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United in Diversity: A Complexity Perspective on the Role of Attainment Targets in Quality Assurance in Flanders

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UNITED IN DIVERSITY: A COMPLEXITY PERSPECTIVE ON THE ROLE OF ATTAINMENT TARGETS IN QUALITY ASSURANCE IN FLANDERS

Educational Working Paper No. 139

By Rien Rouw, Marc Fuster, Tracey Burns and Marlon Brandt

This working paper has been authorised by Andreas Schleicher, Director of the Directorate for Education and Skills, OECD.

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FOREWORD

How can we effectively design and implement education policies in complex education systems? Several governments currently face this challenge, including the Flemish Government. This is also the key question of the Governing Complex Education Systems project in which we participated. Education is first and foremost about passionate teachers who work together to provide quality education for every child. School principals and school governing bodies have to create the right conditions to support and direct this magic of teaching and learning. I am strongly convinced that the role of the government has to evolve from making rules and regulations in an isolated way to building trust and stimulating knowledge transfer through a co-creative approach. Therefore we decided to participate in this project with a Flemish case study that focuses on the system of attainment targets.

Our system of attainment targets is in operation since 1991. The question now arises whether these attainment targets still reflect the societal expectations towards education. A broad public debate was launched early 2016 in order to get broad societal input to the question "What should pupils learn at school?" A wide variety of stakeholders responded, ranging from pupils to employers, from parents to teachers, from people who recently left school, to pensioners.

In this context, we also needed to ask ourselves whether the attainment targets as a policy instrument fulfil their promise and how we could optimise the governance system in place to design and implement attainment targets. Therefore I specifically asked the OECD to analyse this governance issue and to formulate policy recommendations.

The findings of this report definitely underline the need for a model of collaborative governance and shared responsibility. Effective education policies can only be designed and implemented effectively if all stakeholders collaborate starting from a shared agenda to provide quality education for all.

We are very grateful to all the stakeholders who have shared their experiences with the OECD team. I would also like to thank the OECD team for their efforts to interview a wide variety of stakeholders, for their thorough analyses of our complex education system and the challenging recommendations formulated. I am strongly convinced that we can learn a lot from this report as it gives us very profound and useful ideas for the future development of our system of attainment targets and the governance of our education system in general.

Hilde Crevits

Viceminister-president of the Flemish Government
Flemish Minister for Education

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ABSTRACT

This case study explores the role of attainment targets as a means of systemic quality assurance in Flanders (Belgium), an education system whose governance structures and processes are characterised by high decentralisation and the participation of multiple actors. The analysis identifies a number of key issues in the design and implementation of the attainment targets, such as difficulties in creating a common understanding and participatory governance not leading automatically to teacher ownership of the attainment targets. Three processes that were particularly challenging included the deployment of a whole-of-system approach for implementation, capacity building and the creation of a culture of evaluation. For the future, it is essential to open up participation processes to a broad range of stakeholders. Furthermore, key stakeholders should join forces in setting a shared agenda, creating momentum in implementation and raising capacity across the system, especially in new modes of teaching and assessment.

RÉSUMÉ

Cette étude de cas explore le rôle des objectifs finaux comme moyen d'assurance de qualité systémique en Flandre, dans un système éducatif où les structures de gouvernances et les processus sont caractérisés par une forte décentralisation et par la participation de multiples acteurs. Cette analyse identifie un certain nombre de questions clés dans la conception et la mise en œuvre des objectifs finaux. Trois processus qui ont été particulièrement difficiles sont : le déploiement d'une approche de l'ensemble du système pour la mise en œuvre, le renforcement des capacités et la création d'une culture de l'évaluation. À l'avenir, il est essentiel d'ouvrir les processus de participation à un plus large éventail de parties prenantes. De plus, les principales parties prenantes doivent unir leurs forces dans l'établissement d'un programme commun, afin de créer une dynamique de mise en œuvre et d'augmentation des capacités à travers tout le système, en particulier en ce qui concerne les nouveaux modes d'enseignement et d'évaluation.

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EXECUTIVE SUMMARY

With the increasing complexity of educational systems, countries face challenges in governing the design and implementation of educational reforms and programmes. This case study explores the role of attainment targets as a means of systemic quality assurance in Flanders (Belgium), an education system whose governance structures and processes are characterised by high decentralisation and the participation of multiple actors. Attainment targets were introduced in the Flemish education system in the 1990s to guide schools in the educational goals to be met by pupils. School boards and their representative umbrella organisations, however, have the right to translate and embed the attainment targets in their own learning plans. Although attainment targets have existed for quite some time, the question now is what the effects of their implementation are in practice.

This analysis takes a complexity perspective as a starting point. By looking at how the multiple and diverse interconnections among system actors work, it provides an assessment of the effectiveness and efficiency of attainment targets as a whole-of-system approach to quality assurance. The analysis and findings are based on over 60 interviews with key informants representing all relevant stakeholders in the Flemish education system, as well as relevant national and international reports on its governance.

Key findings

Difficulties in creating common understanding

Attainment targets have been accepted as a key part of Flemish education, but there is a lack of common understanding on their character and role. If these diverse views are not reconciled, diversity might result in fragmentation, i.e. unproductive competition between schools and undesirable gaps in achievement and capacity. Reaching a shared vision on the nature and character of attainment targets calls for an ongoing and open dialogue with diverse stakeholders at different levels, including new players and informal groups beyond traditional institutionalised stakeholders.

Participatory governance does not automatically lead to ownership

Participation of stakeholders in education governance is a long-standing tradition in the Flemish system. However, while representative organisations have an important voice in the system, the participation of teachers and school leaders has been reduced in recent years. As a result, usability of attainment targets is not consistent across the system. The case study points out some recent co-creation projects that proved to be interesting examples of inclusive participatory governance in Flanders (Belgium).

Flawed alignment hinders strong implementation

A strategic framework for attainment targets' long-term development and revision has not been created. A well-thought-out and collaborative implementation strategy is missing. Umbrella organisations collaborate only in a piecemeal fashion, the Ministry is not strongly involved in implementation and there appear to be few other co-ordinating institutions and mechanisms. This leads to a lack of 'co-ordination force,' which can result in misalignment among actors and hasty implementation, as well as fragmented capacity-building initiatives.

Capacity building is a vital companion to change

Capacity building for the revised attainment targets seems to have been fragmented, and it depended on the motivation and capacity of schools and teachers. There was no overarching and sustainable effort at the level of the system to build capacity for a substantial shift in pedagogy, nor to close the gaps in capacity between schools. As a consequence, many teachers still lack understanding of the underlying conceptual framework and rationale of new attainment targets, which increases the chances of not meeting the expectations presupposed in the attainment targets.

Effective feedback needs comprehensive data and local capacity

In Flanders (Belgium), schools are primarily responsible for quality assurance and evaluation of student achievement, so assessment mainly depends on local capacity, which varies considerably across the system. At the system level, the picture of the development of attainment targets is incomplete. Although national assessments regularly provide a broad insight in the achievement of attainment targets, they do not give an annual overview of subjects, which makes it difficult to assess the level of attainment for particular skills within reasonably short periods of time.

Policy implications

Open up dialogue and participation mechanisms for new players while at the same time assuring the position of key stakeholders, notably teachers and school leaders

- Existing formal channels for participation should be complemented by new platforms capable of capturing the different voices in the system, including new players and informal groups beyond traditional institutionalised stakeholders.

- Teachers and school leaders are key actors for school-level implementation of attainment targets. Participation mechanisms need to value the professional expertise of key stakeholders while remaining open and transparent.

Strengthen long-term strategic thinking and collaborative action through a guiding coalition

- Leadership is essential for co-ordinating action across a system. Building a "guiding coalition" of key leaders at various levels of the system can lead to the development of a shared agenda for whole-system implementation that harmonises stakeholders' actions.

- Strategic thinking for the medium to long-term on the attainment targets and the renewal of learning plans for the whole system will help smooth implementation, reduce resistance and improve the alignment of the system.

- Effectiveness and efficiency can be improved via optimisation of the use of resources, division of expert domains between key stakeholders and sharing of knowledge across the system.

Join forces in a powerful and sustained capacity building effort

- A collaborative effort between the umbrella organisations and the Ministry in strengthening, organising and securing sustainability of capacity-building initiatives is needed, e.g. combining government and umbrella funds, sharing expertise and co-ordinating capacity-building efforts.

- Peer learning is a powerful mechanism to build capacity. Exchange of knowledge and skills should be facilitated at and across schools.

Build a culture of evaluation and learning

- As local assessment and evaluation capacity is crucial, a joint effort should be undertaken to raise the local capacity across the system and close capacity gaps between schools and teachers.

- The Ministry and the umbrella organisations must continue offering support tools to individual schools in order to improve their capacity for assessment and evaluation.

- Testing policy implementation strategies through experiments, either at the system level or in the school, may help to reduce uncertainty of policy results and thus provide input for policy learning and adjustment.

- Continue encouraging the involvement of parents and the broader community in school governance. This will potentially strengthen schools' improvement strategies with new knowledge and support.

CHAPTER 1

GOVERNING COMPLEX EDUCATION SYSTEMS: CASE STUDY OF FLANDERS (BELGIUM)

Introduction

Freedom of education is a central constitutionally-established principle in Flemish education. Every (legal) person has the right to establish schools and to orientate and organise them according to denominational or non-denominational principles or to particular pedagogical criteria. In this sense, school governing bodies – school boards – have the autonomy to determine their own learning plan, choose their educational approach and teaching methods, and appoint their own staff. Nonetheless, schools that seek government recognition or public funding are required by the government to meet certain standards.

Since the late 1990s, attainment targets have been applicable in primary and secondary education and adult education. Attainment targets are educational goals to be met by pupils in terms of knowledge, insight, attitudes and skills, both transversal to the curriculum and subject-related. Attainment targets must be included in the elaboration of learning plans developed by school boards or umbrella organisations – the organisations under which similar schools are grouped together. The Inspectorate oversees the completion of this task.

Indeed, although the principle of freedom of education is unquestionable, the government has the mandate of ensuring that all children in the Flemish Community have access to high-quality education regardless the part of the region they live in or the school they attend. Consequently, schools are required to pursue attainment targets, their learning plan must receive approval from the Flemish Minister and they must comply with other budgetary and investment conditions. One of the main questions for the government, therefore, is how to guarantee good quality education for all children while not interfering with the right of education providers to organise their schools autonomously.

Although attainment targets have existed for quite some time, the question now is what the effects of their implementation are in practice. Attainment targets are related to diverse rising expectations, which are not always compatible with each other, e.g. teachers may expect attainment targets meant to clarify instructional and assessment criteria in their daily work, while school boards may prefer more abstract and less 'intrusive' general recommendations. Therefore, the nature and the statute of the attainment targets have become unclear, with different stakeholders taking different perspectives.

In complex systems, linear thinking and misaligned action by stakeholders leads to fragmented policy interventions and prevents change to be sustainable or to happen at all. By analysing the Flemish context through the complexity lens, this case study aims to contribute to the improvement of education governance in the Flemish system as a whole, while considering its decentralised and diverse character.

The present work is the sixth and final case study for the OECD Governing Complex Education Systems[1] project, after five previous cases that analysed education governance in Norway, the Netherlands, Sweden, Poland and Germany on the basis of the project's analytical framework. The GCES case studies examine the process of reform by focusing on one specific example in a particular education system. While every reform is carried out in a specific context, each of the six case studies analyses the strengths, weaknesses and challenges of policy reform in decentralised education systems. The comparability across

[1] www.oecd.org/edu/ceri/gces.

case studies is facilitated by a common framework setting the analytical guidelines for each case study (see Burns et al., forthcoming).

Box 1.1. The Governing Complex Education Systems (GCES) project

Launched in 2011, the OECD/CERI Governing Complex Education Systems project had the following three goals:

- Establish the state of research and evidence on governance of education systems and use of knowledge, and contribute to the knowledge base in the field.
- Explore current practices in OECD member countries through a series of thematic workshops, working papers and case studies.
- Build an international network of policy makers and researchers with expertise in this area.

To this end, the project organised a series of thematic conferences to build an international network and bring together relevant stakeholders from policy, research and practice. It produced a range of working papers exploring the conceptual issues around modern governance challenges as well as a series of case studies, of which this report is one. The case studies provided an empirical investigation of key issues in multi-level education governance.

The project's work culminated in two volumes: *Governing Education in a Complex World* (2016), which provides an analytical overview and exploration of key themes through invited chapters by leading international researchers and the OECD Secretariat, and *Education Governance in Action: Lessons from Case Studies* (forthcoming), which compares and integrates the findings of the six case studies carried out over the course of the GCES project.

See also www.oecd.org/edu/ceri/gces.

This current case study focuses on the development, implementation and renewal of attainment targets by systematically examining them in their broader context. It analyses attainment targets in relation to their alignment with national assessments, the evaluation and inspection system, and the overall context of multi-level governance of education to assess the functioning of policy development.

Research questions for this case study

The central questions underpinning this work are:

- *Organisation and steering*: How does the central level design, organise and steer education systems across complex multi-level governance arrangements? How can it balance the systemic vision required to ensure equity and efficiency while at the same time providing flexibility to respond to local needs and diversity? How can the central level better involve stakeholders throughout the process?
- *Stakeholders and implementation*: Who are the stakeholders? How do they implement education policies in a complex environment and how are they supported in this process?
- *Interaction and dialogue*: How do the central and the decentralised levels interact and communicate? How does this interaction affect policy alignment between the different layers? How does this affect the efficiency of the system? What are the repercussions on trust, co-operation and negotiation of conflicts in systemic governance? What innovative policy instruments can be developed to better align the system and improve the process?

Methodology

This case study builds on a qualitative methodological approach that includes in-depth interviews with over 60 key informants and discussion groups. The selection of interviewees and group participants was based on their role in the design, implementation and evaluation of (revised) attainment targets. The selection was meant to reflect the diverse perspectives of the different stakeholders in Flanders (Belgium), including:

- Students, teachers, school leaders, teacher trainers, pedagogical advisers, representatives of umbrella organisations, publishers, representatives of parent organisations, representatives of advisory councils, inspectors, policy makers, government officials and researchers.

The interviews followed a semi-structured questionnaire that focussed on the following aspects: the role of each stakeholder in the elaboration and implementation of attainment targets; the different information used for such elaboration; the diverse existing views and reasoning on the purpose of the targets; the functioning of the decision making during the policy process; the instruments available for stakeholders to meet the policy objectives; the existing methods for policy evaluation and the personal views and concerns of stakeholders over the overall policy aims and development.

The analysis of the field work was done against a thorough analysis of relevant primary and secondary documents such as research reports, policy documents, and conference reports on the development of attainment targets. This document analysis set the historical background of the policy development and implementation and contextualised the different inputs from interviewed stakeholders. The case study is complemented with additional information from relevant international surveys and reports.

In order to trace the impact of the attainment targets on teaching and learning, this case study looked more closely into two quite recent renewals of attainment targets. The study examines the creation process of the new attainment targets for technology in primary education and natural sciences in secondary education (first stage). Both sets were updated in 2010.

Methodological limitations

This report is based on Flemish and international research, interviews and discussion groups with stakeholders. As such, it does not provide a whole new set of data, but it seeks to provide a perspective on the governance issue that incorporates complexity in its analysis. Thus, it complements existing knowledge. Indeed, the case study builds mainly on information gathered through self-reporting techniques, i.e. interviews and focus groups, which could lead to missing parts of the whole picture. Nonetheless, the extensive and diverse number of interviewees and group participants in our field work allows us to think that our analysis departs from a well-balanced starting point.

CHAPTER 2

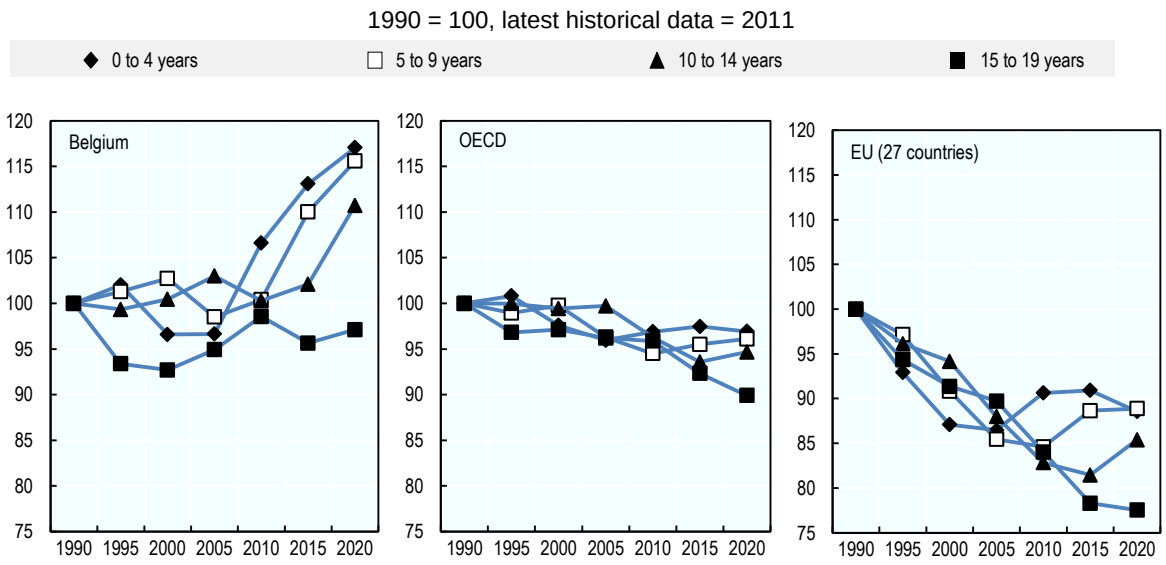
EDUCATION IN THE FLEMISH REGION

General context

Governance in Belgium is characterised by a distinct multi-level structure with three levels of government: the Federal State, the Regions and the Communities. While the Federal State's responsibilities include social security, justice and defence, the three Regions (Flemish, Walloon and the Brussels Capital Region) are responsible for territorial matters and the economy. Educational as well as cultural and language matters fall in the jurisdiction of the three Communities (Flemish, French-speaking and German-speaking Communities). The Flemish Community comprises the inhabitants of the Flemish Region as well as the Dutch speakers in the Brussels Capital Region. Each Community has its own autonomous education system, with only a small number of competences remaining with the Federal Government. To facilitate governance, the competencies of the Flemish Community and Flemish Region have been unified and are exercised by a joint Flemish Government. It is responsible for education in the Flemish Region as well as for education with Dutch as the main instructional language in the Brussels Capital Region.

The Flemish Region has a population of about 6 million inhabitants, making up 58% of the Belgian population. It is densely populated and highly urbanised. Over the past decades, the Flemish Region has experienced marked population growth, mainly driven by the steep increase in international migration. The net migration rate to the Flemish Region rose from 18 000 in 1994 to 40 000 in 2015, and migration accounted for 63% of the population growth in 2015 (Statistics Belgium, 2015). In contrast to the decline in the school age population across most OECD countries, the Flemish education system faces increasing numbers of students. Figure 1 contrasts the development of the school age population in Belgium since 1990 and its projection until 2020 with the OECD and EU average.

Figure 2.1. Development in school age population in Belgium compared to in the OECD and the EU



Source: Nusche, D. et al. (2015), OECD Reviews of School Resources: Flemish Community of Belgium 2015, http://dx.doi.org/10.1787/9789264247598-en.

The Flemish Region had a GDP per capita of EUR 33 861 (current prices) in 2013, the second highest among the Belgian regions, after the Brussels Capital Region (OECD, 2015a). In 2010, the Flemish GDP per capita exceeded the EU 27 average by 33% (European Commission, no date). The Flemish economy has proven resilient throughout the crisis and has maintained high employment and positive growth, apart from a small contraction in 2012. During the period 2008-2013, real GDP growth amounted to 0.4% on average and is predicted to average at a moderate 1.5% during the period 2011-2020 (Government of Flanders, 2014). In 2014, the unemployment rate in the Flemish Region was 5.1% and therefore considerably lower than the aggregate Belgian unemployment rate of 8.5% and the EU 28 average of 10.1% (OECD, 2016a). The Flemish Region has a relatively equal income distribution, and in 2011, 9.8% of the Flemish people were at risk of poverty (Government of Flanders, 2015), which is both below the national and OECD average (OECD, 2016b).

Public expenditures on education are comparatively high, and the annual spending per student in primary and secondary education (USD 10 761 in 2011) places the Flemish Community among the top six member states of the OECD (Flemish Ministry of Education, 2015: 79; OECD, 2016c). Furthermore, the Flemish education budget shows a slight growth during the period 2000-2012, despite the financial crisis (Eurydice, 2013). The Flemish labour force is highly educated. With 82% of adults aged 25 to 64 having completed secondary education, the Flemish population lies above the OECD average of 77%. Moreover, a large number of secondary education graduates continue into higher education, resulting in 40% of the labour force having successfully completed tertiary education. This is significantly higher than the OECD average of 33% (OECD, 2016d).

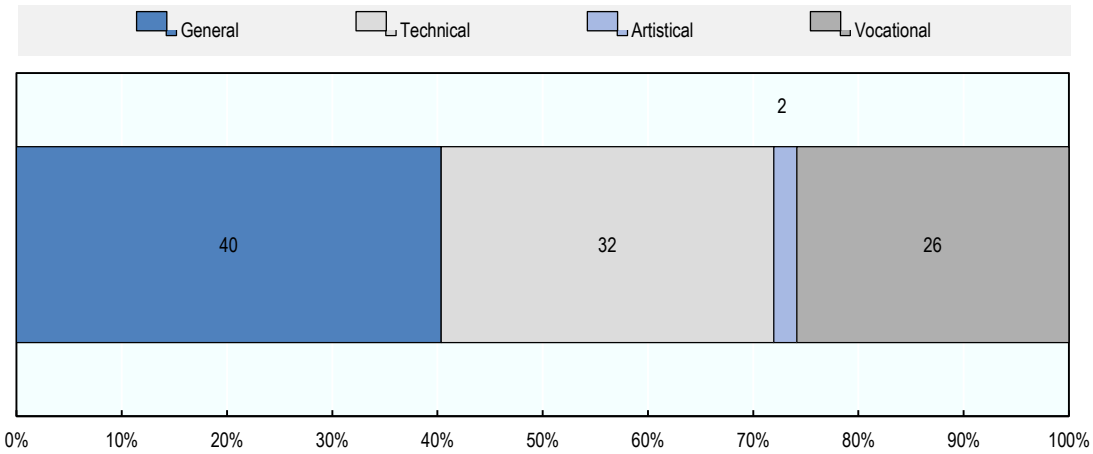
Structure of the school system

Schooling in the Flemish Community is compulsory from ages 6 to 18 – part-time 16 to 18 – and provided free of tuition fees. It can be roughly divided into two main parts: primary education (ages 6-12) and secondary education (ages 12-18). Additionally, a relatively high amount of pupils take part in special needs education compared to other countries (Watkins et al., 2014). Furthermore, Flemish children from 2.5 to 6 years of age have the opportunity to attend nursery education, which precedes primary school and it is also offered free of charge. Although not mandatory, almost 99% of Flemish five-year-olds are enrolled in pre-primary education (Vlaamse overheid, 2015). For Belgium as a whole, almost 99% of three-year-olds are enrolled, which is the highest enrolment rate among OECD countries in that age group (OECD, 2015b).

In primary school, all students follow the same curriculum, but secondary education in the Flemish Community is highly stratified. During the first two years of secondary education, students either follow the “A-stream” (general education track) or “B-stream” (vocational education track). The vast majority of students enrol in the A-stream (85% in 2012 and 2013), while the B-stream accommodates students who have fallen behind in primary education or are less suited to a mainly theoretical education. After the first year of secondary education, B-stream students can either remain in the vocational track or change to the first year of the A-stream (Eurydice, 2015). The final four years of secondary education are characterised by further differentiation as students enrol in one of four different programmes that each have their own curriculum: (1) *General secondary education, (2) Technical secondary education*, (3) *Secondary arts education* and (4) *Vocational secondary education*. While A-stream students can choose among any of the four programmes, B-stream students are automatically tracked into vocational secondary education.

Figure 2.2 shows the share of students across the different education programmes in the final four years of secondary education.

Figure 2.2. Share of students by educational track in upper secondary education (2014-2015)



Source: Adapted from Department of Education and Training (2015), *Flemish Education in Figures 2014-2015*, www.vlaanderen.be/nl/publicaties/detail/flemish-education-in-figures-2014-2015.

Education in the Flemish Community is characterised by the constitutional principle of "freedom of education," which gives any person the right to set up a school and determine its educational principles, as long as it fulfils the regulations set by the Flemish Government. Furthermore, parents are allowed to choose and are guaranteed access to a school of their choice within reasonable distance of their residence, with funding allocated to schools on a per student basis. However, due to capacity problems, the freedom of choice of parents is not always guaranteed and actually can be limited. Parents and students can select between three different school types: public schools run by an autonomous body on behalf of the Flemish Community; government-subsidised schools managed by the provincial, municipal or city authorities; and government-subsidised privately-managed schools. Although schools are not allowed to select students based on criteria such as admission tests, performance results, religious background or gender, surveys have shown that it is different in practice: two-thirds of Flemish 15-year-old students attend schools whose principals report that students' academic performance was always or sometimes a factor for admission (OECD, 2013b).

Government-subsidised and privately-managed schools are widespread and enjoy comprehensive support among the Flemish population, making Flanders (Belgium) the OECD education system with the second highest share of students attending government-dependent private schools after the Netherlands. While schools managed by public authorities are bound by philosophical, ideological and religious neutrality, and have to provide the choice between religious or non-denominational education, this does not apply to subsidised private schools. The largest share of these schools is run by denominational foundations, predominantly Catholic, but they also include schools with particular pedagogic methods (e.g. Steiner schools). Table 2.1 provides an overview of the distribution of students and personnel within the Flemish schooling system.

Table 2.1. Number of students, personnel and schools in 2014-2015

Number of students	Primary education: 438 580 Secondary education: 437 508
Share of students by school type	Primary education – Community schools: 15% – Subsidised public schools: 22.9% – Subsidised private schools: 62.1% Secondary education – Community: 18.4% – Subsidised public: 7.4% – Subsidised private: 74.2%
Personnel	Primary education 63,930 (full-time equivalents) 73,920 employees Secondary education 68,188 (full-time equivalent) 76,439 employees
Number of school units	Primary education – Community: 416 – Subsidised public: 530 – Subsidised private: 1 477 Secondary education – Community: 234 – Subsidised public: 84 – Subsidised private: 740

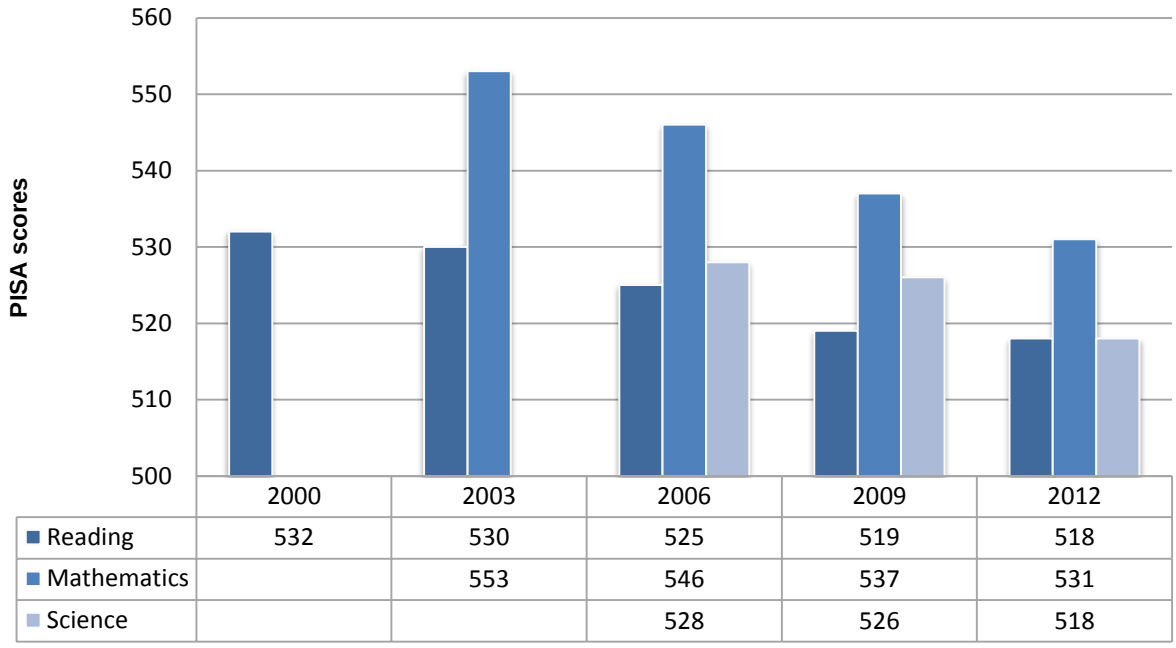
Source: Adapted from Department of Education and Training (2015), *Flemish Education in Figures 2014-2015*, www.vlaanderen.be/nl/publicaties/detail/flemish-education-in-figures-2014-2015.

Education performance

The evaluation of Flemish education performance varies depending on whether the average level of student achievement or the equity of outcomes is examined. In terms of achievement, Flemish students scored consistently above OECD average across all five instalments for the Programme for International Student Assessment (PISA), securing themselves a position among the top performers in the study. They also outperformed their fellow Belgian students. In 2012, Flemish students scored on average 531 points in mathematics, compared to 511 points in the German-speaking Community and 493 points in the French-speaking Community.

Figure 2.3 illustrates the evolution of Flemish students' scores in reading, mathematics and science across all PISA instalments. Although students continue to perform above the OECD average on all tests, scores have decreased somewhat over time. Performance has declined most in mathematics, where student performance dropped 22 points between 2000 and 2012 (OECD, 2013a) on average.

Figure 2.3. PISA scores of Flemish students since 2000



Sources: OECD (2013a), *PISA 2012 Results: Excellence Through Equity: Giving Every Student the Chance to Succeed (Volume II)*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264201132-en; OECD (2010), *PISA 2009 Results: Learning Trends: Changes in Student Performance Since 2000 (Volume V)*, PISA, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264091580-en.

In addition, the difference in performance between the highest and lowest-achieving Flemish students is the second largest among all surveyed regions in the 2012 PISA study. Most of the variation in student performance is found between rather than within schools and can be explained by the specific study programme in which a student is enrolled.

The results of all five PISA studies also show that the observed variation can be largely attributed to socio-economic factors influencing students' performance. In 2012, the most socio-economically advantaged quarter of students outperformed the least advantaged quarter of students by the equivalent of almost three years of schooling. The socio-economic background of Flemish students has a higher impact on their performance than in most other OECD countries (OECD, 2013a) and distorts the representation of students across the educational tracks. Students with low economic status are overrepresented in the vocational and technical tracks in upper secondary education (Hindriks and Lamy, 2014).

Furthermore, immigrant students are particularly at risk of underperforming. In 2012, 11% of the Flemish students had an immigrant background (first- and second-generation) and these students scored on average 65 points lower (accounting for socio-economic status) in the mathematics assessment than students without an immigrant background, equivalent to more than 1.5 years of schooling (OECD, 2013a). Reducing the impact of immigrant background and socio-economic factors on students' educational trajectories and achievements therefore remains a pressing challenge for the Flemish education system.

Professional development of teachers and school leaders

Recent data from Teaching and Learning International Survey (TALIS) provides a picture of the education level of teachers and school leaders and of their efforts to develop professionally (University of Antwerp Edubron Research Group and Ministry of Education and Training, 2013). The average education levels of teachers in primary education and the first stage of secondary education are lower than in other countries. Most teachers in Flanders (Belgium) graduate from university colleges (professional bachelors programmes), whereas teachers in others countries have an academic bachelor's or master's degree. Flanders (Belgium) had the highest percentage of teachers who have completed a teacher training. The figures show a similar picture for school leaders. On average, Flemish school leaders had attained a lower education level than their colleagues in other countries. At the same time they had been trained as teachers and specifically as school leaders more than in most countries.

Almost 90% of the teachers participated in professional development activities, just above the TALIS average. Teachers mostly took courses and workshops. They were much less involved in peer learning networks dedicated to professional development or in research. However, the high rate of participation in courses and workshops is counterbalanced by a lower number of days actually spent in training compared to the TALIS average. A high percentage - higher than the TALIS average - of school leaders also participated in professional development activities, for the most part in courses, conferences and observation visits. In secondary education in particular, the intensity of participation is significantly lower than the TALIS average.

Governance of education in the Flemish Community

The Flemish education system is one of the OECD's most decentralised education systems and is characterised by a high degree of autonomy at the school level. The federal Belgian government only plays a minor role. Its competences are confined to setting the minimum standards for the school diploma, such as age and duration of school education, as well as regulating pensions for teachers.

The regional Flemish Government has a limited amount of responsibilities: it sets a core curriculum, specifying minimum attainment targets and developmental objectives for students at the end of primary education and at the end of specific stage levels and educational tracks (Nusche et al., 2015). The governance of education at the Flemish level is functionally divided into four organisational bodies: the Ministry of Education and Training, responsible for policy formulation, and three semi-autonomous executive agencies, each of which are responsible for policy implementation in a component of the education system (see Table 2.3 below for more details) (Eurydice, 2015).

In order for schools to be officially recognised and receive funding by the Flemish authorities, they have to pass a mandatory external inspection by the Flemish Inspectorate of Education, showing that they comply with the core curriculum and are adequately equipped and housed. The Inspectorate is an independent body under direct jurisdiction of the Flemish Minister of Education and Training and is tasked with inspecting all accredited Flemish schools and those applying for accreditation at least every ten years (Eurydice, 2015).

Schools are governed by school boards, which administrate the school's resources and oversee the compliance with and implementation of regulations in the schools. There are 1 500 school boards in the Flemish Community, which provide officially recognised education. They can be responsible for one or several schools and enjoy a very high degree of autonomy in determining learning goals and teaching methods. Furthermore, they are charged with all of the school's administrative and management tasks such as the recruitment and promotion of teachers and the appointment of principals. All public schools are governed by boards of groups of schools, while the overarching Community Education Council functions

as central education provider. In the case of subsidised public schools, this responsibility rests with provincial and town councils. The school boards of government-subsidised private schools are private foundations associated with a particular denomination or pedagogical approach (Eurydice, 2015).

For advice and representation in policy discussions with the Flemish Government as well as support in developing curricula and timetables that comply with the core curriculum, school boards have set up representative umbrella organisations. A school board's membership in one of these umbrella organisations is based on the public authority it is run by, in the case of public and subsidised public schools, or its denominational and pedagogical orientation (Eurydice, 2015).

Depending on the funding of the represented schools, the umbrella organisations are again grouped into one of the three following officially recognised networks:[2]

- **The Flemish Community education network** (*Onderwijs van de Vlaamse Gemeenschap*, GO!) represents the public schools and acts under the authority of the Flemish Government.
- **The publicly funded and publicly managed education network** (*Officieel gesubsidieerd onderwijs*, OGO). Within the OGO, the political representation of school boards is separated: the provincial authorities are represented by the Flemish Provincial Education (POV) and the city and municipal authorities by the Educational Secretariat of the Association of Flemish Cities and Municipalities (OVSG).
- **The publicly funded and privately-managed education network** (*Vrij gesubsidieerd onderwijs*, VGO). The VGO comprises a number of umbrella organisations in which school boards are clustered according to denominational orientation (Catholic or Protestant) and educational method and philosophy (e.g. Steiner schools).

The organisation of the Flemish education sector into networks, umbrella organisations and school boards is illustrated in Table 2.2.[3]

[2] See Flemish Ministry of Education and Training (2015) for more information on the allocation of funding to school boards within the different educational networks.

[3] For reasons of simplicity, in this case study the term 'umbrella organisations' also includes GO!, the organisation of Community Education.

Table 2.2. Organisation of the Flemish education sector

Network	Community education (Go!)	Subsidised public education (OGO)		Subsidised private education (VGO)		
Umbrella organisations	Flemish Community Education Network (Go!)	Educational Secretariat of Flemish Cities and Municipalities (OVSG)	Flemish provincial education (POV)	Catholic Education Flanders	Council of School Boards of Protestant-Christian Education (IPCO)	FOPEM Steiner, VOOP
					Consultation Body of Small Education Providers (OKO)	
School board	Flemish Community Education Council and boards of school groups	Cities and municipalities	Provinces	Private foundations		
Schools						

Source: Nusche, D. et al. (2015), *OECD Reviews of School Resources: Flemish Community of Belgium 2015, OECD Reviews of School Resources*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264247598-en.

Stakeholder participation

Due to the large number of stakeholders in the Flemish education system, policy formulation, implementation and reforms require thorough mechanisms of consultation, co-operation and consensus building. Stakeholder consultation and participation is built into the public policy process through the Flemish Education Council (*Vlaamse Onderwijsraad,* VLOR), which brings together representatives from all major stakeholder groups, from students to social partners. The VLOR was established in 1990, right after the Flemish Community gained authority over education, as an independent advisory and consultation body (Standaert, 2011). All legislation on education requires a mandatory consultation of the VLOR, and the Council's recommendations are fed back into the policy process. The VLOR evaluates the policy propositions with respect to their desirability, achievability and acceptability for the educational partners. Furthermore, the VLOR can give policy advice to the Ministry of Education and Training on its own initiative (Department of Education and Training, 2008).

Table 2.3 provides an overview of all key stakeholders in the Flemish education systems and a brief description of their roles and possibilities of intervention. The complexity of stakeholder involvement in multi-level systems and the realities of participatory governance will be further explored in Chapters 4 and 5.

Table 2.3. Key stakeholders in the Flemish education system

Stakeholder	Role	Examples of intervention
Flemish Parliament	Ratifies education regulation	Determining attainment targets
Minister of Education & Training supported by the Ministry of Education & Training	Responsible for the provision and overall quality of education Responsible for policy preparation, evaluation, co-ordination and communication	– Manage, monitor and evaluate Flemish education – Designate core curriculum (minimum attainment targets and developmental objectives) – Minister as representative of the Flemish Government: accreditation of schools
Three executive agencies 1) Agency for Educational Services (AgODI) 2) Agency for Higher Education, Adult Education, Qualifications and Study Grants (AHOVOKS) 3) Agency for Education Infrastructure (AGIOn)	Responsible for policy implementation and overseeing all services related to quality improvement in education	1) Oversee implementation of policies on school education, centres for student guidance and pedagogical support to teachers and schools. Pay salaries of all school staff. 2) Oversee implementation of policy on higher education, adult education, qualifications and study grants Define minimum standards for quality education Flemish schools must meet and recognition of qualifications and prior learning. 3) Realise and develop education infrastructure
School Inspectorate	Oversees the quality of education	– Carry out inspections of the educational institutions – Provide advice to the Minister on whether new institutions seeking accreditation fulfil the relevant criteria – Publish annual report that discusses the main findings of the inspections
Flemish Education Council (VLOR)	Involves key stakeholders in educational legislation	– Provide advice and recommendations on all legislative issues concerning education – Provide policy advice to the Ministry of Education and Training on own initiative
Socio-Economical Council Flanders	Consultation institution of employers and employee organisations. Strategic advisory body for the government	– Provide advice and recommendations on socio-economic issues, including education focussed on the labour market

Table 2.3. Key stakeholders in the Flemish education system *(cont.)*

Stakeholder	Role	Examples of Intervention
Community Education Network / umbrella organisations	Responsible for support of school boards and their representation in policy and advisory bodies	– Support school boards in devising curricula and timetables that comply with core curriculum – Represent school boards in negotiations and policy discussions with the government
School boards	Responsible for the governance of schools	– Devise curricula – Determine regulations, teaching methods and personnel policies – Select and appoint the school principals – Draw up timetables
Principals	Responsible for general and pedagogical organisation of the school	– Conceive school development plan – Use of the school budget
Teachers	Responsible for the quality of education in the classroom	– Communication with students, children and parents
Parents	Represented in policy making at system (VLOR) and school level (school council)	– Choose school for their children – Contact with teachers
Students	Responsible for their own learning Represented in policy making at system level (through the Flemish Student Council and membership of VLOR) and at school level	– Participate actively in school
Social partners	Involved in policy making among others through membership of VLOR and SERV Validating professional qualifications in the context of the Flemish Qualification Framework (a comprehensive framework consisting of eight levels from primary to higher education)	– Membership of validation committees

Sources: Eurydice (2015), European Encyclopedia on National Education Systems: Flemish Community of Belgium, https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Belgium-Flemish-Community:Redirect; Nusche, D. et al. (2015*), OECD Reviews of School Resources: Flemish Community of Belgium 2015*, http://dx.doi.org/10.1787/9789264247598-en.

CHAPTER 3

ATTAINMENT TARGETS IN THE FLEMISH CONTEXT

Attainment targets are educational goals to be met by pupils in terms of knowledge, insight, attitudes and skills, both transversal to the curriculum and subject-related. Attainment targets vary in the degree of specificity and detail. Every set of attainment targets is preceded by an explanatory statement on the underlying assumptions that partly determine the interpretation and application of the attainment targets.

Attainment targets must be included in the curricula developed by school boards or umbrella organisations– the organisations under which similar schools are grouped together. The Inspectorate oversees that this is actually done. Attainment targets have been applicable in primary education since 1998 and in secondary education since 1997. In primary education in Flanders (Belgium), 328 attainment targets exist. In secondary education, 969 attainment targets are applicable, distributed over the various types and stages.

This case study specifically looks into the revision process of technology targets in primary education and targets for natural sciences in the first stage of secondary education. Both sets of renewed targets were introduced in 2010.

Box 3.1. Attainment targets: Examples from technology, mathematics, natural sciences

In technology, primary school pupils:

- can illustrate that technological systems evaluate and improve;
- can perform a simple working drawing or manual step by step;
- can illustrate that technology and society influence one another.

In mathematics, secondary school pupils:

- know and use the geometrical concepts of diagonal, bisector, altitude, perpendicular bisector, radius, diameter, opposite angles, adjacent angles, contiguous angles, and midpoint angles;
- understand and use mathematical language in simple situations;
- learn to realise that, in mathematics, not only the final result is important, but also the way in which the answer is achieved.

In natural sciences, secondary school pupils:

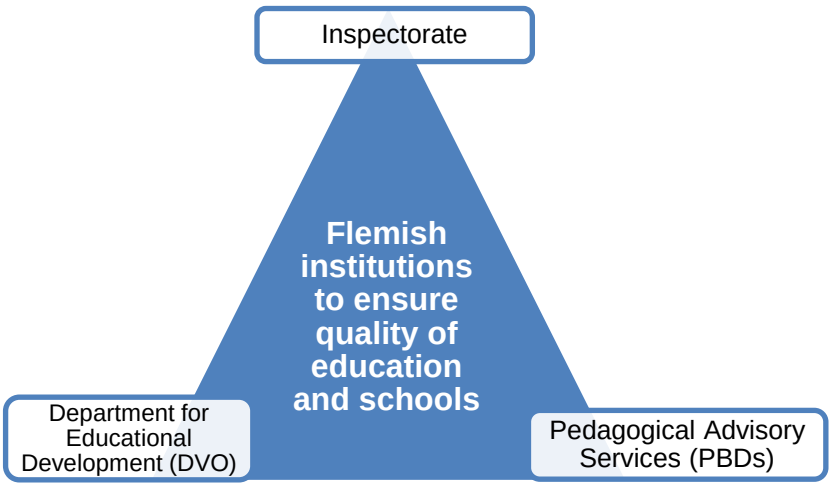
- can show the functions of a root, stem, leaf and flower of a flower plant;
- can show with an example that mankind influences nature and environment and that ecological balances can shift as a consequence;
- can determine the mass and volume of matter.

Source: http://www.ond.vlaanderen.be/curriculum/.

Attainment targets as part of the quality triangle

The attainment targets were introduced in 1991 by the Flemish Government as part of what has become known as the 'quality triangle'. Just before that, by a constitutional revision in 1988, the Flemish Community had been established and had become responsible for education. One of the first and foundational regulations the government made was about quality assurance. In the *Decree on Inspection, Department for Educational Development and Pedagogical Advisory Services* (1991), three institutions were appointed to ensure the quality of education and schools: the Inspectorate, the umbrella organisation based Pedagogical Advisory Services (PBDs) and a newly created semi-autonomous government agency, the Department for Educational Development (DVO).

Figure 3.1: The original 'Quality Triangle' (1991)



The Department for Educational Development (DVO), prepared and designed attainment targets and provided analysis and evaluation instruments for the Inspectorate to audit schools (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010; Standaert, 2011). The Inspectorate is responsible for checking whether schools are implementing the attainment targets in the curricula. The pedagogical advisers of the PBDs for each of the umbrella organisations support and coach schools to process attainment targets in their curriculum and to deliver high-quality education.

In 2009, the quality triangle was adjusted. The *Decree on Quality of Education* issued that year stipulated that schools held primary responsibility for providing high-quality education. The PBDs still provided support for schools to fulfil this task, while the Inspectorate verified if schools reach the attainment targets and if schools were systematically ensuring quality education. The design and maintenance of attainment targets was assigned to an executive government agency, the Flemish Agency for Quality Assurance in Education and Training (AKOV). From 2006 onwards the above mentioned DVO became a unit within the Ministry of Education and Training called 'Entiteit Curriculum'. From 2009 onwards it became a part of AKOV, now Agency for Higher Education, Adult Education, Qualifications and Study Grants (AHOVOKS). The decree was in line with one of the key concepts of the Flemish Government - the 'policy-making capacity' of schools. Policy-making capacity is defined as "the extent to which schools use available room for policy making to come to a continuous process of retaining or changing their work in order to improve their educational quality and attain both the external and self-imposed objectives" (Ministry of Education and Training and University of Antwerp Edubron Research

Group, 2010: 7). From 2004 onwards, successive governments aimed to strengthen this capacity as an important condition for increased school autonomy.

Original aims of attainment targets

The attainment targets were fiercely debated from their introduction in 1991. The main issue was whether attainment targets were reconcilable with the freedom of education. Freedom of education is a constitutional right in Flanders (Belgium), a very basic principle and long-standing "cultural tradition" in the Flemish education system (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010). It has a double meaning. On the one hand, there is freedom of organisation: every natural or legal person can start a school. On the other hand, there is freedom of choice: every parent and student should be able to enrol in the school they prefer. Education providers were afraid that the government would interfere with their 'pedagogical project', the competence of school boards to formulate and execute their own vision on education.

As a result, and in order to address some of these concerns, the attainment targets were deliberately designed:

- As *minimum goals*, leaving room for education providers to interpret and translate them according to their own vision. Education providers can add goals and elements to the curriculum if they feel that it is lacking or if they are more ambitious. For this reason, all schools use 'learning plans' in which the curriculum is described. Learning plans contain both the content of the different subjects and guidance on pedagogy and instruction.

- To operate as an instrument to *evaluate schools*, not individual students. Attainment targets are part of the audit that the Inspectorate performs at schools. As previously stated, the Inspectorate checks if schools reach the attainment targets and the learning plan goals, on the basis of achievement data the school provides.

Attainment targets are decided on by Parliament. This is constitutionally required. The Constitution states that every policy measure that influences the funding of educational institutions should be taken by a decree. The implementation of the attainment targets in the curricula is a condition for schools to be recognised and subsidised by the Flemish Government and in this sense part of the funding arrangement. This was also done deliberately to keep attainment targets away from chance majorities and secure broad support in politics and society. This so-called 'royal road' is also meant to protect the freedom of education.

Developments

In their reconstruction of turning points in the history of the attainment targets, Flemish researchers Simons and Kelchtermans (2016) show that, over the years, many interests and perspectives have been added to the original aims and meaning of attainment targets. In their research, they speak of 'user criteria'. These criteria express the expectations of the attainment targets of different user groups, such as teachers, learning-plan makers, the government, etc. For instance, teachers expect the attainment targets to be manageable in day-to-day practice. The Inspectorate needs to use the attainment targets to assess the quality of schools. In addition, Simons and Kelchtermans (2016) distinguish user criteria from 'conditions'. While user criteria are expectations based on interests that vary from stakeholder to stakeholder, conditions are generally set by the government. Attainment targets cannot be implemented nor reached, if these conditions are not met. Constitutionality is such a condition: attainment targets need to fit into the fundamental freedom of education before the Minister can implement them. Adequate funding is another example. Without it, schools are unable to reach attainment targets.

From school level to individual level

Since the early stages of their development, three major shifts in the meaning of 'attainment targets' have taken place. First, attainment targets are increasingly connected to individual students' results. This happens in the public debate on education, but also in politics and policy. For example, in primary education, the government has determined recently that in order to get a diploma, students should sufficiently meet the goals of the learning plan that are derived from the attainment targets (Vlaamse overheid, 2016; see also VLOR, 2015: 11). According to some interviewees, this clashes with the freedom of schools to determine their own criteria for certification of students.

Measurability becomes more important

Second, and closely connected to this shift to individual results, is the growing significance of the measurability of attainment targets. This theme came to the fore with the introduction of national assessments in 2002 and advanced in 2004 when the then Minister presented a systematic approach to assessments. Subsequently, two national assessments now take place each year, based on samples of students. In addition, the Ministry commissioned a parallel test to the national assessment, which schools could use freely and voluntarily. This changed the discourse on attainment targets for schools. School boards now need to assure that they are actually meeting the attainment targets for their student population. Teachers must implement attainment targets in their daily practice, instruction and assessments, if necessary supported by the PBDs (Simons and Kelchtermans, 2016).

Comparability as a new criterion

Finally and more recently, the comparability of attainment targets has become more important. This means that attainment targets must fit into the Flemish Qualification Framework (2009), and can be used to compare the content of diplomas. Consequently, attainment targets should have to be reformulated in terms of competencies, but that has not happened yet (Simons and Kelchtermans, 2016).

Revision of attainment targets

The first wave of attainment targets were designed in the late 1990s. Since then, several new sets of attainment targets have been established and some sets were revised, most notably, those for natural sciences and languages. These changes occurred in response to social developments, as well as the results of assessments and research. This case study specifically focuses on the revision process of targets for technology and natural sciences. In 2010, attainment targets were revised for technology in primary education and for natural sciences in the first stage[4] of secondary education.

Revising targets for the technology curriculum in primary education

In the case of the technology curriculum, a multiannual preparation process preceded the introduction of the new attainment targets. In 2004, the Ministry of Economy and the Ministry of Education jointly established a project called Technology at School for the 21st Century (TOS21). The project was born out of the necessity to raise awareness among students and technological competency of all students. The aim of the project was to design an overarching framework for technological education and from this to derive a continuous curriculum from pre-primary to secondary education.

'Technological literacy' is a central concept in the TOS21 framework. Technological literacy is divided into three dimensions: understanding what technology is about, the ability to use technology, and

[4] First stage is the first two years of secondary education, called "graad" in Flemish.

the capability to assess the impact of technology on society. These dimensions of technological literacy are applied to four core components of technology: systems, processes, resources and choices. Together, these dimensions and components shape the framework for the new technology education.

After the committee produced the framework in 2008, both ministries established a follow-up project. The aim of this project was to pilot the framework in schools and to test implementation strategies at the school and classroom level. The experiences and findings were intended to feed into the actual implementation after the revised attainment targets were introduced, although whether this was successful is not clear.

The results of a 2008 study into the perception of attainment targets in primary education made the revision even more urgent. The research showed that teachers valued the technology targets less than other attainment targets. An explanation for this may be that teachers thought that the technology goals did not correspond very well to children's lives. Furthermore, teachers seemed to be more interested in attitudes such as diligence, accuracy and care for others than in technological competencies (Van Petegem et al., 2009).

On the basis of the TOS21 framework, a development committee designed new attainment targets that were set by a Decree on 30 April 2009. The attainment targets came into force on 1 September 2010.

Revising targets for the natural sciences curriculum in secondary education

The preparation of the revision of the natural sciences attainment targets started in 2007 at the 'Conference after the assessment Natural Sciences – Biology'. At the conference, a majority of the participants was in favour of extending the existing attainment targets with objectives for physics and for 'scientific literacy' (Entiteit Curriculum, 2007). Until that point, the attainment targets in secondary education had been limited to biology, while in primary education, natural sciences entailed both biology and physics. Based on conference outcomes, a framework committee developed a conceptual scheme that was further elaborated by a development committee.

Scientific literacy is a key phrase in the framework, inspired by a European Parliament and Council recommendation on key competences (EU, 2006). Scientific literacy means that a student not only understands the scientific method, but is also able to perform an (elementary) experiment. Other key concepts include matter, energy, interaction between matter and energy and systems. These key concepts were elaborated in attainment targets.

These targets were set by a Decree in spring 2009. The attainment targets came into force on 1 September 2010.

Implementing attainment targets: From targets to teaching

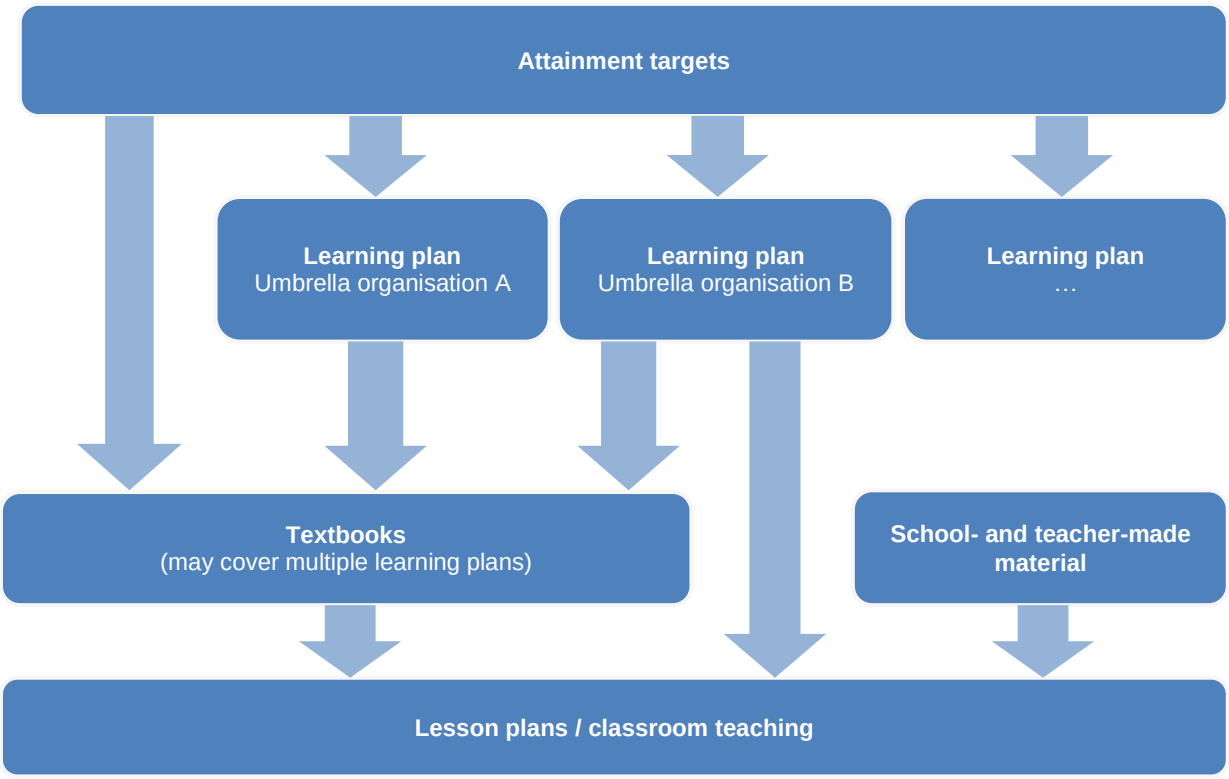
The implementation of the attainment targets takes several steps. First, the attainment targets are processed into learning plans made by various umbrella organisations. While in theory, schools make their own learning plans, in practice this is done by the umbrella organisations. It is possible for each umbrella organisation to interpret and translate the attainment targets according to its own pedagogical project, to extend the attainment targets with 'umbrella-specific' goals and to deepen the targets with more advanced knowledge. The Inspectorate verifies that the learning plans correspond to the attainment targets. Based on the recommendation from the Inspectorate the Minister approves, approves provisionally or disapproves them.

The next step involves the publishers who process the learning plans and attainment targets in textbooks. Both attainment targets and learning plan goals are not always unambiguous, so there is room

for interpretation. Additionally, publishers incorporate several learning plans in the textbooks. As a consequence, textbooks contain a multitude of objectives. For teachers, it is not always clear which objectives are applicable within their network. Therefore, their accumulation can sometimes be perceived as overwhelming. While most teachers use textbooks, some make their own teaching materials based on their own interpretations and preferences, whether or not these materials complement the textbooks.

The last step is taken by the teachers and students. Teachers implement learning plans and textbooks into their lesson plans and in their actual lessons.

Figure 3.2. The implementation and interpretation of attainment targets



Supporting schools and teachers in implementing attainment targets

Schools and teachers are supported by PBDs in the processing of learning plans. Support for schools is one of the main tasks of PBDs. It is part of their regular funding by the government. This also applies to the introduction of revised learning plans and attainment targets. Schools do not have to pay for these services.

After the introduction of the revised objectives for technology and natural sciences in 2009–2010, the PBDs offered specific courses to their schools, both on didactics and on assessment. Several PBDs also established and supported peer learning networks of teachers where learning materials and tests were developed. PBDs anticipate the actual introduction of the learning plans. In the case of natural sciences, for example, one of the PBDs offered training one year before the plans took effect. Schools can also ask for school-specific support, e.g. if school leaders observe that learning plans are not being carried out properly. The creation of peer learning networks across schools is an especially popular tool of the PBDs, partly

because of a lack of capacity for these implementation trajectories, which come on top of the regular workload.

Besides the PBDs, *the publishers* also play a role in the implementation of learning plans in schools, obviously closely connected to the handbooks they are selling. The publishers organise, among others, information meetings about new books and summer schools on using the methods.

Evaluation and assessment of the attainment targets

Attainment targets are assessed at the level of students, schools and the system as a whole.

Student assessment

Schools are responsible for the assessment of students and define criteria for certification. The way students are assessed is not prescribed. There is no standard national examination imposed at the end of primary and secondary education, based on a widespread conviction that central testing does not do justice to the broad development of children. Consequently schools have a lot of room to choose their own path. They can make their own assessments but also use tests provided by the Ministry, by umbrella organisations and by publishers. In 2008 the then Minister set up the website 'Tests for Schools' on which various assessments can be found that schools can use voluntarily. In primary education, two umbrella organisations offer standardised summative tests primarily to the schools of their own network, since the tests are based on the curricula of the respective umbrella organisations.[5] Schools can use these tests not only for assessing students, but also for evaluating quality at the level of the school as a whole. Finally, schools employ tests that are part of the handbooks.

Evaluation of school achievement on the attainment targets

Schools are primarily responsible for assessing whether they have reached their objectives, including attainment targets and learning plan objectives. The Ministry supports schools by providing data and assessments. These assessments are developed in parallel to the National Assessment Programme (NAP), see below). Schools can voluntarily use the parallel tests. Just as in the case of the NAP, every participating school receives a feedback report about the extent to which the attainment targets were reached. Moreover, schools can compare their results with other schools. Several interviewees stated that only a small number of the schools used the parallel tests. Research suggests that both self-made tests and the test in handbooks were more widely employed by schools (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010; Van Gasse et al., 2015).

The 'Tests for Schools' website is part of the information-rich environment the Flemish Government wants to create in order to support schools in providing quality education. Another important part is the data warehouse the Ministry is building. On the data warehouse pages statistics on education are presented in different formats. Recently the Ministry has launched 'Dataloep' (Data lens) as part of a data warehouse where education statistics can be edited and tailored. There is a version accessible to the public and an extended and customisable version for schools.

An important question is whether these data will be used by school leaders and teachers to assess and improve education. Policy-making capacity, more specific evaluation and data literacy of schools are vital conditions for thoughtful and focussed use of data. The authors of the Country Background Report on Evaluation and Assessment noticed that "schools in the Flemish Community have no long-standing

[5] The test of OVSG, the umbrella organisation of municipalities and provinces, is also used by schools in the Flemish Community network.

tradition of school development based on clearly defined indicators" (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010: 60). Policy-making capacity and evaluation literacy seem to be unevenly distributed among schools and teachers, as the OECD-review on Evaluation and Assessment noted in 2011. More recent research on the use of information in schools confirmed these findings. The authors observe that the use of data is not a standard practice in Flemish schools (Van Gasse et al., 2015).

School inspection

The Inspectorate's main responsibility is auditing schools. The Inspectorate verifies if schools meet the legal requirements, including whether schools offer and reach the planned curriculum of the school. In this context the Inspectorate pays a lot of attention to the attainment targets as well as the learning plan objectives. The Inspectorate determines if attainment targets and learning plan objectives are processed in teaching and assessment. Furthermore, during inspection it is assessed how many students reach those targets and objectives. Based on criteria determined by the Inspectorate, it is evaluated if enough students reach the attainment targets to get a positive judgement. In addition, the Inspectorate examines if schools monitor the quality of education systematically. The visit results in an audit report published by the Inspectorate. The Decree on Quality of Education stipulates that each school has to be visited at least once in ten years. The Inspectorate uses the school profile to determine if a school needs to be visited more often.

The Court of Audit noticed that the Inspectorate was missing two instruments to give a well-rounded opinion on the quality of a school. The Inspectorate lacks government-validated assessments to make reliable statements about the student achievement of schools. A databank containing validated tests like 'Tests for Schools' could remedy this omission if schools would actually use these tests. However, as mentioned above, only a small proportion of schools actually uses these tests. Furthermore, the legislator has not formulated standards for the internal quality assurance of schools. This creates uncertainty about the way schools are assessed (Rekenhof, 2011).

To provide more clarity and agreement and also to align internal quality assurance and inspection the Inspectorate is developing a new 'Reference Framework Education Quality' (ROK), together with a broad range of stakeholders, including umbrella organisations, PBDs, unions and teachers. The main aim is to strengthen the quality assurance responsibility of schools, as well as the position of internal quality assurance in the external evaluation by the Inspectorate. Furthermore the ROK should provide transparency on education quality criteria both for schools, the Inspectorate and other stakeholders like parents, higher education institutes and employers.

Evaluation of attainment targets at the system level

At system level, two main information sources are available, the National Assessment Programme (NAP) and the Inspectorates' Education Mirror. In addition, the Ministry can draw from international surveys to assess system achievement.

National assessments

Since 2002, national assessments have taken place. They are based on a sample and are meant to inform policy makers and stakeholders of the achievement of attainment targets at the system level. Every year since 2004, two subjects have been assessed, one in primary and the other in secondary education, based on a representative sample of schools. The national assessments are designed by a team of experts, including teachers, and subsequently piloted in schools. The items are derived from the attainment targets, and the assessments are scientifically validated. For the evaluation of the results, guides are drawn up, a

careful process which involves teachers, inspectors, teacher trainers, staff members of Agency for Higher Education, Adult Education, Qualifications and Study Grants (AHOVOKS) and the Ministry and representatives of the umbrella organisations. The tests are accompanied by background questionnaires that make it possible to establish correlations with student, family, class and school characteristics. NAP is not only used for assessing schools. It is also employed as a means of system evaluation. It results in a general report on the state of affairs at a system level.

Each assessment is followed by a conference in which the results are discussed. Conferences incorporate subject content knowledge, pedagogical knowledge, education practice knowledge and policy knowledge. The participants discuss the results and possible explanations, and formulate conclusions and actions to be taken. The outcomes of the conferences feed into the conversations about attainment targets and can lead to revision. In the early years of the assessment program, these were large conferences attended by 200 to 300 people, including teachers and school leaders. Today, the conferences are organised on a much smaller scale, with some 20 to 30 invitees - mostly experts from academia and the umbrella organisations and a single teacher or school leader. This makes the conferences more targeted. The main drawback is that teachers and school leaders are less involved in decision making on attainment targets.

International surveys

The Flemish Ministry actively participates in international comparative research studies such as the Progress in International Reading Literacy Study (PIRLS), Trends in International Mathematics and Science Study (TIMSS), Programme for International Student Assessment (PISA), and International Civic and Citizenship Study (ICCS). These provide clues about the achievement of Flemish students, compared to their international peers. Findings from international studies are also used to confirm or disprove the results of the national assessments. Both national and international assessments show that quite a number of students do not reach the attainment targets or have low achievement on international tests. The past few years have seen a downward trend in scores (Ministry of Education and Training, 2015).

Inspectorates' annual report

Every year, the Inspectorate publishes its Education Mirror. The first part gives a summary of the audits the Inspectorate has performed during the year. The Inspectorate reports generally how many schools have accomplished a 'sufficient' level (a positive recommendation), which means that the prescribed curriculum was implemented and reached. It should be noted that this is a statement on inputs and processes at schools, not on how many students are reaching the attainment targets (see also Rekenhof, 2011). The Inspectorate also provides a short overview of the quality of various processes, like human resource management and evaluation. The second part is dedicated to thematic reports on specific subjects, e.g. French or technology. These reports give a more thorough picture of the quality of education in the subject in question.

Horizontal accountability

It is mandatory for schools to have a School Council consisting of parents, staff, representatives of the local community and students in secondary education. If at least 10% of the parents request a parent council, the school must establish one. This also applies to staff members and secondary students. Generally speaking, the position of the School Council does not seem to be very strong. It depends largely on the individual school if parents or students are truly involved in educational policy. Interviewees described a large variation in experiences. Regarding parents, some interviewees were optimistic about the development of parent participation in recent years. Students tell a different story about the participation in schools. According to the Flemish Student Council (Vlaamse Scholieren Koepel (VSK)), "subjects

discussed in student councils are often limited to typical issues with limited impact" (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010: 85).

Box 3.2. Who is involved in the preparation, decision making, implementation and evaluation of attainment targets?

Framework Committee
Both in the case of technology and of natural sciences prior to the actual development of attainment targets, an expert committee designed a conceptual framework. For technology, even a special project group was set up that not only made a conceptual framework, but also organised trials in schools to validate and improve the framework. These committees consist of experts both from the field and from academia, teachers, teacher educators and representatives of the umbrella organisations (mostly pedagogical advisers).

Development Committee
The Development Committee consists of specialists from the Pedagogical Advisory Services and is chaired by a staff member from the Agency for Higher Education, Adult Education, Qualifications and Study Grants (*AHOVOKS)*, the government agency responsible for the actual drafting of the attainment targets.

The Ministry of Education and Training and AHOVOKS
AHOVOKS is responsible for drafting the attainment targets. The policy departments are responsible for making the Decree which is presented to the Flemish Government and the Flemish Parliament. The Strategy and Knowledge department commissions research on attainment targets.

VLOR (Flemish Education Council)
The VLOR has a legal mandate to advise the Minister on the attainment targets. The VLOR consists of all stakeholders in education: networks, representatives of students and parents, teacher unions, social partners and representatives of social-cultural organisations.

Flemish Parliament
The Parliament ratifies the attainment targets.

Networks, umbrella organisations and Pedagogical Advisory Services (PBDs abbreviated in Dutch)
Networks are involved across the policy cycle. They are members of the VLOR and participate in preparing attainment targets, lead in implementation, support evaluation at the school level and help evaluate systems.
PBDs are part of the umbrella organisations and play a central role in the attainment target process. The PBDs are not only involved in the preparation and design of the attainment targets, but more importantly, they also translate and process the targets into learning plans. Each umbrella organisation has its own learning plan. Learnings plans are predominantly used by schools and teachers to make their annual lesson plans. Furthermore, the PBDs support schools and teachers in implementing the learning plans, and they provide training and other professional development opportunities for teachers and school leaders.

Publishers
On the basis of the attainment targets and learning plans, publishers make textbooks. They try to incorporate different learning plans so that the textbooks can be used across the networks.

Teacher educators
Teacher educators process the attainment targets and learning plans into their curricula, mainly for the mainstream education of student teachers.

School boards
School boards are responsible overall for the implementation of attainment targets at schools. They are formally held accountable if attainment targets are not met.

School leaders
School leaders incorporate the learning plans into their annual school working plans. Learning plan goals and attainment goals are also part of the decisions on certification of students.

Teachers
Teachers integrate the learning plans into their lesson plans, including the assessments. Some teachers are also involved in the creation of frameworks, the design of learning plans, writing of handbooks and the development of the national assessments.

Inspectorate
The Inspectorate verifies if schools reach the attainment targets and learning plan goals. The Inspectorate reports to schools and to the Minister. Additionally, the Inspectorate publishes an annual Education Mirror, containing a general state of affairs and thematic reports.

Policy Research Centre for Test development and Assessments
This dedicated university research centre is assigned by the Ministry of Education and Training to perform national assessments.

Researchers
Researchers perform policy research on a variety of themes, for example the perceptions of and support for attainment targets among teachers and school leaders and the explanations for low achievement on attainment targets.

CHAPTER 4

MAIN FINDINGS

How can a government together with its partners leave or create room for local diversity while at the same time ensuring national objectives? Balancing the freedom of education with the mandate to guarantee good education for all children is one of the major challenges for the Flemish Government, and indeed, for many countries across the OECD. This chapter examines the role and implementation of attainment targets in the Flemish education system as an expression of national objectives. It is based on the in-depth interviews with over 60 key informants and discussion groups that were conducted for this case study.

Interviews with stakeholders for the GCES case study produced five main findings on the role and implementation of attainment targets in a complex education system with multiple levels of governance. They are:

1. Difficulties in creating common understanding.
2. Participatory governance does not automatically lead to ownership.
3. Flawed alignment hinders strong implementation.
4. Capacity building is vital for change.
5. Effective feedback needs comprehensive data and local capacity.

This chapter will discuss each of these in turn. Although treated separately, it should be noted that the main findings are closely connected and inter-related, as would be expected in any complex system. This analysis takes a whole-system perspective, in which elements are not studied in isolation. Rather, it is the complexity of the interconnections which is examined, with a view to coherence which may or may not result from the various interactions.

A whole-of-system approach also means balancing pressure and support. Since the position of a government in a decentralised system is a delicate one, soft modes of governance, like research, capacity building and communication, need to be aligned with constructive pressure mechanisms like accountability (Pierre and Peters, 2005). Importantly, from a whole-system approach all levels of the system have to be engaged in decision making and implementation to bring about lasting change. Simple hierarchical and linear schemes of the relation between government and education stakeholders remain inadequate. In order to make sustainable changes in classrooms, the engagement, knowledge and capacity of teachers and school leaders is vital. As a result, system responsibility is shared among stakeholders and is not exclusively the remit of government. The findings set out in this chapter should thus be interpreted through this lens.

Difficulties in creating common understanding

The first main finding pertains to the difficulties observed in creating common understanding regarding the attainment targets. In a highly decentralised system with many intermediary actors, a continuous dialogue across all layers of the system is required in order to share different interpretations, point out to the original aims of policies, and jointly develop new understandings (see also OECD, 2011). According to Canadian researchers Ben Levin and Michael Fullan, maintaining focus on key goals and key strategies is crucial for a lasting change in education. In systems with multi-level engagement, they argue,

these key goals must be shared with stakeholders at all levels. “There can be – indeed there should be – room for a variety of strategies to achieve the goals, but there cannot be substantial dissent on the main purposes themselves” (Levin and Fullan, 2008: 294; see also Levin, 2012). Those key strategies pertain not only to the aims but also to the processes used to reach these aims (Burns and Köster, 2016). Common understanding of both the aims and the processes is vital for sustainable change. In this section, the existence of common understanding is considered using the following themes: agreement on the concept of attainment targets, the presence of diverse discourses on the nature of attainment targets and the existence of platforms for dialogue.

Agreement on the concept of attainment targets

The concept of attainment targets is one of the key principles of system governance in general and quality assurance in particular. An essential underlying element that shapes the common understanding of the attainment targets in the Flemish context is the importance of the freedom of education. “The Flemish educational system has been developed following a pedagogical-didactic approach of striving towards quality of education. This approach means that schools are free to determine their own definition of ‘quality of education’ and that differences between schools are possible and even desirable” (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010: 43). Within this perspective, one could expect that an agreement on overarching goals such as attainment targets is not a central element both in terms of content and of governance principle. Nevertheless, “imposed minimal quality indicators (e.g. attainment targets and developmental objectives), external quality control and output measurement” (ibid.) have become more important in system governance. Simons and Kelchtermans (2016) conclude on the basis of their analysis of literature and documents that they cannot find any tensions regarding the legality and constitutionality of the attainment targets - in contrast to earlier, almost all stakeholders now accept the legitimacy of the attainment targets. In other words, the idea of attainment targets has become a widely-accepted part of the key principles of the Flemish education system. Interestingly this acceptance was partly achieved by including a provision in the law to make it possible to deviate from the attainment targets. On the basis of this provision, the Steiner Federation actually makes specific attainment targets for the Steiner schools. This shows that while the concept is accepted, that does not mean that the way concrete attainment targets are formulated and designed is embraced as well. In the next section this will be further developed.

Three dominant discourses on the nature and statute of attainment targets

Despite a broad acceptance of the concept of attainment targets, their nature and statute is more contentious. The shifts in meaning that have taken place as described in Chapter 3 have given rise to a multitude of perspectives on attainment targets (Simons and Kelchtermans, 2016). In the interviews for the case study and current conversation about attainment targets, three dominant perspectives or discourses were identified: a discourse starting from *societal expectations* of education, a *pedagogical* discourse and an *education-pragmatic* discourse (see also VLOR, 2015; Simons and Kelchtermans, 2016). These discourses are not mutually exclusive - on the contrary, stakeholders can and do draw from several discourses when discussing the attainment targets. They are also not reserved to a particular stakeholder group, although some stakeholders are more attached to particular discourses than others. However, the different perspectives are important to note, as these discourses and the accompanying expectations are hard to reconcile both in theory and in practice (see also Simons and Kelchtermans, 2016). They give rise to confusion and uncertainty among stakeholders and the general public and sometimes hinder common understanding.

The first discourse starts from the *expectations of society*, i.e. the expectations of external stakeholders such as parents, social organisations, employers and the public in general. Various groups of stakeholders are supportive of this discourse, such as representatives of the public networks, students, parents,

publishers, social partners and some political parties. The main concern of this discourse is that, in order to best deliver societal needs, attainment targets should be formulated as clearly as possible and leave little room for interpretation. They should also be concrete and define precisely what students should know and be able to do. In this way they should be easy to measure, and can and should function on the level of individual students. In addition, they should apply to all students and to all schools. There is a strong tendency towards uniformity within this discourse. Adherents wonder why school requirements should vary from one place to another. They ask themselves what the value of a diploma is if there are no standards for certification, and schools, indeed, vary widely in their judgement on who has passed the tests and who has failed to do so. Some adherents point to the variation in results between schools and think that attainment targets could help to overcome the gaps. Finally, the attainment targets should be understandable for the broad public to be able to hold schools and the government accountable for student achievement.

The second discourse could be called *pedagogical*. It takes its starting point in the freedom of education for education providers. This category can be divided into two quite distinctive discourses. First, there is a pedagogical discourse, which is based on the freedom to educate students according to one's *convictions* about what constitutes a good life personally and in society. Representatives of all layers of free education network are most likely to adhere to this discourse. Central to this approach is the belief that variety keeps a system alive and dynamic. In addition, variety creates space for engaged professionals to shape education according to their ideals instead of only implementing what is conceived by others. Regulation needs to be inclusive, including a variety of perspectives. Attainment targets should thus be, according to this perspective, formulated at a more general level. They should be abstract and open and leave room for interpretation, so that education providers can translate them easily to their pedagogical projects. Attainment targets operate on the level of schools and the system. They are primarily meant to evaluate the quality of schools and of the system in general. Therefore only a majority of students should be able to reach the targets. Most importantly, the learning-plan makers should understand the attainment targets, as they translate the targets in the learning plans for schools.

The second type of pedagogical discourse emphasises the *professional expertise* of schools to shape education in such a way that it meets the needs of their students. This perspective is commonly taken by local education providers, among others. This discourse shares the wish to have open attainment targets, worded on a general level, to allow schools room for contextualisation, i.e. for the adaptation of education to local circumstances and specific populations. The interests of students are at the core of the professional expertise discourse. Adherents are, generally speaking, more interested in the progression of student learning than in reaching fixed standards. Attainment targets should therefore comprise several proficiency levels. In this perspective, the attainment targets should be, at minimum, understandable to their main users, i.e. school boards and school leaders.

The final discourse is *education-pragmatic*. Various representatives of all layers of public networks for example are supportive of this discourse, just like inspectors. According to this discourse, attainment targets should be formulated concretely and clearly. They should be easily translatable to instruction and assessment. In general, the supporters of this discourse would like to put an end to lack of clarity caused by the combination of attainment targets and learning plans in the system as a whole. Some adherents think that one learning plan is sufficient, as opposed to the current plurality of learning plans. This discourse is ‘pragmatic’ because it is mainly aimed at organising the system of attainment targets to be more efficient and clear for teachers. In this perspective, attainment targets should at least be made understandable for teachers, who are the main users.

Discussion platforms needed

In order to create and maintain common understanding, a system needs platforms where stakeholders can meet and discuss issues and different perspectives. In education, just as in any complex system, these platforms need to gather a wide variety of stakeholders from all levels of the system - not only institutionalised partners, but also informal groups and new players like social entrepreneurs. Linear and formalised forms of dialogue, representation and communication can no longer be taken for granted (Burns and Köster, 2016).

Within the Flemish education system, the Flemish Education Council (VLOR) was established to promote common understanding in general. Since the VLOR has a fairly broad collection of stakeholders on board, it should theoretically be suited to host extensive dialogue on attainment targets. However, there are a number of conflicting elements: the composition of the VLOR is based on a representation model and, as such, the umbrella organisations are the most dominant players, more dominant than the social partners for example. The VLOR was, after all, established to secure the influence of the networks on policy making. Furthermore, it is not easy for possible new players to become a member of the Council. At best, they are involved in preparatory consultations for the reports the Council is preparing. That probably prevents the VLOR from being the place where all discourses have the same weight. In fact, the freedom of convictions discourse appears to prevail (VLOR, 2015). This means that other platforms are needed.

The debate on attainment targets that the Minister and the Parliament are currently engaged in is a good example of the quest for new platforms for discussion and innovative ways of involving a broad range of traditional and new participants.[6] It makes use both of traditional and new discussion platforms, including websites and social media. Interestingly the debate is organised in co-operation between the Minister and Members of Parliament. Members of Parliament were invited to attend meetings and some meetings took place in Parliament. This might be a way to balance the tension between the outcomes of the debate and the room for political decision making that always exist in these kinds of broad societal debates. The debate is also a promising way of interacting with a broad audience. The downside is that the traditional representative organisations like the umbrella organisations do not always find it easy to mark their position in this melee of opinions and contributions. Since these organisations are vital for the implementation of the attainment targets, the government should offer them a clear position in the debate. At the same time, the government needs to ensure that the voices of non-traditional players are heard and can influence policy choices. For all participants, the nature and status of this consultation should be made clear. Transparency is required concerning the ways contributions are weighed and incorporated in policy proposals. This balancing act requires the highest levels of helmsmanship to integrate a diversity of perspectives and contributions.

Although a broad agreement on the concept of attainment targets has emerged, their nature and statute is still debated in Flemish society. As set out above, the three dominant discourses on the character of attainment targets are hard to reconcile. This causes distortion and uncertainty, and a common understanding is needed to bring about lasting change. To reach this common understanding, an ongoing dialogue is required with a broad range of stakeholders, giving equal weight to different discourses, while at the same time valuing the professional expertise of key stakeholders. The current search for new consultation methods and platforms to make this possible is a promising way forward.

[6] Another example of the search for new consultation platforms is the development of a new inspection framework, the 'Reference Framework Education Quality' (ROK). The framework is currently being discussed with a broad group of 700 to 800 stakeholders and experts. The process started with a widespread request among stakeholders for ideas on 'good education'. After an initial analysis, the Inspectorate has begun a dialogue about a draft framework, both through an online questionnaire and focus groups. In the next phase, the Inspectorate will try to reach consensus on the framework before it will be approved by the Minister.

Participatory governance does not automatically lead to ownership

The second main finding is related to participatory governance, which is commonly understood as the involvement of a broad range of stakeholders in all phases of policy making, from policy preparation to implementation and evaluation. The first aim of participatory governance is to gather expertise and opinions from a wide variety of perspectives. In addition, participatory governance gives voice to stakeholders and is intended to lead to the improved understanding of and commitment to policy goals. In this sense, it is meant to lead to legitimacy and ownership of the stakeholders, meaning that they deeply understand the issues and really are committed to the proposed solutions. Participatory governance is thus an essential precondition for implementation. In many systems, seeking consensus and common solutions is increasingly more common (See Alemanno (2015) for an analysis of enablers and barriers to this process).

Participatory governance has become more common at the same time that complexity has changed the conditions for stakeholder involvement (Burns and Cerna, 2016). Both de-traditionalisation and professionalisation have eroded the significance of representative organisations (Elchardus, 2003). The rise of new technologies has made it much easier both for people to participate and organise themselves and for institutions to reach out to a broader set of actors. That means that governments cannot trust linear forms of participation (representation) and communication alone (Hooge, Burns and Wilkoszweski, 2012). They would have to engage with a broader range of stakeholders than just representative organisations (see Box 4.1). In education, governments must seek ways to communicate continuously with school leaders and teachers in order to promote ownership.

Box 4.1. Co-creation and its drivers

In an effort to improve the performance and legitimacy of public policies, many OECD and non-member countries are looking for ways to open the policy process to citizens, civil society organisations and other key stakeholders. Co-creation, the active involvement of stakeholders in the development of policies, presents an attractive strategy to cope with the demand for better and more responsive policies. Co-creation can take place during different stages of the policy cycle and take a variety of different forms.

Bringing together stakeholders and policy makers to co-create policies can be challenging. The conceptualisation of participatory mechanisms requires careful considerations. One-size-fits-all solutions are not feasible, because the interplay between public officials and stakeholders depends on the national and policy sector context. However, by comparing co-creation mechanisms in social innovation across seven EU countries (Denmark, Estonia, Germany, the Netherlands, Slovakia, Spain, the United Kingdom), Voorberg et al. (2014) identified a number of factors that proved influential in the implementation of co-creation procedures:

1. **Administrative culture**: An administrative culture that is characterised by risk and blame avoidance hinders co-creation processes, because public officials might not dare or are not allowed to involve stakeholders in the policy process.
2. **Attitudes of public officials and politicians**: Efforts to establish co-creation mechanisms can fail if policy makers feel threatened in their expertise or consider stakeholders as incompetent.
3. **Incentives and objectives**: Providing public officials (and stakeholders) with clear incentives and objectives is crucial for establishing an understanding of the added value of co-creation processes.
4. **Compatibility**: Involving stakeholders in the policy process requires the adaption of supporting structures, procedures and routines, such as training facilities and communication structures.
5. **Willingness of stakeholders**: A successful implementation of co-creation mechanisms critically depends on the intrinsic motivation of stakeholders to actively participate in the development of policies. Depending on the sectoral and national context, values such as civic duty and the wish to positively improve the government may vary.
6. **Feelings of ownership**: Co-creation mechanisms need to be designed in a way that induces a sense of ownership in stakeholders, in order to for them to take responsibility and ensure sustained participation.
7. **Social capital**: A shared understanding of (public) interest and the presence of trustworthy relationships among involved actors are important for the co-creation of policies, as they enable stakeholders and policy makers to overcome barriers to collective action.

Source: Voorberg et al. (2014), "Co-creation in social innovation: A comparative case-study on the influential factors and outcomes of co-creation", presented at the IRSPM – conference, Erasmus University Rotterdam, http://hdl.handle.net/1765/51069.

Participatory governance strongly based on representation

Participation of stakeholders in policy making is at the heart of the Flemish governance structure in education. However, participatory governance is predominantly based on an administrative representation model, meaning that there is a central role for the representatives of school boards. From the beginning of the Flemish education jurisdiction, the networks have had a strong presence in education policy (Standaert 2011). Legally, they are one of the components of the quality triangle already mentioned in Chapter 3. In the Decree on Inspection and Support of 1991, the learning plans of education providers are positioned as an important link in the chain from attainment targets to class practice. In addition, it is regulated that the umbrella organisations provide support to schools via their PBDs. Furthermore, networks and umbrella organisations are key players in the VLOR. VLOR reports on attainment targets, especially if they are unanimous, are difficult for a Minister to disregard. This position makes the umbrella organisations indispensable in the development and implementation of attainment targets.

Participation in the cycle of attainment targets

The PBDs of the umbrella organisations play a strong role in the cycle of preparing, implementing and evaluating the attainment targets. Education specialists of the PBDs participate in the design committees for attainment targets together with a limited number of experts. In this sense, the development of attainment targets is an example of 'expertocracy' where experts play a central role in policy. The PBD experts play a double role. They also represent the umbrella organisations and are mandated by their organisations. Compared to the first wave of attainment targets, several changes appeared in the composition of the design committees aiming to work more efficiently, to raise the commitment of the umbrella organisations as well as to prevent the attainment targets from being too heavily influenced by particular subject specialists. First, the participant composition was narrowed. Unlike the broadly constituted committees during the first wave, including, among others, teachers and teacher trainers, they consist now of a limited number of experts. Second, subject specialists are being replaced by more generalist experts. Several interviewees expressed their satisfaction with the new approach. It might be the case, however, that the Ministry has lost a platform specifically for building more alignment across the components of the system.

In general, teachers and school leaders are mostly indirectly involved in the preparation of attainment targets, but there is no systematic rule and it depends on initiatives from the pedagogical advisers that are members of the design committees. For instance, one of the advisers tested the conceptual framework for technology in a number of schools before it was finalised. Furthermore, in the small umbrella organisations, teachers and school leaders are often more involved. In fact, some of the advisers of the smaller organisations are also teachers.

The involvement of teachers and school leaders in developing learning plans is much stronger. The learning plan design committees consist of the pedagogical advisers, teachers, academic experts and teacher trainers. Proposals are also presented to schools before being introduced permanently. In some cases, goals and activities were first tried in schools before they were included in the learning plans. In fact, one of the umbrella organisations is now developing a new learning plan for primary education, a process that takes several years. Schools can volunteer to pilot the draft learning plan.

Teachers, school leaders and other stakeholders are also involved in the evaluation of attainment targets. Some of them participate intensively in the developing of the national assessments. A wider group used to participate in the conferences after the national assessments; however, in recent years, the scope of participants has been narrowed down to keep focus and increase effectiveness. Unfortunately, one side effect is that the Ministry has lost an opportunity to create common understanding and ownership and build capacity among a broader range of stakeholders.

Ownership

As already explained, participatory governance has a twofold purpose. The first aim is to gather knowledge and opinions from a wide variety of viewpoints in order to enrich decision-making processes, preferably with some unexpected and surprising insights that would not have risen from traditional forms of governance. The Flemish Government has succeeded at eliciting a wide range of contributions, such as in specially designed co-creation processes such as the debate on future learning. That said, the recent renewal processes of attainment targets still took place in a more traditional way, with a prominent position for the umbrella organisations and less involvement of other stakeholders like teachers and school leaders.

The second aim of participatory governance is to engage stakeholders in such a way that they deeply understand the issues at stake and are committed to jointly chosen solutions, or in other words, that they feel ownership of system-level objectives. This requires an ongoing effort, not only in the preparation and

design of policies but also in the implementation and evaluation phases (see for an example Box 4.2). It is hard to determine the amount of ownership in a category as abstract as attainment targets. In the case study interviews, the research team came to the impression that stakeholders, and in particular teachers, are more familiar with the learning plans than with the attainment targets as such. This was confirmed by the interviewed experts and the different participants in focus groups that the Ministry organised in the context of various revisions of attainment targets in recent years. The experts stated that teachers did not use attainment targets for their annual plans (in fact, according to some interviewees, they did not use learning plans either). According to the interviewed experts, teachers were highly dependent on the handbooks developed by publishers (Entiteit Curriculum, 2007).

Results from research (Van Petegem et al., 2009) among teachers and school leaders in primary education similarly revealed that attainment targets were not a familiar tool for teachers, but rather learning plans were more workable for them. A survey among teachers and school leaders, carried out by the same researchers, showed that approximately 40% of the teachers and 50% of the school leaders said they knew the attainment targets well (Van Petegem et al., 2009). However, the results are not as straightforward as they seem. When asked if they used attainment targets for various activities, more than half of the teachers indicated that they used them sometimes or regularly, for instance for determining lesson goals, determining didactics and selecting learning materials. A majority of the school leaders indicated that attainments targets were regularly used for developing a school vision or the making of a school work-plan, among other reasons. Furthermore, a majority of the teachers and an even larger proportion of school leaders were satisfied with the attainment targets (Van Petegem et al., 2009). We do not know from research if teachers' and school leaders' opinions have changed since 2009, since research of this kind has not been repeated. We do know that expert opinions and surveys sometimes contradict each other.[7] The attitude of teachers towards attainment targets seems to be elusive.

An explanation could be that teachers are hardly aware of working with attainment targets in daily practice, but realise that they actually do so when specifically asked, for instance in a survey. Another explanation comes from Van Petegem et al. (2009), who concluded that there was a virtuous circle regarding the use of and satisfaction with attainment targets. School leaders and teachers that know and use the attainment targets are more satisfied with them; school leaders and teachers that are more satisfied with the attainment targets will subsequently know them better and use them more often.

[7] Another example can be found in the questioning of teachers in primary education in connection with the national assessment into world orientation (a combination of nature, technology, person, society, time and space). In the background questionnaire, a majority stated that they preferred to teach other subjects. But in a specific survey done by the agency to check these results, a majority of respondents (not the same as the background questionnaire) indicated that they actually liked to teach world orientation (AKOV, 2012).

Box 4.2. Teachers Programme 2013-2020 in the Netherlands: Creating ownership

In Fall 2013, the Minister and the State Secretary for Education, Culture and Science released the Teachers' Programme 2013-2020. This programme was developed in close deliberation with teachers, principals, school boards and teacher educators through working visits, resonance groups, inspirations sessions and talks with students. The Teachers' Programme deliberately builds on good practices and lays out a number of initiatives, including strengthening the professional body, expanding coaching for new teachers, creating alliances between 58 teacher training institutions and schools and developing a peer evaluation system.

Consultation continued after the release of the programme through three main avenues. First, a group of 'critical friends' from the education field was established to reflect on the progress of policy implementation. In addition, an 'inspiration group' open to all teachers meets regularly to discuss and highlight good practices. Lastly, ten thematically organised 'pioneer groups' of teacher training institutes exchange expertise and experience. The work of these groups is discussed with practitioners and policy makers and published on the web.

Source: http://www.delerarenagenda.nl/.

Flawed alignment hinders strong implementation

The third main finding is that successful implementation requires *alignment*. In the case of the attainment targets in Flanders (Belgium), alignment could be improved. Alignment is especially crucial for the implementation of policy, when actors need to be brought together and activities need to be harmonised. In complex systems, simple and linear patterns of planning do not work under such circumstances. Complex systems require carefully thought-out and collaborative implementation strategies, since change and sustainable development are cases of "generating momentum in a new direction by attention (…) to as many factors as possible" (Mason, 2016: 48). Sustainable change requires intervention at more levels at the same time (Mason, 2016).

In order for alignment to work, a 'whole-of-system' approach is needed. This implies that different components are closely attuned to each other, and that possible tensions between potentially conflicting forces, for instance, between accountability and trust, are balanced or even mutually reinforcing. Furthermore, a whole-of-system approach involves aligning roles and responsibilities as well as activities across the system, improving effectiveness and efficiency (Burns and Köster, 2016). In this case study, a lack of a systemic vision has created challenges in the alignment and implementation of the attainment targets. These issues are intertwined and can be mutually reinforcing, but for the purposes of this analysis, they are broken down into discrete stages, as laid out below.

Developing the attainment targets: Lack of an overall framework

After the first wave of attainment targets was set in the late 1990s and early 2000s, several new sets of attainment targets were established and some sets were revised, like those for natural sciences and languages. Although the design committees paid attention both to what is called horizontal and vertical coherence, an overarching framework still appears to be lacking. Ongoing revision of individual attainment targets takes closely related subjects into account, but does not look at the sum of attainment targets of all subjects. In addition, there is no overall or long-term strategy for the revision of attainment targets. It is therefore not surprising that questions were raised about the consequences for pupils' study loads (VLOR, 2015). Some school leaders and teachers also criticised the lack of alignment between attainment targets for pre-primary and primary education and between primary and secondary education respectively. This could lead to overlap, redundancy, missing parts in the curricula and a mismatch between what is taught in one sector and what is required in the other.

Implementation of attainment targets, learning plans and handbooks: Lack of co-ordination

The implementation of the attainment targets is primarily a matter of the umbrella organisations. They are responsible for the translation of the attainment targets into learning plans and, together with schools, the implementation of learning plans in daily practice. In addition to the umbrella organisations, however, a number of other actors are also involved: the publishers and teacher training institutes and other refresher training providers play a role in their realisation, and the Ministry plays a formal role at the very beginning of the implementation phase: The Minister has to approve the different learning plans, based on an advice from the Inspectorate. After that, the Ministry is not strongly involved in the implementation.

An exception to the relative distance of government is a grant scheme for 'priority refresher training', a relatively modest amount of money the Ministry provides for the training of teachers in Ministry specified priority themes. In 2009-2010, for instance, trainings in natural sciences and technology were included in the priority refresher programme to prepare teachers for the introduction of revised attainment targets. In addition, the Ministry sometimes deploys soft modes of governance, such as conferences, communication and research to put issues on the agenda and to disseminate knowledge. One example is an initiative around the professionalisation of teachers, which consisted of a combination of a conference, research and a special magazine, specifically to stimulate the establishment of professional learning communities.

In complex systems, the characteristic role of a ministry is to co-ordinate, i.e. to bring actors together and align initiatives mainly through the use of soft instruments. Without any other institutions and mechanisms capable of exerting this 'co-ordinating force', there is a risk of a lack of alignment and, as a consequence, a lack of momentum (see also Commissie Monard, 2014).

Before attainment targets reach the classroom, at least two steps are taken - both of which can cause distortion and uncertainty about the meaning of particular attainment targets. Attainment targets are processed 1) in the learning plan of the different umbrella organisations and (possibly even more importantly) 2) in handbooks by publishers. The following sections go through each of these steps individually.

Processing in learning plans

After the attainment targets are changed, the umbrella organisations process the new targets in their learning plans. This leaves room for interpretation and the embedding of attainment targets in the specific education visions of the various organisations. For many teachers, it is not immediately clear which objectives are derived from the attainment targets and which ones are additions from later in the process. Additionally, many teachers consider the curriculum to be overloaded. First, they think there are too many attainments targets. On top of that, learning plans add new objectives. Furthermore, learning plans change too often (Ministry of Education and Training, 2016; Kenis et al., 2013; AKOV, 2012; Elchardus et al., 2009). For technology, the translations of different learning plans actually led to differences in the interpretation of subjects, in the structuring of attainment targets, in the formulation of attainment targets, and small differences in the elaboration of the targets. Finally, the relation between learning plan goals and attainment targets was not always made clear (Lenaerts and Vanleeuw, 2012).

Just as, until now, there has been no systematic and coherent strategy for updating attainment targets, such a strategy is, according to some interviewees, also lacking for the renewal of learning plans. Even within an umbrella organisation, learning plans are frequently revised on an ad hoc basis and do not always take into account the whole curriculum. Furthermore, learning plans are updated more often than the attainment targets. It is up to the different umbrella organisations to decide on when to revise learning plans. Interestingly, at the time of writing, one of the umbrella organisations, Catholic Education Flanders,

is in the middle of the development of a new, overarching learning plan for primary education that integrates all domains. The introduction of this learning plan will probably precede the introduction of a possible new scheme of attainment targets. In theory, attainment targets are the reference framework for learning plans, but in this case, it could also be the other way around. This raises the question of whether there would be enough room in the revision process of attainment targets for all stakeholders to have their say.

All of this does not mean that no alignment takes place at this stage of the implementation. First, in most cases, the pedagogical advisers who take part in the design of the attainment targets are also involved in drafting the learning plans. In this way, more or less tacit knowledge about the background and rationale of the attainment targets is included in the learning plans. Secondly, several interviewees stated that compared to earlier learning plans, the current ones are becoming more like each other. One of the reasons that the umbrella organisations feel the need to align the learning plans is the increasing mobility of students across networks. In addition, the umbrella organisations have agreed to jointly develop so-called 'curriculum dossiers' for secondary education, an intermediate stage between attainment targets and learning plans. These curriculum dossiers contain the goals of a particular discipline across the grades, based on among others the attainment targets and key competences frameworks (VLOR, 2015). Finally; the public education providers (Go!, OVSG, POV) have recently agreed to co-operate more closely. For example, they are making one learning plan for the public networks. These are all signs of nascent co-operation. Some of them are bottom-up initiatives, but the last one is certainly a result of government incentives.

The implementation of the learning plans in the schools is supported by the PBDs of each umbrella organisation. They offer various forms of training to schools and, on request of schools, support for school leaders and teachers. In addition, PBDs create peer learning networks of school leaders and teachers to share best practices and learn from each other. PBDs do not monitor systematically if the learning plans are implemented as intended. They wait for signs either from schools themselves or from the Inspectorate before they act. There was no joint effort of PBDs to share expertise in the implementation of attainment targets, as the Committee Monard (2014) also noted. If there was any collaboration, it was mostly initiated by individual staff members. Furthermore a partnership of PBDs has recently been terminated by the Ministry for reason of budget cuts. A joint effort initiated by the umbrella organisations however, would allow implementation to be more powerful, sustainable and efficient.

Processing in handbooks

Both the attainment targets and the learning plan objectives are further worked out in handbooks. Those handbooks are made by teams of experts, among them teachers, sometimes seconded by schools. Publishers actively promote the use of handbooks through method- related training, which according to publishers is in high demand among teachers. However, not all teachers are attracted by the commercial approach of the publishers. As already mentioned, publishers are attributed a crucial role in the shaping of education in Flanders (Belgium), and this is one example where their influence can be readily determined. Teachers are highly dependent on handbooks for their lesson plans and increasingly also for assessments.

It takes approximately three years to make a handbook. This does not match very well with the tight timeframes for the introduction of the attainment targets. For example, in the case of both technology and natural sciences, the attainment targets were established in the spring of 2009 and entered into force in September 2010. Therefore, learning plans and handbooks had to be made within 18 months. Since the drafters of learning plans are also intensively involved in the development of the attainment targets, they can anticipate the revision. Publishers, however, are not formally involved in the preparation process both of attainment targets and learning plans. In order to still be able to deliver new textbooks quickly enough, publishers maintain informal contacts with the designers of targets and learning plans and with other

experts. Although functional, the ad hoc nature of this arrangement means that a structure for participation of publishers is lacking, and to a large extent, the interaction between officials and publishers depends on personal relationships. Combined with the lack of an overall framework for the revision of attainment targets and learning plans, this makes it hard for the publishers to design a careful process so that handbooks deliver the required content.

Teacher training not systematically involved

An important component of the alignment and implementation of attainment targets is the inclusion of revised objectives in the programmes of teacher training institutes. In order to anticipate new targets, training institutes should be involved in an early stage of target development, and the case study interviews made clear that this is indeed the case for some lectors (for example, lectors are invited to participate in design committees or expert advisory groups). However, it seems that the training institutes are not systematically involved in the development of attainment targets and learning plans, particularly at an institutional level. This reflects what is happening at the Ministry level: the Department responsible for teacher policy is not involved in the development of attainment targets.

This sometimes causes delays in the implementation of attainment targets, as in 2010, when the revised objectives for natural sciences were introduced. It takes some time before programmes are adjusted and the first newly trained teachers enter the labour market. But in the case of natural sciences, a specific problem arose regarding the regulation of teacher competences. In Flanders (Belgium), a teacher needs a proficiency certificate to teach a particular subject. With the introduction of the revised Natural Sciences attainment targets, a new certificate was established. Teachers educated in biology, physics and chemistry (the three constituent parts of natural sciences) were considered qualified to teach natural sciences. However it was unclear if teachers who were trained in natural sciences would also be qualified to teach biology, physics and chemistry. It took some time before this was arranged satisfactorily. During that period, many teachers preferred training in one of the traditional subjects. As a consequence, it will now take even longer before the first teachers trained in natural sciences enter schools.

In the case of technology, some interviewees observed that training institutes move at different speeds when processing the attainment targets in their programmes. It might be a consequence of the large discretion lectors have to shape the curriculum. This leaves room for differences in interpretation of the rationale of the revised objectives. Or as some of the interviewees stated, the rationale of the new goals is not fully incorporated in the curriculum.

It seems that there are not enough forums to talk about these differences. In this regard, it is noteworthy that a platform where these kind of issues could have been discussed, the so-called ‘expertise networks,’ have recently been discontinued.

To summarise, the implementation of attainment targets seems to be hindered by a lack of a strategic planning and a well-thought-out implementation strategy for the revision of attainment targets and learning plans both from the umbrella organisations and the Ministry. This has caused a flawed alignment between attainment targets within and between education sectors, but also an overburdened curriculum for teachers and students. PBDs have not developed strong collaborative ties and several platforms for exchange and co-operation have been terminated as a result of budget cuts. The Ministry is not strongly involved in implementation and co-ordination in implementation seems to be missing. This has led to delays in the implementation of attainment targets, and has also had implications in other areas, such as in the numbers of teachers trained in the Natural Sciences and available to teach the subject.

Capacity building is a vital companion of change

Capacity building, the fourth main finding identified by the case study, is crucial for effective governance. In highly decentralised systems, the capacity of school boards, school leaders and teachers to realise overarching goals while simultaneously responding to local needs is critical. Capacity building is about providing different actors with effective and efficient ways to access and use knowledge in order to achieve desired outcomes. It includes not only access to information, but also the ownership and willingness to use it, as well as the ability and tools required to make a change efficiently and to build new reflexes and routines for sustaining the initiated change (Burns and Köster, 2016).

Research shows that interventions in schools that include capacity-building measures have a higher chance of succeeding (Slavin, 2015). An important element of capacity is a shared vision and policy comprehension. Actors need to understand the rationale of policies and reforms to be able to realise the policy objectives. Furthermore, in today's world, the capacity to use data stands out. Copious data on the performance of students, teachers and schools are available but seldom used fully. The development and provision of capacity building is lacking in the implementation and use of the attainment targets, which has led to challenges in the system.

Box 4.4 Capacity building through engagement: The adoption of Electronic Health Records in the United States

Although several studies have shown that Electronic Health Records (EHR) have the potential to considerably improve the efficiency and quality of medical care, e.g. by reducing medication errors, facilitating the exchange of information between physicians and enhancing patients' preventive care, health care providers in the United States were slow to adopt EHR systems. In 2008, only 9% of hospitals and 17% of physicians in private practice had adopted EHR. An extensive financial incentives program increased adoption rates, but implementation was nevertheless lagging far behind targeted objectives, emphasising the crucial importance of user attitudes towards the system and the need for capacity building to support their use.

A study by Blavin et al. (2013), conducted for the U.S. Department of Health and Human Services, examined different adoption practices of local health providers (private and public hospitals and ambulatory services) and found that the successful adoption of EHRs crucially depends on the engagement of staff at all stages of the implementation process. By involving health care professionals in the planning and development of the adoption process health providers were able to overcome important implementation barriers. This also allowed them to identify the areas of capacity building that would be required for their successful use.

Three factors were identified as particularly influential: first, an appropriate framing and a transparent communication of the objectives played an important role. Health managers that emphasised EHR's potential for improving the quality of care, the rationale of the intervention – instead of communicating it as a technological innovation and an end in itself – were more successful in fostering acceptance and preventing resistance among physicians and nurses.

Second, the study reports that the appointment of EHR ambassadors at local implementation sites was an important strategy to facilitate adoption: "Physician champions" (Blavin et al., 2013: 15) – someone respected among his/her peers – in many cases succeeded in overcoming concerns and reservations colleagues had related to the change. Moreover, physician champions were able to support implementation by acting as local reference persons for questions regarding the operation and functioning of the EHR systems, providing capacity building on the ground, as it were.

Third, some health organisations entered into networks or partnerships to benefit from one another's experiences and expertise. Blavin et al. (2013: 18) report that the "sharing of health IT expertise and personnel across the network made implementation more rapid and effective". Opportunities for shared learning and information exchange proved particularly advantageous for small health organisations with fewer resources. Capacity building through incentives, technological and physical support, and leadership and responsiveness was all essential to making real changes in behaviours.

Source: Blavin, F. et al. (2013), "Final Report: Lessons from the Literature on Electronic Health Record Implementation", https://www.healthit.gov/sites/default/files/hit_lessons_learned_lit_review_final_08-01-2013.pdf.

Understanding of the system of attainment targets is lacking

The realisation of attainment targets in schools and classrooms starts with teachers and school leaders understanding the cycle of attainment targets, i.e. the processes, connections between attainment targets, learning plans and handbooks, and the status of attainment targets and learning plan objectives. This requires both knowledge and capacity building. Teacher training institutes pay attention both to the content and to the system of the attainment targets and the different learning plans. Some of them also discuss explicitly the way handbooks are made, including the way attainment targets and learning plans are processed in the handbooks. Despite this, however, many experts and teachers observed in the case study interviews that many in-service teachers are insufficiently aware of the system of attainment targets and the way the constituent parts relate to each other. This leads to misunderstandings, for example, regarding the statute of learning plan goals, the statute of handbooks and the position of different objectives in the inspection framework. In addition, many school leaders and teachers stated that they were not fully aware of the content of targets for other education levels (Van Petegem et al., 2009). This calls at least for attention in the training and professional development of teachers and school leaders for continuous curricular strands, in particularly with an eye to building capacity and knowledge, as the Ministry of Education has already concluded (Ministry of Education and Training, 2008).

Pedagogical shift not fully realised

This section focuses on the professional development of in-service teachers, specifically on building capacity for the realisation of the revised technology and natural sciences attainment targets. Although the attainment targets do not prescribe any pedagogical approach (pedagogy is exclusively the domain of schools and umbrella organisations), the new objectives required not only new content, but presupposed new modes of teaching, learning and assessing achievement. Briefly, natural sciences required enquiry-based learning, while technology demanded design-based learning.[8] Regarding assessment, schools would have to make a shift from summative to formative assessment, that is, paying more attention to the learning process and focussing on diagnosis instead of simple determination (see also Lenarts and Vanleeuw, 2012).

The first question to be answered is if teachers have succeeded in making these shifts. The general picture is mixed. According to several interviewees, it varies by school. Many teachers developed enthusiasm for the new subjects and are or have been changing their lesson plans and instruction styles. But they still have work to do when it comes to the hard part of the shift, enquiry- and design-based learning and the use of interactive and collaborative forms of teaching as is also shown in the recent national assessment on natural sciences in secondary education where many teachers showed reluctance in self-regulated learning (AHOVOKS, 2016a). This calls for more profound changes in teaching style and touches on the beliefs of what good teaching includes. It requires a changed mind-set, which takes time and regular practice. Teachers have also found it hard to evaluate the achievement of students. Assessing (collaborative) learning processes and acquired skills calls for more than traditional knowledge tests. Some teachers lack knowledge to develop such tests, others have pointed to a lack of time for intensive forms of evaluation (see also Lenarts and Vanleeuw, 2012).

[8] Enquiry-based learning is an educational approach in which students construct their own learning by going through a process of identifying and researching a specific problem, thinking critically about that problem's context, and possibly generating solutions. In enquiry-based learning, students are meant to learn through active, self-led investigation, rather than through passive exposure to facts and lectures. Design-based learning is an educational approach in which students engage in an iterative process of developing, actively making, and assessing a product that may solve a complex challenge. Design-based learning can be distinguished from broad enquiry-based learning by its emphasis on encouraging students to create a tangible product or prototype that can be used in the real world.

The Inspectorate reported similar results in a recent evaluation of STEM (Science, Technology, Engineering and Mathematics) education in primary and secondary education (Onderwijsinspectie, 2014). The vast majority of schools were rated as 'satisfactory' by the Inspectorate, which means that they succeeded in delivering 'desirable quality' in different aspects of STEM education. The Inspectorate, however, did comment on the degree to which teaching in primary education was aimed at self-directed learning. The focus on enquiry-based learning is growing in both in primary and secondary education, but the execution still needs improvement. Design-based learning is not yet widespread. Collaborative and interactive learning need enhancement. The Inspectorate was most critical on evaluation practices in primary and secondary education. In primary education, evaluation needs to be more intentionally carried out. In secondary education, the emphasis is still on the reproduction of knowledge, not on assessing capabilities and attitudes.

These findings might be reflected in the results of national assessments of technology and natural sciences carried out in 2015. While approximately 70% of the children reached the attainment targets in technology in primary education, the results on the (non-representative) practical test were less satisfactory. Only a small group performed completely successfully on the practical test (AHOVOKS, 2016b). The same applies to the practical exercises in the natural sciences assessment in secondary education. In addition, on the written test, the results were also mixed. In one domain, 25% of the participants reached the attainment targets, while in other domains the results varied from 50% to 70% of the students mastering the attainment targets (AHOVOKS, 2016a).

Thus, the state of realisation of the revised attainment targets appears to be mixed. Schools are changing the curricula and instruction practices, but there is still a lot to be done. What could explain this state of affairs from the viewpoint of capacity building? Below we examine a number of factors. First, several interviewees pointed to the fact that many teachers are not familiar with the underlying conceptual framework and rationale of the specific attainment targets or with the design of the learning plans. There is a very practical reason: teachers tend to skip the introductory pages where the concept and design are explained. If teachers do not know the founding ideas, it will be hard to understand the language of the attainment targets, and consequently, it will be difficult to implement the targets as intended. Furthermore it is not clear if the rationale is an integral part of the attainment targets or 'just' an introduction to the actual targets.

In addition, teachers in primary education considered technology goals less important than those for other subjects and were less satisfied with the technology goals. They also found the goals less achievable and less related to the life of children (Van Petegem et al., 2009). At least, this was the case in 2008, before the attainment targets were revised. Unfortunately, this research has not been repeated in this form since the introduction of the new targets. Several interviewees stated that many teachers in primary education still appreciate technology less than other subjects and sometimes feel less comfortable teaching it. As a consequence, the interviewees expected that those teachers paid less attention to technology in daily practice.[9] However, there does seem to have been some progress: teachers participating in the national assessment in 2015 showed more confidence and a majority felt secure teaching and assessing technology. Despite this, many teachers stated that they were insufficiently supported both in teacher training and in school (AHOVOKS, 2016b). Natural sciences in the first stage of secondary education faced a different issue: in the revised attainment targets, physics, which had not been taught before, was added. Some teachers, qualified in biology, resisted this expansion of natural sciences with physics.

There were also practical obstacles to the introduction of the new attainment targets. Some schools did not have the right or enough equipment to carry out the physics experiments. Other teachers stated

[9] Most teachers interviewed for this case study were more or less specialised in technology education, and so likely to both know and appreciate the goals more than other teachers might.

there was not enough time set aside in the curriculum to do experiments, particularly to organise self-discovery learning in the classroom. Another practical obstacle was the lack of practical courses for teachers. Many teachers very much prefer courses that are immediately applicable in the classroom. Several interviewees noticed that such courses were lacking. Even if it was not the case, teachers apparently were not aware of such courses' existence. Either way, they did not receive the necessary training. Furthermore, school leaders seemed to play an important role in the disclosure of information to teachers. In the case study interviews, it appeared that not all relevant information about the attainment targets reached the teachers.

No overarching effort at system level

How could these obstacles be overcome? Given the scope of the shift that needs to take place, an encompassing and sustained effort on a system level is needed to build capacity for the revised attainment targets. Such an effort is especially needed to change the mind-set of teachers so that they adapt their teaching styles profoundly. It is questionable if a limited amount of team workshops and single courses for individual teachers suffices. This would require prolonged training for schools and teams as a whole. In the case of technology and natural sciences, such an effort has been missing.

Naturally, the umbrella organisations offered courses and workshops before and after the introduction. Some of the courses were funded by the priority grant scheme of the government. However, this scheme only applied for one year. The government also did not provide additional funding for the capacity-building activities of the PBDs. The PBDs are supposed to perform the implementation activities in addition to the regular work and with the existing staff. According to several interviewees this led to understaffing of specific support for schools on this topic, some PBDs had too few people available to support implementation in an ambitious way. Additionally, this observation did not lead to a collaborative effort of the PBDs to join forces and share the work, just as the Committee Monard concluded in general about the positioning of PBDs (Commissie Monard, 2014).

As a consequence of the freedom of education, it depends to a large extent on schools if a comprehensive and sustained implementation is undertaken at the level of the school and requires a coherent professional development strategy. Several interviewees observed that such a strategy is lacking in many schools.

In addition, there is an individual side to this problem. Participation in professional development (PD)-activities seems, to a large extent, dependent on individual preferences and motivation (see also Commissie Monard, 2014). Furthermore, as some interviewees remarked, professional development is highly voluntary as it is underappreciated in the official mission of teachers. This may be a factor in a recurrent observation about the Flemish education system, that there is a difference in performance between schools in many areas. There are examples of schools who adopted a long-term strategy. For instance, a school consortium started an intensive three-year improvement process of technology education, partly due to a critical Inspectorate evaluation. Each school had to make a development plan supported by the PBD. Teachers were trained, whereby several of them were more intensively prepared to become a coach, and train and support other teachers. Within this process, there was a strong emphasis on teamwork and peer visitation. This effort now seems to be paying off, as the process actually led to the improvement of achievements in technology.

Horizontal capacity building

The approach of the school mentioned above contains an element of horizontal capacity-building, a collaborative effort of teachers to improve their practice. Internationally, this is conceived as a promising road to improve education sustainably (Schleicher, 2016). In Flanders (Belgium), this movement is still in

its infancy (Commissie Monard, 2014). Results from the OECD Teaching and Learning International Survey (TALIS) showed that compared to other countries, fewer Flemish teachers observe lessons from colleagues or take part in collaborative professional learning activities (University of Antwerp Edubron Research Group and Ministry of Education and Training, 2013). Nevertheless most interviewees, including teachers, were optimistic about the growth of collaborative activities between teachers. According to them, compared to five to ten years ago, the collaboration markedly increased as shown by the guidance of novice teachers and the establishment of subject-related departments. Interestingly, this observation is not fully reflected in TALIS-figures on teachers in lower secondary education. Teacher participation in professional development networks seems to remain stable, and even slightly decrease, from 2008 to 2013 (25% in 2008, 23.4% in 2013). Fewer teachers were involved in mentoring (of teachers) and peer observation (22.1% in 2008, 12.7% in 2013). That said, teachers may be collaborating in other ways.

Capacity building for school leaders

Capacity building for school leaders seems to be predominantly focussed on policy-making capacity, which has already been a priority of the Flemish Government (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010*)*. Policy-making capacity is described as "the extent to which schools use the available room for policy making to come to a continuous process of retaining or changing their work in order to improve their educational quality and attain both the external and self-imposed objectives" (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010: 62). The authors note that "most schools are still in the learning phase and are developing their policy-making capacities" (ibid.). As a consequence, the PBDs have put capacity building for policy making high on their agenda, partly stimulated by government funding. They offer courses to strengthen the policy-making capacities of boards and school leaders. Several interviewees stated however that much development has yet to take place since there are large differences between schools (see also OECD, 2011). The effort to narrow the gaps between schools appears weak.

Overall, capacity building for the revised attainment targets seems to have been fragmented and not intensive. It depended on the motivation and capacity of schools and teachers. There was no overarching and sustainable effort at the level of the system to build capacity for a substantial shift in pedagogy, nor to close the gap in capacity between schools. This has probably led to a mixed picture, as many teachers still seem to lack understanding of the rationale of the new attainment targets. Furthermore, the pedagogical shift required to reach the revised attainment targets for technology and natural sciences has not been fully realised.

Effective feedback needs comprehensive data and local capacity

The last main finding from the case study research relates to feedback and accountability. In a multi-layered, multi-governed and multi-actor system, a continuous flow of information is needed to inform all actors about developments (to be able to respond), activities (to be able to align) and results (to be able to learn and improve). From a systems perspective, it is acknowledged that policy changes "do not always produce intended, linear outcomes, and that an ongoing process of learning, innovation and reflection is required to bring about long-term social change" (Colgan et al., 2016: 8). Accountability is a vital component of feedback in modern governance. In decentralised systems, accountability must go hand in hand with the autonomy of schools. It can play an important role in improvement and innovation within a system and within schools, as well as ensuring strong performance and achievement. "Strong accountability" should balance two functions of accountability: delivering public justification on the one hand and stimulating learning and continuous improvement on the other (Burns and Köster, 2016: 24).

Feedback on achievement at system level limited

One of the main instruments to determine the extent to which the attainment targets are met is the National Assessment Programme (NAP). Sometimes it proved complicated to translate attainment targets into measurable items. Not all attainment targets are suitable to be measured in a standardised test, especially attitudinal and competency targets. To assess attitude and competency, practical tests are included in the NAP, but on a smaller scale than written tests, which raised some questions about representativeness of the results. Since its launch in 2002, the NAP has become a vital part of quality assurance at the system level (see Standaert, 2011; Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010). One of the perceived strengths of the NAP is that it covers a variety of subjects, from mathematics and languages to citizenship. It is not confined to two or three core subjects as many other system assessments are. Over the years, it has resulted in a rich and a better-rounded picture of the system. The flip side, however, is that a broader annual report on achievement is missing since the NAP is only administered in two subjects, one in primary and the other in secondary education.

A second challenge is that it can take some time before the results of a change in attainment targets can be measured. Take, for example, the revised attainment targets in technology and natural sciences in 2010. The achievement on these targets was only assessed in 2015. The advantage of these time lags is that schools get the chance to implement the attainment targets carefully without being disturbed by hasty conclusions on achievement. The disadvantage is that it takes time before a cycle of learning, adjusting and reflecting can begin. In addition, a multiannual or long-term perspective is lacking in most subjects, since it takes a long time before a subject is tested again. There also was no long-term planning of the assessments. A long-term strategy would not only allow for the planning of repeat research, but could also better align assessments to the maintenance of attainment targets.

Another source of information about the attainment targets is the annual Inspectorate's report, the Education Mirror. However the report does not show the achievement on the attainment targets of students at system level. The Education Mirror is more focussed on input and process variables, and only looks generally at how many schools have sufficiently implemented and reached the prescribed curriculum, including the attainment targets.

Scientific research provides the Ministry with insights into the functioning of the system of attainment targets. However this knowledge is not always up-to-date and complete, such as the research on perception which was done in 2008 and only in primary education (Van Petegem et al., 2009). The review team formed the impression that systematic and thorough knowledge is lacking about how the attainment targets and learning plan objectives are actually taught in classrooms. This can be compensated by using practice-based knowledge, as was done at the conferences accompanying the national assessment report and at other meetings. One strong point of the conferences has been to bring different perspectives and types of knowledge together to interpret and follow up on the result of the national assessments.

Overall, at system level, an up-to-date overall picture of the achievement on attainment targets is missing, as the NAP does not provide annually a broad overview of achievement and the Inspectorate does not report on achievement on the level of students. This seems to match with a generally more critical attitude towards central examinations among all stakeholders (see also Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010) which is also part of the pedagogical discourse mentioned before. Critics fear the one-sided and limited evaluation of the development of children that could be the consequence of standardised tests. They also worry that central examinations could reduce the room for school leaders and teachers to make a balanced decision about the achievement of individual students.

Feedback at the level of schools

As schools are primarily responsible for delivering quality education, quality assurance and evaluation of student achievement, they decide on the certification of students, i.e. what criteria will govern their decisions and on which evaluation the considerations will be based. Schools are obliged to assess whether the students have attained the objectives of the school curriculum, including the attainment targets. This information feeds into the decision of the schools (Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010).

The way students are assessed is not prescribed. Since there is no standard national examination imposed at the end of primary and secondary education, schools have a lot of room to choose their own path. The attainment targets were developed to evaluate schools, just as the National Assessment Programme (NAP) is meant to provide information for school, not student, assessment. Schools can make their own assessments, but they can also use tests provided by the Ministry, by umbrella organisations and by publishers. Subsequently, not all schools use government-validated tests, as the Court of Audit observed (Rekenhof, 2011). It is also not obvious that schools keep and collect longitudinal data. As already mentioned previously, the Inspectorate observed in 2014 that the quality of the evaluation practice is a concern both in primary and secondary education, a worry shared by several interviewees. In addition, it is not always clear to what extent tests from handbooks cover all attainment targets, and not all schools check this, according to several interviewees (see also Ministry of Education and Training and University of Antwerp Edubron Research Group, 2010). This could be a consequence of the lack of knowledge of the attainment targets system described earlier, and also of a lack of alignment in the creation of attainment targets, learning plans and handbooks as mentioned in the alignment section.

For internal evaluation in schools, PBDs are not the only support organisations. The Ministry also facilitates schools mainly through the provision of data and assessment instruments. Will schools use all the instruments and data provided? Only a small number of schools seem to use the assessments. Evaluation and data literacy are concerns in the Flemish system, as was observed by inspectors and in an OECD-review (OECD, 2011) and confirmed by several interviewees. In particular, interviewees believe that the assessment of design- and enquiry learning in technology and natural sciences respectively, which are both prominent aims of the revised attainment targets, need to be strengthened. Teachers also indicated that they struggled with assessment for technology (Lenaerts and Vanleeuw, 2012). Moreover, many school leaders and teachers were not convinced of the usefulness of the benchmarking opportunities of standardised tests. Altogether, this implies that it is not enough to provide the data. A co-ordinated and sustained commitment to the strengthening of evaluation capacity, i.e. the capacity to interpret and use data as one of the inputs for expert professional judgment, is necessary.

The Inspectorate provides an outside view on the extent to which attainment targets are realised and reached at school level. From the interviews, the research team formed the impression that the Inspectorate's audit is a strong incentive for schools to review and reinforce their evaluation policy and practice, with a focus on the attainment targets (see also OECD, 2011 for a more general view on the impact of school inspection). This certainly applies to schools receiving a negative recommendation, but also for schools preparing an audit, although 'inspection fear' may have played a role in the reaction of the latter. However, it was not clear for all schools whether the basis of Inspectorate's judgements was attainment targets or learning plan objectives. This might be a consequence of a lack of understanding of the system of attainment targets. Currently the Inspectorate is developing a new education quality framework together with key stakeholders and deliberately focussed on aligning internal and external quality assurance, strengthening the internal quality assurance and creating transparency and agreement on quality criteria across the system. It is broadly perceived as a promising avenue to increased understanding and capacity at school level.

The team formed the impression that horizontal accountability did not play a major role in the evaluation of attainment targets. Several interviewees stated that the involvement of parents and students depends on the school management. School leaders and teachers were also concerned about juridicisation[10] as a consequence of the attention to attainment targets, although the extent to which it currently occurs is not clear. Parents' organisations are actually funded to raise knowledge and capacity among parents and strengthen the relations between schools and parents in order to prevent those relations from becoming increasingly litigious.

To sum up, schools are primarily responsible for quality assurance and assessment of students. Evaluation capacity at the school level, however, is unevenly distributed across schools, both for internal evaluation and for student assessment. As several interviewees stated, the Inspectorate seems to be a strong catalyst of the use of attainment targets by schools to evaluate students. But more capacity building is needed to close the gaps between schools and raise the level of evaluation and assessment literacy across the system so that schools can assess whether students reach the attainment targets. At the system level, an up-to-date picture of student achievement across a broad range of subjects is missing. At all levels of the system, a collaborative and sustainable effort is required to get a continuous learning process started. Taking a whole-system approach will help to connect different actors and balance possible tensions.

[10] Meaning that relations between people or between people and institutions are becoming more and more juridical, for example parents suing schools for low achievement.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Attainment targets were introduced in Flanders (Belgium) in 1991 and have been the object of an important policy and societal debate since their inception. The Belgian Constitution recognises the right of any physical or juridical person to set up a school and run it according to her own beliefs, whether for reasons of creed or pedagogical convictions. In this sense, diversity is a vital condition of the Flemish system. At the same time, every child in the country is entitled to receive a quality education no matter which school she attends, which means that the Flemish Government has the responsibility of ensuring high-quality provision of education across a decentralised, multi-layered system. In such a system, there is always a risk of fragmentation and a wide variation in performance between schools. This case study explored the policy implications of this tension for educational governance by analysing the processes of elaboration, implementation and revision of attainment targets in Flanders (Belgium).

This analysis takes a complexity perspective as starting point. This perspective is particularly applicable to the Flemish education system given the number and diversity of actors operating at multiple levels and interacting with each other in many different ways. As we know from complexity theory (Snyder, 2013; Mason, 2016), complex systems are organic environments: their functioning goes beyond the sum of the components, and thus, new and even unexpected phenomena emerge as the consequence of multiple and diverse interconnections among the parts. Successful and sustainable change in complex systems cannot be reached either by fragmented policy actions or linear, hierarchical and centralised solutions. Instead, systemic governance must rely on strategic whole-system approaches and collaborative governance should replace forms of competitive governance where stakeholders attempt to exclude each other from participation.

The conclusions of the OECD analysis are presented in this chapter, and potential ways to address the problems within the existing educational regulations are suggested. The main conclusions of the case study fall into four categories: common understanding and participatory governance, capacity building, whole-system strategic thinking, and building a culture of evaluation and learning.

Participatory governance and common understanding

Creating common understanding is the cornerstone for whole-of-system reform and closely linked to participatory governance. Particularly in environments where linear and hierarchical direction is not applicable, a shared understanding facilitates higher levels of legitimacy, ownership of policy goals and initiatives, smoother implementation and identification of capacity building needs. Common understanding should not be confused with uniformity and consensus per se, but for a whole system to move forward, actors should agree on key principles on where to go and how to get there (Burns and Köster, 2016). Developing a shared understanding through a participatory process may create synergies through collaboration in practice, and may even end up articulating consensus, even if this did not exist at the beginning of the process (Levin and Fullan, 2008).

Currently there is a lack of common understanding of the role of attainment targets in the Flemish system. Whether attainment targets should serve for accountability improvement, as general guidance for learning-plan makers and teachers or as specific unifying criteria for evaluation and assessment across the system is not clear. Even though attainment targets have clearly been accepted as a key part of Flemish education, divergences of opinion regarding their character and status still persist and seem hard to reconcile. Common understanding is needed to keep both unity and diversity in the system.

This is not simply a philosophical issue. Common understanding of the basic principles and main goals of a system is a key factor of effective system governance, both to prevent fragmentation and (perhaps paradoxically) to preserve diversity. If diverse views are not reconciled, diversity might result in fragmentation, i.e. undesirable gaps in achievement and capacity, lack of mutual understanding and collaboration, and unproductive competition between schools. Opening governance structures and processes to wide participation provides a channel for stakeholders to express their views and contribute to shaping policy with their expertise. Circulation of knowledge is enhanced and stakeholders' opinions and concerns are taken into account. These kinds of processes in turn increase levels of acceptance and understanding of the policy output by stakeholders, and allow for unity in diversity.

Reaching a shared vision on the nature and character of attainment targets calls for an ongoing dialogue with a wide range of stakeholders. A highly decentralised system like Flanders (Belgium), with many diverse stakeholders at different levels, needs to find the way to open up the dialogue mechanism to new players and informal groups beyond traditional institutionalised stakeholders. This includes both educational and non-educational actors from both public and private sectors (e.g. other ministries, employers, etc.). Traditional platforms for consultation based on representation of institutionalised stakeholders might not be able to play this role. One note: when looking for broad involvement of stakeholders it is wise to keep in mind that different phases of policy cycles require different compositions of participants, more broad in the agenda setting phase and more focussed on expertise in the policy design phase.

Recent consultations on the future of learning organised by the Minister and on the future framework for inspection conducted by the Inspectorate are promising examples of the open approach mentioned above. These are wide-ranging co-creation projects that give voice to all stakeholders to provide input within and outside the existing channels of participation. This has, however, a downside: the voice of key stakeholders might be blurred in the melee of opinions and their professional expertise undervalued. At the same time, if the Ministry does not ensure that the contribution of non-traditional stakeholders has an impact on decision making, high expectations will turn into disappointment and frustration. The Ministry's recent projects are interesting examples and perhaps one way forward for work on the attainment targets and educational governance more generally. However, true co-creation will move beyond Ministry co-ordination into more devolved shared responsibility, with the Ministry just one of many important players in steering and guiding the system.

Participation of stakeholders in education governance is a long-standing tradition in the Flemish system, mainly based on an administrative representation model. Umbrella organisations have an important voice in the system, e.g. at the design committees for attainment targets or the conferences to discuss the National Assessment Programme (NAP) results. Teachers and school leaders, however, are not directly involved in these discussions; in fact, their participation has been reduced in recent years. Their involvement occurs at the level of the umbrella organisations, and thus, they have usually a greater participation in the learning plans than in the dialogue on attainment targets. Indeed, they are usually more familiar with the former than with the latter. As a result, usability of attainment targets by teachers and school leaders is not consistent across the system. Therefore, implementation at the local level becomes unreliable.

Policy implications:

- Existing formal channels for discussion and participation should be complemented by new platforms capable of capturing the different voices participating in the system, including new players and informal groups beyond traditional institutionalised stakeholders. This particularly applies to the phase of agenda setting, i.e. determining what the overarching goals of education should be. The views of students, parents, teachers, schools, umbrella organisations, teacher

educators, publishers, policy makers, researchers and other external stakeholders such as employers need to be represented and heard.

- Teachers and school leaders are key actors for school-level implementation of attainment targets. During the policy design phase - in this case, the actual development of attainment targets - participation needs to recognise and value the professional expertise of key stakeholders while remaining open and transparent. This includes teachers and school leaders, in addition to representatives of umbrella organisations.

Whole-system strategic thinking

Attainment targets, as a central part of the 'quality triangle', are meant to contribute to the creation of a whole-system approach towards quality in education by setting minimum standards for schools. A whole-system approach is aimed to improve the alignment of the system both in and between phases of policy cycles: policy design, implementation and evaluation. In the case of attainment targets, a strategic framework for their long-term development and revision does not appear to have been developed, and the co-ordination needed to create such a framework has been insufficient. In the absence of such a strategic agenda and framework, challenges in alignment have been identified and will only increase in the future if steps are not taken to strengthen strategic thinking and whole-of-system vision.

In addition, a well-thought-out and collaborative implementation strategy is missing. The umbrella organisations collaborate only in a piecemeal fashion, the Ministry is not strongly involved in implementation and there appear to be few other co-ordination institutions and mechanisms. This leads to a lack of 'co-ordination force,' which can result in misalignment among actors and hasty implementation, as well as fragmented capacity-building initiatives. This can be observed, for example, in the lack of alignment between new natural sciences attainment targets and teacher education programmes. In the immediate term, better co-ordination is necessary to ensure alignment in the revision of attainment targets, the renewal of learning plans by umbrella organisations, the application of the National Assessment Programme and the evaluation of its results, the elaboration of handbooks and other teaching materials, and teacher education.

In addition, the absence of a strategic agenda for revising and implementing attainment targets in relation to the revision of learning plans can lead to inefficiencies in the system, such as through overlap and redundancy between classes, grades or schools. It could also lead to missing parts of the curricula and mismatch between what is taught in one sector and what is required in another. Publishers play an important role in the translation of attainment targets to classroom practice. Although involving commercial parties in public policy is always a delicate matter, it is nonetheless important to make their contribution visible and create transparency about their position in the system and their relations with the policy-making process.

Whole-system strategic thinking is a shared responsibility of players at all levels of the system. To create sustainable change, strategic thinking must be a collaborative effort guided by strong leadership. These leaders should be a "guiding coalition" of key actors from different levels that can work to develop and strengthen a shared agenda for the system (Levin and Fullan, 2008). Strategic thinking should also identify and anticipate future challenges, unexpected and unintended consequences, and new opportunities for improving education. The establishment of a guiding coalition increases the possibility of reacting more flexibly to challenges and opportunities like the lack of real changes in teaching or the increasing involvement of powerful private stakeholders in education respectively.

Policy implications:

- Leadership is essential for co-ordinating action across a system. Building a "guiding coalition" of key leaders at various levels of the system can lead to the development of a shared agenda for whole-system implementation that harmonises the actions of participant stakeholders.

- Aligning a complex multi-layered system is one of the key challenges for modern governance. Strategic thinking for the medium to long-term on the attainment targets and the renewal of learning plans for the whole system will help smooth implementation, reduce resistance and improve the alignment of the system.

- Effectiveness and efficiency can be improved via optimisation of the use of resources, division of expert domains between Pedagogical Advisory Services and teacher training institutes, and sharing of knowledge across the system. This may create momentum for implementation while at the same time closing gaps between schools.

Capacity building

The impact of a policy action - whether from the central, network or school level - depends mainly on the capacity of the actors to access the necessary knowledge and resources so that they can successfully implement the policy. Capacity is also needed to balance system objectives with local needs.

In Flanders (Belgium) specifically, national assessments show that significant numbers of students do not reach the attainment targets, while international assessments seem to confirm that parts of the student population lack vital skills. This case study shows that there are multiple areas where insufficient capacity throughout the system might have contributed to this. At the classroom level, many teachers still seem to lack understanding of the underlying conceptual framework of new attainment targets, which increases the chances of not meeting the expectations presupposed in the attainment targets. Across schools, there is variation in the capacity of teachers to use engaging teaching practices and assess students appropriately, as well as of school leaders and teachers to use data on achievement to improve. Furthermore, capacity to participate in governance and understand the development process of attainment targets (i.e. knowledge of policy processes and design of curricula) seems to be unevenly distributed across schools. Although it is widely recognised that there are differences in capacity among schools, there is no strong preventive strategy to close the gap and improve those with lower capacity. Moving forward, the education system must develop greater collaboration and network capacities such as communication and interaction skills, as well as openness for and knowledge of relevant potential partners around education.

Capacity building is a time-consuming activity that requires sustained efforts to show results. The introduction of a policy action should be combined with co-ordinated capacity-building efforts across the system. One strategy is to create spaces for broad inclusive dialogue and participation at systemic level, as mentioned previously another is to open spaces for knowledge production and distribution as well as collaboration within and among different PBDs and networks at the intermediate level. In addition, peer collaboration between teachers or schools is one of the strongest ways to build capacity - as long as it is focussed and enough time is given for the practice to take hold. As peer networks within schools for capacity building are still in the embryonic stage in Flanders (Belgium), supporting such initiatives and providing instruments for practical implementation of attainment targets at the classroom for teachers and school heads is a promising way forward.

Policy implications:

- It is a joint responsibility of schools, umbrella organisations, PBDs, teacher training institutes, the Inspectorate and the Ministry to ensure that understanding and implementation of attainment targets take place consistently across the system. Umbrella organisations and the Ministry should join forces in strengthening, organising and securing sustainability of capacity-building initiatives, e.g. combining government and umbrella funds, sharing expertise and co-ordinating capacity-building efforts.

- Peer learning is a powerful mechanism to build capacity. Teachers, school leaders and PBDs can facilitate the exchange of knowledge and skills on attainment targets, learning plans and didactics between users and non-users of attainment targets within and across schools and networks.

Building a culture of evaluation and learning

In Flanders (Belgium), schools are primarily responsible for quality assurance and evaluation of student achievement, so assessment mainly depends on local capacity. However, every Flemish child across the whole system is entitled to a high-quality education, and there is a collective responsibility for ensuring this access. Thus, there is a tension between the goals of the system and the tools with which it seeks to evaluate and assess its progress.

At the school level, capacities for analysis and subsequent improvement efforts vary considerably across the system. In regard to measuring performance, tests created by publishers and umbrella organisations – and widely used by schools – do not always cover all the attainment targets. Furthermore, it is unclear that schools gather longitudinal data in order to improve their teaching and organisational practices. Indeed, there are serious concerns about the assessment capacity of teachers and the evaluation literacy of schools, and there are considerable differences in capacities between them. This acts as a barrier for schools to provide valid and reliable information about their performance, and therefore, prevents the design of evidence-based improvement initiatives.

Yet schools are not alone. They could build networks of local stakeholders to provide support and feedback to schools, and particularly engage parents both for the development of their children and for school policies in general. Moreover, the very essence of attainment targets and the whole ‘quality triangle’ is to support schools in continuously improving education and thus share the responsibility, ensuring that quality education is accessible throughout the whole system. In this sense, attainment targets are minimum standards intended to provide stakeholders with a mechanism for internal (schools) and external (others) quality assessment and improvement. There are a number of hopeful signs in this respect. PBDs have focussed on professional development for the policy-making capacity of schools. External audits by the Inspectorate seem to have encouraged schools to meet attainment targets. In addition, the Ministry has recently undertaken significant efforts to enrich the environment in which education institutions work, e.g. the provision of comparative data-based tools such as ‘Tests for Schools’.

At the system level, the picture of the development of attainment targets is incomplete. Information on the overall functioning of the system is available through annual reports produced by the Inspectorate on the basis of external evaluation of schools and the results of international assessments and NAP. The NAP covers a broad range of topics and its results are presented and discussed with experts and stakeholders. However, it does not provide an annual overview of core subjects as many other systems do, which makes it difficult to assess the level of attainment for particular skills within reasonably short periods of time. Furthermore, in terms of system alignment, neither the revision of attainment targets nor national assessments seem to be planned to support each other, and are lacking a strategic long-term perspective.

The use of a solid evidence base, which includes evaluation and assessment, research and expert knowledge, and the knowledge of practitioners and 'users' is a key mechanism of policy learning, accountability and ensuring shared responsibility. It is a central component of policy design and implementation, and helps to reduce the uncertainty linked to complexity by initiating or sustaining a continuous cycle of feedback. In this sense, strengthening mechanisms and evidence-informed policy and practice are required for modern educational governance. One promising way forward already in use in a number of countries (e.g., England and the Netherlands) is the use of experimentation to allow for testing and scaling up initiatives that work. The pilot projects included in the process of revising technology-related targets exemplify this flexible, learn-as-you-go policy approach.

Policy implications:

- As local assessment and evaluation capacity is crucial, a joint effort should be undertaken to raise the local capacity across the system and close capacity gaps between schools and teachers. Increased collaborative action is needed in terms of resources, knowledge and support.

- Providing support tools is part of this effort. The Ministry and the umbrella organisations must continue offering support tools to individual schools in order to improve their capacity for assessment and evaluation, such as the tool 'Tests for Schools', as well as capabilities for self-evaluation.

- Testing policy implementation strategies through experiments, either at the system level or in the school, may help to reduce uncertainty of policy results and thus provide input for policy learning and adjustment.

- Continue encouraging the involvement of parents and the broader community in school governance. This will potentially strengthen schools' improvement strategies with new knowledge and support.

Final considerations

The idea of attainment targets was introduced in Flanders (Belgium) during the 1990s as a mechanism of ensuring overall quality of education provision in a system that is characterised by its highly decentralised governance and complexity. This case study provided an overview of the design and development of attainment targets during the last 25 years. By analysing governance through a complexity lens, it has been possible to identify issues such as a lack of common vision, misalignment in implementation and insufficient collaboration, and unequal distribution of capacities across the system.

In the case of Flanders (Belgium), the status and character of attainment targets will need clarification, for which ongoing inclusive dialogue is necessary. Addressing misalignment in implementation and gaps and inefficiency of knowledge use and distribution as well as other capacities is an issue that needs to be taken into account by all the stakeholders, particularly at the intermediate level. At that level, more co-ordination force is needed for strong and efficient implementation of attainment targets. Umbrella organisations would need to open up their processes for partnerships with other actors including the government. At the local level, including teachers and school leaders in the elaboration of attainment targets is crucial for successful implementation. Building capacity for data use and analysis is also a key factor to improve teaching and learning as well as feedback and accountability in a system that is highly decentralised. Horizontal forms for both capacity building and accountability have enormous room for development and improvement in the Flemish context.

The complex governance of education in Flanders (Belgium) is the result of compromises that emerged from years of political tensions and fierce debate. This debate is inherent to the complex arrangement of the Flemish education governance structure. In fact, the Flemish system of checks and balances might be characterised as a continuing 'invitation to struggle',[11] a continuous quest to balance the influence and interests of different actors. Trust, understood as a decision to be vulnerable in relation to other actors, is vital to enter this struggle in good spirit and keep the focus on collaboratively decided aims.

Complex systems are never static, and as a result, their governance must evolve and adapt with them. Addressing such complex challenges requires policy efforts, as laid out in this case study, but also requires political engagement and compromises, which are beyond the scope of the present work. Nevertheless, some elements of the governance of complex systems must not be ignored and easy, linear solutions should be avoided. Instead, reflection and flexibility is needed to anticipate and react to emerging phenomena. Furthermore, joined-up and collaborative governance is required to create momentum. From a complexity perspective, the way to move forward is paved with a whole-system approach. All stakeholders must take system responsibility and work towards a shared agenda to effectively and efficiently address common challenges.

[11] From a quote by an American legal scholar, Edward Samuel Corwin (1878-1963), who was talking about the United States Constitution, https://en.wikipedia.org/wiki/Edward_Samuel_Corwin.

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