

HOW DO WE BECOME A SMART NATION?

THE EQUILBIRIUM INSTITUTE'S POLICY PROPOSALS FOR REMEWING HUNGARIAN K-12 EDUCATION

POLICY PROPOSAL

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EXECUTIVE SUMMARY

For the purposes of the present study we used the term K-12 education, which originates in the United States, to refer to all the schools in Hungary that provide either elementary or secondary education.

- >> Hungary's K-12 education is increasingly less capable of performing its basic function: it does not prepare Hungarians for active involvement in either societal life or the labour market, nor does it reduce the existing gaps in opportunities. In the following decades, the role of convertible skills, individual flexibility and the ability to continue learning - in other words the very skills and abilities that the Hungarian K-12 education is most spectacularly incapable of imparting - will become more important than ever before. For small, resource-poor countries, the development of human resources is the key to improving their competitiveness. Of all the conceivable investments today, high quality K-12 education is most likely to yield high returns.
- The efforts to address the sprawling set of problems that plague the Hungarian education system must begin with remedying the following five key issues:

- 1. Lack of a future vision (we need to clarify what we expect from K-12 education, what type of citizens we want to raise and how we want to educate them);
- 2. Lack of performance (in addition to giving teachers professional autonomy, we must also provide for a general high-quality of education);
- 3. Lack of teachers (we need to identify solutions which help ensure that a sufficiently high number of highly-trained and motivated teachers will be available over the next decades to realise these goals);

- 4. Lack of efficiency in K-12 education (we must create a well-working and cost-efficient institutional system);
- 5. Lack of autonomy (we must give our schools and our trained teachers the space to do the work that they know best).
- One of the most pressing problems in Hungary today is the need to ensure that there will be a steady supply of teaching professionals: We need more young teachers to be attracted to this profession, and we especially need to steer the most talented youths towards teaching. The training of teachers needs to become more

effective in tying together research and applied teaching, and the excessively disciplinarian, rote learning centred educational approach needs to be updated in terms of both, the general attitude towards education as well as the educational methods deployed.

- ➤ Following the model of the training that physicians and psychologists receive, we need to introduce a 4+1+3-year higher education track for teachers!
- By 2030, teachers' pay must be raised to a level that is twice as high as the average salary! We need to provide more dynamic and more flexible pay increases for teachers!

- The heads of educational institutions should have the option and the material resources to use incentives to bring back teachers who have left the profession!
- The main issue is not whether the state will play an active role in organising education but whether it will help or hinder schools in their efforts to operate successfully and cost efficiently. The state must stop overregulating the content of education. Instead, it needs to focus on strategic decisions while allowing teachers to work freely!

- Let's introduce risk-based quality assessment in education! The state's responsibility is to set quality guidelines and to monitor and facilitate their implementation. To this end, an integrated monitoring system should be used to indicate if and when the state needs to intervene.
- Let's organise our schools into networks! The current fragmentation of the institutional structure and its wasteful human resource management is obviously unsustainable. The most successful educational systems globally manage institutions that confront similar challenges and opportunities by pooling them into larger units or networks.

▶ I. WHAT IS THE PROBLEM?

- ➤ Hungarian K-12 education is both the primary obstacle in the way of Hungary's rise and the most potent opportunity for our nation. It is an obstacle because no matter what social problem we look at, be it the reproduction of poverty, the mismatch between supply and demand in the labour market or the exceedingly dismal healthcare indicators – sooner or later any analysis of the underlying causes will lead back to the outdated and ineffective education system.
- ▶ Rather than levelling the unequal distribution of opportunities, the Hungarian K-12 education system increases the inequalities at birth; it does not provide future workers with either the knowledge or the skills they will need in order to perform successfully once they enter the labour market; nor does it give them the essential competences to become active citizens with a proper level of civic consciousness. Hungarian education emphasises rote learning and stresses the importance of literacy and information rather than helping students develop their creative talents; it

- emphasises obedience over autonomous action and pushes students towards passivity and submissive acceptance instead of helping them take initiative.
- ▶ At the same time, however, education provides the best opportunity for Hungary to boost its development. Past experience suggests that for small countries without a wealth of natural resources, there is only one path ahead for joining the league of the wealthier nations: by investing in their people. The major success stories of the 20th century have only one denominator in common: the insight that to get ahead, it is essential for the given country to invest in human resources over a sustained period that spans many years and successive terms of governments regardless of partisan control.
- ➤ On account of the aging of European society, along with the increasing impact of automation and robotisation, the digitisation of the economy and the appreciation in the role of knowledge-intensive sectors, international

competition will leave increasingly less room for those countries that try to get ahead by offering cheap unskilled labour. The winners of these transformation processes will be those nations that are capable of operating an innovation-friendly business environment. In the latter, well-educated and creative employees will be capable of performing high value-added labour, and above all they will also continuously adapt to the ever-changing challenges.

- ➤ This is especially true of Hungary, where as a result of the aging of society every passing year results in a decline in the number of economically active citizens whose work supports a growing number of elderly this can only be sustainable if the decreasing share of those who are economically active goes hand in hand with a marked increase in productivity. That is why of all the conceivable long-term investments, a universally high-quality K-12 education promises to yield the highest returns.
- ► Hungarian public K-12 education is extremely bifurcated: A lucky few receive a world-class education, while the vast majority get an education that is considerably worse than the European or regional average. By comparison, the typical constellation in successful European countries is that the overwhelming majority of children receive an equally high-quality education. Our long-term competitiveness can only be ensured if we offer all talented Hungarian individuals - regardless of their background, their place of residence or their financial circumstances - the opportunity to bring out the best in themselves.
- We cannot tackle all of these problems at once but if we identify the most important points of intervention and we increasingly concentrate our resources on these areas in the coming years then we could swiftly achieve discernible improvements. The alternative is stagnation at best, followed by a gradual but steady decline.

► II. THE FIVE MAIN PROBLEMS IN HUNGARIAN K-12 EDUCATION

2.1. LACK OF A FUTURE VISION

- ▶ For decades now, the policy area of education has been characterised by the lack of a comprehensive strategic approach, marked by short-term fixes and sudden, fundamental shifts in the overall direction of educational policy and the simultaneous absence of a sustained and deliberately planned long-term policy. The state has not treated the education system as a priority; for the political parties it was but one of the many arenas of partisan confrontation. All the while, it never clearly emerged what role Hungarian society and its decision-makers envision for education in terms of promoting our competitiveness and social cohesion.
- We need a future vision for our K-12 education that does not serve to reproduce the partisan battles in yet another policy arena but instead charts a clear and steady path of transformation that can be followed

independently of political cycles and partisan control over the government. In other words, we have to define for ourselves a) what challenges we want to prepare Hungarian children for; b) what kind of knowledge and skills we wish to furnish them with; c) how we imagine the operation of the institutions and societal players that promote the realisation of these goals.

2.2. LACK OF PERFORMANCE

▶ If we assess our K-12 education based on traditional output indicators, then the situation is not tragic, but it is also by no means a cause for relief. According to the results of the most recent PISA survey conducted in 2018, we fall into the mid-range of OECD nations. At the same time, however, we perform below the average levels of both the EU and the Visegrad Four, in all subject areas measured by the PISA tests (reading, mathematical and natural science competencies).

- More worrisome still is the high share of those who underperform: In the 2018 survey, almost a quarter of Hungarian children failed to perform at the minimum level expected this is a shockingly poor result when compared to the core EU states or the countries of the Visegrad region. Our students also did worse than the average in terms of digital competencies, which are essential in the 21st century, and in terms of foreign language skills, we came in third from last in the EU.
- At the same time, it is important to point out that GDP per capita alone does not determine how a country performs in terms of education: Owing to its model educational education reform, Estonia has established itself as the country with the third most successful education system among the OECD member states. Poland, too, has managed to make it into the top 10. This indicates that institutions do in fact matter and in principle there is nothing that stops Hungary from developing by leaps and bounds.

2.3. LACK OF TEACHERS

- ▶ In 2013 the share of teachers in K-12 education who were 30-years-old or younger was 17.5%; today, only every tenth teacher falls into this age group. By comparison, back in 2013, the share of older teachers aged 50 or more was barely over one-third, whereas today every second teacher is over 50. In other words, over the next decade, nearly half of all the remaining teachers may leave the profession. These days, over 1,000 teaching positions remain unfilled every year within a few years the problem will push the entire system to the brink of inoperability. Nor does the decline in the number of students lead to an overall improvement in the working conditions for teachers because the fragmentation of the school system makes the human resource management "wasteful", too.
- ➤ The overburdening of the faculty is further increased by the low number of teachers' assistants, that is of those who help the teachers' work in various forms (e.g.

by supervising children, facilitating their meals, offering development, etc.), both when it comes to teaching/childcare as well as the performance of administrative responsibilities.

The lack of teachers stems from three main causes:
 1. Few people choose to be trained as teachers;
 2. the overburdening of teachers, along with the low pay, which increases only slowly over time, leads to a huge number of teachers who opt to leave the profession;
 3. although teachers have the option to stay on as part-time faculty once they have achieved the age of retirement, due to burnout, the cumbersome administration and the lack of proper financial incentives

2.4. LACK OF EFFICIENCY

few educators avail themselves of this option.

➤ The main challenge facing the Hungarian public education is not a lack of funds but unpredictable, badly structured and wasteful funding. As a percentage of GDP, our spending on education tends to be around the EU average, but the sum of our education

- expenditures fluctuates massively over time which stands in the way of any long-term strategic planning.
- ▶ One of the reasons for the structural inefficiencies is the high number of schools that operate with few **students.** Over the past twenty years, the number of students in K-12 education has declined by nearly 400.000, even as the number of schools has actually slightly increased. Thus, the resources that can be spent on development and operation are widely dispersed throughout the system and fragmented; correspondingly, amidst an increasingly severe shortage of teachers, the educational governance system does not allocate the trained labour force at its disposal effectively to cover the needs where they most pressingly arise. For example, it is very rare for educational institutions that struggle with an endemic shortage of teachers to "share" their specialised subject teachers who teach only a few class-hours with other schools. The coordination and communication between schools are further encumbered when different institutions govern the various schools within a given municipality.

The potentially most disconcerting dimension in terms of education funding is the lack of financial appreciation for teaching. Although over the past decade the state has increased teachers' pay in several steps, these pay hikes primarily benefitted older teachers and did not make the teaching profession more attractive for those at the start of their careers. Teachers' salaries have fallen behind compared to the average salaries, in particular as compared to the earnings of those with university degrees. A starting teacher today earns a gross salary of HUF 219,000 (622 EUR), and even among the more qualified teachers, it takes two decades to pass the HUF 300,000 (853 EUR) threshold. Most teachers do not reach the average Hungarian salary until just before they retire. At the same time, unlike the pay of those with the legal status of public employees, the index on which the teachers' **salary scheme is based** (in other words the base that is used to calculate the pay of teachers with a similar level of training and rank) does not track the changes in the minimum wage. Furthermore, teachers' salaries have been frozen since 2014

Another reason for the lack of attractiveness of teaching as a career path is the cumbersome system of professional advancement within the teaching profession: salaries are too slow in tracking teachers' professional development and their growing experience. The lagging adjustment of their pay to reflect the quality of their service is especially problematic in the stage of life when a majority of youths aim to start their own independent lives.

2.5. LACK OF AUTONOMY

The system of decentralised education governance that was in place before 2011, when the municipalities controlled and operated the schools in their local area, led to vast inequalities between these institutions because of the huge differences between the financial resources of the municipal governments. This system was replaced by one of radical centralisation: The schools' own control over educational and operational decisions dropped from over two-thirds to a mere 29 per cent.

▶ These days, K-12 education is marked by excessive central control, bureaucratisation and slow speed, which have a devastating impact on performance. The key problem is the peculiar duality in the system of educational governance: In principle, the head teachers are responsible for defining the schools' educational/ professional decisions, and yet they have lost control over the economic/financial resources and the competences that they would need to exercise this authority. In the absence of the necessary institutional control, without the proper financial and educational autonomy, they cannot adapt to the local needs and the changing challenges, they cannot perform the function of supporting the children in their learning in a way that best reflects the children's individual needs and abilities. The state as the new controlling institution, as well as the government agencies responsible for discharging the relevant responsibilities, waste their resources on lowefficiency micro-management rather than exercising strategic control.

► III. THE RECOMMENDATIONS OF THE EQUILIBRIUM INSTITUTE

3.1. A MODERN VISION FOR EDUCATION!

hallmarks of this century are constant and ongoing changes, the new challenges and new possibilities that these changes give rise to, and the resulting need to continuously adapt – that is why we cannot know precisely what the youth of tomorrow will have to prepare for. K-12 education must furnish the children with transferable basic skills and abilities that will allow them later to flexibly and adaptively perform in their capacities as employees and citizens in an age of pervasive and general uncertainty.

- These objectives demand similar skills on the part of both, students and teachers alike. The most important skills in the 21st century are autonomy and creativity, cooperativeness and empathy, the ability to learn and the desire to think, as well as an openness to the world.
- → The institutional ideal of the K-12 education system:
 Hungarian schools which typically embrace a
 disciplinarian teaching style and focus on memorisation
 and rote learning operate in a way that runs counter
 to the development of these skills. A 21st century school
 stresses the development of basic skills that can be
 applied in various changing settings and which support
 individual pathways to learning rather than trying to
 impose a uniform model; at the same time, such a
 school is also autonomous, democratic and capable
 of exploiting to the fullest the pedagogic possibilities
 inherent in digitalisation.

3.2. LET'S MAKE TEACHING CAREERS ATTRACTIVE! IMPROVING THE PRESTIGE OF TEACHERS' EDUCATION AND THE TEACHING PROFESSION

- ▶ Let's introduce a 4+1+3-year educational pathway in the training of teachers modelled on the higher education training of physicians and psychologists! Teachers' education must do better in terms of linking theory and the practice of teaching, and the predominance of theory and history of education needs to make place for a focus on fostering competencies that are needed to solve practical problems. Following the model of medical and psychological training, a multistage educational pathway must be introduced in the training of teachers:
 - ▶ Stage 1 (4 years): a unified programme that leads to a degree in teaching, in the course of which the students learn the subject-specific competencies as well as the general pedagogic skills.

- ▶ Stage 2 (1 year): a specialisation stage during which the prospective teachers take applied and methodologically-focused classes (similarly to the fourth and fifth years of the medical programme, where the aspiring physicians gather applied practice in various areas of specialisation) to learn the competencies and basic skills that are relevant in individual areas of specialisation. These areas pertain to specific applied problems in education (e.g. the methodology of individual development, digital pedagogy, drama pedagogy, the methodology of conflict management, student mental hygiene and civic education, etc.). The schools can use these specialisations to determine based on their local needs (the set of competencies needed) what portfolio the teachers they are looking for need to possess.
- ▶ Stage 3 (3 years): "the resident stage", which is effectively the equivalent of the current applied training level of teachers; unlike in the current system, however, the training period would still be part of the university education and would give students the option to take further specialisation

- **modules.** In this approach, the applied training would simultaneously allow aspiring teachers to continue their training while they also earn a salary.
- ▶ Let's make sure that the most talented individuals go into teaching! We must turn a career in teaching into something that youths compete for. To this end, the state must cooperate with civil society and the media to engage in an awareness-raising campaign designed to help people understand the outstanding national strategic importance of education and the extraordinary importance of the role of teachers.
- ▶ Let's increase the pay of teachers to twice the level of the average salary by 2030! We need to make the salaries of starting teachers competitive so that talented Hungarian youths will find it worthwhile to compete for teaching positions. To this end, a gradual program of multi-phase pay adjustments must increase the starting salaries in teaching to ensure that by 2030 the starting salaries of teachers are twice as high as the average salary. Following these pay hikes, we need to ensure that the starting salaries of teachers continue to track the average salaries.
- More dynamic pay raise trajectories! Starting teachers must be offered the possibility of a more rapid advancement in terms of the financial and professional appreciation of their work. Especially in the first decade of their professional life, the transition time between pay grades must become shorter to reduce churn at this stage. Furthermore, swift increases in the base salary of new teachers within a foreseeable time of their career start must also be used as incentives for the continuous further education and professional development of the faculty.

3.3. LET'S WIN OURSELVES SOME TIME! REDUCING TEACHER SHORTAGE IN THE SHORT RUN

▶ Let's make sure that the experienced teachers stay on! The shortage of teachers gives ample reason to ensure that just as in the private sector, in education, too, teachers who choose to stay on once they have reached the age of retirement are not forced to forgo their pension while they work and that their pay is exempt from pensions contributions. We must end the cumbersome requirement that the education ministry's permission must be requested for continuing to teach after one has reached the age of retirement; the head of the given educational institution should be allowed to decide this.

Let us temporarily draw back as many of those who have left the profession as we can! As the school officials exercising the employer's rights, the heads of educational institutions should be given the authority as well as the means to offer incentives to colleagues who left the profession early to come back and to resume teaching. In the event that the number of unfilled positions at a school exceeds a pre-defined share of the total faculty, head teachers should be able to draw on such incentives as higher pay, special in-kind benefits or more favourable terms of advancement – for a limited time – to bring back teachers who have either retired already or who have left the profession before reaching the age of retirement.

3.4. AUTONOMY AND QUALITY

- The comprehensive education strategy should be devised by the state, but the schools need to be self-governing! Any type of educational governance can only work properly if the strategic planning and governance are clearly set apart from those decisions exercised by owners and professionals on the ground. This makes it necessary to make the division of labour between these distinct segments of educational governance more effective:
 - All competences concerning institutional management and educational support need to be delegated to the schools themselves. The same is true for the organisation of such professional educational activities as the drafting of the educational programme and of institutional development plans, the freedom to choose textbooks and the regular evaluation of the teachers' work.

- ▶ Ownership rights need to be entrusted to midlevel local/regional bodies that enjoy real local autonomy; these rights include the implementation of the centrally devised education governance strategy; the selection of the heads of schools; the evaluation of the work done by the latter; setting the budget for these institutions and the approval of the institutional development programmes drafted by the schools. Similarly, tackling the challenges that have a systemic impact on the schools within a given riding or major municipality should also fall within the local remit. These include issues such as social selection and segregation, the local shortage of teachers and planning the cooperation with local partners outside the school.
- The central government is responsible for drafting the national education strategy and for the operational framework of K-12 education: the regulation of the education sector; the allocation of central funding; operating the performance assessment system; organising teachers' education; the general regulation of educational contents (designing the National Core Curriculum and

- guidelines); and for providing the information and knowledge base that is used in K-12 education. In the interest of making sure that the conditions for high quality K-12 education are in place, the state is entitled and in fact obligated to set uniform output expectations for the education system. The detailed implementation of the latter, however, must be left up to schools and teachers.
- ➤ Risk-based performance assessment! Today, the Education Office performs comprehensive annual pedagogic/professional audits. By contrast, the idea behind a risk-centred assessment is that based on signals provided by an integrated monitoring system, the state only intervenes where and when it becomes necessary. A sheer incomprehensible amount of data is generated each year by the education system these include, among others, the results of competency tests; statistics about students leaving, failing or missing school; financial management or the supply of teachers. If these were aggregated and continuously analysed in a unified digital database, then that would make it possible to intervene only in situations and areas where it is really necessary.

▶ Let's make sure that our schools become networked!

The organisation of the Hungarian educational system is based on schools that operate in isolation from one another. However, the most successful educational systems around the world confront the challenges facing them by organising into larger regional organisations or into networks, which also helps them in exploiting the opportunities that are open to them. The economies of scale, the joint development goals or some typical problems that apply across the board (e.g. segregation or teacher shortage) in a region all call for a broader cross-institutional approach to problem management. This should incentivise a closer coordination between institutions. Hence, over the next two years a national school network plan needs to be drawn up with the involvement of local and non-state actors (county and municipal local governments, NGOs, churches, teacher organisations, parents' associations, etc.). We should use objective criteria rather than informal lobbying and individual deals to determine what the school networks of the future should look like. These should determine the standards and criteria. based on which the state allocates funding for the

performance of educational responsibilities. Using target subsidies and grants that are conditional on cooperation and knowledge sharing, the state needs to incentivise schools to commit more deeply to operating as part of networks. It would be advisable to introduce such a system gradually, limited at first to a certain region. Then, after a few years, the experience accumulated in the process could be reviewed – and the knowledge thus gathered could be used to facilitate the introduction of a national model, while the schools that are already networked could help the other schools by sharing their own experience.

3.5. LET THE TEACHERS WORK!

➤ The state is obligated to ensure that everyone has access to equal quality education – that does not imply, however, that the state needs to enforce uniform pathways to learning. A well-trained teacher who is appreciated and provided with the proper level of autonomy to work freely, and is also embedded in an effective professional community, will be best equipped to support individual students in obtaining an educational experience that best matches their own individual needs. The autonomy of teachers is also guaranteed by the organisational and management autonomy of their schools. That is why the head teachers must be given back the right to exercise the financial, employment and key educational planning competences!

▶ Let's incentivise the schools to continuously innovate!

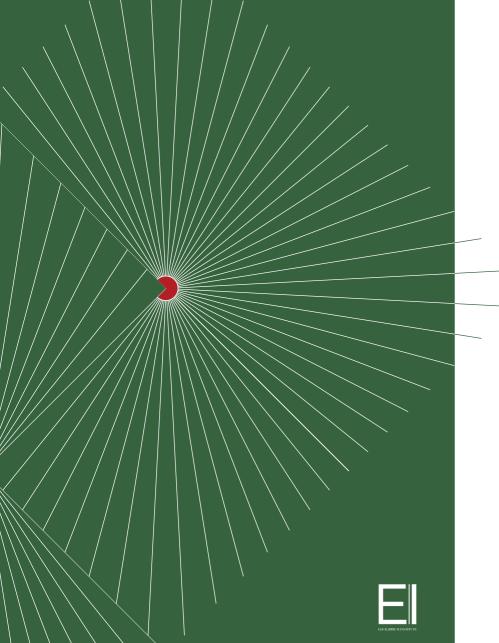
Rather than fetishising the central regulation of contents, the state can do most to improve the quality of education by providing the right incentives. More specifically, the state should figure most prominently in supporting the development and ongoing renewal of both schools and faculty. It needs to ensure steady and decent incentives to help the dissemination and spread of best practices. That is why the development and dissemination of best practices, as well as the effort to learn about the best practices of other institutions on the ground and the subsequent integration of these practices into the observing

school's own teaching practices must become a fixed element of the regular performance assessment of educational institutions. Furthermore, the state should issue grants targeted at supporting inter-institutional co-operations!

THE EQUILIBRIUM INSTITUTE'S RECOMMENDATIONS FOR MODERNISING HUNGARIAN K-12 EDUCATION

AREA	PROPOSAL
FUTURE VISION	K-12 education should prepare students for handling constant uncertainty; proactively engaging with society; and living a full and meaningful life!
	K-12 education should help raise autonomous and creative citizens who can cooperate, are empathetic, open to the world and have the ability to continue learning and thinking once they have left school!
	The school of the future should be based on fostering skills and competencies; supporting students in their individual educational pathways; and it should also be autonomous, democratic and digitalised!
TEACHER SHORTAGE	Based on the model of the educational pathway of physicians and psychologists, let's introduce a 4+1+3-year pathway in the training of teachers!
	Let's launch an awareness-raising campaign to improve the social standing of teachers and education!

TEACHER SHORTAGE	Let's increase the pay of teachers to twice the level of the average salary by 2030!
	A more dynamic income trajectory for teachers!
	Let's make sure that teachers who reach the age of retirement continue teaching!
	Let's temporarily bring back former teachers who have left the profession!
AUTONOMY AND QUALITY	A central education strategy but autonomous schools!
	Risk-based performance assessment!
	Let's make sure that our schools become networked!
	Let's incentivise our schools to innovate!



ABOUT US

The Equilibrium Institute is a future-oriented Hungarian think tank. We are writing political, economic, and cultural visions and policy proposals for Hungary. We are establishing an intellectual background to underpin the success of Hungarians in the rapidly changing 21st century.

We are discussing topics that are underrepresented in public discussions. These topics include robotization, the transforming labour market, the air quality and the pollution of freshwater, national identity and the role of communities in a society, the future of education, the country's economic take-off, or the changing world order.

The Equilibrium Institute's research team and its advisory board consist of a wide variety of economists, sociologists, political analysts, climate experts, foreign policy experts, and researchers with extensive experiences in their academic fields being theoretical or applied sciences.

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