quality,

standards-based foreign language programmes by the year 2005, rising to 50 per cent by 2010.

President Bush's blueprint proposals for education at the national level have also recently been published. The full text of the document - *No Child Left Behind* can be accessed via the Internet at <http://www.ed.gov/inits/nclb/index.html>

The aims and purposes behind such national initiatives are taken into consideration when individual states are planning any curriculum review.

Kentucky

The major curriculum overhaul, which was undertaken following the passing of the Kentucky Education Reform Act (KERA) in 1990, resulted in the publication of initial curriculum frameworks (programmes of study) in 1994. Revised versions for all students in Primary to Grade 12 education (aged around six to 18 years) were published in 1998. The aim of the production of state-wide frameworks and their regular review is to outline the *minimum* required content in the key subject areas of science, mathematics, social studies, language arts (reading, writing), arts and humanities, practical living, and vocational studies for *all* students, with a view to ensuring that all have access to common content and opportunities to learn at a high level. Review of the frameworks is undertaken on a continual basis at the local/school level, but the minimum content specified in the programmes of study must be provided for students.

Maryland

The introduction of the Maryland School Performance Program (MSPP), and the linked (curriculum) content standards, learning outcomes and tests under the Maryland School Performance Assessment Program (MSPAP), from 1989 onwards, aimed specifically to improve the levels of competency being achieved by students. This was with a view to ensuring that students were better prepared for the competitive, information-based technological world outside the classroom. The introduction of content standards, learning outcomes and the MSPAP also aimed to help ensure that all students, regardless of wealth, social background or geographical location, are accorded equal opportunity to study a challenging curriculum.

The recent revision of the content standards (issued to schools in autumn 1999) aimed to continue the above process, and to take account, in addition, of reports on education in Maryland published in the intervening period. These included the Draft Pre-Kindergarten to Grade 12 Academic Intervention Plan, the Middle Learning Years Task Force Report, and the Maryland State Department of Education Strategic Plan. Reforms continue at present, as the learning outcomes and MSPAP are adapted to fit in with the revised content standards, and new MSPAP tests for Grade 9 students (aged 14-15) are developed for introduction in 2003. (Further details are provided in section 5. of this report.)

Massachusetts

The state-wide curriculum frameworks for the seven key subject areas in Massachusetts are subject to ongoing review. This aims to ensure that the frameworks remain current and are continually refined and strengthened.

The curriculum review process

3. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, what is the review process for curriculum review? That is, how is curriculum review conducted, who is involved etc?

Australia

Curriculum review in Australia takes place at the State/Territory rather than at national level. State/Territory Ministries of Education and local curriculum and/or assessment boards are usually involved in the process of curriculum review.

Queensland

General

There is a specific body in Queensland which provides advice and assistance on curriculum matters. The Queensland School Curriculum Council (QSCC):

- acts as an intersystemic advisory committee to the Minister for Education;
- with the Board of Senior Secondary School Studies (BSSSS), develops and endorses the strategic plan for Preparatory to Year 12 curriculum development (students aged five to 18 years);
- provides advice on curriculum projects;
- is responsible for the development of curriculum and supportive materials in the State (including the Curriculum Development Handbook and the Curriculum Framework); and
- is responsible for coordinating the development of assessment and reporting mechanisms and for monitoring system-wide student outcomes.

The QSCC establishes Syllabus Advisory Committees which include representatives from:

- the Department of Education, Queensland;
- the Catholic Education Office;
- independent schools;
- professional organisations;
- parent organisations; and
- teacher organisations.

New Basics

This four-year curriculum research trial, which began in January 2001, is being led by the Education Department (Education Queensland) and involves 38 Queensland schools. These schools will pilot four new curriculum clusters - life pathways and social futures; multiliteracies and communications media; active citizenship; and environments and technologies, as 'organisers of the curriculum'. They will also pilot the new Rich Tasks - the means by which assessment of progress in the New Basics trial will be assessed.

Consultation is wide-ranging, with as many people as possible being encouraged to participate in an online New Basics 'discussion list', via the New Basics website at <http://education.qld.gov.au/corporate/newbasics/>. The site is being regularly updated as more feedback from the trial schools and input from the consultation are received.

Tasmania

The Department of Education's Office of Education is responsible for all policy relating to school and college education. This includes policy regarding curriculum and the development of information technology as a teaching and learning tool.

The Office of Education is currently leading an extensive curriculum consultation in Tasmania. Initial consultation began in 2000, when a wide range of stakeholders were consulted regarding the values which should underpin education and the purposes which should guide the development of the curriculum. The results showed considerable support for curriculum change, and for a curriculum which promotes the personal growth and development of students and their education for social responsibility. The results of this consultation were published in a 'Statement of Values and Purposes' in late 2000 and, on the basis of this document, four New Essential Learnings (NELs) have been developed as the framework for curriculum formulation. An initial outline of the New Essential Learnings was produced in December 2000. These are being refined during the period January to April 2001; the 20 trial/pilot schools (known as project or partnership schools) are working closely with the consultation team in this respect. For this purpose, each school is assigned a part-time (half-time) Project Officer from the Office of Education. All Tasmanian schools also have the opportunity to participate in the discussion on the development of NELs via the consultation website at <http://www.doe.tased.edu.au/oe/curriculumconsultation>

The final draft versions of the NELs will then be used and amended by the partnership schools during the remainder of 2001. It is currently expected that the final framework for the New Essential Learnings will be available from the beginning of the 2002 school year (January 2002).

Victoria

In 1998, the Board of Studies in Victoria was requested to review the Curriculum and Standards Framework (CSF). This involved a period of comprehensive consultation, at the end of which the revised Curriculum and Standards Framework (CSF 2000 or CSF II) was approved, in late 1999, for implementation. Introduction began in early 2000.

The consultation process identified strong support for retaining the eight nationally agreed Key Learning Areas *, but for reducing the number of learning outcomes and simplifying their structure. The review and consultation also recommended that all Key Learning Areas should incorporate references to information technology; that CSF 2000/CSF II should highlight essential learning, and link essential learning to core curriculum areas and levels of schooling; and that CSF II should incorporate clearer outcomes statements.

To coordinate the review, the Board of Studies established a CSF Advisory Committee, along with committees for each Key Learning Area. More than 15,000 teachers, educators, subject specialists, researchers, professional associations and community groups were then consulted and contributed to the development of CSF II during the two-year consultation period.

* The arts; English; health and physical education (HPE); languages other than English (LOTE); mathematics; science; studies of society and the environment (SOSE); and technology.

Canada

Compiler's note: The curriculum review process in Canada is a matter for individual provinces/territories. A detailed example for one province - British Columbia - is provided below.

British Columbia

Curriculum work in British Columbia is carried out primarily by practising teachers with direction and coordination provided by staff from the Ministry of Education's Curriculum Branch. Where appropriate, post-secondary and other educators are also involved in the process. Advice and input to the provincial curriculum process is sought both formally and informally from a broad base of education partners, including other Ministry of Education Branches, and representatives of the labour market and business.

The curriculum review cycle incorporates formal and informal information gathering related to the curriculum. Input from workshops, seminars and conferences is combined with results and comments on provincial learning assessments, the comments regularly received via the Ministry of Education's Curriculum Branch website, and with reviews of current activity and research in each subject area to inform the process. Formal input from many partners is sought through their representatives on provincial Curriculum Overview Teams. These comprise 12 to 16 members, appointed by various organisations. The teams meet on an 'as-required' basis and provide input to specific projects, as well as to a subject area in general. Each year, the Ministry of Education's Curriculum Branch hosts a combined meeting of all seven standing Overview Teams to seek input and advice on the Kindergarten to Year 12 curriculum (for students aged five plus to around 18 years of age), and on learning resources issues.

Completion of the above input, research and review portion of the cycle is marked by the generation of a standard report. Should the report recommend that revision

activity take place with respect to any aspect/component of the curriculum, a request for decision, with an accompanying workplan, is prepared. This workplan sets out the scope of the curriculum-related work proposed, and implementation and budget implications. Workplans vary in complexity from proposals for minor updates, to, more rarely, those for a new curriculum or significant revisions. In order to facilitate planning for upcoming changes, a detailed annual plan is generated each year, along with an updated long range plan for activities over a four-year period. These detailed plans can be accessed at

http://www.bced.gov.bc.ca/irp_implementation/is.html

All review cycle activities in British Columbia are also carried out with a view to the province's responsibilities for providing curriculum and learning resources in the French language. Wherever possible and appropriate, French language coordinators and teachers are involved in curriculum projects.

A description of the main activities of the curriculum cycle follows. The phases described below do not represent periods of time, but the nature of activities being carried out. The duration of a phase depends on the complexities of the specific curriculum.

Phase 1: input, research, review and planning

The Ministry of Education's Curriculum Branch coordinator and manager are responsible for maintaining a database of comments and input from several sources, including regional coordinators, Internet responses, correspondence and e-mail responses from the field, as well as internal Ministry responses. They also coordinate provincial assessment activities with the curriculum cycle for the subject area and, where available, collect assessment and examinations results from British Columbia, other provinces and from international assessments, such as TIMSS.

Phase 2: workplan development and consultation

The Curriculum Branch subject coordinator and manager provide the collected input to the Overview Team and other partners for their responses and recommendations. They also use standard survey instruments to seek input on several aspects of the curriculum and its implementation, and prepare a report on the status of the curriculum, including requests for decisions where changes, development work or revisions are proposed. Workplans contain recommendations for areas that need attention, such as resources, specific outcomes, or evaluation support. Based on the anticipated level of work required, terms of reference are developed and a revision team may be identified and appointed. Revision team tasks include all aspects of a curriculum, including assessment and learning resources, as required.

Phase 3: curriculum development or revisions

The Curriculum Branch subject coordinator and manager complete the workplan, complete the production phase (new curriculum in print and electronic versions) and develop an implementation plan in conjunction with field services and other partners.

Phase 4: implementation

A Minister's Order is produced for the revised curriculum and the implementation plan is executed in conjunction with field services and other partners.

France

General

In producing and reviewing curricula, the national Government is advised by the National Curriculum Council (the "Conseil national des programmes" - CNP). This consultative body advises the relevant Minister(s) and submits proposals on the general concepts of education, important objectives to be achieved, and the adaptation/review of curricula and subject areas to achieve these objectives. The Council advises Ministers with regard to school and higher education curricula and, more particularly, it ensures that there is continuity between the school education system and curricula and higher education. It comprises 22 members, chosen for their skills by the appropriate Minister(s) and its proposals and recommendations are published for consultation. Draft curricula stipulating content and method are drawn up in groups according to subject, in interdisciplinary groups, or in groups according to phase or level.

Secondary level curriculum review

The specific parties involved in drawing up secondary education curricula are the National Curriculum Council (CNP) (see above); the curriculum and pedagogical office for lower and upper secondary education; and the disciplinary technical groups involved with lower and upper secondary school management, which comprise lecturers/higher education specialists, teachers, regional education inspectors and general inspectors. Social partners, associations or trade unions are also consulted when the draft texts for new curricula are drawn up. Draft new curricula are then distributed widely for teacher consultation prior to implementation. Texts are modified to take into account comments received and a second phase of consultation may follow. Feedback results in the formulation of a final text, which is then approved by the National Minister of Education, who has ultimate responsibility for curricula.

Germany

National

There is no national curriculum in Germany. The individual Ministries of Education and Cultural Affairs of the individual regions (Länder) are responsible for curriculum formulation and review.

However, at the national level, there is a body which supervises work related to the curriculum; legally, this is the responsibility of the Curriculum Development Department of the Federal Institute for School and Adult Education. The Department consists of a main section, responsible for education and teaching, educational research and school counselling, and six specialised sections which cover the main subjects taught in schools (German; foreign languages; mathematics and science;

social sciences, history and religion; art and music; and sport). In addition, three coordination sections for the primary, lower secondary and upper secondary phases are responsible for schools in the corresponding category. There is also a 'special teaching' section which deals with curricula for special schools, and a section which is exclusively concerned with vocational training. Depending on the type of school and the volume of curriculum development work, the sections participate in all phases of development and revision work. Since its creation in 1978, the Federal Institute has become the central agency for curriculum development activities and continued professional development.

Regional

At the regional (Länder) level, curricula are usually developed in special curriculum planning commissions (committees) by teachers (including headteachers) who are assisted by other specialists such as representatives of the school (administrative) authorities, of school research institutes in the appropriate Land and, to a lesser extent, by subject specialists from institutions of higher education. Typical curriculum commission composition would be:

- six to eight teachers of the subject and from the type of school concerned;
- a representative of the school inspectorate, who is frequently the Chairman of the curriculum commission;
- a member of the Federal Institute for School and Adult Education as a supervisor.

Regional (Land) curriculum committees usually meet once a month and curricula are normally developed in parallel for all subjects in a particular type of school. The process of preparing the general teaching directives for a specific type of school takes place while the curricula are being developed.

Members of curriculum committees do not usually receive any specific training for this activity. Their most important task is to provide guidance and propose adjustments to ensure that the curriculum development process incorporates the specific, practical circumstances of schools, their wishes, and their concern for certain provisions.

Teachers on curriculum committees are given four hours per week off from teaching for these activities. Committee members are appointed by the Minister of Education and Culture (of the Land concerned) and are usually selected at the proposal of, or in agreement with, the Federal Institute for School and Adult Education. In most cases, such teachers have considerable practical experience and skills in teaching, activity planning, and the organisation of school and lessons. Accordingly, many of these teachers are headteachers, have experience of teacher training, or work as external experts in a given discipline.

Once draft new or revised curricula are completed, these are usually submitted to schools for testing for a trial period. Before any curriculum is implemented, there is also usually an additional procedure, which ensures the participation of associations and representatives of parents, students and teachers. Once new curricula are ready

for implementation, the Ministers of Education and Culture (of the various Länder) make the necessary legal and organisational changes.

When agreement has been reached on the formulation of a new curriculum, and this is being implemented in schools (either for a provisional period or permanently), teacher training establishments are requested to provide the necessary training for teachers and, at this stage too, textbook publishers are requested to revise or completely rewrite the relevant texts.

Our contact in the Eurydice Unit¹⁸ in Germany comments:

Once the Ministry of Education and Cultural Affairs of a particular Land has reached the decision to revise or completely reorganise the curriculum for a given subject, a commission is appointed with the appropriate remit. This usually consists of serving teachers, including headteachers, as well as school inspectors and representatives of the school research institute of the Land concerned. Very often experts in the relevant disciplines from institutions of higher education are also involved in the commission's work.

The commission may also consult other associations, particularly those which represent parents and students.

Curricular review and development is influenced by (regional) educational policy, educational research, and experience in school. In addition, experience gained via previous curricula is taken into account when it comes to devising new ones.

During the process of curricular development/review, seminars and conferences are often held to discuss the standards being established in the curriculum. Teachers and - to some extent - representatives from industry are asked to express their opinion.

Curriculum review commissions are expected to ensure that revised curricula respond to all social requirements (that is, that they are inclusive) and that the curriculum is politically correct.

In some Länder revised curricula are launched on a trial basis before being finalised and becoming universally valid.

As soon as a new curriculum has been completed and is introduced on a definitive or preliminary basis to schools, the in-service training institutes for the teaching profession (maintained by the Ministries of Education and Cultural Affairs) are charged with training teachers to work with it.

Hungary

The National Core Curriculum (NCC) establishes a central definition of minimum requirements for each subject area and, from this, national government has recently established so-called national 'framework curricula'. From these, schools are expected to define and adopt local, school curricula and courses for each class and each subject

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area. (Local curricula can also be 'borrowed' from other schools thanks to a national curriculum 'bank', from which schools not wishing to develop their own curriculum can select.)

In formulating national level framework curricula - as a basis on which schools can adapt their own curricula - the national authorities produce 'model programmes', that is, detailed teaching programmes for different subjects. Different institutions (national and regional development and service institutions, teacher training universities and colleges, teachers working in pilot schools etc.) can participate in programme development, which is coordinated by the National Institute of Public Education. Several model programmes can be elaborated for a given subject and all of them, if accredited, may be applied/adapted by schools.

Our contact in the Eurydice Unit ¹⁹ in Hungary comments that:

As a general rule, when the NCC or aspects of it are reviewed, review committees are appointed. These comprise 'experts' in the given area, who design questionnaires for schools and teachers; these are usually sent to all schools and, on their return, are analysed and assessed by the committee. Response rates are high.

Ireland

General

There are different levels of responsibility for the development and implementation of the curriculum. At national level, the curriculum is formulated by the Minister for Education and Science, on the advice of the National Council for Curriculum and Assessment (NCCA). The Department of Education and Science (DES) oversees its implementation through its Inspectorate. At school level, the particular character of the school makes a vital contribution. Adaptation of the curriculum to suit the individual school is achieved through the preparation and continuous updating of a "plean scoile" (school plan).

Recent primary curriculum review (children aged four plus to 12 years)

The preparation of the Primary School Curriculum (1999) was chiefly the responsibility of the NCCA, whose primary function is to advise the Minister for Education and Science on matters of curriculum review and assessment for early childhood, primary and post-primary education. The NCCA was assisted in this by committees, representing all the principal partners and interests in primary education, including the Irish National Teachers' Organisation (INTO), the primary teachers' union and the National Parents' Council - Primary.

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These committees worked on six curriculum areas:

- language (sub-divided into Gaeilge [Irish] and English);
- mathematics;
- social, environmental and scientific education (SESE) (sub-divided into history, geography and science);
- arts education (sub-divided into visual arts, drama and music);
- physical education (PE); and
- social, personal and health education (SPHE).

The review, development and implementation of the curriculum in religious education in primary schools are the responsibility of the relevant church authorities.

The NCCA has recently begun work on developing a general curriculum review framework for the primary level. This will set out a long-term strategy for monitoring the effectiveness of the (new) curriculum and its appropriateness in a society which is rapidly changing. The process will aim to provide regular and systematic feedback and to allow for adjustments and responses, as appropriate. The early stages of review involve gathering data and monitoring how the curriculum, as designed, is being implemented. These stages will also involve consultation with teachers and all the partners and will also allow for discussion and reflection on the process of curriculum implementation.

Junior cycle review (students aged 12 to 15 years)

The current review of the junior cycle curriculum (which began in 1997 and is continuing, based on further consultation on the initial review report published in March 1999²⁰) is being undertaken by a Junior Cycle Review Committee. This Committee consists of representatives of the key partners in junior cycle education, such as school principals, representatives of the Teachers' Unions, of the National Parents Council, and of the Irish Vocational Education Association, alongside NCCA and DES representatives.

In the initial (1997-1999) phase of the review, the Junior Cycle Review Committee deliberated on a number of discussion papers prepared by the NCCA executive; commissioned comprehensive research among school principals; was briefed on recent research in the area by the Economic and Social Research Institute; and drew on these findings and on a wide range of other relevant research to produce its initial report. In addition, a series of consultative meetings were held with teacher, management and parent bodies, as well as with others with an interest in education at this level.

In the current phase of the review, a draft curriculum review instrument is being prepared for use in the junior cycle of post-primary schools. This is to enable schools to provide an account of the curriculum that goes beyond a list of subjects on offer to students. The material also includes handouts inviting students to offer their views on the curriculum at junior cycle.

²⁰ NATIONAL COUNCIL FOR CURRICULUM AND ASSESSMENT (NCCA) (1999). *The Junior Cycle Review. Progress Report: Issues and Options for Development*. Dublin: NCCA.

National Council for Curriculum and Assessment (NCCA)

The 22 members of the NCCA are appointed by the Minister for Education and Science. They have a three-year term of office and come from various bodies representing teachers, school managers, parents, employers and trade unions. Other members include Department of Education and Science (DES) representatives and nominees of the Minister. In addition, the NCCA has a small, full-time executive, professional and administrative staff, and is assisted by a number of full- and part-time Education Officers. The latter are mainly subject specialists, usually appointed on a secondment basis to the NCCA. The NCCA works in close cooperation with officials of the DES.

The work of the NCCA is carried out by a number of specialist committees under the guidance of the Executive. The committees comprise teachers, inspectors, representatives of teacher unions and school managerial bodies, parent and subject associations and higher education interests including universities and other colleges. These committees draw up the syllabus or course for each subject, curriculum area or programme.

Italy

Our contact in the Eurydice Unit in Italy ²¹ confirms that the curriculum review process usually involves Parliamentary Committees and the National Council of Education - both of which provide advice to the Ministry of Education, which has ultimate responsibility for review of the national framework curricula. In addition, teachers are also involved in the review process, either by consultation via the Teachers' Unions, professional organisations, or via schools.

Japan

The national curriculum is set out in Ministry-defined 'courses of study', which are determined for each of four school levels: pre-compulsory kindergarten, compulsory elementary school, compulsory (lower secondary) junior high school and post-compulsory (upper secondary) senior high school. Courses of study are also determined by the Ministry for schools for the visually handicapped, schools for the hearing impaired and schools for the mentally and physically handicapped.

Courses of study are prepared by the Ministry of Education, reviewed by the Curriculum Council, an advisory body to the Ministry of Education, and promulgated by the Minister. In making his decisions on the curricula for the various stages of education, the Minister of Education is always advised by the Curriculum Council.

When reviewing the curriculum/courses of study, the Ministry is also responsible for providing professional and technical advice concerning teaching and guidance, the

²¹ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

preparation of teacher guides on teaching materials, the provision of free textbooks for children of compulsory school age, and the authorisation of textbooks.

Each school is expected to organise its own curriculum/teaching programme in accordance with the course of study, taking into account circumstances peculiar to the local community and the school, and the children's stage of mental and physical development and characteristics. That is to say that the local boards of education have the right to make curriculum changes to suit their particular needs.

Revision of the school curriculum usually takes the following form. At the Minister's request, the Curriculum Council of the Ministry of Education, the Minister's advisory organ on matters of school curriculum, prepares the basic guidelines for revising a course of study. The guidelines prepared are utilised by the Ministry's subject specialists and their collaborators as the basis for writing the revised course of study for each year and subject. Teachers' guides for each year level and subject are also prepared by the subject specialists in the Ministry, with the assistance of experienced teachers, and in accordance with the newly revised courses of study.

Government inspectors monitor Japan's schools to ensure that the Ministry of Education's curriculum specifications (courses of study) are followed. Within the Ministry, there are school inspectors and senior curriculum specialists. School inspectors provide guidance on elementary and secondary education. Full-time senior curriculum specialists conduct research and study on curriculum standards for the school level and subject area to which they are assigned, and give prefectural boards of education advice and assistance on the curriculum.

Korea

The national curriculum is, in principle, developed, reviewed and implemented by the Ministry of Education & Human Resources Development. There is a Curriculum Policy Division within the School Policy Office.

In practice, however, curriculum review and development research work is often conducted by government-funded educational research institutes or, in some cases, by special committees of academics and specialists, who develop general frameworks or curricula for specific subjects. The Korean Educational Development Institute (KEDI) used to have this role. However, in 1998 the Korea Institute of Curriculum and Evaluation (KICE) was set up to take over the research involved in curriculum review, development and student assessment.

In the case of the most recent curriculum revision (the seventh), former President Kim Youngsam's Presidential Commission on Education Reform (PCER) established the basic principles and direction for the curriculum revision. Thereafter, KEDI (now KICE) was commissioned by the, then, Ministry of Education (MOE) (now the Ministry of Education & Human Resources Development) to develop the Seventh National Curriculum in accordance with the principles established by the PCER. KEDI formed a Curriculum Revision Research Committee, which included researchers from KEDI, university academics, school teachers, parents and citizens, and conducted a two-phase research project. The initial phase was the basic research

for the curriculum revision, which included an evaluation of the relevance and effectiveness of the curriculum in force, a needs assessment of teachers, students, parents and lay persons, international comparative studies of curricula, and an evaluation of the integrated subject curriculum and textbooks. The second phase of research involved developing the general framework for the school curriculum by researching general curriculum frameworks for all elementary schools, junior high schools and high schools; researching curriculum differentiation on the basis of students' academic ability; and looking at curriculum frameworks for vocational high schools, and for special high schools for students gifted in science, sports, foreign languages and arts. KEDI then published the general framework of the proposed Seventh National Curriculum for the Ministry and the Ministry made this public, incorporating details of the subjects to be offered and time allocations. KEDI, with additional university research institutes, then developed specific subject curricula. The final draft versions of the curriculum documents were examined by the Committee for School Curriculum Approval (a legal advisory committee) and, at the end of 1997, the Ministry formally announced the Seventh National Curriculum. Linked follow-up studies in implementing a differentiated curriculum (which the Seventh National Curriculum is); using school discretionary time (which the Seventh National Curriculum includes); and developing textbooks for the new curriculum have been implemented since that date.

The Netherlands

In the Netherlands, the curriculum is expressed in terms of compulsory subjects, overall time allocation, and attainment targets. These attainment targets are reviewed every five years.

The Government determines the main guidelines for the curriculum. In formulating these, the Minister of Education, Culture and Science is required to consult the Education Council (a permanent advisory board), and the Consultative Committee for Primary and Secondary Education (POVO), which comprises representatives of the competent authorities (see below), headteachers, teachers, students and parents. Such representatives are nominated by organisations representing these groups. (The competent authorities are the bodies responsible for the governance of a school in areas such as management and administration of financial resources; use of school buildings; appointment and dismissal of teaching and non-teaching staff; student admission and expulsion; school hours; preparation of the biennial school plan and annual activity plan (for approval by the Inspectorate); curriculum; timetable (number of lessons per compulsory or optional subject); and choice of teaching materials.)

The Government is assisted in reviewing the national curriculum - and the national curriculum attainment targets - by the National Institute for Curriculum Development (SLO). SLO's remit is to provide the Government with independent, professional advice on, and support for, curriculum development and implementation. SLO takes account of developments in society in general and in education in particular, and a curriculum is only developed after so-called end-user 'field advisory groups' have issued their recommendations. These field advisory groups include teachers from the various regions and educational phases, who are sufficiently familiar with education practices to be able to identify needs. SLO works across virtually the entire education

field, excluding higher education, but including primary education, secondary education, special education and teacher training establishments.

New Zealand

Compulsory phase education

The Ministry of Education controls curriculum development for schools. The national curriculum statements for the seven 'essential learning areas' * are developed by the Ministry of Education or by contract curriculum developers, many of whom are subject specialists from amongst teacher educators or advisors. (Further details of this process are provided in the paragraph which follows.) This follows widespread consultation with teachers, educators, school boards of trustees, and the wider community, including the business community. Draft statements are released across all schools in the country for a trial period, before being evaluated, revised, finalised and published. Mandatory implementation follows after a period of time, usually around two years, during which schools receive professional development and other support. During this transition period, schools may be using the old syllabus, the new curriculum statement, or a mix of the two, but they are expected progressively to develop programmes so that they can implement a new statement fully, once it becomes mandatory. Schools may also introduce the new curriculum in a phased way. For example, a secondary school could trial the new social studies curriculum in 1998, fully implement it in Year 9 (age 13+) in 1999 and in Year 10 (age 14+) in 2000. To make the transition effective, each existing/previous syllabus is revoked as soon as the final national curriculum statement is published, rather than when it is made mandatory ('gazetted').

* Language and languages; mathematics; science; technology; social sciences; the arts; and health and physical well-being.

Once policies on new curriculum areas/statements have been established, the Curriculum Division of the Ministry of Education lets contracts for the development work. The usual process involves advertising in the "Education Gazette" (the Ministry's fortnightly publication listing, amongst other items, official announcements) for potential contractors to register their interest, or to submit a firm proposal, depending upon the nature of the proposed contract. Once the successful contractor has been confirmed, milestones (checkpoints for key stages of the contract) are negotiated between the Ministry and the contractor, and a contract review committee is appointed to review the contractor's success in meeting the requirements, including deadlines, included in the contract. Some curriculum development contracts also involve a policy advisory group - appointed by the Minister of Education - which reports to him or her. In addition, an internal Ministry policy project team, consisting of a project manager and staff from various policy sections, including the Curriculum Division, is set up to coordinate each curriculum project. This team, usually small, liaises with the contractor, ironing out difficulties as they arise and informally reviewing developments. The contractor generally works with a team of teachers and other educators, and recent projects have also included a reference group for each participant as an additional layer of consultation.

Pre-school education

In developing the national early childhood curriculum ('Te Whariki')²² in New Zealand (which became a legal requirement from August 1998), the Ministry of Education appointed contract curriculum developers. These undertook wide consultation with practitioners, managers, experts and communities over a period of nearly two years, while preparing draft guidelines. The draft curriculum guidelines were then trialled for 18 months, with accompanying professional development support, before being finalised. The official curriculum was released at the end of June 1996.

The Education Review Office (ERO) monitors curriculum delivery at all levels, as part of its responsibilities for undertaking reviews.

Current curriculum stocktake

Our contact in the Ministry of Education in New Zealand further comments that much of the current curriculum stocktake work in New Zealand is being undertaken internally, as 'business as usual', by the Learning and Evaluation Policy section of the Ministry of Education. However, there are, in addition, three external elements of the stocktake:

- an international critique of the New Zealand curriculum documents in English, with a parallel critique of the Maori-medium documents;
- establishment of a curriculum stocktake reference group representing key stakeholders; and
- establishment of a sample schools project to gather more information about the curriculum as implemented. This involves a 10 per cent representative sample of school types, sizes and locations.

The curriculum stocktake reference group acts as a sounding board for the Ministry as it works through the various elements of the stocktake. The group is mainly made up of representatives nominated by teacher/headteacher organisations and individual experts from teacher education, universities and employer/business representatives. The group also assists in communicating progress with the stocktake to the various outside parties. Meetings to date - November 2000 and March 2001 - have mainly discussed issues around the purpose of the New Zealand curriculum, its design and manageability.

Singapore

Our contact in the Ministry of Education comments:

The review process is as follows:

1. A syllabus review committee (SRC) is formed. Other than Ministry of Education representatives from the Curriculum Planning and Development Division, and the

²² MINISTRY OF EDUCATION. NEW ZEALAND (1996). *Te Whariki: Early Childhood Curriculum*. Wellington: Learning Media.

Research and Testing Branch, the SRC may comprise representatives from tertiary institutions such as universities, polytechnics and teacher-training institutions. Schools and junior colleges (upper secondary educational institutions offering two-year pre-university courses for students aged 16/17+) are represented by at least three practitioners. In some instances, representatives from relevant public sector organisations or professional bodies may be invited. The terms of reference of the SRC include reviewing and revising the syllabus rationale, aims, content and assessment so as to achieve the desired learning outcomes; ensuring relevance to the changing needs of society; and keeping abreast of developments in subject content and pedagogy.

2. Activities that take place in the review include gathering feedback on the existing syllabus from practitioners, field-testing the draft revised syllabus in schools, and using the feedback to fine-tune the draft syllabus. Input is also sought from the examination body (the UCLES - the University of Cambridge Local Examinations Syndicate in England, which sets the GCE 'O' Level, GCE 'N' Level and GCE 'A' level examinations for Singapore) on the assessment aspects of the syllabus.
3. Finally, approval of the syllabus is given by the Curriculum Development Committee, which is responsible for the approval of all curriculum matters.

Spain

Our contact in the Eurydice Unit ²³ in Spain comments:

As the regional Autonomous Communities develop the curriculum at regional level and individual educational establishments adapt the regional curriculum to their specific requirements, the process of curriculum review will vary considerably at the local level/dependent on the Autonomous Community. The state only legislates for the content of the minimum core curriculum, which accounts for 65 or 55 per cent of the curriculum actually implemented (the latter figure applies in those Autonomous Communities with two official languages).

CIDE, the Centre for Educational Research and Documentation is a body which, set up by the Ministry of Education and Culture (MEC), assists in the development, drawing up and dissemination of curriculum materials and in the preparation of guidance materials for teachers.

Sweden

Our contact in the Eurydice Unit in Sweden ²⁴ comments that:

reviews of national curricula are usually big political events which take place following several years of investigation by a state committee, which includes researchers and acting teachers. Preparatory draft work by government officials then results in proposals being made to Parliament; there usually follows a period of extensive

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parliamentary discussion. The National Agency for Education (Skolverket) carries out much of the underlying preparatory pedagogical work for the Government.

In addition, the National Agency for Education is also responsible for much of the work undertaken when revising syllabuses. Researchers and teachers are again involved in the preparatory/ consultation process.

Switzerland

As there is no national body with responsibility for the curriculum, the review process in Switzerland can vary considerably, as this is determined by the individual cantonal authorities.

Our contact in Switzerland comments that there are, however, the following general tendencies in the process of curriculum review:

Reviews are guided by the Ministries, but the actual review process is undertaken by a body usually comprising, almost exclusively, teachers and teacher educators, alongside one or two Ministry representatives. The report produced by this body is assessed by a formal working group, in which representatives of all political parties are involved.

USA

Kentucky

The four branches of the Division of Curriculum Development - Humanities (English/language arts, writing, arts & humanities, foreign language), Sciences (mathematics, science, physical education & health), Special Projects, and Learning Strategies, address issues regarding curriculum development, instructional design, and test development. Each division develops specific products to assist local schools and school districts in developing curriculum and provides professional development to assist in the use of those products.

Maryland

In Maryland, curricular frameworks are developed on the basis of (curriculum) content standards, learning outcomes and the linked state-wide assessment programme (the Maryland School Performance Assessment Program, MSPAP). The content standards are developed first. The initial set of Maryland content standards and learning outcomes were developed in 1990. Revised content standards were approved by the Board of Education in July 1999 and introduced to schools in the autumn of that year. The process of review had taken over a year and a half and involved more than 200 teachers, administrators, and education experts from Maryland's 24 local school systems; the Maryland State Department of Education; and two national organisations with standards development expertise, the Council for Basic Education and Standards Work. During the process, the content standards were also compared to widely respected state and national organisation standards and examined by more than 40 national experts. The revised content standards are currently being used to update the Maryland learning outcomes, which, in turn, drive the Maryland School Performance Assessment Program (MSPAP).

The Maryland content standards and learning outcomes were originally developed in 1990 by five 'Learning Outcome Development Committees'. Each Learning Outcome Development Committee consisted of state and local school system content/curriculum supervisors. The content standards and learning outcomes were based on national and international studies of student achievement, recommendations of national educational reports, and on Maryland's curriculum frameworks. Once reviewed by local curriculum supervisors, advisory groups, and school system superintendents, the content standards and learning outcomes guided test contractors in their work with Maryland teachers and curriculum supervisors in developing and validating MSPAP assessment objectives, item specifications, and test items.

The content standards and learning outcomes are used to guide local education agencies in the local development of curriculum. They are not prescriptive. Each local superintendent certifies to the state Department of Education that the state curriculum outcomes are met by the local curriculum.

Massachusetts

Since 1993, when the development of curriculum frameworks for the seven key curriculum areas * in Massachusetts began, these frameworks have been continually developed and reviewed.

The review process involves considerable numbers of people state-wide, including teachers, administrators, associations, parents, business, students, higher education faculties and the general public.

When a specific curriculum framework is reviewed, the process usually involves the initial publication of a first draft for public comment. Following this process, various revised versions are published for further consultation. The process can involve many revisions, or it may only involve a limited number. The recent review of the mathematics curriculum framework 1999-2000 followed the following procedure/timetable:

September 1999	Public comment draft issued
February 2000	Draft conditionally endorsed and reformatted edition of conditionally endorsed draft issued
May 2000	Revised final draft issued
June 2000	Revised draft issued
July 2000	Revised draft sent for approval by the Board of Education
July 2000	Revised draft approved by the Board of Education
November 2000	This approved version released for schools' use

* Mathematics; science and technology; social sciences/social studies; English language arts; world languages; the arts; and health.

Wisconsin

The core curriculum (English language arts, mathematics, science, and social studies) in the state of Wisconsin is closely linked to the Wisconsin Model Academic Standards, which describe the range of knowledge and skills that students at specific levels are expected to attain. These Model Academic Standards were originally

drafted in 1996/1997 by working groups of teachers, parents, business people, school board members, administrators, representatives of the Department of Public Instruction and advisors from higher education. In 1997, the final draft versions were put forward for extensive public consultation. This involved nine public forums throughout the state, which were attended by well over 1,000 people, and the issuing of 65,000 copies of the draft document to the public. Every school building and library in Wisconsin received copies as did professional groups with a vested interest in academic standards. Such groups included, amongst others, the Wisconsin Education Association Council, Wisconsin Manufacturers and Commerce, the Wisconsin Association of School Boards, the Wisconsin Association of School District Administrators, local chambers of commerce, the Wisconsin Federation of Teachers, and the Wisconsin PTA. Furthermore, each school board in the state was asked to hold meetings to discuss and critique the standards. Finally, in addition to intrastate review, the standards were also scrutinised by national (federal) entities including, for example, the National Council for History Education, and the American Federation of Teachers.

The level of political involvement in curriculum review

4. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, what is the level of political involvement in curriculum review? For example, is curriculum review linked to key political change? Is it a democratic process, which is open to political debate?

Compiler's note

Many respondents commented that it is generally intended that the curriculum review process should be inspired by educational objectives rather than political ones. However, in reality, there is inevitably a degree of political involvement.

In addition, in most countries of the *INCA* Archive, the review process appears to be democratic and open to political debate. Consultation with *all* stakeholders, including teachers, parents, and, in many cases, children/students, is common. This consultation process is described in detail in section 3. of this thematic probe.

Australia

The types of agreed, national educational objectives which might influence curriculum review at the State/Territory level, include the National Goals for Schooling in the Twenty-First Century - available online at <http://www.detya.gov.au/schools/adelaide/index.htm> - and the agreed national literacy and numeracy benchmarks at <http://online.curriculum.edu.au/litbench/default.htm>

Canada

See the compiler's note above.

France

See the compiler's note above.

Germany

There is no national curriculum in Germany. Individual regional Ministries of Education and Culture (in the *Länder*) determine their own curricula.

Our contact in the German Eurydice Unit ²⁵ comments:

When a new political party takes office, challenges in the education sector always form part of their party programme and are taken into consideration when developing/reviewing curricula. However, as curriculum review can, in some instances, take several years to effect, the political party itself could have disappeared in the interim.

Curriculum review is open to some debate. See the information on curriculum review commissions in Germany, which is provided in section 3 of this report.

Hungary

Since 1978, and the last major curriculum overhaul prior to the fall of Communism (1989) and, since the introduction, over the last decade, of the National Core Curriculum (NCC), changes have gradually been made with a view to decreasing political and ideological involvement in curricular matters.

However, our contact in the Eurydice Unit in Hungary ²⁶ comments that the general direction of government policy does, of course, still influence the direction of curriculum development and review. Indeed, the need for curriculum reform and the introduction of the NCC, which has been developed gradually since 1990, was stimulated by the social changes linked to the fall of Communism in Hungary, and the beginning of the debate on Hungary's educational aims and basic values in its new, democratic context. As he comments:

This has meant more than simply modifying the curricula for history and geography; all subjects have witnessed a significant change in approach. Similar to other ex-Communist countries, and countries of central and eastern Europe which are seeking closer involvement with the European Union, there have been significant social and political changes in Hungary over the last decade. The change from Communism to a democratic society also resulted in reforms in school education, not only with regard to regulation of the system, but also in respect of the aims and content of education in addition.

The NCC began to be implemented in Hungary in September 1998. During its development period - 1990 to 1995 - which overlapped two government cycles, there was considerable political debate, not only on the NCC, but also on the overarching aims, values and direction of the education system in Hungary in general. Several trial/proposed versions of the NCC were published, debated and amended. Once the final version, accepted in 1995, entered into force in 1998, a new government came into power and immediately initiated a national review of the NCC and its implementation. As a result, in 1999, the Public Education Act (which originally dates from 1993 and provided the legislative basis for the introduction of the NCC)

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was amended. One example of the changes introduced by this modification were changes which aimed to strengthen ethical and moral education in schools.

Our contact further comments that review of the National Core Curriculum

is a democratic process, involving the widest possible cross-section of teachers. The consultation process also involves teachers' professional organisations, higher education institutions and parents' organisations.

Ireland

See the compiler's note above.

Italy

Our contact in the Eurydice Unit in Italy ²⁷ comments that:

it is generally intended that the curriculum review process should be inspired by educational objectives, rather than political ones. However, in reality, there is inevitably a degree of political involvement. The process is open to debate. Consequently, in reviewing the curriculum, the Ministry of Education is advised by the National Council of Education and by relevant Parliamentary Committees. In addition, teachers are consulted via the relevant professional organisations or their school.

Japan

No specific data available.

Korea

The curriculum review process is open to some debate. It is usually undertaken by government-appointed research institutions, who review the curriculum in line with policy directions identified by the Ministry or, in some cases, a Presidential Commission on Educational Reform which advises the Ministry. During the review process, consultations with all 'stake-holders' - teachers; students; parents; academics; and members of the public take place.

Although decisions on the national curriculum and national curriculum standards are taken at national level, at regional and local level, the Municipal and Provincial Education Authorities (MPEAs) also establish committees for research and consultation with regard to the curriculum. Such committees are expected to include teachers, educational administrators, educational experts and parents as members. It is intended that they conduct research on the regional/local organisation and implementation of the curriculum, in cooperation with schools, research institutions and universities, and use the results to improve the guidelines for curriculum organisation and implementation at the local level.

²⁷ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

The Netherlands

In a bid to ensure the constitutional freedom of education (in other words, to ensure that curriculum review is independent of political involvement), the Government in the Netherlands provides financial subsidies to independent bodies/agencies in the educational world to undertake curriculum development. The National Institute for Curriculum Development (SLO) is the key organisation responsible for curriculum review. The Ministry of Education limits its role in actual curriculum development to that of approving subsidy requests to SLO. However, requests are rejected if they do not meet with the objectives of the main guidelines for the curriculum as determined by the Ministry.

New Zealand

Our contact in the Ministry of Education in New Zealand comments:

Prior to 1991, and the resulting curriculum reform, which took place throughout the 1990s, comprehensive reviews of the curriculum had also taken place in the 1940s, 1970s and 1980s. In addition, individual syllabuses were also reviewed from time to time. This ended with the comprehensive curriculum revision in the 1990s.

Comprehensive curriculum reviews have tended to be triggered by new governments or ministers, as responses to views that the school curriculum was failing to be responsive to changes in society, economy, technology, environment etc. Previous revisions of syllabuses tended to be led by departmental officials responding to calls for change from the sector/subject groups. Teachers have perceived the former as politically motivated; the latter as professionally or educationally driven.

Singapore

Our contact in the Ministry of Education in Singapore comments:

Curriculum review is not directly linked to political change, although the needs of the nation do set directions for the national curriculum. Emerging trends such as technological advancements and the needs of nation-building and cultural understanding do necessarily have to be addressed in the curriculum.

While formal syllabus development involves only personnel from schools and higher institutions of learning to work out the specifics of content, delivery and assessment modes, the views of various stakeholders, including focus groups of parents and the community, as well as feedback from parliamentary debates and public forums, are considered.

Spain

No specific data available.

Sweden

Our contact in the Eurydice Unit in Sweden ²⁸ comments that:

reviews of the three national curricula in Sweden (for pre-compulsory education, compulsory level education, and post-compulsory upper secondary education) are often big political events, triggered either by pedagogical initiatives from government or by a new government coming into power.

The general goals and guidelines of the curriculum are decided in consensus by Parliament. Discussion in Parliament is usually very intense and public interest in education issues is great. The aim is to provide curriculum steering documents which are sustainable and not affected so much by political and pedagogical trends.

Switzerland

Although curriculum review and development varies from canton to canton, there are some general tendencies. Our contact in Switzerland comments that:

Curriculum review is not linked directly to key political change; the political party or parties in power and those in opposition generally collaborate in curriculum development and review. The process is therefore open to political debate. However, there is seldom public debate which has a formal influence on review. Teachers in the field do provide feedback, but it is the Ministries, backed by Parliament, which ultimately decide.

In addition, when formal working groups are set up to evaluate curriculum review proposals, representatives of all political parties are involved in these groups.

Consultative bodies

Some cantons have an Education Council. In every canton, teachers have the right to be consulted and, in particular in the German-speaking cantons, to participate directly in the Education Council and in the local school authorities. Parents' right of involvement is not so well established, despite the fact that they are well-represented on school commissions. At municipal level, for example, by virtue of the system of direct democracy, the whole electorate has the right to vote on questions concerning the school system, which can diminish the influence of parents as a body, although the latter are directly concerned. At cantonal level, the cantonal parliaments (through legislation and funding) and the electorate (through referendums and initiatives) influence the organisation of the education system, as do municipalities, which have the right of involvement.

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USA

Although the curriculum review process is, essentially, an individual state affair, it is, inevitably influenced by national political direction and change. New presidents, or presidents commencing new terms of office, produce major blueprints for education, which influence its general direction in the country as a whole. This will have some influence on curriculum (and assessment) in individual states.

The full text of President Bush's proposals for education at the national level - *No Child Left Behind* - can be accessed via the Internet at <http://www.ed.gov/inits/nclb/index.html>

Curriculum review is generally democratic and open to political debate.

Maryland

The recent (1998/1999) review of the content standards (on which local curricula are based) involved consultation with more than 200 teachers, administrators, and education experts from Maryland's 24 local school systems; the Maryland State Department of Education; and two national organisations with standards development expertise, the Council for Basic Education and Standards Work. During the process the content standards were, in addition, compared to widely respected state and national organisation standards and examined by more than 40 national experts.

Massachusetts

The review process in Massachusetts is generally democratic and open to debate. Review is continuous and triggered by a desire to ensure that the curriculum remains current and is refined and strengthened on an ongoing basis, rather than by changes of state government/political changes.

Wisconsin

Similarly, in Wisconsin, when the Model Academic Standards linked to the core curriculum areas of English language arts, mathematics, science, and social studies were developed in 1997, consultation involved considerable public debate. Further details are provided in section 3. of this report.

Links to standards setting and the international dimension

5. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, when curriculum is reviewed, are there any links to standards setting and is there an international dimension to this?

Australia

Tasmania

In the current review and consultation on the curriculum in Tasmania and the development of the New Essential Learnings (NELs) framework, four 'world class' benchmarks have been proposed as a basis for discussion. These are:

1. The goals of education are explicitly stated. They reflect a consensus on what people should know, do and value, and they underpin the development of curriculum.
2. The groupings or categories of the intended curriculum are agreed to be essential for all students, future-oriented, inclusive and capable of being taught effectively by existing teachers.
3. The intended curriculum emphasises what all students are to learn. These learnings are:
 - focused on what is agreed to be essential (rather than trying to cover everything);
 - specific;
 - manageable for both teachers and students in the time available;
 - focused on conceptual development (rather than on long lists of content);
 - sequenced on the basis of evidence (rather than tradition);
 - supported by shared teacher understanding of what performance looks like 'at the expected outcome or standard'; and
 - accessible.
4. The intended curriculum is the focus of systemic testing and reporting and of programmes of teacher education and development. What is actually learnt (the attained curriculum) is the focus of teacher accountability and school accountability/ improvement. (Department of Education, Tasmania. Office of Education. *Curriculum Consultation. Answering Questions: the New Essential Learnings Framework*. Online at http://www.doe.tased.edu.au/ooe/curriculumconsultation/nel/answering_questions.htm)

Victoria

In the recent review of the Curriculum and Standards Framework (CSF) in the State of Victoria, * the Board of Studies was specifically requested (by the State Department of Education) to review the CSF with a view to, amongst others:

- ensuring that learning outcomes are at appropriate levels, which are challenging and based on internationally comparable standards;

- ensuring that the revised curriculum is informed by national and international curriculum benchmarks and research into what works in classrooms.

The CSF:

makes it clear what students should know and be able to do. CSF II has been benchmarked nationally and internationally to ensure its standards are challenging and comparable with expectations in like countries. Source: Board of Studies, Victoria, *CSF II: Overview*. Online at <http://www.bos.vic.edu.au/csfc/ov/ov-b.htm>

The review also took account of Australia's nationally agreed literacy and numeracy benchmarks, and the results of the Third International Mathematics and Science Study (TIMSS). The national literacy and numeracy benchmarks can be accessed in full at <http://online.curriculum.edu.au/litbench/default.htm>. They represent a historic agreement in Australia - that of a common intention across the nation to ensure that all students attain a necessary level of literacy and numeracy. The national benchmarks provide minimum acceptable standards of literacy and numeracy achievement and are taken into account when individual States and Territories review/develop their curriculum/curriculum statements.

* A review took place in 1998/1999 and the revised CSF (CSF II) began to be introduced in early 2000.

Canada

British Columbia

The curriculum in British Columbia is reviewed on a regular, cyclical basis. The first cycle of updating and converting all the Kindergarten to Year 12 provincial curriculum (for children aged around five to 18 years) to Individual Resource Packages (IRPs) began in 1994, and was completed in 1998. Individual Resource Packages comprise the provincially required curriculum (learning outcomes), suggested ideas for instruction, a list of recommended learning resources (books, videos, electronic resources, etc.), and possible methods for teachers to use in evaluating students' progress.

This process was begun expressly to ensure that the majority of the curriculum is in a consistent and readily understandable format which facilitates accountability for student achievement across the system. In addition, the conversion of the former curriculum to IRPs also aimed to establish and strengthen curriculum connections to the province's post-secondary institutions and the world of work.

One of the key aims of current, ongoing review of the IRPs is to identify appropriate performance standards that can be directly related to the learning outcomes statements or content standards of the IRPs.

France

The 1989 Framework Law on Education established education as the top national priority in France and, in accordance with this law, education's main objective was, by 2000:

"to educate an entire age group to at least the level of the vocational aptitude certificate (CAP) or vocational studies certificate (BEP) and 80 per cent of the group to Baccalauréat (upper secondary leaving certificate) level within ten years".

Germany

There is no national curriculum in Germany. Individual regional Ministries of Education and Culture (in the Länder) are responsible for the formulation and review of curricula.

Our contact in the Eurydice Unit ²⁹ in Germany comments:

In general, there are no national achievement standards in Germany which link to curriculum review.

Hungary

Our contact in the Eurydice Unit in Hungary comments that:

Since the National Core Curriculum (NCC) in Hungary is a completely new type of concept, and its role is to provide the basis for the development of local curricula, rather than to provide a direct national/central curriculum or to give direct national instructions, to date, reviews of the NCC have examined its practical potential and usability, along with powers of regulation. There have been no particular links to standards setting, nor to the international dimension during this process.

However, the compiler of this report would suggest that, in view of Hungary's increased level of involvement with the European Union, it would not be unrealistic to assume that consideration of the European dimension has featured in review of the NCC.

In addition, readers should note that there has been some discussion regarding the possible introduction of some form of centralised testing for children in Years 4, 6 and 8 of schooling in Hungary (aged 10, 12 and 14 respectively) based on the attainment targets formulated by the NCC. This would be in addition to teacher assessment. It is also intended that a compulsory national examination, to be held at the end of Year 10 (age 16), will be introduced. Called the 'basic examination' (*alapvizsga*), this examination will cover the topics and attainment targets of the NCC. Introduction is proposed from 2002.

²⁹ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

Ireland

Upper secondary curriculum (ages 15 to 17/18 years)

Leaving Certificate (established)

In the process of reviewing the established Leaving Certificate (a two-year general/academic course for students usually aged 15 to 17 or 16 to 18 years), which began in the early 1990s, subject syllabus reviews have paid attention to:

- achieving greater congruence between the aims and objectives of syllabuses as specified and the modes and techniques used to assess student attainment.

Italy

Our contact in the Eurydice Unit in Italy³⁰ comments that:

The recent compilation of the new framework national curricula for pre-school and primary level education - which are currently awaiting final approval - have taken into consideration both learning standards and links to other European systems of education. Indeed, the review was based on such criteria.

Japan

From time to time, the Ministry of Education conducts a nationwide scholastic achievement survey either on the basis of census or probability samples. The results of such testing have, in the past, been used in the improvement of curriculum standards.

In addition, the National Institute for Educational Research (NIER), a research agency under the jurisdiction of the Ministry of Education and affiliated to the International Association for the Evaluation of Educational Achievement (IEA), conducts nationwide scholastic achievement surveys in specific subject areas, in collaboration with prefectural institutes of educational research, with a view to comparing the scholastic achievement of Japanese students at an international level.

Korea

As part of its previous role of establishing the goals and standards for school education in Korea, the Korean Educational Development Institute (KEDI) occasionally used assessment to improve pedagogy and curricula. For example, during the 1970s, a series of small- and large-scale pilot studies were conducted to assess the effectiveness of the new instructional system which KEDI was about to introduce. Similarly, from 1983 to 1985, KEDI conducted national assessments with a view to improving the curriculum in elementary schools. Longitudinal data were collected for three consecutive years on the basic academic ability of students, with a view to evaluating, and subsequently improving, elementary school curricula. (KEDI

³⁰ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

has now been replaced in this role by the Korea Institute of Curriculum and Evaluation, KICE.)

A revised system of periodic national assessments of student achievement began to be implemented in September 2000, the principal aim of which is to monitor the curriculum. Under the new system, Korean language, maths, science and social studies are to be assessed every two years (two subjects each year), while English communications skills and the use of information technology skills are to be assessed once every three years. Small samples of students (between 0.5 per cent and one per cent of the whole student population in specific year groups) are involved in the tests.

The Netherlands

No specific data available.

New Zealand

The New Zealand Curriculum:

"seeks to raise the achievement levels of all students and to ensure that the quality of teaching and learning in New Zealand schools is of the highest international standard. It identifies for boards of trustees, teachers, students, parents, and the wider community, a progression of desirable standards of learning throughout the years of schooling, against which students' progress can be assessed."

With the objective of raising overall achievement and closing the gap between the lowest and highest achievers, particularly in mathematics and English, the New Zealand Government has set the target that "by 2005, every child aged nine will be able to read, write and do maths for success". Linked to this goal, one of the areas of focus for current curriculum development and initiatives is that of placing greater emphasis on basic literacy and numeracy in the early primary years. As a result, the New Zealand Government has launched a literacy and numeracy strategy, which includes:

- ensuring that the (above) goal for nine-year-olds is well understood in the education sector and by parents and the wider community;
- working out the most effective way to measure the progress of individuals and groups towards the goal;
- supporting the best possible teaching of all children;
- ensuring that government interventions to support children's learning in literacy are as effective and efficient as possible;
- providing extra support for programmes through a special proposals pool; and
- encouraging parents and the wider community to support children's learning at school and in early childhood through a public information campaign.

In addition, the Government has recently published new policies and proposals for national assessment in primary schools. The White Paper *Information for Better Learning*³¹ takes account of responses to the consultation paper (Green Paper)

³¹ NEW ZEALAND. MINISTRY OF EDUCATION (1999). *Information for Better Learning. National Assessment in Primary Schools: Policies and Proposals*. Wellington: Ministry of Education.

*Assessment for Success in Primary Schools*³², and aims to provide policies by which the Government can raise achievement levels for all students and address disparities in student achievement. As a result:

- The Government is developing exemplifications of standards documents for all curriculum subjects. These will comprise examples of real pieces of work produced by students which meet the standards of particular achievement objectives. Their aim is to illustrate or exemplify the features which could be pointed to as meeting the achievement objective.
- A pilot of externally referenced national tests in literacy and numeracy for children in Years 5 and 7 (ages 9-10 and 11-12) is being undertaken.

Readers might also be interested to learn that, as part of the current curriculum 'stocktake' in New Zealand, curriculum experts outside New Zealand are being invited to comment on the New Zealand Curriculum Framework (NZCF) (both the document and the policy it represents) and on the national curriculum statements for each of the subject areas.

Singapore

Our contact in the Ministry of Education comments:

For most syllabuses, aims, content and assessment objectives are clearly specified and a 'specification grid' lists the skills to be tested. Syllabuses in force are monitored regularly by curriculum officers and, from the continuous feedback, the achievement of the aims of the syllabus is measured against its specifications. Such feedback forms the basis for mid-term review.

When designing/reviewing syllabuses, Syllabus Review Committees (SRCs) may refer to comparable syllabuses from other education systems that may serve as benchmarks. The SRCs also seek the input of the examination body (the UCLES - the University of Cambridge Local Examinations Syndicate in England, which sets the GCE 'O' Level, GCE 'N' Level and GCE 'A' level examinations for Singapore) to ensure that international standards of academic rigour are maintained.

Spain

No specific data available.

Sweden

Curriculum goals in Sweden are of two kinds:

- aims (or goals to be pursued), which indicate the direction of the school's work and, consequently, the development of the desired standards; and
- attainment targets (or goals to be achieved), which are an expression of the minimum achievements required on leaving school.

³² NEW ZEALAND. MINISTRY OF EDUCATION (1998). *Assessment for Success in Primary Schools*. Wellington: Ministry of Education.

Three levels of criterion-referenced grade are awarded - pass, pass with credit, and pass with distinction. These express the extent to which an individual student has achieved the attainment targets as stated in the syllabus for each subject. National tests in Swedish, English and mathematics at the end of Year 9 - completion of compulsory education, age 16 - aim to ensure that the grading is comparable.

To assist teachers in their assessment of the level of students' knowledge at the end of compulsory education, nationally agreed criteria have been provided for both the 'pass' and the 'pass with credit' grades. These have been developed by the Skolverket with the assistance of teachers, and are directly linked to the goals specified in the syllabuses which make up the national curriculum. Teachers themselves currently determine the qualitative level for the grade 'pass with distinction'. However, there are moves towards introducing national exemplification of grading standards for this highest grade too.

Students completing compulsory education are provided with a 'merit rating'. This is the sum total of points for the 16 best marks in their final school report. Pass grades earn 10 points, pass with credits, 15 points and passes with distinctions, 20 points.

On completion of post-compulsory upper secondary education, aged around 19, students are assessed by teacher assessment alone. This, too, is based on nationally determined criteria, as above.

Our contact in the Eurydice Unit in Sweden ³³ further comments:

The Skolverket also evaluates schools' results, both at the request of the Government and on its own initiative.

International comparisons (such as IEA studies and OECD evaluations) are regarded as very important. The system of evaluation, monitoring and standards is, however, developed in accordance with national, rather than international, initiatives.

Switzerland

Our contact in Switzerland comments that, until now, there have not been any links between the curriculum review process and the setting of achievement standards. There has been no international dimension involved.

USA

Kentucky

Under the Kentucky Education Reform Act 1990 (KERA), a detailed set of 'Student Academic Expectations' clearly define what students should know and be able to do in the five major content areas of reading, writing, mathematics, science, and social studies as well as practical living, vocational studies, and the arts and humanities.

³³ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

These Academic Expectations have been incorporated into classroom instruction and curriculum, and are measured by the performance-based assessment and accountability programme.

In addition, Kentucky's core curriculum content standards are closely linked to the state-wide assessment system - CATS - the Commonwealth Accountability Testing System.

Kentucky's standards for science, mathematics, social studies, reading, writing, arts and humanities, practical living, and vocational studies were also developed to reflect the six learning goals of the Kentucky Education Reform Act. The goals are:

- to use communication and mathematics skills for practical use;
- to apply core concepts and principles in all subject areas for practical use;
- to become a self-sufficient individual;
- to become responsible members of family, work group, or community;
- to think and solve problems in school situations that correlate to life experiences; and
- to connect and integrate experiences and new knowledge from all subject areas with what has been previously learned.

In addition, the programmes of study and standards for the core curriculum areas focus on the state's long-term goal:

- of proficiency for all schools by the year 2014. Proficiency is defined as a score of 100, where this is linked to the Commonwealth Accountability Testing System, see above. Each school has a customised chart reflecting its baseline scores and its goal of 100 by 2014.

Maryland

Maryland has developed (curriculum) content standards and learning outcomes for reading, writing/language usage, mathematics, science, and social studies in Grades 3, 5 and 8 (students aged eight/nine, 10/11 and 13/14 respectively). These specify the essential knowledge and skills that all students are expected to learn by the end of specific Grades, and help to clarify, for teachers, students and parents, what students should master in reading, writing, mathematics and other core academic areas. Local school systems use the content standards to guide their own curricula.

The original standards and learning outcomes were developed in 1990 by five Learning Outcome Development Committees, each composed of state and local school system content/curriculum supervisors, and were based on national and international studies of student achievement, recommendations of national educational reports, and on Maryland's curriculum frameworks. Once reviewed by local curriculum supervisors, advisory groups, and school system superintendents, the learning outcomes guided test contractors in their work with Maryland teachers and curriculum supervisors in developing and validating Maryland School Performance Assessment Program (MSPAP) assessment objectives, item specifications, and test items. The content standards have recently been revised (1998/1999), with new versions being introduced to schools in the autumn of 1999. This process again

involved comparison with state and national organisation standards, and involved the expertise of two national organisations with standards development expertise, the Council for Basic Education, and Standards Work.

Full details of the Maryland Content Standards in the language arts, mathematics, science and social studies are available on the Maryland School Performance Program (MSPP) website at <http://www.mdk12.org/mspp/standards/index.html>

In 1989, the Governor's Commission on School Performance created the Maryland School Performance Program (MSPP), an accountability system that would redefine what was considered acceptable academic achievement. First, the Program set standards for functional test passing rates, drop-out rates, and attendance rates. According to MSPP, a school meeting standards had at least 95 percent of its Grade 9 students (aged 14-15 years) passing the reading functional test; 80 per cent passing maths; 90 per cent passing writing; and 85 per cent passing citizenship. A school meeting the standard for students in Grade 11 (aged 16-17) had 97 per cent passing the individual reading, writing, maths, and citizenship tests — and 90 per cent passing all four. Furthermore, schools meeting standards had drop-out rates that did not exceed three per cent and had at least 94 per cent of students in school for half or more of the average school day.

Since 1993, however, the cornerstone of MSPP — and, by far, its most recognisable aspect — has been the Maryland School Performance Assessment Program (MSPAP), a series of tests given annually to students in Grades 3, 5, and 8 (aged nine, 11 and 14 years respectively). Results from the performance-based exams are aggregated at the school, system, and state levels. In schools meeting state standards, 70 per cent of students or more receive a satisfactory score in all six content areas tested by MSPAP (reading, writing, language usage, maths, science, and social studies).

Maryland is now ready to extend to high schools the standards and accountability embodied by MSPAP. Students entering Grade 9 (aged 14-15) in autumn 2003 will have to pass five end-of-course exams — in English, algebra, geometry, biology, and government — to receive a high school diploma. Field tests or "dry runs" are being conducted now to fine-tune the assessments and to set challenging, yet attainable, passing scores. These new high school assessments aim to make the high school diploma more meaningful for employers, universities, and students themselves.

Source: Maryland State Department of Education. *What are Maryland's Standards for Schools?* Online at <http://www.mdk12.org/mspp/superintendent/index.html>

Massachusetts

Since the enactment of the Massachusetts Education Reform Act of 1993, state-wide curriculum frameworks across seven subject areas * have been developed for pre-kindergarten to Grade 12 education in Massachusetts (children aged four plus to around age 18 years). These are reviewed on a continuous basis.

The Massachusetts curriculum frameworks are results driven and focus on world class standards. As is the case in most other states in the USA, the Department of Education also bases the state-wide student assessment programme on the curriculum frameworks.

* Mathematics, science and technology; social sciences/social studies; English language arts; world languages; the arts; and health.

Wisconsin

The core curriculum in the state of Wisconsin (for children from kindergarten to Grade 12, aged five plus to around 18 years), links to the Wisconsin Model Academic Standards in the four core curriculum areas (English language arts, mathematics, science, and social studies). These describe the skills children are expected to have acquired in specific subject areas by the end of Grades 4, 8 and 12 (aged 10, 14 and 18 respectively). By state law, since 1 August 1998, as a minimum, schools have been required to adopt the Wisconsin Model Academic Standards, or local standards, for mathematics, science, reading, language arts and social studies. The standards documents, as finalised in December 1997, are currently available in full at the following website <http://www.dpi.state.wi.us/dpi/standards/index.html>

The standards were set with some consideration of the international dimension and are consequently often termed 'world-class'.

The timeframe for curriculum review

6. In the countries of the International Review of Curriculum and Assessment Frameworks (INCA) Archive, when curriculum review takes place, what is the timeframe for it and how long is it expected to take?

Australia

Curriculum review in Australia is a matter for individual States and Territories; the timeframe involved can vary between States and, indeed, between subjects in individual States.

Queensland

On average, the curriculum cycle for review/implementation of the individual Key Learning Areas * in Queensland appears to take around four, sometimes five, years, dependent on the Key Learning Area. The first year is spent on planning, design and development; years two and three (or two, three and four), represent a trial pilot phase, and implementation takes place in year four, sometimes year five.

The initial phase of the current radical review of the whole curriculum in Queensland - the New Basics project, which commenced in January 2001 (further information is provided in previous sections of this thematic probe) - is expected to take around four years.

Tasmania

The current radical review of the curriculum in Tasmania (further information is provided in previous sections of this report) commenced in 2000, and is expected to be completed by the beginning of the 2002 school year. This begins in late January 2002.

Victoria

The recent review of the Curriculum and Standards Framework in the State of Victoria took around two years.

* The arts; English; health and physical education (HPE); languages other than English (LOTE); mathematics; science; studies of society and the environment (SOSE); and technology.

Canada

Responsibility for the curriculum rests at provincial level.

Alberta

The timeframe for curriculum review varies considerably from subject to subject and from phase to phase.

British Columbia

Curriculum review in British Columbia is undertaken on a cyclical basis. There is a detailed annual workplan, running from September/October to September/October, which details the subject areas/age ranges for review in a given year - and a four-year long range plan, which is regularly updated. This aims to facilitate planning for upcoming changes. There is, however, no specific timeframe for review once it has commenced; the duration depends on the complexities of the specific curriculum.

Ontario

The curriculum review, development and implementation process in Ontario, too, is cyclical. The most recent review of the entire Kindergarten to Grade 12 curriculum (children aged five to around 18 years) took place during the period 1997/98 to 2000. Revised curricula for elementary school were introduced initially; these were followed by gradual revisions for the later years. Revised curricula for students in Years 9 to 12, for example (aged around 14 to 18 years) began to be introduced in 1999.

France

No specific data available.

Germany

There is no national curriculum in Germany. Curriculum formulation and review is the responsibility of the individual, regional (Länder) Ministries of Education and Culture.

Draft new or amended curricula can take over a year to produce and it usually takes three to four years to develop the curricula for all subjects for a type of school. In addition, once draft new or revised curricula are completed, they are submitted to schools for testing/implementation for a trial period.

Our contact in the German Eurydice Unit ³⁴ comments:

³⁴ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

The timeframes for the review process vary considerably - from subject to subject and Land (region) to Land. Curriculum review commissions (see the response to question 3.) usually work on draft revised curricula for months, often years.

Hungary

National Core Curriculum (NCC)

The process of introduction of the National Core Curriculum (NCC), following the fall of the former, Communist regime, took around eight years in total. Legislative reforms in 1990 established the policy basis for the NCC; remodelling the school curriculum began on acceptance of the Public Education Act in 1993; the NCC was formally adopted by the Government in October 1995; and began to be implemented in September 1998. At this time, a new Government came into power; one of its first actions was to initiate a review of the NCC and its implementation.

Local curricula

Now that schools are beginning to use local curricula, developed on the basis of the NCC, an infinite number of curricula are in existence. Timeframes for review of these curricula, at the local level, will vary considerably.

Ireland

Recent primary curriculum review

A review of the primary curriculum was completed in 1999. This revised curriculum is now gradually being introduced. The process of review began with the work of the Review Body on the Primary Curriculum, which published an initial report in 1990. This report comprised a detailed appraisal of the 1971 curriculum and provided the basis for the redesign and restructuring presented in the final 1999 version.

Junior cycle review (students aged 12 to 15 years)

The current review of the junior cycle curriculum commenced in 1997, and the initial findings were published in 1999.³⁵ This 1999 report is being used as the basis for ongoing consultation and review.

Our contact at the National Council for Curriculum and Assessment (NCCA) comments that:

Ireland is trying to establish the principle of aspects of the curriculum coming under review over time, with curriculum review being viewed as a cycle, rather than an event.

³⁵ NATIONAL COUNCIL FOR CURRICULUM AND ASSESSMENT (NCCA) (1999). *The Junior Cycle Review. Progress Report: Issues and Options for Development*. Dublin: NCCA.

Italy

Our contact in the Eurydice Unit in Italy³⁶ comments that:

It is not possible to provide a timeframe for the curriculum review process. This can vary considerably. The most recent review - that is the initial formulation of framework national curricula for the three new levels of education (pre-school, primary and secondary) - began in early 1999. To date, curricula have been determined for the pre-school and primary levels, although these still await final approval. Framework national curricula for revised secondary level education have yet to be formulated.

Japan

There is usually gradual implementation of revised courses of study in Japan. The courses of study revised in 1998, for example, were introduced in kindergartens in 2000 and will begin to be introduced in elementary schools in March 2002 (the beginning of the 2002 school year). See section 1. of this probe in addition. The revision process itself usually takes place over a number of years, usually around two or three, prior to revised courses of study being published.

Korea

The curriculum in Korea is revised regularly in accordance with a five- to ten-year cycle. On average, the actual review process takes around two years. The Sixth National Curriculum, for example, which began to be introduced in 1995, followed on from a review which ran from October 1990 to October 1992. In the intervening period, the courses of study were amended in line with the review recommendations and made public. As in Japan, there is usually gradual implementation of revised courses of study. The Seventh National Curriculum, for example, is being phased in, beginning with the first two years of elementary education in 2000, and ending with the final year of upper secondary education, students aged 17 to 18 years, in 2004.

The Netherlands

Review of the attainment targets of the compulsory core curriculum for primary and lower secondary level education in the Netherlands (children aged four to 12 years, and 12 to 15 years respectively) takes place every five years.

New Zealand

The comprehensive review of the curriculum, which has resulted in the introduction of the New Zealand Curriculum Framework, began in 1991 and is nearing final completion in 2001. A 'stocktake' of this curriculum, which began in late 2000 is expected to be completed by early 2002.

³⁶ The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

Singapore

The most recent review of the primary and secondary level curricula in Singapore was announced in 1997. The three new education initiatives linked to this review - a 'thinking skills' programme; an information technology programme; and a national education programme (see section 2. for further details) began to be incorporated in revised subject syllabuses from 2001. In the intervening period, some changes were made, for example, the content of subject syllabuses was reduced by 10 to 30 per cent to allow schools time to introduce the new initiatives.

Our contact in the Ministry of Education in Singapore comments:

The syllabus review process itself normally takes two years to complete.

Spain

Our contact in the Eurydice Unit ³⁷ in Spain comments:

As the regional Autonomous Communities develop the curriculum at regional level and individual educational establishments adapt the regional curriculum to their specific requirements, the timeframe for curriculum review will vary considerably at the local level/dependent on the Autonomous Community. The state only legislates for the content of the minimum core curriculum, which accounts for 65 or 55 per cent of the curriculum actually implemented (the latter figure applies in those Autonomous Communities with two official languages).

Sweden

Our contact in the Eurydice Unit in Sweden comments as follows:

At the moment, an expert group is investigating the structure of the three national curricula (one for each level of education - pre-school, compulsory school, and post-compulsory upper secondary and adult education). This is with a view to their possible integration to enhance the lifelong learning perspective. This is not the sort of review which took place in 1992-94, where the whole process took several years and was introduced gradually through the school system. A suggested timeframe for this small, ongoing curriculum review could be one year for investigation, one year for preparation and political discussion, and introduction of the reform in the third year.

Switzerland

Our contact in Switzerland comments that:

Although the curriculum review process is the responsibility of the individual cantons in Switzerland and can therefore vary considerably, some general tendencies can be identified. Amongst these, is the general tendency for curriculum reviews to take place around every ten years, and for the actual process to take around three years to complete.

³⁷

The Eurydice Network is the information network on education in Europe, which exists to ensure the exchange of information on education systems and on national policies in the field of education. Eurydice is specifically targeted at senior education policy makers and is part of the Socrates programme - the European Community Action Programme in the field of education.

USA

Timeframes for curriculum review vary considerably from state to state, and from subject to subject, and age group to age group, both between and within states. Examples for consideration are provided below.

Maryland

The original (curriculum) content standards, which define the essential knowledge and skills that all students are expected to learn by the end of specific Grades, and which form the basis on which local school systems organise their curricula, were originally developed in 1990. An 18-month long review took place in 1998/1999, and revised content standards were approved by the Board of Education in July 1999. These were then introduced to schools in the autumn term of that year. Learning outcomes were updated to reflect the revised content standards during 2000, and the linked state-wide assessment programme - MSPAP - is currently being updated to reflect the revision. MSPAP (the Maryland School Performance Assessment Program) is currently expected to be aligned with the new content standards by 2002.

Massachusetts

Review of the Massachusetts curriculum frameworks is ongoing. The timeframe for review can vary considerably from subject to subject. As an example, the curriculum for mathematics has recently been reviewed. The previous mathematics framework dated from 1996; the review process began in 1999 with work on a draft revised framework for public comment. This draft was first published for comment in September 1999; final approval followed in July 2000, and the finalised revised mathematics curriculum framework was released for schools' use in November 2000.

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Useful website addresses

Australia - Commonwealth Department of Education, Training and Youth Affairs (DETYA)	http://www.detya.gov.au
Australia - Queensland Board of Senior Secondary School Studies (QBSSSS)	http://www.bssssq.edu.au/
Australia - Queensland, Education Queensland	http://education.qld.gov.au
Australia - Queensland, New Basics website	http://education.qld.gov.au/corporate/newbasics
Australia - Queensland School Curriculum Council (QSCC)	http://www.qscc.qld.edu.au/home.html
Australia - Tasmania, Department of Education	http://www.doe.tased.edu.au
Australia - Victoria, Board of Studies	http://www.bos.vic.edu.au/
Australia - Victoria, Curriculum and Standards Framework (CSF) website	http://www.bos.vic.edu.au/csf/
Australia - Victoria, Department of Education, Employment and Training	http://www.deet.vic.gov.au/deet/
Canada - Alberta Learning	http://ednet.edc.gov.ab.ca
Canada - British Columbia Ministry of Education	http://www.bced.gov.bc.ca/
Canada - Council of Ministers of Education, Canada (CMEC)	http://www.cmec.ca
Canada - International Gateway to Education in Canada	http://www.educationcanada.cmec.ca
Canada - Ontario Ministry of Education	http://www.edu.gov.on.ca/
Canada - Saskatchewan Education	http://www.sasked.gov.sk.ca/
Canada - Saskatchewan Education - The Evergreen Curriculum Site	http://www.sasked.gov.sk.ca/docs/evergreen.html
EURYDICE website	http://www.eurydice.org
EURYDICE at NFER website	http://www.nfer.ac.uk/eurydice
France, Ministry of Education	http://www.education.gouv.fr
Germany, Federal Ministry of Education and Research	http://www.bmbf.de
Hungary, Ministry of Education	http://www.om.hu/jg.html
INCA website	http://www.inca.org.uk
Ireland, Department of Education and Science (DES)	http://www.irlgov.ie/educ
Ireland, National Council for Curriculum and Assessment (NCCA)	http://www.ncca.ie
Italy, Ministry of Public Education (MPI)	http://www.istruzione.it
Japan - Ministry of Education, Culture, Sports, Science and Technology (MEXT)	http://www.mext.go.jp/english/index.htm
Korea - Institute of Curriculum and Evaluation (KICE)	http://www.kice.re.kr
Korea - Ministry of Education and Human Resources Development	http://www.moe.go.kr/eng
Netherlands - Ministry of Education, Culture and Science	http://www.minocw.nl/english/index.htm

Netherlands - Institute for Curriculum Development (SLO)	http://www.slo.nl/network/engels.html
New Zealand - Ministry of Education	http://www.minedu.govt.nz
Singapore - Ministry of Education	http://www.moe.edu.sg/
Spain - Ministry of Education and Culture (MEC)	http://www.mec.es
Sweden - Ministry of Education and Science	http://utbildning.regeringen.se/inenglish/index.htm
Sweden - National Agency for Education (Skolverket)	http://utbildning.regeringen.se/inenglish/index.htm
Switzerland - EDK/CDIP	http://edkwww.unibe.ch
USA - Kentucky Department of Education	http://www.kde.state.ky.us/
USA - Maryland State Department of Education	http://www.msde.state.md.us
USA - Massachusetts Department of Education	http://www.doe.mass.edu
USA - United States Education Department	http://www.ed.gov
USA - Wisconsin Department of Public Instruction	http://www.dpi.state.wi.us/