Chapter 6

Education system evaluation

A range of tools are used to monitor performance of the education system. The monitoring system includes a range of statistics on education based on snap-shot data collected from schools on a standardised format. Also, international benchmarks of student performance provided by international student surveys such as PISA and TIMSS have been influential in driving policy development at the system level. At the moment, no national-level information on student learning outcomes which is comparable across schools and regions and over time is available but the Ministry is currently developing national standardised tests in grades 5 and 9 in Czech language, foreign language and mathematics to address this gap. In addition, there has been a growing interest in undertaking studies of the impact of policy initiatives and in preparing thematic reports which can inform policy development. Particularly positive features of system evaluation include the well-established education indicators framework; the concern to assess the progress of the education system towards pre-established objectives; the qualitative analysis undertaken in thematic reports; and the participation in international student surveys. However, system evaluation is faced with a number of challenges. These include the little emphasis on the evaluation of the education system; the absence of student performance data for system monitoring; the lack of measures on students’ socio-economic background; the little emphasis on investigating inequities in the system; the limited information on the teaching and learning environment; the challenges faced with monitoring at the region and municipality levels; and the room to better exploit system-level information.
This chapter looks at system evaluation within the Czech evaluation and assessment framework. System evaluation refers to approaches to monitor and evaluate the performance of regional and local education systems as well as the education system as a whole. The main aims of system evaluation are to provide accountability information to the public and to improve educational processes and outcomes.

**Context and features**

**Responsibilities for evaluation of the Czech education system**

According to the 2005 Education Act, the Ministry of Education, Youth and Sports (MEYS) is responsible for the overall monitoring of the education system. The MEYS undertakes the evaluation of the overall education system which is then reflected in the *Status Report on the Development of the Education System of the Czech Republic* (the MEYS Annual Report). The annual reports focus on evaluating how the objectives set out in the Long-term policy objectives of education and development of the education system are being fulfilled. The Ministry also monitors quality in the education system via school inspection, a central element in system evaluation. In fact, the Education Act specifies that the Czech School Inspectorate (CSI) is required to develop a system of evaluation for the education system. As a result, the CSI includes its analysis of the education system in its annual report and thematic reports. The analysis is based on the overall picture provided by the external evaluation of individual schools. Other agencies directly managed by the MEYS which contribute to the evaluation of the education system include the Institute for Information on Education (with statistics, analysis, surveys, and diagnoses), the National Institute of Technical and Vocational Education (with analysis on the impact of technical and vocational education policies), and the Research Institute of Education (with analysis on the impact of policies in basic and general education).1

In addition, each region is required to evaluate its own education system to be reflected in the *Status Report on the Development of the Education System of the Region* (annual report for each region). Mirroring the procedures at the national level, the annual reports focus on evaluating how the objectives set out in the Long-term policy objectives of education and development of the education system of the respective region are being fulfilled. The Long-term policy objectives are required to contain an analysis of the current situation of the educational system of the concerned region, and an analysis of the changes made since the previous set of Long-term policy objectives.

**Major tools to monitor performance of the education system**

**National assessments of student performance**

In the Czech Republic, no national assessments of student performance provide information on student learning outcomes which are comparable across schools, regions or over time limiting the ability for educational authorities to assess whether student learning objectives are being met. This limitation is being addressed as the MEYS announced in 2010 the objective of introducing national standardised tests in the 5th and 9th grades of basic education in three curricular areas: Czech language, foreign language and mathematics. While intended to provide feedback to students and their parents, as well as possibly being a basis for enrolment into a higher level of education, the MEYS has also indicated that the results of standardised testing will be used to evaluate the work of individual schools and to monitor the performance of the Czech school system as a whole and the differences of performance across regions of the country (see Chapter 3).
As described in Chapter 3, several private companies operating within the Czech education system offer to both basic and secondary schools tests in the majority of the subjects for different grades and levels. The use of these tests by the schools is frequent as a means for them to get feedback on the performance of their students. However, these tests cannot be used to monitor performance at the system level given that only a subset of schools use them, the tests are not closely aligned with national learning goals (Framework Education Programmes) and the conditions for the administration of the tests are not comparable across schools. Some regions have also taken the initiative to develop standardised tests to assess student performance. For example, in the Moravian-Silesian Region, the regional authorities in collaboration with Ostrava University administer standardised tests in Czech language, mathematics and a foreign language to students attending the 10th and 12th grades (1st and 3rd grades of secondary education) with the participation of the large majority of secondary schools. The results of the standardised tests are received by schools but are not published. The main purpose of the tests is to provide feedback to schools and teachers to improve learning in schools but might also be used by regional authorities to evaluate school principals.

Another national assessment with the potential to inform system-level evaluation is the exit examination at the end of secondary education. As described in Chapter 3, these refer to the school-leaving examination and the final examination to acquire the apprenticeship certificate. Traditionally, the organisation and assessment of the final examination has been the responsibility of individual schools. Hence, given that assessment criteria as well as their application might differ across teachers and schools, results of school-leaving examinations are not reliable to inform system evaluation both at the national and regional levels. However, in 2011 a common standardised component to the school-leaving examination was introduced with the central administration by the MEYS (see Chapter 3). On the whole, this standardised component, by its very nature, has the potential to be used for system-level evaluation and to inform the system about performance differences across schools. Also, it should be noted that for courses leading to an apprenticeship certificate, standardised common examination assignments have been developed so a certain level of standardisation is reached across schools (see Chapter 3).

Overall marks given by teachers in their summative assessment of students are not reported at the school level and would not in any case provide consistent information of performance at the national or regional level given that there is little guarantee that marking approaches are consistent across teachers or schools (see Chapter 3).

System-level indicators

For the purpose of system-level monitoring, a wide range of demographic, administrative and contextual data are collected. The MEYS, through the Institute for Information on Education (IIE), collects statistical snap-shot data from public and private schools. Schools are requested to periodically send their data in a standardised format to the IIE. The dataset includes information on students (number; type of enrolment; graduates; dropouts; age; gender; transition of year including repetition), teachers (number; age; gender; areas/subjects taught; level of education; remuneration), and schools (number; type; level of education; number of classes; use of ICT; use of counselling services). The IIE also compiles data on funding to schools and school facilities but does not collect these directly from schools. All these data are brought together into an education database maintained by the IIE on its website along with web applications to generate time series and aggregated data. The IIE also carries out ad hoc surveys and enquiries into the education system. An example is the “Quick Surveys”
project which is based on collecting the views of school principals on a range of aspects faced by Czech schools.

The MEYS, through the IIE, brings together the basic education statistics described above into publications with indicators on education. The annual *Statistical Yearbook on Education* covers student age distribution, enrolment, transition and completion rates (by level of education, school type, gender, organising body and region), teacher numbers and remuneration (by level of education, school type, gender, subject taught, organising body and region), number of schools and classes (by level of education, type, organising body and region), use of counselling services, learning of foreign languages and use of ICT in teaching for a given school year. It also includes indicators on expenditure in education at the national and regional levels and by level and type of education, organising body, and type of expenditure. The IIE also publishes selected indicators in thematic reports addressing issues such as the teaching of foreign languages, education of students with special needs, gender differences, or the education of foreigners. Other publications providing indicators on education include regional Statistical Yearbooks, *Development Yearbook on Education, Czech Education in International Comparison* (selected indicators from OECD’s *Education at a Glance*), *Education in Focus*, and *Statistics on Education in your Pocket*. In addition, the MEYS produces the annual *Status Report on the Development of the Education System in the Czech Republic*, which draws on a set of indicators specifically designed to assess progress towards the Long-term policy objectives of the Czech Republic (see list of indicators for 2005 Long-term policy objectives in Annex 3 of IIE, 2011, these are based on the basic statistics described above complemented with *ad hoc* dedicated surveys). The report sums up the main organisational and legislative changes that occurred in the given year and presents statistical indicators describing the situation and development in pre-primary, basic, secondary, and tertiary education. The report contains information about educational staff in the system, the funding of schools and the labour market situation of school leavers. These data constitute a basis for the development of education policies. This report also typically includes an area of specific focus (*e.g.* in 2007 and 2008, the implementation of the curricular reform). Individual regions also produce their own Status Report in Education to assess progress towards their own Long-term policy objectives.

The MEYS, through IIE, has also the major responsibility for developing international indicators on the basic and secondary education system, as part of the joint UNESCO-OECD-EUROSTAT annual data collection on enrolment, graduation, finance and personnel.

**Information systems**

In addition to the education database managed by the Institute for Information on Education and the schools’ individual information management systems, a number of other information systems have been recently developed within the Czech education system. An example is the Education Portal (www.edu.cz), which offers a range of useful resources on education such as links to a variety of agents in education (*e.g.* relevant MEYS departments or agencies, stakeholders such as teacher unions, public administration, non-governmental resources), access to relevant legislation, and basic information about individual schools in the country (including access to the Register of Schools and School Facilities and the Register of Legal Entities Performing Activities of Schools). It also includes an online counselling service. A number of regions such as the city of Prague, Hradec Kralove, Olomouc, South Moravia, Vysočina and Zlín also provide their own education portal. Another relevant information system is the
Methodology Portal (Metodický Portál, www.rvp.cz), which targets school directors and teachers and offers methodological support to implement educational programmes. This includes the development of School Education Programmes and approaches to assess key competencies. The portal aims to generate a forum for teachers to share their views and experiences. Other resources are offered by groups external to the MEYS such as private companies (e.g. Škola OnLine, Česká škola).

**Thematic evaluations and policy evaluation**

The Annual Report of the Czech School Inspectorate (CSI) contains overall findings on the current state of affairs in education and the education system as identified during inspection activities undertaken in the previous school year. Some information is gathered as part of thematic inspections that focus on certain specific aspects of the education system in accordance with the Plan of principal assignments of inspection activities in the relevant school year. These inspections lead to thematic reports in areas such as the quality of ICT in basic schools, foreign language education, safety and health procedures in schools, the development of school education programmes, conditions for admission into secondary schools, and the graduation process in secondary schools.

The MEYS as well as the agencies it manages conduct studies in a range of educational areas including the implementation of specific policies. Examples include 2008 studies about the needs of teachers and the attitudes of parents, and the educational path and the condition of education of Roma students. IIE conducts studies about issues such as the achievement of Czech students in international surveys while the National Institute of Technical and Vocational Education publishes reports on issues such as the labour market situation of school leavers, the requirements of employers against school leavers’ skills, unemployment among school leavers and the distribution of various qualifications and specialisations. In turn, the Research Institution of Education has recently delivered reports on the implementation of the curricular reform.

**Participation in international student surveys**

The Czech Republic attributes much importance to international benchmarks of student performance and has participated in most major international studies providing trend data on outcomes at different stages of education in the Czech Republic since 1995. It has participated in the OECD’s Programme for International Student Assessment (PISA) of 15-year-old students since its inception in 2000, testing students’ knowledge and skills in reading, mathematics and science at the end of lower secondary education. The Czech Republic has also administered tests to students in grades 4 and 8 as part of the International Association for Educational Achievement’s (IEA) Trends in Mathematics and Science Skills (TIMSS) studies in 1995, 1999, 2007 and 2011. Participation in the IEA’s Progress in Reading Literacy Skills (PIRLS) study also provides an international benchmark for grade 4 students’ reading literacy over time, with the participation of the Czech Republic in 2001 and 2011. As such, the Czech Republic has a wealth of information on students’ core skills in reading, mathematics and science at major points in school education to compare the system internationally. Furthermore, the Czech Republic will participate in the 2013 IEA’s International Computers and Information Literacy Study (ICILS). The Czech Republic also supports international comparisons on non-cognitive outcomes, including its participation in the 1999 Civic Education Study (CIVED) and the recent 2009 IEA International Civic and Citizenship Education Study (ICCCS). The Czech Republic will also participate in the second round of the OECD’s Teaching and Learning International Survey (TALIS) in 2013, which
provides information on teachers’ perceptions of various aspects of the school environment including their profession.

**Strengths**

*A Education Indicators Framework is established*

An Education Indicators Framework is in place to assist decision makers analyse the state of the education system, monitor trends over time, compare regions and provide information to the general public. The framework includes four core components (students, teachers, schools and funding) and covers, as main areas, student enrolment, transition and completion, teacher numbers and remuneration, school numbers and classes, and expenditure in education by type of provider. It involves well-established procedures for data collection in close articulation with schools. More limiting aspects include some important gaps in the data collected and the rigidities which exist for the Institute for Information on Education (IIE) to develop a strategy for the development of basic statistics in education (see below).

Education statistics are widely disseminated. The Indicators Framework is the basis for statistical reporting on the education system in forms such as the *Statistical Yearbook on Education* (as well as the regional versions), *Education in Focus* and *Statistics on Education in your Pocket*. Education statistics are also available on line at the IIE’s website (www.uiv.cz). The education database is open to all audiences and brings together a wide range of information including demographic and contextual information, and statistical information on educational participation and completion. Moreover, IIE publishes indicators based on OECD’s *Education at a Glance* with comparisons across regions. IIE also makes its data available for evaluation activities such as those carried out by the CSI through dedicated co-operation agreements. These involve providing the CSI with school specific data for external school evaluation.

*There is a concern to assess the progress of the education system towards pre-established objectives*

A strength in system evaluation in the Czech Republic is the principle of establishing educational objectives and the subsequent monitoring of the progress towards achieving them. Every four years, Long-term policy objectives of education and development of the education system are established alongside a strategy to monitor results, both at the national and regional levels. A set of indicators is developed to assess progress towards achieving the objectives. Subsequently, the assessment of progress towards the Long-term policy objectives is reported in the *Status Report on the Development of the Education System*, at the national and regional levels, on the basis of an analysis of the dedicated indicators. As explained elsewhere in this report, the application of this approach has its limitations as with the narrow scope of the Long-term policy objectives (see Chapter 2) and the inadequacy of the indicators to assess educational progress (see below).

The establishment of Long-term policy objectives alongside indicators to assess progress presents a number of advantages. It provides goals for the education system and tools with which the effectiveness of education policies can be assessed. It also grants greater focus of education agents on the main policy challenges for the education system as well as an opportunity for reflection on strategies to address the challenges. Finally, it
strengthens the importance of system-level evaluation and the need to have a strategic approach to it.

**The qualitative analysis of thematic reports provides valuable information for system monitoring**

Quantitative measures for system monitoring such as those provided by the indicators framework are essential for system monitoring but without doubt can only cover a subset of student learning objectives and do not provide the richness of contextualised qualitative analysis. In this sense, it is a strength that external school evaluation is relevant for the monitoring of the education system through reports by CSI including its annual report in which an analysis of school performance across a range of qualitative aspects is provided. The same applies to its thematic reports which cover aspects which are relevant to policy development such as the learning of foreign languages, reading, mathematical and scientific literacy, and equal opportunities in education. Such qualitative analyses provide complementary evaluative information which potentially broadens the base of evidence and provides more explanation of the factors which might influence performance.

Similarly, the reports published by the MEYS and its agencies add considerably to the national information base which informs policy development. These involve for example regular in-depth analyses of vocational and technical education or progress with the implementation of education reforms, or one-off reports on issues such as students with special needs. These analyses have also allowed the education research community to contribute to the development of education policy.

**The participation in international surveys is instrumental for system evaluation**

In the absence of national data on student learning outcomes, international surveys have provided – in spite of their lack of alignment with student learning objectives in the Czech Republic – unique information about student learning in the Czech Republic. Participation in international surveys provides benchmark information on the education system’s performance and also allows monitoring of progress over time, for example via the trend data available for PISA from 2000. Outcome measures offered by participation in international studies have been among the major indicators of performance in school education in the Czech Republic. PISA results have also been used for comparisons across regions: in 2003 and 2006 the sample of students was constructed so results for students attending the 9th grade of basic schools could be compared across regions. In addition, schools which participate in international surveys typically receive a report with an analysis of their results. The PISA results have been very influential in driving educational policy deliberations and pushing for a national student testing system to be introduced in the country.

**Challenges**

**There is little emphasis on the evaluation of the education system**

The Review Team formed the impression that the evaluation of the education system as part of the evaluation and assessment framework has received limited policy attention thus far and there is no comprehensive strategic approach to it. While the 2005 Education Act determines who takes responsibility for system evaluation, it does not define the objectives of system evaluation and what it should achieve. As it stands, system
evaluation draws mostly on the evaluation of schools complemented with a set of indicators on education. Even if there is the concern to establish Long-term policy objectives and develop indicators to assess progress towards achieving the objectives, it can be said that the policy objectives are narrow and do not adequately capture student learning objectives (see Chapter 2). Also, as explained below, the available data on student learning outcomes is scarce and major gaps exist in the indicators framework. This places great difficulties in ensuring that system evaluation assesses the extent to which student learning objectives in the Czech Republic are being achieved. The MEYS’ annual report (Status Report on the Development of the Education System) as well as the equivalent reports by regions include considerations about achieving Long-term policy objectives but do not focus on student learning objectives as reflected by the fact that little performance data are analysed. Similarly, the way system evaluation has been conceived has not yet allowed in-depth investigations of the factors underlying student performance in Czech schools. The current narrow approach to system evaluation does not allow a broad enough assessment of the extent to which student learning objectives are being achieved. Also, there is still a limited use of system-level data to inform policy development and educational planning and little evaluation of the impact of policies takes place (see below).

The purpose of system evaluation varies among countries and indeed may evolve over time to adapt to different needs. In general, six major purposes can be distinguished: (i) to monitor student outcomes at a given point in time, including differences among different regions within the education system and given student groups (e.g. by gender, socio-economic background or minority status); (ii) to monitor changes in student outcomes over time; (iii) to monitor the impact of given policy initiatives or educational programmes, such as the introduction of a new curriculum; (iv) to monitor demographic, administrative and contextual data which are useful to explain the outcomes of the education system; (v) to develop means through which the relevant information is provided to the different agents in the education system; and (vi) to use the generated information for analysis, development and implementation of policies. In the Czech Republic, there are challenges in achieving some of these purposes. These are explored below.

**The absence of student performance data is a major gap in system monitoring**

The national monitoring system for school education is considerably weakened by the absence of national data on student performance, *i.e.* there is no information on student learning outcomes which is comparable across schools, regions or over time. Presently there is no mechanism for the Czech Republic to monitor at a national level the achievement of its students against learning objectives specified in the Framework Education Programmes. Much reliance is placed on international surveys, such as PISA, PIRLS and TIMSS to monitor student learning outcomes of Czech students. While these studies provide valuable sources of information for monitoring aspects of the achievement and progress of students in the Czech Republic, they are not designed to be sensitive enough to student learning objectives in the Czech Republic or to provide a deep understanding of Czech students’ patterns of achievement, their attitudes and motivations, nor an understanding of students’ learning in relation to the cultural and socio-economic factors that students bring to their learning, or what is provided by schools (such as the learning opportunities and the quality of teaching).

The national standardised tests proposed for grades 5 and 9 provide a mechanism for measuring students’ achievement in the specific areas of Czech language, foreign
language and mathematics in closer alignment with student learning objectives in the
Czech Republic. As such, they have the potential to become the most comprehensive
national indicators available for monitoring student results in basic education and play a
key role in broadening the national debate beyond results in international assessments.

The Czech Republic’s efforts to complement the international evidence on student
outcomes with national measures of outcomes are commendable. However, the
development of the standardised tests will need to address two key aspects. First, it will
need to recognise that student tests will measure a limited range of learning outcomes.
The information generated will be limited to the curricular areas of Czech language,
foreign language and mathematics. Other curricular areas, such as sciences or ICT, will
not be externally assessed in a way that grants a comprehensive national picture of
student mastery of the national curriculum in a broad range of subjects. Not including
other curricular areas in the national monitoring system risks to signal that they are not as
important with potential detrimental effects on the corresponding learning. Also, student
tests will only be able to measure outcomes which can be marked electronically/
automatically as planned in their current design.

Second, the development of national standardised tests will need to ensure that they
do not lead to detrimental effects on classroom teaching and learning, in particular as a
result of attaching stakes for students or schools to test results. Indeed, externally-based
student tests can produce a number of undesired effects, including adverse educational
practices, if results are high-stakes for students or schools (as currently planned with the
publication of test results at the school level). For instance, the publication of test results
at the school level may lead to a possible narrowing effect on the curriculum and wider
achievement with an overemphasis on that which is assessed through the tests; time
diverted from regular curriculum for special test preparation; schools which perform
satisfactorily may become complacent as the spotlight falls on those schools which
perform least well comparatively; negative effects on teacher-based assessments and
student engagement in rich curriculum tasks through which teachers can genuinely
understand student learning, among others (Rosenkvist, 2010; Morris, 2011; Santiago
et al., 2011).

Similarly, the development of a common part to the school-leaving examination
provides another opportunity to obtain information on student learning outcomes which is
comparable across schools, regions and over time. Finally, it is not clear to what extent
future national measures of student learning will be assessing higher-order thinking skills
and cross-curricular competencies given that national examinations and the development
of standardised student tests closely follow the respective curriculum.

**There are key information gaps at the system level**

**There are no measures on students’ socio-economic background**

While there has been significant progress in strengthening the availability and quality
of demographic, administrative and contextual data, a significant gap is the unavailability
of measures on students’ socio-economic background. Currently the collection of data
from schools does not include any information related to socio-economic status at either
student or school level. The only information available at the school level concerns the
age, gender, nationality, and special needs status of its students. The absence of good
information about the socio-economic background of students hinders the ability to
conduct good research about its impact on student performance, and therefore limits the
ability of the system to assess whether it is achieving its equity objectives. Another area which could deserve some attention refers to the first language/language spoken at home by students. Considering the importance of the language of instruction mastery level, it could prove useful to gather such data not only to improve decision making at the school level, but also to determine a national strategy and teachers’ guidance for populations whose mother tongue is not Czech.

There are additional gaps in the data collected from schools

A major problem in the collection of data from individual schools undertaken by the Institute for Information on Education is that data are not provided at the individual student level. Instead, schools report aggregate numbers (e.g. number of students who are female per grade). This prevents, as described above, the availability of information on the background of individual students. Another example of a major gap is the unavailability of information on student assessment (e.g. marks at the end of each term) for individual students. This includes the marks at the school-leaving examination administered by schools. Overall, the absence of individual level data prevents any analysis at the student level, including studying students’ trajectories in the education system. Data on teachers also has considerable gaps, such as their qualifications and professional development activities. In general there seems to be little flexibility to implement a long-term vision for the development of basic statistics and indicators as the IIE is constrained by what is dictated in the law.

There is no emphasis on investigating inequities in the system

Equity is not a high priority in the current national agenda for education (see Chapter 2). The education system does not provide for specific targets for reducing educational disadvantage for particular groups such as students from disadvantaged families, Roma students, students with a disability, living in a remote area or with an immigrant status. The data collection from schools only permits to determine the number of special education students according to the different types of schools. As a result system evaluation does not include measures to assess whether or not equity objectives are being achieved. This prevents any systematic and comprehensive strategy to monitor inequities in the school system.

There is limited information on the teaching and learning environment

There is a lack of information on key stakeholders’ perceptions of the teaching and learning environment. The information currently available comes from surveys to students, school principals and parents administered during international studies (such as PISA). An exception is the “Quick Surveys” project organised by the Institute of Information on Education through which the views of school principals on a range of aspects are collected. There is no collection of information from students on their attitude to learning and assessment. Measures of students’ views on their well-being, engagement, motivation and co-operation could be of significant policy and research interest to analyse the association between student performance and many qualitative aspects of school life. Confident and motivated students are more likely to go on to follow further education and to continue learning during their lives. Student views on the learning environment could be complemented with teacher and parent views. This could include teachers’ views on behaviour and discipline in the classroom and parents’ views on their interaction with the school and teachers.
It is not possible to monitor student outcomes over time and across schools

Currently, mostly due to the absence of national data on student performance, it is not possible to monitor changes in student performance levels over time. The only trends available result from the participation in international surveys. The ability to analyse outcomes over time is an aspect to take into account in the development of national standardised tests. This will require a stable, confidential test item bank to allow the linking of results across years, to ensure that the degree of difficulty will not vary from year to year. Also, the possibility of exploring the longitudinal analysis of student performance (i.e. for given cohorts of students) should be considered, linking the results of the same students in Czech language, foreign language and mathematics in the 5th and 9th grades and upon completion of secondary education.

Another difficulty concerns the comparison of student outcomes across schools. At present, the Government is planning the publication of the results of student standardised tests in the 5th and 9th grades at the school level, when these become available. However, as indicated earlier, no information on the socio-economic context of each school (or the characteristics of schools’ student population) is available. This means that school-level results would be disclosed with no account for schools’ particular contexts. This can considerably distort considerations about the effectiveness of each school as average results do not reflect the value added by schools to student results. Also, at this stage it is not possible to use aggregated teacher-based student summative assessment (i.e. end of term student marks) as measures of school, region and national performance as there are issues of consistency and fairness of marks across teachers. Differences across schools and over time may simply show variation in teacher marking practices and not real differences in student performance. This is the case because there are no procedures in place to ensure that assessment by teachers is consistent within and across schools (see Chapter 3).

Monitoring at the region and municipality levels is faced with considerable challenges

There are considerable differences in how regions monitor their education systems. They build on the data developed at the national level and the comparison across regions that it involves. But regions are also limited by the unavailability of student performance data. Some try to overcome this gap by developing their own standardised student testing as is the case with the Moravian-Silesian Region (tests for students attending the 10th and 12th grades, administered in collaboration with Ostrava University). Regions draw considerably on the outcomes of the school external evaluation carried out by the CSI, which ensures a certain consistency of approaches to quality assurance in schools across the country. Some regions have developed some quality initiatives complementing the role of the CSI, with specific indicators and some feedback from municipalities. But these are typically incipient, lack resources and are not among the priorities for the allocation of educational resources in the region. It can be said that regions have a limited intervention in quality assurance with their main tool being the evaluation of school principals as well as decisions on their recruitment and dismissal. Also, the national level does not seem to have an overview of the different quality assurance systems in the regions, including strategies for school improvement.

In addition, there seems to be limited articulation between a specific region and its municipalities in managing the quality of schools. For instance, each municipality is typically not required to deliver an annual report on the basic schools it manages to the
respective region. Individual regions take direct responsibility for school improvement strategies in secondary schools but the equivalent role in basic education is mostly left to the municipalities. Some concerns exist about the role of municipalities in school improvement. During the Review visit, it was pointed out several times that there are many smaller municipalities that lack the capacity to develop robust school improvement strategies, manage these and follow up schools’ initiatives to improve their practices. Quality assurance is left to the CSI and school leadership with municipality intervention more limited to financial matters. Further the background and qualifications of municipal officials responsible for school improvement vary significantly. In general, there is little understanding at the region level of how municipalities fulfil their education-related tasks. In the current national reporting system, there is also minimal attention paid to municipality differences.

System-level information is not fully exploited

There have been considerable efforts over the past few years to provide information on the education system, including reports describing the development of the education system and assessing progress towards achieving policy objectives. Large amounts of data and statistics at the system level are now available in the Czech Republic. A challenge is then to ensure that stakeholders throughout the system make effective use of the available data and information about the Czech education system.

Little analysis to inform educational planning and policy development

The Review Team formed the view that system-level data are not used to their full potential in analysis which could be useful to inform policy development. Comprehensive statistical analysis of student outcomes such as an assessment of the factors influencing student performance or a study about the impact of socio-economic background on student performance does not seem to be available. Also, the Institute for Information on Education, which collects most of the statistics on education, dedicates few resources into the analysis of the education data it publishes. It concentrates on the development of statistics and indicators. System-level reports such as the Status Report on the Development of the Education System contain little analysis of student performance and mostly present descriptive statistics. As a result, the extent to which results and analysis of system-level data feed into policy for school improvement is limited. While there is some concern to assess the implementation of specific policy initiatives such as the curricular reform, there is considerable less attention to undertake research which could more broadly inform policy development.

Limited use to inform school management

One more area in which improvements are needed is to ensure schools are provided with useful information for their own management. While schools report the data for the national education database, they in turn do not receive a statistical analysis of their profile from the Institute for Information on Education in a way to support them in their internal analysis and further planning. While there are data on school resources, teacher remuneration, student enrolment and completion, it is not currently possible for schools to compare their own data with indicators aggregated to the municipal (or regional) level or for “similar” schools. The education database (as well as the Education Portal) has potential as a platform for schools to benchmark each other but at present they have very limited information for each school.
No comprehensive information system for the use of education agencies

Another difficulty seems to be the sharing of information on the education system between the main agencies. When given agencies such as the CSI need access to school-level data from the education database to conduct their own activities, they need to establish a specific agreement with the IIE to obtain the data. This is the consequence of the non-existence of an information platform integrating all data available on education whose access conditions would be defined in a single agreement with all the agencies in the education system. The existence of such a platform would greatly facilitate the use of the available data by the different agencies.

Systematic sharing of data between schools is limited

School-level data information systems in the Czech Republic appear to be underdeveloped and involve a diversity of approaches across schools. This creates challenges in ensuring the follow-up of students across transitions from one school to the other. Lack of information on students’ socio-economic situation and inaccurate or delayed transmission of assessment information may lead to disruptions in students’ learning as they enter a new level of education.

Policy recommendations

Raise the profile of system evaluation within the evaluation and assessment framework

The profile of system evaluation within the evaluation and assessment framework needs to be raised. An initial priority is to broaden the concept of system evaluation as the wide range of system-level information which permits a good understanding of how well student learning objectives are being achieved. It should include a varied set of components such as broad measures of student outcomes; demographic, administrative and contextual data; information systems; and research and analysis to inform planning, intervention and policy development. A strategic approach to system-level evaluation would benefit from clear national objectives and priorities so progress against these can be assessed (see Chapter 2). System-level evaluation should include the production of an annual report with an assessment of whether or not the education system is achieving its objectives. Relative to current practice, whereby the Status Report on the Development of the Education System focuses on assessing progress towards the narrow Long-term policy objectives, there is a need to move to a more focussed national monitoring of the level and equity of student performance.

The Czech Republic needs to be able to monitor the relative impact of educational policies and initiatives for improving students’ outcomes by collecting evidence from a range of sources in order to inform decision making in relation to these initiatives, and others that may emerge as important. Both quantitative and qualitative measures need to be developed. The challenge for system-level evaluation is to ensure that the measures of system performance are broad enough to capture the whole range of student learning objectives. An important consideration is that policy making at the system level needs to be informed by high quality data and evidence, but not driven by the availability of such information. This points to the need to go beyond quantitative measures and to undertake an analysis of the data available. In this context, the Czech Republic could consider ways to more fully exploit the data it collects, including the future measures of student outcomes. Another key aspect is to develop competencies and build capacity within the
MEYS and the agencies it manages to analyse information available at the system level so better connections to policy development are secured.

**Develop national student performance data for system monitoring**

**Design national standardised tests for national monitoring and as a pedagogical tool**

A clear priority in the Czech Republic for system evaluation is the development of measures of student learning outcomes. This effort has now started with the development of national standardised tests for students in grades 5 and 9 in the curricular areas of Czech language, foreign language and mathematics. This is a valuable effort with the potential to provide national data on student performance which are comparable across schools, regions and over time, which is crucial information for the national monitoring of student performance. The Review Team supports these efforts but expresses cautions in three specific areas. First, as explained in Chapter 3, standardised tests need to be closely aligned with student learning objectives as stipulated in the Framework Education Programmes. There are concerns that the standardised tests are driving educational standards (specifically developed to serve as a reference for the tests) while the opposite should be happening with student learning objectives guiding the development of the standardised tests (see Chapter 3). Second, it needs to be recognised that standardised tests to be marked automatically covering only Czech language, foreign language and mathematics, inevitably measure a limited range of student learning outcomes. Hence, other instruments need to be developed to measure a broader set of outcomes (see below).

Third, the Review Team believes that the national tests at this stage should be conceived for dual purposes: to provide a powerful pedagogical tool to teachers against testable areas of the Framework Education Programmes; and to monitor national student performance and allow regions and municipalities to monitor their school results against it. The Review Team believes that the current government plan to publish national test results at the school level is premature. As explained earlier, making the tests high stakes for schools risks to have adverse educational effects, especially at a stage in which the value and rationale of the tests is not yet understood by school agents. The priorities should be to validate the national tests and to support and promote capacity building to ensure the effective use of national test results by key stakeholders: by teachers as diagnostic tools to assess individual student, student group and class progress and to monitor the impact of different instructional interventions; by regions, municipalities and school principals as a key part of their own quality monitoring systems. Rosenkvist (2010) conducted a detailed review of different uses of student test results in OECD countries and highlights that to bring about positive effects of national student tests “necessitates that schools and teachers have the capacity to interpret and use student test results”. Strategies to develop the tests should also concentrate on maximising the monitoring potential of the national tests at the system level ensuring their reliability as a monitoring tool and designing ways to communicate the results to schools and teachers which maximise the pedagogical value of the tests.
Develop strategies to monitor a wider range of curricular areas and broader outcomes

The implementation of the full-cohort national standardised tests in the 5th and 9th grades together with the common part of national school-leaving examinations, offers the possibility to monitor student outcomes in the areas of Czech language, foreign language and mathematics. To have reliable national measures of performance across broader curricular areas the Czech Republic could consider introducing sample-based national monitoring surveys. The sample-based surveys test a statistically representative sample of students at target grade levels in a given set of curricular areas. A possible approach is to test a small number of subject areas each year for given grades in 3- or 4-year cycles with different subject areas every year. Such sample-based surveys would allow the assessment of a broader range of curricula content and allow benchmarking of different regions or specific student groups on an externally validated measure.

Sample-based surveys are designed to describe the learning, attitudes, engagement and educational experiences of the Czech Republic students at a system level. They should seek to: (i) measure change over time in educational outcomes for students; (ii) assess strengths and weaknesses across the curriculum; (iii) report findings to various audiences including the MEYS and the informed public; (iv) provide high quality data for research and policy development; and (v) provide high quality resources and professional experiences for teachers. If well designed, a sample-based survey has many advantages. Because not all students are assessed, the survey is low stakes and will not have distorting influence on classroom practices. A wide range of subjects and competencies may be assessed using a variety of assessment approaches. It would provide valuable national-level information for policy makers, but could also provide a valuable assessment resource that would benefit the work of classroom teachers. As summarised by Green and Oates (2009), sample-based surveys offer “stability in measures (allowing robust measurement of standards over reasonable timeframes), fuller coverage of the curriculum, lack of distortion deriving from ‘teaching to the test’ and comparatively low cost”. There are many examples of sample surveys in several OECD countries and the use of such national monitoring surveys is well established in countries such as Australia, Canada, the Netherlands, New Zealand and United States. Box 6.1 presents the examples of Australia and New Zealand.

Ensure that national monitoring covers broader outcomes

Consideration should be given to developing the national standardised tests and the national school-leaving examinations to better assess higher-order thinking skills and cross-curricular competencies. In the longer term, the Czech Republic may also wish to use the introduction of sample-based student surveys to obtain trend information and monitor a broader range of student knowledge and skills. For example, in Australia the triennial sample assessments include an assessment of civics and citizenship skills and in New Zealand sample-based tests include an assessment of information skills (see Box 6.1). Similarly, in Finland a survey is used to monitor students’ “learning to learn” skills.
Triennial sample assessments in Australia

The Australian National Assessment Program includes cyclical sample surveys to monitor student outcomes in science, ICT, civics and citizenship. These tests draw on a statistically representative sample of students at target year levels (equivalent to about 5% of the corresponding population). Each area is an agreed national priority and is tested once every three years. The first survey was run in 2003 for science, in 2004 for civics and citizenship and in 2005 for ICT. Each assessment results in a national report showing student average performance and proportion of students at the set “proficient standard” for each State and Territory, each school sector and for selected student subgroups (e.g. Indigenous, socio-economic background) and allows a reporting of progress over time, as each subject is assessed every three years. For both ICT and civics and citizenship students are assessed in Years 6 and 10. Scientific literacy is assessed for Year 6 only. These assessments are designed primarily to monitor national and jurisdictional progress; however participating schools receive their own students’ results and the school’s results. These can provide useful information to classroom teachers and assist with curriculum planning.

Sources: Santiago et al. (2011); www.acara.edu.au.

The National Education Monitoring Project (NEMP) in New Zealand

In New Zealand primary schools, progress towards the achievement of national curriculum goals has been measured via the National Education Monitoring Project (NEMP) since 1995. No full-cohort national tests exist. NEMP intends to provide a national picture of student learning outcomes at key stages (grades 4 and 8) rather than to report on individual students, teachers or schools. NEMP covers all curriculum areas in a 4-year cycle. The four cycles are as follows:

(i) Science, visual arts and information skills (graphs, tables, maps, charts, diagrams)
(ii) Language (reading and speaking); aspects of technology and music
(iii) Mathematics, social studies and information skills (library, research)
(iv) Language (writing, listening, viewing), health and physical education

NEMP is conducted every year, but assesses a different set of disciplines (according to the cycles above). Each discipline, therefore, is tested every four years. About 3000 students from 260 schools are selected randomly each year to take part in the assessments. To cover a broad range of items without overburdening individual students, three different groups of students are created for each subject, with each group being tested on one-third of the tasks. The tasks are not necessarily related to particular year levels – many tasks are the same for Year 4 and Year 8 students. Each student participates in about four hours of assessment spread over one week. A number of trend tasks are kept constant over the assessment cycles so that longitudinal data can be obtained. The purpose of the NEMP assessments is to identify and report trends in educational performance, to provide information for policy makers, curriculum specialists and educators for planning purposes and to inform the general public on trends in educational achievement. NEMP uses tasks which are meaningful and enjoyable for the students to help gain a rich picture of their capabilities. It includes a wide range of activities, from those the majority of Year 4 students are likely to have mastered to those which show the highest achievements of the most capable Year 8 students. It also takes a full account of differences of language, culture, gender, ability and disability in the design and administration of assessment tasks.

NEMP is based on a number of principles:

(i) Trustworthy information
(ii) Focus on national change over time (no information about individual students, teachers or schools)
(iii) Assessing a broad range of achievements (knowledge, skills, motivation and attitudes)
(iv) Involving practising teachers (development, trialling and administration of tasks, analysis of responses)
(v) Best assessment practices (used in the choice and design of assessment tasks)
(vi) Information used for improvement

Sources: Nusche et al. (forthcoming); http://nemp.otago.ac.nz.
**Prioritise efforts to meet information needs for national monitoring**

A key priority within the evaluation and assessment framework is to develop indicators and measures of system performance that permit a good understanding of how well schooling is being delivered. The emphasis is generally on starting with high level objectives for the education system and then mapping out the feasibility of measurements in each area. Other phases include ensuring systematic collection to agreed definitions of existing information at different levels in the system; promoting data quality improvement; undertaking research to shed light on some of the “gaps” where systematic collection is too costly/not feasible; and developing a long-term strategy to improve measurement tools for future information needs. An important issue to address is to ensure that agencies which take responsibility for the development of statistics in education benefit from enough autonomy to define priorities for the development of indicators and have the resources to fill in the gaps in the education indicators framework. Below, the major information gaps are highlighted and priorities for data development are suggested.

**Develop measures of the socio-economic background of students**

An immediate priority for meeting information needs to adequately monitor student outcomes in the Czech school system is to strengthen the information on the student socio-economic background, including parental level of education, occupation and income level; immigrant or minority status; and special needs. The absence of socio-economic background data prevents the monitoring of educational disadvantage in the system. The approach would be based on collecting data from schools at the individual student level and could consist of collecting information from the student on his or her background at the time of enrolment so it becomes part of the school’s records. These data could also be collected during the administration of the national standardised tests and the common part of the national school-leaving examinations. This would considerably strengthen the potential for the analysis of student results, particularly in view of monitoring whether equity objectives are being achieved. The Ministry could also consider gathering information on students’ linguistic profiles. In particular, it would be useful to begin collecting data on the languages students speak at home and proficiency in their first and second language. More comprehensive data on the linguistic profiles of students would be helpful in designing a language strategy at the national level and making decisions about specific resources and support allocated to second language learners.

**The data collection from schools needs to be improved**

Moving to data at the individual student level would be a considerable improvement to the collection of data from schools. This could be facilitated by the development of information management computer applications in schools in which information at the student level would be recorded. Schools would be required to periodically enter the original data into their information management in a standardised format proposed by IIE in such a way it can be automatically collected by IIE. Such enlarged database could then contain richer data such as the socio-economic background of students, the results of students’ assessments, more detailed information about the teaching staff, and some information about non-teaching staff in the school.
Give more prominence to the analysis of inequities in the system

The monitoring of student performance across specific groups (e.g. by gender, socio-economic or immigrant background, minority status) as well as the analysis of student performance across regions needs to be strengthened. The value of the national tests and the common part of school-leaving examinations in monitoring national progress in discrete areas could be enhanced by reporting the national performance profile by gender and by student background (socio-economic, immigrant, minority status) to allow the tracking of improvement for these key groups over time and permit the investigation of the impact of student background on performance.

Improve the information on the teaching and learning environment

There needs to be consideration on how best to include stakeholders’ perceptions of the teaching and learning environment in the national monitoring system. Several options exist. There could be a national-level questionnaire to a sample of students, parents, school principals and teachers in the system to collect views and perspectives about a range of aspects such as attitudes to learning and assessment, perceptions on the implementation of policies, well-being, engagement, satisfaction, etc. This could draw on the experience with the “Quick Surveys” project by IIE through which the views of school principals are collected. Norway introduced a student survey in 2005 and this forms a key part of the national reporting on the education system. In the annual summative report on education in Norway (The Education Mirror) there is always a clear presentation and analysis of results from the survey and these feed into the national policy debate (Nusche et al., 2011). This is one way to ensure the systematic inclusion of student perceptions at the political level. Another option is to include a questionnaire to students during the administration of the national standardised tests or the common part of school-leaving examinations. Certainly, the collection of information from students, school principals and teachers during the administration of international surveys has led to informed analysis of how different reported factors relate to student performance, e.g. classroom climate factors such as discipline and student-teacher relations have shown strong correlation with student achievement (e.g. OECD, 2004). The use of student and parental surveys could also be encouraged at the school level through the development of a template at the national level to which schools could add issues more related to their specific circumstances.

Explore ways to more reliably track educational outcomes over time and across schools

Enhance the monitoring of changes over time and progress of particular student cohorts

System evaluation in the Czech Republic needs to place as good emphasis on the monitoring of “progress” of students as emphasis on the achievement levels at a given point in time. The national standardised tests represent a significant investment and do offer the possibility to track overall progress on national measures to complement evidence from international studies, and also importantly, at different stages throughout basic education. To assess student “progress”, the strategy should involve the monitoring of both student results over time and the progress of particular student cohorts.

First, it would be useful to ensure the comparability of results of national tests over time by keeping a stable element of items in the tests and releasing only a proportion of
the items for use by teachers after the tests. Importantly, there should be a strategic releasing of items distributed at different difficulty levels and a replacement with new items at the same levels of difficulty. With a stable difficulty level for each test from year to year, national tests results would provide a useful indicator on changes in student performance over time – one which will complement the international trend measures. The same approach should be followed for sample-based surveys if these are introduced to monitor a greater set of curricular areas.

Second, a more strategic use of the national test results (and the common part of the national school-leaving examinations) could provide indicators on the progress of particular student cohorts through education in Czech language, foreign language and mathematics. With individual student identification numbers, results from the national tests could be linked across cohorts to report on the success of a given cohort on national tests in grades 5, 9 and final year of secondary school. Australia provides an example of building in the measure of progress in the design of the national test measurement scale. A set of standardised national tests in literacy and numeracy, the National Assessment Plan – Literacy and Numeracy (NAPLAN), was introduced in 2008. The major feature of the tests is the fact that items are linked on a common scale of difficulty to allow documentation of student progression in each of the core areas (reading, writing, language conventions [spelling, grammar and punctuation]) across the four key educational stages that each student sits the test (grades 3, 5, 7 and 9). In this way, it is possible to gauge student progress in the national tests on a subsequent year, for example, it is possible to see how well a student performs on the common NAPLAN reading scale at four different stages of his or her schooling (in grades 3, 5, 7 and 9) (for further details see Santiago et al., 2011). Taking a more longitudinal approach to analyse student results could provide additional useful information that allows analysing student pathways. This could include looking at how groups of students with different characteristics and academic profiles succeed in education.

Make meaningful comparisons across schools if test results are published at the school level

If student test results become published at the school level, an imperative is to make comparisons of student results across schools meaningful. In some countries, average results of national tests are published at the school level with no correction for the socio-economic context of the schools. Improving the data on the students’ socio-economic background, as suggested earlier, and developing the associated indicators at the school level would permit the comparison of student results for “similar” groups of schools (schools with students from similar backgrounds).

Also, the longitudinal dimension of national student assessment in the Czech language, foreign language and mathematics provides some potential for measures of the value added by the school to be developed. This possibility should be explored if the objective is to meaningfully compare the contributions of schools to student learning. In England, schools are expected to meet targets for student expected progress between specified key stages of schooling. Such progress measures are complemented by a statistical indicator of “Contextual Value Added (CVA) score”. Such scores show the progress made by students from the end of a key stage to the end of another key stage using their test results. CVA takes into account the varying starting points of each students’ test results, and also adjusts for factors which are outside a school’s control (such as gender, mobility and levels of deprivation) that have been observed to impact on student results. Several systems in the United States also attempt to measure “adequate
yearly growth”. Various models have been researched and used in practice. In value-added models, students’ actual test scores are often compared to the projected scores, and classroom and school scores that exceed the projected values are considered as positive evidence of instructional effectiveness. In this way, value-added models can be used to identify teachers and schools that have met above expected growth despite various challenging circumstances. It is important to note that value-added models are still under development, and therefore they are prone to error (Koretz, 2008), though they are considered fairer than the use of raw results in terms of school averages. It is not appropriate to produce school rankings using value added measures, rather only schools where students make significantly better or poorer progress can be identified.

**Strengthen the role of regions and municipalities in quality improvement**

The Review Team formed the view that there is room to strengthen the role of regions and municipalities in quality improvement. Appropriately, regions and municipalities draw considerably on the external evaluation of schools performed by CSI to monitor the quality of the schools they supervise. However, they tend to limit their role in quality assurance to school compliance with administrative procedures, financial matters and the evaluation of school principals. The Review Team believes that regions and municipalities should considerably strengthen their capacity for educational leadership and develop school improvement frameworks. This could involve approaches to identify school needs and resources to support and sustain the improvement of individual schools (possibly as a result of inspections by the CSI).

One relevant aspect relates to the articulation between each region and its municipalities. There needs to be a closer communication between the two levels. For instance, each municipality could be required to prepare an annual report describing the performance and context of its schools to be delivered to the region in which it is located. The idea is that each region not only supervises its secondary and special schools but also monitors how municipalities fulfil their responsibilities in education. Another priority is to build the capacity for municipalities to supervise their schools and develop improvement strategies. A possibility is to formulate competency profiles for municipal officials carrying responsibilities over schools and supply the corresponding training. There is also the option of fostering networks of municipalities around quality assurance and school improvement which would increase capacity and promote the sharing of good practices. In Ontario, Canada, there is a shared research-based leadership framework for school principals and school district supervisory officers, which was developed collaboratively by the Ministry of Education and professional associations for school principals and school districts. The five major areas for leadership competencies in the framework are: setting directions; building relationships and developing people; developing the organisation; leading the instructional program; and securing accountability (see [www.education-leadership-ontario.ca/content/framework](http://www.education-leadership-ontario.ca/content/framework)).

At the national level, it could prove useful to develop an overview of approaches to quality assurance in the different regions. This would support the identification and sharing of good practice. Also, the national tests which are currently being developed may serve as a robust measure to compare performance across regions and municipalities. Careful monitoring of such results can aid investigation into both potential performance concerns and examples of performance improvement. It follows that this would be critical information in prioritising interventions in specific municipalities. The CSI as well as regional educational authorities should also identify municipalities that are producing and
sustaining improved student performance, learn from these examples, and spread this knowledge throughout the system.

**Optimise the reporting and use of system-level data**

The amount of existing information on schools and system performance offers many opportunities to engage stakeholders in supporting improvements across the school system. While large amounts of data are collected from schools and comparable student results will soon become available, there is room to strengthen the analysis and mobilisation of such information for system monitoring and improvement.

**Strengthen the analysis for educational planning and policy development**

A priority should be the strengthening of the analysis for educational planning and policy development. It is clear that considerably more analysis and research can be conducted with the available data. The MEYS as well as its agencies should promote more analytical studies and innovative research about key issues such as the factors which explain student performance and the impact of the socio-economic background on student results. This would imply the strengthening of the analytical role of the IIE with more resources dedicated to exploring the analytical potential of the education database. The MEYS could also sponsor research undertaken by independent researchers which is deemed useful for educational policy. Another priority should be to strengthen the analysis of student performance in the *Status Report on the Development of the Education System*. What is clear is that it is crucial to build the analytical capacity in the MEYS and at the agencies it manages to fully exploit existing information by ensuring statistical, analytical and research competencies.

**Improve feedback for local monitoring**

The MEYS should devise a strategy to optimise the use of system-level data by key stakeholders at the local level such as regions, municipalities and schools. In this context, an Internet portal could become a powerful tool for school management. It would involve the availability of major indicators for individual schools and the access to information about all schools within a municipality or region. To encourage the use of such information systems for monitoring progress at the local level, such a system may include some benchmarks set nationally to serve as a springboard for regions, municipalities and schools to set their own local objectives and targets. Reporting should have a strong focus placed on developing benchmarking analyses which are trusted and valued by school leadership. This means they must be based on reliable data but also that they should facilitate “fair” comparisons between schools (“value-added” or “similar schools” comparisons, as suggested above). Alongside creating more user-friendly and sophisticated forms of benchmarking data, made available at the right time and with more help for non-technical users in interpreting it, effort should also be directed towards increasing the skills of school staff in the use and interpretation of data for the purposes of school improvement. The potential of such approach is greater once the results of national standardised tests become available and richer data are collected from schools at the student level.

The regions and municipalities could see their feedback role strengthened. They could use school reporting data as a basis for engaging in meaningful discussions with schools and their leadership. Also, to optimise the use of data across the education system it is essential that schools are not merely seen as data providers but that they become part of a collaborative
process of data sharing and analysis. This means that information would not just flow upwards to the MEYS but that feedback would also flow from MEYS back to schools.

**Integrate available data and facilitate access by key agencies**

Further steps can be taken to more effectively integrate the available data and results from the national monitoring system to facilitate the access by key agencies. There needs to be greater consultation between interested stakeholders and agencies on how to best manage, present, and share data for optimal use. One option to ensure the more effective use of existing information by key agencies in system evaluation is to establish a protocol to share data among them – this may include data that are not available to the public, but that can be analysed and used for example for school inspection. There also needs to be clear and timely reporting of results to different audiences. Giving high quality feedback on system results is one way to maximise the use of results by stakeholders throughout the system. Accessibility of information is another crucial aspect. An Internet portal has the potential to become the key tool to make accessible the major results from the national monitoring system. It would provide a flexible, interactive option for giving different users easy access to data relevant to their interests. It should be an intuitive, easy-to-use system that includes clear documentation on how to interpret the results. Further, the use of different secure access areas for different users could offer the possibility to provide a better adapted set of results to each user’s needs. This would be particularly useful to facilitate the use of education data by the different agencies such as the CSI.

**Facilitate the sharing of student information across schools**

To smooth transitions of students from one level to the next and across schools, educational authorities should explore how they can best support the sharing of student information across schools and teachers. This is most likely to involve the development of a data information system with information at the student level through a unique student identifier and schools following the requirement of recording student information such as the results of student assessment, absenteeism, grade completion or repetition on the system. This would permit schools to better follow student transitions between schools and would save a lot of time in the assessment of prerequisites when entering a new level of education. Passing information back to feeder schools can also help them analyse how well they are preparing their students for future learning. Good reporting on student previous accomplishments can help create coherence in students’ educational trajectories. Such system would also allow an analysis of educational pathways, with the identification of success and risk factors for students in the Czech educational system.

**Notes**

1. As explained earlier, subsequently to the visit by the Review Team, a major restructuring of these agencies took place. The Institute for Information on Education was integrated in the Czech School Inspectorate as of 2012. The National Institute of Technical and Vocational Education and the Research Institute of Education were merged into the National Institute for Education, as of July 2011.
References


